



# Statische Berechnung /

*Structural report / Statische berekening*

Objekt : Funkmast / *radiotower / antennemast*

Hersteller / *supplier / fabrikant*

Bijzen antennebouw, beerzerweg1F, 7692 PB Marienberg , Netherlands

Aufsteller / *structural engineer / constructeur*

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Aufgestellt: Mettingen im April 2009

Statik-Struktuurkonstruktion  
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### **1. Vorbemerkungen / preliminary remark**

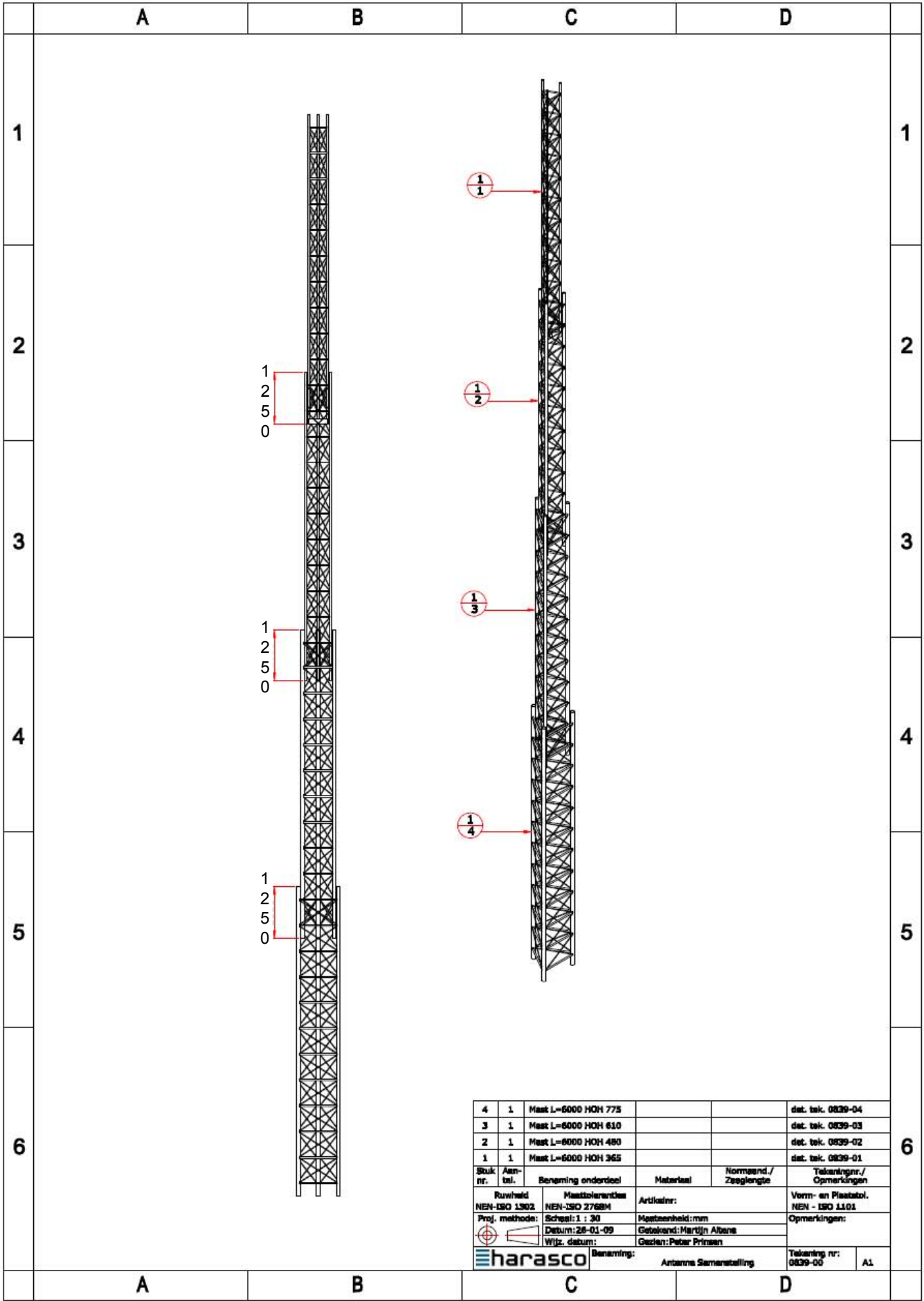
Gegenstand der vorliegenden statischen Berechnung ist eine Traversenmastkonstruktion. Die Konstruktion besteht aus 4 einzelnen Maststrecken die durch eine Seilaufnahme und Rollen ineinander fahrbar sind (teleskopierbar). Die Masthöhe kann zwischen minimal 6,0 und maximal 29,0m variieren. Abmessungen der Traversen und des Mastes sind den Zeichnungen im Anhang zu entnehmen. *This structural report is for a truss tower construction. The construction contents of 4 single towerpieces witch can fit into each other with a special rope and role construction. The height can be vary about 6,0 m minimum and 29,0 m maximum. The dimensions of the trusses you can see in the appendix. / Dit structurele verslag is voor een truss antennemastconstructie. De constructie bevat 4 enkele mastdelen welke in elkaar geschoven kunnen worden dmv een speciale kabel met rollen (teleskopisch). De hoogte kan variëren van minimaal 6,0 m en maximaal 29,0 m. De afmetingen van de masten en mastdelen zijn te zien in de bijlage*

Die Konstruktion kann auch mit kleineren Einzeltraversen (6,0; 5,0m oder 4,0m je Stück) in kleineren Bauhöhen aufgebaut werden. Die Fundamente und Auflagen dieser Berechnung behalten jedoch ihre Gültigkeit.

*You can builtup the construction in smaller versions (with 6,0; 5,0m or 4,0m pieces).*

*The foundation and conditions of this calculation keeps there validity*

*De Mast kan ook met kleinere mastdelen (6 mtr , 5 mtr of 4 mtr lengte) opgebouwd worden. Deze berekening behoud hierbij wel de geldigheid*



|                               |          |                                 |            |                      |                                   |
|-------------------------------|----------|---------------------------------|------------|----------------------|-----------------------------------|
| 4                             | 1        | Mast L=6000 HOH 775             |            |                      | dat. tek. 0839-04                 |
| 3                             | 1        | Mast L=6000 HOH 610             |            |                      | dat. tek. 0839-03                 |
| 2                             | 1        | Mast L=6000 HOH 480             |            |                      | dat. tek. 0839-02                 |
| 1                             | 1        | Mast L=6000 HOH 365             |            |                      | dat. tek. 0839-01                 |
| Stuk nr.                      | Aan-tel. | Benaming onderdeel              | Materiaal  | Normaand./Zeeplengte | Tekeningnr./Opmerkingen           |
| Ruwheld NEN-ISO 1302          |          | Masttoleranties NEN-ISO 2768M   | Artikelnr. |                      | Vorm- en Plaatbol. NEN - ISO 1101 |
| Proj. methode: Schaal: 1 : 30 |          | Maat-eenheid: mm                |            |                      | Opmerkingen:                      |
| Datum: 28-01-09               |          | Getekend: Martijn Albani        |            |                      |                                   |
| Wijz. datum:                  |          | Gezien: Peter Prinsen           |            |                      |                                   |
| harasco                       |          | Benaming: Antenne Samenstelling |            |                      | Tekening nr: 0839-00 A1           |

## 2 Berechnungsgrundlagen / foundation of calculation/ berekeningsgronDSLagen

|               |                                                                                                                                                                                                                                                                                                                                                                                                |       |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| DIN 18800     | Stahlbauten, Bemessung und Konstruktion ; <i>steel structures, design and construction / staalbouw, ontwerp en constructie</i>                                                                                                                                                                                                                                                                 | 11/90 |
| DIN 4112      | Fliegende Bauten, Richtlinien für Bemessung und Ausführung ; <i>temporary structures, fair-ground amusements; directives for dimensioning and construction ; Tijdelijke structuren, richtlijnen voor ontwerp en uitvoering van hulpwerken</i>                                                                                                                                                  | 02/83 |
| DIN 4113      | Aluminium im Hochbau/ <i>aluminium constructions / aluminium constructie</i>                                                                                                                                                                                                                                                                                                                   | 02/58 |
| DIN 4113-1    | Aluminiumkonstruktionen unter vorwiegend ruhender Belastung, Teil 1: Berechnung und bauliche Durchbildung 05/80 <i>Aluminium constructions under predominantly static loadings, Part 1: Static analysis and structural design ; Aluminium constructies onder overwegend statische belasting, deel 1: Ontwerp en constructief ontwerp 05/80</i>                                                 |       |
| DIN 4113-1/A1 | Änderung A1 zu DIN 4113-1 05/80 <i>Amendment A1 to DIN 4113-1 05/80 ; amendement A1 voor din 4113-1 05/80</i>                                                                                                                                                                                                                                                                                  | 09/02 |
| DIN 4113-2    | Aluminiumkonstruktionen unter vorwiegend ruhender Belastung, Teil 2: Berechnung geschweißter Aluminiumkonstruktionen; <i>Aluminium constructions under predominantly static loadings, Part 2: static analysis, structural design and execution of welded constructions; Aluminium constructies onder overwegend statische belasting, Deel 2: Berekening van gelaste aluminium constructies</i> | 09/02 |

DIN 1045-1 Stahlbetonbau / *reinforced and prestressed concrete structures ; gewapend en voorgespannen betonconstructies*

## 3. Baustoffe / materials / materialen

Aluminium / *aluminium/ aluminium* : EN AW-6082 (AlMgSi 1,0 F31)

Stahl / *steel/ staal*: S235JR

Beton / *concrete/ beton* : C 25/30 XF1

## 4. Belastungsannahmen Mast ausgefahren/ loadings tower worn-out / belasting mast hoog

**Achtung:** Der Mast muss bei Windstärken über 8 Bft. eingefahren werden!

**Attention:** The tower must remove if wind is higher than 8 Bft.

**Let op:** De toren moet naar beneden gehaald worden als de windkracht hoger is dan 8 Bft

### 4.1 Eigenlasten / dead loads / eigen gewicht

Das Eigengewicht der Konstruktion wird programmintern automatisch berücksichtigt. / *The dead load of the construction is automatically considered by the software./ Het eigen gewicht wordt in de software automatisch meegenomen*

### 4.2 Wind von der Seite / wind sideward / zijwind



Berechnung der Windlast auf das Traversenfachwerk / calculation of the wind loads on the framework: /  
berekening van de windlast op de truss

$$q = v^2/1600 = 14,0^2/1600 = 0,122 \text{ KN/m}^2 \text{ (Wind 6Bft. } \rightarrow 14,0\text{m/sec)}$$

$$q_w = (0,8 + 0,5) \times 0,122 = 0,159 \text{ KN/m}^2$$

|                                                          |                                |
|----------------------------------------------------------|--------------------------------|
| Rohr $\varnothing$ 80 x 5mm $\rightarrow$ 0,159 x 0,08   | $w_1 = 0,0127 \text{ KN/m}$    |
| Rohr $\varnothing$ 30 x 3mm $\rightarrow$ 0,159 x 0,03   | $w_2 = 0,0048 \text{ KN/m}$    |
| Rd. $\varnothing$ 20mm $\rightarrow$ 0,159 x 0,02        | $w_3 = 0,0032 \text{ KN/m}$    |
| Rohr $\varnothing$ 70 x 5mm $\rightarrow$ 0,159 x 0,07   | $w_4 = 0,0111 \text{ KN/m}$    |
| Rohr $\varnothing$ 30 x 3mm $\rightarrow$ 0,159 x 0,03   | $w_5 = 0,0048 \text{ KN/m}$    |
| Rd. $\varnothing$ 16mm $\rightarrow$ 0,159 x 0,016       | $w_6 = 0,0025 \text{ KN/m}$    |
| Rohr $\varnothing$ 50 x 4 mm $\rightarrow$ 0,159 x 0,05  | $w_7 = 0,0080 \text{ KN/m}$    |
| Rohr $\varnothing$ 20 x 3 mm $\rightarrow$ 0,159 x 0,02  | $w_8 = 0,0032 \text{ KN/m}$    |
| Rd. $\varnothing$ 12mm $\rightarrow$ 0,159 x 0,012       | $w_9 = 0,0019 \text{ KN/m}$    |
| Rohr $\varnothing$ 35 x 3 mm $\rightarrow$ 0,159 x 0,035 | $w_{10} = 0,0056 \text{ KN/m}$ |
| Rohr $\varnothing$ 20 x 3 mm $\rightarrow$ 0,159 x 0,02  | $w_{11} = 0,0032 \text{ KN/m}$ |
| Rd. $\varnothing$ 12mm $\rightarrow$ 0,159 x 0,012       | $w_{12} = 0,0019 \text{ KN/m}$ |

Windlast auf Antenne / wind loads for antenna / windlast op de antenne

**Maximale Antennenfläche  $A \leq 2,0 \text{ m}^2$  / maximum area for antenna  $A \leq 2,0 \text{ m}^2$  / maximale oppervlak antenne  $\leq 2,0 \text{ m}^2$**

$$W = 2,0 \times 0,159 = 0,32 \text{ KN}$$

**4.3 Wind von vorne / wind from the front / wind van de voorzijde**



$W_1 = 0,0127 \text{ KN/m}$   
 $w_2 = 0,0048 \text{ KN/m}$   
 $w_3 = 0,0032 \text{ KN/m}$   
 $w_4 = 0,0111 \text{ KN/m}$   
 $w_5 = 0,0048 \text{ KN/m}$   
 $w_6 = 0,0025 \text{ KN/m}$   
 $w_7 = 0,0080 \text{ KN/m}$   
 $w_8 = 0,0032 \text{ KN/m}$   
 $w_9 = 0,0019 \text{ KN/m}$   
 $w_{10} = 0,0056 \text{ KN/m}$   
 $w_{11} = 0,0032 \text{ KN/m}$   
 $w_{12} = 0,0019 \text{ KN/m}$

$$W = 0,32 \text{ KN}$$

**4.4 Wind von hinten / wind backward / wind van achter**



$w_1 = 0,0127 \text{ KN/m}$   
 $w_2 = 0,0048 \text{ KN/m}$   
 $w_3 = 0,0032 \text{ KN/m}$   
 $w_4 = 0,0111 \text{ KN/m}$   
 $w_5 = 0,0048 \text{ KN/m}$



w6 = 0,0025 KN/m  
w7 = 0,0080 KN/m  
w8 = 0,0032 KN/m  
w9 = 0,0019 KN/m  
w10 = 0,0056 KN/m  
w11 = 0,0032 KN/m  
w12 = 0,0019 KN/m  
W = 0,32 KN

#### **4.5 Lastfallkombinationen / loadcombinations / belastingcombinaties**

LK1 = LF4.1 + LF4.2  
LK2 = LF4.1 + LF4.3  
LK3 = LF4.1 + LF4.4

### **5. Belastungsannahmen Mast eingefahren / loadings tower worn-in / belastingen mast in**

#### **5.1 Eigenlasten / dead loads / eigen gewichten**

Das Eigengewicht der Konstruktion wird programmintern automatisch berücksichtigt. / *The dead load of the construction is automatically considered by the software.* / *Het eigen gewicht wordt in de software automatisch meegenomen*

#### **5.2 Wind von der Seite / wind sideward / zijwind**

Berechnung der Windlast auf das Traversenfachwerk / calculation of the wind loads on the framework:/  
berekening van de windlast op de truss

$q = 1,4 \text{ KN/m}^2$  (Windzone 1 – 4 / Binnenland, Küste + Inseln)  $q_w$   
 $= (0,8 + 0,5) \times 1,4 = 1,82 \text{ KN/m}^2$

|                                                              |                                |
|--------------------------------------------------------------|--------------------------------|
| Rohr $\varnothing$ 80 x 5mm $\rightarrow 1,82 \times 0,08$   | $w_1 = 0,1456 \text{ KN/m}$    |
| Rohr $\varnothing$ 30 x 3mm $\rightarrow 1,82 \times 0,03$   | $w_2 = 0,0546 \text{ KN/m}$    |
| Rd. $\varnothing$ 20mm $\rightarrow 1,82 \times 0,02$        | $w_3 = 0,0364 \text{ KN/m}$    |
| Rohr $\varnothing$ 70 x 5mm $\rightarrow 1,82 \times 0,07$   | $w_4 = 0,1274 \text{ KN/m}$    |
| Rohr $\varnothing$ 30 x 3mm $\rightarrow 1,82 \times 0,03$   | $w_5 = 0,0546 \text{ KN/m}$    |
| Rd. $\varnothing$ 16mm $\rightarrow 1,82 \times 0,016$       | $w_6 = 0,0291 \text{ KN/m}$    |
| Rohr $\varnothing$ 50 x 4 mm $\rightarrow 1,82 \times 0,05$  | $w_7 = 0,0910 \text{ KN/m}$    |
| Rohr $\varnothing$ 20 x 3 mm $\rightarrow 1,82 \times 0,02$  | $w_8 = 0,0364 \text{ KN/m}$    |
| Rd. $\varnothing$ 12mm $\rightarrow 1,82 \times 0,012$       | $w_9 = 0,0218 \text{ KN/m}$    |
| Rohr $\varnothing$ 35 x 3 mm $\rightarrow 1,82 \times 0,035$ | $w_{10} = 0,0637 \text{ KN/m}$ |
| Rohr $\varnothing$ 20 x 3 mm $\rightarrow 1,82 \times 0,02$  | $w_{11} = 0,0364 \text{ KN/m}$ |
| Rd. $\varnothing$ 12mm $\rightarrow 1,82 \times 0,012$       | $w_{12} = 0,0218 \text{ KN/m}$ |

Windlast auf Antenne / wind loads for antenna / windlast op de antenne

Maximale Antennenfläche  $A \leq 2,0 \text{ m}^2$  / *maximum area for antenna  $A \leq 2,0 \text{ m}^2$*  / *maximale oppervlak antenne  $\leq 2,0 \text{ m}^2$*

$W = 2,0 \times 1,82 = 3,64 \text{ KN}$

#### **5.3 Wind von vorne / wind from the front**

$w_1 = 0,1456 \text{ KN/m}$



$w_2 = 0,0546 \text{ KN/m}$   
 $w_3 = 0,0364 \text{ KN/m}$   
 $w_4 = 0,1274 \text{ KN/m}$   
 $w_5 = 0,0546 \text{ KN/m}$   
 $w_6 = 0,0291 \text{ KN/m}$   
 $w_7 = 0,0910 \text{ KN/m}$   
 $w_8 = 0,0364 \text{ KN/m}$   
 $w_9 = 0,0218 \text{ KN/m}$   
 $w_{10} = 0,0637 \text{ KN/m}$   
 $w_{11} = 0,0364 \text{ KN/m}$   
 $w_{12} = 0,0218 \text{ KN/m}$   
 $W = 3,64 \text{ KN}$

#### **5.4 Wind von hinten / wind backward / wind van achter**

$w_1 = 0,1456 \text{ KN/m}$   
 $w_2 = 0,0546 \text{ KN/m}$   
 $w_3 = 0,0364 \text{ KN/m}$   
 $w_4 = 0,1274 \text{ KN/m}$   
 $w_5 = 0,0546 \text{ KN/m}$   
 $w_6 = 0,0291 \text{ KN/m}$   
 $w_7 = 0,0910 \text{ KN/m}$   
 $w_8 = 0,0364 \text{ KN/m}$   
 $w_9 = 0,0218 \text{ KN/m}$   
 $w_{10} = 0,0637 \text{ KN/m}$   
 $w_{11} = 0,0364 \text{ KN/m}$   
 $w_{12} = 0,0218 \text{ KN/m}$   
 $W = 3,64 \text{ KN}$

#### **5.5 Lastfallkombinationen / loadcombinations / belastingcombinaties**

$LK1 = LF5.1 + LF5.2$   $LK2 = LF5.1 + LF5.3$   $LK3 = LF5.1 + LF5.4$

#### **6. Berechnung der Schnittgrößen, Auflagerkräfte und Spannungen für Pos 4 / calculation of internal forces, support forces and stresses for item 4 / Berekeningen van interne krachten, ondersteuningkrachten en spanningen voor positie 4**

Für die Eingabe des Systems und der Belastung und die Ausgabe der Ergebnisse siehe folgende EDV-Berechnungen. In der EDV – Bemessung werden die Eigenlasten auf Grund der Seilumlenkungen mit dem Faktor 2 multipliziert. / For the input of the structure and the output of the results see the following EDP-printout. In EDP – calculation the dead loads are multiplied with a factor of 2, because of the ropes for lifting up the tower. / Voor het invoeren van het systeem en de belastingen en de output van de resultaten is volgende computer berekeningen weergegeven. In het computerontwerp is het eigen gewicht met factor 2 vermenigvuldigd vanwege de hijslijnen.

#### **BASISANGABEN**

##### **BERECHNUNGSART**

|                    |                      |
|--------------------|----------------------|
| x Statik           | x Theorie I. Ordnung |
| Nachweis           | Theorie II. Ordnung  |
| Dynamik            | Seiltheorie          |
| x Lastfälle        | x Bemessungsfälle    |
| LF-Gruppen         | Dynamikfälle         |
| x LF-Kombinationen | Knickfiguren         |



## BASISANGABEN

### STRUKTURKENNWERTE

1D-Durchlaufträger  
2D-Stabwerk  
x 3D-Stabwerk  
Trägerrost

408Knoten  
1Materialien  
15Querschnitte  
1Stabendgelenke  
0Stabteilungen

1156Stäbe  
0Seilstäbe  
0Voutenstäbe  
0El. gebet. Stäbe  
0Stabzüge

## KNOTEN

| Knoten-Nr. | Koordinaten-system | Bezugs-Knoten | Knotenkoordinaten |        |         |
|------------|--------------------|---------------|-------------------|--------|---------|
|            |                    |               | X [m]             | Y [m]  | Z [m]   |
| 1          | Kartesisch         | -             | -0.492            | 0.284  | -8.000  |
| 2          | Kartesisch         | -             | -0.492            | 0.284  | -7.750  |
| 3          | Kartesisch         | -             | -0.492            | 0.284  | -7.250  |
| 4          | Kartesisch         | -             | -0.492            | 0.284  | -6.750  |
| 5          | Kartesisch         | -             | -0.492            | 0.284  | -6.250  |
| 6          | Kartesisch         | -             | -0.492            | 0.284  | -5.750  |
| 7          | Kartesisch         | -             | -0.492            | 0.284  | -3.250  |
| 8          | Kartesisch         | -             | -0.492            | 0.284  | -2.750  |
| 9          | Kartesisch         | -             | -0.492            | 0.284  | -2.250  |
| 10         | Kartesisch         | -             | -0.492            | 0.284  | -1.750  |
| 11         | Kartesisch         | -             | -0.492            | 0.284  | -1.250  |
| 12         | Kartesisch         | -             | -0.492            | 0.284  | -0.750  |
| 13         | Kartesisch         | -             | -0.492            | 0.284  | -0.250  |
| 14         | Kartesisch         | -             | -0.492            | 0.284  | 0.000   |
| Gelagert   |                    |               |                   |        |         |
| 15         | Kartesisch         | -             | -0.375            | 0.217  | -15.000 |
| 16         | Kartesisch         | -             | -0.375            | 0.217  | -14.750 |
| 17         | Kartesisch         | -             | -0.375            | 0.217  | -14.250 |
| 18         | Kartesisch         | -             | -0.375            | 0.217  | -13.750 |
| 19         | Kartesisch         | -             | -0.375            | 0.217  | -13.250 |
| 20         | Kartesisch         | -             | -0.375            | 0.217  | -12.750 |
| 21         | Kartesisch         | -             | -0.375            | 0.217  | -10.250 |
| 22         | Kartesisch         | -             | -0.375            | 0.217  | -9.750  |
| 23         | Kartesisch         | -             | -0.375            | 0.217  | -9.250  |
| 24         | Kartesisch         | -             | -0.375            | 0.217  | -8.750  |
| 25         | Kartesisch         | -             | -0.375            | 0.217  | -8.250  |
| 26         | Kartesisch         | -             | -0.375            | 0.217  | -7.750  |
| 27         | Kartesisch         | -             | -0.375            | 0.217  | -7.250  |
| 28         | Kartesisch         | -             | -0.375            | 0.217  | -7.000  |
| 29         | Kartesisch         | -             | -0.271            | 0.157  | -22.000 |
| 30         | Kartesisch         | -             | -0.271            | 0.157  | -21.750 |
| 31         | Kartesisch         | -             | -0.271            | 0.157  | -21.250 |
| 32         | Kartesisch         | -             | -0.271            | 0.157  | -20.750 |
| 33         | Kartesisch         | -             | -0.271            | 0.157  | -20.250 |
| 34         | Kartesisch         | -             | -0.271            | 0.157  | -19.750 |
| 35         | Kartesisch         | -             | -0.271            | 0.157  | -19.250 |
| 36         | Kartesisch         | -             | -0.271            | 0.157  | -16.750 |
| 37         | Kartesisch         | -             | -0.271            | 0.157  | -16.250 |
| 38         | Kartesisch         | -             | -0.271            | 0.157  | -15.750 |
| 39         | Kartesisch         | -             | -0.271            | 0.157  | -15.250 |
| 40         | Kartesisch         | -             | -0.271            | 0.157  | -14.750 |
| 41         | Kartesisch         | -             | -0.271            | 0.157  | -14.250 |
| 42         | Kartesisch         | -             | -0.271            | 0.157  | -14.000 |
| 43         | Kartesisch         | -             | -0.247            | -0.142 | -7.500  |
| 44         | Kartesisch         | -             | -0.247            | -0.142 | -7.000  |
| 45         | Kartesisch         | -             | -0.247            | -0.142 | -6.500  |
| 46         | Kartesisch         | -             | -0.247            | -0.142 | -6.000  |
| 47         | Kartesisch         | -             | -0.492            | 0.284  | -3.750  |
| 48         | Kartesisch         | -             | -0.247            | -0.142 | -3.000  |
| 49         | Kartesisch         | -             | -0.247            | -0.142 | -2.500  |
| 50         | Kartesisch         | -             | -0.247            | -0.142 | -2.000  |
| 51         | Kartesisch         | -             | -0.247            | -0.142 | -1.500  |
| 52         | Kartesisch         | -             | -0.247            | -0.142 | -1.000  |
| 53         | Kartesisch         | -             | -0.247            | -0.142 | -0.500  |
| 54         | Kartesisch         | -             | -0.183            | 0.105  | -29.000 |
| 55         | Kartesisch         | -             | -0.183            | 0.105  | -28.750 |
| 56         | Kartesisch         | -             | -0.183            | 0.105  | -28.250 |



## KNOTEN

| Knoten-<br>Nr. | Koordinaten-<br>system | Bezugs-<br>Knoten | Knotenkoordinaten |        |         |
|----------------|------------------------|-------------------|-------------------|--------|---------|
|                |                        |                   | X [m]             | Y [m]  | Z [m]   |
| 57             | Kartesisch             | -                 | -0.183            | 0.105  | -27.750 |
| 58             | Kartesisch             | -                 | -0.183            | 0.105  | -27.250 |
| 59             | Kartesisch             | -                 | -0.183            | 0.105  | -26.750 |
| 60             | Kartesisch             | -                 | -0.183            | 0.105  | -26.250 |
| 61             | Kartesisch             | -                 | -0.183            | 0.105  | -25.750 |
| 62             | Kartesisch             | -                 | -0.183            | 0.105  | -23.250 |
| 63             | Kartesisch             | -                 | -0.183            | 0.105  | -22.750 |
| 64             | Kartesisch             | -                 | -0.183            | 0.105  | -22.250 |
| 65             | Kartesisch             | -                 | -0.183            | 0.105  | -21.750 |
| 66             | Kartesisch             | -                 | -0.183            | 0.105  | -21.250 |
| 67             | Kartesisch             | -                 | -0.183            | 0.105  | -21.000 |
| 68             | Kartesisch             | -                 | -0.187            | -0.109 | -14.500 |
| 69             | Kartesisch             | -                 | -0.187            | -0.109 | -14.000 |
| 70             | Kartesisch             | -                 | -0.187            | -0.109 | -13.500 |
| 71             | Kartesisch             | -                 | -0.187            | -0.109 | -13.000 |
| 72             | Kartesisch             | -                 | -0.375            | 0.217  | -10.750 |
| 73             | Kartesisch             | -                 | -0.187            | -0.109 | -10.000 |
| 74             | Kartesisch             | -                 | -0.187            | -0.109 | -9.500  |
| 75             | Kartesisch             | -                 | -0.187            | -0.109 | -9.000  |
| 76             | Kartesisch             | -                 | -0.187            | -0.109 | -8.500  |
| 77             | Kartesisch             | -                 | -0.187            | -0.109 | -8.000  |
| 78             | Kartesisch             | -                 | -0.187            | -0.109 | -7.500  |
| 79             | Kartesisch             | -                 | -0.135            | -0.078 | -21.500 |
| 80             | Kartesisch             | -                 | -0.135            | -0.078 | -21.000 |
| 81             | Kartesisch             | -                 | -0.135            | -0.078 | -20.500 |
| 82             | Kartesisch             | -                 | -0.135            | -0.078 | -20.000 |
| 83             | Kartesisch             | -                 | -0.135            | -0.078 | -19.500 |
| 84             | Kartesisch             | -                 | -0.271            | 0.157  | -17.250 |
| 85             | Kartesisch             | -                 | -0.135            | -0.078 | -16.500 |
| 86             | Kartesisch             | -                 | -0.135            | -0.078 | -16.000 |
| 87             | Kartesisch             | -                 | -0.135            | -0.078 | -15.500 |
| 88             | Kartesisch             | -                 | -0.135            | -0.078 | -15.000 |
| 89             | Kartesisch             | -                 | -0.135            | -0.078 | -14.500 |
| 90             | Kartesisch             | -                 | -0.091            | -0.053 | -28.500 |
| 91             | Kartesisch             | -                 | -0.091            | -0.053 | -28.000 |
| 92             | Kartesisch             | -                 | -0.091            | -0.053 | -27.500 |
| 93             | Kartesisch             | -                 | -0.091            | -0.053 | -27.000 |
| 94             | Kartesisch             | -                 | -0.091            | -0.053 | -26.500 |
| 95             | Kartesisch             | -                 | -0.091            | -0.053 | -26.000 |
| 96             | Kartesisch             | -                 | -0.183            | 0.105  | -23.750 |
| 97             | Kartesisch             | -                 | -0.091            | -0.053 | -23.000 |
| 98             | Kartesisch             | -                 | -0.091            | -0.053 | -22.500 |
| 99             | Kartesisch             | -                 | -0.091            | -0.053 | -22.000 |
| 100            | Kartesisch             | -                 | -0.091            | -0.053 | -21.500 |
| 101            | Kartesisch             | -                 | 0.000             | -0.568 | -8.000  |
| 102            | Kartesisch             | -                 | 0.000             | -0.568 | -7.750  |
| 103            | Kartesisch             | -                 | 0.000             | -0.568 | -7.250  |
| 104            | Kartesisch             | -                 | 0.000             | -0.568 | -6.750  |
| 105            | Kartesisch             | -                 | 0.000             | -0.568 | -6.250  |
| 106            | Kartesisch             | -                 | 0.000             | -0.568 | -5.750  |
| 107            | Kartesisch             | -                 | 0.000             | -0.568 | -3.250  |
| 108            | Kartesisch             | -                 | 0.000             | -0.568 | -2.750  |
| 109            | Kartesisch             | -                 | 0.000             | -0.568 | -2.250  |
| 110            | Kartesisch             | -                 | 0.000             | -0.568 | -1.750  |
| 111            | Kartesisch             | -                 | 0.000             | -0.568 | -1.250  |
| 112            | Kartesisch             | -                 | 0.000             | -0.568 | -0.750  |
| 113            | Kartesisch             | -                 | 0.000             | -0.568 | -0.250  |
| 114            | Kartesisch             | -                 | 0.000             | -0.568 | 0.000   |
| Gelagert       |                        |                   |                   |        |         |
| 115            | Kartesisch             | -                 | 0.000             | -0.433 | -15.000 |
| 116            | Kartesisch             | -                 | 0.000             | -0.433 | -14.750 |
| 117            | Kartesisch             | -                 | 0.000             | -0.433 | -14.250 |
| 118            | Kartesisch             | -                 | 0.000             | -0.433 | -13.750 |
| 119            | Kartesisch             | -                 | 0.000             | -0.433 | -13.250 |
| 120            | Kartesisch             | -                 | 0.000             | -0.433 | -12.750 |
| 121            | Kartesisch             | -                 | 0.000             | -0.433 | -10.250 |
| 122            | Kartesisch             | -                 | 0.000             | -0.433 | -9.750  |
| 123            | Kartesisch             | -                 | 0.000             | -0.433 | -9.250  |
| 124            | Kartesisch             | -                 | 0.000             | -0.433 | -8.750  |
| 125            | Kartesisch             | -                 | 0.000             | -0.433 | -8.250  |



## KNOTEN

| Knoten-<br>Nr. | Koordinaten-<br>system | Bezugs-<br>Knoten | Knotenkoordinaten |        |         |
|----------------|------------------------|-------------------|-------------------|--------|---------|
|                |                        |                   | X [m]             | Y [m]  | Z [m]   |
| 126            | Kartesisch             | -                 | 0.000             | -0.433 | -7.750  |
| 127            | Kartesisch             | -                 | 0.000             | -0.433 | -7.250  |
| 128            | Kartesisch             | -                 | 0.000             | -0.433 | -7.000  |
| 129            | Kartesisch             | -                 | 0.000             | -0.313 | -22.000 |
| 130            | Kartesisch             | -                 | 0.000             | -0.313 | -21.750 |
| 131            | Kartesisch             | -                 | 0.000             | -0.313 | -21.250 |
| 132            | Kartesisch             | -                 | 0.000             | -0.313 | -20.750 |
| 133            | Kartesisch             | -                 | 0.000             | -0.313 | -20.250 |
| 134            | Kartesisch             | -                 | 0.000             | -0.313 | -19.750 |
| 135            | Kartesisch             | -                 | 0.000             | -0.313 | -19.250 |
| 136            | Kartesisch             | -                 | 0.000             | -0.313 | -16.750 |
| 137            | Kartesisch             | -                 | 0.000             | -0.313 | -16.250 |
| 138            | Kartesisch             | -                 | 0.000             | -0.313 | -15.750 |
| 139            | Kartesisch             | -                 | 0.000             | -0.313 | -15.250 |
| 140            | Kartesisch             | -                 | 0.000             | -0.313 | -14.750 |
| 141            | Kartesisch             | -                 | 0.000             | -0.313 | -14.250 |
| 142            | Kartesisch             | -                 | 0.000             | -0.313 | -14.000 |
| 143            | Kartesisch             | -                 | 0.000             | 0.105  | -28.500 |
| 144            | Kartesisch             | -                 | 0.000             | 0.105  | -28.000 |
| 145            | Kartesisch             | -                 | 0.000             | 0.105  | -27.500 |
| 146            | Kartesisch             | -                 | 0.000             | 0.105  | -27.000 |
| 147            | Kartesisch             | -                 | 0.000             | 0.105  | -26.500 |
| 148            | Kartesisch             | -                 | 0.000             | 0.105  | -26.000 |
| 149            | Kartesisch             | -                 | -0.183            | 0.105  | -24.250 |
| 150            | Kartesisch             | -                 | 0.000             | 0.105  | -23.000 |
| 151            | Kartesisch             | -                 | 0.000             | 0.105  | -22.500 |
| 152            | Kartesisch             | -                 | 0.000             | 0.105  | -22.000 |
| 153            | Kartesisch             | -                 | 0.000             | 0.105  | -21.500 |
| 154            | Kartesisch             | -                 | 0.000             | 0.157  | -21.500 |
| 155            | Kartesisch             | -                 | 0.000             | 0.157  | -21.000 |
| 156            | Kartesisch             | -                 | 0.000             | 0.157  | -20.500 |
| 157            | Kartesisch             | -                 | 0.000             | 0.157  | -20.000 |
| 158            | Kartesisch             | -                 | 0.000             | 0.157  | -19.500 |
| 159            | Kartesisch             | -                 | -0.271            | 0.157  | -17.750 |
| 160            | Kartesisch             | -                 | 0.000             | 0.157  | -16.500 |
| 161            | Kartesisch             | -                 | 0.000             | 0.157  | -16.000 |
| 162            | Kartesisch             | -                 | 0.000             | 0.157  | -15.500 |
| 163            | Kartesisch             | -                 | 0.000             | 0.157  | -15.000 |
| 164            | Kartesisch             | -                 | 0.000             | 0.157  | -14.500 |
| 165            | Kartesisch             | -                 | 0.000             | 0.217  | -14.500 |
| 166            | Kartesisch             | -                 | 0.000             | 0.217  | -14.000 |
| 167            | Kartesisch             | -                 | 0.000             | 0.217  | -13.500 |
| 168            | Kartesisch             | -                 | 0.000             | 0.217  | -13.000 |
| 169            | Kartesisch             | -                 | -0.375            | 0.217  | -11.250 |
| 170            | Kartesisch             | -                 | 0.000             | 0.217  | -10.000 |
| 171            | Kartesisch             | -                 | 0.000             | 0.217  | -9.500  |
| 172            | Kartesisch             | -                 | 0.000             | 0.217  | -9.000  |
| 173            | Kartesisch             | -                 | 0.000             | 0.217  | -8.500  |
| 174            | Kartesisch             | -                 | 0.000             | 0.217  | -8.000  |
| 175            | Kartesisch             | -                 | 0.000             | 0.217  | -7.500  |
| 176            | Kartesisch             | -                 | 0.000             | -0.211 | -29.000 |
| 177            | Kartesisch             | -                 | 0.000             | -0.211 | -28.750 |
| 178            | Kartesisch             | -                 | 0.000             | -0.211 | -28.250 |
| 179            | Kartesisch             | -                 | 0.000             | -0.211 | -27.750 |
| 180            | Kartesisch             | -                 | 0.000             | -0.211 | -27.250 |
| 181            | Kartesisch             | -                 | 0.000             | -0.211 | -26.750 |
| 182            | Kartesisch             | -                 | 0.000             | -0.211 | -26.250 |
| 183            | Kartesisch             | -                 | 0.000             | -0.211 | -25.750 |
| 184            | Kartesisch             | -                 | 0.000             | -0.211 | -23.250 |
| 185            | Kartesisch             | -                 | 0.000             | -0.211 | -22.750 |
| 186            | Kartesisch             | -                 | 0.000             | -0.211 | -22.250 |
| 187            | Kartesisch             | -                 | 0.000             | -0.211 | -21.750 |
| 188            | Kartesisch             | -                 | 0.000             | -0.211 | -21.250 |
| 189            | Kartesisch             | -                 | 0.000             | -0.211 | -21.000 |
| 190            | Kartesisch             | -                 | 0.000             | 0.284  | -7.500  |
| 191            | Kartesisch             | -                 | 0.000             | 0.284  | -7.000  |
| 192            | Kartesisch             | -                 | 0.000             | 0.284  | -6.500  |
| 193            | Kartesisch             | -                 | 0.000             | 0.284  | -6.000  |
| 194            | Kartesisch             | -                 | -0.492            | 0.284  | -4.250  |
| 195            | Kartesisch             | -                 | 0.000             | 0.284  | -3.000  |



## KNOTEN

| Knoten-<br>Nr. | Koordinaten-<br>system | Bezugs-<br>Knoten | Knotenkoordinaten |        |         |
|----------------|------------------------|-------------------|-------------------|--------|---------|
|                |                        |                   | X [m]             | Y [m]  | Z [m]   |
| 196            | Kartesisch             | -                 | 0.000             | 0.284  | -2.500  |
| 197            | Kartesisch             | -                 | 0.000             | 0.284  | -2.000  |
| 198            | Kartesisch             | -                 | 0.000             | 0.284  | -1.500  |
| 199            | Kartesisch             | -                 | 0.000             | 0.284  | -1.000  |
| 200            | Kartesisch             | -                 | 0.000             | 0.284  | -0.500  |
| 201            | Kartesisch             | -                 | 0.091             | -0.053 | -28.500 |
| 202            | Kartesisch             | -                 | 0.091             | -0.053 | -28.000 |
| 203            | Kartesisch             | -                 | 0.091             | -0.053 | -27.500 |
| 204            | Kartesisch             | -                 | 0.091             | -0.053 | -27.000 |
| 205            | Kartesisch             | -                 | 0.091             | -0.053 | -26.500 |
| 206            | Kartesisch             | -                 | 0.091             | -0.053 | -26.000 |
| 207            | Kartesisch             | -                 | -0.183            | 0.105  | -24.750 |
| 208            | Kartesisch             | -                 | 0.091             | -0.053 | -23.000 |
| 209            | Kartesisch             | -                 | 0.091             | -0.053 | -22.500 |
| 210            | Kartesisch             | -                 | 0.091             | -0.053 | -22.000 |
| 211            | Kartesisch             | -                 | 0.091             | -0.053 | -21.500 |
| 212            | Kartesisch             | -                 | 0.135             | -0.078 | -21.500 |
| 213            | Kartesisch             | -                 | 0.135             | -0.078 | -21.000 |
| 214            | Kartesisch             | -                 | 0.135             | -0.078 | -20.500 |
| 215            | Kartesisch             | -                 | 0.135             | -0.078 | -20.000 |
| 216            | Kartesisch             | -                 | 0.135             | -0.078 | -19.500 |
| 217            | Kartesisch             | -                 | -0.271            | 0.157  | -18.250 |
| 218            | Kartesisch             | -                 | 0.135             | -0.078 | -16.500 |
| 219            | Kartesisch             | -                 | 0.135             | -0.078 | -16.000 |
| 220            | Kartesisch             | -                 | 0.135             | -0.078 | -15.500 |
| 221            | Kartesisch             | -                 | 0.135             | -0.078 | -15.000 |
| 222            | Kartesisch             | -                 | 0.135             | -0.078 | -14.500 |
| 223            | Kartesisch             | -                 | 0.187             | -0.109 | -14.500 |
| 224            | Kartesisch             | -                 | 0.187             | -0.109 | -14.000 |
| 225            | Kartesisch             | -                 | 0.187             | -0.109 | -13.500 |
| 226            | Kartesisch             | -                 | 0.187             | -0.109 | -13.000 |
| 227            | Kartesisch             | -                 | -0.375            | 0.217  | -11.750 |
| 228            | Kartesisch             | -                 | 0.187             | -0.109 | -10.000 |
| 229            | Kartesisch             | -                 | 0.187             | -0.109 | -9.500  |
| 230            | Kartesisch             | -                 | 0.187             | -0.109 | -9.000  |
| 231            | Kartesisch             | -                 | 0.187             | -0.109 | -8.500  |
| 232            | Kartesisch             | -                 | 0.187             | -0.109 | -8.000  |
| 233            | Kartesisch             | -                 | 0.187             | -0.109 | -7.500  |
| 234            | Kartesisch             | -                 | 0.183             | 0.105  | -29.000 |
| 235            | Kartesisch             | -                 | 0.183             | 0.105  | -28.750 |
| 236            | Kartesisch             | -                 | 0.183             | 0.105  | -28.250 |
| 237            | Kartesisch             | -                 | 0.183             | 0.105  | -27.750 |
| 238            | Kartesisch             | -                 | 0.183             | 0.105  | -27.250 |
| 239            | Kartesisch             | -                 | 0.183             | 0.105  | -26.750 |
| 240            | Kartesisch             | -                 | 0.183             | 0.105  | -26.250 |
| 241            | Kartesisch             | -                 | 0.183             | 0.105  | -25.750 |
| 242            | Kartesisch             | -                 | 0.183             | 0.105  | -23.250 |
| 243            | Kartesisch             | -                 | 0.183             | 0.105  | -22.750 |
| 244            | Kartesisch             | -                 | 0.183             | 0.105  | -22.250 |
| 245            | Kartesisch             | -                 | 0.183             | 0.105  | -21.750 |
| 246            | Kartesisch             | -                 | 0.183             | 0.105  | -21.250 |
| 247            | Kartesisch             | -                 | 0.183             | 0.105  | -21.000 |
| 248            | Kartesisch             | -                 | 0.247             | -0.142 | -7.500  |
| 249            | Kartesisch             | -                 | 0.247             | -0.142 | -7.000  |
| 250            | Kartesisch             | -                 | 0.247             | -0.142 | -6.500  |
| 251            | Kartesisch             | -                 | 0.247             | -0.142 | -6.000  |
| 252            | Kartesisch             | -                 | 0.000             | -0.568 | -3.750  |
| 253            | Kartesisch             | -                 | 0.247             | -0.142 | -3.000  |
| 254            | Kartesisch             | -                 | 0.247             | -0.142 | -2.500  |
| 255            | Kartesisch             | -                 | 0.247             | -0.142 | -2.000  |
| 256            | Kartesisch             | -                 | 0.247             | -0.142 | -1.500  |
| 257            | Kartesisch             | -                 | 0.247             | -0.142 | -1.000  |
| 258            | Kartesisch             | -                 | 0.247             | -0.142 | -0.500  |
| 259            | Kartesisch             | -                 | 0.271             | 0.157  | -22.000 |
| 260            | Kartesisch             | -                 | 0.271             | 0.157  | -21.750 |
| 261            | Kartesisch             | -                 | 0.271             | 0.157  | -21.250 |
| 262            | Kartesisch             | -                 | 0.271             | 0.157  | -20.750 |
| 263            | Kartesisch             | -                 | 0.271             | 0.157  | -20.250 |
| 264            | Kartesisch             | -                 | 0.271             | 0.157  | -19.750 |
| 265            | Kartesisch             | -                 | 0.271             | 0.157  | -19.250 |



## KNOTEN

| Knoten-<br>Nr. | Koordinaten-<br>system | Bezugs-<br>Knoten | Knotenkoordinaten |        |         |
|----------------|------------------------|-------------------|-------------------|--------|---------|
|                |                        |                   | X [m]             | Y [m]  | Z [m]   |
| 266            | Kartesisch             | -                 | 0.271             | 0.157  | -16.750 |
| 267            | Kartesisch             | -                 | 0.271             | 0.157  | -16.250 |
| 268            | Kartesisch             | -                 | 0.271             | 0.157  | -15.750 |
| 269            | Kartesisch             | -                 | 0.271             | 0.157  | -15.250 |
| 270            | Kartesisch             | -                 | 0.271             | 0.157  | -14.750 |
| 271            | Kartesisch             | -                 | 0.271             | 0.157  | -14.250 |
| 272            | Kartesisch             | -                 | 0.271             | 0.157  | -14.000 |
| 273            | Kartesisch             | -                 | 0.375             | 0.217  | -15.000 |
| 274            | Kartesisch             | -                 | 0.375             | 0.217  | -14.750 |
| 275            | Kartesisch             | -                 | 0.375             | 0.217  | -14.250 |
| 276            | Kartesisch             | -                 | 0.375             | 0.217  | -13.750 |
| 277            | Kartesisch             | -                 | 0.375             | 0.217  | -13.250 |
| 278            | Kartesisch             | -                 | 0.375             | 0.217  | -12.750 |
| 279            | Kartesisch             | -                 | 0.375             | 0.217  | -10.250 |
| 280            | Kartesisch             | -                 | 0.375             | 0.217  | -9.750  |
| 281            | Kartesisch             | -                 | 0.375             | 0.217  | -9.250  |
| 282            | Kartesisch             | -                 | 0.375             | 0.217  | -8.750  |
| 283            | Kartesisch             | -                 | 0.375             | 0.217  | -8.250  |
| 284            | Kartesisch             | -                 | 0.375             | 0.217  | -7.750  |
| 285            | Kartesisch             | -                 | 0.375             | 0.217  | -7.250  |
| 286            | Kartesisch             | -                 | 0.375             | 0.217  | -7.000  |
| 287            | Kartesisch             | -                 | 0.493             | 0.284  | -8.000  |
| 288            | Kartesisch             | -                 | 0.493             | 0.284  | -7.750  |
| 289            | Kartesisch             | -                 | 0.493             | 0.284  | -7.250  |
| 290            | Kartesisch             | -                 | 0.493             | 0.284  | -6.750  |
| 291            | Kartesisch             | -                 | 0.493             | 0.284  | -6.250  |
| 292            | Kartesisch             | -                 | 0.493             | 0.284  | -5.750  |
| 293            | Kartesisch             | -                 | 0.493             | 0.284  | -3.250  |
| 294            | Kartesisch             | -                 | 0.493             | 0.284  | -2.750  |
| 295            | Kartesisch             | -                 | 0.493             | 0.284  | -2.250  |
| 296            | Kartesisch             | -                 | 0.493             | 0.284  | -1.750  |
| 297            | Kartesisch             | -                 | 0.493             | 0.284  | -1.250  |
| 298            | Kartesisch             | -                 | 0.493             | 0.284  | -0.750  |
| 299            | Kartesisch             | -                 | 0.493             | 0.284  | -0.250  |
| 300            | Kartesisch             | -                 | 0.493             | 0.284  | 0.000   |
|                | Gelagert               |                   |                   |        |         |
| 301            | Kartesisch             | -                 | -0.492            | 0.284  | -4.750  |
| 302            | Kartesisch             | -                 | -0.492            | 0.284  | -5.250  |
| 303            | Kartesisch             | -                 | 0.000             | -0.568 | -4.250  |
| 304            | Kartesisch             | -                 | 0.000             | -0.568 | -4.750  |
| 305            | Kartesisch             | -                 | 0.000             | -0.568 | -5.250  |
| 306            | Kartesisch             | -                 | 0.493             | 0.284  | -3.750  |
| 307            | Kartesisch             | -                 | 0.493             | 0.284  | -4.250  |
| 308            | Kartesisch             | -                 | 0.493             | 0.284  | -4.750  |
| 309            | Kartesisch             | -                 | 0.493             | 0.284  | -5.250  |
| 310            | Kartesisch             | -                 | -0.246            | -0.142 | -5.500  |
| 311            | Kartesisch             | -                 | 0.000             | 0.284  | -5.500  |
| 312            | Kartesisch             | -                 | 0.246             | -0.142 | -5.500  |
| 313            | Kartesisch             | -                 | -0.246            | -0.142 | -5.000  |
| 314            | Kartesisch             | -                 | -0.246            | -0.142 | -4.500  |
| 315            | Kartesisch             | -                 | -0.246            | -0.142 | -4.000  |
| 316            | Kartesisch             | -                 | -0.246            | -0.142 | -3.500  |
| 317            | Kartesisch             | -                 | 0.000             | 0.284  | -5.000  |
| 318            | Kartesisch             | -                 | 0.000             | 0.284  | -4.500  |
| 319            | Kartesisch             | -                 | 0.000             | 0.284  | -4.000  |
| 320            | Kartesisch             | -                 | 0.000             | 0.284  | -3.500  |
| 321            | Kartesisch             | -                 | 0.246             | -0.142 | -5.000  |
| 322            | Kartesisch             | -                 | 0.246             | -0.142 | -4.500  |
| 323            | Kartesisch             | -                 | 0.246             | -0.142 | -4.000  |
| 324            | Kartesisch             | -                 | 0.246             | -0.142 | -3.500  |
| 325            | Kartesisch             | -                 | -0.375            | 0.217  | -12.250 |
| 326            | Kartesisch             | -                 | 0.000             | -0.433 | -10.750 |
| 327            | Kartesisch             | -                 | 0.000             | -0.433 | -11.250 |
| 328            | Kartesisch             | -                 | 0.000             | -0.433 | -11.750 |
| 329            | Kartesisch             | -                 | 0.000             | -0.433 | -12.250 |
| 330            | Kartesisch             | -                 | 0.375             | 0.217  | -10.750 |
| 331            | Kartesisch             | -                 | 0.375             | 0.217  | -11.250 |
| 332            | Kartesisch             | -                 | 0.375             | 0.217  | -11.750 |
| 333            | Kartesisch             | -                 | 0.375             | 0.217  | -12.250 |
| 334            | Kartesisch             | -                 | -0.187            | -0.108 | -12.500 |



## KNOTEN

| Knoten-<br>Nr. | Koordinaten-<br>system | Bezugs-<br>Knoten | Knotenkoordinaten |        |         |
|----------------|------------------------|-------------------|-------------------|--------|---------|
|                |                        |                   | X [m]             | Y [m]  | Z [m]   |
| 335            | Kartesisch             | -                 | -0.188            | -0.108 | -12.000 |
| 336            | Kartesisch             | -                 | -0.188            | -0.108 | -11.500 |
| 337            | Kartesisch             | -                 | -0.188            | -0.108 | -11.000 |
| 338            | Kartesisch             | -                 | -0.188            | -0.108 | -10.500 |
| 339            | Kartesisch             | -                 | 0.188             | -0.108 | -12.500 |
| 340            | Kartesisch             | -                 | 0.188             | -0.108 | -12.000 |
| 341            | Kartesisch             | -                 | 0.188             | -0.108 | -11.500 |
| 342            | Kartesisch             | -                 | 0.188             | -0.108 | -11.000 |
| 343            | Kartesisch             | -                 | 0.188             | -0.108 | -10.500 |
| 344            | Kartesisch             | -                 | 0.000             | 0.217  | -12.500 |
| 345            | Kartesisch             | -                 | 0.000             | 0.217  | -12.000 |
| 346            | Kartesisch             | -                 | 0.000             | 0.217  | -11.500 |
| 347            | Kartesisch             | -                 | 0.000             | 0.217  | -11.000 |
| 348            | Kartesisch             | -                 | 0.000             | 0.217  | -10.500 |
| 349            | Kartesisch             | -                 | -0.271            | 0.157  | -18.750 |
| 350            | Kartesisch             | -                 | 0.271             | 0.157  | -17.250 |
| 351            | Kartesisch             | -                 | 0.271             | 0.157  | -17.750 |
| 352            | Kartesisch             | -                 | 0.271             | 0.157  | -18.250 |
| 353            | Kartesisch             | -                 | 0.271             | 0.157  | -18.750 |
| 354            | Kartesisch             | -                 | 0.000             | -0.313 | -17.250 |
| 355            | Kartesisch             | -                 | 0.000             | -0.313 | -17.750 |
| 356            | Kartesisch             | -                 | 0.000             | -0.313 | -18.250 |
| 357            | Kartesisch             | -                 | 0.000             | -0.313 | -18.750 |
| 358            | Kartesisch             | -                 | -0.135            | -0.078 | -19.000 |
| 359            | Kartesisch             | -                 | -0.135            | -0.078 | -18.500 |
| 360            | Kartesisch             | -                 | -0.135            | -0.078 | -18.000 |
| 361            | Kartesisch             | -                 | -0.135            | -0.078 | -17.500 |
| 362            | Kartesisch             | -                 | -0.135            | -0.078 | -17.000 |
| 363            | Kartesisch             | -                 | 0.135             | -0.078 | -18.500 |
| 364            | Kartesisch             | -                 | 0.135             | -0.078 | -18.000 |
| 365            | Kartesisch             | -                 | 0.135             | -0.078 | -17.500 |
| 366            | Kartesisch             | -                 | 0.135             | -0.078 | -17.000 |
| 367            | Kartesisch             | -                 | 0.135             | -0.078 | -19.000 |
| 368            | Kartesisch             | -                 | 0.000             | 0.157  | -19.000 |
| 369            | Kartesisch             | -                 | 0.000             | 0.157  | -18.500 |
| 370            | Kartesisch             | -                 | 0.000             | 0.157  | -18.000 |
| 371            | Kartesisch             | -                 | 0.000             | 0.157  | -17.500 |
| 372            | Kartesisch             | -                 | 0.000             | 0.157  | -17.000 |
| 373            | Kartesisch             | -                 | -0.183            | 0.105  | -25.250 |
| 374            | Kartesisch             | -                 | 0.183             | 0.105  | -23.750 |
| 375            | Kartesisch             | -                 | 0.183             | 0.105  | -24.250 |
| 376            | Kartesisch             | -                 | 0.183             | 0.105  | -24.750 |
| 377            | Kartesisch             | -                 | 0.183             | 0.105  | -25.250 |
| 378            | Kartesisch             | -                 | 0.000             | -0.211 | -23.750 |
| 379            | Kartesisch             | -                 | 0.000             | -0.211 | -24.250 |
| 380            | Kartesisch             | -                 | 0.000             | -0.211 | -24.750 |
| 381            | Kartesisch             | -                 | 0.000             | -0.211 | -25.250 |
| 382            | Kartesisch             | -                 | -0.091            | -0.053 | -25.500 |
| 383            | Kartesisch             | -                 | -0.091            | -0.053 | -25.000 |
| 384            | Kartesisch             | -                 | -0.091            | -0.053 | -24.500 |
| 385            | Kartesisch             | -                 | -0.091            | -0.053 | -24.000 |
| 386            | Kartesisch             | -                 | -0.091            | -0.053 | -23.500 |
| 387            | Kartesisch             | -                 | 0.091             | -0.053 | -25.500 |
| 388            | Kartesisch             | -                 | 0.091             | -0.053 | -24.500 |
| 389            | Kartesisch             | -                 | 0.091             | -0.053 | -24.000 |
| 390            | Kartesisch             | -                 | 0.091             | -0.053 | -23.500 |
| 391            | Kartesisch             | -                 | 0.091             | -0.053 | -25.000 |
| 392            | Kartesisch             | -                 | 0.000             | 0.105  | -25.500 |
| 393            | Kartesisch             | -                 | 0.000             | 0.105  | -24.500 |
| 394            | Kartesisch             | -                 | 0.000             | 0.105  | -24.000 |
| 395            | Kartesisch             | -                 | 0.000             | 0.105  | -23.500 |
| 396            | Kartesisch             | -                 | 0.000             | 0.105  | -25.000 |
| 397            | Kartesisch             | -                 | -0.492            | 0.284  | -2.000  |
| 398            | Kartesisch             | -                 | 0.493             | 0.284  | -2.000  |
| 399            | Kartesisch             | -                 | 0.000             | -0.568 | -2.000  |
| 400            | Kartesisch             | -                 | 0.000             | -0.568 | -7.000  |
| 401            | Kartesisch             | -                 | -0.492            | 0.284  | -7.000  |
| 402            | Kartesisch             | -                 | 0.493             | 0.284  | -7.000  |
| 403            | Kartesisch             | -                 | -0.375            | 0.217  | -8.000  |
| 404            | Kartesisch             | -                 | 0.375             | 0.217  | -8.000  |



## KNOTEN

| Knoten-Nr. | Koordinaten-system | Bezugs-Knoten | Knotenkoordinaten |        |         |
|------------|--------------------|---------------|-------------------|--------|---------|
|            |                    |               | X [m]             | Y [m]  | Z [m]   |
| 405        | Kartesisch         | -             | 0.000             | -0.433 | -8.000  |
| 406        | Kartesisch         | -             | -0.375            | 0.217  | -14.000 |
| 407        | Kartesisch         | -             | 0.000             | -0.433 | -14.000 |
| 408        | Kartesisch         | -             | 0.375             | 0.217  | -14.000 |

## MATERIALIEN

| Mater.-Nr. | Material-Bezeichnung | E-Modul [kN/cm <sup>2</sup> ] | Schubmodul [kN/cm <sup>2</sup> ] | Sp. Gewicht [kN/cm <sup>3</sup> ] | Wärmedehn. [1/°C] |
|------------|----------------------|-------------------------------|----------------------------------|-----------------------------------|-------------------|
| 1          | Aluminium            | 7.000E+03                     | 2.700E+03                        | 2.700E-05                         | 2.400E-05         |

## QUERSCHNITTE

| Quer.-Nr. | Mater.-Nr. | Querschnitts-Bezeichnung | I-T A            | I-2 A-2 | I-3 [cm <sup>4</sup> ]<br>A-3 [cm <sup>2</sup> ] |
|-----------|------------|--------------------------|------------------|---------|--------------------------------------------------|
| 1         | 1          | Ring 80/5                | 166.41<br>11.781 | 83.20   | 83.20                                            |
| 2         | 1          | Ring 30/3                | 4.69<br>2.545    | 2.35    | 2.35                                             |
| 3         | 1          | Kreis 20                 | 1.57<br>3.142    | 0.79    | 0.79                                             |
| 4         | 1          | Ring 70/5                | 108.48<br>10.210 | 54.24   | 54.24                                            |
| 5         | 1          | Ring 30/3                | 4.69<br>2.545    | 2.35    | 2.35                                             |
| 6         | 1          | Kreis 16                 | 0.64<br>2.011    | 0.32    | 0.32                                             |
| 7         | 1          | Ring 50/5                | 36.23<br>7.069   | 18.11   | 18.11                                            |
| 8         | 1          | Ring 20/3                | 1.19<br>1.602    | 0.60    | 0.60                                             |
| 9         | 1          | Kreis 12                 | 0.20<br>1.131    | 0.10    | 0.10                                             |
| 10        | 1          | Ring 35/5                | 10.90<br>4.712   | 5.45    | 5.45                                             |
| 11        | 1          | Ring 20/3                | 1.19<br>1.602    | 0.60    | 0.60                                             |
| 12        | 1          | Kreis 12                 | 0.20<br>1.131    | 0.10    | 0.10                                             |
| 13        | 1          | Rechteck 120/25          | 54.30<br>30.000  | 15.63   | 360.00                                           |
| 14        | 1          | Ring 80/10               | 274.89<br>21.991 | 137.44  | 137.44                                           |
| 15        | 1          | Ring 70/8                | 152.24<br>15.582 | 76.12   | 76.12                                            |

## STABENDGELENKE

| Gelenk-Nr. | Bezugs-Achse | N/Q-Gelenk bzw. Feder [kN/m] |         |         | T/M-Gelenk bzw. Feder [kNm/rad] |           |           |
|------------|--------------|------------------------------|---------|---------|---------------------------------|-----------|-----------|
|            |              | 1-Normal                     | 2-Schub | 3-Schub | 1-Torsion                       | 2-Biegung | 3-Biegung |
| 1          | Lokal        | Nein                         | Nein    | Nein    | Nein                            | Ja        | Ja        |

## STÄBE

| Stab- | Stab- | Knoten | Beta | Querschnitt | Gelenk | Teil- | Länge | Stab- |
|-------|-------|--------|------|-------------|--------|-------|-------|-------|
|-------|-------|--------|------|-------------|--------|-------|-------|-------|



| Nr. | typ    | Anf. | Ende | [°]   | Anf. | Ende | Anf. | Ende | Nr. | [m]   | lage |
|-----|--------|------|------|-------|------|------|------|------|-----|-------|------|
| 1   | Balken | 2    | 1    | 0.00  | 14   | 14   | -    | -    | -   | 0.250 | VERT |
| 2   | Balken | 3    | 2    | 0.00  | 14   | 14   | -    | -    | -   | 0.500 | VERT |
| 3   | Balken | 4    | 401  | 0.00  | 1    | 1    | -    | -    | -   | 0.250 | VERT |
| 4   | Balken | 5    | 4    | 0.00  | 1    | 1    | -    | -    | -   | 0.500 | VERT |
| 5   | Balken | 6    | 5    | 0.00  | 1    | 1    | -    | -    | -   | 0.500 | VERT |
| 6   | Balken | 7    | 47   | 0.00  | 1    | 1    | -    | -    | -   | 0.500 | VERT |
| 7   | Balken | 8    | 7    | 0.00  | 1    | 1    | -    | -    | -   | 0.500 | VERT |
| 8   | Balken | 9    | 8    | 0.00  | 1    | 1    | -    | -    | -   | 0.500 | VERT |
| 9   | Balken | 10   | 397  | 0.00  | 14   | 14   | -    | -    | -   | 0.250 | VERT |
| 10  | Balken | 11   | 10   | 0.00  | 14   | 14   | -    | -    | -   | 0.500 | VERT |
| 11  | Balken | 12   | 11   | 0.00  | 14   | 14   | -    | -    | -   | 0.500 | VERT |
| 12  | Balken | 13   | 12   | 0.00  | 14   | 14   | -    | -    | -   | 0.500 | VERT |
| 13  | Balken | 14   | 13   | 0.00  | 14   | 14   | -    | -    | -   | 0.250 | VERT |
| 14  | Balken | 2    | 26   | 90.00 | 13   | 13   | -    | 1    | -   | 0.135 | HORI |
| 15  | Balken | 3    | 27   | 90.00 | 13   | 13   | -    | 1    | -   | 0.135 | HORI |
| 16  | Balken | 16   | 15   | 0.00  | 15   | 15   | -    | -    | -   | 0.250 | VERT |
| 17  | Balken | 17   | 16   | 0.00  | 15   | 15   | -    | -    | -   | 0.500 | VERT |
| 18  | Balken | 18   | 406  | 0.00  | 4    | 4    | -    | -    | -   | 0.250 | VERT |
| 19  | Balken | 19   | 18   | 0.00  | 4    | 4    | -    | -    | -   | 0.500 | VERT |
| 20  | Balken | 20   | 19   | 0.00  | 4    | 4    | -    | -    | -   | 0.500 | VERT |
| 21  | Balken | 21   | 72   | 0.00  | 4    | 4    | -    | -    | -   | 0.500 | VERT |
| 22  | Balken | 22   | 21   | 0.00  | 4    | 4    | -    | -    | -   | 0.500 | VERT |
| 23  | Balken | 23   | 22   | 0.00  | 4    | 4    | -    | -    | -   | 0.500 | VERT |
| 24  | Balken | 24   | 23   | 0.00  | 4    | 4    | -    | -    | -   | 0.500 | VERT |
| 25  | Balken | 25   | 24   | 0.00  | 4    | 4    | -    | -    | -   | 0.500 | VERT |
| 26  | Balken | 26   | 403  | 0.00  | 15   | 15   | -    | -    | -   | 0.250 | VERT |
| 27  | Balken | 27   | 26   | 0.00  | 15   | 15   | -    | -    | -   | 0.500 | VERT |
| 28  | Balken | 28   | 27   | 0.00  | 15   | 15   | -    | -    | -   | 0.250 | VERT |
| 29  | Balken | 2    | 43   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 30  | Balken | 3    | 43   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 31  | Balken | 3    | 44   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 32  | Balken | 4    | 44   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 33  | Balken | 4    | 45   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 34  | Balken | 5    | 45   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 35  | Balken | 5    | 46   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 36  | Balken | 6    | 46   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 37  | Balken | 47   | 194  | 0.00  | 1    | 1    | -    | -    | -   | 0.500 | VERT |
| 38  | Balken | 194  | 301  | 0.00  | 1    | 1    | -    | -    | -   | 0.500 | VERT |
| 39  | Balken | 7    | 48   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 40  | Balken | 8    | 48   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 41  | Balken | 8    | 49   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 42  | Balken | 9    | 49   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 43  | Balken | 9    | 50   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 44  | Balken | 10   | 50   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 45  | Balken | 10   | 51   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 46  | Balken | 11   | 51   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 47  | Balken | 11   | 52   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 48  | Balken | 12   | 52   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 49  | Balken | 12   | 53   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 50  | Balken | 13   | 53   | 0.00  | 3    | 3    | -    | -    | -   | 0.551 | ALLG |
| 51  | Balken | 16   | 40   | 90.00 | 13   | 13   | -    | 1    | -   | 0.120 | HORI |
| 52  | Balken | 17   | 41   | 90.00 | 13   | 13   | -    | 1    | -   | 0.120 | HORI |
| 53  | Balken | 30   | 29   | 0.00  | 7    | 7    | -    | -    | -   | 0.250 | VERT |
| 54  | Balken | 31   | 30   | 0.00  | 7    | 7    | -    | -    | -   | 0.500 | VERT |
| 55  | Balken | 32   | 31   | 0.00  | 7    | 7    | -    | -    | -   | 0.500 | VERT |
| 56  | Balken | 33   | 32   | 0.00  | 7    | 7    | -    | -    | -   | 0.500 | VERT |
| 57  | Balken | 34   | 33   | 0.00  | 7    | 7    | -    | -    | -   | 0.500 | VERT |
| 58  | Balken | 35   | 34   | 0.00  | 7    | 7    | -    | -    | -   | 0.500 | VERT |
| 59  | Balken | 36   | 84   | 0.00  | 7    | 7    | -    | -    | -   | 0.500 | VERT |
| 60  | Balken | 37   | 36   | 0.00  | 7    | 7    | -    | -    | -   | 0.500 | VERT |
| 61  | Balken | 38   | 37   | 0.00  | 7    | 7    | -    | -    | -   | 0.500 | VERT |
| 62  | Balken | 39   | 38   | 0.00  | 7    | 7    | -    | -    | -   | 0.500 | VERT |
| 63  | Balken | 40   | 39   | 0.00  | 7    | 7    | -    | -    | -   | 0.500 | VERT |
| 64  | Balken | 41   | 40   | 0.00  | 7    | 7    | -    | -    | -   | 0.500 | VERT |
| 65  | Balken | 42   | 41   | 0.00  | 7    | 7    | -    | -    | -   | 0.250 | VERT |
| 66  | Balken | 68   | 16   | 0.00  | 6    | 6    | -    | -    | -   | 0.452 | ALLG |
| 67  | Balken | 17   | 68   | 0.00  | 6    | 6    | -    | -    | -   | 0.452 | ALLG |
| 68  | Balken | 69   | 17   | 0.00  | 6    | 6    | -    | -    | -   | 0.452 | ALLG |
| 69  | Balken | 18   | 69   | 0.00  | 6    | 6    | -    | -    | -   | 0.452 | ALLG |
| 70  | Balken | 70   | 18   | 0.00  | 6    | 6    | -    | -    | -   | 0.452 | ALLG |
| 71  | Balken | 19   | 70   | 0.00  | 6    | 6    | -    | -    | -   | 0.452 | ALLG |
| 72  | Balken | 71   | 19   | 0.00  | 6    | 6    | -    | -    | -   | 0.452 | ALLG |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |          |           |           |
| 73       | Balken   | 20     | 71   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 74       | Balken   | 72     | 169  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 75       | Balken   | 169    | 227  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 76       | Balken   | 73     | 21   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 77       | Balken   | 22     | 73   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 78       | Balken   | 74     | 22   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 79       | Balken   | 23     | 74   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 80       | Balken   | 75     | 23   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 81       | Balken   | 24     | 75   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 82       | Balken   | 76     | 24   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 83       | Balken   | 25     | 76   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 84       | Balken   | 77     | 25   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 85       | Balken   | 26     | 77   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 86       | Balken   | 78     | 26   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 87       | Balken   | 27     | 78   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 88       | Balken   | 30     | 65   | 90.00    | 13          | 13   | -      | 1    | -        | 0.103     | HORI      |
| 89       | Balken   | 31     | 66   | 90.00    | 13          | 13   | -      | 1    | -        | 0.103     | HORI      |
| 90       | Balken   | 2      | 102  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 91       | Balken   | 3      | 103  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 92       | Balken   | 4      | 104  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 93       | Balken   | 5      | 105  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 94       | Balken   | 6      | 106  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 95       | Balken   | 7      | 107  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 96       | Balken   | 8      | 108  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 97       | Balken   | 9      | 109  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 98       | Balken   | 10     | 110  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 99       | Balken   | 11     | 111  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 100      | Balken   | 12     | 112  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 101      | Balken   | 13     | 113  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 102      | Balken   | 190    | 2    | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 103      | Balken   | 3      | 190  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 104      | Balken   | 191    | 3    | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 105      | Balken   | 4      | 191  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 106      | Balken   | 192    | 4    | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 107      | Balken   | 5      | 192  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 108      | Balken   | 193    | 5    | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 109      | Balken   | 6      | 193  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 110      | Balken   | 301    | 302  | 0.00     | 1           | 1    | -      | -    | -        | 0.500     | VERT      |
| 111      | Balken   | 302    | 6    | 0.00     | 1           | 1    | -      | -    | -        | 0.500     | VERT      |
| 112      | Balken   | 195    | 7    | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 113      | Balken   | 8      | 195  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 114      | Balken   | 196    | 8    | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 115      | Balken   | 9      | 196  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 116      | Balken   | 197    | 9    | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 117      | Balken   | 10     | 197  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 118      | Balken   | 198    | 10   | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 119      | Balken   | 11     | 198  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 120      | Balken   | 199    | 11   | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 121      | Balken   | 12     | 199  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 122      | Balken   | 200    | 12   | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 123      | Balken   | 13     | 200  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 124      | Balken   | 55     | 54   | 0.00     | 10          | 10   | -      | -    | -        | 0.250     | VERT      |
| 125      | Balken   | 56     | 55   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 126      | Balken   | 57     | 56   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 127      | Balken   | 58     | 57   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 128      | Balken   | 59     | 58   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 129      | Balken   | 60     | 59   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 130      | Balken   | 61     | 60   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 131      | Balken   | 62     | 96   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 132      | Balken   | 63     | 62   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 133      | Balken   | 64     | 63   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 134      | Balken   | 65     | 64   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 135      | Balken   | 66     | 65   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 136      | Balken   | 67     | 66   | 0.00     | 10          | 10   | -      | -    | -        | 0.250     | VERT      |
| 137      | Balken   | 79     | 30   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 138      | Balken   | 31     | 79   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 139      | Balken   | 80     | 31   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 140      | Balken   | 32     | 80   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 141      | Balken   | 81     | 32   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 142      | Balken   | 33     | 81   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 143      | Balken   | 82     | 33   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 144      | Balken   | 34     | 82   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 145      | Balken   | 83     | 34   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 146      | Balken   | 35     | 83   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 147      | Balken   | 84     | 159  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 148      | Balken   | 159    | 217  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 149      | Balken   | 85     | 36   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 150      | Balken   | 37     | 85   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 151      | Balken   | 86     | 37   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 152      | Balken   | 38     | 86   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 153      | Balken   | 87     | 38   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 154      | Balken   | 39     | 87   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 155      | Balken   | 88     | 39   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 156      | Balken   | 40     | 88   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 157      | Balken   | 89     | 40   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 158      | Balken   | 41     | 89   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 159      | Balken   | 16     | 116  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 160      | Balken   | 17     | 117  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 161      | Balken   | 18     | 118  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 162      | Balken   | 19     | 119  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 163      | Balken   | 20     | 120  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 164      | Balken   | 21     | 121  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 165      | Balken   | 22     | 122  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 166      | Balken   | 23     | 123  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 167      | Balken   | 24     | 124  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 168      | Balken   | 25     | 125  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 169      | Balken   | 26     | 126  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 170      | Balken   | 27     | 127  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 171      | Balken   | 165    | 16   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 172      | Balken   | 17     | 165  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 173      | Balken   | 166    | 17   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 174      | Balken   | 18     | 166  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 175      | Balken   | 167    | 18   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 176      | Balken   | 19     | 167  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 177      | Balken   | 168    | 19   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 178      | Balken   | 20     | 168  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 179      | Balken   | 227    | 325  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 180      | Balken   | 325    | 20   | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 181      | Balken   | 170    | 21   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 182      | Balken   | 22     | 170  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 183      | Balken   | 171    | 22   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 184      | Balken   | 23     | 171  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 185      | Balken   | 172    | 23   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 186      | Balken   | 24     | 172  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 187      | Balken   | 173    | 24   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 188      | Balken   | 25     | 173  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 189      | Balken   | 174    | 25   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 190      | Balken   | 26     | 174  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 191      | Balken   | 175    | 26   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 192      | Balken   | 27     | 175  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 193      | Balken   | 90     | 55   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 194      | Balken   | 56     | 90   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 195      | Balken   | 91     | 56   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 196      | Balken   | 57     | 91   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 197      | Balken   | 92     | 57   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 198      | Balken   | 58     | 92   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 199      | Balken   | 93     | 58   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 200      | Balken   | 59     | 93   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 201      | Balken   | 94     | 59   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 202      | Balken   | 60     | 94   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 203      | Balken   | 95     | 60   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 204      | Balken   | 61     | 95   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 205      | Balken   | 96     | 149  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 206      | Balken   | 149    | 207  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 207      | Balken   | 97     | 62   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 208      | Balken   | 63     | 97   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 209      | Balken   | 98     | 63   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 210      | Balken   | 64     | 98   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 211      | Balken   | 99     | 64   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 212      | Balken   | 65     | 99   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |          |           |           |
| 213      | Balken   | 100    | 65   | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 214      | Balken   | 66     | 100  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 215      | Balken   | 30     | 130  | 0.00     | 8           | 8    | -      | -    | -        | 0.543     | HORI      |
| 216      | Balken   | 31     | 131  | 0.00     | 8           | 8    | -      | -    | -        | 0.543     | HORI      |
| 217      | Balken   | 32     | 132  | 0.00     | 8           | 8    | -      | -    | -        | 0.543     | HORI      |
| 218      | Balken   | 33     | 133  | 0.00     | 8           | 8    | -      | -    | -        | 0.543     | HORI      |
| 219      | Balken   | 34     | 134  | 0.00     | 8           | 8    | -      | -    | -        | 0.543     | HORI      |
| 220      | Balken   | 35     | 135  | 0.00     | 8           | 8    | -      | -    | -        | 0.543     | HORI      |
| 221      | Balken   | 36     | 136  | 0.00     | 8           | 8    | -      | -    | -        | 0.543     | HORI      |
| 222      | Balken   | 37     | 137  | 0.00     | 8           | 8    | -      | -    | -        | 0.543     | HORI      |
| 223      | Balken   | 38     | 138  | 0.00     | 8           | 8    | -      | -    | -        | 0.543     | HORI      |
| 224      | Balken   | 39     | 139  | 0.00     | 8           | 8    | -      | -    | -        | 0.543     | HORI      |
| 225      | Balken   | 40     | 140  | 0.00     | 8           | 8    | -      | -    | -        | 0.543     | HORI      |
| 226      | Balken   | 41     | 141  | 0.00     | 8           | 8    | -      | -    | -        | 0.543     | HORI      |
| 227      | Balken   | 154    | 30   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 228      | Balken   | 31     | 154  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 229      | Balken   | 155    | 31   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 230      | Balken   | 32     | 155  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 231      | Balken   | 156    | 32   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 232      | Balken   | 33     | 156  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 233      | Balken   | 157    | 33   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 234      | Balken   | 34     | 157  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 235      | Balken   | 158    | 34   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 236      | Balken   | 35     | 158  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 237      | Balken   | 217    | 349  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 238      | Balken   | 349    | 35   | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 239      | Balken   | 160    | 36   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 240      | Balken   | 37     | 160  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 241      | Balken   | 161    | 37   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 242      | Balken   | 38     | 161  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 243      | Balken   | 162    | 38   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 244      | Balken   | 39     | 162  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 245      | Balken   | 163    | 39   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 246      | Balken   | 40     | 163  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 247      | Balken   | 164    | 40   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 248      | Balken   | 41     | 164  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 249      | Balken   | 43     | 102  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 250      | Balken   | 43     | 103  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 251      | Balken   | 44     | 103  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 252      | Balken   | 44     | 104  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 253      | Balken   | 45     | 104  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 254      | Balken   | 45     | 105  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 255      | Balken   | 46     | 105  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 256      | Balken   | 46     | 106  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 257      | Balken   | 207    | 373  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 258      | Balken   | 373    | 61   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 259      | Balken   | 48     | 107  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 260      | Balken   | 48     | 108  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 261      | Balken   | 49     | 108  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 262      | Balken   | 49     | 109  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 263      | Balken   | 50     | 109  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 264      | Balken   | 50     | 110  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 265      | Balken   | 51     | 110  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 266      | Balken   | 51     | 111  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 267      | Balken   | 52     | 111  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 268      | Balken   | 52     | 112  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 269      | Balken   | 53     | 112  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 270      | Balken   | 53     | 113  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 271      | Balken   | 143    | 55   | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 272      | Balken   | 56     | 143  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 273      | Balken   | 144    | 56   | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 274      | Balken   | 57     | 144  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 275      | Balken   | 145    | 57   | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 276      | Balken   | 58     | 145  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 277      | Balken   | 146    | 58   | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 278      | Balken   | 59     | 146  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 279      | Balken   | 147    | 59   | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 280      | Balken   | 60     | 147  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 281      | Balken   | 148    | 60   | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 282      | Balken   | 61     | 148  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 283      | Balken   | 397    | 9    | 0.00     | 1           | 1    | -      | -    | -         | 0.250     | VERT      |
| 284      | Balken   | 401    | 3    | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 285      | Balken   | 150    | 62   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 286      | Balken   | 63     | 150  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 287      | Balken   | 151    | 63   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 288      | Balken   | 64     | 151  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 289      | Balken   | 152    | 64   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 290      | Balken   | 65     | 152  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 291      | Balken   | 153    | 65   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 292      | Balken   | 66     | 153  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 293      | Balken   | 55     | 177  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 294      | Balken   | 56     | 178  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 295      | Balken   | 57     | 179  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 296      | Balken   | 58     | 180  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 297      | Balken   | 59     | 181  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 298      | Balken   | 60     | 182  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 299      | Balken   | 61     | 183  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 300      | Balken   | 62     | 184  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 301      | Balken   | 63     | 185  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 302      | Balken   | 64     | 186  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 303      | Balken   | 65     | 187  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 304      | Balken   | 66     | 188  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 305      | Balken   | 68     | 116  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 306      | Balken   | 117    | 68   | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 307      | Balken   | 69     | 117  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 308      | Balken   | 118    | 69   | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 309      | Balken   | 70     | 118  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 310      | Balken   | 119    | 70   | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 311      | Balken   | 71     | 119  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 312      | Balken   | 120    | 71   | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 313      | Balken   | 403    | 25   | 0.00     | 4           | 4    | -      | -    | -         | 0.250     | VERT      |
| 314      | Balken   | 406    | 17   | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |
| 315      | Balken   | 73     | 121  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 316      | Balken   | 122    | 73   | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 317      | Balken   | 74     | 122  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 318      | Balken   | 123    | 74   | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 319      | Balken   | 75     | 123  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 320      | Balken   | 124    | 75   | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 321      | Balken   | 76     | 124  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 322      | Balken   | 125    | 76   | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 323      | Balken   | 77     | 125  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 324      | Balken   | 126    | 77   | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 325      | Balken   | 78     | 126  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 326      | Balken   | 127    | 78   | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 327      | Balken   | 79     | 130  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 328      | Balken   | 131    | 79   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 329      | Balken   | 80     | 131  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 330      | Balken   | 132    | 80   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 331      | Balken   | 81     | 132  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 332      | Balken   | 133    | 81   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 333      | Balken   | 82     | 133  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 334      | Balken   | 134    | 82   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 335      | Balken   | 83     | 134  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 336      | Balken   | 135    | 83   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 339      | Balken   | 85     | 136  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 340      | Balken   | 137    | 85   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 341      | Balken   | 86     | 137  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 342      | Balken   | 138    | 86   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 343      | Balken   | 87     | 138  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 344      | Balken   | 139    | 87   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 345      | Balken   | 88     | 139  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 346      | Balken   | 140    | 88   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 347      | Balken   | 89     | 140  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 348      | Balken   | 141    | 89   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 349      | Balken   | 90     | 177  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 350      | Balken   | 178    | 90   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 351      | Balken   | 91     | 178  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 352      | Balken   | 179    | 91   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 353      | Balken   | 92     | 179  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 354      | Balken   | 180    | 92   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 355      | Balken   | 93     | 180  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 356      | Balken   | 181    | 93   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 357      | Balken   | 94     | 181  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 358      | Balken   | 182    | 94   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 359      | Balken   | 95     | 182  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 360      | Balken   | 183    | 95   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 363      | Balken   | 97     | 184  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 364      | Balken   | 185    | 97   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 365      | Balken   | 98     | 185  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 366      | Balken   | 186    | 98   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 367      | Balken   | 99     | 186  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 368      | Balken   | 187    | 99   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 369      | Balken   | 100    | 187  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 370      | Balken   | 188    | 100  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 371      | Balken   | 102    | 101  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 372      | Balken   | 103    | 102  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 373      | Balken   | 104    | 400  | 0.00     | 1           | 1    | -      | -    | -         | 0.250     | VERT      |
| 374      | Balken   | 105    | 104  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 375      | Balken   | 106    | 105  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 376      | Balken   | 107    | 252  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 377      | Balken   | 108    | 107  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 378      | Balken   | 109    | 108  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 379      | Balken   | 110    | 399  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 380      | Balken   | 111    | 110  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 381      | Balken   | 112    | 111  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 382      | Balken   | 113    | 112  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 383      | Balken   | 114    | 113  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 384      | Balken   | 126    | 102  | 90.00    | 13          | 13   | 1      | -    | -         | 0.135     | HORI      |
| 385      | Balken   | 127    | 103  | 90.00    | 13          | 13   | 1      | -    | -         | 0.135     | HORI      |
| 386      | Balken   | 116    | 115  | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |
| 387      | Balken   | 117    | 116  | 0.00     | 15          | 15   | -      | -    | -         | 0.500     | VERT      |
| 388      | Balken   | 118    | 407  | 0.00     | 4           | 4    | -      | -    | -         | 0.250     | VERT      |
| 389      | Balken   | 119    | 118  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 390      | Balken   | 120    | 119  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 391      | Balken   | 121    | 326  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 392      | Balken   | 122    | 121  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 393      | Balken   | 123    | 122  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 394      | Balken   | 124    | 123  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 395      | Balken   | 125    | 124  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 396      | Balken   | 126    | 405  | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |
| 397      | Balken   | 127    | 126  | 0.00     | 15          | 15   | -      | -    | -         | 0.500     | VERT      |
| 398      | Balken   | 128    | 127  | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |
| 399      | Balken   | 140    | 116  | 90.00    | 13          | 13   | 1      | -    | -         | 0.120     | HORI      |
| 400      | Balken   | 141    | 117  | 90.00    | 13          | 13   | 1      | -    | -         | 0.120     | HORI      |
| 401      | Balken   | 130    | 129  | 0.00     | 7           | 7    | -      | -    | -         | 0.250     | VERT      |
| 402      | Balken   | 131    | 130  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 403      | Balken   | 132    | 131  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 404      | Balken   | 133    | 132  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 405      | Balken   | 134    | 133  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 406      | Balken   | 135    | 134  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 407      | Balken   | 136    | 354  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 408      | Balken   | 137    | 136  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 409      | Balken   | 138    | 137  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 410      | Balken   | 139    | 138  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 411      | Balken   | 140    | 139  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 412      | Balken   | 141    | 140  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 413      | Balken   | 142    | 141  | 0.00     | 7           | 7    | -      | -    | -         | 0.250     | VERT      |
| 414      | Balken   | 235    | 55   | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 415      | Balken   | 236    | 56   | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 416      | Balken   | 237    | 57   | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 417      | Balken   | 238    | 58   | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 418      | Balken   | 239    | 59   | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 419      | Balken   | 240    | 60   | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 420      | Balken   | 241    | 61   | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 421      | Balken   | 242    | 62   | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 422      | Balken   | 243    | 63   | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 423      | Balken   | 244    | 64   | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 424      | Balken   | 245    | 65   | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 425      | Balken   | 246    | 66   | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 426      | Balken   | 260    | 30   | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 427      | Balken   | 261    | 31   | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 428      | Balken   | 262    | 32   | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 429      | Balken   | 263    | 33   | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 430      | Balken   | 264    | 34   | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 431      | Balken   | 265    | 35   | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 432      | Balken   | 266    | 36   | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 433      | Balken   | 267    | 37   | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 434      | Balken   | 268    | 38   | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 435      | Balken   | 269    | 39   | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 436      | Balken   | 270    | 40   | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 437      | Balken   | 271    | 41   | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 438      | Balken   | 274    | 16   | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 439      | Balken   | 275    | 17   | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 440      | Balken   | 276    | 18   | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 441      | Balken   | 277    | 19   | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 442      | Balken   | 278    | 20   | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 443      | Balken   | 279    | 21   | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 444      | Balken   | 280    | 22   | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 445      | Balken   | 281    | 23   | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 446      | Balken   | 282    | 24   | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 447      | Balken   | 283    | 25   | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 448      | Balken   | 284    | 26   | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 449      | Balken   | 285    | 27   | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 450      | Balken   | 187    | 130  | 90.00    | 13          | 13   | 1      | -    | -         | 0.102     | HORI      |
| 451      | Balken   | 188    | 131  | 90.00    | 13          | 13   | 1      | -    | -         | 0.102     | HORI      |
| 452      | Balken   | 177    | 176  | 0.00     | 10          | 10   | -      | -    | -         | 0.250     | VERT      |
| 453      | Balken   | 178    | 177  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 454      | Balken   | 179    | 178  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 455      | Balken   | 180    | 179  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 456      | Balken   | 181    | 180  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 457      | Balken   | 182    | 181  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 458      | Balken   | 183    | 182  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 459      | Balken   | 184    | 378  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 460      | Balken   | 185    | 184  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 461      | Balken   | 186    | 185  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 462      | Balken   | 187    | 186  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 463      | Balken   | 188    | 187  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 464      | Balken   | 189    | 188  | 0.00     | 10          | 10   | -      | -    | -         | 0.250     | VERT      |
| 465      | Balken   | 288    | 2    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 466      | Balken   | 289    | 3    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 467      | Balken   | 290    | 4    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 468      | Balken   | 291    | 5    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 469      | Balken   | 292    | 6    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 470      | Balken   | 293    | 7    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 471      | Balken   | 294    | 8    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 472      | Balken   | 295    | 9    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 473      | Balken   | 296    | 10   | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 474      | Balken   | 297    | 11   | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 475      | Balken   | 298    | 12   | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 476      | Balken   | 299    | 13   | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 477      | Balken   | 201    | 177  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 478      | Balken   | 178    | 201  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 479      | Balken   | 202    | 178  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 480      | Balken   | 179    | 202  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 481      | Balken   | 203    | 179  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 482      | Balken   | 180    | 203  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 483      | Balken   | 204    | 180  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 484      | Balken   | 181    | 204  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 485      | Balken   | 205    | 181  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 486      | Balken   | 182    | 205  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 487      | Balken   | 206    | 182  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 488      | Balken   | 183    | 206  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 489      | Balken   | 378    | 379  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 490      | Balken   | 379    | 380  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 491      | Balken   | 208    | 184  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 492      | Balken   | 185    | 208  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 493      | Balken   | 209    | 185  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 494      | Balken   | 186    | 209  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 495      | Balken   | 210    | 186  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 496      | Balken   | 187    | 210  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |          |           |           |
| 497      | Balken   | 211    | 187  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 498      | Balken   | 188    | 211  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 499      | Balken   | 212    | 130  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 500      | Balken   | 131    | 212  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 501      | Balken   | 213    | 131  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 502      | Balken   | 132    | 213  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 503      | Balken   | 214    | 132  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 504      | Balken   | 133    | 214  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 505      | Balken   | 215    | 133  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 506      | Balken   | 134    | 215  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 507      | Balken   | 216    | 134  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 508      | Balken   | 135    | 216  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 509      | Balken   | 354    | 355  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 510      | Balken   | 355    | 356  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 511      | Balken   | 218    | 136  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 512      | Balken   | 137    | 218  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 513      | Balken   | 219    | 137  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 514      | Balken   | 138    | 219  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 515      | Balken   | 220    | 138  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 516      | Balken   | 139    | 220  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 517      | Balken   | 221    | 139  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 518      | Balken   | 140    | 221  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 519      | Balken   | 222    | 140  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 520      | Balken   | 141    | 222  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 521      | Balken   | 223    | 116  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 522      | Balken   | 117    | 223  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 523      | Balken   | 224    | 117  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 524      | Balken   | 118    | 224  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 525      | Balken   | 225    | 118  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 526      | Balken   | 119    | 225  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 527      | Balken   | 226    | 119  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 528      | Balken   | 120    | 226  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 529      | Balken   | 326    | 327  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 530      | Balken   | 327    | 328  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 531      | Balken   | 228    | 121  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 532      | Balken   | 122    | 228  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 533      | Balken   | 229    | 122  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 534      | Balken   | 123    | 229  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 535      | Balken   | 230    | 123  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 536      | Balken   | 124    | 230  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 537      | Balken   | 231    | 124  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 538      | Balken   | 125    | 231  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 539      | Balken   | 232    | 125  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 540      | Balken   | 126    | 232  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 541      | Balken   | 233    | 126  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 542      | Balken   | 127    | 233  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 543      | Balken   | 143    | 235  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 544      | Balken   | 236    | 143  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 545      | Balken   | 144    | 236  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 546      | Balken   | 237    | 144  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 547      | Balken   | 145    | 237  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 548      | Balken   | 238    | 145  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 549      | Balken   | 146    | 238  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 550      | Balken   | 239    | 146  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 551      | Balken   | 147    | 239  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 552      | Balken   | 240    | 147  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 553      | Balken   | 148    | 240  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 554      | Balken   | 241    | 148  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 555      | Balken   | 380    | 381  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 556      | Balken   | 381    | 183  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 557      | Balken   | 150    | 242  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 558      | Balken   | 243    | 150  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 559      | Balken   | 151    | 243  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 560      | Balken   | 244    | 151  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 561      | Balken   | 152    | 244  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 562      | Balken   | 245    | 152  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 563      | Balken   | 153    | 245  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 564      | Balken   | 246    | 153  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 565      | Balken   | 177    | 235  | 0.00     | 11          | 11   | -      | -    | -        | 0.365     | HORI      |
| 566      | Balken   | 178    | 236  | 0.00     | 11          | 11   | -      | -    | -        | 0.365     | HORI      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 567      | Balken   | 179    | 237  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 568      | Balken   | 180    | 238  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 569      | Balken   | 181    | 239  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 570      | Balken   | 182    | 240  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 571      | Balken   | 183    | 241  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 572      | Balken   | 184    | 242  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 573      | Balken   | 185    | 243  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 574      | Balken   | 186    | 244  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 575      | Balken   | 187    | 245  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 576      | Balken   | 188    | 246  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 577      | Balken   | 102    | 248  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 578      | Balken   | 248    | 103  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 579      | Balken   | 103    | 249  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 580      | Balken   | 249    | 104  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 581      | Balken   | 104    | 250  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 582      | Balken   | 250    | 105  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 583      | Balken   | 105    | 251  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 584      | Balken   | 251    | 106  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 585      | Balken   | 252    | 303  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 586      | Balken   | 303    | 304  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 587      | Balken   | 107    | 253  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 588      | Balken   | 253    | 108  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 589      | Balken   | 108    | 254  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 590      | Balken   | 254    | 109  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 591      | Balken   | 109    | 255  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 592      | Balken   | 255    | 110  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 593      | Balken   | 110    | 256  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 594      | Balken   | 256    | 111  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 595      | Balken   | 111    | 257  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 596      | Balken   | 257    | 112  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 597      | Balken   | 112    | 258  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 598      | Balken   | 258    | 113  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 599      | Balken   | 130    | 260  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 600      | Balken   | 131    | 261  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 601      | Balken   | 132    | 262  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 602      | Balken   | 133    | 263  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 603      | Balken   | 134    | 264  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 604      | Balken   | 135    | 265  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 605      | Balken   | 136    | 266  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 606      | Balken   | 137    | 267  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 607      | Balken   | 138    | 268  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 608      | Balken   | 139    | 269  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 609      | Balken   | 140    | 270  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 610      | Balken   | 141    | 271  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 611      | Balken   | 154    | 260  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 612      | Balken   | 261    | 154  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 613      | Balken   | 262    | 155  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 614      | Balken   | 263    | 156  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 615      | Balken   | 264    | 157  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 616      | Balken   | 265    | 158  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 617      | Balken   | 356    | 357  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 618      | Balken   | 267    | 160  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 619      | Balken   | 268    | 161  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 620      | Balken   | 269    | 162  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 621      | Balken   | 270    | 163  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 622      | Balken   | 271    | 164  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 623      | Balken   | 201    | 235  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 624      | Balken   | 236    | 201  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 625      | Balken   | 202    | 236  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 626      | Balken   | 237    | 202  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 627      | Balken   | 203    | 237  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 628      | Balken   | 238    | 203  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 629      | Balken   | 204    | 238  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 630      | Balken   | 239    | 204  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 631      | Balken   | 205    | 239  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 632      | Balken   | 240    | 205  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 633      | Balken   | 206    | 240  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 634      | Balken   | 241    | 206  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 635      | Balken   | 399    | 109  | 0.00     | 1           | 1    | -      | -    | -         | 0.250     | VERT      |
| 636      | Balken   | 400    | 103  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |          |           |           |
| 637      | Balken   | 208    | 242  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 638      | Balken   | 243    | 208  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 639      | Balken   | 209    | 243  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 640      | Balken   | 244    | 209  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 641      | Balken   | 210    | 244  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 642      | Balken   | 245    | 210  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 643      | Balken   | 211    | 245  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 644      | Balken   | 246    | 211  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 645      | Balken   | 116    | 274  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 646      | Balken   | 117    | 275  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 647      | Balken   | 118    | 276  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 648      | Balken   | 119    | 277  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 649      | Balken   | 120    | 278  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 650      | Balken   | 121    | 279  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 651      | Balken   | 122    | 280  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 652      | Balken   | 123    | 281  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 653      | Balken   | 124    | 282  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 654      | Balken   | 125    | 283  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 655      | Balken   | 126    | 284  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 656      | Balken   | 127    | 285  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 657      | Balken   | 165    | 274  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 658      | Balken   | 275    | 165  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 659      | Balken   | 166    | 275  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 660      | Balken   | 276    | 166  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 661      | Balken   | 167    | 276  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 662      | Balken   | 277    | 167  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 663      | Balken   | 168    | 277  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 664      | Balken   | 278    | 168  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 665      | Balken   | 328    | 329  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 666      | Balken   | 329    | 120  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 667      | Balken   | 170    | 279  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 668      | Balken   | 280    | 170  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 669      | Balken   | 171    | 280  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 670      | Balken   | 281    | 171  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 671      | Balken   | 172    | 281  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 672      | Balken   | 282    | 172  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 673      | Balken   | 173    | 282  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 674      | Balken   | 283    | 173  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 675      | Balken   | 174    | 283  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 676      | Balken   | 284    | 174  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 677      | Balken   | 175    | 284  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 678      | Balken   | 285    | 175  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 679      | Balken   | 212    | 260  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 680      | Balken   | 261    | 212  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 681      | Balken   | 213    | 261  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 682      | Balken   | 262    | 213  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 683      | Balken   | 214    | 262  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 684      | Balken   | 263    | 214  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 685      | Balken   | 215    | 263  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 686      | Balken   | 264    | 215  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 687      | Balken   | 216    | 264  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 688      | Balken   | 265    | 216  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 689      | Balken   | 357    | 135  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 690      | Balken   | 405    | 125  | 0.00     | 4           | 4    | -      | -    | -        | 0.250     | VERT      |
| 691      | Balken   | 218    | 266  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 692      | Balken   | 267    | 218  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 693      | Balken   | 219    | 267  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 694      | Balken   | 268    | 219  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 695      | Balken   | 220    | 268  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 696      | Balken   | 269    | 220  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 697      | Balken   | 221    | 269  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 698      | Balken   | 270    | 221  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 699      | Balken   | 222    | 270  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 700      | Balken   | 271    | 222  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 701      | Balken   | 235    | 234  | 0.00     | 10          | 10   | -      | -    | -        | 0.250     | VERT      |
| 702      | Balken   | 236    | 235  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 703      | Balken   | 237    | 236  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 704      | Balken   | 238    | 237  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 705      | Balken   | 239    | 238  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 706      | Balken   | 240    | 239  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |          |           |           |
| 707      | Balken   | 241    | 240  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 708      | Balken   | 242    | 374  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 709      | Balken   | 243    | 242  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 710      | Balken   | 244    | 243  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 711      | Balken   | 245    | 244  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 712      | Balken   | 246    | 245  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 713      | Balken   | 247    | 246  | 0.00     | 10          | 10   | -      | -    | -        | 0.250     | VERT      |
| 714      | Balken   | 102    | 288  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 715      | Balken   | 103    | 289  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 716      | Balken   | 104    | 290  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 717      | Balken   | 105    | 291  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 718      | Balken   | 106    | 292  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 719      | Balken   | 107    | 293  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 720      | Balken   | 108    | 294  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 721      | Balken   | 109    | 295  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 722      | Balken   | 110    | 296  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 723      | Balken   | 111    | 297  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 724      | Balken   | 112    | 298  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 725      | Balken   | 113    | 299  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 726      | Balken   | 190    | 288  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 727      | Balken   | 289    | 190  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 728      | Balken   | 191    | 289  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 729      | Balken   | 290    | 191  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 730      | Balken   | 192    | 290  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 731      | Balken   | 291    | 192  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 732      | Balken   | 193    | 291  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 733      | Balken   | 292    | 193  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 734      | Balken   | 304    | 305  | 0.00     | 1           | 1    | -      | -    | -        | 0.500     | VERT      |
| 735      | Balken   | 305    | 106  | 0.00     | 1           | 1    | -      | -    | -        | 0.500     | VERT      |
| 736      | Balken   | 195    | 293  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 737      | Balken   | 294    | 195  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 738      | Balken   | 196    | 294  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 739      | Balken   | 295    | 196  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 740      | Balken   | 197    | 295  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 741      | Balken   | 296    | 197  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 742      | Balken   | 198    | 296  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 743      | Balken   | 297    | 198  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 744      | Balken   | 199    | 297  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 745      | Balken   | 298    | 199  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 746      | Balken   | 200    | 298  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 747      | Balken   | 299    | 200  | 0.00     | 3           | 3    | -      | -    | -        | 0.553     | ALLG      |
| 748      | Balken   | 260    | 245  | 90.00    | 13          | 13   | 1      | -    | -        | 0.103     | HORI      |
| 749      | Balken   | 261    | 246  | 90.00    | 13          | 13   | -      | 1    | -        | 0.103     | HORI      |
| 750      | Balken   | 223    | 274  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 751      | Balken   | 275    | 223  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 752      | Balken   | 224    | 275  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 753      | Balken   | 276    | 224  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 754      | Balken   | 225    | 276  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 755      | Balken   | 277    | 225  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 756      | Balken   | 226    | 277  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 757      | Balken   | 278    | 226  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 758      | Balken   | 374    | 375  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 759      | Balken   | 375    | 376  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 760      | Balken   | 228    | 279  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 761      | Balken   | 280    | 228  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 762      | Balken   | 229    | 280  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 763      | Balken   | 281    | 229  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 764      | Balken   | 230    | 281  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 765      | Balken   | 282    | 230  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 766      | Balken   | 231    | 282  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 767      | Balken   | 283    | 231  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 768      | Balken   | 232    | 283  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 769      | Balken   | 284    | 232  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 770      | Balken   | 233    | 284  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 771      | Balken   | 285    | 233  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 772      | Balken   | 260    | 259  | 0.00     | 7           | 7    | -      | -    | -        | 0.250     | VERT      |
| 773      | Balken   | 261    | 260  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 774      | Balken   | 262    | 261  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 775      | Balken   | 263    | 262  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 776      | Balken   | 264    | 263  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 777      | Balken   | 265    | 264  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 778      | Balken   | 266    | 350  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 779      | Balken   | 267    | 266  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 780      | Balken   | 268    | 267  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 781      | Balken   | 269    | 268  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 782      | Balken   | 270    | 269  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 783      | Balken   | 271    | 270  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 784      | Balken   | 272    | 271  | 0.00     | 7           | 7    | -      | -    | -         | 0.250     | VERT      |
| 785      | Balken   | 270    | 274  | 90.00    | 13          | 13   | 1      | -    | -         | 0.120     | HORI      |
| 786      | Balken   | 271    | 275  | 90.00    | 13          | 13   | 1      | -    | -         | 0.120     | HORI      |
| 787      | Balken   | 288    | 248  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 788      | Balken   | 248    | 289  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 789      | Balken   | 289    | 249  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 790      | Balken   | 249    | 290  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 791      | Balken   | 290    | 250  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 792      | Balken   | 250    | 291  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 793      | Balken   | 291    | 251  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 794      | Balken   | 251    | 292  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 795      | Balken   | 350    | 351  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 796      | Balken   | 351    | 352  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 797      | Balken   | 293    | 253  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 798      | Balken   | 253    | 294  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 799      | Balken   | 294    | 254  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 800      | Balken   | 254    | 295  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 801      | Balken   | 295    | 255  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 802      | Balken   | 255    | 296  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 803      | Balken   | 296    | 256  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 804      | Balken   | 256    | 297  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 805      | Balken   | 297    | 257  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 806      | Balken   | 257    | 298  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 807      | Balken   | 298    | 258  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 808      | Balken   | 258    | 299  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 809      | Balken   | 274    | 273  | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |
| 810      | Balken   | 275    | 274  | 0.00     | 15          | 15   | -      | -    | -         | 0.500     | VERT      |
| 811      | Balken   | 276    | 408  | 0.00     | 4           | 4    | -      | -    | -         | 0.250     | VERT      |
| 812      | Balken   | 277    | 276  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 813      | Balken   | 278    | 277  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 814      | Balken   | 279    | 330  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 815      | Balken   | 280    | 279  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 816      | Balken   | 281    | 280  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 817      | Balken   | 282    | 281  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 818      | Balken   | 283    | 282  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 819      | Balken   | 284    | 404  | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |
| 820      | Balken   | 285    | 284  | 0.00     | 15          | 15   | -      | -    | -         | 0.500     | VERT      |
| 821      | Balken   | 286    | 285  | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |
| 822      | Balken   | 284    | 288  | 90.00    | 13          | 13   | 1      | -    | -         | 0.136     | HORI      |
| 823      | Balken   | 285    | 289  | 90.00    | 13          | 13   | 1      | -    | -         | 0.136     | HORI      |
| 824      | Balken   | 288    | 287  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 825      | Balken   | 289    | 288  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 826      | Balken   | 290    | 402  | 0.00     | 1           | 1    | -      | -    | -         | 0.250     | VERT      |
| 827      | Balken   | 291    | 290  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 828      | Balken   | 292    | 291  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 829      | Balken   | 293    | 306  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 830      | Balken   | 294    | 293  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 831      | Balken   | 295    | 294  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 832      | Balken   | 296    | 398  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 833      | Balken   | 297    | 296  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 834      | Balken   | 298    | 297  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 835      | Balken   | 299    | 298  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 836      | Balken   | 300    | 299  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 837      | Balken   | 156    | 262  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 838      | Balken   | 155    | 261  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 839      | Balken   | 157    | 263  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 840      | Balken   | 158    | 264  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 841      | Balken   | 352    | 353  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 842      | Balken   | 160    | 266  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 843      | Balken   | 161    | 267  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 844      | Balken   | 162    | 268  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 845      | Balken   | 163    | 269  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 846      | Balken   | 164    | 270  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |          |           |           |
| 847      | Balken   | 306    | 307  | 0.00     | 1           | 1    | -      | -    | -        | 0.500     | VERT      |
| 848      | Balken   | 307    | 308  | 0.00     | 1           | 1    | -      | -    | -        | 0.500     | VERT      |
| 849      | Balken   | 308    | 309  | 0.00     | 1           | 1    | -      | -    | -        | 0.500     | VERT      |
| 850      | Balken   | 309    | 292  | 0.00     | 1           | 1    | -      | -    | -        | 0.500     | VERT      |
| 851      | Balken   | 302    | 305  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 852      | Balken   | 305    | 309  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 853      | Balken   | 309    | 302  | 0.00     | 2           | 2    | -      | -    | -        | 0.985     | HORI      |
| 854      | Balken   | 301    | 304  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 855      | Balken   | 304    | 308  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 856      | Balken   | 308    | 301  | 0.00     | 2           | 2    | -      | -    | -        | 0.985     | HORI      |
| 857      | Balken   | 194    | 303  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 858      | Balken   | 303    | 307  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 859      | Balken   | 307    | 194  | 0.00     | 2           | 2    | -      | -    | -        | 0.985     | HORI      |
| 860      | Balken   | 47     | 252  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 861      | Balken   | 252    | 306  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 862      | Balken   | 306    | 47   | 0.00     | 2           | 2    | -      | -    | -        | 0.985     | HORI      |
| 863      | Balken   | 302    | 310  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 864      | Balken   | 305    | 312  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 865      | Balken   | 309    | 311  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 866      | Balken   | 310    | 106  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 867      | Balken   | 311    | 6    | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 868      | Balken   | 312    | 292  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 869      | Balken   | 305    | 310  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 870      | Balken   | 310    | 6    | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 871      | Balken   | 302    | 311  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 872      | Balken   | 311    | 292  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 873      | Balken   | 309    | 312  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 874      | Balken   | 312    | 106  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 875      | Balken   | 301    | 313  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 876      | Balken   | 194    | 314  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 877      | Balken   | 47     | 315  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 878      | Balken   | 7      | 316  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 879      | Balken   | 313    | 305  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 880      | Balken   | 314    | 304  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 881      | Balken   | 315    | 303  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 882      | Balken   | 316    | 252  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 883      | Balken   | 304    | 313  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 884      | Balken   | 313    | 302  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 885      | Balken   | 303    | 314  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 886      | Balken   | 314    | 301  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 887      | Balken   | 252    | 315  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 888      | Balken   | 315    | 194  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 889      | Balken   | 107    | 316  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 890      | Balken   | 316    | 47   | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 891      | Balken   | 7      | 320  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 892      | Balken   | 47     | 319  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 893      | Balken   | 194    | 318  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 894      | Balken   | 301    | 317  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 895      | Balken   | 317    | 309  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 896      | Balken   | 318    | 308  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 897      | Balken   | 319    | 307  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 898      | Balken   | 320    | 306  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 899      | Balken   | 293    | 320  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 900      | Balken   | 320    | 47   | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 901      | Balken   | 306    | 319  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 902      | Balken   | 319    | 194  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 903      | Balken   | 307    | 318  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 904      | Balken   | 318    | 301  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 905      | Balken   | 308    | 317  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 906      | Balken   | 317    | 302  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 907      | Balken   | 308    | 321  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 908      | Balken   | 307    | 322  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 909      | Balken   | 306    | 323  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 910      | Balken   | 293    | 324  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 911      | Balken   | 321    | 305  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 912      | Balken   | 322    | 304  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 913      | Balken   | 323    | 303  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 914      | Balken   | 324    | 252  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 915      | Balken   | 252    | 323  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 916      | Balken   | 323    | 307  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 917      | Balken   | 107    | 324  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 918      | Balken   | 324    | 306  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 919      | Balken   | 303    | 322  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 920      | Balken   | 322    | 308  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 921      | Balken   | 304    | 321  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 922      | Balken   | 321    | 309  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 923      | Balken   | 330    | 331  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 924      | Balken   | 331    | 332  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 925      | Balken   | 332    | 333  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 926      | Balken   | 333    | 278  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 927      | Balken   | 325    | 329  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 928      | Balken   | 329    | 333  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 929      | Balken   | 333    | 325  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 930      | Balken   | 227    | 328  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 931      | Balken   | 328    | 332  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 932      | Balken   | 332    | 227  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 933      | Balken   | 169    | 327  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 934      | Balken   | 327    | 331  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 935      | Balken   | 331    | 169  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 936      | Balken   | 72     | 326  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 937      | Balken   | 326    | 330  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 938      | Balken   | 330    | 72   | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 939      | Balken   | 325    | 334  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 940      | Balken   | 227    | 335  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 941      | Balken   | 169    | 336  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 942      | Balken   | 72     | 337  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 943      | Balken   | 21     | 338  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 944      | Balken   | 334    | 120  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 945      | Balken   | 335    | 329  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 946      | Balken   | 336    | 328  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 947      | Balken   | 337    | 327  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 948      | Balken   | 338    | 326  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 949      | Balken   | 329    | 334  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 950      | Balken   | 334    | 20   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 951      | Balken   | 328    | 335  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 952      | Balken   | 335    | 325  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 953      | Balken   | 327    | 336  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 954      | Balken   | 336    | 227  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 955      | Balken   | 326    | 337  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 956      | Balken   | 337    | 169  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 957      | Balken   | 121    | 338  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 958      | Balken   | 338    | 72   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 959      | Balken   | 329    | 339  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 960      | Balken   | 328    | 340  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 961      | Balken   | 327    | 341  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 962      | Balken   | 326    | 342  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 963      | Balken   | 121    | 343  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 964      | Balken   | 339    | 278  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 965      | Balken   | 340    | 333  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 966      | Balken   | 341    | 332  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 967      | Balken   | 342    | 331  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 968      | Balken   | 343    | 330  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 969      | Balken   | 333    | 339  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 970      | Balken   | 339    | 120  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 971      | Balken   | 332    | 340  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 972      | Balken   | 340    | 329  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 973      | Balken   | 331    | 341  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 974      | Balken   | 341    | 328  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 975      | Balken   | 330    | 342  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 976      | Balken   | 342    | 327  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 977      | Balken   | 279    | 343  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 978      | Balken   | 343    | 326  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 979      | Balken   | 21     | 348  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 980      | Balken   | 72     | 347  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 981      | Balken   | 169    | 346  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 982      | Balken   | 227    | 345  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 983      | Balken   | 325    | 344  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 984      | Balken   | 344    | 278  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 985      | Balken   | 345    | 333  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 986      | Balken   | 346    | 332  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 987      | Balken   | 347    | 331  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 988      | Balken   | 348    | 330  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 989      | Balken   | 333    | 344  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 990      | Balken   | 344    | 20   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 991      | Balken   | 332    | 345  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 992      | Balken   | 345    | 325  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 993      | Balken   | 331    | 346  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 994      | Balken   | 346    | 227  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 995      | Balken   | 330    | 347  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 996      | Balken   | 347    | 169  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 997      | Balken   | 279    | 348  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 998      | Balken   | 348    | 72   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 999      | Balken   | 353    | 265  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 1000     | Balken   | 349    | 357  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 1001     | Balken   | 357    | 353  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 1002     | Balken   | 353    | 349  | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 1003     | Balken   | 217    | 356  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 1004     | Balken   | 356    | 352  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 1005     | Balken   | 352    | 217  | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 1006     | Balken   | 159    | 355  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 1007     | Balken   | 355    | 351  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 1008     | Balken   | 351    | 159  | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 1009     | Balken   | 84     | 354  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 1010     | Balken   | 354    | 350  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 1011     | Balken   | 350    | 84   | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 1012     | Balken   | 349    | 358  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1013     | Balken   | 217    | 359  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1014     | Balken   | 159    | 360  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1015     | Balken   | 84     | 361  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1016     | Balken   | 36     | 362  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1017     | Balken   | 358    | 135  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1018     | Balken   | 359    | 357  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1019     | Balken   | 360    | 356  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1020     | Balken   | 361    | 355  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1021     | Balken   | 362    | 354  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1022     | Balken   | 356    | 359  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1023     | Balken   | 359    | 349  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1024     | Balken   | 357    | 358  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1025     | Balken   | 358    | 35   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1026     | Balken   | 355    | 360  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1027     | Balken   | 360    | 217  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1028     | Balken   | 354    | 361  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1029     | Balken   | 361    | 159  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1030     | Balken   | 136    | 362  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1031     | Balken   | 362    | 84   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1032     | Balken   | 353    | 367  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1033     | Balken   | 352    | 363  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1034     | Balken   | 351    | 364  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1035     | Balken   | 350    | 365  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1036     | Balken   | 266    | 366  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1037     | Balken   | 363    | 357  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1038     | Balken   | 364    | 356  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1039     | Balken   | 365    | 355  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1040     | Balken   | 366    | 354  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1041     | Balken   | 367    | 135  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1042     | Balken   | 265    | 367  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1043     | Balken   | 367    | 357  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1044     | Balken   | 353    | 363  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1045     | Balken   | 363    | 356  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1046     | Balken   | 352    | 364  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1047     | Balken   | 364    | 355  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1048     | Balken   | 351    | 365  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1049     | Balken   | 365    | 354  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1050     | Balken   | 350    | 366  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1051     | Balken   | 366    | 136  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1052     | Balken   | 266    | 372  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1053     | Balken   | 350    | 371  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1054     | Balken   | 351    | 370  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1055     | Balken   | 352    | 369  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1056     | Balken   | 353    | 368  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 1057     | Balken   | 368    | 35   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1058     | Balken   | 369    | 349  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1059     | Balken   | 370    | 217  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1060     | Balken   | 371    | 159  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1061     | Balken   | 372    | 84   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1062     | Balken   | 349    | 368  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1063     | Balken   | 368    | 265  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1064     | Balken   | 217    | 369  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1065     | Balken   | 369    | 353  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1066     | Balken   | 159    | 370  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1067     | Balken   | 370    | 352  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1068     | Balken   | 84     | 371  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1069     | Balken   | 371    | 351  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1070     | Balken   | 36     | 372  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1071     | Balken   | 372    | 350  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1072     | Balken   | 376    | 377  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 1073     | Balken   | 377    | 241  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 1074     | Balken   | 373    | 381  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 1075     | Balken   | 381    | 377  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 1076     | Balken   | 377    | 373  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 1077     | Balken   | 207    | 380  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 1078     | Balken   | 380    | 376  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 1079     | Balken   | 376    | 207  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 1080     | Balken   | 149    | 379  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 1081     | Balken   | 379    | 375  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 1082     | Balken   | 375    | 149  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 1083     | Balken   | 96     | 378  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 1084     | Balken   | 378    | 374  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 1085     | Balken   | 374    | 96   | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 1086     | Balken   | 373    | 382  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1087     | Balken   | 207    | 383  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1088     | Balken   | 149    | 384  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1089     | Balken   | 96     | 385  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1090     | Balken   | 62     | 386  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1091     | Balken   | 382    | 183  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1092     | Balken   | 383    | 381  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1093     | Balken   | 384    | 380  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1094     | Balken   | 385    | 379  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1095     | Balken   | 386    | 378  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1096     | Balken   | 380    | 383  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1097     | Balken   | 383    | 373  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1098     | Balken   | 381    | 382  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1099     | Balken   | 382    | 61   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1100     | Balken   | 379    | 384  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1101     | Balken   | 384    | 207  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1102     | Balken   | 378    | 385  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1103     | Balken   | 385    | 149  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1104     | Balken   | 184    | 386  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1105     | Balken   | 386    | 96   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1106     | Balken   | 377    | 387  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1107     | Balken   | 376    | 391  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1108     | Balken   | 375    | 388  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1109     | Balken   | 374    | 389  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1110     | Balken   | 242    | 390  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1111     | Balken   | 387    | 183  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1112     | Balken   | 388    | 380  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1113     | Balken   | 389    | 379  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1114     | Balken   | 390    | 378  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1115     | Balken   | 381    | 387  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1116     | Balken   | 387    | 241  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1117     | Balken   | 391    | 381  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1118     | Balken   | 380    | 391  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1119     | Balken   | 391    | 377  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1120     | Balken   | 379    | 388  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1121     | Balken   | 388    | 376  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1122     | Balken   | 378    | 389  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1123     | Balken   | 389    | 375  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1124     | Balken   | 184    | 390  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1125     | Balken   | 390    | 374  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1126     | Balken   | 62     | 395  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 1127     | Balken   | 96     | 394  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1128     | Balken   | 149    | 393  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1129     | Balken   | 207    | 396  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1130     | Balken   | 373    | 392  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1131     | Balken   | 392    | 241  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1132     | Balken   | 393    | 376  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1133     | Balken   | 394    | 375  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1134     | Balken   | 395    | 374  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1135     | Balken   | 62     | 395  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1136     | Balken   | 395    | 374  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1137     | Balken   | 96     | 394  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1138     | Balken   | 394    | 375  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1139     | Balken   | 149    | 393  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1140     | Balken   | 393    | 376  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1141     | Balken   | 396    | 377  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1142     | Balken   | 207    | 396  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1143     | Balken   | 396    | 377  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1144     | Balken   | 373    | 392  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1145     | Balken   | 392    | 241  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1146     | Balken   | 375    | 393  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1147     | Balken   | 393    | 207  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1148     | Balken   | 242    | 395  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1149     | Balken   | 395    | 96   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1150     | Balken   | 374    | 394  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1151     | Balken   | 394    | 149  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1152     | Balken   | 376    | 396  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1153     | Balken   | 396    | 373  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1154     | Balken   | 377    | 392  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1155     | Balken   | 392    | 61   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1156     | Balken   | 398    | 295  | 0.00     | 1           | 1    | -      | -    | -         | 0.250     | VERT      |
| 1157     | Balken   | 402    | 289  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 1158     | Balken   | 404    | 283  | 0.00     | 4           | 4    | -      | -    | -         | 0.250     | VERT      |
| 1159     | Balken   | 407    | 117  | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |
| 1160     | Balken   | 408    | 275  | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |

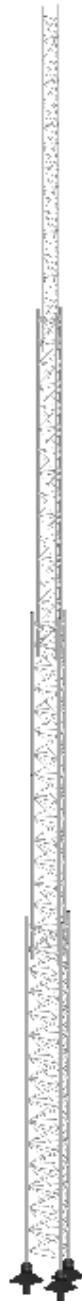
## AUFLAGER

| Lager-Nr. | Gelagerte Knoten | Drehung [°] |      | Festes Auflager bzw. Feder [kN/m] [kNm/rad] |      |      |      |      |      |
|-----------|------------------|-------------|------|---------------------------------------------|------|------|------|------|------|
|           |                  | Alpha       | Beta | in X                                        | in Y | in Z | um X | um Y | um Z |
| 1         | 14,114,300       | 0.0         | 0.0  | Ja                                          | Ja   | Ja   | Nein | Nein | Nein |



STRUKTUR

Isometrie



**BASISANGABEN DER LASTFÄLLE**

| LF-Nr. | LF-Bezeichnung     | Faktor | Überlagerungsart | Eigengewicht |
|--------|--------------------|--------|------------------|--------------|
| 1      | g                  | 1.00   | Ständig          | 1.00         |
| 2      | Wind von der Seite | 1.00   | Ständig          | -            |
| 3      | Wind von vorne     | 1.00   | Ständig          | -            |



## BASISANGABEN DER LASTFÄLLE

| LF-Nr. | LF-Bezeichnung  | Faktor | Überlagerungsart | Eigengewicht |
|--------|-----------------|--------|------------------|--------------|
| 4      | Wind von hinten | 1.00   | Ständig          | -            |

## KNOTENKRÄFTE

LF 2

| Nr. | Belastete Knoten | Knotenkräfte |          |          |
|-----|------------------|--------------|----------|----------|
|     |                  | P-X [kN]     | P-Y [kN] | P-Z [kN] |
| 1   | 55,177,235       | 0.106        | 0.000    | 0.000    |

## STABLASTEN

LF 2

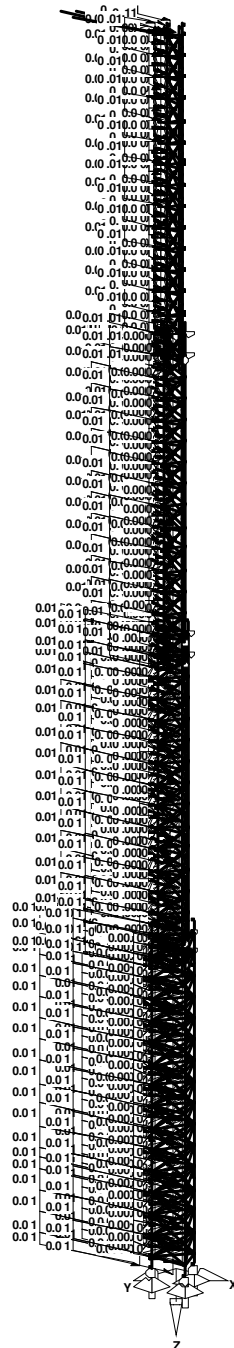
| Nr. | Belastete Stäbe                                                                                                           | Last-art | Last-Richtung | Parameter [kN, kNm, m, °C, kN/m, kNm/m] |  |  |  |
|-----|---------------------------------------------------------------------------------------------------------------------------|----------|---------------|-----------------------------------------|--|--|--|
|     |                                                                                                                           |          |               | P-1                                     |  |  |  |
| 1   | 1-13,37,38,110,111,283,284,371-383,585,586,635,636,734,735,824-836,847-850,1156,1157                                      | 1        | X             | 0.0127                                  |  |  |  |
| 2   | 90-101,465-476,714-725,851-862                                                                                            | 1        | X             | 0.0048                                  |  |  |  |
| 3   | 29-36,39-50,102-109,112-123,249-256,259-270,577-584,587-598,726-733,736-747,787-794,797-808,863-922                       | 1        | X             | 0.0032                                  |  |  |  |
| 4   | 16-28,74,75,179,180,313,314,386-398,529,530,665,666,690,809-821,923-926,1158-1160                                         | 1        | X             | 0.0111                                  |  |  |  |
| 5   | 159-170,438-449,645-656,927-938                                                                                           | 1        | X             | 0.0048                                  |  |  |  |
| 6   | 66-73,76-87,171-178,181-192,305-312,315-326,521-528,531-542,657-664,667-678,750-757,760-771,939-998                       | 1        | X             | 0.0025                                  |  |  |  |
| 7   | 53-65,147,148,237,238,401-413,509,510,617,689,772-784,795,796,841,999                                                     | 1        | X             | 0.008                                   |  |  |  |
| 8   | 215-226,426-437,599-610,1000-1011                                                                                         | 1        | X             | 0.0032                                  |  |  |  |
| 9   | 137-146,149-158,227-236,239-248,327-336,339-348,499-508,511-520,611-616,618-622,679-688,691-700,837-840,842-846,1012-1071 | 1        | X             | 0.0019                                  |  |  |  |
| 10  | 124-136,205,206,257,258,452-464,489,490,555,556,701-713,758,759,1072,1073                                                 | 1        | X             | 0.0056                                  |  |  |  |
| 11  | 293-304,414-425,565-576,1074-1085                                                                                         | 1        | X             | 0.0032                                  |  |  |  |
| 12  | 193-204,207-214,271-282,285-292,349-360,363-370,477-488,491-498,543-554,557-564,623-634,637-644,1086-1155                 | 1        | X             | 0.0019                                  |  |  |  |



2

LF 2 - Winc von der Seite  
[kN], [kN/m]

Iscrethie



## KNOTENKRÄFTE

LF 3

| Nr. | Belastete Knoten | Knotenkräfte |          |          |
|-----|------------------|--------------|----------|----------|
|     |                  | P-X [kN]     | P-Y [kN] | P-Z [kN] |
| 1   | 55,177,235       | 0.000        | -0.106   | 0.000    |



**STABLASTEN**

**LF 3**

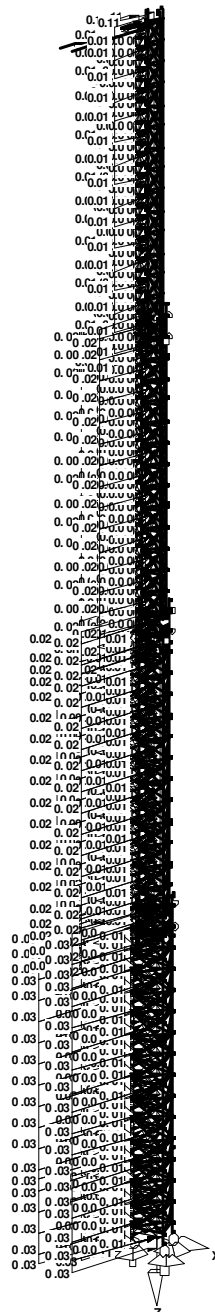
| Nr. | Belastete Stäbe                                                                                                                               | Last-art | Last-Richtung | Parameter [kN, kNm, m, °C, kN/m, kNm/m] | P-1 |  |  |  |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|-----------------------------------------|-----|--|--|--|
| 1   | 1-13,37,38,110,111,283<br>,284,371-383,585,586,635<br>,636,734,735,824-836,847<br>-850,1156,1157                                              | 1        | Y             | -0.026                                  |     |  |  |  |
| 2   | 90-101,465-476,714-725<br>,851-862                                                                                                            | 1        | Y             | -0.0098                                 |     |  |  |  |
| 3   | 29-36,39-50,102-109,112<br>-123,249-256,259-270,577<br>-584,587-598,726-733,736<br>-747,787-794,797-808,863<br>-922                           | 1        | Y             | -0.0065                                 |     |  |  |  |
| 4   | 16-28,74,75,179,180,313<br>,314,386-398,529,530,665<br>,666,690,809-821,923-926<br>-1158-1160                                                 | 1        | Y             | -0.0228                                 |     |  |  |  |
| 5   | 159-170,438-449,645-656<br>,927-938                                                                                                           | 1        | Y             | -0.0098                                 |     |  |  |  |
| 6   | 66-73,76-87,171-178,181<br>-192,305-312,315-326,521<br>-528,531-542,657-664,667<br>-678,750-757,760-771,939<br>-998                           | 1        | Y             | -0.0052                                 |     |  |  |  |
| 7   | 53-65,147,148,237,238<br>,401-413,509,510,617,689<br>,772-784,795,796,841,999                                                                 | 1        | Y             | -0.0163                                 |     |  |  |  |
| 8   | 215-226,426-437,599-610<br>,1000-1011                                                                                                         | 1        | Y             | -0.0065                                 |     |  |  |  |
| 9   | 137-146,149-158,227-236<br>,239-248,327-336,339-348<br>,499-508,511-520,611-616<br>,618-622,679-688,691-700<br>,837-840,842-846,1012<br>-1071 | 1        | Y             | -0.0039                                 |     |  |  |  |
| 10  | 124-136,205,206,257,258<br>,452-464,489,490,555,556<br>,701-713,758,759,1072<br>,1073                                                         | 1        | Y             | -0.0114                                 |     |  |  |  |
| 11  | 293-304,414-425,565-576<br>,1074-1085                                                                                                         | 1        | Y             | -0.0065                                 |     |  |  |  |
| 12  | 193-204,207-214,271-282<br>,285-292,349-360,363-370<br>,477-488,491-498,543-554<br>,557-564,623-634,637-644<br>-1086-1155                     | 1        | Y             | -0.0039                                 |     |  |  |  |



3

LF 3 - Wind von vorne  
[kN], [kN/m]

Isometrie



## KNOTENKRÄFTE

LF 4

| Nr. | Belastete Knoten | Knotenkräfte |          |          |
|-----|------------------|--------------|----------|----------|
|     |                  | P-X [kN]     | P-Y [kN] | P-Z [kN] |
| 1   | 55,177,235       | 0.000        | 0.106    | 0.000    |



**STABLASTEN**

**LF 4**

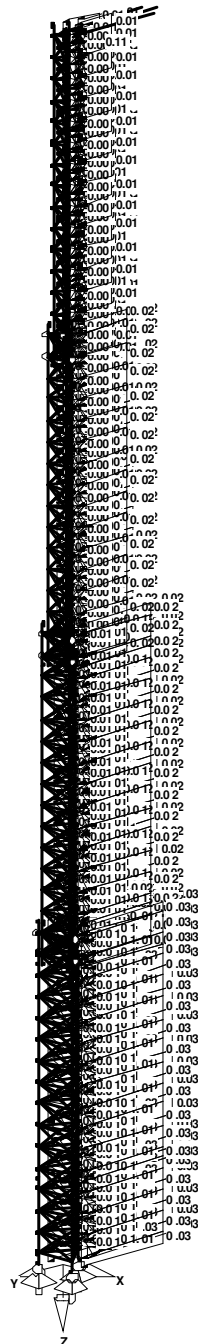
| Nr. | Belastete<br>Stäbe                                                                                                                            | Last-<br>art | Last-<br>Richtung | Parameter [kN, kNm, m, °C, kN/m, kNm/m] | P-1 |  |  |  |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------|-----------------------------------------|-----|--|--|--|
| 1   | 1-13,37,38,110,111,283<br>,284,371-383,585,586,635<br>,636,734,735,824-836,847<br>-850,1156,1157                                              | 1            | Y                 | 0.026                                   |     |  |  |  |
| 2   | 90-101,465-476,714-725<br>,851-862                                                                                                            | 1            | Y                 | 0.0098                                  |     |  |  |  |
| 3   | 29-36,39-50,102-109,112<br>-123,249-256,259-270,577<br>-584,587-598,726-733,736<br>-747,787-794,797-808,863<br>-922                           | 1            | Y                 | 0.0065                                  |     |  |  |  |
| 4   | 16-28,74,75,179,180,313<br>,314,386-398,529,530,665<br>,666,690,809-821,923-926<br>-1158-1160                                                 | 1            | Y                 | 0.0228                                  |     |  |  |  |
| 5   | 159-170,438-449,645-656<br>,927-938                                                                                                           | 1            | Y                 | 0.0098                                  |     |  |  |  |
| 6   | 66-73,76-87,171-178,181<br>-192,305-312,315-326,521<br>-528,531-542,657-664,667<br>-678,750-757,760-771,939<br>-998                           | 1            | Y                 | 0.0052                                  |     |  |  |  |
| 7   | 53-65,147,148,237,238<br>,401-413,509,510,617,689<br>,772-784,795,796,841,999                                                                 | 1            | Y                 | 0.0163                                  |     |  |  |  |
| 8   | 215-226,426-437,599-610<br>,1000-1011                                                                                                         | 1            | Y                 | 0.0065                                  |     |  |  |  |
| 9   | 137-146,149-158,227-236<br>,239-248,327-336,339-348<br>,499-508,511-520,611-616<br>,618-622,679-688,691-700<br>,837-840,842-846,1012<br>-1071 | 1            | Y                 | 0.0039                                  |     |  |  |  |
| 10  | 124-136,205,206,257,258<br>,452-464,489,490,555,556<br>,701-713,758,759,1072<br>,1073                                                         | 1            | Y                 | 0.0114                                  |     |  |  |  |
| 11  | 293-304,414-425,565-576<br>,1074-1085                                                                                                         | 1            | Y                 | 0.0065                                  |     |  |  |  |
| 12  | 193-204,207-214,271-282<br>,285-292,349-360,363-370<br>,477-488,491-498,543-554<br>,557-564,623-634,637-644<br>-1086-1155                     | 1            | Y                 | 0.0039                                  |     |  |  |  |



4

LF 4 - Wind von hinten  
[kN], [kN/m]

Isometrie



## LF-KOMBINATIONEN

| LK-Nr. | LK-Bezeichnung | Kombinationskriterium |
|--------|----------------|-----------------------|
| 1      |                | 2.00*LF1/S + LF2/S    |
| 2      |                | 2.00*LF1/S + LF3/S    |
| 3      |                | 2.00*LF1/S + LF4/S    |



## SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                     | LF/LG-Nr. | Knoten-Nr. | x [m] | Kräfte [kN] |       |      | Momente [kNm] |      |      |
|------------------------------|-----------|------------|-------|-------------|-------|------|---------------|------|------|
|                              |           |            |       | N           | Q-2   | Q-3  | T             | M-2  | M-3  |
| Querschnitt-Nr. 1: Ring 80/5 |           |            |       |             |       |      |               |      |      |
| 635                          | LF4       | MAX N      | .00   | 53.76       | .05   | .00  | .00           | .00  | .07  |
| 635                          | LF3       | MIN N      | .00   | -53.76      | -.05  | .00  | .00           | .00  | -.07 |
| 373                          | LF4       | MAX Q-2    | .00   | 34.98       | 1.89  | .00  | .00           | .00  | .19  |
| 373                          | LF3       | MIN Q-2    | .00   | -34.98      | -1.89 | .00  | .00           | .00  | -.19 |
| 826                          | LF2       | MAX Q-3    | .00   | -19.06      | .52   | .89  | .00           | -.09 | .04  |
| 826                          | LF3       | MIN Q-3    | .00   | 17.48       | -.44  | -.84 | .01           | .07  | -.07 |
| 3                            | LF4       | MAX T      | .00   | -17.50      | .44   | -.83 | .01           | .07  | .07  |
| 3                            | LF3       | MIN T      | .00   | 17.50       | -.44  | .83  | -.01          | -.07 | -.07 |
| 3                            | LF3       | MAX M-2    | .25   | 17.50       | -.44  | .83  | -.01          | .14  | .04  |
| 3                            | LF4       | MIN M-2    | .25   | -17.50      | .44   | -.83 | .01           | -.14 | -.04 |
| 373                          | LF3       | MAX M-3    | .25   | -34.98      | -1.88 | .00  | .00           | .00  | .28  |
| 373                          | LF4       | MIN M-3    | .25   | 34.98       | 1.88  | .00  | .00           | .00  | -.28 |
| Querschnitt-Nr. 2: Ring 30/3 |           |            |       |             |       |      |               |      |      |
| 467                          | LF4       | MAX N      | .99   | .96         | .00   | .00  | .00           | .00  | .00  |
| 467                          | LF3       | MIN N      | .00   | -.96        | .00   | .00  | .00           | .00  | .00  |
| 90                           | LF1       | MAX Q-2    | .98   | -.03        | .00   | .00  | .00           | .00  | .00  |
| 90                           | LF1       | MIN Q-2    | .00   | -.03        | .00   | .00  | .00           | .00  | .00  |
| 90                           | LF3       | MAX Q-3    | .00   | -.08        | .00   | .03  | .00           | -.01 | .00  |
| 90                           | LF4       | MIN Q-3    | .00   | .08         | .00   | -.03 | .00           | .01  | .00  |
| 90                           | LF1       | MAX T      | .98   | -.03        | .00   | .00  | .00           | .00  | .00  |
| 90                           | LF1       | MIN T      | .00   | -.03        | .00   | .00  | .00           | .00  | .00  |
| 90                           | LF3       | MAX M-2    | .98   | -.08        | .00   | .03  | .00           | .01  | .00  |
| 90                           | LF2       | MIN M-2    | .00   | .09         | .00   | .01  | .00           | -.01 | .00  |
| 90                           | LF1       | MAX M-3    | .00   | -.03        | .00   | .00  | .00           | .00  | .00  |
| 90                           | LF1       | MIN M-3    | .98   | -.03        | .00   | .00  | .00           | .00  | .00  |
| Querschnitt-Nr. 3: Kreis 20  |           |            |       |             |       |      |               |      |      |
| 270                          | LF4       | MAX N      | .55   | 2.34        | .00   | .01  | .00           | .00  | .00  |
| 270                          | LF3       | MIN N      | .55   | -2.34       | .00   | -.01 | .00           | .00  | .00  |
| 103                          | LF4       | MAX Q-2    | .00   | -.11        | .01   | -.01 | .00           | .00  | .00  |
| 103                          | LF3       | MIN Q-2    | .00   | .11         | -.01  | .01  | .00           | .00  | .00  |
| 29                           | LF2       | MAX Q-3    | .55   | -.04        | .00   | .01  | .00           | .00  | .00  |
| 31                           | LF4       | MIN Q-3    | .55   | .06         | .00   | -.01 | .00           | .00  | .00  |
| 29                           | LF1       | MAX T      | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 29                           | LF1       | MIN T      | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 249                          | LF3       | MAX M-2    | .55   | .24         | .00   | .01  | .00           | .01  | .00  |
| 249                          | LF4       | MIN M-2    | .55   | -.24        | .00   | -.01 | .00           | -.01 | .00  |
| 29                           | LF1       | MAX M-3    | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 29                           | LF1       | MIN M-3    | .55   | .00         | .00   | .00  | .00           | .00  | .00  |
| Querschnitt-Nr. 4: Ring 70/5 |           |            |       |             |       |      |               |      |      |
| 690                          | LF4       | MAX N      | .00   | 40.19       | .35   | .00  | .00           | .00  | .09  |
| 690                          | LF3       | MIN N      | .00   | -40.19      | -.35  | .00  | .00           | .00  | -.09 |
| 388                          | LF4       | MAX Q-2    | .00   | 21.33       | .94   | .00  | .00           | .00  | .10  |
| 388                          | LF3       | MIN Q-2    | .00   | -21.33      | -.94  | .00  | .00           | .00  | -.10 |
| 18                           | LF2       | MAX Q-3    | .00   | 12.56       | -.28  | .48  | .00           | -.06 | -.03 |
| 18                           | LF4       | MIN Q-3    | .00   | -10.66      | .23   | -.41 | .01           | .04  | .04  |
| 18                           | LF4       | MAX T      | .25   | -10.66      | .22   | -.41 | .01           | -.07 | -.02 |
| 18                           | LF3       | MIN T      | .00   | 10.66       | -.23  | .41  | -.01          | -.04 | -.04 |
| 18                           | LF3       | MAX M-2    | .25   | 10.66       | -.22  | .41  | -.01          | .07  | .02  |
| 18                           | LF4       | MIN M-2    | .25   | -10.66      | .22   | -.41 | .01           | -.07 | -.02 |
| 388                          | LF3       | MAX M-3    | .25   | -21.33      | -.93  | .00  | .00           | .00  | .13  |
| 388                          | LF4       | MIN M-3    | .25   | 21.33       | .93   | .00  | .00           | .00  | -.13 |
| Querschnitt-Nr. 5: Ring 30/3 |           |            |       |             |       |      |               |      |      |
| 449                          | LF4       | MAX N      | .00   | 1.56        | .00   | .00  | .00           | .00  | .00  |
| 449                          | LF3       | MIN N      | .00   | -1.56       | .00   | .00  | .00           | .00  | .00  |
| 159                          | LF1       | MAX Q-2    | .00   | -.01        | .00   | .00  | .00           | .00  | .00  |
| 159                          | LF1       | MIN Q-2    | .00   | -.01        | .00   | .00  | .00           | .00  | .00  |
| 159                          | LF3       | MAX Q-3    | .75   | -.02        | .00   | .04  | .00           | .02  | .00  |
| 159                          | LF4       | MIN Q-3    | .00   | .02         | .00   | -.04 | .00           | .01  | .00  |
| 159                          | LF1       | MAX T      | .00   | -.01        | .00   | .00  | .00           | .00  | .00  |
| 159                          | LF1       | MIN T      | .00   | -.01        | .00   | .00  | .00           | .00  | .00  |
| 159                          | LF3       | MAX M-2    | .75   | -.02        | .00   | .04  | .00           | .02  | .00  |
| 159                          | LF4       | MIN M-2    | .75   | .02         | .00   | -.04 | .00           | -.02 | .00  |
| 159                          | LF1       | MAX M-3    | .00   | -.01        | .00   | .00  | .00           | .00  | .00  |
| 159                          | LF1       | MIN M-3    | .75   | -.01        | .00   | .00  | .00           | .00  | .00  |



## SNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                      | LF/LG-Nr. | Knoten-Nr. | x [m] | Kräfte [kN] |       |      | Momente [kNm] |      |      |
|-------------------------------|-----------|------------|-------|-------------|-------|------|---------------|------|------|
|                               |           |            |       | N           | Q-2   | Q-3  | T             | M-2  | M-3  |
| Querschnitt-Nr. 6: Kreis 16   |           |            |       |             |       |      |               |      |      |
| 771                           | LF4       | MAX N      | .45   | 3.23        | .00   | .00  | .00           | .00  | .00  |
| 771                           | LF3       | MIN N      | .45   | -3.23       | .00   | .00  | .00           | .00  | .00  |
| 66                            | LF1       | MAX Q-2    | .45   | .00         | .00   | .00  | .00           | .00  | .00  |
| 66                            | LF1       | MIN Q-2    | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 171                           | LF4       | MAX Q-3    | .45   | -.08        | .00   | .01  | .00           | .00  | .00  |
| 66                            | LF2       | MIN Q-3    | .00   | -.06        | .00   | -.01 | .00           | .00  | .00  |
| 66                            | LF1       | MAX T      | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 66                            | LF1       | MIN T      | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 66                            | LF1       | MAX M-2    | .27   | .00         | .00   | .00  | .00           | .00  | .00  |
| 66                            | LF1       | MIN M-2    | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 66                            | LF1       | MAX M-3    | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 66                            | LF1       | MIN M-3    | .45   | .00         | .00   | .00  | .00           | .00  | .00  |
| Querschnitt-Nr. 7: Ring 50/5  |           |            |       |             |       |      |               |      |      |
| 411                           | LF4       | MAX N      | .50   | 25.12       | .08   | .00  | .00           | .00  | .01  |
| 411                           | LF3       | MIN N      | .00   | -25.12      | -.09  | .00  | .00           | .00  | -.05 |
| 402                           | LF4       | MAX Q-2    | .00   | 4.50        | 1.17  | .00  | .00           | .00  | .28  |
| 402                           | LF3       | MIN Q-2    | .00   | -4.50       | -1.17 | .00  | .00           | .00  | -.28 |
| 54                            | LF2       | MAX Q-3    | .00   | 3.03        | -.40  | .66  | -.01          | -.16 | -.09 |
| 54                            | LF4       | MIN Q-3    | .00   | -2.20       | .31   | -.56 | -.01          | .13  | .08  |
| 54                            | LF3       | MAX T      | .00   | 2.20        | -.31  | .56  | .01           | -.13 | -.08 |
| 54                            | LF2       | MIN T      | .00   | 3.03        | -.40  | .66  | -.01          | -.16 | -.09 |
| 54                            | LF2       | MAX M-2    | .50   | 3.03        | -.40  | .66  | -.01          | .17  | .11  |
| 54                            | LF2       | MIN M-2    | .00   | 3.03        | -.40  | .66  | -.01          | -.16 | -.09 |
| 402                           | LF3       | MAX M-3    | .50   | -4.50       | -1.16 | .00  | .00           | .00  | .30  |
| 402                           | LF4       | MIN M-3    | .50   | 4.50        | 1.16  | .00  | .00           | .00  | -.30 |
| Querschnitt-Nr. 8: Ring 20/3  |           |            |       |             |       |      |               |      |      |
| 435                           | LF4       | MAX N      | .00   | 1.00        | .00   | .00  | .00           | .00  | .00  |
| 435                           | LF3       | MIN N      | .00   | -1.00       | .00   | .00  | .00           | .00  | .00  |
| 215                           | LF1       | MAX Q-2    | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 215                           | LF1       | MIN Q-2    | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 215                           | LF3       | MAX Q-3    | .00   | .25         | .00   | .02  | .00           | .00  | .00  |
| 215                           | LF4       | MIN Q-3    | .00   | -.25        | .00   | -.02 | .00           | .00  | .00  |
| 215                           | LF1       | MAX T      | .54   | .00         | .00   | .00  | .00           | .00  | .00  |
| 215                           | LF1       | MIN T      | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 215                           | LF3       | MAX M-2    | .54   | .25         | .00   | .02  | .00           | .01  | .00  |
| 215                           | LF4       | MIN M-2    | .54   | -.25        | .00   | -.02 | .00           | -.01 | .00  |
| 215                           | LF1       | MAX M-3    | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 215                           | LF1       | MIN M-3    | .54   | .00         | .00   | .00  | .00           | .00  | .00  |
| Querschnitt-Nr. 9: Kreis 12   |           |            |       |             |       |      |               |      |      |
| 158                           | LF4       | MAX N      | .37   | 2.22        | .00   | .00  | .00           | .00  | .00  |
| 158                           | LF3       | MIN N      | .37   | -2.22       | .00   | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MAX Q-2    | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MIN Q-2    | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MAX Q-3    | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MIN Q-3    | .37   | .00         | .00   | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MAX T      | .37   | .00         | .00   | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MIN T      | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MAX M-2    | .26   | .00         | .00   | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MIN M-2    | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MAX M-3    | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MIN M-3    | .37   | .00         | .00   | .00  | .00           | .00  | .00  |
| Querschnitt-Nr. 10: Ring 35/5 |           |            |       |             |       |      |               |      |      |
| 462                           | LF4       | MAX N      | .00   | 11.40       | .02   | .00  | .00           | .00  | .01  |
| 462                           | LF3       | MIN N      | .00   | -11.40      | -.02  | .00  | .00           | .00  | -.01 |
| 711                           | LF4       | MAX Q-2    | .00   | -5.68       | .10   | .11  | .00           | -.04 | .04  |
| 711                           | LF3       | MIN Q-2    | .00   | 5.68        | -.10  | -.11 | .00           | .04  | -.04 |
| 711                           | LF2       | MAX Q-3    | .00   | -7.70       | .09   | .17  | .00           | -.07 | .03  |
| 711                           | LF3       | MIN Q-3    | .00   | 5.68        | -.10  | -.11 | .00           | .04  | -.04 |
| 124                           | LF1       | MAX T      | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 124                           | LF1       | MIN T      | .00   | .00         | .00   | .00  | .00           | .00  | .00  |
| 711                           | LF3       | MAX M-2    | .00   | 5.68        | -.10  | -.11 | .00           | .04  | -.04 |
| 711                           | LF2       | MIN M-2    | .00   | -7.70       | .09   | .17  | .00           | -.07 | .03  |
| 711                           | LF4       | MAX M-3    | .00   | -5.68       | .10   | .11  | .00           | -.04 | .04  |
| 711                           | LF3       | MIN M-3    | .00   | 5.68        | -.10  | -.11 | .00           | .04  | -.04 |
| Querschnitt-Nr. 11: Ring 20/3 |           |            |       |             |       |      |               |      |      |
| 423                           | LF4       | MAX N      | .37   | .80         | .00   | .01  | .00           | .00  | .00  |
| 423                           | LF3       | MIN N      | .00   | -.80        | .00   | -.01 | .00           | .00  | .00  |
| 293                           | LF1       | MAX Q-2    | .00   | .00         | .00   | .00  | .00           | .00  | .00  |



## SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                            | LF/LG-Nr. | Knoten-Nr. | x [m] | Kräfte [kN] |        |       | Momente [kNm] |      |       |
|-------------------------------------|-----------|------------|-------|-------------|--------|-------|---------------|------|-------|
|                                     |           |            |       | N           | Q-2    | Q-3   | T             | M-2  | M-3   |
| 293                                 | LF1       | MIN Q-2    | .00   | .00         | .00    | .00   | .00           | .00  | .00   |
| 575                                 | LF2       | MAX Q-3    | .00   | .04         | .00    | .04   | .00           | -.01 | .00   |
| 424                                 | LF2       | MIN Q-3    | .00   | .06         | .00    | -.05  | .00           | .01  | .00   |
| 293                                 | LF1       | MAX T      | .00   | .00         | .00    | .00   | .00           | .00  | .00   |
| 293                                 | LF1       | MIN T      | .00   | .00         | .00    | .00   | .00           | .00  | .00   |
| 424                                 | LF2       | MAX M-2    | .00   | .06         | .00    | -.05  | .00           | .01  | .00   |
| 424                                 | LF2       | MIN M-2    | .37   | .06         | .00    | -.05  | .00           | -.01 | .00   |
| 293                                 | LF1       | MAX M-3    | .37   | .00         | .00    | .00   | .00           | .00  | .00   |
| 293                                 | LF1       | MIN M-3    | .00   | .00         | .00    | .00   | .00           | .00  | .00   |
| Querschnitt-Nr. 12: Kreis 12        |           |            |       |             |        |       |               |      |       |
| 497                                 | LF4       | MAX N      | .31   | 1.96        | .00    | .00   | .00           | .00  | .00   |
| 497                                 | LF3       | MIN N      | .31   | -1.96       | .00    | .00   | .00           | .00  | .00   |
| 193                                 | LF1       | MAX Q-2    | .31   | .00         | .00    | .00   | .00           | .00  | .00   |
| 193                                 | LF1       | MIN Q-2    | .00   | .00         | .00    | .00   | .00           | .00  | .00   |
| 562                                 | LF3       | MAX Q-3    | .00   | .73         | .00    | .01   | .00           | .00  | .00   |
| 562                                 | LF2       | MIN Q-3    | .00   | -.20        | .00    | -.01  | .00           | .00  | .00   |
| 193                                 | LF1       | MAX T      | .31   | .00         | .00    | .00   | .00           | .00  | .00   |
| 193                                 | LF1       | MIN T      | .00   | .00         | .00    | .00   | .00           | .00  | .00   |
| 193                                 | LF1       | MAX M-2    | .15   | .00         | .00    | .00   | .00           | .00  | .00   |
| 193                                 | LF1       | MIN M-2    | .00   | .00         | .00    | .00   | .00           | .00  | .00   |
| 193                                 | LF1       | MAX M-3    | .00   | .00         | .00    | .00   | .00           | .00  | .00   |
| 193                                 | LF1       | MIN M-3    | .31   | .00         | .00    | .00   | .00           | .00  | .00   |
| Querschnitt-Nr. 13: Rechteck 120/25 |           |            |       |             |        |       |               |      |       |
| 384                                 | LF4       | MAX N      | .00   | 7.91        | 15.23  | .00   | .00           | .00  | .00   |
| 384                                 | LF3       | MIN N      | .00   | -7.91       | -15.23 | .00   | .00           | .00  | .00   |
| 385                                 | LF4       | MAX Q-2    | .14   | -5.95       | 19.37  | .00   | .00           | .00  | -2.61 |
| 385                                 | LF3       | MIN Q-2    | .00   | 5.95        | -19.37 | .00   | .00           | .00  | .00   |
| 15                                  | LF4       | MAX Q-3    | .13   | 2.97        | 9.69   | .39   | .01           | .00  | .00   |
| 15                                  | LF3       | MIN Q-3    | .00   | -2.97       | -9.69  | -.39  | -.01          | .05  | -1.31 |
| 14                                  | LF4       | MAX T      | .13   | -3.94       | 7.62   | -.27  | .03           | .00  | .00   |
| 14                                  | LF3       | MIN T      | .00   | 3.94        | -7.62  | .27   | -.03          | -.04 | -1.03 |
| 15                                  | LF3       | MAX M-2    | .00   | -2.97       | -9.69  | -.39  | -.01          | .05  | -1.31 |
| 15                                  | LF4       | MIN M-2    | .00   | 2.97        | 9.69   | .39   | .01           | -.05 | 1.31  |
| 385                                 | LF3       | MAX M-3    | .14   | 5.95        | -19.37 | .00   | .00           | .00  | 2.61  |
| 385                                 | LF4       | MIN M-3    | .14   | -5.95       | 19.37  | .00   | .00           | .00  | -2.61 |
| Querschnitt-Nr. 14: Ring 80/10      |           |            |       |             |        |       |               |      |       |
| 383                                 | LF4       | MAX N      | .00   | 63.50       | 1.69   | .00   | .00           | .00  | .00   |
| 383                                 | LF3       | MIN N      | .00   | -63.50      | -1.69  | .00   | .00           | .00  | .00   |
| 372                                 | LF4       | MAX Q-2    | .00   | 15.37       | 7.70   | .00   | .00           | .00  | 1.83  |
| 372                                 | LF3       | MIN Q-2    | .00   | -15.37      | -7.70  | .00   | .00           | .00  | -1.83 |
| 825                                 | LF2       | MAX Q-3    | .00   | -8.39       | 2.09   | 3.68  | -.01          | -.88 | .49   |
| 825                                 | LF3       | MIN Q-3    | .00   | 7.67        | -1.91  | -3.36 | -.04          | .78  | -.48  |
| 2                                   | LF3       | MAX T      | .00   | 7.69        | -1.91  | 3.34  | .04           | -.78 | -.48  |
| 2                                   | LF4       | MIN T      | .00   | -7.69       | 1.91   | -3.34 | -.04          | .78  | .48   |
| 825                                 | LF2       | MAX M-2    | .50   | -8.39       | 2.09   | 3.68  | -.01          | .96  | -.56  |
| 825                                 | LF3       | MIN M-2    | .50   | 7.67        | -1.89  | -3.36 | -.04          | -.90 | .47   |
| 372                                 | LF3       | MAX M-3    | .50   | -15.37      | -7.68  | .00   | .00           | .00  | 2.02  |
| 372                                 | LF4       | MIN M-3    | .50   | 15.37       | 7.68   | .00   | .00           | .00  | -2.02 |
| Querschnitt-Nr. 15: Ring 70/8       |           |            |       |             |        |       |               |      |       |
| 396                                 | LF4       | MAX N      | .00   | 40.19       | .35    | .00   | .00           | .00  | .18   |
| 396                                 | LF3       | MIN N      | .00   | -40.19      | -.35   | .00   | .00           | .00  | -.18  |
| 387                                 | LF4       | MAX Q-2    | .00   | 9.85        | 4.14   | .00   | .00           | .00  | .95   |
| 387                                 | LF3       | MIN Q-2    | .00   | -9.85       | -4.14  | .00   | .00           | .00  | -.95  |
| 17                                  | LF2       | MAX Q-3    | .00   | 5.83        | -1.24  | 2.12  | -.01          | -.49 | -.28  |
| 17                                  | LF4       | MIN Q-3    | .00   | -4.93       | 1.01   | -1.81 | -.02          | .40  | .25   |
| 17                                  | LF3       | MAX T      | .00   | 4.93        | -1.01  | 1.81  | .02           | -.40 | -.25  |
| 17                                  | LF4       | MIN T      | .00   | -4.93       | 1.01   | -1.81 | -.02          | .40  | .25   |
| 17                                  | LF2       | MAX M-2    | .50   | 5.83        | -1.24  | 2.12  | -.01          | .57  | .34   |
| 17                                  | LF4       | MIN M-2    | .50   | -4.93       | 1.00   | -1.81 | -.02          | -.50 | -.25  |
| 387                                 | LF3       | MAX M-3    | .50   | -9.85       | -4.13  | .00   | .00           | .00  | 1.12  |
| 387                                 | LF4       | MIN M-3    | .50   | 9.85        | 4.13   | .00   | .00           | .00  | -1.12 |

## AUFLAGERKRÄFTE UND -MOMENTE

| Knoten-Nr. | LF/LG-Nr. | Auflagerkräfte [kN] |     |     | Auflagermomente [kNm] |     |     |
|------------|-----------|---------------------|-----|-----|-----------------------|-----|-----|
|            |           | P-X                 | P-Y | P-Z | M-X                   | M-Y | M-Z |



## AUFLAGERKRÄFTE UND -MOMENTE

| Knoten-Nr. | LF/LG-Nr. | Auflagerkräfte [kN] |        |         | Auflagermomente [kNm] |      |      |
|------------|-----------|---------------------|--------|---------|-----------------------|------|------|
|            |           | P-X                 | P-Y    | P-Z     | M-X                   | M-Y  | M-Z  |
| 14         | LF1       | -.005               | .003   | 1.710   | .000                  | .000 | .000 |
|            | LF2       | .854                | -.159  | -32.954 | .000                  | .000 | .000 |
|            | LF3       | .269                | -1.225 | -31.781 | .000                  | .000 | .000 |
|            | LF4       | -.269               | 1.225  | 31.781  | .000                  | .000 | .000 |
| 114        | LF1       | .000                | -.005  | 1.706   | .000                  | .000 | .000 |
|            | LF2       | .604                | .000   | .000    | .000                  | .000 | .000 |
|            | LF3       | .000                | -1.691 | 63.505  | .000                  | .000 | .000 |
|            | LF4       | .000                | 1.691  | -63.505 | .000                  | .000 | .000 |
| 300        | LF1       | .005                | .003   | 1.708   | .000                  | .000 | .000 |
|            | LF2       | .854                | .159   | 32.954  | .000                  | .000 | .000 |
|            | LF3       | -.269               | -1.224 | -31.724 | .000                  | .000 | .000 |
|            | LF4       | .269                | 1.224  | 31.724  | .000                  | .000 | .000 |
|            | LF1       | .000                | .000   | 5.124   |                       |      |      |
|            |           | .000                | .000   | 5.124   |                       |      |      |
|            | LF2       | 2.312               | .000   | .000    |                       |      |      |
|            |           | 2.312               | .000   | .000    |                       |      |      |
|            | LF3       | .000                | -4.140 | .000    |                       |      |      |
|            |           | .000                | -4.140 | .000    |                       |      |      |
|            | LF4       | .000                | 4.140  | .000    |                       |      |      |
|            |           | .000                | 4.140  | .000    |                       |      |      |

## MAX/MIN/ZUGH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                     | LK-Nr. | x [m] | Kräfte [kN]          |        |       | Momente [kNm] |       |       |
|------------------------------|--------|-------|----------------------|--------|-------|---------------|-------|-------|
|                              |        |       | N                    | Q-2    | Q-3   | T             | M-2   | M-3   |
| Querschnitt-Nr. 1: Ring 80/5 |        |       |                      |        |       |               |       |       |
| 635                          | LK3    | .25   | MAX                  | 50.83  | .04   | .00           | .00   | .06   |
| 635                          | LK2    | .00   | MIN                  | -56.71 | -.06  | .00           | .00   | -.07  |
|                              |        |       | LF'e in Max: LF1 LF4 |        |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |        |       |               |       |       |
| 373                          | LK3    | .00   | MAX                  | 32.80  | 1.75  | .00           | .00   | .17   |
| 373                          | LK2    | .00   | MIN                  | -37.16 | -2.02 | .00           | .00   | -.20  |
|                              |        |       | LF'e in Max: LF1 LF4 |        |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |        |       |               |       |       |
| 826                          | LK1    | .00   | MAX                  | -21.25 | .59   | 1.01          | .00   | -.10  |
| 3                            | LK3    | .00   | MIN                  | -19.69 | .51   | -.95          | .01   | .08   |
|                              |        |       | LF'e in Max: LF1 LF2 |        |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF4 |        |       |               |       |       |
| 3                            | LK3    | .00   | MAX                  | -19.69 | .51   | -.95          | .01   | .08   |
| 3                            | LK2    | .00   | MIN                  | 15.31  | -.38  | .72           | -.01  | -.06  |
|                              |        |       | LF'e in Max: LF1 LF4 |        |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |        |       |               |       |       |
| 826                          | LK3    | .25   | MAX                  | -19.65 | .50   | .96           | -.01  | .16   |
| 3                            | LK3    | .25   | MIN                  | -19.68 | .51   | -.95          | .01   | -.16  |
|                              |        |       | LF'e in Max: LF1 LF4 |        |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF4 |        |       |               |       |       |
| 373                          | LK2    | .25   | MAX                  | -37.15 | -2.02 | .00           | .00   | .31   |
| 373                          | LK3    | .25   | MIN                  | 32.81  | 1.75  | .00           | .00   | -.26  |
|                              |        |       | LF'e in Max: LF1 LF3 |        |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF4 |        |       |               |       |       |
| Maxi                         | LK1    |       |                      | 25.28  | 0.59  | 1.01          | 0.00  | 0.15  |
|                              | LK2    |       |                      | 23.96  | 0.33  | 0.72          | 0.01  | 0.12  |
|                              | LK3    |       |                      | 50.83  | 1.75  | 0.96          | 0.01  | 0.16  |
| Mini                         | LK1    |       |                      | -31.17 | -0.45 | -0.16         | -0.01 | -0.10 |
|                              | LK2    |       |                      | -56.71 | -2.02 | -0.72         | -0.01 | -0.12 |
|                              | LK3    |       |                      | -29.86 | -0.30 | -0.95         | -0.01 | -0.16 |
| Querschnitt-Nr. 2: Ring 30/3 |        |       |                      |        |       |               |       |       |
| 467                          | LK3    | .00   | MAX                  | 1.07   | .00   | .01           | .00   | .00   |
| 476                          | LK2    | .00   | MIN                  | -.90   | .00   | .01           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF4 |        |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |        |       |               |       |       |
| 90                           | LK1    | .00   | MAX                  | .03    | .00   | .02           | .00   | -.01  |
| 90                           | LK1    | .98   | MIN                  | .03    | .00   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |        |       |               |       |       |



# MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                     | LK-Nr. | x [m] |                      | Kräfte [kN] |       |       | Momente [kNm] |       |      |
|------------------------------|--------|-------|----------------------|-------------|-------|-------|---------------|-------|------|
|                              |        |       |                      | N           | Q-2   | Q-3   | T             | M-2   | M-3  |
| 90                           | LK2    | .00   | LF'e in Min: LF1 LF2 |             |       |       |               |       |      |
|                              | LK3    | .98   | MAX                  | -.14        | .00   | .03   | .00           | -.01  | .00  |
|                              |        |       | MIN                  | .02         | .00   | -.03  | .00           | -.01  | .00  |
|                              |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |      |
|                              |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |      |
| 90                           | LK1    | .00   | MAX                  | .03         | .00   | .02   | .00           | -.01  | .00  |
| 90                           | LK1    | .00   | MIN                  | .03         | .00   | .02   | .00           | -.01  | .00  |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |      |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |      |
| 90                           | LK2    | .98   | MAX                  | -.15        | .00   | .02   | .00           | .01   | .00  |
| 90                           | LK1    | .00   | MIN                  | .03         | .00   | .02   | .00           | -.01  | .00  |
|                              |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |      |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |      |
| 90                           | LK1    | .00   | MAX                  | .03         | .00   | .02   | .00           | -.01  | .00  |
| 90                           | LK1    | .69   | MIN                  | .03         | .00   | .01   | .00           | .00   | .00  |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |      |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |      |
| Maxi                         | LK1    |       |                      | 0.63        | 0.00  | 0.02  | 0.00          | 0.01  | 0.00 |
|                              | LK2    |       |                      | 0.59        | 0.00  | 0.03  | 0.00          | 0.01  | 0.00 |
|                              | LK3    |       |                      | 1.07        | 0.00  | 0.03  | 0.00          | 0.01  | 0.00 |
| Mini                         | LK1    |       |                      | -0.43       | 0.00  | -0.03 | 0.00          | -0.01 | 0.00 |
|                              | LK2    |       |                      | -0.90       | 0.00  | -0.03 | 0.00          | -0.01 | 0.00 |
|                              | LK3    |       |                      | -0.43       | 0.00  | -0.03 | 0.00          | -0.01 | 0.00 |
| Querschnitt-Nr. 3: Kreis 20  |        |       |                      |             |       |       |               |       |      |
| 49                           | LK3    | .00   | MAX                  | 2.30        | .00   | .00   | .00           | .00   | .00  |
| 270                          | LK2    | .55   | MIN                  | -2.40       | .00   | -.01  | .00           | .00   | .00  |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |      |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |      |
| 103                          | LK3    | .00   | MAX                  | -.13        | .01   | .00   | .00           | .00   | .00  |
| 103                          | LK2    | .00   | MIN                  | .08         | -.01  | .01   | .00           | .00   | .00  |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |      |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |      |
| 249                          | LK2    | .00   | MAX                  | .23         | .00   | .02   | .00           | .00   | .00  |
| 249                          | LK3    | .55   | MIN                  | -.24        | .00   | -.02  | .00           | -.01  | .00  |
|                              |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |      |
|                              |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |      |
| 29                           | LK1    | .00   | MAX                  | -.04        | .00   | .01   | .00           | .00   | .00  |
| 29                           | LK1    | .00   | MIN                  | -.04        | .00   | .01   | .00           | .00   | .00  |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |      |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |      |
| 249                          | LK2    | .55   | MAX                  | .24         | .00   | .01   | .00           | .01   | .00  |
| 249                          | LK3    | .55   | MIN                  | -.24        | .00   | -.02  | .00           | -.01  | .00  |
|                              |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |      |
|                              |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |      |
| 29                           | LK1    | .55   | MAX                  | -.04        | .00   | .00   | .00           | .00   | .00  |
| 29                           | LK1    | .00   | MIN                  | -.04        | .00   | .01   | .00           | .00   | .00  |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |      |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |      |
| Maxi                         | LK1    |       |                      | 1.38        | 0.00  | 0.01  | 0.00          | 0.00  | 0.00 |
|                              | LK2    |       |                      | 2.04        | 0.01  | 0.02  | 0.00          | 0.01  | 0.00 |
|                              | LK3    |       |                      | 2.30        | 0.01  | 0.02  | 0.00          | 0.00  | 0.00 |
| Mini                         | LK1    |       |                      | -1.47       | 0.00  | -0.01 | 0.00          | 0.00  | 0.00 |
|                              | LK2    |       |                      | -2.40       | -0.01 | -0.02 | 0.00          | 0.00  | 0.00 |
|                              | LK3    |       |                      | -2.13       | -0.01 | -0.02 | 0.00          | -0.01 | 0.00 |
| Querschnitt-Nr. 4: Ring 70/5 |        |       |                      |             |       |       |               |       |      |
| 690                          | LK3    | .25   | MAX                  | 38.50       | .33   | .00   | .00           | .00   | .01  |
| 690                          | LK2    | .00   | MIN                  | -41.88      | -.36  | .00   | .00           | .00   | -.10 |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |      |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |      |
| 388                          | LK3    | .00   | MAX                  | 20.24       | .88   | .00   | .00           | .00   | .10  |
| 388                          | LK2    | .00   | MIN                  | -22.42      | -.99  | .00   | .00           | .00   | -.11 |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |      |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |      |
| 811                          | LK1    | .00   | MAX                  | -13.66      | .31   | .53   | .00           | -.06  | .03  |
| 18                           | LK3    | .00   | MIN                  | -11.76      | .26   | -.46  | .01           | .04   | .04  |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |      |



# MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                     | LK-Nr. | x [m] |                      | Kräfte [kN] |       |       | Momente [kNm] |       |       |
|------------------------------|--------|-------|----------------------|-------------|-------|-------|---------------|-------|-------|
|                              |        |       |                      | N           | Q-2   | Q-3   | T             | M-2   | M-3   |
| 18                           | LK3    | .00   | LF'e in Min: LF1 LF4 |             |       |       |               |       |       |
|                              | LK2    | .00   | MAX                  | -11.76      | .26   | -.46  | .01           | .04   | .04   |
|                              |        |       | MIN                  | 9.57        | -.20  | .36   | -.01          | -.03  | -.04  |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 811                          | LK1    | .25   | MAX                  | -13.64      | .31   | .52   | .00           | .07   | -.05  |
|                              | LK3    | .25   | MIN                  | -11.74      | .25   | -.46  | .01           | -.07  | -.02  |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |       |
| 388                          | LK2    | .25   | MAX                  | -22.41      | -.99  | .00   | .00           | .00   | .14   |
|                              | LK3    | .25   | MIN                  | 20.26       | .88   | .00   | .00           | .00   | -.12  |
|                              |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |       |
| Maxi                         | LK1    |       |                      | 20.46       | 0.31  | 0.53  | 0.00          | 0.07  | 0.04  |
|                              | LK2    |       |                      | 18.42       | 0.18  | 0.36  | 0.01          | 0.06  | 0.14  |
|                              | LK3    |       |                      | 38.50       | 0.88  | 0.46  | 0.01          | 0.07  | 0.10  |
| Mini                         | LK1    |       |                      | -23.84      | -0.25 | -0.09 | 0.00          | -0.06 | -0.05 |
|                              | LK2    |       |                      | -41.88      | -0.99 | -0.36 | -0.01         | -0.06 | -0.11 |
|                              | LK3    |       |                      | -21.80      | -0.16 | -0.46 | -0.01         | -0.07 | -0.12 |
| Querschnitt-Nr. 5: Ring 30/3 |        |       |                      |             |       |       |               |       |       |
| 449                          | LK3    | .00   | MAX                  | 1.68        | .00   | .01   | .00           | .00   | .00   |
|                              | LK2    | .00   | MIN                  | -1.45       | .00   | .01   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 159                          | LK1    | .00   | MAX                  | .00         | .00   | .02   | .00           | -.01  | .00   |
|                              | LK1    | .75   | MIN                  | .00         | .00   | .01   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 159                          | LK2    | .00   | MAX                  | -.04        | .00   | .05   | .00           | -.02  | .00   |
|                              | LK3    | .75   | MIN                  | -.01        | .00   | -.05  | .00           | -.02  | .00   |
|                              |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |       |
| 159                          | LK1    | .00   | MAX                  | .00         | .00   | .02   | .00           | -.01  | .00   |
|                              | LK1    | .00   | MIN                  | .00         | .00   | .02   | .00           | -.01  | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 159                          | LK2    | .75   | MAX                  | -.04        | .00   | .04   | .00           | .02   | .00   |
|                              | LK2    | .00   | MIN                  | -.04        | .00   | .05   | .00           | -.02  | .00   |
|                              |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 159                          | LK1    | .00   | MAX                  | .00         | .00   | .02   | .00           | -.01  | .00   |
|                              | LK1    | .53   | MIN                  | .00         | .00   | .02   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| Maxi                         | LK1    |       |                      | 0.97        | 0.00  | 0.02  | 0.00          | 0.01  | 0.00  |
|                              | LK2    |       |                      | 0.91        | 0.00  | 0.05  | 0.00          | 0.02  | 0.00  |
|                              | LK3    |       |                      | 1.68        | 0.00  | 0.05  | 0.00          | 0.01  | 0.00  |
| Mini                         | LK1    |       |                      | -0.75       | 0.00  | -0.04 | 0.00          | -0.01 | 0.00  |
|                              | LK2    |       |                      | -1.45       | 0.00  | -0.05 | 0.00          | -0.02 | 0.00  |
|                              | LK3    |       |                      | -1.06       | 0.00  | -0.05 | 0.00          | -0.02 | 0.00  |
| Querschnitt-Nr. 6: Kreis 16  |        |       |                      |             |       |       |               |       |       |
| 87                           | LK3    | .45   | MAX                  | 3.19        | .00   | .00   | .00           | .00   | .00   |
|                              | LK2    | .00   | MIN                  | -3.26       | .00   | .00   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 66                           | LK1    | .45   | MAX                  | -.06        | .00   | -.01  | .00           | .00   | .00   |
|                              | LK1    | .00   | MIN                  | -.06        | .00   | .00   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 66                           | LK3    | .00   | MAX                  | .33         | .00   | .01   | .00           | .00   | .00   |
|                              | LK1    | .45   | MIN                  | -.06        | .00   | -.01  | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 66                           | LK1    | .00   | MAX                  | -.06        | .00   | .00   | .00           | .00   | .00   |
|                              | LK1    | .00   | MIN                  | -.06        | .00   | .00   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |



# MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                     | LK-Nr. | x [m] |                      | Kräfte [kN] |       |       | Momente [kNm] |       |       |
|------------------------------|--------|-------|----------------------|-------------|-------|-------|---------------|-------|-------|
|                              |        |       |                      | N           | Q-2   | Q-3   | T             | M-2   | M-3   |
| 66                           | LK1    | .00   | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | MAX                  | -0.06       | .00   | .00   | .00           | .00   | .00   |
|                              | LK1    | .45   | MIN                  | -0.06       | .00   | -.01  | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
|                              | LK1    | .45   | MAX                  | -0.06       | .00   | -.01  | .00           | .00   | .00   |
|                              | LK1    | .00   | MIN                  | -0.06       | .00   | .00   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
|                              | Maxi   | LK1   |                      | 2.28        | 0.00  | 0.01  | 0.00          | 0.00  | 0.00  |
|                              |        | LK2   |                      | 2.91        | 0.00  | 0.01  | 0.00          | 0.00  | 0.00  |
|                              |        | LK3   |                      | 3.19        | 0.00  | 0.01  | 0.00          | 0.00  | 0.00  |
| Mini                         | LK1    |       |                      | -2.34       | 0.00  | -0.01 | 0.00          | 0.00  | 0.00  |
|                              |        | LK2   |                      | -3.26       | 0.00  | -0.01 | 0.00          | 0.00  | 0.00  |
|                              |        | LK3   |                      | -2.96       | 0.00  | -0.01 | 0.00          | 0.00  | 0.00  |
| Querschnitt-Nr. 7: Ring 50/5 |        |       |                      |             |       |       |               |       |       |
| 411                          | LK3    | .50   | MAX                  | 24.34       | .08   | .00   | .00           | .00   | .01   |
| 411                          | LK2    | .00   | MIN                  | -25.92      | -.09  | .00   | .00           | .00   | -.05  |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 402                          | LK3    | .00   | MAX                  | 4.32        | 1.10  | .00   | .00           | .00   | .26   |
| 402                          | LK2    | .00   | MIN                  | -4.69       | -1.23 | .00   | .00           | .00   | -.29  |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 54                           | LK1    | .00   | MAX                  | 2.84        | -.36  | .60   | -.01          | -.15  | -.08  |
| 54                           | LK3    | .00   | MIN                  | -2.39       | .35   | -.62  | -.01          | .14   | .09   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |       |
| 54                           | LK2    | .00   | MAX                  | 2.01        | -.28  | .50   | .01           | -.11  | -.07  |
| 54                           | LK1    | .00   | MIN                  | 2.84        | -.36  | .60   | -.01          | -.15  | -.08  |
|                              |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 54                           | LK1    | .50   | MAX                  | 2.86        | -.36  | .60   | -.01          | .15   | .10   |
| 54                           | LK3    | .50   | MIN                  | -2.37       | .34   | -.62  | -.01          | -.17  | -.08  |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |       |
| 402                          | LK2    | .50   | MAX                  | -4.67       | -1.23 | .00   | .00           | .00   | .32   |
| 402                          | LK2    | .00   | MIN                  | -4.69       | -1.23 | .00   | .00           | .00   | -.29  |
|                              |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| Maxi                         | LK1    |       |                      | 14.22       | 0.17  | 0.60  | 0.01          | 0.15  | 0.10  |
|                              | LK2    |       |                      | 11.78       | 0.12  | 0.50  | 0.01          | 0.14  | 0.32  |
|                              | LK3    |       |                      | 24.34       | 1.10  | 0.23  | 0.00          | 0.14  | 0.26  |
| Mini                         | LK1    |       |                      | -15.81      | -0.36 | -0.07 | -0.01         | -0.15 | -0.08 |
|                              | LK2    |       |                      | -25.92      | -1.23 | -0.18 | 0.00          | -0.11 | -0.29 |
|                              | LK3    |       |                      | -13.37      | -0.12 | -0.62 | -0.01         | -0.17 | -0.29 |
| Querschnitt-Nr. 8: Ring 20/3 |        |       |                      |             |       |       |               |       |       |
| 435                          | LK3    | .00   | MAX                  | 1.06        | .00   | .00   | .00           | .00   | .00   |
| 435                          | LK2    | .00   | MIN                  | -.94        | .00   | .00   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 215                          | LK1    | .00   | MAX                  | -.36        | .00   | .01   | .00           | .00   | .00   |
| 215                          | LK1    | .54   | MIN                  | -.36        | .00   | .01   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 215                          | LK2    | .00   | MAX                  | .25         | .00   | .02   | .00           | .00   | .00   |
| 215                          | LK3    | .54   | MIN                  | -.26        | .00   | -.02  | .00           | -.01  | .00   |
|                              |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |       |
| 215                          | LK1    | .00   | MAX                  | -.36        | .00   | .01   | .00           | .00   | .00   |
| 215                          | LK1    | .00   | MIN                  | -.36        | .00   | .01   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 215                          | LK2    | .54   | MAX                  | .25         | .00   | .02   | .00           | .01   | .00   |
| 215                          | LK3    | .54   | MIN                  | -.26        | .00   | -.02  | .00           | -.01  | .00   |
|                              |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |       |



# MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                      | LK-Nr. | x [m] |     | Kräfte [kN] |      |       | Momente [kNm] |       |      |
|-------------------------------|--------|-------|-----|-------------|------|-------|---------------|-------|------|
|                               |        |       |     | N           | Q-2  | Q-3   | T             | M-2   | M-3  |
| LF'e in Min: LF1 LF4          |        |       |     |             |      |       |               |       |      |
| 215                           | LK1    | .00   | MAX | -36         | .00  | .01   | .00           | .00   | .00  |
| 215                           | LK1    | .30   | MIN | -36         | .00  | .01   | .00           | .00   | .00  |
| LF'e in Max: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| LF'e in Min: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| Maxi                          | LK1    |       |     | 0.66        | 0.00 | 0.01  | 0.00          | 0.00  | 0.00 |
|                               | LK2    |       |     | 0.56        | 0.00 | 0.02  | 0.00          | 0.01  | 0.00 |
|                               | LK3    |       |     | 1.06        | 0.00 | 0.02  | 0.00          | 0.00  | 0.00 |
| Mini                          | LK1    |       |     | -0.54       | 0.00 | -0.02 | 0.00          | 0.00  | 0.00 |
|                               | LK2    |       |     | -0.94       | 0.00 | -0.02 | 0.00          | 0.00  | 0.00 |
|                               | LK3    |       |     | -0.44       | 0.00 | -0.02 | 0.00          | -0.01 | 0.00 |
| Querschnitt-Nr. 9: Kreis 12   |        |       |     |             |      |       |               |       |      |
| 158                           | LK3    | .37   | MAX | 2.19        | .00  | .00   | .00           | .00   | .00  |
| 158                           | LK2    | .00   | MIN | -2.25       | .00  | .00   | .00           | .00   | .00  |
| LF'e in Max: LF1 LF4          |        |       |     |             |      |       |               |       |      |
| LF'e in Min: LF1 LF3          |        |       |     |             |      |       |               |       |      |
| 137                           | LK1    | .37   | MAX | -37         | .00  | .00   | .00           | .00   | .00  |
| 137                           | LK1    | .00   | MIN | -38         | .00  | .00   | .00           | .00   | .00  |
| LF'e in Max: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| LF'e in Min: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| 327                           | LK2    | .00   | MAX | .96         | .00  | .01   | .00           | .00   | .00  |
| 680                           | LK1    | .37   | MIN | -83         | .00  | -01   | .00           | .00   | .00  |
| LF'e in Max: LF1 LF3          |        |       |     |             |      |       |               |       |      |
| LF'e in Min: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| 137                           | LK1    | .00   | MAX | -38         | .00  | .00   | .00           | .00   | .00  |
| 137                           | LK1    | .00   | MIN | -38         | .00  | .00   | .00           | .00   | .00  |
| LF'e in Max: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| LF'e in Min: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| 137                           | LK1    | .00   | MAX | -38         | .00  | .00   | .00           | .00   | .00  |
| 137                           | LK1    | .37   | MIN | -37         | .00  | .00   | .00           | .00   | .00  |
| LF'e in Max: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| LF'e in Min: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| 137                           | LK1    | .37   | MAX | -37         | .00  | .00   | .00           | .00   | .00  |
| 137                           | LK1    | .00   | MIN | -38         | .00  | .00   | .00           | .00   | .00  |
| LF'e in Max: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| LF'e in Min: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| Maxi                          | LK1    |       |     | 1.61        | 0.00 | 0.01  | 0.00          | 0.00  | 0.00 |
|                               | LK2    |       |     | 1.82        | 0.00 | 0.01  | 0.00          | 0.00  | 0.00 |
|                               | LK3    |       |     | 2.19        | 0.00 | 0.00  | 0.00          | 0.00  | 0.00 |
| Mini                          | LK1    |       |     | -1.66       | 0.00 | -0.01 | 0.00          | 0.00  | 0.00 |
|                               | LK2    |       |     | -2.25       | 0.00 | 0.00  | 0.00          | 0.00  | 0.00 |
|                               | LK3    |       |     | -1.87       | 0.00 | 0.00  | 0.00          | 0.00  | 0.00 |
| Querschnitt-Nr. 10: Ring 35/5 |        |       |     |             |      |       |               |       |      |
| 462                           | LK3    | .50   | MAX | 11.14       | .01  | .00   | .00           | .00   | .00  |
| 462                           | LK2    | .00   | MIN | -11.67      | -.02 | .00   | .00           | .00   | -.01 |
| LF'e in Max: LF1 LF4          |        |       |     |             |      |       |               |       |      |
| LF'e in Min: LF1 LF3          |        |       |     |             |      |       |               |       |      |
| 711                           | LK3    | .00   | MAX | -5.96       | .11  | .12   | .00           | -.05  | .05  |
| 711                           | LK2    | .00   | MIN | 5.41        | -.09 | -.10  | .00           | .04   | -.04 |
| LF'e in Max: LF1 LF4          |        |       |     |             |      |       |               |       |      |
| LF'e in Min: LF1 LF3          |        |       |     |             |      |       |               |       |      |
| 711                           | LK1    | .00   | MAX | -7.98       | .09  | .18   | .00           | -.08  | .04  |
| 711                           | LK2    | .00   | MIN | 5.41        | -.09 | -.10  | .00           | .04   | -.04 |
| LF'e in Max: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| LF'e in Min: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| 124                           | LK1    | .00   | MAX | -.01        | .00  | .00   | .00           | .00   | .00  |
| 124                           | LK1    | .00   | MIN | -.01        | .00  | .00   | .00           | .00   | .00  |
| LF'e in Max: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| LF'e in Min: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| 712                           | LK1    | .50   | MAX | -4.56       | .06  | .10   | .00           | .05   | -.03 |
| 711                           | LK1    | .00   | MIN | -7.98       | .09  | .18   | .00           | -.08  | .04  |
| LF'e in Max: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| LF'e in Min: LF1 LF2          |        |       |     |             |      |       |               |       |      |
| 711                           | LK3    | .00   | MAX | -5.96       | .11  | .12   | .00           | -.05  | .05  |
| 711                           | LK2    | .00   | MIN | 5.41        | -.09 | -.10  | .00           | .04   | -.04 |
| LF'e in Max: LF1 LF4          |        |       |     |             |      |       |               |       |      |



# MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                      | LK-Nr. | x [m] |                      | Kräfte [kN] |       |       | Momente [kNm] |       |       |
|-------------------------------|--------|-------|----------------------|-------------|-------|-------|---------------|-------|-------|
|                               |        |       |                      | N           | Q-2   | Q-3   | T             | M-2   | M-3   |
| Maxi                          | LK1    |       | LF'e in Min: LF1 LF3 | 7.46        | 0.09  | 0.18  | 0.00          | 0.05  | 0.04  |
|                               | LK2    |       |                      | 5.46        | 0.04  | 0.02  | 0.00          | 0.04  | 0.01  |
|                               | LK3    |       |                      | 11.14       | 0.11  | 0.12  | 0.00          | 0.04  | 0.05  |
|                               | LK1    |       | LF'e in Max: LF1 LF4 | -7.98       | -0.02 | -0.04 | 0.00          | -0.08 | -0.03 |
|                               | LK2    |       | LF'e in Min: LF1 LF3 | -11.67      | -0.09 | -0.10 | 0.00          | -0.03 | -0.04 |
|                               | LK3    |       |                      | -6.01       | -0.05 | -0.03 | 0.00          | -0.05 | -0.02 |
| Querschnitt-Nr. 11: Ring 20/3 |        |       |                      |             |       |       |               |       |       |
| 423                           | LK3    | .00   | MAX                  | .84         | .00   | .01   | .00           | .00   | .00   |
| 423                           | LK2    | .00   | MIN                  | -.77        | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF4          |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF3          |        |       |                      |             |       |       |               |       |       |
| 293                           | LK1    | .00   | MAX                  | .04         | .00   | .00   | .00           | .00   | .00   |
| 293                           | LK1    | .37   | MIN                  | .04         | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| 575                           | LK1    | .00   | MAX                  | .04         | .00   | .05   | .00           | -.01  | .00   |
| 424                           | LK1    | .37   | MIN                  | .07         | .00   | -.05  | .00           | -.01  | .00   |
| LF'e in Max: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| 293                           | LK1    | .00   | MAX                  | .04         | .00   | .00   | .00           | .00   | .00   |
| 293                           | LK1    | .00   | MIN                  | .04         | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| 424                           | LK1    | .00   | MAX                  | .07         | .00   | -.05  | .00           | .01   | .00   |
| 424                           | LK1    | .37   | MIN                  | .07         | .00   | -.05  | .00           | -.01  | .00   |
| LF'e in Max: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| 293                           | LK1    | .00   | MAX                  | .04         | .00   | .00   | .00           | .00   | .00   |
| 293                           | LK1    | .27   | MIN                  | .04         | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| Maxi                          | LK1    |       | LF'e in Max: LF1 LF2 | 0.55        | 0.00  | 0.05  | 0.00          | 0.01  | 0.00  |
|                               | LK2    |       | LF'e in Min: LF1 LF2 | 0.51        | 0.00  | 0.03  | 0.00          | 0.00  | 0.00  |
|                               | LK3    |       |                      | 0.84        | 0.00  | 0.04  | 0.00          | 0.01  | 0.00  |
|                               | LK1    |       |                      | -0.55       | 0.00  | -0.05 | 0.00          | -0.01 | 0.00  |
|                               | LK2    |       |                      | -0.77       | 0.00  | -0.04 | 0.00          | -0.01 | 0.00  |
|                               | LK3    |       |                      | -0.44       | 0.00  | -0.03 | 0.00          | -0.01 | 0.00  |
| Querschnitt-Nr. 12: Kreis 12  |        |       |                      |             |       |       |               |       |       |
| 497                           | LK3    | .31   | MAX                  | 1.95        | .00   | .00   | .00           | .00   | .00   |
| 497                           | LK2    | .00   | MIN                  | -1.97       | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF4          |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF3          |        |       |                      |             |       |       |               |       |       |
| 193                           | LK1    | .31   | MAX                  | -.07        | .00   | .00   | .00           | .00   | .00   |
| 193                           | LK1    | .00   | MIN                  | -.08        | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| 562                           | LK2    | .00   | MAX                  | .70         | .00   | .01   | .00           | .00   | .00   |
| 562                           | LK1    | .31   | MIN                  | -.23        | .00   | -.01  | .00           | .00   | .00   |
| LF'e in Max: LF1 LF3          |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| 193                           | LK1    | .00   | MAX                  | -.08        | .00   | .00   | .00           | .00   | .00   |
| 193                           | LK1    | .00   | MIN                  | -.08        | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| 193                           | LK1    | .15   | MAX                  | -.08        | .00   | .00   | .00           | .00   | .00   |
| 193                           | LK1    | .31   | MIN                  | -.07        | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| 193                           | LK1    | .00   | MAX                  | -.08        | .00   | .00   | .00           | .00   | .00   |
| 193                           | LK1    | .31   | MIN                  | -.07        | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |                      |             |       |       |               |       |       |
| Maxi                          | LK1    |       | LF'e in Max: LF1 LF2 | 1.63        | 0.00  | 0.01  | 0.00          | 0.00  | 0.00  |
|                               | LK2    |       | LF'e in Min: LF1 LF2 | 1.52        | 0.00  | 0.01  | 0.00          | 0.00  | 0.00  |
|                               | LK3    |       |                      | 1.95        | 0.00  | 0.01  | 0.00          | 0.00  | 0.00  |
|                               | LK1    |       |                      | -1.69       | 0.00  | -0.01 | 0.00          | 0.00  | 0.00  |



# MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                            | LK-Nr. | x [m] |                      | N      | Kräfte [kN] |  | Q-3   | T     | Momente [kNm] |       |  |
|-------------------------------------|--------|-------|----------------------|--------|-------------|--|-------|-------|---------------|-------|--|
|                                     |        |       |                      |        | Q-2         |  |       |       | M-2           | M-3   |  |
|                                     | LK2    |       |                      | -1.97  | 0.00        |  | -0.01 | 0.00  | 0.00          | 0.00  |  |
|                                     | LK3    |       |                      | -1.60  | 0.00        |  | -0.01 | 0.00  | 0.00          | 0.00  |  |
| Querschnitt-Nr. 13: Rechteck 120/25 |        |       |                      |        |             |  |       |       |               |       |  |
| 384                                 | LK3    | .00   | MAX                  | 7.61   | 14.44       |  | .00   | .00   | .00           | .00   |  |
| 384                                 | LK2    | .00   | MIN                  | -8.22  | -16.02      |  | .00   | .00   | .00           | .00   |  |
|                                     |        |       | LF'e in Max: LF1 LF4 |        |             |  |       |       |               |       |  |
|                                     |        |       | LF'e in Min: LF1 LF3 |        |             |  |       |       |               |       |  |
| 385                                 | LK3    | .00   | MAX                  | -5.81  | 18.24       |  | .00   | .00   | .00           | .00   |  |
| 385                                 | LK2    | .14   | MIN                  | 6.10   | -20.52      |  | .00   | .00   | .00           | 2.77  |  |
|                                     |        |       | LF'e in Max: LF1 LF4 |        |             |  |       |       |               |       |  |
|                                     |        |       | LF'e in Min: LF1 LF3 |        |             |  |       |       |               |       |  |
| 15                                  | LK3    | .00   | MAX                  | 3.11   | 10.85       |  | .39   | .01   | -.05          | 1.46  |  |
| 15                                  | LK2    | .00   | MIN                  | -2.82  | -8.54       |  | -.39  | -.01  | .05           | -1.15 |  |
|                                     |        |       | LF'e in Max: LF1 LF4 |        |             |  |       |       |               |       |  |
|                                     |        |       | LF'e in Min: LF1 LF3 |        |             |  |       |       |               |       |  |
| 14                                  | LK3    | .00   | MAX                  | -4.25  | 8.43        |  | -.27  | .03   | .04           | 1.14  |  |
| 14                                  | LK2    | .00   | MIN                  | 3.64   | -6.81       |  | .27   | -.03  | -.04          | -.92  |  |
|                                     |        |       | LF'e in Max: LF1 LF4 |        |             |  |       |       |               |       |  |
|                                     |        |       | LF'e in Min: LF1 LF3 |        |             |  |       |       |               |       |  |
| 15                                  | LK2    | .00   | MAX                  | -2.82  | -8.54       |  | -.39  | -.01  | .05           | -1.15 |  |
| 15                                  | LK3    | .00   | MIN                  | 3.11   | 10.85       |  | .39   | .01   | -.05          | 1.46  |  |
|                                     |        |       | LF'e in Max: LF1 LF3 |        |             |  |       |       |               |       |  |
|                                     |        |       | LF'e in Min: LF1 LF4 |        |             |  |       |       |               |       |  |
| 385                                 | LK2    | .14   | MAX                  | 6.10   | -20.52      |  | .00   | .00   | .00           | 2.77  |  |
| 385                                 | LK3    | .14   | MIN                  | -5.81  | 18.22       |  | .00   | .00   | .00           | -2.46 |  |
|                                     |        |       | LF'e in Max: LF1 LF3 |        |             |  |       |       |               |       |  |
|                                     |        |       | LF'e in Min: LF1 LF4 |        |             |  |       |       |               |       |  |
| Maxi                                | LK1    |       |                      | 3.98   | 2.81        |  | 0.20  | 0.01  | 0.03          | 1.59  |  |
|                                     | LK2    |       |                      | 6.10   | 8.55        |  | 0.39  | 0.03  | 0.05          | 2.77  |  |
|                                     | LK3    |       |                      | 7.61   | 18.24       |  | 0.39  | 0.03  | 0.04          | 1.47  |  |
| Mini                                | LK1    |       |                      | -4.62  | -11.75      |  | -0.28 | -0.02 | -0.04         | -1.27 |  |
|                                     | LK2    |       |                      | -8.22  | -20.52      |  | -0.39 | -0.03 | -0.04         | -1.16 |  |
|                                     | LK3    |       |                      | -5.81  | -10.83      |  | -0.39 | -0.03 | -0.05         | -2.46 |  |
| Querschnitt-Nr. 14: Ring 80/10      |        |       |                      |        |             |  |       |       |               |       |  |
| 383                                 | LK3    | .25   | MAX                  | 60.12  | 1.67        |  | .00   | .00   | .00           | -.42  |  |
| 383                                 | LK2    | .00   | MIN                  | -66.92 | -1.70       |  | .00   | .00   | .00           | .00   |  |
|                                     |        |       | LF'e in Max: LF1 LF4 |        |             |  |       |       |               |       |  |
|                                     |        |       | LF'e in Min: LF1 LF3 |        |             |  |       |       |               |       |  |
| 372                                 | LK3    | .00   | MAX                  | 14.45  | 7.28        |  | .00   | .00   | .00           | 1.73  |  |
| 372                                 | LK2    | .00   | MIN                  | -16.29 | -8.12       |  | .00   | .00   | .00           | -1.93 |  |
|                                     |        |       | LF'e in Max: LF1 LF4 |        |             |  |       |       |               |       |  |
|                                     |        |       | LF'e in Min: LF1 LF3 |        |             |  |       |       |               |       |  |
| 825                                 | LK1    | .00   | MAX                  | -9.31  | 2.30        |  | 4.05  | -.01  | -.97          | .54   |  |
| 2                                   | LK3    | .00   | MIN                  | -8.61  | 2.12        |  | -3.70 | -.04  | .86           | .53   |  |
|                                     |        |       | LF'e in Max: LF1 LF2 |        |             |  |       |       |               |       |  |
|                                     |        |       | LF'e in Min: LF1 LF4 |        |             |  |       |       |               |       |  |
| 2                                   | LK2    | .00   | MAX                  | 6.77   | -1.70       |  | 2.97  | .04   | -.69          | -.43  |  |
| 2                                   | LK3    | .00   | MIN                  | -8.61  | 2.12        |  | -3.70 | -.04  | .86           | .53   |  |
|                                     |        |       | LF'e in Max: LF1 LF3 |        |             |  |       |       |               |       |  |
|                                     |        |       | LF'e in Min: LF1 LF4 |        |             |  |       |       |               |       |  |
| 825                                 | LK1    | .50   | MAX                  | -9.25  | 2.30        |  | 4.05  | -.01  | 1.06          | -.61  |  |
| 2                                   | LK3    | .50   | MIN                  | -8.55  | 2.11        |  | -3.70 | -.04  | -.99          | -.53  |  |
|                                     |        |       | LF'e in Max: LF1 LF2 |        |             |  |       |       |               |       |  |
|                                     |        |       | LF'e in Min: LF1 LF4 |        |             |  |       |       |               |       |  |
| 372                                 | LK2    | .50   | MAX                  | -16.23 | -8.10       |  | .00   | .00   | .00           | 2.13  |  |
| 372                                 | LK2    | .00   | MIN                  | -16.29 | -8.12       |  | .00   | .00   | .00           | -1.93 |  |
|                                     |        |       | LF'e in Max: LF1 LF3 |        |             |  |       |       |               |       |  |
|                                     |        |       | LF'e in Min: LF1 LF3 |        |             |  |       |       |               |       |  |
| Maxi                                | LK1    |       |                      | 29.56  | 2.30        |  | 4.05  | 0.03  | 1.06          | 0.54  |  |
|                                     | LK2    |       |                      | 28.39  | 1.12        |  | 2.97  | 0.04  | 0.80          | 2.13  |  |
|                                     | LK3    |       |                      | 60.12  | 7.28        |  | 3.73  | 0.04  | 0.99          | 1.73  |  |
| Mini                                | LK1    |       |                      | -36.37 | -1.88       |  | -0.58 | -0.01 | -0.97         | -0.61 |  |
|                                     | LK2    |       |                      | -66.92 | -8.12       |  | -2.99 | -0.04 | -0.80         | -1.93 |  |
|                                     | LK3    |       |                      | -35.20 | -1.13       |  | -3.70 | -0.04 | -0.99         | -1.91 |  |
| Querschnitt-Nr. 15: Ring 70/8       |        |       |                      |        |             |  |       |       |               |       |  |



### MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr. | LK-Nr. | x [m] |                      | Kräfte [kN] |       |       | Momente [kNm] |       |       |
|----------|--------|-------|----------------------|-------------|-------|-------|---------------|-------|-------|
|          |        |       |                      | N           | Q-2   | Q-3   | T             | M-2   | M-3   |
| 396      | LK3    | .25   | MAX                  | 38.49       | .33   | .00   | .00           | .00   | .09   |
| 396      | LK2    | .00   | MIN                  | -41.90      | -36   | .00   | .00           | .00   | -19   |
|          |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|          |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 387      | LK3    | .00   | MAX                  | 9.37        | 3.96  | .00   | .00           | .00   | .91   |
| 387      | LK2    | .00   | MIN                  | -10.34      | -4.32 | .00   | .00           | .00   | -99   |
|          |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|          |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 810      | LK1    | .00   | MAX                  | -6.31       | 1.33  | 2.28  | -.01          | -.53  | .30   |
| 17       | LK3    | .00   | MIN                  | -5.41       | 1.11  | -1.96 | -.02          | .44   | .27   |
|          |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|          |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |       |
| 17       | LK2    | .00   | MAX                  | 4.44        | -.92  | 1.65  | .02           | -.36  | -.23  |
| 17       | LK3    | .00   | MIN                  | -5.41       | 1.11  | -1.96 | -.02          | .44   | .27   |
|          |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |       |
|          |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |       |
| 810      | LK1    | .50   | MAX                  | -6.27       | 1.33  | 2.28  | -.01          | .61   | -.37  |
| 17       | LK3    | .50   | MIN                  | -5.37       | 1.09  | -1.96 | -.02          | -.54  | -.28  |
|          |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|          |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |       |
| 387      | LK2    | .50   | MAX                  | -10.30      | -4.31 | .00   | .00           | .00   | 1.17  |
| 387      | LK3    | .50   | MIN                  | 9.41        | 3.95  | .00   | .00           | .00   | -1.07 |
|          |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |       |
|          |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |       |
| Maxi     | LK1    |       |                      | 20.45       | 1.33  | 2.28  | 0.01          | 0.61  | 0.32  |
|          | LK2    |       |                      | 18.40       | 0.41  | 1.65  | 0.02          | 0.46  | 1.17  |
|          | LK3    |       |                      | 38.49       | 3.96  | 1.97  | 0.02          | 0.54  | 0.91  |
| Mini     | LK1    |       |                      | -23.86      | -1.14 | -0.22 | -0.01         | -0.53 | -0.37 |
|          | LK2    |       |                      | -41.90      | -4.32 | -1.65 | -0.02         | -0.46 | -0.99 |
|          | LK3    |       |                      | -21.82      | -0.40 | -1.96 | -0.02         | -0.54 | -1.07 |

### MAX/MIN/ZUGEH-AUFLAGERKRÄFTE UND -MOMENTE

| Knoten-Nr. | LK-Nr. |                          | Auflagerkräfte [kN] |       |        | Auflagermomente [kNm] |     |     |
|------------|--------|--------------------------|---------------------|-------|--------|-----------------------|-----|-----|
|            |        |                          | P-X                 | P-Y   | P-Z    | M-X                   | M-Y | M-Z |
| 14         | LK1    | Max P-X                  | .84                 | -.15  | -29.53 | .00                   | .00 | .00 |
|            |        | Min P-X                  | .84                 | -.15  | -29.53 | .00                   | .00 | .00 |
|            |        | LF'e in Max P-X: LF1 LF2 |                     |       |        |                       |     |     |
|            |        | LF'e in Min P-X: LF1 LF2 |                     |       |        |                       |     |     |
|            |        | Max P-Y                  | .84                 | -.15  | -29.53 | .00                   | .00 | .00 |
|            |        | Min P-Y                  | .84                 | -.15  | -29.53 | .00                   | .00 | .00 |
|            |        | LF'e in Max P-Y: LF1 LF2 |                     |       |        |                       |     |     |
|            |        | LF'e in Min P-Y: LF1 LF2 |                     |       |        |                       |     |     |
|            |        | Max P-Z                  | .84                 | -.15  | -29.53 | .00                   | .00 | .00 |
|            |        | Min P-Z                  | .84                 | -.15  | -29.53 | .00                   | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF2 |                     |       |        |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF2 |                     |       |        |                       |     |     |
|            | LK2    | Max P-X                  | .26                 | -1.22 | -28.36 | .00                   | .00 | .00 |
|            |        | Min P-X                  | .26                 | -1.22 | -28.36 | .00                   | .00 | .00 |
|            |        | LF'e in Max P-X: LF1 LF3 |                     |       |        |                       |     |     |
|            |        | LF'e in Min P-X: LF1 LF3 |                     |       |        |                       |     |     |
|            |        | Max P-Y                  | .26                 | -1.22 | -28.36 | .00                   | .00 | .00 |
|            |        | Min P-Y                  | .26                 | -1.22 | -28.36 | .00                   | .00 | .00 |
|            |        | LF'e in Max P-Y: LF1 LF3 |                     |       |        |                       |     |     |
|            |        | LF'e in Min P-Y: LF1 LF3 |                     |       |        |                       |     |     |
|            |        | Max P-Z                  | .26                 | -1.22 | -28.36 | .00                   | .00 | .00 |
|            |        | Min P-Z                  | .26                 | -1.22 | -28.36 | .00                   | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF3 |                     |       |        |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF3 |                     |       |        |                       |     |     |
|            | LK3    | Max P-X                  | -.28                | 1.23  | 35.20  | .00                   | .00 | .00 |
|            |        | Min P-X                  | -.28                | 1.23  | 35.20  | .00                   | .00 | .00 |
|            |        | LF'e in Max P-X: LF1 LF4 |                     |       |        |                       |     |     |
|            |        | LF'e in Min P-X: LF1 LF4 |                     |       |        |                       |     |     |
|            |        | Max P-Y                  | -.28                | 1.23  | 35.20  | .00                   | .00 | .00 |
|            |        | Min P-Y                  | -.28                | 1.23  | 35.20  | .00                   | .00 | .00 |



## MAX/MIN/ZUGH-AUFLAGERKRÄFTE UND -MOMENTE

| Knoten-<br>Nr. | LK-<br>Nr. |                          | Auflagerkräfte [kN] |       |        | Auflagermomente [kNm] |     |     |
|----------------|------------|--------------------------|---------------------|-------|--------|-----------------------|-----|-----|
|                |            |                          | P-X                 | P-Y   | P-Z    | M-X                   | M-Y | M-Z |
| 114            | LK1        | LF'e in Max P-Y: LF1 LF4 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-Y: LF1 LF4 |                     |       |        |                       |     |     |
|                |            | Max P-Z                  | -.28                | 1.23  | 35.20  | .00                   | .00 | .00 |
|                |            | Min P-Z                  | -.28                | 1.23  | 35.20  | .00                   | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF4 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-Z: LF1 LF4 |                     |       |        |                       |     |     |
|                |            | Max P-X                  | .60                 | -.01  | 3.41   | .00                   | .00 | .00 |
|                |            | Min P-X                  | .60                 | -.01  | 3.41   | .00                   | .00 | .00 |
|                |            | LF'e in Max P-X: LF1 LF2 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-X: LF1 LF2 |                     |       |        |                       |     |     |
|                |            | Max P-Y                  | .60                 | -.01  | 3.41   | .00                   | .00 | .00 |
|                |            | Min P-Y                  | .60                 | -.01  | 3.41   | .00                   | .00 | .00 |
|                | LK2        | LF'e in Max P-Y: LF1 LF2 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-Y: LF1 LF2 |                     |       |        |                       |     |     |
|                |            | Max P-Z                  | .60                 | -.01  | 3.41   | .00                   | .00 | .00 |
|                |            | Min P-Z                  | .60                 | -.01  | 3.41   | .00                   | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF2 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-Z: LF1 LF2 |                     |       |        |                       |     |     |
|                |            | Max P-X                  | .00                 | -1.70 | 66.92  | .00                   | .00 | .00 |
|                |            | Min P-X                  | .00                 | -1.70 | 66.92  | .00                   | .00 | .00 |
|                |            | LF'e in Max P-X: LF1 LF3 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-X: LF1 LF3 |                     |       |        |                       |     |     |
|                |            | Max P-Y                  | .00                 | -1.70 | 66.92  | .00                   | .00 | .00 |
|                |            | Min P-Y                  | .00                 | -1.70 | 66.92  | .00                   | .00 | .00 |
| 300            | LK3        | LF'e in Max P-Y: LF1 LF3 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-Y: LF1 LF3 |                     |       |        |                       |     |     |
|                |            | Max P-Z                  | .00                 | -1.70 | 66.92  | .00                   | .00 | .00 |
|                |            | Min P-Z                  | .00                 | -1.70 | 66.92  | .00                   | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF3 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-Z: LF1 LF3 |                     |       |        |                       |     |     |
|                |            | Max P-X                  | .00                 | 1.68  | -60.09 | .00                   | .00 | .00 |
|                |            | Min P-X                  | .00                 | 1.68  | -60.09 | .00                   | .00 | .00 |
|                |            | LF'e in Max P-X: LF1 LF4 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-X: LF1 LF4 |                     |       |        |                       |     |     |
|                |            | Max P-Y                  | .00                 | 1.68  | -60.09 | .00                   | .00 | .00 |
|                |            | Min P-Y                  | .00                 | 1.68  | -60.09 | .00                   | .00 | .00 |
|                | LK2        | LF'e in Max P-Y: LF1 LF4 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-Y: LF1 LF4 |                     |       |        |                       |     |     |
|                |            | Max P-Z                  | .00                 | 1.68  | -60.09 | .00                   | .00 | .00 |
|                |            | Min P-Z                  | .00                 | 1.68  | -60.09 | .00                   | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF4 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-Z: LF1 LF4 |                     |       |        |                       |     |     |
|                |            | Max P-X                  | .86                 | .16   | 36.37  | .00                   | .00 | .00 |
|                |            | Min P-X                  | .86                 | .16   | 36.37  | .00                   | .00 | .00 |
|                |            | LF'e in Max P-X: LF1 LF2 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-X: LF1 LF2 |                     |       |        |                       |     |     |
|                |            | Max P-Y                  | .86                 | .16   | 36.37  | .00                   | .00 | .00 |
|                |            | Min P-Y                  | .86                 | .16   | 36.37  | .00                   | .00 | .00 |
| 300            | LK1        | LF'e in Max P-Y: LF1 LF2 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-Y: LF1 LF2 |                     |       |        |                       |     |     |
|                |            | Max P-Z                  | .86                 | .16   | 36.37  | .00                   | .00 | .00 |
|                |            | Min P-Z                  | .86                 | .16   | 36.37  | .00                   | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF2 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-Z: LF1 LF2 |                     |       |        |                       |     |     |
|                | LK2        | Max P-X                  | -.26                | -1.22 | -28.31 | .00                   | .00 | .00 |
|                |            | Min P-X                  | -.26                | -1.22 | -28.31 | .00                   | .00 | .00 |
|                |            | LF'e in Max P-X: LF1 LF3 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-X: LF1 LF3 |                     |       |        |                       |     |     |
|                |            | Max P-Y                  | -.26                | -1.22 | -28.31 | .00                   | .00 | .00 |
|                |            | Min P-Y                  | -.26                | -1.22 | -28.31 | .00                   | .00 | .00 |
|                |            | LF'e in Max P-Y: LF1 LF3 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-Y: LF1 LF3 |                     |       |        |                       |     |     |
|                |            | Max P-Z                  | -.26                | -1.22 | -28.31 | .00                   | .00 | .00 |
|                |            | Min P-Z                  | -.26                | -1.22 | -28.31 | .00                   | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF3 |                     |       |        |                       |     |     |
|                |            | LF'e in Min P-Z: LF1 LF3 |                     |       |        |                       |     |     |
|                | LK3        | Max P-X                  | .28                 | 1.23  | 35.14  | .00                   | .00 | .00 |
|                |            | Min P-X                  | .28                 | 1.23  | 35.14  | .00                   | .00 | .00 |



## MAX/MIN/ZUGEH-AUFLAGERKRÄFTE UND -MOMENTE

| Knoten-<br>Nr. | LK-<br>Nr. | Auflagerkräfte [kN]      |     |      | Auflagermomente [kNm] |     |     |
|----------------|------------|--------------------------|-----|------|-----------------------|-----|-----|
|                |            | P-X                      | P-Y | P-Z  | M-X                   | M-Y | M-Z |
|                |            | LF'e in Max P-X: LF1 LF4 |     |      |                       |     |     |
|                |            | LF'e in Min P-X: LF1 LF4 |     |      |                       |     |     |
|                |            | Max P-Y                  | .28 | 1.23 | 35.14                 | .00 | .00 |
|                |            | Min P-Y                  | .28 | 1.23 | 35.14                 | .00 | .00 |
|                |            | LF'e in Max P-Y: LF1 LF4 |     |      |                       |     |     |
|                |            | LF'e in Min P-Y: LF1 LF4 |     |      |                       |     |     |
|                |            | Max P-Z                  | .28 | 1.23 | 35.14                 | .00 | .00 |
|                |            | Min P-Z                  | .28 | 1.23 | 35.14                 | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF4 |     |      |                       |     |     |
|                |            | LF'e in Min P-Z: LF1 LF4 |     |      |                       |     |     |

## STAHL1 - SPANNUNGSANALYSE

### BASISANGABEN

ZU BEMESSENDE STÄBE  
Alle

ZU BEMESSENDE LASTFÄLLE  
LK1 - 2.00\*LF1/Ständig + LF2/Ständig  
LK2 - 2.00\*LF1/Ständig + LF3/Ständig  
LK3 - 2.00\*LF1/Ständig + LF4/Ständig

### GRENZSPANNUNGEN

| Mat.-<br>Nr. | Material-<br>Bezeichnung | Material-<br>Norm, Kriterium | Grenzspannungen [kN/cm²] |     |         |
|--------------|--------------------------|------------------------------|--------------------------|-----|---------|
|              |                          |                              | Sigma                    | Tau | Sigma-v |
| 1            | Aluminium                |                              | 4.8                      | 2.8 | 5.2     |

### QUERSCHNITTE

| Quer.-<br>Nr. | Mat.-<br>Nr. | Querschnittsbezeichnung<br>Querschnittsdrehung | I-T [cm⁴]<br>A [cm²] | I-2 [cm⁴]<br>Alpha pl. y | I-3 [cm⁴]<br>Alpha pl. z |
|---------------|--------------|------------------------------------------------|----------------------|--------------------------|--------------------------|
| 1             | 1            | Ring 80/5                                      | 166.41<br>11.78      | 83.20<br>1.00            | 83.20<br>1.00            |
| 2             | 1            | Ring 30/3                                      | 4.69<br>2.54         | 2.35<br>1.00             | 2.35<br>1.00             |
| 3             | 1            | Kreis 20                                       | 1.57<br>3.14         | 0.79<br>1.00             | 0.79<br>1.00             |
| 4             | 1            | Ring 70/5                                      | 108.48<br>10.21      | 54.24<br>1.00            | 54.24<br>1.00            |
| 5             | 1            | Ring 30/3                                      | 4.69<br>2.54         | 2.35<br>1.00             | 2.35<br>1.00             |
| 6             | 1            | Kreis 16                                       | 0.64<br>2.01         | 0.32<br>1.00             | 0.32<br>1.00             |
| 7             | 1            | Ring 50/5                                      | 36.23<br>7.07        | 18.11<br>1.00            | 18.11<br>1.00            |
| 8             | 1            | Ring 20/3                                      | 1.19<br>1.60         | 0.60<br>1.00             | 0.60<br>1.00             |
| 9             | 1            | Kreis 12                                       | 0.20<br>1.13         | 0.10<br>1.00             | 0.10<br>1.00             |
| 10            | 1            | Ring 35/5                                      | 10.90<br>4.71        | 5.45<br>1.00             | 5.45<br>1.00             |
| 11            | 1            | Ring 20/3                                      | 1.19                 | 0.60                     | 0.60                     |



## QUERSCHNITTE

| Quer.-Nr. | Mat.-Nr. | Querschnittsbezeichnung<br>Querschnittsdrehung | I-T [cm <sup>4</sup> ]<br>A [cm <sup>2</sup> ] | I-2 [cm <sup>4</sup> ]<br>Alpha pl. y | I-3 [cm <sup>4</sup> ]<br>Alpha pl. z |
|-----------|----------|------------------------------------------------|------------------------------------------------|---------------------------------------|---------------------------------------|
|           |          |                                                | 1.60                                           | 1.00                                  | 1.00                                  |
| 12        | 1        | Kreis 12                                       | 0.20<br>1.13                                   | 0.10<br>1.00                          | 0.10<br>1.00                          |
| 13        | 1        | Rechteck 120/25                                | 54.30<br>30.00                                 | 15.63<br>1.00                         | 360.00<br>1.00                        |
| 14        | 1        | Ring 80/10                                     | 274.89<br>21.99                                | 137.44<br>1.00                        | 137.44<br>1.00                        |
| 15        | 1        | Ring 70/8                                      | 152.24<br>15.58                                | 76.12<br>1.00                         | 76.12<br>1.00                         |

## MAX. SPANNUNGEN IN QUERSCHNITTEN

| Spannungs-<br>art                     | Stab-<br>Nr.                         | x-Stelle<br>[m] | S-Punkt<br>Nr. | LF<br>Nr. | Spannung [kN/cm^2] |       | Aus-<br>nutzung |
|---------------------------------------|--------------------------------------|-----------------|----------------|-----------|--------------------|-------|-----------------|
|                                       |                                      |                 |                |           | vorh               | grenz |                 |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 1 - Ring 80/5        |                 |                |           |                    |       |                 |
|                                       | 635                                  | 0.000           | 19             | LK2 -N    | -5.15              | 4.80  | 1.07            |
|                                       | 373                                  | 0.000           | 10             | LK2 -N    | 0.34               | 2.80  | 0.12            |
|                                       | 635                                  | 0.000           | 19             | LK2 -N    | 5.15               | 5.20  | 0.99            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 2 - Ring 30/3        |                 |                |           |                    |       |                 |
|                                       | 725                                  | 0.870           | 10             | LK2 -N    | 0.84               | 4.80  | 0.18            |
|                                       | 90                                   | 0.000           | 1              | LK2 -N    | 0.02               | 2.80  | 0.01            |
|                                       | 725                                  | 0.870           | 10             | LK2 -N    | 0.84               | 5.20  | 0.16            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 3 - Kreis 20         |                 |                |           |                    |       |                 |
|                                       | 249                                  | 0.550           | 28             | LK2 -N    | 1.35               | 4.80  | 0.28            |
|                                       | 249                                  | 0.000           | 37             | LK2 -N    | -0.01              | 2.80  | 0.00            |
|                                       | 249                                  | 0.550           | 28             | LK2 -N    | 1.35               | 5.20  | 0.26            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 4 - Ring 70/5        |                 |                |           |                    |       |                 |
|                                       | 690                                  | 0.000           | 19             | LK2 -N    | -4.75              | 4.80  | 0.99            |
|                                       | 388                                  | 0.000           | 10             | LK2 -N    | 0.19               | 2.80  | 0.07            |
|                                       | 690                                  | 0.000           | 19             | LK2 -N    | 4.75               | 5.20  | 0.91            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 5 - Ring 30/3        |                 |                |           |                    |       |                 |
|                                       | 159                                  | 0.000           | 10             | LK2 -N    | -1.29              | 4.80  | 0.27            |
|                                       | 159                                  | 0.000           | 1              | LK2 -N    | 0.04               | 2.80  | 0.01            |
|                                       | 159                                  | 0.000           | 10             | LK2 -N    | 1.29               | 5.20  | 0.25            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 6 - Kreis 16         |                 |                |           |                    |       |                 |
|                                       | 87                                   | 0.000           | 1              | LK2 -N    | -1.62              | 4.80  | 0.34            |
|                                       | 66                                   | 0.000           | 37             | LK3 -N    | -0.01              | 2.80  | 0.00            |
|                                       | 87                                   | 0.000           | 1              | LK2 -N    | 1.62               | 5.20  | 0.31            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 7 - Ring 50/5        |                 |                |           |                    |       |                 |
|                                       | 402                                  | 0.500           | 1              | LK2 -N    | -5.08              | 4.80  | 1.06            |
|                                       | 402                                  | 0.000           | 10             | LK2 -N    | 0.34               | 2.80  | 0.12            |
|                                       | 402                                  | 0.500           | 1              | LK2 -N    | 5.08               | 5.20  | 0.98            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 8 - Ring 20/3        |                 |                |           |                    |       |                 |
|                                       | 215                                  | 0.540           | 10             | LK3 -N    | -1.84              | 4.80  | 0.38            |
|                                       | 215                                  | 0.000           | 1              | LK2 -N    | 0.02               | 2.80  | 0.01            |
|                                       | 215                                  | 0.540           | 10             | LK3 -N    | 1.84               | 5.20  | 0.35            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 9 - Kreis 12         |                 |                |           |                    |       |                 |
|                                       | 158                                  | 0.000           | 1              | LK2 -N    | -1.99              | 4.80  | 0.41            |
|                                       | 327                                  | 0.000           | 37             | LK2 -N    | -0.01              | 2.80  | 0.00            |
|                                       | 158                                  | 0.000           | 1              | LK2 -N    | 1.99               | 5.20  | 0.38            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 10 - Ring 35/5       |                 |                |           |                    |       |                 |
|                                       | 711                                  | 0.000           | 7              | LK1 -N    | -4.56              | 4.80  | 0.95            |
|                                       | 711                                  | 0.000           | 16             | LK1 -N    | -0.08              | 2.80  | 0.03            |
|                                       | 711                                  | 0.000           | 7              | LK1 -N    | 4.56               | 5.20  | 0.88            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 11 - Ring 20/3       |                 |                |           |                    |       |                 |
|                                       | 575                                  | 0.000           | 28             | LK3 -N    | 1.73               | 4.80  | 0.36            |
|                                       | 424                                  | 0.000           | 1              | LK1 -N    | -0.06              | 2.80  | 0.02            |
|                                       | 575                                  | 0.000           | 28             | LK3 -N    | 1.73               | 5.20  | 0.33            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 12 - Kreis 12        |                 |                |           |                    |       |                 |
|                                       | 497                                  | 0.000           | 1              | LK2 -N    | -1.74              | 4.80  | 0.36            |
|                                       | 562                                  | 0.000           | 37             | LK1 -N    | 0.01               | 2.80  | 0.00            |
|                                       | 497                                  | 0.000           | 1              | LK2 -N    | 1.74               | 5.20  | 0.33            |
| Sigma gesamt<br>Tau gesamt            | Querschnitt Nr. 13 - Rechteck 120/25 |                 |                |           |                    |       |                 |
|                                       | 385                                  | 0.140           | 2              | LK2 -N    | 4.82               | 4.80  | 1.00            |
|                                       | 385                                  | 0.140           | 5              | LK2 -N    | 1.03               | 2.80  | 0.37            |



## MAX. SPANNUNGEN IN QUERSCHNITTEN

| Spannungs-<br>art               | Stab-<br>Nr. | x-Stelle<br>[m] | S-Punkt<br>Nr. | LF<br>Nr. | Spannung [kN/cm <sup>2</sup> ] |       | Aus-<br>nutzung |
|---------------------------------|--------------|-----------------|----------------|-----------|--------------------------------|-------|-----------------|
|                                 |              |                 |                |           | vorh                           | grenz |                 |
| Sigma-v                         | 385          | 0.140           | 2              | LK2 -N    | 4.82                           | 5.20  | 0.93            |
| Querschnitt Nr. 14 - Ring 80/10 |              |                 |                |           |                                |       |                 |
| Sigma gesamt                    | 372          | 0.500           | 1              | LK2 -N    | -6.94                          | 4.80  | 1.45            |
| Tau gesamt                      | 372          | 0.000           | 10             | LK2 -N    | 0.72                           | 2.80  | 0.26            |
| Sigma-v                         | 372          | 0.500           | 1              | LK2 -N    | 6.94                           | 5.20  | 1.33            |
| Querschnitt Nr. 15 - Ring 70/8  |              |                 |                |           |                                |       |                 |
| Sigma gesamt                    | 387          | 0.500           | 1              | LK2 -N    | -6.04                          | 4.80  | 1.26            |
| Tau gesamt                      | 387          | 0.000           | 10             | LK2 -N    | 0.54                           | 2.80  | 0.19            |
| Sigma-v                         | 387          | 0.500           | 1              | LK2 -N    | 6.04                           | 5.20  | 1.16            |

## 7. Berechnung der Schnittgrößen, Auflagerkräfte und Spannungen für Pos 5 / calculation of internal forces, support forces and stresses for item 5

Für die Eingabe des Systems und der Belastung und die Ausgabe der Ergebnisse siehe folgende EDV-Berechnungen. / For the input of the structure and the output of the results see the following EDP-printout.

### BASISANGABEN

#### BERECHNUNGSART

- |                                                      |                                                        |
|------------------------------------------------------|--------------------------------------------------------|
| <input checked="" type="checkbox"/> Statik           | <input checked="" type="checkbox"/> Theorie I. Ordnung |
| <input type="checkbox"/> Nachweis                    | <input type="checkbox"/> Theorie II. Ordnung           |
| <input type="checkbox"/> Dynamik                     | <input type="checkbox"/> Seiltheorie                   |
| <input checked="" type="checkbox"/> Lastfälle        | <input checked="" type="checkbox"/> Bemessungsfälle    |
| <input type="checkbox"/> LF-Gruppen                  | <input type="checkbox"/> Dynamikfälle                  |
| <input checked="" type="checkbox"/> LF-Kombinationen | <input type="checkbox"/> Knickfiguren                  |

#### STRUKTURKENNWERTE

- |                                                 |                 |                   |
|-------------------------------------------------|-----------------|-------------------|
| 1D-Durchlaufträger                              | 411Knoten       | 1158Stäbe         |
| 2D-Stabwerk                                     | 1Materialien    | 0Seilstäbe        |
| <input checked="" type="checkbox"/> 3D-Stabwerk | 15Querschnitte  | 0Voutenstäbe      |
| Trägerrost                                      | 1Stabendgelenke | 0El. gebet. Stäbe |
|                                                 | 0Stabteilungen  | 0Stabzüge         |

### KNOTEN

| Knoten-<br>Nr. | Koordinaten-<br>system | Bezugs-<br>Knoten | Knotenkoordinaten |       |        |
|----------------|------------------------|-------------------|-------------------|-------|--------|
|                |                        |                   | X [m]             | Y [m] | Z [m]  |
| 1              | Kartesisch             | -                 | -0.492            | 0.284 | -8.000 |
| 2              | Kartesisch             | -                 | -0.492            | 0.284 | -7.750 |
| 3              | Kartesisch             | -                 | -0.492            | 0.284 | -7.250 |
| 4              | Kartesisch             | -                 | -0.492            | 0.284 | -6.750 |
| 5              | Kartesisch             | -                 | -0.492            | 0.284 | -6.250 |
| 6              | Kartesisch             | -                 | -0.492            | 0.284 | -5.750 |
| 7              | Kartesisch             | -                 | -0.492            | 0.284 | -5.250 |
| 8              | Kartesisch             | -                 | -0.492            | 0.284 | -2.750 |
| 9              | Kartesisch             | -                 | -0.492            | 0.284 | -2.250 |
| 10             | Kartesisch             | -                 | -0.492            | 0.284 | -1.750 |
| 11             | Kartesisch             | -                 | -0.492            | 0.284 | -1.250 |
| 12             | Kartesisch             | -                 | -0.492            | 0.284 | -0.750 |
| 13             | Kartesisch             | -                 | -0.492            | 0.284 | -0.250 |
| 14             | Kartesisch             | -                 | -0.492            | 0.284 | 0.000  |
|                | Gelagert               |                   |                   |       |        |
| 15             | Kartesisch             | -                 | -0.375            | 0.217 | -8.000 |
| 16             | Kartesisch             | -                 | -0.375            | 0.217 | -7.750 |
| 17             | Kartesisch             | -                 | -0.375            | 0.217 | -7.250 |
| 18             | Kartesisch             | -                 | -0.375            | 0.217 | -6.750 |



## KNOTEN

| Knoten-<br>Nr. | Koordinaten-<br>system | Bezugs-<br>Knoten | Knotenkoordinaten |        |        |
|----------------|------------------------|-------------------|-------------------|--------|--------|
|                |                        |                   | X [m]             | Y [m]  | Z [m]  |
| 19             | Kartesisch             | -                 | -0.375            | 0.217  | -6.250 |
| 20             | Kartesisch             | -                 | -0.375            | 0.217  | -5.750 |
| 21             | Kartesisch             | -                 | -0.375            | 0.217  | -5.250 |
| 22             | Kartesisch             | -                 | -0.375            | 0.217  | -2.750 |
| 23             | Kartesisch             | -                 | -0.375            | 0.217  | -2.250 |
| 24             | Kartesisch             | -                 | -0.375            | 0.217  | -1.750 |
| 25             | Kartesisch             | -                 | -0.375            | 0.217  | -1.250 |
| 26             | Kartesisch             | -                 | -0.375            | 0.217  | -0.750 |
| 27             | Kartesisch             | -                 | -0.375            | 0.217  | -0.250 |
| 28             | Kartesisch             | -                 | -0.375            | 0.217  | 0.000  |
| Gelagert       |                        |                   |                   |        |        |
| 29             | Kartesisch             | -                 | -0.271            | 0.157  | -8.000 |
| 30             | Kartesisch             | -                 | -0.271            | 0.157  | -7.750 |
| 31             | Kartesisch             | -                 | -0.271            | 0.157  | -7.250 |
| 32             | Kartesisch             | -                 | -0.271            | 0.157  | -6.750 |
| 33             | Kartesisch             | -                 | -0.271            | 0.157  | -6.250 |
| 34             | Kartesisch             | -                 | -0.271            | 0.157  | -5.750 |
| 35             | Kartesisch             | -                 | -0.271            | 0.157  | -5.250 |
| 36             | Kartesisch             | -                 | -0.271            | 0.157  | -2.750 |
| 37             | Kartesisch             | -                 | -0.271            | 0.157  | -2.250 |
| 38             | Kartesisch             | -                 | -0.271            | 0.157  | -1.750 |
| 39             | Kartesisch             | -                 | -0.271            | 0.157  | -1.250 |
| 40             | Kartesisch             | -                 | -0.271            | 0.157  | -0.750 |
| 41             | Kartesisch             | -                 | -0.271            | 0.157  | -0.250 |
| 42             | Kartesisch             | -                 | -0.271            | 0.157  | 0.000  |
| Gelagert       |                        |                   |                   |        |        |
| 43             | Kartesisch             | -                 | -0.247            | -0.142 | -7.500 |
| 44             | Kartesisch             | -                 | -0.492            | 0.284  | -2.000 |
| 45             | Kartesisch             | -                 | -0.492            | 0.284  | -7.000 |
| 46             | Kartesisch             | -                 | -0.375            | 0.217  | -7.000 |
| 47             | Kartesisch             | -                 | -0.375            | 0.217  | -1.000 |
| 48             | Kartesisch             | -                 | -0.492            | 0.284  | -3.250 |
| 54             | Kartesisch             | -                 | -0.183            | 0.105  | -8.000 |
| 55             | Kartesisch             | -                 | -0.183            | 0.105  | -7.750 |
| 56             | Kartesisch             | -                 | -0.183            | 0.105  | -7.250 |
| 57             | Kartesisch             | -                 | -0.183            | 0.105  | -6.750 |
| 58             | Kartesisch             | -                 | -0.183            | 0.105  | -6.250 |
| 59             | Kartesisch             | -                 | -0.183            | 0.105  | -5.750 |
| 60             | Kartesisch             | -                 | -0.183            | 0.105  | -5.250 |
| 61             | Kartesisch             | -                 | -0.183            | 0.105  | -2.750 |
| 62             | Kartesisch             | -                 | -0.183            | 0.105  | -2.250 |
| 63             | Kartesisch             | -                 | -0.183            | 0.105  | -1.750 |
| 64             | Kartesisch             | -                 | -0.183            | 0.105  | -1.250 |
| 65             | Kartesisch             | -                 | -0.183            | 0.105  | -0.750 |
| 66             | Kartesisch             | -                 | -0.183            | 0.105  | -0.250 |
| 67             | Kartesisch             | -                 | -0.183            | 0.105  | 0.000  |
| Gelagert       |                        |                   |                   |        |        |
| 68             | Kartesisch             | -                 | -0.187            | -0.109 | -7.500 |
| 73             | Kartesisch             | -                 | -0.492            | 0.284  | -3.750 |
| 79             | Kartesisch             | -                 | -0.135            | -0.078 | -7.500 |
| 84             | Kartesisch             | -                 | -0.492            | 0.284  | -4.250 |
| 90             | Kartesisch             | -                 | -0.091            | -0.053 | -7.500 |
| 95             | Kartesisch             | -                 | -0.492            | 0.284  | -4.750 |
| 101            | Kartesisch             | -                 | 0.000             | -0.568 | -8.000 |
| 102            | Kartesisch             | -                 | 0.000             | -0.568 | -7.750 |
| 103            | Kartesisch             | -                 | 0.000             | -0.568 | -7.250 |
| 104            | Kartesisch             | -                 | 0.000             | -0.568 | -6.750 |
| 105            | Kartesisch             | -                 | 0.000             | -0.568 | -6.250 |
| 106            | Kartesisch             | -                 | 0.000             | -0.568 | -5.750 |
| 107            | Kartesisch             | -                 | 0.000             | -0.568 | -5.250 |
| 108            | Kartesisch             | -                 | 0.000             | -0.568 | -2.750 |
| 109            | Kartesisch             | -                 | 0.000             | -0.568 | -2.250 |
| 110            | Kartesisch             | -                 | 0.000             | -0.568 | -1.750 |
| 111            | Kartesisch             | -                 | 0.000             | -0.568 | -1.250 |
| 112            | Kartesisch             | -                 | 0.000             | -0.568 | -0.750 |
| 113            | Kartesisch             | -                 | 0.000             | -0.568 | -0.250 |
| 114            | Kartesisch             | -                 | 0.000             | -0.568 | 0.000  |
| Gelagert       |                        |                   |                   |        |        |
| 115            | Kartesisch             | -                 | 0.000             | -0.433 | -8.000 |
| 116            | Kartesisch             | -                 | 0.000             | -0.433 | -7.750 |



## KNOTEN

| Knoten-<br>Nr. | Koordinaten-<br>system | Bezugs-<br>Knoten | Knotenkoordinaten |        |        |
|----------------|------------------------|-------------------|-------------------|--------|--------|
|                |                        |                   | X [m]             | Y [m]  | Z [m]  |
| 117            | Kartesisch             | -                 | 0.000             | -0.433 | -7.250 |
| 118            | Kartesisch             | -                 | 0.000             | -0.433 | -6.750 |
| 119            | Kartesisch             | -                 | 0.000             | -0.433 | -6.250 |
| 120            | Kartesisch             | -                 | 0.000             | -0.433 | -5.750 |
| 121            | Kartesisch             | -                 | 0.000             | -0.433 | -5.250 |
| 122            | Kartesisch             | -                 | 0.000             | -0.433 | -2.750 |
| 123            | Kartesisch             | -                 | 0.000             | -0.433 | -2.250 |
| 124            | Kartesisch             | -                 | 0.000             | -0.433 | -1.750 |
| 125            | Kartesisch             | -                 | 0.000             | -0.433 | -1.250 |
| 126            | Kartesisch             | -                 | 0.000             | -0.433 | -0.750 |
| 127            | Kartesisch             | -                 | 0.000             | -0.433 | -0.250 |
| 128            | Kartesisch             | -                 | 0.000             | -0.433 | 0.000  |
| Gelagert       |                        |                   |                   |        |        |
| 129            | Kartesisch             | -                 | 0.000             | -0.313 | -8.000 |
| 130            | Kartesisch             | -                 | 0.000             | -0.313 | -7.750 |
| 131            | Kartesisch             | -                 | 0.000             | -0.313 | -7.250 |
| 132            | Kartesisch             | -                 | 0.000             | -0.313 | -6.750 |
| 133            | Kartesisch             | -                 | 0.000             | -0.313 | -6.250 |
| 134            | Kartesisch             | -                 | 0.000             | -0.313 | -5.750 |
| 135            | Kartesisch             | -                 | 0.000             | -0.313 | -5.250 |
| 136            | Kartesisch             | -                 | 0.000             | -0.313 | -2.750 |
| 137            | Kartesisch             | -                 | 0.000             | -0.313 | -2.250 |
| 138            | Kartesisch             | -                 | 0.000             | -0.313 | -1.750 |
| 139            | Kartesisch             | -                 | 0.000             | -0.313 | -1.250 |
| 140            | Kartesisch             | -                 | 0.000             | -0.313 | -0.750 |
| 141            | Kartesisch             | -                 | 0.000             | -0.313 | -0.250 |
| 142            | Kartesisch             | -                 | 0.000             | -0.313 | 0.000  |
| Gelagert       |                        |                   |                   |        |        |
| 143            | Kartesisch             | -                 | 0.000             | 0.105  | -7.500 |
| 144            | Kartesisch             | -                 | 0.000             | -0.568 | -2.000 |
| 145            | Kartesisch             | -                 | 0.000             | -0.568 | -7.000 |
| 146            | Kartesisch             | -                 | 0.000             | -0.433 | -7.000 |
| 147            | Kartesisch             | -                 | 0.000             | -0.433 | -1.000 |
| 148            | Kartesisch             | -                 | -0.375            | 0.217  | -3.250 |
| 154            | Kartesisch             | -                 | 0.000             | 0.157  | -7.500 |
| 159            | Kartesisch             | -                 | -0.375            | 0.217  | -3.750 |
| 165            | Kartesisch             | -                 | 0.000             | 0.217  | -7.500 |
| 170            | Kartesisch             | -                 | -0.375            | 0.217  | -4.250 |
| 176            | Kartesisch             | -                 | 0.000             | -0.211 | -8.000 |
| 177            | Kartesisch             | -                 | 0.000             | -0.211 | -7.750 |
| 178            | Kartesisch             | -                 | 0.000             | -0.211 | -7.250 |
| 179            | Kartesisch             | -                 | 0.000             | -0.211 | -6.750 |
| 180            | Kartesisch             | -                 | 0.000             | -0.211 | -6.250 |
| 181            | Kartesisch             | -                 | 0.000             | -0.211 | -5.750 |
| 182            | Kartesisch             | -                 | 0.000             | -0.211 | -5.250 |
| 183            | Kartesisch             | -                 | 0.000             | -0.211 | -2.750 |
| 184            | Kartesisch             | -                 | 0.000             | -0.211 | -2.250 |
| 185            | Kartesisch             | -                 | 0.000             | -0.211 | -1.750 |
| 186            | Kartesisch             | -                 | 0.000             | -0.211 | -1.250 |
| 187            | Kartesisch             | -                 | 0.000             | -0.211 | -0.750 |
| 188            | Kartesisch             | -                 | 0.000             | -0.211 | -0.250 |
| 189            | Kartesisch             | -                 | 0.000             | -0.211 | 0.000  |
| Gelagert       |                        |                   |                   |        |        |
| 190            | Kartesisch             | -                 | 0.000             | 0.284  | -7.500 |
| 195            | Kartesisch             | -                 | -0.375            | 0.217  | -4.750 |
| 201            | Kartesisch             | -                 | 0.091             | -0.053 | -7.500 |
| 206            | Kartesisch             | -                 | -0.271            | 0.157  | -3.250 |
| 212            | Kartesisch             | -                 | 0.135             | -0.078 | -7.500 |
| 217            | Kartesisch             | -                 | -0.271            | 0.157  | -3.750 |
| 223            | Kartesisch             | -                 | 0.187             | -0.109 | -7.500 |
| 228            | Kartesisch             | -                 | -0.271            | 0.157  | -4.250 |
| 234            | Kartesisch             | -                 | 0.183             | 0.105  | -8.000 |
| 235            | Kartesisch             | -                 | 0.183             | 0.105  | -7.750 |
| 236            | Kartesisch             | -                 | 0.183             | 0.105  | -7.250 |
| 237            | Kartesisch             | -                 | 0.183             | 0.105  | -6.750 |
| 238            | Kartesisch             | -                 | 0.183             | 0.105  | -6.250 |
| 239            | Kartesisch             | -                 | 0.183             | 0.105  | -5.750 |
| 240            | Kartesisch             | -                 | 0.183             | 0.105  | -5.250 |
| 241            | Kartesisch             | -                 | 0.183             | 0.105  | -2.750 |
| 242            | Kartesisch             | -                 | 0.183             | 0.105  | -2.250 |



## KNOTEN

| Knoten-<br>Nr. | Koordinaten-<br>system | Bezugs-<br>Knoten | Knotenkoordinaten |        |        |
|----------------|------------------------|-------------------|-------------------|--------|--------|
|                |                        |                   | X [m]             | Y [m]  | Z [m]  |
| 243            | Kartesisch             | -                 | 0.183             | 0.105  | -1.750 |
| 244            | Kartesisch             | -                 | 0.183             | 0.105  | -1.250 |
| 245            | Kartesisch             | -                 | 0.183             | 0.105  | -0.750 |
| 246            | Kartesisch             | -                 | 0.183             | 0.105  | -0.250 |
| 247            | Kartesisch             | -                 | 0.183             | 0.105  | 0.000  |
|                | Gelagert               |                   |                   |        |        |
| 248            | Kartesisch             | -                 | 0.247             | -0.142 | -7.500 |
| 253            | Kartesisch             | -                 | -0.271            | 0.157  | -4.750 |
| 259            | Kartesisch             | -                 | 0.271             | 0.157  | -8.000 |
| 260            | Kartesisch             | -                 | 0.271             | 0.157  | -7.750 |
| 261            | Kartesisch             | -                 | 0.271             | 0.157  | -7.250 |
| 262            | Kartesisch             | -                 | 0.271             | 0.157  | -6.750 |
| 263            | Kartesisch             | -                 | 0.271             | 0.157  | -6.250 |
| 264            | Kartesisch             | -                 | 0.271             | 0.157  | -5.750 |
| 265            | Kartesisch             | -                 | 0.271             | 0.157  | -5.250 |
| 266            | Kartesisch             | -                 | 0.271             | 0.157  | -2.750 |
| 267            | Kartesisch             | -                 | 0.271             | 0.157  | -2.250 |
| 268            | Kartesisch             | -                 | 0.271             | 0.157  | -1.750 |
| 269            | Kartesisch             | -                 | 0.271             | 0.157  | -1.250 |
| 270            | Kartesisch             | -                 | 0.271             | 0.157  | -0.750 |
| 271            | Kartesisch             | -                 | 0.271             | 0.157  | -0.250 |
| 272            | Kartesisch             | -                 | 0.271             | 0.157  | 0.000  |
|                | Gelagert               |                   |                   |        |        |
| 273            | Kartesisch             | -                 | 0.375             | 0.217  | -8.000 |
| 274            | Kartesisch             | -                 | 0.375             | 0.217  | -7.750 |
| 275            | Kartesisch             | -                 | 0.375             | 0.217  | -7.250 |
| 276            | Kartesisch             | -                 | 0.375             | 0.217  | -6.750 |
| 277            | Kartesisch             | -                 | 0.375             | 0.217  | -6.250 |
| 278            | Kartesisch             | -                 | 0.375             | 0.217  | -5.750 |
| 279            | Kartesisch             | -                 | 0.375             | 0.217  | -5.250 |
| 280            | Kartesisch             | -                 | 0.375             | 0.217  | -2.750 |
| 281            | Kartesisch             | -                 | 0.375             | 0.217  | -2.250 |
| 282            | Kartesisch             | -                 | 0.375             | 0.217  | -1.750 |
| 283            | Kartesisch             | -                 | 0.375             | 0.217  | -1.250 |
| 284            | Kartesisch             | -                 | 0.375             | 0.217  | -0.750 |
| 285            | Kartesisch             | -                 | 0.375             | 0.217  | -0.250 |
| 286            | Kartesisch             | -                 | 0.375             | 0.217  | 0.000  |
|                | Gelagert               |                   |                   |        |        |
| 287            | Kartesisch             | -                 | 0.493             | 0.284  | -8.000 |
| 288            | Kartesisch             | -                 | 0.493             | 0.284  | -7.750 |
| 289            | Kartesisch             | -                 | 0.493             | 0.284  | -7.250 |
| 290            | Kartesisch             | -                 | 0.493             | 0.284  | -6.750 |
| 291            | Kartesisch             | -                 | 0.493             | 0.284  | -6.250 |
| 292            | Kartesisch             | -                 | 0.493             | 0.284  | -5.750 |
| 293            | Kartesisch             | -                 | 0.493             | 0.284  | -5.250 |
| 294            | Kartesisch             | -                 | 0.493             | 0.284  | -2.750 |
| 295            | Kartesisch             | -                 | 0.493             | 0.284  | -2.250 |
| 296            | Kartesisch             | -                 | 0.493             | 0.284  | -1.750 |
| 297            | Kartesisch             | -                 | 0.493             | 0.284  | -1.250 |
| 298            | Kartesisch             | -                 | 0.493             | 0.284  | -0.750 |
| 299            | Kartesisch             | -                 | 0.493             | 0.284  | -0.250 |
| 300            | Kartesisch             | -                 | 0.493             | 0.284  | 0.000  |
|                | Gelagert               |                   |                   |        |        |
| 301            | Kartesisch             | -                 | -0.247            | -0.142 | -0.125 |
| 302            | Kartesisch             | -                 | 0.000             | 0.284  | -0.125 |
| 303            | Kartesisch             | -                 | 0.247             | -0.142 | -0.125 |
| 304            | Kartesisch             | -                 | 0.493             | 0.284  | -3.250 |
| 305            | Kartesisch             | -                 | 0.493             | 0.284  | -3.750 |
| 306            | Kartesisch             | -                 | 0.493             | 0.284  | -4.250 |
| 307            | Kartesisch             | -                 | 0.493             | 0.284  | -4.750 |
| 308            | Kartesisch             | -                 | 0.375             | 0.217  | -3.250 |
| 309            | Kartesisch             | -                 | 0.375             | 0.217  | -3.750 |
| 310            | Kartesisch             | -                 | 0.375             | 0.217  | -4.250 |
| 311            | Kartesisch             | -                 | 0.375             | 0.217  | -4.750 |
| 312            | Kartesisch             | -                 | 0.271             | 0.157  | -3.250 |
| 313            | Kartesisch             | -                 | 0.271             | 0.157  | -3.750 |
| 314            | Kartesisch             | -                 | 0.271             | 0.157  | -4.250 |
| 315            | Kartesisch             | -                 | 0.271             | 0.157  | -4.750 |
| 316            | Kartesisch             | -                 | 0.183             | 0.105  | -4.750 |
| 317            | Kartesisch             | -                 | 0.183             | 0.105  | -3.250 |



## KNOTEN

| Knoten-<br>Nr. | Koordinaten-<br>system | Bezugs-<br>Knoten | Knotenkoordinaten |        |        |
|----------------|------------------------|-------------------|-------------------|--------|--------|
|                |                        |                   | X [m]             | Y [m]  | Z [m]  |
| 318            | Kartesisch             | -                 | 0.183             | 0.105  | -3.750 |
| 319            | Kartesisch             | -                 | 0.183             | 0.105  | -4.250 |
| 320            | Kartesisch             | -                 | 0.000             | -0.211 | -3.250 |
| 321            | Kartesisch             | -                 | 0.000             | -0.211 | -3.750 |
| 322            | Kartesisch             | -                 | 0.000             | -0.211 | -4.250 |
| 323            | Kartesisch             | -                 | 0.000             | -0.211 | -4.750 |
| 324            | Kartesisch             | -                 | 0.000             | -0.313 | -3.250 |
| 325            | Kartesisch             | -                 | 0.000             | -0.313 | -3.750 |
| 326            | Kartesisch             | -                 | 0.000             | -0.313 | -4.250 |
| 327            | Kartesisch             | -                 | 0.000             | -0.313 | -4.750 |
| 328            | Kartesisch             | -                 | 0.000             | -0.433 | -3.250 |
| 329            | Kartesisch             | -                 | 0.000             | -0.433 | -3.750 |
| 330            | Kartesisch             | -                 | 0.000             | -0.433 | -4.250 |
| 331            | Kartesisch             | -                 | 0.000             | -0.433 | -4.750 |
| 332            | Kartesisch             | -                 | 0.000             | -0.568 | -3.250 |
| 333            | Kartesisch             | -                 | 0.000             | -0.568 | -3.750 |
| 334            | Kartesisch             | -                 | 0.000             | -0.568 | -4.250 |
| 335            | Kartesisch             | -                 | 0.000             | -0.568 | -4.750 |
| 336            | Kartesisch             | -                 | -0.183            | 0.105  | -3.250 |
| 337            | Kartesisch             | -                 | -0.183            | 0.105  | -3.750 |
| 338            | Kartesisch             | -                 | -0.183            | 0.105  | -4.250 |
| 339            | Kartesisch             | -                 | -0.183            | 0.105  | -4.750 |
| 340            | Kartesisch             | -                 | -0.091            | -0.053 | -7.000 |
| 341            | Kartesisch             | -                 | 0.000             | 0.105  | -7.000 |
| 342            | Kartesisch             | -                 | 0.091             | -0.053 | -7.000 |
| 343            | Kartesisch             | -                 | -0.091            | -0.053 | -6.500 |
| 344            | Kartesisch             | -                 | 0.000             | 0.105  | -6.500 |
| 345            | Kartesisch             | -                 | 0.091             | -0.053 | -6.500 |
| 346            | Kartesisch             | -                 | -0.091            | -0.053 | -6.000 |
| 347            | Kartesisch             | -                 | 0.000             | 0.105  | -6.000 |
| 348            | Kartesisch             | -                 | 0.091             | -0.053 | -6.000 |
| 349            | Kartesisch             | -                 | -0.091            | -0.053 | -5.500 |
| 350            | Kartesisch             | -                 | 0.000             | 0.105  | -5.500 |
| 351            | Kartesisch             | -                 | 0.091             | -0.053 | -5.500 |
| 352            | Kartesisch             | -                 | -0.091            | -0.053 | -5.000 |
| 353            | Kartesisch             | -                 | 0.000             | 0.105  | -5.000 |
| 354            | Kartesisch             | -                 | 0.091             | -0.053 | -5.000 |
| 355            | Kartesisch             | -                 | -0.091            | -0.053 | -4.500 |
| 356            | Kartesisch             | -                 | 0.000             | 0.105  | -4.500 |
| 357            | Kartesisch             | -                 | 0.091             | -0.053 | -4.500 |
| 358            | Kartesisch             | -                 | -0.091            | -0.053 | -4.000 |
| 359            | Kartesisch             | -                 | 0.000             | 0.105  | -4.000 |
| 360            | Kartesisch             | -                 | 0.091             | -0.053 | -4.000 |
| 361            | Kartesisch             | -                 | -0.091            | -0.053 | -3.500 |
| 362            | Kartesisch             | -                 | 0.000             | 0.105  | -3.500 |
| 363            | Kartesisch             | -                 | 0.091             | -0.053 | -3.500 |
| 364            | Kartesisch             | -                 | -0.091            | -0.053 | -3.000 |
| 365            | Kartesisch             | -                 | 0.000             | 0.105  | -3.000 |
| 366            | Kartesisch             | -                 | 0.091             | -0.053 | -3.000 |
| 367            | Kartesisch             | -                 | -0.091            | -0.053 | -2.500 |
| 368            | Kartesisch             | -                 | 0.000             | 0.105  | -2.500 |
| 369            | Kartesisch             | -                 | 0.091             | -0.053 | -2.500 |
| 370            | Kartesisch             | -                 | -0.091            | -0.053 | -2.000 |
| 371            | Kartesisch             | -                 | 0.000             | 0.105  | -2.000 |
| 372            | Kartesisch             | -                 | 0.091             | -0.053 | -2.000 |
| 373            | Kartesisch             | -                 | -0.091            | -0.053 | -1.500 |
| 374            | Kartesisch             | -                 | 0.000             | 0.105  | -1.500 |
| 375            | Kartesisch             | -                 | 0.091             | -0.053 | -1.500 |
| 376            | Kartesisch             | -                 | -0.091            | -0.053 | -1.000 |
| 377            | Kartesisch             | -                 | 0.000             | 0.105  | -1.000 |
| 378            | Kartesisch             | -                 | 0.091             | -0.053 | -1.000 |
| 379            | Kartesisch             | -                 | -0.091            | -0.053 | -0.500 |
| 380            | Kartesisch             | -                 | 0.000             | 0.105  | -0.500 |
| 381            | Kartesisch             | -                 | 0.091             | -0.053 | -0.500 |
| 382            | Kartesisch             | -                 | -0.135            | -0.078 | -7.000 |
| 383            | Kartesisch             | -                 | 0.000             | 0.157  | -7.000 |
| 384            | Kartesisch             | -                 | 0.135             | -0.078 | -7.000 |
| 385            | Kartesisch             | -                 | -0.135            | -0.078 | -6.500 |
| 386            | Kartesisch             | -                 | 0.000             | 0.157  | -6.500 |
| 387            | Kartesisch             | -                 | 0.135             | -0.078 | -6.500 |



## KNOTEN

| Knoten-<br>Nr. | Koordinaten-<br>system | Bezugs-<br>Knoten | Knotenkoordinaten |        |        |
|----------------|------------------------|-------------------|-------------------|--------|--------|
|                |                        |                   | X [m]             | Y [m]  | Z [m]  |
| 388            | Kartesisch             | -                 | -0.135            | -0.078 | -6.000 |
| 389            | Kartesisch             | -                 | 0.000             | 0.157  | -6.000 |
| 390            | Kartesisch             | -                 | 0.135             | -0.078 | -6.000 |
| 391            | Kartesisch             | -                 | -0.135            | -0.078 | -5.500 |
| 392            | Kartesisch             | -                 | 0.000             | 0.157  | -5.500 |
| 393            | Kartesisch             | -                 | 0.135             | -0.078 | -5.500 |
| 394            | Kartesisch             | -                 | -0.135            | -0.078 | -5.000 |
| 395            | Kartesisch             | -                 | 0.000             | 0.157  | -5.000 |
| 396            | Kartesisch             | -                 | 0.135             | -0.078 | -5.000 |
| 397            | Kartesisch             | -                 | -0.135            | -0.078 | -4.500 |
| 398            | Kartesisch             | -                 | 0.000             | 0.157  | -4.500 |
| 399            | Kartesisch             | -                 | 0.135             | -0.078 | -4.500 |
| 400            | Kartesisch             | -                 | -0.135            | -0.078 | -4.000 |
| 401            | Kartesisch             | -                 | 0.000             | 0.157  | -4.000 |
| 402            | Kartesisch             | -                 | 0.135             | -0.078 | -4.000 |
| 403            | Kartesisch             | -                 | -0.135            | -0.078 | -3.500 |
| 404            | Kartesisch             | -                 | 0.000             | 0.157  | -3.500 |
| 405            | Kartesisch             | -                 | 0.135             | -0.078 | -3.500 |
| 406            | Kartesisch             | -                 | -0.135            | -0.078 | -3.000 |
| 407            | Kartesisch             | -                 | 0.000             | 0.157  | -3.000 |
| 408            | Kartesisch             | -                 | 0.135             | -0.078 | -3.000 |
| 409            | Kartesisch             | -                 | -0.135            | -0.078 | -2.500 |
| 410            | Kartesisch             | -                 | 0.000             | 0.157  | -2.500 |
| 411            | Kartesisch             | -                 | 0.135             | -0.078 | -2.500 |
| 412            | Kartesisch             | -                 | -0.135            | -0.078 | -2.000 |
| 413            | Kartesisch             | -                 | 0.000             | 0.157  | -2.000 |
| 414            | Kartesisch             | -                 | 0.135             | -0.078 | -2.000 |
| 415            | Kartesisch             | -                 | -0.135            | -0.078 | -1.500 |
| 416            | Kartesisch             | -                 | 0.000             | 0.157  | -1.500 |
| 417            | Kartesisch             | -                 | 0.135             | -0.078 | -1.500 |
| 418            | Kartesisch             | -                 | -0.135            | -0.078 | -1.000 |
| 419            | Kartesisch             | -                 | 0.000             | 0.157  | -1.000 |
| 420            | Kartesisch             | -                 | 0.135             | -0.078 | -1.000 |
| 421            | Kartesisch             | -                 | -0.135            | -0.078 | -0.500 |
| 422            | Kartesisch             | -                 | 0.000             | 0.157  | -0.500 |
| 423            | Kartesisch             | -                 | 0.135             | -0.078 | -0.500 |
| 424            | Kartesisch             | -                 | -0.187            | -0.109 | -7.000 |
| 425            | Kartesisch             | -                 | 0.000             | 0.217  | -7.000 |
| 426            | Kartesisch             | -                 | 0.187             | -0.109 | -7.000 |
| 427            | Kartesisch             | -                 | -0.187            | -0.109 | -6.500 |
| 428            | Kartesisch             | -                 | 0.000             | 0.217  | -6.500 |
| 429            | Kartesisch             | -                 | 0.187             | -0.109 | -6.500 |
| 430            | Kartesisch             | -                 | -0.187            | -0.109 | -6.000 |
| 431            | Kartesisch             | -                 | 0.000             | 0.217  | -6.000 |
| 432            | Kartesisch             | -                 | 0.187             | -0.109 | -6.000 |
| 433            | Kartesisch             | -                 | -0.187            | -0.109 | -5.500 |
| 434            | Kartesisch             | -                 | 0.000             | 0.217  | -5.500 |
| 435            | Kartesisch             | -                 | 0.187             | -0.109 | -5.500 |
| 436            | Kartesisch             | -                 | -0.187            | -0.109 | -5.000 |
| 437            | Kartesisch             | -                 | 0.000             | 0.217  | -5.000 |
| 438            | Kartesisch             | -                 | 0.187             | -0.109 | -5.000 |
| 439            | Kartesisch             | -                 | -0.187            | -0.109 | -4.500 |
| 440            | Kartesisch             | -                 | 0.000             | 0.217  | -4.500 |
| 441            | Kartesisch             | -                 | 0.187             | -0.109 | -4.500 |
| 442            | Kartesisch             | -                 | -0.187            | -0.109 | -4.000 |
| 443            | Kartesisch             | -                 | 0.000             | 0.217  | -4.000 |
| 444            | Kartesisch             | -                 | 0.187             | -0.109 | -4.000 |
| 445            | Kartesisch             | -                 | -0.187            | -0.109 | -3.500 |
| 446            | Kartesisch             | -                 | 0.000             | 0.217  | -3.500 |
| 447            | Kartesisch             | -                 | 0.187             | -0.109 | -3.500 |
| 448            | Kartesisch             | -                 | -0.187            | -0.109 | -3.000 |
| 449            | Kartesisch             | -                 | 0.000             | 0.217  | -3.000 |
| 450            | Kartesisch             | -                 | 0.187             | -0.109 | -3.000 |
| 451            | Kartesisch             | -                 | -0.187            | -0.109 | -2.500 |
| 452            | Kartesisch             | -                 | 0.000             | 0.217  | -2.500 |
| 453            | Kartesisch             | -                 | 0.187             | -0.109 | -2.500 |
| 454            | Kartesisch             | -                 | -0.187            | -0.109 | -2.000 |
| 455            | Kartesisch             | -                 | 0.000             | 0.217  | -2.000 |
| 456            | Kartesisch             | -                 | 0.187             | -0.109 | -2.000 |
| 457            | Kartesisch             | -                 | -0.187            | -0.109 | -1.500 |



## KNOTEN

| Knoten-<br>Nr. | Koordinaten-<br>system | Bezugs-<br>Knoten | Knotenkoordinaten |        |        |
|----------------|------------------------|-------------------|-------------------|--------|--------|
|                |                        |                   | X [m]             | Y [m]  | Z [m]  |
| 458            | Kartesisch             | -                 | 0.000             | 0.217  | -1.500 |
| 459            | Kartesisch             | -                 | 0.187             | -0.109 | -1.500 |
| 460            | Kartesisch             | -                 | -0.187            | -0.109 | -1.000 |
| 461            | Kartesisch             | -                 | 0.000             | 0.217  | -1.000 |
| 462            | Kartesisch             | -                 | 0.187             | -0.109 | -1.000 |
| 463            | Kartesisch             | -                 | -0.187            | -0.109 | -0.500 |
| 464            | Kartesisch             | -                 | 0.000             | 0.217  | -0.500 |
| 465            | Kartesisch             | -                 | 0.187             | -0.109 | -0.500 |
| 466            | Kartesisch             | -                 | -0.247            | -0.142 | -7.000 |
| 467            | Kartesisch             | -                 | 0.000             | 0.284  | -7.000 |
| 468            | Kartesisch             | -                 | 0.247             | -0.142 | -7.000 |
| 469            | Kartesisch             | -                 | -0.247            | -0.142 | -6.500 |
| 470            | Kartesisch             | -                 | 0.000             | 0.284  | -6.500 |
| 471            | Kartesisch             | -                 | 0.247             | -0.142 | -6.500 |
| 472            | Kartesisch             | -                 | -0.247            | -0.142 | -6.000 |
| 473            | Kartesisch             | -                 | 0.000             | 0.284  | -6.000 |
| 474            | Kartesisch             | -                 | 0.247             | -0.142 | -6.000 |
| 475            | Kartesisch             | -                 | -0.247            | -0.142 | -5.500 |
| 476            | Kartesisch             | -                 | 0.000             | 0.284  | -5.500 |
| 477            | Kartesisch             | -                 | 0.247             | -0.142 | -5.500 |
| 478            | Kartesisch             | -                 | -0.247            | -0.142 | -5.000 |
| 479            | Kartesisch             | -                 | 0.000             | 0.284  | -5.000 |
| 480            | Kartesisch             | -                 | 0.247             | -0.142 | -5.000 |
| 481            | Kartesisch             | -                 | -0.247            | -0.142 | -4.500 |
| 482            | Kartesisch             | -                 | 0.000             | 0.284  | -4.500 |
| 483            | Kartesisch             | -                 | 0.247             | -0.142 | -4.500 |
| 484            | Kartesisch             | -                 | -0.247            | -0.142 | -4.000 |
| 485            | Kartesisch             | -                 | 0.000             | 0.284  | -4.000 |
| 486            | Kartesisch             | -                 | 0.247             | -0.142 | -4.000 |
| 487            | Kartesisch             | -                 | -0.247            | -0.142 | -3.500 |
| 488            | Kartesisch             | -                 | 0.000             | 0.284  | -3.500 |
| 489            | Kartesisch             | -                 | 0.247             | -0.142 | -3.500 |
| 490            | Kartesisch             | -                 | -0.247            | -0.142 | -3.000 |
| 491            | Kartesisch             | -                 | 0.000             | 0.284  | -3.000 |
| 492            | Kartesisch             | -                 | 0.247             | -0.142 | -3.000 |
| 493            | Kartesisch             | -                 | -0.247            | -0.142 | -2.500 |
| 494            | Kartesisch             | -                 | 0.000             | 0.284  | -2.500 |
| 495            | Kartesisch             | -                 | 0.247             | -0.142 | -2.500 |
| 496            | Kartesisch             | -                 | -0.247            | -0.142 | -2.000 |
| 497            | Kartesisch             | -                 | 0.000             | 0.284  | -2.000 |
| 498            | Kartesisch             | -                 | 0.247             | -0.142 | -2.000 |
| 499            | Kartesisch             | -                 | -0.247            | -0.142 | -1.500 |
| 500            | Kartesisch             | -                 | 0.000             | 0.284  | -1.500 |
| 501            | Kartesisch             | -                 | 0.247             | -0.142 | -1.500 |
| 502            | Kartesisch             | -                 | -0.247            | -0.142 | -1.000 |
| 503            | Kartesisch             | -                 | 0.000             | 0.284  | -1.000 |
| 504            | Kartesisch             | -                 | 0.247             | -0.142 | -1.000 |
| 505            | Kartesisch             | -                 | -0.247            | -0.142 | -0.500 |
| 506            | Kartesisch             | -                 | 0.000             | 0.284  | -0.500 |
| 507            | Kartesisch             | -                 | 0.247             | -0.142 | -0.500 |
| 508            | Kartesisch             | -                 | 0.493             | 0.284  | -2.000 |
| 509            | Kartesisch             | -                 | 0.493             | 0.284  | -7.000 |
| 510            | Kartesisch             | -                 | 0.375             | 0.217  | -7.000 |
| 511            | Kartesisch             | -                 | 0.375             | 0.217  | -1.000 |

## MATERIALIEN

| Mater.-<br>Nr. | Material-<br>Bezeichnung | E-Modul<br>[kN/cm <sup>2</sup> ] | Schubmodul<br>[kN/cm <sup>2</sup> ] | Sp. Gewicht<br>[kN/cm <sup>3</sup> ] | Wärmedehn.<br>[1/°C] |
|----------------|--------------------------|----------------------------------|-------------------------------------|--------------------------------------|----------------------|
| 1              | Aluminium                | 7.000E+03                        | 2.700E+03                           | 2.700E-05                            | 2.400E-05            |

## QUERSCHNITTE

| Quer.-<br>Nr. | Mater.-   | Querschnitts-<br>Bezeichnung | I-T          | I-2                        | I-3 [cm <sup>4</sup> ] |
|---------------|-----------|------------------------------|--------------|----------------------------|------------------------|
| 49497         | Mettingen | Telefon +49(0)5452/935082    | Fax – 935083 | ing.buero-brandt@osnnet.de |                        |



| Nr. | Nr. | Bezeichnung     | A                | A-2    | A-3 [cm <sup>2</sup> ] |
|-----|-----|-----------------|------------------|--------|------------------------|
| 1   | 1   | Ring 80/5       | 166.41<br>11.781 | 83.20  | 83.20                  |
| 2   | 1   | Ring 30/3       | 4.69<br>2.545    | 2.35   | 2.35                   |
| 3   | 1   | Kreis 20        | 1.57<br>3.142    | 0.79   | 0.79                   |
| 4   | 1   | Ring 70/5       | 108.48<br>10.210 | 54.24  | 54.24                  |
| 5   | 1   | Ring 30/3       | 4.69<br>2.545    | 2.35   | 2.35                   |
| 6   | 1   | Kreis 16        | 0.64<br>2.011    | 0.32   | 0.32                   |
| 7   | 1   | Ring 50/5       | 36.23<br>7.069   | 18.11  | 18.11                  |
| 8   | 1   | Ring 20/3       | 1.19<br>1.602    | 0.60   | 0.60                   |
| 9   | 1   | Kreis 12        | 0.20<br>1.131    | 0.10   | 0.10                   |
| 10  | 1   | Ring 35/5       | 10.90<br>4.712   | 5.45   | 5.45                   |
| 11  | 1   | Ring 20/3       | 1.19<br>1.602    | 0.60   | 0.60                   |
| 12  | 1   | Kreis 12        | 0.20<br>1.131    | 0.10   | 0.10                   |
| 13  | 1   | Rechteck 100/20 | 23.31<br>20.000  | 6.67   | 166.67                 |
| 14  | 1   | Ring 80/10      | 274.89<br>21.991 | 137.44 | 137.44                 |
| 15  | 1   | Ring 70/8       | 152.24<br>15.582 | 76.12  | 76.12                  |

## STABENDGELENKE

| Gelenk-Nr. | Bezugs-Achse | N/Q-Gelenk bzw. Feder [kN/m] |         |         | T/M-Gelenk bzw. Feder [kNm/rad] |           |           |
|------------|--------------|------------------------------|---------|---------|---------------------------------|-----------|-----------|
|            |              | 1-Normal                     | 2-Schub | 3-Schub | 1-Torsion                       | 2-Biegung | 3-Biegung |
| 1          | Lokal        | Nein                         | Nein    | Nein    | Nein                            | Ja        | Ja        |

## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 1        | Balken   | 2      | 1    | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 2        | Balken   | 3      | 2    | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 3        | Balken   | 4      | 45   | 0.00     | 1           | 1    | -      | -    | -         | 0.250     | VERT      |
| 4        | Balken   | 5      | 4    | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 5        | Balken   | 6      | 5    | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 6        | Balken   | 7      | 6    | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 7        | Balken   | 8      | 48   | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 8        | Balken   | 9      | 8    | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 9        | Balken   | 10     | 44   | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 10       | Balken   | 11     | 10   | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 11       | Balken   | 12     | 11   | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 12       | Balken   | 13     | 12   | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 13       | Balken   | 14     | 13   | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 14       | Balken   | 48     | 73   | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 15       | Balken   | 73     | 84   | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 16       | Balken   | 16     | 15   | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |
| 17       | Balken   | 17     | 16   | 0.00     | 15          | 15   | -      | -    | -         | 0.500     | VERT      |
| 18       | Balken   | 18     | 46   | 0.00     | 4           | 4    | -      | -    | -         | 0.250     | VERT      |
| 19       | Balken   | 19     | 18   | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 20       | Balken   | 20     | 19   | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 21       | Balken   | 21     | 20   | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 22       | Balken   | 22     | 148  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 23       | Balken   | 23     | 22   | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |          |           |           |
| 24       | Balken   | 24     | 23   | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 25       | Balken   | 25     | 24   | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 26       | Balken   | 26     | 47   | 0.00     | 15          | 15   | -      | -    | -        | 0.250     | VERT      |
| 27       | Balken   | 27     | 26   | 0.00     | 15          | 15   | -      | -    | -        | 0.500     | VERT      |
| 28       | Balken   | 28     | 27   | 0.00     | 15          | 15   | -      | -    | -        | 0.250     | VERT      |
| 29       | Balken   | 2      | 43   | 0.00     | 3           | 3    | -      | -    | -        | 0.551     | ALLG      |
| 30       | Balken   | 3      | 43   | 0.00     | 3           | 3    | -      | -    | -        | 0.551     | ALLG      |
| 31       | Balken   | 44     | 9    | 0.00     | 1           | 1    | -      | -    | -        | 0.250     | VERT      |
| 32       | Balken   | 45     | 3    | 0.00     | 14          | 14   | -      | -    | -        | 0.250     | VERT      |
| 33       | Balken   | 46     | 17   | 0.00     | 15          | 15   | -      | -    | -        | 0.250     | VERT      |
| 34       | Balken   | 47     | 25   | 0.00     | 4           | 4    | -      | -    | -        | 0.250     | VERT      |
| 39       | Balken   | 84     | 95   | 0.00     | 1           | 1    | -      | -    | -        | 0.500     | VERT      |
| 40       | Balken   | 95     | 7    | 0.00     | 1           | 1    | -      | -    | -        | 0.500     | VERT      |
| 51       | Balken   | 148    | 159  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 52       | Balken   | 159    | 170  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 53       | Balken   | 30     | 29   | 0.00     | 7           | 7    | -      | -    | -        | 0.250     | VERT      |
| 54       | Balken   | 31     | 30   | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 55       | Balken   | 32     | 31   | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 56       | Balken   | 33     | 32   | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 57       | Balken   | 34     | 33   | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 58       | Balken   | 35     | 34   | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 59       | Balken   | 36     | 206  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 60       | Balken   | 37     | 36   | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 61       | Balken   | 38     | 37   | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 62       | Balken   | 39     | 38   | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 63       | Balken   | 40     | 39   | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 64       | Balken   | 41     | 40   | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 65       | Balken   | 42     | 41   | 0.00     | 7           | 7    | -      | -    | -        | 0.250     | VERT      |
| 66       | Balken   | 68     | 16   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 67       | Balken   | 17     | 68   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 76       | Balken   | 170    | 195  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 77       | Balken   | 195    | 21   | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 88       | Balken   | 206    | 217  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 89       | Balken   | 217    | 228  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 90       | Balken   | 2      | 102  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 91       | Balken   | 3      | 103  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 92       | Balken   | 4      | 104  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 93       | Balken   | 5      | 105  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 94       | Balken   | 6      | 106  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 95       | Balken   | 7      | 107  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 96       | Balken   | 8      | 108  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 97       | Balken   | 9      | 109  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 98       | Balken   | 10     | 110  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 99       | Balken   | 11     | 111  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 100      | Balken   | 12     | 112  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 101      | Balken   | 13     | 113  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 102      | Balken   | 190    | 2    | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 103      | Balken   | 3      | 190  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 112      | Balken   | 228    | 253  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 113      | Balken   | 253    | 35   | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 124      | Balken   | 55     | 54   | 0.00     | 10          | 10   | -      | -    | -        | 0.250     | VERT      |
| 125      | Balken   | 56     | 55   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 126      | Balken   | 57     | 56   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 127      | Balken   | 58     | 57   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 128      | Balken   | 59     | 58   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 129      | Balken   | 60     | 59   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 130      | Balken   | 61     | 336  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 131      | Balken   | 62     | 61   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 132      | Balken   | 63     | 62   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 133      | Balken   | 64     | 63   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 134      | Balken   | 65     | 64   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 135      | Balken   | 66     | 65   | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 136      | Balken   | 67     | 66   | 0.00     | 10          | 10   | -      | -    | -        | 0.250     | VERT      |
| 137      | Balken   | 79     | 30   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 138      | Balken   | 31     | 79   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 147      | Balken   | 336    | 337  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 148      | Balken   | 337    | 338  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 159      | Balken   | 16     | 116  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 160      | Balken   | 17     | 117  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 161      | Balken   | 18     | 118  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 162      | Balken   | 19     | 119  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 163      | Balken   | 20     | 120  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 164      | Balken   | 21     | 121  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 165      | Balken   | 22     | 122  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 166      | Balken   | 23     | 123  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 167      | Balken   | 24     | 124  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 168      | Balken   | 25     | 125  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 169      | Balken   | 26     | 126  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 170      | Balken   | 27     | 127  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 171      | Balken   | 165    | 16   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 172      | Balken   | 17     | 165  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 181      | Balken   | 338    | 339  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 182      | Balken   | 339    | 60   | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 193      | Balken   | 90     | 55   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 194      | Balken   | 56     | 90   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 215      | Balken   | 30     | 130  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 216      | Balken   | 31     | 131  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 217      | Balken   | 32     | 132  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 218      | Balken   | 33     | 133  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 219      | Balken   | 34     | 134  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 220      | Balken   | 35     | 135  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 221      | Balken   | 36     | 136  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 222      | Balken   | 37     | 137  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 223      | Balken   | 38     | 138  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 224      | Balken   | 39     | 139  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 225      | Balken   | 40     | 140  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 226      | Balken   | 41     | 141  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 227      | Balken   | 154    | 30   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 228      | Balken   | 31     | 154  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 249      | Balken   | 43     | 102  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 250      | Balken   | 43     | 103  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 271      | Balken   | 143    | 55   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 272      | Balken   | 56     | 143  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 293      | Balken   | 55     | 177  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 294      | Balken   | 56     | 178  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 295      | Balken   | 57     | 179  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 296      | Balken   | 58     | 180  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 297      | Balken   | 59     | 181  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 298      | Balken   | 60     | 182  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 299      | Balken   | 61     | 183  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 300      | Balken   | 62     | 184  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 301      | Balken   | 63     | 185  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 302      | Balken   | 64     | 186  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 303      | Balken   | 65     | 187  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 304      | Balken   | 66     | 188  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 305      | Balken   | 68     | 116  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 306      | Balken   | 117    | 68   | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 327      | Balken   | 79     | 130  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 328      | Balken   | 131    | 79   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 349      | Balken   | 90     | 177  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 350      | Balken   | 178    | 90   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 371      | Balken   | 102    | 101  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 372      | Balken   | 103    | 102  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 373      | Balken   | 104    | 145  | 0.00     | 1           | 1    | -      | -    | -         | 0.250     | VERT      |
| 374      | Balken   | 105    | 104  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 375      | Balken   | 106    | 105  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 376      | Balken   | 107    | 106  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 377      | Balken   | 108    | 332  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 378      | Balken   | 109    | 108  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 379      | Balken   | 110    | 144  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 380      | Balken   | 111    | 110  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 381      | Balken   | 112    | 111  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 382      | Balken   | 113    | 112  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 383      | Balken   | 114    | 113  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 384      | Balken   | 332    | 333  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 385      | Balken   | 333    | 334  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 386      | Balken   | 116    | 115  | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |
| 387      | Balken   | 117    | 116  | 0.00     | 15          | 15   | -      | -    | -         | 0.500     | VERT      |
| 388      | Balken   | 118    | 146  | 0.00     | 4           | 4    | -      | -    | -         | 0.250     | VERT      |
| 389      | Balken   | 119    | 118  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |          |           |           |
| 390      | Balken   | 120    | 119  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 391      | Balken   | 121    | 120  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 392      | Balken   | 122    | 328  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 393      | Balken   | 123    | 122  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 394      | Balken   | 124    | 123  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 395      | Balken   | 125    | 124  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 396      | Balken   | 126    | 147  | 0.00     | 15          | 15   | -      | -    | -        | 0.250     | VERT      |
| 397      | Balken   | 127    | 126  | 0.00     | 15          | 15   | -      | -    | -        | 0.500     | VERT      |
| 398      | Balken   | 128    | 127  | 0.00     | 15          | 15   | -      | -    | -        | 0.250     | VERT      |
| 399      | Balken   | 328    | 329  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 400      | Balken   | 329    | 330  | 0.00     | 4           | 4    | -      | -    | -        | 0.500     | VERT      |
| 401      | Balken   | 130    | 129  | 0.00     | 7           | 7    | -      | -    | -        | 0.250     | VERT      |
| 402      | Balken   | 131    | 130  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 403      | Balken   | 132    | 131  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 404      | Balken   | 133    | 132  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 405      | Balken   | 134    | 133  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 406      | Balken   | 135    | 134  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 407      | Balken   | 136    | 324  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 408      | Balken   | 137    | 136  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 409      | Balken   | 138    | 137  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 410      | Balken   | 139    | 138  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 411      | Balken   | 140    | 139  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 412      | Balken   | 141    | 140  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 413      | Balken   | 142    | 141  | 0.00     | 7           | 7    | -      | -    | -        | 0.250     | VERT      |
| 414      | Balken   | 235    | 55   | 0.00     | 11          | 11   | -      | -    | -        | 0.365     | HORI      |
| 415      | Balken   | 236    | 56   | 0.00     | 11          | 11   | -      | -    | -        | 0.365     | HORI      |
| 416      | Balken   | 237    | 57   | 0.00     | 11          | 11   | -      | -    | -        | 0.365     | HORI      |
| 417      | Balken   | 238    | 58   | 0.00     | 11          | 11   | -      | -    | -        | 0.365     | HORI      |
| 418      | Balken   | 239    | 59   | 0.00     | 11          | 11   | -      | -    | -        | 0.365     | HORI      |
| 419      | Balken   | 240    | 60   | 0.00     | 11          | 11   | -      | -    | -        | 0.365     | HORI      |
| 420      | Balken   | 241    | 61   | 0.00     | 11          | 11   | -      | -    | -        | 0.365     | HORI      |
| 421      | Balken   | 242    | 62   | 0.00     | 11          | 11   | -      | -    | -        | 0.365     | HORI      |
| 422      | Balken   | 243    | 63   | 0.00     | 11          | 11   | -      | -    | -        | 0.365     | HORI      |
| 423      | Balken   | 244    | 64   | 0.00     | 11          | 11   | -      | -    | -        | 0.365     | HORI      |
| 424      | Balken   | 245    | 65   | 0.00     | 11          | 11   | -      | -    | -        | 0.365     | HORI      |
| 425      | Balken   | 246    | 66   | 0.00     | 11          | 11   | -      | -    | -        | 0.365     | HORI      |
| 426      | Balken   | 260    | 30   | 0.00     | 8           | 8    | -      | -    | -        | 0.542     | HORI      |
| 427      | Balken   | 261    | 31   | 0.00     | 8           | 8    | -      | -    | -        | 0.542     | HORI      |
| 428      | Balken   | 262    | 32   | 0.00     | 8           | 8    | -      | -    | -        | 0.542     | HORI      |
| 429      | Balken   | 263    | 33   | 0.00     | 8           | 8    | -      | -    | -        | 0.542     | HORI      |
| 430      | Balken   | 264    | 34   | 0.00     | 8           | 8    | -      | -    | -        | 0.542     | HORI      |
| 431      | Balken   | 265    | 35   | 0.00     | 8           | 8    | -      | -    | -        | 0.542     | HORI      |
| 432      | Balken   | 266    | 36   | 0.00     | 8           | 8    | -      | -    | -        | 0.542     | HORI      |
| 433      | Balken   | 267    | 37   | 0.00     | 8           | 8    | -      | -    | -        | 0.542     | HORI      |
| 434      | Balken   | 268    | 38   | 0.00     | 8           | 8    | -      | -    | -        | 0.542     | HORI      |
| 435      | Balken   | 269    | 39   | 0.00     | 8           | 8    | -      | -    | -        | 0.542     | HORI      |
| 436      | Balken   | 270    | 40   | 0.00     | 8           | 8    | -      | -    | -        | 0.542     | HORI      |
| 437      | Balken   | 271    | 41   | 0.00     | 8           | 8    | -      | -    | -        | 0.542     | HORI      |
| 438      | Balken   | 274    | 16   | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 439      | Balken   | 275    | 17   | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 440      | Balken   | 276    | 18   | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 441      | Balken   | 277    | 19   | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 442      | Balken   | 278    | 20   | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 443      | Balken   | 279    | 21   | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 444      | Balken   | 280    | 22   | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 445      | Balken   | 281    | 23   | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 446      | Balken   | 282    | 24   | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 447      | Balken   | 283    | 25   | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 448      | Balken   | 284    | 26   | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 449      | Balken   | 285    | 27   | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 450      | Balken   | 324    | 325  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 451      | Balken   | 325    | 326  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 452      | Balken   | 177    | 176  | 0.00     | 10          | 10   | -      | -    | -        | 0.250     | VERT      |
| 453      | Balken   | 178    | 177  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 454      | Balken   | 179    | 178  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 455      | Balken   | 180    | 179  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 456      | Balken   | 181    | 180  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 457      | Balken   | 182    | 181  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 458      | Balken   | 183    | 320  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 459      | Balken   | 184    | 183  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 460      | Balken   | 185    | 184  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 461      | Balken   | 186    | 185  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 462      | Balken   | 187    | 186  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 463      | Balken   | 188    | 187  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 464      | Balken   | 189    | 188  | 0.00     | 10          | 10   | -      | -    | -         | 0.250     | VERT      |
| 465      | Balken   | 288    | 2    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 466      | Balken   | 289    | 3    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 467      | Balken   | 290    | 4    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 468      | Balken   | 291    | 5    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 469      | Balken   | 292    | 6    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 470      | Balken   | 293    | 7    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 471      | Balken   | 294    | 8    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 472      | Balken   | 295    | 9    | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 473      | Balken   | 296    | 10   | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 474      | Balken   | 297    | 11   | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 475      | Balken   | 298    | 12   | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 476      | Balken   | 299    | 13   | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 477      | Balken   | 201    | 177  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 478      | Balken   | 178    | 201  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 479      | Balken   | 144    | 109  | 0.00     | 1           | 1    | -      | -    | -         | 0.250     | VERT      |
| 480      | Balken   | 145    | 103  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 481      | Balken   | 146    | 117  | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |
| 482      | Balken   | 147    | 125  | 0.00     | 4           | 4    | -      | -    | -         | 0.250     | VERT      |
| 487      | Balken   | 320    | 321  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 488      | Balken   | 321    | 322  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 499      | Balken   | 212    | 130  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 500      | Balken   | 131    | 212  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 509      | Balken   | 322    | 323  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 510      | Balken   | 323    | 182  | 0.00     | 10          | 10   | -      | -    | -         | 0.500     | VERT      |
| 521      | Balken   | 223    | 116  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 522      | Balken   | 117    | 223  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 531      | Balken   | 326    | 327  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 532      | Balken   | 327    | 135  | 0.00     | 7           | 7    | -      | -    | -         | 0.500     | VERT      |
| 543      | Balken   | 143    | 235  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 544      | Balken   | 236    | 143  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 553      | Balken   | 330    | 331  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 554      | Balken   | 331    | 121  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 565      | Balken   | 177    | 235  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 566      | Balken   | 178    | 236  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 567      | Balken   | 179    | 237  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 568      | Balken   | 180    | 238  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 569      | Balken   | 181    | 239  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 570      | Balken   | 182    | 240  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 571      | Balken   | 183    | 241  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 572      | Balken   | 184    | 242  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 573      | Balken   | 185    | 243  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 574      | Balken   | 186    | 244  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 575      | Balken   | 187    | 245  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 576      | Balken   | 188    | 246  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 577      | Balken   | 102    | 248  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 578      | Balken   | 248    | 103  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 587      | Balken   | 334    | 335  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 588      | Balken   | 335    | 107  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 599      | Balken   | 130    | 260  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 600      | Balken   | 131    | 261  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 601      | Balken   | 132    | 262  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 602      | Balken   | 133    | 263  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 603      | Balken   | 134    | 264  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 604      | Balken   | 135    | 265  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 605      | Balken   | 136    | 266  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 606      | Balken   | 137    | 267  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 607      | Balken   | 138    | 268  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 608      | Balken   | 139    | 269  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 609      | Balken   | 140    | 270  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 610      | Balken   | 141    | 271  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 611      | Balken   | 154    | 260  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 612      | Balken   | 261    | 154  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 623      | Balken   | 201    | 235  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 624      | Balken   | 236    | 201  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 645      | Balken   | 116    | 274  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |          |           |           |
| 646      | Balken   | 117    | 275  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 647      | Balken   | 118    | 276  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 648      | Balken   | 119    | 277  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 649      | Balken   | 120    | 278  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 650      | Balken   | 121    | 279  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 651      | Balken   | 122    | 280  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 652      | Balken   | 123    | 281  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 653      | Balken   | 124    | 282  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 654      | Balken   | 125    | 283  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 655      | Balken   | 126    | 284  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 656      | Balken   | 127    | 285  | 0.00     | 5           | 5    | -      | -    | -        | 0.750     | HORI      |
| 657      | Balken   | 165    | 274  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 658      | Balken   | 275    | 165  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 679      | Balken   | 212    | 260  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 680      | Balken   | 261    | 212  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 701      | Balken   | 235    | 234  | 0.00     | 10          | 10   | -      | -    | -        | 0.250     | VERT      |
| 702      | Balken   | 236    | 235  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 703      | Balken   | 237    | 236  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 704      | Balken   | 238    | 237  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 705      | Balken   | 239    | 238  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 706      | Balken   | 240    | 239  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 707      | Balken   | 241    | 317  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 708      | Balken   | 242    | 241  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 709      | Balken   | 243    | 242  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 710      | Balken   | 244    | 243  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 711      | Balken   | 245    | 244  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 712      | Balken   | 246    | 245  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 713      | Balken   | 247    | 246  | 0.00     | 10          | 10   | -      | -    | -        | 0.250     | VERT      |
| 714      | Balken   | 102    | 288  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 715      | Balken   | 103    | 289  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 716      | Balken   | 104    | 290  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 717      | Balken   | 105    | 291  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 718      | Balken   | 106    | 292  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 719      | Balken   | 107    | 293  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 720      | Balken   | 108    | 294  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 721      | Balken   | 109    | 295  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 722      | Balken   | 110    | 296  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 723      | Balken   | 111    | 297  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 724      | Balken   | 112    | 298  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 725      | Balken   | 113    | 299  | 0.00     | 2           | 2    | -      | -    | -        | 0.984     | HORI      |
| 726      | Balken   | 190    | 288  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 727      | Balken   | 289    | 190  | 0.00     | 3           | 3    | -      | -    | -        | 0.552     | ALLG      |
| 736      | Balken   | 316    | 240  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 737      | Balken   | 317    | 318  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 748      | Balken   | 318    | 319  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 749      | Balken   | 319    | 316  | 0.00     | 10          | 10   | -      | -    | -        | 0.500     | VERT      |
| 750      | Balken   | 223    | 274  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 751      | Balken   | 275    | 223  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 772      | Balken   | 260    | 259  | 0.00     | 7           | 7    | -      | -    | -        | 0.250     | VERT      |
| 773      | Balken   | 261    | 260  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 774      | Balken   | 262    | 261  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 775      | Balken   | 263    | 262  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 776      | Balken   | 264    | 263  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 777      | Balken   | 265    | 264  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 778      | Balken   | 266    | 312  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 779      | Balken   | 267    | 266  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 780      | Balken   | 268    | 267  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 781      | Balken   | 269    | 268  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 782      | Balken   | 270    | 269  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 783      | Balken   | 271    | 270  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 784      | Balken   | 272    | 271  | 0.00     | 7           | 7    | -      | -    | -        | 0.250     | VERT      |
| 785      | Balken   | 312    | 313  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 786      | Balken   | 313    | 314  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 787      | Balken   | 288    | 248  | 0.00     | 3           | 3    | -      | -    | -        | 0.551     | ALLG      |
| 788      | Balken   | 248    | 289  | 0.00     | 3           | 3    | -      | -    | -        | 0.551     | ALLG      |
| 797      | Balken   | 314    | 315  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 798      | Balken   | 315    | 265  | 0.00     | 7           | 7    | -      | -    | -        | 0.500     | VERT      |
| 809      | Balken   | 274    | 273  | 0.00     | 15          | 15   | -      | -    | -        | 0.250     | VERT      |
| 810      | Balken   | 275    | 274  | 0.00     | 15          | 15   | -      | -    | -        | 0.500     | VERT      |
| 811      | Balken   | 276    | 510  | 0.00     | 4           | 4    | -      | -    | -        | 0.250     | VERT      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 812      | Balken   | 277    | 276  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 813      | Balken   | 278    | 277  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 814      | Balken   | 279    | 278  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 815      | Balken   | 280    | 308  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 816      | Balken   | 281    | 280  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 817      | Balken   | 282    | 281  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 818      | Balken   | 283    | 282  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 819      | Balken   | 284    | 511  | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |
| 820      | Balken   | 285    | 284  | 0.00     | 15          | 15   | -      | -    | -         | 0.500     | VERT      |
| 821      | Balken   | 286    | 285  | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |
| 822      | Balken   | 308    | 309  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 823      | Balken   | 309    | 310  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 824      | Balken   | 288    | 287  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 825      | Balken   | 289    | 288  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 826      | Balken   | 290    | 509  | 0.00     | 1           | 1    | -      | -    | -         | 0.250     | VERT      |
| 827      | Balken   | 291    | 290  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 828      | Balken   | 292    | 291  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 829      | Balken   | 293    | 292  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 830      | Balken   | 294    | 304  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 831      | Balken   | 295    | 294  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 832      | Balken   | 296    | 508  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 833      | Balken   | 297    | 296  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 834      | Balken   | 298    | 297  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 835      | Balken   | 299    | 298  | 0.00     | 14          | 14   | -      | -    | -         | 0.500     | VERT      |
| 836      | Balken   | 300    | 299  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 837      | Balken   | 508    | 295  | 0.00     | 1           | 1    | -      | -    | -         | 0.250     | VERT      |
| 838      | Balken   | 509    | 289  | 0.00     | 14          | 14   | -      | -    | -         | 0.250     | VERT      |
| 839      | Balken   | 2      | 16   | 90.00    | 13          | 13   | -      | 1    | -         | 0.135     | HORI      |
| 840      | Balken   | 16     | 30   | 90.00    | 13          | 13   | -      | 1    | -         | 0.120     | HORI      |
| 841      | Balken   | 30     | 55   | 90.00    | 13          | 13   | -      | 1    | -         | 0.103     | HORI      |
| 842      | Balken   | 177    | 130  | 90.00    | 13          | 13   | 1      | -    | -         | 0.102     | HORI      |
| 843      | Balken   | 130    | 116  | 90.00    | 13          | 13   | 1      | -    | -         | 0.120     | HORI      |
| 844      | Balken   | 116    | 102  | 90.00    | 13          | 13   | 1      | -    | -         | 0.135     | HORI      |
| 845      | Balken   | 235    | 260  | 90.00    | 13          | 13   | 1      | -    | -         | 0.103     | HORI      |
| 846      | Balken   | 260    | 274  | 90.00    | 13          | 13   | 1      | -    | -         | 0.120     | HORI      |
| 847      | Balken   | 274    | 288  | 90.00    | 13          | 13   | 1      | -    | -         | 0.136     | HORI      |
| 848      | Balken   | 13     | 27   | 90.00    | 13          | 13   | -      | 1    | -         | 0.135     | HORI      |
| 849      | Balken   | 27     | 41   | 90.00    | 13          | 13   | -      | 1    | -         | 0.120     | HORI      |
| 850      | Balken   | 41     | 66   | 90.00    | 13          | 13   | -      | 1    | -         | 0.103     | HORI      |
| 851      | Balken   | 188    | 141  | 90.00    | 13          | 13   | 1      | -    | -         | 0.102     | HORI      |
| 852      | Balken   | 141    | 127  | 90.00    | 13          | 13   | 1      | -    | -         | 0.120     | HORI      |
| 853      | Balken   | 127    | 113  | 90.00    | 13          | 13   | 1      | -    | -         | 0.135     | HORI      |
| 854      | Balken   | 246    | 271  | 90.00    | 13          | 13   | 1      | -    | -         | 0.103     | HORI      |
| 855      | Balken   | 271    | 285  | 90.00    | 13          | 13   | 1      | -    | -         | 0.120     | HORI      |
| 856      | Balken   | 285    | 299  | 90.00    | 13          | 13   | 1      | -    | -         | 0.136     | HORI      |
| 857      | Balken   | 113    | 301  | 0.00     | 3           | 3    | -      | -    | -         | 0.508     | ALLG      |
| 858      | Balken   | 301    | 14   | 0.00     | 3           | 3    | -      | -    | -         | 0.507     | ALLG      |
| 859      | Balken   | 114    | 301  | 0.00     | 3           | 3    | -      | -    | -         | 0.508     | ALLG      |
| 860      | Balken   | 301    | 13   | 0.00     | 3           | 3    | -      | -    | -         | 0.507     | ALLG      |
| 861      | Balken   | 304    | 305  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 862      | Balken   | 13     | 302  | 0.00     | 3           | 3    | -      | -    | -         | 0.508     | ALLG      |
| 863      | Balken   | 302    | 300  | 0.00     | 3           | 3    | -      | -    | -         | 0.508     | ALLG      |
| 864      | Balken   | 14     | 302  | 0.00     | 3           | 3    | -      | -    | -         | 0.508     | ALLG      |
| 865      | Balken   | 302    | 299  | 0.00     | 3           | 3    | -      | -    | -         | 0.508     | ALLG      |
| 866      | Balken   | 114    | 303  | 0.00     | 3           | 3    | -      | -    | -         | 0.508     | ALLG      |
| 867      | Balken   | 303    | 299  | 0.00     | 3           | 3    | -      | -    | -         | 0.507     | ALLG      |
| 868      | Balken   | 113    | 303  | 0.00     | 3           | 3    | -      | -    | -         | 0.508     | ALLG      |
| 869      | Balken   | 303    | 300  | 0.00     | 3           | 3    | -      | -    | -         | 0.507     | ALLG      |
| 870      | Balken   | 305    | 306  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 871      | Balken   | 306    | 307  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 872      | Balken   | 307    | 293  | 0.00     | 1           | 1    | -      | -    | -         | 0.500     | VERT      |
| 873      | Balken   | 310    | 311  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 874      | Balken   | 311    | 279  | 0.00     | 4           | 4    | -      | -    | -         | 0.500     | VERT      |
| 875      | Balken   | 95     | 335  | 0.00     | 2           | 2    | -      | -    | -         | 0.984     | HORI      |
| 876      | Balken   | 335    | 307  | 0.00     | 2           | 2    | -      | -    | -         | 0.984     | HORI      |
| 877      | Balken   | 307    | 95   | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 878      | Balken   | 84     | 334  | 0.00     | 2           | 2    | -      | -    | -         | 0.984     | HORI      |
| 879      | Balken   | 334    | 306  | 0.00     | 2           | 2    | -      | -    | -         | 0.984     | HORI      |
| 880      | Balken   | 306    | 84   | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 881      | Balken   | 73     | 333  | 0.00     | 2           | 2    | -      | -    | -         | 0.984     | HORI      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 882      | Balken   | 333    | 305  | 0.00     | 2           | 2    | -      | -    | -         | 0.984     | HORI      |
| 883      | Balken   | 305    | 73   | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 884      | Balken   | 48     | 332  | 0.00     | 2           | 2    | -      | -    | -         | 0.984     | HORI      |
| 885      | Balken   | 332    | 304  | 0.00     | 2           | 2    | -      | -    | -         | 0.984     | HORI      |
| 886      | Balken   | 304    | 48   | 0.00     | 2           | 2    | -      | -    | -         | 0.985     | HORI      |
| 887      | Balken   | 195    | 331  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 888      | Balken   | 331    | 311  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 889      | Balken   | 311    | 195  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 890      | Balken   | 170    | 330  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 891      | Balken   | 330    | 310  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 892      | Balken   | 310    | 170  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 893      | Balken   | 159    | 329  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 894      | Balken   | 329    | 309  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 895      | Balken   | 309    | 159  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 896      | Balken   | 148    | 328  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 897      | Balken   | 328    | 308  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 898      | Balken   | 308    | 148  | 0.00     | 5           | 5    | -      | -    | -         | 0.750     | HORI      |
| 899      | Balken   | 253    | 327  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 900      | Balken   | 327    | 315  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 901      | Balken   | 315    | 253  | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 902      | Balken   | 228    | 326  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 903      | Balken   | 326    | 314  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 904      | Balken   | 314    | 228  | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 905      | Balken   | 217    | 325  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 906      | Balken   | 325    | 313  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 907      | Balken   | 313    | 217  | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 908      | Balken   | 206    | 324  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 909      | Balken   | 324    | 312  | 0.00     | 8           | 8    | -      | -    | -         | 0.543     | HORI      |
| 910      | Balken   | 312    | 206  | 0.00     | 8           | 8    | -      | -    | -         | 0.542     | HORI      |
| 911      | Balken   | 339    | 323  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 912      | Balken   | 323    | 316  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 913      | Balken   | 316    | 339  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 914      | Balken   | 338    | 322  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 915      | Balken   | 322    | 319  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 916      | Balken   | 319    | 338  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 917      | Balken   | 337    | 321  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 918      | Balken   | 321    | 318  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 919      | Balken   | 318    | 337  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 920      | Balken   | 336    | 320  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 921      | Balken   | 320    | 317  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 922      | Balken   | 317    | 336  | 0.00     | 11          | 11   | -      | -    | -         | 0.365     | HORI      |
| 923      | Balken   | 340    | 56   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 924      | Balken   | 57     | 340  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 925      | Balken   | 341    | 56   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 926      | Balken   | 57     | 341  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 927      | Balken   | 340    | 178  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 928      | Balken   | 179    | 340  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 929      | Balken   | 342    | 178  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 930      | Balken   | 179    | 342  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 931      | Balken   | 341    | 236  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 932      | Balken   | 237    | 341  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 933      | Balken   | 342    | 236  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 934      | Balken   | 237    | 342  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 935      | Balken   | 343    | 57   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 936      | Balken   | 58     | 343  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 937      | Balken   | 344    | 57   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 938      | Balken   | 58     | 344  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 939      | Balken   | 343    | 179  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 940      | Balken   | 180    | 343  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 941      | Balken   | 345    | 179  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 942      | Balken   | 180    | 345  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 943      | Balken   | 344    | 237  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 944      | Balken   | 238    | 344  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 945      | Balken   | 345    | 237  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 946      | Balken   | 238    | 345  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 947      | Balken   | 346    | 58   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 948      | Balken   | 59     | 346  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 949      | Balken   | 347    | 58   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 950      | Balken   | 59     | 347  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 951      | Balken   | 346    | 180  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |          |           |           |
| 952      | Balken   | 181    | 346  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 953      | Balken   | 348    | 180  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 954      | Balken   | 181    | 348  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 955      | Balken   | 347    | 238  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 956      | Balken   | 239    | 347  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 957      | Balken   | 348    | 238  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 958      | Balken   | 239    | 348  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 959      | Balken   | 349    | 59   | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 960      | Balken   | 60     | 349  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 961      | Balken   | 350    | 59   | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 962      | Balken   | 60     | 350  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 963      | Balken   | 349    | 181  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 964      | Balken   | 182    | 349  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 965      | Balken   | 351    | 181  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 966      | Balken   | 182    | 351  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 967      | Balken   | 350    | 239  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 968      | Balken   | 240    | 350  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 969      | Balken   | 351    | 239  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 970      | Balken   | 240    | 351  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 971      | Balken   | 352    | 60   | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 972      | Balken   | 339    | 352  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 973      | Balken   | 353    | 60   | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 974      | Balken   | 339    | 353  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 975      | Balken   | 352    | 182  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 976      | Balken   | 323    | 352  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 977      | Balken   | 354    | 182  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 978      | Balken   | 323    | 354  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 979      | Balken   | 353    | 240  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 980      | Balken   | 316    | 353  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 981      | Balken   | 354    | 240  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 982      | Balken   | 316    | 354  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 983      | Balken   | 355    | 339  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 984      | Balken   | 338    | 355  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 985      | Balken   | 356    | 339  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 986      | Balken   | 338    | 356  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 987      | Balken   | 355    | 323  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 988      | Balken   | 322    | 355  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 989      | Balken   | 357    | 323  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 990      | Balken   | 322    | 357  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 991      | Balken   | 356    | 316  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 992      | Balken   | 319    | 356  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 993      | Balken   | 357    | 316  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 994      | Balken   | 319    | 357  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 995      | Balken   | 358    | 338  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 996      | Balken   | 337    | 358  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 997      | Balken   | 359    | 338  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 998      | Balken   | 337    | 359  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 999      | Balken   | 358    | 322  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 1000     | Balken   | 321    | 358  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 1001     | Balken   | 360    | 322  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 1002     | Balken   | 321    | 360  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 1003     | Balken   | 359    | 319  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 1004     | Balken   | 318    | 359  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 1005     | Balken   | 360    | 319  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 1006     | Balken   | 318    | 360  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 1007     | Balken   | 361    | 337  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 1008     | Balken   | 336    | 361  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 1009     | Balken   | 362    | 337  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 1010     | Balken   | 336    | 362  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 1011     | Balken   | 361    | 321  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 1012     | Balken   | 320    | 361  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 1013     | Balken   | 363    | 321  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 1014     | Balken   | 320    | 363  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 1015     | Balken   | 362    | 318  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 1016     | Balken   | 317    | 362  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 1017     | Balken   | 363    | 318  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 1018     | Balken   | 317    | 363  | 0.00     | 12          | 12   | -      | -    | -        | 0.309     | ALLG      |
| 1019     | Balken   | 364    | 336  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 1020     | Balken   | 61     | 364  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |
| 1021     | Balken   | 365    | 336  | 0.00     | 12          | 12   | -      | -    | -        | 0.310     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 1022     | Balken   | 61     | 365  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1023     | Balken   | 364    | 320  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1024     | Balken   | 183    | 364  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1025     | Balken   | 366    | 320  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1026     | Balken   | 183    | 366  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1027     | Balken   | 365    | 317  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1028     | Balken   | 241    | 365  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1029     | Balken   | 366    | 317  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1030     | Balken   | 241    | 366  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1031     | Balken   | 367    | 61   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1032     | Balken   | 62     | 367  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1033     | Balken   | 368    | 61   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1034     | Balken   | 62     | 368  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1035     | Balken   | 367    | 183  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1036     | Balken   | 184    | 367  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1037     | Balken   | 369    | 183  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1038     | Balken   | 184    | 369  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1039     | Balken   | 368    | 241  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1040     | Balken   | 242    | 368  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1041     | Balken   | 369    | 241  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1042     | Balken   | 242    | 369  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1043     | Balken   | 370    | 62   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1044     | Balken   | 63     | 370  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1045     | Balken   | 371    | 62   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1046     | Balken   | 63     | 371  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1047     | Balken   | 370    | 184  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1048     | Balken   | 185    | 370  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1049     | Balken   | 372    | 184  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1050     | Balken   | 185    | 372  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1051     | Balken   | 371    | 242  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1052     | Balken   | 243    | 371  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1053     | Balken   | 372    | 242  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1054     | Balken   | 243    | 372  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1055     | Balken   | 373    | 63   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1056     | Balken   | 64     | 373  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1057     | Balken   | 374    | 63   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1058     | Balken   | 64     | 374  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1059     | Balken   | 373    | 185  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1060     | Balken   | 186    | 373  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1061     | Balken   | 375    | 185  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1062     | Balken   | 186    | 375  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1063     | Balken   | 374    | 243  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1064     | Balken   | 244    | 374  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1065     | Balken   | 375    | 243  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1066     | Balken   | 244    | 375  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1067     | Balken   | 376    | 64   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1068     | Balken   | 65     | 376  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1069     | Balken   | 377    | 64   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1070     | Balken   | 65     | 377  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1071     | Balken   | 376    | 186  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1072     | Balken   | 187    | 376  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1073     | Balken   | 378    | 186  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1074     | Balken   | 187    | 378  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1075     | Balken   | 377    | 244  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1076     | Balken   | 245    | 377  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1077     | Balken   | 378    | 244  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1078     | Balken   | 245    | 378  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1079     | Balken   | 379    | 65   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1080     | Balken   | 66     | 379  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1081     | Balken   | 380    | 65   | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1082     | Balken   | 66     | 380  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1083     | Balken   | 379    | 187  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1084     | Balken   | 188    | 379  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1085     | Balken   | 381    | 187  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1086     | Balken   | 188    | 381  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1087     | Balken   | 380    | 245  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1088     | Balken   | 246    | 380  | 0.00     | 12          | 12   | -      | -    | -         | 0.310     | ALLG      |
| 1089     | Balken   | 381    | 245  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1090     | Balken   | 246    | 381  | 0.00     | 12          | 12   | -      | -    | -         | 0.309     | ALLG      |
| 1091     | Balken   | 382    | 31   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 1092     | Balken   | 32     | 382  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1093     | Balken   | 383    | 31   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1094     | Balken   | 32     | 383  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1095     | Balken   | 382    | 131  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1096     | Balken   | 132    | 382  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1097     | Balken   | 384    | 131  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1098     | Balken   | 132    | 384  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1099     | Balken   | 383    | 261  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1100     | Balken   | 262    | 383  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1101     | Balken   | 384    | 261  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1102     | Balken   | 262    | 384  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1103     | Balken   | 385    | 32   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1104     | Balken   | 33     | 385  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1105     | Balken   | 386    | 32   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1106     | Balken   | 33     | 386  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1107     | Balken   | 385    | 132  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1108     | Balken   | 133    | 385  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1109     | Balken   | 387    | 132  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1110     | Balken   | 133    | 387  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1111     | Balken   | 386    | 262  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1112     | Balken   | 263    | 386  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1113     | Balken   | 387    | 262  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1114     | Balken   | 263    | 387  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1115     | Balken   | 388    | 33   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1116     | Balken   | 34     | 388  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1117     | Balken   | 389    | 33   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1118     | Balken   | 34     | 389  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1119     | Balken   | 388    | 133  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1120     | Balken   | 134    | 388  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1121     | Balken   | 390    | 133  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1122     | Balken   | 134    | 390  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1123     | Balken   | 389    | 263  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1124     | Balken   | 264    | 389  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1125     | Balken   | 390    | 263  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1126     | Balken   | 264    | 390  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1127     | Balken   | 391    | 34   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1128     | Balken   | 35     | 391  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1129     | Balken   | 392    | 34   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1130     | Balken   | 35     | 392  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1131     | Balken   | 391    | 134  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1132     | Balken   | 135    | 391  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1133     | Balken   | 393    | 134  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1134     | Balken   | 135    | 393  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1135     | Balken   | 392    | 264  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1136     | Balken   | 265    | 392  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1137     | Balken   | 393    | 264  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1138     | Balken   | 265    | 393  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1139     | Balken   | 394    | 35   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1140     | Balken   | 253    | 394  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1141     | Balken   | 395    | 35   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1142     | Balken   | 253    | 395  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1143     | Balken   | 394    | 135  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1144     | Balken   | 327    | 394  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1145     | Balken   | 396    | 135  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1146     | Balken   | 327    | 396  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1147     | Balken   | 395    | 265  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1148     | Balken   | 315    | 395  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1149     | Balken   | 396    | 265  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1150     | Balken   | 315    | 396  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1151     | Balken   | 397    | 253  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1152     | Balken   | 228    | 397  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1153     | Balken   | 398    | 253  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1154     | Balken   | 228    | 398  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1155     | Balken   | 397    | 327  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1156     | Balken   | 326    | 397  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1157     | Balken   | 399    | 327  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1158     | Balken   | 326    | 399  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1159     | Balken   | 398    | 315  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1160     | Balken   | 314    | 398  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1161     | Balken   | 399    | 315  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |          |           |           |
| 1162     | Balken   | 314    | 399  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1163     | Balken   | 400    | 228  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1164     | Balken   | 217    | 400  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1165     | Balken   | 401    | 228  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1166     | Balken   | 217    | 401  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1167     | Balken   | 400    | 326  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1168     | Balken   | 325    | 400  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1169     | Balken   | 402    | 326  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1170     | Balken   | 325    | 402  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1171     | Balken   | 401    | 314  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1172     | Balken   | 313    | 401  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1173     | Balken   | 402    | 314  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1174     | Balken   | 313    | 402  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1175     | Balken   | 403    | 217  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1176     | Balken   | 206    | 403  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1177     | Balken   | 404    | 217  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1178     | Balken   | 206    | 404  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1179     | Balken   | 403    | 325  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1180     | Balken   | 324    | 403  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1181     | Balken   | 405    | 325  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1182     | Balken   | 324    | 405  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1183     | Balken   | 404    | 313  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1184     | Balken   | 312    | 404  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1185     | Balken   | 405    | 313  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1186     | Balken   | 312    | 405  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1187     | Balken   | 406    | 206  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1188     | Balken   | 36     | 406  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1189     | Balken   | 407    | 206  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1190     | Balken   | 36     | 407  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1191     | Balken   | 406    | 324  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1192     | Balken   | 136    | 406  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1193     | Balken   | 408    | 324  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1194     | Balken   | 136    | 408  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1195     | Balken   | 407    | 312  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1196     | Balken   | 266    | 407  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1197     | Balken   | 408    | 312  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1198     | Balken   | 266    | 408  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1199     | Balken   | 409    | 36   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1200     | Balken   | 37     | 409  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1201     | Balken   | 410    | 36   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1202     | Balken   | 37     | 410  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1203     | Balken   | 409    | 136  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1204     | Balken   | 137    | 409  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1205     | Balken   | 411    | 136  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1206     | Balken   | 137    | 411  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1207     | Balken   | 410    | 266  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1208     | Balken   | 267    | 410  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1209     | Balken   | 411    | 266  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1210     | Balken   | 267    | 411  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1211     | Balken   | 412    | 37   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1212     | Balken   | 38     | 412  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1213     | Balken   | 413    | 37   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1214     | Balken   | 38     | 413  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1215     | Balken   | 412    | 137  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1216     | Balken   | 138    | 412  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1217     | Balken   | 414    | 137  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1218     | Balken   | 138    | 414  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1219     | Balken   | 413    | 267  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1220     | Balken   | 268    | 413  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1221     | Balken   | 414    | 267  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1222     | Balken   | 268    | 414  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1223     | Balken   | 415    | 38   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1224     | Balken   | 39     | 415  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1225     | Balken   | 416    | 38   | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1226     | Balken   | 39     | 416  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1227     | Balken   | 415    | 138  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1228     | Balken   | 139    | 415  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1229     | Balken   | 417    | 138  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1230     | Balken   | 139    | 417  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |
| 1231     | Balken   | 416    | 268  | 0.00     | 9           | 9    | -      | -    | -        | 0.369     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 1232     | Balken   | 269    | 416  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1233     | Balken   | 417    | 268  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1234     | Balken   | 269    | 417  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1235     | Balken   | 418    | 39   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1236     | Balken   | 40     | 418  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1237     | Balken   | 419    | 39   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1238     | Balken   | 40     | 419  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1239     | Balken   | 418    | 139  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1240     | Balken   | 140    | 418  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1241     | Balken   | 420    | 139  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1242     | Balken   | 140    | 420  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1243     | Balken   | 419    | 269  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1244     | Balken   | 270    | 419  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1245     | Balken   | 420    | 269  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1246     | Balken   | 270    | 420  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1247     | Balken   | 421    | 40   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1248     | Balken   | 41     | 421  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1249     | Balken   | 422    | 40   | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1250     | Balken   | 41     | 422  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1251     | Balken   | 421    | 140  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1252     | Balken   | 141    | 421  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1253     | Balken   | 423    | 140  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1254     | Balken   | 141    | 423  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1255     | Balken   | 422    | 270  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1256     | Balken   | 271    | 422  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1257     | Balken   | 423    | 270  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1258     | Balken   | 271    | 423  | 0.00     | 9           | 9    | -      | -    | -         | 0.369     | ALLG      |
| 1259     | Balken   | 424    | 17   | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1260     | Balken   | 18     | 424  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1261     | Balken   | 425    | 17   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1262     | Balken   | 18     | 425  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1263     | Balken   | 424    | 117  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1264     | Balken   | 118    | 424  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1265     | Balken   | 426    | 117  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1266     | Balken   | 118    | 426  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1267     | Balken   | 425    | 275  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1268     | Balken   | 276    | 425  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1269     | Balken   | 426    | 275  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1270     | Balken   | 276    | 426  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1271     | Balken   | 427    | 18   | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1272     | Balken   | 19     | 427  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1273     | Balken   | 428    | 18   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1274     | Balken   | 19     | 428  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1275     | Balken   | 427    | 118  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1276     | Balken   | 119    | 427  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1277     | Balken   | 429    | 118  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1278     | Balken   | 119    | 429  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1279     | Balken   | 428    | 276  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1280     | Balken   | 277    | 428  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1281     | Balken   | 429    | 276  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1282     | Balken   | 277    | 429  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1283     | Balken   | 430    | 19   | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1284     | Balken   | 20     | 430  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1285     | Balken   | 431    | 19   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1286     | Balken   | 20     | 431  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1287     | Balken   | 430    | 119  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1288     | Balken   | 120    | 430  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1289     | Balken   | 432    | 119  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1290     | Balken   | 120    | 432  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1291     | Balken   | 431    | 277  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1292     | Balken   | 278    | 431  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1293     | Balken   | 432    | 277  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1294     | Balken   | 278    | 432  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1295     | Balken   | 433    | 20   | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1296     | Balken   | 21     | 433  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1297     | Balken   | 434    | 20   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1298     | Balken   | 21     | 434  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1299     | Balken   | 433    | 120  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1300     | Balken   | 121    | 433  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1301     | Balken   | 435    | 120  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |          |           |           |
| 1302     | Balken   | 121    | 435  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1303     | Balken   | 434    | 278  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1304     | Balken   | 279    | 434  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1305     | Balken   | 435    | 278  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1306     | Balken   | 279    | 435  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1307     | Balken   | 436    | 21   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1308     | Balken   | 195    | 436  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1309     | Balken   | 437    | 21   | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1310     | Balken   | 195    | 437  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1311     | Balken   | 436    | 121  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1312     | Balken   | 331    | 436  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1313     | Balken   | 438    | 121  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1314     | Balken   | 331    | 438  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1315     | Balken   | 437    | 279  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1316     | Balken   | 311    | 437  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1317     | Balken   | 438    | 279  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1318     | Balken   | 311    | 438  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1319     | Balken   | 439    | 195  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1320     | Balken   | 170    | 439  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1321     | Balken   | 440    | 195  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1322     | Balken   | 170    | 440  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1323     | Balken   | 439    | 331  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1324     | Balken   | 330    | 439  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1325     | Balken   | 441    | 331  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1326     | Balken   | 330    | 441  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1327     | Balken   | 440    | 311  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1328     | Balken   | 310    | 440  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1329     | Balken   | 441    | 311  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1330     | Balken   | 310    | 441  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1331     | Balken   | 442    | 170  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1332     | Balken   | 159    | 442  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1333     | Balken   | 443    | 170  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1334     | Balken   | 159    | 443  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1335     | Balken   | 442    | 330  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1336     | Balken   | 329    | 442  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1337     | Balken   | 444    | 330  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1338     | Balken   | 329    | 444  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1339     | Balken   | 443    | 310  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1340     | Balken   | 309    | 443  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1341     | Balken   | 444    | 310  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1342     | Balken   | 309    | 444  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1343     | Balken   | 445    | 159  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1344     | Balken   | 148    | 445  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1345     | Balken   | 446    | 159  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1346     | Balken   | 148    | 446  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1347     | Balken   | 445    | 329  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1348     | Balken   | 328    | 445  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1349     | Balken   | 447    | 329  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1350     | Balken   | 328    | 447  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1351     | Balken   | 446    | 309  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1352     | Balken   | 308    | 446  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1353     | Balken   | 447    | 309  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1354     | Balken   | 308    | 447  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1355     | Balken   | 448    | 148  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1356     | Balken   | 22     | 448  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1357     | Balken   | 449    | 148  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1358     | Balken   | 22     | 449  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1359     | Balken   | 448    | 328  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1360     | Balken   | 122    | 448  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1361     | Balken   | 450    | 328  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1362     | Balken   | 122    | 450  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |
| 1363     | Balken   | 449    | 308  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1364     | Balken   | 280    | 449  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1365     | Balken   | 450    | 308  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1366     | Balken   | 280    | 450  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1367     | Balken   | 451    | 22   | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1368     | Balken   | 23     | 451  | 0.00     | 6           | 6    | -      | -    | -        | 0.452     | ALLG      |
| 1369     | Balken   | 452    | 22   | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1370     | Balken   | 23     | 452  | 0.00     | 6           | 6    | -      | -    | -        | 0.451     | ALLG      |
| 1371     | Balken   | 451    | 122  | 0.00     | 6           | 6    | -      | -    | -        | 0.450     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 1372     | Balken   | 123    | 451  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1373     | Balken   | 453    | 122  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1374     | Balken   | 123    | 453  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1375     | Balken   | 452    | 280  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1376     | Balken   | 281    | 452  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1377     | Balken   | 453    | 280  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1378     | Balken   | 281    | 453  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1379     | Balken   | 454    | 23   | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1380     | Balken   | 24     | 454  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1381     | Balken   | 455    | 23   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1382     | Balken   | 24     | 455  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1383     | Balken   | 454    | 123  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1384     | Balken   | 124    | 454  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1385     | Balken   | 456    | 123  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1386     | Balken   | 124    | 456  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1387     | Balken   | 455    | 281  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1388     | Balken   | 282    | 455  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1389     | Balken   | 456    | 281  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1390     | Balken   | 282    | 456  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1391     | Balken   | 457    | 24   | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1392     | Balken   | 25     | 457  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1393     | Balken   | 458    | 24   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1394     | Balken   | 25     | 458  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1395     | Balken   | 457    | 124  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1396     | Balken   | 125    | 457  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1397     | Balken   | 459    | 124  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1398     | Balken   | 125    | 459  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1399     | Balken   | 458    | 282  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1400     | Balken   | 283    | 458  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1401     | Balken   | 459    | 282  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1402     | Balken   | 283    | 459  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1403     | Balken   | 460    | 25   | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1404     | Balken   | 26     | 460  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1405     | Balken   | 461    | 25   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1406     | Balken   | 26     | 461  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1407     | Balken   | 460    | 125  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1408     | Balken   | 126    | 460  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1409     | Balken   | 462    | 125  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1410     | Balken   | 126    | 462  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1411     | Balken   | 461    | 283  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1412     | Balken   | 284    | 461  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1413     | Balken   | 462    | 283  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1414     | Balken   | 284    | 462  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1415     | Balken   | 463    | 26   | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1416     | Balken   | 27     | 463  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1417     | Balken   | 464    | 26   | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1418     | Balken   | 27     | 464  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1419     | Balken   | 463    | 126  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1420     | Balken   | 127    | 463  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1421     | Balken   | 465    | 126  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1422     | Balken   | 127    | 465  | 0.00     | 6           | 6    | -      | -    | -         | 0.450     | ALLG      |
| 1423     | Balken   | 464    | 284  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1424     | Balken   | 285    | 464  | 0.00     | 6           | 6    | -      | -    | -         | 0.451     | ALLG      |
| 1425     | Balken   | 465    | 284  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1426     | Balken   | 285    | 465  | 0.00     | 6           | 6    | -      | -    | -         | 0.452     | ALLG      |
| 1427     | Balken   | 3      | 466  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1428     | Balken   | 4      | 466  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1429     | Balken   | 467    | 3    | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1430     | Balken   | 4      | 467  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1431     | Balken   | 466    | 103  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1432     | Balken   | 466    | 104  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1433     | Balken   | 103    | 468  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1434     | Balken   | 468    | 104  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1435     | Balken   | 467    | 289  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1436     | Balken   | 290    | 467  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1437     | Balken   | 289    | 468  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1438     | Balken   | 468    | 290  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1439     | Balken   | 4      | 469  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1440     | Balken   | 5      | 469  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1441     | Balken   | 470    | 4    | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 1442     | Balken   | 5      | 470  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1443     | Balken   | 469    | 104  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1444     | Balken   | 469    | 105  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1445     | Balken   | 104    | 471  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1446     | Balken   | 471    | 105  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1447     | Balken   | 470    | 290  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1448     | Balken   | 291    | 470  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1449     | Balken   | 290    | 471  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1450     | Balken   | 471    | 291  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1451     | Balken   | 5      | 472  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1452     | Balken   | 6      | 472  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1453     | Balken   | 473    | 5    | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1454     | Balken   | 6      | 473  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1455     | Balken   | 472    | 105  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1456     | Balken   | 472    | 106  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1457     | Balken   | 105    | 474  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1458     | Balken   | 474    | 106  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1459     | Balken   | 473    | 291  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1460     | Balken   | 292    | 473  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1461     | Balken   | 291    | 474  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1462     | Balken   | 474    | 292  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1463     | Balken   | 6      | 475  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1464     | Balken   | 7      | 475  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1465     | Balken   | 476    | 6    | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1466     | Balken   | 7      | 476  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1467     | Balken   | 475    | 106  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1468     | Balken   | 475    | 107  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1469     | Balken   | 106    | 477  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1470     | Balken   | 477    | 107  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1471     | Balken   | 476    | 292  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1472     | Balken   | 293    | 476  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1473     | Balken   | 292    | 477  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1474     | Balken   | 477    | 293  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1475     | Balken   | 7      | 478  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1476     | Balken   | 95     | 478  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1477     | Balken   | 479    | 7    | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1478     | Balken   | 95     | 479  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1479     | Balken   | 478    | 107  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1480     | Balken   | 478    | 335  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1481     | Balken   | 107    | 480  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1482     | Balken   | 480    | 335  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1483     | Balken   | 479    | 293  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1484     | Balken   | 307    | 479  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1485     | Balken   | 293    | 480  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1486     | Balken   | 480    | 307  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1487     | Balken   | 95     | 481  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1488     | Balken   | 84     | 481  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1489     | Balken   | 482    | 95   | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1490     | Balken   | 84     | 482  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1491     | Balken   | 481    | 335  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1492     | Balken   | 481    | 334  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1493     | Balken   | 335    | 483  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1494     | Balken   | 483    | 334  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1495     | Balken   | 482    | 307  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1496     | Balken   | 306    | 482  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1497     | Balken   | 307    | 483  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1498     | Balken   | 483    | 306  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1499     | Balken   | 84     | 484  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1500     | Balken   | 73     | 484  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1501     | Balken   | 485    | 84   | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1502     | Balken   | 73     | 485  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1503     | Balken   | 484    | 334  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1504     | Balken   | 484    | 333  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1505     | Balken   | 334    | 486  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1506     | Balken   | 486    | 333  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1507     | Balken   | 485    | 306  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1508     | Balken   | 305    | 485  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1509     | Balken   | 306    | 486  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1510     | Balken   | 486    | 305  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1511     | Balken   | 73     | 487  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 1512     | Balken   | 48     | 487  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1513     | Balken   | 488    | 73   | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1514     | Balken   | 48     | 488  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1515     | Balken   | 487    | 333  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1516     | Balken   | 487    | 332  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1517     | Balken   | 333    | 489  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1518     | Balken   | 489    | 332  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1519     | Balken   | 488    | 305  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1520     | Balken   | 304    | 488  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1521     | Balken   | 305    | 489  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1522     | Balken   | 489    | 304  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1523     | Balken   | 48     | 490  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1524     | Balken   | 8      | 490  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1525     | Balken   | 491    | 48   | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1526     | Balken   | 8      | 491  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1527     | Balken   | 490    | 332  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1528     | Balken   | 490    | 108  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1529     | Balken   | 332    | 492  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1530     | Balken   | 492    | 108  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1531     | Balken   | 491    | 304  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1532     | Balken   | 294    | 491  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1533     | Balken   | 304    | 492  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1534     | Balken   | 492    | 294  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1535     | Balken   | 8      | 493  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1536     | Balken   | 9      | 493  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1537     | Balken   | 494    | 8    | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1538     | Balken   | 9      | 494  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1539     | Balken   | 493    | 108  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1540     | Balken   | 493    | 109  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1541     | Balken   | 108    | 495  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1542     | Balken   | 495    | 109  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1543     | Balken   | 494    | 294  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1544     | Balken   | 295    | 494  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1545     | Balken   | 294    | 495  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1546     | Balken   | 495    | 295  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1547     | Balken   | 9      | 496  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1548     | Balken   | 10     | 496  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1549     | Balken   | 497    | 9    | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1550     | Balken   | 10     | 497  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1551     | Balken   | 496    | 109  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1552     | Balken   | 496    | 110  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1553     | Balken   | 109    | 498  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1554     | Balken   | 498    | 110  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1555     | Balken   | 497    | 295  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1556     | Balken   | 296    | 497  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1557     | Balken   | 295    | 498  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1558     | Balken   | 498    | 296  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1559     | Balken   | 10     | 499  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1560     | Balken   | 11     | 499  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1561     | Balken   | 500    | 10   | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1562     | Balken   | 11     | 500  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1563     | Balken   | 499    | 110  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1564     | Balken   | 499    | 111  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1565     | Balken   | 110    | 501  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1566     | Balken   | 501    | 111  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1567     | Balken   | 500    | 296  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1568     | Balken   | 297    | 500  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1569     | Balken   | 296    | 501  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1570     | Balken   | 501    | 297  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1571     | Balken   | 11     | 502  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1572     | Balken   | 12     | 502  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1573     | Balken   | 503    | 11   | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1574     | Balken   | 12     | 503  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1575     | Balken   | 502    | 111  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1576     | Balken   | 502    | 112  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1577     | Balken   | 111    | 504  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1578     | Balken   | 504    | 112  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1579     | Balken   | 503    | 297  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1580     | Balken   | 298    | 503  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1581     | Balken   | 297    | 504  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |



## STÄBE

| Stab-Nr. | Stab-typ | Knoten |      | Beta [°] | Querschnitt |      | Gelenk |      | Teil.-Nr. | Länge [m] | Stab-lage |
|----------|----------|--------|------|----------|-------------|------|--------|------|-----------|-----------|-----------|
|          |          | Anf.   | Ende |          | Anf.        | Ende | Anf.   | Ende |           |           |           |
| 1582     | Balken   | 504    | 298  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1583     | Balken   | 12     | 505  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1584     | Balken   | 13     | 505  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1585     | Balken   | 506    | 12   | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1586     | Balken   | 13     | 506  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1587     | Balken   | 505    | 112  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1588     | Balken   | 505    | 113  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1589     | Balken   | 112    | 507  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1590     | Balken   | 507    | 113  | 0.00     | 3           | 3    | -      | -    | -         | 0.553     | ALLG      |
| 1591     | Balken   | 506    | 298  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1592     | Balken   | 299    | 506  | 0.00     | 3           | 3    | -      | -    | -         | 0.552     | ALLG      |
| 1593     | Balken   | 298    | 507  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1594     | Balken   | 507    | 299  | 0.00     | 3           | 3    | -      | -    | -         | 0.551     | ALLG      |
| 1595     | Balken   | 510    | 275  | 0.00     | 15          | 15   | -      | -    | -         | 0.250     | VERT      |
| 1596     | Balken   | 511    | 283  | 0.00     | 4           | 4    | -      | -    | -         | 0.250     | VERT      |

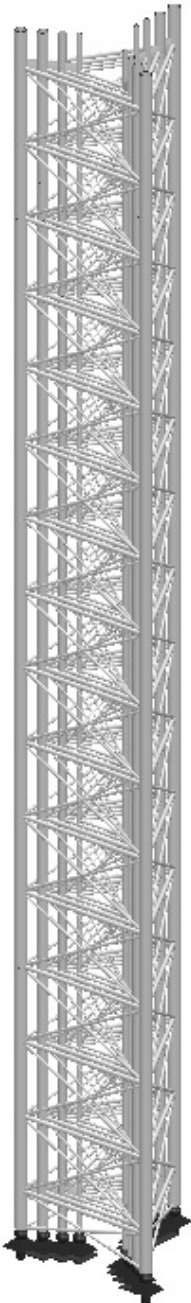
## AUFLAGER

| Lager-Nr. | Gelagerte Knoten                          | Drehung [°] |      | Festes Auflager bzw. Feder [kN/m] [kNm/rad] |      |      |      |      |      |
|-----------|-------------------------------------------|-------------|------|---------------------------------------------|------|------|------|------|------|
|           |                                           | Alpha       | Beta | in X                                        | in Y | in Z | um X | um Y | um Z |
| 1         | 14,114,300                                | 0.0         | 0.0  | Ja                                          | Ja   | Ja   | Nein | Nein | Nein |
|           | 228,42,67,<br>128,142,189,<br>247,272,286 | 0.0         | 0.0  | Nein                                        | Nein | Ja   | Nein | Nein | Nein |



STRUKTUR

Isometrie



BASISANGABEN DER LASTFÄLLE

| LF-Nr. | LF-Bezeichnung     | Faktor | Überlagerungsart | Eigengewicht |
|--------|--------------------|--------|------------------|--------------|
| 1      | g                  | 1.00   | Ständig          | 1.00         |
| 2      | Wind von der Seite | 1.00   | Ständig          | -            |
| 3      | Wind von vorne     | 1.00   | Ständig          | -            |



## BASISANGABEN DER LASTFÄLLE

| LF-Nr. | LF-Bezeichnung  | Faktor | Überlagerungsart | Eigengewicht |
|--------|-----------------|--------|------------------|--------------|
| 4      | Wind von hinten | 1.00   | Ständig          | -            |

## KNOTENKRÄFTE

LF 2

| Nr. | Belastete Knoten | Knotenkräfte |          |          |
|-----|------------------|--------------|----------|----------|
|     |                  | P-X [kN]     | P-Y [kN] | P-Z [kN] |
| 1   | 55,177,235       | 1.210        | 0.000    | 0.000    |

## STABLASTEN

LF 2

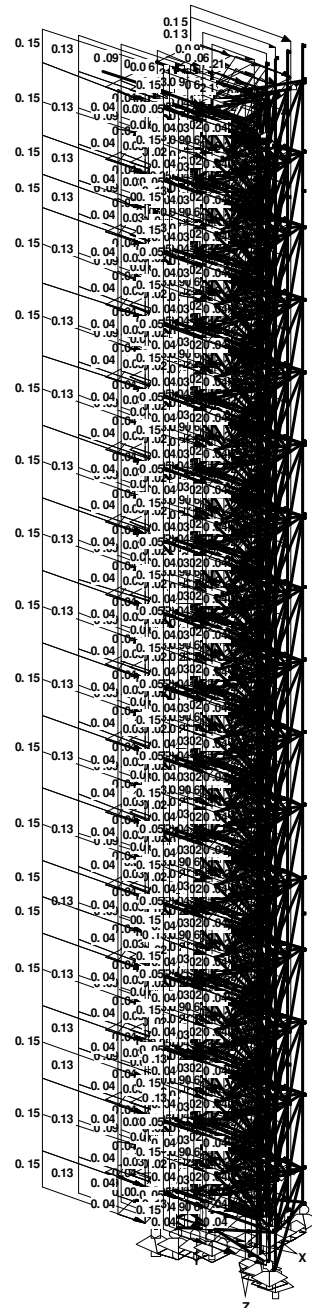
| Nr. | Belastete Stäbe                                                                       | Last-art | Last-Richtung | Parameter [kN, kNm, m, °C, kN/m, kNm/m] |  |  |  |
|-----|---------------------------------------------------------------------------------------|----------|---------------|-----------------------------------------|--|--|--|
|     |                                                                                       |          |               | P-1                                     |  |  |  |
| 1   | 1-15,31,32,39,40,371<br>-385,479,480,587,588,824<br>-838,861,870-872                  | 1        | X             | 0.1456                                  |  |  |  |
| 2   | 90-101,465-476,714-725<br>,875-886                                                    | 1        | X             | 0.0546                                  |  |  |  |
| 3   | 29,30,102,103,249,250<br>,577,578,726,727,787,788<br>,857-860,862-869,1427<br>-1594   | 1        | X             | 0.0364                                  |  |  |  |
| 4   | 16-28,33,34,51,52,76,77<br>,386-400,481,482,553,554<br>,809-823,873,874,1595<br>,1596 | 1        | X             | 0.1274                                  |  |  |  |
| 5   | 159-170,438-449,645-656<br>,887-898                                                   | 1        | X             | 0.0546                                  |  |  |  |
| 6   | 66,67,171,172,305,306<br>,521,522,657,658,750,751<br>,1259-1426                       | 1        | X             | 0.0291                                  |  |  |  |
| 7   | 53-65,88,89,112,113,401<br>-413,450,451,531,532,772<br>-786,797,798                   | 1        | X             | 0.091                                   |  |  |  |
| 8   | 215-226,426-437,599-610<br>,899-910                                                   | 1        | X             | 0.0364                                  |  |  |  |
| 9   | 137,138,227,228,327,328<br>,499,500,611,612,679,680<br>,1091-1258                     | 1        | X             | 0.0218                                  |  |  |  |
| 10  | 124-136,147,148,181,182<br>,452-464,487,488,509,510<br>,701-713,736,737,748,749       | 1        | X             | 0.0637                                  |  |  |  |
| 11  | 293-304,414-425,565-576<br>,911-922                                                   | 1        | X             | 0.0364                                  |  |  |  |
| 12  | 193,194,271,272,349,350<br>,477,478,543,544,623,624<br>,923-1090                      | 1        | X             | 0.0218                                  |  |  |  |



2

LF 2 - Winc von der Seite  
[kN], [kN/m]

Isometrie



## KNOTENKRÄFTE

LF 3

| Nr. | Belastete Knoten | Knotenkräfte |          |          |
|-----|------------------|--------------|----------|----------|
|     |                  | P-X [kN]     | P-Y [kN] | P-Z [kN] |
| 1   | 55,177,235       | 0.000        | -1.210   | 0.000    |



**STABLASTEN**

**LF 3**

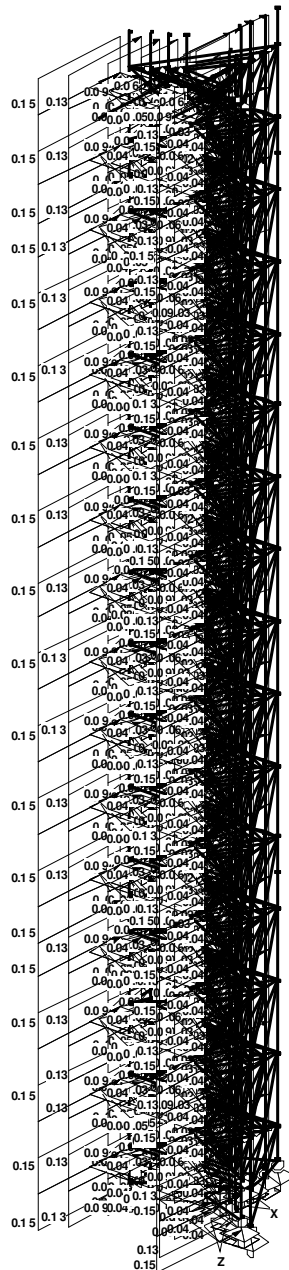
| Nr. | Belastete Stäbe                                                                       | Last-art | Last-Richtung | Parameter [kN, kNm, m, °C, kN/m, kNm/m] | P-1 |  |  |  |
|-----|---------------------------------------------------------------------------------------|----------|---------------|-----------------------------------------|-----|--|--|--|
| 1   | 1-15,31,32,39,40,371<br>-385,479,480,587,588,824<br>-838,861,870-872                  | 1        | Y             | -0.1456                                 |     |  |  |  |
| 2   | 90-101,465-476,714-725<br>,875-886                                                    | 1        | Y             | -0.0546                                 |     |  |  |  |
| 3   | 29,30,102,103,249,250<br>,577,578,726,727,787,788<br>,857-860,862-869,1427<br>-1594   | 1        | Y             | -0.0364                                 |     |  |  |  |
| 4   | 16-28,33,34,51,52,76,77<br>,386-400,481,482,553,554<br>,809-823,873,874,1595<br>,1596 | 1        | Y             | -0.1274                                 |     |  |  |  |
| 5   | 159-170,438-449,645-656<br>,887-898                                                   | 1        | Y             | -0.0546                                 |     |  |  |  |
| 6   | 66,67,171,172,305,306<br>,521,522,657,658,750,751<br>,1259-1426                       | 1        | Y             | -0.0291                                 |     |  |  |  |
| 7   | 53-65,88,89,112,113,401<br>-413,450,451,531,532,772<br>-786,797,798                   | 1        | Y             | -0.091                                  |     |  |  |  |
| 8   | 215-226,426-437,599-610<br>,899-910                                                   | 1        | Y             | -0.0364                                 |     |  |  |  |
| 9   | 137,138,227,228,327,328<br>,499,500,611,612,679,680<br>,1091-1258                     | 1        | Y             | -0.0218                                 |     |  |  |  |
| 10  | 124-136,147,148,181,182<br>,452-464,487,488,509,510<br>,701-713,736,737,748,749       | 1        | Y             | -0.0637                                 |     |  |  |  |
| 11  | 293-304,414-425,565-576<br>,911-922                                                   | 1        | Y             | -0.0364                                 |     |  |  |  |
| 12  | 193,194,271,272,349,350<br>,477,478,543,544,623,624<br>,923-1090                      | 1        | Y             | -0.0218                                 |     |  |  |  |



3

LF 3 - Wind von vorne  
[kN], [kN/m]

Isometrie



## KNOTENKRÄFTE

LF 4

| Nr. | Belastete Knoten | Knotenkräfte |          |          |
|-----|------------------|--------------|----------|----------|
|     |                  | P-X [kN]     | P-Y [kN] | P-Z [kN] |
| 1   | 55,177,235       | 0.000        | 1.210    | 0.000    |



**STABLASTEN**

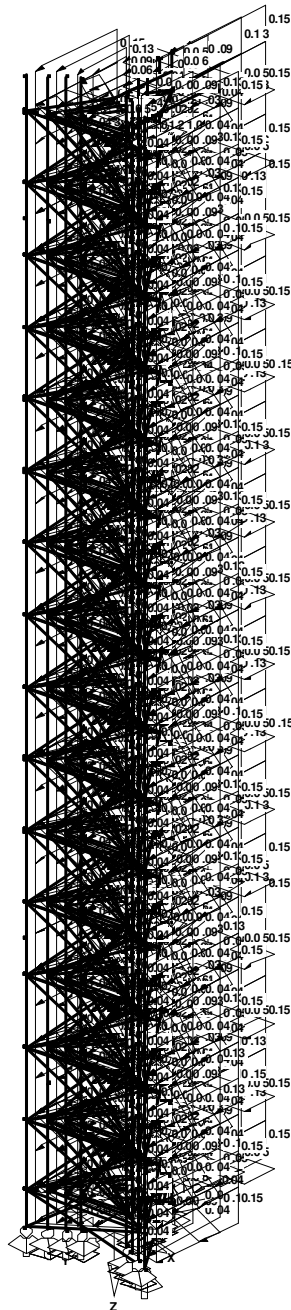
**LF 4**

| Nr. | Belastete Stäbe                                                                       | Last-art | Last-Richtung | Parameter [kN, kNm, m, °C, kN/m, kNm/m] | P-1 |  |  |  |
|-----|---------------------------------------------------------------------------------------|----------|---------------|-----------------------------------------|-----|--|--|--|
| 1   | 1-15,31,32,39,40,371<br>-385,479,480,587,588,824<br>-838,861,870-872                  | 1        | Y             | 0.1456                                  |     |  |  |  |
| 2   | 90-101,465-476,714-725<br>,875-886                                                    | 1        | Y             | 0.0546                                  |     |  |  |  |
| 3   | 29,30,102,103,249,250<br>,577,578,726,727,787,788<br>,857-860,862-869,1427<br>-1594   | 1        | Y             | 0.0364                                  |     |  |  |  |
| 4   | 16-28,33,34,51,52,76,77<br>,386-400,481,482,553,554<br>,809-823,873,874,1595<br>,1596 | 1        | Y             | 0.1274                                  |     |  |  |  |
| 5   | 159-170,438-449,645-656<br>,887-898                                                   | 1        | Y             | 0.0546                                  |     |  |  |  |
| 6   | 66,67,171,172,305,306<br>,521,522,657,658,750,751<br>,1259-1426                       | 1        | Y             | 0.0291                                  |     |  |  |  |
| 7   | 53-65,88,89,112,113,401<br>-413,450,451,531,532,772<br>-786,797,798                   | 1        | Y             | 0.091                                   |     |  |  |  |
| 8   | 215-226,426-437,599-610<br>,899-910                                                   | 1        | Y             | 0.0364                                  |     |  |  |  |
| 9   | 137,138,227,228,327,328<br>,499,500,611,612,679,680<br>,1091-1258                     | 1        | Y             | 0.0218                                  |     |  |  |  |
| 10  | 124-136,147,148,181,182<br>,452-464,487,488,509,510<br>,701-713,736,737,748,749       | 1        | Y             | 0.0637                                  |     |  |  |  |
| 11  | 293-304,414-425,565-576<br>,911-922                                                   | 1        | Y             | 0.0364                                  |     |  |  |  |
| 12  | 193,194,271,272,349,350<br>,477,478,543,544,623,624<br>,923-1090                      | 1        | Y             | 0.0218                                  |     |  |  |  |

4

LF 4 - Wind von hinten  
[kN], [kN/m]

Isometrie



### LF-KOMBINATIONEN

| LK-Nr. | LK-Bezeichnung | Kombinationskriterium |
|--------|----------------|-----------------------|
| 1      |                | LF1/S + LF2/S         |
| 2      |                | LF1/S + LF3/S         |
| 3      |                | LF1/S + LF4/S         |



## SNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                     | LF/LG-Nr. | Knoten-Nr. | x [m] | Kräfte [kN] |      |      | Momente [kNm] |      |      |
|------------------------------|-----------|------------|-------|-------------|------|------|---------------|------|------|
|                              |           |            |       | N           | Q-2  | Q-3  | T             | M-2  | M-3  |
| Querschnitt-Nr. 1: Ring 80/5 |           |            |       |             |      |      |               |      |      |
| 479                          | LF4       | MAX N      | .00   | 49.14       | .06  | .00  | .00           | .00  | .06  |
| 479                          | LF3       | MIN N      | .00   | -49.14      | -.06 | .00  | .00           | .00  | -.06 |
| 3                            | LF4       | MAX Q-2    | .00   | -1.83       | .10  | .02  | .01           | .00  | .01  |
| 3                            | LF3       | MIN Q-2    | .00   | 1.83        | -.10 | -.02 | -.01          | .00  | -.01 |
| 373                          | LF2       | MAX Q-3    | .00   | -.01        | .00  | .12  | -.01          | -.01 | .00  |
| 374                          | LF2       | MIN Q-3    | .50   | .00         | .00  | -.04 | -.01          | -.01 | .00  |
| 3                            | LF2       | MAX T      | .25   | 3.26        | .02  | .05  | .01           | .01  | .00  |
| 3                            | LF3       | MIN T      | .00   | 1.83        | -.10 | -.02 | -.01          | .00  | -.01 |
| 3                            | LF2       | MAX M-2    | .25   | 3.26        | .02  | .05  | .01           | .01  | .00  |
| 7                            | LF2       | MIN M-2    | .00   | 34.07       | .00  | .07  | .00           | -.06 | .00  |
| 8                            | LF4       | MAX M-3    | .00   | -21.60      | .05  | .00  | .00           | .00  | .06  |
| 8                            | LF3       | MIN M-3    | .00   | 21.60       | -.05 | .00  | .00           | .00  | -.06 |
| Querschnitt-Nr. 2: Ring 30/3 |           |            |       |             |      |      |               |      |      |
| 476                          | LF4       | MAX N      | .99   | 1.41        | .03  | .00  | .00           | .00  | .00  |
| 476                          | LF3       | MIN N      | .00   | -1.41       | .03  | .00  | .00           | .00  | .00  |
| 94                           | LF2       | MAX Q-2    | .00   | -.15        | .03  | .00  | .00           | .00  | .00  |
| 465                          | LF3       | MIN Q-2    | .99   | -.75        | -.03 | .00  | .00           | .00  | .00  |
| 90                           | LF4       | MAX Q-3    | .00   | -.39        | .00  | .01  | .00           | .00  | .00  |
| 90                           | LF3       | MIN Q-3    | .00   | .39         | .00  | -.01 | .00           | .00  | .00  |
| 90                           | LF1       | MAX T      | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| 90                           | LF1       | MIN T      | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| 101                          | LF3       | MAX M-2    | .00   | .72         | .00  | -.01 | .00           | .01  | .00  |
| 101                          | LF4       | MIN M-2    | .00   | -.72        | .00  | .01  | .00           | -.01 | .00  |
| 470                          | LF4       | MAX M-3    | .49   | .25         | .00  | .00  | .00           | .00  | .01  |
| 470                          | LF3       | MIN M-3    | .49   | -.25        | .00  | .00  | .00           | .00  | -.01 |
| Querschnitt-Nr. 3: Kreis 20  |           |            |       |             |      |      |               |      |      |
| 864                          | LF2       | MAX N      | .00   | 6.89        | .00  | -.02 | .00           | .01  | .00  |
| 863                          | LF2       | MIN N      | .51   | -6.89       | .00  | -.02 | .00           | -.01 | .00  |
| 29                           | LF2       | MAX Q-2    | .00   | -1.23       | .02  | .00  | .00           | .00  | .00  |
| 102                          | LF3       | MIN Q-2    | .55   | -.27        | -.02 | .00  | .00           | .00  | .00  |
| 859                          | LF3       | MAX Q-3    | .51   | -5.50       | .00  | .02  | .00           | .00  | .00  |
| 859                          | LF4       | MIN Q-3    | .51   | 5.50        | .00  | -.02 | .00           | .00  | .00  |
| 29                           | LF1       | MAX T      | .55   | .00         | .00  | .00  | .00           | .00  | .00  |
| 29                           | LF1       | MIN T      | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| 859                          | LF4       | MAX M-2    | .00   | 5.51        | -.01 | -.01 | .00           | .01  | .00  |
| 859                          | LF3       | MIN M-2    | .00   | -5.51       | .01  | .01  | .00           | -.01 | .00  |
| 29                           | LF1       | MAX M-3    | .55   | .00         | .00  | .00  | .00           | .00  | .00  |
| 29                           | LF1       | MIN M-3    | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| Querschnitt-Nr. 4: Ring 70/5 |           |            |       |             |      |      |               |      |      |
| 482                          | LF4       | MAX N      | .25   | 37.20       | -.13 | .00  | .00           | .00  | .05  |
| 482                          | LF3       | MIN N      | .00   | -37.20      | .09  | .00  | .00           | .00  | -.02 |
| 482                          | LF3       | MAX Q-2    | .25   | -37.20      | .13  | .00  | .00           | .00  | -.05 |
| 482                          | LF4       | MIN Q-2    | .25   | 37.20       | -.13 | .00  | .00           | .00  | .05  |
| 18                           | LF2       | MAX Q-3    | .00   | 1.04        | -.04 | .10  | .00           | -.01 | .00  |
| 34                           | LF2       | MIN Q-3    | .25   | 33.81       | .08  | -.08 | -.01          | -.05 | .00  |
| 34                           | LF3       | MAX T      | .00   | 18.62       | -.05 | -.08 | .01           | .02  | -.05 |
| 34                           | LF2       | MIN T      | .00   | 33.81       | .08  | -.05 | -.01          | -.03 | .02  |
| 34                           | LF3       | MAX M-2    | .00   | 18.62       | -.05 | -.08 | .01           | .02  | -.05 |
| 482                          | LF2       | MIN M-2    | .00   | .00         | .00  | .10  | .01           | -.06 | .00  |
| 34                           | LF4       | MAX M-3    | .00   | -18.62      | .05  | .08  | -.01          | -.02 | .05  |
| 34                           | LF3       | MIN M-3    | .00   | 18.62       | -.05 | -.08 | .01           | .02  | -.05 |
| Querschnitt-Nr. 5: Ring 30/3 |           |            |       |             |      |      |               |      |      |
| 447                          | LF4       | MAX N      | .75   | .92         | .02  | .00  | .00           | .00  | .00  |
| 447                          | LF3       | MIN N      | .00   | -.92        | .02  | .00  | .00           | .00  | .00  |
| 159                          | LF2       | MAX Q-2    | .00   | -.12        | .02  | -.01 | .00           | .00  | .00  |
| 438                          | LF3       | MIN Q-2    | .75   | -.14        | -.02 | .00  | .00           | .00  | .00  |
| 169                          | LF4       | MAX Q-3    | .00   | -.29        | .00  | .02  | .00           | -.01 | .00  |
| 169                          | LF3       | MIN Q-3    | .00   | .29         | .00  | -.02 | .00           | .01  | .00  |
| 159                          | LF1       | MAX T      | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| 159                          | LF1       | MIN T      | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| 159                          | LF4       | MAX M-2    | .75   | -.06        | -.01 | .01  | .00           | .01  | .00  |
| 159                          | LF3       | MIN M-2    | .75   | .06         | .01  | -.01 | .00           | -.01 | .00  |
| 159                          | LF1       | MAX M-3    | .75   | .00         | .00  | .00  | .00           | .00  | .00  |
| 159                          | LF1       | MIN M-3    | .00   | .00         | .00  | .00  | .00           | .00  | .00  |



## SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                      | LF/LG-Nr. | Knoten-Nr. | x [m] | Kräfte [kN] |      |      | Momente [kNm] |      |      |
|-------------------------------|-----------|------------|-------|-------------|------|------|---------------|------|------|
|                               |           |            |       | N           | Q-2  | Q-3  | T             | M-2  | M-3  |
| Querschnitt-Nr. 6: Kreis 16   |           |            |       |             |      |      |               |      |      |
| 1406                          | LF2       | MAX N      | .00   | 2.67        | .00  | .00  | .00           | .00  | .00  |
| 1412                          | LF2       | MIN N      | .00   | -2.67       | .00  | .00  | .00           | .00  | .00  |
| 66                            | LF2       | MAX Q-2    | .45   | -.34        | .01  | .00  | .00           | .00  | .00  |
| 171                           | LF3       | MIN Q-2    | .45   | .01         | -.01 | .00  | .00           | .00  | .00  |
| 1396                          | LF3       | MAX Q-3    | .45   | -2.31       | .00  | .01  | .00           | .00  | .00  |
| 1396                          | LF4       | MIN Q-3    | .45   | 2.31        | .00  | -.01 | .00           | .00  | .00  |
| 66                            | LF1       | MAX T      | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| 66                            | LF1       | MIN T      | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| 66                            | LF1       | MAX M-2    | .23   | .00         | .00  | .00  | .00           | .00  | .00  |
| 66                            | LF1       | MIN M-2    | .45   | .00         | .00  | .00  | .00           | .00  | .00  |
| 66                            | LF1       | MAX M-3    | .45   | .00         | .00  | .00  | .00           | .00  | .00  |
| 66                            | LF1       | MIN M-3    | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| Querschnitt-Nr. 7: Ring 50/5  |           |            |       |             |      |      |               |      |      |
| 413                           | LF4       | MAX N      | .00   | 21.49       | .00  | .00  | .00           | .00  | .00  |
| 413                           | LF3       | MIN N      | .00   | -21.49      | .00  | .00  | .00           | .00  | .00  |
| 402                           | LF3       | MAX Q-2    | .50   | -.35        | .30  | .00  | .00           | .00  | -.11 |
| 402                           | LF4       | MIN Q-2    | .50   | .35         | -.30 | .00  | .00           | .00  | .11  |
| 64                            | LF2       | MAX Q-3    | .00   | 19.11       | -.10 | .14  | .00           | -.07 | -.04 |
| 54                            | LF2       | MIN Q-3    | .50   | .33         | .13  | -.24 | .00           | -.09 | -.05 |
| 412                           | LF2       | MAX T      | .50   | .00         | .00  | -.07 | .01           | -.03 | .00  |
| 783                           | LF3       | MIN T      | .00   | 10.52       | -.03 | -.09 | -.01          | .03  | -.02 |
| 54                            | LF4       | MAX M-2    | .50   | -.19        | -.09 | .12  | .00           | .05  | .03  |
| 54                            | LF2       | MIN M-2    | .50   | .33         | .13  | -.24 | .00           | -.09 | -.05 |
| 402                           | LF4       | MAX M-3    | .50   | .35         | -.30 | .00  | .00           | .00  | .11  |
| 402                           | LF3       | MIN M-3    | .50   | -.35        | .30  | .00  | .00           | .00  | -.11 |
| Querschnitt-Nr. 8: Ring 20/3  |           |            |       |             |      |      |               |      |      |
| 436                           | LF4       | MAX N      | .00   | .65         | -.01 | .00  | .00           | .00  | .00  |
| 436                           | LF3       | MIN N      | .00   | -.65        | .01  | .00  | .00           | .00  | .00  |
| 215                           | LF2       | MAX Q-2    | .00   | .11         | .01  | -.01 | .00           | .00  | .00  |
| 215                           | LF2       | MIN Q-2    | .54   | .10         | -.01 | -.01 | .00           | .00  | .00  |
| 426                           | LF2       | MAX Q-3    | .00   | -.01        | -.01 | .02  | .00           | .00  | .00  |
| 215                           | LF2       | MIN Q-3    | .00   | .11         | .01  | -.01 | .00           | .00  | .00  |
| 215                           | LF1       | MAX T      | .54   | .00         | .00  | .00  | .00           | .00  | .00  |
| 215                           | LF1       | MIN T      | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| 215                           | LF1       | MAX M-2    | .27   | .00         | .00  | .00  | .00           | .00  | .00  |
| 215                           | LF1       | MIN M-2    | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| 215                           | LF1       | MAX M-3    | .54   | .00         | .00  | .00  | .00           | .00  | .00  |
| 215                           | LF1       | MIN M-3    | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| Querschnitt-Nr. 9: Kreis 12   |           |            |       |             |      |      |               |      |      |
| 1252                          | LF4       | MAX N      | .00   | 1.54        | .00  | .00  | .00           | .00  | .00  |
| 1252                          | LF3       | MIN N      | .00   | -1.54       | .00  | .00  | .00           | .00  | .00  |
| 137                           | LF2       | MAX Q-2    | .37   | .06         | .01  | .00  | .00           | .00  | .00  |
| 227                           | LF3       | MIN Q-2    | .37   | .06         | -.01 | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MAX Q-3    | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MIN Q-3    | .37   | .00         | .00  | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MAX T      | .37   | .00         | .00  | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MIN T      | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MAX M-2    | .17   | .00         | .00  | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MIN M-2    | .37   | .00         | .00  | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MAX M-3    | .37   | .00         | .00  | .00  | .00           | .00  | .00  |
| 137                           | LF1       | MIN M-3    | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| Querschnitt-Nr. 10: Ring 35/5 |           |            |       |             |      |      |               |      |      |
| 464                           | LF4       | MAX N      | .25   | 14.41       | -.02 | .00  | .00           | .00  | .00  |
| 464                           | LF3       | MIN N      | .00   | -14.41      | .00  | .00  | .00           | .00  | .00  |
| 125                           | LF3       | MAX Q-2    | .50   | .20         | .04  | .01  | .00           | .00  | -.01 |
| 125                           | LF4       | MIN Q-2    | .50   | -.20        | -.04 | -.01 | .00           | .00  | .01  |
| 124                           | LF2       | MAX Q-3    | .00   | .00         | .00  | .02  | .00           | .00  | .00  |
| 453                           | LF2       | MIN Q-3    | .50   | .01         | .00  | -.05 | .00           | -.01 | .00  |
| 124                           | LF1       | MAX T      | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| 124                           | LF1       | MIN T      | .00   | .00         | .00  | .00  | .00           | .00  | .00  |
| 124                           | LF1       | MAX M-2    | .25   | .00         | .00  | .00  | .00           | .00  | .00  |
| 125                           | LF2       | MIN M-2    | .50   | .36         | -.01 | -.03 | .00           | -.01 | .00  |
| 125                           | LF4       | MAX M-3    | .50   | -.20        | -.04 | -.01 | .00           | .00  | .01  |
| 125                           | LF3       | MIN M-3    | .50   | .20         | .04  | .01  | .00           | .00  | -.01 |
| Querschnitt-Nr. 11: Ring 20/3 |           |            |       |             |      |      |               |      |      |
| 414                           | LF3       | MAX N      | .37   | 1.50        | -.01 | .00  | .00           | .00  | .00  |
| 414                           | LF4       | MIN N      | .00   | -1.50       | -.01 | .00  | .00           | .00  | .00  |
| 293                           | LF2       | MAX Q-2    | .00   | 1.33        | .01  | .00  | .00           | .00  | .00  |



## SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                            | LF/LG-Nr. | Knoten-Nr. | x [m] | Kräfte [kN] |       |       | Momente [kNm] |      |      |      |
|-------------------------------------|-----------|------------|-------|-------------|-------|-------|---------------|------|------|------|
|                                     |           |            |       | N           | Q-2   | Q-3   | T             | M-2  | M-3  |      |
| 293                                 | LF4       | MIN Q-2    | .37   | .75         | -.01  | .00   | .00           | .00  | .00  | .00  |
| 425                                 | LF2       | MAX Q-3    | .37   | .00         | .00   | .02   | .00           | .00  | .00  | .00  |
| 300                                 | LF3       | MIN Q-3    | .00   | .15         | .00   | -.01  | .00           | .00  | .00  | .00  |
| 293                                 | LF1       | MAX T      | .00   | .00         | .00   | .00   | .00           | .00  | .00  | .00  |
| 293                                 | LF1       | MIN T      | .00   | .00         | .00   | .00   | .00           | .00  | .00  | .00  |
| 293                                 | LF1       | MAX M-2    | .18   | .00         | .00   | .00   | .00           | .00  | .00  | .00  |
| 293                                 | LF1       | MIN M-2    | .37   | .00         | .00   | .00   | .00           | .00  | .00  | .00  |
| 293                                 | LF1       | MAX M-3    | .37   | .00         | .00   | .00   | .00           | .00  | .00  | .00  |
| 293                                 | LF1       | MIN M-3    | .00   | .00         | .00   | .00   | .00           | .00  | .00  | .00  |
| Querschnitt-Nr. 12: Kreis 12        |           |            |       |             |       |       |               |      |      |      |
| 1084                                | LF4       | MAX N      | .00   | 1.43        | .00   | .00   | .00           | .00  | .00  | .00  |
| 1084                                | LF3       | MIN N      | .00   | -1.43       | .00   | .00   | .00           | .00  | .00  | .00  |
| 193                                 | LF2       | MAX Q-2    | .31   | .40         | .01   | .00   | .00           | .00  | .00  | .00  |
| 271                                 | LF3       | MIN Q-2    | .31   | .20         | -.01  | .00   | .00           | .00  | .00  | .00  |
| 1088                                | LF2       | MAX Q-3    | .31   | -1.17       | .00   | .01   | .00           | .00  | .00  | .00  |
| 1082                                | LF2       | MIN Q-3    | .31   | 1.17        | .00   | -.01  | .00           | .00  | .00  | .00  |
| 193                                 | LF1       | MAX T      | .31   | .00         | .00   | .00   | .00           | .00  | .00  | .00  |
| 193                                 | LF1       | MIN T      | .00   | .00         | .00   | .00   | .00           | .00  | .00  | .00  |
| 193                                 | LF1       | MAX M-2    | .15   | .00         | .00   | .00   | .00           | .00  | .00  | .00  |
| 193                                 | LF1       | MIN M-2    | .00   | .00         | .00   | .00   | .00           | .00  | .00  | .00  |
| 193                                 | LF1       | MAX M-3    | .00   | .00         | .00   | .00   | .00           | .00  | .00  | .00  |
| 193                                 | LF1       | MIN M-3    | .31   | .00         | .00   | .00   | .00           | .00  | .00  | .00  |
| Querschnitt-Nr. 13: Rechteck 100/20 |           |            |       |             |       |       |               |      |      |      |
| 853                                 | LF4       | MAX N      | .14   | 8.55        | 7.25  | .00   | .00           | .00  | .00  | -.98 |
| 853                                 | LF3       | MIN N      | .00   | -8.55       | -7.25 | .00   | .00           | .00  | .00  | .00  |
| 853                                 | LF4       | MAX Q-2    | .00   | 8.55        | 7.25  | .00   | .00           | .00  | .00  | .00  |
| 853                                 | LF3       | MIN Q-2    | .00   | -8.55       | -7.25 | .00   | .00           | .00  | .00  | .00  |
| 839                                 | LF4       | MAX Q-3    | .13   | -1.53       | -.40  | .15   | -.01          | .00  | .00  | .00  |
| 844                                 | LF2       | MIN Q-3    | .00   | .00         | -.01  | -.16  | .01           | .00  | .00  | .00  |
| 843                                 | LF2       | MAX T      | .12   | .00         | -.01  | -.09  | .02           | -.01 | .00  | .00  |
| 848                                 | LF4       | MIN T      | .00   | -4.22       | 3.61  | .06   | -.02          | -.01 | .00  | .49  |
| 839                                 | LF3       | MAX M-2    | .00   | 1.53        | .40   | -.15  | .01           | .02  | .05  | .05  |
| 839                                 | LF4       | MIN M-2    | .00   | -1.53       | -.40  | .15   | -.01          | -.02 | -.05 | -.05 |
| 853                                 | LF3       | MAX M-3    | .14   | -8.55       | -7.25 | .00   | .00           | .00  | .00  | .98  |
| 853                                 | LF4       | MIN M-3    | .14   | 8.55        | 7.25  | .00   | .00           | .00  | .00  | -.98 |
| Querschnitt-Nr. 14: Ring 80/10      |           |            |       |             |       |       |               |      |      |      |
| 383                                 | LF4       | MAX N      | .00   | 82.68       | 3.64  | .00   | .00           | .00  | .00  | .01  |
| 383                                 | LF3       | MIN N      | .00   | -82.68      | -3.64 | .00   | .00           | .00  | .00  | -.01 |
| 383                                 | LF4       | MAX Q-2    | .00   | 82.68       | 3.64  | .00   | .00           | .00  | .00  | .01  |
| 383                                 | LF3       | MIN Q-2    | .00   | -82.68      | -3.64 | .00   | .00           | .00  | .00  | -.01 |
| 836                                 | LF2       | MAX Q-3    | .00   | -75.26      | 1.56  | 2.95  | .00           | -.01 | .00  | .00  |
| 13                                  | LF4       | MIN Q-3    | .00   | -41.34      | 1.08  | -1.47 | .00           | .00  | .00  | .00  |
| 2                                   | LF4       | MAX T      | .00   | -.42        | -.04  | .08   | .02           | .01  | .00  | -.02 |
| 2                                   | LF3       | MIN T      | .00   | .42         | .04   | -.08  | -.02          | -.01 | .00  | .02  |
| 13                                  | LF2       | MAX M-2    | .25   | 75.25       | -1.57 | 2.90  | .00           | .72  | .39  | .39  |
| 13                                  | LF4       | MIN M-2    | .25   | -41.34      | 1.04  | -1.47 | .00           | -.36 | -.26 | -.26 |
| 383                                 | LF3       | MAX M-3    | .25   | -82.68      | -3.61 | .00   | .00           | .00  | .00  | .90  |
| 383                                 | LF4       | MIN M-3    | .25   | 82.68       | 3.61  | .00   | .00           | .00  | .00  | -.90 |
| Querschnitt-Nr. 15: Ring 70/8       |           |            |       |             |       |       |               |      |      |      |
| 397                                 | LF4       | MAX N      | .00   | 41.89       | .64   | .00   | .00           | .00  | .00  | .29  |
| 397                                 | LF3       | MIN N      | .00   | -41.89      | -.64  | .00   | .00           | .00  | .00  | -.29 |
| 397                                 | LF4       | MAX Q-2    | .00   | 41.89       | .64   | .00   | .00           | .00  | .00  | .29  |
| 397                                 | LF3       | MIN Q-2    | .00   | -41.89      | -.64  | .00   | .00           | .00  | .00  | -.29 |
| 27                                  | LF2       | MAX Q-3    | .00   | 38.13       | -.36  | .46   | -.01          | -.22 | -.14 | -.14 |
| 17                                  | LF2       | MIN Q-3    | .50   | .00         | .20   | -.35  | .00           | -.13 | -.08 | -.08 |
| 17                                  | LF4       | MAX T      | .00   | .00         | -.06  | .19   | .01           | -.02 | -.01 | -.01 |
| 17                                  | LF3       | MIN T      | .00   | .00         | .06   | -.19  | -.01          | .02  | .01  | .01  |
| 27                                  | LF4       | MAX M-2    | .00   | -20.97      | .04   | -.35  | -.01          | .13  | .06  | .06  |
| 27                                  | LF2       | MIN M-2    | .00   | 38.13       | -.36  | .46   | -.01          | -.22 | -.14 | -.14 |
| 397                                 | LF4       | MAX M-3    | .00   | 41.89       | .64   | .00   | .00           | .00  | .00  | .29  |
| 397                                 | LF3       | MIN M-3    | .00   | -41.89      | -.64  | .00   | .00           | .00  | .00  | -.29 |

## AUFLAGERKRÄFTE UND -MOMENTE

| Knoten-Nr. | LF/LG-Nr. | Auflagerkräfte [kN] |     |     | Auflagermomente [kNm] |     |     |
|------------|-----------|---------------------|-----|-----|-----------------------|-----|-----|
|            |           | P-X                 | P-Y | P-Z | M-X                   | M-Y | M-Z |



## AUFLAGERKRÄFTE UND -MOMENTE

| Knoten-Nr. | LF/LG-Nr. | Auflagerkräfte [kN] |         |         | Auflagermomente [kNm] |      |      |
|------------|-----------|---------------------|---------|---------|-----------------------|------|------|
|            |           | P-X                 | P-Y     | P-Z     | M-X                   | M-Y  | M-Z  |
| 14         | LF1       | -.020               | .012    | .724    | .000                  | .000 | .000 |
|            | LF2       | 11.162              | -4.216  | -77.751 | .000                  | .000 | .000 |
|            | LF3       | 3.913               | -6.102  | -42.712 | .000                  | .000 | .000 |
|            | LF4       | -3.913              | 6.102   | 42.712  | .000                  | .000 | .000 |
| 28         | LF1       | .000                | .000    | .494    | .000                  | .000 | .000 |
|            | LF2       | .000                | .000    | -36.255 | .000                  | .000 | .000 |
|            | LF3       | .000                | .000    | -19.968 | .000                  | .000 | .000 |
|            | LF4       | .000                | .000    | 19.968  | .000                  | .000 | .000 |
| 42         | LF1       | .000                | .000    | .283    | .000                  | .000 | .000 |
|            | LF2       | .000                | .000    | -19.516 | .000                  | .000 | .000 |
|            | LF3       | .000                | .000    | -10.756 | .000                  | .000 | .000 |
|            | LF4       | .000                | .000    | 10.756  | .000                  | .000 | .000 |
| 67         | LF1       | .000                | .000    | .202    | .000                  | .000 | .000 |
|            | LF2       | .000                | .000    | -13.092 | .000                  | .000 | .000 |
|            | LF3       | .000                | .000    | -7.187  | .000                  | .000 | .000 |
|            | LF4       | .000                | .000    | 7.187   | .000                  | .000 | .000 |
| 114        | LF1       | .000                | -.023   | .724    | .000                  | .000 | .000 |
|            | LF2       | 4.188               | .002    | -.009   | .000                  | .000 | .000 |
|            | LF3       | -.003               | -12.892 | 85.420  | .000                  | .000 | .000 |
|            | LF4       | .003                | 12.892  | -85.420 | .000                  | .000 | .000 |
| 128        | LF1       | .000                | .000    | .494    | .000                  | .000 | .000 |
|            | LF2       | .000                | .000    | .003    | .000                  | .000 | .000 |
|            | LF3       | .000                | .000    | 39.870  | .000                  | .000 | .000 |
|            | LF4       | .000                | .000    | -39.870 | .000                  | .000 | .000 |
| 142        | LF1       | .000                | .000    | .283    | .000                  | .000 | .000 |
|            | LF2       | .000                | .000    | .003    | .000                  | .000 | .000 |
|            | LF3       | .000                | .000    | 21.486  | .000                  | .000 | .000 |
|            | LF4       | .000                | .000    | -21.486 | .000                  | .000 | .000 |
| 189        | LF1       | .000                | .000    | .202    | .000                  | .000 | .000 |
|            | LF2       | .000                | .000    | .017    | .000                  | .000 | .000 |
|            | LF3       | .000                | .000    | 14.410  | .000                  | .000 | .000 |
|            | LF4       | .000                | .000    | -14.410 | .000                  | .000 | .000 |
| 247        | LF1       | .000                | .000    | .202    | .000                  | .000 | .000 |
|            | LF2       | .000                | .000    | 13.072  | .000                  | .000 | .000 |
|            | LF3       | .000                | .000    | -7.201  | .000                  | .000 | .000 |
|            | LF4       | .000                | .000    | 7.201   | .000                  | .000 | .000 |
| 272        | LF1       | .000                | .000    | .283    | .000                  | .000 | .000 |
|            | LF2       | .000                | .000    | 19.507  | .000                  | .000 | .000 |
|            | LF3       | .000                | .000    | -10.751 | .000                  | .000 | .000 |
|            | LF4       | .000                | .000    | 10.751  | .000                  | .000 | .000 |
| 286        | LF1       | .000                | .000    | .494    | .000                  | .000 | .000 |
|            | LF2       | .000                | .000    | 36.262  | .000                  | .000 | .000 |
|            | LF3       | .000                | .000    | -19.989 | .000                  | .000 | .000 |
|            | LF4       | .000                | .000    | 19.989  | .000                  | .000 | .000 |
| 300        | LF1       | .020                | .012    | .725    | .000                  | .000 | .000 |
|            | LF2       | 11.173              | 4.214   | 77.760  | .000                  | .000 | .000 |
|            | LF3       | -3.911              | -6.088  | -42.621 | .000                  | .000 | .000 |
|            | LF4       | 3.911               | 6.088   | 42.621  | .000                  | .000 | .000 |
|            | LF1       | .000                | .000    | 5.108   |                       |      |      |
|            |           | .000                | .000    | 5.108   |                       |      |      |
|            | LF2       | 26.523              | .000    | .000    |                       |      |      |
|            |           | 26.523              | .000    | .000    |                       |      |      |
|            | LF3       | .000                | -25.081 | .000    |                       |      |      |
|            |           | .000                | -25.082 | .000    |                       |      |      |
|            | LF4       | .000                | 25.081  | .000    |                       |      |      |
|            |           | .000                | 25.082  | .000    |                       |      |      |

## MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.             | LK-Nr.                       | x [m] |     | Kräfte [kN] |      |     | Momente [kNm] |     |      |
|----------------------|------------------------------|-------|-----|-------------|------|-----|---------------|-----|------|
|                      |                              |       |     | N           | Q-2  | Q-3 | T             | M-2 | M-3  |
|                      | Querschnitt-Nr. 1: Ring 80/5 |       |     |             |      |     |               |     |      |
| 479                  | LK3                          | .25   | MAX | 48.66       | .02  | .00 | .00           | .00 | .05  |
| 479                  | LK2                          | .00   | MIN | -49.62      | -.06 | .00 | .00           | .00 | -.06 |
| LF'e in Max: LF1 LF4 |                              |       |     |             |      |     |               |     |      |



# MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                     | LK-Nr. | x [m] |                      | Kräfte [kN] |       |       | Momente [kNm] |       |       |
|------------------------------|--------|-------|----------------------|-------------|-------|-------|---------------|-------|-------|
|                              |        |       |                      | N           | Q-2   | Q-3   | T             | M-2   | M-3   |
| 3                            | LK3    | .00   | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
|                              | LK2    | .00   | MAX                  | -1.91       | .11   | .02   | .01           | .00   | .01   |
|                              |        |       | MIN                  | 1.75        | -1.10 | -0.02 | -0.01         | .00   | -0.01 |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 373                          | LK1    | .00   | MAX                  | -0.09       | .00   | .12   | -0.01         | -0.01 | .00   |
| 374                          | LK1    | .50   | MIN                  | -1.11       | .00   | -0.04 | -0.01         | -0.01 | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 3                            | LK1    | .00   | MAX                  | 3.18        | .02   | .08   | .01           | -0.01 | .00   |
| 3                            | LK2    | .00   | MIN                  | 1.75        | -1.10 | -0.02 | -0.01         | .00   | -0.01 |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 3                            | LK1    | .25   | MAX                  | 3.18        | .02   | .05   | .01           | .01   | .00   |
| 7                            | LK1    | .00   | MIN                  | 33.66       | .00   | .07   | .00           | -0.06 | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 7                            | LK3    | .00   | MAX                  | -19.23      | .06   | -0.01 | .00           | .00   | .06   |
| 8                            | LK2    | .00   | MIN                  | 21.15       | -0.05 | .00   | .00           | .00   | -0.06 |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| Maxi                         | LK1    |       |                      | 44.10       | 0.02  | 0.12  | 0.01          | 0.01  | 0.00  |
|                              | LK2    |       |                      | 24.10       | 0.04  | 0.02  | 0.01          | 0.00  | 0.01  |
|                              | LK3    |       |                      | 48.66       | 0.11  | 0.02  | 0.01          | 0.00  | 0.06  |
| Mini                         | LK1    |       |                      | -45.09      | -0.02 | -0.04 | -0.01         | -0.06 | 0.00  |
|                              | LK2    |       |                      | -49.62      | -0.10 | -0.02 | -0.01         | 0.00  | -0.06 |
|                              | LK3    |       |                      | -25.06      | -0.03 | -0.02 | -0.01         | 0.00  | -0.01 |
| Querschnitt-Nr. 2: Ring 30/3 |        |       |                      |             |       |       |               |       |       |
| 476                          | LK3    | .00   | MAX                  | 1.42        | -0.03 | .00   | .00           | .00   | .00   |
| 476                          | LK2    | .00   | MIN                  | -1.41       | .03   | .00   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 94                           | LK1    | .00   | MAX                  | -1.14       | .03   | .00   | .00           | .00   | .00   |
| 465                          | LK2    | .99   | MIN                  | -1.75       | -0.03 | .00   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 90                           | LK3    | .00   | MAX                  | -0.39       | .00   | .01   | .00           | .00   | .00   |
| 90                           | LK1    | .98   | MIN                  | -0.68       | -0.02 | -0.01 | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 90                           | LK1    | .00   | MAX                  | -0.65       | .02   | .00   | .00           | .00   | .00   |
| 90                           | LK1    | .00   | MIN                  | -0.65       | .02   | .00   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 476                          | LK1    | .99   | MAX                  | .04         | -0.01 | .01   | .00           | .01   | .00   |
| 101                          | LK2    | .98   | MIN                  | .71         | .01   | -0.01 | .00           | -0.01 | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 470                          | LK3    | .49   | MAX                  | .26         | .00   | .00   | .00           | .00   | .01   |
| 470                          | LK2    | .49   | MIN                  | -0.25       | .00   | .00   | .00           | .00   | -0.01 |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| Maxi                         | LK1    |       |                      | 1.30        | 0.03  | 0.01  | 0.00          | 0.01  | 0.01  |
|                              | LK2    |       |                      | 0.73        | 0.03  | 0.01  | 0.00          | 0.00  | 0.00  |
|                              | LK3    |       |                      | 1.42        | 0.03  | 0.01  | 0.00          | 0.00  | 0.01  |
| Mini                         | LK1    |       |                      | -1.29       | -0.02 | -0.01 | 0.00          | -0.01 | -0.01 |
|                              | LK2    |       |                      | -1.41       | -0.03 | -0.01 | 0.00          | -0.01 | -0.01 |
|                              | LK3    |       |                      | -0.72       | -0.03 | -0.01 | 0.00          | -0.01 | 0.00  |
| Querschnitt-Nr. 3: Kreis 20  |        |       |                      |             |       |       |               |       |       |
| 865                          | LK1    | .00   | MAX                  | 6.89        | .00   | .00   | .00           | .00   | .00   |
| 863                          | LK1    | .51   | MIN                  | -6.90       | .00   | -0.02 | .00           | -0.01 | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 29                           | LK1    | .00   | MAX                  | -1.23       | .02   | .00   | .00           | .00   | .00   |
| 102                          | LK2    | .55   | MIN                  | -0.26       | -0.02 | .00   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |



# MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                     | LK-Nr. | x [m] |                      | Kräfte [kN] |       |       | Momente [kNm] |       |       |
|------------------------------|--------|-------|----------------------|-------------|-------|-------|---------------|-------|-------|
|                              |        |       |                      | N           | Q-2   | Q-3   | T             | M-2   | M-3   |
| 858                          | LK2    | .00   | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
|                              |        |       | MAX                  | 5.94        | .00   | .02   | .00           | .00   | .00   |
|                              |        |       | MIN                  | 5.49        | .00   | -.02  | .00           | .00   | .00   |
| 859                          | LK3    | .51   | LF'e in Max: LF1 LF3 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |       |
| 29                           | LK1    | .00   | MAX                  | -1.23       | .02   | .00   | .00           | .00   | .00   |
| 29                           | LK1    | .00   | MIN                  | -1.23       | .02   | .00   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 859                          | LK3    | .00   | MAX                  | 5.50        | -.01  | -.01  | .00           | .01   | .00   |
| 859                          | LK2    | .00   | MIN                  | -5.52       | .01   | .02   | .00           | -.01  | .00   |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 29                           | LK1    | .00   | MAX                  | -1.23       | .02   | .00   | .00           | .00   | .00   |
| 29                           | LK1    | .55   | MIN                  | -1.24       | .00   | .00   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| Maxi                         | LK1    |       |                      | 6.89        | 0.02  | 0.01  | 0.00          | 0.01  | 0.00  |
|                              | LK2    |       |                      | 5.98        | 0.02  | 0.02  | 0.00          | 0.00  | 0.00  |
|                              | LK3    |       |                      | 5.50        | 0.02  | 0.01  | 0.00          | 0.01  | 0.00  |
| Mini                         | LK1    |       |                      | -6.90       | -0.01 | -0.02 | 0.00          | -0.01 | 0.00  |
|                              | LK2    |       |                      | -5.52       | -0.02 | -0.01 | 0.00          | -0.01 | 0.00  |
|                              | LK3    |       |                      | -5.97       | -0.02 | -0.02 | 0.00          | 0.00  | 0.00  |
| Querschnitt-Nr. 4: Ring 70/5 |        |       |                      |             |       |       |               |       |       |
| 482                          | LK3    | .25   | MAX                  | 36.80       | -.13  | .00   | .00           | .00   | .05   |
| 482                          | LK2    | .00   | MIN                  | -37.60      | .09   | .00   | .00           | .00   | -.02  |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 388                          | LK3    | .00   | MAX                  | 1.09        | .12   | .00   | .00           | .00   | .01   |
| 482                          | LK3    | .25   | MIN                  | 36.80       | -.13  | .00   | .00           | .00   | .05   |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF4 |             |       |       |               |       |       |
| 18                           | LK1    | .00   | MAX                  | .96         | -.04  | .10   | .00           | -.01  | .00   |
| 34                           | LK1    | .25   | MIN                  | 33.42       | .08   | -.08  | -.01          | -.05  | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 34                           | LK2    | .00   | MAX                  | 18.22       | -.04  | -.08  | .01           | .02   | -.05  |
| 34                           | LK1    | .00   | MIN                  | 33.41       | .08   | -.05  | -.01          | -.03  | .02   |
|                              |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 34                           | LK2    | .00   | MAX                  | 18.22       | -.04  | -.08  | .01           | .02   | -.05  |
| 482                          | LK1    | .00   | MIN                  | -.41        | .00   | .10   | .01           | -.06  | .00   |
|                              |        |       | LF'e in Max: LF1 LF3 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
| 34                           | LK3    | .00   | MAX                  | -19.03      | .05   | .08   | -.01          | -.02  | .05   |
| 34                           | LK2    | .00   | MIN                  | 18.22       | -.04  | -.08  | .01           | .02   | -.05  |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| Maxi                         | LK1    |       |                      | 33.42       | 0.08  | 0.10  | 0.01          | 0.01  | 0.02  |
|                              | LK2    |       |                      | 18.22       | 0.12  | 0.08  | 0.01          | 0.02  | 0.02  |
|                              | LK3    |       |                      | 36.80       | 0.12  | 0.08  | 0.01          | 0.02  | 0.05  |
| Mini                         | LK1    |       |                      | -34.20      | -0.08 | -0.08 | -0.01         | -0.06 | -0.02 |
|                              | LK2    |       |                      | -37.60      | -0.12 | -0.08 | -0.01         | -0.02 | -0.05 |
|                              | LK3    |       |                      | -19.03      | -0.13 | -0.08 | -0.01         | -0.02 | -0.02 |
| Querschnitt-Nr. 5: Ring 30/3 |        |       |                      |             |       |       |               |       |       |
| 447                          | LK3    | .00   | MAX                  | .94         | -.02  | .00   | .00           | .00   | .00   |
| 447                          | LK2    | .00   | MIN                  | -.90        | .02   | .00   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 159                          | LK1    | .00   | MAX                  | -.12        | .02   | -.01  | .00           | .00   | .00   |
| 438                          | LK2    | .75   | MIN                  | -.14        | -.02  | .00   | .00           | .00   | .00   |
|                              |        |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                              |        |       | LF'e in Min: LF1 LF3 |             |       |       |               |       |       |
| 159                          | LK3    | .00   | MAX                  | -.07        | .00   | .02   | .00           | -.01  | .00   |
| 159                          | LK2    | .75   | MIN                  | .06         | .01   | -.02  | .00           | -.01  | .00   |
|                              |        |       | LF'e in Max: LF1 LF4 |             |       |       |               |       |       |



# MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                     | LK-Nr. | x [m] |     | Kräfte [kN] |       |       | Momente [kNm] |       |      |
|------------------------------|--------|-------|-----|-------------|-------|-------|---------------|-------|------|
|                              |        |       |     | N           | Q-2   | Q-3   | T             | M-2   | M-3  |
| LF'e in Min: LF1 LF3         |        |       |     |             |       |       |               |       |      |
| 159                          | LK1    | .00   | MAX | -1.12       | .02   | -.01  | .00           | .00   | .00  |
| 159                          | LK1    | .00   | MIN | -1.12       | .02   | -.01  | .00           | .00   | .00  |
| LF'e in Max: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| LF'e in Min: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| 159                          | LK3    | .75   | MAX | -.06        | -.01  | .01   | .00           | .01   | .00  |
| 159                          | LK2    | .75   | MIN | .06         | .01   | -.02  | .00           | -.01  | .00  |
| LF'e in Max: LF1 LF4         |        |       |     |             |       |       |               |       |      |
| LF'e in Min: LF1 LF3         |        |       |     |             |       |       |               |       |      |
| 159                          | LK1    | .00   | MAX | -1.12       | .02   | -.01  | .00           | .00   | .00  |
| 159                          | LK1    | .43   | MIN | -1.13       | .00   | -.01  | .00           | .00   | .00  |
| LF'e in Max: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| LF'e in Min: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| Maxi                         | LK1    |       |     | 0.86        | 0.02  | 0.02  | 0.00          | 0.01  | 0.00 |
|                              | LK2    |       |     | 0.49        | 0.02  | 0.02  | 0.00          | 0.01  | 0.00 |
|                              | LK3    |       |     | 0.94        | 0.02  | 0.02  | 0.00          | 0.01  | 0.00 |
| Mini                         | LK1    |       |     | -0.83       | -0.01 | -0.01 | 0.00          | -0.01 | 0.00 |
|                              | LK2    |       |     | -0.90       | -0.02 | -0.02 | 0.00          | -0.01 | 0.00 |
|                              | LK3    |       |     | -0.45       | -0.02 | -0.02 | 0.00          | -0.01 | 0.00 |
| Querschnitt-Nr. 6: Kreis 16  |        |       |     |             |       |       |               |       |      |
| 1406                         | LK1    | .00   | MAX | 2.66        | .00   | .00   | .00           | .00   | .00  |
| 1412                         | LK1    | .00   | MIN | -2.69       | .00   | .00   | .00           | .00   | .00  |
| LF'e in Max: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| LF'e in Min: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| 66                           | LK1    | .45   | MAX | -.34        | .01   | .00   | .00           | .00   | .00  |
| 171                          | LK2    | .45   | MIN | .01         | -.01  | .00   | .00           | .00   | .00  |
| LF'e in Max: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| LF'e in Min: LF1 LF3         |        |       |     |             |       |       |               |       |      |
| 1407                         | LK2    | .00   | MAX | 1.92        | .00   | .01   | .00           | .00   | .00  |
| 305                          | LK2    | .45   | MIN | .60         | .01   | -.01  | .00           | .00   | .00  |
| LF'e in Max: LF1 LF3         |        |       |     |             |       |       |               |       |      |
| LF'e in Min: LF1 LF3         |        |       |     |             |       |       |               |       |      |
| 66                           | LK1    | .00   | MAX | -.34        | .00   | .00   | .00           | .00   | .00  |
| 66                           | LK1    | .00   | MIN | -.34        | .00   | .00   | .00           | .00   | .00  |
| LF'e in Max: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| LF'e in Min: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| 66                           | LK1    | .45   | MAX | -.34        | .01   | .00   | .00           | .00   | .00  |
| 66                           | LK1    | .00   | MIN | -.34        | .00   | .00   | .00           | .00   | .00  |
| LF'e in Max: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| LF'e in Min: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| 66                           | LK1    | .00   | MAX | -.34        | .00   | .00   | .00           | .00   | .00  |
| 66                           | LK1    | .45   | MIN | -.34        | .01   | .00   | .00           | .00   | .00  |
| LF'e in Max: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| LF'e in Min: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| Maxi                         | LK1    |       |     | 2.66        | 0.01  | 0.01  | 0.00          | 0.00  | 0.00 |
|                              | LK2    |       |     | 1.94        | 0.01  | 0.01  | 0.00          | 0.00  | 0.00 |
|                              | LK3    |       |     | 2.51        | 0.01  | 0.00  | 0.00          | 0.00  | 0.00 |
| Mini                         | LK1    |       |     | -2.69       | -0.01 | -0.01 | 0.00          | 0.00  | 0.00 |
|                              | LK2    |       |     | -2.54       | -0.01 | -0.01 | 0.00          | 0.00  | 0.00 |
|                              | LK3    |       |     | -1.96       | -0.01 | -0.01 | 0.00          | 0.00  | 0.00 |
| Querschnitt-Nr. 7: Ring 50/5 |        |       |     |             |       |       |               |       |      |
| 413                          | LK3    | .25   | MAX | 21.21       | -.02  | .00   | .00           | .00   | .00  |
| 413                          | LK2    | .00   | MIN | -21.77      | .00   | .00   | .00           | .00   | .00  |
| LF'e in Max: LF1 LF4         |        |       |     |             |       |       |               |       |      |
| LF'e in Min: LF1 LF3         |        |       |     |             |       |       |               |       |      |
| 402                          | LK2    | .50   | MAX | -.38        | .30   | .00   | .00           | .00   | -.11 |
| 402                          | LK3    | .50   | MIN | .32         | -.30  | .00   | .00           | .00   | .11  |
| LF'e in Max: LF1 LF3         |        |       |     |             |       |       |               |       |      |
| LF'e in Min: LF1 LF4         |        |       |     |             |       |       |               |       |      |
| 64                           | LK1    | .00   | MAX | 18.85       | -.10  | .14   | .00           | -.07  | -.04 |
| 54                           | LK1    | .50   | MIN | .30         | .12   | -.24  | .00           | -.09  | -.05 |
| LF'e in Max: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| LF'e in Min: LF1 LF2         |        |       |     |             |       |       |               |       |      |
| 412                          | LK1    | .00   | MAX | -.25        | .00   | -.02  | .01           | .00   | .00  |
| 783                          | LK2    | .00   | MIN | 10.27       | -.03  | -.09  | -.01          | .03   | -.02 |
| LF'e in Max: LF1 LF2         |        |       |     |             |       |       |               |       |      |



# MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                     | LK-Nr.               | x [m] | Kräfte [kN]          |                      |       |       |       |       | Momente [kNm] |      |  |
|------------------------------|----------------------|-------|----------------------|----------------------|-------|-------|-------|-------|---------------|------|--|
|                              |                      |       |                      | N                    | Q-2   | Q-3   | T     | M-2   | M-3           |      |  |
| 54                           | LK3                  | .50   | LF'e in Min: LF1 LF3 |                      |       |       |       |       |               |      |  |
|                              |                      |       | MAX                  | -.22                 | -.09  | .12   | .00   | .05   | .03           |      |  |
|                              | LK1                  | .50   | MIN                  | .30                  | .12   | -.24  | .00   | -.09  | -.05          |      |  |
|                              |                      |       | LF'e in Max: LF1 LF4 |                      |       |       |       |       |               |      |  |
|                              | LF'e in Min: LF1 LF2 |       |                      |                      |       |       |       |       |               |      |  |
|                              | 402                  | LK3   | .50                  | MAX                  | .32   | -.30  | .00   | .00   | .00           | .11  |  |
|                              |                      |       |                      | MIN                  | -.38  | .30   | .00   | .00   | .00           | -.11 |  |
|                              | 402                  | LK2   | .50                  | LF'e in Max: LF1 LF4 |       |       |       |       |               |      |  |
|                              |                      |       |                      | LF'e in Min: LF1 LF3 |       |       |       |       |               |      |  |
|                              | Maxi                 | LK1   |                      |                      | 19.24 | 0.12  | 0.14  | 0.01  | 0.02          | 0.05 |  |
| LK2                          |                      |       |                      | 10.48                | 0.30  | 0.12  | 0.00  | 0.05  | 0.03          |      |  |
| LK3                          |                      |       |                      | 21.21                | 0.19  | 0.12  | 0.01  | 0.05  | 0.11          |      |  |
| Mini                         | LK1                  |       |                      | -19.79               | -0.13 | -0.24 | 0.00  | -0.09 | -0.05         |      |  |
|                              | LK2                  |       |                      | -21.77               | -0.19 | -0.12 | -0.01 | -0.05 | -0.11         |      |  |
|                              | LK3                  |       |                      | -11.04               | -0.30 | -0.12 | 0.00  | -0.05 | -0.03         |      |  |
| Querschnitt-Nr. 8: Ring 20/3 |                      |       |                      |                      |       |       |       |       |               |      |  |
| 436                          | LK3                  | .00   | MAX                  | .67                  | -.01  | .00   | .00   | .00   | .00           |      |  |
| 436                          | LK2                  | .00   | MIN                  | -.63                 | .01   | .00   | .00   | .00   | .00           |      |  |
| LF'e in Max: LF1 LF4         |                      |       |                      |                      |       |       |       |       |               |      |  |
| LF'e in Min: LF1 LF3         |                      |       |                      |                      |       |       |       |       |               |      |  |
| 215                          | LK1                  | .00   | MAX                  | .11                  | .01   | -.01  | .00   | .00   | .00           |      |  |
| 215                          | LK1                  | .54   | MIN                  | .10                  | -.01  | -.01  | .00   | .00   | .00           |      |  |
| LF'e in Max: LF1 LF2         |                      |       |                      |                      |       |       |       |       |               |      |  |
| LF'e in Min: LF1 LF2         |                      |       |                      |                      |       |       |       |       |               |      |  |
| 215                          | LK3                  | .00   | MAX                  | .07                  | .00   | .02   | .00   | .00   | .00           |      |  |
| 215                          | LK2                  | .54   | MIN                  | -.08                 | .01   | -.02  | .00   | .00   | .00           |      |  |
| LF'e in Max: LF1 LF4         |                      |       |                      |                      |       |       |       |       |               |      |  |
| LF'e in Min: LF1 LF3         |                      |       |                      |                      |       |       |       |       |               |      |  |
| 215                          | LK1                  | .00   | MAX                  | .11                  | .01   | -.01  | .00   | .00   | .00           |      |  |
| 215                          | LK1                  | .00   | MIN                  | .11                  | .01   | -.01  | .00   | .00   | .00           |      |  |
| LF'e in Max: LF1 LF2         |                      |       |                      |                      |       |       |       |       |               |      |  |
| LF'e in Min: LF1 LF2         |                      |       |                      |                      |       |       |       |       |               |      |  |
| 215                          | LK1                  | .00   | MAX                  | .11                  | .01   | -.01  | .00   | .00   | .00           |      |  |
| 215                          | LK1                  | .54   | MIN                  | .10                  | -.01  | -.01  | .00   | .00   | .00           |      |  |
| LF'e in Max: LF1 LF2         |                      |       |                      |                      |       |       |       |       |               |      |  |
| LF'e in Min: LF1 LF2         |                      |       |                      |                      |       |       |       |       |               |      |  |
| 215                          | LK1                  | .00   | MAX                  | .11                  | .01   | -.01  | .00   | .00   | .00           |      |  |
| 215                          | LK1                  | .33   | MIN                  | .11                  | .00   | -.01  | .00   | .00   | .00           |      |  |
| LF'e in Max: LF1 LF2         |                      |       |                      |                      |       |       |       |       |               |      |  |
| LF'e in Min: LF1 LF2         |                      |       |                      |                      |       |       |       |       |               |      |  |
| Maxi                         | LK1                  |       |                      | 0.61                 | 0.01  | 0.02  | 0.00  | 0.00  | 0.00          |      |  |
|                              | LK2                  |       |                      | 0.35                 | 0.01  | 0.02  | 0.00  | 0.00  | 0.00          |      |  |
|                              | LK3                  |       |                      | 0.67                 | 0.01  | 0.02  | 0.00  | 0.00  | 0.00          |      |  |
| Mini                         | LK1                  |       |                      | -0.58                | -0.01 | -0.01 | 0.00  | 0.00  | 0.00          |      |  |
|                              | LK2                  |       |                      | -0.63                | -0.01 | -0.02 | 0.00  | 0.00  | 0.00          |      |  |
|                              | LK3                  |       |                      | -0.31                | -0.01 | -0.02 | 0.00  | 0.00  | 0.00          |      |  |
| Querschnitt-Nr. 9: Kreis 12  |                      |       |                      |                      |       |       |       |       |               |      |  |
| 1252                         | LK3                  | .00   | MAX                  | 1.53                 | .00   | .00   | .00   | .00   | .00           |      |  |
| 1252                         | LK2                  | .00   | MIN                  | -1.56                | .00   | .00   | .00   | .00   | .00           |      |  |
| LF'e in Max: LF1 LF4         |                      |       |                      |                      |       |       |       |       |               |      |  |
| LF'e in Min: LF1 LF3         |                      |       |                      |                      |       |       |       |       |               |      |  |
| 137                          | LK1                  | .37   | MAX                  | .06                  | .01   | .00   | .00   | .00   | .00           |      |  |
| 227                          | LK2                  | .37   | MIN                  | .06                  | -.01  | .00   | .00   | .00   | .00           |      |  |
| LF'e in Max: LF1 LF2         |                      |       |                      |                      |       |       |       |       |               |      |  |
| LF'e in Min: LF1 LF3         |                      |       |                      |                      |       |       |       |       |               |      |  |
| 137                          | LK1                  | .37   | MAX                  | .06                  | .01   | .00   | .00   | .00   | .00           |      |  |
| 327                          | LK2                  | .37   | MIN                  | -.02                 | .00   | -.01  | .00   | .00   | .00           |      |  |
| LF'e in Max: LF1 LF2         |                      |       |                      |                      |       |       |       |       |               |      |  |
| LF'e in Min: LF1 LF3         |                      |       |                      |                      |       |       |       |       |               |      |  |
| 137                          | LK1                  | .00   | MAX                  | .05                  | .00   | .00   | .00   | .00   | .00           |      |  |
| 137                          | LK1                  | .00   | MIN                  | .05                  | .00   | .00   | .00   | .00   | .00           |      |  |
| LF'e in Max: LF1 LF2         |                      |       |                      |                      |       |       |       |       |               |      |  |
| LF'e in Min: LF1 LF2         |                      |       |                      |                      |       |       |       |       |               |      |  |
| 137                          | LK1                  | .37   | MAX                  | .06                  | .01   | .00   | .00   | .00   | .00           |      |  |
| 137                          | LK1                  | .00   | MIN                  | .05                  | .00   | .00   | .00   | .00   | .00           |      |  |
| LF'e in Max: LF1 LF2         |                      |       |                      |                      |       |       |       |       |               |      |  |



# MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                      | LK-Nr. | x [m] |     | Kräfte [kN] |       |       | Momente [kNm] |       |       |
|-------------------------------|--------|-------|-----|-------------|-------|-------|---------------|-------|-------|
|                               |        |       |     | N           | Q-2   | Q-3   | T             | M-2   | M-3   |
| LF'e in Min: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| 137                           | LK1    | .00   | MAX | .05         | .00   | .00   | .00           | .00   | .00   |
| 137                           | LK1    | .37   | MIN | .06         | .01   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| Maxi                          | LK1    |       |     | 1.42        | 0.01  | 0.00  | 0.00          | 0.00  | 0.00  |
|                               | LK2    |       |     | 0.94        | 0.01  | 0.00  | 0.00          | 0.00  | 0.00  |
|                               | LK3    |       |     | 1.53        | 0.01  | 0.00  | 0.00          | 0.00  | 0.00  |
| Mini                          | LK1    |       |     | -1.45       | -0.01 | 0.00  | 0.00          | 0.00  | 0.00  |
|                               | LK2    |       |     | -1.56       | -0.01 | -0.01 | 0.00          | 0.00  | 0.00  |
|                               | LK3    |       |     | -0.97       | -0.01 | 0.00  | 0.00          | 0.00  | 0.00  |
| Querschnitt-Nr. 10: Ring 35/5 |        |       |     |             |       |       |               |       |       |
| 464                           | LK3    | .25   | MAX | 14.21       | -.02  | .00   | .00           | .00   | .00   |
| 464                           | LK2    | .00   | MIN | -14.61      | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF4          |        |       |     |             |       |       |               |       |       |
| LF'e in Min: LF1 LF3          |        |       |     |             |       |       |               |       |       |
| 125                           | LK2    | .50   | MAX | .18         | .04   | .01   | .00           | .00   | -.01  |
| 125                           | LK3    | .50   | MIN | -.21        | -.04  | -.01  | .00           | .00   | .01   |
| LF'e in Max: LF1 LF3          |        |       |     |             |       |       |               |       |       |
| LF'e in Min: LF1 LF4          |        |       |     |             |       |       |               |       |       |
| 711                           | LK1    | .00   | MAX | -9.37       | .00   | .03   | .00           | -.01  | .00   |
| 453                           | LK1    | .50   | MIN | -.01        | .00   | -.05  | .00           | -.01  | .00   |
| LF'e in Max: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| 124                           | LK1    | .00   | MAX | .00         | .00   | .02   | .00           | .00   | .00   |
| 124                           | LK1    | .00   | MIN | .00         | .00   | .02   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| 124                           | LK1    | .25   | MAX | .00         | .00   | .00   | .00           | .00   | .00   |
| 125                           | LK1    | .50   | MIN | .34         | -.01  | -.03  | .00           | -.01  | .00   |
| LF'e in Max: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| 125                           | LK3    | .50   | MAX | -.21        | -.04  | -.01  | .00           | .00   | .01   |
| 125                           | LK2    | .50   | MIN | .18         | .04   | .01   | .00           | .00   | -.01  |
| LF'e in Max: LF1 LF4          |        |       |     |             |       |       |               |       |       |
| LF'e in Min: LF1 LF3          |        |       |     |             |       |       |               |       |       |
| Maxi                          | LK1    |       |     | 12.89       | 0.01  | 0.03  | 0.00          | 0.00  | 0.00  |
|                               | LK2    |       |     | 7.00        | 0.04  | 0.01  | 0.00          | 0.00  | 0.00  |
|                               | LK3    |       |     | 14.21       | 0.02  | 0.01  | 0.00          | 0.00  | 0.01  |
| Mini                          | LK1    |       |     | -13.27      | -0.01 | -0.05 | 0.00          | -0.01 | 0.00  |
|                               | LK2    |       |     | -14.61      | -0.02 | -0.01 | 0.00          | 0.00  | -0.01 |
|                               | LK3    |       |     | -7.40       | -0.04 | -0.01 | 0.00          | 0.00  | 0.00  |
| Querschnitt-Nr. 11: Ring 20/3 |        |       |     |             |       |       |               |       |       |
| 414                           | LK2    | .00   | MAX | 1.51        | .01   | .00   | .00           | .00   | .00   |
| 414                           | LK3    | .00   | MIN | -1.50       | -.01  | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF3          |        |       |     |             |       |       |               |       |       |
| LF'e in Min: LF1 LF4          |        |       |     |             |       |       |               |       |       |
| 293                           | LK1    | .00   | MAX | 1.34        | .01   | .00   | .00           | .00   | .00   |
| 293                           | LK3    | .37   | MIN | .75         | -.01  | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| LF'e in Min: LF1 LF4          |        |       |     |             |       |       |               |       |       |
| 425                           | LK1    | .00   | MAX | .00         | .00   | .02   | .00           | .00   | .00   |
| 299                           | LK2    | .37   | MIN | .10         | .01   | -.01  | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| LF'e in Min: LF1 LF3          |        |       |     |             |       |       |               |       |       |
| 293                           | LK1    | .00   | MAX | 1.34        | .01   | .00   | .00           | .00   | .00   |
| 293                           | LK1    | .00   | MIN | 1.34        | .01   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| 293                           | LK1    | .16   | MAX | 1.33        | .00   | .00   | .00           | .00   | .00   |
| 293                           | LK1    | .37   | MIN | 1.33        | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2          |        |       |     |             |       |       |               |       |       |
| 293                           | LK1    | .00   | MAX | 1.34        | .01   | .00   | .00           | .00   | .00   |
| 293                           | LK1    | .31   | MIN | 1.33        | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2          |        |       |     |             |       |       |               |       |       |



# MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                            | LK-Nr. | x [m] |                      | Kräfte [kN] |       |       | Momente [kNm] |       |       |
|-------------------------------------|--------|-------|----------------------|-------------|-------|-------|---------------|-------|-------|
|                                     |        |       |                      | N           | Q-2   | Q-3   | T             | M-2   | M-3   |
| Maxi                                | LK1    |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
|                                     | LK2    |       |                      | 1.34        | 0.01  | 0.02  | 0.00          | 0.00  | 0.00  |
|                                     | LK3    |       |                      | 1.51        | 0.01  | 0.01  | 0.00          | 0.00  | 0.00  |
|                                     | LK1    |       |                      | 0.87        | 0.01  | 0.01  | 0.00          | 0.00  | 0.00  |
|                                     | LK2    |       |                      | -1.33       | -0.01 | -0.01 | 0.00          | 0.00  | 0.00  |
|                                     | LK3    |       |                      | -0.83       | -0.01 | -0.01 | 0.00          | 0.00  | 0.00  |
| Mini                                | LK1    |       |                      | -1.50       | -0.01 | -0.01 | 0.00          | 0.00  | 0.00  |
|                                     | LK2    |       |                      |             |       |       |               |       |       |
|                                     | LK3    |       |                      |             |       |       |               |       |       |
|                                     | LK1    |       |                      |             |       |       |               |       |       |
|                                     | LK2    |       |                      |             |       |       |               |       |       |
|                                     | LK3    |       |                      |             |       |       |               |       |       |
| Querschnitt-Nr. 12: Kreis 12        |        |       |                      |             |       |       |               |       |       |
| 1086                                | LK3    | .00   | MAX                  | 1.41        | .00   | .00   | .00           | .00   | .00   |
| 1084                                | LK2    | .00   | MIN                  | -1.45       | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF4                |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF3                |        |       |                      |             |       |       |               |       |       |
| 193                                 | LK1    | .31   | MAX                  | .40         | .01   | .00   | .00           | .00   | .00   |
| 271                                 | LK2    | .31   | MIN                  | .20         | -.01  | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2                |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF3                |        |       |                      |             |       |       |               |       |       |
| 193                                 | LK1    | .31   | MAX                  | .40         | .01   | .00   | .00           | .00   | .00   |
| 1082                                | LK1    | .31   | MIN                  | 1.15        | .00   | -.01  | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2                |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2                |        |       |                      |             |       |       |               |       |       |
| 193                                 | LK1    | .00   | MAX                  | .40         | .00   | .00   | .00           | .00   | .00   |
| 193                                 | LK1    | .00   | MIN                  | .40         | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2                |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2                |        |       |                      |             |       |       |               |       |       |
| 193                                 | LK1    | .00   | MAX                  | .40         | .00   | .00   | .00           | .00   | .00   |
| 193                                 | LK1    | .19   | MIN                  | .40         | .00   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2                |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2                |        |       |                      |             |       |       |               |       |       |
| 193                                 | LK1    | .00   | MAX                  | .40         | .00   | .00   | .00           | .00   | .00   |
| 193                                 | LK1    | .31   | MIN                  | .40         | .01   | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF2                |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2                |        |       |                      |             |       |       |               |       |       |
| Maxi                                | LK1    |       | LF'e in Max: LF1 LF2 |             |       |       |               |       |       |
|                                     | LK2    |       | LF'e in Min: LF1 LF2 |             |       |       |               |       |       |
|                                     | LK3    |       |                      | 1.40        | 0.01  | 0.00  | 0.00          | 0.00  | 0.00  |
|                                     | LK1    |       |                      | 0.88        | 0.01  | 0.00  | 0.00          | 0.00  | 0.00  |
|                                     | LK2    |       |                      | 1.41        | 0.01  | 0.00  | 0.00          | 0.00  | 0.00  |
|                                     | LK3    |       |                      | -1.44       | -0.01 | -0.01 | 0.00          | 0.00  | 0.00  |
| Mini                                | LK1    |       |                      | -1.45       | -0.01 | 0.00  | 0.00          | 0.00  | 0.00  |
|                                     | LK2    |       |                      | -1.45       | -0.01 | 0.00  | 0.00          | 0.00  | 0.00  |
|                                     | LK3    |       |                      | -0.92       | -0.01 | -0.01 | 0.00          | 0.00  | 0.00  |
|                                     | LK1    |       |                      |             |       |       |               |       |       |
|                                     | LK2    |       |                      |             |       |       |               |       |       |
|                                     | LK3    |       |                      |             |       |       |               |       |       |
| Querschnitt-Nr. 13: Rechteck 100/20 |        |       |                      |             |       |       |               |       |       |
| 853                                 | LK3    | .00   | MAX                  | 8.55        | 7.25  | .00   | .00           | .00   | .00   |
| 853                                 | LK2    | .00   | MIN                  | -8.56       | -7.24 | .00   | .00           | .00   | .00   |
| LF'e in Max: LF1 LF4                |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF3                |        |       |                      |             |       |       |               |       |       |
| 853                                 | LK3    | .00   | MAX                  | 8.55        | 7.25  | .00   | .00           | .00   | .00   |
| 853                                 | LK2    | .14   | MIN                  | -8.56       | -7.25 | .00   | .00           | .00   | .98   |
| LF'e in Max: LF1 LF4                |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF3                |        |       |                      |             |       |       |               |       |       |
| 839                                 | LK3    | .00   | MAX                  | -1.53       | -.43  | .15   | -.01          | -.02  | -.06  |
| 844                                 | LK1    | .00   | MIN                  | .00         | .02   | -.16  | .01           | .00   | .00   |
| LF'e in Max: LF1 LF4                |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF2                |        |       |                      |             |       |       |               |       |       |
| 843                                 | LK1    | .00   | MAX                  | .00         | .03   | -.09  | .02           | .00   | .00   |
| 848                                 | LK3    | .00   | MIN                  | -4.23       | 3.61  | .06   | -.02          | -.01  | .49   |
| LF'e in Max: LF1 LF2                |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF4                |        |       |                      |             |       |       |               |       |       |
| 839                                 | LK2    | .00   | MAX                  | 1.52        | .38   | -.15  | .01           | .02   | .05   |
| 839                                 | LK3    | .00   | MIN                  | -1.53       | -.43  | .15   | -.01          | -.02  | -.06  |
| LF'e in Max: LF1 LF3                |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF4                |        |       |                      |             |       |       |               |       |       |
| 853                                 | LK2    | .14   | MAX                  | -8.56       | -7.25 | .00   | .00           | .00   | .98   |
| 853                                 | LK3    | .14   | MIN                  | 8.55        | 7.24  | .00   | .00           | .00   | -.98  |
| LF'e in Max: LF1 LF3                |        |       |                      |             |       |       |               |       |       |
| LF'e in Min: LF1 LF4                |        |       |                      |             |       |       |               |       |       |
| Maxi                                | LK1    |       |                      | 7.73        | 1.39  | 0.11  | 0.02          | 0.01  | 0.90  |
|                                     | LK2    |       |                      | 4.22        | 3.57  | 0.15  | 0.02          | 0.02  | 0.98  |
|                                     | LK3    |       |                      | 8.55        | 7.25  | 0.15  | 0.02          | 0.00  | 0.49  |
|                                     | LK1    |       |                      | -7.76       | -6.65 | -0.16 | -0.01         | -0.02 | -0.90 |



# MAX/MIN/ZUGEH-SCHNITTGRÖSSEN QUERSCHNITTSBEZOGEN

| Stab-Nr.                       | LK-Nr. | x [m] |     | N      | Kräfte [kN] |       | Q-3   | T     | Momente [kNm] |     |       |
|--------------------------------|--------|-------|-----|--------|-------------|-------|-------|-------|---------------|-----|-------|
|                                |        |       |     |        | Q-2         |       |       |       | M-2           | M-3 |       |
|                                | LK2    |       |     | -8.56  | -7.25       |       | -0.15 | -0.02 | 0.00          |     | -0.49 |
|                                | LK3    |       |     | -4.23  | -3.57       |       | -0.15 | -0.02 | -0.02         |     | -0.98 |
| Querschnitt-Nr. 14: Ring 80/10 |        |       |     |        |             |       |       |       |               |     |       |
| 383                            | LK3    | .25   | MAX | 81.98  | 3.60        |       | .00   | .00   | .00           |     | -.90  |
| 383                            | LK2    | .00   | MIN | -83.40 | -3.65       |       | .00   | .00   | .00           |     | -.01  |
| LF'e in Max: LF1 LF4           |        |       |     |        |             |       |       |       |               |     |       |
| LF'e in Min: LF1 LF3           |        |       |     |        |             |       |       |       |               |     |       |
| 383                            | LK3    | .00   | MAX | 81.97  | 3.64        |       | .00   | .00   | .00           |     | .01   |
| 383                            | LK2    | .00   | MIN | -83.40 | -3.65       |       | .00   | .00   | .00           |     | -.01  |
| LF'e in Max: LF1 LF4           |        |       |     |        |             |       |       |       |               |     |       |
| LF'e in Min: LF1 LF3           |        |       |     |        |             |       |       |       |               |     |       |
| 836                            | LK1    | .00   | MAX | -75.98 | 1.56        | 2.95  | .00   | .00   | -.01          |     | .00   |
| 13                             | LK3    | .00   | MIN | -42.05 | 1.08        | -1.47 | .00   | .00   | .00           |     | .00   |
| LF'e in Max: LF1 LF2           |        |       |     |        |             |       |       |       |               |     |       |
| LF'e in Min: LF1 LF4           |        |       |     |        |             |       |       |       |               |     |       |
| 2                              | LK3    | .00   | MAX | -.45   | -.05        | .08   | .02   | .01   |               |     | -.02  |
| 2                              | LK2    | .00   | MIN | .38    | .04         | -.08  | -.02  | -.01  |               |     | .02   |
| LF'e in Max: LF1 LF4           |        |       |     |        |             |       |       |       |               |     |       |
| LF'e in Min: LF1 LF3           |        |       |     |        |             |       |       |       |               |     |       |
| 836                            | LK1    | .25   | MAX | -75.96 | 1.56        | 2.92  | .00   | .73   |               |     | -.39  |
| 13                             | LK3    | .25   | MIN | -42.04 | 1.05        | -1.47 | .00   | -.36  |               |     | -.26  |
| LF'e in Max: LF1 LF2           |        |       |     |        |             |       |       |       |               |     |       |
| LF'e in Min: LF1 LF4           |        |       |     |        |             |       |       |       |               |     |       |
| 383                            | LK2    | .25   | MAX | -83.38 | -3.61       | .00   | .00   | .00   |               |     | .90   |
| 383                            | LK3    | .25   | MIN | 81.98  | 3.60        | .00   | .00   | .00   |               |     | -.90  |
| LF'e in Max: LF1 LF3           |        |       |     |        |             |       |       |       |               |     |       |
| LF'e in Min: LF1 LF4           |        |       |     |        |             |       |       |       |               |     |       |
| Maxi                           | LK1    |       |     | 74.55  | 1.56        | 2.95  | 0.01  | 0.73  |               |     | 0.39  |
|                                | LK2    |       |     | 40.64  | 0.26        | 1.46  | 0.02  | 0.36  |               |     | 0.90  |
|                                | LK3    |       |     | 81.98  | 3.64        | 1.47  | 0.02  | 0.36  |               |     | 0.10  |
| Mini                           | LK1    |       |     | -75.98 | -1.56       | -0.24 | -0.02 | -0.08 |               |     | -0.39 |
|                                | LK2    |       |     | -83.40 | -3.65       | -1.46 | -0.02 | -0.36 |               |     | -0.10 |
|                                | LK3    |       |     | -42.05 | -0.25       | -1.47 | -0.02 | -0.36 |               |     | -0.90 |
| Querschnitt-Nr. 15: Ring 70/8  |        |       |     |        |             |       |       |       |               |     |       |
| 397                            | LK3    | .50   | MAX | 41.46  | .57         | .00   | .00   | .00   |               |     | -.01  |
| 397                            | LK2    | .00   | MIN | -42.34 | -.65        | .00   | .00   | .00   |               |     | -.29  |
| LF'e in Max: LF1 LF4           |        |       |     |        |             |       |       |       |               |     |       |
| LF'e in Min: LF1 LF3           |        |       |     |        |             |       |       |       |               |     |       |
| 397                            | LK3    | .00   | MAX | 41.44  | .64         | .00   | .00   | .00   |               |     | .29   |
| 397                            | LK2    | .00   | MIN | -42.34 | -.65        | .00   | .00   | .00   |               |     | -.29  |
| LF'e in Max: LF1 LF4           |        |       |     |        |             |       |       |       |               |     |       |
| LF'e in Min: LF1 LF3           |        |       |     |        |             |       |       |       |               |     |       |
| 820                            | LK1    | .00   | MAX | -38.56 | .36         | .47   | -.01  | -.23  |               |     | .14   |
| 810                            | LK1    | .50   | MIN | .00    | -.20        | -.36  | .00   | -.14  |               |     | .08   |
| LF'e in Max: LF1 LF2           |        |       |     |        |             |       |       |       |               |     |       |
| LF'e in Min: LF1 LF2           |        |       |     |        |             |       |       |       |               |     |       |
| 17                             | LK3    | .00   | MAX | -.05   | -.06        | .19   | .01   | -.02  |               |     | -.01  |
| 17                             | LK2    | .00   | MIN | -.04   | .05         | -.18  | -.01  | .02   |               |     | .01   |
| LF'e in Max: LF1 LF4           |        |       |     |        |             |       |       |       |               |     |       |
| LF'e in Min: LF1 LF3           |        |       |     |        |             |       |       |       |               |     |       |
| 27                             | LK3    | .00   | MAX | -21.42 | .04         | -.35  | -.01  | .13   |               |     | .06   |
| 820                            | LK1    | .00   | MIN | -38.56 | .36         | .47   | -.01  | -.23  |               |     | .14   |
| LF'e in Max: LF1 LF4           |        |       |     |        |             |       |       |       |               |     |       |
| LF'e in Min: LF1 LF2           |        |       |     |        |             |       |       |       |               |     |       |
| 397                            | LK3    | .00   | MAX | 41.44  | .64         | .00   | .00   | .00   |               |     | .29   |
| 397                            | LK2    | .00   | MIN | -42.34 | -.65        | .00   | .00   | .00   |               |     | -.29  |
| LF'e in Max: LF1 LF4           |        |       |     |        |             |       |       |       |               |     |       |
| LF'e in Min: LF1 LF3           |        |       |     |        |             |       |       |       |               |     |       |
| Maxi                           | LK1    |       |     | 37.70  | 0.36        | 0.47  | 0.01  | 0.03  |               |     | 0.14  |
|                                | LK2    |       |     | 20.54  | 0.45        | 0.34  | 0.01  | 0.13  |               |     | 0.04  |
|                                | LK3    |       |     | 41.46  | 0.64        | 0.35  | 0.01  | 0.13  |               |     | 0.29  |
| Mini                           | LK1    |       |     | -38.56 | -0.36       | -0.36 | -0.01 | -0.23 |               |     | -0.14 |
|                                | LK2    |       |     | -42.34 | -0.65       | -0.34 | -0.01 | -0.13 |               |     | -0.29 |
|                                | LK3    |       |     | -21.42 | -0.44       | -0.35 | -0.01 | -0.13 |               |     | -0.03 |



## MAX/MIN/ZUGEH-AUFLAGERKRÄFTE UND -MOMENTE

| Knoten-Nr. | LK-Nr. | Auflagerkräfte [kN]      |       |       | Auflagermomente [kNm] |     |     |
|------------|--------|--------------------------|-------|-------|-----------------------|-----|-----|
|            |        | P-X                      | P-Y   | P-Z   | M-X                   | M-Y | M-Z |
| 14         | LK1    | Max P-X                  | 11.14 | -4.20 | -77.03                | .00 | .00 |
|            |        | Min P-X                  | 11.14 | -4.20 | -77.03                | .00 | .00 |
|            |        | LF'e in Max P-X: LF1 LF2 |       |       |                       |     |     |
|            |        | LF'e in Min P-X: LF1 LF2 |       |       |                       |     |     |
|            |        | Max P-Y                  | 11.14 | -4.20 | -77.03                | .00 | .00 |
|            |        | Min P-Y                  | 11.14 | -4.20 | -77.03                | .00 | .00 |
|            |        | LF'e in Max P-Y: LF1 LF2 |       |       |                       |     |     |
|            |        | LF'e in Min P-Y: LF1 LF2 |       |       |                       |     |     |
|            |        | Max P-Z                  | 11.14 | -4.20 | -77.03                | .00 | .00 |
|            |        | Min P-Z                  | 11.14 | -4.20 | -77.03                | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF2 |       |       |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF2 |       |       |                       |     |     |
|            | LK2    | Max P-X                  | 3.89  | -6.09 | -41.99                | .00 | .00 |
|            |        | Min P-X                  | 3.89  | -6.09 | -41.99                | .00 | .00 |
|            |        | LF'e in Max P-X: LF1 LF3 |       |       |                       |     |     |
|            |        | LF'e in Min P-X: LF1 LF3 |       |       |                       |     |     |
|            |        | Max P-Y                  | 3.89  | -6.09 | -41.99                | .00 | .00 |
|            |        | Min P-Y                  | 3.89  | -6.09 | -41.99                | .00 | .00 |
|            |        | LF'e in Max P-Y: LF1 LF3 |       |       |                       |     |     |
|            |        | LF'e in Min P-Y: LF1 LF3 |       |       |                       |     |     |
|            |        | Max P-Z                  | 3.89  | -6.09 | -41.99                | .00 | .00 |
|            |        | Min P-Z                  | 3.89  | -6.09 | -41.99                | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF3 |       |       |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF3 |       |       |                       |     |     |
|            | LK3    | Max P-X                  | -3.93 | 6.11  | 43.44                 | .00 | .00 |
|            |        | Min P-X                  | -3.93 | 6.11  | 43.44                 | .00 | .00 |
|            |        | LF'e in Max P-X: LF1 LF4 |       |       |                       |     |     |
|            |        | LF'e in Min P-X: LF1 LF4 |       |       |                       |     |     |
|            |        | Max P-Y                  | -3.93 | 6.11  | 43.44                 | .00 | .00 |
|            |        | Min P-Y                  | -3.93 | 6.11  | 43.44                 | .00 | .00 |
|            |        | LF'e in Max P-Y: LF1 LF4 |       |       |                       |     |     |
|            |        | LF'e in Min P-Y: LF1 LF4 |       |       |                       |     |     |
|            |        | Max P-Z                  | -3.93 | 6.11  | 43.44                 | .00 | .00 |
|            |        | Min P-Z                  | -3.93 | 6.11  | 43.44                 | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF4 |       |       |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF4 |       |       |                       |     |     |
| 28         | LK1    | Max P-Z                  | .00   | .00   | -35.76                | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00   | -35.76                | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF2 |       |       |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF2 |       |       |                       |     |     |
|            | LK2    | Max P-Z                  | .00   | .00   | -19.47                | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00   | -19.47                | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF3 |       |       |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF3 |       |       |                       |     |     |
|            | LK3    | Max P-Z                  | .00   | .00   | 20.46                 | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00   | 20.46                 | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF4 |       |       |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF4 |       |       |                       |     |     |
| 42         | LK1    | Max P-Z                  | .00   | .00   | -19.23                | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00   | -19.23                | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF2 |       |       |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF2 |       |       |                       |     |     |
|            | LK2    | Max P-Z                  | .00   | .00   | -10.47                | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00   | -10.47                | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF3 |       |       |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF3 |       |       |                       |     |     |
|            | LK3    | Max P-Z                  | .00   | .00   | 11.04                 | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00   | 11.04                 | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF4 |       |       |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF4 |       |       |                       |     |     |
| 67         | LK1    | Max P-Z                  | .00   | .00   | -12.89                | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00   | -12.89                | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF2 |       |       |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF2 |       |       |                       |     |     |
|            | LK2    | Max P-Z                  | .00   | .00   | -6.98                 | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00   | -6.98                 | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF3 |       |       |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF3 |       |       |                       |     |     |



## MAX/MIN/ZUGEH-AUFLAGERKRÄFTE UND -MOMENTE

| Knoten-<br>Nr. | LK-<br>Nr. | Auflagerkräfte [kN]      |      |        | Auflagermomente [kNm] |     |     |     |
|----------------|------------|--------------------------|------|--------|-----------------------|-----|-----|-----|
|                |            | P-X                      | P-Y  | P-Z    | M-X                   | M-Y | M-Z |     |
|                | LK3        | LF'e in Min P-Z: LF1 LF3 |      |        |                       |     |     |     |
|                |            | Max P-Z                  | .00  | .00    | 7.39                  | .00 | .00 | .00 |
|                |            | Min P-Z                  | .00  | .00    | 7.39                  | .00 | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF4 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-Z: LF1 LF4 |      |        |                       |     |     |     |
|                |            | Max P-X                  | 4.19 | -.02   | .71                   | .00 | .00 | .00 |
|                |            | Min P-X                  | 4.19 | -.02   | .71                   | .00 | .00 | .00 |
|                |            | LF'e in Max P-X: LF1 LF2 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-X: LF1 LF2 |      |        |                       |     |     |     |
|                |            | Max P-Y                  | 4.19 | -.02   | .71                   | .00 | .00 | .00 |
|                |            | Min P-Y                  | 4.19 | -.02   | .71                   | .00 | .00 | .00 |
|                |            | LF'e in Max P-Y: LF1 LF2 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-Y: LF1 LF2 |      |        |                       |     |     |     |
|                |            | Max P-Z                  | 4.19 | -.02   | .71                   | .00 | .00 | .00 |
|                |            | Min P-Z                  | 4.19 | -.02   | .71                   | .00 | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF2 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-Z: LF1 LF2 |      |        |                       |     |     |     |
|                |            | Max P-X                  | .00  | -12.91 | 86.14                 | .00 | .00 | .00 |
|                |            | Min P-X                  | .00  | -12.91 | 86.14                 | .00 | .00 | .00 |
|                |            | LF'e in Max P-X: LF1 LF3 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-X: LF1 LF3 |      |        |                       |     |     |     |
|                |            | Max P-Y                  | .00  | -12.91 | 86.14                 | .00 | .00 | .00 |
|                |            | Min P-Y                  | .00  | -12.91 | 86.14                 | .00 | .00 | .00 |
|                |            | LF'e in Max P-Y: LF1 LF3 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-Y: LF1 LF3 |      |        |                       |     |     |     |
|                |            | Max P-Z                  | .00  | -12.91 | 86.14                 | .00 | .00 | .00 |
|                |            | Min P-Z                  | .00  | -12.91 | 86.14                 | .00 | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF3 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-Z: LF1 LF3 |      |        |                       |     |     |     |
|                |            | Max P-X                  | .00  | 12.87  | -84.70                | .00 | .00 | .00 |
|                |            | Min P-X                  | .00  | 12.87  | -84.70                | .00 | .00 | .00 |
|                |            | LF'e in Max P-X: LF1 LF4 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-X: LF1 LF4 |      |        |                       |     |     |     |
|                |            | Max P-Y                  | .00  | 12.87  | -84.70                | .00 | .00 | .00 |
|                |            | Min P-Y                  | .00  | 12.87  | -84.70                | .00 | .00 | .00 |
|                |            | LF'e in Max P-Y: LF1 LF4 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-Y: LF1 LF4 |      |        |                       |     |     |     |
|                |            | Max P-Z                  | .00  | 12.87  | -84.70                | .00 | .00 | .00 |
|                |            | Min P-Z                  | .00  | 12.87  | -84.70                | .00 | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF4 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-Z: LF1 LF4 |      |        |                       |     |     |     |
|                |            | Max P-Z                  | .00  | .00    | .50                   | .00 | .00 | .00 |
|                |            | Min P-Z                  | .00  | .00    | .50                   | .00 | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF2 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-Z: LF1 LF2 |      |        |                       |     |     |     |
|                |            | Max P-Z                  | .00  | .00    | 40.36                 | .00 | .00 | .00 |
|                |            | Min P-Z                  | .00  | .00    | 40.36                 | .00 | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF3 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-Z: LF1 LF3 |      |        |                       |     |     |     |
|                |            | Max P-Z                  | .00  | .00    | -39.38                | .00 | .00 | .00 |
|                |            | Min P-Z                  | .00  | .00    | -39.38                | .00 | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF4 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-Z: LF1 LF4 |      |        |                       |     |     |     |
|                |            | Max P-Z                  | .00  | .00    | .29                   | .00 | .00 | .00 |
|                |            | Min P-Z                  | .00  | .00    | .29                   | .00 | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF2 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-Z: LF1 LF2 |      |        |                       |     |     |     |
|                |            | Max P-Z                  | .00  | .00    | 21.77                 | .00 | .00 | .00 |
|                |            | Min P-Z                  | .00  | .00    | 21.77                 | .00 | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF3 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-Z: LF1 LF3 |      |        |                       |     |     |     |
|                |            | Max P-Z                  | .00  | .00    | -21.20                | .00 | .00 | .00 |
|                |            | Min P-Z                  | .00  | .00    | -21.20                | .00 | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF4 |      |        |                       |     |     |     |
|                |            | LF'e in Min P-Z: LF1 LF4 |      |        |                       |     |     |     |
|                |            | Max P-Z                  | .00  | .00    | .22                   | .00 | .00 | .00 |
|                |            | Min P-Z                  | .00  | .00    | .22                   | .00 | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF2 |      |        |                       |     |     |     |



## MAX/MIN/ZUGEH-AUFLAGERKRÄFTE UND -MOMENTE

| Knoten-Nr. | LK-Nr. | Auflagerkräfte [kN]      |       |      | Auflagermomente [kNm] |     |     |
|------------|--------|--------------------------|-------|------|-----------------------|-----|-----|
|            |        | P-X                      | P-Y   | P-Z  | M-X                   | M-Y | M-Z |
|            | LK2    | LF'e in Min P-Z: LF1 LF2 |       |      |                       |     |     |
|            |        | Max P-Z                  | .00   | .00  | 14.61                 | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00  | 14.61                 | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF3 |       |      |                       |     |     |
|            | LK3    | LF'e in Min P-Z: LF1 LF3 |       |      |                       |     |     |
|            |        | Max P-Z                  | .00   | .00  | -14.21                | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00  | -14.21                | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF4 |       |      |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF4 |       |      |                       |     |     |
| 247        | LK1    | Max P-Z                  | .00   | .00  | 13.27                 | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00  | 13.27                 | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF2 |       |      |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF2 |       |      |                       |     |     |
|            | LK2    | Max P-Z                  | .00   | .00  | -7.00                 | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00  | -7.00                 | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF3 |       |      |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF3 |       |      |                       |     |     |
|            | LK3    | Max P-Z                  | .00   | .00  | 7.40                  | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00  | 7.40                  | .00 | .00 |
| 272        | LK1    | Max P-Z                  | .00   | .00  | 19.79                 | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00  | 19.79                 | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF2 |       |      |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF2 |       |      |                       |     |     |
|            | LK2    | Max P-Z                  | .00   | .00  | -10.47                | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00  | -10.47                | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF3 |       |      |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF3 |       |      |                       |     |     |
|            | LK3    | Max P-Z                  | .00   | .00  | 11.03                 | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00  | 11.03                 | .00 | .00 |
| 286        | LK1    | Max P-Z                  | .00   | .00  | 36.76                 | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00  | 36.76                 | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF2 |       |      |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF2 |       |      |                       |     |     |
|            | LK2    | Max P-Z                  | .00   | .00  | -19.50                | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00  | -19.50                | .00 | .00 |
|            |        | LF'e in Max P-Z: LF1 LF3 |       |      |                       |     |     |
|            |        | LF'e in Min P-Z: LF1 LF3 |       |      |                       |     |     |
|            | LK3    | Max P-Z                  | .00   | .00  | 20.48                 | .00 | .00 |
|            |        | Min P-Z                  | .00   | .00  | 20.48                 | .00 | .00 |
| 300        | LK1    | Max P-X                  | 11.19 | 4.23 | 78.49                 | .00 | .00 |
|            |        | Min P-X                  | 11.19 | 4.23 | 78.49                 | .00 | .00 |
|            |        | LF'e in Max P-X: LF1 LF2 |       |      |                       |     |     |
|            |        | LF'e in Min P-X: LF1 LF2 |       |      |                       |     |     |
|            | LK2    | Max P-Y                  | 11.19 | 4.23 | 78.49                 | .00 | .00 |
|            |        | Min P-Y                  | 11.19 | 4.23 | 78.49                 | .00 | .00 |
|            |        | LF'e in Max P-Y: LF1 LF2 |       |      |                       |     |     |
|            |        | LF'e in Min P-Y: LF1 LF2 |       |      |                       |     |     |
|            | LK3    | Max P-Z                  | 11.19 | 4.23 | 78.49                 | .00 | .00 |
|            |        | Min P-Z                  | 11.19 | 4.23 | 78.49                 | .00 | .00 |



## MAX/MIN/ZUGEH-AUFLAGERKRÄFTE UND -MOMENTE

| Knoten-<br>Nr. | LK-<br>Nr. | Auflagerkräfte [kN]      |      |      | Auflagermomente [kNm] |     |     |
|----------------|------------|--------------------------|------|------|-----------------------|-----|-----|
|                |            | P-X                      | P-Y  | P-Z  | M-X                   | M-Y | M-Z |
|                | LK3        | LF'e in Min P-Z: LF1 LF3 |      |      |                       |     |     |
|                |            | Max P-X                  | 3.93 | 6.10 | 43.35                 | .00 | .00 |
|                |            | Min P-X                  | 3.93 | 6.10 | 43.35                 | .00 | .00 |
|                |            | LF'e in Max P-X: LF1 LF4 |      |      |                       |     |     |
|                |            | LF'e in Min P-X: LF1 LF4 |      |      |                       |     |     |
|                |            | Max P-Y                  | 3.93 | 6.10 | 43.35                 | .00 | .00 |
|                |            | Min P-Y                  | 3.93 | 6.10 | 43.35                 | .00 | .00 |
|                |            | LF'e in Max P-Y: LF1 LF4 |      |      |                       |     |     |
|                |            | LF'e in Min P-Y: LF1 LF4 |      |      |                       |     |     |
|                |            | Max P-Z                  | 3.93 | 6.10 | 43.35                 | .00 | .00 |
|                |            | Min P-Z                  | 3.93 | 6.10 | 43.35                 | .00 | .00 |
|                |            | LF'e in Max P-Z: LF1 LF4 |      |      |                       |     |     |
|                |            | LF'e in Min P-Z: LF1 LF4 |      |      |                       |     |     |

## STAHL1 - SPANNUNGSANALYSE

### BASISANGABEN

ZU BEMESSENDE STÄBE  
Alle

ZU BEMESSENDE LASTFÄLLE  
LK1 - LF1/Ständig + LF2/Ständig  
LK2 - LF1/Ständig + LF3/Ständig  
LK3 - LF1/Ständig + LF4/Ständig

### GRENZSPANNUNGEN

| Mat.-<br>Nr. | Material-<br>Bezeichnung | Material-<br>Norm, Kriterium | Grenzspannungen [kN/cm <sup>2</sup> ] |     |         |
|--------------|--------------------------|------------------------------|---------------------------------------|-----|---------|
|              |                          |                              | Sigma                                 | Tau | Sigma-v |
| 1            | Aluminium                |                              | 4.8                                   | 2.8 | 5.2     |

### QUERSCHNITTE

| Quer.-<br>Nr. | Mat.-<br>Nr. | Querschnittsbezeichnung<br>Querschnittsdrehung | I-T [cm <sup>4</sup> ]<br>A [cm <sup>2</sup> ] | I-2 [cm <sup>4</sup> ]<br>Alpha pl. y | I-3 [cm <sup>4</sup> ]<br>Alpha pl. z |
|---------------|--------------|------------------------------------------------|------------------------------------------------|---------------------------------------|---------------------------------------|
| 1             | 1            | Ring 80/5                                      | 166.41<br>11.78                                | 83.20<br>1.00                         | 83.20<br>1.00                         |
| 2             | 1            | Ring 30/3                                      | 4.69<br>2.54                                   | 2.35<br>1.00                          | 2.35<br>1.00                          |
| 3             | 1            | Kreis 20                                       | 1.57<br>3.14                                   | 0.79<br>1.00                          | 0.79<br>1.00                          |
| 4             | 1            | Ring 70/5                                      | 108.48<br>10.21                                | 54.24<br>1.00                         | 54.24<br>1.00                         |
| 5             | 1            | Ring 30/3                                      | 4.69<br>2.54                                   | 2.35<br>1.00                          | 2.35<br>1.00                          |
| 6             | 1            | Kreis 16                                       | 0.64<br>2.01                                   | 0.32<br>1.00                          | 0.32<br>1.00                          |
| 7             | 1            | Ring 50/5                                      | 36.23<br>7.07                                  | 18.11<br>1.00                         | 18.11<br>1.00                         |
| 8             | 1            | Ring 20/3                                      | 1.19<br>1.60                                   | 0.60<br>1.00                          | 0.60<br>1.00                          |
| 9             | 1            | Kreis 12                                       | 0.20<br>1.13                                   | 0.10<br>1.00                          | 0.10<br>1.00                          |



## QUERSCHNITTE

| Quer.-Nr. | Mat.-Nr. | Querschnittsbezeichnung<br>Querschnittsdrehung | I-T [cm <sup>4</sup> ]<br>A [cm <sup>2</sup> ] | I-2 [cm <sup>4</sup> ]<br>Alpha pl. y | I-3 [cm <sup>4</sup> ]<br>Alpha pl. z |
|-----------|----------|------------------------------------------------|------------------------------------------------|---------------------------------------|---------------------------------------|
| 10        | 1        | Ring 35/5                                      | 10.90<br>4.71                                  | 5.45<br>1.00                          | 5.45<br>1.00                          |
| 11        | 1        | Ring 20/3                                      | 1.19<br>1.60                                   | 0.60<br>1.00                          | 0.60<br>1.00                          |
| 12        | 1        | Kreis 12                                       | 0.20<br>1.13                                   | 0.10<br>1.00                          | 0.10<br>1.00                          |
| 13        | 1        | Rechteck 100/20                                | 23.31<br>20.00                                 | 6.67<br>1.00                          | 166.67<br>1.00                        |
| 14        | 1        | Ring 80/10                                     | 274.89<br>21.99                                | 137.44<br>1.00                        | 137.44<br>1.00                        |
| 15        | 1        | Ring 70/8                                      | 152.24<br>15.58                                | 76.12<br>1.00                         | 76.12<br>1.00                         |

## MAX. SPANNUNGEN IN QUERSCHNITTEN

| Spannungs-<br>art                     | Stab-<br>Nr.                   | x-Stelle<br>[m] | S-Punkt<br>Nr. | LF<br>Nr. | Spannung [kN/cm^2] |       | Aus-<br>nutzung |
|---------------------------------------|--------------------------------|-----------------|----------------|-----------|--------------------|-------|-----------------|
|                                       |                                |                 |                |           | vorh               | grenz |                 |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 1 - Ring 80/5  |                 |                |           |                    |       |                 |
|                                       | 479                            | 0.000           | 19             | LK2 -N    | -4.50              | 4.80  | 0.94            |
|                                       | 373                            | 0.000           | 19             | LK1 -N    | -0.04              | 2.80  | 0.02            |
|                                       | 479                            | 0.000           | 19             | LK2 -N    | 4.50               | 5.20  | 0.87            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 2 - Ring 30/3  |                 |                |           |                    |       |                 |
|                                       | 101                            | 0.000           | 10             | LK3 -N    | -0.92              | 4.80  | 0.19            |
|                                       | 718                            | 0.980           | 26             | LK1 -N    | 0.02               | 2.80  | 0.01            |
|                                       | 101                            | 0.000           | 10             | LK3 -N    | 0.92               | 5.20  | 0.18            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 3 - Kreis 20   |                 |                |           |                    |       |                 |
|                                       | 863                            | 0.510           | 28             | LK1 -N    | -3.47              | 4.80  | 0.72            |
|                                       | 787                            | 0.000           | 37             | LK1 -N    | -0.01              | 2.80  | 0.00            |
|                                       | 863                            | 0.510           | 28             | LK1 -N    | 3.47               | 5.20  | 0.67            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 4 - Ring 70/5  |                 |                |           |                    |       |                 |
|                                       | 482                            | 0.250           | 19             | LK2 -N    | -4.00              | 4.80  | 0.83            |
|                                       | 34                             | 0.250           | 5              | LK1 -N    | -0.05              | 2.80  | 0.02            |
|                                       | 482                            | 0.250           | 19             | LK2 -N    | 4.00               | 5.20  | 0.77            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 5 - Ring 30/3  |                 |                |           |                    |       |                 |
|                                       | 169                            | 0.000           | 10             | LK2 -N    | 0.76               | 4.80  | 0.16            |
|                                       | 159                            | 0.000           | 7              | LK1 -N    | -0.02              | 2.80  | 0.01            |
|                                       | 169                            | 0.000           | 10             | LK2 -N    | 0.76               | 5.20  | 0.15            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 6 - Kreis 16   |                 |                |           |                    |       |                 |
|                                       | 1412                           | 0.000           | 1              | LK1 -N    | -1.34              | 4.80  | 0.28            |
|                                       | 521                            | 0.450           | 37             | LK2 -N    | 0.01               | 2.80  | 0.00            |
|                                       | 1412                           | 0.000           | 1              | LK1 -N    | 1.34               | 5.20  | 0.26            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 7 - Ring 50/5  |                 |                |           |                    |       |                 |
|                                       | 412                            | 0.000           | 19             | LK2 -N    | -4.11              | 4.80  | 0.86            |
|                                       | 783                            | 0.000           | 35             | LK2 -N    | -0.09              | 2.80  | 0.03            |
|                                       | 412                            | 0.000           | 19             | LK2 -N    | 4.11               | 5.20  | 0.79            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 8 - Ring 20/3  |                 |                |           |                    |       |                 |
|                                       | 436                            | 0.000           | 1              | LK3 -N    | 0.42               | 4.80  | 0.09            |
|                                       | 215                            | 0.540           | 4              | LK2 -N    | -0.03              | 2.80  | 0.01            |
|                                       | 436                            | 0.000           | 10             | LK3 -N    | 0.42               | 5.20  | 0.08            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 9 - Kreis 12   |                 |                |           |                    |       |                 |
|                                       | 1252                           | 0.000           | 1              | LK2 -N    | -1.38              | 4.80  | 0.29            |
|                                       | 137                            | 0.280           | 37             | LK1 -N    | -0.01              | 2.80  | 0.00            |
|                                       | 1252                           | 0.000           | 1              | LK2 -N    | 1.38               | 5.20  | 0.27            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 10 - Ring 35/5 |                 |                |           |                    |       |                 |
|                                       | 464                            | 0.000           | 1              | LK2 -N    | -3.10              | 4.80  | 0.65            |
|                                       | 453                            | 0.500           | 1              | LK1 -N    | -0.02              | 2.80  | 0.01            |
|                                       | 464                            | 0.250           | 10             | LK2 -N    | 3.10               | 5.20  | 0.60            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 11 - Ring 20/3 |                 |                |           |                    |       |                 |
|                                       | 414                            | 0.000           | 1              | LK2 -N    | 0.94               | 4.80  | 0.20            |
|                                       | 425                            | 0.000           | 1              | LK1 -N    | 0.02               | 2.80  | 0.01            |
|                                       | 414                            | 0.000           | 10             | LK2 -N    | 0.94               | 5.20  | 0.18            |
| Sigma gesamt<br>Tau gesamt<br>Sigma-v | Querschnitt Nr. 12 - Kreis 12  |                 |                |           |                    |       |                 |
|                                       | 1084                           | 0.000           | 1              | LK2 -N    | -1.28              | 4.80  | 0.27            |
|                                       | 193                            | 0.310           | 37             | LK1 -N    | -0.01              | 2.80  | 0.00            |
|                                       | 1084                           | 0.000           | 1              | LK2 -N    | 1.28               | 5.20  | 0.25            |

## MAX. SPANNUNGEN IN QUERSCHNITTEN

| Spannungs-<br>art                    | Stab-<br>Nr. | x-Stelle<br>[m] | S-Punkt<br>Nr. | LF<br>Nr. | Spannung [kN/cm <sup>2</sup> ] |       | Aus-<br>nutzung |
|--------------------------------------|--------------|-----------------|----------------|-----------|--------------------------------|-------|-----------------|
|                                      |              |                 |                |           | vorh                           | grenz |                 |
| Querschnitt Nr. 13 - Rechteck 100/20 |              |                 |                |           |                                |       |                 |
| Sigma gesamt                         | 853          | 0.140           | 1              | LK2 -N    | -3.37                          | 4.80  | 0.70            |
| Tau gesamt                           | 853          | 0.000           | 5              | LK3 -N    | 0.54                           | 2.80  | 0.19            |
| Sigma-v                              | 853          | 0.140           | 1              | LK2 -N    | 3.37                           | 5.20  | 0.65            |
| Querschnitt Nr. 14 - Ring 80/10      |              |                 |                |           |                                |       |                 |
| Sigma gesamt                         | 383          | 0.250           | 1              | LK2 -N    | -6.41                          | 4.80  | 1.34            |
| Tau gesamt                           | 383          | 0.000           | 10             | LK2 -N    | 0.33                           | 2.80  | 0.12            |
| Sigma-v                              | 383          | 0.250           | 1              | LK2 -N    | 6.41                           | 5.20  | 1.23            |
| Querschnitt Nr. 15 - Ring 70/8       |              |                 |                |           |                                |       |                 |
| Sigma gesamt                         | 397          | 0.000           | 19             | LK2 -N    | -4.05                          | 4.80  | 0.84            |
| Tau gesamt                           | 820          | 0.000           | 15             | LK1 -N    | -0.10                          | 2.80  | 0.03            |
| Sigma-v                              | 397          | 0.000           | 19             | LK2 -N    | 4.05                           | 5.20  | 0.78            |

### 8. Bauteil-und Querschnittsnachweise /

### proof of construction units and sections / constructie- en doorsnede berekeningen

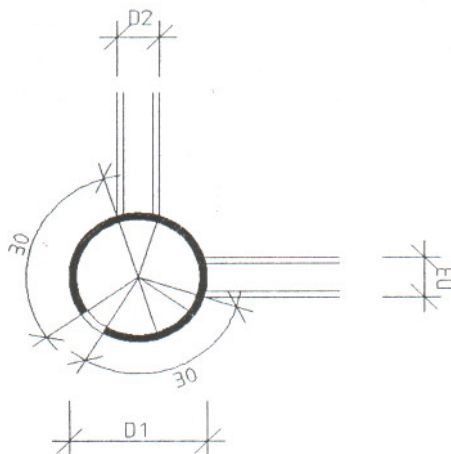
Die Nachweise erfolgen anhand der unterschiedlichen Profilquerschnitte, die in der Konstruktion verwendet werden. / The proof are made by means of the different sections which are used in the construction. / De berekeningen zijn per onderdeeldoorsnede te zien in onderstaande paragrafen

#### 8.1 Querschnitt 1: Rohr 80 x 5 mm – Gurtrohr / section 1: tube 80 x 5 mm – main tube / doorsnede 1 buis 80x5- hoofdbuis

Spannungsnachweis: /spanningsberekening

Laut EDV-Berechnung liegt die maximale Beanspruchung in Stab 635 LK2 vor / according to EDP-calculation the maximum stress is in element 635, LC2:/ volgens de computerberekening is de maximale spanning aanwezig in element 635 LK2.

•  $\eta = 1.07 > 1.0$



$D_1 = 80,0 \text{ mm}$

$D_2 = 30,0 \text{ mm}$

$D_3 = 20,0 \text{ mm}$

Umfanglänge in der Wärmeeinflußzone  $U_{WEZ} = \pi \times 80,0 / 4 + (30,0 + 20,0) / 2 + 2 \times 30,0 = 147,8 \text{ mm}$

Umfanglänge Gurtrohr

$U_{\text{Gesamt}} = \pi \times 80,0 = 251,3 \text{ mm}$

$U_{WEZ} / U_{\text{Gesamt}} = 147,8 / 251,3 = 0,588$



Daraus folgt die reduzierte Querschnittsfläche  $A_k$

$$k = 0,5$$

$$A_k = (A \times 1,0) - (1 - 0,5) \times A \times (U_{WEZ} / U_{Gesamt}) = 0,706 \times A$$

$$\sigma = 0,706 \times 9,5 = 6,707 \text{ KN/cm}^2$$

$$6,707 / 4,8 = 1,397 > 1,07$$

#### Stabilitätsnachweis / buckling proof: / knikspanning

Die maximale Druckkraft liegt in Stab 635, LK 2 vor / *the maximum compression force is in element 635, LC2: / de maximale drukkracht is aanwezig in element 635 LK2*

Knicklänge / *buckling length/ kniklengte*  $s_k = 50,0 \text{ cm}$ , Trägheitsradius / *radius of gyration*  $i = 2,66 \text{ cm}$

$$\lambda = 50,0 / 2,66 = 18,8$$

$$\omega = 1,0$$

$$N = -56,71 \text{ kN}$$

$$M_2 = 0,07 \text{ KNm}$$

$$\sigma_k = \omega \times N / A = 1,0 \times 56,71 / 11,80 + 0,07 \times 10^2 / 20,8 = 5,14 \text{ kN/cm}^2, \text{ zul } \sigma_k = 9,5 \text{ kN/cm}^2$$

$$\eta = 5,14 / 9,5 = 0,541 < 1,0$$

### 8.2 Querschnitt 2: Rohr 30 x 3 mm / section 2: tube 30 x 2 mm / doorsnede 2 buis 30x3mm

Spannungsnachweis: /spanningsberekening:

Laut EDV-Berechnung liegt die maximale Beanspruchung in Stab 101, LK3 vor / *according to EDP-calculation the maximum stress is in element 101, LC3: volgens de computerberekening is de maximale spanning aanwezig in staaf 101 LK3.*

$$\eta = 0,19 < 1,0$$

#### Stabilitätsnachweis / buckling proof/ knikspanning

Die maximale Druckkraft liegt in Stab 476, LK2 vor / *the maximum compression force is in element 476 LC2: / de maximale drukkracht is aanwezig in element 476 LK2*

Knicklänge / *buckling length/ kniklengte*  $s_k = 77,5 \text{ cm}$ , Trägheitsradius / *radius of gyration*  $i = 0,96 \text{ cm}$

$$\lambda = 77,5 / 0,96 = 80,73$$

$$\omega = 1,90$$

$$N = -1,41 \text{ kN}$$

$$M = 0 \text{ KNm}$$

$$\sigma_k = \omega \times N / A = 1,90 \times 1,41 / 2,54 = 1,055 \text{ kN/cm}^2, \text{ zul } \sigma_k = 9,5 \text{ kN/cm}^2$$

$$\eta = 1,055 / 9,5 = 0,111 < 1,0$$

### 8.3 Querschnitt 3: Rd. ø 20 mm / section 3: Rd. ø 20 mm / doorsnede 3 rond 20 mm

Spannungsnachweis: / spanningsberekening

Laut EDV-Berechnung liegt die maximale Beanspruchung in Stab 863, LK1 vor / *according to EDP-calculation the maximum stress is in element 863, LC1: volgens de computerberekening is de maximale spanning aanwezig in staaf 863 LK1.*

$$\eta = 0,72 < 1,0$$



Stabilitätsnachweis / buckling proof / knikspanning

Die maximale Druckkraft liegt in Stab 863, LK1 vor / *the maximum compression force is in element 863 LC1: / de maximale drukkracht is aanwezig in element 863 LK1*

Knicklänge / *buckling length / kniklengte*  $s_k = 46,1$  cm, Trägheitsradius / *radius of gyration*  $i = 0,50$  cm  
 $\lambda = 46,1 / 0,50 = 92,2$   
 $\omega = 2,30$

$N = -6,90$  kN  
 $M = 0,01$  KNm

$$\sigma_k = \omega \times N / A = 2,30 \times 6,90 / 3,14 + 0,01 \times 10^2 / 0,785 = 6,328 \text{ kN/cm}^2, \text{ zul } \sigma_k = 9,5 \text{ kN/cm}^2$$

$$\eta = 6,328 / 9,5 = 0,666 < 1,0$$

**8.4 Querschnitt 4: Rohr 70 x 5mm / section 4: tube 70 x 5mm / doorsnede 4 buis 70x5**

Spannungsnachweis: /spanningsberekening

Laut EDV-Berechnung liegt die maximale Beanspruchung in Stab 690, LK2 vor / *according to EDP-calculation the maximum stress is in element 690, LC2: / volgens de computerberekening is de maximale spanning aanwezig in staaf 690 LK2.*

$$\bullet \eta = 0,99 < 1,0$$

Stabilitätsnachweis / buckling proof / knikspanning:

Die maximale Druckkraft liegt in Stab 690 LK 2 vor / *the maximum compression force is in element 690, LC2: de maximale drukkracht is aanwezig in element 690 LK2*

$N = -41,88$  kN  
 $M = 0,10$  KNm

Knicklänge / *buckling length kniklengte*  $s_k = 50,0$  cm, Trägheitsradius / *radius of gyration*  $i = 2,30$  cm  
 $\lambda = 50,0 / 2,30 = 21,74$   
 $\omega = 1,0$

$$\sigma_k = \omega \times N / A = 1,0 \times 41,88 / 10,20 + 0,10 \times 10^2 / 15,50 = 4,106 + 0,645 = 4,751 \text{ kN/cm}^2, \text{ zul } \sigma_k = 9,5 \text{ kN/cm}^2$$

$$\eta = 4,751 / 9,5 = 0,500 < 1,0$$

**8.5 Querschnitt 5: Rohr 30 x 3 mm / section 2: tube 30 x 3 mm / doosnede 5 buis 30x3**

Spannungsnachweis: /spanningsberekening

Laut EDV-Berechnung liegt die maximale Beanspruchung in Stab 159, LK2 vor / *according to EDP-calculation the maximum stress is in element 159, LC2: / volgens de computerberekening is de maximale spanning aanwezig in staaf 159 LK2.*

$$\eta = 0,27 < 1,0 \text{ Stabilitätsnachweis / buckling proof kninspanning:}$$

Die maximale Druckkraft liegt in Stab 449, LK2 vor / *the maximum compression force is in element 449, LC2 / de maximale drukkracht is aanwezig in element 449 LK2*

$N = -1,45$  KN



$M_2 = 0 \text{ KNm}$

Nachweis siehe Pos. 8.2 / calculation look at item 8.2 / berekening zie pos 8.2

### **8.6 Querschnitt 6: Rd. $\varnothing 16\text{mm}$ / section 6: Rd. $\varnothing 16\text{mm}$ / doorsnede 6 $\varnothing 16\text{mm}$**

Spannungsnachweis / spanningsberekening:

Laut EDV-Berechnung liegt die maximale Beanspruchung in Stab 87 LK2 vor / according to EDP-calculation the maximum stress is in element 87, LC2: / volgens de computerberekening is de maximale spanning aanwezig in staaf 87 LK2.

$$\eta = 0,34 < 1,0$$

Stabilitätsnachweis / buckling proof / knikspanning:

Die maximale Druckkraft liegt in Stab 87, LK2 vor / the maximum compression force is in element 87 LC2: / de maximale drukkracht is aanwezig in element 87 LK2

Knicklänge / buckling length / kniklengte  $s_k = 39,4 \text{ cm}$ , Trägheitsradius / radius of gyration  $i = 0,40 \text{ cm}$   
 $\lambda = 39,4 / 0,40 = 98,5$   
 $\omega = 2,65$

$N = -3,26 \text{ kN}$

$M = 0 \text{ KNm}$   $\sigma_k = \omega \times N / A = 2,65 \times 3,26 / 2,01 = 4,298 \text{ kN/cm}^2$ , zul  $\sigma_k = 9,5 \text{ kN/cm}^2$

$$\underline{\eta = 4,298 / 9,5 = 0,452 < 1,0}$$

### **8.7 Querschnitt 7: Rohr $\varnothing 50 \times 5 \text{ mm}$ / section 7: tube $\varnothing 50 \times 5 \text{ mm}$ / doorsnede 7 : buis $\varnothing 50 \times 5 \text{ mm}$**

Spannungsnachweis / spanningsberekening:

Laut EDV-Berechnung liegt die maximale Beanspruchung in Stab 402, LK2 vor / according to EDP-calculation the maximum stress is in element 402, LC2: / volgens de computerberekening is de maximale spanning aanwezig in staaf 402 LK2.

$$\underline{\eta = 1,06 > 1,0}$$

$D_1 = 50,0 \text{ mm}$

$D_2 = 20,0 \text{ mm}$

$D_3 = 12,0 \text{ mm}$

Umfanglänge in der Wärmeeinflußzone

$$U_{WEZ} = \pi \times 50,0 / 4 + (20,0 + 12,0) / 2 + 2 \times 30,0 = 115,27 \text{ mm}$$

Umfanglänge Gurtrohr

$$U_{\text{Gesamt}} = \pi \times 50,0 = 157,08 \text{ mm}$$

$$U_{WEZ} / U_{\text{Gesamt}} = 115,27 / 157,08 = 0,734$$

Daraus folgt die reduzierte Querschnittsfläche  $A_k$

$k = 0,5$

$$A_k = (A \times 1,0) - (1 - 0,5) \times A \times (U_{WEZ} / U_{\text{Gesamt}}) = 0,633 \times A$$

$$\sigma = 0,633 \times 9,5 = 6,014 \text{ kN/cm}^2$$

$$6,014 / 4,8 = \underline{\underline{1,253 > 1,06}}$$

Stabilitätsnachweis / buckling proof/ knikspanning:

Die maximale Druckkraft liegt in Stab 411, LK2 vor / the maximum compression force is in element 411 / de maximale drukkracht is aanwezig in element 411 LK2

LC2: Knicklänge / buckling length/ kniklengte  $s_k = 50,0$  cm, Trägheitsradius / radius of gyration / traagheidsstraal  $i = 1,60$  cm  
 $\lambda = 50,0 / 1,60 = 31,25$   
 $\omega = 1,03$

$N = -25,92$  kN  
 $M = 0,05$  KNm

$\sigma_k = \omega \times N / A = 1,03 \times 25,92 / 7,07 + 0,05 \times 10^2 / 7,24$   
 $= 3,776 + 0,691 = 4,467$  kN/cm<sup>2</sup>, zul  $\sigma_k = 9,5$  kN/cm<sup>2</sup>

$\eta = 4,467 / 9,5 = 0,470 < 1,0$

**8.8 Querschnitt 8: Rohr 20 x 3 mm / section 2: tube 20 x 3 mm / doorsnede 8 ; buis 20x3mm**

Spannungsnachweis/ spanningsberekening:

Laut EDV-Berechnung liegt die maximale Beanspruchung in Stab 215, LK3 vor / according to EDP-calculation the maximum stress is in element 215, LC3: / volgens de computerberekening is de maximale spanning aanwezig in staaf 215 LK3.

$\eta = 0,38 < 1,0$

Stabilitätsnachweis / buckling proof/ knikberekening:

Die maximale Druckkraft liegt in Stab 435, LK2 vor / the maximum compression force is in element 435 LC2:/de maximale drukkracht is aanwezig in element 435 LK2

Knicklänge / buckling length/ kniklengte  $s_k = 48,0$  cm, Trägheitsradius / radius of gyration  $i = 0,61$  cm  
 $\lambda = 48,0 / 0,61 = 78,7$   
 $\omega = 1,84$

$N = -0,94$  kN  
 $M = 0$  KNm

$\sigma_k = \omega \times N / A = 1,84 \times 0,94 / 1,60 = 1,081$  kN/cm<sup>2</sup>, zul  $\sigma_k = 9,5$  kN/cm<sup>2</sup>

$\eta = 1,081 / 9,5 = 0,114 < 1,0$

**8.9 Querschnitt 9: Rd. ø 12mm / section 9: Rd. ø 12mm / doorsnede 9 ø 12mm**

Spannungsnachweis/ spanningsberekening:

Laut EDV-Berechnung liegt die maximale Beanspruchung in Stab 158 LK2 vor / according to EDP-calculation the maximum stress is in element 158, LC2: / volgens de computerberekening is de maximale spanning aanwezig in staaf 158 LK2.

•  $\eta = 0,41 < 1,0$

Stabilitätsnachweis / buckling proof/ knikberekening :

Die maximale Druckkraft liegt in Stab 158, LK2 vor / the maximum compression force is in element 158 LC2/ /de maximale drukkracht is aanwezig in element 158 LK2

Knicklänge / buckling length/ kniklengte  $s_k = 34,7$  cm, Trägheitsradius / radius of gyration  $i = 0,30$  cm



$$\lambda = 34,7 / 0,30 = 115,7$$
$$\omega = 3,65$$

$$N = -2,25 \text{ kN} \quad M = 0 \text{ KNm} \quad \sigma_k = \omega \times N / A = 3,65 \times 2,25 / 1,13 = 7,268 \text{ kN/cm}^2, \text{ zul } \sigma_k = 9,5 \text{ kN/cm}^2$$

$$\eta = 7,268 / 9,5 = 0,765 < 1,0$$

### **8.10 Querschnitt 10: Rohr ø 35x5 mm / section 10: tube ø 35x5 mm / doorsnede 10 buis 35x5mm**

Spannungsnachweis / spanningsberekening:

Laut EDV-Berechnung liegt die maximale Beanspruchung in Stab 711, LK1 vor / *according to EDP-calculation the maximum stress is in element 711, LC1:* / *volgens de computerberekening is de maximale spanning aanwezig in staaf 711 LK1.*

$$\bullet \eta = 0,95 < 1,0$$

Stabilitätsnachweis / buckling proof / knikberekning:

Die maximale Druckkraft liegt in Stab 464, LK2 vor / *the maximum compression force is in element 464, LC2* / *de maximale drukkracht is aanwezig in element 464 LK2*

$$\text{Knicklänge / buckling length / kniklengte } s_k = 50,0 \text{ cm, Trägheitsradius / radius of gyration } i = 1,075 \text{ cm}$$
$$\lambda = 50,0 / 1,075 = 46,5$$
$$\omega = 1,19$$

$$N = -14,61 \text{ kN}$$
$$M = 0 \text{ KNm}$$

$$\sigma_k = \omega \times N / A = 1,19 \times 14,61 / 4,71 = 3,691 \text{ kN/cm}^2, \text{ zul } \sigma_k = 9,5 \text{ kN/cm}^2$$
$$\eta = 3,691 / 9,5 = 0,389 < 1,0$$

### **8.11 Querschnitt 11: Rohr 20 x 3 mm / section 11: tube 20 x 3 mm / doorsnede 11 buis 20x3mm**

Spannungsnachweis / spanningsberekening:

Laut EDV-Berechnung liegt die maximale Beanspruchung in Stab 575, LK3 vor / *according to EDP-calculation the maximum stress is in element 575, LC3:* / *volgens de computerberekening is de maximale spanning aanwezig in staaf 575 LK3.*

$$\bullet \eta = 0,36 < 1,0$$

Stabilitätsnachweis / buckling proof / knikberekening:

Die maximale Druckkraft liegt in Stab 414, LK3 vor / *the maximum compression force is in element 414 LC3:* / *de maximale drukkracht is aanwezig in element 414 LK3*

$$\text{Knicklänge / buckling length / kniklengte } s_k = 36,5 \text{ cm, Trägheitsradius / radius of gyration } i = 0,61 \text{ cm}$$
$$\lambda = 36,5 / 0,61 = 59,84$$
$$\omega = 1,39$$

$$N = -1,50 \text{ kN}$$
$$M = 0 \text{ KNm}$$

$$\sigma_k = \omega \times N / A = 1,39 \times 1,50 / 1,60 = 1,303 \text{ kN/cm}^2, \text{ zul } \sigma_k = 9,5 \text{ kN/cm}^2$$
$$\eta = 1,303 / 9,5 = 0,137 < 1,0$$

### **8.12 Querschnitt 12: Rd. ø 12mm / section 12: Rd. ø 12mm / doorsnede 12 ø12 mm**

#### Spannungsnachweis / spanningsberekening:

Laut EDV-Berechnung liegt die maximale Beanspruchung in Stab 497 LK2 vor / *according to EDP-calculation the maximum stress is in element 497, LC2: volgens de computerberekening is de maximale spanning aanwezig in staaf 497 LK2.*

$$\eta = 0,36 < 1,0$$

#### Stabilitätsnachweis / buckling proof / knikberekening:

Die maximale Druckkraft liegt in Stab 497, LK2 vor / *the maximum compression force is in element 497 LC2: / de maximale drukkracht is aanwezig in element 497 LK2*

Knicklänge / *buckling length / kniklengte*  $s_k = 30,9$  cm, Trägheitsradius / *radius of gyration*  $i = 0,30$  cm  
 $\lambda = 30,9 / 0,30 = 103$   
 $\omega = 2,875$

$$N = -1,97 \text{ kN}$$

$$M = 0 \text{ KNm}$$

$$\sigma_k = \omega \times N / A = 2,875 \times 1,97 / 1,13 = 5,012 \text{ kN/cm}^2, \text{ zul } \sigma_k = 9,5 \text{ kN/cm}^2$$

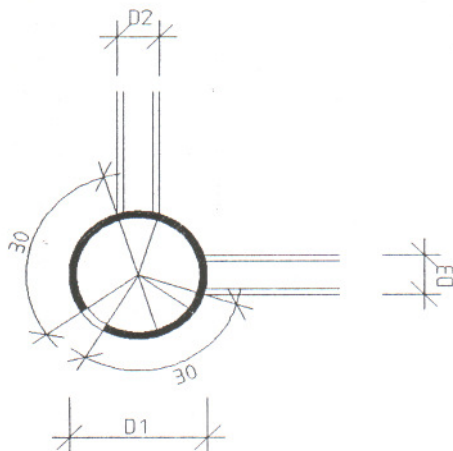
$$\bullet \underline{\eta = 5,012 / 9,5 = 0,528 < 1,0}$$

### **8.13 Querschnitt 14: Rohr 80 x 10 mm – Gurtrohr / section 14: tube 80 x 10 mm – main tube / doorsnede 14: buis rond 80x10- hoofdbuis**

#### Spannungsnachweis:

Laut EDV-Berechnung liegt die maximale Beanspruchung in Stab 372 LK2 vor / *according to EDP-calculation the maximum stress is in element 372, LC2 / volgens de computerberekening is de maximale spanning aanwezig in staaf 372 LK2.*

$$\underline{\eta = 1,45 > 1,0}$$



$$D_1 = 80,0 \text{ mm}$$

$$D_2 = 30,0 \text{ mm}$$

$$D_3 = 20,0 \text{ mm}$$

Umfanglänge in der Wärmeeinflußzone

$$U_{WEZ} = \pi \times 80,0 / 4 + (30,0 + 20,0) / 2 + 2 \times 30,0 = 147,8 \text{ mm}$$



Umfanglänge Gurtrohr

$$U_{\text{Gesamt}} = \pi \times 80,0 = 251,3 \text{ mm}$$

$$U_{\text{WEZ}} / U_{\text{Gesamt}} = 147,8 / 251,3 = 0,588$$

Daraus folgt die reduzierte Querschnittsfläche  $A_k$

$$k = 0,5$$

$$A_k = (A \times 1,0) - (1 - 0,5) \times A \times (U_{\text{WEZ}} / U_{\text{Gesamt}}) = 0,706 \times A$$

$$\sigma = 0,706 \times 9,5 = 6,707 \text{ KN/cm}^2$$

$$6,707 / 4,8 = 1,397 \approx 1,45 \text{ (Überschreitung 3,8\%)}$$

Stabilitätsnachweis / buckling proof / knikberekening:

Die maximale Druckkraft liegt in Stab 383, LK 2 vor / *the maximum compression force is in element 383, LC2: / de maximale drukkracht is aanwezig in element 383 LK2*

Knicklänge / *buckling length / kniklengte*  $s_k = 50,0 \text{ cm}$ , Trägheitsradius / *radius of gyration*  $i = 2,50 \text{ cm}$

$$\lambda = 50,0 / 2,50 = 20$$

$$\omega = 1,0$$

$$N = -83,40 \text{ kN}$$

$$M_2 = 0,90 \text{ KNm}$$

$$\sigma_k = \omega \times N / A = 1,0 \times 83,40 / 21,99 + 0,90 \times 10^2 / 34,36 = 6,412 \text{ kN/cm}^2, \text{ zul } \sigma_k = 9,5 \text{ kN/cm}^2$$

$$\bullet \eta = 6,412 / 9,5 = 0,675 < 1,0$$

#### **8.14 Querschnitt 15: Rohr 70 x 8mm / section 15: tube 70 x 8mm / doorsnede 15: buis 70x8**

Spannungsnachweis / spanningsberekening:

Laut EDV-Berechnung liegt die maximale Beanspruchung in Stab 387, LK2 vor / *according to EDP-calculation the maximum stress is in element 387, LC2 / volgens de computerberekening is de maximale spanning aanwezig in staaf 387 LK2.*

$$\eta = 1,26 > 1,0$$

$$D_1 = 70,0 \text{ mm}$$

$$D_2 = 30,0 \text{ mm}$$

$$D_3 = 16,0 \text{ mm}$$

Umfanglänge in der Wärmeeinflußzone

$$U_{\text{WEZ}} = \pi \times 70,0 / 4 + (30,0 + 16,0) / 2 + 2 \times 30,0 = 138,0 \text{ mm}$$

Umfanglänge Gurtrohr

$$U_{\text{Gesamt}} = \pi \times 70,0 = 219,9 \text{ mm}$$

$$U_{\text{WEZ}} / U_{\text{Gesamt}} = 138,0 / 219,9 = 0,627$$

Daraus folgt die reduzierte Querschnittsfläche  $A_k$

$$k = 0,5$$

$$A_k = (A \times 1,0) - (1 - 0,5) \times A \times (U_{\text{WEZ}} / U_{\text{Gesamt}}) = 0,6865 \times A$$

$$\sigma = 0,6865 \times 9,5 = 6,52 \text{ KN/cm}^2$$

$$6,52 / 4,8 = 1,359 > 1,26$$

Stabilitätsnachweis / buckling proof / knikberekening:

Die maximale Druckkraft liegt in Stab 397 LK 2 vor / *the maximum compression force is in element 397, LC2 / de maximale drukkracht is aanwezig in element 397 LK2*

$$N = -42,34 \text{ kN}$$

$$M = 0,29 \text{ KNm}$$

Knicklänge / *buckling length / kniklengte*  $s_k = 50,0 \text{ cm}$ , Trägheitsradius / *radius of gyration*  $i = 2,21 \text{ cm}$

$$\lambda = 50,0 / 2,21 = 22,6$$

$$\omega = 1,0$$

$$\sigma_k = \omega \times N / A = 1,0 \times 42,34 / 15,60 + 0,29 \times 10^2 / 21,70 \\ = 2,714 + 1,336 = 3,510 \text{ kN/cm}^2, \text{ zul } \sigma_k = 9,5 \text{ kN/cm}^2$$

$$\eta = 3,510 / 9,5 = 0,369 < 1,0$$

### **8.15 Seil ø 8mm zum verfahren des Mastes / rope Ø8 mm for moving the tower / staaldraad rond 8 mm voor heffen van de mast**

Gewicht des Towers/ gewicht v/d mast  $\rightarrow G = 1,60 \times 3 = 4,80 \text{ KN}$

gewählt: Stahlseil nach DIN 3060 (Rundlitzenseil 6 x 19 Standard) mind. Ø 8 mm (für 2 oder 3-teilige ist Ø 6 mm ausreichend)

chosen: steel wire rope according to DIN 3060 (round strand rope 6 x 19 standard) mind. Ø 8 mm (for 2 and 3-section towers Ø 6 mm wire is enough)

gekozen: staaldraad vlg DIN 3060 (gevlochten 6x 19 standaard) minimal Ø 8 mm (voor 2 en 3-delige masten is staaldraad rond 6 mm voldoende)

zulässige Zugkraft bei einer Nennfestigkeit der Einzeldrähte von 1570 N/mm<sup>2</sup> / allowable tension force at a nominal value of resistance of the single wires of 1570 N/mm<sup>2</sup>: / toegestane trekkracht bij een nominale waarde van de weerstand van de afzonderlijke draden van 1570 N / mm<sup>2</sup>:

$$\text{zul } N_{\text{Bruch}} = 30,9 \text{ kN}$$

$$\eta = 30,9 / 4,80 = 6,44 > 3,5 = \text{erf. } \eta$$

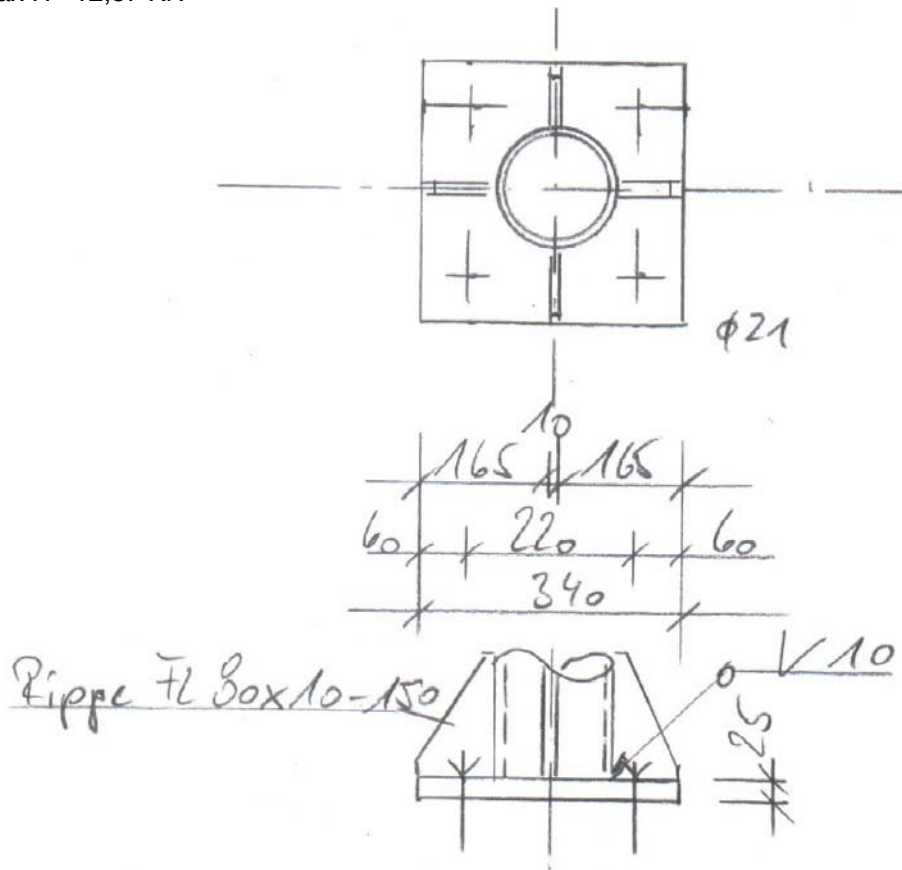
### **8.16 Verankerung / anchorage / verankering**

aus EDV / from EDP / vanuit

computermodel  $\rightarrow$

max Z = 159,49 KN

max H = 12,87 KN





**Schrauben / bouten:**

**4 x M 20 Güte 8.8 / klasse 8.8**

$$N_{R,d} = 142,4 \text{ KN}$$

$$V = 1,5 \times 159,49 = 239,24 \text{ KN}$$

$$\eta = 239,24 / (4 \times 142,4) = \underline{0,420 < 1,0}$$

**Bodenplatte / bodemplaat:**

**BI 340x340x25mm AlMgSi 1,0 F31**

$$Z \text{ je Schruube/ } Z \text{ per bout} = 159,49 / 4 = 39,87 \text{ KN}$$

$$M \approx 39,87 \times 0,11 / 2 = 2,19 \text{ KNm}$$

$$W_{\text{Blech}} = \sim 17,0 \times 2,5^2 / 6 = 17,71 \text{ cm}^3$$

$$\sigma = 2,19 \times 10^2 / 17,71 = \underline{12,366 \text{ KN/cm}^2 < 14,5}$$

**Schweißnaht – Rohr/Rippen / lasnaad buis-schoren :**

**V-Naht a = 10mm an Rohr + Doppelkehlnaht a = 4mm für Rippen**

$$A_{W \text{ Rohr}} = 21,99 \text{ cm}^2$$

$$A_{W \text{ Rippen}} = 4 \times 0,4 \times 8,0 \times 2 = 25,6 \text{ cm}^2$$

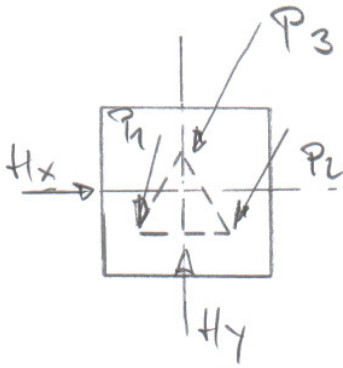
$$\sigma_w = 159,49 / (21,99 + 25,6) = 3,351 \text{ KN/cm}^2 < 4,8$$

**4 x Ankerbolzen ø20mm S235JR**

$$\sigma = 1,5 \times 159,49 / (4 \times 3,14) = 19,047 \text{ KN/cm}^2 < 21,82$$

## 9. Gründung / foundation / fundatie

Belastungen / loads / belastingen:



### LF1:

$$\begin{aligned} P_1 &= -77,03 - 35,76 - 19,23 - 12,89 = -144,91 \text{ KN} \\ P_2 &= 78,49 + 36,76 + 19,79 + 13,27 = 148,31 \text{ KN} \\ P_3 &= 0,71 + 0,50 + 0,29 + 0,22 = 1,72 \text{ KN} \\ H_x &= 11,14 + 11,19 + 4,19 = 26,52 \text{ KN} \\ H_y &= 0 \text{ KN} \end{aligned}$$

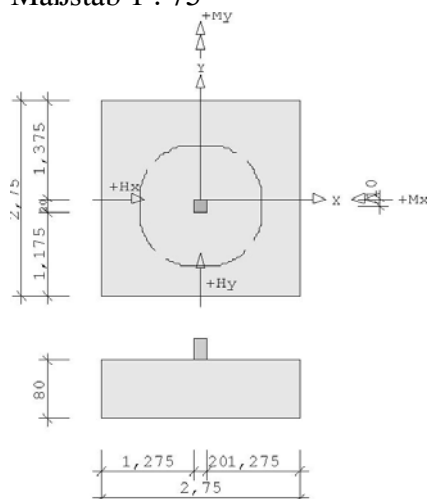
### LF2:

$$\begin{aligned} P_1 &= -41,99 - 19,47 - 10,47 - 6,98 = -78,91 \text{ KN} \\ P_2 &= -41,90 - 19,50 - 10,47 - 7,00 = -78,87 \text{ KN} \\ P_3 &= 86,14 + 40,36 + 21,77 + 14,61 = 162,88 \text{ KN} \\ H_x &= 0 \text{ KN} \\ H_y &= 6,09 + 6,08 + 12,91 = 25,08 \text{ KN} \end{aligned}$$

### LF3:

$$\begin{aligned} P_1 &= 43,44 + 20,46 + 11,04 + 7,39 = 82,33 \text{ KN} \\ P_2 &= 43,35 + 20,48 + 11,03 + 7,40 = 82,26 \text{ KN} \\ P_3 &= -84,70 - 39,38 - 21,20 - 14,21 = -159,49 \text{ KN} \\ H_x &= 0 \text{ KN} \\ H_y &= -6,11 - 6,10 - 12,87 = -25,08 \text{ KN} \end{aligned}$$

Maßstab 1 : 75





ABMESSUNGEN      Seitenlängen      Höhe  
-----  
Fundament       $b_x = 2.75 \text{ m}$        $b_y = 2.75 \text{ m}$        $h = 0.80 \text{ m}$   
Stütze       $c_x = 0.20 \text{ m}$        $c_y = 0.20 \text{ m}$

BELASTUNG : Lastfall 1 ERGEBNIS-LF mit 2-achsiger Ausmitte  
-----

**Alle Lasteingaben dieses Lastfalles sind bereits  $\gamma$ -fach !**

Gesamtfundament  
ohne Sockel  $G_k = 151.25 \text{ kN}$  (für Bemessung  $\gamma_F = 1.35$ )  
Weitere Lasten bereits  $\gamma$ -fach eingegeben  
HKraft I. Ord  $H_{xI} = 26.52 \text{ kN}$  für Prssng (DIN1054) u. kl. Fuge  
HKraft II. Ord  $H_{xII} = 26.52 \text{ kN}$  für Bmssng + Prfg ob kl.Fuge zul  
Vertikalkräfte :      Lastausmitte  
Stütze       $N = 0.10 \text{ kN}$        $a_x = 0.00 \text{ m}$        $a_y = -0.10 \text{ m}$   
weitere Last       $N = -144.91 \text{ kN}$        $a_x = -0.49 \text{ m}$        $a_y = -0.38 \text{ m}$   
weitere Last       $N = 148.31 \text{ kN}$        $a_x = 0.49 \text{ m}$        $a_y = -0.38 \text{ m}$   
weitere Last       $N = 1.72 \text{ kN}$        $a_x = 0.00 \text{ m}$        $a_y = 0.47 \text{ m}$

$\gamma$ -fache Stützenlast durch Reduktionsfaktor: 1.40 dividiert.  
 $\gamma$ -fache übrige Lasten durch Reduktionsfaktor: 1.40 dividiert.  
Gesamtlast ges.  $N = 154.98 \text{ kN}$        $e_x = 0.76 \text{ m}$        $e_y = 0.00 \text{ m}$

BODENPRESSUNGEN : Lastfall Nr. : 1      zul Sigma = 250 kN/m<sup>2</sup>  
-----

$\gamma$ -fache Stützenlast durch Reduktionsfaktor: 1.40 dividiert.  
 $\gamma$ -fache übrige Lasten durch Reduktionsfaktor: 1.40 dividiert.  
mit klaffender Fuge  
Klaffende Fuge, nicht bis Schwerpunkt.  
Für ständige Lasten unzulässig, für Vollast (g + p) zulässig !  
Bodenpressung nach DIN 1054       $p = 45.89 \text{ kN/m}^2$  aus I.Ord.  
Bodenpressungen in den Eckpunkten der Aufstandsfläche aus I.Ord.

für 1.0-fache Lasten :  
Punkt      x (m)      y (m)      Pressung (kN/m<sup>2</sup>)  
1      1.375      1.375      60.94  
2      1.375      -1.375      61.24  
3      -0.475      -1.375      0.00  
4      -0.465      1.375      0.00

für  $\gamma$ -fache Lasten zur Berechnung der Bemessungsmomente:  
Kantenpressungen :      max  $p = 118.52 \text{ kN/m}^2$  aus II.Ord f. Bem.  
min  $p = 0.00 \text{ kN/m}^2$  aus II.Ord f. Bem.  
unter der Stützenmitte       $p = 0.00 \text{ kN/m}^2$  aus II.Ord f. Bem.

Gleitsicherheit bei  $\Phi = 30 \text{ Grad}$  :  $\text{Eta} = 4.72$

Bemessungsmomente für  $\gamma$ -fache Lasten  
Bemessungsmoment  $M_{xEd} = 0.54 \text{ kNm}$  ( um die x-Achse )  
Bemessungsmoment  $M_{xEd} = -1.18 \text{ kNm}$  ( um die x-Achse ) oben  
Bemessungsmoment  $M_{yEd} = 39.72 \text{ kNm}$  ( um die y-Achse )  
Bemessungsmoment  $M_{yEd} = -29.08 \text{ kNm}$  ( um die y-Achse ) oben

BELASTUNG : Lastfall 2 ERGEBNIS-LF mit 2-achsiger Ausmitte  
-----

**Alle Lasteingaben dieses Lastfalles sind bereits  $\gamma$ -fach !**

Gesamtfundament  
ohne Sockel  $G_k = 151.25 \text{ kN}$  (für Bemessung  $\gamma_F = 1.35$ )  
Weitere Lasten bereits  $\gamma$ -fach eingegeben  
HKraft I. Ord  $H_{yI} = 25.08 \text{ kN}$  für Prssng (DIN1054) u. kl. Fuge  
HKraft II. Ord  $H_{yII} = 25.08 \text{ kN}$  für Bmssng + Prfg ob kl.Fuge zul  
Vertikalkräfte :      Lastausmitte  
Stütze       $N = 0.10 \text{ kN}$        $a_x = 0.00 \text{ m}$        $a_y = -0.10 \text{ m}$   
weitere Last       $N = -78.91 \text{ kN}$        $a_x = -0.49 \text{ m}$        $a_y = -0.38 \text{ m}$   
weitere Last       $N = -78.87 \text{ kN}$        $a_x = -0.49 \text{ m}$        $a_y = -0.38 \text{ m}$   
weitere Last       $N = 162.88 \text{ kN}$        $a_x = 0.00 \text{ m}$        $a_y = 0.47 \text{ m}$

$\gamma$ -fache Stützenlast durch Reduktionsfaktor: 1.40 dividiert.  
 $\gamma$ -fache übrige Lasten durch Reduktionsfaktor: 1.40 dividiert.



Gesamtlast ges.  $N = 154.96 \text{ kN}$   $e_x = 0.36 \text{ m}$   $e_y = 0.72 \text{ m}$

BODENPRESSUNGEN : Lastfall Nr. : 2 zul  $\Sigma$  = 250 kN/m<sup>2</sup>

γ-fache Stützenlast durch Reduktionsfaktor: 1.40 dividiert.  
γ-fache übrige Lasten durch Reduktionsfaktor: 1.40 dividiert.  
mit klaffender Fuge  
Klaffende Fuge, nicht bis Schwerpunkt.  
Für ständige Lasten unzulässig, für Vollast (g + p) zulässig !  
Bodenpressung nach DIN 1054  $p = 58.21 \text{ kN/m}^2$  aus I.Ord.  
Bodenpressungen in den Eckpunkten der Aufstandsfläche aus I.Ord.

für 1.0-fache Lasten :

| Punkt | x (m)  | y (m)  | Pressung (kN/m <sup>2</sup> ) |
|-------|--------|--------|-------------------------------|
| 1     | 1.375  | 1.375  | 84.97                         |
| 2     | 1.375  | -1.124 | 0.00                          |
| 3     | -1.375 | 0.331  | 0.00                          |
| 4     | -1.375 | 1.375  | 35.50                         |

für γ-fache Lasten zur Berechnung der Bemessungsmomente:  
Kantenpressungen :  $\max p = 176.46 \text{ kN/m}^2$  aus II.Ord f. Bem.  
 $\min p = 0.00 \text{ kN/m}^2$  aus II.Ord f. Bem.  
unter der Stützenmitte  $p = 0.00 \text{ kN/m}^2$  aus II.Ord f. Bem.

Gleitsicherheit bei  $\Phi = 30 \text{ Grad}$  :  $\eta = 4.99$

Bemessungsmomente für γ-fache Lasten  
Bemessungsmoment  $M_{xEd} = 18.73 \text{ kNm}$  ( um die x-Achse )  
Bemessungsmoment  $M_{xEd} = -36.03 \text{ kNm}$  ( um die x-Achse ) oben  
Bemessungsmoment  $M_{yEd} = 43.00 \text{ kNm}$  ( um die y-Achse )  
Bemessungsmoment  $M_{yEd} = -17.14 \text{ kNm}$  ( um die y-Achse ) oben

BELASTUNG : Lastfall 3 ERGEBNIS-LF mit 2-achsiger Ausmitte

**Alle Lasteingaben dieses Lastfalles sind bereits γ-fach !**

Gesamtfundament  
ohne Sockel  $G_k = 151.25 \text{ kN}$  (für Bemessung  $\gamma_F = 1.35$ )  
Weitere Lasten bereits γ-fach eingegeben  
HKraft I. Ord  $H_{yI} = -25.08 \text{ kN}$  für Prssng (DIN1054) u. kl. Fuge  
HKraft II. Ord  $H_{yII} = -25.08 \text{ kN}$  für Bmssng + Prfg ob kl. Fuge zul  
Vertikalkräfte : Last ausmitte  
Stütze  $N = 0.10 \text{ kN}$   $a_x = 0.00 \text{ m}$   $a_y = -0.10 \text{ m}$   
weitere Last  $N = 82.33 \text{ kN}$   $a_x = -0.49 \text{ m}$   $a_y = -0.38 \text{ m}$   
weitere Last  $N = 82.26 \text{ kN}$   $a_x = 0.49 \text{ m}$   $a_y = -0.38 \text{ m}$

BELASTUNG : Lastfall 3 ERGEBNIS-LF mit 2-achsiger Ausmitte

**Alle Lasteingaben dieses Lastfalles sind bereits γ-fach !**

weitere Last  $N = -159.49 \text{ kN}$   $a_x = 0.00 \text{ m}$   $a_y = 0.47 \text{ m}$

γ-fache Stützenlast durch Reduktionsfaktor: 1.40 dividiert.  
γ-fache übrige Lasten durch Reduktionsfaktor: 1.40 dividiert.  
Gesamtlast ges.  $N = 154.96 \text{ kN}$   $e_x = 0.00 \text{ m}$   $e_y = -0.73 \text{ m}$

BODENPRESSUNGEN : Lastfall Nr. : 3 zul  $\Sigma$  = 250 kN/m<sup>2</sup>

γ-fache Stützenlast durch Reduktionsfaktor: 1.40 dividiert.  
γ-fache übrige Lasten durch Reduktionsfaktor: 1.40 dividiert.  
mit klaffender Fuge  
Klaffende Fuge, nicht bis Schwerpunkt.  
Für ständige Lasten unzulässig, für Vollast (g + p) zulässig !  
Bodenpressung nach DIN 1054  $p = 43.44 \text{ kN/m}^2$  aus I.Ord.  
Bodenpressungen in den Eckpunkten der Aufstandsfläche aus I.Ord.

für 1.0-fache Lasten :

| Punkt | x (m)  | y (m)  | Pressung (kN/m <sup>2</sup> ) |
|-------|--------|--------|-------------------------------|
| 1     | 1.375  | 0.571  | 0.00                          |
| 2     | 1.375  | -1.375 | 57.90                         |
| 3     | -1.375 | -1.375 | 57.92                         |
| 4     | -1.375 | 0.571  | 0.00                          |



für  $\gamma$ -fache Lasten zur Berechnung der Bemessungsmomente:  
Kantenpressungen :  $\max p = 103.15 \text{ kN/m}^2$  aus II.Ord f. Bem.  
 $\min p = 0.00 \text{ kN/m}^2$  aus II.Ord f. Bem.  
unter der Stützenmitte  $p = 0.00 \text{ kN/m}^2$  aus II.Ord f. Bem.

Gleitsicherheit bei  $\Phi = 30 \text{ Grad}$  :  $\eta = 4.99$

Bemessungsmomente für  $\gamma$ -fache Lasten

Bemessungsmoment  $M_{xEd} = 50.71 \text{ kNm}$  ( um die x-Achse )  
Bemessungsmoment  $M_{xEd} = -30.41 \text{ kNm}$  ( um die x-Achse ) oben  
Bemessungsmoment  $M_{yEd} = 0.00 \text{ kNm}$  ( um die y-Achse )  
Bemessungsmoment  $M_{yEd} = -38.61 \text{ kNm}$  ( um die y-Achse ) oben

#### ANFORDERUNGEN DAUERHAFTIGKEIT:

Bewehrungskorrosion : XC1  
Betonangriff : X0  
Mindestbetonklasse : C 16/20  
Längsbewehrung :  $d_{sl} = 14.0 \text{ mm}$   
Vorhaltemaß :  $\Delta c = 1.0 \text{ cm}$   
Längsbewehrung :  $c_{min,L} = 1.4 \text{ cm}$   
Betondeckung :  $c_{nom,L} = 2.4 \text{ cm}$   
Verlegemaß :  $c_v \geq 2.4 \text{ cm}$   
Anforderungsklasse : F  
zul. Rissbreite :  $w_k = 0.40 \text{ mm}$

BEMESSUNG : C 25/30 BSt 500 S(B) DIN 1045-1

LF 1 (um x)  $M_{xEd} = 0.54 \text{ kNm}$  erf.  $A_s = 22.59 \text{ cm}^2$   
oben  $M_x = -1.18 \text{ kNm}$  erf.  $A_{so} = 22.59 \text{ cm}^2$   
(um y)  $M_{yEd} = 39.72 \text{ kNm}$  erf.  $A_s = 22.00 \text{ cm}^2$   
oben  $M_y = -29.08 \text{ kNm}$  erf.  $A_{so} = 22.00 \text{ cm}^2$   
LF 2 (um x)  $M_{xEd} = 18.73 \text{ kNm}$  erf.  $A_s = 22.59 \text{ cm}^2$   
oben  $M_x = -36.03 \text{ kNm}$  erf.  $A_{so} = 22.59 \text{ cm}^2$   
(um y)  $M_{yEd} = 43.00 \text{ kNm}$  erf.  $A_s = 22.00 \text{ cm}^2$   
oben  $M_y = -17.14 \text{ kNm}$  erf.  $A_{so} = 22.00 \text{ cm}^2$   
LF 3 (um x)  $M_{xEd} = 50.71 \text{ kNm}$  erf.  $A_s = 22.59 \text{ cm}^2$   
oben  $M_x = -30.41 \text{ kNm}$  erf.  $A_{so} = 22.59 \text{ cm}^2$   
(um y)  $M_{yEd} = 0.00 \text{ kNm}$  erf.  $A_s = 4.52 \text{ cm}^2$   
oben  $M_y = -38.61 \text{ kNm}$  erf.  $A_{so} = 22.00 \text{ cm}^2$

\* : Mindestbewehrung nach DIN 1045-1 Pkt. 13.1

BIEGEBEWEHRUNG : C 25/30 BSt 500 S(B) DIN 1045-1

Bewehrung unter der Stütze nach Heft 240 T. 2.10 verteilen.

Y -Richtung: Nutzhöhe  $d_y = 0.74 \text{ m}$   
Bewehrung oben ges  $A_s = 22.59 \text{ cm}^2$   
Bewehrung unten ges  $A_s = 22.59 \text{ cm}^2$  15 o 14  
Verteilung  $b_x/8$   $b_x/8$   $b_x/8$   $b_x/8$   $e = 18.3$   
(cm<sup>2</sup>) 1.58 2.26 3.16 4.29  
(cm<sup>2</sup>/m) 4.60 6.57 9.20 12.49

x-Richtung : Nutzhöhe  $d_x = 0.76 \text{ m}$   
Bewehrung oben ges  $A_s = 22.00 \text{ cm}^2$   
Bewehrung unten ges  $A_s = 22.00 \text{ cm}^2$  14 o 14  
Verteilung  $b_y/8$   $b_y/8$   $b_y/8$   $b_y/8$   $e = 19.6$   
(cm<sup>2</sup>) 1.54 2.20 3.08 4.18  
(cm<sup>2</sup>/m) 4.48 6.40 8.96 12.16

\* : Mindestbewehrung nach DIN 1045-1 Pkt. 13.1

Grenzzustand der Tragfähigkeit für Durchstanzen nach DIN 1045 -1

$r_k = 1.5 \cdot d_m = 1.13 \text{ m}$   
 $u_{crit} = 4.62 \text{ m}$   
 $A_{crit} = 5.23 \text{ m}^2$   
vorh mittleres  $\rho = 0.11 \%$   
Lasterhöhungsfaktor  $= 1.40$   
red  $V_{Ed}$  (ohne  $\beta$ )  $= 0.14 \text{ kN}$   
 $\beta = 1.50$   
 $v_{Ed}$  ( $\beta$  berücksichtigt)  $= 0.05 \text{ kN/m}$   
 $v_{Rd,ct} = 223.65 \text{ kN/m} > v_{Ed}$

Keine zusätzliche Stanzbewehrung erforderlich.



## 10. Aufbau- und Betriebshinweise / *assembling and using information*

**Aufbauvarianten:** opbouw en gebruiksaanwijzing varianten

| Variante<br><i>Variant</i><br>variant | Masthöhe<br><i>Tower level</i><br>masthoogte | max. Windstärke<br><i>max. windspeed</i><br>max. windsterkte | max. Antennenfläche<br><i>max. area of antenna</i><br>max. antenneoppervlak |
|---------------------------------------|----------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1                                     | 25,0 – 29,0m                                 | ≤ 6 Bft. (13,8 m/sec)                                        | ≤ 2,00 m²                                                                   |
| 2                                     | 25,0 – 29,0m                                 | ≤ 7 Bft. (17,1 m/sec)                                        | ≤ 1,30 m²                                                                   |
| 3                                     | 25,0 – 29,0m                                 | ≤ 8 Bft. (20,7 m/sec)                                        | ≤ 0,70 m²                                                                   |
| 4                                     | 20,0 – 25,0m                                 | ≤ 8 Bft. (20,7 m/sec)                                        | ≤ 2,00 m²                                                                   |
| 5                                     | 15,0 – 20,0m                                 | ≤ 9 Bft. (24,4 m/sec)                                        | ≤ 2,00 m²                                                                   |
| 6                                     | 10,0 – 15,0m                                 | ≤ 10 Bft. (28,4 m/sec)                                       | ≤ 2,00 m²                                                                   |
| 7                                     | 8,0 – 10,0m                                  | ≤ 11 Bft. (32,6 m/sec)                                       | ≤ 2,00 m²                                                                   |
| 8                                     | 0 – 8,0 m                                    | ≤ 12 Bft. (37,0 m/sec)                                       | ≤ 2,00 m²                                                                   |

## 11. Aufbau in der Niederlande / *build – up in the Netherland* / opbouw in Nederland

Berechnung der Windlast auf das Traversenfachwerk / *calculation of the wind loads on the framework:*  
/ berekening van de windlasten op het framework

**NEN 6702:2001 Bijlage A (Tabel A.1)**

$q = 0,99 \text{ KN/m}^2$  (Windzone 1 – 3 für  $H \leq 8,0\text{m}$ )

$q_w = (0,8 + 0,5) \times 0,99 = 1,29 \text{ KN/m}^2$

in Pos.5 →  $q = 1,4 \text{ KN/m}^2 > 0,99 \text{ KN/m}^2$

**Windlastansatz in Hauptbemessung ungünstiger! Die Aufbau- und Betriebshinweise der Pos.10 behalten weiterhin ihre Gültigkeit / *Wind forces in main calculation unfavourable! The assembling and using information of item 10 continue there validity.***

windlasten in de berekende situaties zijn ongunstiger. De opbouw en gebruiksaanwijzingen als in Pos 10 aangegeven behouden hun geldigheid

NEN 6702:2001

Tabel A.1 — Door wind veroorzaakte extreme waarde van de stuwdruk  $p_w$  als functie van de hoogte boven het aansluitende terrein

| h<br>m | $p_w$<br>kN/m² |         |           |         |            |         |
|--------|----------------|---------|-----------|---------|------------|---------|
|        | gebied I       |         | gebied II |         | gebied III |         |
|        | onbebouwd      | bebouwd | onbebouwd | bebouwd | onbebouwd  | bebouwd |
| ≤ 2    | 0,64           | 0,64    | 0,54      | 0,54    | 0,46       | 0,46    |
| 3      | 0,70           | 0,64    | 0,54      | 0,54    | 0,46       | 0,46    |
| 4      | 0,78           | 0,64    | 0,62      | 0,54    | 0,49       | 0,46    |
| 5      | 0,84           | 0,64    | 0,68      | 0,54    | 0,55       | 0,46    |
| 6      | 0,90           | 0,64    | 0,73      | 0,54    | 0,59       | 0,46    |
| 7      | 0,95           | 0,64    | 0,78      | 0,54    | 0,63       | 0,46    |
| 8      | 0,99           | 0,64    | 0,81      | 0,54    | 0,67       | 0,46    |
| 9      | 1,02           | 0,64    | 0,85      | 0,54    | 0,70       | 0,46    |
| 10     | 1,06           | 0,70    | 0,88      | 0,59    | 0,73       | 0,50    |
| 11     | 1,09           | 0,76    | 0,91      | 0,64    | 0,76       | 0,54    |

## Zeichnungen / *drawings:*

