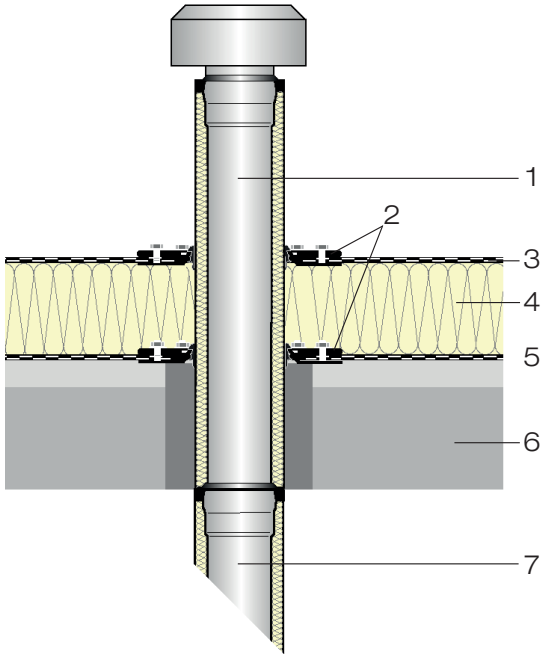
LORO News 110

LOROFLEX
Flat Roof Penetrations,
made of steel, DN 70 - DN 150

The outer pipe of LOROFLEX flat roof penetrations, developed from the reliable LORO-DRAINLET® flat roof drainage systems, is made of stainless steel material number 1.4301. Due to the usage of stainless steel, LOROFLEX flat roof penetrations are corrosion-resistant and break-proof. Material problems caused by heat, cold or UV-radiation do not occur.

Due to the usage of clamping flanges according to DIN EN 1253, LOROFLEX flat roof penetrations are suitable for roof sealings made of bitumen or plastic (with compression seals) for roof sealing sheets of all manufacturers. LOROFLEX flat roof penetrations can be installed in thermally insulated and thermally non-insulated roofs.



Application example:

LOROFLEX
Flat roof penetration
with clamping flange,
inner pipe made of galvanized steel, additional inside coating, thermal insulation made of PU-hard-foam, outer pipe made of stainless steel

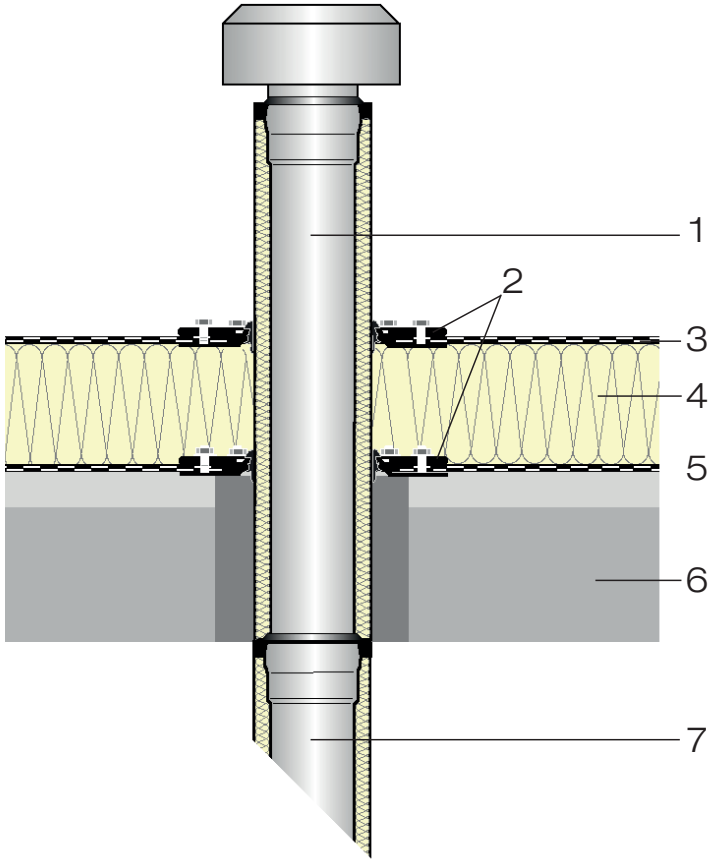
1 Penetration pipe
2 Sliding flange with sealing element
3 Roof sealing sheet
4 Thermal insulation
5 Vapour barrier
6 Concrete slab
7 LORO composite pipe

Please pay attention:
When using plastic vapour barriers or roof sealing sheets, install the compression seals below and above the vapour barrier.

Please order compression seals separately!

Setup diagramm

LOROFLEX Flat roof penetration with clamping flange,
inner pipe made of galvanized steel, inside additionally coated, thermal insulation made of PU-hard-foam, outer pipe made of stainless steel



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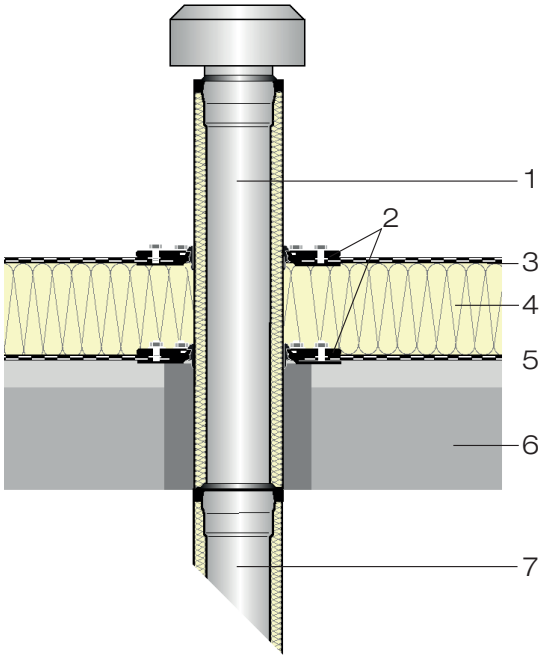

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Flat roof penetration

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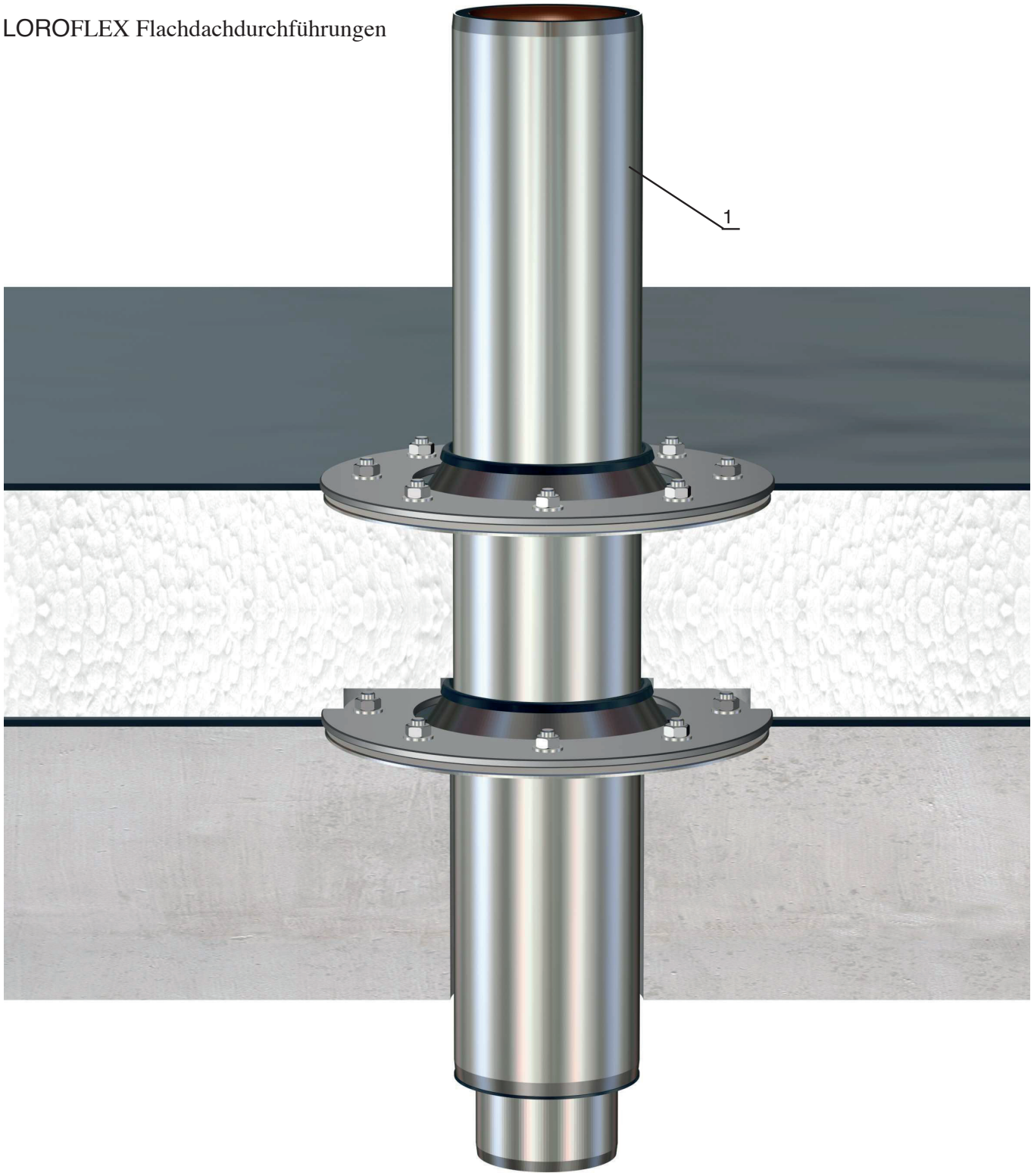
Please consider:
When using plastic vapour barriers or roof sealing sheets, install the compression seals below and above the vapour barrier.

Please order compression seals separately!

LOROFLEX Flachdachdurchführungen



Pos.	Name	Art.Nr. DN70	Art.Nr. DN100	Art.Nr. DN125	Art.Nr. DN150
1	LOROFLEX Flachdachdurchführung	21821.070X	21821.100X	21821.125X	21821.150X

LORO-XC Regenhaube
Art.Nr.21203.125X

Dichtelement
Art.Nr.00911.125X

LOROFLEX Flachdachdurchführung
Art.Nr.21820.125X
Äußere Rohrschale um 30 mm am Spitzende kürzen.

Dichtelement
Art.Nr.09114.125X
bitte bei der Bestellung mit angeben

LORO-DRAINLET Unterteileinheit
Art.Nr.21992.125X

LOROFLEX Flat roof penetrations

Complete units

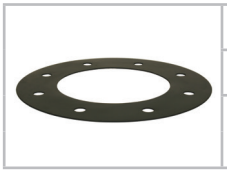
LOROFLEX Flat roof penetrations
one-piece, consisting of:
penetration pipe thermally insulated (inner pipe made of galvanized steel with additional inside coating, outer pipe made of stainless steel, building material class A1, thermal insulation made of PU-hard-foam is self-extinguishing according to ASTM 1692-74T) and one sliding flange with sealing element

DN	70	100	125	150
	21820.070X	21820.100X	21820.125X	21820.150X
	•	•	•	•

two-piece, consisting of:
penetration pipe thermally insulated (inner pipe made of galvanized steel with additional inside coating, outer pipe made of stainless steel, building material class A1, thermal insulation made of PU-hard-foam is self-extinguishing according to ASTM 1692-74T) and two sliding flanges with sealing elements

DN	**70**	**100**	**125**	**150**
	21821.070X	21821.100X	21821.125X	21821.150X
	•	•	•	•

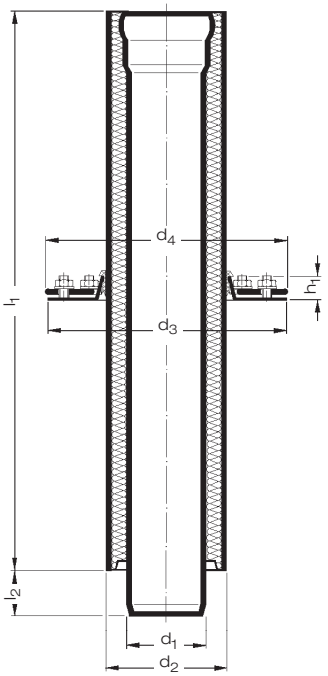
Compression seals for sliding flange



LOROFLEX DN	**70**	**100**	**125**	**150**
Outer pipe DN	**100**	**125**	**150**	**200**
	21804.100X	21804.125X	21804.150X	21804.200X
	•	•	•	•

Please pay attention: When using vapour barrier sheets or roof sealing sheets made of plastic, please order two compression seals per flange connection separately!

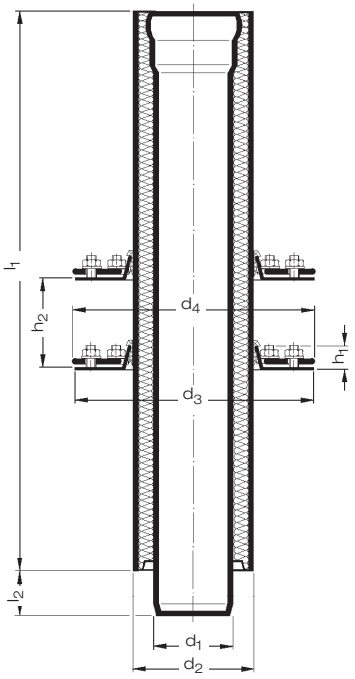
Please order sealing elements for each socket connection additionally.



Complete Units

LOROFLEX Flat roof penetrations
one-piece,
consisting of:
penetration pipe thermally insulated (inner pipe made of galvanized steel with additional inside coating, outer pipe made of stainless steel, building material class A1, thermal insulation made of PU-hard-foam is self-extinguishing according to ASTM 1692-74T) and one sliding flange with sealing element

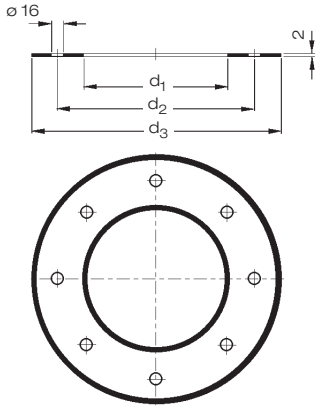
Art.-No.	DN	d_1	d_2	d_3	d_4	l_1	l_2	h_1	kg
21820.070X	70	73	101,6	290	290	760	45	21,5	9,4
21820.100X	100	103	133	315	320	760	60	28	13,5
21820.125X	125	133	159	345	350	765	60	30	20,0
21820.150X	150	159	219	430	420	765	65	41	24,5



LOROFLEX Flat roof penetrations
two-piece,
consisting of:
penetration pipe thermally insulated (inner pipe made of galvanized steel with additional inside coating, outer pipe made of stainless steel, building material class A1, thermal insulation made of PU-hard-foam is self-extinguishing according to ASTM 1692-74T) and two sliding flanges with sealing elements

Art.-No.	DN	d_1	d_2	d_3	d_4	l_1	l_2	h_1	h_2	kg
21821.070X	70	73	101,6	290	290	760	45	21,5	min. 35	11,4
21821.100X	100	103	133	315	320	760	60	28	min. 35	15,5
21821.125X	125	133	159	345	350	765	60	30	min. 35	22,0
21821.150X	150	159	219	430	420	765	65	41	min. 50	26,5

Please pay attention:
Please always order compression seals one nominal diameter larger than the LOROFLEX flat roof penetration because they have to be pushed over the outer pipe!



Compression seals for sliding flanges

Art.-No.	DN	d_1	d_2	d_3	kg
21804.100X	100 (für LOROFLEX DN 70)	160	224	300	0,3
21804.125X	125 (für LOROFLEX DN 100)	190	254	330	0,4
21804.150X	150 (für LOROFLEX DN 125)	220	284	360	0,5
21804.200X	200 (für LOROFLEX DN 150)	300	360	430	0,6

Installation Instruction
LOROFLEX Flat roof penetrations
with clamping flange

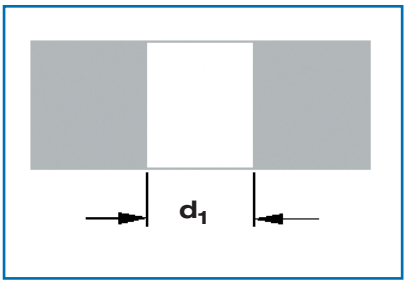
for bituminous and plastic roof sealing sheets
DN 70, DN 100, DN 125 and DN 150

Trace heating
Lorowerk recommends to check all drains and pipes with regard to their frost-sensibility. Where necessary, these parts should be equipped with a trace heating (see DIN EN 12056, part 1, or DIN 1986, part 100).

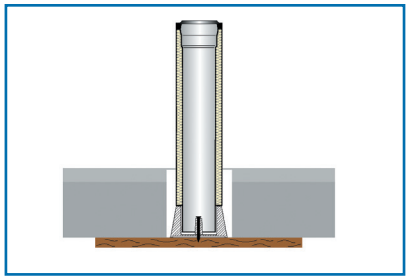
Technical status: July 2020.
Subject to technical changes.

Installation Instruction

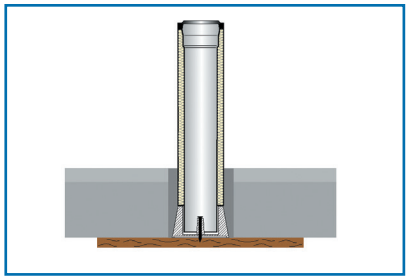
a.) Installation in concrete roof



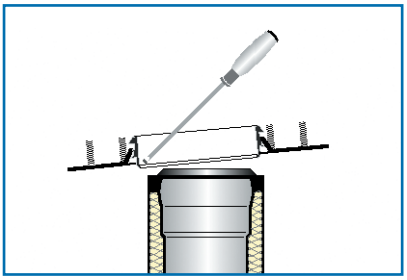
1. Create recess (tapping hole) in concrete ceiling.
   DN 70 : d_1 = 132 mm
   DN 100 : d_1 = 162 mm
   DN 125 : d_1 = 192 mm
   DN 150 : d_1 = 252 mm



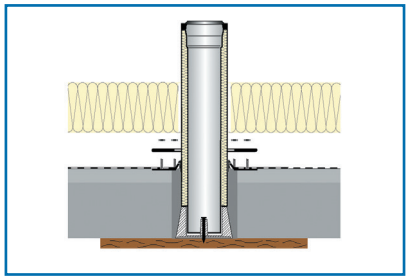
2. Fasten LORO formwork dome DN 70 or DN 100 on the formwork and insert it into the recess.
   Create the formwork dome DN 125 and DN 150 on site.
   Position the LOROFLEX flat roof penetration in the formwork dome without flanges.



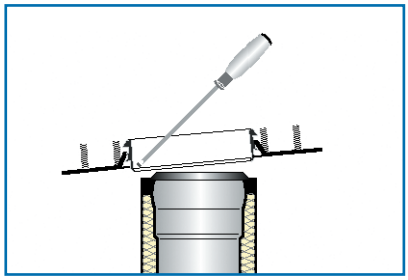
3. Fill the recess with concrete and let it set.



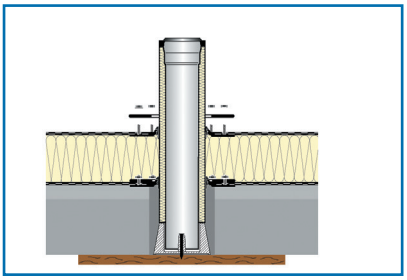
4. Put the first sliding flange onto the LOROFLEX flat roof penetration in a slightly tilted position.
   Slide on the lower lips of the sealing element with a circular motion of the screw driver and bring the sliding flange into its installation position.



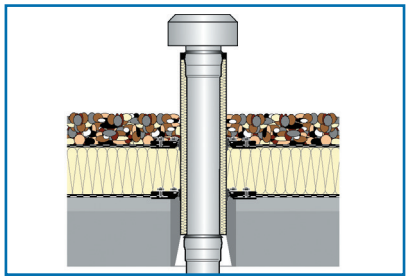
5. Slide on the first loose flange over the LOROFLEX flat roof penetration, install the vapour barrier and screw together the loose flange and the sliding flange*.
   Install the thermal insulation.



6. Put the second sliding flange onto the LOROFLEX flat roof penetration in a slightly tilted position.
   Slide on the lower lips of the sealing element with a circular motion of the screw driver and bring the sliding flange into its installation position.



7. Slide on the second loose flange over the LOROFLEX flat roof penetration, install the roof sealing sheet and screw together the loose flange and the sliding flange*.
   Tightening torque: 20 Nm (bituminous roof sealing sheet) or 30 Nm (plastic roof sealing sheet).



8. If the room below is ventilated, additionally put on a rain cover.
   Remove the LORO formwork dome.
   Result: A clean connection - no rework necessary.

Prepunching

For the prepunching of vapour barriers or roof sealing sheets the following perforations have to be spread evenly on the hole circle:

DN	Perforation*	Ø Hole circle
100	14 mm (8 x)	158 mm
125	14 mm (8 x)	188 mm
150	14 mm (8 x)	218 mm
200	14 mm (12 x)	300 mm

Alternatively, the respective loose flange can be used as template for prepunching.

* According to the specialist rules (Flat Roof Guideline, version December 2016), the nuts of the flange connection have to be tightened 3x. The last tightening should take place after 24 hours at the earliest.

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