

Installation instructions

LORO-DRAINJET® siphonic scupper drains with clamping flange, without penetration depth,

Series 62

for bituminous or plastic roof sealing sheets, steel, hot-dip galvanised, DN 50 and DN 70

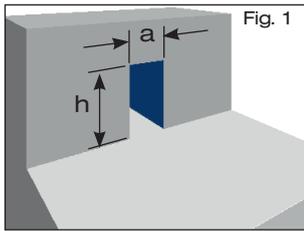
LORO-DRAINJET® siphonic scupper drains consist of the discharge pipe with fixed and loose flange and the DRAINJET® parapet cover.

System overview

<p>with clamping flange for bituminous sealing sheets</p>  <p>01351.050X Data sheet: LX 789</p>	<p>with clamping flange for bituminous sealing sheets as emergency drain</p>  <p>01356.050X Data sheet: LX 790</p>	<p>LORO bend 87° with tight radius (essential for the LORO-DRAINJET® siphonic scupper drains!)</p>  <p>00350.050X</p>	<p>LORO sliding flange for bonding the bituminous or plastic vapour barrier</p>  <p>13232.050X* * incl. compression seals and sealing element</p>
<p>with clamping flange for plastic sealing sheets</p>  <p>01353.050X Data sheet: LX 789</p>	<p>with clamping flange for plastic sealing sheets as emergency drain</p>  <p>01358.050X Data sheet: LX 790</p>	 <p>00350.050X</p>	<p>13232.050X* * incl. compression seals and sealing element</p>
<p>with clamping flange for bituminous sealing sheets</p>  <p>01351.070X Data sheet: LX 636</p>	<p>with clamping flange for bituminous sealing sheets as emergency drain</p>  <p>01356.070X Data sheet: LX 637</p>	 <p>00350.070X</p>	<p>for bonding the bituminous vapour barrier</p>  <p>13235.070X*</p>
<p>with clamping flange for plastic sealing sheets</p>  <p>01353.070X Data sheet: LX 636</p>	<p>with clamping flange for plastic sealing sheets as emergency drain</p>  <p>01358.070X Data sheet: LX 637</p>	 <p>00350.070X</p>	<p>for bonding the plastic vapour barrier</p>  <p>13236.070X* * incl. sealing element</p>

Trace heating

After checking the roof drains and pipes in areas endangered by frost, we recommend that customers install trace heating if necessary.



1.) Specifying the parapet opening, specifying the fitting height, bonding the sliding flange in the vapour barrier

- 1.1 Make the parapet opening according to Table 1 (Figure 1).
Make the hole as far as the bare slab so that the roof space can be drained during the construction phase. According to flat roof regulations, the lateral space between the outer edge of the outlet flange from the upstand of the building, components and openings must be at least 300 mm.

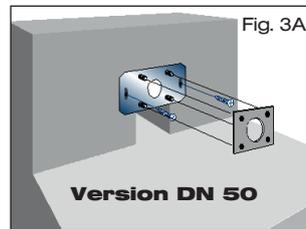
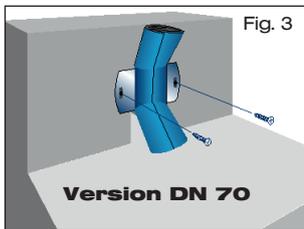
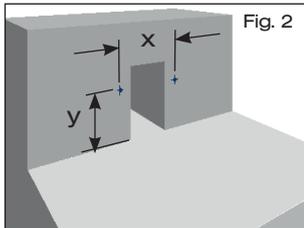
Table 1	DN 50	DN 70
a	110	130
h	w*+100	w*+100

*w = thickness of the thermal insulation in mm

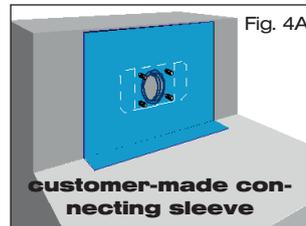
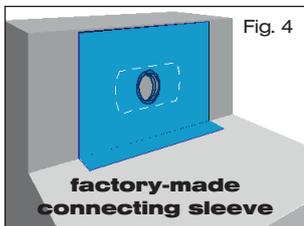
- 1.2 Make 10 mm diameter holes for the sliding flange with the connecting sleeve or the sliding flange with compression seals for connecting the vapour barrier according to the details specified in Table 2 (Fig. 2).

Table 2	DN 50	DN 70
x	205	196
y (bitumen)	w*+35	w*+35
y (plastic)	w*+40	w*+40

*w = thickness of the thermal insulation in mm



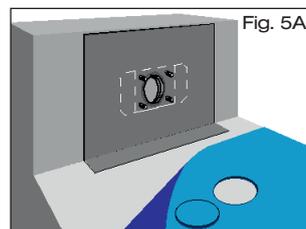
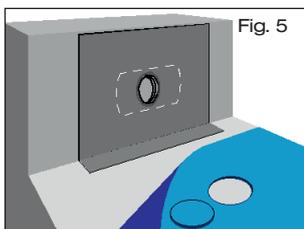
- 1.3 Fasten the sliding flange (DN 70 version, with connecting sleeve rolled together) or sliding flange (DN 50 version with compression seals) using a screwdriver for slotted screws (Fig. 3 or 3A).
Note: The dimensions given under y in Table 2 must be maintained.



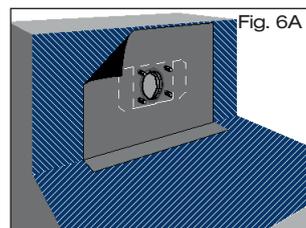
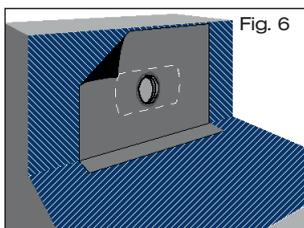
- 1.4 Spread the connecting sleeve ready-mounted at the factory (DN 70 version) or the connecting sleeve made by the customer (DN 50 version) consisting of **bitumen/EPDM compound** or of **plastic**, and attach it to the substrate (Fig. 4 or 4A). Do not allow creases to form.

On the DN 50 version make 14 mm holes in the connecting sleeve with a hole punch for the threaded bolts to pass through. The loose flange can be used as a template.

Note: The connecting sleeve must not be damaged.



- 1.5 Unroll the **bituminous** or **plastic** vapour barrier sheet. Make a circular cut (Fig. 5 or 5A) in the vapour barrier sheet in the region of the sliding flange.
- Hole diameter 150 mm. Roll back the vapour barrier sheet.



- 1.6 A bitumen primer must be applied to the slab and wall when bituminous vapour barrier sheets are used (Fig. 6 or 6A).
High-polymer vapour barrier sheets must be attached to the substrate in accordance with the foil manufacturer's laying specifications.

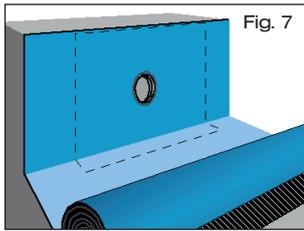


Fig. 7

1.7 Bituminous vapour barrier sheet:

Liquefy the upper side of the connecting sleeve by heating it (welding procedure). Unroll the vapour barrier sheet accurately over the sliding flange with connecting sleeve in the hot liquid bitumen, then evenly press or roll in (Fig. 7 or 7A).

Plastic vapour barrier sheet:

Clean the contact surfaces and make the connection between the connecting sleeve and the vapour barrier sheet using solvent welding or hot gas welding. Seam overlap at least 50 mm. Observe the laying specifications of the roof sealing sheet manufacturer.

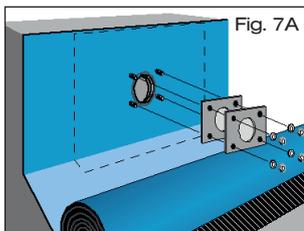


Fig. 7A

- 1.8 With the DN 50 version, place a compression seal over the vapour barrier sheet, and clamp with loose flange and included screws (Fig. 7A). Tighten the enclosed screws using an SW 17 open-ended or ring spanner, working criss-cross. Tightening torque: 20 Nm (bituminous vapour barrier sheet) or 30 Nm (plastic vapour barrier sheet).

Insert sealing element into the socket of the sliding flange.

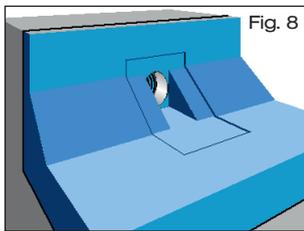


Fig. 8

2.) Fitting the scupper drain when using bituminous roof sealing sheets (two-layer)

- 2.1 Lay thermal insulation panels.

Work the contours of the discharge pipe with fixed flange into the thermal insulation (Figure 8). The fixed flange of the discharge pipe should, according to the flat roof regulations, be flush-mounted into the substrate.

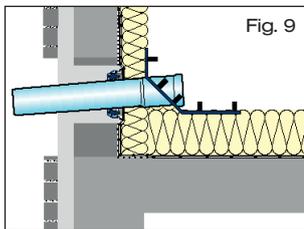


Fig. 9

- 2.2 Trim surplus length off the discharge pipe with fixed flange appropriately for the circumstances at the site.

Apply adequate quantities of LORO-X lubricant to the inside of the sealing element of the sliding flange and the outside of the outlet of the discharge pipe with fixed flange. Insert the discharge pipe with fixed flange into the sliding flange as far as its fitted position (Fig. 9). Close up any holes that have been made in the thermal insulation. Apply adequate quantities of thermal insulation to the discharge pipe in the area of the wall, and fix the roof drain.

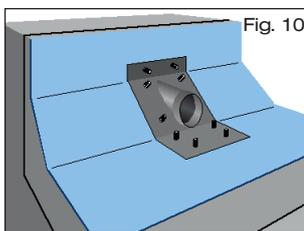


Fig. 10

- 2.3 Unroll the first layer of the **roof sealing sheet** over the scupper drain, and make a cut-out in the region of the fixed flange (Fig. 10).

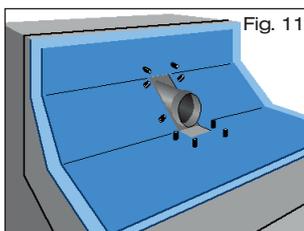
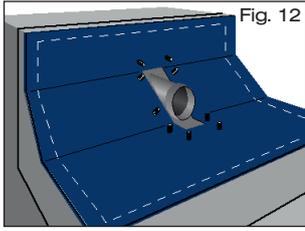
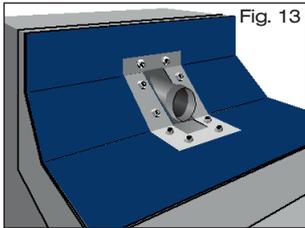


Fig. 11

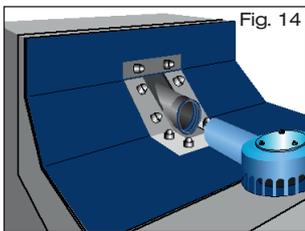
- 2.4 Cut the **connecting sheet** of the existing bituminous roof sealing sheet, size approximately 700 mm x 1000 mm to length on site, and make a cut-out in the region of the socket joint (Fig. 11). Use a hole punch to make 14 mm diameter holes in the connecting sheet for the threaded bolts to pass through. The loose flange can be used as a template. Join the connecting sheet by welding to the first layer of the roof sealing sheet that has already been laid.



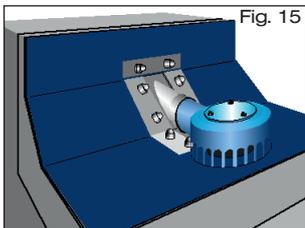
- 2.5 Unroll the second layer of the **roof sealing sheet** over the discharge pipe with fixed flange, and make a cut-out in the region of the socket joint (Fig. 12). Use a hole punch to make 14 mm diameter holes in the roof sealing sheet for the threaded bolts to pass through. The loose flange can be used as a template. Roll back the second layer of the roof sealing sheet, weld the connecting sheet and the second layer of the roof sealing sheet in accordance with the laying instructions from the manufacturer of the roof sealing sheet.



- 2.6 Clamp the roof sealing sheet with loose flange and the included screws (Fig. 13). Tighten the enclosed screws with an open-ended or ring spanner SW 19, starting at the flange side under 45°, working criss-cross. Then continue in the same way with the other screws. Tightening torque: 20 Nm.

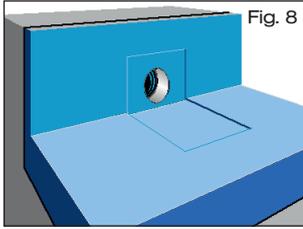


- 2.7 Insert the sealing element into the pipe socket of the discharge pipe with fixed and loose flange (Fig. 14). Apply lubricant to the inside of the sealing element and the end of the pipe of the DRAINJET® parapet cover. Place the plastic hexagonal M 12/SW 19 caps enclosed onto the threaded bolts.

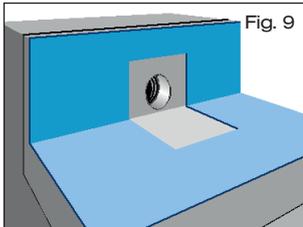


- 2.8 Insert the discharge pipe from the DRAINJET® parapet cover into the pipe socket (Fig. 15).
Important: The scupper drain must lie on the sealing sheet.

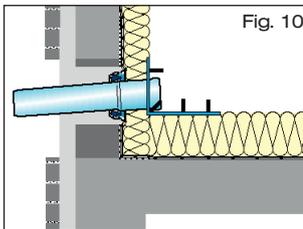
3.) Fitting the scupper drain when using plastic roof sealing sheets



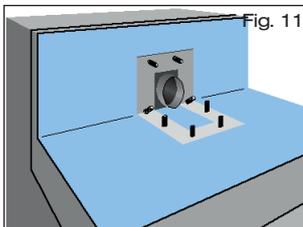
3.1 Lay thermal insulation panels. Work the contours of the discharge pipe with fixed flange into the thermal insulation (Figure 8). The fixed flange of the discharge pipe should, according to the flat roof regulations, be flush-mounted into the substrate.



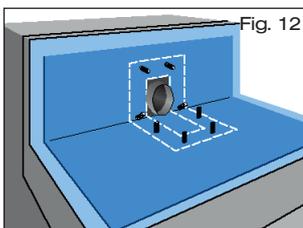
3.2 Prepare a cut-out in the plastic roof sealing sheet with the size of the outer contour of the discharge pipe with fixed flange in the region of the roof drain (Fig. 9).



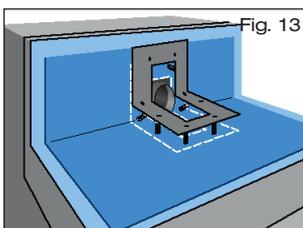
3.3 Trim surplus length off the discharge pipe with fixed flange appropriately for the circumstances at the site. Apply adequate quantities of LORO-X lubricant to the inside of the sealing element of the sliding flange and the outside of the outlet of the discharge pipe with fixed flange. Insert the discharge pipe with fixed flange into the sliding flange as far as its fitted position (Fig. 10). Close up any holes that have been made in the thermal insulation. Apply adequate quantities of thermal insulation to the discharge pipe in the area of the wall, and fix the roof drain.



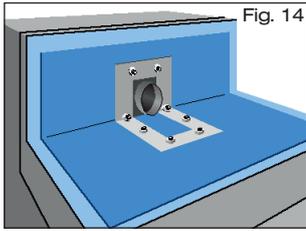
3.4 Unroll the **roof sealing sheet** over the scupper drain, and make a cut-out in the region of the fixed flange (Fig. 11).



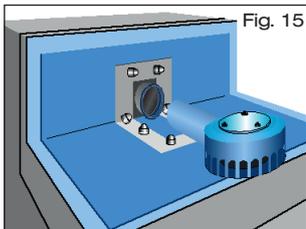
3.5 Cut the **connecting sheet** of the existing plastic roof sealing sheet, size approximately 700 mm x 1000 mm to length on site, and prepare a cut-out in the region of the socket joint (Fig. 12). Use a hole punch to make 14 mm diameter holes in the connecting sheet for the threaded bolts to pass through. The loose flange can be used as a template. Insert one of the enclosed compression seals (drawn dotted) **under** the connecting sheet on the fixed flange, and spread the perforated connecting sheet over the discharge with fixed flange.



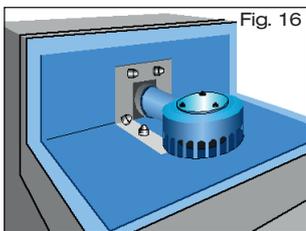
3.6 Join the connecting sheet by welding with the layer of roof sealing sheet that has already been laid in accordance with the laying instructions from the manufacturer of the roof sealing sheet. Place the compression seal **over** the connecting sheet (Fig. 13).



- 3.7 Clamp the connecting sheet with loose flange and the included screws (Fig. 14). Tighten the enclosed screws with an open-ended or ring spanner SW 19, starting at the corner bolt (90°). Then tighten the remaining screws, working criss-cross. Tightening torque: 30 Nm.



- 3.8 Insert the sealing element into the pipe socket of the discharge pipe with fixed and loose flange (Fig. 15). Apply lubricant to the inside of the sealing element and the end of the pipe of the DRAINJET® parapet cover. Place the plastic hexagonal M 12/SW 19 caps enclosed onto the threaded bolts.



- 3.9 Insert the discharge pipe from the DRAINJET® parapet cover into the pipe socket (Fig. 16).
Important: The scupper drain must lie on the sealing sheet.

LORO-DRAINJET® siphonic scupper drains are to be serviced at 1/2 yearly intervals in accordance with DIN 1986, Part 30. Please also give these laying instructions to the plumber!

Important! Necessary system components for item numbers **01351.050X** or **01353.050X**: : siphonic scupper drain, sliding flange (for bonding the vapour barrier), pipe with socket, bend with tight radius 87°, rainwater downpipe with a socket, rain standpipe with cleaning opening, sealing element, pipe clips with spike, lubricant – see data sheet **LX 789**.

Important! Necessary system components for item numbers **01351.070X** or **01353.070X**: siphonic scupper drain, sliding flange (for bonding the vapour barrier), pipe with socket, bend with tight radius 87°, rainwater downpipe with a socket, rain standpipe with cleaning opening, sealing element, pipe clips with spike, lubricant – see data sheet **LX 636**.

Important! Necessary system components for item numbers **01356.050X** or **01358.050X**: : emergency scupper drain, sliding flange (for bonding the vapour barrier), pipe with socket, bend with tight radius 87°, rainwater downpipe with a socket, bend 45°, sealing element, pipe clips with spike, lubricant – see data sheet **LX 790**.

Important! Necessary system components for item numbers **01356.070X** or **01358.070X**: emergency scupper drain, sliding flange (for bonding the vapour barrier), pipe with socket, bend with tight radius 87°, rainwater downpipe with a socket, bend 45°, sealing element, pipe clips with spike, lubricant – see data sheet **LX 637**.

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