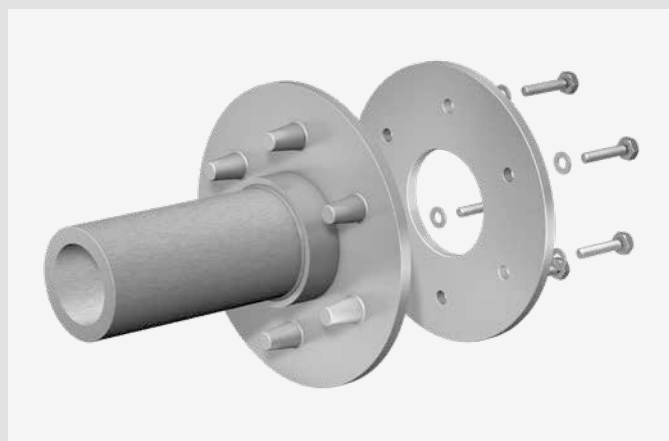


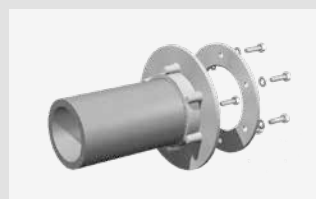
# INSTALLATION NOTES

## Curaflex® pipe sleeves with fixed and loose flange

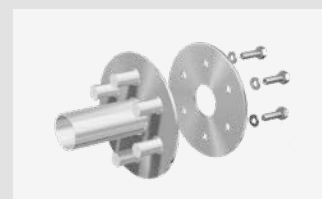
- Curaflex® 4006
- Curaflex® 4005
- Curaflex® 6000
- Curaflex® 5000
- Curaflex® 6.6002
- Curaflex® 5.5002



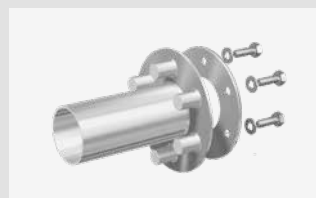
Curaflex® 4006



Curaflex® 4005



Curaflex® 6000



Curaflex® 5000

### Intended purpose

Pipe sleeve for buildings with tanking membranes and thick coatings (black tank) according to DIN 18195/DIN 18533/DIN 18535; for installation in walls, ceilings and floor slabs/floors.

#### Curaflex® 4005 and 4006:

Fixed and loose flange design made of cast iron combined with a special fibre cement pipe sleeve.

#### Curaflex® 5000 and 6000:

Steel pipe sleeve with fixed and loose flange and watertight welded threaded sleeves.

#### Curaflex® 5.5002 and 6.6002:

Specially manufactured steel pipe sleeve with integrated fixed and loose flange (with threaded bolt; loose flange split) and additional bonding/mounting flange. Ideal for insulated structures.

#### Curaflex® 4005, 5000, 5.5002:

Application for non-pressing water.

#### Curaflex® 4006, 6000, 6.6002:

Application for pressing water.

### Please note:

- Building services duct systems are not secure points or support bearings, but are used exclusively for elastic sealing of pipes and cables.
- Slight axial movements of the pipes are permitted.
- To seal the annular space between pipe/cable and pipe sleeve, you will need a sealing element. We recommend installing a Curaflex® gasket insert.

### Attention:

If a gasket insert is installed in a Curaflex® 4005 or 4006 special fibre cement pipe sleeve that has not yet been embedded in concrete, it should only be slightly pre-tensioned. There is a risk of damaging the pipe sleeve.

After embedding in concrete, tighten the gasket insert with the specified torque. If the pipe has already been laid, the pipe sleeve (for all types named in this EBA) must be positioned centrally around the pipe and fixed in place before embedding in concrete.

### Scope of delivery

- Curaflex® pipe sleeve (when using a “thick coating” steel variants in sanded version)
- If a “thick coating” is used, additional glass fibre matting, spacers, rubber seals
- Installation notes

### Accessories (optional)

Curaflex® 1775 packings

Curaflex® 1701 formwork holders

Curaflex® 1702 sealing plugs

Gasket insert: Curaflex® or Curaflex® Nova

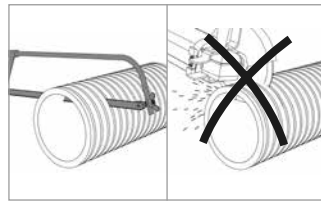
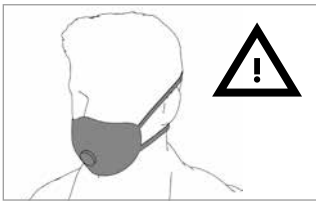
Further accessories available upon request.

### Installation conditions

The fixed and loose flange must be clean and free of dust and grease. Distances for flange constructions in accordance with DIN 18195/DIN 18533 must generally be arranged as follows: Flange edge to flange edge or to other components, e.g. building edges and channels, wall connections, not less than 150 mm

for non-pressing water and not less than 300 mm for pressing water. For expansion joints, distances of at least 300 mm must be maintained for non-pressing water and at least 500 mm for pressing water, unless a greater distance is required for processing reasons.

### Processing instructions



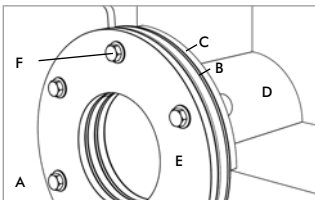
DOYMA supplies the Curaflex® special fibre cement pipe sleeves in any desired length, so no reworking is required. In the case of on-site planning changes that require processing of the special fibre cement pipe sleeve, **please observe the following instructions:**

- The special fibre cement pipe sleeves may only be cut to size on site on the non-water side.
- Where possible, process the special fibre cement pipe sleeve outdoors or in well-ventilated rooms.
- Only use hand-operated or slow-running equipment with a dust catcher.
- Dust mask conforming to EN 149: 2001 FFP 12360.
- If possible, wet the special fibre cement pipe sleeve before cutting or drilling.

### Installation steps

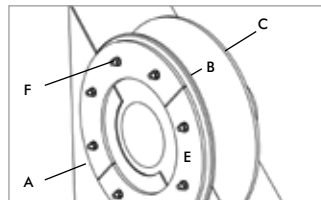
#### Curaflex® 4005, 4006, 5000, 6000, 5.5002, 6.6002

##### Curaflex® 4005, 4006, 5000, 6000



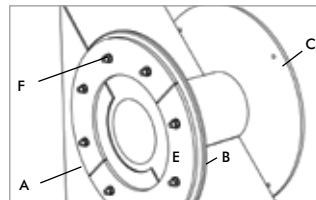
Tanking membrane (A), packings (B), fixed flange (C), pipe sleeve (D), loose flange (E), fastening for loose flange (F)

##### Curaflex® 5.5002



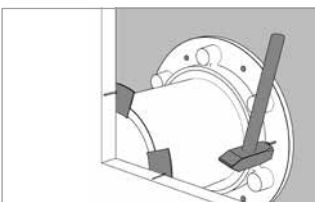
For installation on roofs with insulation. Tanking membrane (A), fixed flange (B), additional bonding/mounting flange (C), loose flange (E), fastening for loose flange (F) Note: packings like Curaflex® 4005 illustration, etc.

##### Curaflex® 6.6002



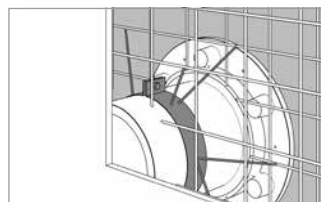
For installation in front of a thermal insulated wall. Tanking membrane (A), fixed flange (B), additional bonding/mounting flange (C), loose flange (E), fastening for loose flange (F) Note: packings like Curaflex® 4005 illustration, etc.

#### 1



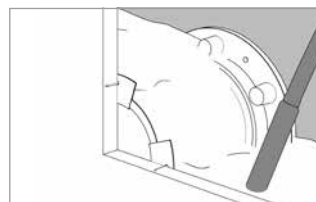
Installation on flange side through drilled holes in fixed flange. Fasten the pipe sleeve side with Curaflex® 1701 formwork support (not included in the scope of delivery).

#### 2 optional



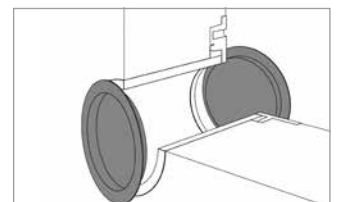
Fastening in steel formwork by welded connections with pipe clamp (not included in the scope of delivery).

#### 3



Compact the concrete around the pipe sleeve well.

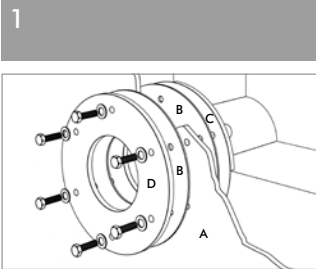
#### 4



Protect the pipe sleeve during the raw construction phase with Curaflex® 1702 sealing plug (not included in the scope of delivery).

- Curaflex® 4006
- Curaflex® 4005
- Curaflex® 6000
- Curaflex® 5000
- Curaflex® 6.6002
- Curaflex® 5.5002

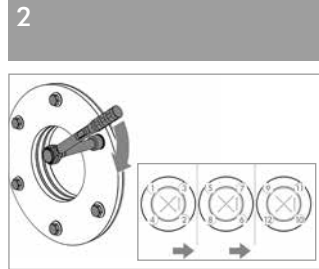
### For tanking membranes



Cut the tanking 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). Place loose flange (D) with the face towards the packing/tanking membrane. Mount the washers and nuts.

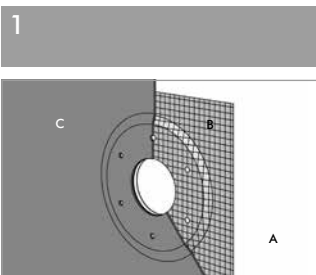
**Important: the membrane must not have any kinks, folds, bumps, sticky points or similar in the area around the fixed and loose flange.**

\*Elastomer packings (according to DIN 18195/DIN 18533) for plastic tanking membranes are available as accessories.

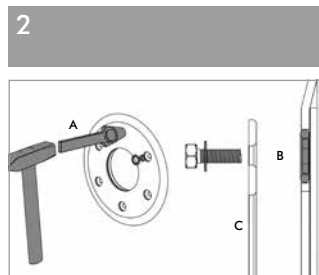


Tighten the nuts several times crosswise. For torques, see the table on the back (extract from DIN 18195/DIN 18533 or according to the membrane manufacturer's specifications).

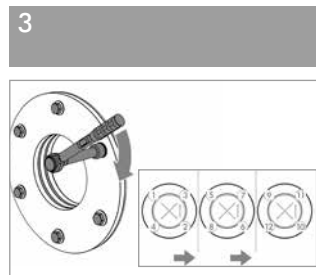
### For thick coatings



Apply the first layer of KMB thick coating (A) to the surface to be sealed and to the sanded fixed flange (KMB = plastic-modified thick coatings). In doing so, observe the guidelines for processing KMB. Insert fleece/reinforcing insert (B) and press lightly into the thick coating. Apply second layer of KMB (C).



Punch out KMB after drying using a punch tool (A) centrally around the pins (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 KMB. Mount the washers and nuts.



Tighten the nuts several times crosswise. For torques, see the table on the back (extract from DIN 18195/DIN 18533 or according to the membrane manufacturer's specifications).

### For fresh concrete bonded waterproofing membranes

Fresh concrete bonded waterproofing membranes are not regulated by DIN 18533. The DAfStb (German Committee for Reinforced Concrete) guideline – ‘Wasserundurchlässige Bauwerke aus Beton’ [Waterproof concrete structures] (Waterproofing guideline) and DIN 1045 provide for additional measures, particularly with regard to usage class A, and do not preclude sealing in the composite. As a result, the use of fresh concrete bonded waterproofing membranes in both areas of application requires the consent of the client and is subject to compliance with building regulations

and must be carried out in accordance with the specifications of the applicable general building inspection certificate for the respective seal.

DOYMA Curaflex sealing systems are tested for use with the fresh concrete composite systems SikaProof A (Sika Deutschland GmbH) and Preprufe (GCP Germany GmbH). The contents of the tests are contained in the corresponding test reports.

The test reports can be downloaded from the download centre at [www.doyma.com](http://www.doyma.com).

### Fresh concrete composite systems with fleece lamination

Lay the fresh concrete bonded waterproofing membrane in accordance with the specifications of the membrane manufacturer and fasten it to the formwork.

Marking of the penetration, bolts and external dimensions of the fixed flange on the fresh concrete bonded waterproofing membrane.

Use a punch to create the holes for the bolts (M12 = 16 mm, M20 = 24 mm).

In the area of the flange connection, the swelling paste must be applied to the fleece lamination on the side of the fresh concrete bonded waterproofing membrane facing the concrete.

Attach the first EPDM packing\* to the fixed flange and attach the fixed flange to the formwork with 20 Nm.

Concreting of the component and stripping after the concrete has cured.

Place the second EPDM packing on the loose flange and screw the loose flange to the fixed flange. Tighten the nuts several times crosswise. The nuts must be tightened after the swelling paste has dried for at least one week. Torques must be carried out according to the specifications of the membrane manufacturer or the specifications of the respective test report (SikaProof A with 80 Nm).

### Fresh concrete composite systems with adhesive layer

Lay the fresh concrete bonded waterproofing membrane in accordance with the specifications of the membrane manufacturer and fasten it to the formwork.

Marking of the penetration, bolts and external dimensions of the fixed flange on the fresh concrete bonded waterproofing membrane.

Use a punch to create the holes for the bolts (M12 = 16 mm, M20 = 24 mm).

Attach the first EPDM packing\* to the fixed flange and attach the fixed flange to the formwork with 20 Nm.

Concreting of the component and stripping after the concrete has cured.

Place the second EPDM packing on the loose flange and screw the loose flange to the fixed flange. Tighten the nuts several times crosswise. Torques must be carried out according to the specifications of the membrane manufacturer or the specifications of the respective test report (SikaProof A+, SikaProof P, Preprufe 160R-300R and Preprufe 800PA with 80 Nm).

### Instructions

When cutting the fresh concrete bonded waterproofing membrane, care must be taken to ensure that its surface is not damaged.

**Important:** The fresh concrete bonded waterproofing membrane must not have any kinks, folds, bumps, sticky points or similar in the area around the fixed and loose flange.

\* EPDM packings for fresh concrete bonded waterproofing membrane are available as accessories

- Curaflex® 4006
- Curaflex® 4005
- Curaflex® 6000
- Curaflex® 5000
- Curaflex® 6.6002
- Curaflex® 5.5002

**Guide torque values of the membrane manufacturers  
or DIN 18195/DIN 18533 for tightening the loose flange**

Type of tanking membrane or thick coating	Torques for M 12 (Nm)	Torques for M 20 (Nm)
When using DOYMA Curaflex® 1775 packings for tanking membranes	30	80
For KMB (plastic-modified thick coatings) in combination with DOYMA Curaflex® 1776 accessories	30	100
Bare bitumen membranes 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 membranes according to DIN 18533-2:2017-06, table 1, with reinforcement made of polyester fleece, KTP or copper tape inlay	15*	65*
Bitumen and polymer bitumen membranes according to DIN 18533-2:2017-06, table 1, with reinforcement made of glass fabric or KTP	20*	80*
Bare bitumen membrane DIN 52129 – R 500 N + 1 x °	20*	1st tightening: 100* 2nd and 3rd tightening: 80*
Bitumen-compatible plastic and elastomer membranes according to DIN 18533-2: 2017-06, table 3, excluding line 2	20*	80*
Bare bitumen membrane DIN 52129 – R 500 N + 2 x °	30*	1st tightening: 120* 2nd tightening: 100* 3rd tightening: 80*
Plastic or elastomer membranes according to DIN 18533-2: 2015-12, table 3, loosely laid FLK according to ETAG 005	30*	100*
Elastomer clamp joint tapes – for smooth clamping surface – for ribbed clamping surface with packing of uncured raw rubber, 100 mm wide, not older than 90 days	40* –	165* 165*

\* Torques from DIN 18195-9/DIN 18533-1





INSTALLATION NOTES  
**Curaflex® pipe sleeves  
with fixed and loose flange**

- Curaflex® 4006
- Curaflex® 4005
- Curaflex® 6000
- Curaflex® 5000
- Curaflex® 6.6002
- Curaflex® 5.5002

DOYMA products are continuously being further developed. Technical changes will be performed without prior notice.  
25 year warranty on all DOYMA products. **More information at [www.doyma.de](http://www.doyma.de)**

**DOYMA GmbH & Co**

SEALING SYSTEMS  
FIRE PROTECTION SYSTEMS

Industriestr. 43-57  
28876 Oyten

Phone: 0 42 07/91 66-300  
Fax: 0 42 07/91 66-199

[www.doyma.de](http://www.doyma.de)  
[info@doyma.de](mailto:info@doyma.de)

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