

Installation instructions DMZ186

Customized dowel-anchored plate with base, glueboard and placement hinge for type FILIUS, in accordance with ETAG 005 guidelines for planning and execution of liquid-applied synthetic waterproofing for roofs, balconies and terraces. The method used here comprises an externally insulated roof system based on bonding a vapour barrier and sealing with roofing membranes (bitumen sheet insulation or synthetic waterproofing material).

The following instructions include all information necessary for the installation of this anchor plate. To avoid any misunderstanding we advise you to read these instructions carefully and then keep them for later reference.



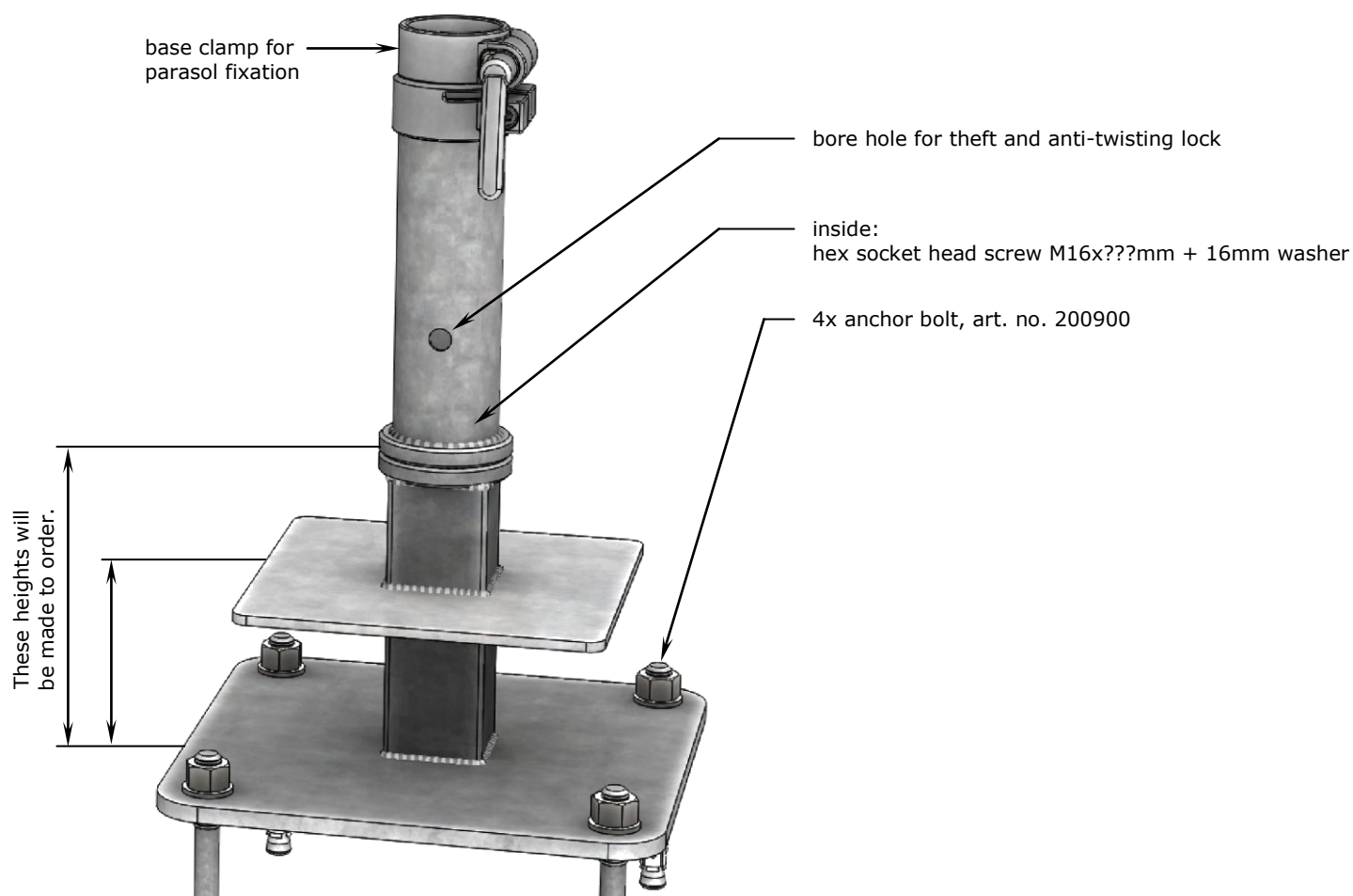
Caution

Non-observation of operating instructions can result in personal injuries or damage to property.

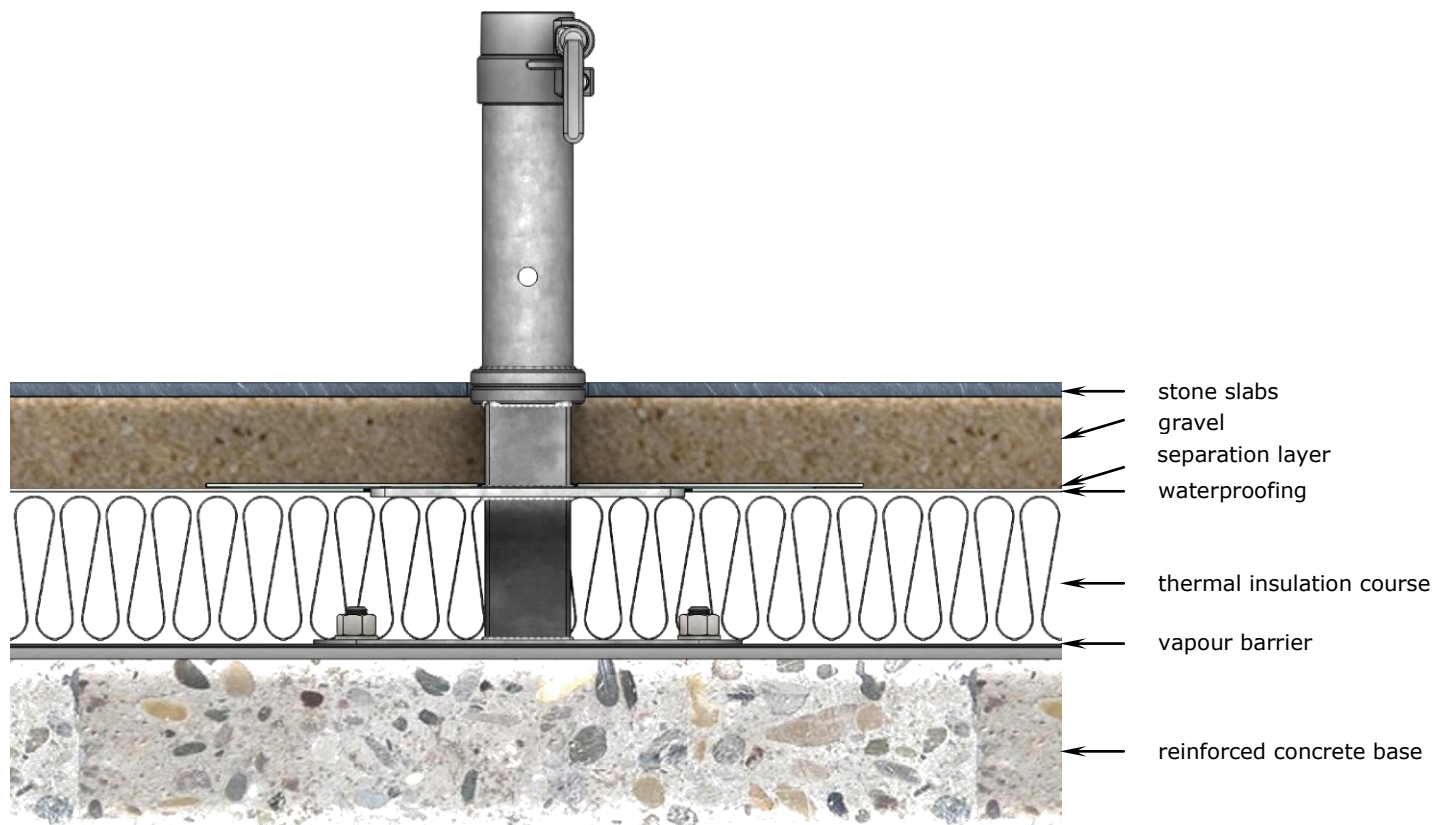
Please note that if these instructions are not observed, the manufacturer cannot assume any liability or guarantee.

- Always follow the safety regulations.
- Should you not understand any part of these operating instructions, please contact your MAY dealer.

Diagram showing installation materials and tools



Flat-roof structure: single-layer, unvented



Positioning DMZ186 and preparation of the vapour barrier

Start from the following initial state of the roof terrace: the bitumen sheets have not yet been placed, i.e. the reinforced concrete base is in substrate condition.

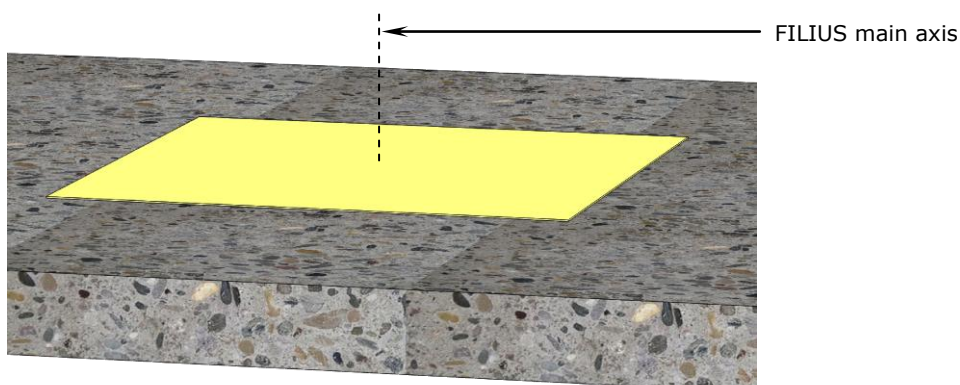


Caution

This flat-roof installation should be carried out solely by a qualified roofing contractor. Non-observance MAY result in property damage.

Please note that the applicable regulations for roof waterproofing and the most recent DIN norms valid for the entire craft must be observed. The manufacturer has included some additional technical hints to aid correct installation. Nevertheless, MAY cannot assume any liability or guarantee for incorrect installation.

1. Place a purpose-made vapour barrier membrane (1 x 1m) in the middle of the designated position for the FILIUS parasol main axis. Ideally, the vapour barrier would be made of Wolfin GW SK bitumen- compatible synthetic membrane. This is produced on the base of PVC-P-BV in accordance with DIN 16937 and 16730. Technical data: thickness 2.3 mm, underside glass fiber mesh reinforcement, coated with a cold-bonding self- adhesive layer.



2. Choose the location for your DMZ186.



3. When positioning the DMZ186, be sure to measure exactly where the parasol axis should be. Allow sufficient space between sunshades or between the wall of the building and the sunshade.



Caution

Sunshades that are located too close together wear sooner.

Sunshades MAY sway slightly. If there is not enough space between them, they MAY touch and abrade or scrape the canopy fabric at the spoke ends.

- Make sure that there is a clearance of approx. 15 - 20cm between the sunshades (or between sunshade and the wall of the building).
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4. Align the DMZ186 into vertical position.

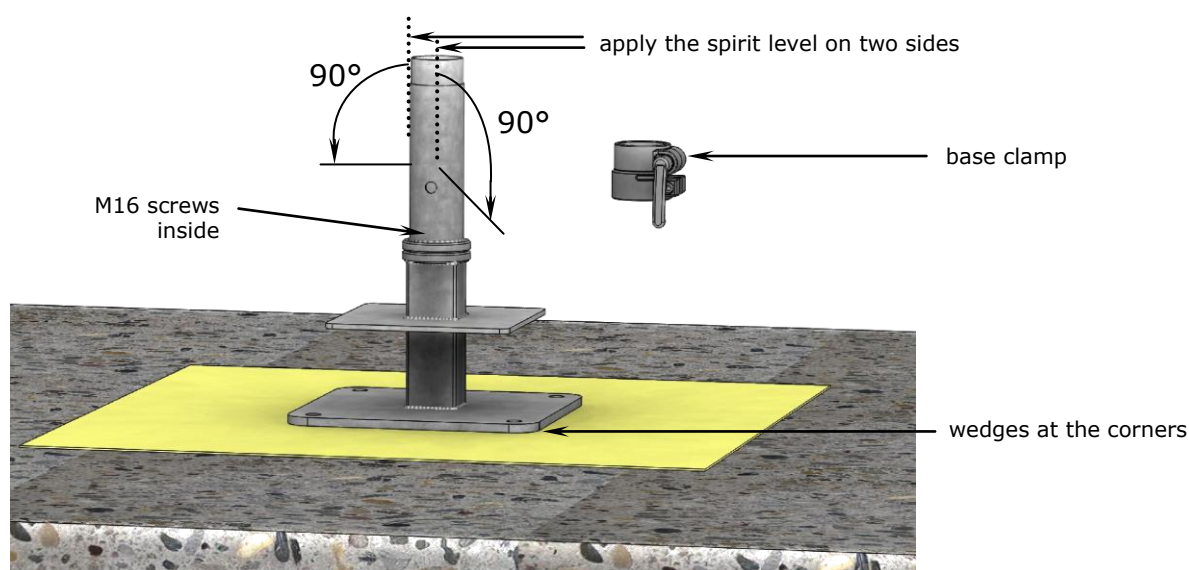


Attention

In order to ensure that the parasol stands upright, the DMZ186 must be screwed into vertical position.

If the upper component of DMZ186 is not in an absolutely vertical position, the parasols will stand slanted. This would have a negative impact on the overall optical appearance of the parasols. Especially when there are several sunshades in a row, even an inexperienced passer-by would notice that they are not straight.

- Screw the three M16 screws tight.
- Remove the base clamp.
- Use a spirit level to align the DMZ186. (cf. Illustration)
- Use wedges under all four corners. The wedges should be as broad as possible so that the load is well distributed and will not damage the vapour barrier membrane.
- Fix the base clamp.



Caution

Screws that are not tightened correctly will work loose.

If screws are not tightened firmly enough, there will not be sufficient tensile force to trigger self-locking. If the screws are tightened too firmly and over-stressed, the screw connection MAY slacken.

- Tighten the screw manually using the enclosed hex key and extension. Exert as much force as possible. With the enclosed tools there is virtually no risk of over-stressing.
- The correct torque for a torque wrench is 210 Nm.

- When setting the DMZ186, make sure that the base plate of the bottom component is flush with the terrace floor surface.

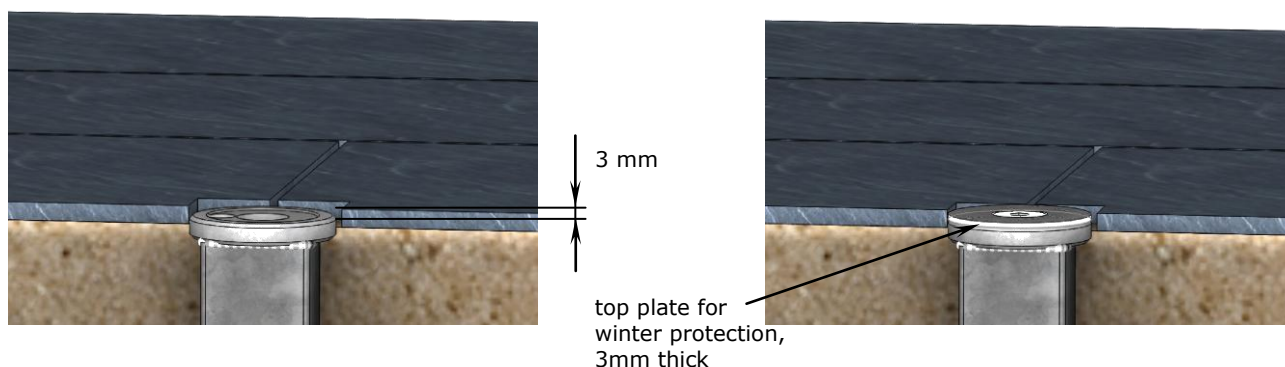


Attention

Avoid tripping hazard.

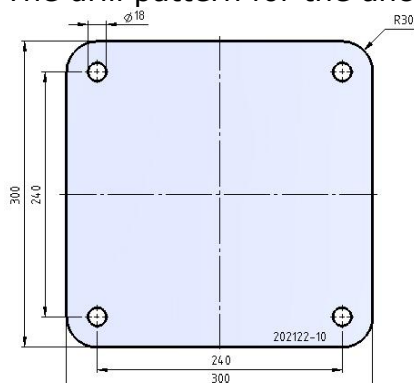
To ensure that the winter top plate (needed as a protective cover in winter when the upper anchor tube has been removed) is flush, the bottom component must be set 3mm below the terrace surface (cf. illustration). This difference of 3mm corresponds to the space needed for the 3mm-thick checker plate for winter protection.

- When ordering, make sure that you state the correct height measurements required for the bottom component so that the distance between the top of the reinforced concrete base and the top edge of the terrace surface can be bridged properly. Please use our special MAY order form for custom-made production.
- In case of doubt, state a measurement that is slightly too short. The missing height can then be jacked up. Measurements that are too long cannot be adjusted.
- To reach the correct height of the lower component, push wedges under all four corners. The wedges should be as broad as possible so that the load is well distributed and will not damage the vapour barrier membrane. Ideally, the wedges should only be used to jack up the plate. The hollow space beneath the base plate should then be stuffed with epoxy resin sealing mortar until the plate is completely stable and safe.



Dowelling the anchor plate

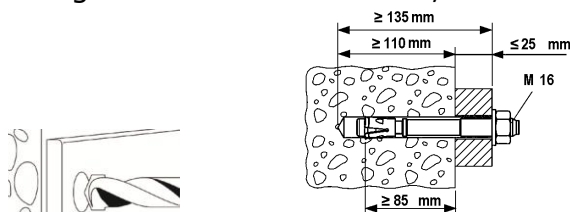
- Use a hammer drill to drive the 4 bore holes for dowels into the reinforced concrete surface. The drill pattern for the anchor plate is as shown below:



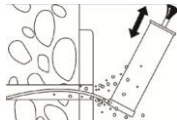
2. Screw the anchor plate onto the foundation. If you use anchor bolts provided by other manufacturers, please observe their instructions. Anchor bolts supplied by MAY should be mounted as follows:

Order No. 200900, threaded bolt with nut, stainless steel A4:

- a. Using a 16 mm hammer drill, drill a min. 110 mm-deep hole into the concrete.



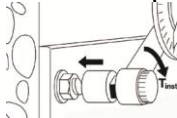
- b. Clean the bore hole with compressed air.



- c. Drive the anchor bolt into the hole. Before doing so, be sure to position the hex nut correctly. (The drive-in pin of the threaded bolt should jut out of the hex nut approx. 2 - 3 mm.)



- c. Use a torque wrench to tighten the nut with 110 Nm.



Danger

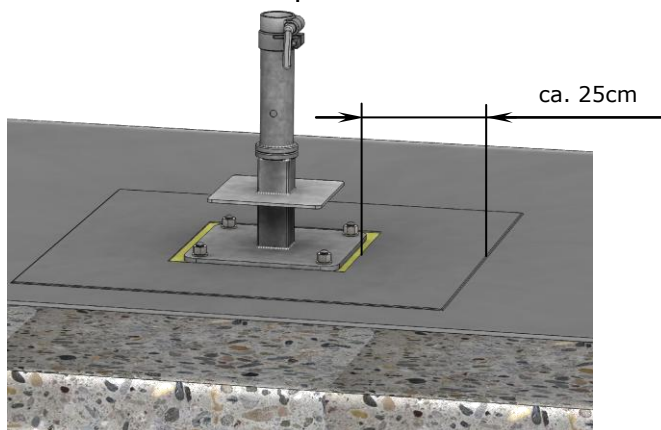
A falling sunshade can cause serious or even fatal injury.

If the dimensions of the anchor bolts do not match the size of the umbrella, the sunshade MAY fall and cause injuries.

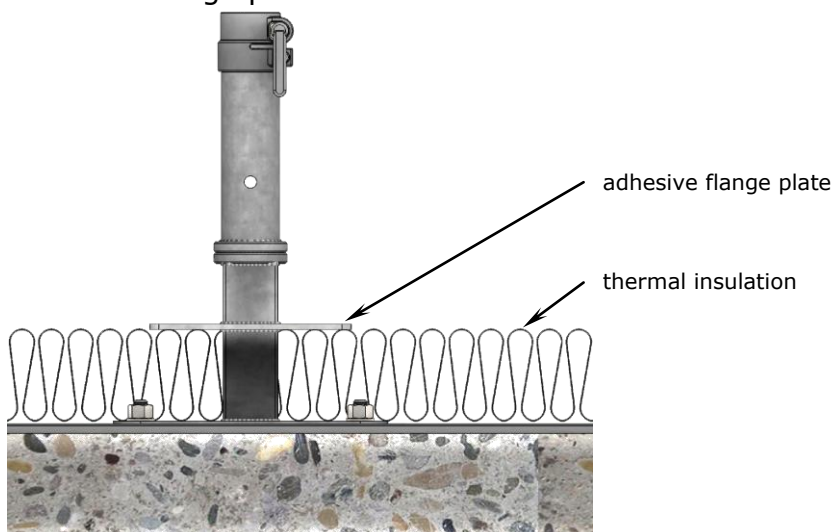
- Always determine the appropriate bolt size with the help of a specialist.
 - Anchor bolts of MAY company are approved for cracked and non-cracked concrete C20/25 to C50/60. Also suitable for concrete C12/15 and natural stone with dense structure.
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Bonding vapour barrier membranes

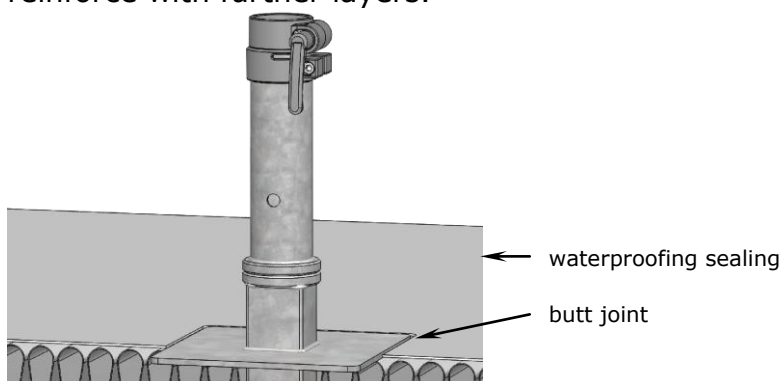
1. Under the anchor plate there is a vapour barrier membrane with a 25cm connecting face. Use this to bond vapour barrier membranes made of bitumen sheeting or similar materials.



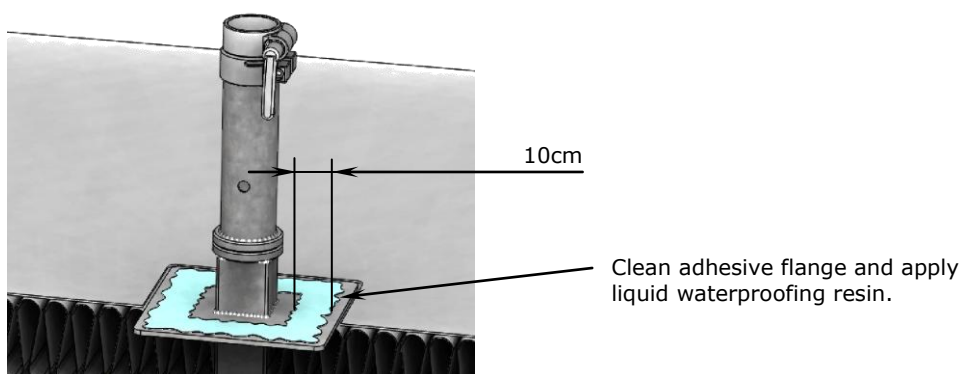
2. Fill up the thermal insulation course with insulating material as far as the bottom of the adhesive flange plate.



3. Spread out the waterproofing sealing membrane on the insulation layer. When doing so, cut out a hole in the membrane so that it will fit exactly round the adhesive flange and thus form a butt joint. Depending on the waterproofing membrane used, it MAY be necessary to reinforce with further layers.



4. The surface of the flange plate that is to be covered with liquid waterproofing resin must be rubbed down and cleaned thoroughly, if necessary with a special cleaning agent. In addition, this surface must be primed in accordance with the producer's priming chart for liquid synthetic resins. The fleece can now be bonded properly. The next step is to spread the liquid waterproofing resin right round the adhesive flange with a width of somewhat over 10cm.



5. Now apply about a width of 10 cm of the liquid waterproofing resin right round the adjoining surface of the waterproofing sealing membrane. So you now have a fleece seal of at least 20cm width.

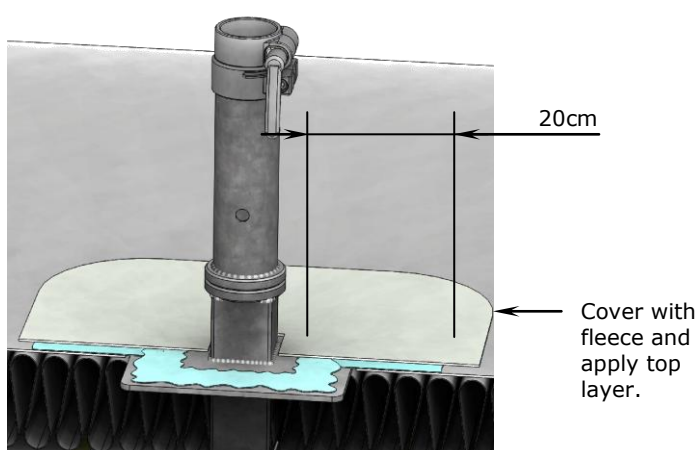
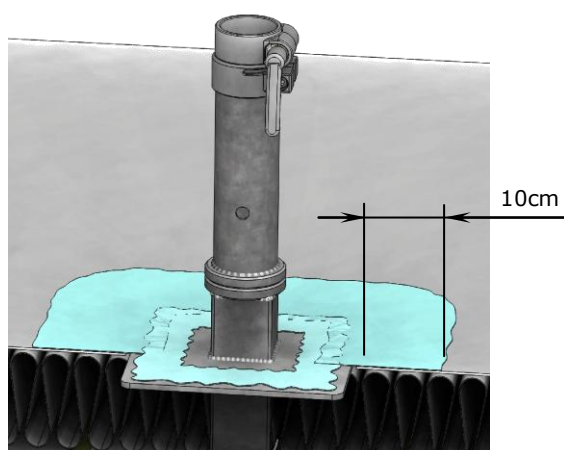


Caution

The seal must be completely water-proof, otherwise water MAY damage the terrace.

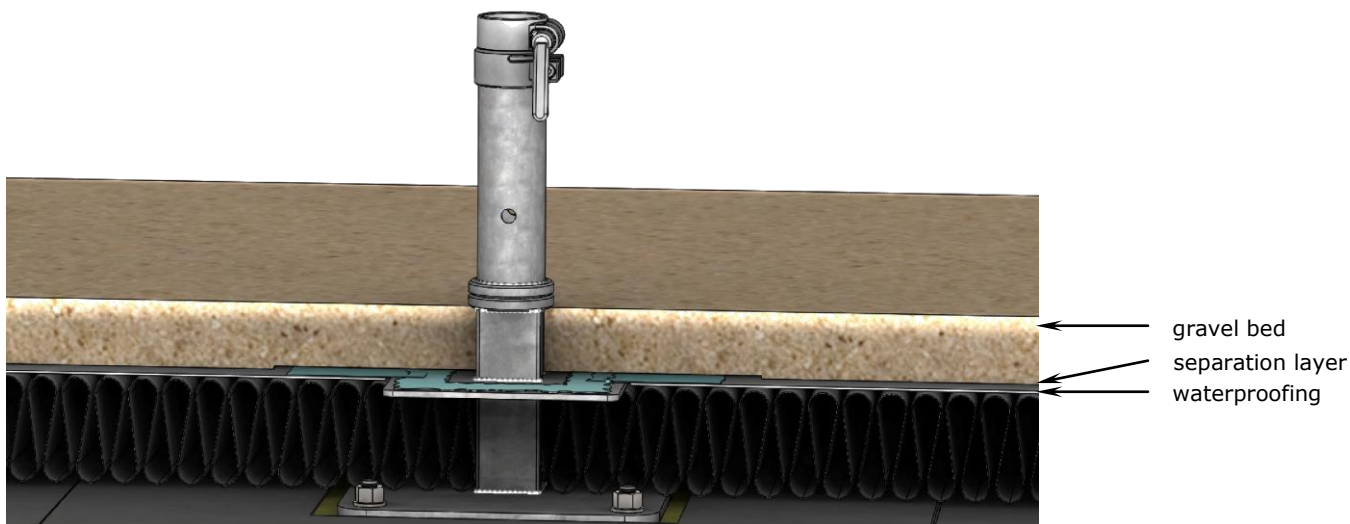
The person or company in charge of carrying out the waterproofing work is responsible for ensuring that the liquid waterproofing resin is compatible with the sealing membrane to be used. As a rule, producers supply an application chart for the different sealing membranes.

- If in doubt, the mixture of substance compounds should be performed on site or in the laboratory of the product manufacturer.
- The waterproofing process must be carried out in accordance with the bonding instructions of the producer of liquid -applied synthetic waterproofing materials. The MAY company cannot assume liability or warranty for non-observance.



Gravel bed and stone slabs

1. Lay the gravel bed in the usual manner. Make sure that the connecting rubber lead has been run and protected properly.



2.

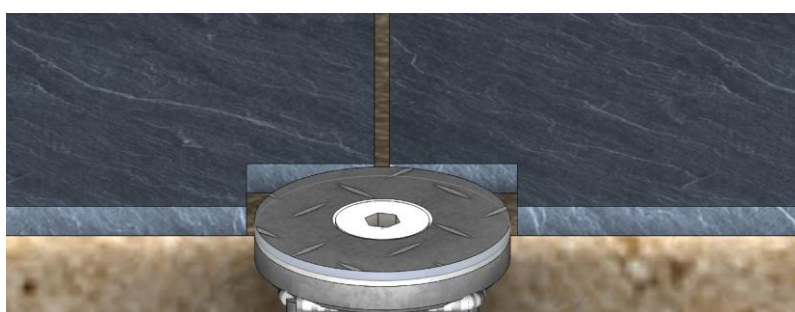
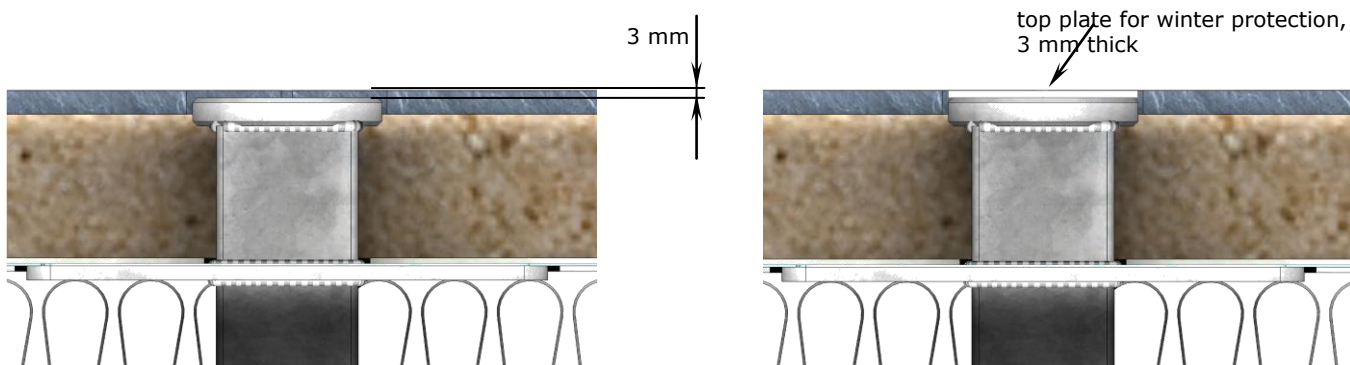


Attention

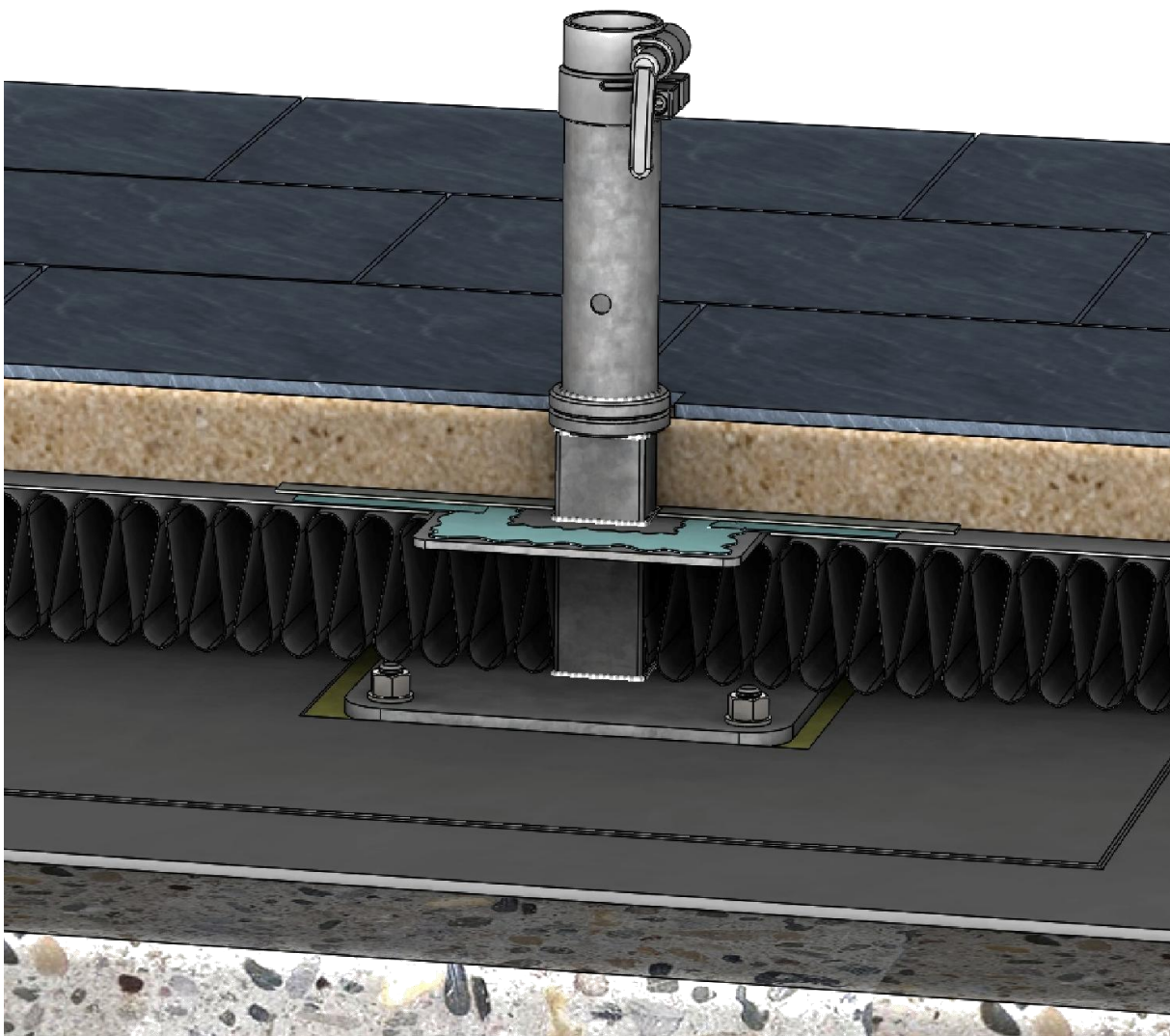
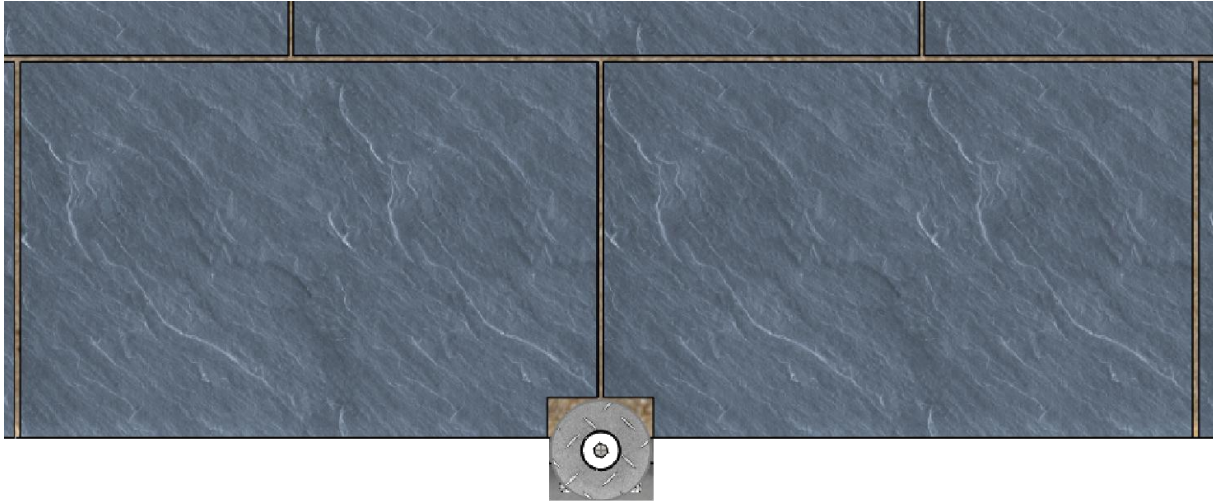
Avoid tripping hazard.

To ensure that the winter top plate (needed as a protective cover in winter when the upper anchor tube has been removed) is flush, the bottom component must be set 3mm below the terrace surface (cf. illustration). This difference of 3mm corresponds to the space needed for the 3mm-thick checker plate for winter protection.

- Match the height of the gravel bed to that of the stone slabs.



3. Lay the stone slabs and saw away the corners of those that are to fit round the DMZ186. Make sure that the DMZ186 sits flush.





Project management

All persons involved should discuss this installation option on site. If these instructions are provided to everyone during the planning period, arguments can be harmonised and therefore unnecessary costs for incorrect planning can be saved. In case this installation option is found not to be suitable, you may select another option from the MAY program. Customized options are available upon request depending on complexity.

Following parties may be involved:

1. House owner: Approval of project, assumption of costs, order placement, etc.
2. Leaseholder / gastronome: Is the positioning of the parasols suitable for the seating, assumption of costs, etc.
3. Architect: General legal planning, positioning, statics of the flat roof (dynamic and static load by weight and wind), control and supervision of the workmen, etc.
4. Workmen: Roofer clarifies and mounts the installation option, pay attention to waterproofing sealing, setting heavy-duty anchor bolts, etc.
5. Electrician: Defines electrical connection, clarifies cable and control, etc.

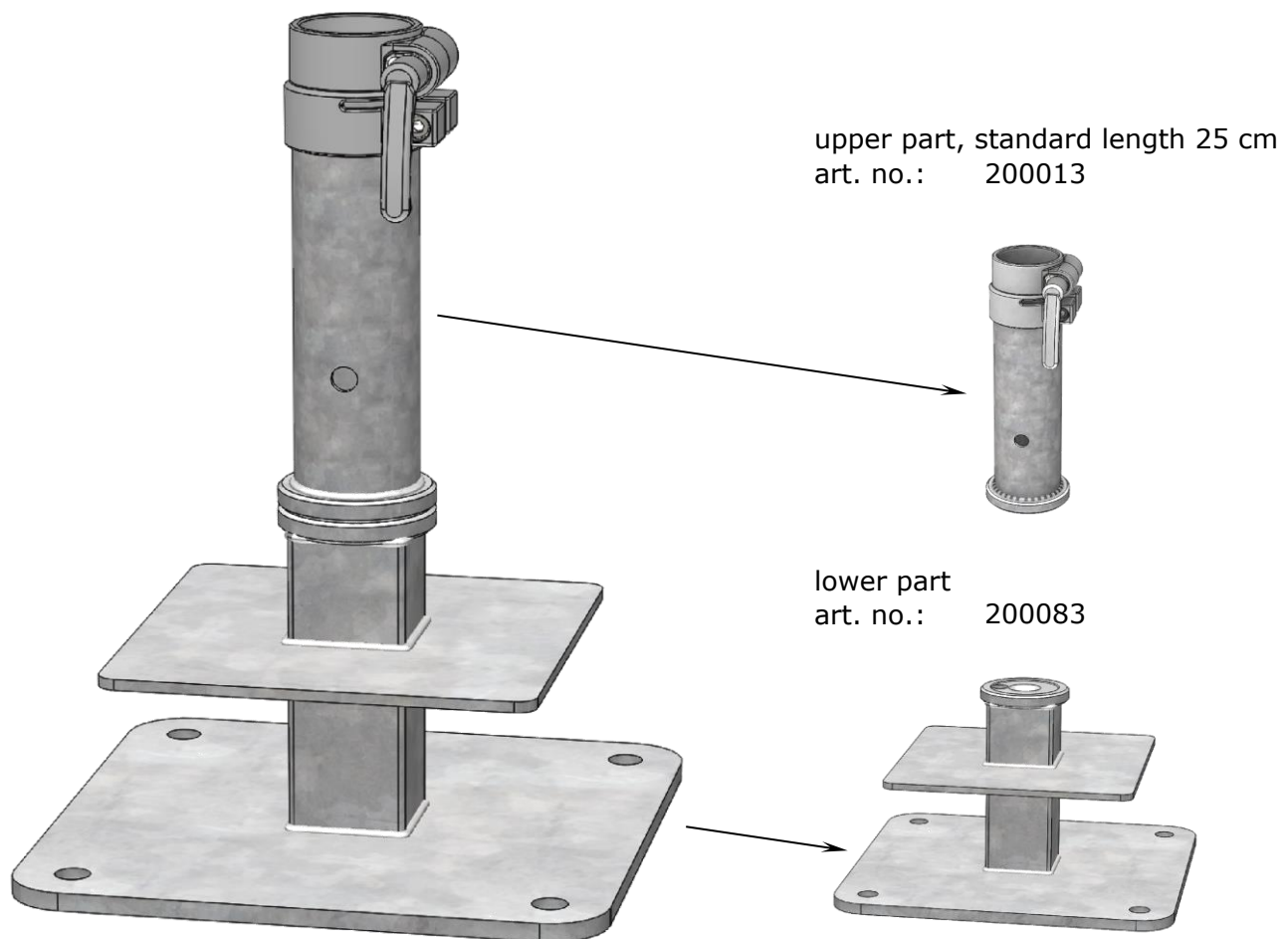
Dowel-anchored plate with placement hinge, DMZ186



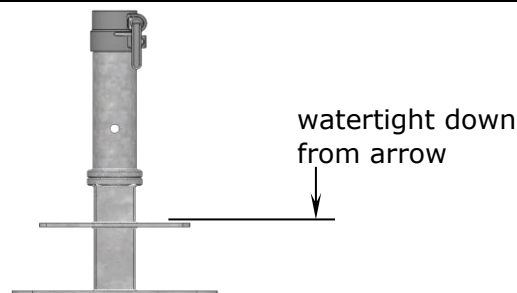
This order sheet must be filled out completely and supplied to the MAY company before production.

Art. no. DMZ186: 2 pieces, screw-off upper part, fits for pole \varnothing 55 mm

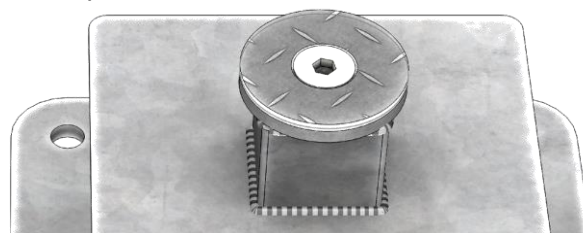
In accordance with ETAG 005 guidelines for planning and execution of liquid- applied synthetic waterproofing for roofs, balconies and terraces.



3-D views of DMZ186



3-D views of lower part with top plate for winter protection



Combinable with pin and padlock, art. no. 200194.

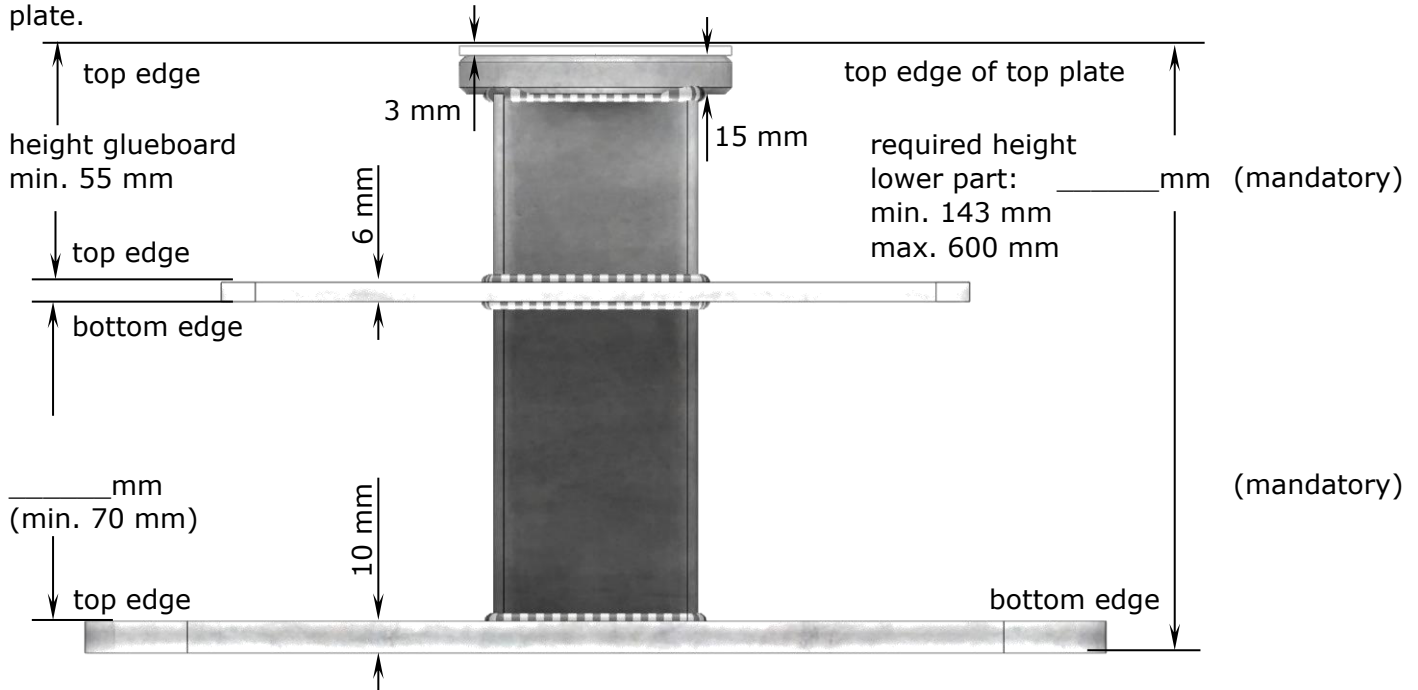


Dowel-anchored plate with placement hinge, DMZ186

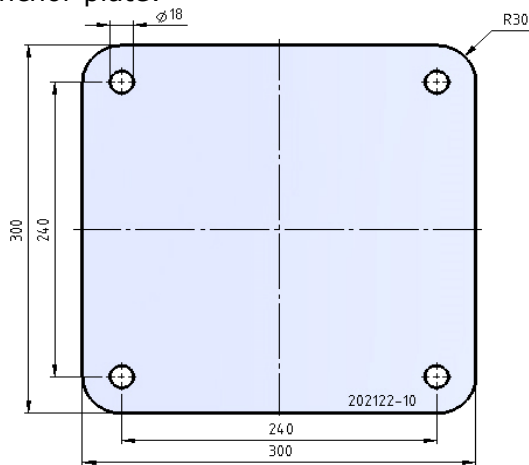


This order sheet must be filled out completely and supplied to the MAY company before production.

All bases are custom-made. When ordering, please state the total height required, including winter top plate.



Anchor plate:



When drilling the heavy-duty anchor bolts into the designated site position, use the anchor plate as a drilling jig. You will need 4 heavy-duty anchor bolts. Available in stainless steel A4, art. no. 200900.

When ordering, please fill in the fields below:

Quantity: _____ (mandatory)

(Dealer-) Name and address: _____ (optional)

(Dealer-) Commission: _____ (optional)

(Dealer-) Order number: _____ (optional)

(Dealer-) Name of clerk in charge: _____ (optional)

Order placed: _____ (mandatory)

Name Date

Only for MAY Gerätebau GmbH:

Order number: _____