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MEMBER OF EOTA



## European Technical Assessment ETA-10/0413 of 2025/11/13

### I General Part

**Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S**

**Trade name of the construction product:**

Pitzl GmbH & Co. KG post bases, column purlin connectors and balcony pillars

**Product family to which the above construction product belongs:**

Three-dimensional nailing plate (Post bases for the support of timber columns and posts as load-bearing elements, connectors for posts and purlins as load-bearing elements and balcony pillars as fall protection)

**Manufacturer:**

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**Manufacturing plant:**

Production plant 1

**This European Technical Assessment contains:**

127 pages including 3 annexes which form an integral part of the document

**This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:**

EAD 130186-00-0603 for Three-dimensional nailing plates

**This version replaces:**

The ETA with the same number issued on 2017-12-21

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## II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

### 1 Technical description of product

#### 1.1 Post bases

The Pitzl post bases are made of 5.0 mm to 15.0 mm thick steel plates in combination with steel tubes or threaded rods. The post bases are produced of steel grade S235JR or S355 JR according to EN 10025-2:2005-04 with a minimum characteristic yield strength of  $R_{eH} = 235 \text{ N/mm}^2$  resp.  $R_{eH} = 355 \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 360 \text{ N/mm}^2$  resp.  $470 \text{ N/mm}^2$  or of steel grade 1.4301 and 1.4571 according to EN 10088-3 with a minimum characteristic yield strength of  $R_{p0.2} = 190 \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 500 \text{ N/mm}^2$ . The steel tubes are produced of steel grade P235 according to EN 10216-1 or EN 10217-1 with a minimum characteristic yield strength of  $R_{eH} = 235 \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 360 \text{ N/mm}^2$ . The threaded rods correspond to property class 4.8 according to DIN EN ISO 898-1 or, in case of stainless steel, property class 70 according to EN ISO 3506-1.

Product details are shown in Annex A.1 (p.9)  
Load carrying capacities are shown in Annex B.1 (p.16)  
Dimensions are shown in Annex C.1 (p.45)

#### 1.2 Column-Purlin Connectors

The Pitzl column purlin connectors are made of steel plates in combination with threaded rods. They are produced of steel grade S235JR according to EN 10025-2:2005-04 with a minimum characteristic yield strength of  $R_{eH} = 235 \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 360 \text{ N/mm}^2$  or of aluminum EN AW-6082 with a minimum characteristic yield strength of  $R_{p0.2} = 230 \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 295 \text{ N/mm}^2$ . The threaded rods correspond to property class 4.8 according to DIN EN ISO 898-1:2009-08 or, in case of stainless steel, property class 70 according to EN ISO 3506-1:2009.

Product details are shown in Annex A.2 (p.14)  
Load carrying capacities are shown in Annex B.2 (p.37)  
Dimensions are shown in Annex C.2 (p.111)

#### 1.3 Balcony-Pillars

The Pitzl balcony pillars are made of 10.0 mm thick steel plates in combination with a C-Steel profile. The

top plates are produced of steel grade S235JR according to EN 10025-2:2005-04 with a minimum characteristic yield strength of  $R_{eH} = 235 \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 360 \text{ N/mm}^2$  or of steel grade 1.4301 according to EN 10088-3:2005-09 with a minimum characteristic yield strength of  $R_{p0.2} = 190 \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 500 \text{ N/mm}^2$ . The vertical C-Profiles are produced of steel grade S235RJ | S355RJ according to EN 10025-2:2005-04 with a minimum characteristic yield strength of  $R_{eH} = 235 | 355 \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 360 | 470 \text{ N/mm}^2$  or of steel grade 1.4301 according to EN 10088-3:2005-09 with a minimum characteristic yield strength of  $R_{p0.2} = 190 | \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 500 \text{ N/mm}^2$ .

Product details are shown in Annex A.3 (p.15)  
Load carrying capacities are shown in Annex B.3 (p.39)  
Dimensions are shown in Annex C.3 (p.119)

#### 1.4 Dowel type fasteners to fix and/or reinforce

For the connections with metal fasteners dowels  $\varnothing 12 \text{ mm}$  (S235) with minimum characteristic tensile strength of  $R_m = 360 \text{ N/mm}^2$  and screws  $10 \times 120 \text{ mm}$  according to EN 14592 (DIN 571 and thread according to DIN 7998) or with ETA are used. The screws shall be driven into pre-drilled holes according to EN 1995-1-1, 10.4.5. Alternatively, the specifications for pre-drilling given in the ETA of the screws shall be taken into account.

For service class 3 and/or aggressive timber types with  $\text{pH} \leq 4$  the use of dowel type fasteners made of stainless steel is recommended. Also contact corrosion between two different types of metal must be taken into account.

## **2 Specification of the intended use in accordance with the applicable European Assessment Document (hereinafter EAD)**

The intended use of the post bases is the support of timber columns and posts as load-bearing elements and the balcony pillars are designed for the use as fall-protection elements, where requirements for mechanical resistance and stability and safety in use in the sense of the Basic Works Requirements 1 and 4 of Regulation (EU) 305/2011 shall be fulfilled.

The static and kinematical behaviour of the timber members or the supports shall be as described in Annex B.

The timber posts may be of solid timber of strength class C24 or better according to EN 338:2016. or at least GL24 according to the EN 14080:2013. Minimum dimensions for the post have to be considered (Annex A.1). The end grain of the timber post in general must be plane on the base plate of the post base.

The distance between the foundation and the base plate of the post base is given in Annex A.1, table A.1. For the height adjustable post bases different height levels are considered.

Annex B.1 states the load-carrying capacities of the post bases, the column purlin connectors and the balcony pillars for solid timber of strength class C24 according to EN 338:2016 or at least GL24 according to the EN 14080:2013 and for CLT-elements. The design of the connections shall be in accordance with Eurocode 3 and Eurocode 5 or a similar national code. The anchorage of the post base in the foundation and imperfections exceeding the assumptions in Eurocode 5, 5.4.4 are not part of this ETA.

The post bases and the column purlin connectors are for use in timber structures subject to the service classes 1, 2 and 3 of Eurocode 5 and for connections subject to static or quasi-static loading. The balcony pillars are for the use service classes 1 and 3. The load-carrying capacity of the post bases and column purlin connectors in load case  $F_1$  (tension) and the balcony pillars in the load case H (horizontal forces) are only valid in short-term and instantaneous load-duration classes.

The scope of the post bases the column purlin connectors and the balcony pillars regarding resistance to corrosion shall be defined according to national provisions that apply at the installation site considering environmental conditions.

Section 3.11 of this ETA contains the corrosion protection for Pitzl post bases, column purlin connectors and the balcony pillars made from carbon steel, aluminum and stainless steel.

The provisions made in this European Technical Assessment are based on an assumed intended working life of the connectors of 50 years.

The indications given on the working life cannot be interpreted as a guarantee given by the producer or Assessment Body, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

### 3 Performance of the product and references to the methods used for its assessment

| Characteristic                                                       | Assessment of characteristic                                                                                                                                                                                                             |
|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3.1 Mechanical resistance and stability*) (BWR1)</b>              |                                                                                                                                                                                                                                          |
| Joint Strength - Characteristic load-carrying capacity               | See Annex B                                                                                                                                                                                                                              |
| Joint Stiffness                                                      | No performance assessed                                                                                                                                                                                                                  |
| Joint ductility                                                      | No performance assessed                                                                                                                                                                                                                  |
| Resistance to seismic actions                                        | No performance assessed                                                                                                                                                                                                                  |
| Resistance to corrosion and deterioration                            | See section 3.6                                                                                                                                                                                                                          |
| <b>3.2 Safety in case of fire (BWR2)</b>                             |                                                                                                                                                                                                                                          |
| Reaction to fire                                                     | The connectors are made from steel classified as <b>Euroclass A1</b> in accordance with EN 13501-1 and EC decision 96/603/EC, amended by EC Decision 2000/605/EC                                                                         |
| Resistance to fire                                                   | No performance assessed                                                                                                                                                                                                                  |
| <b>3.3 General aspects related to the performance of the product</b> | The connectors have been assessed as having satisfactory durability and serviceability when used in timber structures using the timber species described in Eurocode 5 and subject to the conditions defined by service class 1, 2 and 3 |

\*) See additional information in section 3.4 – 3.7.

### 3.4 Methods of verification

The characteristic load-carrying capacities are based on the characteristic values of the connections with metal fasteners, the steel plates and the timber post.

In the case of timber failure or failure of the metal fasteners, the design values shall be calculated according to EN 1995-1-1 by dividing the characteristic values of the load-carrying capacities by different partial factors for the strength properties, and in addition multiplied with the coefficient  $k_{mod}$ .

In the case of steel failure, the design value shall be calculated according to EN 1993-1-1 by reducing the characteristic values of the load-carrying capacity with different partial factors.

The design value of the load-carrying capacity is the smaller value of all load-carrying capacities:

$$F_{Rd} = \min \left\{ \frac{k_{mod} \cdot F_{Rk,T}}{\gamma_{M,T}}; \frac{F_{Rk,S}}{\gamma_{Mi,S}} \right\} \quad (1)$$

With

|                 |                                                                    |
|-----------------|--------------------------------------------------------------------|
| $k_{mod}$       | Modification factor acc. EN 1995-1-1                               |
| $F_{Rk,T}$      | Characteristic load carrying capacity of timber / timber fasteners |
| $\gamma_{M,T}$  | Partial safety factor acc. EN 1995-1-1                             |
| $F_{Rk,S}$      | Characteristic load carrying capacity of steel elements            |
| $\gamma_{Mi,S}$ | Partial safety factor acc. EN 1993-1-1                             |

Therefore, for timber failure or failure of the metal fasteners the load duration class and the service class are included. The different partial factors  $\gamma_M$  for steel, timber and timber connections or foundation failure, respectively, are also correctly taken into account.

### 3.5 Mechanical resistance and stability

See Annex B for the characteristic load-carrying capacity in the different directions  $F_1$  to  $F_5$  for solid timber of strength class C24 according to EN 338:2016-06-01. Using the load-carrying capacities of the post bases the column-purlin connection and the balcony pillars, the specifications in Annex A must be fulfilled.

The post base and the column-purlin connection shall be installed centrally in the cross-section of the timber column and with the end grain plane on the base plate. Imperfections of the timber post are not included in the load-carrying capacities.

The characteristic capacity of the post bases, the post-purlin connectors and the balcony pillars are determined by a combination of calculation according to Eurocode 3 and Eurocode 5 and testing. They should be used for designs in accordance with Eurocode 3 and Eurocode 5 or a similar national code. The characteristic capacities of the connecting unit consisting of screws and threaded rods or tubes were determined by using test results of Karlsruhe Institute of Technology and the University of Innsbruck.

No performance has been assessed in relation to ductility of a joint under cyclic testing. The contribution to the performance of structures in seismic zones, therefore, has not been assessed.

No performance has been assessed in relation to the joint's stiffness properties - to be used for the analysis of the serviceability limit state.

No performance has been assessed in relation to the anchorage of the post bases in the foundation. It must be checked by the designer of the structure to ensure it is not less than the post base capacity and, if necessary, the post base capacity reduced accordingly. Therefore the specifications for the lever arms  $e_{F2/F3}$  (for load case  $F_2 / F_3$ ) and  $e_{F4/F5}$  (for load case  $F_4 / F_5$ ) in annex A have to be considered. The lever arm is the distance between the top edge of the foundation and the load.

### 3.6 Aspects related to the performance of the product

#### 3.6.1 Corrosion protection service class 1, 2 and 3

In accordance with with EAD 130186-00-0603 the post bases are made from steel grade S235JR according to EN 10025-2:2005-04 with a minimum characteristic yield strength of  $R_{eH} = 235 \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 360 \text{ N/mm}^2$  or of steel grade 1.4301 and 1.4571 according to EN 10088-3:2005-09 with a minimum characteristic yield strength of  $R_{p0,2} = 190 \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 500 \text{ N/mm}^2$ . The steel tubes are produced of steel grade P235 according to EN 10216-1:2004 or EN 10217-1:2005 with a minimum characteristic yield strength of  $R_{eH} = 235 \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 360 \text{ N/mm}^2$ . The threaded rods correspond to property class 4.8 according to DIN EN ISO 898-1:2009-08 or, in case of stainless steel, property class 70 according to EN ISO 3506-1:2009.

In accordance with Eurocode 5 the post bases are also made from steel grade 1.4301 according to EN 10088-3:2005-09 with a minimum characteristic yield strength of  $R_{p0.2} = 190 \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 500 \text{ N/mm}^2$  or from steel grade S235JR with zinc-nickel coating ZINiP with a minimum thickness of 8  $\mu\text{m}$  to 10  $\mu\text{m}$  or hot-dip zinc coating Z350 according to EN 10147.

The Pitzl column purlin connectors are made of steel plates in combination with threaded rods. They are produced of steel grade S235JR according to EN 10025-2:2005-04 with a minimum characteristic yield strength of  $R_{eH} = 235 \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 360 \text{ N/mm}^2$  or of aluminum EN AW-6082 with a minimum characteristic yield strength of  $R_{p0.2} = 230 \text{ N/mm}^2$  and a minimum characteristic tensile strength of  $R_m = 295 \text{ N/mm}^2$ . The threaded rods correspond to property class 4.8 according to DIN EN ISO 898-1:2009-08 or, in case of stainless steel, property class 70 according to EN ISO 3506-1:2009.

### 3.7 General aspects related to the fitness for use of the product

The performance given in this ETA are based on the following:

The stated type of fasteners for each post base has to be applied in applicable holes in the post base.

The installation instructions to be followed are:

- The primary structural members – the post member and the balcony pillars are shown in typical installation page 35.
- The timber post
  - shall be restrained against rotation, and supported at the lower and upper end
  - shall be strength class C24 according to EN 338:2010 or better, see section II.1 of this ETA
  - shall be free from wane in areas in contact with the post base
  - must fulfil the requirements regarding minimum dimensions (see Annex A)
  - end grain must in general be plane on the base plate of the post base.
- The actual end bearing capacity of the timber member to be used in conjunction with the post base is checked by the designer of the structure to ensure it is not less than the post base capacity and, if necessary, the post base capacity reduced accordingly.
- The post base shall only be subject to vertical tension loads (load case  $F_1$  (Tension)) in short-term and instantaneous load-duration classes.
- Imperfections of the timber post are not included in the load-carrying capacities of the post bases. Additional horizontal loads resulting from imperfections, acting simultaneously with  $F_1$ , must be determined by the designer of the structure.
- The post base shall be installed centrically in the cross-section of the timber column.
- The minimum insertion depth in the turnbuckles should be the diameter of the rod.
- The base plates of the post bases with steel tubes as support must in general be plane on the tube end.
- The anchorage of the post base in the foundation is not part of this ETA. It must be checked by the designer of the structure to ensure it is not less than the post base capacity and, if necessary, the post base capacity reduced accordingly. Therefore the specifications for the lever arms  $e_{F2/F3}$  (for load case  $F_2 / F_3$ ) and  $e_{F4/F5}$  (for load case  $F_4 / F_5$ ) in Annex A have to be considered. The lever arm is the distance between the top edge of the foundation and the load.
- To ensure sufficient capacity the designer has to take into account splitting of the timber.
- There shall be no gap between the timber and the horizontal contact area.
- Otherwise the gap between the timber member and the post base may not exceed 3 mm.
- There are no specific requirements relating to preparation of the timber members.
- The calculations are based on not pre-drilled holes for nails and screws. However the holes for lag screws, dowels and bolts have to be pre-drilled. Alternatively the specifications for pre-drilling given in the ETA of the screws shall be taken into account.
- The execution of the connection shall be in accordance with the approval holder's technical literature.

#### **4 Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base**

##### **4.1 AVCP system**

According to the decision 97/638/EC of the European Commission<sup>1</sup>, as amended, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is 2+.

#### **5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD**

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark prior to CE marking.

Issued in Copenhagen on 2025-11-13 by



Thomas Bruun  
Managing Director, ETA-Danmark



## Annex A

### A.1: Product details and definitions of the post bases (see also plans in Annex C.1, page 45)

Table A.1-1: Specifications of the post bases, dimensions in [mm]

| Post base |            |            |                 |           | Metal Fasteners                         |                              | Post    | Cantilever |        |
|-----------|------------|------------|-----------------|-----------|-----------------------------------------|------------------------------|---------|------------|--------|
| Type      | Art.-No.   | Dimensions |                 |           | Full-threaded wood screws <sup>1)</sup> | Dowels                       | min b/h | eF2/F3     | eF4/F5 |
|           |            | top-plate  | base-plate      | height    |                                         |                              |         |            |        |
| 11001     | 11001.0000 | 100x100x6  | 100x100x6       | 125       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 125        | 125    |
| 11003     | 11003.0000 | 100x100x6  | 100x100x6       | 125       | 4 x 10 / ≥120mm                         | 1x D ø12 mm<br>in upper hole | 120/120 | 195        | 125    |
| 11005     | 11005.0000 | 120x120x6  | 120x120x6       | 160       | 4 x 10 / ≥120mm                         | -                            | 140/140 | 160        | 160    |
| 11007     | 11007.0000 | 120x120x6  | 120x120x6       | 160       | 4 x 10 / ≥120mm                         | 1x D ø12 mm<br>In upper hole | 140/140 | 225        | 160    |
| 11008     | 11008.1250 | 140x140x15 | 140x140x15      | 250       | 4 x 10 / ≥120mm                         | -                            | 150/150 | 250        | 250    |
| 11009     | 11009.0100 | 100x100x6  |                 | 150       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 150        | 150    |
|           | 11009.0180 | 80x80x5    |                 | 150       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 150        | 150    |
|           | 11009.0200 | 100x100x6  |                 | 200       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 200        | 200    |
|           | 11009.1200 | 100x100x6  | 100x160(220)x6  | 250       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 250        | 250    |
|           | 11009.6200 |            |                 | 250       |                                         | -                            | 120/120 | 250        | 250    |
| 11010     | 11010.5000 | ø100x8     | 100x160(220)x6  | 500       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 500        | 500    |
| 11013     | 11013.1100 |            | 100x160(220)x6  | 150       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 156        | 156    |
|           | 11013.1180 | 80x80x5    | 100x160(220)x6  | 150       | 4 x 10 / ≥120mm                         | -                            | 100/100 | 156        | 156    |
|           | 11013.0200 | 100x100x6  | 100x100x6       | 250       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 256        | 256    |
|           | 11013.0280 | 80x80x5    | 100x100x6       | 250       | 4 x 10 / ≥120mm                         | -                            | 100/100 | 256        | 256    |
|           | 11013.1200 | 100x100x6  | 100x160(220)x6  | 250       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 256        | 256    |
|           | 11013.1300 | 100x100x6  | 100x160(220)x6  | 330       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 336        | 336    |
|           | 11013.1500 | 100x100x6  | 100x160(220)x6  | 500       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 506        | 506    |
|           | 11013.1280 | 80x80x5    | 100x160(220)x6  | 250       | 4 x 10 / ≥120mm                         | -                            | 100/100 | 256        | 256    |
|           | 11013.1380 | 80x80x5    | 100x160(220)x6  | 330       | 4 x 10 / ≥120mm                         | -                            | 100/100 | 336        | 336    |
|           | 11013.1580 | 80x80x5    | 100x160(220)x6  | 500       | 4 x 10 / ≥120mm                         | -                            | 100/100 | 506        | 506    |
| 11016     | 11016.1200 | 100x100x10 | 100x160(220)x10 | 250       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 260        | 260    |
|           | 11016.1300 | 100x100x10 | 100x160(220)x10 | 330       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 340        | 340    |
|           | 11016.1500 | 100x100x10 | 100x160(220)x10 | 500       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 510        | 510    |
| 11023     | 11023.0000 | 80x80x5    |                 | 55        | 4 x 10 / ≥120mm                         | -                            | 120/120 | 55         | 55     |
|           | 11023.1000 | 80x80x5    |                 | 155       | 4 x 10 / ≥120mm                         | -                            | 120/120 | 155        | 155    |
| 10900     | 10900.0000 | 100x100x6  |                 | 122-182   | 4 x 10 / ≥120mm                         | -                            | 120/120 | 182        | 182    |
| 10901     | 10901.0000 | ø100x6     |                 | 122-182   | 4 x 10 / ≥120mm                         | -                            | 120/120 | 182        | 182    |
| 10920     | 10920.1000 | 100x100x6  | 100x160(220)x6  | 142 - 207 | 4 x 10 / ≥120mm                         | -                            | 120/120 | 207        | 207    |
|           | 10920.1003 | 100x100x10 |                 | 150-210   | 4 x 10 / ≥120mm                         |                              | 120/120 | 210        | 210    |
|           | 10920.1100 | 100x100x6  | 100x160(220)x6  | 167 - 232 | 4 x 10 / ≥120mm                         | -                            | 120/120 | 232        | 232    |
|           | 10920.1103 | 100x100x10 |                 | 175-235   | 4 x 10 / ≥120mm                         |                              | 120/120 | 235        | 235    |
|           | 10920.1200 | 100x100x6  | 100x160(220)x6  | 227 - 292 | 4 x 10 / ≥120mm                         | -                            | 120/120 | 292        | 292    |
|           | 10920.1203 | 100x100x10 |                 | 295       | 4 x 10 / ≥120mm                         |                              | 120/120 | 295        | 295    |
|           | 10920.1300 | 100x100x6  | 100x160(220)x6  | 277 - 342 | 4 x 10 / ≥120mm                         | -                            | 120/120 | 342        | 342    |
|           | 10920.1303 | 100x100x10 |                 | 285-345   | 4 x 10 / ≥120mm                         |                              | 120/120 | 345        | 345    |
|           | 10920.1400 | 100x100x6  | 100x160(220)x6  | 327 - 392 | 4 x 10 / ≥120mm                         | -                            | 120/120 | 392        | 392    |
|           | 10920.1403 | 100x100x10 |                 | 335-395   | 4 x 10 / ≥120mm                         |                              | 120/120 | 395        | 395    |
|           | 10920.1003 | 100x100x10 | 100x160(220)x10 | 150 - 210 | 4 x 10 / ≥120mm                         | -                            | 120/120 | 210        | 210    |
|           | 10920.1600 | 100x100x10 |                 | 92        | 4 x 10 / ≥120mm                         |                              | 120/120 | 92         | 92     |
| 10921     | 10921.1000 | ø100x6     | 100x160(220)x6  | 142 - 207 | 4 x 10 / ≥120mm                         | -                            | 120/120 | 207        | 207    |
|           | 10921.1100 | ø100x6     | 100x160(220)x6  | 167 - 232 | 4 x 10 / ≥120mm                         | -                            | 120/120 | 232        | 232    |

|       |            |            |                 |           |                 |   |          |     |     |
|-------|------------|------------|-----------------|-----------|-----------------|---|----------|-----|-----|
|       | 10921.1200 | ø100x6     | 100x160(220)x6  | 227 - 292 | 4 x 10 / ≥120mm | - | 120/120  | 292 | 292 |
|       | 10921.1300 | ø100x6     | 100x160(220)x6  | 277 - 342 | 4 x 10 / ≥120mm | - | 120/120  | 342 | 342 |
|       | 10921.1400 | ø100x6     | 100x160(220)x6  | 327 - 392 | 4 x 10 / ≥120mm | - | 120/120  | 392 | 392 |
|       | 10921.1600 | ø100x6     | 100x160(220)x6  | 82 - 92   | 4 x 10 / ≥120mm | - | 120/120  | 92  | 92  |
|       | 10921.1003 | ø100x10    | 100x160(220)x10 | 150 - 210 | 4 x 10 / ≥120mm | - | 120/120  | 210 | 210 |
|       | 10921.1006 | 100x100x15 | 100x160(220)x15 | 160 - 220 | 4 x 10 / ≥120mm | - | 120/120  | 220 | 220 |
|       | 10921.1106 | 100x100x15 | 100x160(220)x15 | 185 - 245 | 4 x 10 / ≥120mm | - | 120/120  | 245 | 245 |
|       | 10921.1206 | 100x100x15 | 100x160(220)x15 | 245 - 305 | 4 x 10 / ≥120mm | - | 120/120  | 305 | 305 |
|       | 10921.1306 | 100x100x15 | 100x160(220)x15 | 295 - 355 | 4 x 10 / ≥120mm | - | 120/120  | 355 | 355 |
|       | 10921.1406 | 100x100x15 | 100x160(220)x15 | 345 - 405 | 4 x 10 / ≥120mm | - | 120/120  | 405 | 405 |
|       | 10921.1104 | ø100x6     | 100x160(220)x6  | 190 - 255 | 4 x 10 / ≥120mm | - | 120/120, | 250 | 250 |
|       | 10921.1103 | ø100x10    |                 | 175-235   | 4 x 10 / ≥120mm | - | 120/120  | 235 | 235 |
|       | 10921.1203 | ø100x10    |                 | 235-295   | 4 x 10 / ≥120mm | - | 120/120  | 295 | 295 |
|       | 10921.1303 | ø100x10    |                 | 345       | 4 x 10 / ≥120mm |   | 120/120  | 345 | 345 |
|       | 10921.1403 | ø100x10    |                 | 335-395   | 4 x 10 / ≥120mm |   | 120/120  | 395 | 395 |
| 10922 | 10922.1000 | 100x100x6  |                 | 142-207   | 4 x 10 / ≥120mm |   | 120/120  | 207 | 207 |
|       | 10922.1200 | 100x100x6  |                 | 227-292   | 4 x 10 / ≥120mm |   | 120/120  | 292 | 292 |
|       | 10922.1400 | 100x100x6  |                 | 327-392   | 4 x 10 / ≥120mm |   | 120/120  | 392 | 392 |
| 10923 | 10923.1000 | 100x100x5  |                 | 141-206   | 4 x 10 / ≥120mm |   | 120/120  | 206 | 206 |

Continuation of Table A.1-1: Specifications of the post bases, dimensions in [mm]

| Post base |            |            |                 |           | Metal Fasteners                         |        | Post [mm] | Cantilever |        |
|-----------|------------|------------|-----------------|-----------|-----------------------------------------|--------|-----------|------------|--------|
| Type      | Art.-No.   | Dimensions |                 |           | Full-threaded wood screws <sup>1)</sup> | Dowels | min b/h   | eF2/F3     | eF4/F5 |
|           |            | top-plate  | base-plate      | height    |                                         |        |           |            |        |
| 10930     | 10930.1082 | ø80x6      |                 | 150-250   | 4 x 10 / ≥120mm                         |        | 120/120   | 250        | 250    |
|           | 10930.1000 | ø100x8     | 100x160(220)x8  | 170 - 285 | 4 x 10 / ≥120mm                         |        | 120/120   | 285        | 285    |
|           | 10930.1100 | ø100x8     | 100x160(220)x8  | 195 - 310 | 4 x 10 / ≥120mm                         |        | 120/120   | 310        | 310    |
|           | 10930.1200 | ø100x8     | 100x160(220)x8  | 255 - 370 | 4 x 10 / ≥120mm                         |        | 120/120   | 370        | 370    |
|           | 10930.1300 | ø100x8     | 100x160(220)x8  | 305 - 420 | 4 x 10 / ≥120mm                         |        | 120/120   | 420        | 420    |
|           | 10930.1600 | ø100x8     | 100x160(220)x8  | 110 - 200 | 4 x 10 / ≥120mm                         |        | 120/120   | 200        | 200    |
|           | 10930.1003 | ø100x10    | 100x160(220)x10 | 195 - 285 | 4 x 10 / ≥120mm                         |        | 120/120   | 285        | 285    |
|           | 10930.1006 | 100x100x15 | 100x160(220)x15 | 205 - 300 | 4 x 10 / ≥120mm                         |        | 120/120   | 300        | 300    |
|           | 10930.1106 | 100x100x15 | 100x160(220)x15 | 230 - 325 | 4 x 10 / ≥120mm                         |        | 120/120   | 325        | 325    |
|           | 10930.1206 | 100x100x15 | 100x160(220)x15 | 290 - 385 | 4 x 10 / ≥120mm                         |        | 120/120   | 385        | 385    |
|           | 10930.1306 | 100x100x15 | 100x160(220)x15 | 340 - 435 | 4 x 10 / ≥120mm                         |        | 120/120   | 435        | 435    |
| 10931     | 10931.1000 | ø100x8     | 100x160(220)x8  | 170 - 285 | 4 x 10 / ≥120mm                         |        | 120/120   | 285        | 285    |
|           | 10931.1100 | ø100x8     | 100x160(220)x8  | 195 - 310 | 4 x 10 / ≥120mm                         |        | 120/120   | 310        | 310    |
|           | 10931.1200 | ø100x8     | 100x160(220)x8  | 255 - 370 | 4 x 10 / ≥120mm                         |        | 120/120   | 370        | 370    |
|           | 10931.1300 | ø100x8     | 100x160(220)x8  | 305 - 420 | 4 x 10 / ≥120mm                         |        | 120/120   | 420        | 420    |
|           | 10931.1600 | ø100x8     | 100x160(220)x8  | 110 - 200 | 4 x 10 / ≥120mm                         |        | 120/120   | 200        | 200    |
|           | 10931.1003 | ø100x10    | 100x160(220)x10 | 195 - 285 | 4 x 10 / ≥120mm                         |        | 120/120   | 285        | 285    |
|           | 10931.1006 | 100x100x15 | 100x160(220)x15 | 205 - 300 | 4 x 10 / ≥120mm                         |        | 120/120   | 300        | 300    |
|           | 10931.1106 | 100x100x15 | 100x160(220)x15 | 230 - 325 | 4 x 10 / ≥120mm                         |        | 120/120   | 325        | 325    |
|           | 10931.1206 | 100x100x15 | 100x160(220)x15 | 290 - 385 | 4 x 10 / ≥120mm                         |        | 120/120   | 385        | 385    |
|           | 10931.1306 | 100x100x15 | 100x160(220)x15 | 340 - 435 | 4 x 10 / ≥120mm                         |        | 120/120   | 435        | 435    |
|           |            |            |                 |           |                                         |        |           |            |        |
| 10934     | 10934.2401 | 100x100x6  | Set in concrete | 125       | 4 x 10 / ≥120mm                         |        | 120/120   | 2)         | 2)     |
|           | 10934.2402 | ø100x8     | Set in concrete | 250       | 4 x 10 / ≥120mm                         |        | 120/120   | 2)         | 2)     |
|           | 10934.3401 | 100x100x6  | Set in concrete | 175       | 4 x 10 / ≥120mm                         |        | 120/120   | 2)         | 2)     |
|           | 10934.3402 | ø100x8     | Set in concrete | 330       | 4 x 10 / ≥120mm                         |        | 120/120   | 2)         | 2)     |
|           | 10934.2302 | ø100x10    | Set in concrete | 250       | 4 x 10 / ≥120mm                         |        | 120/120   | 2)         | 2)     |
|           | 10934.3302 | ø100x10    | Set in concrete | 330       | 4 x 10 / ≥120mm                         |        | 120/120   | 2)         | 2)     |
|           | 10934.2403 | ø100x8     | Set in concrete | 250       | 4 x 10 / ≥120mm                         |        | 120/120   | 2)         | 2)     |
|           | 10934.3403 | ø100x8     | Set in concrete | 330       | 4 x 10 / ≥120mm                         |        | 120/120   | 2)         | 2)     |
|           | 10934.2303 | ø100x10    | Set in concrete | 250       | 4 x 10 / ≥120mm                         |        | 120/120   | 2)         | 2)     |
|           | 10934.3303 | ø100x10    | Set in concrete | 330       | 4 x 10 / ≥120mm                         |        | 120/120   | 2)         | 2)     |
|           | 10934.5401 | 100x100x6  | Set in concrete | 250       | 4 x 10 / ≥120mm                         |        | 120/120   | 2)         | 2)     |
| 10950     | 10950.1412 | ø100x6     | ø140x8          | 125       | 4 x 10 / ≥120mm                         |        | 120/120   | 125        | 125    |
|           | 10950.1422 | ø100x6     | ø140x8          | 160       | 4 x 10 / ≥120mm                         |        | 120/120   | 160        | 160    |
|           | 10950.1432 | ø100x6     | ø140x8          | 200       | 4 x 10 / ≥120mm                         |        | 120/120   | 200        | 200    |
|           | 10950.1612 | ø100x6     | 100x160(220)x8  | 125       | 4 x 10 / ≥120mm                         |        | 120/120   | 125        | 125    |
|           | 10950.1622 | ø100x6     | 100x160(220)x8  | 160       | 4 x 10 / ≥120mm                         |        | 120/120   | 160        | 160    |
|           | 10950.1632 | ø100x6     | 100x160(220)x8  | 200       | 4 x 10 / ≥120mm                         |        | 120/120   | 200        | 200    |
|           | 10950.7042 | ø100x6     | 70x60x5         | 350       | 4 x 10 / ≥120mm                         |        | 120/120   | 350        | 350    |
|           | 10950.7052 | ø100x6     | 70x60x5         | 450       | 4 x 10 / ≥120mm                         |        | 120/120   | 450        | 450    |
|           | 10950.1413 | ø100x6     | ø140x8          | 125       | 4 x 10 / ≥120mm                         |        | 120/120   | 125        | 125    |
|           | 10950.1423 | ø100x6     | ø140x8          | 160       | 4 x 10 / ≥120mm                         |        | 120/120   | 160        | 160    |
|           | 10950.1433 | ø100x6     | ø140x8          | 200       | 4 x 10 / ≥120mm                         |        | 120/120   | 200        | 200    |
|           | 10950.1613 | ø100x6     | 100x160(220)x8  | 125       | 4 x 10 / ≥120mm                         |        | 120/120   | 125        | 125    |
|           | 10950.1623 | ø100x6     | 100x160(220)x8  | 160       | 4 x 10 / ≥120mm                         |        | 120/120   | 160        | 160    |
|           | 10950.1633 | ø100x6     | 100x160(220)x8  | 200       | 4 x 10 / ≥120mm                         |        | 120/120   | 200        | 200    |

Continuation of Table A.1-1: Specifications of the post bases, dimensions in [mm]

| Post base |            |            |                |           | Metal Fasteners                         |        | Post [mm] | Cantilever         |                    |
|-----------|------------|------------|----------------|-----------|-----------------------------------------|--------|-----------|--------------------|--------------------|
| Type      | Art.-No.   | Dimensions |                |           | Full-threaded wood screws <sup>1)</sup> | Dowels | min b/h   | e <sub>F2/F3</sub> | e <sub>F4/F5</sub> |
|           |            | top-plate  | base-plate     | height    |                                         |        |           |                    |                    |
| 10950     | 10950.7043 | ø100x6     | 70x60x5        | 350       | 4 x 10 / ≥120mm                         |        | 120/120   | 350                | 350                |
|           | 10950.7041 | ø100x6     | 70x60x5        | 350       | 4 x 10 / ≥120mm                         |        | 120/120   | 350                | 350                |
|           | 10950.7053 | ø100x6     | 70x60x5        | 450       | 4 x 10 / ≥120mm                         |        | 120/120   | 450                | 450                |
|           | 10950.7051 | ø100x6     | 70x60x5        | 450       | 4 x 10 / ≥120mm                         |        | 120/120   | 348                | 348                |
|           | 10950.1411 | ø100x6     | ø140x8         | 125       | 4 x 10 / ≥120mm                         |        | 120/120   | 125                | 125                |
|           | 10950.1421 | ø100x6     | ø140x8         | 160       | 4 x 10 / ≥120mm                         |        | 120/120   | 160                | 160                |
|           | 10950.1431 | ø100x6     | ø140x8         | 200       | 4 x 10 / ≥120mm                         |        | 120/120   | 200                | 200                |
|           | 10950.1611 | ø100x6     | 100x160(220)x8 | 125       | 4 x 10 / ≥120mm                         |        | 120/120   | 125                | 125                |
|           | 10950.1621 | ø100x6     | 100x160(220)x8 | 160       | 4 x 10 / ≥120mm                         |        | 120/120   | 160                | 160                |
|           | 10950.1631 | ø100x6     | 100x160(220)x8 | 200       | 4 x 10 / ≥120mm                         |        | 120/120   | 200                | 200                |
|           | 10952.1000 | ø100x8     | 100x160(220)x8 | 146 - 211 | 4 x 10 / ≥120mm                         |        | 120/120   | 211                | 211                |
| 10951     | 10951.1000 | 100x100x8  |                | 146-211   | 4 x 10 / ≥120mm                         |        | 120/120   | 211                | 211                |
| 10952     | 10952.1000 | Ø100x8     |                | 211       | 4 x 10 / ≥120mm                         |        | 120/120   | 211                | 211                |
| 10953     | 10953.1200 | 100x100x6  |                | 250       | 4 x 10 / ≥120mm                         |        | 120/120   | 250                | 250                |
| 10529     | 10529.1090 | Ø96x8      | 100x160x8      | 141-201   | 4 x 10 / ≥120mm                         |        | 120/120   | 201                | 201                |
|           | 10529.1093 | Ø120x12    | 140x140x12     | 149-209   | 4 x 10 / ≥120mm                         |        | 120/120   | 201                | 201                |
|           | 10529.1490 | Ø96x8      |                | 303-418   | 4x10 / ≥120mm                           |        | 120/120   | 418                | 418                |
|           | 10529.1690 | Ø96x8      |                | 85-130    | 4x10 / ≥120mm                           |        | 120/120   | 130                | 130                |
|           | 10529.1990 | Ø96x8      | 100x160x8      | 203-318   | 4 x 10 / ≥120mm                         |        | 120/120   | 290                | 290                |
|           | 10529.1993 | Ø120x12    | 140x140x12     | 215-325   | 4 x 10 / ≥120mm                         |        | 120/120   | 201                | 201                |
| 10920     | 10920.1003 | Ø100x10    |                | 150-210   | 4 x 10 / ≥120mm                         |        | 120/120   | 210                | 210                |
|           | 10920.1090 | Ø96x6      | 100x160x6      | 142-207   | 4 x 10 / ≥120mm                         |        | 120/120   | 207                | 207                |
|           | 10920.1190 | Ø96x6      | 100x160x6      | 167-232   | 4 x 10 / ≥120mm                         |        | 120/120   | 232                | 232                |
|           | 10920.1290 | Ø96x6      | 100x160x6      | 227-292   | 4 x 10 / ≥120mm                         |        | 120/120   | 292                | 292                |
|           | 10920.1390 | Ø96x6      | 100x160x6      | 277-342   | 4 x 10 / ≥120mm                         |        | 120/120   | 322                | 322                |
|           | 10920.1490 | Ø96x6      | 100x160x6      | 327-392   | 4 x 10 / ≥120mm                         |        | 120/120   | 392                | 392                |
|           | 10920.1093 | Ø100x10    | 100x160x10     | 150-210   | 4 x 10 / ≥120mm                         |        | 120/120   | 210                | 210                |
|           | 10920.1193 | Ø100x10    | 100x160x10     | 175-235   | 4 x 10 / ≥120mm                         |        | 120/120   | 235                | 235                |
|           | 10920.1293 | Ø100x10    | 100x160x10     | 235-295   | 4 x 10 / ≥120mm                         |        | 120/120   | 295                | 295                |
|           | 10920.1393 | Ø100x10    | 100x160x10     | 285-345   | 4 x 10 / ≥120mm                         |        | 120/120   | 325                | 325                |
|           | 10920.1493 | Ø100x10    | 100x160x10     | 335-395   | 4 x 10 / ≥120mm                         |        | 120/120   | 395                | 395                |
| 10980     | 10980.0080 | 80x80x5    |                | 121-181   | 4 x 10 / ≥120mm                         |        | 120/120   | 181                | 181                |
| 11000     | 11000.0000 | 80x80x5    |                | 100       | 4 x 10 / ≥120mm                         |        | 120/120   | 100                | 100                |

<sup>1)</sup> Alternatively longer wood screws according to table A.1-2 may be applied.

<sup>2)</sup> The cantilever should be assumed as distance between the upper face of the foundation and the top plate of the column base. The anchoring depth depends on the forces and the quality of the concrete.

<sup>3)</sup> The dimensions of the top plate can be chosen from other systems with M24 threaded rods and the distances e depends on the inclination of the posts.

| Post base |            |               |                  |                   | Metal Fasteners                         |              | Post [mm] | Cantilever         |                    |
|-----------|------------|---------------|------------------|-------------------|-----------------------------------------|--------------|-----------|--------------------|--------------------|
| Type      | Art.-No.   | Dimensions    |                  |                   | Full-threaded wood screws <sup>1)</sup> | Dowels       | min b/h   | e <sub>F2/F3</sub> | e <sub>F4/F5</sub> |
|           |            | top-plate     | base-plate       | height            |                                         |              |           |                    |                    |
| 11000     | 11000.0000 | 80x80x5       |                  | 100               | 4 x 10 / ≥120mm                         |              | 120/120   | 100                | 100                |
| 11001     | 11001.0000 | 100x100x6     |                  | 125               | 4 x 10 / ≥120mm                         |              | 120/120   | 125                | 125                |
|           | 11001.1000 | 100x100x6     |                  | 160               | 4 x 10 / ≥120mm                         |              | 120/120   | 160                | 160                |
|           | 11001.2000 | 100x100x6     |                  | 200               | 4 x 10 / ≥120mm                         |              | 120/120   | 200                | 200                |
| 11003     | 11003.0000 | 100x100x6     |                  | 125               |                                         |              | 120/120   | 125                | 125                |
| 11007     | 11007.0000 | 120x120x6     |                  | 160               |                                         |              | 120/120   | 160                | 160                |
| 11008     | 11008.6150 | Ø140x8        | 140x140x10       | 150-200           | 4 x 10 / ≥120mm                         |              | 160/160   | 182                | 182                |
|           | 11008.6200 | Ø140x8        | 140x140x10       | 200-250           | 4 x 10 / ≥120mm                         |              | 160/160   | 232                | 232                |
|           | 11008.6250 | Ø140x8        | 140x140x10       | 250-300           | 4 x 10 / ≥120mm                         |              | 160/160   | 282                | 282                |
|           | 11008.1160 | 140x140x15    | 140x140x15       | 160               | 4 x 10 / ≥120mm                         |              | 160/160   | 160                | 160                |
|           | 11008.2160 | 140x140x15    | 140x140x15       | 160               | 4 x 10 / ≥120mm                         | 2 x D ø12 mm | 160/160   | 255                | 160                |
|           | 11008.2250 | 140x140x15    | 140x140x15       | 250               | 4 x 10 / ≥120mm                         | 2 x D ø12 mm | 160/160   | 345                | 250                |
|           | 11008.7190 | 160x160x12    | 160x160x12       | 190-260           | 4 x 10 / ≥120mm+<br>8 x 6 / ≥ 140 mm    |              | 160/160   | 295                | 295                |
|           | 11008.8190 | 160x160x12    | 160x(170-280)x12 | 190-260           | 4 x 10 / ≥120mm+<br>8 x 6 / ≥ 140 mm    |              | 160/160   | 295                | 295                |
| 94000     | 94000.0106 | <sup>3)</sup> | 110x110x6        | 150 <sup>3)</sup> | 4 x 10 / ≥120mm                         |              | 120/120   | <sup>3)</sup>      | <sup>3)</sup>      |

<sup>1)</sup> Alternatively longer wood screws according to table A.1-2 may be applied.

<sup>2)</sup> The cantilever should be assumed as distance between the upper face of the foundation and the top plate of the column base. The anchoring depth depends on the forces and the quality of the concrete.

<sup>3)</sup> The dimensions of the top plate can be chosen from other systems with M24 threaded rods and the distances e depends on the inclination of the posts.

*Note: The mentioned Post types can also be used with different type of head and/or base plates, like the corner plate, shown on page 103.*

Table A.1-2: Specifications of the metal fasteners to fix the post bases

| Fastener type                                                                                                                                                                                                                                                                                                                                                                                                                      | Size [mm] |                                                                       |                 | Finish                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------|-----------------|-----------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                    | Diameter  | Length                                                                | Threaded length |                       |
| Dowels (S235)                                                                                                                                                                                                                                                                                                                                                                                                                      | 12 mm     |                                                                       |                 | Galvanic zinc coating |
| Wood Screws to fix the posts with the top plate according to EN 14592 or with ETA                                                                                                                                                                                                                                                                                                                                                  | 10 mm     | min. 120 mm                                                           | min. 100 mm     | Galvanic zinc coating |
| Wood Screws to reinforce the posts against tension perp. To the grain according to EN 14592 or with ETA                                                                                                                                                                                                                                                                                                                            | 6 mm      | min. 140 mm<br>(50% left an 50 % right from the inner steel elements) | min. 140 mm     | Galvanic zinc coating |
| The load-carrying-capacities of the screws parallel to the grain were calculated by means of research results and verified by tests on typical post base installations. In typical post base installations the screw connection is loaded in tension only in short-term and instantaneous load-duration classes.<br>Minimum edge and end distances are accounted for by observing the minimum post dimensions given in table A.1-1 |           |                                                                       |                 |                       |

**A.2: Product details and definitions of the Column-Purlin Connectors (see also plans in Annex C.2, page 111)**

Table A.2-1: Specifications of the column-purlin connectors

| Post-purlin connector                                                                                                                                                                                                                                                                                                                                                    |            |     | Metal fasteners                         |          |                      | Column  | purlin  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----|-----------------------------------------|----------|----------------------|---------|---------|
| Type /Art.-No.                                                                                                                                                                                                                                                                                                                                                           | Dimensions |     | Full-threaded wood screws <sup>1)</sup> | rods     | Washer               | min b/h | min b/h |
| 88710                                                                                                                                                                                                                                                                                                                                                                    | Ø90x10     | M10 | 4 x 10 / ≥120mm                         | M10, 4.8 | Ø58                  | 120/120 | 120/90  |
| 88712                                                                                                                                                                                                                                                                                                                                                                    | Ø100x6     | M12 | 4 x 10 / ≥120mm                         | M12, 4.8 | Ø58                  | 120/120 | 120/90  |
| 88715                                                                                                                                                                                                                                                                                                                                                                    | Ø79,8x8    | M16 | 4 x 10 / ≥120mm                         | M16, 4.8 | Ø68 <sup>2),3)</sup> | 120/120 | 120/90  |
| 88716                                                                                                                                                                                                                                                                                                                                                                    | Ø100x6     | M16 | 4 x 10 / ≥120mm                         | M16, 4.8 | Ø68 <sup>2),3)</sup> | 120/120 | 120/90  |
| <sup>1)</sup> Alternatively longer wood screws and screws to reinforce the connection according to table A.4 may be applied.<br><sup>2)</sup> Alternatively washers with greater diameters according to table A.2-2 may be applied.<br><sup>3)</sup> Additional screws to reinforce compression perp. to the grain under the washer according to figure 6 may be applied |            |     |                                         |          |                      |         |         |

Table A.2-2 Specifications of the metal fasteners of the column-purlin connectors

| Fastener type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Size [mm]                                |                 |                 | Finish                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-----------------|-----------------|-----------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Diameter                                 | Length          | Threaded length |                       |
| Wood Screws to fix the posts with the slices according to EN 14592 or with ETA                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 10 mm                                    | min. 120 mm     | min. 100 mm     | Galvanic zinc coating |
| Wood Screws to reinforce the posts against compression perp. to the grain according to EN 14592 or with ETA                                                                                                                                                                                                                                                                                                                                                                                                                    | 10 mm                                    | min. 120 mm     | min. 120 mm     | Galvanic zinc coating |
| Threaded rods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | M10, M12, M16                            | - <sup>6)</sup> | -               | Galvanic zinc coating |
| Washers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Ø58 t=4 mm<br>Ø68 t= 4mm<br>Ø100 t= 8 mm | -               | -               | Galvanic zinc coating |
| The load-carrying-capacities of the screws parallel to the grain were calculated by means of research results and verified by tests on typical Column-Purlin installations. In typical column-purlin connector installations the screw connection is loaded in tension only in short-term and instantaneous load-duration classes.<br>Minimum edge and end spaces are accounted for by observing the minimum column dimensions given in table A.2-1<br><sup>6)</sup> The length of the rods depends on the height of the beam. |                                          |                 |                 |                       |

**A.3: Product details and definitions of the balcony pillars (see also plans in Annex C.2, page 119)**

Table A.3-1: Specifications of the balcony-pillars

| Balcony pillars                                                                                              |            | Dimensions |                      |        |                       | Full-threaded wood screws                          | Timber element              |                               |
|--------------------------------------------------------------------------------------------------------------|------------|------------|----------------------|--------|-----------------------|----------------------------------------------------|-----------------------------|-------------------------------|
| Type                                                                                                         | Art.-No.   | Base-plate | C-profile            | Length | Distance to top-plate |                                                    | CLT <sup>1)</sup><br>min. h | Beam <sup>2)</sup><br>min b/h |
| 31510                                                                                                        | 31510.0000 | 100x160x10 | 40x50                | 1000   | 0                     | 2 x 10 / $\geq 120$ mm                             | 120                         | 120/120                       |
|                                                                                                              | 31510.1060 | 100x160x10 | 40x50                | 1000   | 60                    | 2 x 10 / $\geq 120$ mm                             | 120                         | 120/120                       |
|                                                                                                              | 31510.0110 | 100x160x10 | 40x50                | 1000   | 0-100                 | 2 x 10 / $\geq 120$ mm                             | 120                         | 120/120                       |
| 31512                                                                                                        | 31512.0000 | 100x160x10 | 40x50                | 1200   | 0                     | 2 x 10 / $\geq 120$ mm                             | 120                         | 120/120                       |
|                                                                                                              | 31512.1060 | 100x160x10 | 40x50                | 1200   | 60                    | 2 x 10 / $\geq 120$ mm                             | 120                         | 120/120                       |
|                                                                                                              | 31510.0110 | 100x160x10 | 40x50                | 1200   | 0-100                 | 2 x 10 / $\geq 120$ mm                             | 120                         | 120/120                       |
| 31610                                                                                                        | 31610.0000 | 80x180x10  | 40x50                | 1000   | -                     | 2 x 10 / $\geq 120$ mm +<br>2 x 10 / $\geq 120$ mm | 120                         | 120/120                       |
| 31105                                                                                                        | 31105.0001 | 100x100x10 | T-Profile<br>45x45x5 | 400    | -                     | 4 x 10 / $\geq 120$ mm                             | 120                         | 120/120                       |
| <sup>1)</sup> The screws should be situated in the transverse layers (screw axis perpendicular to the grain) |            |            |                      |        |                       |                                                    |                             |                               |
| <sup>2)</sup> The length axis of the beam should be parallel to the surface of the base plate                |            |            |                      |        |                       |                                                    |                             |                               |

Table A.3-2 Specifications of the metal fasteners of the balcony-pillars on timber elements

| Fastener type                                                                                                                                                                                                                                                                                                                                                                                                              | Size [mm] |             |                 | Finish                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|-----------------|-----------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                            | Diameter  | Length      | Threaded length |                       |
| Wood Screws to fix the base-plate according to EN 14592 or with ETA                                                                                                                                                                                                                                                                                                                                                        | 10 mm     | min. 120 mm | min. 100 mm     | Galvanic zinc coating |
| Wood Screws to reinforce the posts against compression perp. to the grain according to EN 14592 or with ETA                                                                                                                                                                                                                                                                                                                | 10 mm     | min. 120 mm | min. 120 mm     | Galvanic zinc coating |
| The load-carrying-capacities of the screws parallel to the grain were calculated by means of research results and verified by tests on typical balcony-pillar installations. In typical balcony-pillar installations the screw connection is loaded in shear and tension only in short-term and instantaneous load-duration classes. Minimum edge and end spaces has to be consider acc. to EN 1995-1-1 and/or table B.3-8 |           |             |                 |                       |

## Annex B

### B.1: Characteristic load-carrying capacities of the post bases, referenced to C24

#### Definitions of forces, their directions and eccentricity onto the post bases

- Force  $F_{1,k}$ : Tensile or compression load
- Force  $F_{2,k}$  and  $F_{3,k}$ : Horizontal load parallel to the inner plate of the post base or to the longest side of the lower plate or the post base
- Force  $F_{4,k}$  and  $F_{5,k}$ : Horizontal load perpendicular to the inner steel element of the post base or to the longest side of the lower plate of the post base

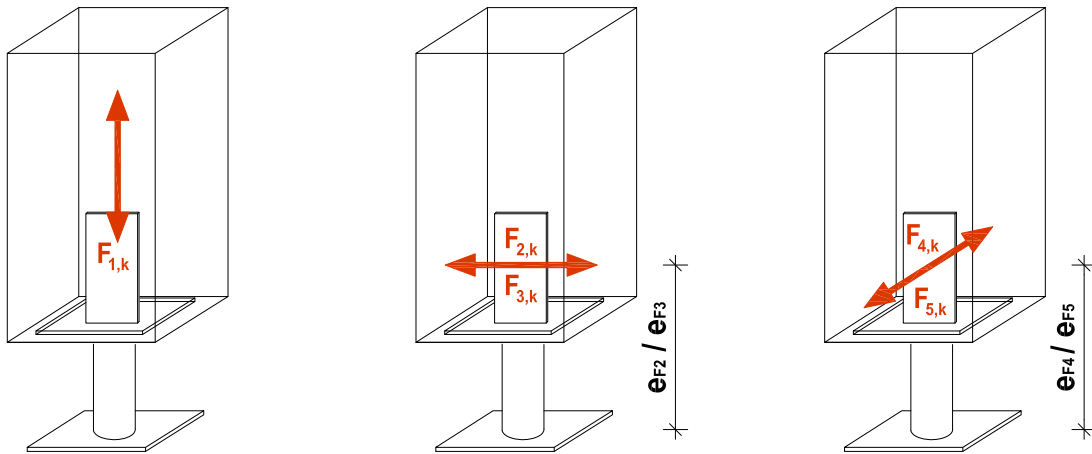


Figure 1: Directions of the forces on the post bases

#### Acting forces

- |                         |                                                                                                                                                                         |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $F_{1,k}$               | Axial force (tension or compression) acting along the central axis of the joint                                                                                         |
| $F_{2,k}$ and $F_{3,k}$ | Horizontal force parallel to the inner plate of the post base or to the longest side of the lower plate acting with the lever arm $e_{F2/F3}$ above the foundation      |
| $F_{4,k}$ and $F_{5,k}$ | Horizontal force perpendicular to the inner plate of the post base or to the longest side of the lower plate acting with the lever arm $e_{F4/F5}$ above the foundation |

#### Combined forces

If the forces  $F_1$  and  $F_2/F_3$  or  $F_4/F_5$  act at the same time, the following inequation shall be fulfilled:

$$\sum \frac{F_{i,d}}{R_{i,d}} \leq 1 \quad (2)$$

The forces  $F_2$  and  $F_3$  or  $F_4$  and  $F_5$  are forces with opposite direction. Therefore only one force  $F_2$  or  $F_3$ , and  $F_4$  or  $F_5$ , respectively, is able to act simultaneously with  $F_1$ .



## Typical installations of the post bases

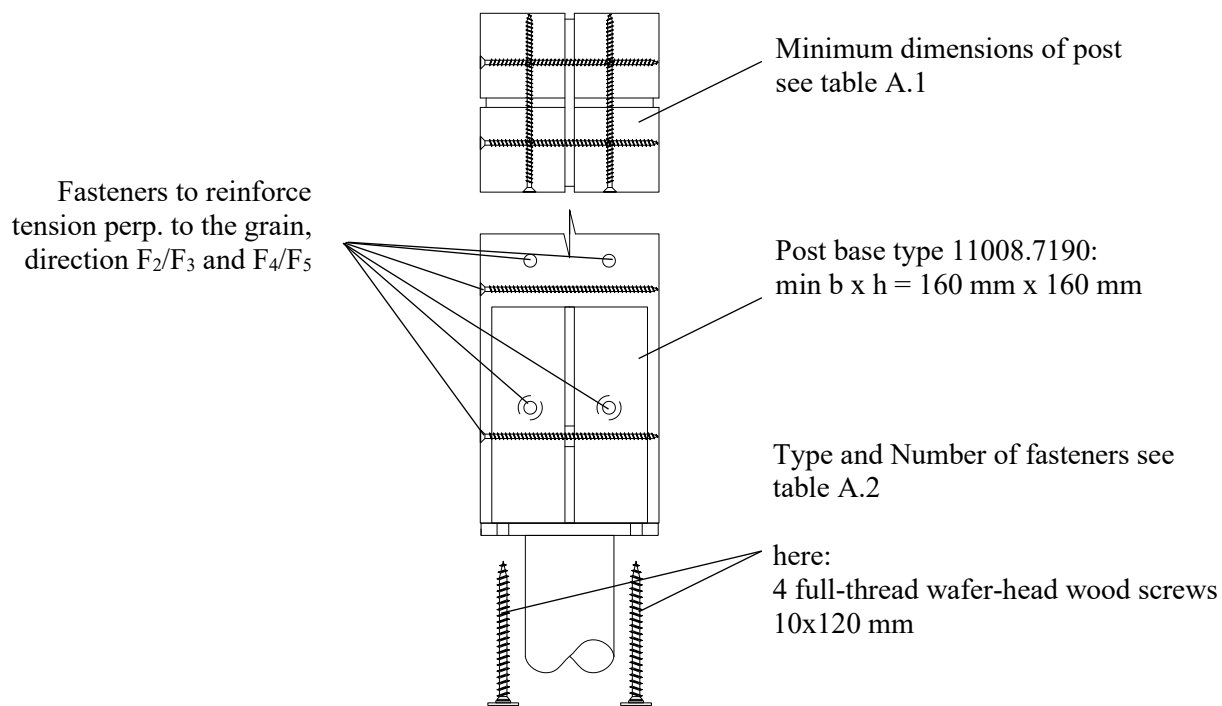


Figure 2: Typical installation of the post base, example type 11008.7190

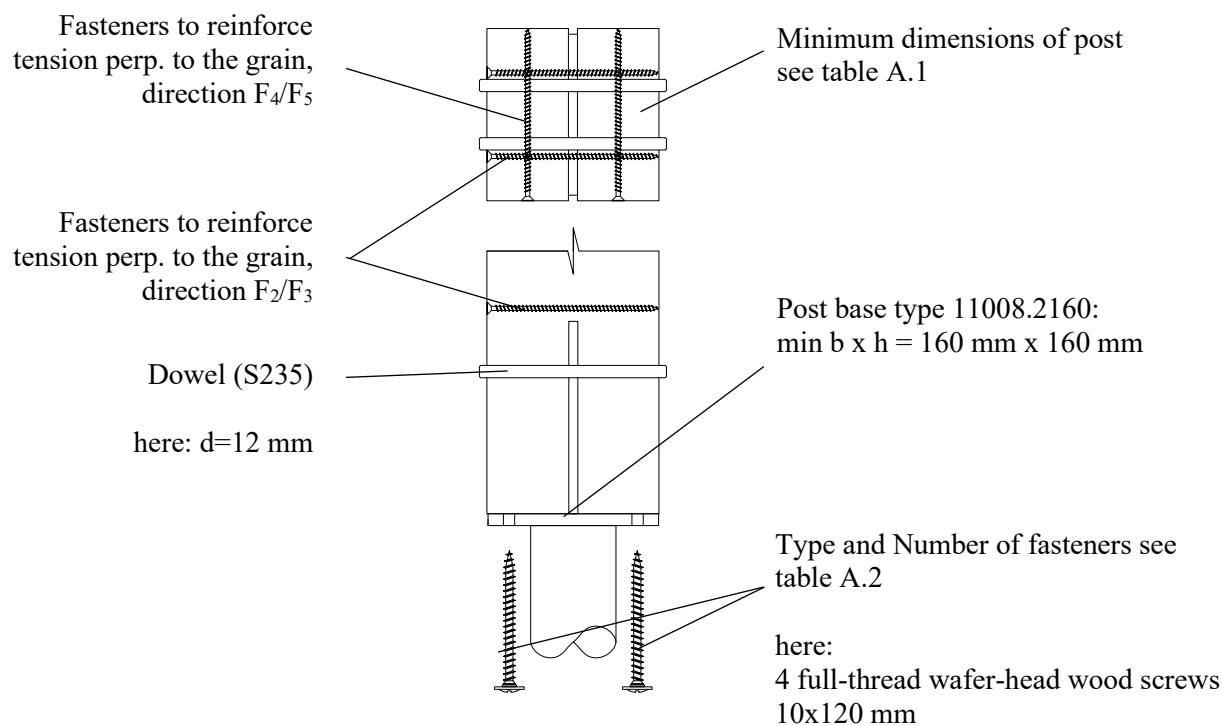


Figure 3: Typical installation of the post base, example type 11008.2160

### **Use of lock nuts to increase the torsion spring stiffness:**

That the post bases can be height-adjustable, threaded rods with right- and left threads are used, which are connected to each other using a nut. This results in some system related tolerances that can lead to load-independent deformation in the horizontal direction. To avoid this slippage, lock nuts can be used.

If lock nuts are not used, the torsion spring stiffness should be set at 0 kNm/rad up to a torsion of 0.013 rad, thereafter the system stiffness of the threaded rods should be used.

For model numbers 10920.1100, the characteristic line of the torsion spring stiffness can be assumed as follows as an example:

#### **Height 193 mm:**

- Without lock nut:

$$K_{\varphi} = \begin{cases} 0 \leq \varphi \leq 0,013 \rightarrow 0 \text{ kNm/rad} \\ \varphi > 0,013 \rightarrow 16,8 \text{ kNm/rad} \end{cases} \quad (3)$$

- With lock nut

$$K_{\varphi} = 19,6 \text{ kNm/rad} \quad (4)$$

#### **Height 232 mm**

- Without lock nut:

$$K_{\varphi} = \begin{cases} 0 \leq \varphi \leq 0,013 \rightarrow 0 \text{ kNm/rad} \\ \varphi > 0,013 \rightarrow 12,9 \text{ kNm/rad} \end{cases} \quad (5)$$

- With lock nut

$$K_{\varphi} = 14,3 \text{ kNm/rad} \quad (6)$$

### **List of the Indizes used in the following tables**

- 1) Depending on the used strength class the value of the characteristic compression strength for timber has to multiply with the factor ( $f_{c,0,k}/21$ )
- 2) According to EN 1995-1-1 and EN 1993-1-1 the following partial safety factors  $\gamma_{Mi}$  and modification factors are recommended <sup>a)</sup>:
  - Solid Timber  $\gamma_M=1,30$
  - Glued laminated timber  $\gamma_M=1,25$
  - Timber Connections:  $\gamma_{M,C}=1,30$
  - Steel-elements:  $\gamma_{M0}=1,00$ ;  $\gamma_{M1}=1,00$ ;  $\gamma_{M2}=1,25$
  - Modification-factors: According to EN 1995-1-1
- <sup>a)</sup> Consider country-specific regulations
- 3) Interim values can be calculated by linear interpolation
- 4) Calculated according to EN 1993-1-1
- 5) Characteristic value depending on the dimensions of the head plate
- 6) With 4 additional fully threaded screws  $\geq 6/120$  to reinforce tension perp. to the grain, cf. Figure 2
- 7) The load-carrying capacity of lateral forces depends on the type of the head plate
- 8) Unreinforced timber/reinforced timber like Figure 3
- 9) The load-carrying capacity in load case  $F_1$  (tension) is only valid in short-term and instantaneous load-duration classes
- 10) Kind of anchoring to the basement
- 11) In case of a ground plate different from 100x160 mm, the values for steel with a tensile load and a reference dimension of 100x100 mm should be converted as follows:

| Height of ground plate $t$ [mm] | $F_{t,Rk}$ [kN] | Dimensions [mm] |         |         |         |
|---------------------------------|-----------------|-----------------|---------|---------|---------|
|                                 |                 | 100x100         | 100x160 | 100x220 | 140x140 |
| 6                               | 7,40            | 1,6             | 1,0     | 0,6     | 1,6     |
| 8                               | 13,20           | 1,6             | 1,0     | 0,6     | 1,6     |
| 10                              | 20,7            | 1,6             | 1,0     | 0,6     | 1,6     |

- 12) Anchoring depth in concrete according to EN 1992-1-1

Note: For post bases whose geometry is not shown in this ETA, the load-bearing capacity of the post bases can be calculated by the provisions of EN 1993-1-1. For the verification of the load-bearing capacity in the contact area between the head plate and the face of the timber, a load propagation angle of 1:3 may be assumed.

Table B.1-1: Characteristic load-carrying capacities for post bases type 10900, 10901 in [kN], referenced to C24

| Post Base<br>referenced to C24                |      |          | $F_{1,Rk}$<br>(compression) <sup>1)</sup> |               |   | $F_{1,Rk}$<br>(tension) <sup>9)</sup> |           |               |   | $F_{2,Rk}$ or<br>$F_{3,Rk}$ |   |               |   | $F_{4,Rk}$ or<br>$F_{5,Rk}$ |   |               |   |
|-----------------------------------------------|------|----------|-------------------------------------------|---------------|---|---------------------------------------|-----------|---------------|---|-----------------------------|---|---------------|---|-----------------------------|---|---------------|---|
| Type                                          | Code | Height a | Timber <sup>1)</sup>                      | Steel         |   | Timber   Screws                       |           | Steel         |   | Timber   Screws             |   | Steel         |   | Timber   Screws             |   | Steel         |   |
|                                               |      | [mm]     | [kN]                                      | [kN]          |   | 10/120 mm                             | 10/160 mm |               |   | Rigid <sup>10)</sup>        |   |               |   | Rigid <sup>10)</sup>        |   |               |   |
| 10900.                                        | 0000 | 122      | 120,0                                     | 79,0          | - | 30,0                                  | 50,0      | 78,4          | - | 2,55                        | - | -             |   | 2,55                        | - | -             |   |
| 10900.                                        | 0000 | 182      | 120,0                                     | 76,0          | - | 30,0                                  | 50,0      | 78,4          | - | 1,71                        | - | -             |   | 1,71                        | - |               |   |
| 10901.                                        | 0000 | 122      | 105,0                                     | 79,0          | - | 30,0                                  | 50,0      | 78,4          | - | 2,55                        | - | -             |   | 2,55                        | - | -             |   |
| 10901.                                        | 0000 | 182      | 105,0                                     | 76,0          | - | 30,0                                  | 50,0      | 78,4          | - | 1,71                        | - | -             |   | 1,71                        | - | -             |   |
| 2) Safety factors: $k_{mod}$ , $\gamma_{M,i}$ |      |          | $k_{mod}/\gamma_M$                        | $\gamma_{M1}$ | - | $k_{mod}/\gamma_{M,C}$                |           | $\gamma_{M0}$ | - | $k_{mod}/\gamma_{M,C}$      |   | $\gamma_{M0}$ | - | $k_{mod}/\gamma_{M,C}$      |   | $\gamma_{M0}$ | - |

Table B.2-1: Characteristic load-carrying capacities for post bases type 11001, 11003, 11005, 11007 in [kN], referenced to C24

| Post Base<br>referenced to C24                        |      |          | F <sub>1,Rk</sub><br>(compression) <sup>1)</sup> |                 |   | F <sub>1,Rk</sub><br>(tension) <sup>9)</sup> |           |                 |   | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |       |                 | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                                     |   |                 |
|-------------------------------------------------------|------|----------|--------------------------------------------------|-----------------|---|----------------------------------------------|-----------|-----------------|---|-------------------------------------------|-------|-----------------|-------------------------------------------|-------------------------------------|---|-----------------|
| Type                                                  | Code | Height a | Timber <sup>1)</sup>                             | Steel           |   | Timber   Screws                              |           | Steel           |   | Timber   Screws                           | Steel |                 | Timber   Screws                           | Steel                               |   |                 |
|                                                       |      | [mm]     | [kN]                                             | [kN]            |   | 10/120 mm                                    | 10/160 mm |                 |   | Rigid <sup>10)</sup>                      |       |                 | Simply <sup>10)</sup>                     |                                     |   |                 |
| 11000.                                                | 0000 | 100      | 96,0                                             | 90,0            | - | 30,0                                         | 50,0      | 30,4            | - | 11,6                                      | 3,5   | -               | 11,6                                      | 3,5                                 | - |                 |
| 11001.                                                | 0000 | 125      | 116,0                                            | 140,0           | - | 30,0                                         | 50,0      | 30,4            | - | 18,5                                      | 11,9  | -               | 18,5                                      | 11,9                                | - |                 |
|                                                       | 1000 | 160      | 120,0                                            | 132,0           | - | 30,0                                         | 50,0      | 30,4            | - | 14,5                                      | 10,7  | -               | 14,5                                      | 10,7                                | - |                 |
|                                                       | 2000 | 200      | 116,0                                            | 120,0           | - | 30,0                                         | 50,0      | 30,4            | - | 12,0                                      | 7,5   | -               | 12,0                                      | 7,5                                 | - |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub> |      |          | k <sub>mod</sub> /γ <sub>M</sub>                 | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>           |           | γ <sub>M0</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>        |       | γ <sub>M0</sub> | -                                         | k <sub>mod</sub> /γ <sub>M,C</sub>  |   | γ <sub>M0</sub> |
| 11003.                                                | 0000 | 125      | 100,0                                            | 93,0            | - | 30,0                                         | 50,0      | 30,4            | - | 12,6                                      | 2,2   | -               | 5,9                                       | 3,2                                 | - |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub> |      |          | k <sub>mod</sub> /γ <sub>M</sub>                 | γ <sub>M1</sub> | - | k <sub>mod</sub> / γ <sub>M,C</sub>          |           | γ <sub>M0</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>        |       | γ <sub>M0</sub> | -                                         | k <sub>mod</sub> / γ <sub>M,C</sub> |   | γ <sub>M0</sub> |
| 11005.                                                | 0000 | 160      | 100,0                                            | 93,0            | - | 30,0                                         | 50,0      | 16,6            | - | 10,0                                      | 3,2   | -               | 10,0                                      | 3,2                                 | - |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub> |      |          | k <sub>mod</sub> /γ <sub>M</sub>                 | γ <sub>M1</sub> | - | k <sub>mod</sub> / γ <sub>M,C</sub>          |           | γ <sub>M0</sub> | - | k <sub>mod</sub> / γ <sub>M,C</sub>       |       | γ <sub>M0</sub> | -                                         | k <sub>mod</sub> / γ <sub>M,C</sub> |   | γ <sub>M0</sub> |
| 11007.                                                | 0000 | 160      | 120,0                                            | 132,0           | - | 30,0                                         | 50,0      | 16,6            | - | 10,0                                      | 2,2   | -               | 10,0                                      | 3,1                                 | - |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub> |      |          | k <sub>mod</sub> /γ <sub>M</sub>                 | γ <sub>M1</sub> | - | k <sub>mod</sub> / γ <sub>M,C</sub>          |           | γ <sub>M0</sub> | - | k <sub>mod</sub> / γ <sub>M,C</sub>       |       | γ <sub>M0</sub> | -                                         | k <sub>mod</sub> / γ <sub>M,C</sub> |   | γ <sub>M0</sub> |

Table B.1-2: Characteristic load-carrying capacities for post bases type 11009 in [kN], referenced to C24

| Post Base<br>referenced to C24                                      |      |          | F <sub>1,Rk</sub><br>(compression) <sup>1)</sup> |                 | F <sub>1,Rk</sub><br>(tension) <sup>9)</sup> |                                    |       | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                 |                                    | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                 |                 |                                    |   |                 |                 |
|---------------------------------------------------------------------|------|----------|--------------------------------------------------|-----------------|----------------------------------------------|------------------------------------|-------|-------------------------------------------|-----------------|------------------------------------|-------------------------------------------|-----------------|-----------------|------------------------------------|---|-----------------|-----------------|
| Type                                                                | Code | Height a | Timber <sup>1)</sup>                             | Steel           | Timber   Screws                              |                                    | Steel | Timber   Screws                           |                 | Steel                              | Timber   Screws                           |                 | Steel           |                                    |   |                 |                 |
|                                                                     |      | [mm]     | [kN]                                             | [kN]            | 10/120 mm                                    | 10/160 mm                          |       | Rigid <sup>10)</sup>                      |                 |                                    | Simply <sup>10)</sup>                     |                 |                 |                                    |   |                 |                 |
| At maximum distance between base plate and foundation <sup>3)</sup> |      |          |                                                  |                 |                                              |                                    |       |                                           |                 |                                    |                                           |                 |                 |                                    |   |                 |                 |
| 11009.                                                              | 0100 | 150      | 116,0                                            | 77,9            |                                              | 30,0                               | 50,0  | 7,4 <sup>11)</sup>                        |                 | -                                  | 2,1                                       | -               | -               | 2,1                                | - |                 |                 |
|                                                                     | 0180 | 150      | 116,0                                            | 77,9            |                                              | 30,0                               | 50,0  | 7,4 <sup>11)</sup>                        |                 | -                                  | 2,1                                       | -               | -               | 2,1                                | - |                 |                 |
|                                                                     | 0200 | 250      | 116,0                                            | 72,1            |                                              | 30,0                               | 50,0  | 7,4 <sup>11)</sup>                        |                 | -                                  | 1,2                                       | -               | -               | 1,2                                | - |                 |                 |
|                                                                     | 1200 | 250      | 116,0                                            | 72,1            |                                              | 30,0                               | 50,0  | 7,4 <sup>11)</sup>                        |                 | -                                  | 1,2                                       | -               | -               | 1,2                                | - |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>               |      |          | k <sub>mod</sub> /γ <sub>M</sub>                 | γ <sub>M1</sub> | -                                            | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |                                           | γ <sub>M0</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |   | γ <sub>M0</sub> | γ <sub>M2</sub> |
| At maximum distance between base plate and foundation <sup>3)</sup> |      |          |                                                  |                 |                                              |                                    |       |                                           |                 |                                    |                                           |                 |                 |                                    |   |                 |                 |
| 11009.                                                              | 0100 | 100      | 116,0                                            | 80,7            |                                              | 30,0                               | 50,0  | 7,4 <sup>11)</sup>                        |                 | -                                  | 3,1                                       | -               | -               | 3,1                                | - |                 |                 |
|                                                                     | 0180 | 100      | 116,0                                            | 80,7            |                                              | 30,0                               | 50,0  | 7,4 <sup>11)</sup>                        |                 | -                                  | 3,1                                       | -               | -               | 3,1                                | - |                 |                 |
|                                                                     | 0200 | 150      | 116,0                                            | 77,9            |                                              | 30,0                               | 50,0  | 7,4 <sup>11)</sup>                        |                 | -                                  | 2,1                                       | -               | -               | 2,1                                | - |                 |                 |
|                                                                     | 1200 | 150      | 116,0                                            | 77,9            |                                              | 30,0                               | 50,0  | 7,4 <sup>11)</sup>                        |                 | -                                  | 2,1                                       | -               | -               | 2,1                                | - |                 |                 |
| 2) Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>              |      |          | k <sub>mod</sub> /γ <sub>M</sub>                 | γ <sub>M1</sub> | -                                            | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |                                           | γ <sub>M0</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |   | γ <sub>M0</sub> | γ <sub>M2</sub> |

Table B.1-2: Characteristic load-carrying capacities for post bases type 11010 in [kN], referenced to C24

| Post Base<br>referenced to C24                                      |      |          | $F_{1,Rk}$<br>(compression) <sup>1)</sup> |               | $F_{1,Rk}$<br>(tension) <sup>9)</sup> |                        |                 | $F_{2,Rk}$ or<br>$F_{3,Rk}$ |                      |                        | $F_{4,Rk}$ or<br>$F_{5,Rk}$ |               |                        |               |               |
|---------------------------------------------------------------------|------|----------|-------------------------------------------|---------------|---------------------------------------|------------------------|-----------------|-----------------------------|----------------------|------------------------|-----------------------------|---------------|------------------------|---------------|---------------|
| Type                                                                | Code | Height a | Timber <sup>1)</sup>                      | Steel         | Timber   Screws                       | Steel                  | Timber   Screws | Steel                       | Timber   Screws      | Steel                  | Timber   Screws             | Steel         |                        |               |               |
|                                                                     |      | [mm]     | [kN]                                      | [kN]          | 10/120 mm                             | 10/160 mm              |                 |                             | Rigid <sup>10)</sup> |                        | Simply <sup>10)</sup>       |               |                        |               |               |
| At maximum distance between base plate and foundation <sup>3)</sup> |      |          |                                           |               |                                       |                        |                 |                             |                      |                        |                             |               |                        |               |               |
| 11010.                                                              | 5000 | 500      | 81,0                                      | 66,0          |                                       | 30,0                   | 50,0            |                             | 67,0                 | -                      | 3,0                         | -             | -                      | 3,0           | -             |
| 2)Safety factors: $k_{mod}$ , $\gamma_{M,i}$                        |      |          | $k_{mod}/\gamma_M$                        | $\gamma_{M1}$ | -                                     | $k_{mod}/\gamma_{M,C}$ |                 | $\gamma_{M0}$               | $\gamma_{M2}$        | $k_{mod}/\gamma_{M,C}$ | $\gamma_{M0}$               | $\gamma_{M2}$ | $k_{mod}/\gamma_{M,C}$ | $\gamma_{M0}$ | $\gamma_{M2}$ |

Table B.1-2: Characteristic load-carrying capacities for post bases type 11008 in [kN], referenced to C24

| Post Base<br>referenced to C24                        |      |          | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                 |                 | F <sub>1,Rk</sub><br>(tension) <sup>9)</sup> |           |                 |                 | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                         | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                        |
|-------------------------------------------------------|------|----------|-----------------------------------------------------|-----------------|-----------------|----------------------------------------------|-----------|-----------------|-----------------|-------------------------------------------|-------------------------|-------------------------------------------|------------------------|
| Type                                                  | Code | Height a | Timber <sup>1)</sup>                                | Steel           |                 | Timber   Screws                              |           | Steel           |                 | Timber   Screws<br>Steel                  |                         | Timber   Screws<br>Steel                  |                        |
|                                                       |      | [mm]     | [kN]                                                | Head plate      | Stability       | 10/120 mm                                    | 10/160 mm |                 |                 | Simply <sup>10)</sup>                     | Rigid <sup>10)</sup>    | Simply <sup>10)</sup>                     | Rigid <sup>10)</sup>   |
| 11008.                                                | 6150 | 150      | 260,8                                               | -               | 158,5           | 30,0                                         | 50,0      | 69,61           | -               | 5,8                                       | 16,3                    | 5,8                                       | 16,3                   |
|                                                       | 6200 | 225      | 260,8                                               | -               | 149,5           | 30,0                                         | 50,0      | 69,61           | -               | 4,7                                       | 13,2                    | 4,7                                       | 13,2                   |
|                                                       | 6250 | 300      | 260,8                                               | -               | 143,6           | 30,0                                         | 50,0      | 69,61           | -               | 3,6                                       | 10,2                    | 3,6                                       | 10,2                   |
|                                                       | 7190 | 260      | 515,0                                               | 516,9           | -               | 30,0                                         | 50,0      | 90,88           | -               | 8,1 <sup>6)</sup>                         | 18,2 <sup>6)</sup>      | 8,1 <sup>6)</sup>                         | 18,2 <sup>6)</sup>     |
|                                                       | 8190 | 260      | 515,0                                               | 516,9           | -               | 30,0                                         | 50,0      | 72,44           | -               | 8,1 <sup>6)</sup>                         | 14,5 <sup>6)</sup>      | 8,1 <sup>6)</sup>                         | 14,5 <sup>6)</sup>     |
|                                                       | 1160 | 160      | 400,0                                               | -               | 456             | 30,0                                         | 50,0      | 160,2           | -               | 10,0                                      | 10,0                    | 10,0                                      | 10,0                   |
|                                                       | 1250 | 250      | 381,5                                               | 279,3           | -               | 30,0                                         | 50,0      | 160,2           | -               | 10,0                                      | 10,0                    | 10,0                                      | 10,0                   |
|                                                       | 2160 | 160      | 376,0                                               | -               | 438             | 30,0                                         | 50,0      | 160,2           | -               | 10,0/13,0 <sup>8)</sup>                   | 10,0/13,0 <sup>8)</sup> | 4,5/11,0 <sup>8)</sup>                    | 4,5/11,0 <sup>8)</sup> |
|                                                       | 2250 | 250      | 376,0                                               | -               | 350             | 30,0                                         | 50,0      | 160,2           | -               | 10,0/13,0 <sup>8)</sup>                   | 10,0/13,0 <sup>8)</sup> | 4,5/11,0 <sup>8)</sup>                    | 4,5/11,0 <sup>8)</sup> |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub> |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M0</sub> | γ <sub>M1</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>           |           | γ <sub>M0</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>        |                         | k <sub>mod</sub> /γ <sub>M,C</sub>        |                        |

Table B.1-3: Characteristic load-carrying capacities for post bases type 11013 in [kN], referenced to C24

| Post Base<br>referenced to C24                                           |      |             | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                 | F <sub>1,Rk</sub><br>(tension) <sup>9)</sup> |                                    |       |                    | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                                    |       | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                 |                                    |       |                 |                 |
|--------------------------------------------------------------------------|------|-------------|-----------------------------------------------------|-----------------|----------------------------------------------|------------------------------------|-------|--------------------|-------------------------------------------|------------------------------------|-------|-------------------------------------------|-----------------|------------------------------------|-------|-----------------|-----------------|
| Type                                                                     | Code | Nut / lug   | Timber <sup>1)</sup>                                | Steel           | Timber   Screws                              |                                    | Steel |                    | Timber   Screws                           |                                    | Steel |                                           | Timber   Screws |                                    | Steel |                 |                 |
|                                                                          |      |             | [kN]                                                | [kN]            | 10/120 mm   10/160 mm                        |                                    |       |                    | Simply <sup>10)</sup>                     |                                    |       | Simply <sup>10)</sup>                     |                 |                                    |       |                 |                 |
| a ≤ 150 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |                                              |                                    |       |                    |                                           |                                    |       |                                           |                 |                                    |       |                 |                 |
| 11013.                                                                   | 1100 | Welded nut  | 130,0                                               | 93,8            | -                                            | 30,0                               | -     | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 2,8   | 3,5                                       | 10,0            | 1,7 <sup>11)</sup>                 | 3,5   |                 |                 |
|                                                                          | 1100 | Tension lug | 130,0                                               | 93,8            | -                                            | 8,7                                | -     | 3,6                | 4,5                                       | 10,0                               | 2,8   | 3,5                                       | 10,0            | 1,7 <sup>11)</sup>                 | 3,5   |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | -                                            | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub> | γ <sub>M2</sub> |
| a ≤ 75 mm (a = distance between base plate and foundation) cf. figure 1  |      |             |                                                     |                 |                                              |                                    |       |                    |                                           |                                    |       |                                           |                 |                                    |       |                 |                 |
| 11013.                                                                   | 1100 | Welded nut  | 130,0                                               | 104,0           | -                                            | 30,0                               | -     | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 5,6   | 7,0                                       | 10,0            | 3,4 <sup>11)</sup>                 | 7,0   |                 |                 |
|                                                                          | 1100 | Tension lug | 130,0                                               | 104,0           | -                                            | 8,7                                | -     | 3,6                | 4,5                                       | 10,0                               | 5,6   | 7,0                                       | 10,0            | 3,4 <sup>11)</sup>                 | 7,0   |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | -                                            | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub> | γ <sub>M2</sub> |
| a ≤ 150 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |                                              |                                    |       |                    |                                           |                                    |       |                                           |                 |                                    |       |                 |                 |
| 11013.                                                                   | 1180 | Welded nut  | 98,0                                                | 93,8            | -                                            | 30,0                               | -     | 7,4 <sup>11)</sup> | -                                         | 6,9                                | 2,8   | 3,5                                       | 6,9             | 1,7 <sup>11)</sup>                 | 3,5   |                 |                 |
|                                                                          | 1180 | Tension lug | 98,0                                                | 93,8            | -                                            | 8,7                                | -     | 3,6                | 4,5                                       | 6,9                                | 2,8   | 3,5                                       | 6,9             | 1,7 <sup>11)</sup>                 | 3,5   |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | -                                            | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub> | γ <sub>M2</sub> |
| a ≤ 75 mm (a = distance between base plate and foundation) cf. figure 1  |      |             |                                                     |                 |                                              |                                    |       |                    |                                           |                                    |       |                                           |                 |                                    |       |                 |                 |
| 11013.                                                                   | 1180 | Welded nut  | 98,0                                                | 104,0           | -                                            | 30,0                               | -     | 7,4 <sup>11)</sup> | -                                         | 6,9                                | 5,6   | 7,0                                       | 6,9             | 3,4 <sup>11)</sup>                 | 7,0   |                 |                 |
|                                                                          | 1180 | Tension lug | 98,0                                                | 104,0           | -                                            | 8,7                                | -     | 3,6                | 4,5                                       | 6,9                                | 5,6   | 7,0                                       | 6,9             | 3,4 <sup>11)</sup>                 | 7,0   |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | -                                            | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub> | γ <sub>M2</sub> |
| a ≤ 250 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |                                              |                                    |       |                    |                                           |                                    |       |                                           |                 |                                    |       |                 |                 |
| 11013.                                                                   | 0200 | Welded nut  | 130,0                                               | 80,8            | -                                            | 30,0                               | -     | 16,8               | -                                         | 10,0                               | 1,8   | 2,1                                       | 10,0            | 1,8                                | 2,1   |                 |                 |
|                                                                          | 0200 | Tension lug | 130,0                                               | 80,8            | -                                            | 8,7                                | -     | 3,6                | 4,5                                       | 10,0                               | 1,8   | 2,1                                       | 10,0            | 1,8                                | 2,1   |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | -                                            | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub> | γ <sub>M2</sub> |
| a ≤ 125 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |                                              |                                    |       |                    |                                           |                                    |       |                                           |                 |                                    |       |                 |                 |
| 11013.                                                                   | 0200 | Welded nut  | 130,0                                               | 98,2            | -                                            | 30,0                               | -     | 16,8               | -                                         | 10,0                               | 3,4   | 4,2                                       | 10,0            | 3,4                                | 4,2   |                 |                 |
|                                                                          | 0200 | Tension lug | 130,0                                               | 98,2            | -                                            | 8,7                                | -     | 3,6                | 4,5                                       | 10,0                               | 3,4   | 4,2                                       | 10,0            | 3,4                                | 4,2   |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | -                                            | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub> | γ <sub>M2</sub> |
| a ≤ 250 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |                                              |                                    |       |                    |                                           |                                    |       |                                           |                 |                                    |       |                 |                 |
| 11013.                                                                   | 0280 | Welded nut  | 98,0                                                | 80,8            | -                                            | 30,0                               | -     | 16,8               | -                                         | 6,9                                | 1,8   | 2,1                                       | 6,9             | 1,8                                | 2,1   |                 |                 |
|                                                                          | 0280 | Tension lug | 98,0                                                | 80,8            | -                                            | 8,7                                | -     | 3,6                | 4,5                                       | 6,9                                | 1,8   | 2,1                                       | 6,9             | 1,8                                | 2,1   |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | -                                            | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub> | γ <sub>M2</sub> |
| a ≤ 125 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |                                              |                                    |       |                    |                                           |                                    |       |                                           |                 |                                    |       |                 |                 |
| 11013.                                                                   | 0280 | Welded nut  | 98,0                                                | 98,2            | -                                            | 30,0                               | -     | 16,8               | -                                         | 6,9                                | 3,4   | 4,2                                       | 6,9             | 3,4                                | 4,2   |                 |                 |
|                                                                          | 0280 | Tension lug | 98,0                                                | 98,2            | -                                            | 8,7                                | -     | 3,6                | 4,5                                       | 6,9                                | 3,4   | 4,2                                       | 6,9             | 3,4                                | 4,2   |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | -                                            | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub> | γ <sub>M2</sub> |

Continuation of table B.1-4: Characteristic load-carrying capacities for post bases type 11013 in [kN], referenced to C24

| Post Base<br>referenced to C24                                           |      |             | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                 |   | F <sub>1,Rk</sub><br>(tension) <sup>9),11)</sup> |           |                    | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                                    |                 | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                                    |                    |                 |
|--------------------------------------------------------------------------|------|-------------|-----------------------------------------------------|-----------------|---|--------------------------------------------------|-----------|--------------------|-------------------------------------------|------------------------------------|-----------------|-------------------------------------------|------------------------------------|--------------------|-----------------|
| Type                                                                     | Code | Nut / lug   | Timber <sup>1)</sup>                                | Steel           |   | Timber   Screws                                  | Steel     |                    | Timber   Screws                           | Steel                              |                 | Timber   Screws                           | Steel                              |                    |                 |
|                                                                          |      |             | [kN]                                                | [kN]            |   | 10/120 mm                                        | 10/160 mm |                    | Simply <sup>10)</sup>                     |                                    |                 | Simply <sup>10)</sup>                     |                                    |                    |                 |
| a ≤ 250 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                    |                                           |                                    |                 |                                           |                                    |                    |                 |
| 11013.                                                                   | 1200 | Welded nut  | 130,0                                               | 80,8            | - | 30,0                                             | -         | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 1,7             | 2,1                                       | 10,0                               | 1,0 <sup>11)</sup> | 2,1             |
|                                                                          | 1200 | Tension lug | 130,0                                               | 80,8            | - | 8,7                                              | -         | 3,6                | 4,5                                       | 10,0                               | 1,7             | 2,1                                       | 10,0                               | 1,0 <sup>11)</sup> | 2,1             |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub>    | γ <sub>M2</sub> |
| a ≤ 125 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                    |                                           |                                    |                 |                                           |                                    |                    |                 |
| 11013.                                                                   | 1200 | Welded nut  | 130,0                                               | 98,2            | - | 30,0                                             | -         | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 3,4             | 4,2                                       | 10,0                               | 2,0 <sup>11)</sup> | 4,2             |
|                                                                          | 1200 | Tension lug | 130,0                                               | 98,2            | - | 8,7                                              | -         | 3,6                | 4,5                                       | 10,0                               | 3,4             | 4,2                                       | 10,0                               | 2,0 <sup>11)</sup> | 4,2             |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub>    | γ <sub>M2</sub> |
| a ≤ 250 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                    |                                           |                                    |                 |                                           |                                    |                    |                 |
| 11013.                                                                   | 1280 | Welded nut  | 98,0                                                | 80,8            | - | 30,0                                             | -         | 7,4 <sup>11)</sup> | -                                         | 6,9                                | 1,7             | 2,1                                       | 6,9                                | 1,0 <sup>11)</sup> | 2,1             |
|                                                                          | 1280 | Tension lug | 98,0                                                | 80,8            | - | 8,7                                              | -         | 3,6                | 4,5                                       | 6,9                                | 1,7             | 2,1                                       | 6,9                                | 1,0 <sup>11)</sup> | 2,1             |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub>    | γ <sub>M2</sub> |
| a ≤ 125 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                    |                                           |                                    |                 |                                           |                                    |                    |                 |
| 11013.                                                                   | 1280 | Welded nut  | 98,0                                                | 98,2            | - | 30,0                                             | -         | 7,4 <sup>11)</sup> | -                                         | 6,9                                | 3,4             | 4,2                                       | 6,9                                | 2,0 <sup>11)</sup> | 4,2             |
|                                                                          | 1280 | Tension lug | 98,0                                                | 98,2            | - | 8,7                                              | -         | 3,6                | 4,5                                       | 6,9                                | 3,4             | 4,2                                       | 6,9                                | 2,0 <sup>11)</sup> | 4,2             |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub>    | γ <sub>M2</sub> |
| a ≤ 330 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                    |                                           |                                    |                 |                                           |                                    |                    |                 |
| 11013.                                                                   | 1300 | Welded nut  | 130,0                                               | 68,2            | - | 30,0                                             | -         | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 1,3             | 1,6                                       | 10,0                               | 0,8 <sup>11)</sup> | 1,6             |
|                                                                          | 1300 | Tension lug | 130,0                                               | 68,2            | - | 8,7                                              | -         | 3,6 <sup>11)</sup> | 4,5                                       | 10,0                               | 1,3             | 1,6                                       | 10,0                               | 0,8 <sup>11)</sup> | 1,6             |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub>    | γ <sub>M2</sub> |
| a ≤ 165 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                    |                                           |                                    |                 |                                           |                                    |                    |                 |
| 11013.                                                                   | 1300 | Welded nut  | 130,0                                               | 92,9            | - | 30,0                                             | 50,0      | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 2,6             | 3,2                                       | 10,0                               | 1,5 <sup>11)</sup> | 3,2             |
|                                                                          | 1300 | Tension lug | 130,0                                               | 92,9            | - | 8,7                                              | -         | 3,6 <sup>11)</sup> | 4,5                                       | 10,0                               | 2,6             | 3,2                                       | 10,0                               | 1,5 <sup>11)</sup> | 3,2             |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub>    | γ <sub>M2</sub> |
| a ≤ 330 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                    |                                           |                                    |                 |                                           |                                    |                    |                 |
| 11013.                                                                   | 1380 | Welded nut  | 98,0                                                | 68,2            | - | 30,0                                             | -         | 7,4 <sup>11)</sup> | -                                         | 6,9                                | 1,3             | 1,6                                       | 6,9                                | 0,8 <sup>11)</sup> | 1,6             |
|                                                                          | 1380 | Tension lug | 98,0                                                | 68,2            | - | 8,7                                              | -         | 3,6                | 4,5                                       | 6,9                                | 1,3             | 1,6                                       | 6,9                                | 0,8 <sup>11)</sup> | 1,6             |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub>    | γ <sub>M2</sub> |
| a ≤ 165 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                    |                                           |                                    |                 |                                           |                                    |                    |                 |
| 11013.                                                                   | 1380 | Welded nut  | 98,0                                                | 92,9            | - | 30,0                                             | -         | 7,4 <sup>11)</sup> | -                                         | 6,9                                | 2,6             | 3,2                                       | 6,9                                | 1,5 <sup>11)</sup> | 3,2             |
|                                                                          | 1380 | Tension lug | 98,0                                                | 92,9            | - | 8,7                                              | -         | 3,6                | 4,5                                       | 6,9                                | 2,6             | 3,2                                       | 6,9                                | 1,5 <sup>11)</sup> | 3,2             |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub>    | γ <sub>M2</sub> |

Continuation of table B.1-5: Characteristic load-carrying capacities for post bases type 11013 in [kN], referenced to C24

| Post Base<br>referenced to C24                                           |      |             | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                 |   | F <sub>1,Rk</sub><br>(tension) <sup>9),11)</sup> |           |                    | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                                    |                 | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                                    |                    |                 |
|--------------------------------------------------------------------------|------|-------------|-----------------------------------------------------|-----------------|---|--------------------------------------------------|-----------|--------------------|-------------------------------------------|------------------------------------|-----------------|-------------------------------------------|------------------------------------|--------------------|-----------------|
| Type                                                                     | Code | Nut / lug   | Timber <sup>1)</sup>                                | Steel           |   | Timber   Screws                                  |           | Steel              |                                           | Timber   Screws                    |                 | Steel                                     | Timber   Screws                    |                    | Steel           |
|                                                                          |      |             | [kN]                                                | [kN]            |   | 10/120 mm                                        | 10/160 mm |                    |                                           | Simply <sup>10)</sup>              |                 |                                           | Simply <sup>10)</sup>              |                    |                 |
| a ≤ 500 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                    |                                           |                                    |                 |                                           |                                    |                    |                 |
| 11013.                                                                   | 1500 | Welded nut  | 130,0                                               | 43,9            | - | 30,0                                             | -         | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 0,8             | 1,1                                       | 10,0                               | 0,5 <sup>11)</sup> | 1,1             |
|                                                                          | 1500 | Tension lug | 130,0                                               | 43,9            | - | 8,7                                              | -         | 3,6                | 4,5                                       | 10,0                               | 0,8             | 1,1                                       | 10,0                               | 0,5 <sup>11)</sup> | 1,1             |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub>    | γ <sub>M2</sub> |
| a ≤ 250 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                    |                                           |                                    |                 |                                           |                                    |                    |                 |
| 11013.                                                                   | 1500 | Welded nut  | 130,0                                               | 80,8            | - | 30,0                                             | -         | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 1,7             | 2,1                                       | 10,0                               | 1,0 <sup>11)</sup> | 2,1             |
|                                                                          | 1500 | Tension lug | 130,0                                               | 80,8            | - | 8,7                                              | -         | 3,6                | 4,5                                       | 10,0                               | 0,8             | 1,1                                       | 10,0                               | 1,0 <sup>11)</sup> | 2,1             |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub>    | γ <sub>M2</sub> |
| a ≤ 500 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                    |                                           |                                    |                 |                                           |                                    |                    |                 |
| 11013.                                                                   | 1580 | Welded nut  | 98,0                                                | 43,9            | - | 30,0                                             | -         | 7,4 <sup>11)</sup> | -                                         | 6,9                                | 0,8             | 1,1                                       | 6,9                                | 0,5 <sup>11)</sup> | 1,1             |
|                                                                          | 1580 | Tension lug | 98,0                                                | 43,9            | - | 8,7                                              | -         | 3,6                | 4,5                                       | 6,9                                | 0,8             | 1,1                                       | 6,9                                | 0,5 <sup>11)</sup> | 1,1             |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub>    | γ <sub>M2</sub> |
| a ≤ 250 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                    |                                           |                                    |                 |                                           |                                    |                    |                 |
| 11013.                                                                   | 1580 | Welded nut  | 98,0                                                | 80,8            | - | 30,0                                             | -         | 7,4 <sup>11)</sup> | -                                         | 6,9                                | 1,7             | 2,1                                       | 6,9                                | 1,0 <sup>11)</sup> | 2,1             |
|                                                                          | 1580 | Tension lug | 98,0                                                | 80,8            | - | 8,7                                              | -         | 3,6                | 4,5                                       | 6,9                                | 1,7             | 2,1                                       | 6,9                                | 1,0 <sup>11)</sup> | 2,1             |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub>    | γ <sub>M2</sub> |



Table B.1-6: Characteristic load-carrying capacities for post bases type 11016 in [kN] , referenced to C24

| Post Base<br>referenced to C24                                           |      |             | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                 |   | F <sub>1,Rk</sub><br>(tension) <sup>9),11)</sup> |           |                     | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                                    |     | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                 |                                    |                 |                 |
|--------------------------------------------------------------------------|------|-------------|-----------------------------------------------------|-----------------|---|--------------------------------------------------|-----------|---------------------|-------------------------------------------|------------------------------------|-----|-------------------------------------------|-----------------|------------------------------------|-----------------|-----------------|
| Type                                                                     | Code | Nut / lug   | Timber <sup>1)</sup>                                | Steel           |   | Timber   Screws                                  | Steel     |                     | Timber   Screws                           | Steel                              |     | Timber   Screws                           | Steel           |                                    |                 |                 |
|                                                                          |      |             | [kN]                                                | [kN]            |   | 10/120 mm                                        | 10/160 mm |                     | Simply <sup>10)</sup>                     |                                    |     | Simply <sup>10)</sup>                     |                 |                                    |                 |                 |
| a ≤ 250 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                     |                                           |                                    |     |                                           |                 |                                    |                 |                 |
| 11016.                                                                   | 1200 | Welded nut  | 195,0                                               | 141,5           | - | 30,0                                             | -         | 20,6 <sup>11)</sup> | -                                         | 13,1                               | 3,6 | 3,3                                       | 13,1            | 2,8 <sup>11)</sup>                 | 3,3             |                 |
|                                                                          | 1200 | Tension lug | 195,0                                               | 141,5           | - | 8,7                                              | -         | 7,9                 | 9,4                                       | 13,1                               | 3,6 | 3,3                                       | 13,1            | 2,8 <sup>11)</sup>                 | 3,3             |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>     | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |     | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub> |
| a ≤ 125 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                     |                                           |                                    |     |                                           |                 |                                    |                 |                 |
| 11016.                                                                   | 1200 | Welded nut  | 195,0                                               | 185,0           | - | 30,0                                             | -         | 20,6 <sup>11)</sup> | -                                         | 13,1                               | 9,4 | 6,6                                       | 13,1            | 5,6 <sup>11)</sup>                 | 6,6             |                 |
|                                                                          | 1200 | Tension lug | 195,0                                               | 185,0           | - | 8,7                                              | -         | 7,9                 | 9,4                                       | 13,1                               | 9,4 | 6,6                                       | 13,1            | 5,6 <sup>11)</sup>                 | 6,6             |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>     | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |     | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub> |
| a ≤ 330 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                     |                                           |                                    |     |                                           |                 |                                    |                 |                 |
| 11016.                                                                   | 1300 | Welded nut  | 195,0                                               | 137,8           | - | 30,0                                             | -         | 20,6 <sup>11)</sup> | -                                         | 13,1                               | 2,7 | 2,5                                       | 13,1            | 2,1 <sup>11)</sup>                 | 2,5             |                 |
|                                                                          | 1300 | Tension lug | 195,0                                               | 137,8           | - | 8,7                                              | -         | 7,9                 | 9,4                                       | 13,1                               | 2,7 | 2,5                                       | 13,1            | 2,1 <sup>11)</sup>                 | 2,5             |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>     | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |     | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub> |
| a ≤ 165 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                     |                                           |                                    |     |                                           |                 |                                    |                 |                 |
| 11016.                                                                   | 1300 | Welded nut  | 195,0                                               | 155,4           | - | 30,0                                             | -         | 20,6 <sup>11)</sup> | -                                         | 13,1                               | 5,5 | 5,0                                       | 13,1            | 4,3 <sup>11)</sup>                 | 5,0             |                 |
|                                                                          | 1300 | Tension lug | 195,0                                               | 155,4           | - | 8,7                                              | -         | 7,9                 | 9,4                                       | 13,1                               | 5,5 | 5,0                                       | 13,1            | 4,3 <sup>11)</sup>                 | 5,0             |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>     | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |     | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub> |
| a ≤ 500 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                     |                                           |                                    |     |                                           |                 |                                    |                 |                 |
| 11016.                                                                   | 1500 | Welded nut  | 195,0                                               | 92,4            | - | 30,0                                             | -         | 20,6 <sup>11)</sup> | -                                         | 13,1                               | 1,8 | 1,7                                       | 13,1            | 1,4 <sup>11)</sup>                 | 1,7             |                 |
|                                                                          | 1500 | Tension lug | 195,0                                               | 92,4            | - | 8,7                                              | -         | 7,9                 | 9,4                                       | 13,1                               | 1,8 | 1,7                                       | 13,1            | 1,4 <sup>11)</sup>                 | 1,7             |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>     | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |     | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub> |
| a ≤ 250 mm (a = distance between base plate and foundation) cf. figure 1 |      |             |                                                     |                 |   |                                                  |           |                     |                                           |                                    |     |                                           |                 |                                    |                 |                 |
| 11016.                                                                   | 1500 | Welded nut  | 195,0                                               | 141,5           | - | 30,0                                             | -         | 20,6 <sup>11)</sup> | -                                         | 13,1                               | 3,6 | 3,3                                       | 13,1            | 2,8 <sup>11)</sup>                 | 3,3             |                 |
|                                                                          | 1500 | Tension lug | 195,0                                               | 141,5           | - | 8,7                                              | -         | 7,9                 | 9,4                                       | 13,1                               | 3,6 | 3,3                                       | 13,1            | 2,8 <sup>11)</sup>                 | 3,3             |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>                    |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | - | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>     | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |     | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub> |

Table B.1-2: Characteristic load-carrying capacities for post bases type 11023 in [kN], referenced to C24

| Post Base<br>referenced to C24                         |      |                    | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                 |                 | F <sub>1,Rk</sub><br>(tension) <sup>9)</sup> |           |                 |                 | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                 | F <sub>4,R</sub> k or<br>F <sub>5,Rk</sub> |                 |
|--------------------------------------------------------|------|--------------------|-----------------------------------------------------|-----------------|-----------------|----------------------------------------------|-----------|-----------------|-----------------|-------------------------------------------|-----------------|--------------------------------------------|-----------------|
| Type                                                   | Code | Height a           | Timber <sup>1)</sup>                                | Steel           |                 | Timber   Screws                              |           | Steel           |                 | Timber   Screws<br>Steel                  |                 | Timber   Screws<br>Steel                   |                 |
|                                                        |      | [mm]               | [kN]                                                | Head plate      | Stability       | 10/120 mm                                    | 10/160 mm |                 |                 | Rigid <sup>10)</sup>                      |                 | Rigid <sup>10)</sup>                       |                 |
| 11023.                                                 | 0000 | 55 <sup>12)</sup>  | 96,0                                                | -               | 83,0            | 8,0                                          | 10,0      | -               | 78,4            | 2,4                                       | 4,3             | 2,4                                        | 4,3             |
|                                                        | 1000 | 150 <sup>12)</sup> | 96,0                                                | -               | 78,0            | 8,0                                          | 10,0      | -               | 78,4            | 1,6                                       | 2,8             | 1,6                                        | 2,8             |
| 2) Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub> |      |                    | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M0</sub> | γ <sub>M1</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>           |           | γ <sub>M0</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>        | γ <sub>M0</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>         | γ <sub>M0</sub> |

<sup>12)</sup> The height can vary depending on the required bond length in the concrete in accordance with EN 1992-1-1

Table B.1-2: Characteristic load-carrying capacities for post bases type 11042 and 11044 in [kN], referenced to C24

| Post Base referenced to C24                              |      |                  | $F_{1,Rk}$<br>(compression) <sup>1),3)</sup> |               |                            | $F_{1,Rk}$<br>(tension) <sup>9)</sup> |  |                             | $F_{2,Rk}$ or $F_{3,Rk}$ |               | $F_{4,Rk}$ or $F_{5,Rk}$ |               |
|----------------------------------------------------------|------|------------------|----------------------------------------------|---------------|----------------------------|---------------------------------------|--|-----------------------------|--------------------------|---------------|--------------------------|---------------|
| Type                                                     | Code | Height a         | Timber <sup>1),*)</sup>                      | Steel         |                            | Timber   Screws                       |  | Steel                       | Timber   Screws<br>Steel |               | Timber   Screws<br>Steel |               |
|                                                          |      | [mm]             | [kN]                                         | Side plates   | Stability <sup>**) )</sup> | 12 / $\geq l_{ef}$ mm                 |  |                             | Rigid <sup>10)</sup>     |               | Rigid <sup>10)</sup>     |               |
| 11042.                                                   | 0000 | - <sup>12)</sup> | -                                            | -             | -                          | 22,0                                  |  | 133,0                       | -                        |               |                          |               |
|                                                          | 8000 | - <sup>12)</sup> | -                                            | -             | -                          | 22,0                                  |  | 133,0                       | -                        |               |                          |               |
| 11044.                                                   | 0071 | - <sup>12)</sup> | -                                            | -             | -                          | 22,0                                  |  | 133,0                       | -                        |               |                          |               |
|                                                          | 0081 | - <sup>12)</sup> | -                                            | -             | -                          | 22,0                                  |  | 133,0                       | -                        |               |                          |               |
|                                                          | 0091 | - <sup>12)</sup> | -                                            | -             | -                          | 22,0                                  |  | 133,0                       | -                        |               |                          |               |
|                                                          | 0101 | - <sup>12)</sup> | -                                            | -             | -                          | 22,0                                  |  | 133,0                       | -                        |               |                          |               |
|                                                          | 0121 | - <sup>12)</sup> | -                                            | -             | -                          | 22,0                                  |  | 133,0                       | -                        |               |                          |               |
| <sup>2)</sup> Safety factors: $k_{mod}$ , $\gamma_{M,i}$ |      |                  | $k_{mod}/\gamma_M$                           | $\gamma_{M0}$ | $\gamma_{M1}$              | $k_{mod}/\gamma_{M,C}$                |  | $\gamma_{M0}$ $\gamma_{M2}$ | $k_{mod}/\gamma_{M,C}$   | $\gamma_{M0}$ | $k_{mod}/\gamma_{M,C}$   | $\gamma_{M0}$ |

<sup>12)</sup> The height can vary depending on the required bond length in the concrete in accordance with EN 1992-1-1

\*) Load bearing capacity of 4 full threaded screws with  $l_{ef} = 124$  mm arranged on both sides of the steel sheets.  
When different fasteners are used, the specifications in EN 1995-1-1 apply.

\*\*) To be determined according to EN 1993-1-1

Table B.1-7: Characteristic load-carrying capacities for post bases type 10529 in [kN], referenced to C24

| Post Base<br>referenced to C24                           |      |          | $F_{1,Rk}$<br>(compression) <sup>1),3)</sup> |               |               | $F_{1,Rk}$<br>(tension) <sup>9),11)</sup> |           |               |               | $F_{2,Rk}$ or<br>$F_{3,Rk}$ |                      | $F_{4,Rk}$ or<br>$F_{5,Rk}$ |                      |
|----------------------------------------------------------|------|----------|----------------------------------------------|---------------|---------------|-------------------------------------------|-----------|---------------|---------------|-----------------------------|----------------------|-----------------------------|----------------------|
| Type                                                     | Code | Height a | Timber <sup>1)</sup>                         | Steel         |               | Timber   Screws                           |           | Steel         |               | Timber   Screws<br>Steel    |                      | Timber   Screws<br>Steel    |                      |
|                                                          |      | [mm]     | [kN]                                         | Head plate    | Stability     | 10/120 mm                                 | 10/160 mm |               |               | Simply <sup>10)</sup>       | Rigid <sup>10)</sup> | Simply <sup>10)</sup>       | Rigid <sup>10)</sup> |
| 10529.                                                   | 1090 | 140      | 152,0                                        | 152,0         | -             | 30,0                                      | 50,0      | 36,9          | -             | 5,6                         | 12,5                 | 5,6                         | 12,5                 |
|                                                          | 1990 | 300      | 152,0                                        | -             | 96,5          | 30,0                                      | 50,0      | 36,9          | -             | 1,7                         | 3,9                  | 1,7                         | 3,9                  |
|                                                          | 1093 | 140      | 237,5                                        | 237,5         | 186,0         | 30,0                                      | 50,0      | 97,73         | -             | 7,3                         | 13,3                 | 7,3                         | 13,3                 |
|                                                          | 1993 | 300      | 237,5                                        | -             | 143,5         | 30,0                                      | 50,0      | 97,73         | -             | 1,9                         | 4,1                  | 1,9                         | 4,1                  |
|                                                          | 1490 | 303      | 152,0                                        | -             | 74,0          | 30,0                                      | 50,0      | 36,9          | -             | 2,4                         | 6,0                  | 2,4                         | 6,0                  |
|                                                          | 1490 | 418      | 152,0                                        | -             | 56,6          | 30,0                                      | 50,0      | 36,9          | -             | 1,4                         | 3,7                  | 1,4                         | 3,7                  |
|                                                          | 1690 | 85       | 152,0                                        | 152,0         | -             | 30,0                                      | 50,0      | 36,9          | -             | 8,2                         | 14,0                 | 8,2                         | 14,0                 |
|                                                          | 1690 | 130      | 152,0                                        | 152,0         | -             | 30,0                                      | 50,0      | 36,9          | -             | 8,2                         | 13,0                 | 8,2                         | 13,0                 |
| <sup>2)</sup> Safety factors: $k_{mod}$ , $\gamma_{M,i}$ |      |          | $k_{mod}/\gamma_M$                           | $\gamma_{M0}$ | $\gamma_{M1}$ | $k_{mod}/\gamma_{M,C}$                    |           | $\gamma_{M0}$ | $\gamma_{M2}$ | $k_{mod}/\gamma_{M,C}$      |                      | $k_{mod}/\gamma_{M,C}$      |                      |

Table B.1-8: Characteristic load-carrying capacities for post bases type 10920 in [kN] , referenced to C24

| Post Base<br>referenced to C24                                      |      |          | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                 | F <sub>1,Rk</sub><br>(tension) <sup>9),11)</sup> |                                    |       |                    | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                                    |                 | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                                    |                    |                 |
|---------------------------------------------------------------------|------|----------|-----------------------------------------------------|-----------------|--------------------------------------------------|------------------------------------|-------|--------------------|-------------------------------------------|------------------------------------|-----------------|-------------------------------------------|------------------------------------|--------------------|-----------------|
| Type                                                                | Code | Height a | Timber <sup>1)</sup>                                | Steel           | Timber   Screws                                  |                                    | Steel |                    | Timber   Screws                           |                                    | Steel           | Timber   Screws                           |                                    | Steel              |                 |
|                                                                     |      | [mm]     | [kN]                                                | [kN]            | 10/120 mm                                        | 10/160 mm                          |       |                    | Simply <sup>10)</sup>                     |                                    |                 | Simply <sup>10)</sup>                     |                                    |                    |                 |
| At maximum distance between base plate and foundation <sup>3)</sup> |      |          |                                                     |                 |                                                  |                                    |       |                    |                                           |                                    |                 |                                           |                                    |                    |                 |
| 10920.                                                              | 1000 | 207      | 135,0                                               | 87,4            | -                                                | 30,0                               | 50,0  | 7,4 <sup>11)</sup> | -                                         | 11,0                               | 2,1             | 2,2                                       | 11,0                               | 1,2 <sup>11)</sup> | -               |
|                                                                     | 1100 | 232      | 135,0                                               | 83,8            | -                                                | 30,0                               | 50,0  | 7,4 <sup>11)</sup> | -                                         | 11,0                               | 1,8             | 2,0                                       | 11,0                               | 1,1 <sup>11)</sup> | -               |
|                                                                     | 1200 | 292      | 135,0                                               | 74,6            | -                                                | 30,0                               | 50,0  | 7,4 <sup>11)</sup> | -                                         | 11,0                               | 1,5             | 1,6                                       | 11,0                               | 0,9 <sup>11)</sup> | -               |
|                                                                     | 1300 | 342      | 135,0                                               | 69,8            | -                                                | 30,0                               | 50,0  | 7,4 <sup>11)</sup> | -                                         | 11,0                               | 1,3             | 1,4                                       | 11,0                               | 0,8 <sup>11)</sup> | -               |
|                                                                     | 1400 | 392      | 135,0                                               | 58,5            | -                                                | 30,0                               | 50,0  | 7,4 <sup>11)</sup> | -                                         | 11,0                               | 1,1             | 1,2                                       | 11,0                               | 0,6 <sup>11)</sup> | -               |
|                                                                     | 1600 | 82       | 135,0                                               | 100,0           | -                                                | 30,0                               | 50,0  | 7,4 <sup>11)</sup> | -                                         | 11,0                               | 1,1             | 5,6                                       | 11,0                               | 4,6 <sup>11)</sup> | -               |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>               |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | -                                                | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub>    | γ <sub>M2</sub> |
| At minimum distance between base plate and foundation <sup>3)</sup> |      |          |                                                     |                 |                                                  |                                    |       |                    |                                           |                                    |                 |                                           |                                    |                    |                 |
| 10920.                                                              | 1000 | 142      | 135,0                                               | 96,2            | -                                                | 30,0                               | 50,0  | 7,4 <sup>11)</sup> | -                                         | 11,0                               | 3,0             | 3,2                                       | 11,0                               | 1,8 <sup>11)</sup> | -               |
|                                                                     | 1100 | 167      | 135,0                                               | 92,9            | -                                                | 30,0                               | 50,0  | 7,4 <sup>11)</sup> | -                                         | 11,0                               | 2,6             | 2,7                                       | 11,0                               | 1,5 <sup>11)</sup> | -               |
|                                                                     | 1200 | 227      | 135,0                                               | 84,5            | -                                                | 30,0                               | 50,0  | 7,4 <sup>11)</sup> | -                                         | 11,0                               | 1,9             | 2,0                                       | 11,0                               | 1,1 <sup>11)</sup> | -               |
|                                                                     | 1300 | 277      | 135,0                                               | 80,0            | -                                                | 30,0                               | 50,0  | 7,4 <sup>11)</sup> | -                                         | 11,0                               | 1,7             | 1,8                                       | 11,0                               | 0,9 <sup>11)</sup> | -               |
|                                                                     | 1400 | 327      | 135,0                                               | 69,0            | -                                                | 30,0                               | 50,0  | 7,4 <sup>11)</sup> | -                                         | 11,0                               | 1,4             | 1,4                                       | 11,0                               | 0,8 <sup>11)</sup> | -               |
|                                                                     | 1600 | 92       | 135,0                                               | 103,0           | -                                                | 30,0                               | 50,0  | 7,4 <sup>11)</sup> | -                                         | 11,0                               | 5,6             | -                                         | 11,0                               | 4,6 <sup>11)</sup> | -               |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>               |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | -                                                | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> | γ <sub>M0</sub>    | γ <sub>M2</sub> |

Table B.1-9: Characteristic load-carrying capacities for post bases type 10920 in [kN], referenced to C24

| Post Base<br>referenced to C24                        |      |          | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                 |                 | F <sub>1,Rk</sub><br>(tension) <sup>9),11)</sup> |           |                 |                 | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                      | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                      |
|-------------------------------------------------------|------|----------|-----------------------------------------------------|-----------------|-----------------|--------------------------------------------------|-----------|-----------------|-----------------|-------------------------------------------|----------------------|-------------------------------------------|----------------------|
| Type                                                  | Code | Height a | Timber <sup>1)</sup>                                | Steel           |                 | Timber   Screws                                  |           | Steel           |                 | Timber   Screws<br>Steel                  |                      | Timber   Screws<br>Steel                  |                      |
|                                                       |      | [mm]     | [kN]                                                | Head plate      | Stability       | 10/120 mm                                        | 10/160 mm |                 |                 | Simply <sup>10)</sup>                     | Rigid <sup>10)</sup> | Simply <sup>10)</sup>                     | Rigid <sup>10)</sup> |
| 10920.                                                | 1090 | 140      | 120,0                                               | -               | 96,5            | 30,0                                             | 50,0      | 20,76           | -               | 4,3                                       | 14,6                 | 4,3                                       | 14,6                 |
|                                                       | 1190 | 200      | 120,0                                               | -               | 87,9            | 30,0                                             | 50,0      | 20,76           | -               | 2,9                                       | 10,7                 | 2,9                                       | 10,7                 |
|                                                       | 1290 | 250      | 120,0                                               | -               | 80,8            | 30,0                                             | 50,0      | 20,76           | -               | 2,2                                       | 6,8                  | 2,2                                       | 6,8                  |
|                                                       | 1390 | 330      | 120,0                                               | -               | 70,0            | 30,0                                             | 50,0      | 20,76           | -               | 1,4                                       | 4,3                  | 1,4                                       | 4,3                  |
|                                                       | 1490 | 390      | 120,0                                               | -               | 60,8            | 30,0                                             | 50,0      | 20,76           | -               | 0,9                                       | 1,8                  | 0,9                                       | 1,8                  |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub> |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M0</sub> | γ <sub>M1</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>        |                      | k <sub>mod</sub> /γ <sub>M,C</sub>        |                      |
| 10920.                                                | 1093 | 150      | 169,0                                               | -               | 158,5           | 30,0                                             | 50,0      | 58,1            | -               | 4,4                                       | 14,6                 | 4,4                                       | 14,6                 |
|                                                       | 1193 | 200      | 169,0                                               | -               | 152,8           | 30,0                                             | 50,0      | 58,1            | -               | 3,2                                       | 10,9                 | 3,2                                       | 10,9                 |
|                                                       | 1293 | 270      | 169,0                                               | -               | 145,8           | 30,0                                             | 50,0      | 58,1            | -               | 2,3                                       | 7,2                  | 2,3                                       | 7,2                  |
|                                                       | 1393 | 330      | 169,0                                               | -               | 137,8           | 30,0                                             | 50,0      | 58,1            | -               | 1,6                                       | 4,6                  | 1,6                                       | 4,6                  |
|                                                       | 1493 | 395      | 169,0                                               | -               | 129,0           | 30,0                                             | 50,0      | 58,1            | -               | 1,1                                       | 2,0                  | 1,1                                       | 2,0                  |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub> |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M0</sub> | γ <sub>M1</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>        |                      | k <sub>mod</sub> /γ <sub>M,C</sub>        |                      |

Table B.1-9: Characteristic load-carrying capacities for post bases type 10920 in [kN], referenced to C24

| Post Base<br>referenced to C24                        |      |          | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                 |                 | F <sub>1,Rk</sub><br>(tension) <sup>9),11)</sup> |           |                 |                 | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                      | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                      |
|-------------------------------------------------------|------|----------|-----------------------------------------------------|-----------------|-----------------|--------------------------------------------------|-----------|-----------------|-----------------|-------------------------------------------|----------------------|-------------------------------------------|----------------------|
| Type                                                  | Code | Height a | Timber <sup>1)</sup>                                | Steel           |                 | Timber   Screws                                  |           | Steel           |                 | Timber   Screws<br>Steel                  |                      | Timber   Screws<br>Steel                  |                      |
|                                                       |      | [mm]     | [kN]                                                | Head plate      | Stability       | 10/120 mm                                        | 10/160 mm |                 |                 | Simply <sup>10)</sup>                     | Rigid <sup>10)</sup> | Simply <sup>10)</sup>                     | Rigid <sup>10)</sup> |
| 10920.                                                | 1003 | 150      | 210,0                                               | -               | 158,0           | 30,0                                             | 50,0      | 179,0           | -               | -                                         | 15,5                 | -                                         | 15,5                 |
|                                                       | 1103 | 175      | 210,0                                               | -               | 154,6           | 30,0                                             | 50,0      | 179,0           | -               | -                                         | 15,0                 | -                                         | 15,0                 |
|                                                       | 1203 | 235      | 210,0                                               | -               | 150,0           | 30,0                                             | 50,0      | 179,0           | -               | -                                         | 9,3                  | -                                         | 9,3                  |
|                                                       | 1303 | 285      | 210,0                                               | -               | 144,8           | 30,0                                             | 50,0      | 179,0           | -               | -                                         | 9,0                  | -                                         | 9,0                  |
|                                                       | 1403 | 335      | 210,0                                               | -               | 137,4           | 30,0                                             | 50,0      | 179,0           | -               | -                                         | 8,2                  | -                                         | 8,2                  |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub> |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M0</sub> | γ <sub>M1</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>        |                      | k <sub>mod</sub> /γ <sub>M,C</sub>        |                      |
| 10920.                                                | 1003 | 210      | 210,0                                               | -               | 152,1           | 30,0                                             | 50,0      | 179,0           | -               | -                                         | 15,0                 | -                                         | 15,0                 |
|                                                       | 1103 | 235      | 210,0                                               | -               | 150,0           | 30,0                                             | 50,0      | 179,0           | -               | -                                         | 9,3                  | -                                         | 9,3                  |
|                                                       | 1203 | 295      | 210,0                                               | -               | 144,0           | 30,0                                             | 50,0      | 179,0           | -               | -                                         | 8,9                  | -                                         | 8,9                  |
|                                                       | 1303 | 345      | 210,0                                               | -               | 136,7           | 30,0                                             | 50,0      | 179,0           | -               | -                                         | 8,2                  | -                                         | 8,2                  |
|                                                       | 1403 | 395      | 210,0                                               | -               | 129,0           | 30,0                                             | 50,0      | 179,0           | -               | -                                         | 7,4                  | -                                         | 7,4                  |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub> |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M0</sub> | γ <sub>M1</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>        |                      | k <sub>mod</sub> /γ <sub>M,C</sub>        |                      |

Table B.1-10: Characteristic load-carrying capacities for post bases type 10921 in [kN], referenced to C24

| Post Base<br>referenced to C24                                      |      |          | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                 |                 | F <sub>1,Rk</sub><br>(tension) <sup>9),11)</sup> |           |                    | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                                    |     | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                 |                                    |   |                 |                 |
|---------------------------------------------------------------------|------|----------|-----------------------------------------------------|-----------------|-----------------|--------------------------------------------------|-----------|--------------------|-------------------------------------------|------------------------------------|-----|-------------------------------------------|-----------------|------------------------------------|---|-----------------|-----------------|
| Type                                                                | Code | Height a | Timber <sup>1)</sup>                                | Steel           |                 | Timber   Screws                                  | Steel     |                    | Timber   Screws                           | Steel                              |     | Timber   Screws                           | Steel           |                                    |   |                 |                 |
|                                                                     |      | [mm]     | [kN]                                                | [kN]            |                 | 10/120 mm                                        | 10/160 mm |                    | Simply <sup>10)</sup>                     |                                    |     | Simply <sup>10)</sup>                     |                 |                                    |   |                 |                 |
| At maximum distance between base plate and foundation <sup>3)</sup> |      |          |                                                     |                 |                 |                                                  |           |                    |                                           |                                    |     |                                           |                 |                                    |   |                 |                 |
| 10921.                                                              | 1000 | 207      | 120,0                                               | 87,4            | 68,6            | 30,0                                             | 50,0      | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 2,1 | 2,2                                       | 10,0            | 1,2 <sup>11)</sup>                 | - |                 |                 |
|                                                                     | 1100 | 232      | 120,0                                               | 83,8            | 68,6            | 30,0                                             | 50,0      | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 1,8 | 2,0                                       | 10,0            | 1,1 <sup>11)</sup>                 | - |                 |                 |
|                                                                     | 1200 | 292      | 120,0                                               | 74,6            | 68,6            | 30,0                                             | 50,0      | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 1,5 | 1,6                                       | 10,0            | 0,9 <sup>11)</sup>                 | - |                 |                 |
|                                                                     | 1300 | 342      | 120,0                                               | 69,8            | 68,6            | 30,0                                             | 50,0      | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 1,3 | 1,4                                       | 10,0            | 0,8 <sup>11)</sup>                 | - |                 |                 |
|                                                                     | 1400 | 392      | 120,0                                               | 58,5            | 68,6            | 30,0                                             | 50,0      | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 1,1 | 1,2                                       | 10,0            | 0,6 <sup>11)</sup>                 | - |                 |                 |
|                                                                     | 1600 | 92       | 120,0                                               | 102,7           | 68,6            | 30,0                                             | 50,0      | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 4,7 | 5,0                                       | 10,0            | 2,8 <sup>11)</sup>                 | - |                 |                 |
| <sup>2)</sup> Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>   |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | —               | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |     | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |   | γ <sub>M0</sub> | γ <sub>M2</sub> |
| At minimum distance between base plate and foundation <sup>3)</sup> |      |          |                                                     |                 |                 |                                                  |           |                    |                                           |                                    |     |                                           |                 |                                    |   |                 |                 |
| 10921.                                                              | 1000 | 142      | 120,0                                               | 96,2            | 68,6            | 30,0                                             | 50,0      | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 3,0 | 3,2                                       | 10,0            | 1,8 <sup>11)</sup>                 | - |                 |                 |
|                                                                     | 1100 | 167      | 120,0                                               | 92,9            | 68,6            | 30,0                                             | 50,0      | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 2,6 | 2,7                                       | 10,0            | 1,5 <sup>11)</sup>                 | - |                 |                 |
|                                                                     | 1200 | 227      | 120,0                                               | 84,5            | 68,6            | 30,0                                             | 50,0      | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 1,9 | 2,0                                       | 10,0            | 1,1 <sup>11)</sup>                 | - |                 |                 |
|                                                                     | 1300 | 277      | 120,0                                               | 80,0            | 68,6            | 30,0                                             | 50,0      | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 1,7 | 1,8                                       | 10,0            | 0,9 <sup>11)</sup>                 | - |                 |                 |
|                                                                     | 1400 | 327      | 120,0                                               | 69,0            | 68,6            | 30,0                                             | 50,0      | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 1,4 | 1,4                                       | 10,0            | 0,8 <sup>11)</sup>                 | - |                 |                 |
|                                                                     | 1600 | 82       | 120,0                                               | 103,8           | 68,6            | 30,0                                             | 50,0      | 7,4 <sup>11)</sup> | -                                         | 10,0                               | 5,3 | 5,6                                       | 10,0            | 3,2 <sup>11)</sup>                 | - |                 |                 |
| <sup>2)</sup> Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>   |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>    | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |     | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |   | γ <sub>M0</sub> | γ <sub>M2</sub> |

Continuation of table B.1-10: Characteristic load-carrying capacities for post bases type 10921 in [kN]

| Post Base<br>referenced to C24                                      |      |          | F <sub>1,Rk</sub><br>(compression) <sup>(1),3)</sup> |                 |                 | F <sub>1,Rk</sub><br>(tension) <sup>(9),11)</sup> |           |                      |                 | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                 |                 | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                     |                 |
|---------------------------------------------------------------------|------|----------|------------------------------------------------------|-----------------|-----------------|---------------------------------------------------|-----------|----------------------|-----------------|-------------------------------------------|-----------------|-----------------|-------------------------------------------|---------------------|-----------------|
| Type                                                                | Code | Height a | Timber <sup>(1)</sup>                                | Steel           |                 | Timber   Screws                                   | Steel     |                      |                 | Timber   Screws                           | Steel           |                 | Timber   Screws                           | Steel               |                 |
|                                                                     |      | [mm]     | [kN]                                                 | [kN]            |                 | 10/120 mm                                         | 10/160 mm |                      |                 | Simply <sup>(10)</sup>                    |                 |                 | Simply <sup>(10)</sup>                    |                     |                 |
| At maximum distance between base plate and foundation <sup>3)</sup> |      |          |                                                      |                 |                 |                                                   |           |                      |                 |                                           |                 |                 |                                           |                     |                 |
| 10921.                                                              | 1003 | 210      | 169,0                                                | 152,0           | -               | 30,0                                              | 50,0      | 20,6 <sup>(11)</sup> | -               | 10,0                                      | 4,3             | 3,8             | 10,0                                      | 3,3 <sup>(11)</sup> | 3,8             |
|                                                                     | 1006 | 220      | 185,7                                                | 151,3           | -               | 30,0                                              | 50,0      | -                    | -               | 10,0                                      | 4,9             | 3,9             | 10,0                                      | 4,9                 | 3,9             |
|                                                                     | 1106 | 245      | 185,7                                                | 147,6           | -               | 30,0                                              | 50,0      | -                    | -               | 10,0                                      | 4,2             | 3,5             | 10,0                                      | 4,2                 | 3,5             |
|                                                                     | 1206 | 305      | 185,7                                                | 143,2           | -               | 30,0                                              | 50,0      | -                    | -               | 10,0                                      | 3,3             | 2,8             | 10,0                                      | 3,3                 | 2,8             |
|                                                                     | 1306 | 342      | 185,7                                                | 137,0           | -               | 30,0                                              | 50,0      | -                    | -               | 10,0                                      | 3,0             | 2,6             | 10,0                                      | 3,0                 | 2,6             |
|                                                                     | 1406 | 405      | 185,7                                                | 128,3           | -               | 30,0                                              | 50,0      | -                    | -               | 10,0                                      | 2,5             | 2,1             | 10,0                                      | 2,5                 | 2,1             |
|                                                                     | 1104 | 255      | 120,0                                                | 80,8            | -               | 30,0                                              | 50,0      | 7,4 <sup>(11)</sup>  | -               | 10,0                                      | 1,7             | 1,8             | 10,0                                      | 1,0 <sup>(11)</sup> | -               |
| 2) Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>              |      |          | k <sub>mod</sub> /γ <sub>M</sub>                     | γ <sub>M1</sub> | —               | k <sub>mod</sub> /γ <sub>M,C</sub>                |           | γ <sub>M0</sub>      | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>        | γ <sub>M0</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>        | γ <sub>M0</sub>     | γ <sub>M2</sub> |
| At minimum distance between base plate and foundation <sup>3)</sup> |      |          |                                                      |                 |                 |                                                   |           |                      |                 |                                           |                 |                 |                                           |                     |                 |
| 10921.                                                              | 1003 | 150      | 169,0                                                | 158,5           | -               | 30,0                                              | 50,0      | 20,6 <sup>(11)</sup> | -               | 10,0                                      | 6,0             | 5,4             | 10,0                                      | 4,7 <sup>(11)</sup> | 5,4             |
|                                                                     | 1006 | 160      | 185,7                                                | 155,8           | -               | 30,0                                              | 50,0      | -                    | -               | 10,0                                      | 7,0             | 5,4             | 10,0                                      | 7,0                 | 5,4             |
|                                                                     | 1106 | 185      | 185,7                                                | 153,9           | -               | 30,0                                              | 50,0      | -                    | -               | 10,0                                      | 5,5             | 4,7             | 10,0                                      | 5,5                 | 4,7             |
|                                                                     | 1206 | 245      | 185,7                                                | 147,6           | -               | 30,0                                              | 50,0      | -                    | -               | 10,0                                      | 4,2             | 3,5             | 10,0                                      | 4,2                 | 3,5             |
|                                                                     | 1306 | 277      | 185,7                                                | 145,3           | -               | 30,0                                              | 50,0      | -                    | -               | 10,0                                      | 3,7             | 3,1             | 10,0                                      | 3,7                 | 3,1             |
|                                                                     | 1406 | 345      | 185,7                                                | 136,7           | -               | 30,0                                              | 50,0      | -                    | -               | 10,0                                      | 3,0             | 2,5             | 10,0                                      | 3,0                 | 2,5             |
|                                                                     | 1104 | 190      | 120,0                                                | 90,2            | -               | 30,0                                              | 50,0      | 7,4 <sup>(11)</sup>  | -               | 10,0                                      | 2,3             | 2,4             | 10,0                                      | 1,4 <sup>(11)</sup> | -               |
| 2) Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>              |      |          | k <sub>mod</sub> /γ <sub>M</sub>                     | γ <sub>M1</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>                |           | γ <sub>M0</sub>      | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>        | γ <sub>M0</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>        | γ <sub>M0</sub>     | γ <sub>M2</sub> |

Table B.1-10: Characteristic load-carrying capacities for post bases type 10921 in [kN]

| Post Base<br>referenced to C24                                      |      |          | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                 | F <sub>1,Rk</sub><br>(tension) <sup>9),11)</sup> |                                    |       | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                 |                                    | F <sub>4,R</sub> k or<br>F <sub>5,Rk</sub> |                 |                 |                                    |   |                 |                 |
|---------------------------------------------------------------------|------|----------|-----------------------------------------------------|-----------------|--------------------------------------------------|------------------------------------|-------|-------------------------------------------|-----------------|------------------------------------|--------------------------------------------|-----------------|-----------------|------------------------------------|---|-----------------|-----------------|
| Type                                                                | Code | Height a | Timber <sup>1)</sup>                                | Steel           | Timber   Screws                                  |                                    | Steel | Timber   Screws                           |                 | Steel                              | Timber   Screws                            |                 | Steel           |                                    |   |                 |                 |
|                                                                     |      | [mm]     | [kN]                                                | [kN]            | 10/120 mm                                        | 10/160 mm                          |       | Rigid <sup>10)</sup>                      |                 |                                    | Rigid <sup>10)</sup>                       |                 |                 |                                    |   |                 |                 |
| At minimum distance between base plate and foundation <sup>3)</sup> |      |          |                                                     |                 |                                                  |                                    |       |                                           |                 |                                    |                                            |                 |                 |                                    |   |                 |                 |
| 10921.                                                              | 1103 | 143      | 143,0                                               | -               | 154,6                                            | 30,0                               | 50,0  | -)                                        | 36,0            | 12,0                               | 6,0                                        | -               | 12,0            | 6,0                                | - |                 |                 |
|                                                                     | 1203 | 235      | 143,0                                               | -               | 150,0                                            | 30,0                               | 50,0  | -                                         | 36,0            | 8,4                                | 4,4                                        | -               | 8,4             | 4,4                                | - |                 |                 |
|                                                                     | 1303 | 285      | 143,0                                               | -               | 144,8                                            | 30,0                               | 50,0  | -                                         | 36,0            | 6,4                                | 3,6                                        | -               | 6,4             | 3,6                                | - |                 |                 |
|                                                                     | 1403 | 335      | 143,0                                               | -               | 137,4                                            | 30,0                               | 50,0  | -                                         | 36,0            | 5,5                                | 3,1                                        | -               | 5,5             | 3,1                                | - |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>               |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M0</sub> | γ <sub>M1</sub>                                  | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |                                            | γ <sub>M1</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |   | γ <sub>M1</sub> | γ <sub>M2</sub> |
| At maximum distance between base plate and foundation <sup>3)</sup> |      |          |                                                     |                 |                                                  |                                    |       |                                           |                 |                                    |                                            |                 |                 |                                    |   |                 |                 |
| 10921.                                                              | 1103 | 235      | 143,0                                               | -               | 150,0                                            | 30,0                               | 50,0  | -                                         | 36,0            | 8,4                                | 4,4                                        | -               | 8,4             | 4,4                                | - |                 |                 |
|                                                                     | 1203 | 295      | 143,0                                               | -               | 144,0                                            | 30,0                               | 50,0  | -                                         | 36,0            | 6,4                                | 3,6                                        | -               | 6,4             | 3,6                                | - |                 |                 |
|                                                                     | 1303 | 345      | 143,0                                               | -               | 136,7                                            | 30,0                               | 50,0  | -                                         | 36,0            | 5,5                                | 3,1                                        | -               | 5,5             | 3,1                                | - |                 |                 |
|                                                                     | 1403 | 395      | 143,0                                               | -               | 129,0                                            | 30,0                               | 50,0  | -                                         | 36,0            | 4,5                                | 2,7                                        | -               | 4,5             | 2,7                                | - |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>               |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M0</sub> | γ <sub>M1</sub>                                  | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |                                            | γ <sub>M1</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |   | γ <sub>M1</sub> | γ <sub>M2</sub> |

Table B.1-10: Characteristic load-carrying capacities for post bases type 10922 in [kN]

| Post Base referenced to C24                                         |      |             | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                 | F <sub>1,Rk</sub><br>(tension) <sup>9),11)</sup> |                                    |       | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                 |                                    | F <sub>4,R</sub> k or<br>F <sub>5,Rk</sub> |                 |                 |                                    |   |                 |                 |
|---------------------------------------------------------------------|------|-------------|-----------------------------------------------------|-----------------|--------------------------------------------------|------------------------------------|-------|-------------------------------------------|-----------------|------------------------------------|--------------------------------------------|-----------------|-----------------|------------------------------------|---|-----------------|-----------------|
| Type                                                                | Code | Height<br>a | Timber <sup>1)</sup>                                | Steel           | Timber   Screws                                  |                                    | Steel | Timber   Screws                           |                 | Steel                              | Timber   Screws                            |                 | Steel           |                                    |   |                 |                 |
|                                                                     |      | [mm]        | [kN]                                                | [kN]            | 10/120<br>mm                                     | 10/160<br>mm                       |       | Rigid <sup>10)</sup>                      |                 |                                    | Rigid <sup>10)</sup>                       |                 |                 |                                    |   |                 |                 |
| At minimum distance between base plate and foundation <sup>3)</sup> |      |             |                                                     |                 |                                                  |                                    |       |                                           |                 |                                    |                                            |                 |                 |                                    |   |                 |                 |
| 10922.                                                              | 1000 | 142         | 135,0                                               | -               | 96,2                                             | 30,0                               | 50,0  |                                           |                 | 15,0                               | 3,5                                        | -               | 15,0            | 3,5                                | - |                 |                 |
|                                                                     | 1200 | 227         | 135,0                                               |                 | 84,5                                             | 30,0                               | 50,0  |                                           |                 | 8,5                                | 2,2                                        | -               | 8,5             | 2,2                                | - |                 |                 |
|                                                                     | 1400 | 327         | 135,0                                               |                 | 69,0                                             | 30,0                               | 50,0  |                                           |                 | 5,3                                | 1,5                                        | -               | 5,3             | 1,5                                | - |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>               |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M0</sub> | γ <sub>M1</sub>                                  | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |                                            | γ <sub>M1</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |   | γ <sub>M1</sub> | γ <sub>M2</sub> |
| At maximum distance between base plate and foundation <sup>3)</sup> |      |             |                                                     |                 |                                                  |                                    |       |                                           |                 |                                    |                                            |                 |                 |                                    |   |                 |                 |
| 10922.                                                              | 1000 | 207         | 135,0                                               | -               | 87,4                                             | 30,0                               | 50,0  |                                           |                 | 9,5                                | 2,4                                        | -               | 9,5             | 2,4                                | - |                 |                 |
|                                                                     | 1200 | 292         | 135,0                                               | -               | 74,6                                             | 30,0                               | 50,0  |                                           |                 | 6,1                                | 1,7                                        | -               | 6,1             | 1,7                                | - |                 |                 |
|                                                                     | 1400 | 392         | 135,0                                               | -               | 58,5                                             | 30,0                               | 50,0  |                                           |                 | 4,2                                | 1,3                                        | -               | 4,2             | 1,3                                | - |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>               |      |             | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M0</sub> | γ <sub>M1</sub>                                  | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |                                            | γ <sub>M1</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub> |   | γ <sub>M1</sub> | γ <sub>M2</sub> |

Tabelle B.1-10: Characteristic load-carrying capacities for post bases type 10923 in [kN]

| Post Base<br>referenced to C24                                       |      |             | $F_{1,Rk}$<br>(compression) <sup>(1),3)</sup> |               | $F_{1,Rk}$<br>(tension) <sup>(9),11)</sup> |                        |              |               | $F_{2,Rk}$ or<br>$F_{3,Rk}$ |                        |       |               | $F_{4,Rk}$ or<br>$F_{5,Rk}$ |                        |       |               |               |
|----------------------------------------------------------------------|------|-------------|-----------------------------------------------|---------------|--------------------------------------------|------------------------|--------------|---------------|-----------------------------|------------------------|-------|---------------|-----------------------------|------------------------|-------|---------------|---------------|
| Type                                                                 | Code | Height<br>a | Timber <sup>(1)</sup>                         | Steel         | Timber   Screws                            |                        | Steel        |               | Timber   Screws             |                        | Steel |               | Timber   Screws             |                        | Steel |               |               |
|                                                                      |      | [mm]        | [kN]                                          | [kN]          | 10/120<br>mm                               |                        | 10/160<br>mm |               | Rigid <sup>(10)</sup>       |                        |       |               | Rigid <sup>(10)</sup>       |                        |       |               |               |
| At minimum distance between base plate and foundation <sup>(3)</sup> |      |             |                                               |               |                                            |                        |              |               |                             |                        |       |               |                             |                        |       |               |               |
| 10923.                                                               | 1000 | 141         | 106,0                                         | -             | 96,2                                       | 22,0                   | 28,0         |               |                             |                        | 11,0  | 3,5           | 10,5                        | 3,5                    |       |               |               |
| <sup>2)</sup> Safety factors: $k_{mod}$ , $\gamma_{M,i}$             |      |             | $k_{mod}/\gamma_M$                            | $\gamma_{M0}$ | $\gamma_{M1}$                              | $k_{mod}/\gamma_{M,C}$ |              | $\gamma_{M0}$ | $\gamma_{M2}$               | $k_{mod}/\gamma_{M,C}$ |       | $\gamma_{M1}$ | $\gamma_{M2}$               | $k_{mod}/\gamma_{M,C}$ |       | $\gamma_{M1}$ | $\gamma_{M2}$ |
| At maximum distance between base plate and foundation <sup>(3)</sup> |      |             |                                               |               |                                            |                        |              |               |                             |                        |       |               |                             |                        |       |               |               |
| 10923.                                                               | 1000 | 206         | 106,0                                         | -             | 87,6                                       | 22,0                   | 28,0         |               |                             |                        | 7,8   | 2,4           | 7,0                         | 2,4                    |       |               |               |
| <sup>2)</sup> Safety factors: $k_{mod}$ , $\gamma_{M,i}$             |      |             | $k_{mod}/\gamma_M$                            | $\gamma_{M0}$ | $\gamma_{M1}$                              | $k_{mod}/\gamma_{M,C}$ |              | $\gamma_{M0}$ | $\gamma_{M2}$               | $k_{mod}/\gamma_{M,C}$ |       | $\gamma_{M1}$ | $\gamma_{M2}$               | $k_{mod}/\gamma_{M,C}$ |       | $\gamma_{M1}$ | $\gamma_{M2}$ |

Continuation of table B.1-11: Characteristic load-carrying capacities for post bases type 10930 in [kN]

| Post Base<br>referenced to C24                                      |      |          | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |       |                 | F <sub>1,Rk</sub><br>(tension) <sup>9),11)</sup> |                                    |                     |                 | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                                    |       | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                    |       |
|---------------------------------------------------------------------|------|----------|-----------------------------------------------------|-------|-----------------|--------------------------------------------------|------------------------------------|---------------------|-----------------|-------------------------------------------|------------------------------------|-------|-------------------------------------------|--------------------|-------|
| Type                                                                | Code | Height a | Timber <sup>1)</sup>                                | Steel |                 | Timber   Screws                                  |                                    | Steel               |                 | Timber   Screws                           |                                    | Steel | Timber   Screws                           |                    | Steel |
|                                                                     |      | [mm]     | [kN]                                                | [kN]  |                 | 10/120 mm                                        | 10/160 mm                          |                     |                 | Simply <sup>10)</sup>                     |                                    |       | Simply <sup>10)</sup>                     |                    |       |
| At maximum distance between base plate and foundation <sup>3)</sup> |      |          |                                                     |       |                 |                                                  |                                    |                     |                 |                                           |                                    |       |                                           |                    |       |
| 10930.                                                              | 1000 | 285      | 120,0                                               | 75,2  | -               | 30,0                                             | 50,0                               | 13,2 <sup>11)</sup> | -               | 7,3                                       | 1,6                                | 1,6   | 7,3                                       | 1,6 <sup>11)</sup> | 1,6   |
|                                                                     | 1082 | 250      | 75,0                                                | 72,0  | -               | 30,0                                             | 50,0                               | 13,2 <sup>11)</sup> | -               | 8,5                                       | 1,2                                | 1,2   | 8,5                                       | 1,2                | 1,2   |
|                                                                     | 1100 | 310      | 120,0                                               | 71,2  | -               | 30,0                                             | 50,0                               | 13,2 <sup>11)</sup> | -               | 7,3                                       | 1,4                                | 1,5   | 7,3                                       | 1,4 <sup>11)</sup> | 1,5   |
|                                                                     | 1200 | 370      | 120,0                                               | 61,7  | -               | 30,0                                             | 50,0                               | 13,2 <sup>11)</sup> | -               | 7,3                                       | 1,2                                | 1,2   | 7,3                                       | 1,2 <sup>11)</sup> | 1,2   |
|                                                                     | 1300 | 400      | 120,0                                               | 57,2  | -               | 30,0                                             | 50,0                               | 13,2 <sup>11)</sup> | -               | 7,3                                       | 1,1                                | 1,1   | 7,3                                       | 1,1 <sup>11)</sup> | 1,1   |
|                                                                     | 1600 | 200      | 120,0                                               | 87,9  | -               | 30,0                                             | 50,0                               | 13,2 <sup>11)</sup> | -               | 7,3                                       | 2,2                                | 2,3   | 7,3                                       | 2,2 <sup>11)</sup> | 2,3   |
|                                                                     | 1003 | 285      | 135,0                                               | 144,8 | -               | 30,0                                             | 50,0                               | 20,6 <sup>11)</sup> | -               | 7,3                                       | 3,2                                | 2,8   | 7,3                                       | 2,5 <sup>11)</sup> | 2,8   |
|                                                                     | 1006 | 300      | 168,6                                               | 143,6 | -               | 30,0                                             | 50,0                               | -                   | -               | 7,3                                       | 3,7                                | 3,1   | 7,3                                       | 3,7                | 3,1   |
|                                                                     | 1106 | 325      | 168,6                                               | 140,8 | -               | 30,0                                             | 50,0                               | -                   | -               | 7,3                                       | 2,8                                | 2,5   | 7,3                                       | 2,8                | 2,5   |
|                                                                     | 1206 | 385      | 168,6                                               | 129,2 | -               | 30,0                                             | 50,0                               | -                   | -               | 7,3                                       | 2,4                                | 2,1   | 7,3                                       | 2,4                | 2,1   |
|                                                                     | 1306 | 415      | 168,6                                               | 123,3 | -               | 30,0                                             | 50,0                               | -                   | -               | 7,3                                       | 2,2                                | 1,9   | 7,3                                       | 2,2                | 1,9   |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>               |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    |       | γ <sub>M1</sub> |                                                  | k <sub>mod</sub> /γ <sub>M,C</sub> |                     | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub>    |       |
| At minimum distance between base plate and foundation <sup>3)</sup> |      |          |                                                     |       |                 |                                                  |                                    |                     |                 |                                           |                                    |       |                                           |                    |       |
| 10930.                                                              | 1000 | 170      | 120,0                                               | 92,0  | -               | 30,0                                             | 50,0                               | 13,2 <sup>11)</sup> | -               | 7,3                                       | 2,6                                | 2,6   | 7,3                                       | 2,6 <sup>11)</sup> | 2,6   |
|                                                                     | 1082 | 150      | 75,0                                                | 78,0  | -               | 30,0                                             | 50,0                               | 13,2 <sup>11)</sup> | -               | 4,3                                       | 2,1                                | -     | 4,3                                       | 2,1                | -     |
|                                                                     | 1100 | 195      | 120,0                                               | 88,6  | -               | 30,0                                             | 50,0                               | 13,2 <sup>11)</sup> | -               | 7,3                                       | 2,3                                | 2,3   | 7,3                                       | 2,3 <sup>11)</sup> | 2,3   |
|                                                                     | 1200 | 255      | 120,0                                               | 79,8  | -               | 30,0                                             | 50,0                               | 13,2 <sup>11)</sup> | -               | 7,3                                       | 1,8                                | 1,8   | 7,3                                       | 1,8 <sup>11)</sup> | 1,8   |
|                                                                     | 1300 | 285      | 120,0                                               | 75,2  | -               | 30,0                                             | 50,0                               | 13,2 <sup>11)</sup> | -               | 7,3                                       | 1,6                                | 1,6   | 7,3                                       | 1,6 <sup>11)</sup> | 1,6   |
|                                                                     | 1600 | 110      | 120,0                                               | 100,0 | -               | 30,0                                             | 50,0                               | 13,2 <sup>11)</sup> | -               | 7,3                                       | 4,1                                | 4,0   | 7,3                                       | 4,1 <sup>11)</sup> | 4,0   |
|                                                                     | 1003 | 195      | 135,0                                               | 153,2 | -               | 30,0                                             | 50,0                               | 20,6 <sup>11)</sup> | -               | 7,3                                       | 4,6                                | 4,1   | 7,3                                       | 3,6 <sup>11)</sup> | 4,1   |
|                                                                     | 1006 | 205      | 168,6                                               | 152,5 | -               | 30,0                                             | 50,0                               | -                   | -               | 7,3                                       | 5,5                                | 5,6   | 7,3                                       | 5,5                | 5,6   |
|                                                                     | 1106 | 230      | 168,6                                               | 150,6 | -               | 30,0                                             | 50,0                               | -                   | -               | 7,3                                       | 3,9                                | 3,5   | 7,3                                       | 3,9                | 3,5   |
|                                                                     | 1206 | 290      | 168,6                                               | 144,4 | -               | 30,0                                             | 50,0                               | -                   | -               | 7,3                                       | 3,1                                | 2,8   | 7,3                                       | 3,1                | 2,8   |
|                                                                     | 1306 | 320      | 168,6                                               | 140,5 | -               | 30,0                                             | 50,0                               | -                   | -               | 7,3                                       | 2,8                                | 2,5   | 7,3                                       | 2,8                | 2,5   |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>               |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    |       | γ <sub>M1</sub> |                                                  | k <sub>mod</sub> /γ <sub>M,C</sub> |                     | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub>    |       |



Continuation of table B.1-12: Characteristic load-carrying capacities for post bases type 10931 in [kN]

| Post Base<br>referenced to C24                                      |      |          | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                 |   | F <sub>1,Rk</sub><br>(tension) <sup>9),11)</sup> |           |                     |                 | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |       |                 | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                                    |     |                 |                 |
|---------------------------------------------------------------------|------|----------|-----------------------------------------------------|-----------------|---|--------------------------------------------------|-----------|---------------------|-----------------|-------------------------------------------|-------|-----------------|-------------------------------------------|------------------------------------|-----|-----------------|-----------------|
| Type                                                                | Code | Height a | Timber <sup>1)</sup>                                | Steel           |   | Timber   Screws                                  |           | Steel               |                 | Timber   Screws                           | Steel |                 | Timber   Screws                           | Steel                              |     |                 |                 |
|                                                                     |      | [mm]     | [kN]                                                | [kN]            |   | 10/120 mm                                        | 10/160 mm |                     |                 | Simply <sup>10)</sup>                     |       |                 | Simply <sup>10)</sup>                     |                                    |     |                 |                 |
| At maximum distance between base plate and foundation <sup>3)</sup> |      |          |                                                     |                 |   |                                                  |           |                     |                 |                                           |       |                 |                                           |                                    |     |                 |                 |
| 10931.                                                              | 1000 | 285      | 120,0                                               | 75,2            | - | 30,0                                             | 50,0      | 13,2 <sup>11)</sup> | -               | 10,0                                      | 1,6   | 1,6             | 10,0                                      | 1,6 <sup>11)</sup>                 | 1,6 |                 |                 |
|                                                                     | 1100 | 310      | 120,0                                               | 71,2            | - | 30,0                                             | 50,0      | 13,2 <sup>11)</sup> | -               | 10,0                                      | 1,4   | 1,5             | 10,0                                      | 1,4 <sup>11)</sup>                 | 1,5 |                 |                 |
|                                                                     | 1200 | 370      | 120,0                                               | 61,7            | - | 30,0                                             | 50,0      | 13,2 <sup>11)</sup> | -               | 10,0                                      | 1,2   | 1,2             | 10,0                                      | 1,2 <sup>11)</sup>                 | 1,2 |                 |                 |
|                                                                     | 1300 | 400      | 120,0                                               | 57,2            | - | 30,0                                             | 50,0      | 13,2 <sup>11)</sup> | -               | 10,0                                      | 1,1   | 1,1             | 10,0                                      | 1,1 <sup>11)</sup>                 | 1,1 |                 |                 |
|                                                                     | 1600 | 200      | 120,0                                               | 87,9            | - | 30,0                                             | 50,0      | 13,2 <sup>11)</sup> | -               | 10,0                                      | 2,2   | 2,3             | 10,0                                      | 2,2 <sup>11)</sup>                 | 2,3 |                 |                 |
|                                                                     | 1003 | 285      | 133,0                                               | 144,8           | - | 30,0                                             | 50,0      | 20,6 <sup>11)</sup> | -               | 10,0                                      | 3,2   | 2,8             | 10,0                                      | 2,5 <sup>11)</sup>                 | 2,8 |                 |                 |
|                                                                     | 1006 | 300      | 168,6                                               | 143,6           | - | 30,0                                             | 50,0      | -                   | -               | 10,0                                      | 3,7   | 3,1             | 10,0                                      | 3,7                                | 3,1 |                 |                 |
|                                                                     | 1106 | 325      | 168,6                                               | 140,3           | - | 30,0                                             | 50,0      | -                   | -               | 10,0                                      | 2,8   | 2,5             | 10,0                                      | 2,8                                | 2,5 |                 |                 |
|                                                                     | 1206 | 385      | 168,6                                               | 129,2           | - | 30,0                                             | 50,0      | -                   | -               | 10,0                                      | 2,4   | 2,1             | 10,0                                      | 2,4                                | 2,1 |                 |                 |
|                                                                     | 1306 | 415      | 168,6                                               | 123,3           | - | 30,0                                             | 50,0      | -                   | -               | 10,0                                      | 2,2   | 1,9             | 10,0                                      | 2,2                                | 1,9 |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>               |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> |   | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>     | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>        |       | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |     | γ <sub>M0</sub> | γ <sub>M2</sub> |
| At minimum distance between base plate and foundation <sup>3)</sup> |      |          |                                                     |                 |   |                                                  |           |                     |                 |                                           |       |                 |                                           |                                    |     |                 |                 |
| 10931.                                                              | 1000 | 170      | 120,0                                               | 92,0            | - | 30,0                                             | 50,0      | 13,2 <sup>11)</sup> | -               | 10,0                                      | 2,6   | 2,6             | 10,0                                      | 2,6 <sup>11)</sup>                 | 2,6 |                 |                 |
|                                                                     | 1100 | 195      | 120,0                                               | 88,6            | - | 30,0                                             | 50,0      | 13,2 <sup>11)</sup> | -               | 10,0                                      | 2,3   | 2,3             | 10,0                                      | 2,3 <sup>11)</sup>                 | 2,3 |                 |                 |
|                                                                     | 1200 | 255      | 120,0                                               | 79,8            | - | 30,0                                             | 50,0      | 13,2 <sup>11)</sup> | -               | 10,0                                      | 1,8   | 1,8             | 10,0                                      | 1,8 <sup>11)</sup>                 | 1,8 |                 |                 |
|                                                                     | 1300 | 285      | 120,0                                               | 75,2            | - | 30,0                                             | 50,0      | 13,2 <sup>11)</sup> | -               | 10,0                                      | 1,6   | 1,6             | 10,0                                      | 1,6 <sup>11)</sup>                 | 1,6 |                 |                 |
|                                                                     | 1600 | 110      | 120,0                                               | 100,0           | - | 30,0                                             | 50,0      | 13,2 <sup>11)</sup> | -               | 10,0                                      | 4,1   | 4,0             | 10,0                                      | 4,1 <sup>11)</sup>                 | 4,0 |                 |                 |
|                                                                     | 1003 | 195      | 133,0                                               | 153,2           | - | 30,0                                             | 50,0      | 20,6 <sup>11)</sup> | -               | 10,0                                      | 4,6   | 4,1             | 10,0                                      | 3,6 <sup>11)</sup>                 | 4,1 |                 |                 |
|                                                                     | 1006 | 205      | 168,6                                               | 152,5           | - | 30,0                                             | 50,0      | -                   | -               | 10,0                                      | 5,5   | 5,6             | 10,0                                      | 5,5                                | 5,6 |                 |                 |
|                                                                     | 1106 | 230      | 168,6                                               | 150,6           | - | 30,0                                             | 50,0      | -                   | -               | 10,0                                      | 3,9   | 3,5             | 10,0                                      | 3,9                                | 3,5 |                 |                 |
|                                                                     | 1206 | 290      | 168,6                                               | 144,6           | - | 30,0                                             | 50,0      | -                   | -               | 10,0                                      | 3,1   | 2,8             | 10,0                                      | 3,1                                | 2,8 |                 |                 |
|                                                                     | 1306 | 320      | 168,6                                               | 140,5           | - | 30,0                                             | 50,0      | -                   | -               | 10,0                                      | 2,8   | 2,5             | 10,0                                      | 2,8                                | 2,5 |                 |                 |
| 2)Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>               |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> |   | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub>     | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>        |       | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |     | γ <sub>M0</sub> | γ <sub>M2</sub> |

Table B.1-13: Characteristic load-carrying capacities for post bases type 10934 in [kN]

| Post Base<br>referenced to C24                                      |      |          | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                 |   | F <sub>1,Rk</sub><br>(tension) <sup>9),11)</sup> |           |                 |                 | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |       |                 | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                                    |   |                 |                 |
|---------------------------------------------------------------------|------|----------|-----------------------------------------------------|-----------------|---|--------------------------------------------------|-----------|-----------------|-----------------|-------------------------------------------|-------|-----------------|-------------------------------------------|------------------------------------|---|-----------------|-----------------|
| Type                                                                | Code | Height a | Timber <sup>1)</sup>                                | Steel           |   | Timber   Screws                                  |           | Steel           |                 | Timber   Screws                           | Steel |                 | Timber   Screws                           | Steel                              |   |                 |                 |
|                                                                     |      | [mm]     | [kN]                                                | [kN]            |   | 10/120 mm                                        | 10/160 mm |                 |                 | Simply <sup>10)</sup>                     |       |                 | Simply <sup>10)</sup>                     |                                    |   |                 |                 |
| At maximum distance between base plate and foundation <sup>3)</sup> |      |          |                                                     |                 |   |                                                  |           |                 |                 |                                           |       |                 |                                           |                                    |   |                 |                 |
| 10934.                                                              | 2303 | 250      | 133,0                                               | 141,5           | - | 30,0                                             | 50,0      | -               | 88,1            | 10,0                                      | 4,7   | -               | 10,0                                      | 4,7                                | - |                 |                 |
|                                                                     | 2402 | 250      | 120,0                                               | 80,8            | - | 30,0                                             | 50,0      | 103,8           | 88,1            | 7,3                                       | 2,4   | -               | 7,3                                       | 2,4                                | - |                 |                 |
|                                                                     | 2403 | 250      | 120,0                                               | 80,8            | - | 30,0                                             | 50,0      | 103,8           | 88,1            | 10,0                                      | 2,4   | -               | 10,0                                      | 2,4                                | - |                 |                 |
|                                                                     | 3402 | 330      | 120,0                                               | 68,2            | - | 30,0                                             | 50,0      | 103,8           | 88,1            | 7,3                                       | 1,5   | -               | 7,3                                       | 1,5                                | - |                 |                 |
|                                                                     | 3303 | 330      | 133,0                                               | 137,8           | - | 30,0                                             | 50,0      | -               | 88,1            | 10,0                                      | 2,9   | -               | 10,0                                      | 2,9                                | - |                 |                 |
|                                                                     | 3403 | 330      | 120,0                                               | 68,2            | - | 30,0                                             | 50,0      | 103,8           | 88,1            | 10,0                                      | 1,5   | -               | 10,0                                      | 1,5                                | - |                 |                 |
|                                                                     | 2302 | 250      | 135,0                                               | 141,5           | - | 30,0                                             | 50,0      | -               | 88,1            | 7,3                                       | 4,7   | -               | 7,3                                       | 4,7                                | - |                 |                 |
|                                                                     | 3302 | 330      | 135,0                                               | 137,8           | - | 30,0                                             | 50,0      | -               | 88,1            | 7,3                                       | 2,9   | -               | 7,3                                       | 2,9                                | - |                 |                 |
| <sup>2)</sup> Safety factors: k <sub>mod</sub> , γ <sub>M,i</sub>   |      |          | k <sub>mod</sub> /γ <sub>M</sub>                    | γ <sub>M1</sub> |   | k <sub>mod</sub> /γ <sub>M,C</sub>               |           | γ <sub>M0</sub> | γ <sub>M2</sub> | k <sub>mod</sub> /γ <sub>M,C</sub>        |       | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |   | γ <sub>M0</sub> | γ <sub>M2</sub> |

Tabelle B.1-13: Charakteristische Tragfähigkeiten der Pfostenträgertypen 10934 in [kN]

| Post Base<br>referenced to C24                                      |      |          | $F_{1,Rk}$<br>(compression) <sup>1),3)</sup> |               | $F_{1,Rk}$<br>(tension) <sup>9),11)</sup> |                        |           |               |                       | $F_{2,Rk}$ or<br>$F_{3,Rk}$ |                       | $F_{4,Rk}$ or<br>$F_{5,Rk}$ |               |                        |  |               |               |
|---------------------------------------------------------------------|------|----------|----------------------------------------------|---------------|-------------------------------------------|------------------------|-----------|---------------|-----------------------|-----------------------------|-----------------------|-----------------------------|---------------|------------------------|--|---------------|---------------|
| Type                                                                | Code | Height a | Timber <sup>1)</sup>                         | Steel         |                                           | Timber   Screws        | Steel     |               | Timber   Screws       | Steel                       |                       | Timber   Screws             | Steel         |                        |  |               |               |
|                                                                     |      | [mm]     | [kN]                                         | [kN]          |                                           | 10/120 mm              | 10/160 mm |               | Simply <sup>10)</sup> |                             | Simply <sup>10)</sup> |                             |               |                        |  |               |               |
| At maximum distance between base plate and foundation <sup>3)</sup> |      |          |                                              |               |                                           |                        |           |               |                       |                             |                       |                             |               |                        |  |               |               |
| 10934.                                                              | 2401 | 125      | 138,0                                        | 98,2          | -                                         | 30,0                   | 50,0      | -             | -                     | -                           | -                     | -                           | -             | -                      |  |               |               |
|                                                                     | 3401 | 175      | 138,0                                        | 80,0          | -                                         | 30,0                   | 50,0      | -             | -                     | -                           | -                     | -                           | -             | -                      |  |               |               |
|                                                                     | 5401 | 250      | 138,0                                        | 80,8          | -                                         | -                      | -         | -             | -                     | -                           | -                     | -                           | -             | -                      |  |               |               |
| <sup>2)</sup> Safety factors: $k_{mod}$ , $\gamma_{M,i}$            |      |          | $k_{mod}/\gamma_M$                           | $\gamma_{M1}$ |                                           | $k_{mod}/\gamma_{M,C}$ |           | $\gamma_{M0}$ | $\gamma_{M2}$         | $k_{mod}/\gamma_{M,C}$      |                       | $\gamma_{M0}$               | $\gamma_{M2}$ | $k_{mod}/\gamma_{M,C}$ |  | $\gamma_{M0}$ | $\gamma_{M2}$ |

Table B.1-14: Characteristic load-carrying capacities for post bases type 10950 in [kN]

| Post Base<br>referenced to C24                                      |      |          | F <sub>1,Rk</sub><br>(compression) <sup>1),3)</sup> |                                  |                 | F <sub>1,Rk</sub><br>(tension) <sup>9),11)</sup> |                                    |                     |                 | F <sub>2,Rk</sub> or<br>F <sub>3,Rk</sub> |                                    |       | F <sub>4,Rk</sub> or<br>F <sub>5,Rk</sub> |                    |       |
|---------------------------------------------------------------------|------|----------|-----------------------------------------------------|----------------------------------|-----------------|--------------------------------------------------|------------------------------------|---------------------|-----------------|-------------------------------------------|------------------------------------|-------|-------------------------------------------|--------------------|-------|
| Type                                                                | Code | Height a | Timber <sup>1)</sup>                                | Steel                            |                 | Timber                                           | Screws                             |                     | Steel           | Timber                                    | Screws                             | Steel | Timber                                    | Screws             | Steel |
|                                                                     |      | [mm]     | [kN]                                                | [kN]                             |                 | 10/120 mm                                        | 10/160 mm                          |                     |                 | Simply <sup>10)</sup>                     |                                    |       | Simply <sup>10)</sup>                     |                    |       |
| At maximum distance between base plate and foundation <sup>3)</sup> |      |          |                                                     |                                  |                 |                                                  |                                    |                     |                 |                                           |                                    |       |                                           |                    |       |
| 10950.                                                              | 7041 | 350      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 106,5               | 86,7            | 10,0                                      | 6,2                                | -     | 10,0                                      | 6,2                | -     |
|                                                                     | 7042 | 350      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 106,5               | 86,7            | 7,3                                       | 6,2                                | -     | 7,3                                       | 6,2                | -     |
|                                                                     | 7043 | 350      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 106,5               | 86,7            | 10,0                                      | 6,2                                | -     | 10,0                                      | 6,2                | -     |
|                                                                     | 7051 | 450      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 106,5               | 86,7            | 10,0                                      | 4,4                                | -     | 10,0                                      | 4,4                | -     |
|                                                                     | 7052 | 450      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 106,5               | 86,7            | 7,3                                       | 4,4                                | -     | 7,3                                       | 4,4                | -     |
|                                                                     | 7053 | 450      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 106,5               | 86,7            | 10,0                                      | 4,4                                | -     | 10,0                                      | 4,4                | -     |
|                                                                     | 1411 | 125      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 41,8                | -               | 10,0                                      | 7,3                                | -     | 10,0                                      | 7,3                | -     |
|                                                                     | 1412 | 125      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 41,8                | -               | 7,3                                       | 7,3                                | -     | 7,3                                       | 7,3                | -     |
|                                                                     | 1413 | 125      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 41,8                | -               | 10,0                                      | 7,3                                | -     | 10,0                                      | 7,3                | -     |
|                                                                     | 1421 | 160      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 41,8                | -               | 10,0                                      | 5,6                                | -     | 10,0                                      | 5,6                | -     |
|                                                                     | 1422 | 160      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 41,8                | -               | 7,3                                       | 5,6                                | -     | 7,3                                       | 5,6                | -     |
|                                                                     | 1423 | 160      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 41,8                | -               | 10,0                                      | 5,6                                | -     | 10,0                                      | 5,6                | -     |
|                                                                     | 1431 | 200      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 41,8                | -               | 10,0                                      | 4,5                                | -     | 10,0                                      | 4,5                | -     |
|                                                                     | 1432 | 200      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 41,8                | -               | 7,3                                       | 4,5                                | -     | 7,3                                       | 4,5                | -     |
|                                                                     | 1433 | 200      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 41,8                | -               | 10,0                                      | 4,5                                | -     | 10,0                                      | 4,5                | -     |
|                                                                     | 1611 | 125      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 25,6 <sup>11)</sup> | -               | 10,0                                      | 6,4                                | -     | 10,0                                      | 3,8 <sup>11)</sup> | -     |
|                                                                     | 1612 | 125      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 25,6 <sup>11)</sup> | -               | 7,3                                       | 6,4                                | -     | 7,3                                       | 3,8 <sup>11)</sup> | -     |
|                                                                     | 1613 | 125      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 25,6 <sup>11)</sup> | -               | 10,0                                      | 6,4                                | -     | 10,0                                      | 3,8 <sup>11)</sup> | -     |
|                                                                     | 1621 | 160      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 25,6 <sup>11)</sup> | -               | 10,0                                      | 4,9                                | -     | 10,0                                      | 3,0 <sup>11)</sup> | -     |
|                                                                     | 1622 | 160      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 25,6 <sup>11)</sup> | -               | 7,3                                       | 4,9                                | -     | 7,3                                       | 3,0 <sup>11)</sup> | -     |
|                                                                     | 1623 | 160      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 25,6 <sup>11)</sup> | -               | 10,0                                      | 4,9                                | -     | 10,0                                      | 3,0 <sup>11)</sup> | -     |
|                                                                     | 1631 | 200      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 25,6 <sup>11)</sup> | -               | 10,0                                      | 3,9                                | -     | 10,0                                      | 2,3 <sup>11)</sup> | -     |
|                                                                     | 1632 | 200      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 25,6 <sup>11)</sup> | -               | 7,3                                       | 3,9                                | -     | 7,3                                       | 2,3 <sup>11)</sup> | -     |
|                                                                     | 1633 | 200      | 100,0                                               | 106,5                            | -               | 30,0                                             | 50,0                               | 25,6 <sup>11)</sup> | -               | 10,0                                      | 3,9                                | -     | 10,0                                      | 2,3 <sup>11)</sup> | -     |
| 2)Safety factors:                                                   |      |          | k <sub>mod</sub> , γ <sub>M,i</sub>                 | k <sub>mod</sub> /γ <sub>M</sub> | γ <sub>M1</sub> |                                                  | k <sub>mod</sub> /γ <sub>M,C</sub> |                     | γ <sub>M0</sub> | γ <sub>M2</sub>                           | k <sub>mod</sub> /γ <sub>M,C</sub> |       | γ <sub>M0</sub>                           | γ <sub>M2</sub>    |       |

Tabelle B.1-15: Characteristic load-carrying capacities for post bases type 10951 in [kN], referenced to C24

| Post Base<br>referenced to C24               |      |          | $F_{1,Rk}$<br>(compression) <sup>1),3)</sup> |               |               | $F_{1,Rk}$<br>(tension) <sup>9),11)</sup> |           |               |               | $F_{2,Rk}$ or<br>$F_{3,Rk}$ |      |               | $F_{4,Rk}$ or<br>$F_{5,Rk}$ |                        |   |               |               |
|----------------------------------------------|------|----------|----------------------------------------------|---------------|---------------|-------------------------------------------|-----------|---------------|---------------|-----------------------------|------|---------------|-----------------------------|------------------------|---|---------------|---------------|
| Type                                         | Code | Height a | Timber <sup>1)</sup>                         | Steel         |               | Timber   Screws                           |           | Steel         |               | Timber   Screws   Steel     |      |               | Timber   Screws   Steel     |                        |   |               |               |
|                                              |      | [mm]     | [kN]                                         | [kN]          |               | 10/120 mm                                 | 10/160 mm |               |               | Rigid <sup>10)</sup>        |      |               | Rigid <sup>10)</sup>        |                        |   |               |               |
| 10951.                                       | 1000 | 146      | 170,0                                        | 94,2          | -             | 30,0                                      | 50,0      | 11,8          | -             | 13,1                        | 1,93 | -             | 13,1                        | 1,93                   | - |               |               |
| 2)Safety factors: $k_{mod}$ , $\gamma_{M,i}$ |      |          | $k_{mod}/\gamma_M$                           | $\gamma_{M1}$ | $\gamma_{M2}$ | $k_{mod}/\gamma_{M,C}$                    |           | $\gamma_{M0}$ | $\gamma_{M2}$ | $k_{mod}/\gamma_{M,C}$      |      | $\gamma_{M0}$ | $\gamma_{M2}$               | $k_{mod}/\gamma_{M,C}$ |   | $\gamma_{M0}$ | $\gamma_{M2}$ |
| Post Base<br>referenced to C24               |      |          | $F_{1,Rk}$<br>(compression) <sup>1),3)</sup> |               |               | $F_{1,Rk}$<br>(tension) <sup>9),11)</sup> |           |               |               | $F_{2,Rk}$ or<br>$F_{3,Rk}$ |      |               | $F_{4,Rk}$ or<br>$F_{5,Rk}$ |                        |   |               |               |
| Type                                         | Code | Height a | Timber <sup>1)</sup>                         | Steel         |               | Timber   Screws                           |           | Steel         |               | Timber   Screws   Steel     |      |               | Timber   Screws   Steel     |                        |   |               |               |
|                                              |      | [mm]     | [kN]                                         | [kN]          |               | 10/120 mm                                 | 10/160 mm |               |               | Rigid <sup>10)</sup>        |      |               | Rigid <sup>10)</sup>        |                        |   |               |               |
| 10951.                                       | 1000 | 211      | 170,0                                        | 87,3          | -             | 30,0                                      | 50,0      | 11,8          | -             | 9,2                         | 1,75 | -             | 9,2                         | 1,93                   | - |               |               |
| 2)Safety factors: $k_{mod}$ , $\gamma_{M,i}$ |      |          | $k_{mod}/\gamma_M$                           | $\gamma_{M1}$ | $\gamma_{M2}$ | $k_{mod}/\gamma_{M,C}$                    |           | $\gamma_{M0}$ | $\gamma_{M2}$ | $k_{mod}/\gamma_{M,C}$      |      | $\gamma_{M0}$ | $\gamma_{M2}$               | $k_{mod}/\gamma_{M,C}$ |   | $\gamma_{M0}$ | $\gamma_{M2}$ |

Table B.1-15: Characteristic load-carrying capacities for post bases type 10952 and 10853 in [kN], referenced to C24

| Post Base<br>referenced to C24                           |      |          | $F_{1,Rk}$<br>(compression) <sup>1),3)</sup> |               |               | $F_{1,Rk}$<br>(tension) <sup>9),11)</sup> |           |               |               | $F_{2,Rk}$ or<br>$F_{3,Rk}$ |       |                       | $F_{4,Rk}$ or<br>$F_{5,Rk}$ |                        |   |               |               |
|----------------------------------------------------------|------|----------|----------------------------------------------|---------------|---------------|-------------------------------------------|-----------|---------------|---------------|-----------------------------|-------|-----------------------|-----------------------------|------------------------|---|---------------|---------------|
| Type                                                     | Code | Height a | Timber <sup>1)</sup>                         | Steel         |               | Timber   Screws                           |           | Steel         |               | Timber   Screws             | Steel | Timber   Screws       | Steel                       |                        |   |               |               |
|                                                          |      | [mm]     | [kN]                                         | [kN]          |               | 10/120 mm                                 | 10/160 mm |               |               | Simply <sup>10)</sup>       |       | Simply <sup>10)</sup> |                             |                        |   |               |               |
| 10952.                                                   | 1000 | 211      | 90,0                                         | 118,7         | 83,8          | 30,0                                      | 50,0      | 11,8          | -             | 10,0                        | 2,5   | -                     | 10,0                        | 2,5 <sup>11)</sup>     | - |               |               |
| 10953                                                    | 1200 | 250      | 135,0                                        | 80,0          | -             | 30,0                                      | 50,0      | 11,8          | -             | 10,0                        | 2,5   | -                     | 10,0                        | 2,5 <sup>11)</sup>     | - |               |               |
| <sup>2)</sup> Safety factors: $k_{mod}$ , $\gamma_{M,i}$ |      |          | $k_{mod}/\gamma_M$                           | $\gamma_{M1}$ | $\gamma_{M2}$ | $k_{mod}/\gamma_{M,C}$                    |           | $\gamma_{M0}$ | $\gamma_{M2}$ | $k_{mod}/\gamma_{M,C}$      |       | $\gamma_{M0}$         | $\gamma_{M2}$               | $k_{mod}/\gamma_{M,C}$ |   | $\gamma_{M0}$ | $\gamma_{M2}$ |

Tabelle B.1-17: Charakteristische Tragfähigkeiten der Pfostenträgertypen 10980 in [kN], bezogen auf C24

| Post Base<br>referenced to C24                           |      |          | <b>F<sub>1,Rk</sub></b><br><b>(compression)<sup>1),3)</sup></b> |               |               | <b>F<sub>1,Rk</sub></b><br><b>(tension)<sup>9),11)</sup></b> |           |       |               | <b>F<sub>2,Rk</sub> or</b><br><b>F<sub>3,Rk</sub></b> |                        |       |               | <b>F<sub>4,Rk</sub> or</b><br><b>F<sub>5,Rk</sub></b> |                        |       |               |               |
|----------------------------------------------------------|------|----------|-----------------------------------------------------------------|---------------|---------------|--------------------------------------------------------------|-----------|-------|---------------|-------------------------------------------------------|------------------------|-------|---------------|-------------------------------------------------------|------------------------|-------|---------------|---------------|
| Type                                                     | Code | Height a | Timber <sup>1)</sup>                                            | Steel         |               | Timber   Screws                                              |           | Steel |               | Timber   Screws                                       |                        | Steel |               | Timber   Screws                                       |                        | Steel |               |               |
|                                                          |      | [mm]     | [kN]                                                            | [kN]          |               | 10/120 mm                                                    | 10/160 mm |       |               |                                                       | Rigid <sup>10)</sup>   |       |               |                                                       | Rigid <sup>10)</sup>   |       |               |               |
| 10980.                                                   | 0080 | 121      | 98,0                                                            | 80,0          | -             | 30,0                                                         | 50,0      |       | 7,4           | -                                                     | 10,5                   |       | 1,9           | -                                                     | 10,5                   |       | 1,9           | -             |
| <sup>2)</sup> Safety factors: $k_{mod}$ , $\gamma_{M,i}$ |      |          | $k_{mod}/\gamma_M$                                              | $\gamma_{M1}$ | $\gamma_{M2}$ | $k_{mod}/\gamma_{M,C}$                                       |           |       | $\gamma_{M0}$ | $\gamma_{M2}$                                         | $k_{mod}/\gamma_{M,C}$ |       | $\gamma_{M0}$ | $\gamma_{M2}$                                         | $k_{mod}/\gamma_{M,C}$ |       | $\gamma_{M0}$ | $\gamma_{M2}$ |
| Post Base<br>referenced to C24                           |      |          | <b>F<sub>1,Rk</sub></b><br><b>(compression)<sup>1),3)</sup></b> |               |               | <b>F<sub>1,Rk</sub></b><br><b>(tension)<sup>9),11)</sup></b> |           |       |               | <b>F<sub>2,Rk</sub> or</b><br><b>F<sub>3,Rk</sub></b> |                        |       |               | <b>F<sub>4,Rk</sub> or</b><br><b>F<sub>5,Rk</sub></b> |                        |       |               |               |
| Type                                                     | Code | Height a | Timber <sup>1)</sup>                                            | Steel         |               | Timber   Screws                                              |           | Steel |               | Timber   Screws                                       |                        | Steel |               | Timber   Screws                                       |                        | Steel |               |               |
|                                                          |      | [mm]     | [kN]                                                            | [kN]          |               | 10/120 mm                                                    | 10/160 mm |       |               |                                                       | Rigid <sup>10)</sup>   |       |               |                                                       | Rigid <sup>10)</sup>   |       |               |               |
| 10980.                                                   | 0080 | 181      | 98,0                                                            | 76,0          | -             | 30,0                                                         | 50,0      |       | 7,4           | -                                                     | 7,8                    |       | 1,7           | -                                                     | 7,8                    |       | 1,7           | -             |
| <sup>2)</sup> Safety factors: $k_{mod}$ , $\gamma_{M,i}$ |      |          | $k_{mod}/\gamma_M$                                              | $\gamma_{M1}$ | $\gamma_{M2}$ | $k_{mod}/\gamma_{M,C}$                                       |           |       | $\gamma_{M0}$ | $\gamma_{M2}$                                         | $k_{mod}/\gamma_{M,C}$ |       | $\gamma_{M0}$ | $\gamma_{M2}$                                         | $k_{mod}/\gamma_{M,C}$ |       | $\gamma_{M0}$ | $\gamma_{M2}$ |

Table B.1-16: Characteristic load-carrying capacities for post bases type 94000 in [kN]

| Post Base<br>referenced to C24                           |      |          | $F_{1,Rk}$<br>(compression) <sup>1),3)</sup> |               |   | $F_{1,Rk}$<br>(tension) <sup>9),11)</sup> |           |               |               | $F_{2,Rk}$ or<br>$F_{3,Rk}$ |  |               |               | $F_{4,Rk}$ or<br>$F_{5,Rk}$ |  |               |               |
|----------------------------------------------------------|------|----------|----------------------------------------------|---------------|---|-------------------------------------------|-----------|---------------|---------------|-----------------------------|--|---------------|---------------|-----------------------------|--|---------------|---------------|
| Type                                                     | Code | Height a | Timber <sup>1)</sup>                         | Steel         |   | Timber   Screws                           |           | Steel         |               | Timber   Screws             |  | Steel         |               | Timber   Screws             |  | Steel         |               |
|                                                          |      | [mm]     | [kN]                                         | [kN]          |   | 10/120 mm                                 | 10/160 mm |               |               | Simply <sup>10)</sup>       |  |               |               | Simply <sup>10)</sup>       |  |               |               |
| 94000.                                                   | 0106 | 215      | - <sup>5)</sup>                              | 41,3          | - | 30,0                                      | 50,0      | 25,6          | -             | - <sup>7)</sup>             |  |               |               | - <sup>7)</sup>             |  |               |               |
| <sup>2)</sup> Safety factors: $k_{mod}$ , $\gamma_{M,i}$ |      |          | $k_{mod}/\gamma_M$                           | $\gamma_{M1}$ |   | $k_{mod}/\gamma_{M,C}$                    |           | $\gamma_{M0}$ | $\gamma_{M2}$ | $k_{mod}/\gamma_{M,C}$      |  | $\gamma_{M0}$ | $\gamma_{M2}$ | $k_{mod}/\gamma_{M,C}$      |  | $\gamma_{M0}$ | $\gamma_{M2}$ |

## Annex B.2

### B.2 Characteristic load-carrying capacities of the Post-Purlin-Connectors, referenced to C24

#### Definitions of forces, their directions and eccentricity onto the Column-Purlin Connectors

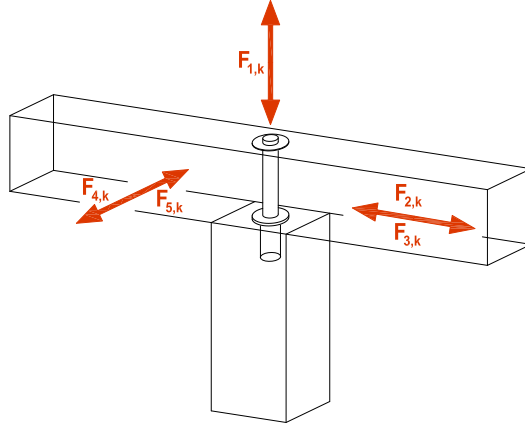


Figure 4: Forces on the post-purlin connector

#### Acting forces

|                         |                                                                                 |
|-------------------------|---------------------------------------------------------------------------------|
| $F_{1,k}$               | Axial force (tension or compression) acting along the central axis of the joint |
| $F_{2,k}$ and $F_{3,k}$ | Horizontal force parallel to the beam                                           |
| $F_{4,k}$ and $F_{5,k}$ | Horizontal force perpendicular to the beam                                      |

#### Combined forces

If the forces  $F_1$  and  $F_2/F_3$  or  $F_4/F_5$  act at the same time, the following inequation shall be fulfilled:

$$\sum \frac{F_{i,d}}{R_{i,d}} \leq 1 \quad (7)$$

The forces  $F_2$  and  $F_3$  or  $F_4$  and  $F_5$  are forces with opposite direction. Therefore only one force  $F_2$  or  $F_3$ , and  $F_4$  or  $F_5$ , respectively, is able to act simultaneously with  $F_1$ .

### Typical installation of the Column-Purlin Connectors

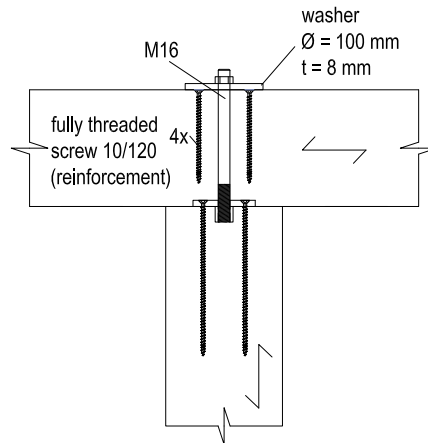


Figure 5: Typical installation of the column-purlin connector, with washer with a diameter of 100 mm and additional screws to reinforce compression perp. to the grain in the load case  $F_1$  (tension)

#### List of the Indizes in the following tables

<sup>1)</sup> According to EN 1995-1-1 and EN 1993-1-1 the following partial safety factors  $\gamma_{M,i}$  and modification factors are recommended <sup>a)</sup>:

- Solid Timber  $\gamma_M=1,30$
- Glued laminated timber  $\gamma_M=1,25$
- Timber Connections:  $\gamma_{M,C}=1,30$
- Steel-elements:  $\gamma_{M0}=1,00$ ;  $\gamma_{M1}=1,00$ ;  $\gamma_{M2}=1,25$
- Modification-factors: According to EN 1995-1-1

<sup>a)</sup> Consider country-specific regulations

<sup>2)</sup> The load-carrying capacity in load case  $F_1$  (tension) is only valid in short-term and instantaneous load-duration classes

<sup>3)</sup> With 4 additional fully threaded screws 10/120 to reinforce compression perp. to the grain, cf. Figure 5

Table B.2-1: Characteristic load-carrying capacities for Post-Purlin-Connector [kN]

| Post-Purlin-Connector<br>referenced to C24            |                |                               | $F_{1,Rk}$ (compression) | $F_{1,Rk}$ (tension) <sup>2)</sup> | $F_{2,Rk}, F_{3,Rk}$ | $F_{4,Rk}, F_{5,Rk}$ |
|-------------------------------------------------------|----------------|-------------------------------|--------------------------|------------------------------------|----------------------|----------------------|
| Type                                                  | Washer<br>[mm] | Screws<br>[mm]                | Timber<br>[kN]           | Timber/Steel<br>[kN]               | Timber/Steel<br>[kN] | Timber/Steel<br>[kN] |
| 88710                                                 | Ø58/4          | 10/120                        | acc. to EN 1995-1-1      | 16,3                               | 7,3                  | 6,3                  |
| <sup>1)</sup> Safety factors: $k_{mod}, \gamma_{M,i}$ |                |                               | $k_{mod}/\gamma_M$       | $k_{mod}/\gamma_M$                 | $k_{mod}/\gamma_M$   | $k_{mod}/\gamma_M$   |
| 88712                                                 | Ø58/4          | 10/120                        | acc. to EN 1995-1-1      | 16,3                               | 7,3                  | 7,3                  |
| <sup>1)</sup> Safety factors: $k_{mod}, \gamma_{M,i}$ |                |                               | $k_{mod}/\gamma_M$       | $k_{mod}/\gamma_M$                 | $k_{mod}/\gamma_M$   | $k_{mod}/\gamma_M$   |
| 88715                                                 | Ø68/4          | 10/160                        | acc. to EN 1995-1-1      | 21,9                               | 29,0                 | 7,3                  |
| 88715                                                 | Ø68/4          | 10/280                        | acc. to EN 1995-1-1      | 31,5                               | 33,0                 | 7,3                  |
| 88715                                                 | Ø100/8         | 10/280                        | acc. to EN 1995-1-1      | 52,9                               | 33,0                 | 7,3                  |
| 88715                                                 | Ø100/8         | 10/280 + 10/120 <sup>3)</sup> | acc. to EN 1995-1-1      | 62,5                               | 33,0                 | 7,3                  |
| <sup>1)</sup> Safety factors: $k_{mod}, \gamma_{M,i}$ |                |                               | $k_{mod}/\gamma_M$       | $k_{mod}/\gamma_M$                 | $k_{mod}/\gamma_M$   | $k_{mod}/\gamma_M$   |
| 88716                                                 | Ø68/4          | 10/120                        | acc. to EN 1995-1-1      | 21,9                               | 29,0                 | 7,3                  |
| <sup>1)</sup> Safety factors: $k_{mod}, \gamma_{M,i}$ |                |                               | $k_{mod}/\gamma_M$       | $k_{mod}/\gamma_M$                 | $k_{mod}/\gamma_M$   | $k_{mod}/\gamma_M$   |

**B.3 Characteristic load-carrying capacities of the Balcony Pillars, referenced to C24**

**Definitions of forces and load cases on the balcony pillars**

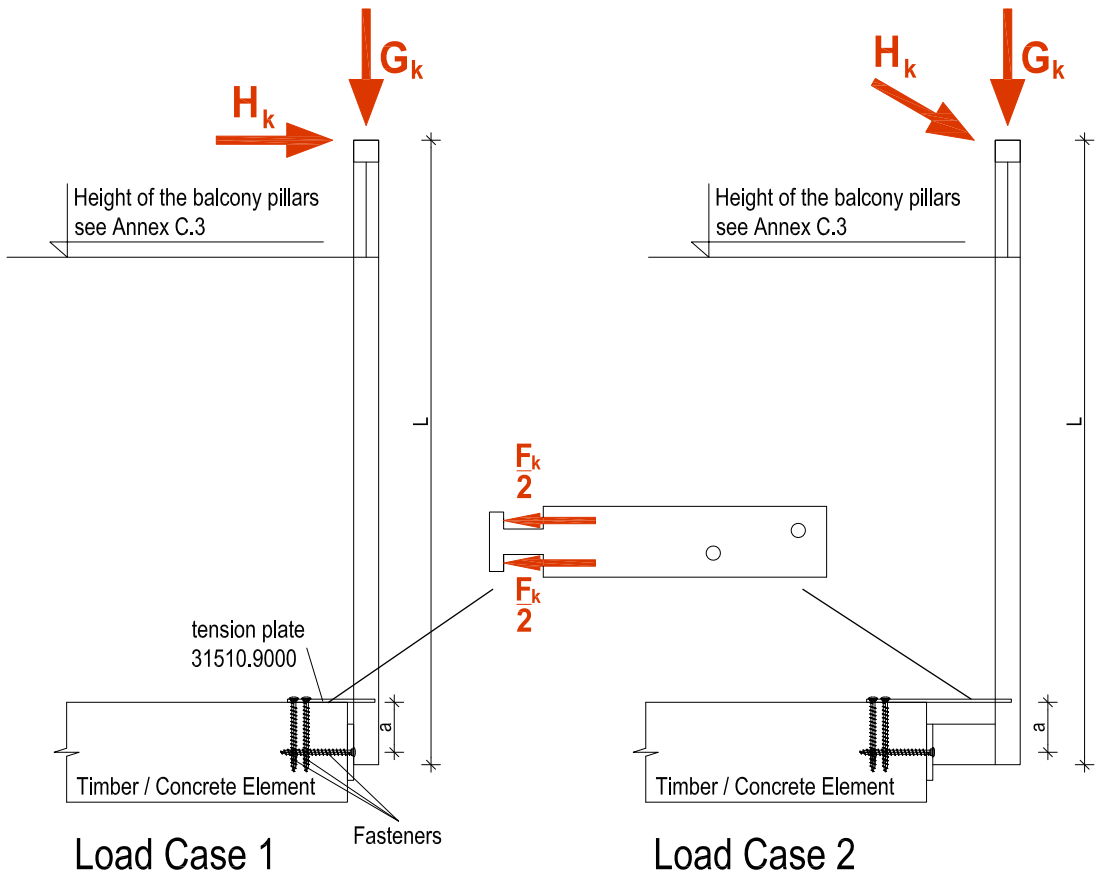


Figure 6: Forces on the balcony pillars

**Acting forces**

|       |                                                      |
|-------|------------------------------------------------------|
| $H_k$ | Horizontal force (on the handrail)                   |
| $G_k$ | Vertical load (death load)                           |
| $F_k$ | Acting forces on the tension plate (see table B.3-7) |

**Typical installation of the Balcony-pillars**

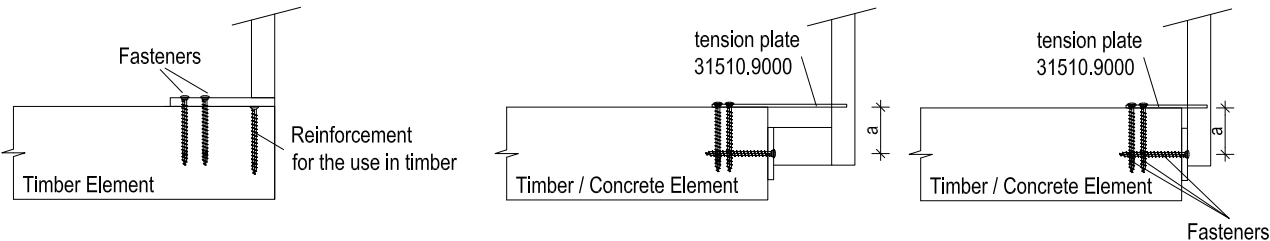


Figure 7: Typical installation of the balcony pillars

### **List of the Indizes in the tables**

- 1) The Connection to the timber elements have to be calculated according to the EN 1995-1-1  
At least screws with dimension 10/120 mm are recommended. The horizontal deformations of the steel elements have to be considered.
- 2) According to EN 1995-1-1 and EN 1993-1-1 the following partial safety factors  $\gamma_{Mi}$  and modification factors are recommended <sup>a)</sup>:
  - Solid Timber  $\gamma_M=1,30$
  - Glued laminated timber  $\gamma_M=1,25$
  - Timber Connections:  $\gamma_{M,C}=1,30$
  - Steel-elements:  $\gamma_{M0}=1,00$ ;  $\gamma_{M1}=1,00$ ;  $\gamma_{M2}=1,25$
  - Modification-factors: According to EN 1995-1-1
- a) Consider country-specific regulations
- 3) With 2 additional fully threaded screws  $\geq 10/120$  to reinforce tension perp. to the grain, cf. Figure 7
- 4) The parameter L refers to the distance of the horizontal load on the handrail, cf. Figure 6. It has to be consider that the length of the steel profile shown in the plans in Annex C.3 must not be L. The connection to the pillars with the hand rail, .... is not part of the ETA.
- 5) Load carrying capacity without tension plate, only fixed with screws of at least 10/180 mm

Table B.3-1: Characteristic load-carrying capacities in [kN] of the Balcony-Pillars S235 with L=1,00 m

| Characteristic horizontal forces, cf. Figure 7            |                    |               |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------------------------------------|--------------------|---------------|------|------|------|------|------|------|------|------|------|------|------|
| L <sup>4)</sup> =1,00 m, Steel S235 in [kN] <sup>1)</sup> |                    |               |      |      |      |      |      |      |      |      |      |      |      |
| Distance a [mm]                                           |                    | 0             |      | 60   |      | 80   |      | 100  |      | 120  |      | 140  |      |
| Load Case                                                 |                    | 1             | 2    | 1    | 2    | 1    | 2    | 1    | 2    | 1    | 2    | 1    | 2    |
| Type                                                      | Code               |               |      |      |      |      |      |      |      |      |      |      |      |
| 31510.                                                    | 0000 <sup>5)</sup> | -             | -    | 0,59 | 0,68 | 0,80 | 0,92 | 1,00 | 1,18 | 1,25 | 1,45 | 1,37 | 1,57 |
| 31510.                                                    | 1060               | -             | -    | 0,59 | 0,68 | 0,80 | 0,92 | 1,00 | 1,18 | 1,25 | 1,45 | 1,37 | 1,57 |
| 31510.                                                    | 0110               | -             | -    | 0,59 | 0,68 | 0,75 |      |      |      |      |      |      |      |
| 2) Safety factors: $\gamma_{M,i}$                         |                    | $\gamma_{MO}$ |      |      |      |      |      |      |      |      |      |      |      |
| 31512.                                                    | 0000 <sup>5)</sup> | -             | -    | 0,59 | 0,68 | 0,80 | 0,92 | 1,00 | 1,18 | 1,25 | 1,45 | 1,37 | 1,57 |
| 31512.                                                    | 1060               | -             | -    | 0,59 | 0,68 | 0,80 | 0,92 | 1,00 | 1,18 | 1,25 | 1,45 | 1,37 | 1,57 |
| 31512.                                                    | 0110               | -             | -    | 0,59 | 0,68 | 0,75 |      |      |      |      |      |      |      |
| 2) Safety factors: $\gamma_{M,i}$                         |                    | $\gamma_{MO}$ |      |      |      |      |      |      |      |      |      |      |      |
| 31610. <sup>3)</sup>                                      | 0000               | 1,00          | 1,20 | -    |      |      |      |      |      |      |      |      |      |
| 2) Safety factors: $\gamma_{M,i}$                         |                    | $\gamma_{MO}$ |      |      |      |      |      |      |      |      |      |      |      |



Table B.3-2: Characteristic load-carrying capacities in [kN] of the Balcony-Pillars S235 with L=1,10 m

| Characteristic horizontal forces, cf. Figure 7            |                    |               |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------------------------------------|--------------------|---------------|------|------|------|------|------|------|------|------|------|------|------|
| L <sup>4</sup> )=1,10 m, Steel S235 in [kN] <sup>1)</sup> |                    |               |      |      |      |      |      |      |      |      |      |      |      |
| Distance a [mm]                                           |                    | 0             |      | 60   |      | 80   |      | 100  |      | 120  |      | 140  |      |
| Load Case                                                 |                    | 1             | 2    | 1    | 2    | 1    | 2    | 1    | 2    | 1    | 2    | 1    | 2    |
| Type                                                      | Code               |               |      |      |      |      |      |      |      |      |      |      |      |
| 31510.                                                    | 0000 <sup>5)</sup> | -             | -    | 0,53 | 0,61 | 0,72 | 0,83 | 0,92 | 1,06 | 1,13 | 1,30 | 1,23 | 1,41 |
| 31510.                                                    | 1060               | -             | -    | 0,53 | 0,61 | 0,72 | 0,83 | 0,92 | 1,06 | 1,13 | 1,30 | 1,23 | 1,41 |
| 31510.                                                    | 0110               | -             | -    | 0,53 | 0,61 | 0,63 |      |      |      |      |      |      |      |
| 2) Safety factors: $\gamma_{M,i}$                         |                    | $\gamma_{M0}$ |      |      |      |      |      |      |      |      |      |      |      |
| 31512.                                                    | 0000 <sup>5)</sup> | -             | -    | 0,53 | 0,61 | 0,72 | 0,83 | 0,92 | 1,06 | 1,13 | 1,30 | 1,23 | 1,41 |
| 31512.                                                    | 1060               | -             | -    | 0,53 | 0,61 | 0,72 | 0,83 | 0,92 | 1,06 | 1,13 | 1,30 | 1,23 | 1,41 |
| 31512.                                                    | 0110               | -             | -    | 0,53 | 0,61 | 0,63 |      |      |      |      |      |      |      |
| 2) Safety factors: $\gamma_{M,i}$                         |                    | $\gamma_{M0}$ |      |      |      |      |      |      |      |      |      |      |      |
| 31610. <sup>3)</sup>                                      | 0000               | 0,95          | 1,00 | -    |      |      |      |      |      |      |      |      |      |
| 2) Safety factors: $\gamma_{M,i}$                         |                    | $\gamma_{M0}$ |      |      |      |      |      |      |      |      |      |      |      |

Table B.3-3: Characteristic load-carrying capacities in [kN] of the Balcony-Pillars S235 with L=1,20 m

| Characteristic horizontal forces, cf. Figure 7           |                    |               |      |      |      |      |      |      |      |      |      |      |      |
|----------------------------------------------------------|--------------------|---------------|------|------|------|------|------|------|------|------|------|------|------|
| L <sup>4</sup> =1,20 m, Steel S235 in [kN] <sup>1)</sup> |                    |               |      |      |      |      |      |      |      |      |      |      |      |
| Distance a [mm]                                          |                    | 0             |      | 60   |      | 80   |      | 100  |      | 120  |      | 140  |      |
| Load Case                                                |                    | 1             | 2    | 1    | 2    | 1    | 2    | 1    | 2    | 1    | 2    | 1    | 2    |
| Type                                                     | Code               |               |      |      |      |      |      |      |      |      |      |      |      |
| 31510.                                                   | 0000 <sup>5)</sup> | -             | -    | 0,48 | 0,56 | 0,66 | 0,76 | 0,84 | 0,97 | 1,02 | 1,18 | 1,11 | 1,28 |
| 31510.                                                   | 1060               | -             | -    | 0,48 | 0,56 | 0,66 | 0,76 | 0,84 | 0,97 | 1,02 | 1,18 | 1,11 | 1,28 |
| 31510.                                                   | 0110               | -             | -    | 0,48 | 0,56 | 0,50 |      |      |      |      |      |      |      |
| 2) Safety factors: $\gamma_{M,i}$                        |                    | $\gamma_{M0}$ |      |      |      |      |      |      |      |      |      |      |      |
| 31512.                                                   | 0000 <sup>5)</sup> | -             | -    | 0,48 | 0,56 | 0,66 | 0,76 | 0,84 | 0,97 | 1,02 | 1,18 | 1,11 | 1,28 |
| 31512.                                                   | 1060               | -             | -    | 0,48 | 0,56 | 0,66 | 0,76 | 0,84 | 0,97 | 1,02 | 1,18 | 1,11 | 1,28 |
| 31512.                                                   | 0110               | -             | -    | 0,48 | 0,56 | 0,50 |      |      |      |      |      |      |      |
| 2) Safety factors: $\gamma_{M,i}$                        |                    | $\gamma_{M0}$ |      |      |      |      |      |      |      |      |      |      |      |
| 31610. <sup>3)</sup>                                     | 0000               | 0,85          | 0,95 | -    |      |      |      |      |      |      |      |      |      |
| 2) Safety factors: $\gamma_{M,i}$                        |                    | $\gamma_{M0}$ |      |      |      |      |      |      |      |      |      |      |      |



Table B.3-6: Characteristic load-carrying capacities in [kN] of the Balcony-Pillars S355 with L=1,20 m

| Characteristic horizontal forces, cf. Figure 7            |                    |               |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------------------------------------|--------------------|---------------|------|------|------|------|------|------|------|------|------|------|------|
| L <sup>4</sup> )=1,20 m, Steel S355 in [kN] <sup>1)</sup> |                    |               |      |      |      |      |      |      |      |      |      |      |      |
| Distance a [mm]                                           |                    | 0             |      | 60   |      | 80   |      | 100  |      | 120  |      | 140  |      |
| Load Case                                                 |                    | 1             | 2    | 1    | 2    | 1    | 2    | 1    | 2    | 1    | 2    | 1    | 2    |
| Type                                                      | Code               |               |      |      |      |      |      |      |      |      |      |      |      |
| 31510.                                                    | 0000 <sup>5)</sup> | -             | -    | 0,63 | 0,73 | 0,86 | 0,99 | 1,09 | 1,26 | 1,33 | 1,54 | 1,53 | 1,76 |
| 31510.                                                    | 1060               | -             | -    | 0,63 | 0,73 | 0,86 | 0,99 | 1,09 | 1,26 | 1,33 | 1,54 | 1,53 | 1,76 |
| 31510.                                                    | 0110               | -             | -    | 0,50 |      |      |      |      |      |      |      |      |      |
| 2)Safety factors: $\gamma_{M,i}$                          |                    | $\gamma_{M0}$ |      |      |      |      |      |      |      |      |      |      |      |
| 31512.                                                    | 0000 <sup>5)</sup> | -             | -    | 0,63 | 0,73 | 0,86 | 0,99 | 1,09 | 1,26 | 1,33 | 1,54 | 1,53 | 1,76 |
| 31512.                                                    | 1060               | -             | -    | 0,63 | 0,73 | 0,86 | 0,99 | 1,09 | 1,26 | 1,33 | 1,54 | 1,53 | 1,76 |
| 31512.                                                    | 0110               | -             | -    | 0,50 |      |      |      |      |      |      |      |      |      |
| 2)Safety factors: $\gamma_{M,i}$                          |                    | $\gamma_{M0}$ |      |      |      |      |      |      |      |      |      |      |      |
| 31610. <sup>3)</sup>                                      | 0000               | 1,20          | 1,30 | -    |      |      |      |      |      |      |      |      |      |
| 2)Safety factors: $\gamma_{M,i}$                          |                    | $\gamma_{M0}$ |      |      |      |      |      |      |      |      |      |      |      |

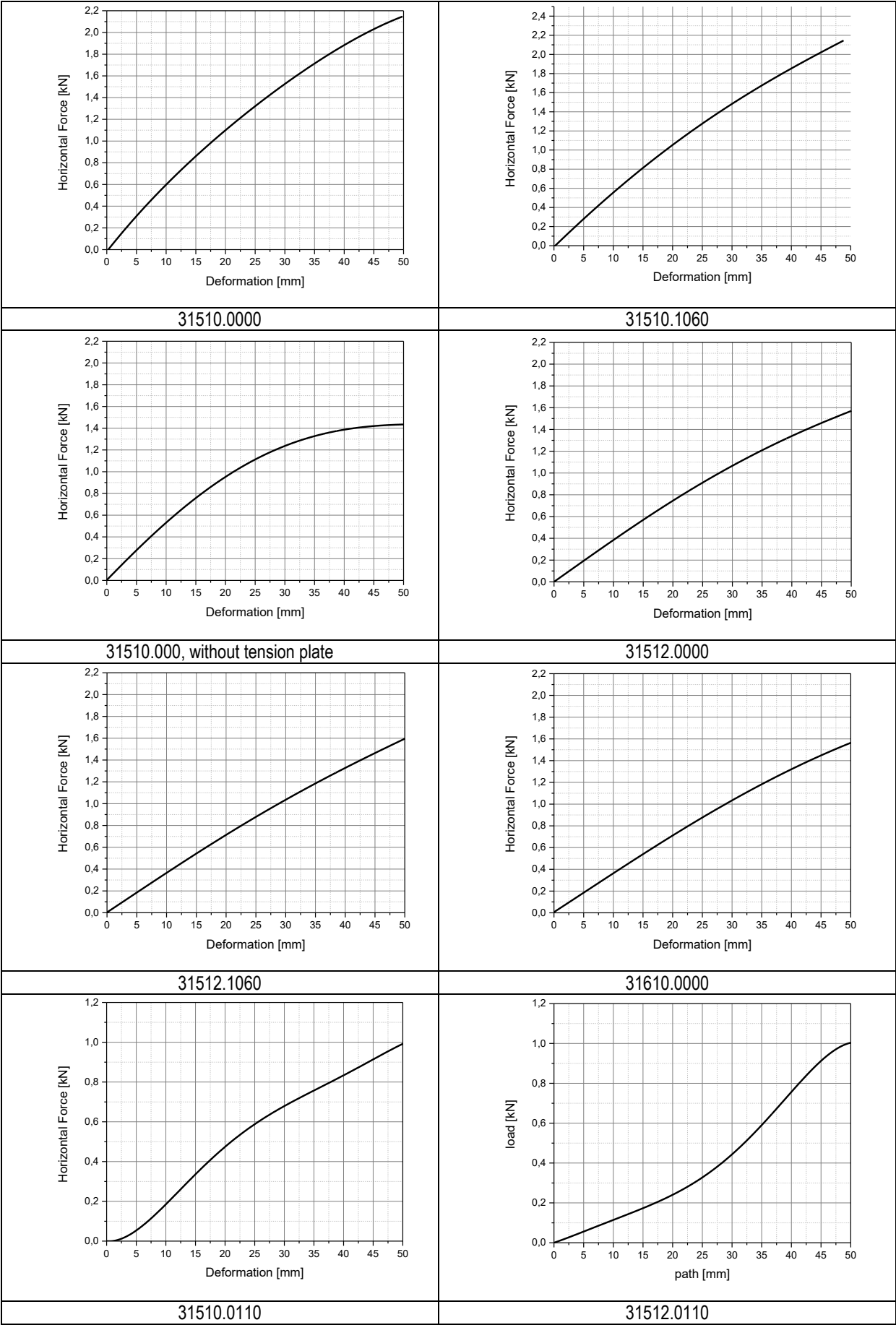
Table B.3-7: Characteristic load-carrying capacities in [kN] to the of the tension plate of the Balcony-Pillars

| Characteristic tension forces, cf. Figure 7  |      |               |      |
|----------------------------------------------|------|---------------|------|
| Type                                         | Code | Steel in [kN] |      |
|                                              |      | S235          | S355 |
| 31510.                                       | 0000 | 9,2           | 12,0 |
| <sup>2)</sup> Safety factors: $\gamma_{M,i}$ |      | $\gamma_{M0}$ |      |

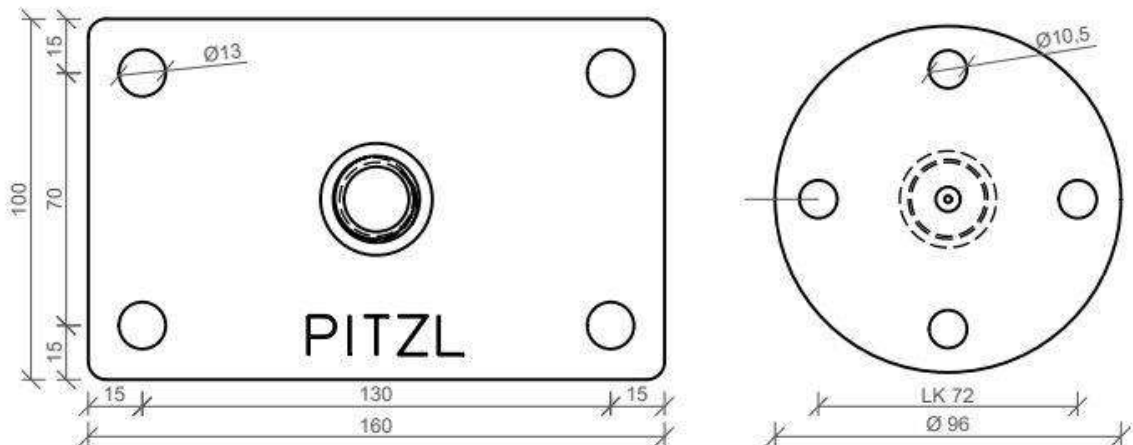
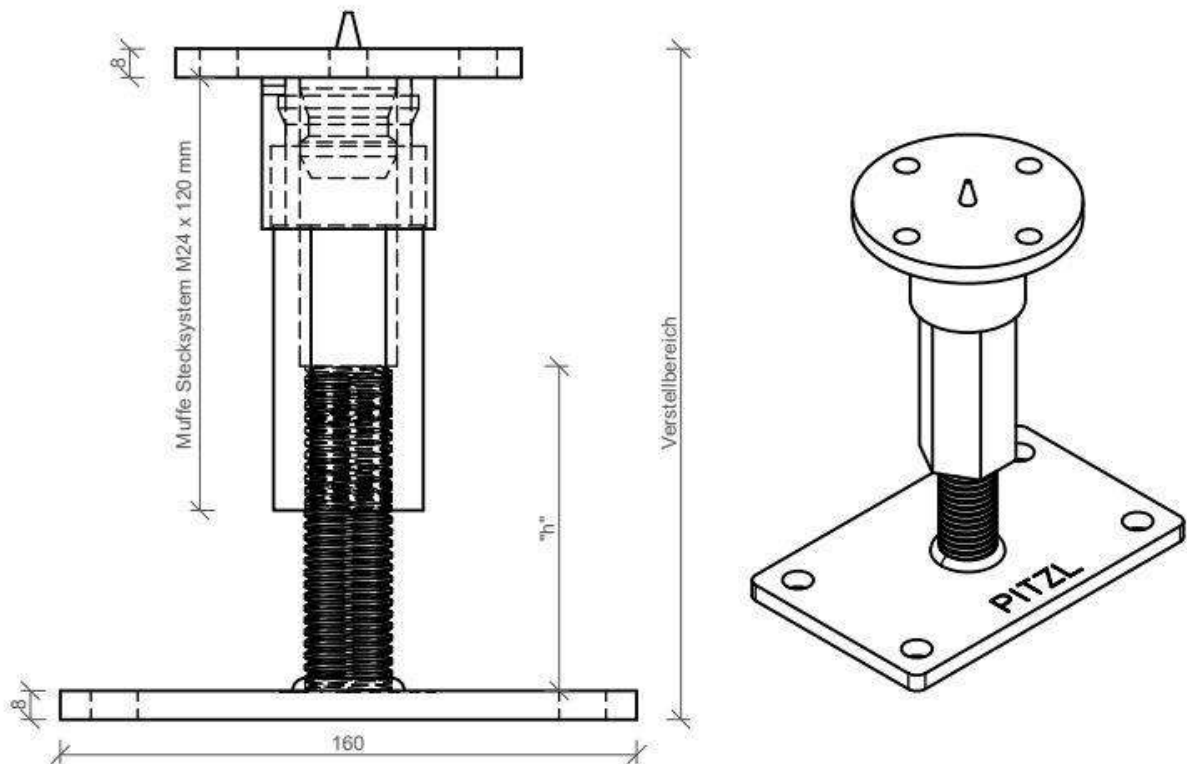
Table B.3-7: End/Edge distances of the fasteners to fix the Balcony-Pillars (not for screws to reinforce compression perpendicular to the grain)

| End/Edge distances |                  |                  |                  |                     |
|--------------------|------------------|------------------|------------------|---------------------|
| CLT                |                  |                  |                  | Solid Timber        |
| Sideface           |                  | Edgeside         |                  | Acc. to EN 1995-1-1 |
| a <sub>3,t</sub>   | a <sub>4,t</sub> | a <sub>3,t</sub> | a <sub>4,t</sub> |                     |
| 6d                 | 6d               | 12d              | 5d               |                     |

Table B.3-8: Load deformation curves of the balcony-pillars

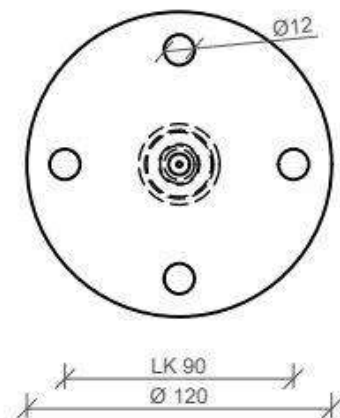
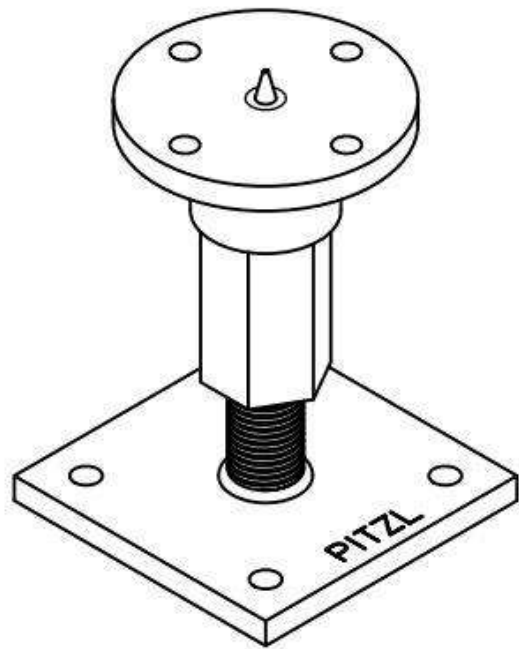


**Annex C**  
**C.1 Plans of the post bases**



| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 10529.1090 | 90 mm    | 141 -201 mm     |
| 10529.1990 | 150 mm   | 203 -318 mm     |
|            |          |                 |
|            |          |                 |
|            |          |                 |

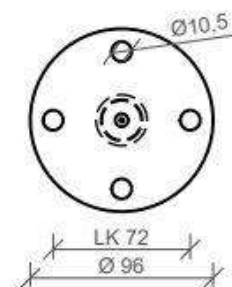
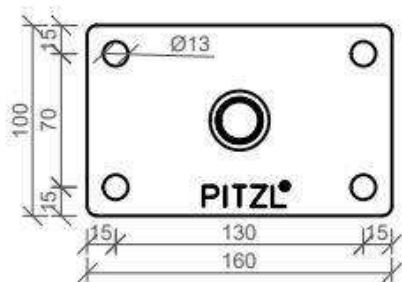
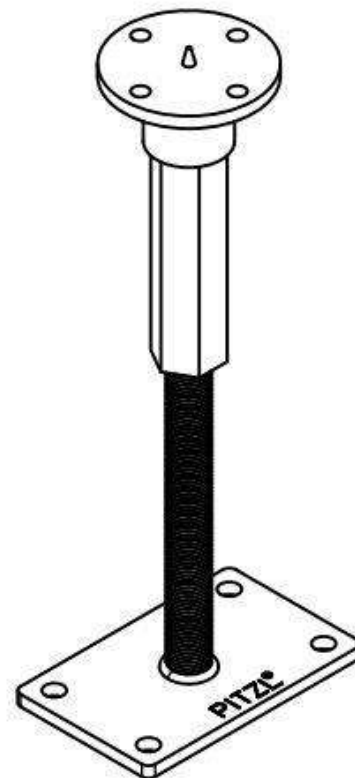
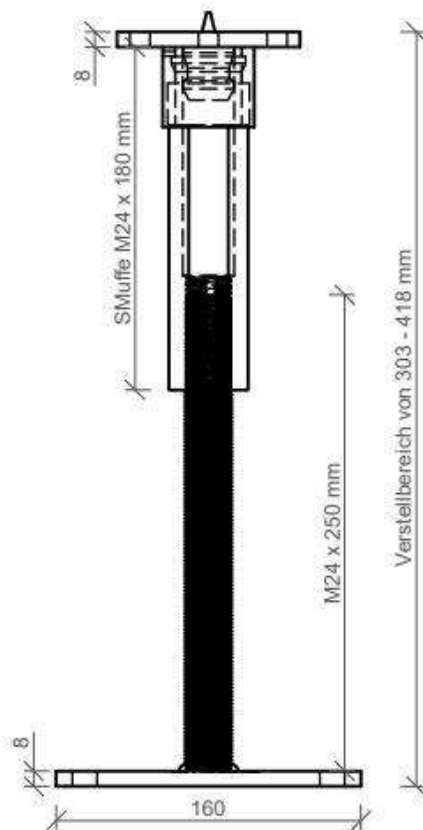
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|  | Pitzl Metallbau GmbH & Co.KG<br>Siemensstraße 26<br>D - 84051 Altheim<br>Tel +49(0) 8703 9346-0<br>Fax +49(0) 8703 9346-55<br>www.pitzl-connectors.com | Arskelnummer:<br>10529.1090<br>10529.1990 |
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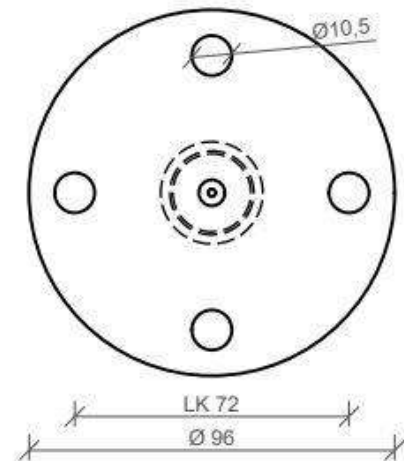
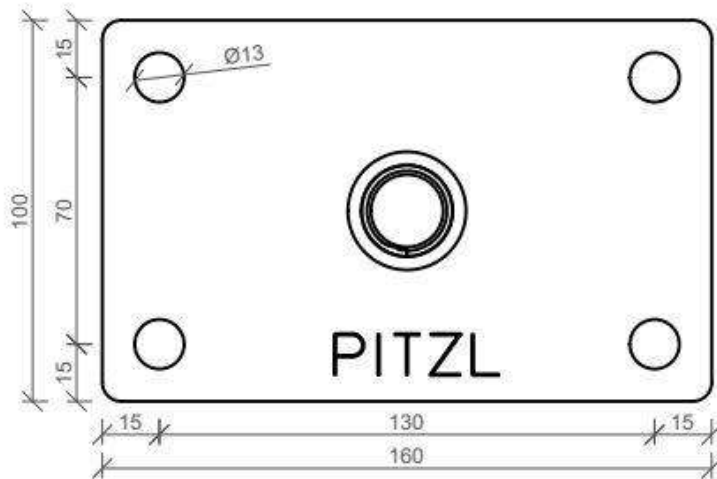
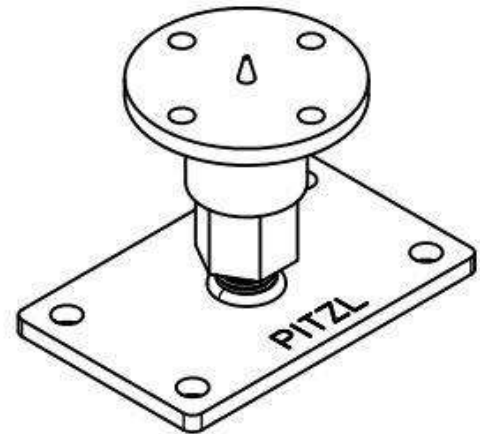
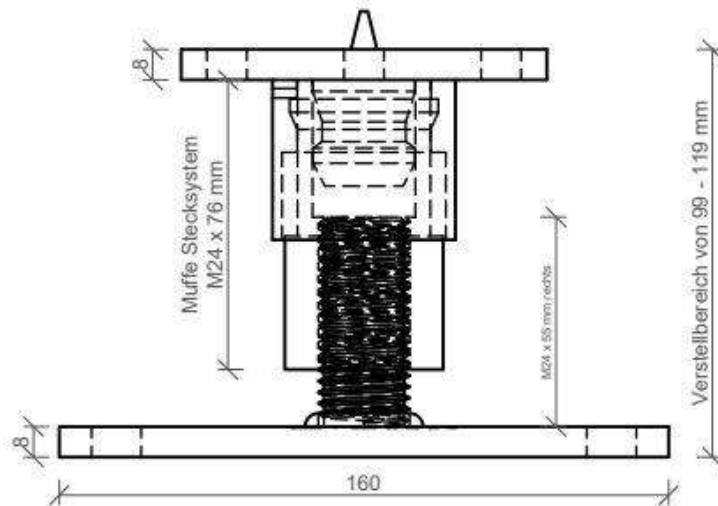


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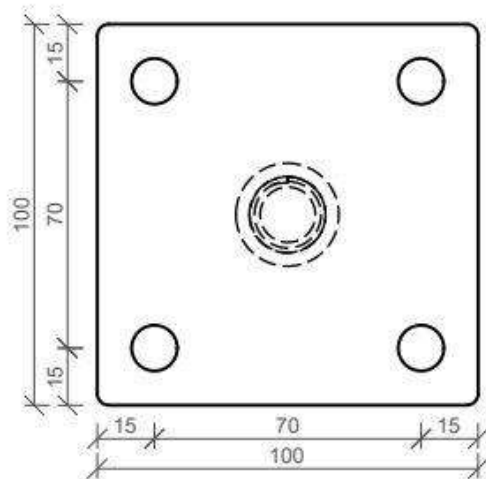
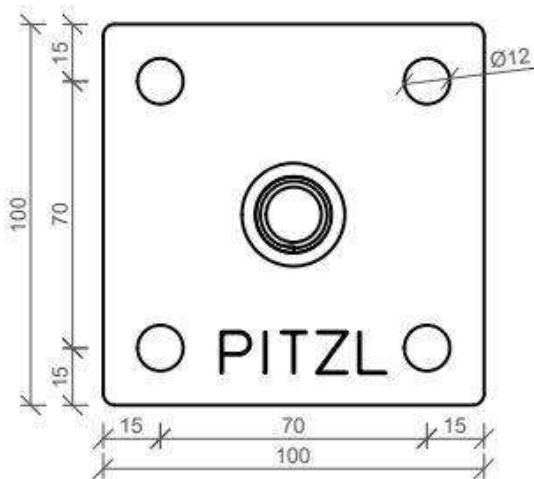
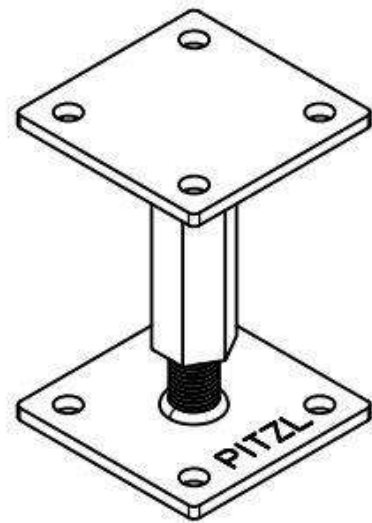
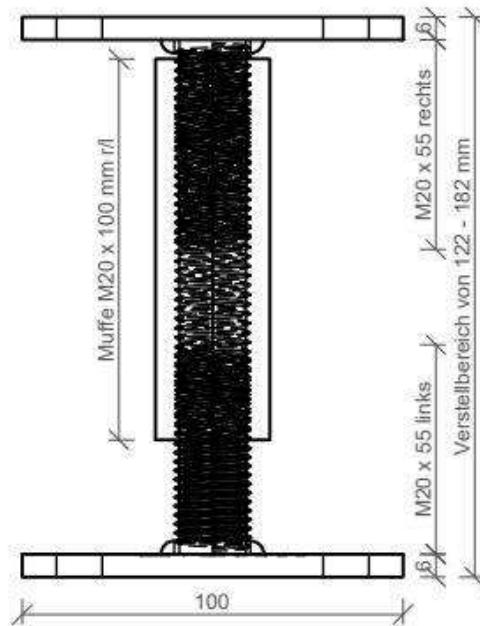
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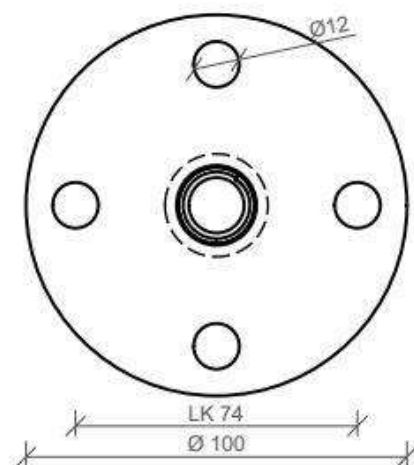
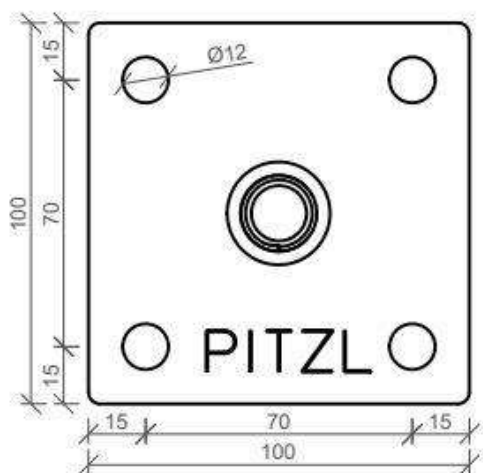
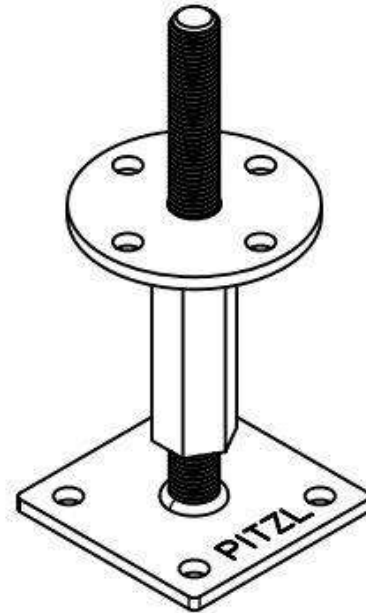
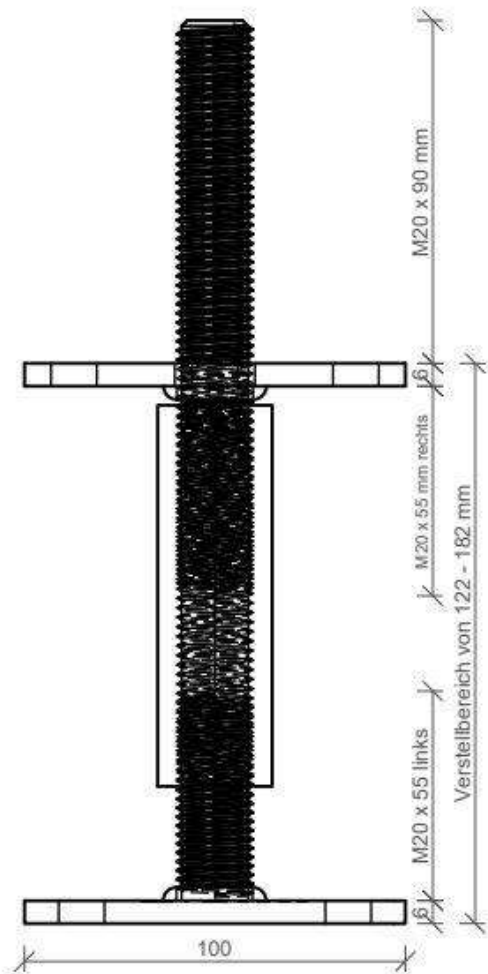
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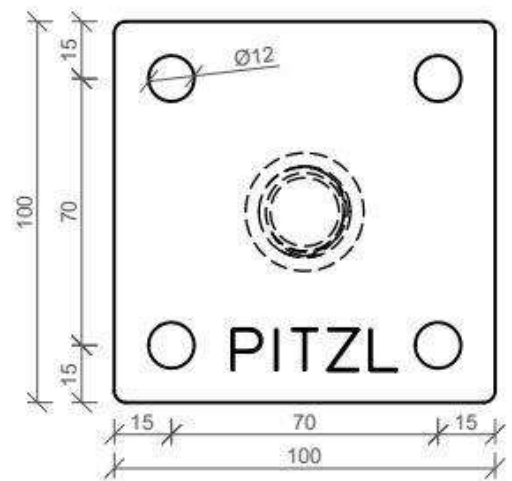
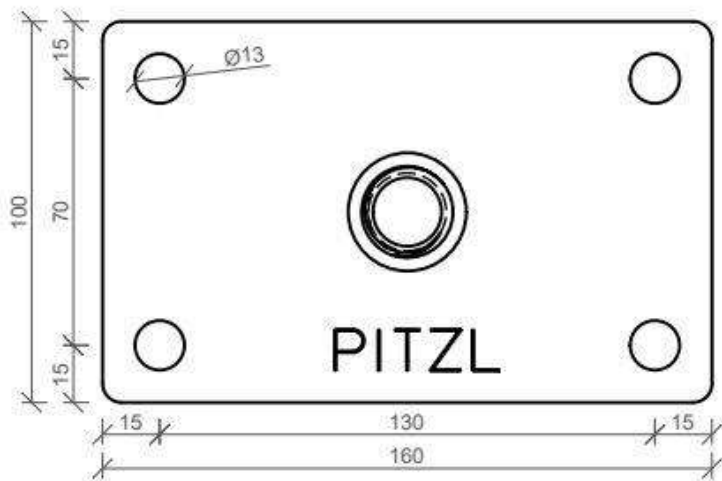
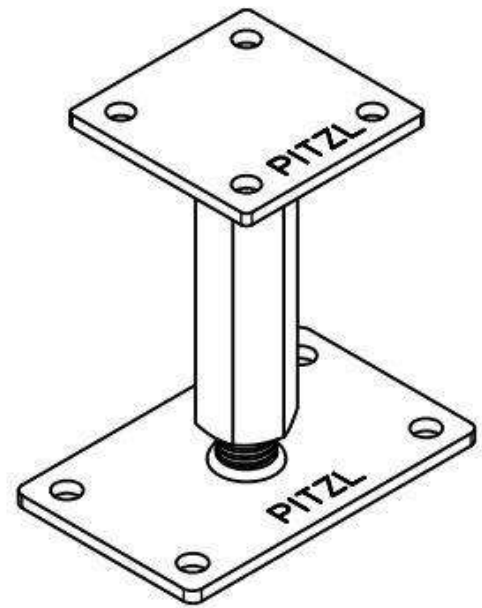
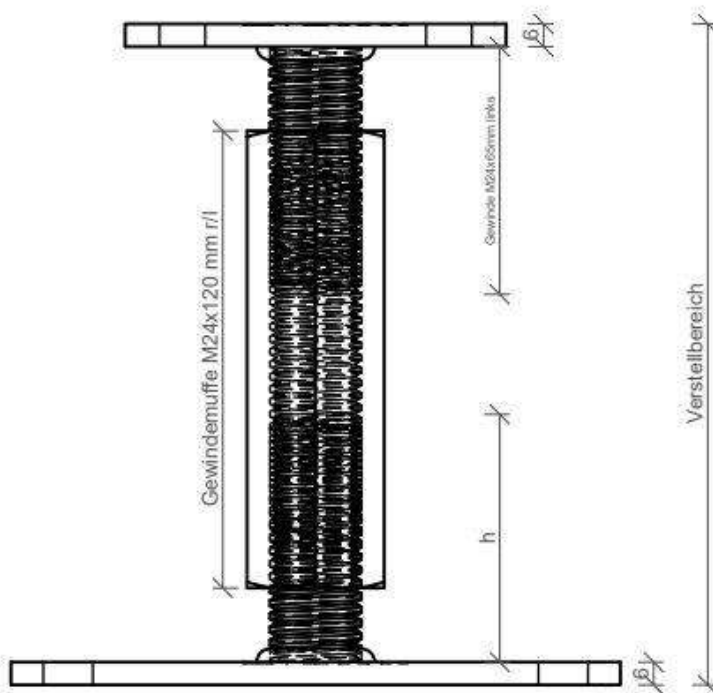










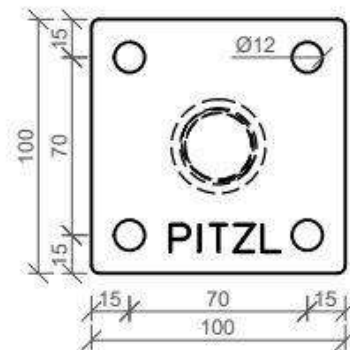
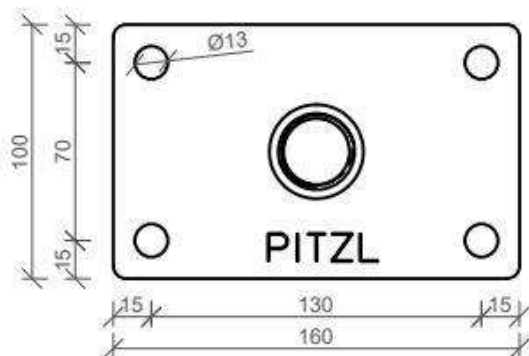
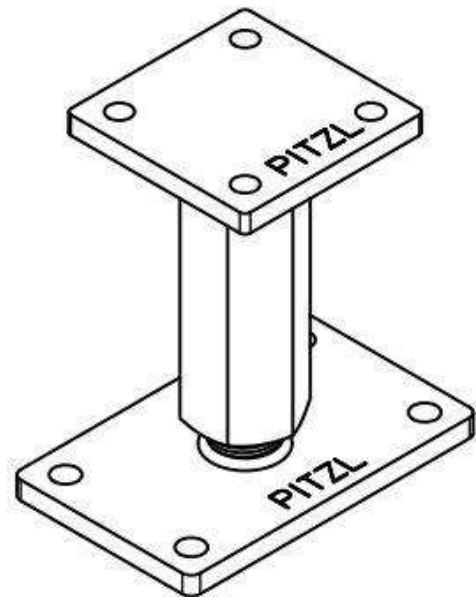
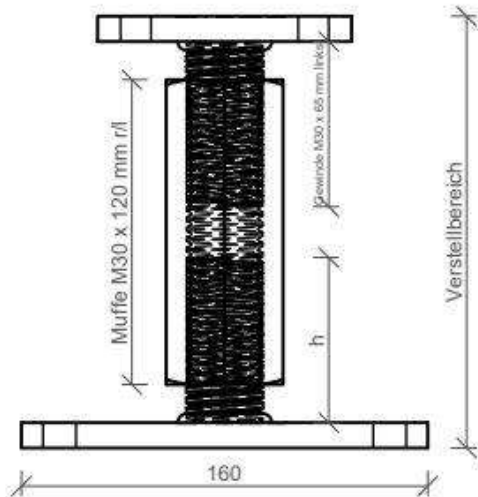


| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 10920.1000 | 65 mm    | 142 - 207 mm    |
| 10920.1100 | 90 mm    | 167 - 232 mm    |
| 10920.1200 | 150 mm   | 227 - 292 mm    |
| 10920.1300 | 200 mm   | 277 - 342 mm    |
| 10920.1400 | 250 mm   | 327 - 392 mm    |



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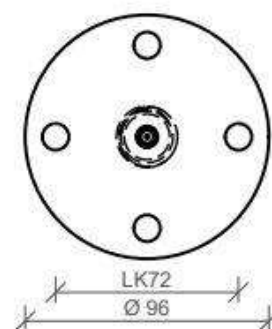
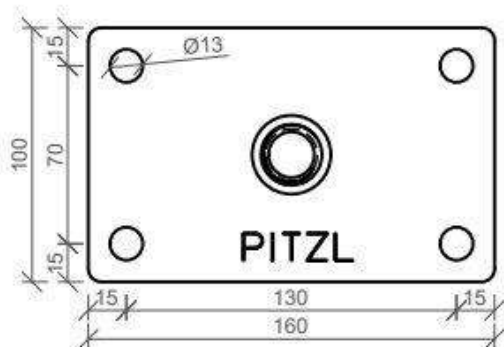
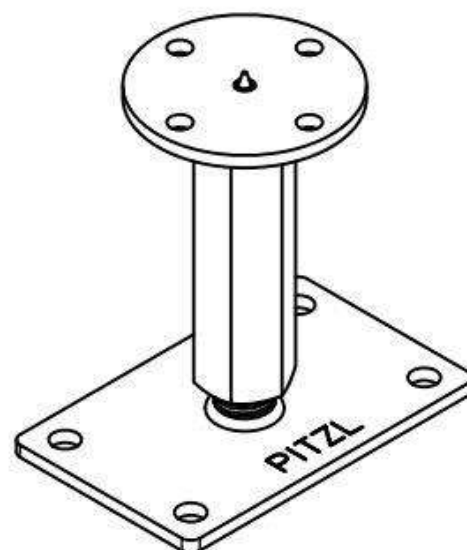
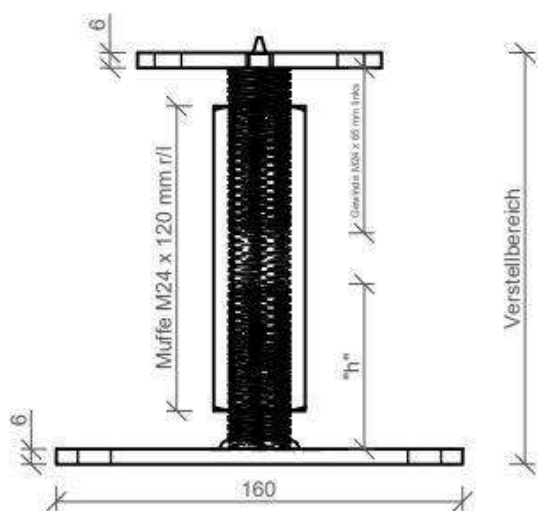


| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 10920.1003 | 65 mm    | 150-210 mm      |
| 10920.1103 | 90 mm    | 175-235 mm      |
| 10920.1203 | 150 mm   | 235-295 mm      |
| 10920.1303 | 200 mm   | 285-345 mm      |
| 10920.1403 | 250 mm   | 335-395 mm      |



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Artikelnummer:  
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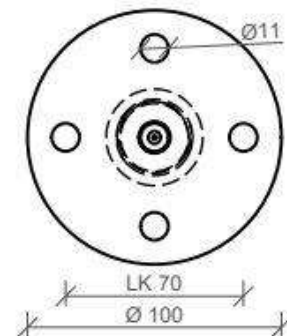
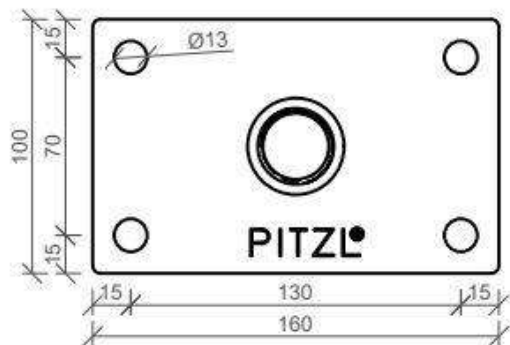
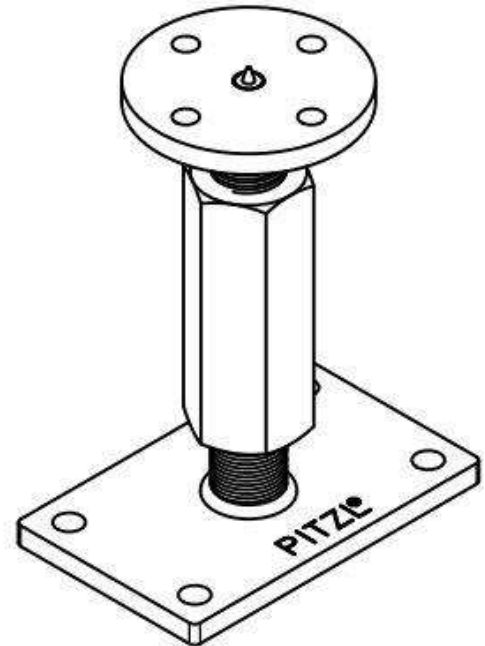
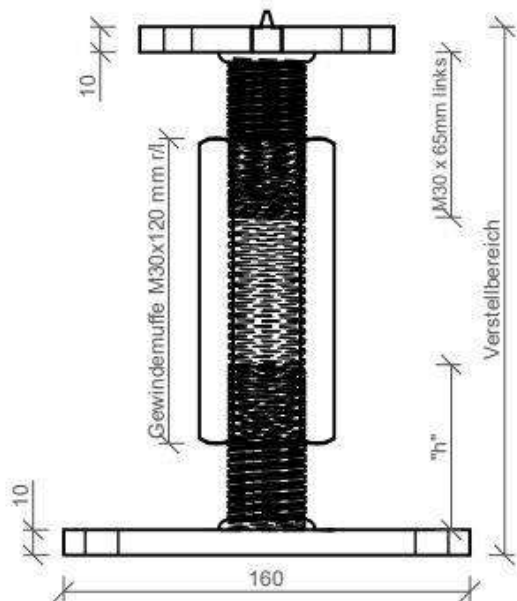


| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 10920.1090 | 65 mm    | 142 - 207 mm    |
| 10920.1190 | 90 mm    | 167 - 232 mm    |
| 10920.1290 | 150 mm   | 227 - 292 mm    |
| 10920.1390 | 200 mm   | 277 - 342 mm    |
| 10920.1490 | 250 mm   | 327 - 392 mm    |



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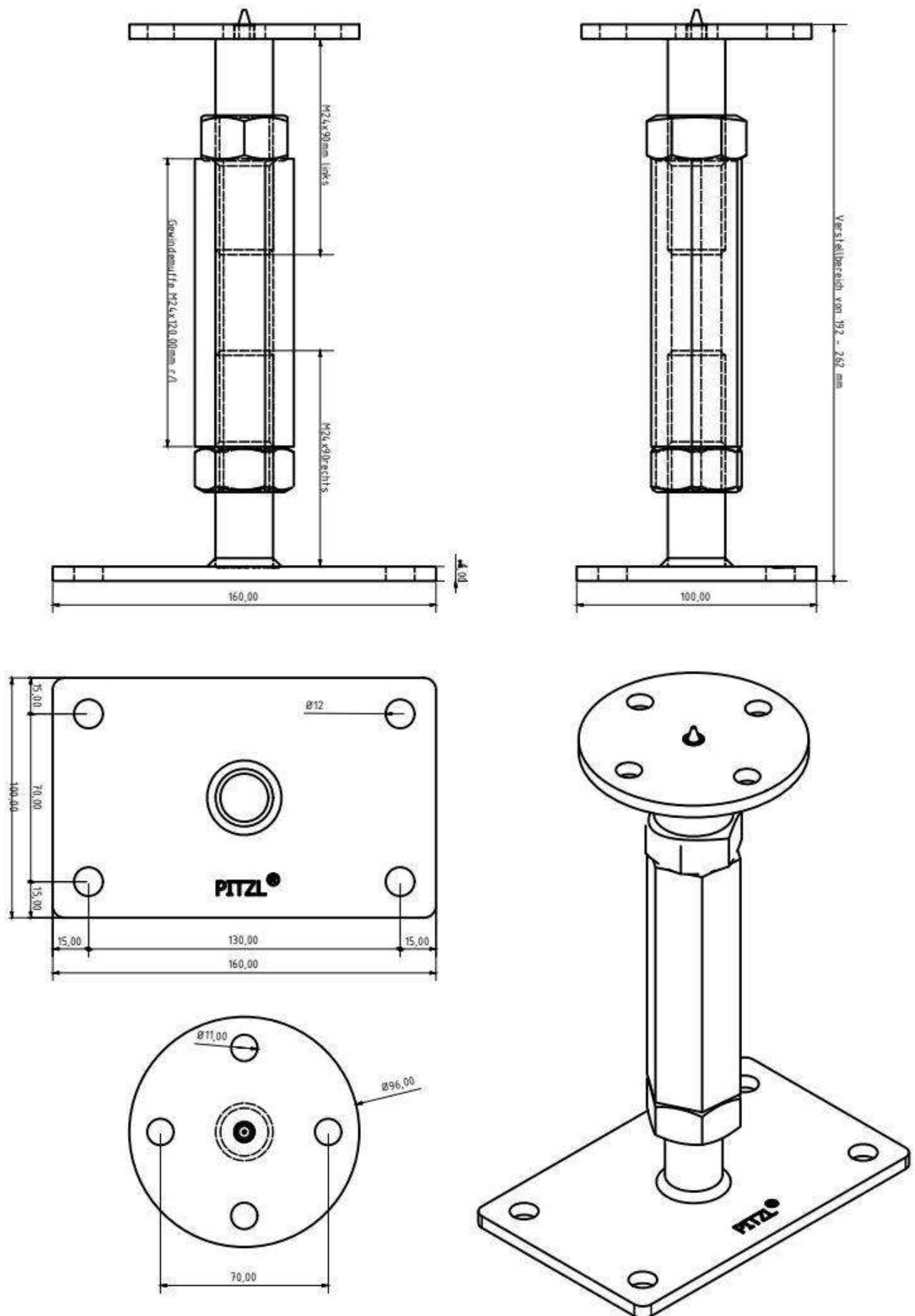


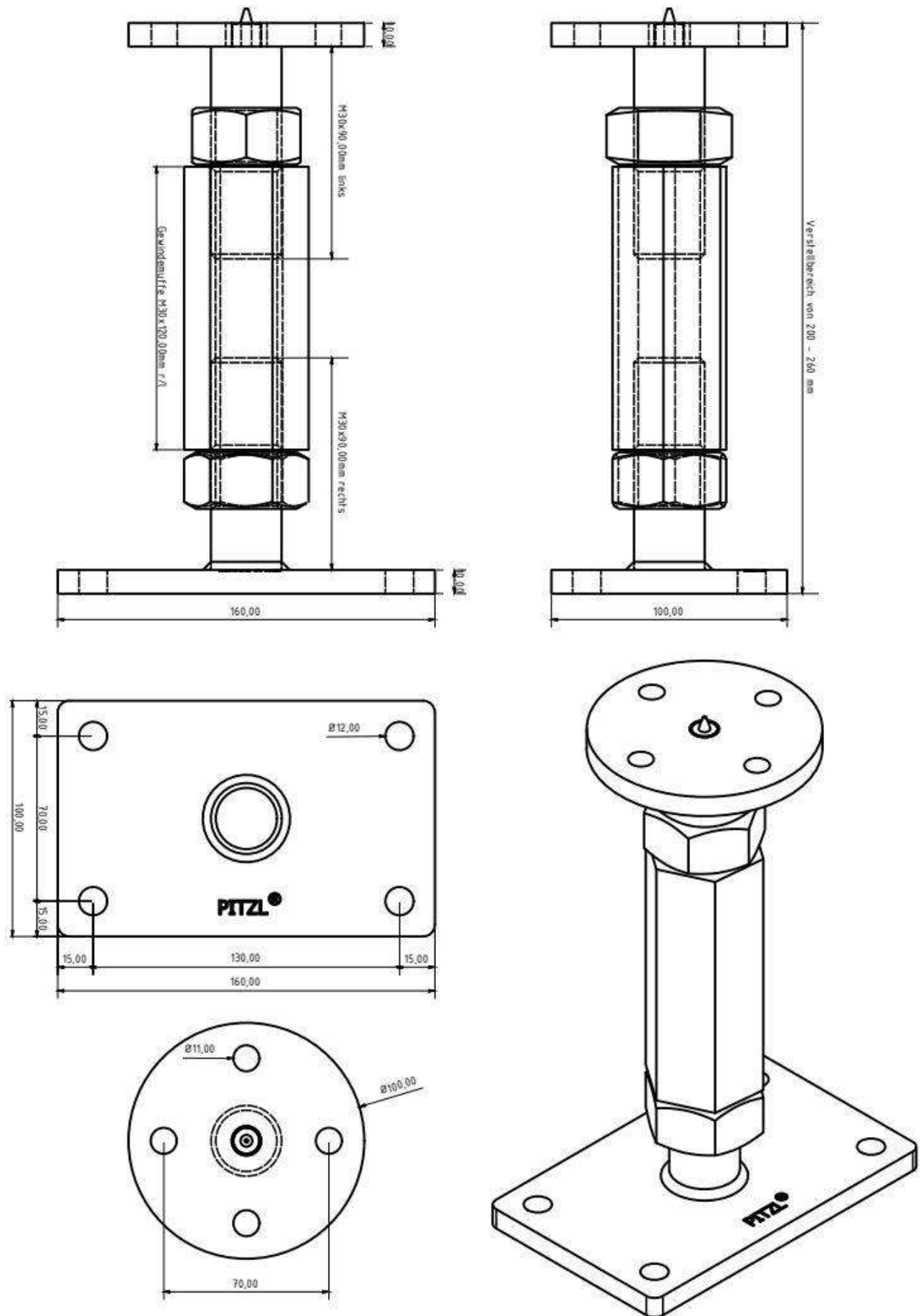
| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 10920.1093 | 65 mm    | 150 - 210 mm    |
| 10920.1193 | 90 mm    | 175 - 235 mm    |
| 10920.1293 | 150 mm   | 235 - 295 mm    |
| 10920.1393 | 200 mm   | 285 - 345 mm    |
| 10920.1493 | 250 mm   | 335 - 395 mm    |



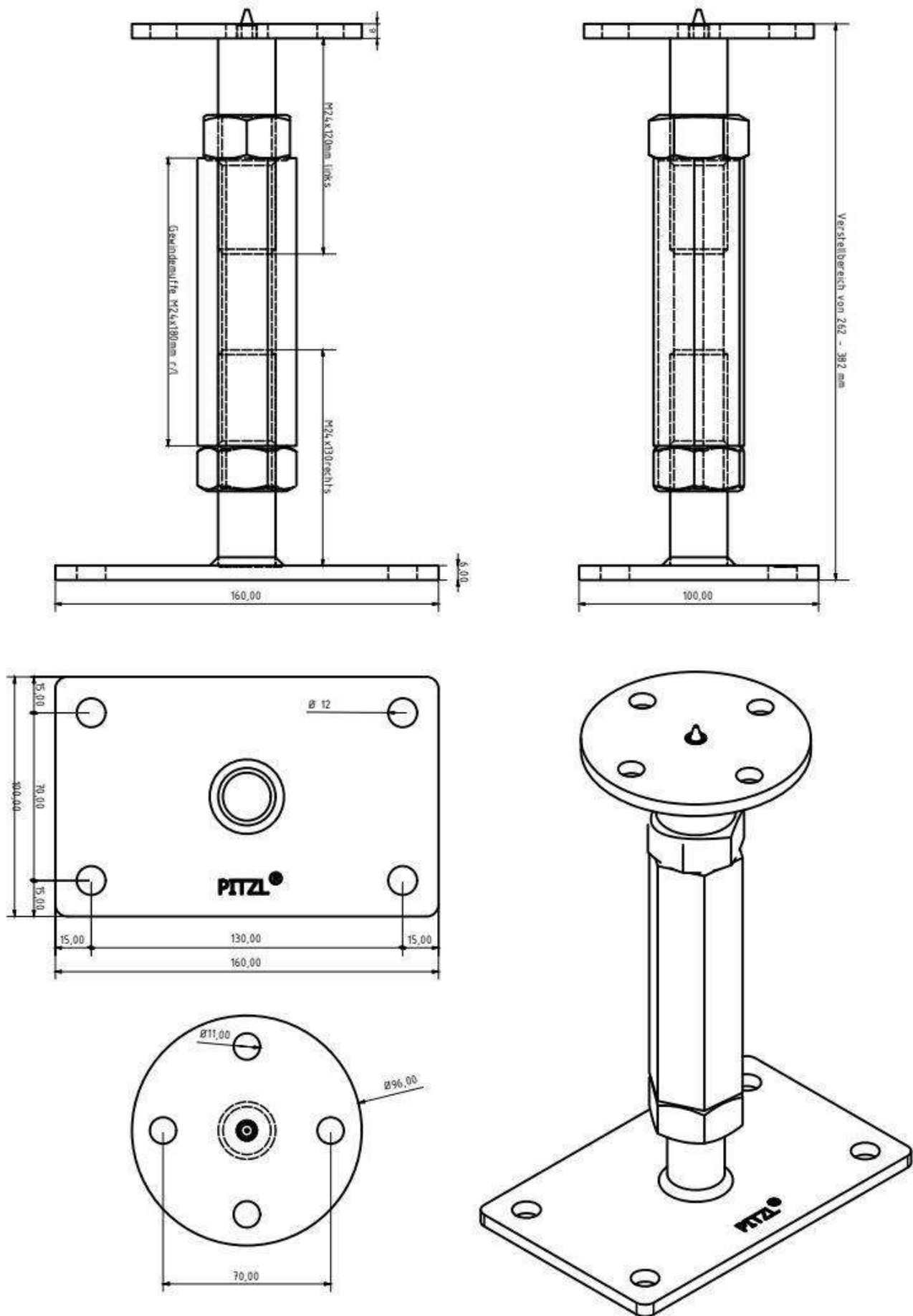
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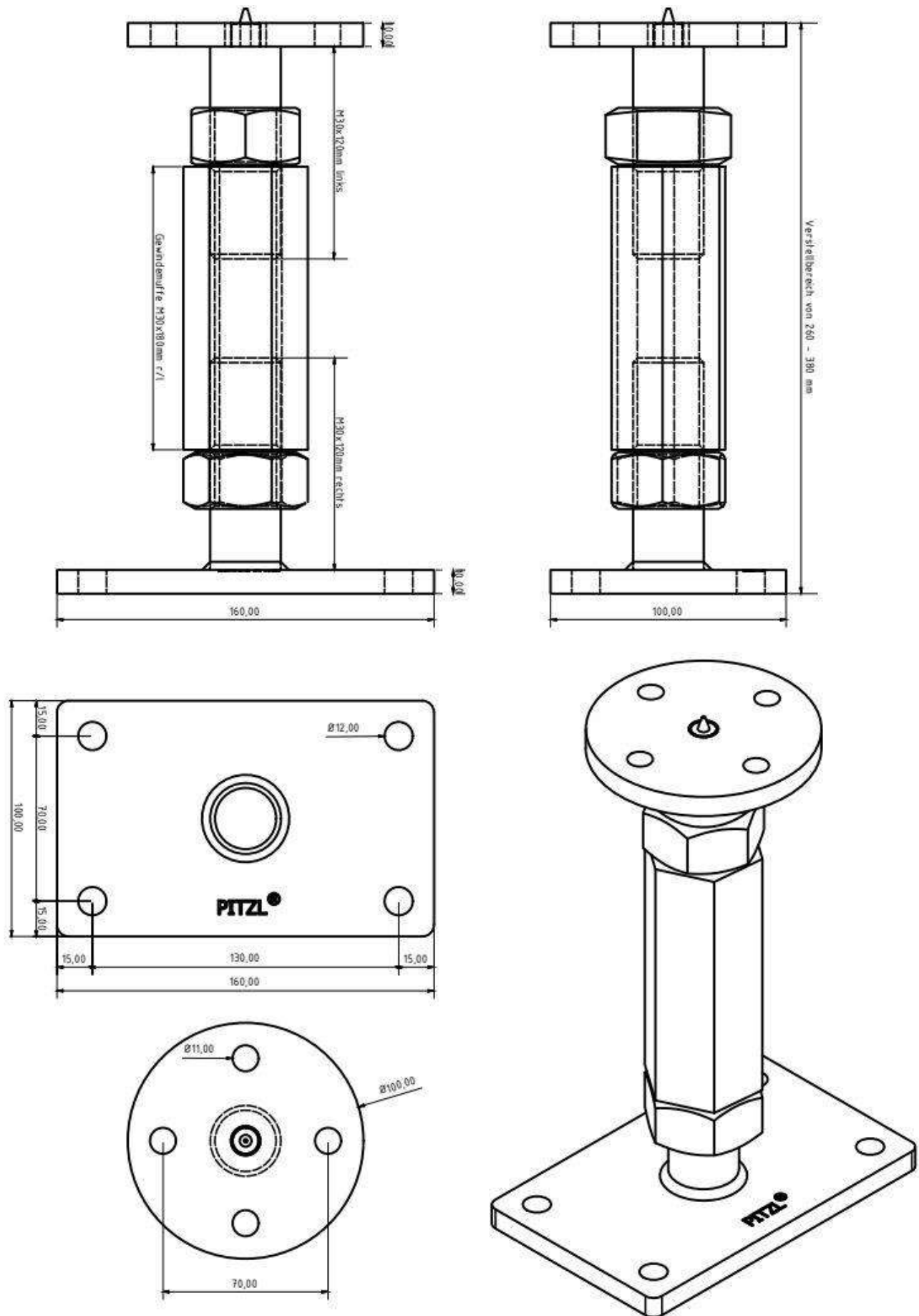


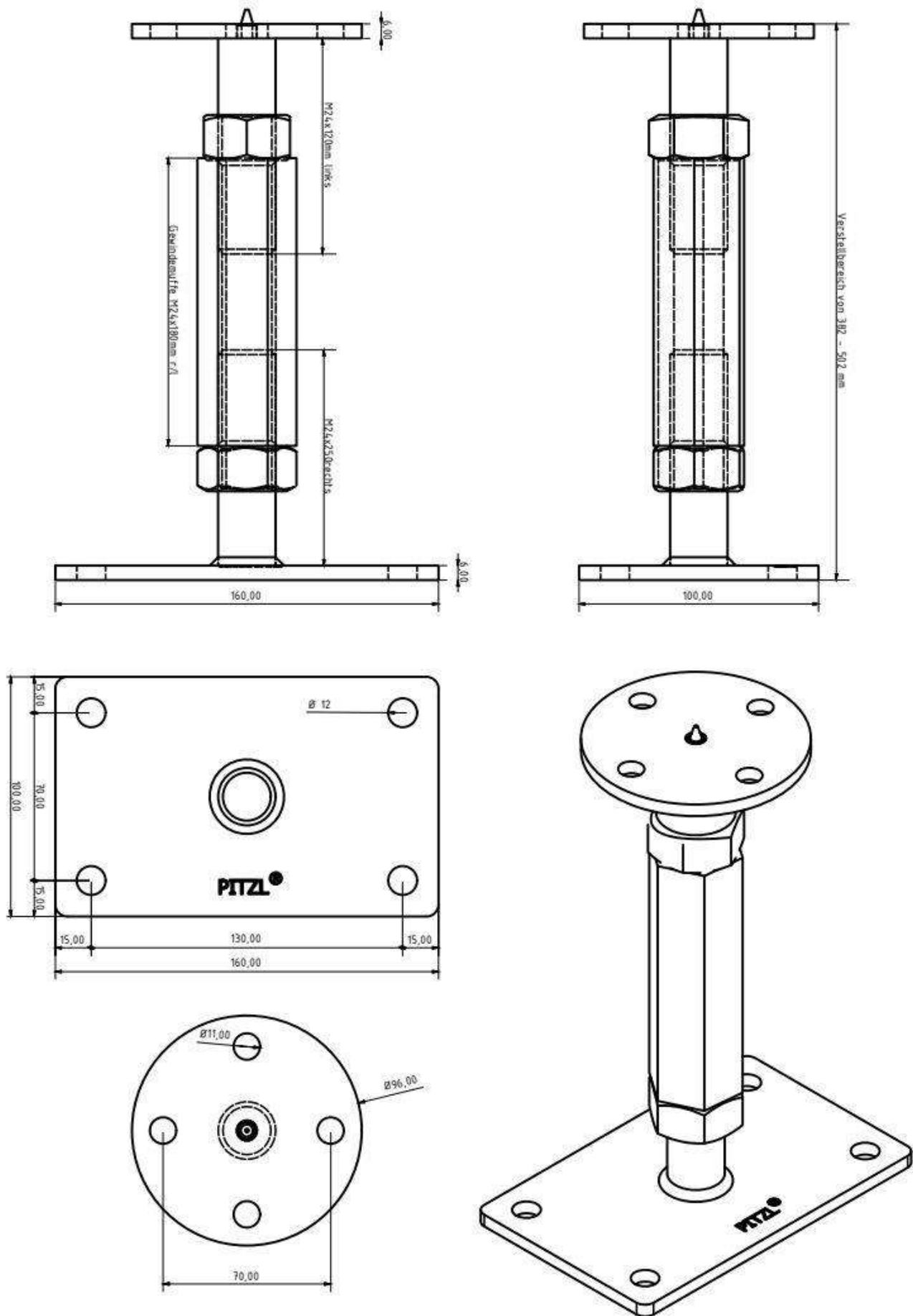


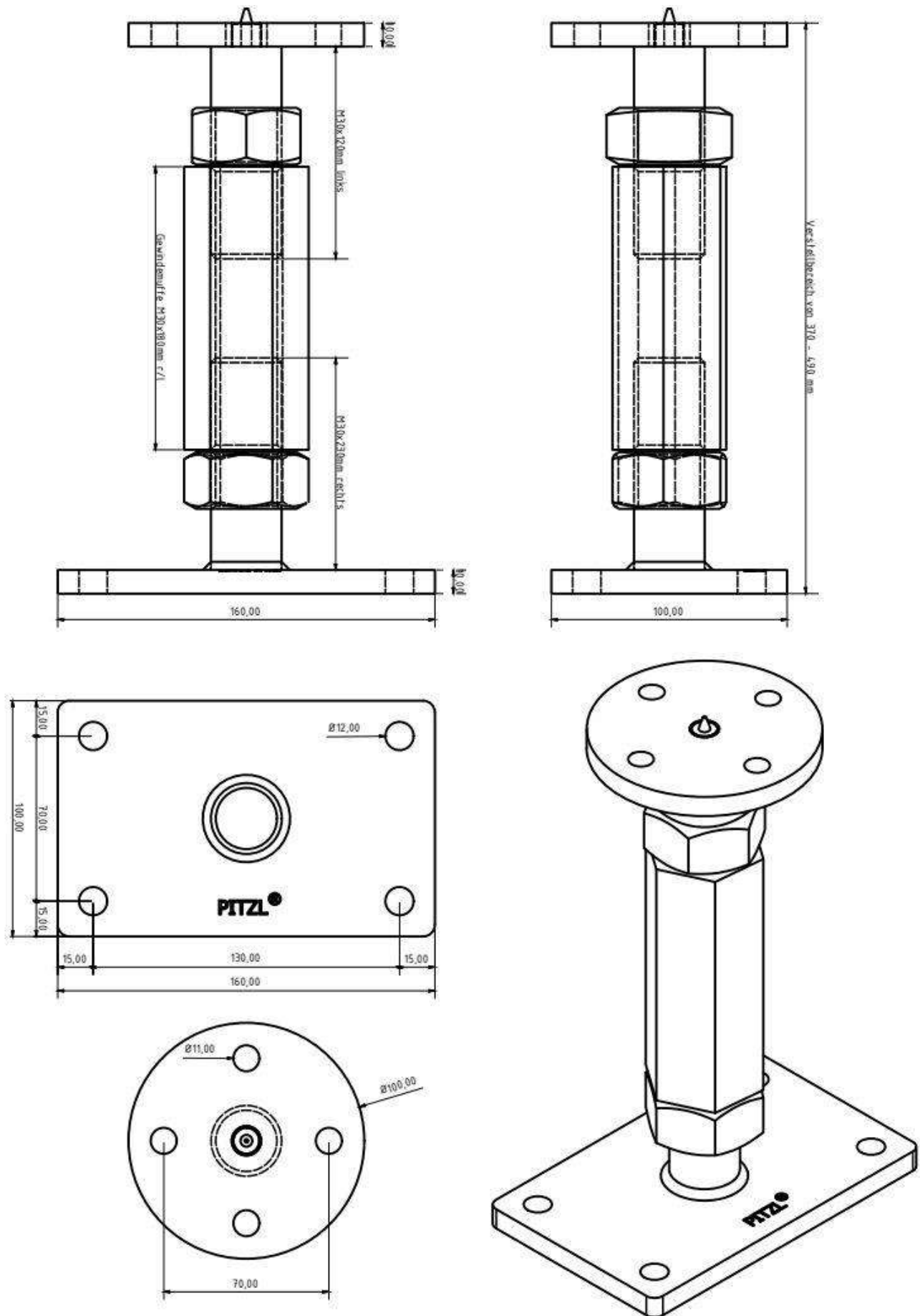


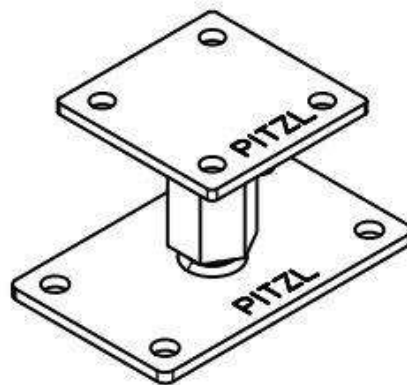
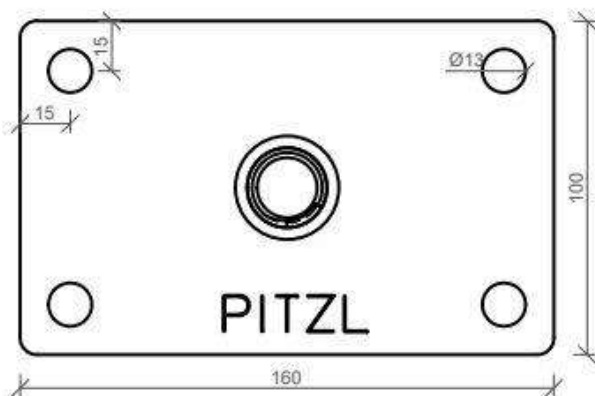
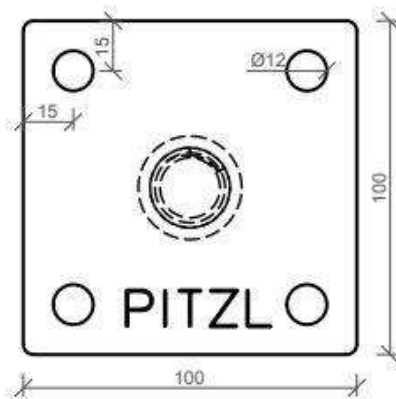
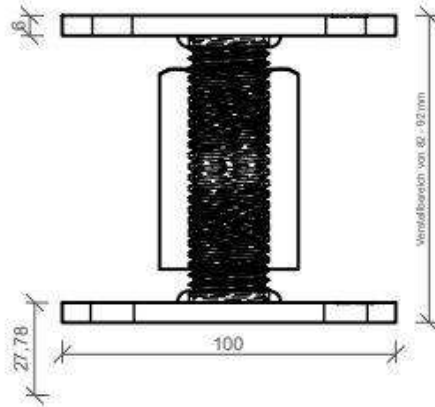
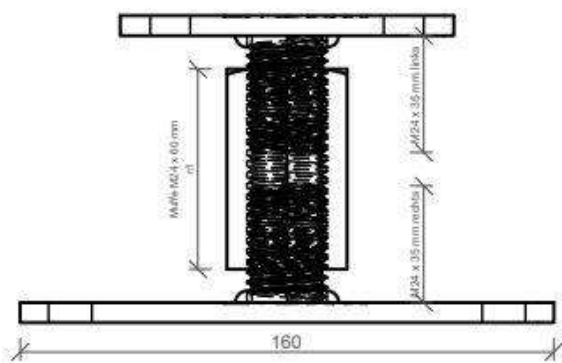




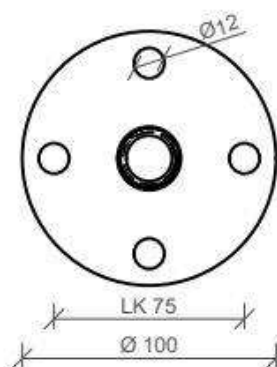
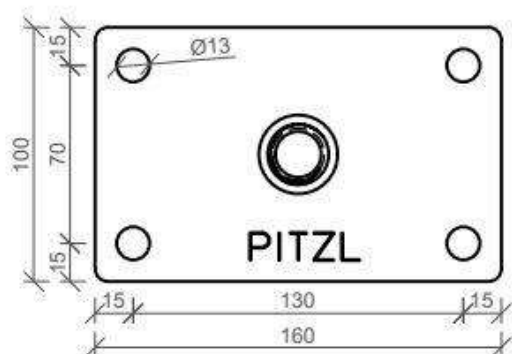
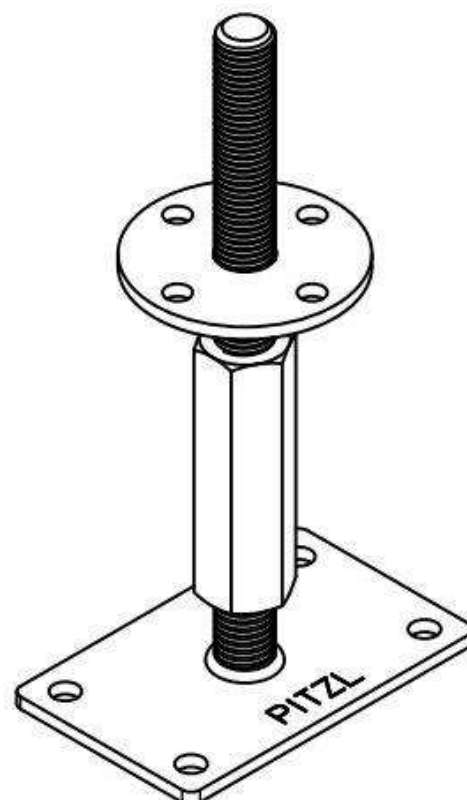
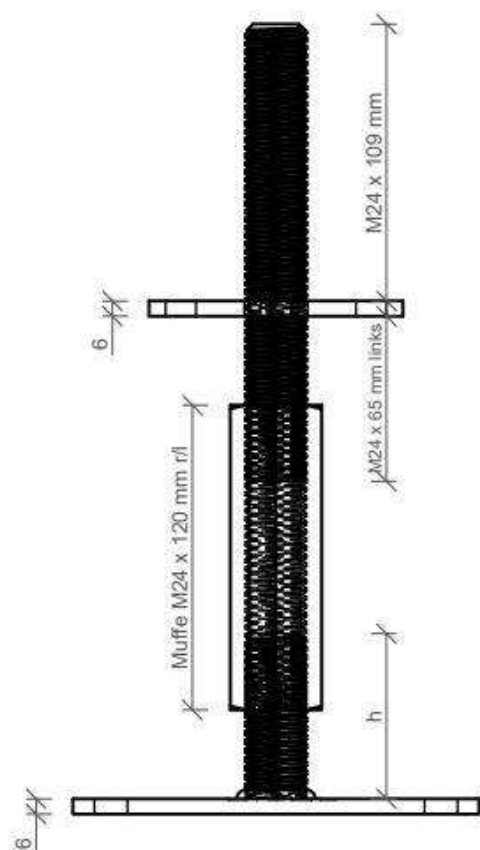








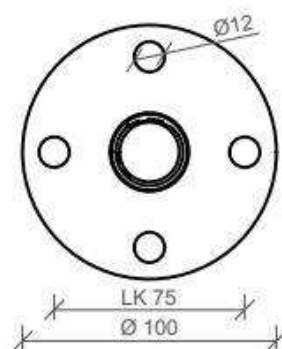
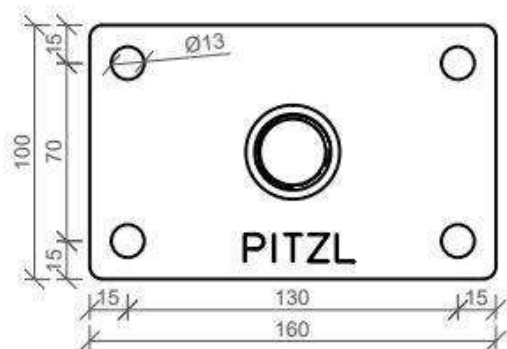
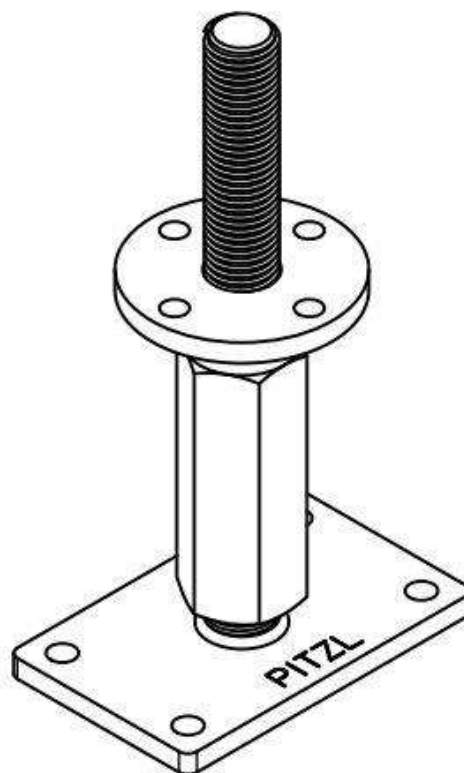
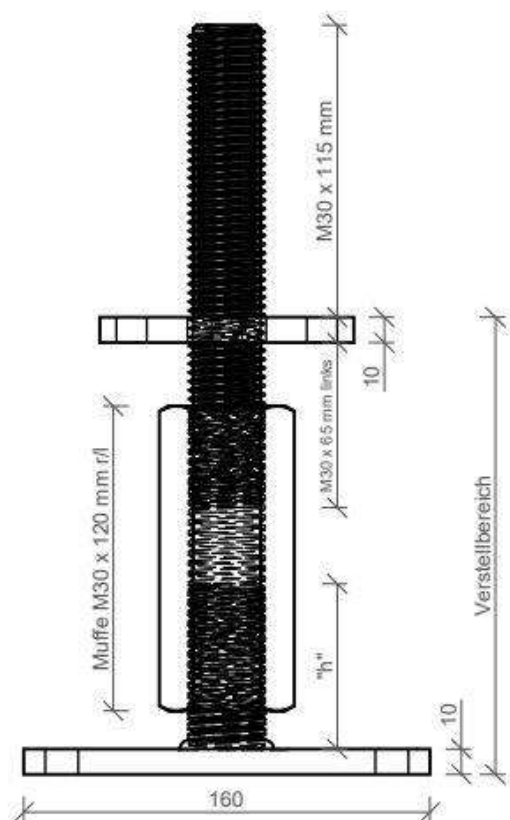




| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 10921.1000 | 65 mm    | 142 - 207 mm    |
| 10921.1100 | 90 mm    | 167 - 232 mm    |
| 10921.1200 | 150 mm   | 227 - 292 mm    |
| 10921.1300 | 200 mm   | 277 - 342 mm    |
| 10921.1400 | 250 mm   | 327 - 392 mm    |



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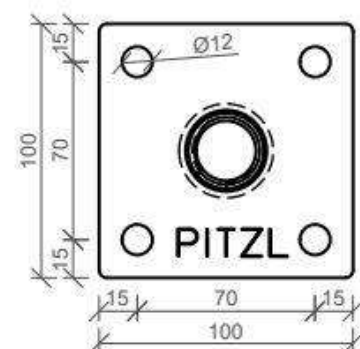
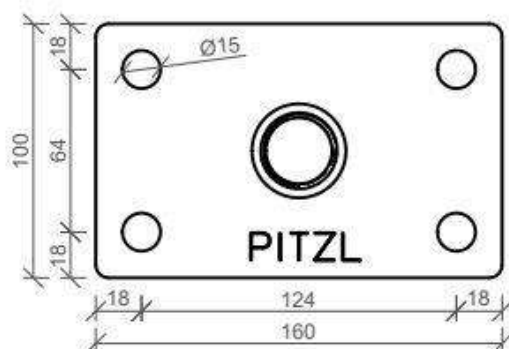
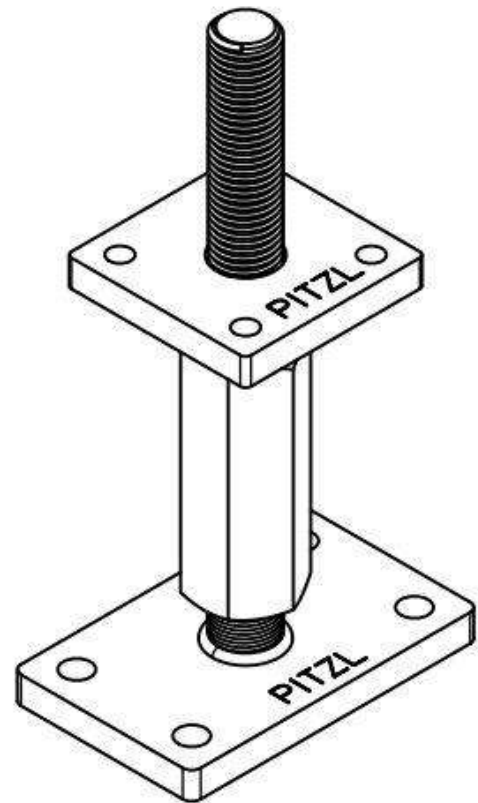
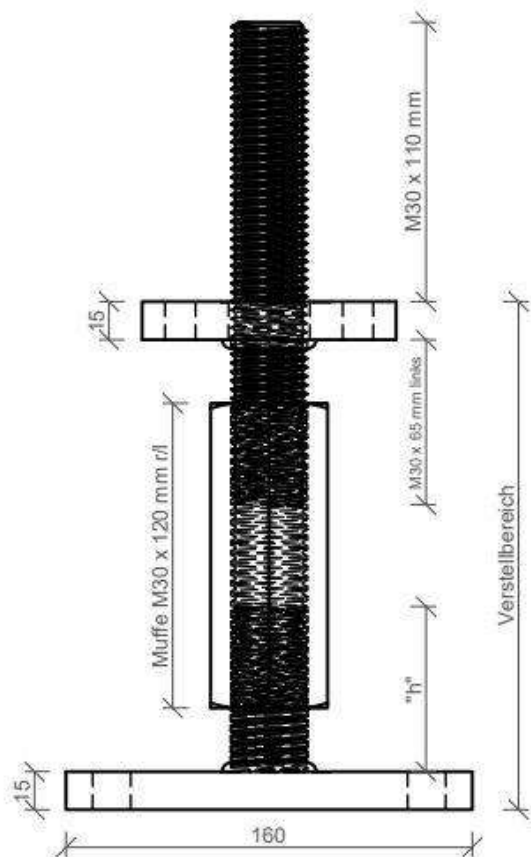


| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 10921.1003 | 65 mm    | 150 - 210 mm    |
| 10921.1103 | 90 mm    | 175 - 235 mm    |
| 10921.1203 | 150 mm   | 235 - 295 mm    |
| 10921.1303 | 200 mm   | 285 - 345 mm    |
| 10921.1403 | 250 mm   | 335 - 395 mm    |



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 10921.1003  
 10921.1103  
 10921.1203  
 10921.1303  
 10921.1403



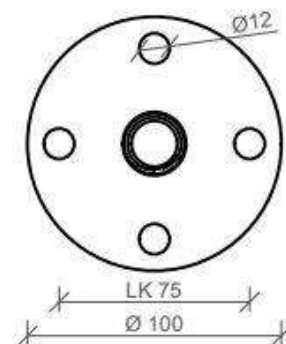
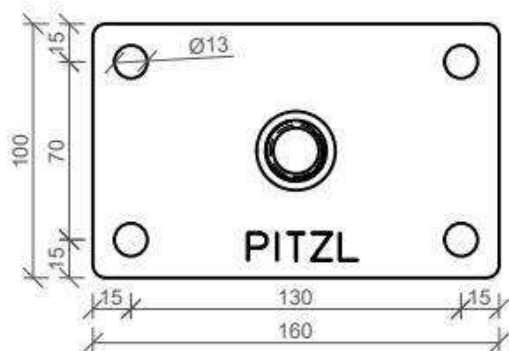
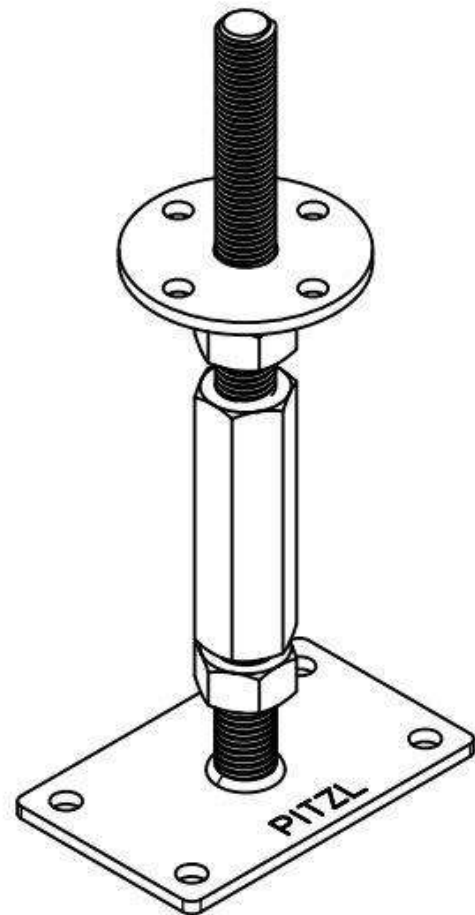
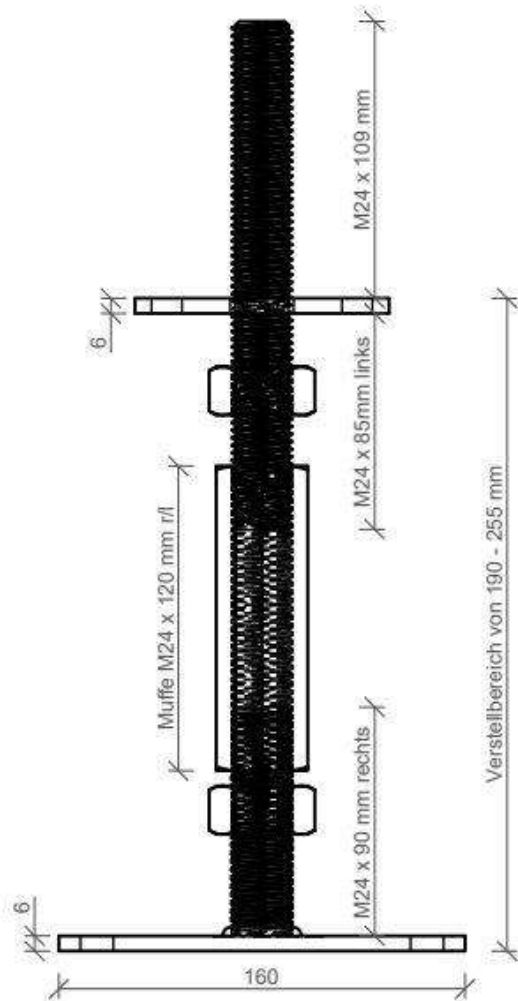
| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 10921.1006 | 65 mm    | 160 - 220 mm    |
| 10921.1106 | 90 mm    | 185 - 245 mm    |
| 10921.1206 | 150 mm   | 245 - 305 mm    |
| 10921.1306 | 200 mm   | 295 - 355 mm    |
| 10921.1406 | 250 mm   | 345 - 405 mm    |

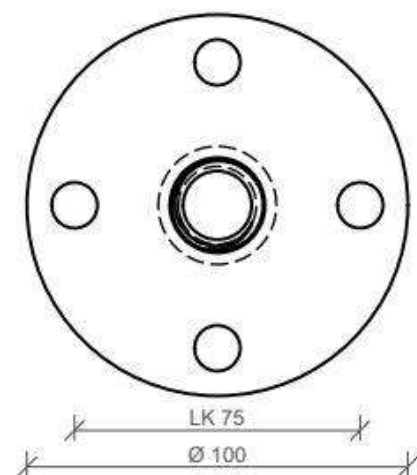
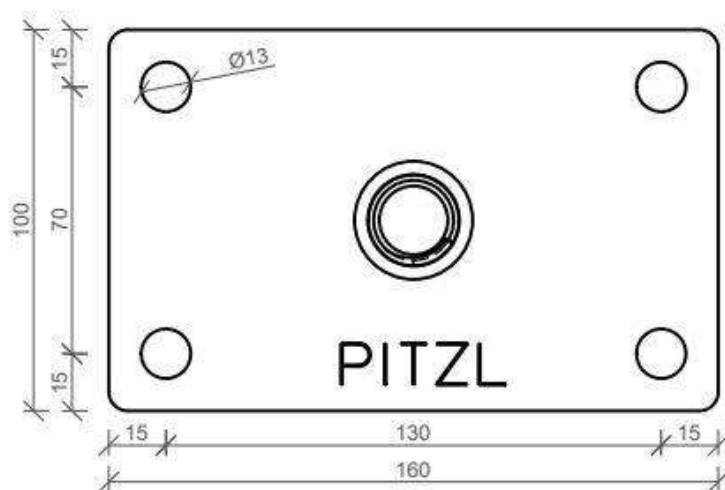
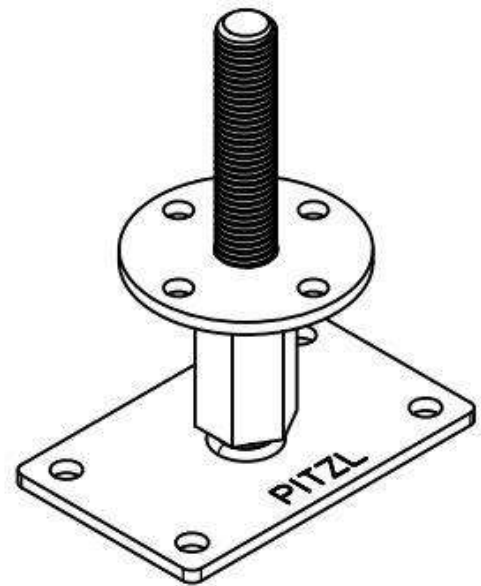
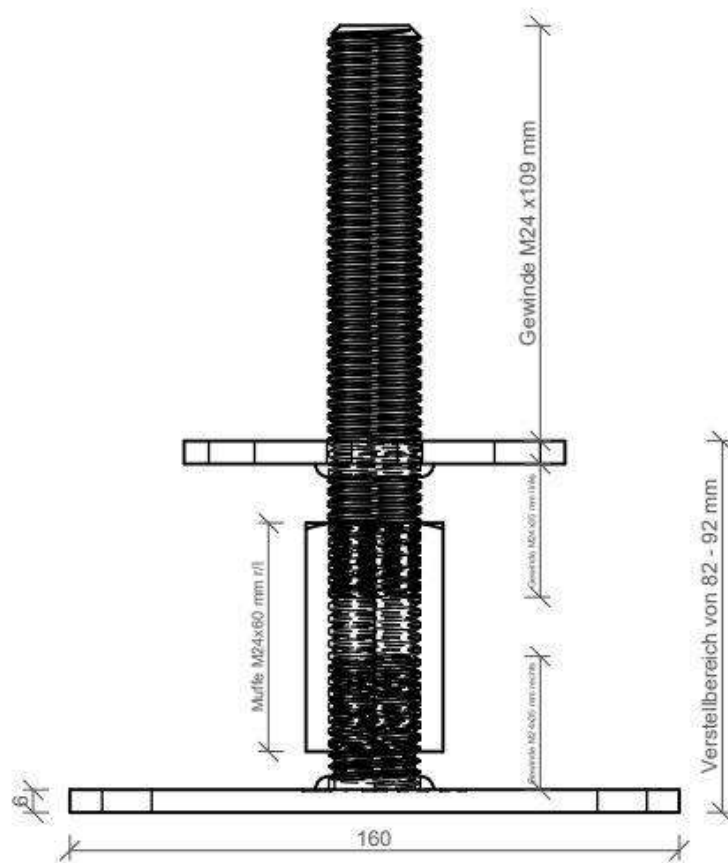


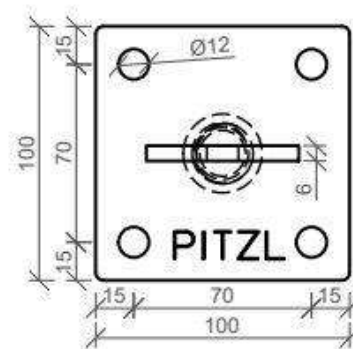
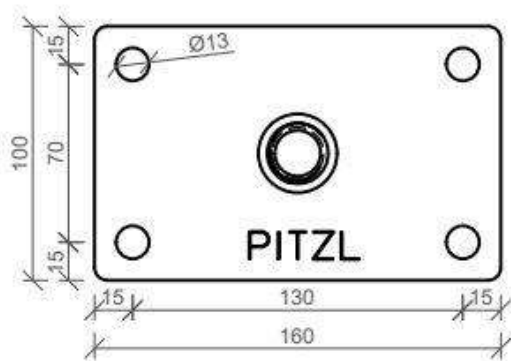
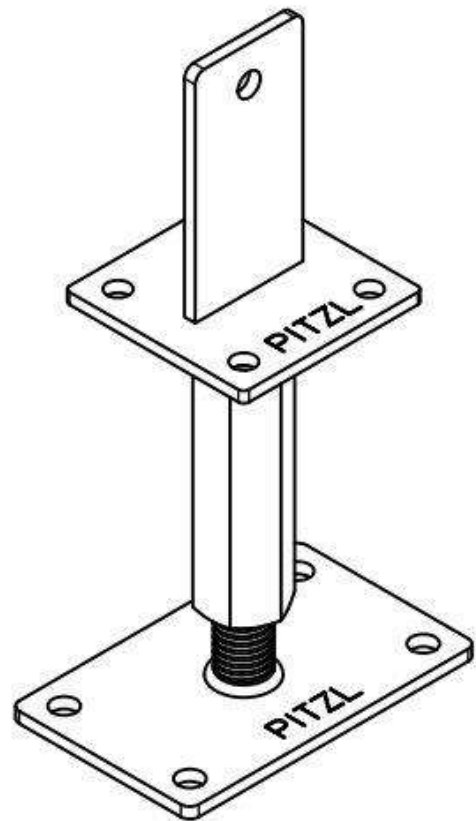
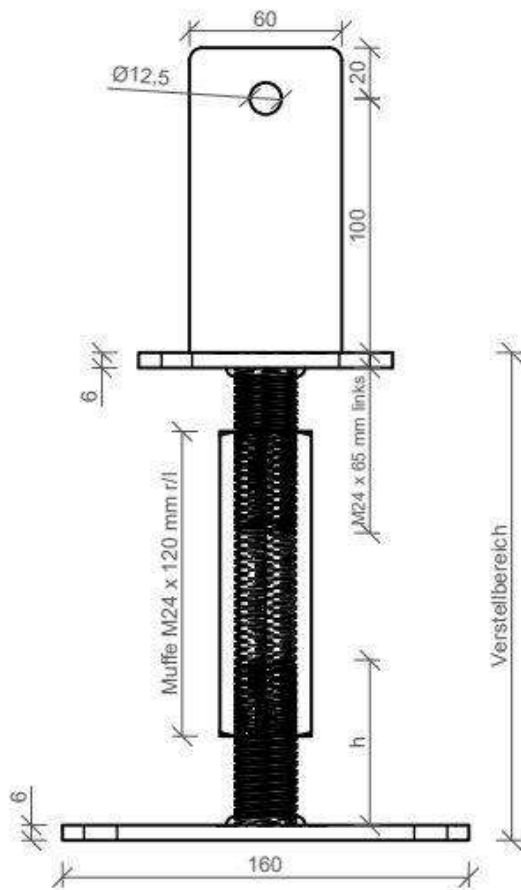
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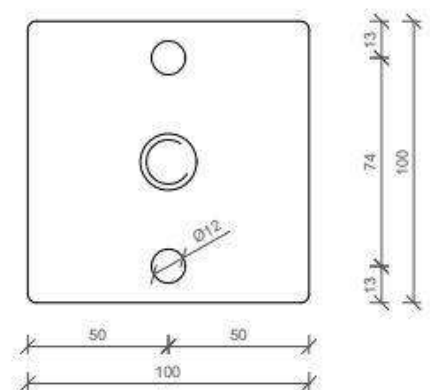
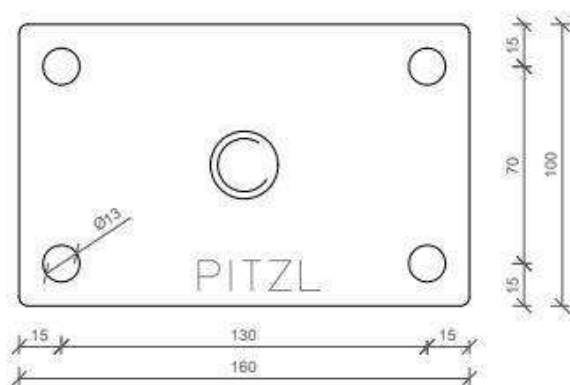
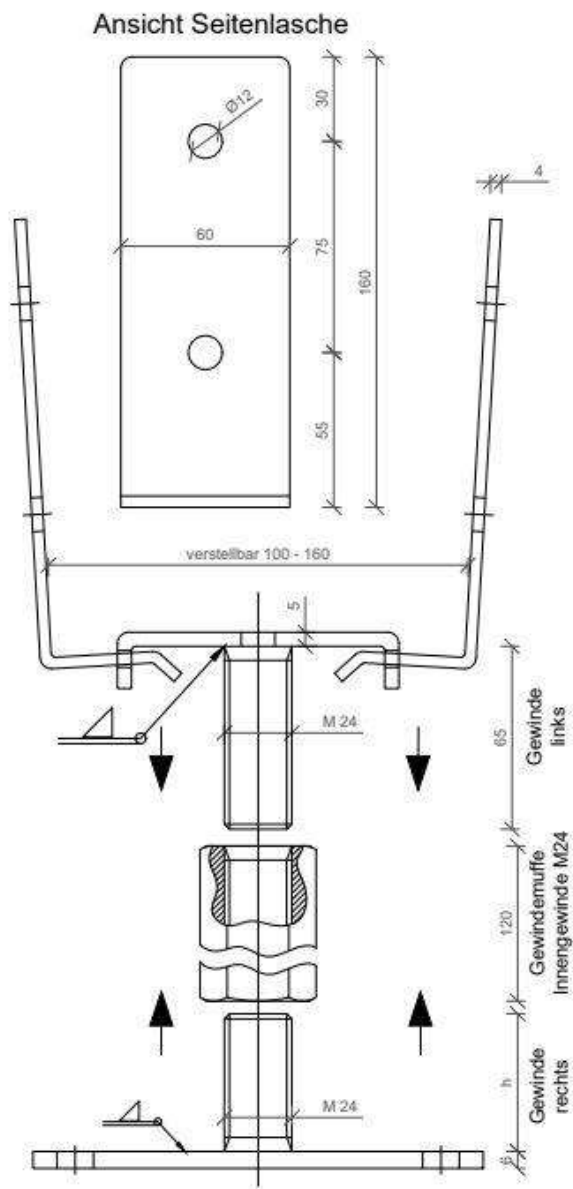


| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 10922.1000 | 65 mm    | 142 - 207 mm    |
| 10922.1100 | 90 mm    | 167 - 232 mm    |
| 10922.1200 | 150 mm   | 227 - 292 mm    |
| 10922.1300 | 200 mm   | 277 - 342 mm    |
| 10922.1400 | 250 mm   | 327 - 392 mm    |



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Artikelnummer:  
 10922.1000  
 10922.1100  
 10922.1200  
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 10922.1400



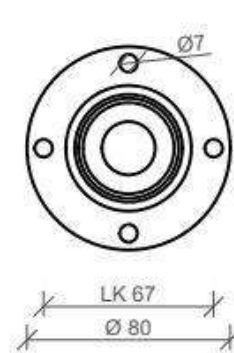
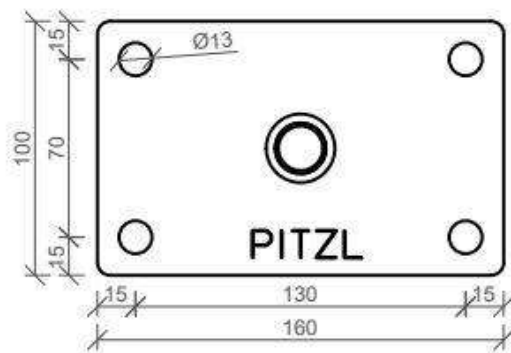
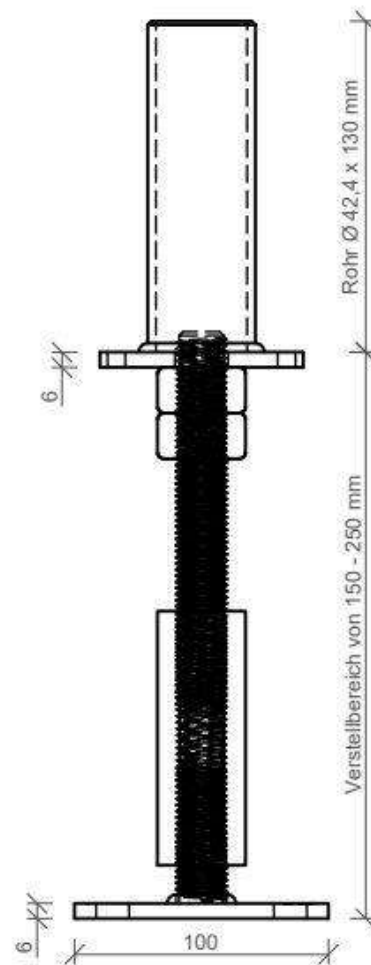
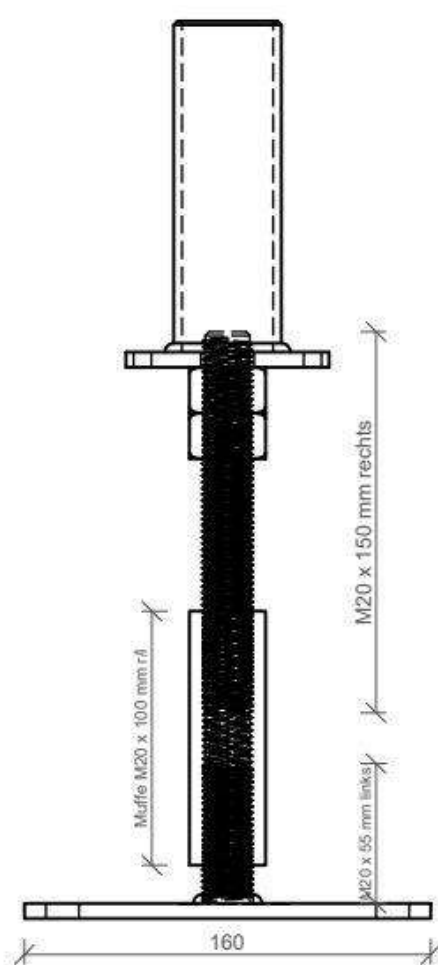
| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 10923.1000 | 65 mm    | 141 - 206 mm    |
| 10923.1100 | 90 mm    | 166 - 231 mm    |
| 10923.1200 | 150 mm   | 226 - 291 mm    |
| 10923.1300 | 200 mm   | 276 - 341 mm    |
| 10923.1400 | 250 mm   | 326 - 391 mm    |

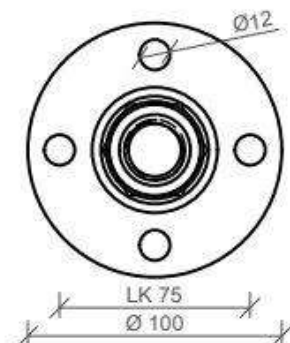
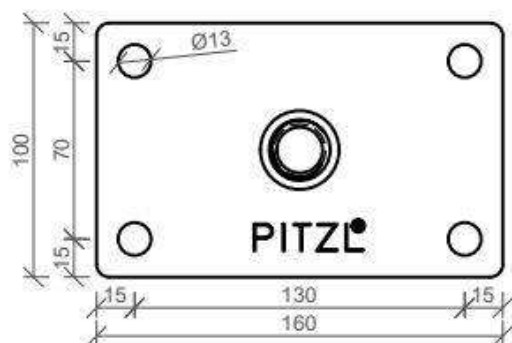
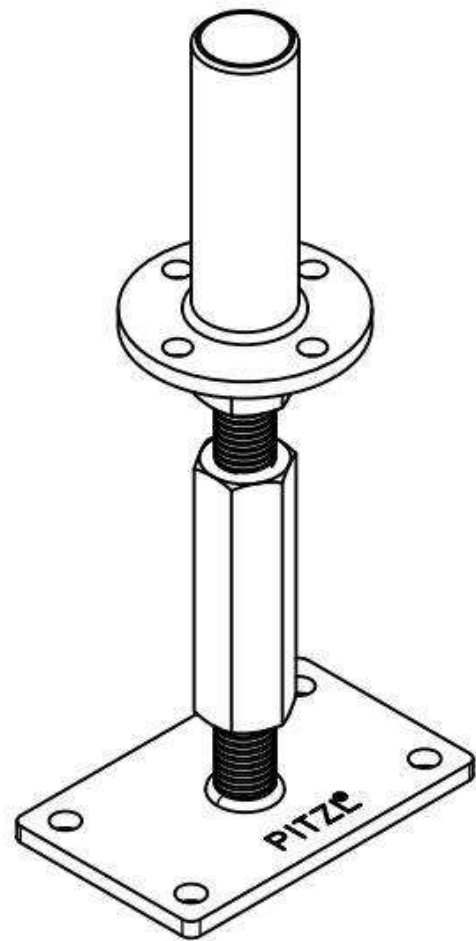
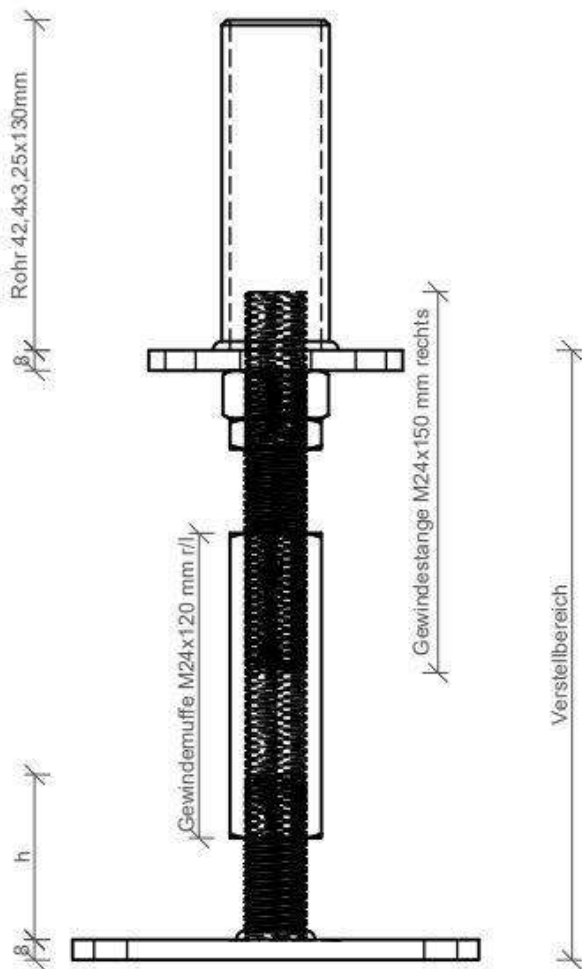


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Artikelnummer:

10934.2303  
 10934.3303



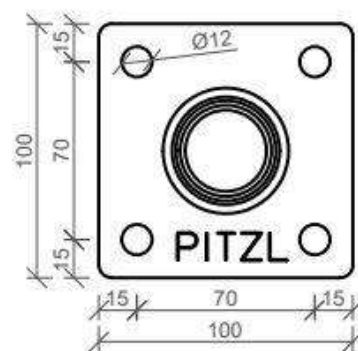
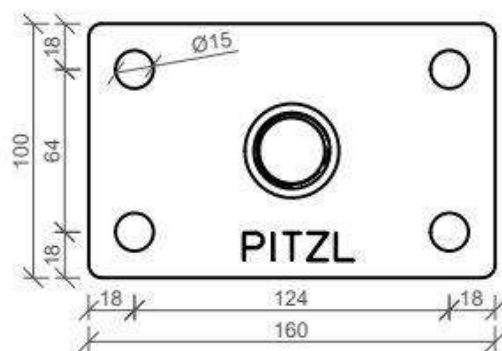
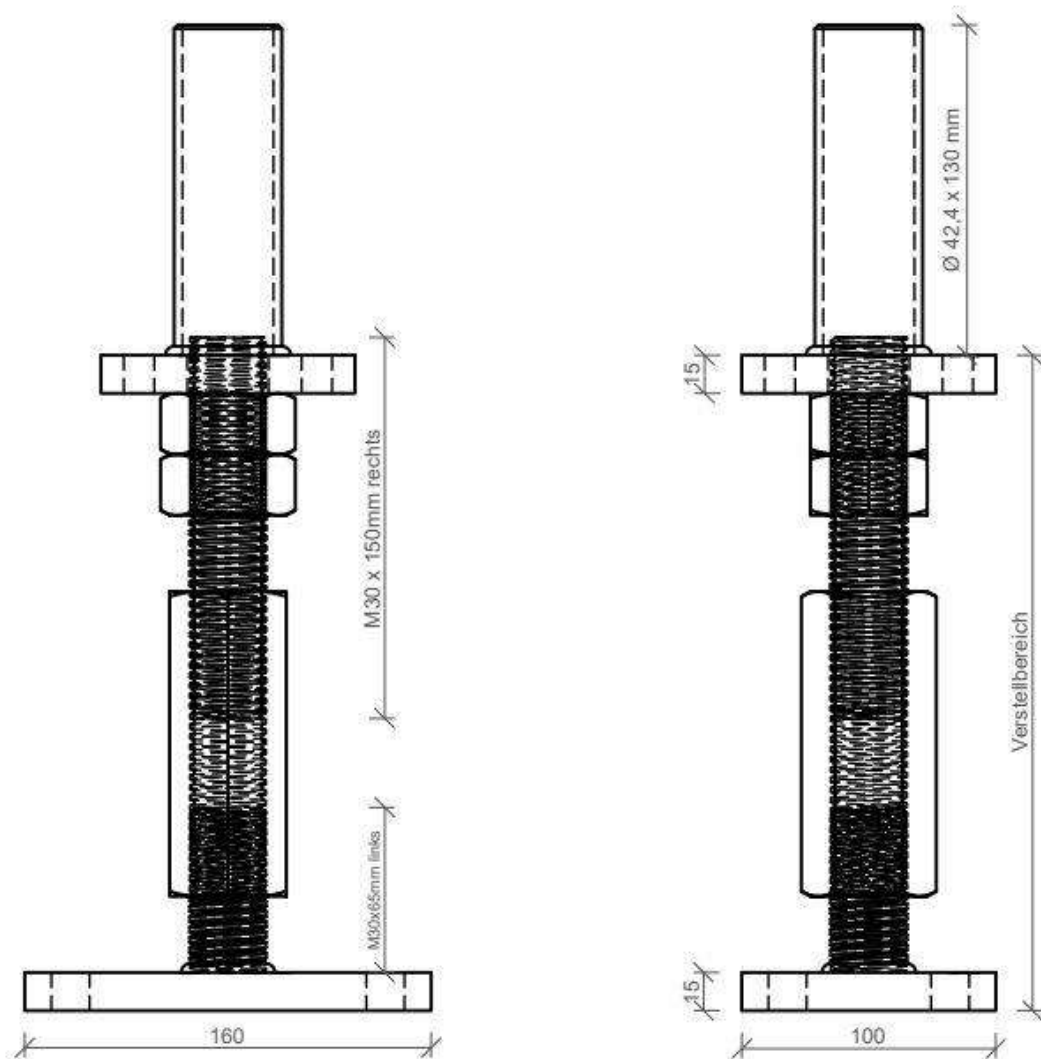


| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 10930.1000 | 65 mm    | 170 - 285 mm    |
| 10930.1100 | 90 mm    | 195 - 310 mm    |
| 10930.1200 | 150 mm   | 255 - 370 mm    |
| 10930.1300 | 200 mm   | 305 - 420 mm    |



|                                                                                                                                                                                                      |                                                                        |
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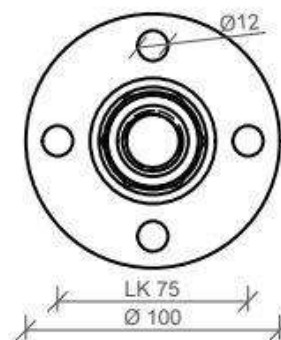
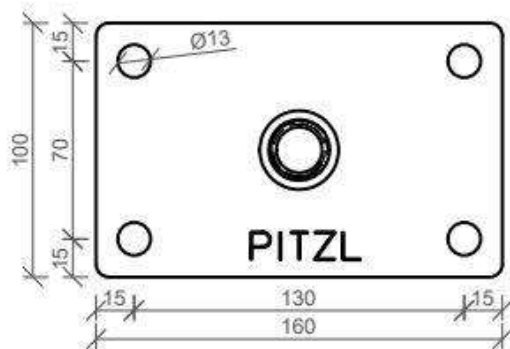
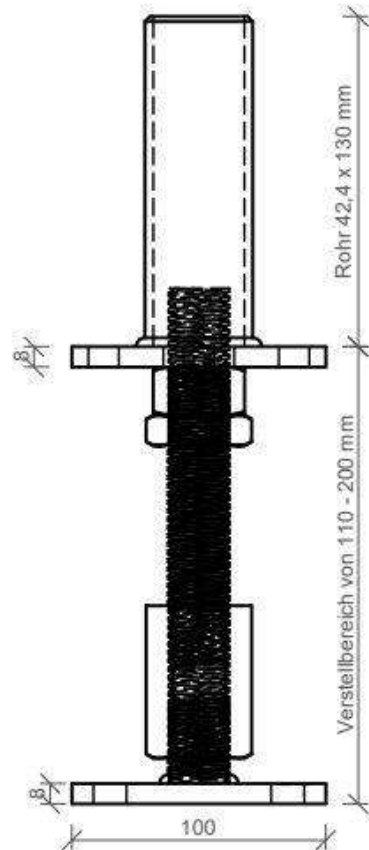
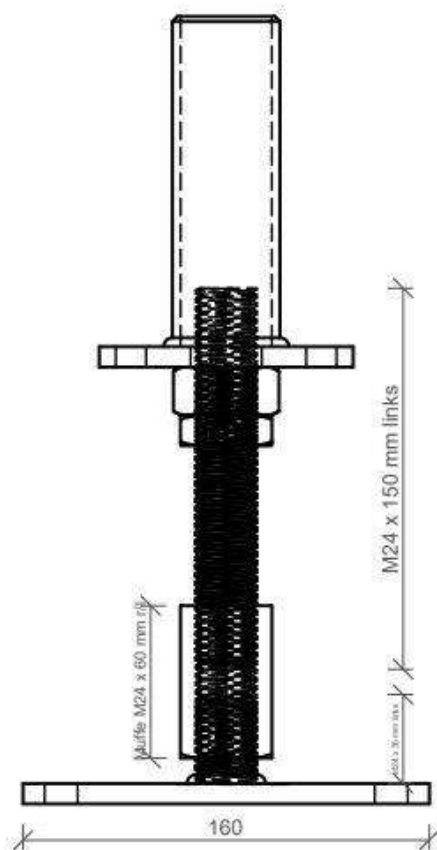


| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 10930.1006 | 65 mm    | 205 - 300 mm    |
| 10930.1106 | 90 mm    | 230 - 325 mm    |
| 10930.1206 | 150 mm   | 290 - 385 mm    |
| 10930.1306 | 200 mm   | 340 - 435 mm    |

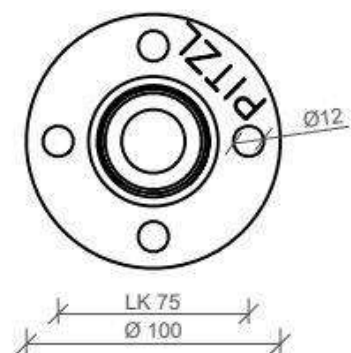
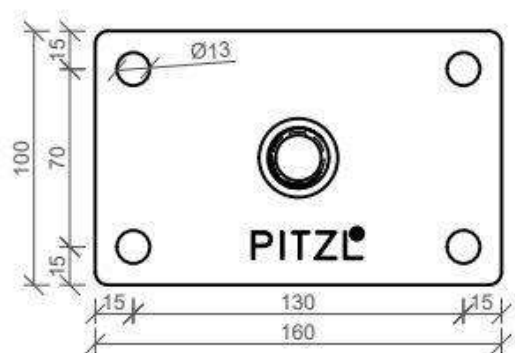
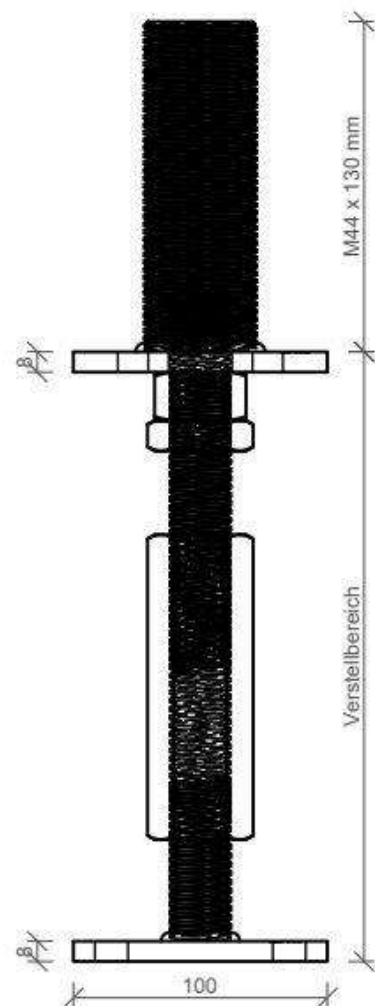
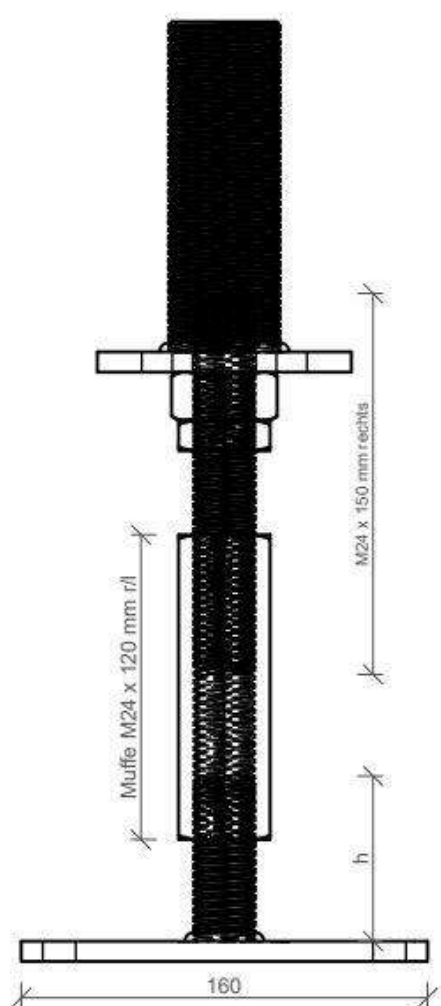


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Artikelnummer:  
 10930.1006  
 10930.1106  
 10930.1206  
 10930.1306





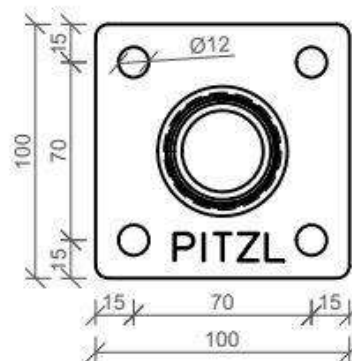
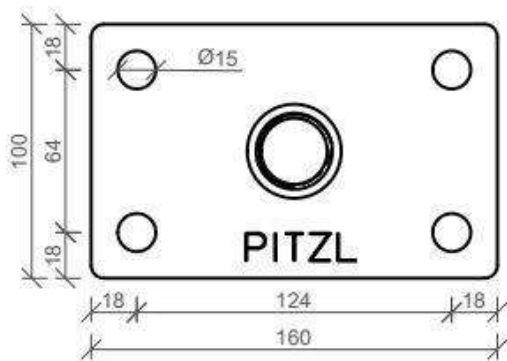
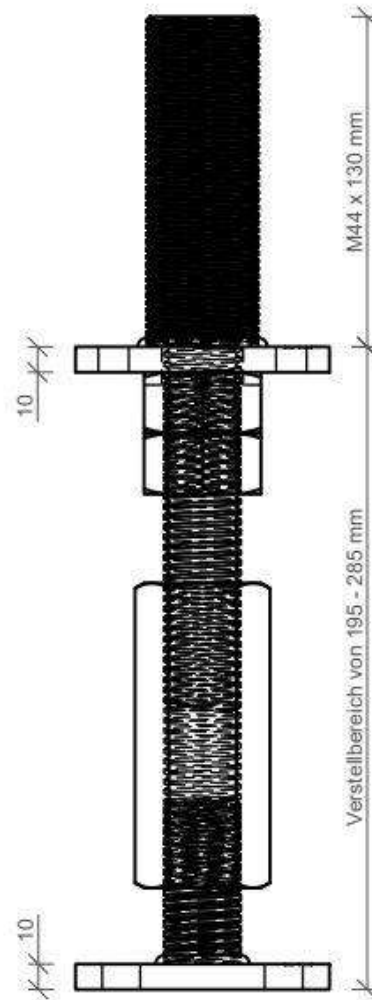
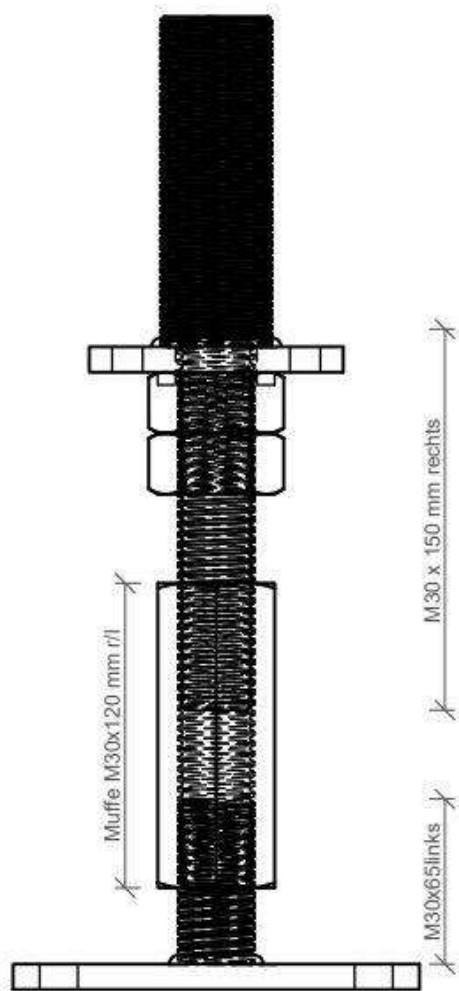


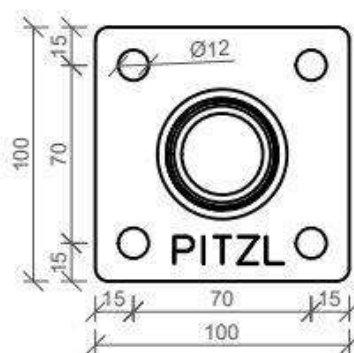
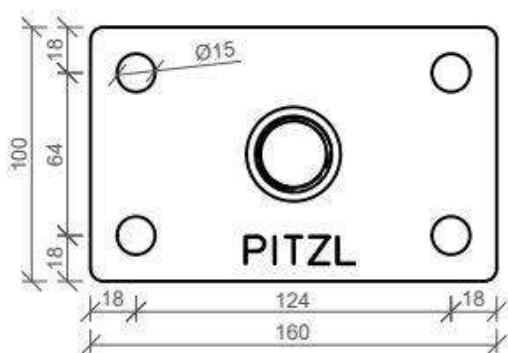
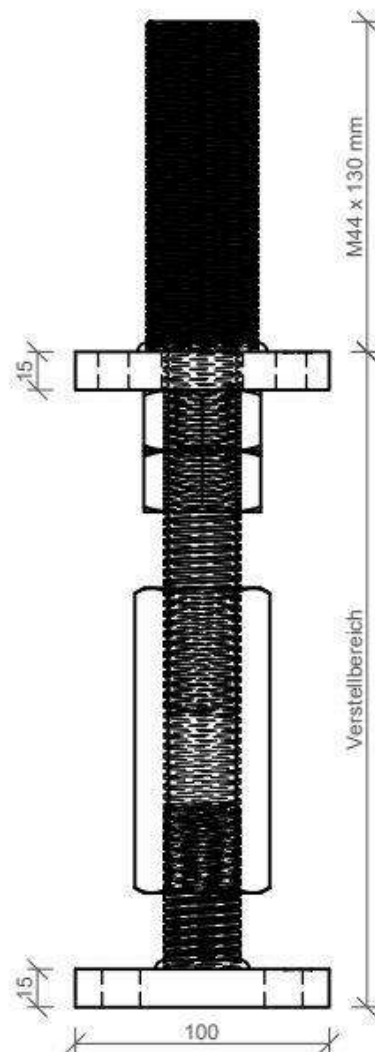
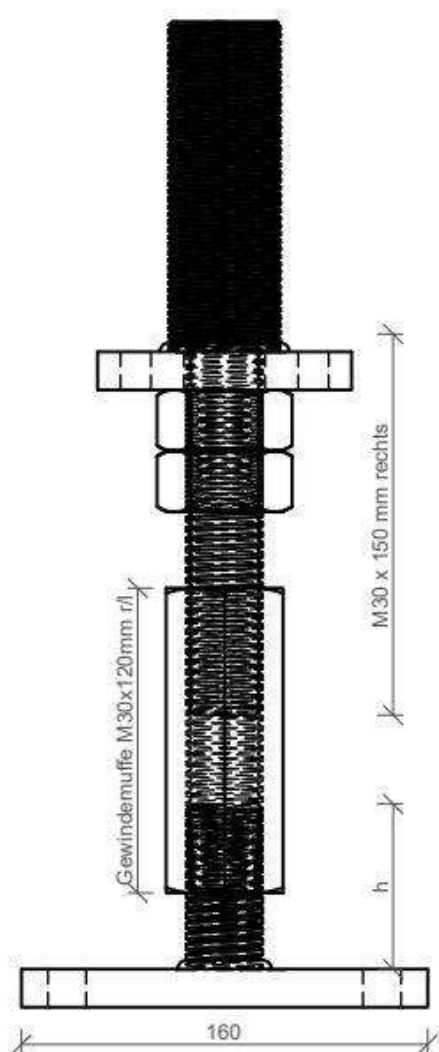
| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 10931.1000 | 65 mm    | 170 - 285 mm    |
| 10931.1100 | 90 mm    | 195 - 310 mm    |
| 10931.1200 | 150 mm   | 255 - 370 mm    |
| 10931.1300 | 200 mm   | 305 - 420 mm    |



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 10931.1100  
 10931.1200  
 10931.1300



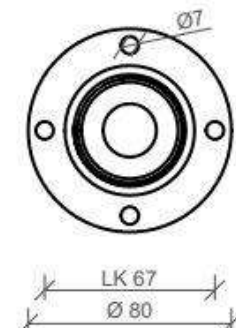
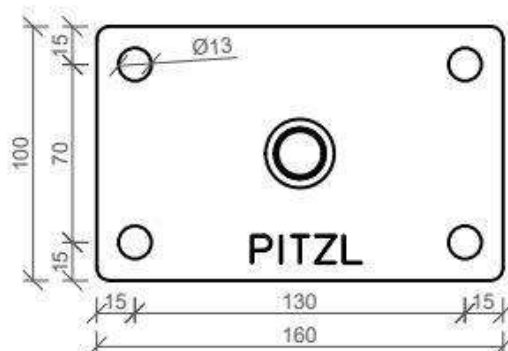
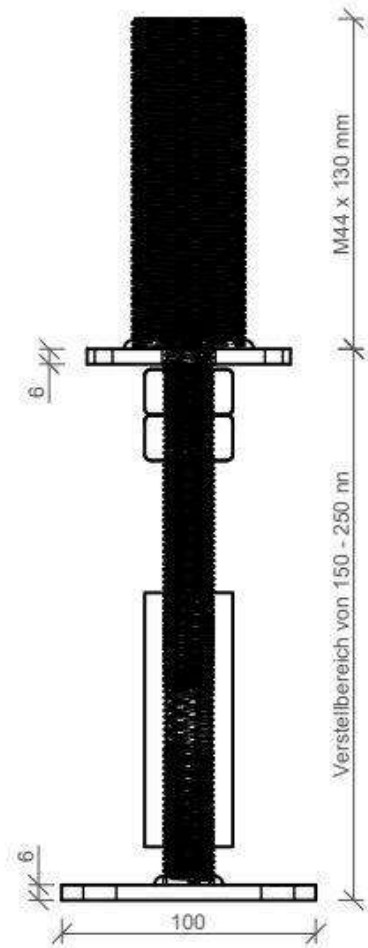
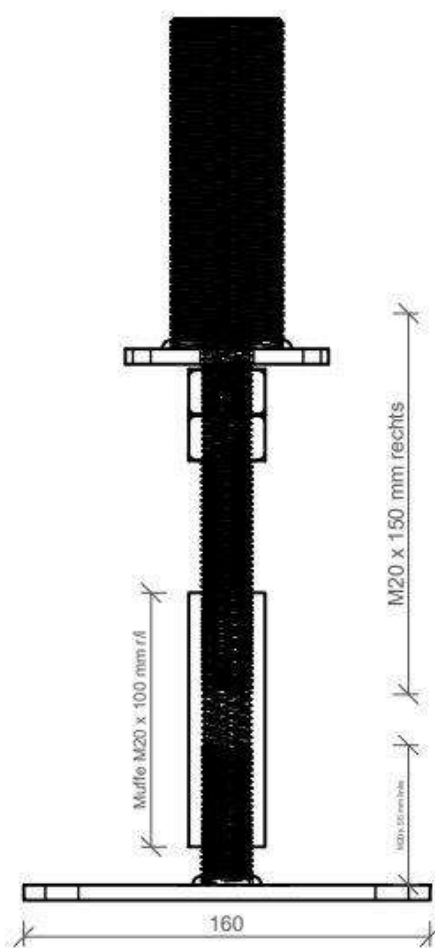


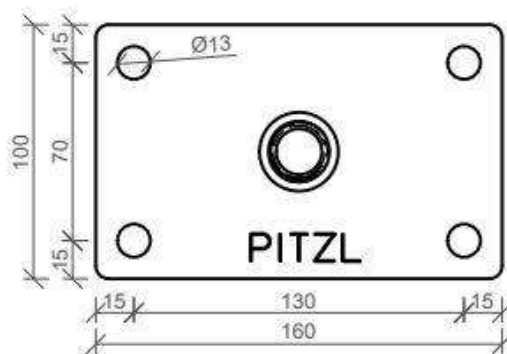
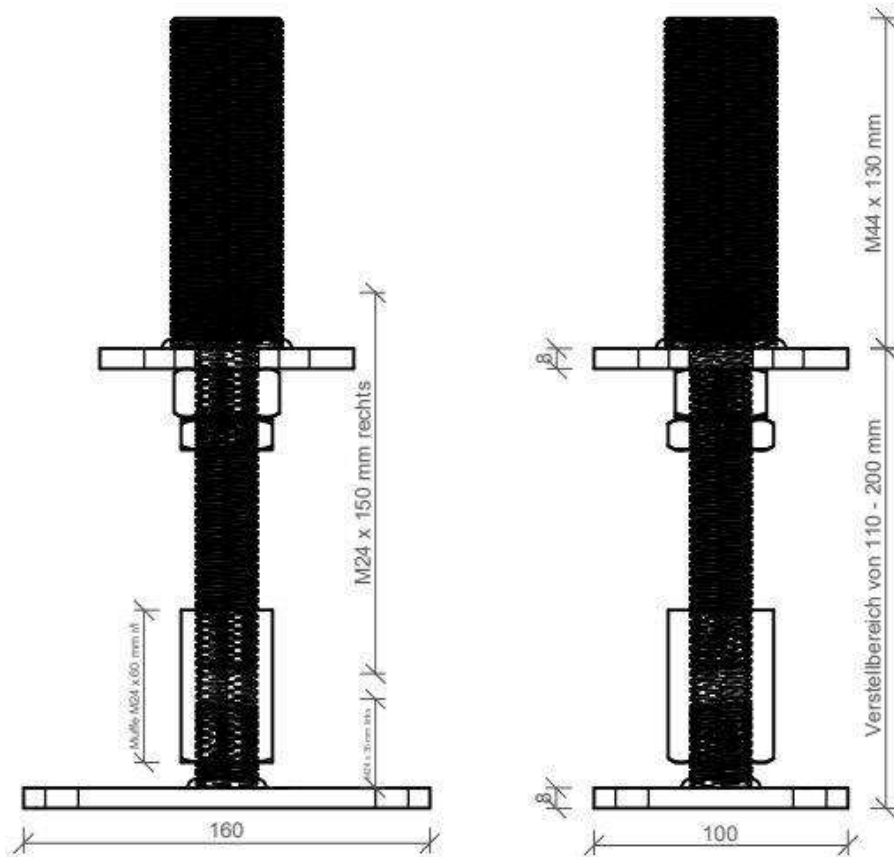
| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 10931.1006 | 65 mm    | 205 - 300 mm    |
| 10931.1106 | 90 mm    | 230 - 325 mm    |
| 10931.1206 | 150 mm   | 290 - 385 mm    |
| 10931.1306 | 200 mm   | 340 - 435 mm    |



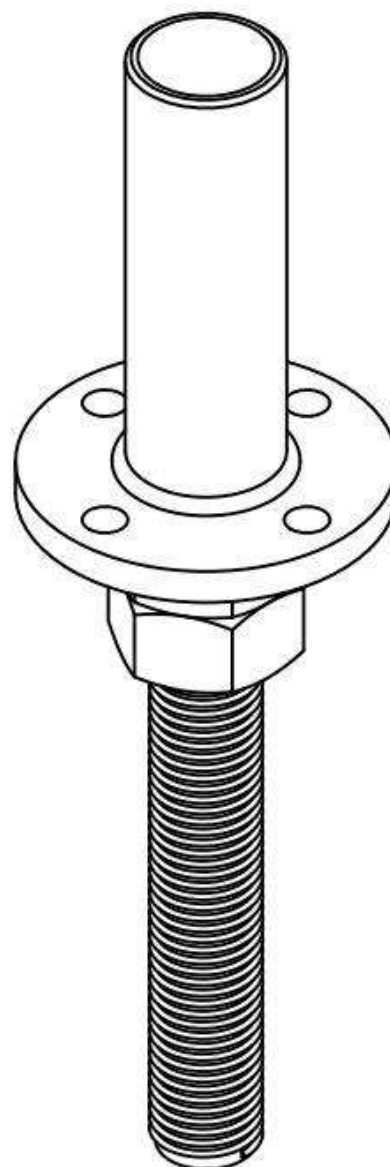
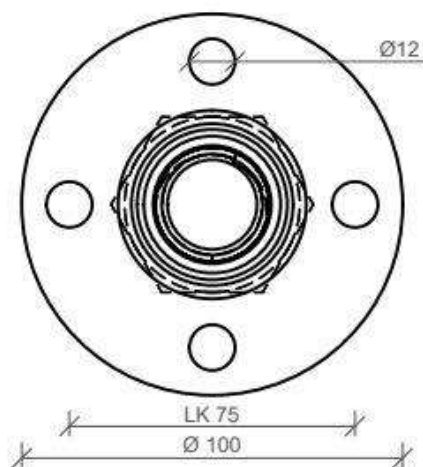
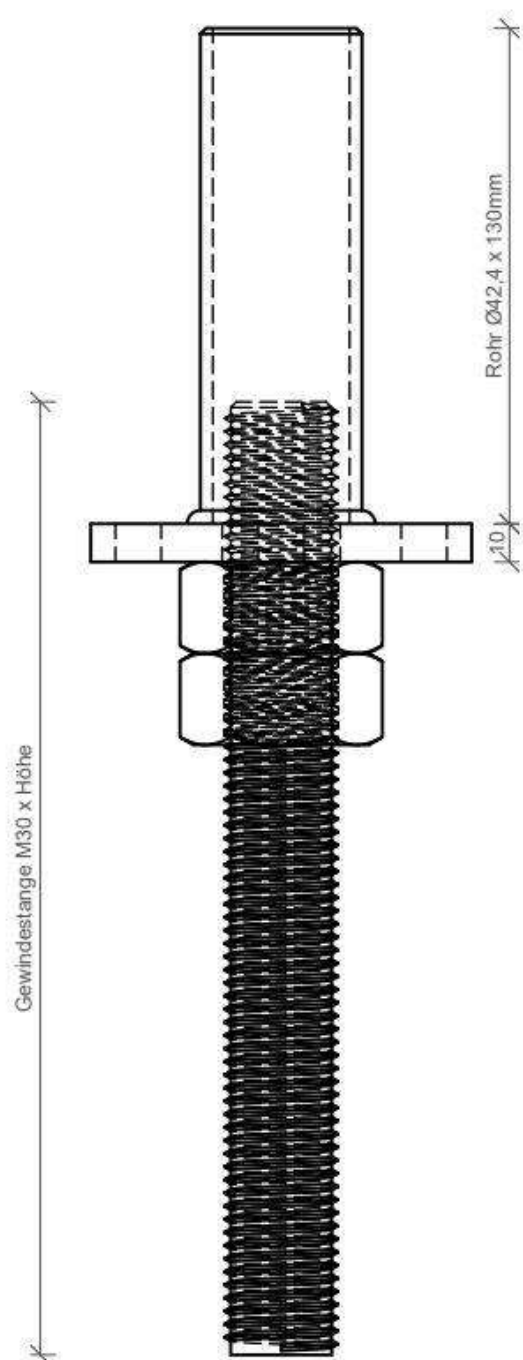
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 10931.1006  
 10931.1106  
 10931.1206  
 10931.1306



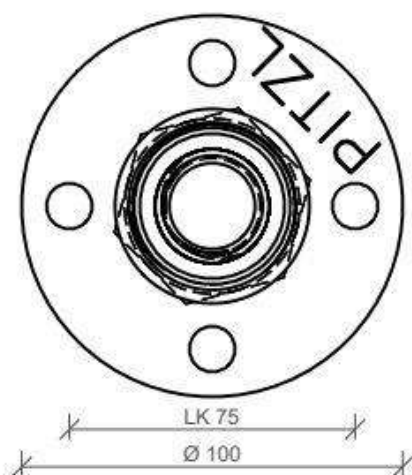
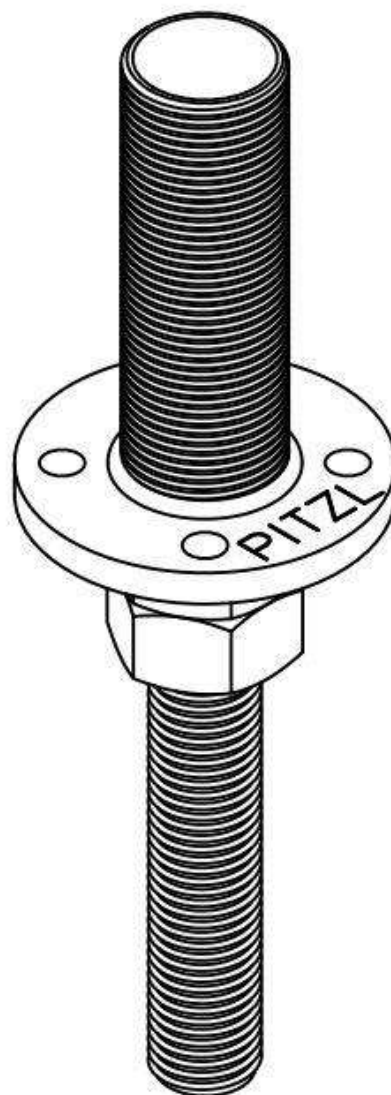
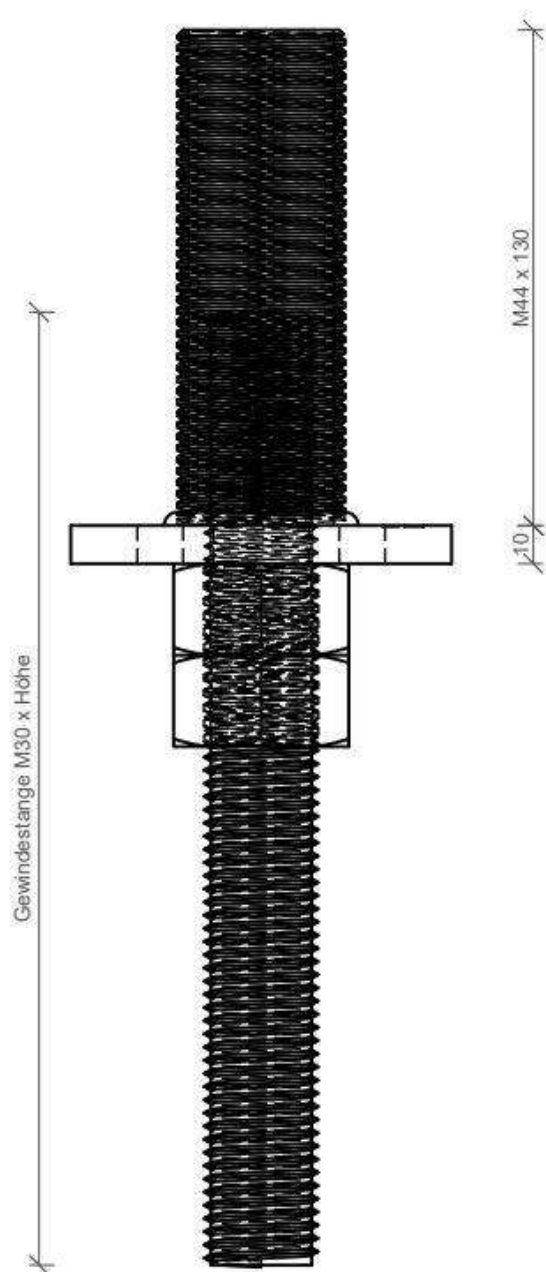




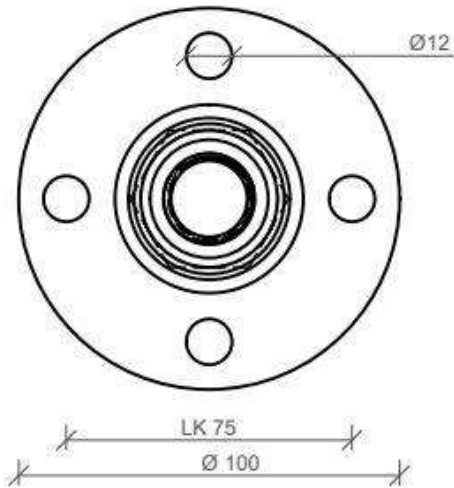
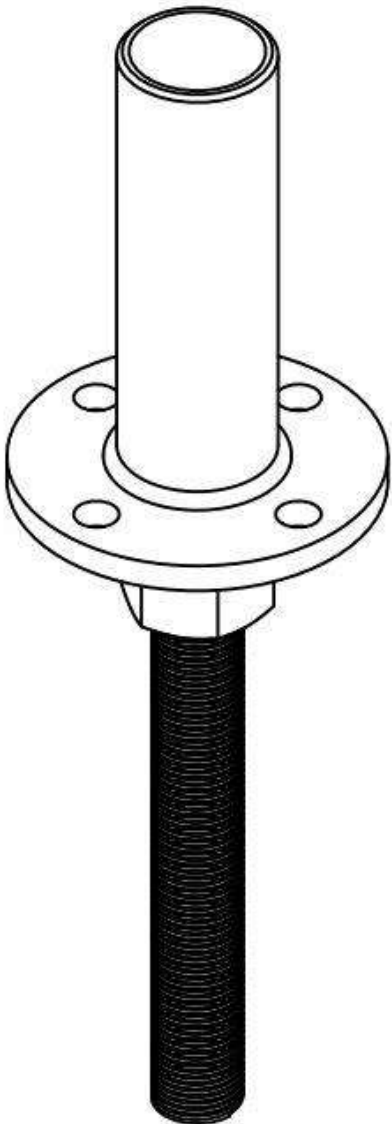
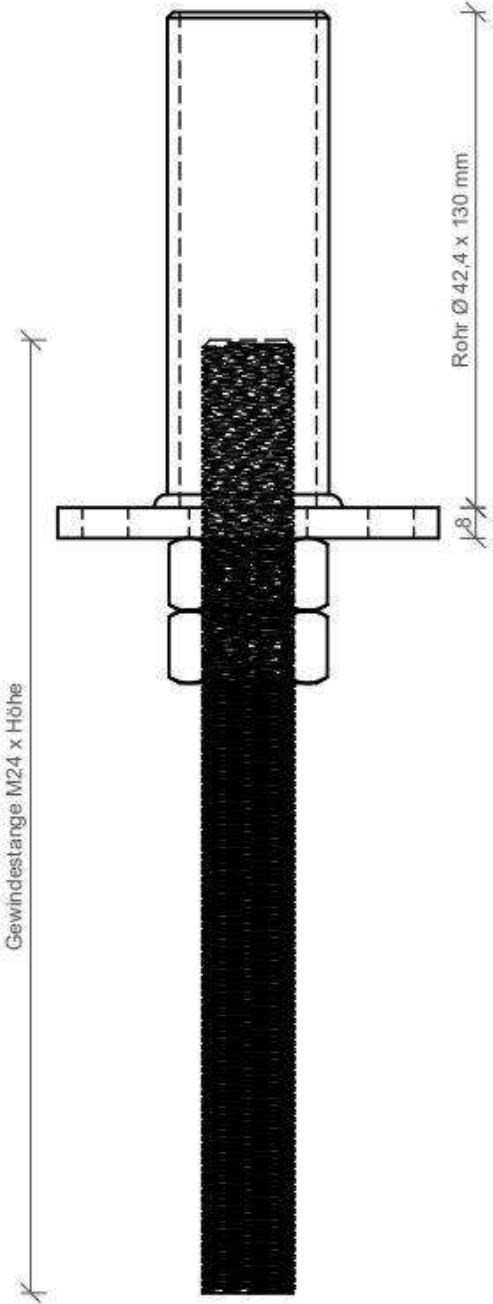


| Art. Nr.   | Höhe   |
|------------|--------|
| 10934.2302 | 250 mm |
| 10934.3302 | 330 mm |
|            |        |
|            |        |
|            |        |

|                                                                                      |                                                                                                                                                        |                          |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
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|                                                                                      |                                                                                                                                                        | 10934.2302<br>10934.3302 |



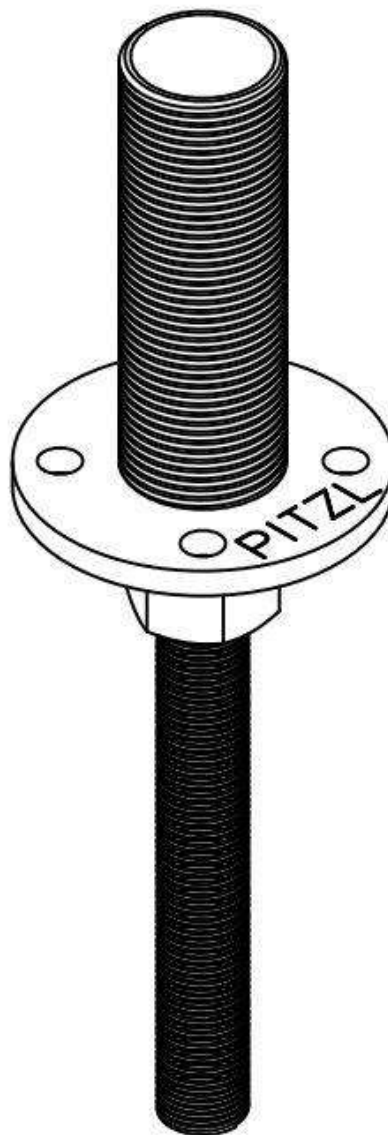
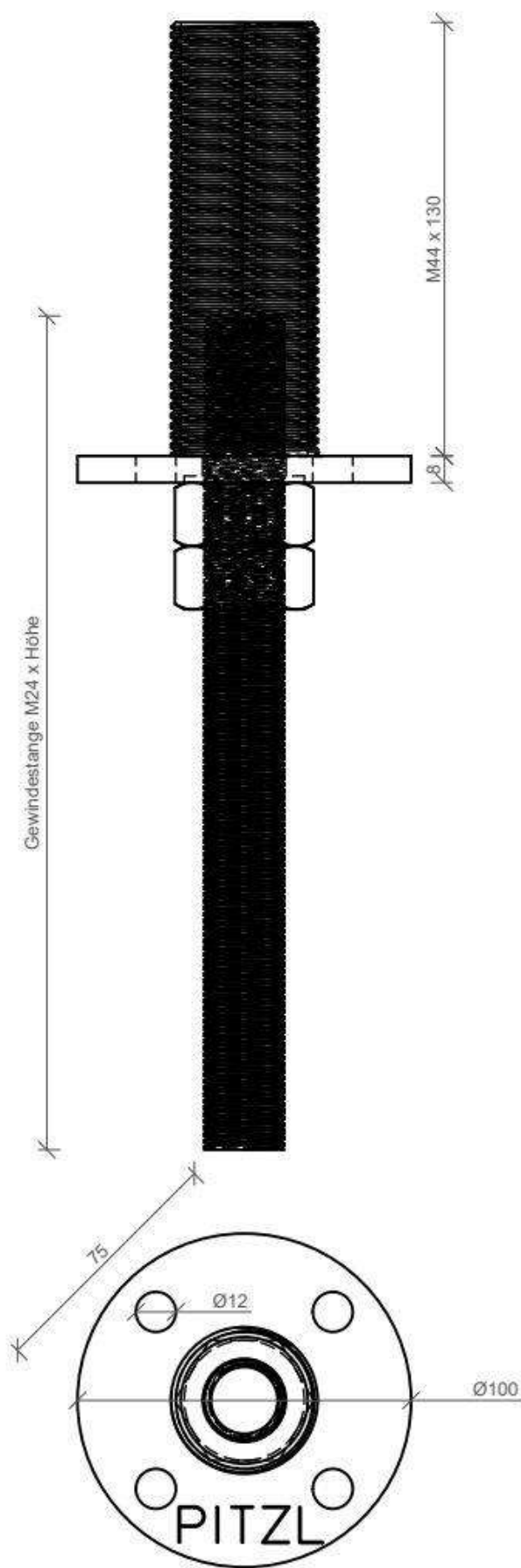
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|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|



| Art. Nr.   | Höhe   |
|------------|--------|
| 10934.2402 | 250 mm |
| 10934.3402 | 330 mm |
|            |        |
|            |        |
|            |        |

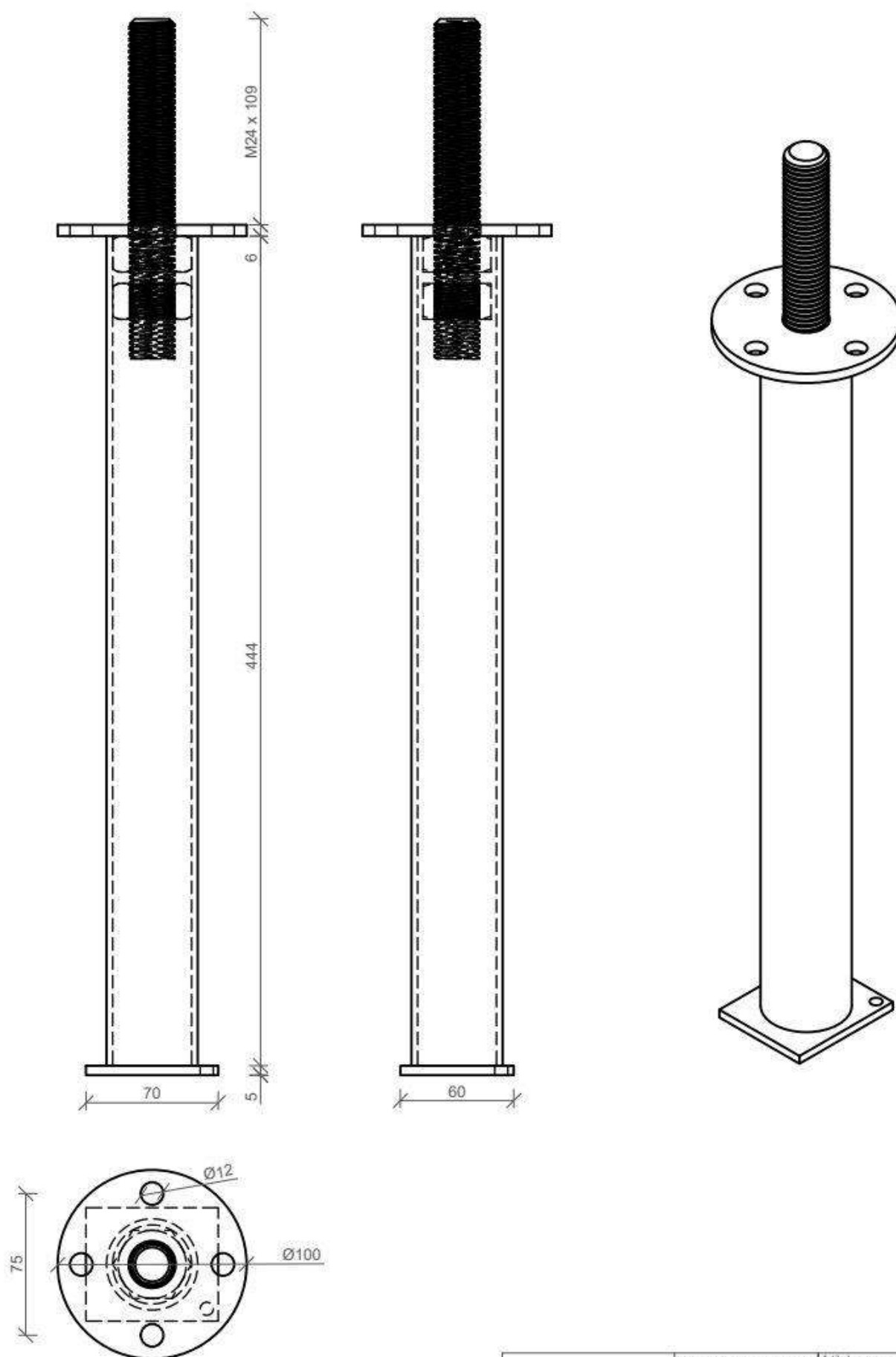
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|  | Pitzl Metallbau GmbH & Co.KG<br>Siemensstraße 26<br>D - 84051 Altheim<br>Tel +49(0) 8703 9346-0<br>Fax +49(0) 8703 9346-55<br>www.pitzl-connectors.com | Artikelnummer:           |
|                                                                                      |                                                                                                                                                        | 10934.2402<br>10934.3402 |



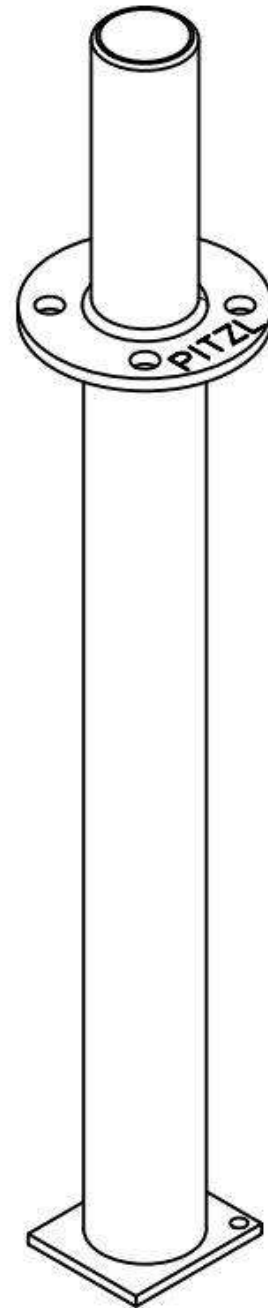
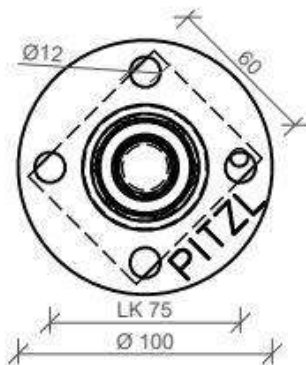
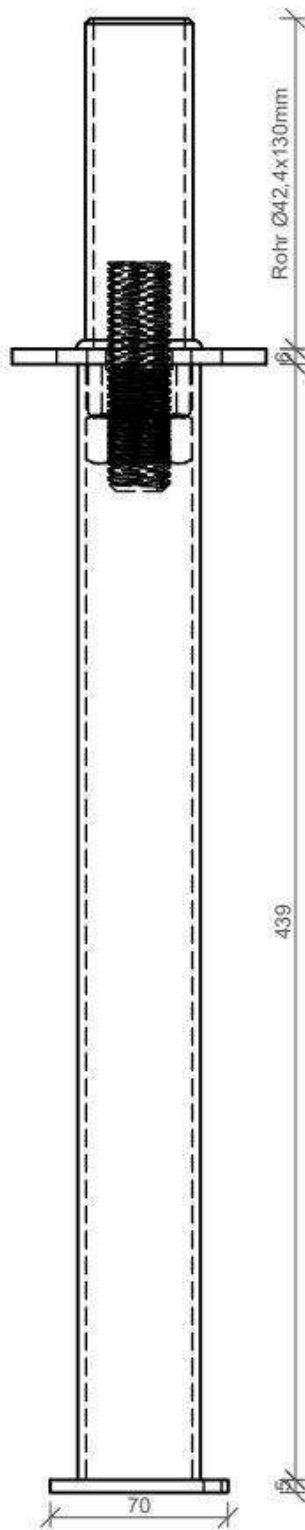


| Art. Nr.   | Höhe   |
|------------|--------|
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| 10934.3403 | 330 mm |
|            |        |
|            |        |
|            |        |

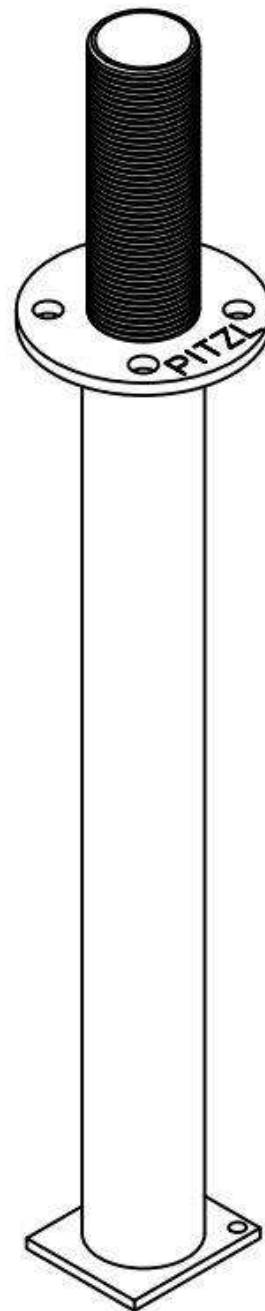
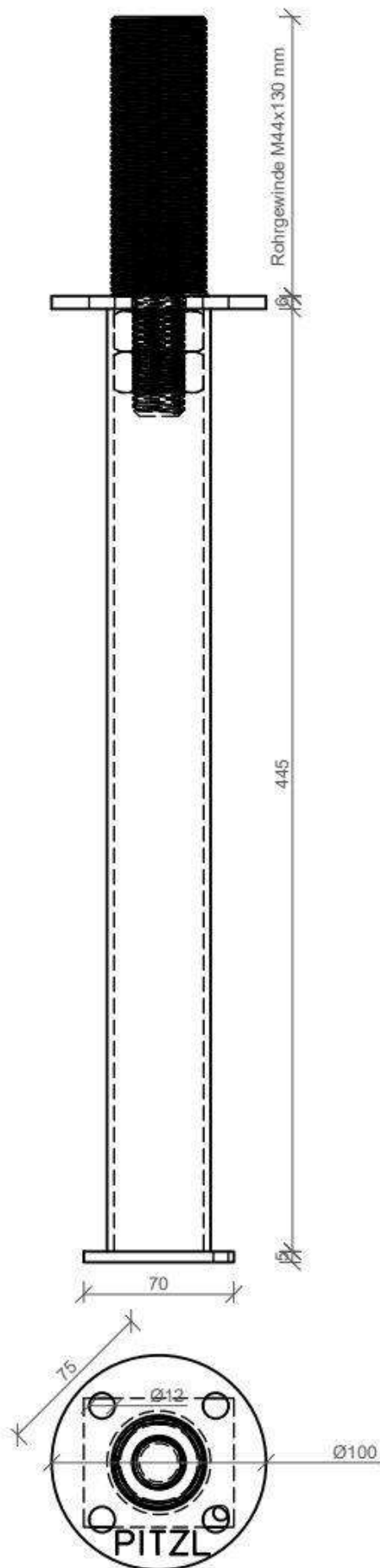
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|                                                                                      |                                                                                                                                                       | 10934.2403<br>10934.3403 |



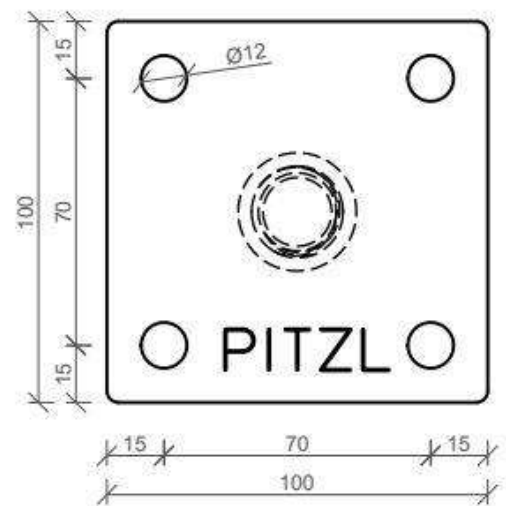
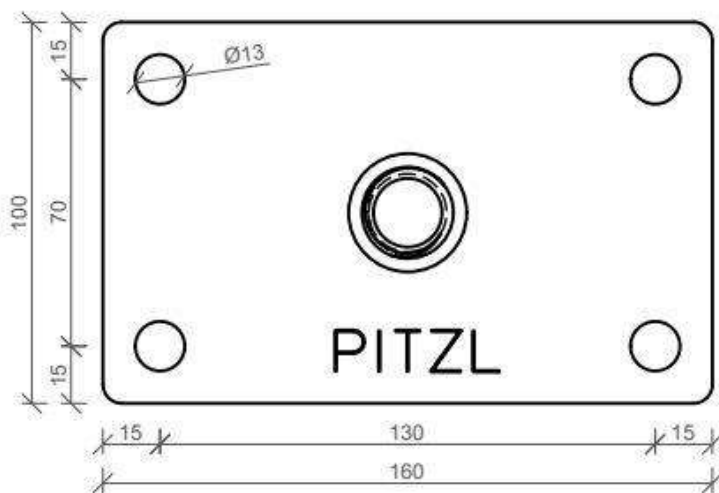
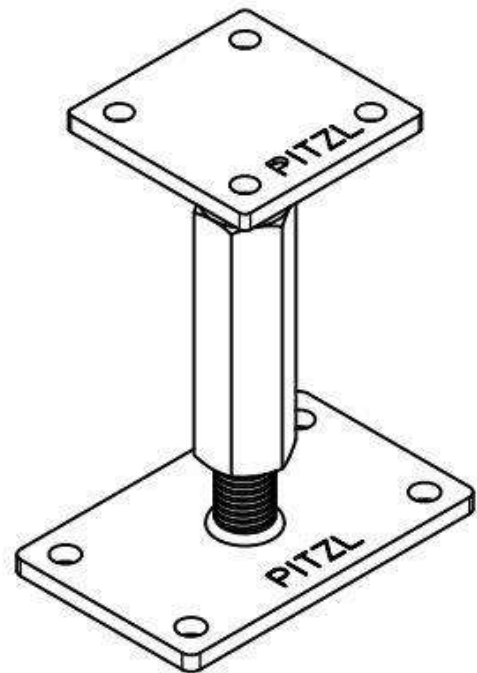
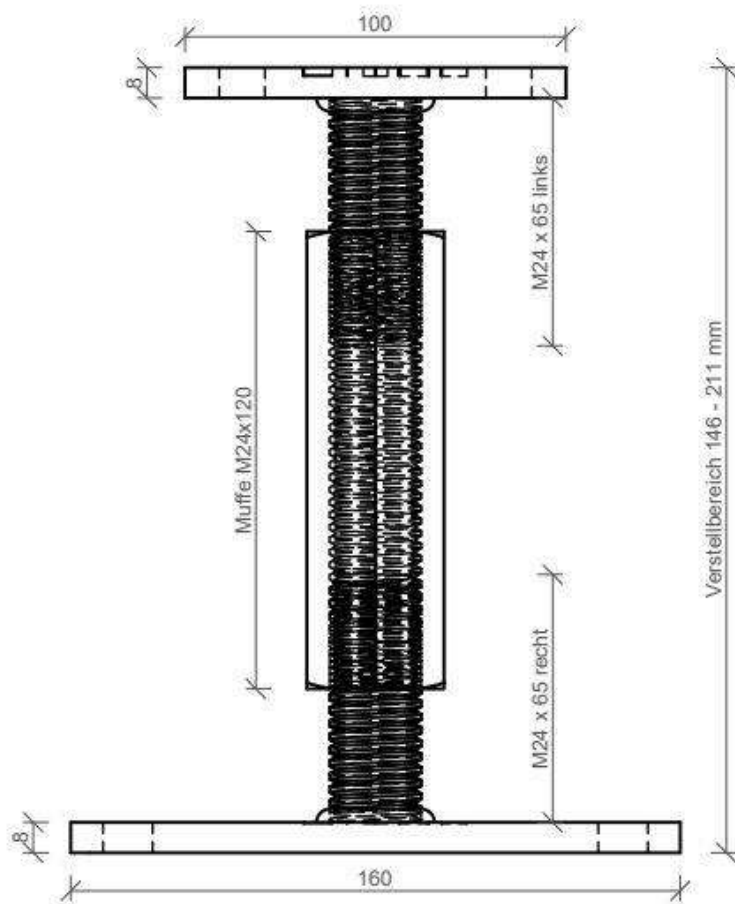
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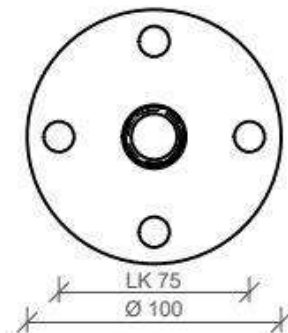
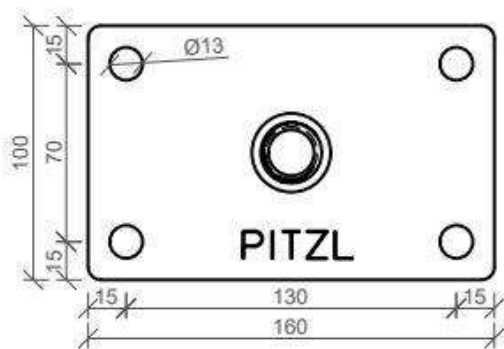
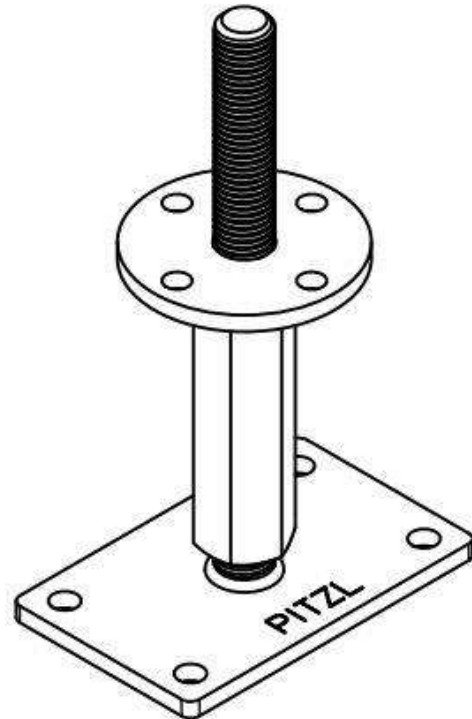
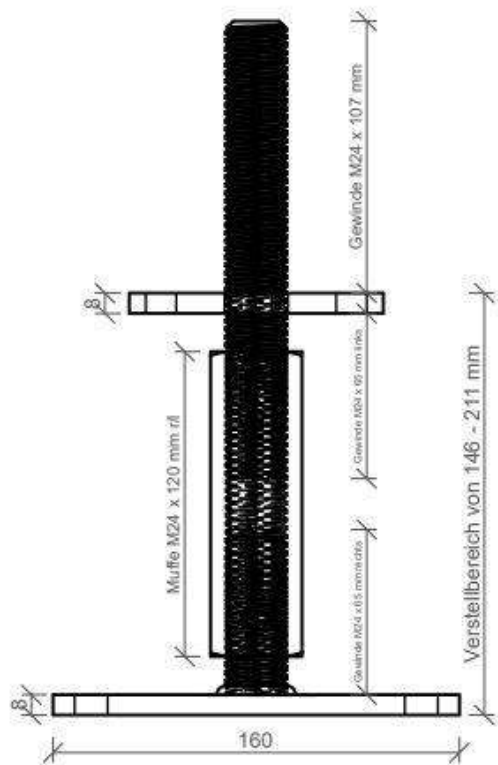


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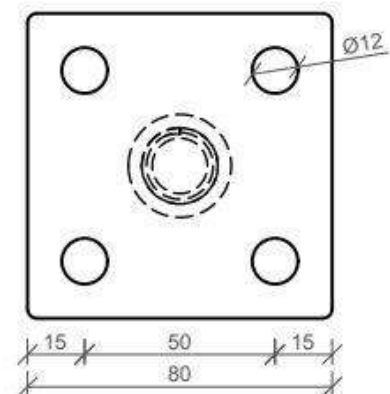
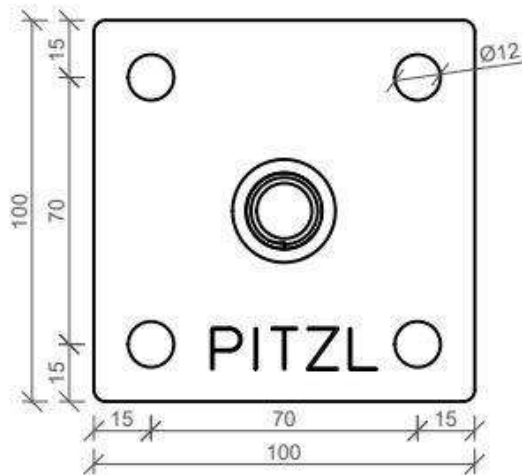
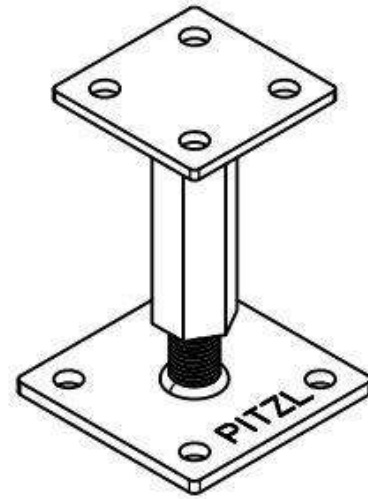
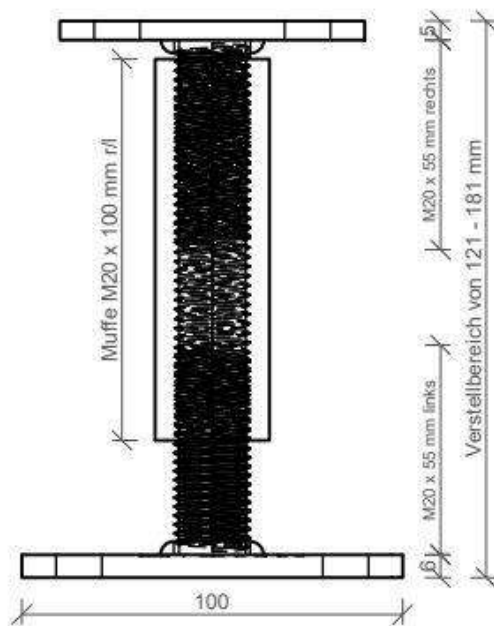


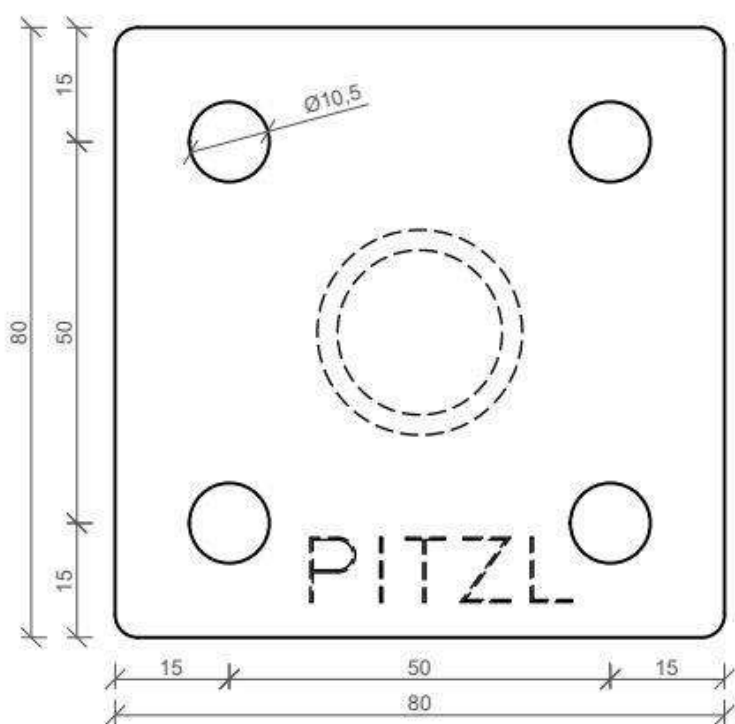
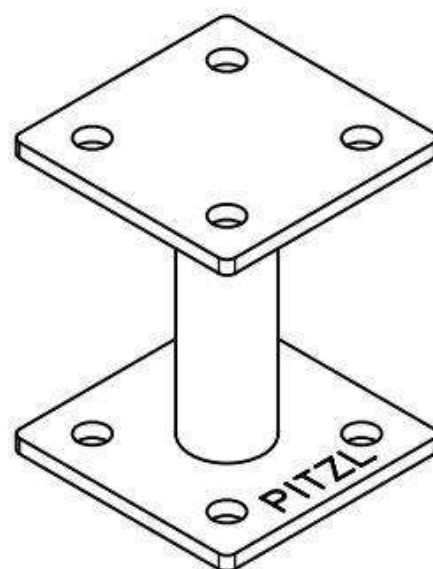
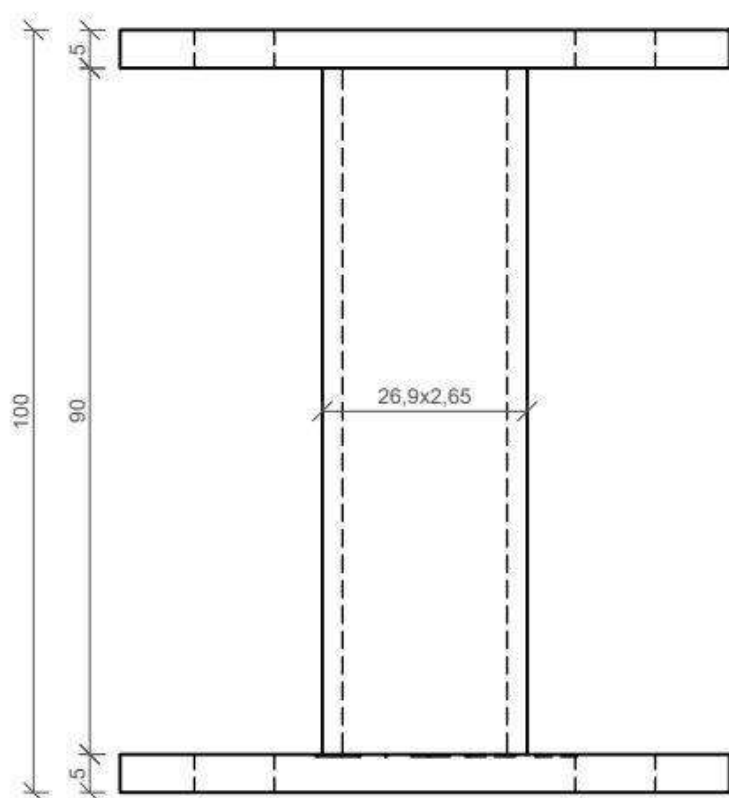
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|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
|  | <p>Pitzl Metallbau GmbH &amp; Co.KG<br/>Siemensstraße 26<br/>D - 84051 Altheim<br/>Tel +49(0) 8703 9346-0<br/>Fax +49(0) 8703 9346-55<br/>www.pitzl-connectors.com</p> | <p>Artikelnummer:<br/>10950.7053</p> |
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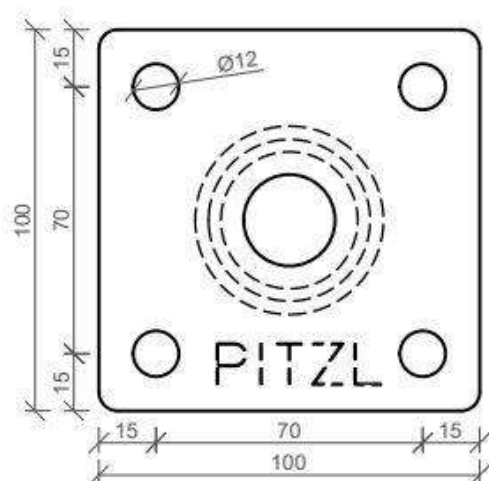
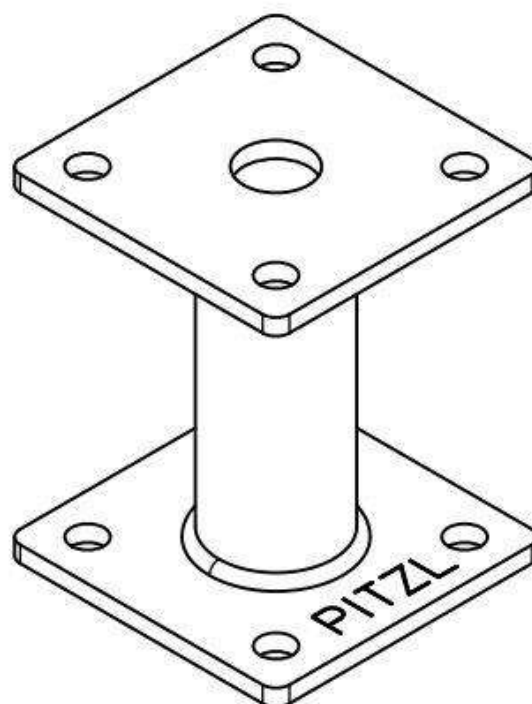
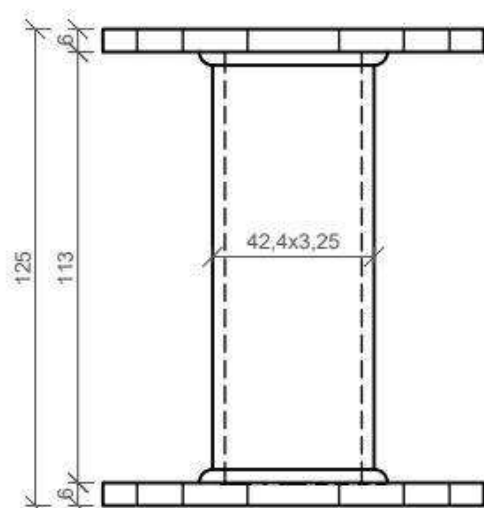


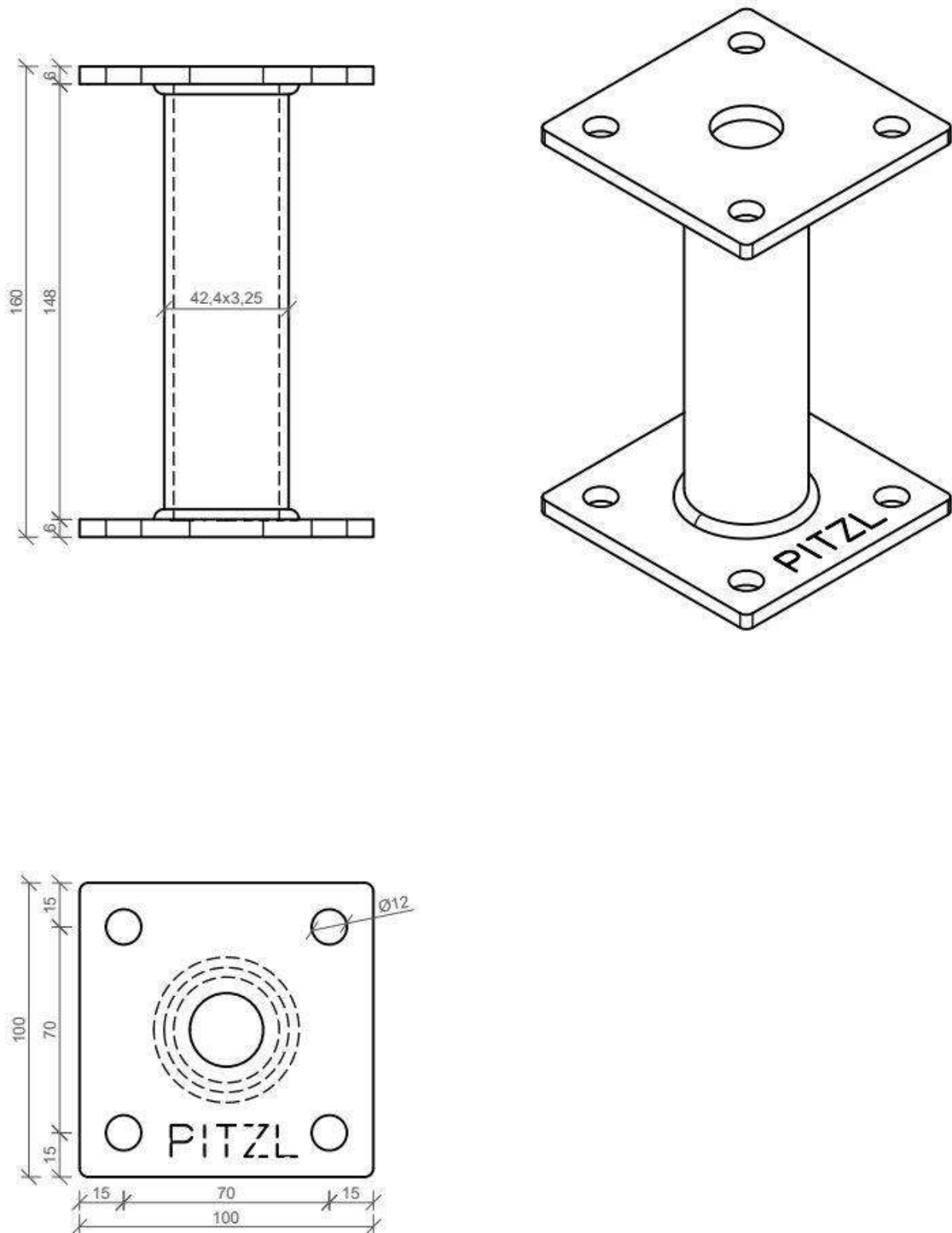


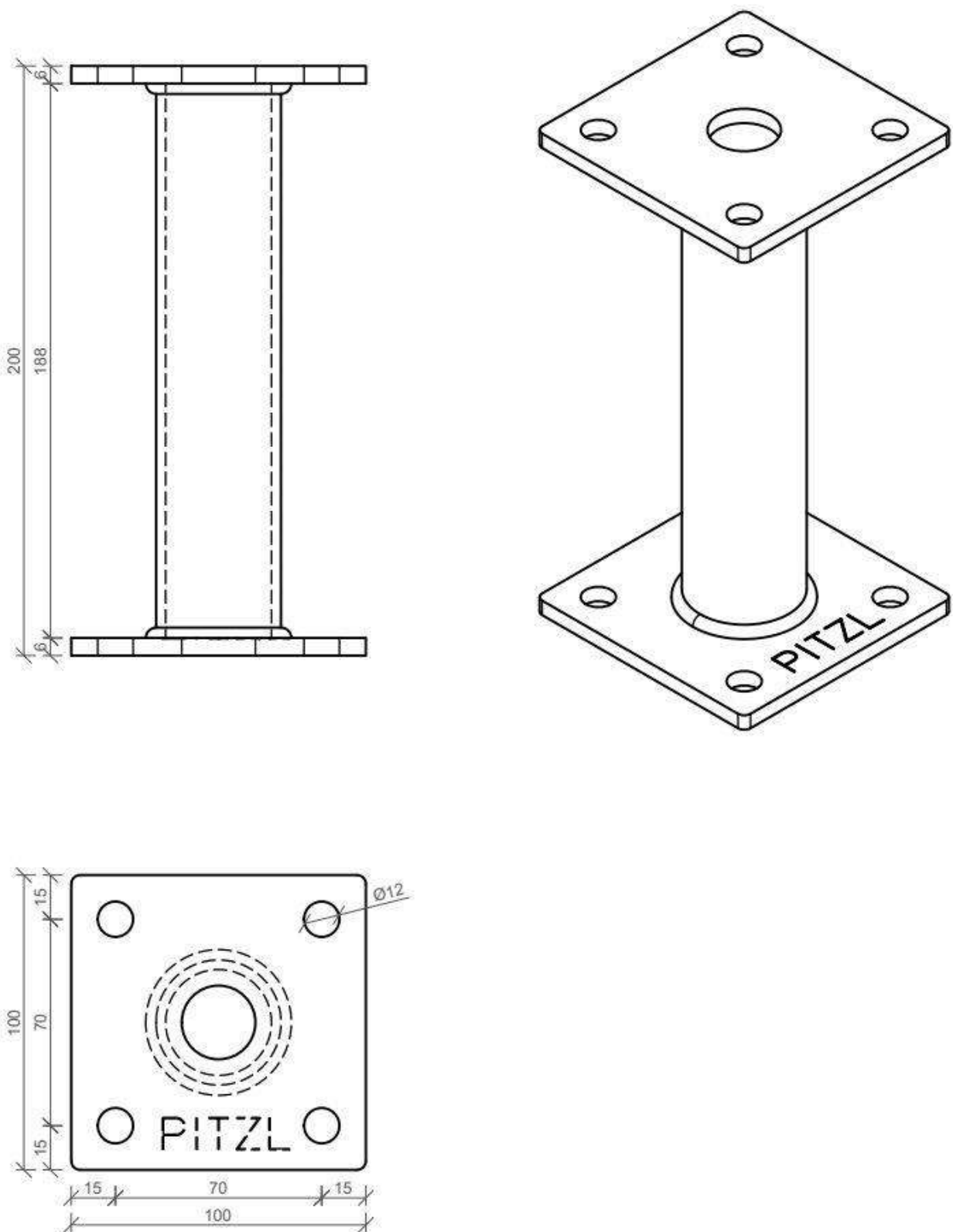


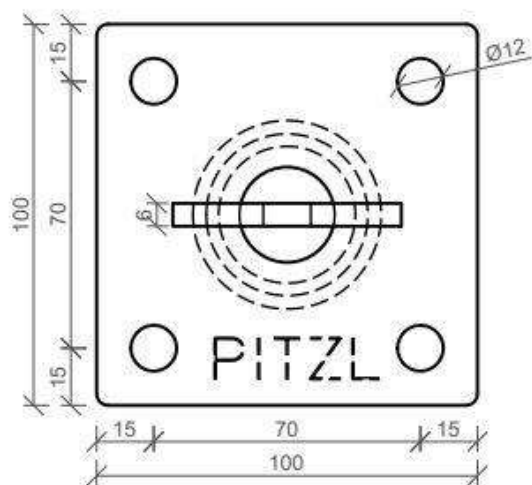
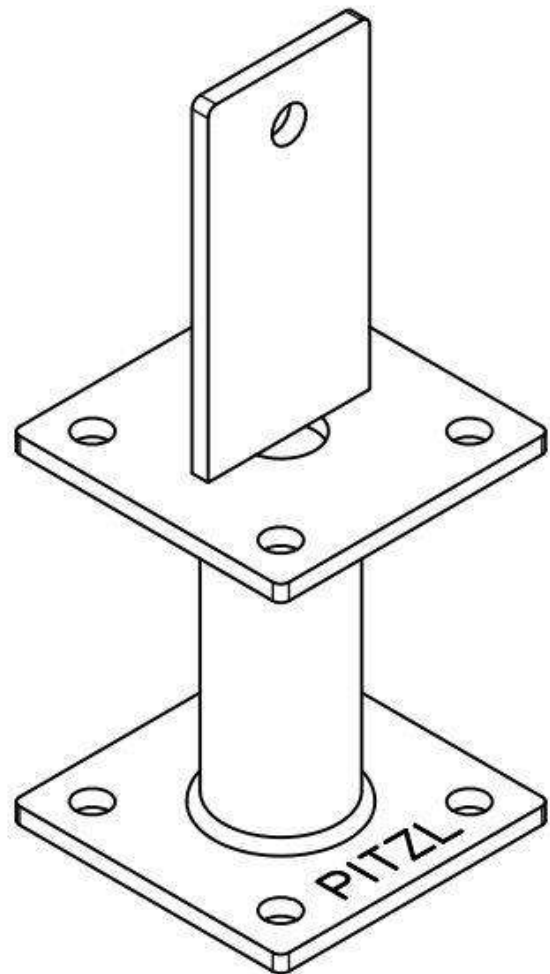
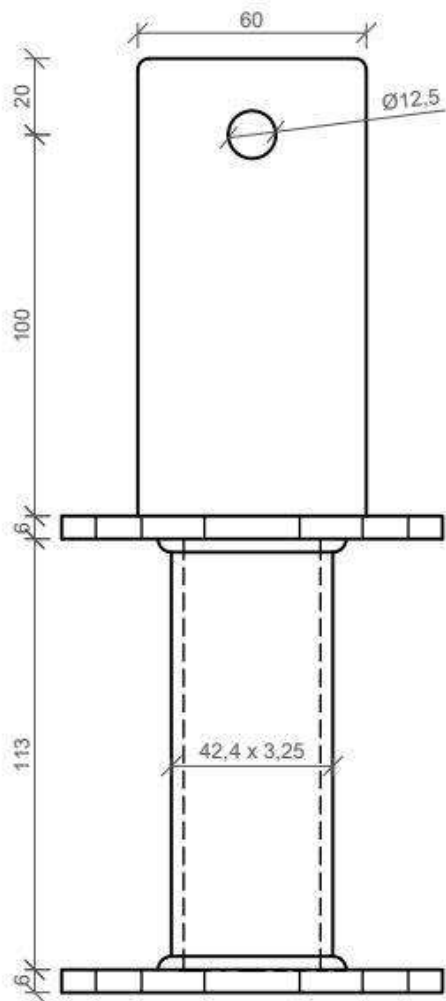


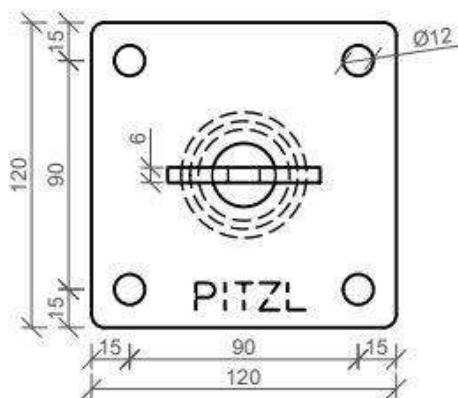
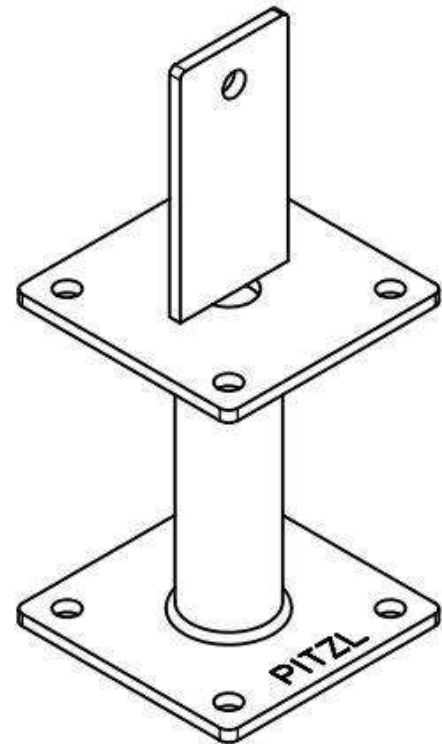
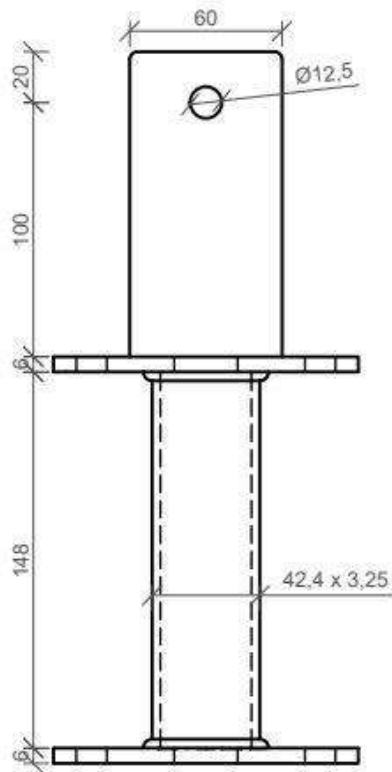


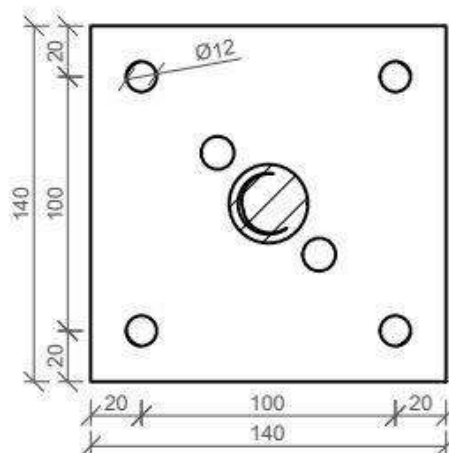
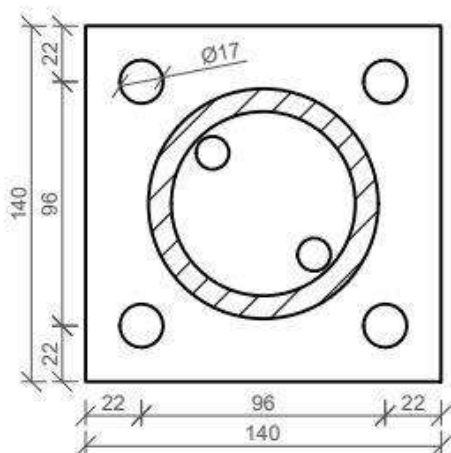
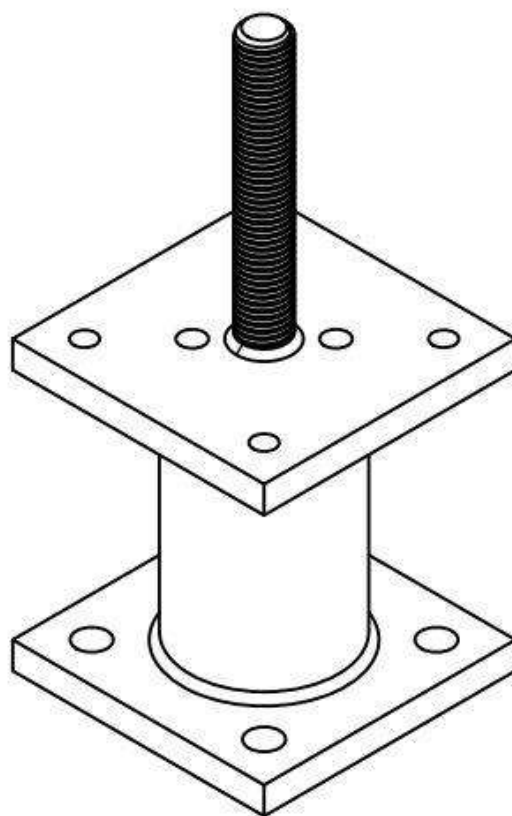
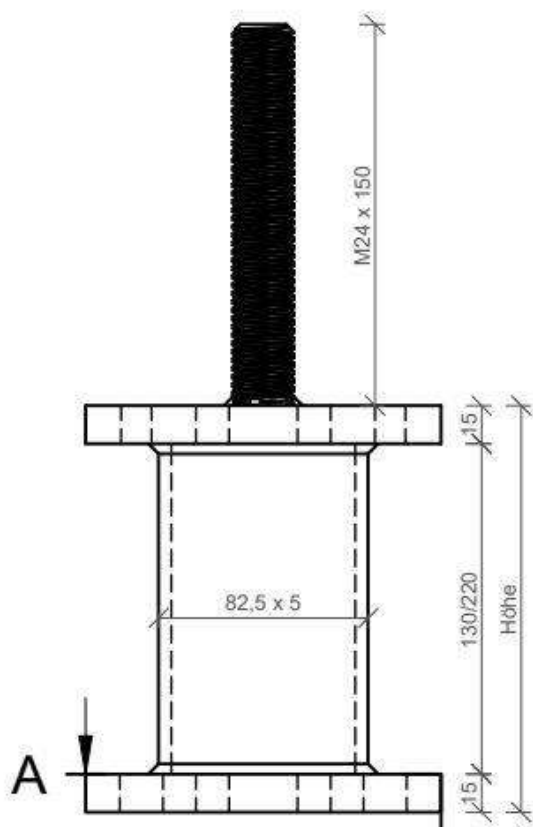






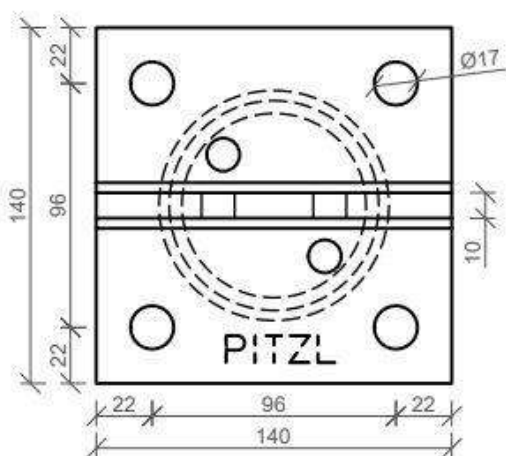
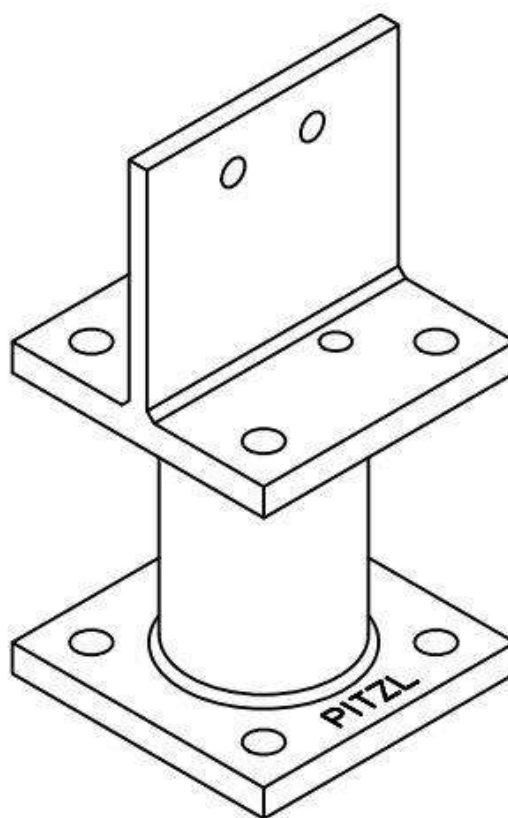
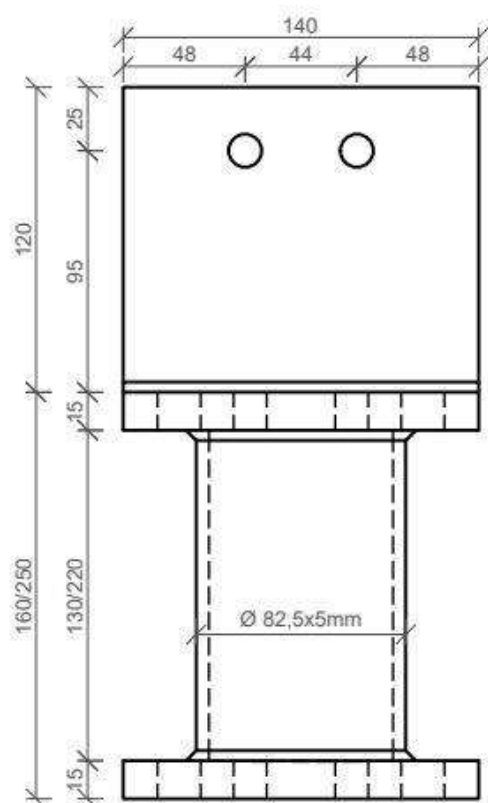






| Art. Nr.   | Höhe   |
|------------|--------|
| 11008.1160 | 160 mm |
| 11008.1250 | 250 mm |
|            |        |
|            |        |
|            |        |

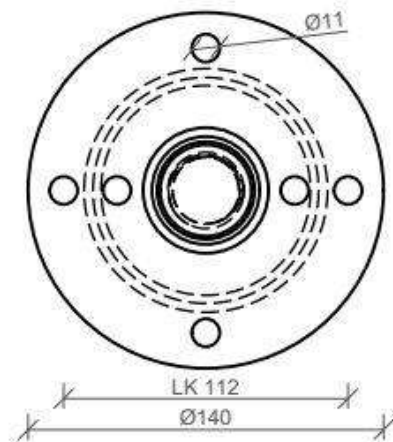
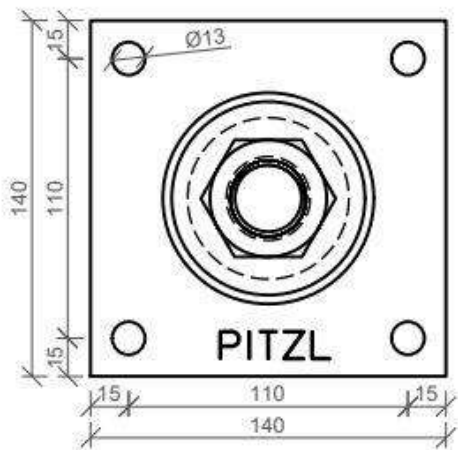
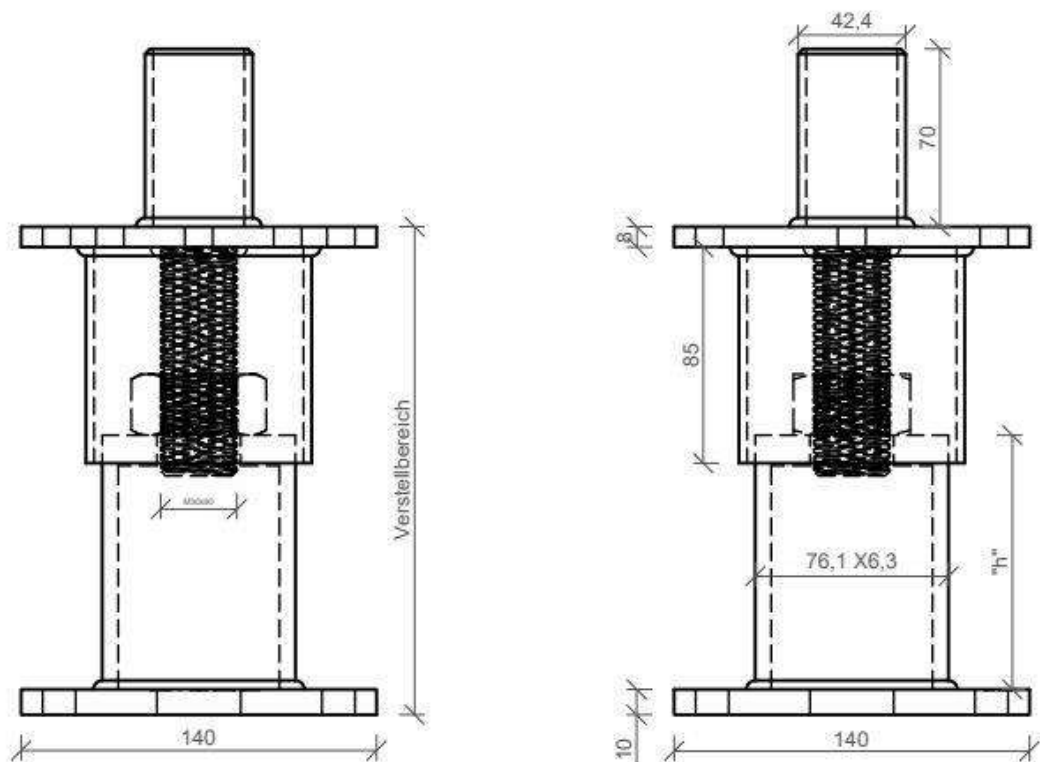
|                                                                                      |                                                                                                                                                                                                     |                          |
|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
|  | Pitzl Metalbau GmbH & Co.KG<br>Siemensstraße 26<br>D - 84051 Altheim<br>Tel +49(0) 8703 9346-0<br>Fax +49(0) 8703 9346-55<br><a href="http://www.pitzl-connectors.com">www.pitzl-connectors.com</a> | Artikelnummer:           |
|                                                                                      |                                                                                                                                                                                                     | 11008.1160<br>11008.1250 |



| Art. Nr.   | Höhe   |
|------------|--------|
| 11008.2160 | 160 mm |
| 11008.2250 | 250 mm |
|            |        |
|            |        |
|            |        |

|                                                                                      |                                                                                                                                                                                                      |                                            |
|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
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|                                                                                      |                                                                                                                                                                                                      |                                            |





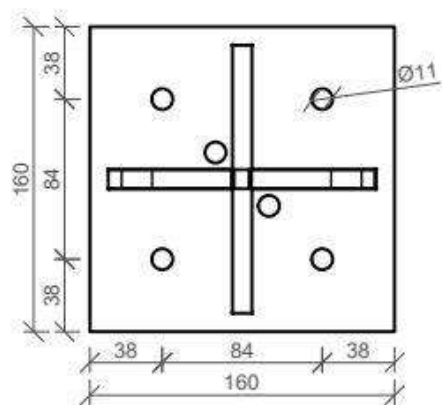
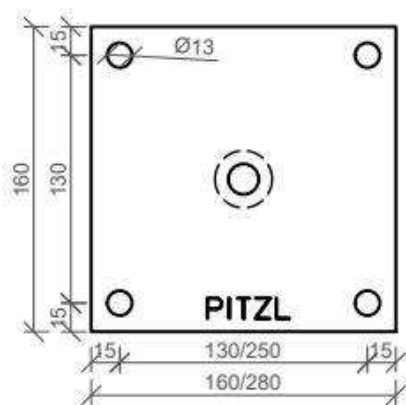
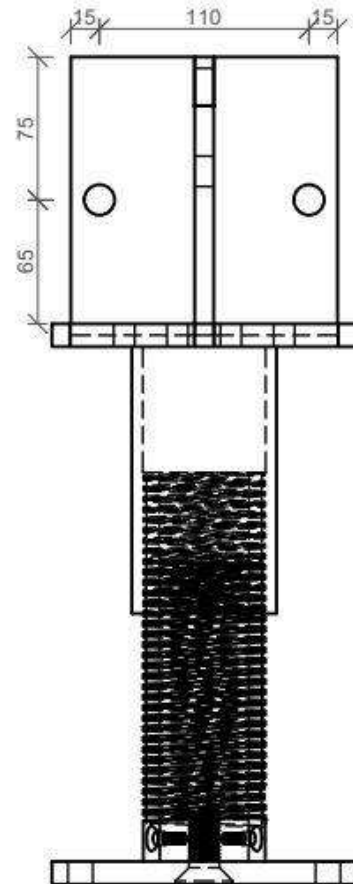
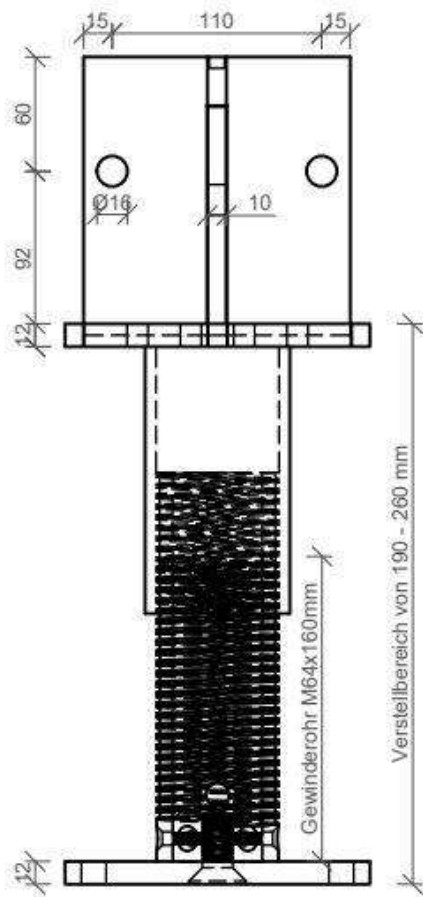
| Art. Nr.   | Höhe "h" | Verstellbereich |
|------------|----------|-----------------|
| 11008.6150 | 100 mm   | 150 - 200 mm    |
| 11008.6200 | 150 mm   | 200 - 250 mm    |
| 11008.6250 | 200 mm   | 250 - 300 mm    |
|            |          |                 |
|            |          |                 |



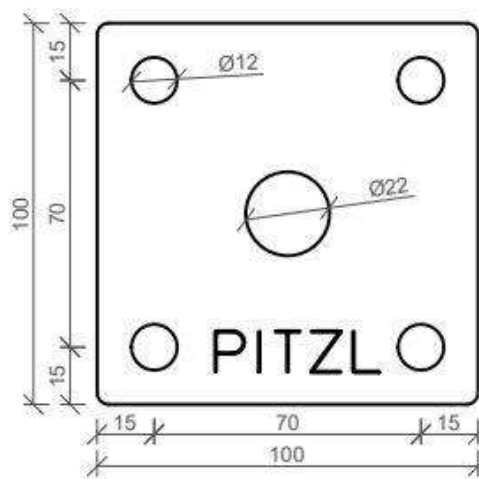
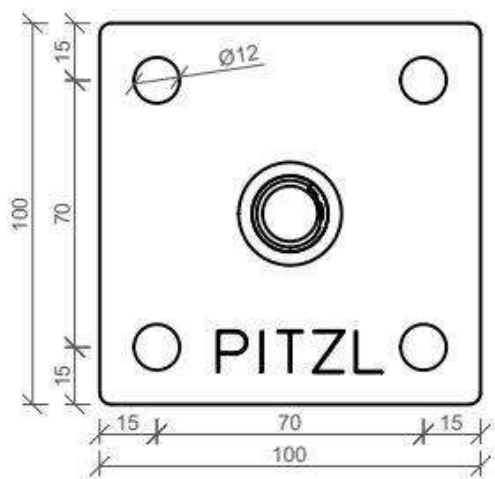
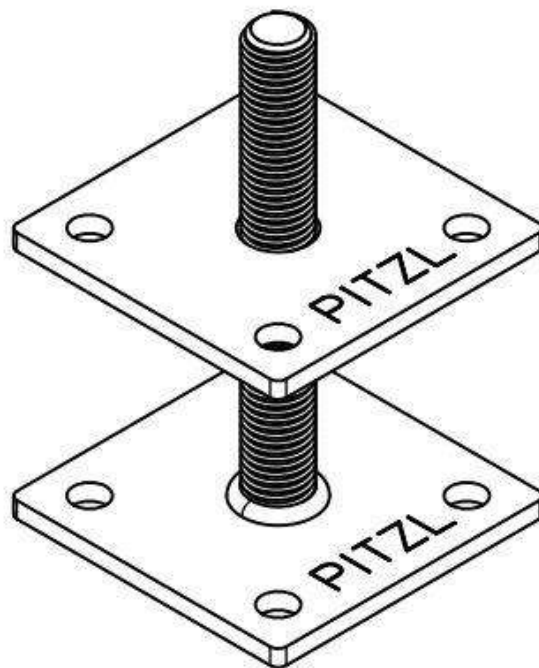
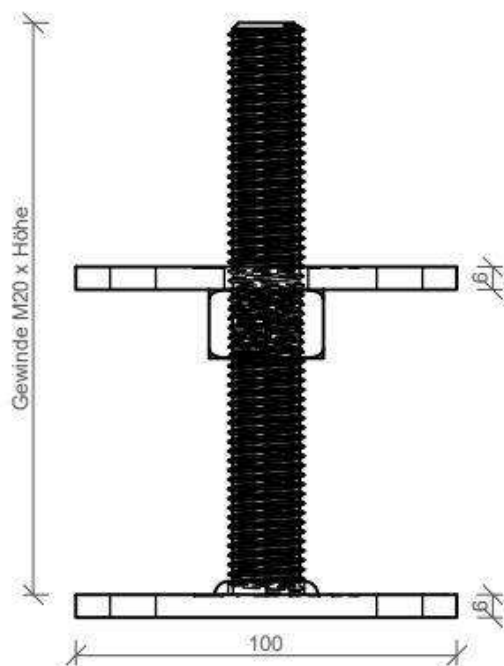
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| Artikelnummer: |
|----------------|
| 11008.6150     |
| 11008.6200     |
| 11008.6250     |



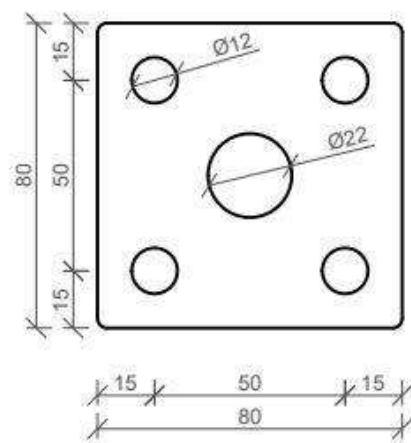
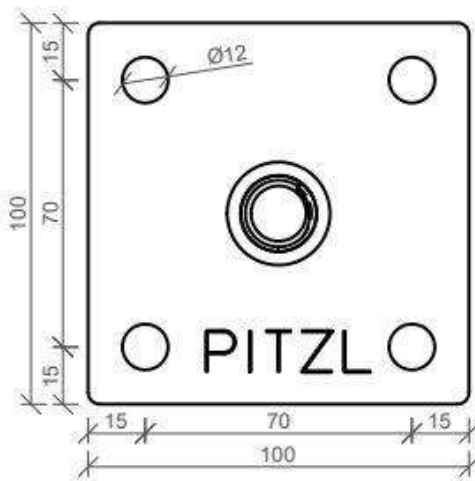
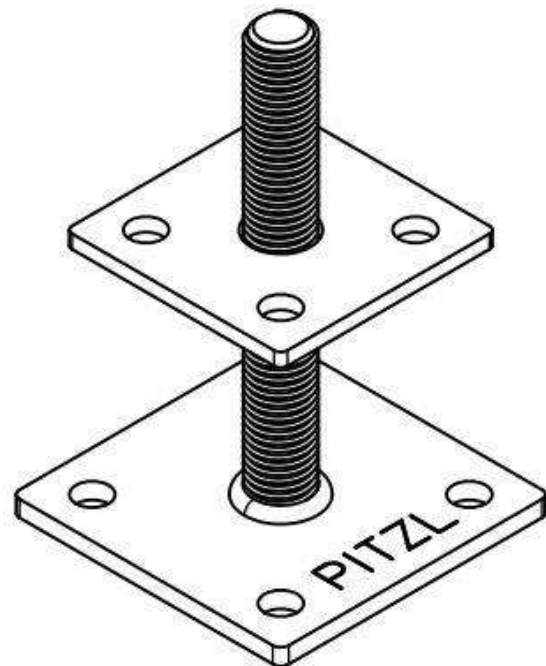
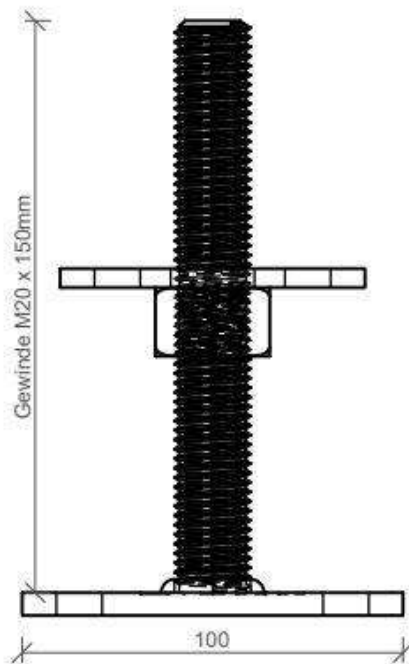


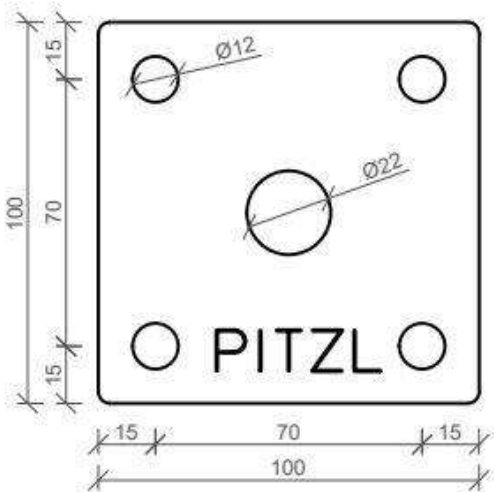
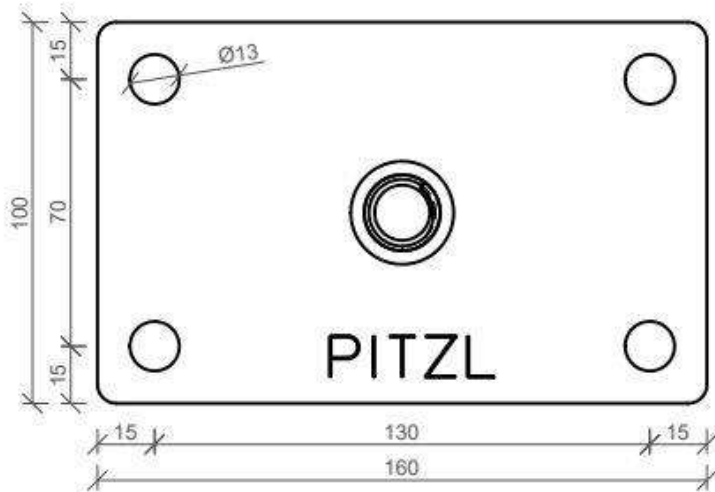
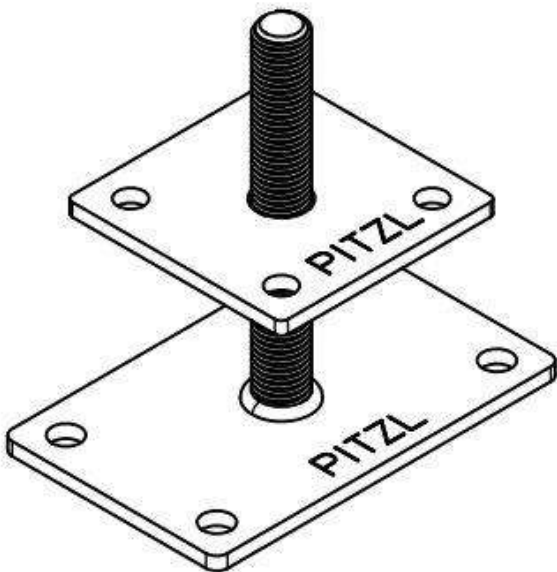
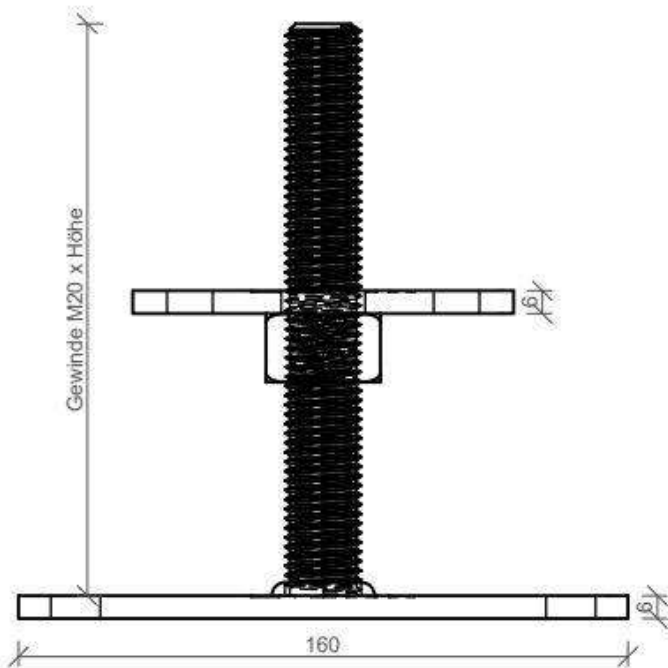
Art.Nr. 11008.7190 - untere Platte 160x160x12 mm  
Art.Nr. 11008.8190 - untere Platte 280x160x12 mm



| Art. Nr.   | Höhe         |
|------------|--------------|
| 11009.0100 | M20 x 150 mm |
| 11009.0200 | M20 x 250 mm |
|            |              |
|            |              |
|            |              |

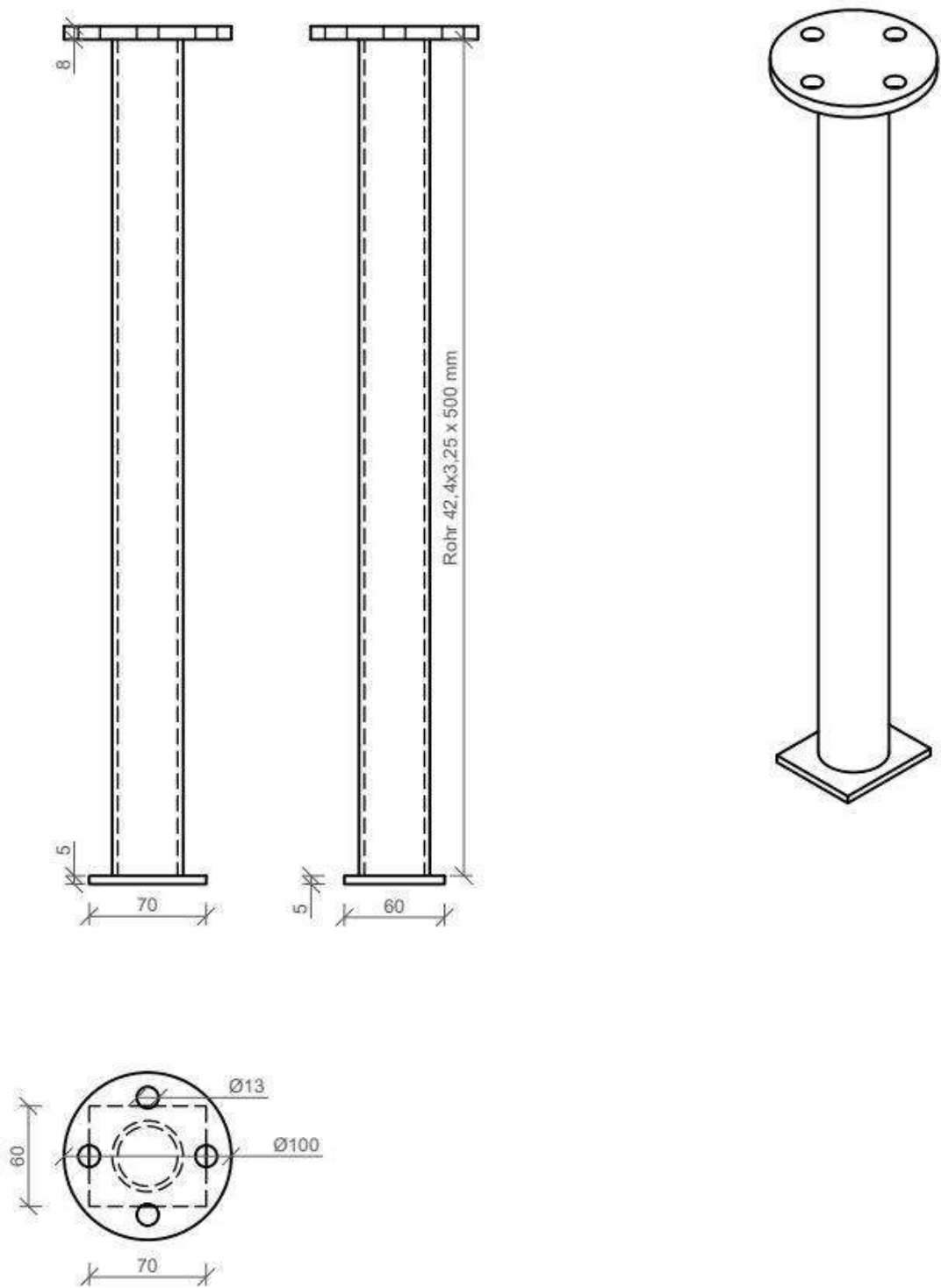
|                                                                                      |                                                                                                                                                                                                     |                          |
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|                                                                                      |                                                                                                                                                                                                     | 11009.0100<br>11009.0200 |

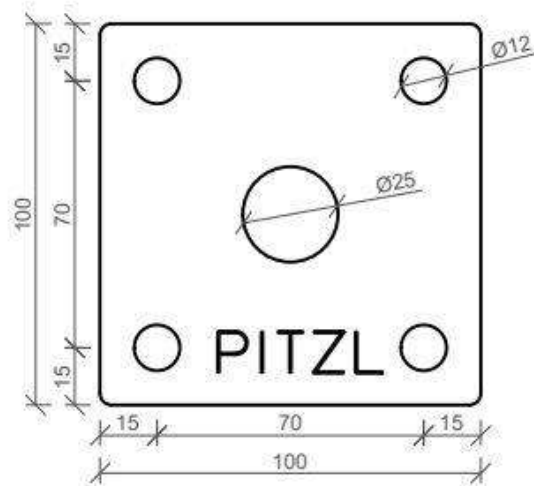
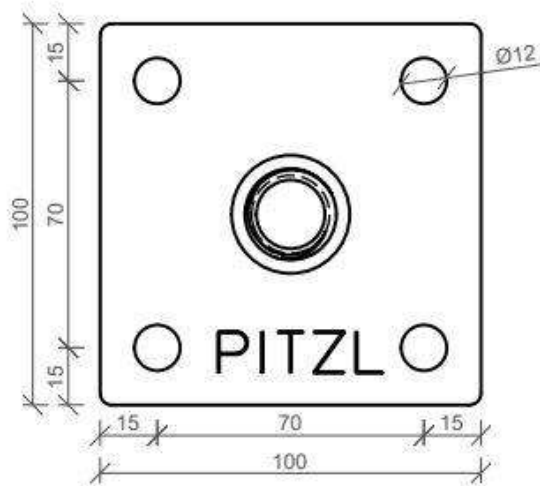
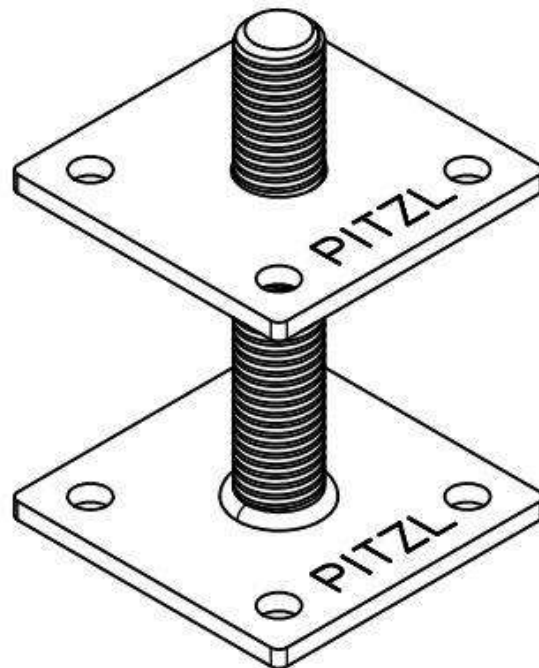
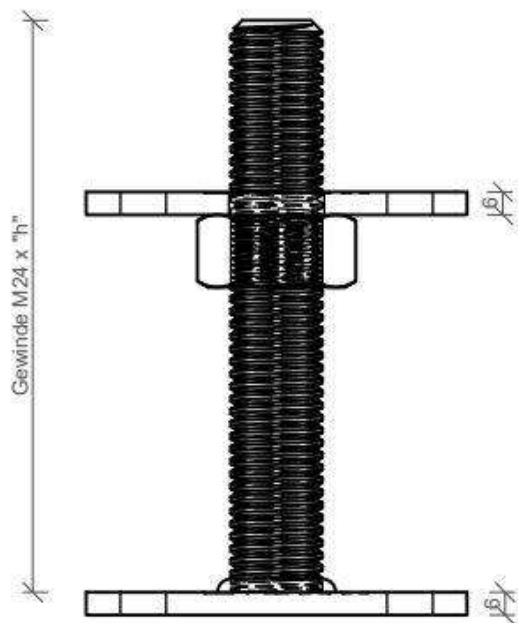




| Art. Nr.   | Höhe   |
|------------|--------|
| 11009.1100 | 150 mm |
| 11009.1200 | 250 mm |
|            |        |
|            |        |
|            |        |

|                                                                                      |                                                                                                                                                                                                     |                                                |
|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
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|                                                                                      |                                                                                                                                                                                                     |                                                |





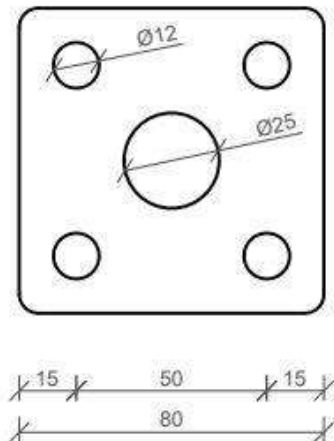
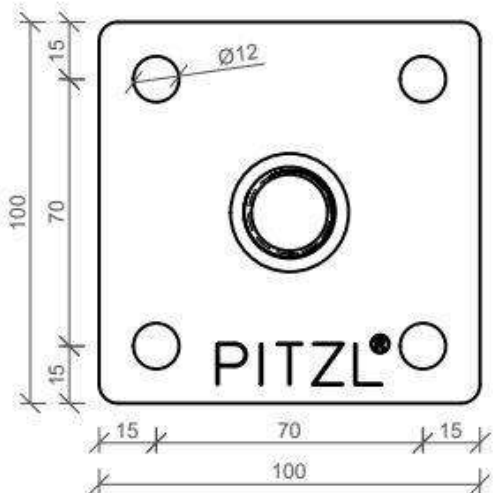
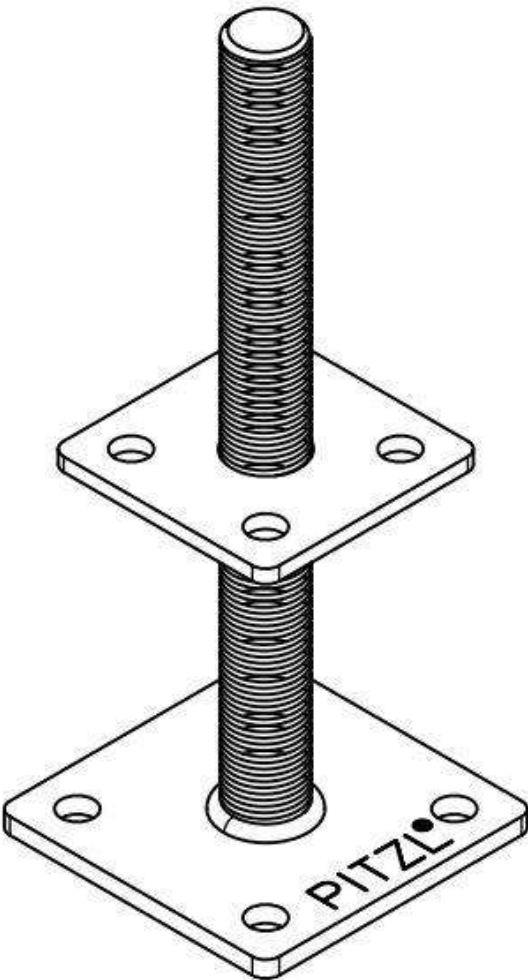
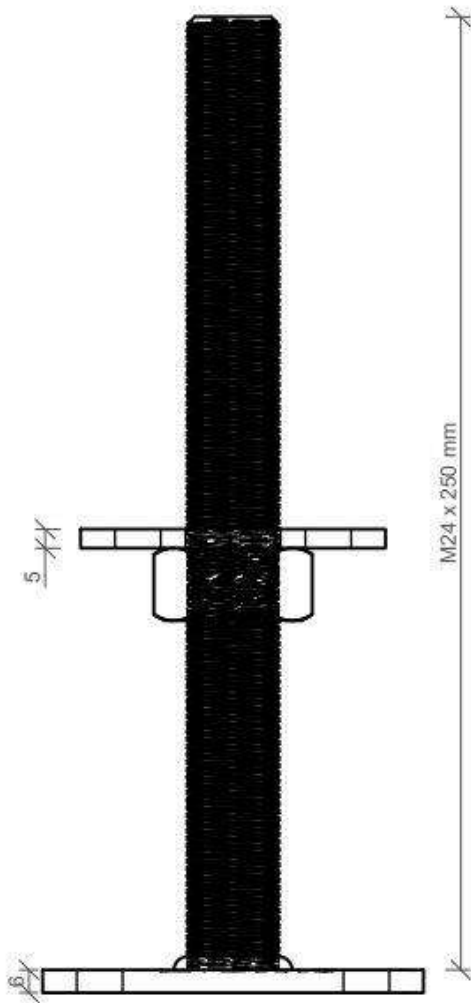
| Art. Nr.   | Höhe "h"     | Verstellbereich |
|------------|--------------|-----------------|
| 11013.0100 | M24 x 150 mm |                 |
| 11013.0200 | M24 x 250 mm |                 |
|            |              |                 |
|            |              |                 |
|            |              |                 |

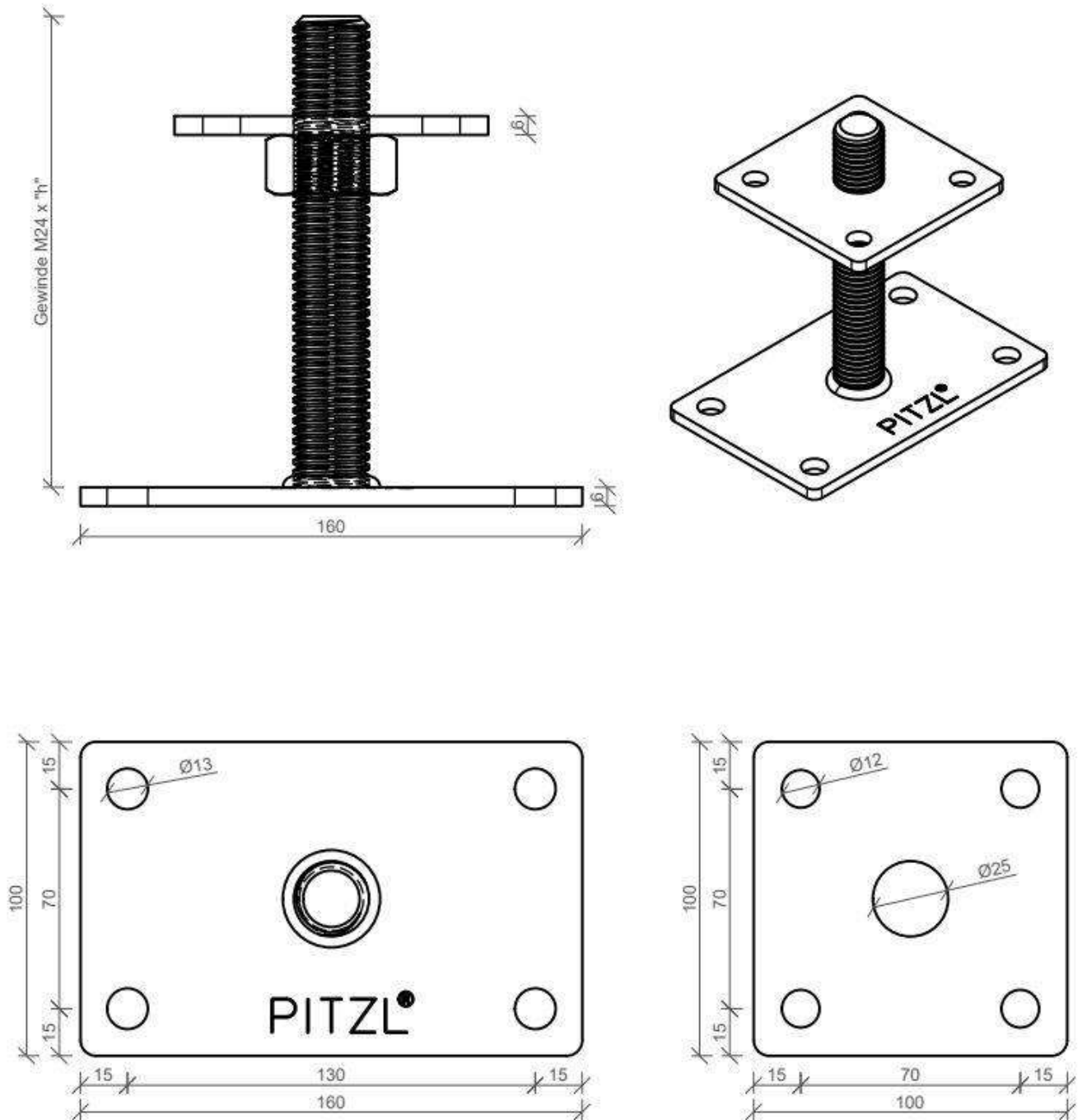


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Artikelnummer:  
11013.0100  
11013.0200







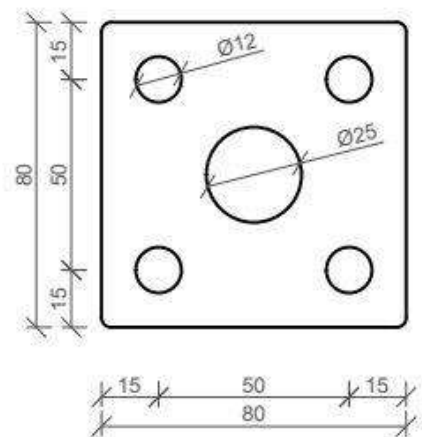
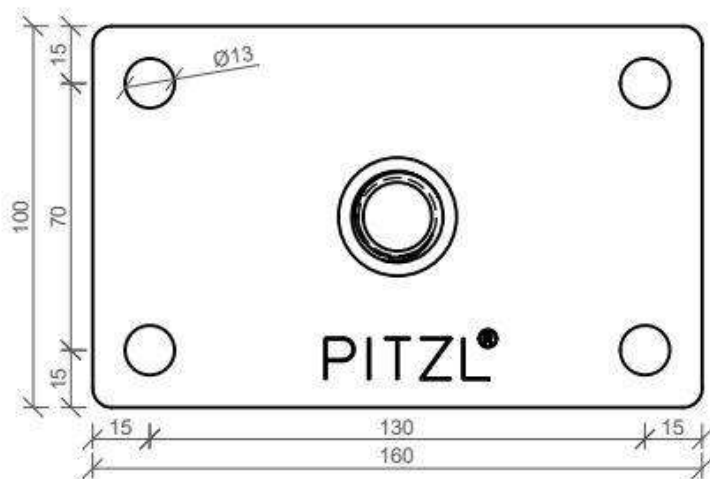
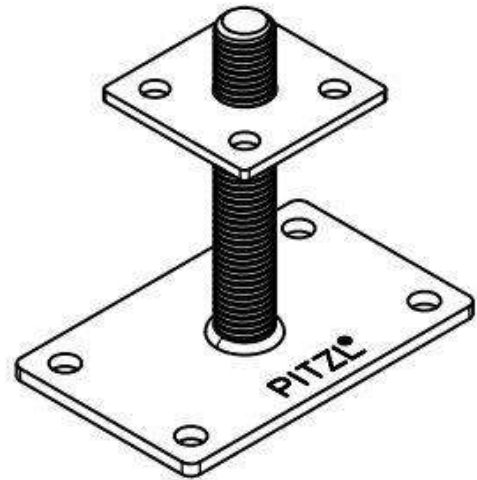
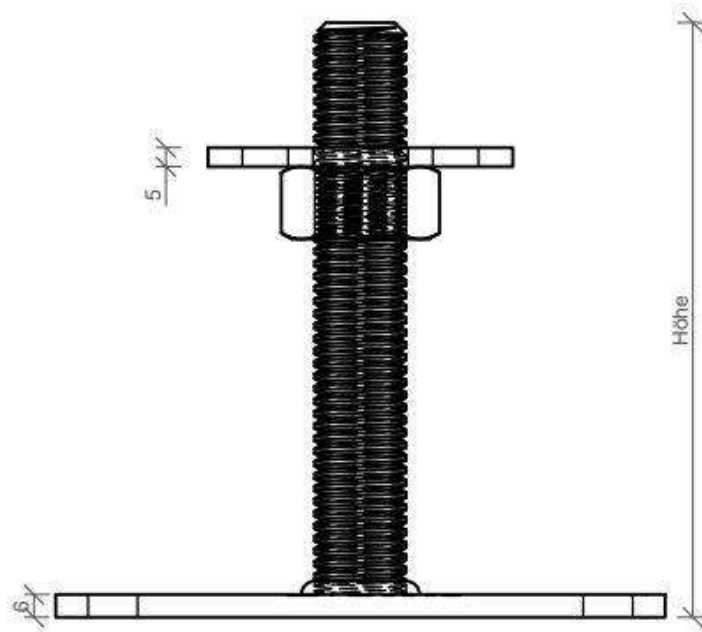
| Art. Nr.   | Höhe "h"     | Verstellbereich |
|------------|--------------|-----------------|
| 11013.1100 | M24 x 150 mm |                 |
| 11013.1200 | M24 x 250 mm |                 |
| 11013.1300 | M24 x 330 mm |                 |
| 11013.1500 | M24 x 500 mm |                 |



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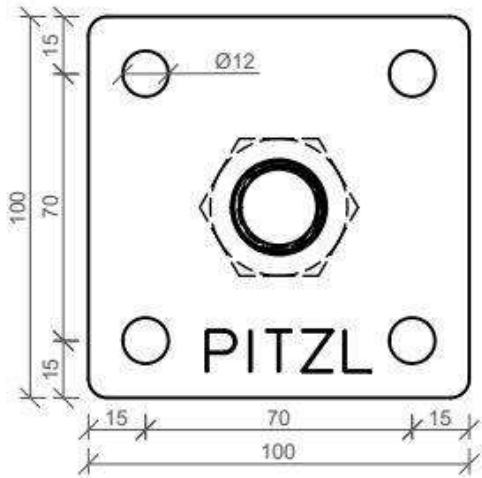
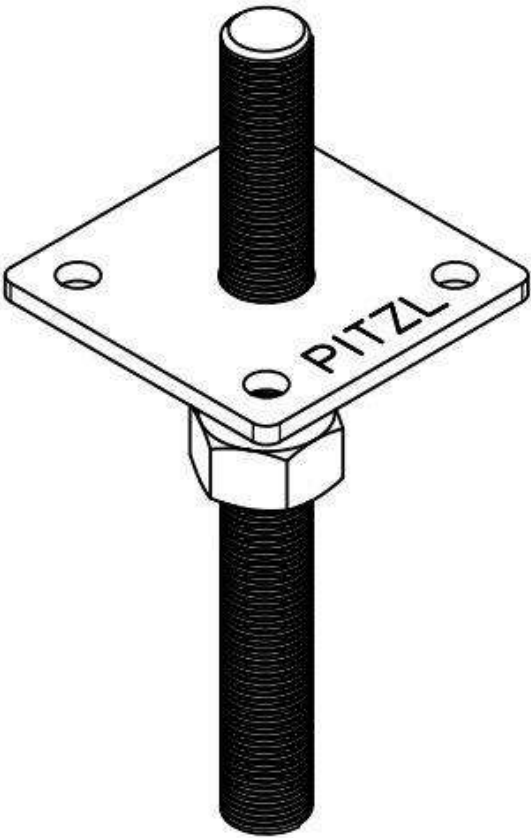
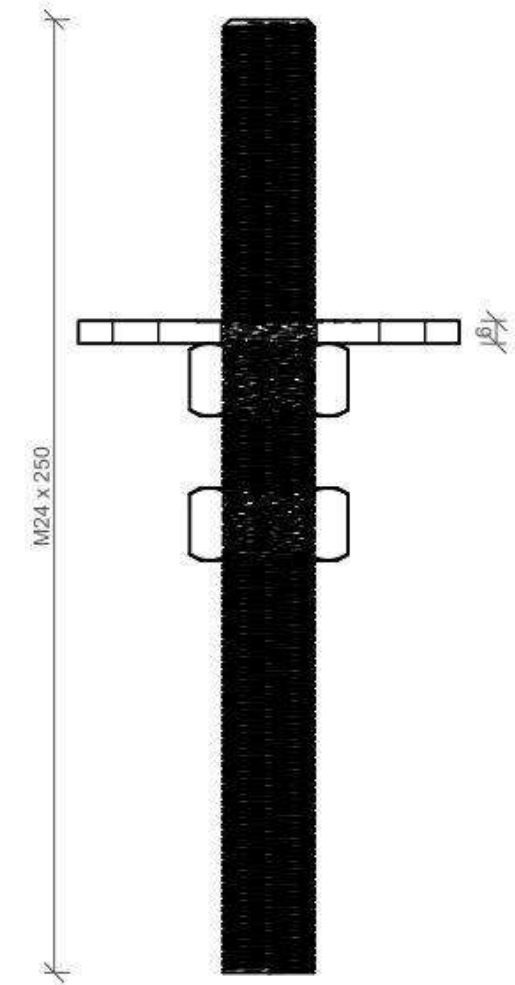
Artikelnummer:  
 11013.1100  
 11013.1200  
 11013.1300  
 11013.1500





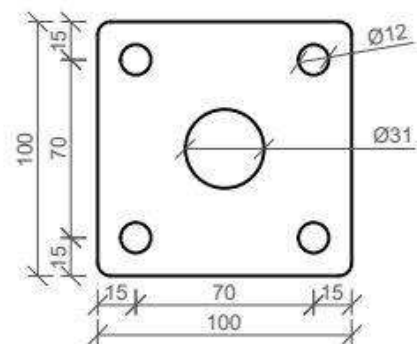
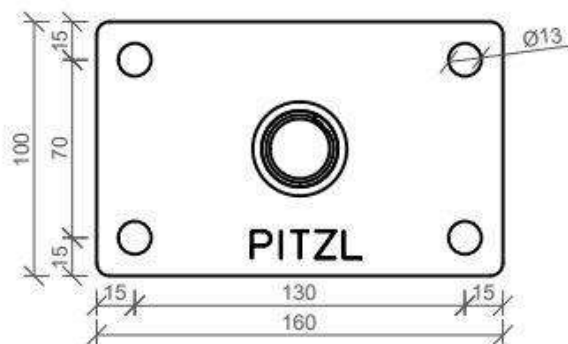
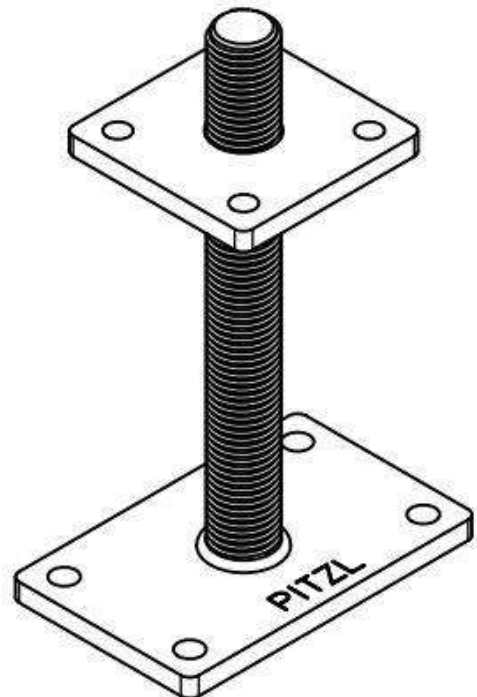
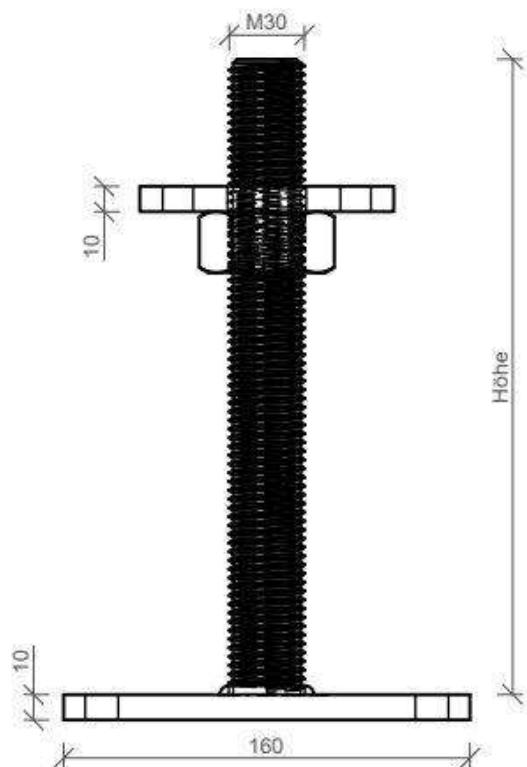
| Art. Nr.   | Höhe   |
|------------|--------|
| 11013.1180 | 150 mm |
| 11013.1280 | 250 mm |
| 11013.1380 | 330 mm |
| 11013.1580 | 500 mm |

|                                                                                      |                                                                                                                                                                                                     |                |
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|                                                                                      |                                                                                                                                                                                                     | 11013.1180     |
|                                                                                      |                                                                                                                                                                                                     | 11013.1280     |
|                                                                                      |                                                                                                                                                                                                     | 11013.1380     |



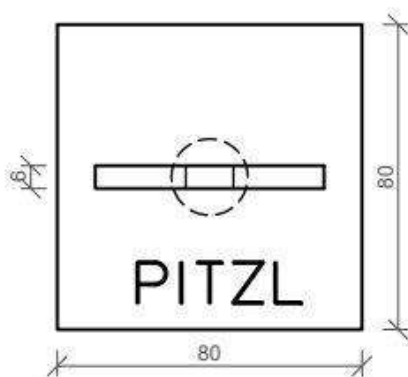
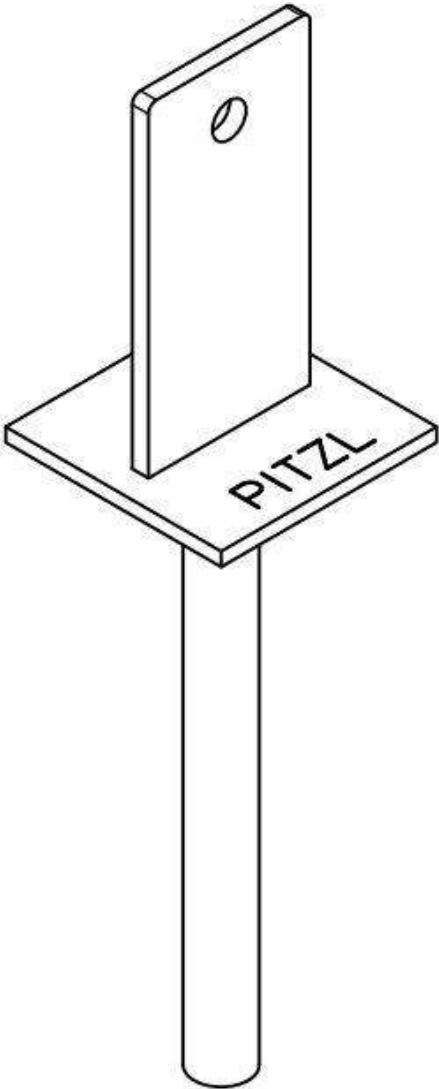
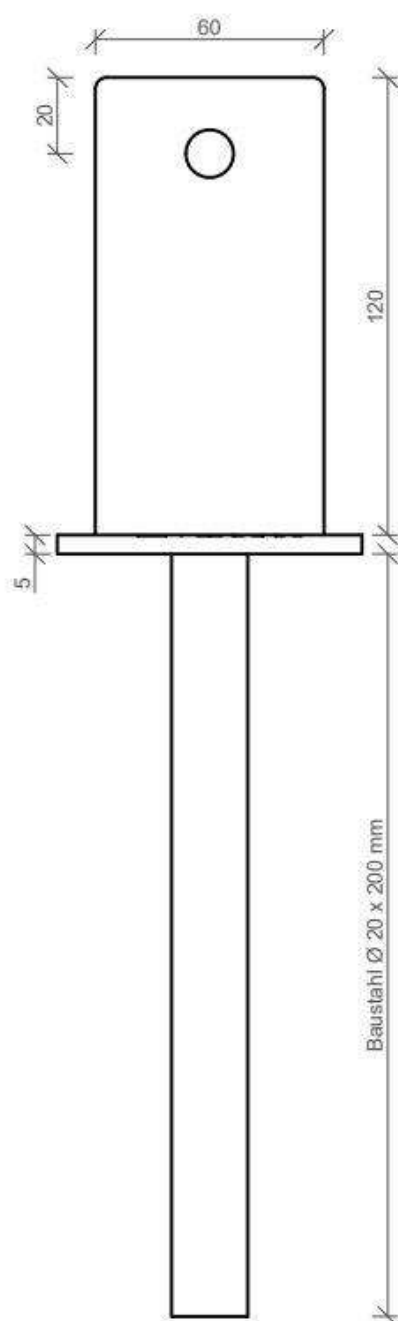
| Art. Nr.   | Höhe   |
|------------|--------|
| 11013.3201 | 250 mm |
| 11013.3301 | 330 mm |
| 11013.3401 | 500 mm |
|            |        |
|            |        |

|                                                                                      |                                                                                                                                                                                                     |                |
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|                                                                                      |                                                                                                                                                                                                     | 11013.3201     |
|                                                                                      |                                                                                                                                                                                                     | 11013.3301     |
|                                                                                      |                                                                                                                                                                                                     | 11013.3501     |

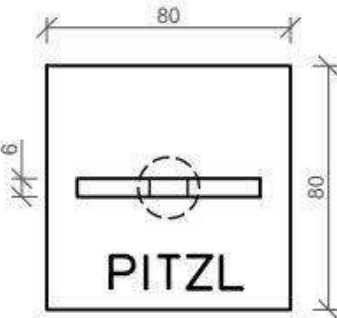
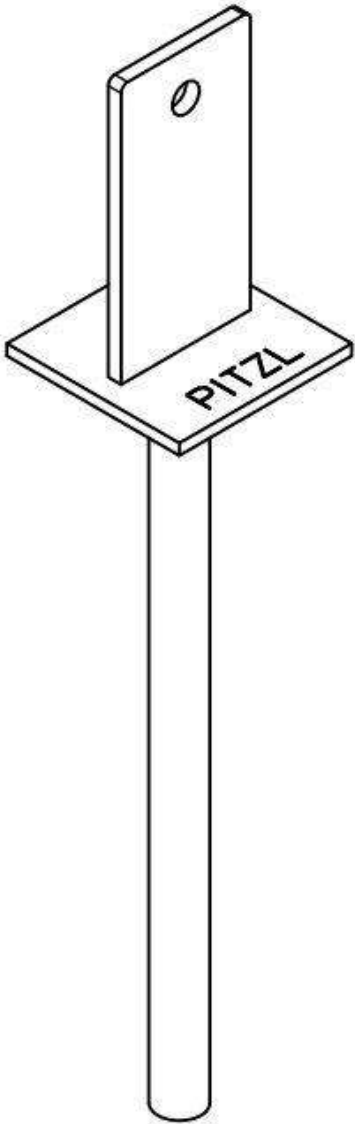
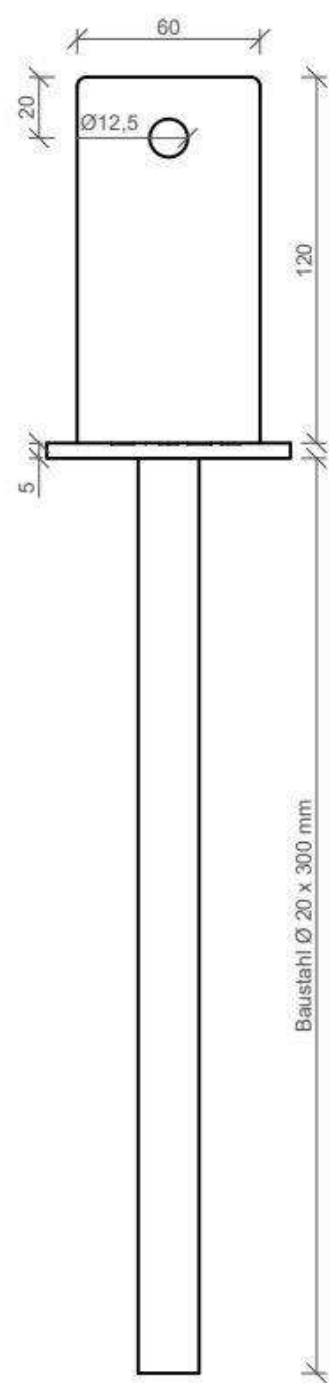


| Art. Nr.   | Höhe         |
|------------|--------------|
| 11016.1200 | M30 x 250 mm |
| 11016.1300 | M30 x 330 mm |
| 11016.1500 | M30 x 500 mm |
|            |              |
|            |              |

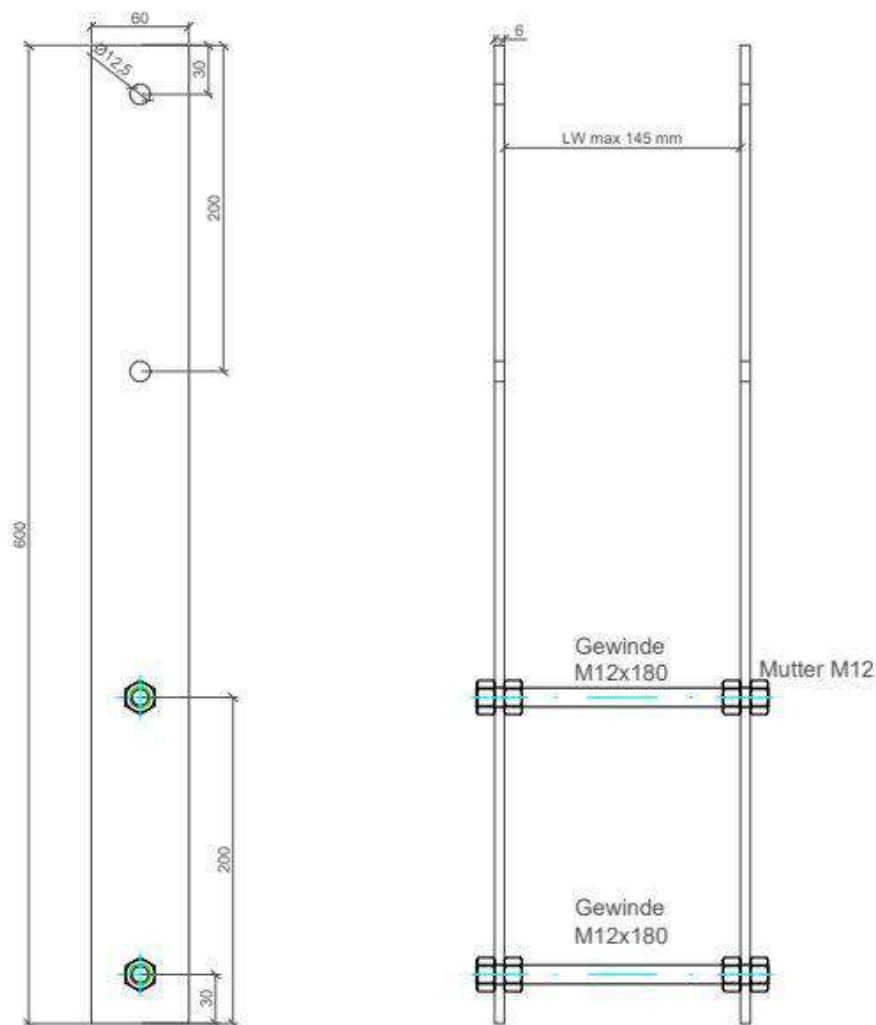
|                                                                                      |                                                                                                                                                                                                     |                |
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|                                                                                      |                                                                                                                                                                                                     | 11016.1200     |
|                                                                                      |                                                                                                                                                                                                     | 11016.1300     |
|                                                                                      |                                                                                                                                                                                                     | 11016.1500     |



|                                                                                      |                                                                                                                                                                                                     |                |
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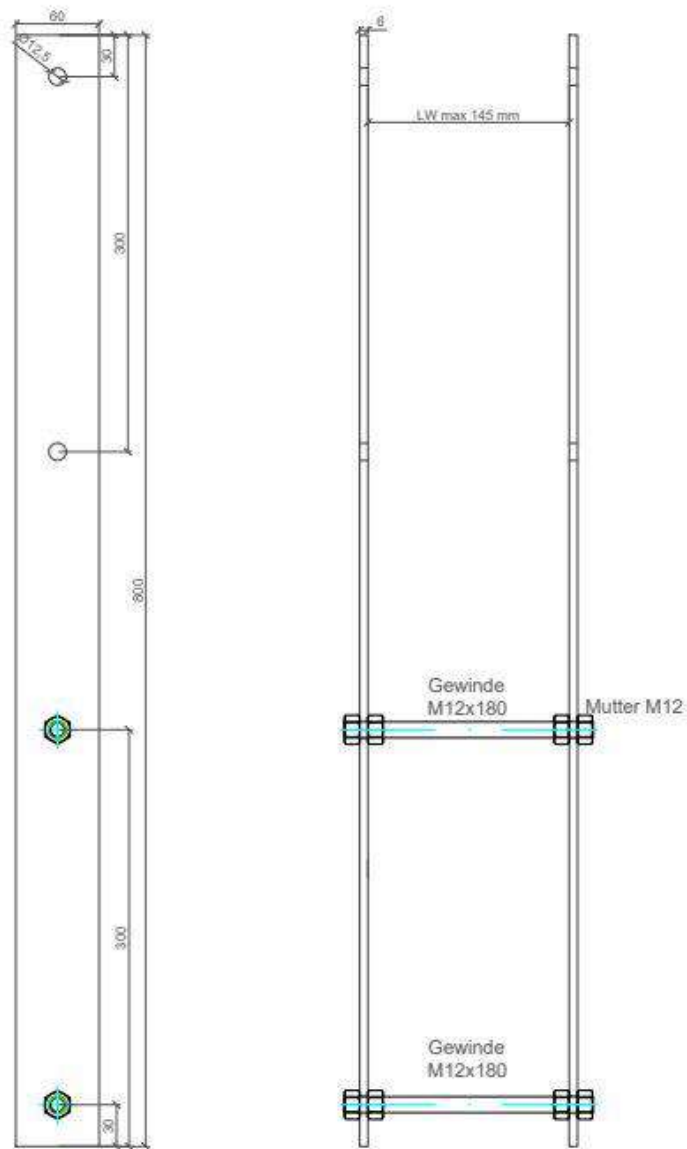
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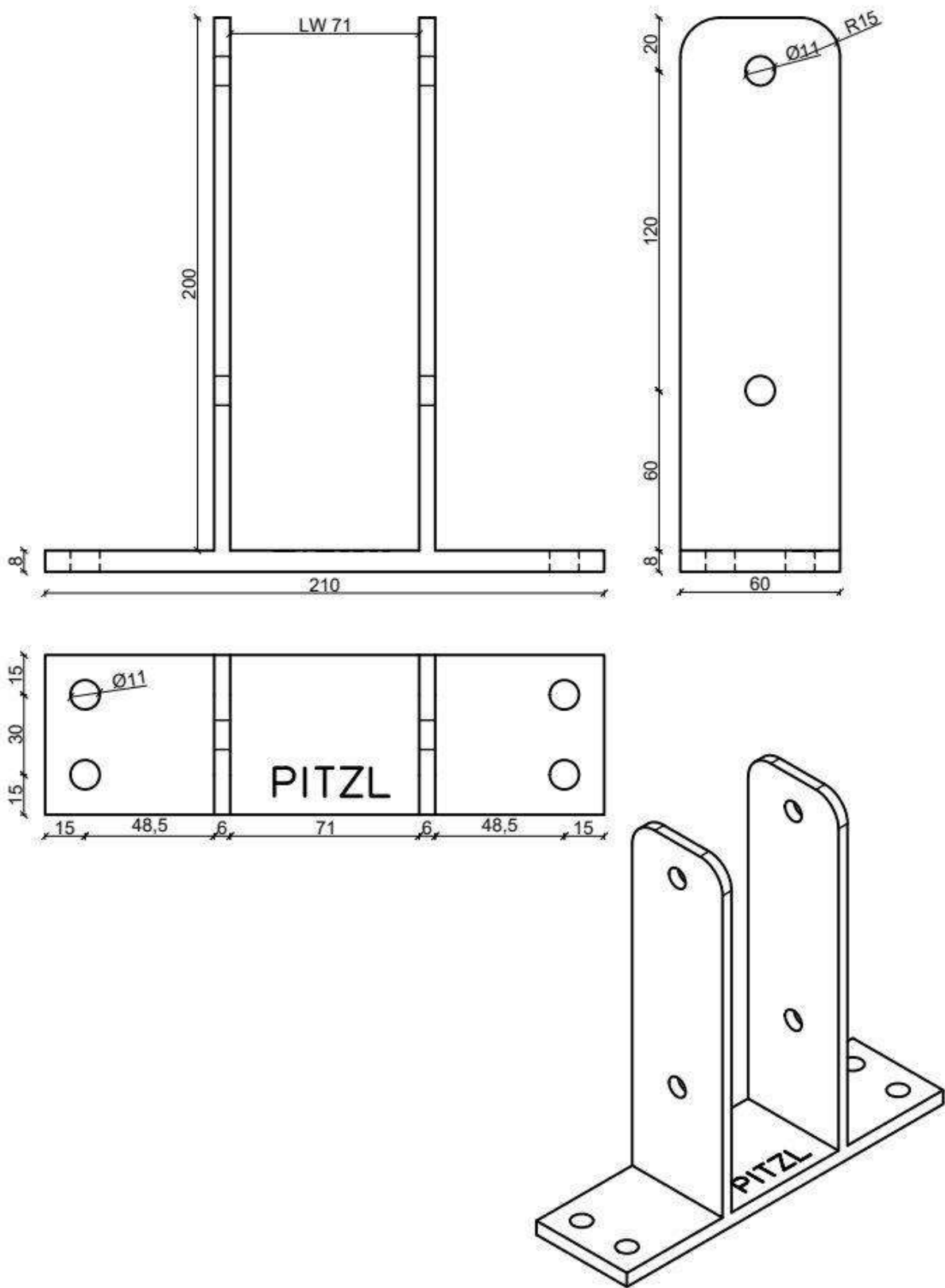
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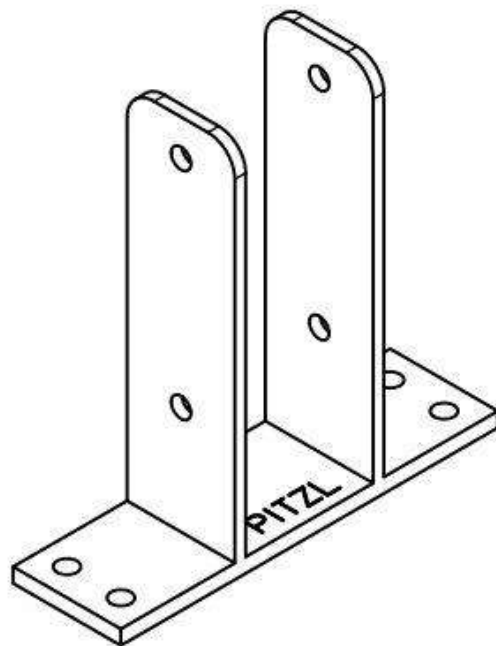
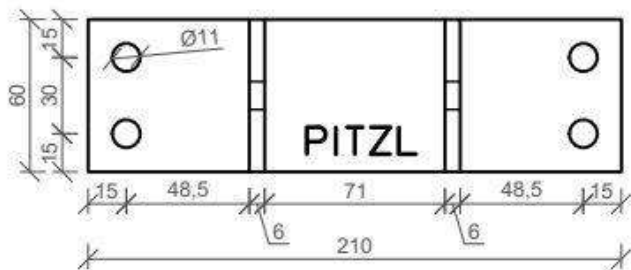
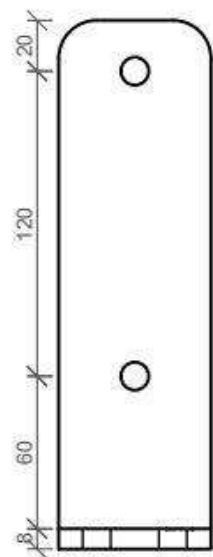
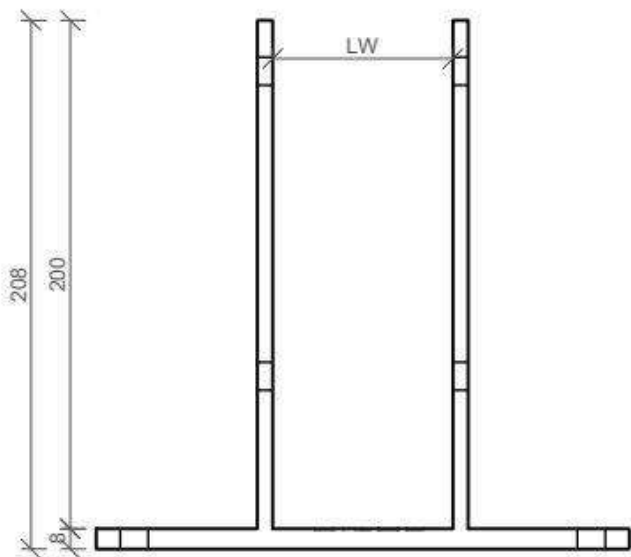


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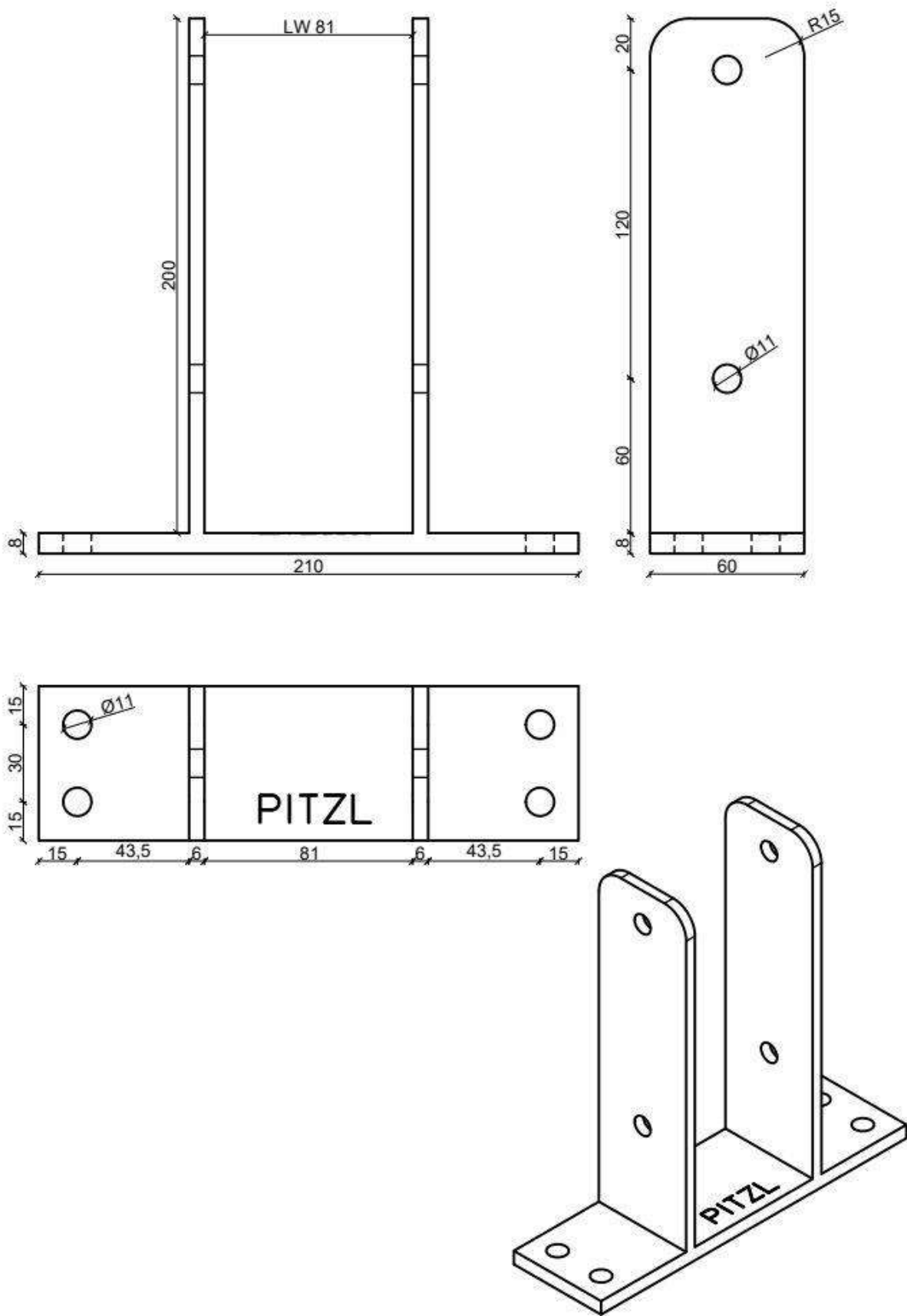


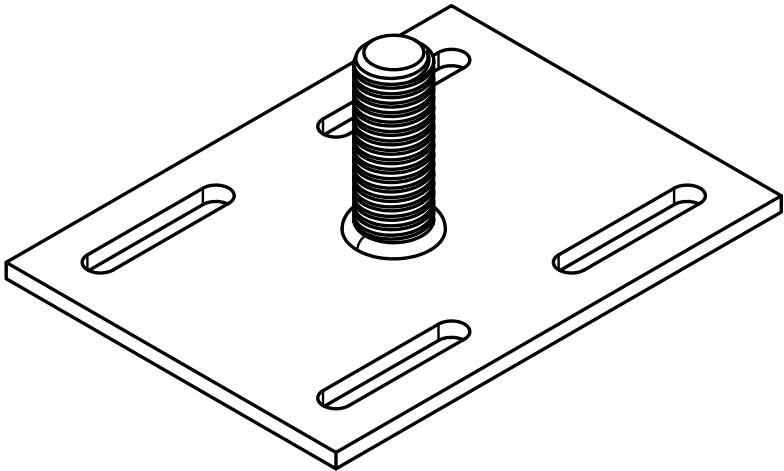
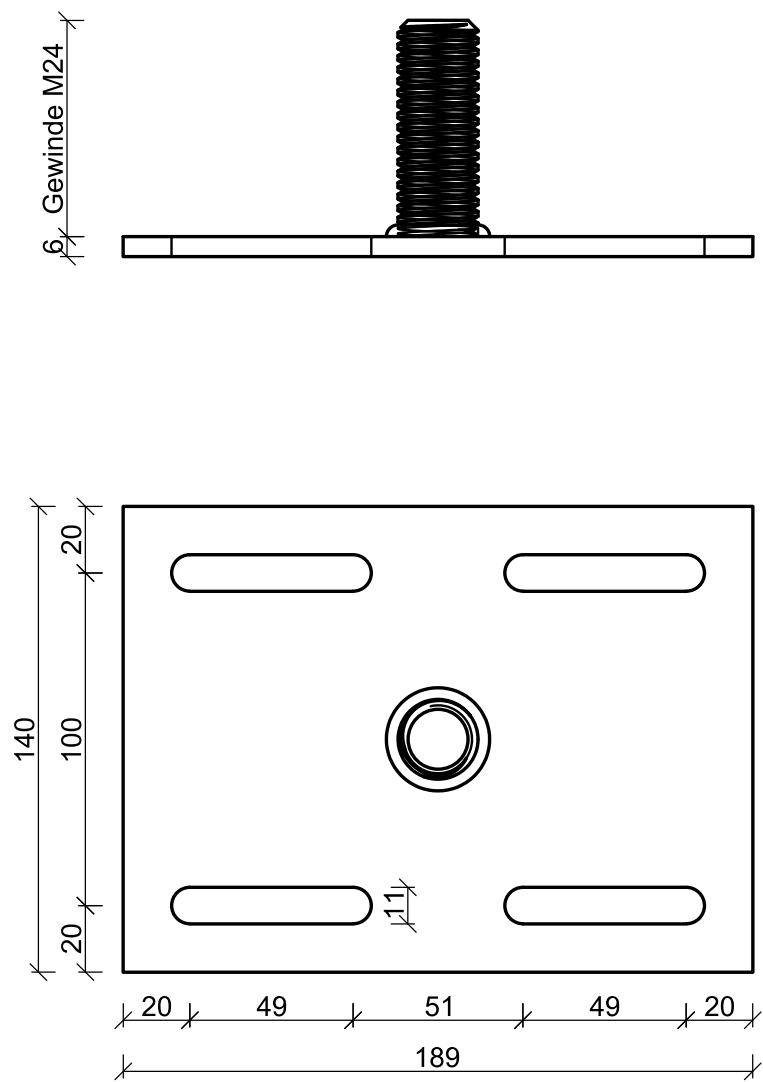
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| 11044.0101 | 101 |
| 11044.0121 | 121 |



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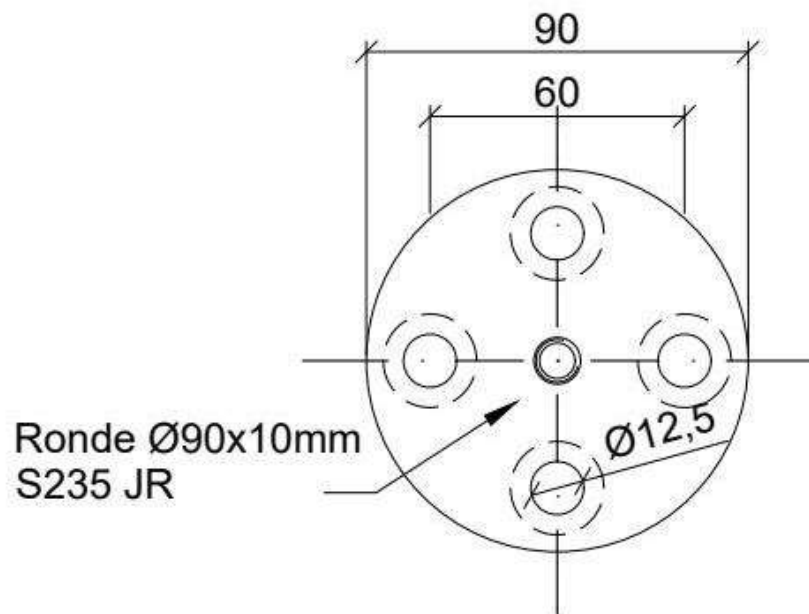
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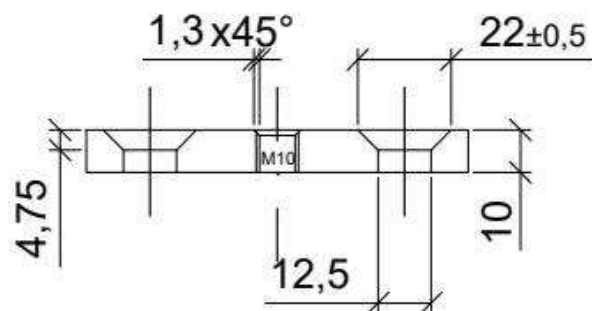


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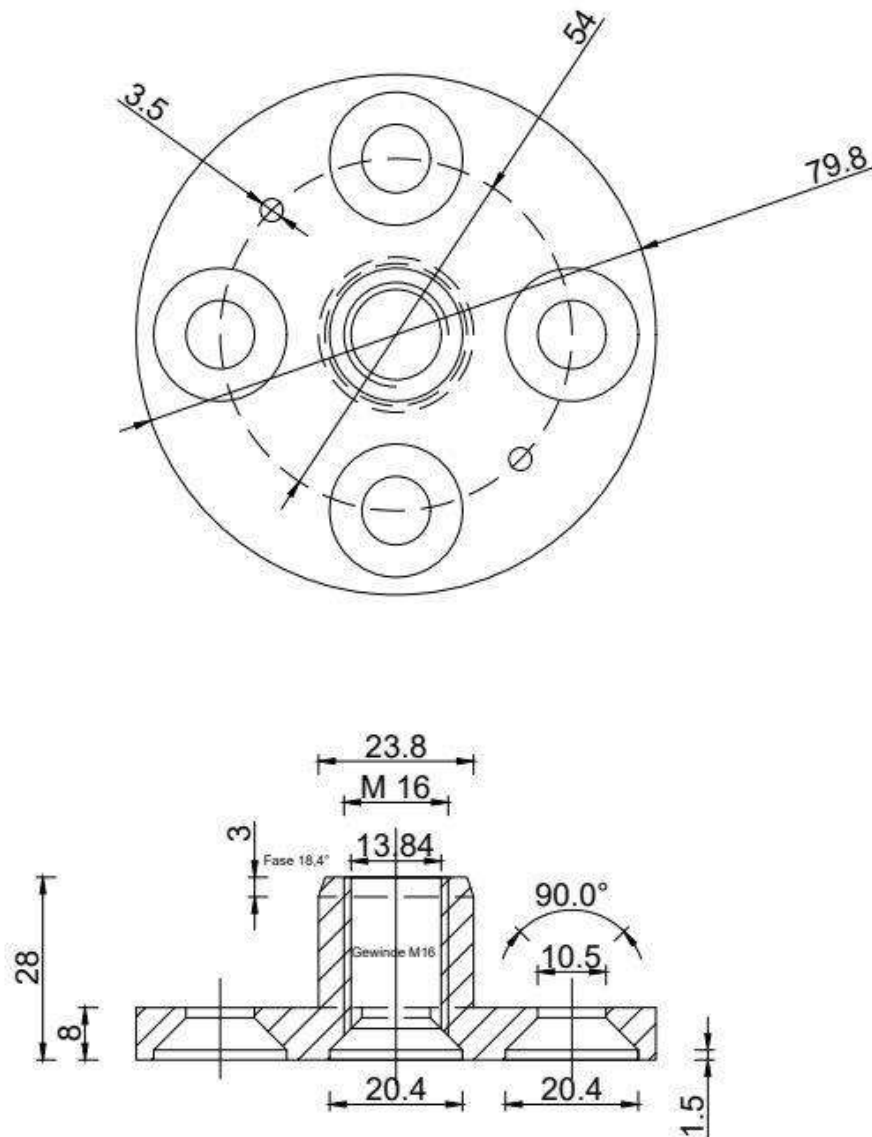
C.2 Plans of the column purlin connector

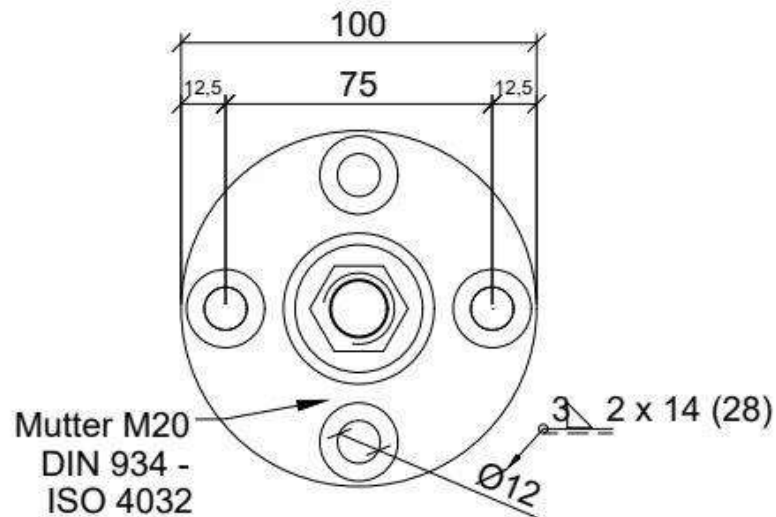


Ansicht Schnitt

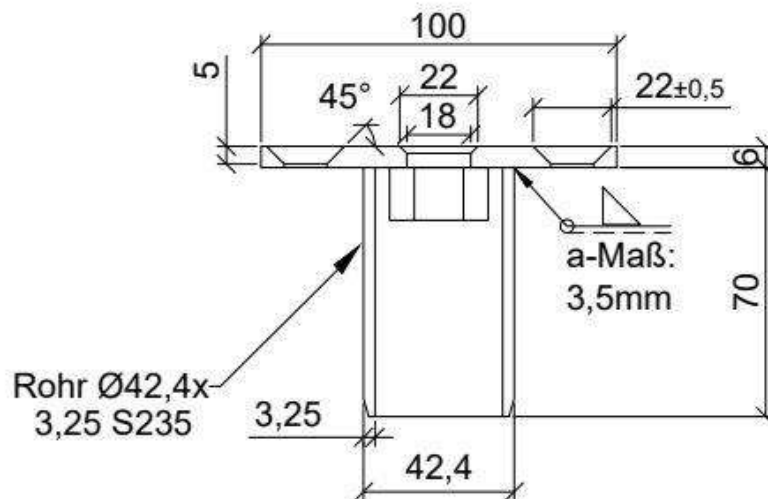








Ansicht Schnitt



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### C.3 Plans of the Balcony-Pillars

