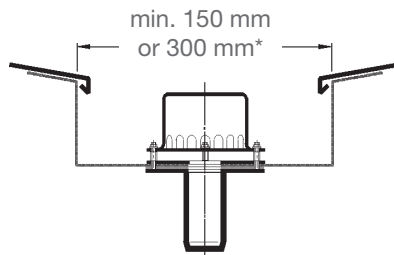
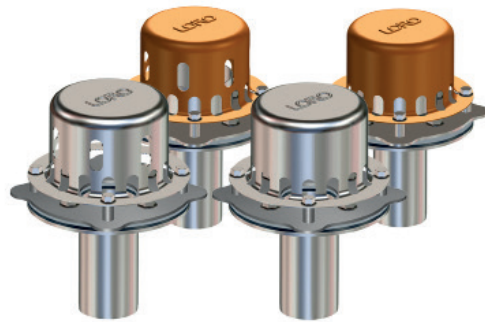




LORO-X DRAINLET® / DRAINJET® -Mini

Box gutter drainage DN 50 and DN 70

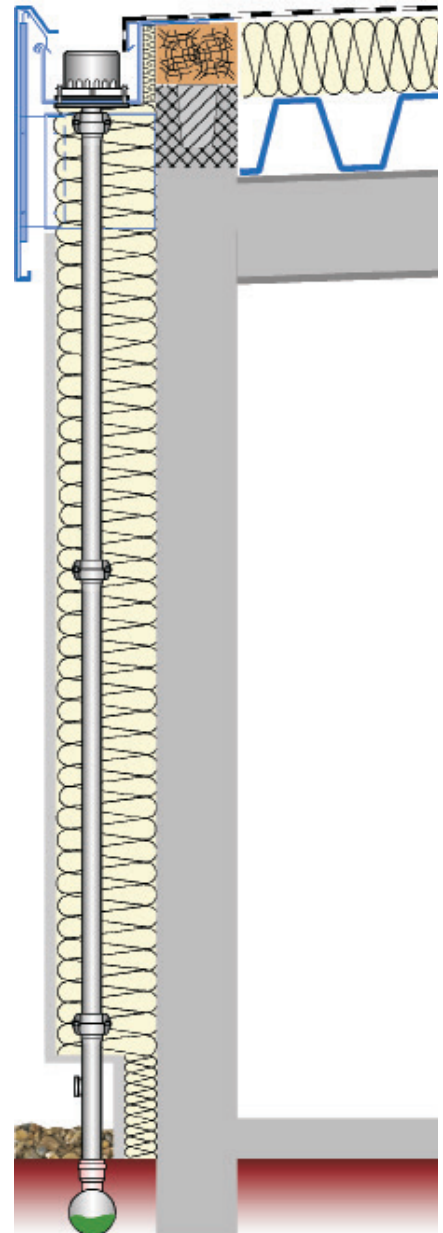
for main drainage and emergency drainage



* depending on gutter measurements

Advantages:

- secure proof of performance due to system test
- in DN 70 suitable for DRAINJET® special parts for siphonic flow
- for inside and outside box gutters
- high discharge rate of up to 13.2 l/s with siphonic flow
- space-saving for box gutters from a width of 150 mm
- break-proof, shockproof and treadable due to complete system made of steel
- downpipe behind the facade as backflow-proof and pressure-resistant complete system
- practical clamping flange „without soldering or welding“ for all metal box gutters



LORO-X DRAINJET®/DRAINLET® Mini Box gutter drainage DN 50 and DN 70

The specifications in this Aktuell

LORO-X DRAINJET® /DRAINLET® Mini box gutter drainage systems will be specified for planning and installation on the following pages.

The LORO-X service team in the office as well as in the field is happy to assist you with your project during a personal conversation.

Optimisation qualities

System overview

Description

Application examples

Installation

Dimensions

LX-specification sheets with feature list

Piece list

Tender Text Example

LORO-X Online Service

Contact



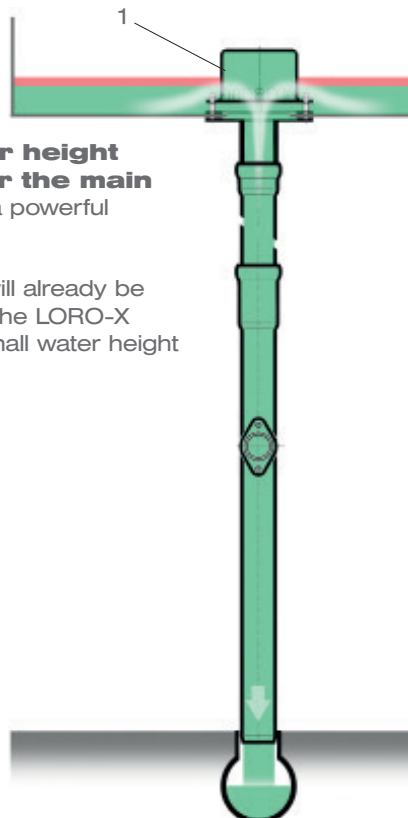
Page	
2 - 3	
4 - 5	
6 - 7	
8 - 12	
13	
14 - 17	
18 - 31	
32	
33	
34 -35	
36	

The 6-star optimisation qualities



Fast

Main drainage



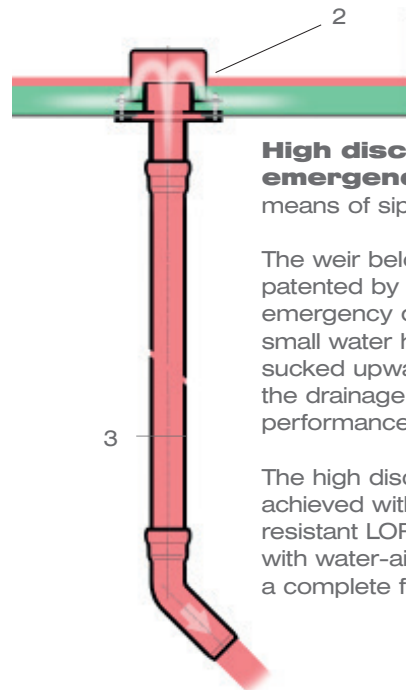
Only a low water height is necessary for the main drainage due to a powerful siphonic flow.

The entering water will already be drained with help of the LORO-X suction cover at a small water height in the box gutter (1).



Powerful

Emergency drainage



High discharge of the emergency drainage by means of siphonic flow.

The weir below the cover - patented by LORO - enables the emergency drainage with only a small water height. The water is sucked upwards over the weir into the drainage system with a strong performance (2).

The high discharge rate can be achieved with the pressure-resistant LORO-X pipe system with water-air-mixture flow up to a complete filling (3).



Silent

LORO® LORO-X Dachentwässerungssysteme
Freispiegelströmung Hauptablauf **Datenblatt LX 1391**

Datenblatt LX 1391
Dachentwässerung
LORO-DRAINLET® Mini DN 50
für Kastenrinne ab 300 mm

Hauptentwässerung
Freispiegelströmung
Silent Power

Abfluss: 2,7 l/s
Wasserhöhe: 35 mm
Eintrittshöhe: 0 mm
Nennweite: DN 50
LX-Nummer: LX 1391
Wehrhöhe: 0 mm
Haube: belüftet
Fällführung: nicht belüftet
Fällführungshöhe: -
Entlastungsort: in Grundablauf
Freispeicheln: Klemmfasssch

LX 1391 Stückliste

1 x Art-Nr. 2115050X, DRAINLET® Mini DN 50	1 x Art-Nr. 0810090X, LORO-X Silbdruf
2 x Art-Nr. 0202050X, LORO-X Boden	2 x Art-Nr. 0811050X, LORO-X Dichtungsmat
1 x Art-Nr. 01401050X, LORO-X Rohr mit einer Nutfl.	1 x Art-Nr. 08034090X, LORO-X Sicherungsschabe
1 x Art-Nr. 01201050X, LORO-X Rohr mit einer Nutfl.	1 x Art-Nr. 0808050X, LORO-X Gewindest

HQ - Abflusskurve

CAD

Systemleistung

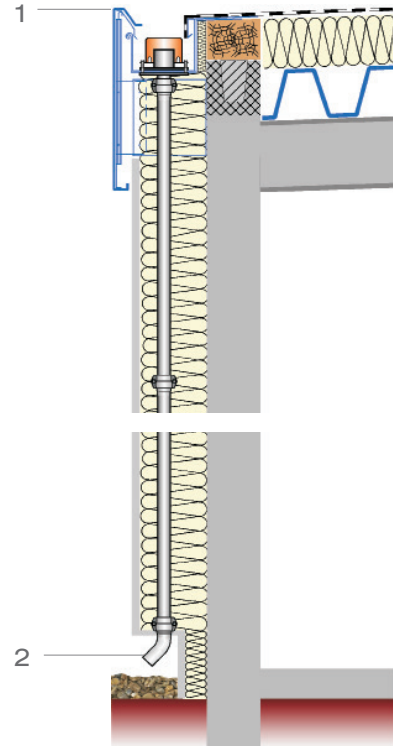
Wasserhöhe mm	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
Abfluss l/s				1,0	1,6	2,1	2,7	3,2	3,8	4,3	4,8	5,3	6,2	7,1	8,0

Silent

AKTUELL 122 DJ MINI 12



Secure

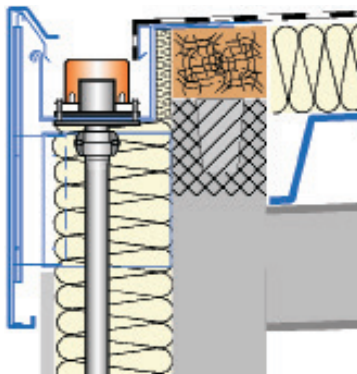


Silent drainage of the box gutter during normal operation if the main drainage does not yet drain with full power (1).

Secure protection of the box gutter against overflow with help of an emergency drainage with a separate flow route into the open (2). This prevents an „overflow“ of the box gutter with high discharge (1).



Space saving

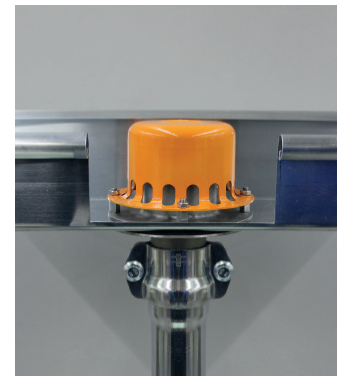


Low space requirements due to the space-saving dimensions of the LORO-X DRAINJET Mini drains with only 150 mm flange diameter.

The space-saving DN 50 pipe system can be optimally installed in the building, in front of the facade and also behind the facade.



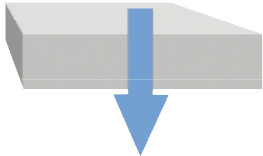


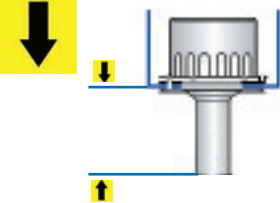




Money saving






High efficiency due to usage of LORO-X patents.

1. The LORO-X suction cover for siphonic flow
2. The weir below the cover for the emergency drainage
3. The emergency drainage with weir in the box gutter

System overview

	Main drainage				
	Gravity flow		Siphonic flow		
	Silent Power				
	 21118.050X 21118.070X		 21116.050X 21116.070X		
Roof penetration 	100 mm		100 mm		
Diameter	DN 50	DN 70	DN 50	DN 70	
LX-No.	LX1391	LX3045	LX1392	LX1490	LX3044
Flange Type	Clamping flange gutter width from 150 mm	Clamping flange gutter width from 150 mm	Clamping flange gutter width from 300 mm	Clamping flange gutter width from 150 mm	Clamping flange gutter width from 150 mm
Weir height h 	80 mm				
	60 mm				
	40 mm	0 mm	0 mm	0 mm	0 mm
Water height h 	75 mm				
	55 mm		55 mm	55 mm	55 mm
	35 mm	35 mm	35 mm		
Discharge Q (l/s) 	12 l/s				
	10 l/s				
	8 l/s		8,5 l/s		
	6 l/s			5,5 l/s	5,7 l/s
	4 l/s	2,7 l/s	2,5 l/s		
	2 l/s				
Silent Power Class 	Power ≥ 30 l/s				
	Silent Power ≤ 80 dB	Silent Power	Silent Power	Silent Power	Silent Power
	Silent ≤ 75 dB				

Emergency drainage								
Gravity flow			Siphonic flow					
Silent Power								
 21119.050X 21119.070X			 21117.050X 21117.070X			 21120.050X 21120.070X		
100 mm			100 mm			100 mm		
DN 50		DN 70	DN 50		DN 70	DN 50	DN 70	
LX1393	LX1493	3047	LX1394	LX1491	LX3046	LX1271	LX2070	
Clamping flange gutter width ab 300 mm	Clamping flange gutter width ab 150 mm	Clamping flange gutter width ab 150 mm	Clamping flange gutter width ab 300 mm	Clamping flange gutter width ab 150 mm	Clamping flange gutter width ab 150 mm	Clamping flange gutter width ab 150 mm	Clamping flange gutter width ab 150 mm	Clamping flange gutter width ab 150 mm
							80 mm	80 mm
40 mm	40 mm	40 mm	60 mm	60 mm	60 mm			
75 mm	75 mm	75 mm	75 mm	75 mm	75 mm	80 mm	80 mm	
						13,2 l/s		
7,5 l/s	6,9 l/s	6,0 l/s	8,0 l/s	8,0 l/s		9,5 l/s		12,4 l/s
Silent Power	Silent Power	Silent Power	Silent Power	Silent Power	Silent Power	Silent Power	Silent Power	Silent Power

LORO-X DRAINJET® Mini Box gutter drainage

Small nominal diameter, high performance - with proof of performance

The new LORO-X DRAINJET® Mini roof drainage system offers new possibilities for the main and emergency drainage of inside box gutters or those „lying on the cornice“.

The high discharge rate of up to 31.2 litre per second is achieved due to the high flow velocity of the water in the pressure-resistant LORO-X steel discharge pipe. In comparison to conventionally measured downpipes (4.5 l/s with DN 100) this equals twice the performance with half the pipe diameter.

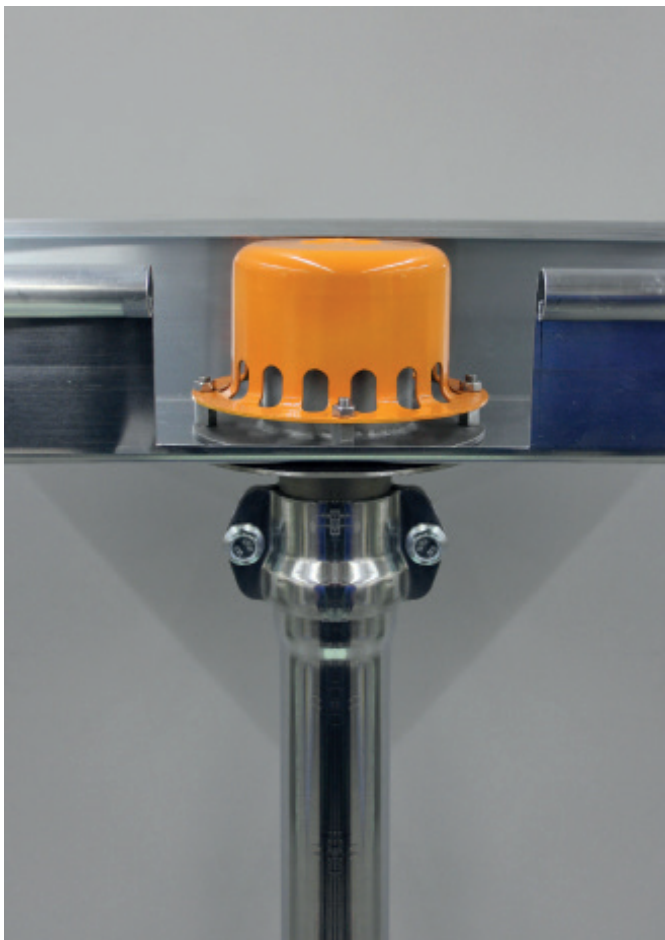
The secure system proof of performance is available in form of the LX-specification sheet. It consists of a graphic representation of the system form (CAD drawing) and the system performance (discharge curve) that has been measured with the respective discharge system.

Main drainage for box gutters

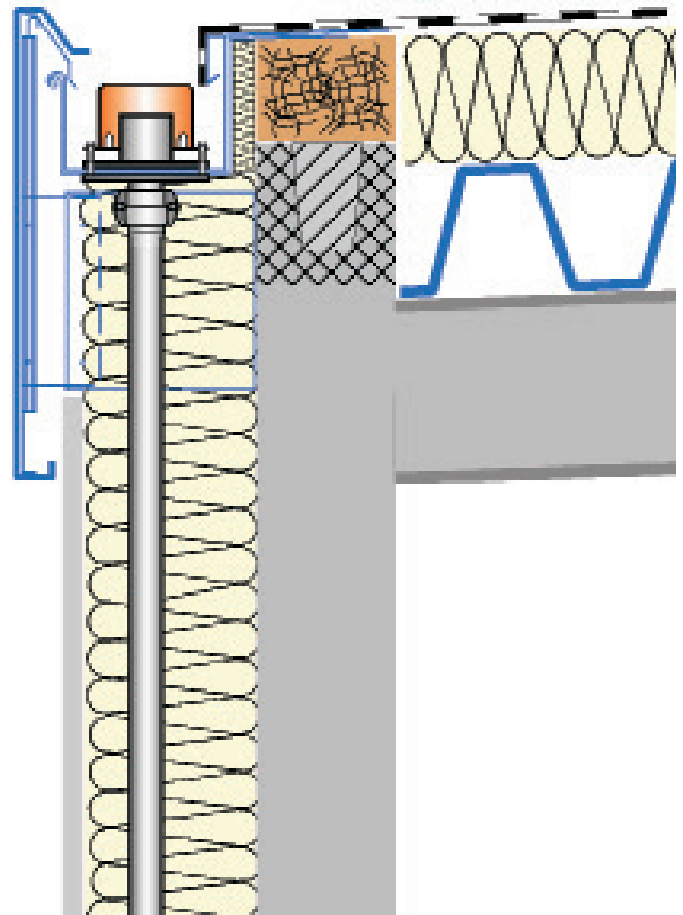
LORO recommends the installation in industrially or in on site produced metal gutters from a width of 150 mm or 300 mm, depending on the gutter dimensions. Due to the fact that the discharge performance of small and wide gutters differs, LORO provides at least two LX-specification sheets for every drain (for a width of 150 mm as well as 300 mm).

Emergency drainage for box gutters

For new constructions and renovations of box gutters often both is required at the same time: a powerful main drainage into the ground pipe according to current rainfall intensity as well as a secure and powerful emergency drainage into the open.



Emergency drain with congestion element prevents an „overflow“ of the box gutter



Downpipe behind the facade with small nominal diameter

Pipe system completely pressure-resistant and backflow-proof

In comparison to mounted gutters, the water cannot overflow into the open in the case of heavy rain. It has to be securely transported via a backflow-proof LORO-X pipe system through the building into the open. LORO-X steel discharge pipes made of break-proof, galvanized steel are pressure-resistant and backflow-proof due to the two-chamber push-fit socket with sealing element. Thus, an installation is possible in front of the facade, in the facade or in the building.

Practical clamping flange

The practical clamping flange with compression seal enables a secure sealing in metallic box gutters without soldering or welding.

For bituminous sealings, please use LORO-X DRAIN-JET® drains of Series 49 with a bigger clamping flange.

For mounted gutters and parapet gutters

The practical clamping flange can be used for all metallic box gutters.

Powerful: High performance

of up to 9.0 l/s with siphonic flow at 80 mm water height in the box gutter.

Space-saving: DN 50

Half of the diameter but twice the performance.

Secure: break-proof, shock-proof and treadable

due to a complete system made of steel.

Downpipe behind the facade

for an „invisible“ downpipe due to a backflow-proof and pressure-resistant complete system.

Clamping flange for metallic gutters

The practical clamping flange enables a secure sealing „without soldering or welding“.

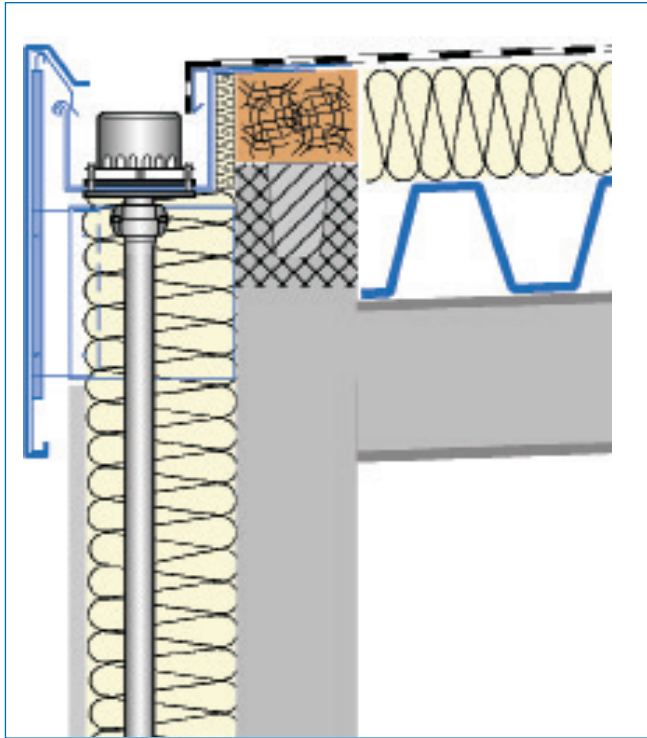


Application example:

LORO-X DRAINJET® Mini

On cornice gutter

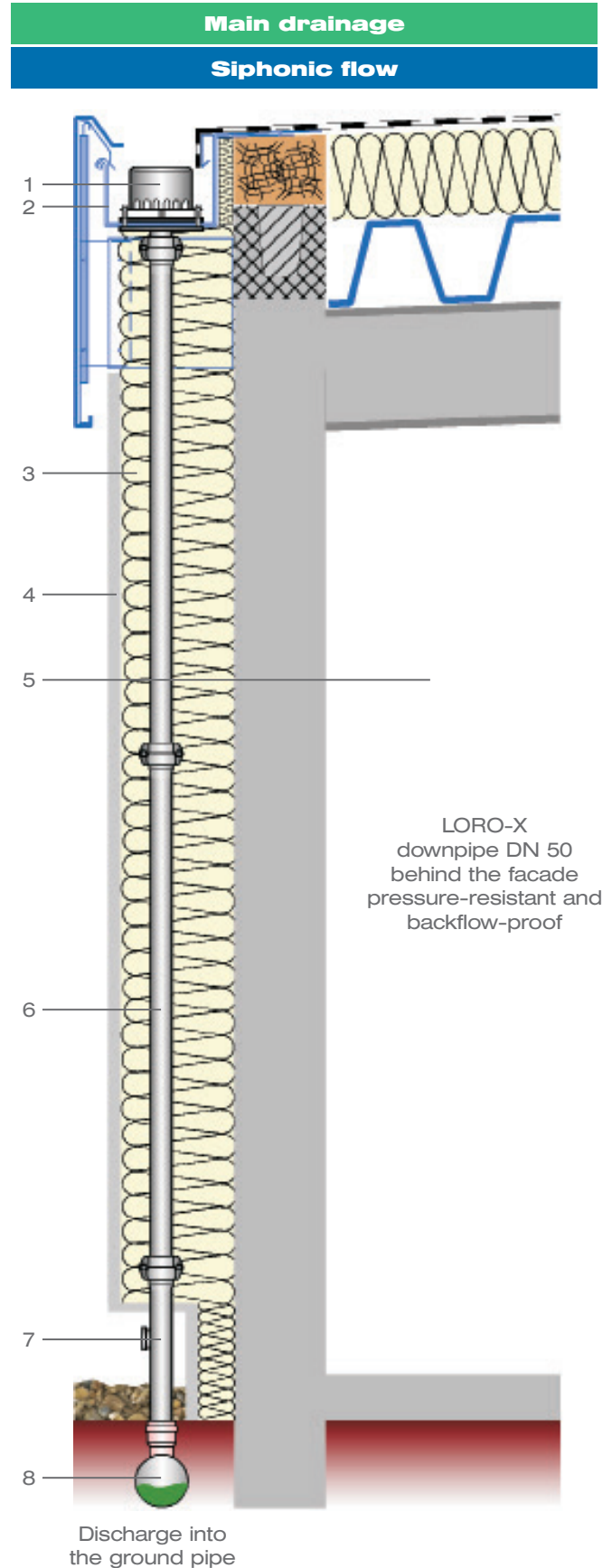
with downpipe behind the facade
and discharge into the ground pipe



Description

The LORO-X DRAINJET Mini box gutter drainage has a clamping flange for the installation in metal box gutters, for an installation without soldering and welding.

- 1 LORO-X DRAINJET® Mini main drain
- 2 Box gutter
- 3 Thermal insulation
- 4 Mounted facade
- 5 Building
- 6 LORO-X Downpipe with securing clamp
- 7 LORO-X Rain standpipe
- 8 Ground pipe



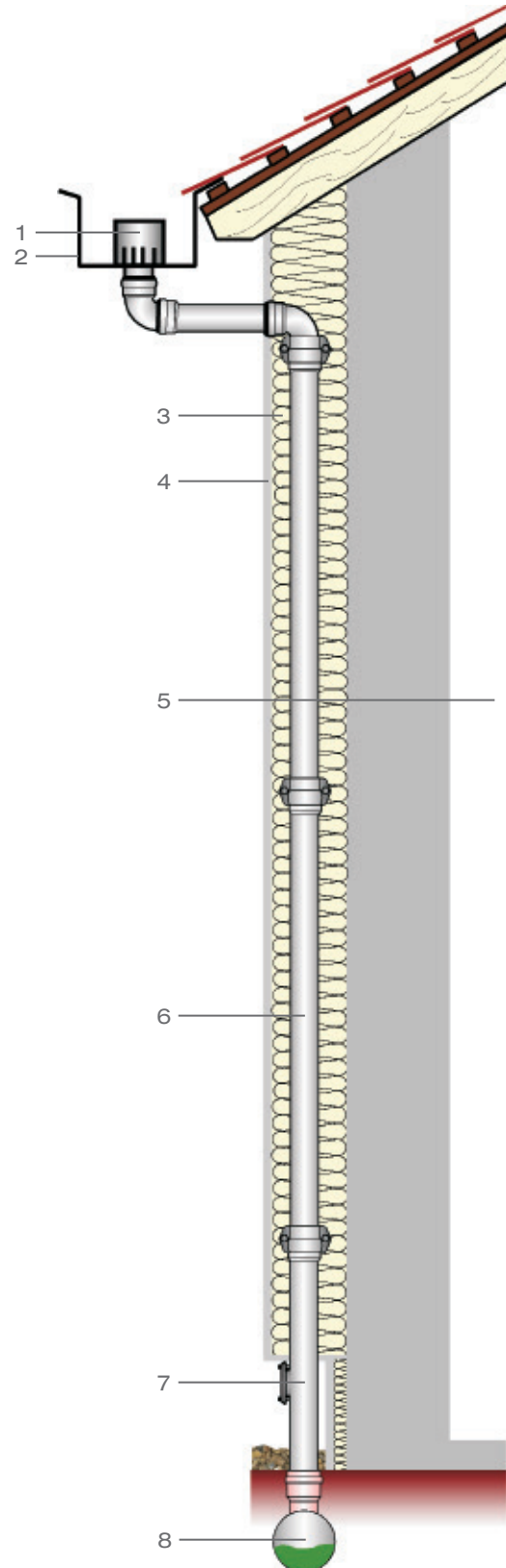
Application example:

LORO-X DRAINJET® Mini

For mounted gutters
with downpipe behind the facade
and discharge into the ground pipe

Main drainage

Siphonic flow



Description

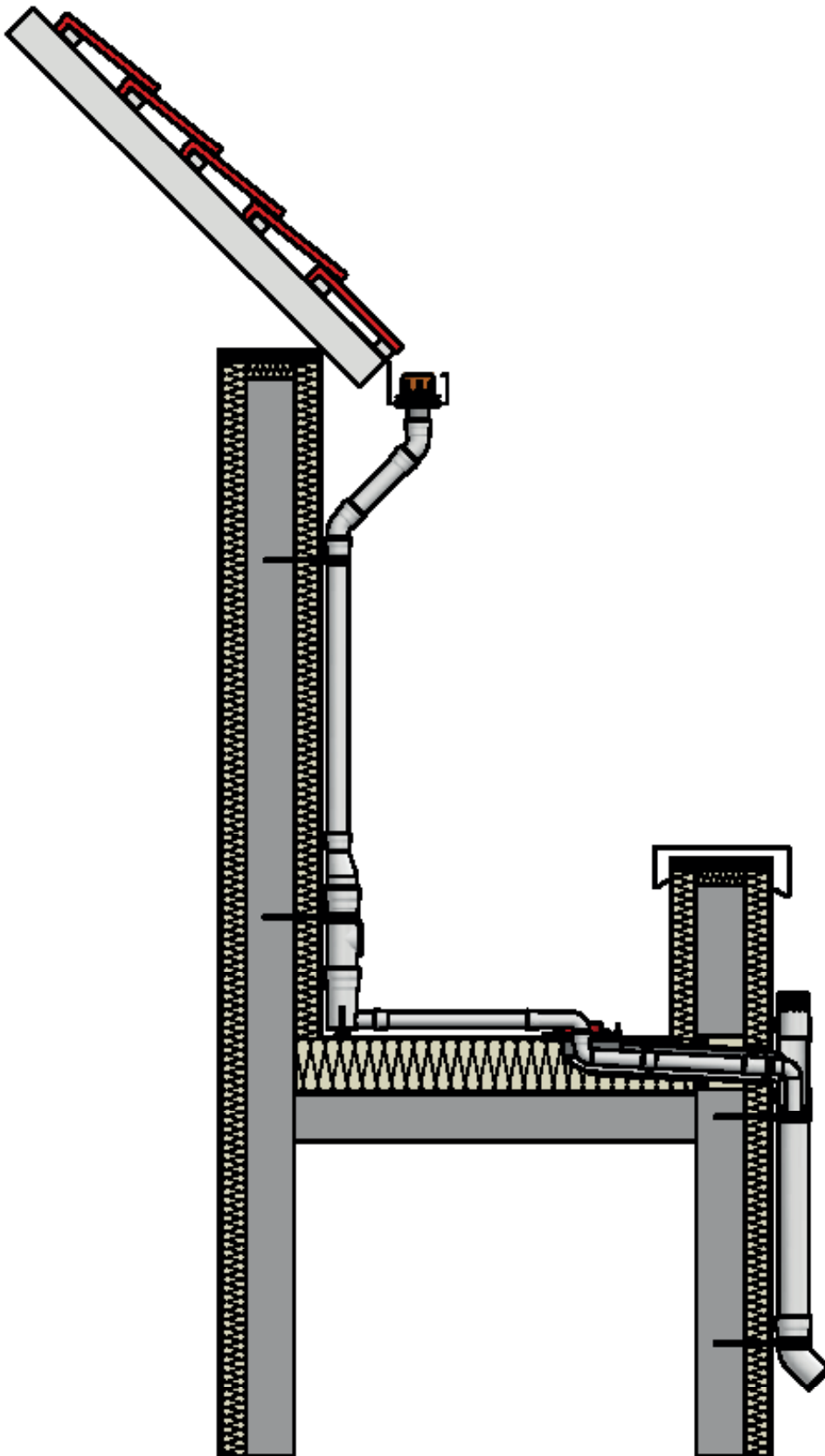
In order to combine the advantages of a mounted gutter with the optical advantages of an „invisible downpipe“ behind the facade, the LORO-X DRAINJET® Mini in combination with a mounted box gutter is the optimal solution!

The minimum width is 150 mm. This equals a customary 4-part box gutter.

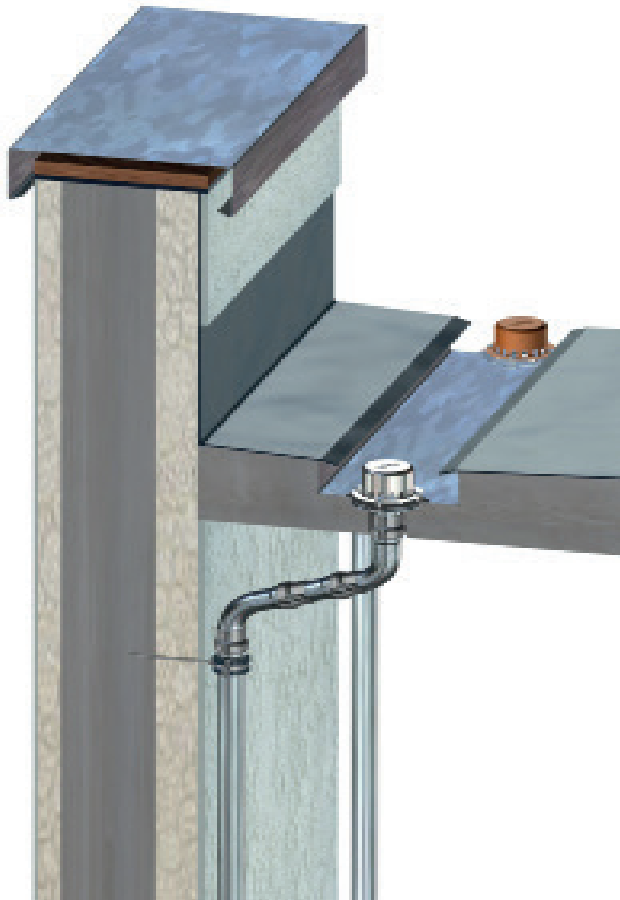
Using a bend directly under the box gutter, the downpipe made of backflow-proof LORO-X steel discharge pipe is installed behind the facade in a pressure-resistant manner.

- 1 LORO-X DRAINJET® Mini main drain
- 2 Box gutter
- 3 Thermal insulation
- 4 Mounted facade
- 5 Building
- 6 LORO-X Downpipe with securing clamp
- 7 LORO-X Rain standpipe
- 8 Ground pipe

Example: Roof terrace below a pitched roof with mounted box gutter.

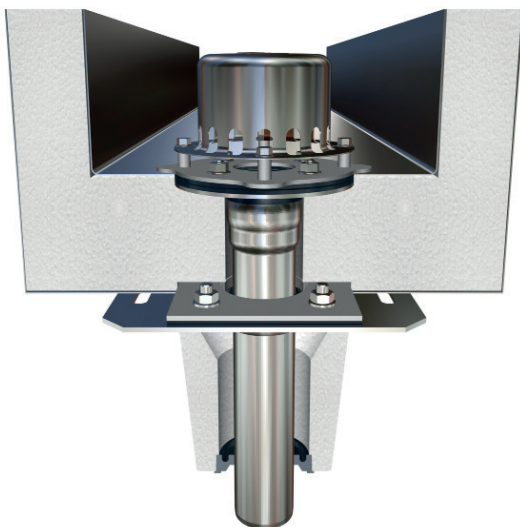


Example: Low point line as metallic box gutter for a flat roof.

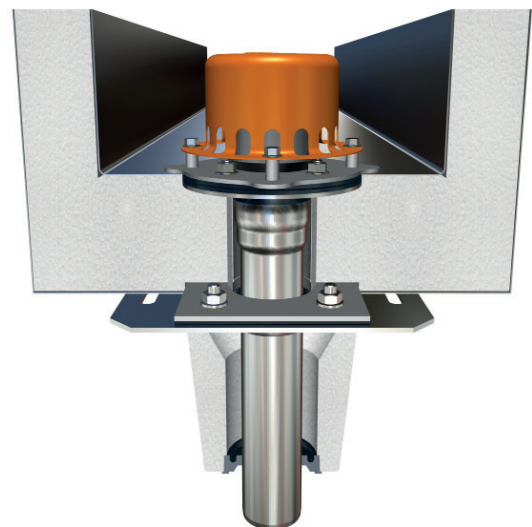


Example: insulated, metallic box gutter with two-part DRAINJET Mini drain.

Main drainage



Emergency drainage



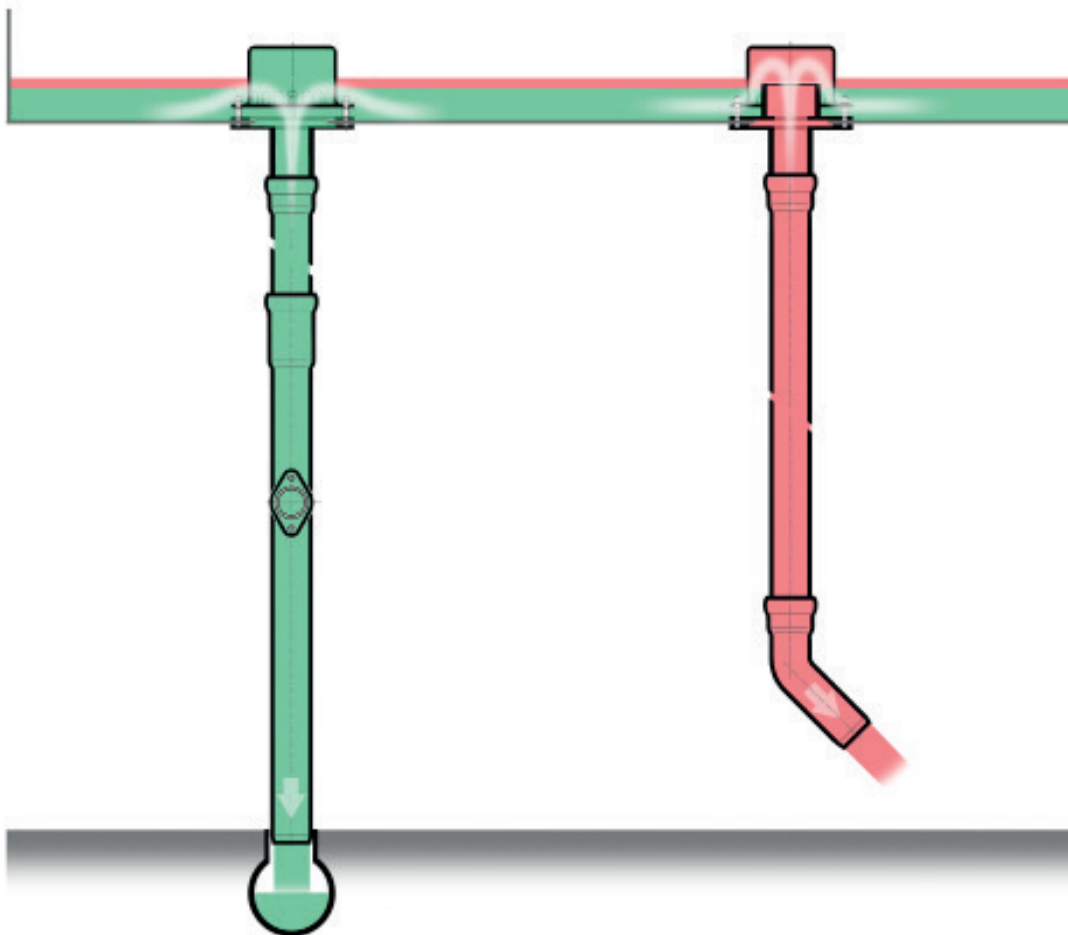
Application example:

Installation

The main drainage and the emergency drainage with congestion element should ideally be installed in equal distances in the box gutter.

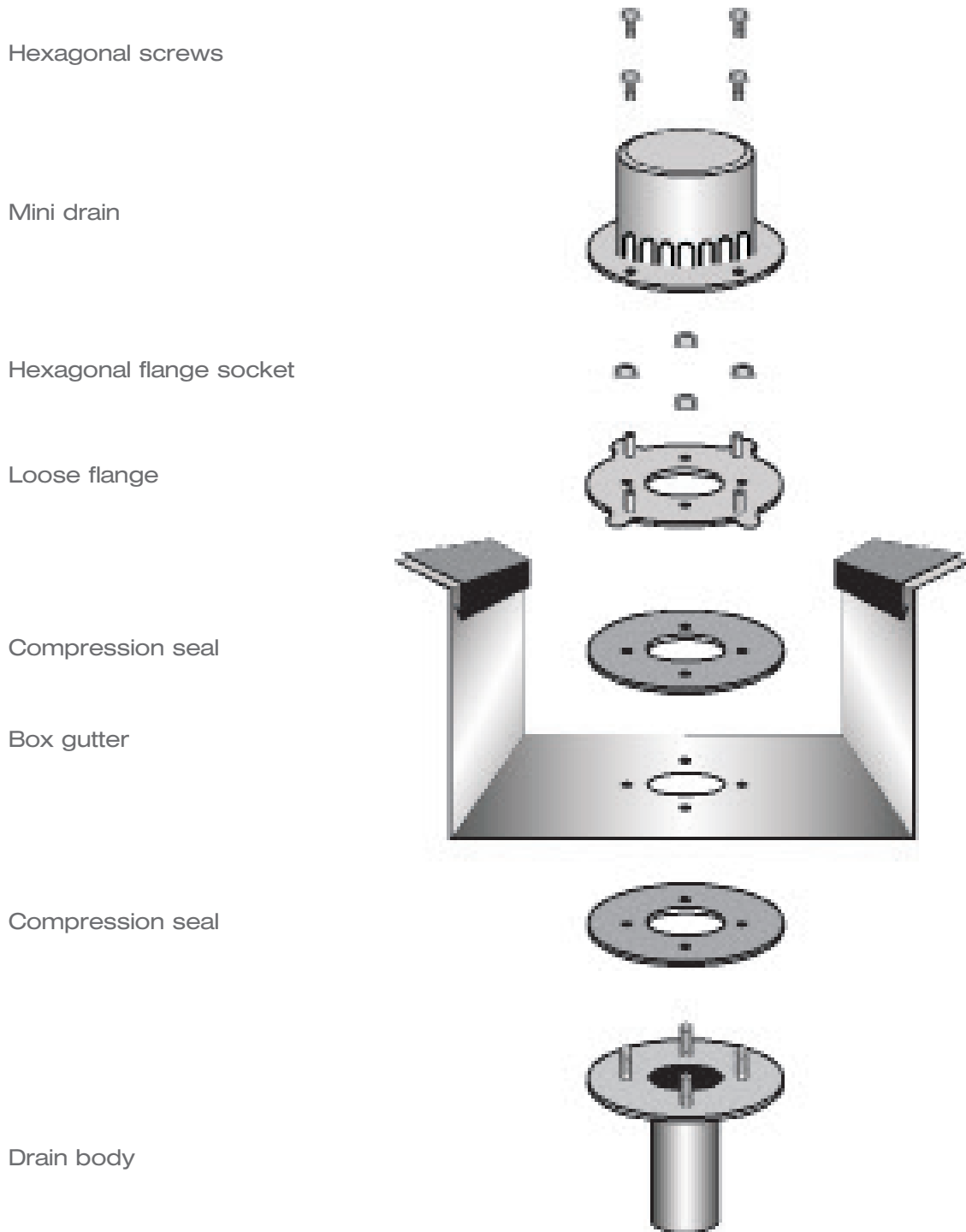
Emergency drainage with congestion element

The emergency drainage with congestion element is placed in the middle between the two main drains. This is the place where the highest „water mountain“ is expected.

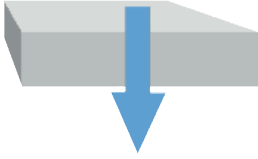


Setup





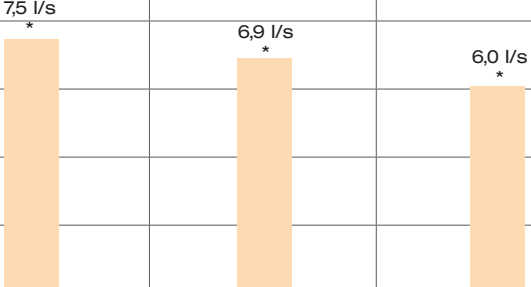
The LORO-X DRAINJET Mini box gutter drainage has a clamping flange for the installation in metal box gutters, for an installation without soldering and welding.



Attention: Respective length expansions of the gutter have to be considered.
For the installation of the drain in the box gutter always two compression seals (above and below) have to be used!

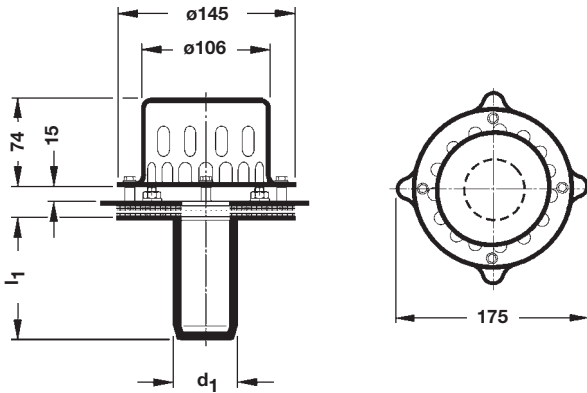


Series 49 DRAINLET® Mini

	Main drainage		Emergency drainage		
	Gravity flow		Gravity flow		
	Silent Power				
 Gutter	 21118.050X 21118.070X with clamping flange		 21119.050X 21119.070X with clamping flange		
gutter width (mm)	150	150	300	150	150
DN	50	70	50	50	70
water height (mm)	35	35	75	75	75
weir height (mm)	0	0	40	40	40
LX-No.	LX1391	LX3045	LX1393	LX1493	LX3047
Discharge Q (l/s)					

* Discharge capacity in keeping with test specification according to DIN EN 1253, downpipe length 4.2 m

Dimensions and Weights



LORO-DRAINLET[®] Mini, Series 49

made of stainless steel, DN 50 and DN 70, according to DIN EN 1253, box gutter drainage with gravity flow for a gutter width from 150 mm

Complete unit

DN 50: [Art.-No. 21118.050X](#)

weight: 1.2 kg

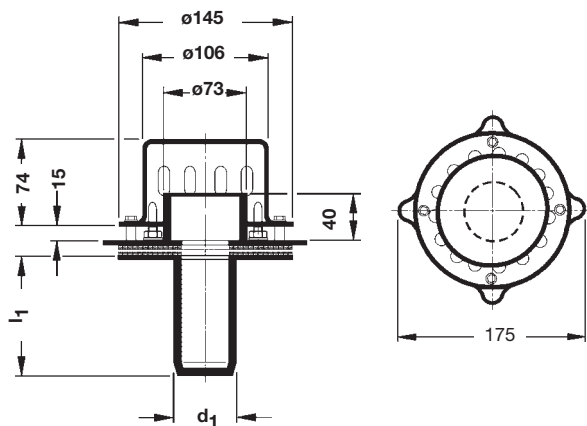
DN 70: [Art.-No. 21118.070X](#)

weight: 1.2 kg

consisting of:

drain body, compression seal, loose flange, Drainlet strainer basket

DN	d ₁	l ₁
50	53	103
70	73	100



LORO-DRAINLET[®] Mini, as emergency drains, Series 49

made of stainless steel, DN 50 and DN 70, according to DIN EN 1253, box gutter drainage with gravity flow for a gutter width from 150 mm

Complete unit

DN 50: [Art.-No. 21119.050X](#)

weight: 1.3 kg

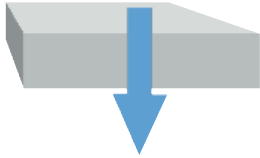
DN 70: [Art.-No. 21119.070X](#)

weight: 1.3 kg




consisting of:

drain body, compression seal, loose flange with congestion element, Drainlet strainer basket

DN	d ₁	l ₁
50	53	103
70	73	100



Series 49 DRAINJET® Mini

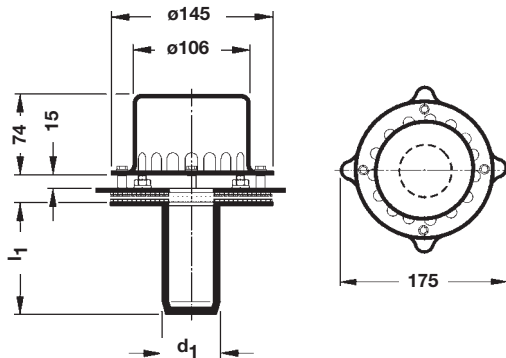
	Main drainage			Emergency drainage			
	Siphonic flow			Siphonic flow			
	Silent Power						
 Gutter	 21116.050X 21116.070X with clamping flange			 60 mm weir height 21117.050X 21117.070X 80 mm weir height 21120.050X 21120.070X with clamping flange			
gutter width (mm)	150	300	150	150	300	150	150
DN	50	50	70	50	50	70	70
water height (mm)	55	55	55	75	75	95	95
weir height (mm)	0	0	0	60	60	60	80
LX-No.	LX1490	LX1392	LX3044	LX1491	LX1394	LX3046	LX2070
Discharge Q (l/s)	5,5 l/s*	8,5 l/s*	5,7 l/s*	8,0 l/s*	8,0 l/s*	13,2 l/s*	12,4 l/s*

* Discharge capacity in keeping with test specification according to DIN EN 1253, downpipe length 4.2 m

Dimensions and Weights

LORO-DRAINJET® Mini, Series 49

made of stainless steel, DN 50 and DN 70, according to DIN EN 1253, box gutter drainage with siphonic flow for a gutter width from 150 mm



Complete unit

DN 50: [Art.-No. 21116.050X](#)
 DN 70: [Art.-No. 21116.070X](#)

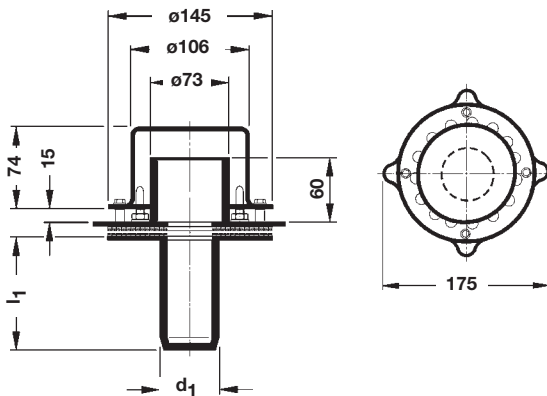
weight: 1.2 kg
 weight: 1.2 kg

consisting of:
 drain body, compression seal, loose flange, Drainjet cover

DN	d ₁	l ₁
50	53	103
70	73	100

LORO-DRAINJET® Mini, as emergency drains, Series 49

made of stainless steel, DN 50 and DN 70, according to DIN EN 1253, box gutter drainage with siphonic flow for a gutter width from 150 mm



Complete unit

DN 50: [Art.-No. 21117.050X](#)
 DN 70: [Art.-No. 21117.070X](#)

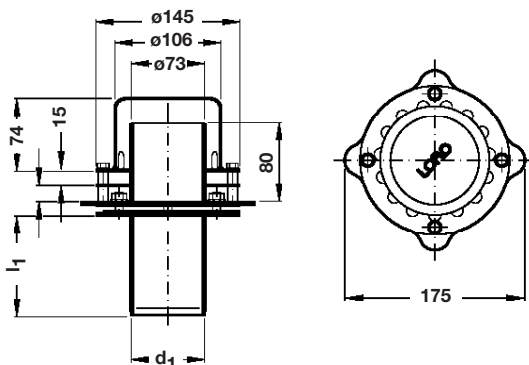
weight: 1.3 kg
 weight: 1.3 kg

consisting of:
 drain body, compression seal, loose flange with congestion element, Drainjet cover

DN	d ₁	l ₁
50	53	103
70	73	100

LORO-DRAINJET® Mini, as emergency drains, Series 49

made of stainless steel, DN 70, according to DIN EN 1253, box gutter drainage with gravity flow for a gutter width from 150 mm, weir height 80 mm



Complete unit

DN 70: [Art.-No. 21120.050X](#)
 DN 70: [Art.-No. 21120.070X](#)

weight: 1.5 kg
 weight: 1.5 kg

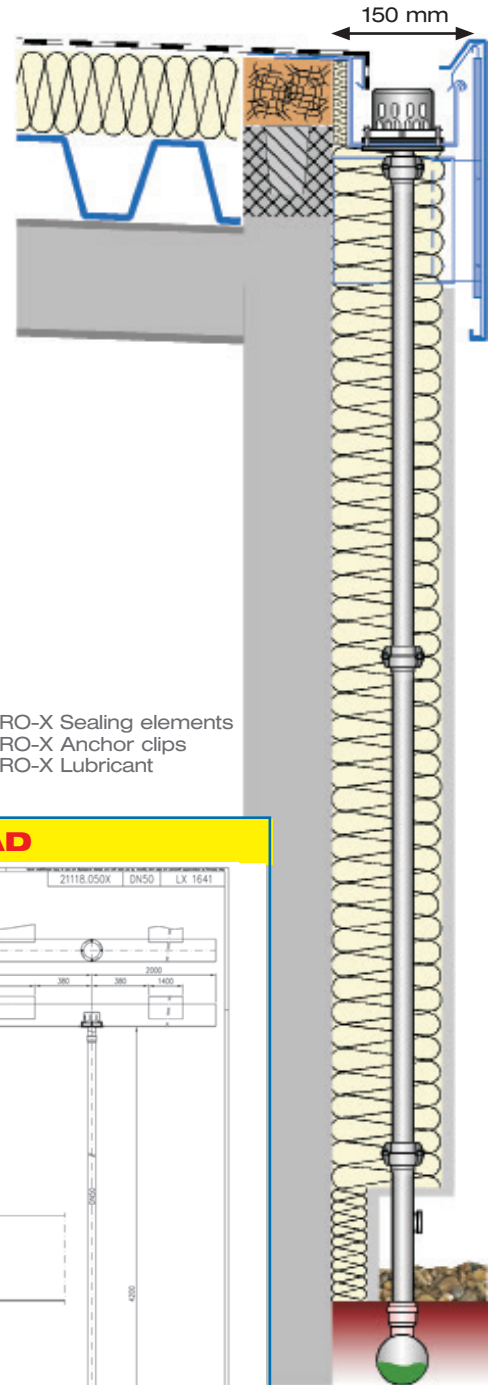
consisting of:
 drain body, compression seal, loose flange with congestion element, Drainjet cover

DN	d ₁	l ₁
50	53	103
70	73	100

Specification Sheet LX 1641

Roof Drainage LORO-DRAINLET® Mini DN 50 in box gutter from 150 mm

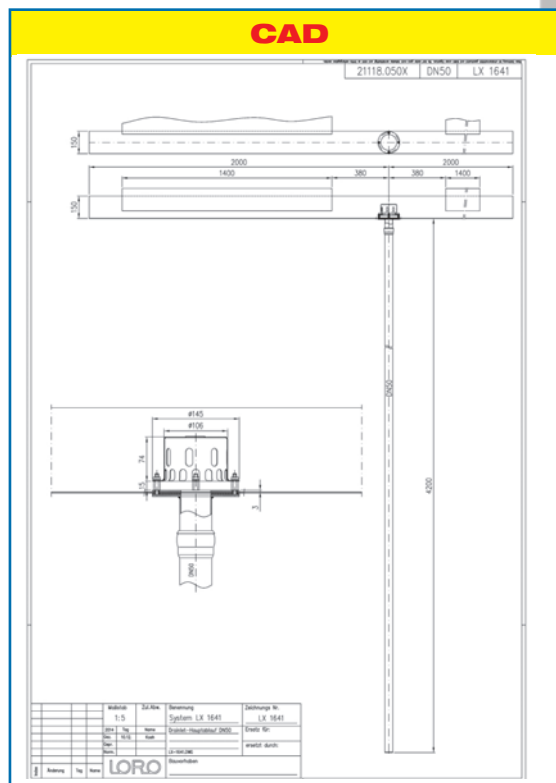
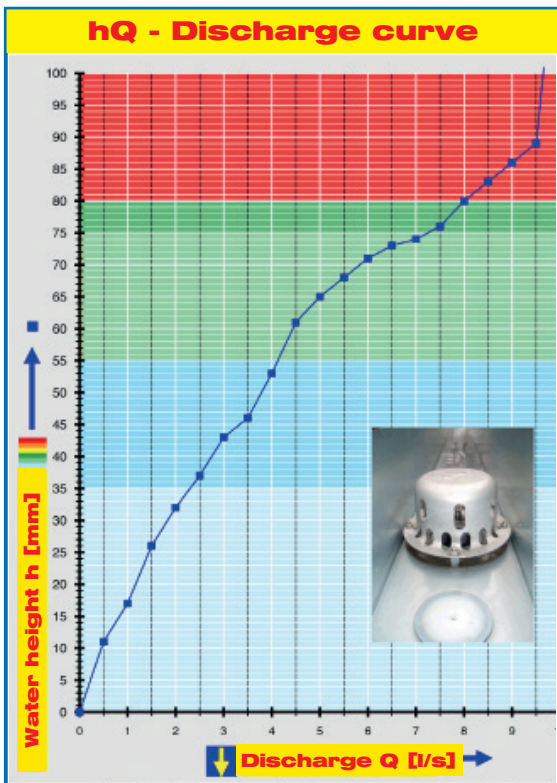
Main drainage	
Gravity flow	
Silent Power	
Discharge rate:	2.4 l/sec
Water height:	35 mm
Roof penetration:	-
Diameter:	DN 50
LX-Number:	LX 1641
Weir height:	0 mm
Drain:	ventilated
Downpipe:	not ventilated
Downpipe height:	4.2 m
Drainage:	into ground pipe
Flange:	clamping flange



LX 1641 Piece list

- 1 x Art.-No. 21118.050X, DRAINLET® Mini DN 50
- 1 x Art.-No. 01004.050X, LORO-X Pipe with one socket
- 1 x Art.-No. 05510.050X, LORO-X Standpipe

- 3 x Art.-No. 00911.050X, LORO-X Sealing elements
- 1 x Art.-No. 00806.050X, LORO-X Anchor clips
- 1 x Art.-No. 00986.000X, LORO-X Lubricant



System power

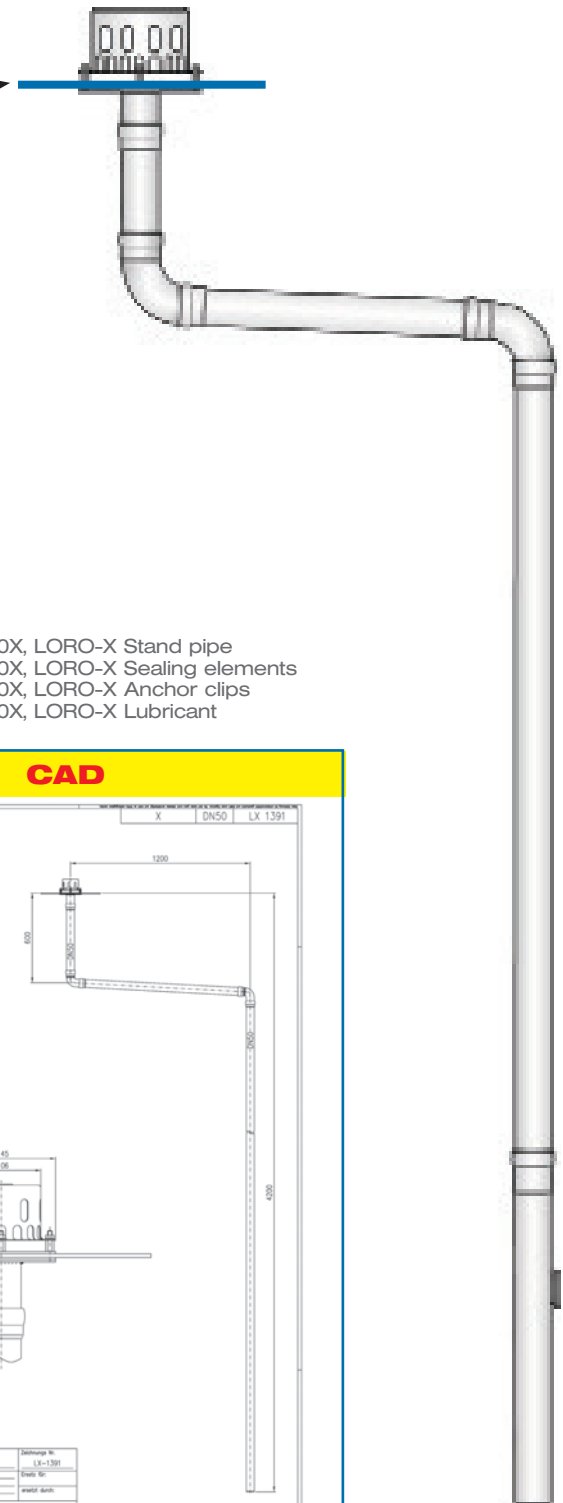
System shape

Water height	mm	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
Discharge	l/s				1,1	1,4	1,8	2,4	2,7	3,4	3,8	4,1	4,4	5,0	5,9	7,2
									Silent Power							

Specification Sheet LX 1391

Roof Drainage LORO-DRAINLET® Mini DN 50 in box gutter from 150 mm

← 150 mm →



Main drainage

Gravity flow

Silent Power

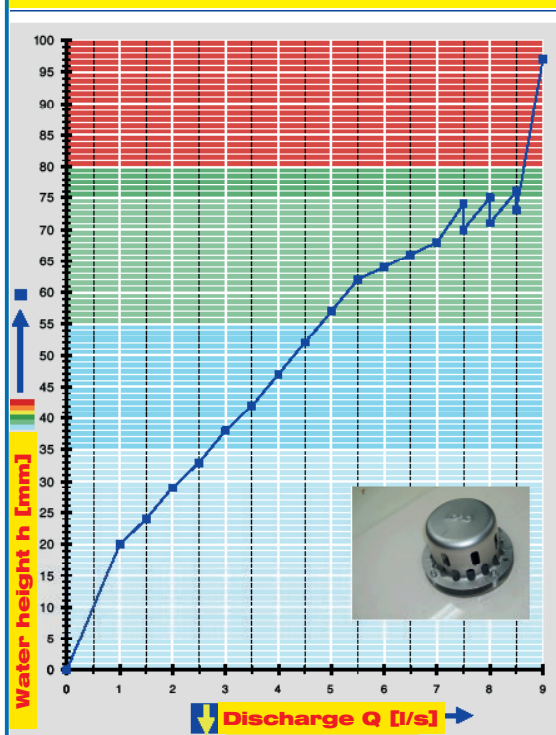
Discharge rate:	2.7 l/sec
Water height:	35 mm
Roof penetration:	-
Diameter:	DN 50
LX-Number:	LX 1391
Weir height:	0 mm
Drain:	ventilated
Downpipe:	not ventilated
Downpipe height:	4.2 m
Drainage:	into ground pipe
Flange:	clamping flange

LX 1391 Piece list

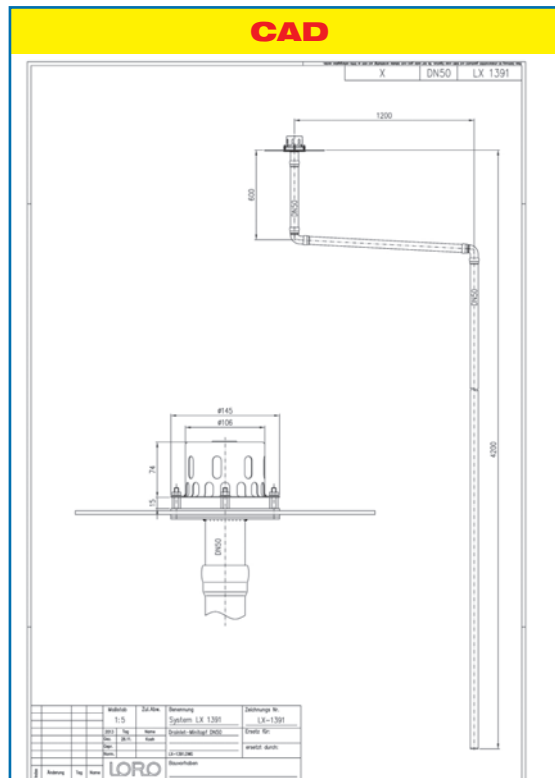
- 1 x Art.-No. 21118.050X, DRAINLET® Mini DN 50
- 2 x Art.-No. 00350.050X, LORO-X Bend
- 1 x Art.-No. 01401.050X, LORO-X Pipe with one socket
- 1 x Art.-No. 01201.050X, LORO-X Pipe with one socket
- 1 x Art.-No. 01004.050X, LORO-X Pipe with one socket

- 1 x Art.-No. 05510.050X, LORO-X Stand pipe
- 3 x Art.-No. 00911.050X, LORO-X Sealing elements
- 1 x Art.-No. 00806.050X, LORO-X Anchor clips
- 1 x Art.-No. 00986.000X, LORO-X Lubricant

hQ - Discharge curve



CAD



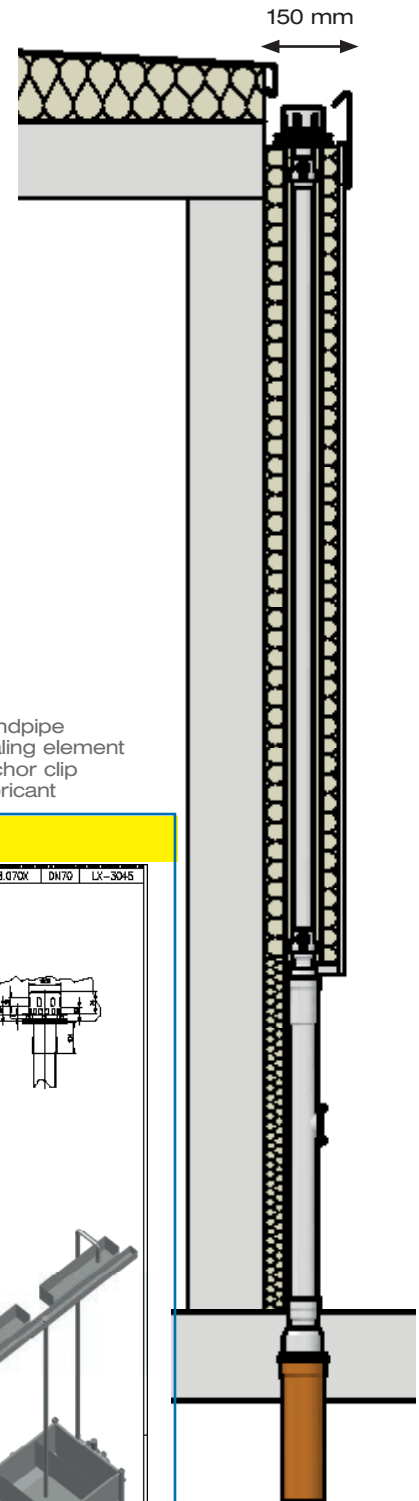
System power

System shape

Water height	mm	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
Discharge	l/s				1,0	1,6	2,1	2,7	3,2	3,8	4,3	4,8	5,3	6,2	7,1	8,0
Silent																

Specification Sheet LX 3045

Roof Drainage LORO-DRAINLET® Mini DN 70 in box gutter from 150 mm



Main drainage

Gravity flow

Silent

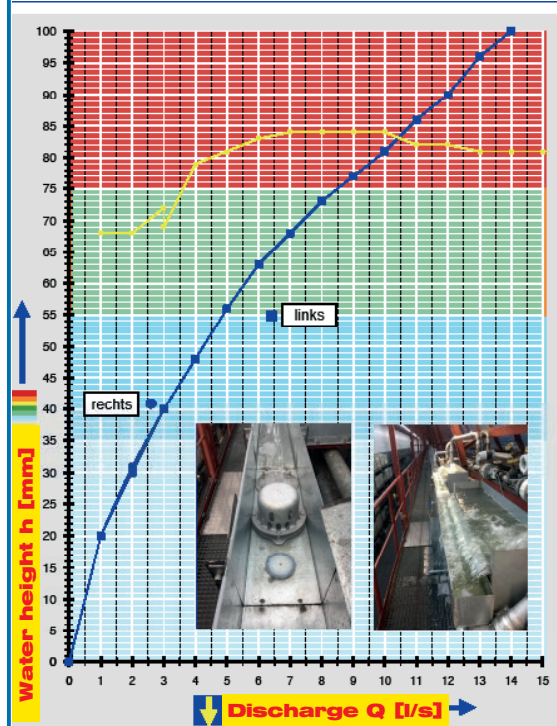
Discharge rate:	2.5 l/s
Water height:	35 mm
Roof penetration:	-
Diameter:	DN 70
LX-Number:	LX 3045
Weir height:	0 mm
Drain:	ventilated
Downpipe:	not ventilated
Downpipe height:	4.2 m
Drainage:	into ground pipe
Flange:	clamping flange

LX 3045 Piece list

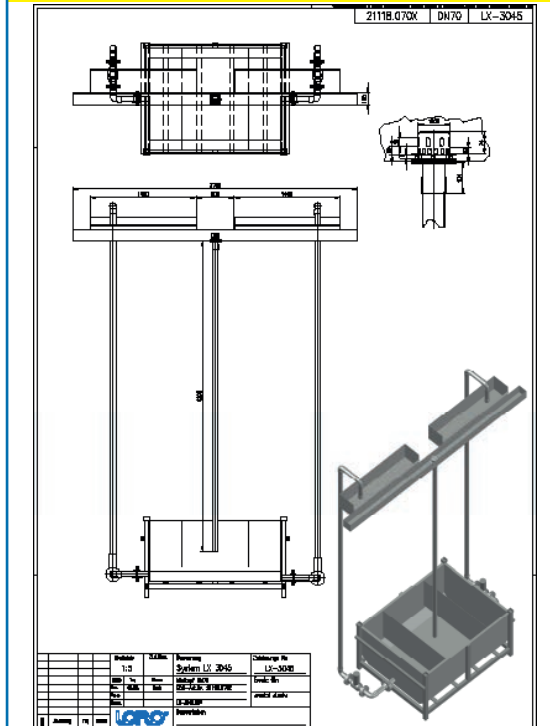
- 1 x Art.-No. 21118.070X, DRAINLET® Mini DN 70
- 1 x Art.-No. 01401.070X, LORO-X Pipe with one socket
- 1 x Art.-No. 01201.070X, LORO-X Pipe with one socket
- 1 x Art.-No. 01004.070X, LORO-X Pipe with one socket

- 1 x Art.-No. 05510.070X, LORO-X Standpipe
- 3 x Art.-No. 00911.070X, LORO-X Sealing element
- 1 x Art.-No. 00806.070X, LORO-X Anchor clip
- 1 x Art.-No. 00986.000X, LORO-X Lubricant

hQ - Discharge curve



CAD



Water height	mm	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Discharge	l/s	1,0	1,5	2,0	2,5	3,5	3,6	4,3	4,8	5,5	6,4	7,4	8,5	9,7	10,8	12,0	12,8	14,0
Silent Power																		

Specification Sheet LX 1490

Roof Drainage LORO-DRAINJET® Mini DN 50 in box gutter from 150 mm

Main drainage

Siphonic flow

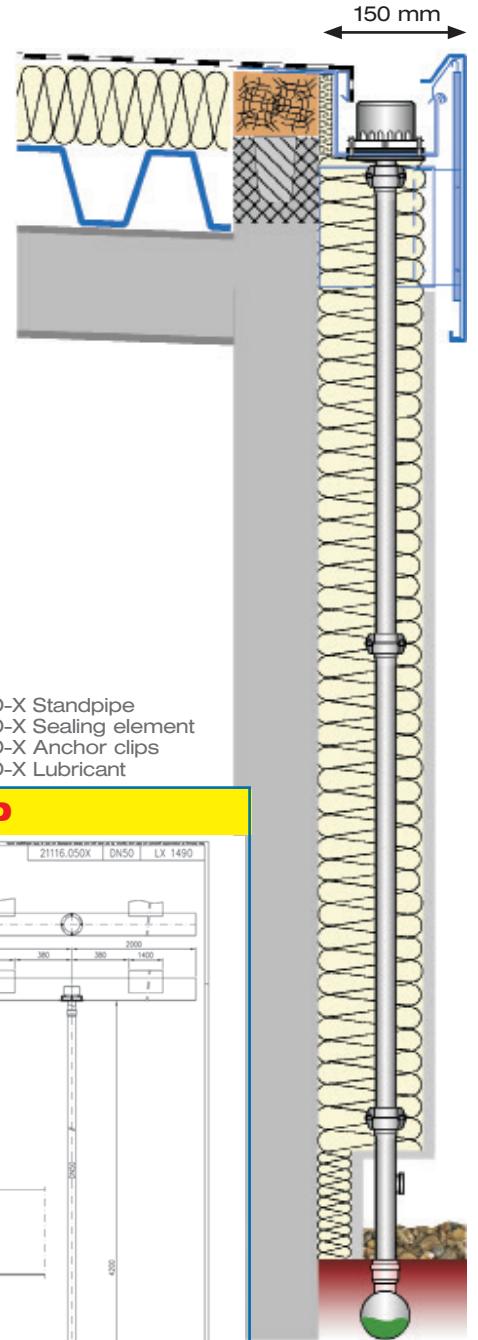
Silent Power

Discharge rate:	5.5 l/sec
Water height:	55 mm
Roof penetration:	-
Diameter:	DN 50
LX-Number:	LX 1490
Weir height:	0 mm
Drain:	not ventilated
Downpipe:	not ventilated
Downpipe height:	4.2 m
Drainage:	into ground pipe
Flange:	clamping flange

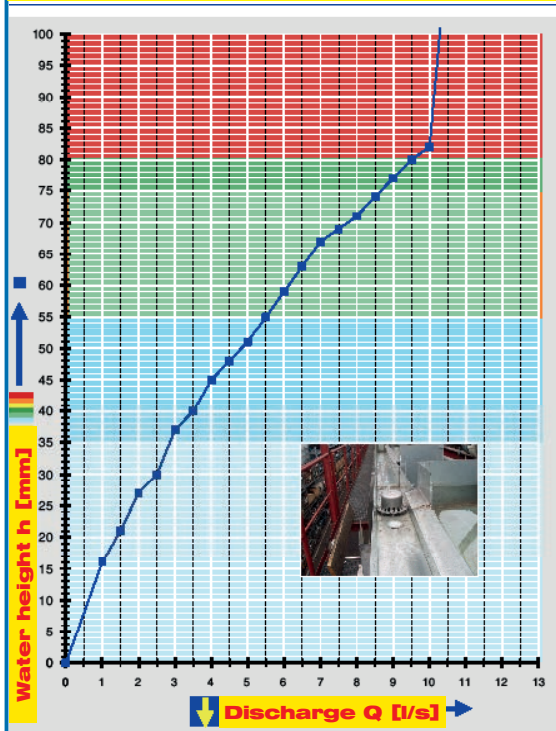
LX 1490 Piece list

- 1 x Art.-No. 21116.050X, DRAINJET® Mini DN 50
- 1 x Art.-No. 01401.050X, LORO-X Pipe with one socket
- 1 x Art.-No. 01201.050X, LORO-X Pipe with one socket
- 1 x Art.-No. 01004.050X, LORO-X Pipe with one socket

- 1 x Art.-No. 05510.050X, LORO-X Standpipe
- 6 x Art.-No. 00911.050X, LORO-X Sealing element
- 3 x Art.-No. 00806.050X, LORO-X Anchor clips
- 1 x Art.-No. 00986.000X, LORO-X Lubricant

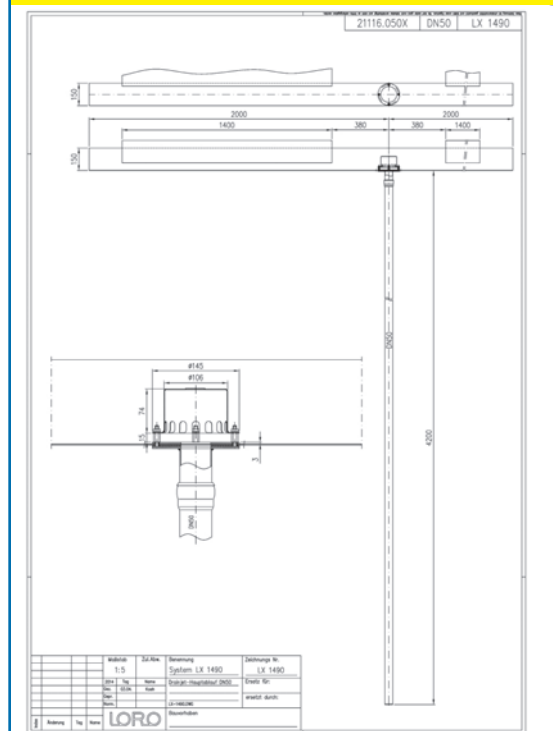


hQ - Discharge curve



System power

CAD

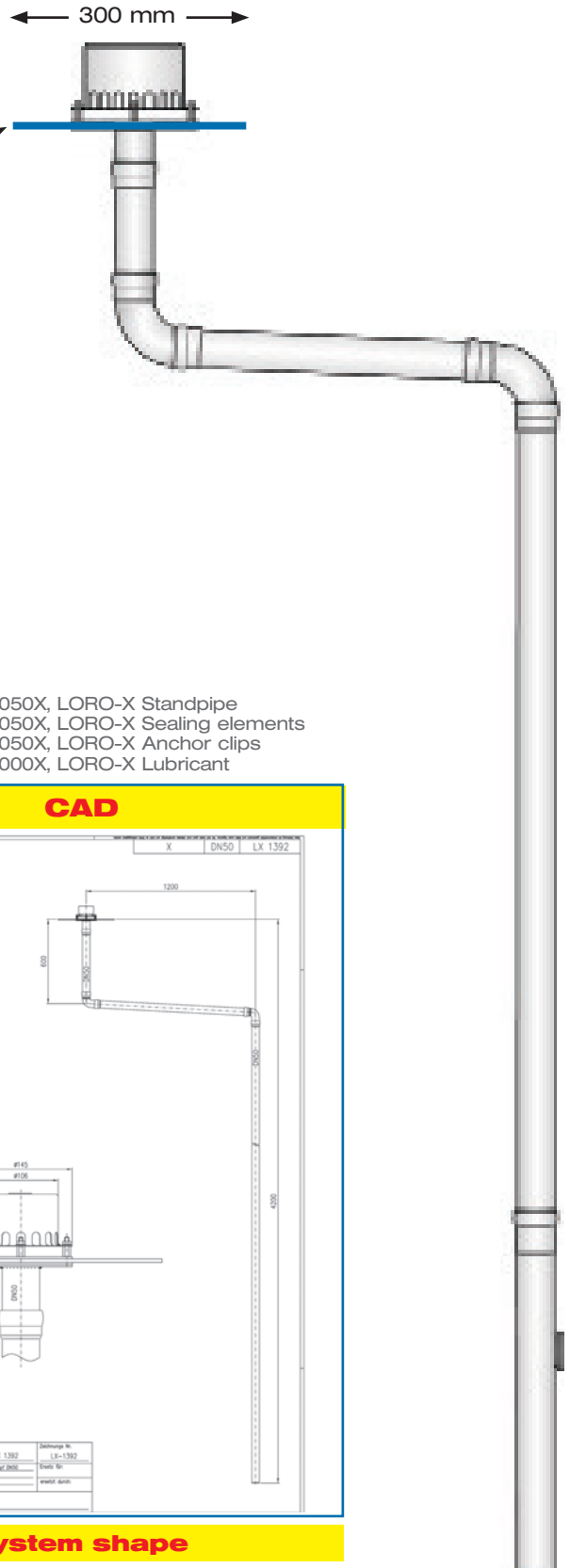


System shape

Water height	mm	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
Discharge	l/s				1,2	1,6	2,1	2,9	3,6	4,3	4,8	5,5	6,1	6,7	7,9	8,6
Silent Power																

Specification Sheet LX 1392

Roof Drainage LORO-DRAINJET® Mini DN 50 in box gutter from 300 mm

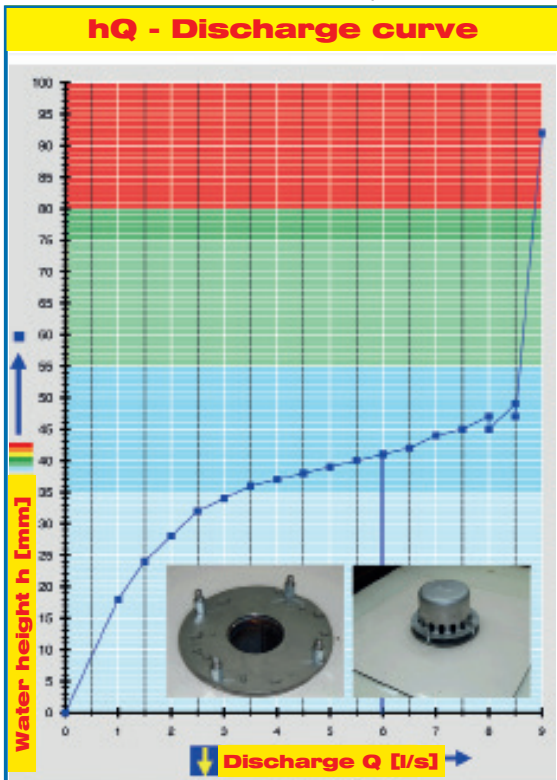


Main drainage	
Siphonic flow	
Silent Power	
Discharge rate:	8.5 l/sec
Water height:	55 mm
Roof penetration:	-
Diameter:	DN 50
LX-Number:	LX 1392
Weir height:	0 mm
Drain:	not ventilated
Downpipe:	not ventilated
Downpipe height:	4.2 m
Drainage:	into ground pipe
Flange:	clamping flange

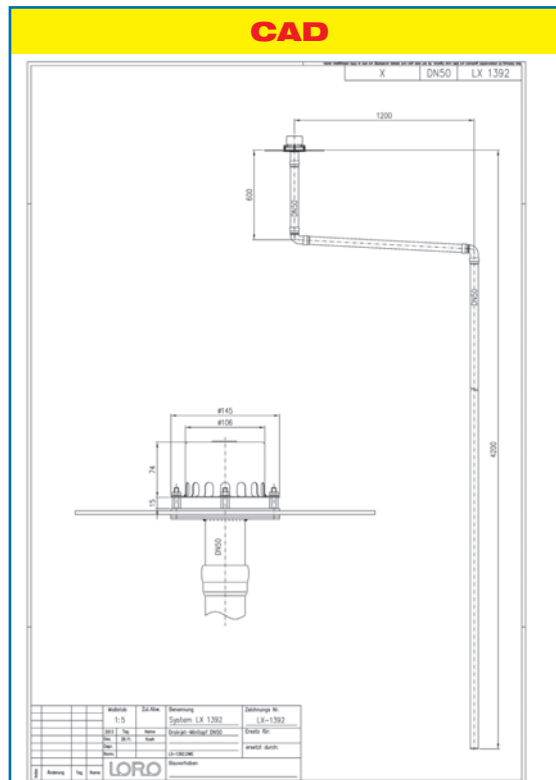
LX 1392 Piece list

- 1 x Art.-No. 21116.050X, DRAINJET® Mini DN 50
- 2 x Art.-No. 00350.050X, LORO-X Bend
- 1 x Art.-No. 01401.050X, LORO-X Pipe with one socket
- 1 x Art.-No. 01201.050X, LORO-X Pipe with one socket
- 1 x Art.-No. 01004.050X, LORO-X Pipe with one socket

- 1 x Art.-No. 05510.050X, LORO-X Standpipe
- 6 x Art.-No. 00911.050X, LORO-X Sealing elements
- 3 x Art.-No. 00806.050X, LORO-X Anchor clips
- 1 x Art.-No. 00986.000X, LORO-X Lubricant



System power



System shape

Water height	mm	5	10	15	20	25	30	35	40	45	47	55				
Discharge	l/s				1,2	1,6	2,2	3,2	5,5	7,5	8,0	8,5				
Silent Power																

Specification Sheet LX 3044

Roof Drainage LORO-DRAINJET® Mini DN 70 in box gutter from 150 mm

Main drainage

Siphonic flow

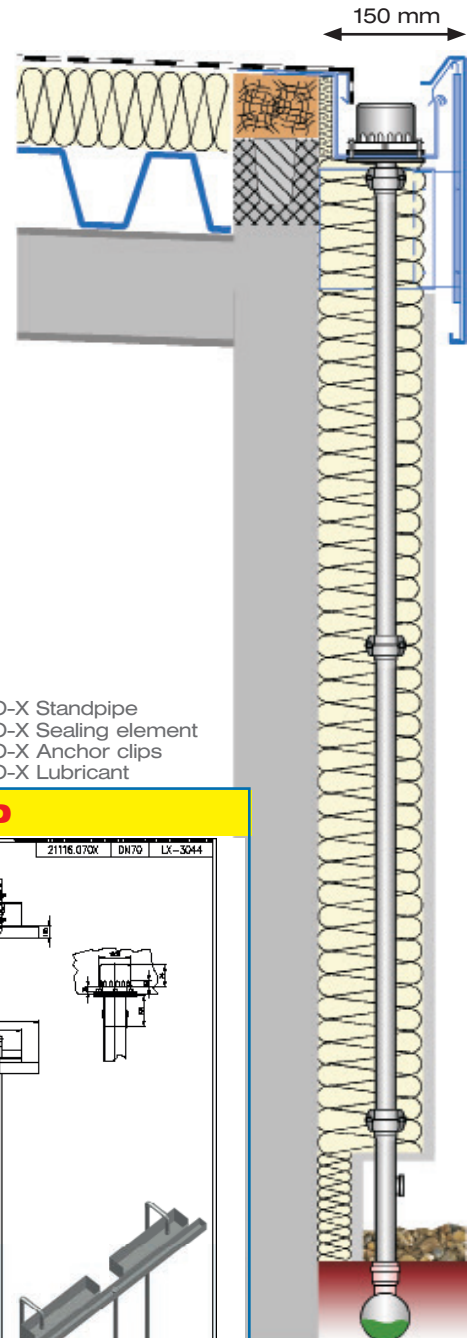
Silent Power

Discharge rate:	5.7 l/s
Water height:	55 mm
Roof penetration:	-
Diameter:	DN 70
LX-Number:	LX 3044
Weir height:	0 mm
Drain:	not ventilated
Downpipe:	not ventilated
Downpipe height:	4.2 m
Drainage:	into ground pipe
Flange:	clamping flange

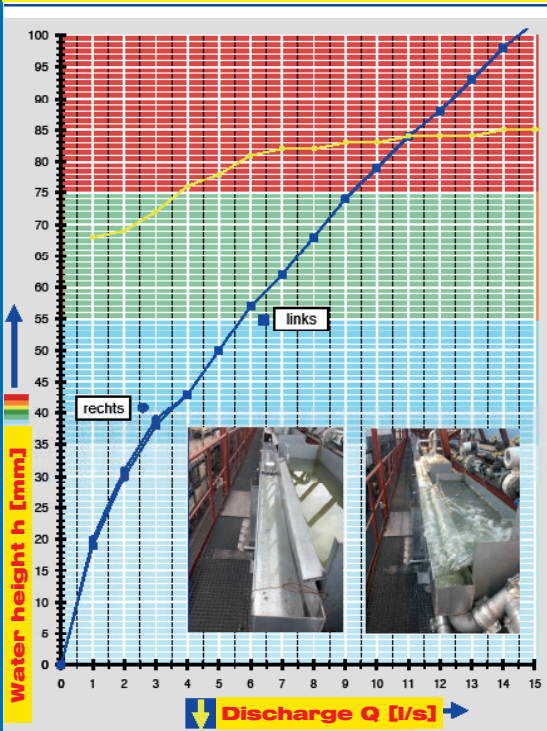
LX 3044 Piece list

1 x Art.-No. 21116.070X, DRAINJET® Mini DN 70
 1 x Art.-No. 01401.070X, LORO-X Pipe with one socket
 1 x Art.-No. 01201.070X, LORO-X Pipe with one socket
 1 x Art.-No. 01004.070X, LORO-X Pipe with one socket

1 x Art.-No. 05510.070X, LORO-X Standpipe
 6 x Art.-No. 00911.070X, LORO-X Sealing element
 3 x Art.-No. 00806.070X, LORO-X Anchor clips
 1 x Art.-No. 00986.000X, LORO-X Lubricant

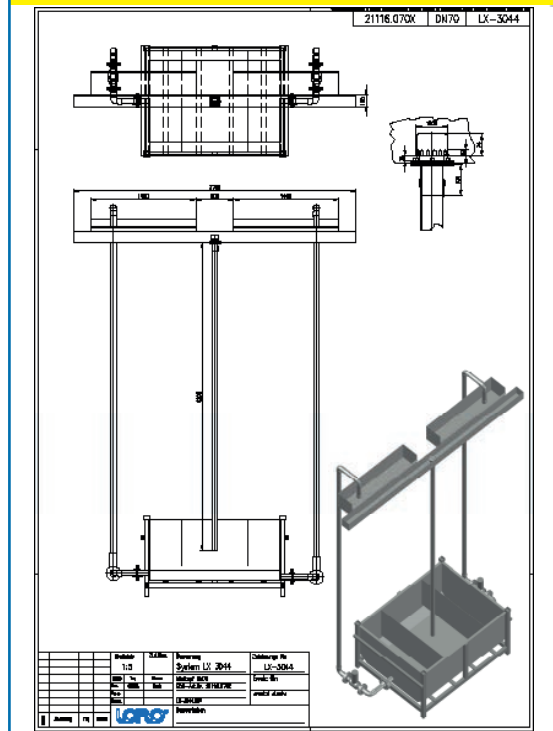


hQ - Discharge curve



System power

CAD



System shape

Water height	mm	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Discharge	l/s	1,1	1,5	2,0	2,5	3,4	4,3	5,0	5,7	6,6	7,6	8,4	9,2	10,2	11,3	12,4	13,4	14,5
Silent Power																		

Specification Sheet LX 1493

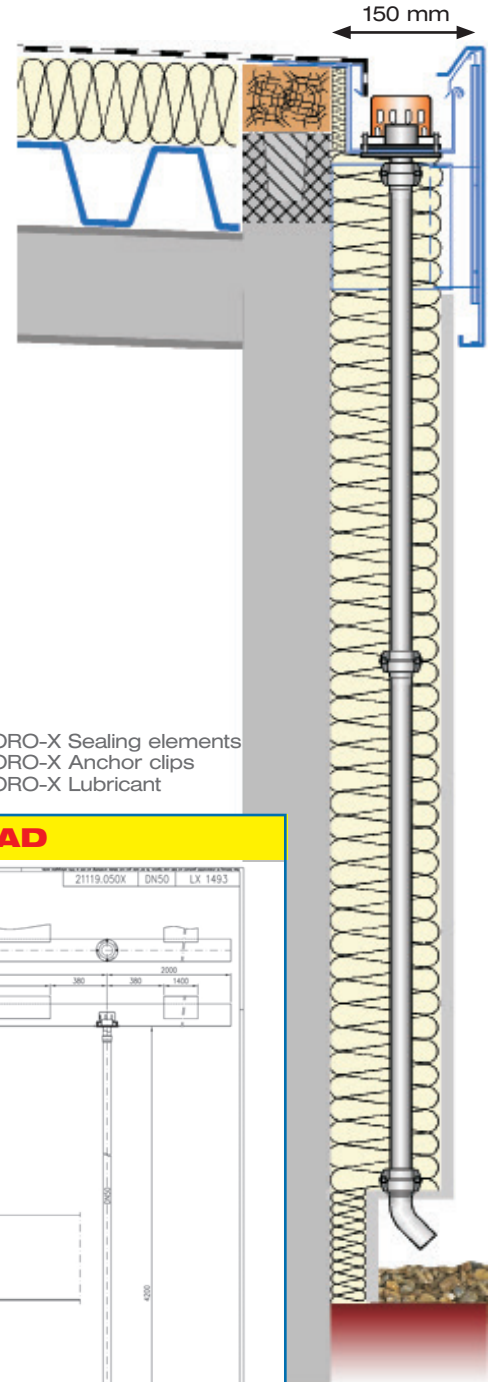
Roof Drainage LORO-DRAINLET® Mini DN 50 40 mm weir height in box gutter from 150 mm

Emergency drainage

Gravity flow

Silent Power

Discharge rate:	6.9 l/sec
Water height:	75 mm
Roof penetration:	-
Diameter:	DN 50
LX-Number:	LX 1493
Weir height:	40 mm
Drain:	ventilated
Downpipe:	not ventilated
Downpipe height:	4.2 m
Drainage:	into the open
Flange:	clamping flange

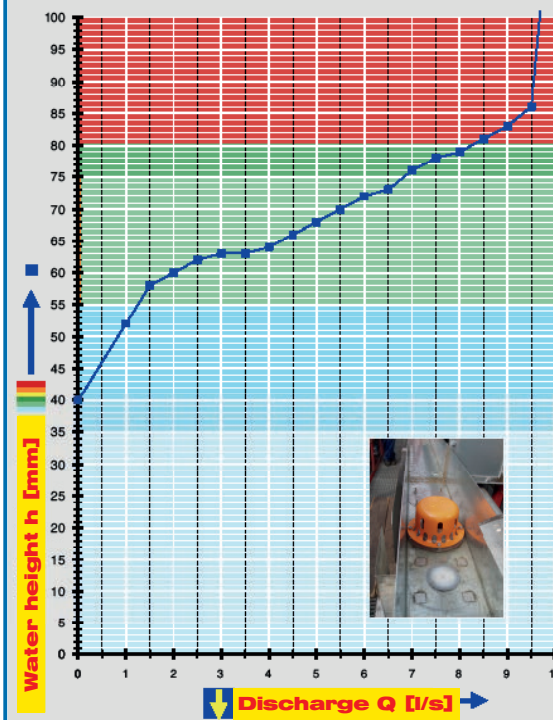


LX 1493 Piece list

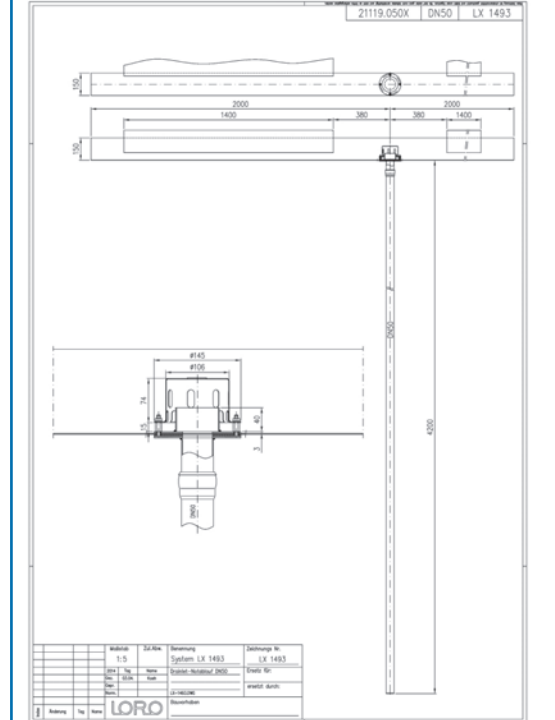
1 x Art.-No. 21119.050X, DRAINJET® Mini DN 50
 1 x Art.-No. 00320.050X, LORO-X Bend
 1 x Art.-No. 01011.050X, LORO-X Pipe with one socket

2 x Art.-No. 00911.050X, LORO-X Sealing elements
 2 x Art.-No. 00806.050X, LORO-X Anchor clips
 1 x Art.-No. 00986.000X, LORO-X Lubricant

hQ - Discharge curve



CAD



System power

System shape

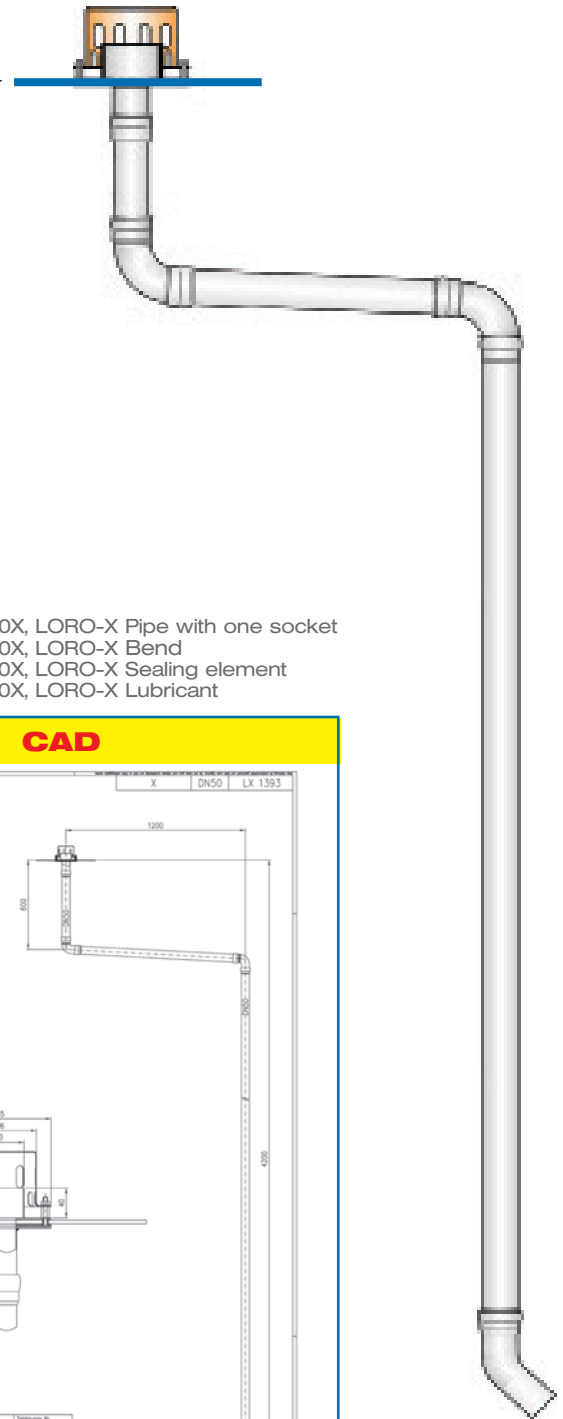
Water height	mm	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
Discharge	l/s												1,6	4,0	5,5	6,9
Silent Power																

Specification Sheet LX 1393

Roof Drainage
LORO-DRAINLET® Mini DN 50
40 mm weir height
for box gutter from 300 mm

← 300 mm →

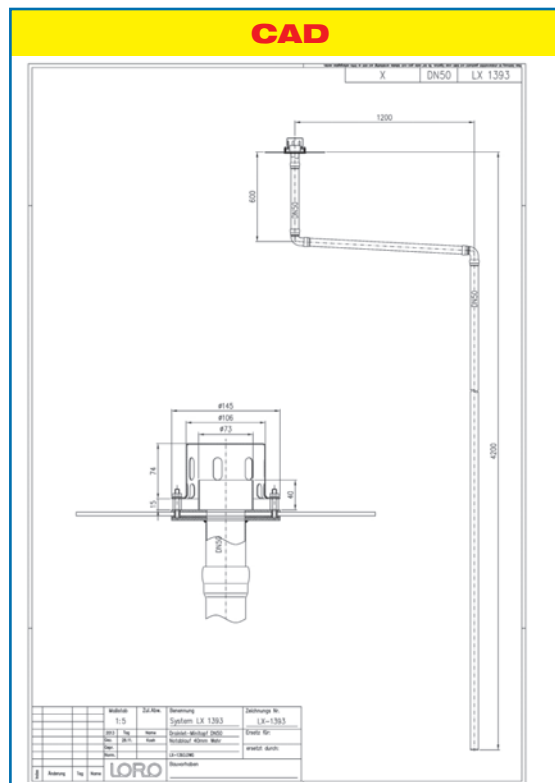
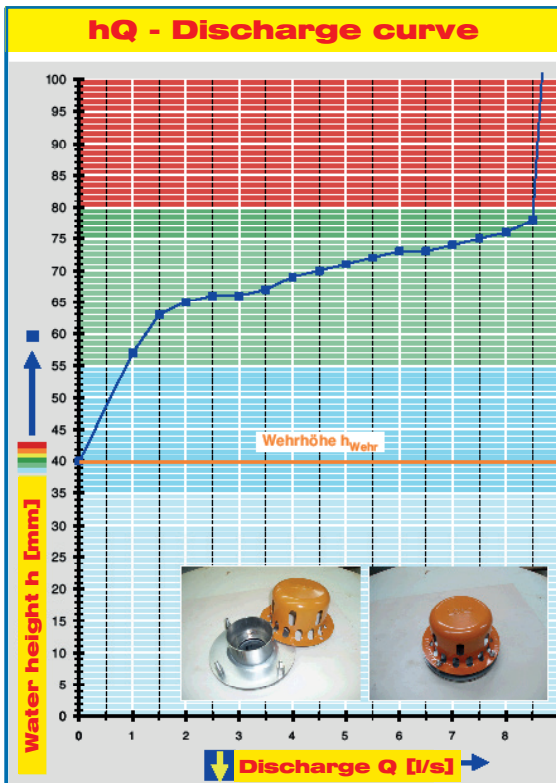
Emergency drainage	
Gravity flow	
Silent Power	
Discharge rate:	7.5 l/sec
Water height:	75 mm
Roof penetration:	-
Diameter:	DN 50
LX-Number:	LX 1393
Weir height:	40 mm
Drain:	ventilated
Downpipe:	not ventilated
Downpipe height:	4.2 m
Drainage:	into the open
Flange:	clamping flange



LX 1393 Piece list

- 1 x Art.-No. 21119.050X, DRAINLET® Mini DN 50
- 2 x Art.-No. 00350.050X, LORO-X Bend
- 1 x Art.-No. 01401.050X, LORO-X Pipe with one socket
- 1 x Art.-No. 01201.050X, LORO-X Pipe with one socket

- 1 x Art.-No. 01011.050X, LORO-X Pipe with one socket
- 1 x Art.-No. 00320.050X, LORO-X Bend
- 6 x Art.-No. 00911.050X, LORO-X Sealing element
- 1 x Art.-No. 00986.000X, LORO-X Lubricant



System power					System shape												
Water height	mm	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
Discharge	l/s												1,2	2,0	4,5	7,5	
Silent																	

Specification Sheet LX 3047

Roof Drainage LORO-DRAINLET® Mini DN 70 40 mm weir height in box gutter from 150 mm

Emergency drainage

Gravity flow

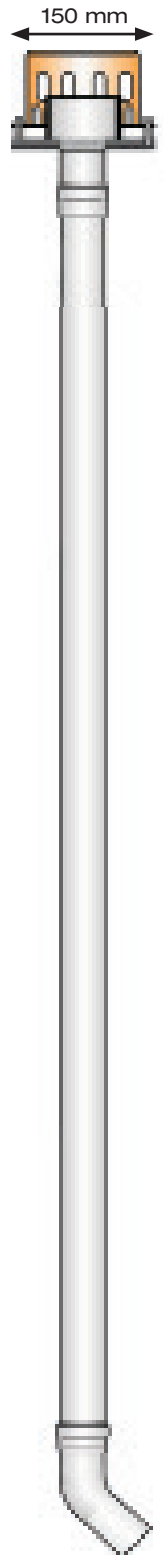
Silent Power

Discharge rate:	6.0 l/s
Water height:	75 mm
Roof penetration:	-
Diameter:	DN 70
LX-Number:	LX 3047
Weir height:	40 mm
Drain:	ventilated
Downpipe:	not ventilated
Downpipe height:	4.2 m
Drainage:	into the open
Flange:	clamping flange

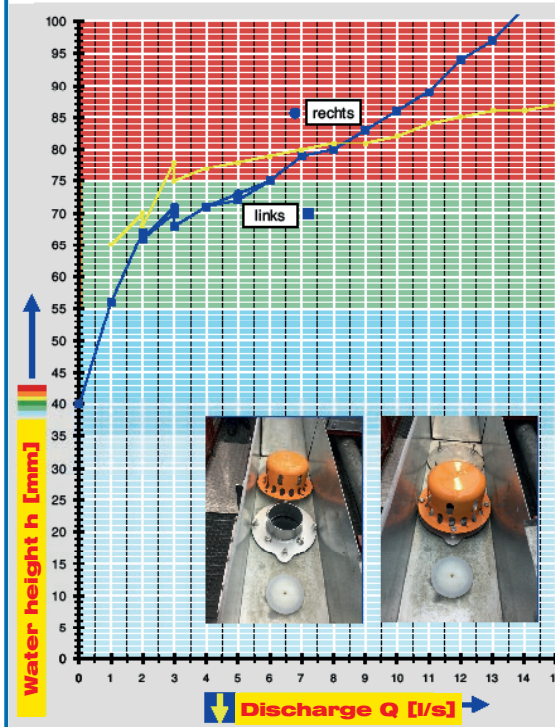
LX 3047 Piece list

1 x Art.-No. 21119.070X, DRAINLET® Mini DN 70
1 x Art.-No. 00320.070X, LORO-X Bend
1 x Art.-No. 01011.070X, LORO-X Pipe with one socket

2 x Art.-No. 00911.070X, LORO-X Sealing element
2 x Art.-No. 00806.070X, LORO-X Anchor clip
1 x Art.-No. 00986.000X, LORO-X Lubricant

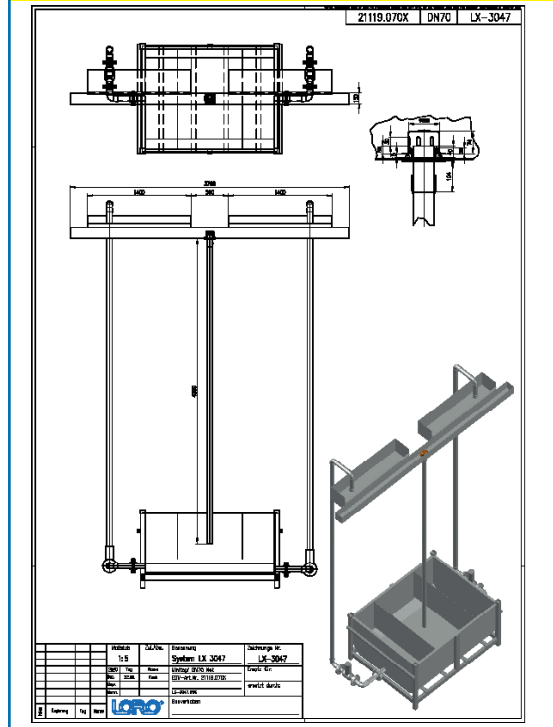


hQ - Discharge curve



System power

CAD



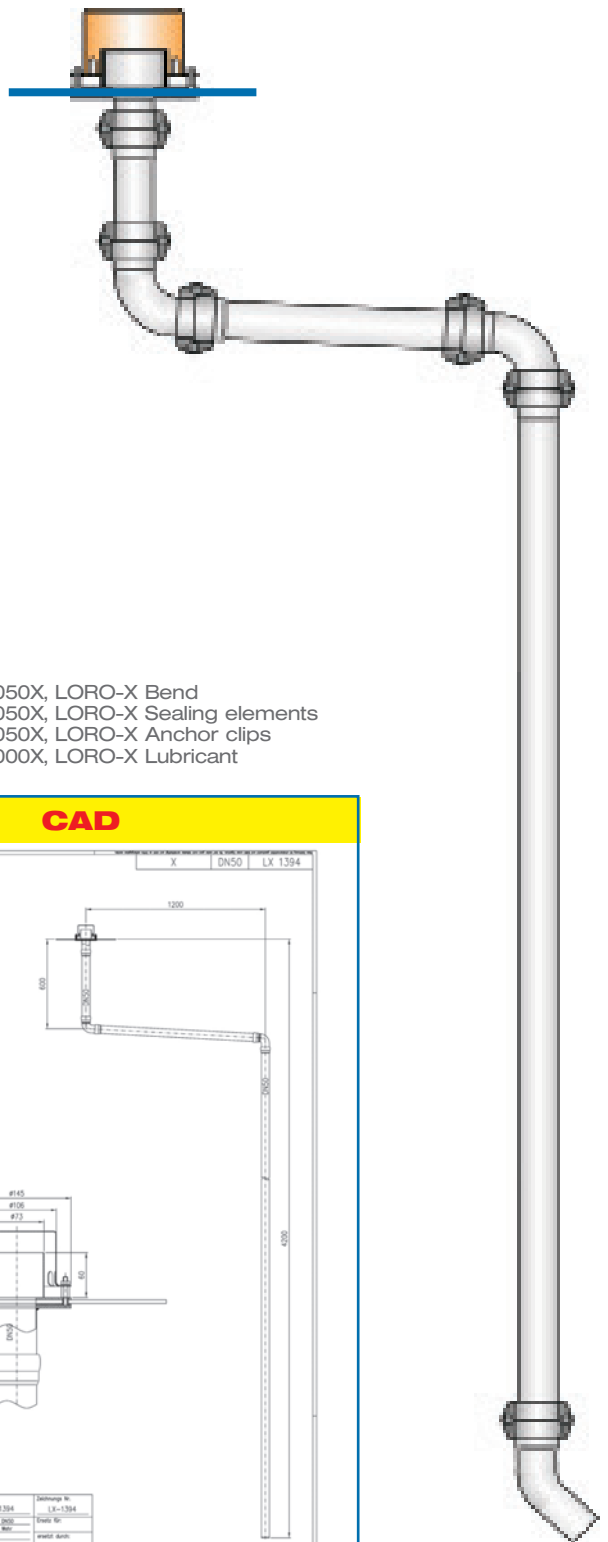
System shape

Water height	mm	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Discharge	l/s	-	-	-	-	-	0,5	0,6	1,0	1,4	1,8	3,0	6,0	8,0	9,6	11,2	12,3	13,6
Silent Power																		

Specification Sheet LX 1394

Roof Drainage
LORO-DRAINJET® Mini DN 50
60 mm weir height
in box gutter from 300 mm

← 300 mm →

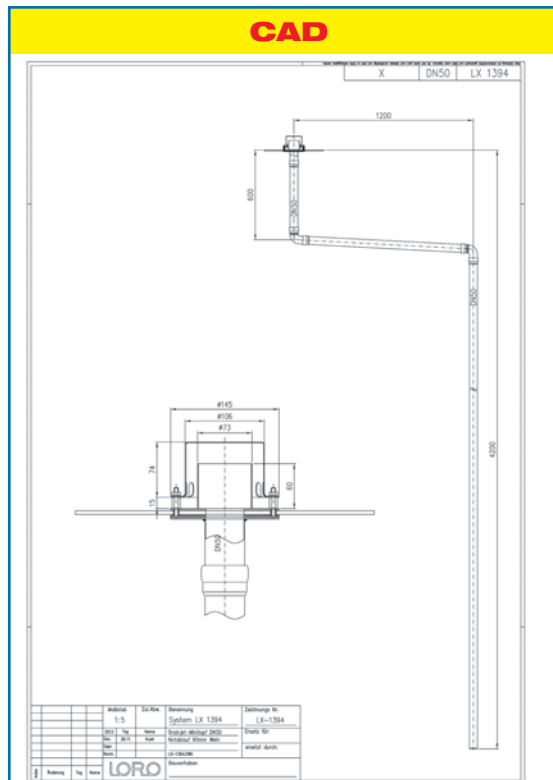
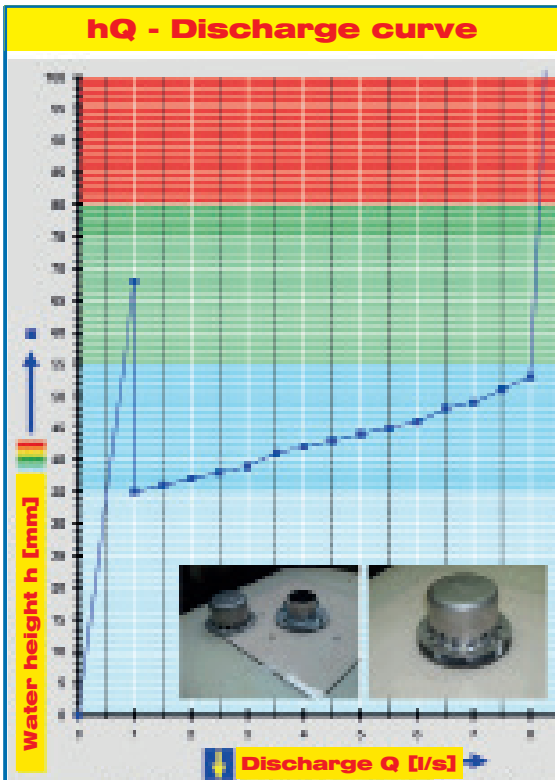


Emergency drainage	
Siphonic flow	
Silent Power	
Discharge rate:	8,0 l/sec
Water height:	75 mm
Roof penetration:	-
Diameter:	DN 50
LX-Number:	LX 1394
Weir height:	60 mm
Drain:	not ventilated
Downpipe:	not ventilated
Downpipe height:	4,2 m
Drainage:	into the open
Flange:	clamping flange

LX 1394 Piece list

- 1 x Art.-No. 21117.050X, DRAINJET® Mini DN 50
- 2 x Art.-No. 00350.050X, LORO-X Bend
- 1 x Art.-No. 01401.050X, LORO-X Pipe with one socket
- 1 x Art.-No. 01201.050X, LORO-X Pipe with one socket
- 1 x Art.-No. 01011.050X, LORO-X Pipe with one socket

- 1 x Art.-No. 00320.050X, LORO-X Bend
- 3 x Art.-No. 00911.050X, LORO-X Sealing elements
- 1 x Art.-No. 00806.050X, LORO-X Anchor clips
- 1 x Art.-No. 00986.000X, LORO-X Lubricant



System power

System shape

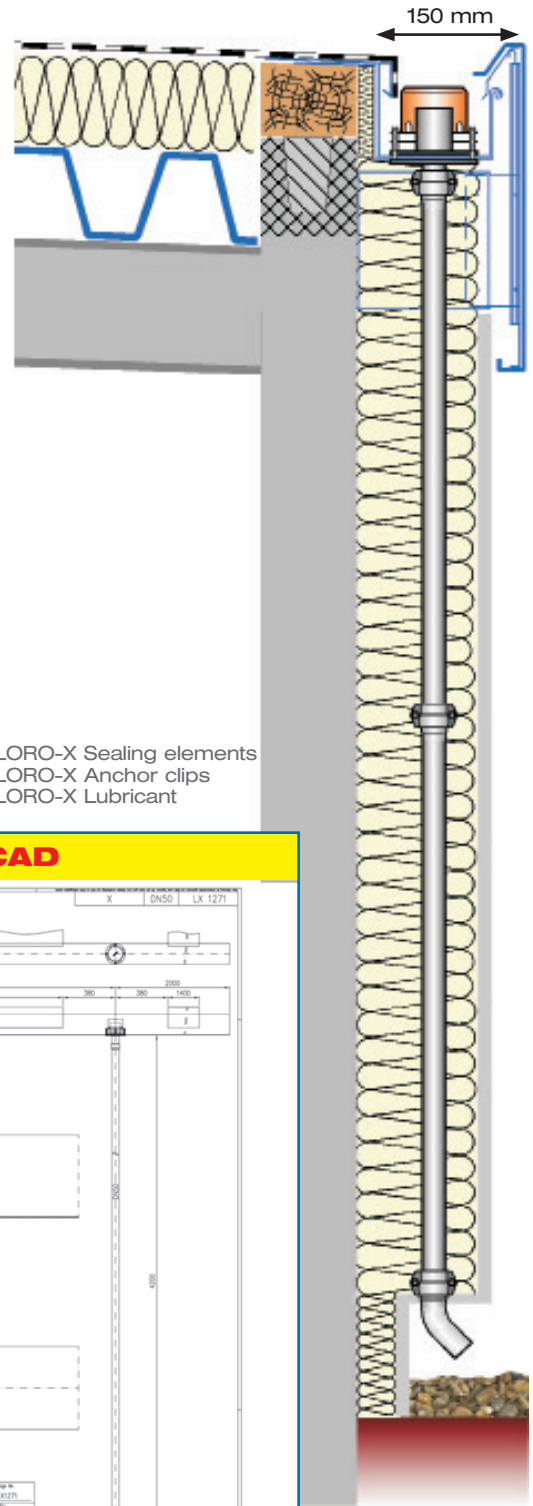
Water height	mm	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
Discharge	l/s														8,0	8,0
Silent Power																

Specification Sheet LX 1271

Roof Drainage

LORO-DRAINJET® Mini emergency drain,
80 mm weir height
in box gutter from 150 mm

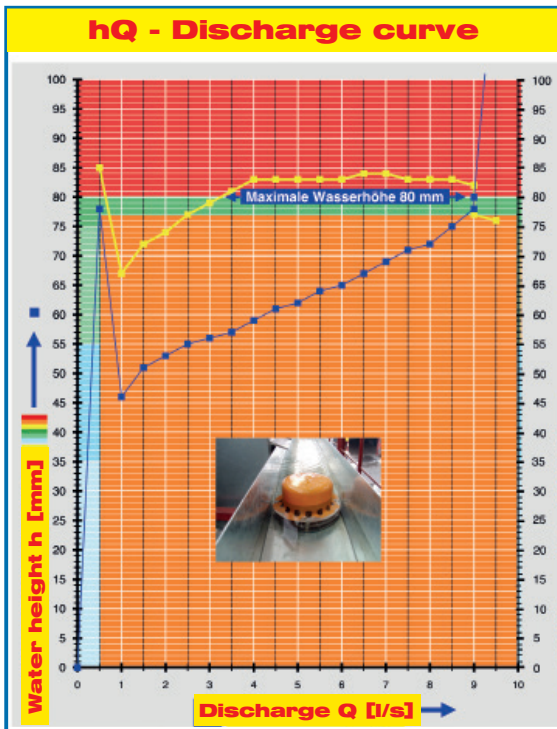
Emergency drainage	
Siphonic flow	
Power	
Discharge rate:	9.0 l/sec
Water height:	80 mm
Roof penetration:	-
Diameter:	DN 50
LX-Number:	LX 1271
Weir height:	80 mm
Drain:	not ventilated
Downpipe:	not ventilated
Downpipe height:	4.2 m
Drainage:	into the open
Flange:	clamping flange



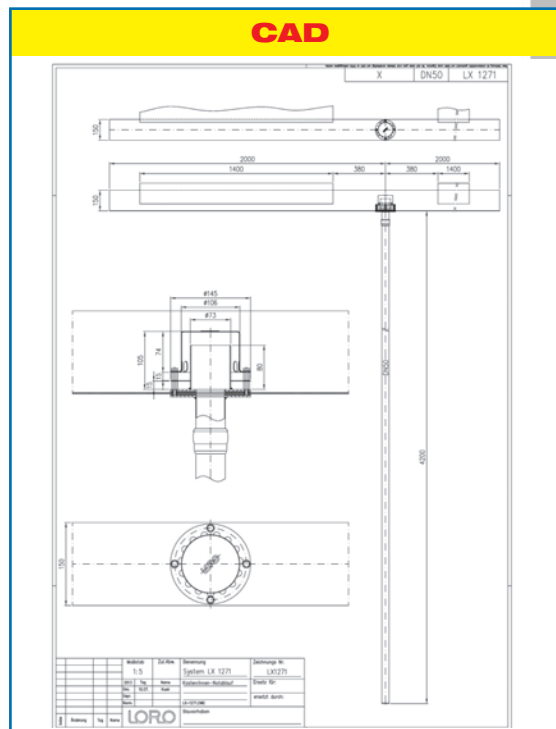
LX 1271 Piece list

- 1 x Art.-No. 21120.050X, DRAINJET® Mini DN 50
- 1 x Art.-No. 01011.050X, LORO-X Pipe with one socket
- 1 x Art.-No. 00320.050X, LORO-X Bend

- 1 x Art.-No. 00911.050X, LORO-X Sealing elements
- 1 x Art.-No. 00806.050X, LORO-X Anchor clips
- 1 x Art.-No. 00986.000X, LORO-X Lubricant



System power



System shape

Water height	mm	25	30	35	40	45	50	55	60	65	70	75	77	80	85	90
Discharge	l/s	-	-	-	-	-	-	-	-	-	-	-	-	9,0	9,0	9,0
Power																

Specification Sheet LX 3046

Roof Drainage LORO-DRAINJET® Mini DN 70

**60 mm weir height
in box gutter from 150 mm**

Emergency drainage

Siphonic flow

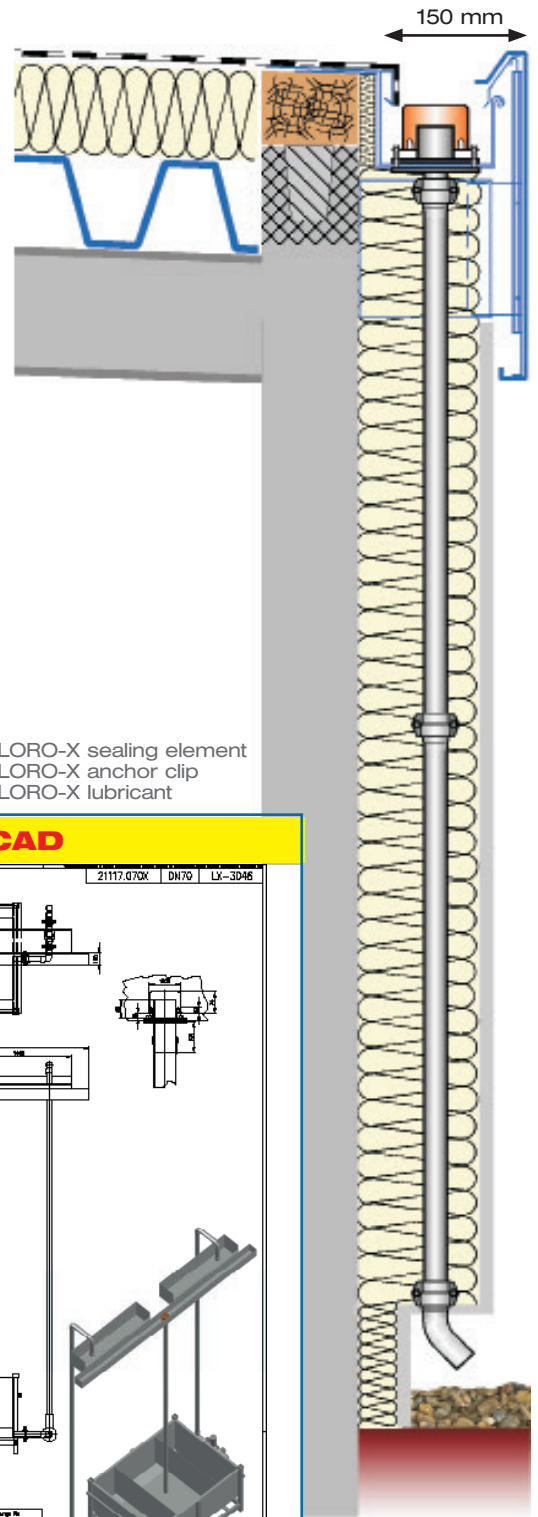
Silent Power

Discharge rate:	13.2 l/s
Water height:	95 mm
Roof penetration:	-
Diameter:	DN 70
LX-Number:	LX 3046
Weir height:	60 mm
Drain:	not ventilated
Downpipe:	not ventilated
Downpipe height:	4.2 m
Drainage:	into the open
Flange:	clamping flange

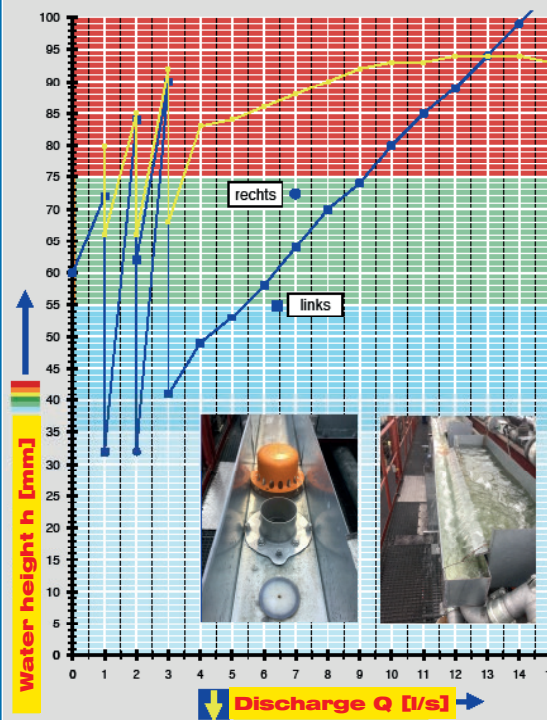
LX 3046 Piece list

1 x Art.-No. 21117.070X, DRAINJET® Mini DN 70
1 x Art.-No. 00320.070X, LORO-X bend
1 x Art.-No. 01011.070X, LORO-X pipe with one socket

2 x Art.-No. 00911.070X, LORO-X sealing element
2 x Art.-No. 00806.070X, LORO-X anchor clip
1 x Art.-No. 00986.000X, LORO-X lubricant

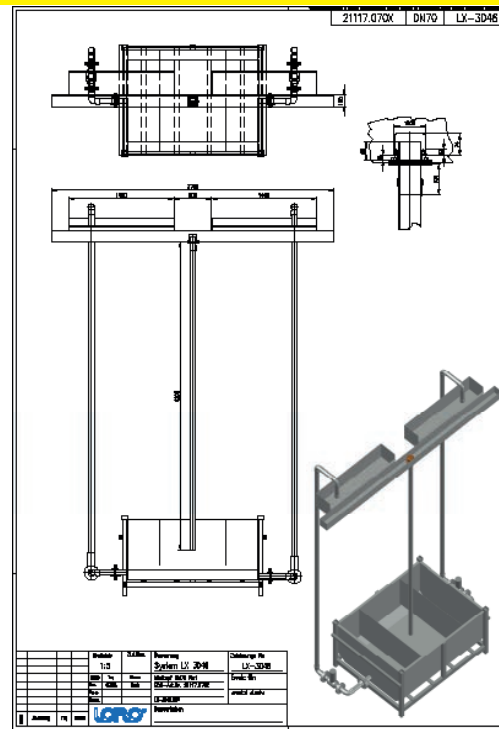


hQ - Discharge curve



System power

CAD



System shape

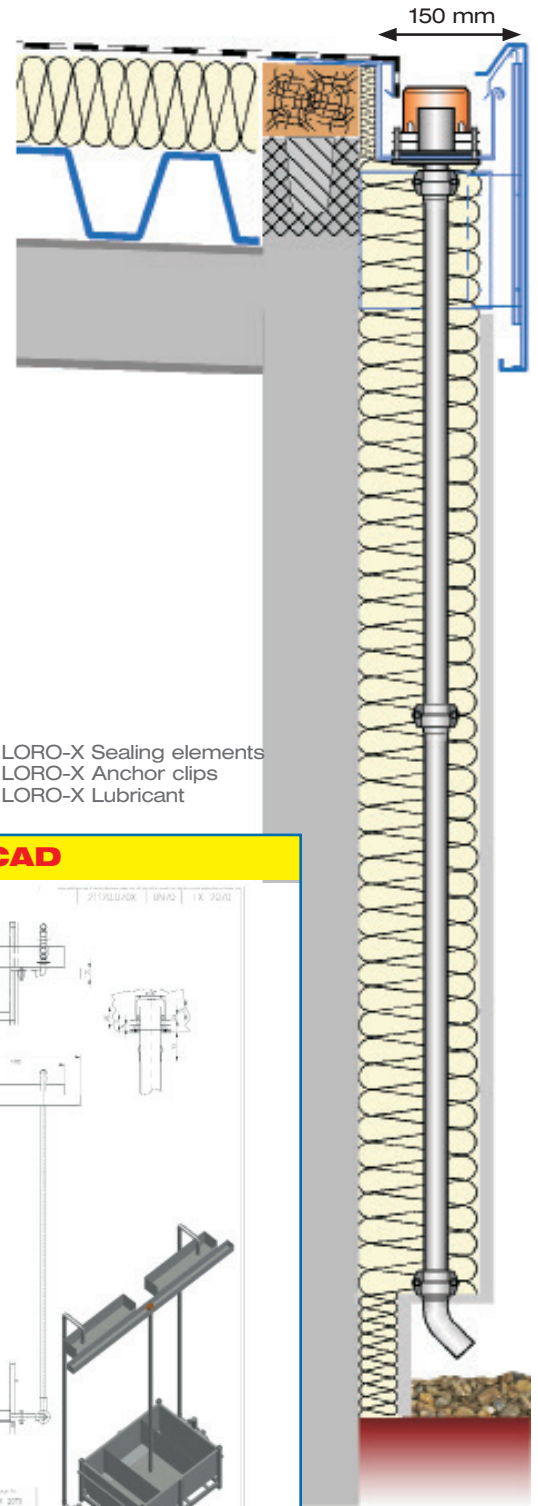
Water height	mm	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Discharge	l/s	-	-	-	-	-	-	-	-	-	-	-	1,8	1,9	2,8	12,2	13,2	14,2
Silent Power																		

Specification Sheet LX 2070

Roof Drainage

**LORO-DRAINJET[®] Mini emergency drain,
80 mm weir height
in box gutter from 150 mm**

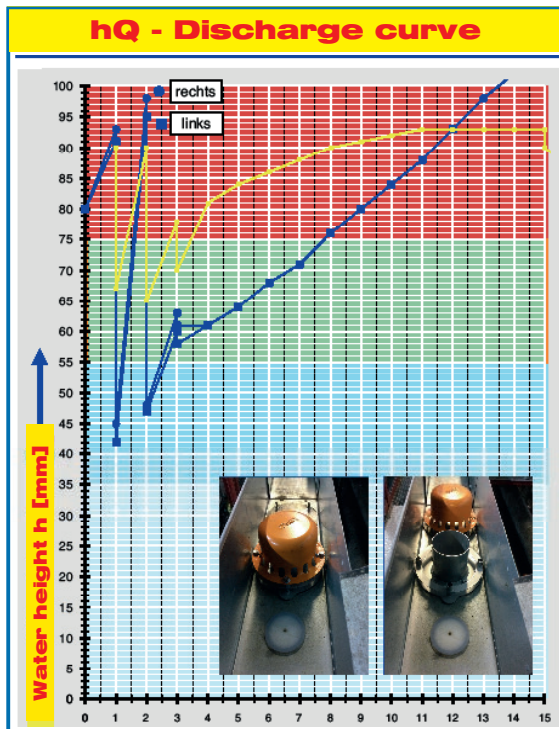
Emergency drainage	
Siphonic flow	
Power	
Discharge rate:	9.0 l/sec
Water height:	80 mm
Roof penetration:	-
Diameter:	DN 50
LX-Number:	LX 1271
Weir height:	80 mm
Drain:	not ventilated
Downpipe:	not ventilated
Downpipe height:	4.2 m
Drainage:	into the open
Flange:	clamping flange



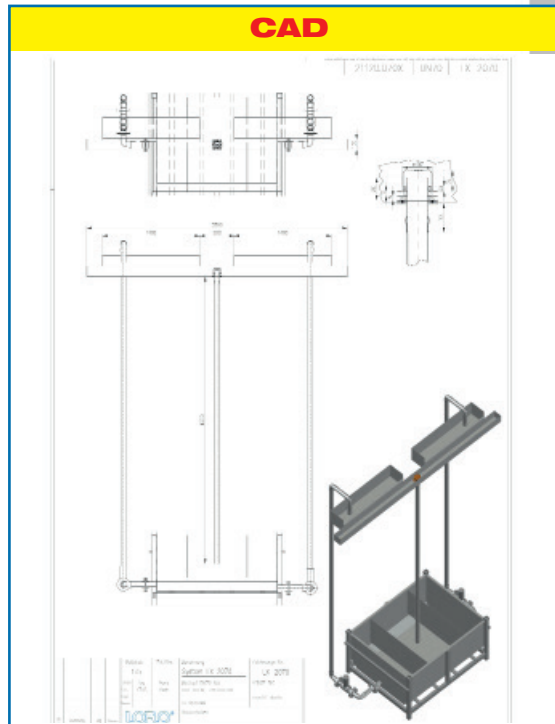
LX 1271 Piece list

- 1 x Art.-No. 21120.050X, DRAINJET[®] Mini DN 50
- 1 x Art.-No. 01011.050X, LORO-X Pipe with one socket
- 1 x Art.-No. 00320.050X, LORO-X Bend

- 1 x Art.-No. 00911.050X, LORO-X Sealing elements
- 1 x Art.-No. 00806.050X, LORO-X Anchor clips
- 1 x Art.-No. 00986.000X, LORO-X Lubricant












System power



System shape

Water height	mm	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Discharge	l/s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,4	13,5
		Power																

LORO-X Piece list
LX1394

Pos.	Qty.	Article	Long text	Unit price	Picture	Total price
1	1x	21117.050X	LORO-X DRAINJET-Mini, Series 49 (DJ) one-piece with thermal insulation, vertical runoff, for emergency drainage with siphonic flow, discharge rate 8.0 l/s at a water height of 75 mm on the roof, with clamping flange as loose and fixed flange construction including compression seal, for bituminous and plastic sealing sheets, DRAINJET-Mini cover made of stainless steel, in accordance with DIN EN 1253 with raised quality standard in accordance with RAL quality mark GZ-694, proof of performance with standard test system with 4.2 m non-ventilated downpipe according to LX-specification sheet LX1394, made of stainless steel, DN 50 ABM1: 50			
2	1x	01401.050X	LORO-X pipe, made of steel, hot-dip galvanized, in accordance with DIN EN 1123, with raised quality standard in accordance with RAL quality mark GZ-694, with 2-chamber push-fit socket connection, fire protection class A1, dimensionally stable, break-proof, backflow-safe, long-life inside coating according to DIN EN ISO 2178 on the basis of a 2-component epoxy combination, color: red-brown, 250 mm + 1 socket, DN 50 ABM1: 50			
3	1x	00350.050X	LORO-X bend with short radius, made of steel, hot-dip galvanized, in accordance with DIN EN 1123, with raised quality standard in accordance with RAL quality mark GZ-694, with 2-chamber push-fit socket connection, fire protection class A1, dimensionally stable, break-proof, backflow-safe, long-life inside coating in accordance with DIN EN ISO 2178 on the basis of a 2-component-epoxy combination, color: red-brown, 87 degree, DN 50 ABM1: 50			
4	1x	XXX	LORO-X pipe, made of steel, hot-dip galvanized, in accordance with DIN EN 1123, with raised quality standard in accordance with RAL quality mark GZ-694, with 2-chamber push-fit socket connection, fire protection class A1, dimensionally stable, break-proof, backflow-safe, long-life inside coating according to DIN EN ISO 2178 on the basis of a 2-component-epoxy-combination, color: red-brown, 1000 mm, + 1 socket, DN 50 ABM1: 50			
5	1x	01011.050X	LORO-X pipe, made of steel, hot-dip galvanized, in accordance with DIN EN 1123, with raised quality standard in accordance with RAL quality mark GZ-694, with 2-chamber push-fit socket connection, fire protection class A1, dimensionally stable, break-proof, backflow-safe, long-life inside coating in accordance with DIN EN ISO 2178 on the basis of a 2-component-epoxy-combination, color: red-brown, 4000 mm, + 1 socket, DN 50 ABM1: 50			
6	1x	00320.050X	LORO-X bend, made of steel, hot-dip galvanized, in accordance with DIN EN 1123, with raised quality standard in accordance with RAL quality mark GZ-694, with 2-chamber push-fit socket connection, fire protection class A1, dimensionally stable, break-proof, backflow-safe, long-life inside coating in accordance with DIN EN ISO 2178 on the basis of a 2-component-epoxy-combination, color: red-brown, 45 degree, DN 50 ABM1: 50			
7	6x	00911.050X	LORO-X sealing element made of elastomer, for LORO-X push-fit socket connection, DN 50 ABM1: 50			
8	4x	00806.050X	LORO-X anchor clip, made of steel, hot-dip galvanized, in accordance with DIN EN 1123, with raised quality standard in accordance with RAL quality mark GZ-694, for axial locking for pressurized pipes, DN 50 ABM1: 50			
9	1x	00986.000X	LORO-X lubricant 250 gramm			

Tender Text Example LX1394

Requirement position box gutters emergency drainage system

Box gutter emergency drainage as fluidically optimised complete system with backflow-proof and break-proof DN 50 steel discharge pipe.
 Installation place: metallic box gutter.

Delivery, professional and height-adequate installation of the box gutter drain in the metallic box gutter as well as professional installation of further system parts (fittings and pipes) according to proof of performance.

The installation has to take place strictly according to the manufacturer information of the box gutter system supplier or of the drainage system producer! Possibly required steps regarding the installation (beforehand into the emergency sealing) have to be calculated into the unit price.

Only absolutely comparable and proved systems are allowed!

Technical specification of the essential features:

Emergency drainage with siphonic flow, Silent-Power, DN 50, cover: not ventilated, downpipe: not ventilated, downpipe height: from 4.2 m, discharge into the open, discharge: 8.5 l/s at a water height of 75 mm in the box gutter.

Complete system consisting of:

Drain 21117.050X: LORO-X DRAINJET-Mini emergency drain, Series 49 (DJ) one-piece with thermal insulation, vertical runoff with clamping flange, horizontal offset, pipes, branches, securing clamps, sealing elements and lubricant

Further LORO-X pipes and fittings including sealing elements, lubricant and clips according to the piece list available in the online product data base on www.loro-x.com in specification sheet **LX1394**

or equal.

In the case of alternative quotes, the contractor has to bindingly prove the following:

- proof of the discharge rate as curve or table (for discharge rate and water height)
- proof of equivalent construction (for penetration depth and nominal diameter)
- proof of equivalent material features (metallic, incombustible, shockproof)
- quality, price, technical values, aesthetics, functionality, environmental features, operating costs, profitability, customer service and technical support, delivery date and delivery or execution period.

Quote. Company: (to be completed bindingly by the contractor)

Calculating the rainfall intensity

Choosing a suitable complete system

1. Calculation

2. Configurator

www.loro.de -> Calculation

www.loro.de -> Configurator



For the calculation of the required discharge rate, the following 3 details are needed:

- size of the roof area in square meter
- roof structure
- local rain intensity

The result of the online-calculation is the required discharge rate in liter per second. The calculated discharge rate will be transferred to the online-configurator.

With help of the LORO-X online-configurator a suitable LORO-X roof drainage system can be chosen. The following features are considered:

- drainage path (parapet or roof)
- type of drainage (main or emergency)
- type of flow (gravity or siphonic)
- nominal diameter of the pipe system (DN)
- connection to sealing sheet (bituminous or PVC)
- penetration depth into the thermal insulation

After successful completion of the configuration, a list of suitable LX-systems will be generated „under“ the configurator.

If you have used the online-calculation as first step, the software automatically generates the required number of available LX-systems.

The chosen LX-system including the required number will then be forwarded to the LORO-X product data base.

Downloading the specification

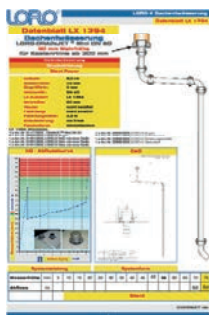
Generating tender and quote

3. Product data base

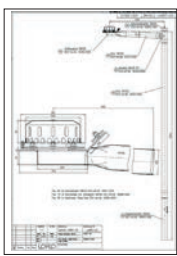
www.loro.de -> Product data base

4. Tender

www.loro.de -> Tender



LX specification sheet as .pdf



2D-CAD .pdf, .dxf and .dwg



3D-CAD as .dwg

Leistungsverzeichnis für

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Pos.	Menge	Artikel	Langtext	Einzelpreis	Foto	Gesamtpreis
1	1	21117.050X	LORO-X DRAINJET-Mini Serie 49(DJ) einseitig mit Wärmedämmung Auslauf senkrecht, für Notentwässerung mit Druckströmung, Abflussleistung 8,0 l/s bei 75 mm Wasserhöhe auf dem Dach, mit Klemmfansch als Los- und Festflanschkonstruktion, für metallische Kastenrinnen, DRAINJET-Mini Haube aus Edelstahl, nach DIN EN 1253 mit erhöhtem Qualitätsstandard gemäß RAL-Gütezeichen GZ-694, Leistungsnachweis mit normgerechtem Prüfsystem mit 4,2m nicht belüfteter Fällleitung gemäß LX Datenblatt LX1994, aus Edelstahl, DN 50 ABM1: 50 Gewicht: 1.3 kg Außenmaß: H 145mm x B: 145mm			

The LORO-X online product database provides the following details for every single article (ca. 2500 different ones) as well as for every complete LX specification sheet:

- LX specification sheet
- 2D and 3D drawing as CAD-file (.dwg)
- 2D drawing as PDF-document
- tender texts
- article number, photo, weight, nominal diameter, EAN-code, customs tariff number
- installation instruction and application examples

The LORO-X online tender generates a complete quote or tender from a list of articles. Every new generated quote receives a clear identification number and a password. Using these, you can open the quote at any time and make adjustments:

- .pdf file
- .csv file (import e. g. in Excel)
- .X81 file (GAEB XML)

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