

# INSTALLATION INSTRUCTIONS

## HKD DOMO

- HKD DOMO-NW-Z
- HKD DOMO-DW-Z
- HKD DOMO-NW-Z-K
- HKD DOMO-DW-Z-K
- HKD DISO with fixed and loose flange



HKD DOMO-NW-Z / HKD DOMO-DW-Z

### Intended purpose

HKD DOMO-...-Z are fixed/loose flange steel constructions suitable for sealing structures with tanking membranes or thick coating (black tank) with DIN 18195/DIN 18533/DIN 18535. All models are suitable for installation on the wall/ceiling/floor. HKD DOMO-...-Z gasket inserts are used to safely seal the annular space between the core bore/casing and the medium pipe/cable/smooth-walled cable conduit to be installed.

### Please note

- Gasket inserts are not secure points or support bearings; they are only used for elastic sealing of pipes/cables.
- Before installation, clean the core bore/casing and pipe/cable carefully. Smooth out uneven points in the surface. We also recommend sealing the core bore with Aquagard (Curaflex accessory), especially in cases where water pressure is a consideration.
- Distances to other components, such as building edges and channels, wall connection, can be found in DIN 18533.
- The relevant FHRK standard (minimum seal width) can be found on the product label.
- When installing the sealing system, the applicable accident prevention regulations, VDE rules, the applicable national health and safety regulations, and the rules and policies of your company must all be observed.
- The applicable national regulations governing the laying and filling of pipes and cables must be observed.

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**Installation conditions**

- Breakouts, cracks and/or cavities in waterproof concrete core bores should be smoothed in advance
- Casings must be rigid enough to withstand the compressive forces from the gasket insert and must have a smooth, circular inner surface. If casings are damaged they must be tested in advance for usability.
- The seal to the medium pipe/cable/cable ducts must be performed in a WR concrete core bore hole, or in an already installed pipe sleeve.
- The conduit (cable or pipe) to be sealed must be cleaned in advance and must not have any axial depressions or elevations in or around the sealing area.
- Compress the substrate and pipe substructure well before laying the pipe/cable, so that no sinking is possible.
- There must be no cracks or breakouts on the wall surface around the fixed flange.
- The fixed and loose flange must be clean and free of dust and grease.
- In the case of flange designs under DIN 18195/DIN 18533, distances should generally be arranged as follows: Outer edge of flange to outer edge of flange or to other components, such as building edges and channels, wall connections, at least 150 mm for non-pressing water and at least 300 mm for pressing water. In the case of expansion joints, distances of at least 300 mm for non-pressing water and at least 500 mm for pressing water must be observed, unless greater distances are required for processing reasons.
- In addition to the usual standard tool, you also need the following tools and equipment in order to properly install the gasket insert:

**Tools:**

- 1 torque spanner
- 1 extension
- 1 hexagon socket  
(size see installation steps)

**Equipment:**

- Lubricant
- Cleaning agent (solvent-free)
- Calliper gauge
- Cleaning cloth

**Scope of delivery**

- HKD DOMO gasket insert with fixed and loose flange
- Mounting material
- Installation notes

**Accessories (optional)**

Accessories for use with thin and/or hard membranes:

Curaflex® 1775 packings (one set contains two EPDM packings)

Accessories for thick coating (sanded design only).

Curaflex® 1776 spacer rings and rubber O-rings, fibre glass matting

**Maximum torque**

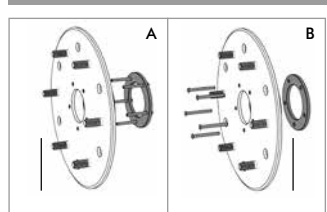
Bolt diameter	Width across flats	Maximum torque
M6	10	6 Nm
M8	13	10 Nm

Reduced torque may be necessary for thin plastic pipes, in order to prevent damage to the pipe. After installation visually inspect the installation to ensure that the gasket insert is touching the pipe and the core bore on all sides.

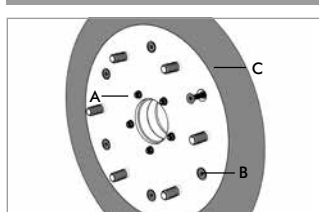
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## Installation steps

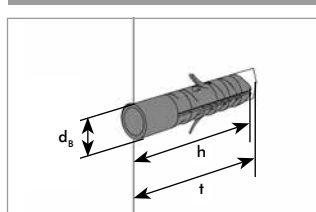
### Installation with membranes/packings



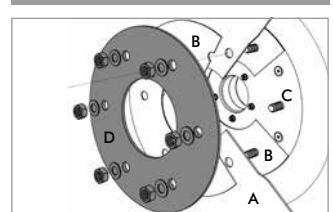
Swapping the screws makes it possible to change the tightening side of the gasket insert (switching the tightening option from the 'water side' to the 'dry side' and vice versa). HKD DOMO-NW-Z or HKD DOMO-DW-Z (option A) changes to HKD DOMO-NW-Z-K or HKD DOMO-DW-Z-K (option B) when swapped.



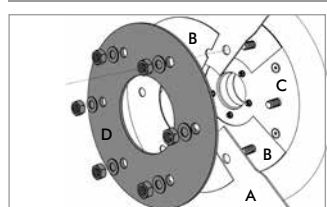
Place the gasket insert into the casing/core bore and lightly secure by tightening the nuts (A). Drill dowel holes through the component (10 mm Ø, min. 70 mm deep). Insert the dowels and hexagonal socket screws. Tighten the hexagonal socket screws (B). Smooth out the transition from the fixed flange to the wall with grout (C). Loosen the nuts (A) again.



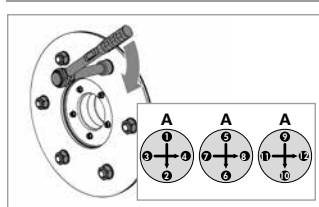
Minimum drill hole depth  $d \geq 70$  mm.  
Dowel length  $h = 50$  mm.  
Drill hole diameter  $d_B = 10$  mm.



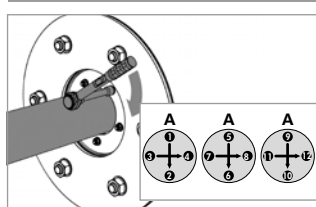
Cut the membrane (A) and necessary packings (B), if any, for loosely laid membranes in accordance with the membrane manufacturer's specifications (use loose flange as template). Position the packings and membrane on the fixed flange (C). When cutting the membrane, ensure that its surface is not damaged in the process. Use a punch to create the holes for the bolts (M12 = 16 mm, M20 = 24 mm). Alternatively, apply ready-to-use Curaflex® 1775 packings (not included in scope of delivery) to both sides of the membrane(s).



Position the packings and membrane on the fixed flange. Important: the membrane must not have any kinks, folds, bumps, sticky points or similar in the area around the fixed and loose flange. Place both halves of the loose flange with the face towards the packing/membrane. Mount the washers and nuts.

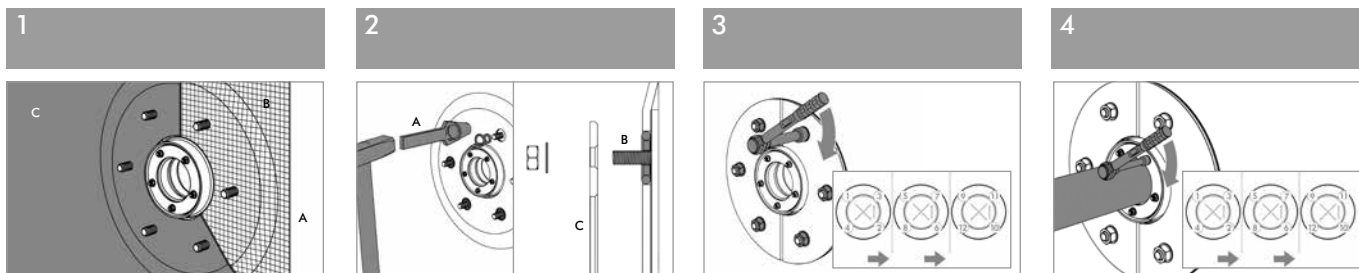


Tighten the nuts, alternating cross-wise with several turns each. Torques can be found in DIN 18533 or the membrane manufacturer's information.



Run the pipe centrally through the gasket insert. Tighten the nuts, alternating cross-wise with several turns each, up to the specified torque at most (see table). If there are multiple rows of bolts, tighten the nuts of the inner row of bolts first. Then tighten the nuts, alternating cross-wise with several turns each.

## Installation with thick coating



Carry out steps 1–2b as before.

Apply first layer of PMBC thick coating (A) to the area to be sealed and on the sanded fixed flange (PMBC = plastic modified bitumen coating). Observe the guidelines for working with PMBC here.

Position fleece/reinforcement inlay (B) and lightly press into the thick coating. Apply second layer of PMBC (C).

Once it has dried, punch out the PMBC centrally around the bolts using punch tool (A) (Ø 40 mm for M12, Ø 55 mm for M20).

Insert spacers and O-rings (B).

Place both halves of the loose flange (C) with the face or sanded surface towards the PMBC. Mount washers and nuts.

Tighten the nuts, alternating cross-wise with several turns each.

Torques can be found in DIN 18533 or the membrane manufacturer's information.

Run the pipe centrally through the gasket insert. Tighten the nuts, alternating cross-wise with several turns each, up to the specified torque at most (see table). If there are multiple rows of bolts, tighten the nuts of the inner row of bolts first. Then tighten the nuts, alternating cross-wise with several turns each.

### Torque guide values of the membrane manufacturers or DIN 18195/DIN 18533 for tensioning the loose flange

Type of geomembrane or thick coating	Torques for 12 (Nm)	Torques for M 20 (Nm)
When using DOYMA packings Curaflex® 1775 for geomembranes	30	80
For KMB (plastic-modified thick coatings) in combination with accessories Curaflex® 1776	30	100
Bare bitumen sheets according to DIN 52129-R 500	12*	50*
PIB according to DIN 18533-2:2017-06, Table 3 Line 2	12*	50*
Bitumen and polymer bitumen sheeting according to DIN 18533-2:2017-06, Table 1, with a polyester fleece, KTP or copper tape carrier layer	15*	65*
Bitumen and polymer bitumen sheeting according to DIN 18533-2:2017-06, Table 1, with glass fabric or KTP carrier layer	20*	80*
Bare bitumen sheets according to DIN 52129 – R 500 N + 1 x Cu <sup>c</sup>	20*	1. tighten: 100* 2. and 3. tighten: 80*
Bitumen-compatible synthetic and elastomeric membranes according to DIN 18533-2: 2017-06, Table 3, except for line 2.	20*	80*
Bare bitumen sheets according to DIN 52129 – R 500 N + 2 x Cu <sup>c</sup>	30*	1. tighten: 120* 2. tighten: 100* 3. tighten: 80*
Plastic or elastomeric membranes according to DIN 18533-2: 2015-12, Table 3, loosely laid FLK according to ETAG 005	30*	100*
Elastomeric clamping waterstops - with smooth clamping surface - with ribbed clamping surface with allowance of uncured raw rubber, 100 mm wide not older than 90 days	40* –	165* 165*

\* Couples selon D DIN 18195-9/DIN 18533-1

DOYMA products are constantly evolving. Technical changes may be implemented without notice.

For more information, visit [www.doyma.de](http://www.doyma.de)

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