

Above-ground rainwater and storage tanks



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1 GENERAL INFORMATION

1.1 SAFETY RULES AND GOOD PRACTICE

THE INSTALLER IS RESPONSIBLE FOR THE FOLLOWING:

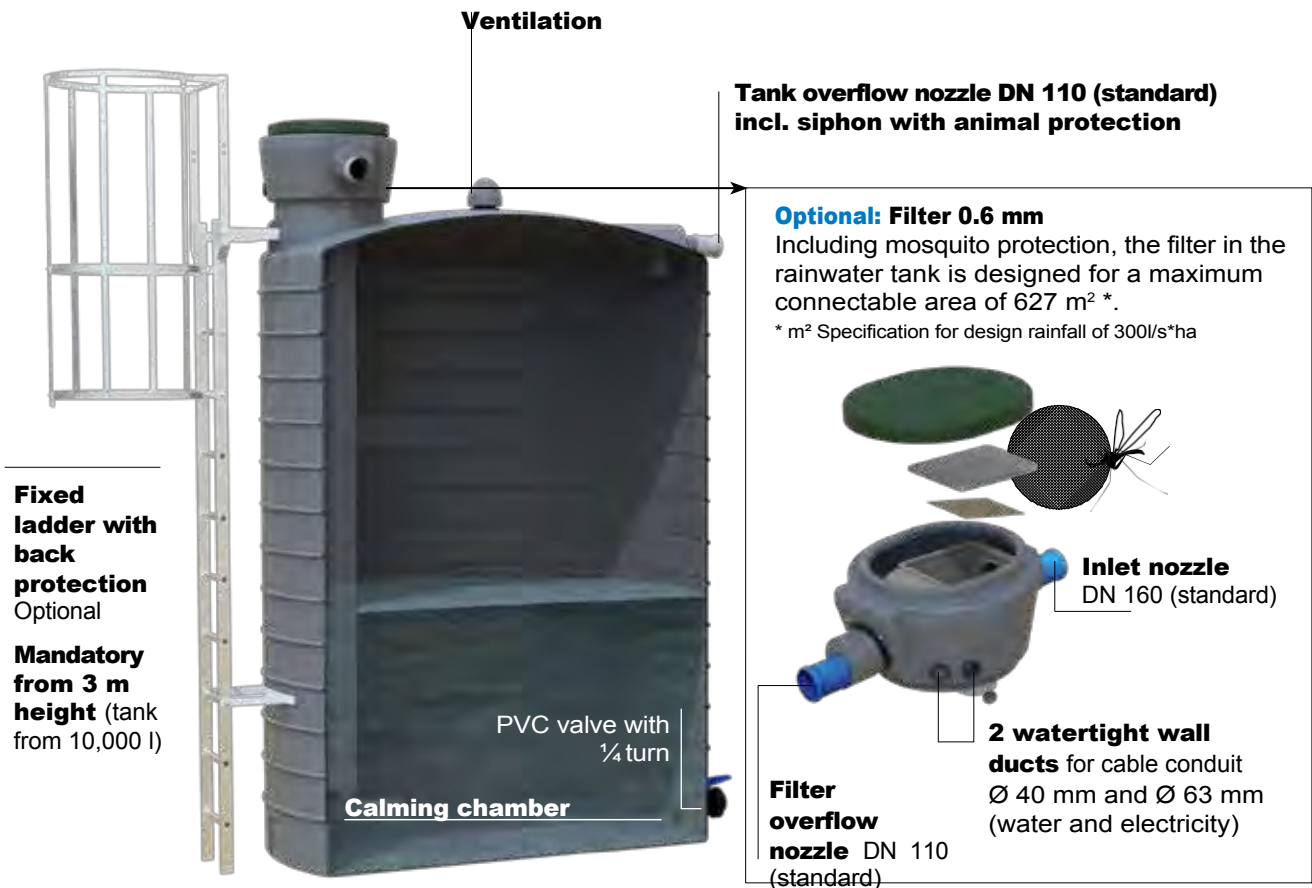
- Selection of the most suitable tanks, taking into account the soil conditions.
- Ensuring accessibility to the construction site.
- Compliance with hygiene and safety regulations for all installation work.
- Use of suitable equipment.

THE INSTALLATION OF THE SYSTEM MUST BE CARRIED OUT IN ACCORDANCE WITH THE APPLICABLE LEGAL REGULATIONS AND THE RULES OF GOOD PRACTICE:

- Rainwater must be collected from roofs.
- Every downpipe that channels rainwater into the storage tank should be fitted with a leaf strainer at the top end.
- To avoid confusion, rainwater pipes and outlets are marked with the lettering or pictogram "No drinking water" must be marked. All outlets must be marked with be equipped with "childproof" valves.

2 PARTS TO BE INSTALLED

2.1 EQUIPMENT



2.2 MEASUREMENTS

Model (liters)	Order no.	Ø (m)	Height (m)	Weight (kg)	Water channel						DN drain valve	
					Inflow		Procedure		Overflow			
					H (m)	Ø (mm)	H (m)	Ø (mm)	H (m)	Ø (mm)		
5.000	120240	2,15	2,03	140	1,75	160*	110**	1,7	110**	1,41	2" (DN50)	
7.500	120241		2,72	210	2,72			2,39		2,13		2.5" (DN65)
10.000	120242		3,44	285	3,16			3,1		2,85		
15.000	120243	2,5	4,15	425	3,87	110**	110**	3,82	110**	3,43	3" (DN80)	
20.000	120244		5,29	675	5,01			4,96		4,64		

Fixed ladder with back protection

* Reduction and connection to DN 110 possible via on-site adapter. The connectable area is then reduced to 213 m² (*m² specification for rated rainfall of 300l/s*ha)

** Must be combined on DN 160 base pipe for DN 160 inlet connection on site!

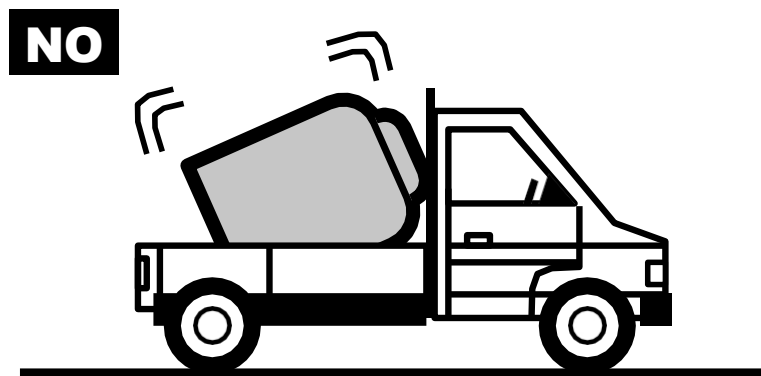
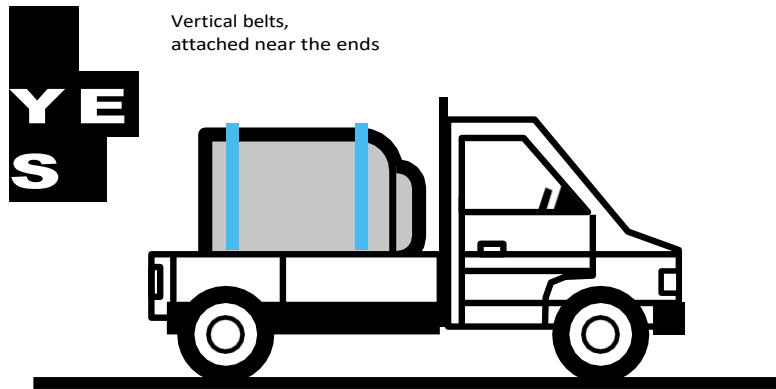
3

INSTRUCTIONS FOR TRANSPORT AND HANDLING

3.1 TRANSPORT



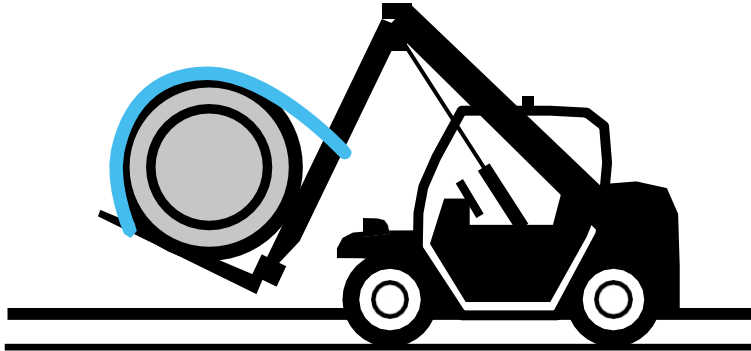
The tanks must be transported horizontally and secured at the outer ends with straps.



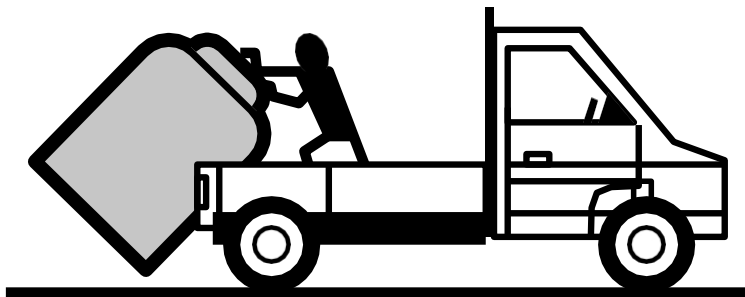
3.2 HANDLING

The tanks must be unloaded using suitable transportation equipment. Forklift truck, fork length at least 1400 mm.

YES Minimum length of the fork 1400 mm



NO



For the 5 to 20 m³ tanks

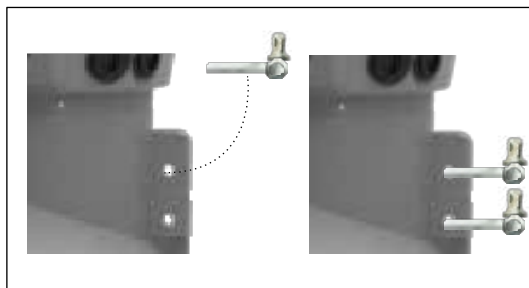
Insert the CMU1T shackle into the holes in the manhole. For lifting and moving of the tank (crane, telescopic device).

For the 5 to 10 m³ tanks

1 shackle in the fastening holes for the fixed ladder with back protection

For the 15 to 20 m³ tanks

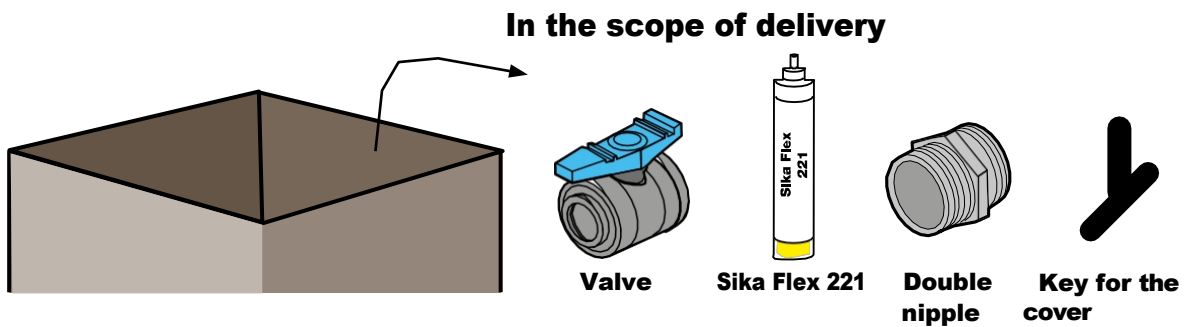
4 shackles in the holes on the edge of the dome



4 ASSEMBLY STEPS

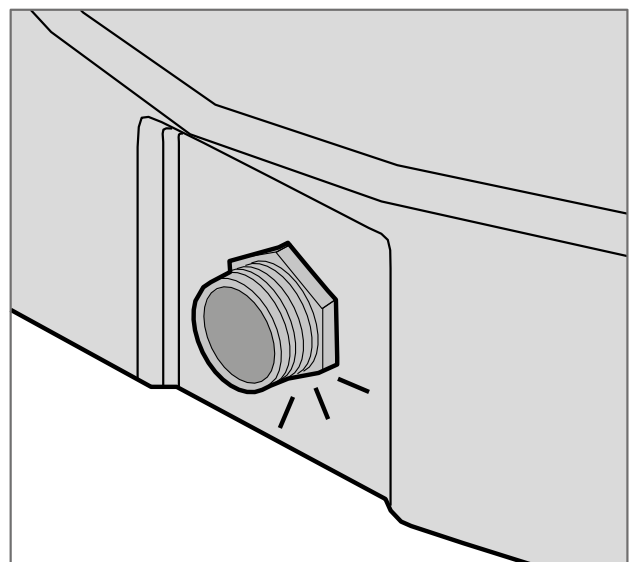
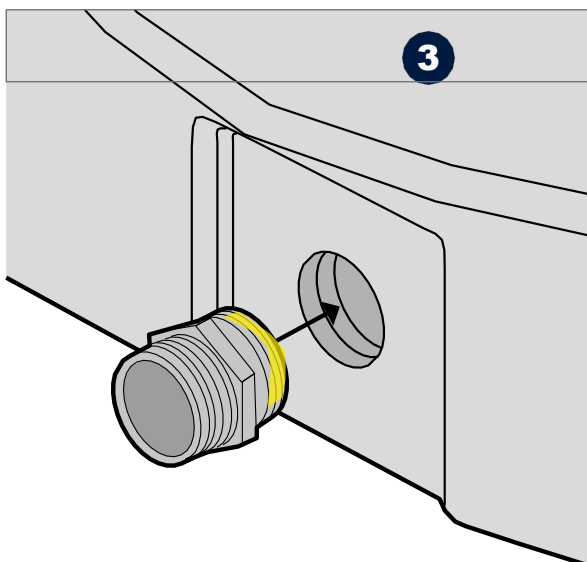
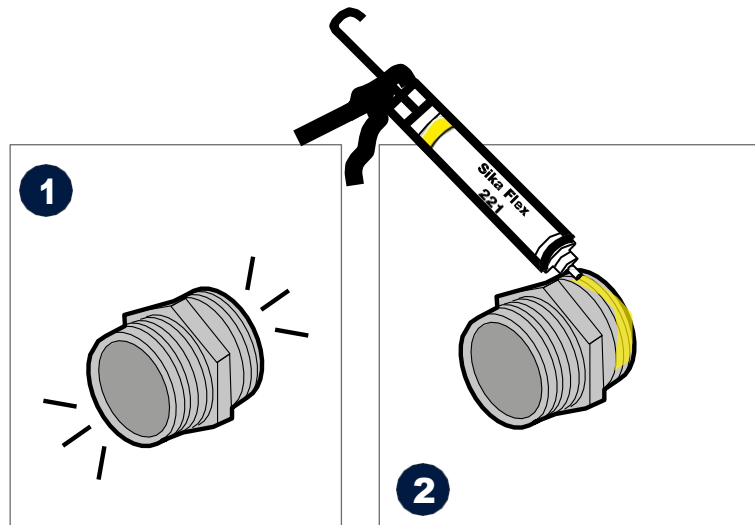
4.1 REMOVING THE PARTS FROM THE BOX

Each tank is supplied with the corresponding valve unassembled (supplied in an enclosed box). This valve must always be used, no other model!

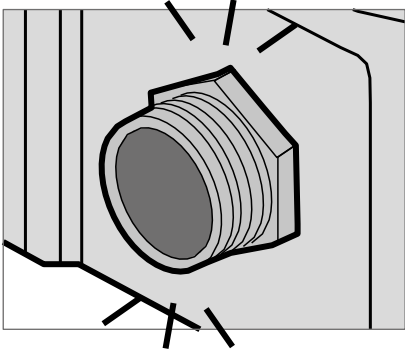


4.2 MOUNTING THE NIPPLE

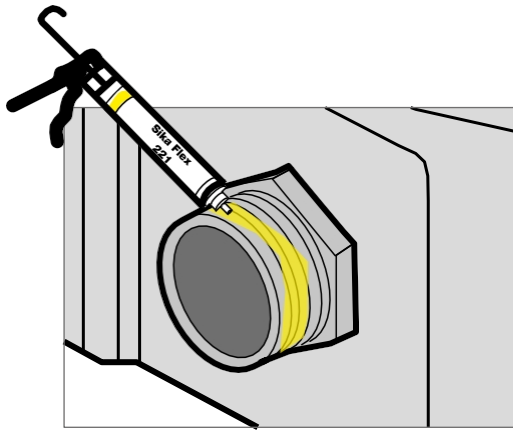
- 1 The surfaces to be bonded must be dry and free of grease and dust.
- 2 Apply a continuous line of Sika Flex 221 (supplied) to one of the threaded sections of the double nipple at the start of the thread.
- 3 Tighten the double nipple as far as it will go on the tank using a suitable wrench.



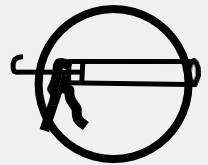
4.3 MOUNTING THE VALVE



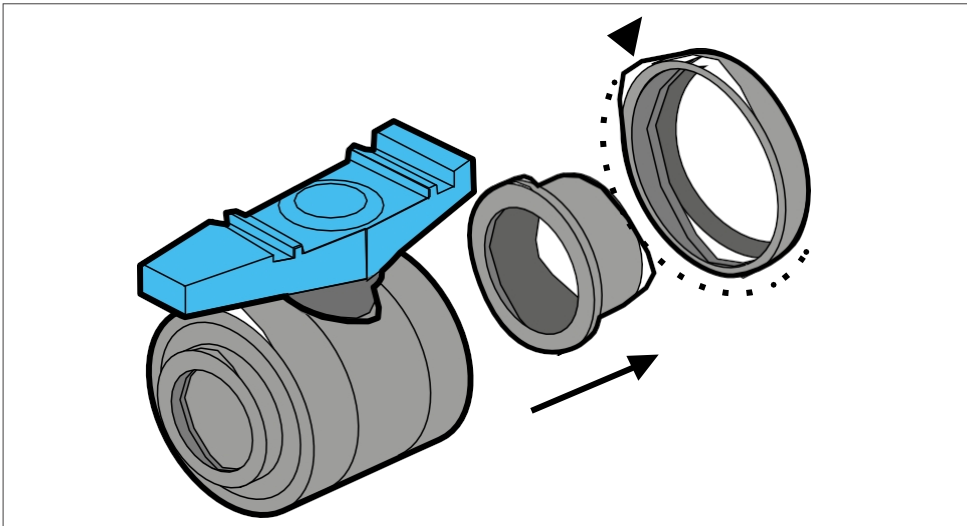
The surfaces to be sealed must be clean and dry



Apply a continuous line of Sika Flex 221 (included in the scope of delivery) to the nipple



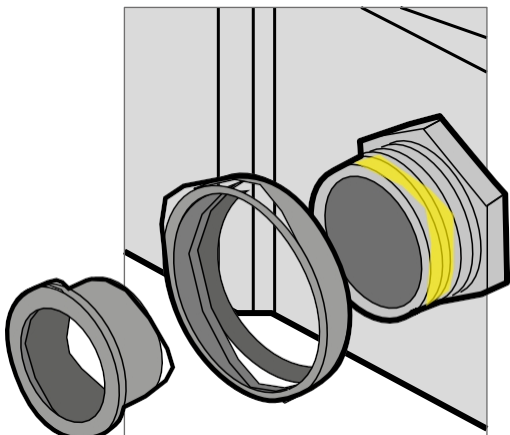
Cartridge press



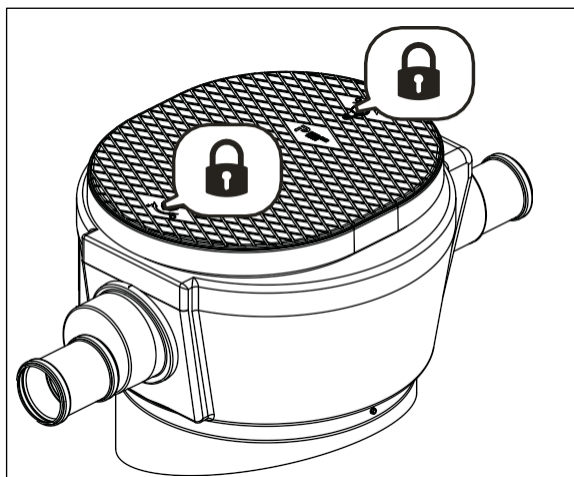
Dismantle one side of the valve to remove the mouthpiece and collar

4.4 CLOSING THE COVER

It is essential to close the cover (key included in the scope of delivery)



Place the rim of the valve on the nipple and then screw the part with the internal thread of the valve as far as it will go



5 USE AND INSTALLATION

5.1 USE

For above-ground storage of water and certain liquids, see table

	Use		
	PERMITTED*	PERMITTED** under extended conditions	NOT PERMITTED
Water and liquids			
Process water	X		
Gray water	X		
Vegetable oil	X		
Salt water	X		
Silage leachate (JGS)		X	
Waste water from facade cleaning		X	
Nitrogen fertilizer		X	
Viticultural waste water		X	
Water containing glycol		X	
Chlorinated water		X	
Fuels and liquid hydrocarbons			X
AdBlue			X
Mineral oils			X

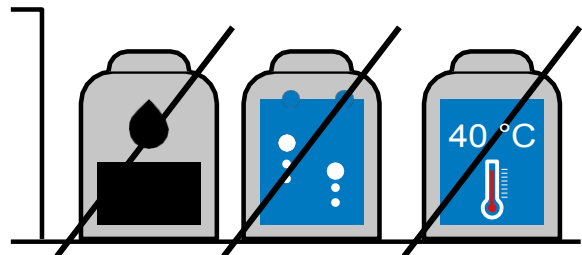
* Up to a temperature of 40°C.

** Stored up to a temperature of 40° and a density of less than 1.3 kg/dm³.

This list is incomplete. Please contact us for a compatibility check.

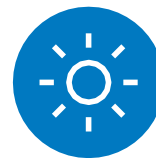
NOT PERMITTED FOR:

- Compliance with "drinking water" quality
- Storage and/or transportation of fuel oil or hazardous substances or liquids with a density of more than 1.3 kg/dm³
- Vacuum setting
- Storage temperatures of over 40 °C



5.2 CLEANING THE FILTER GRID

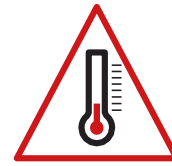
- 1 Cleaning at the end of the summer to remove dust and pollen
- 1 Cleaning at the end of winter to remove dust and leaf residues



5.3 FROST PROTECTION

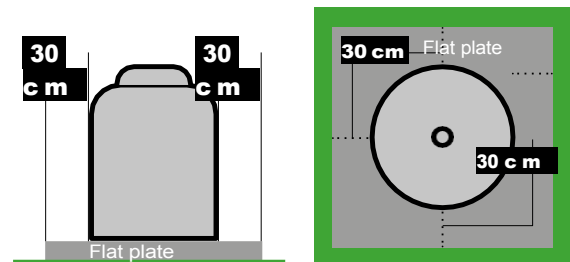
In mild regions (one week at -10°C) it is sufficient to keep the tank $\frac{3}{4}$ full at all times and to insulate the drain valve (e.g. with PVC insulation caps and insulating wool).

In regions where low temperatures and prolonged frosts are regularly expected, the tank should either be installed frost-free, fully insulated (e.g. with aluminum-laminated insulating wool or Armaflex) or the stored liquid should be drained.

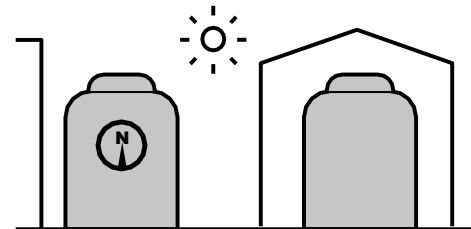


5.4 NOTES FOR THE INSTALLATION

Above-ground tanks must stand firmly on a flat, smooth and perfectly horizontal slab of sufficient mechanical strength. **This slab must be supported on each side of the tank 30 cm taller than this.**

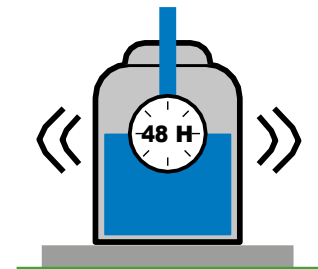


A location protected from the sun is preferable

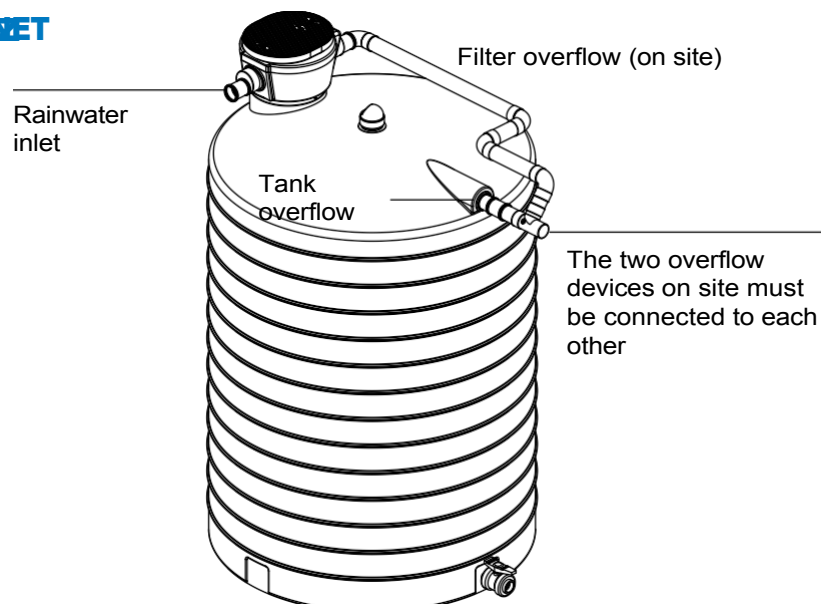


5.5 FILLING THE TANKS WITH WATER

Before final connection, the tank must be completely filled with water for at least 48 hours (this is how the tank takes on its final shape)



5.6 CONNECTION TO THE NET



5.7 COUPLING OF SEVERAL TANKS (RECOMMENDATION)

To be provided by the customer

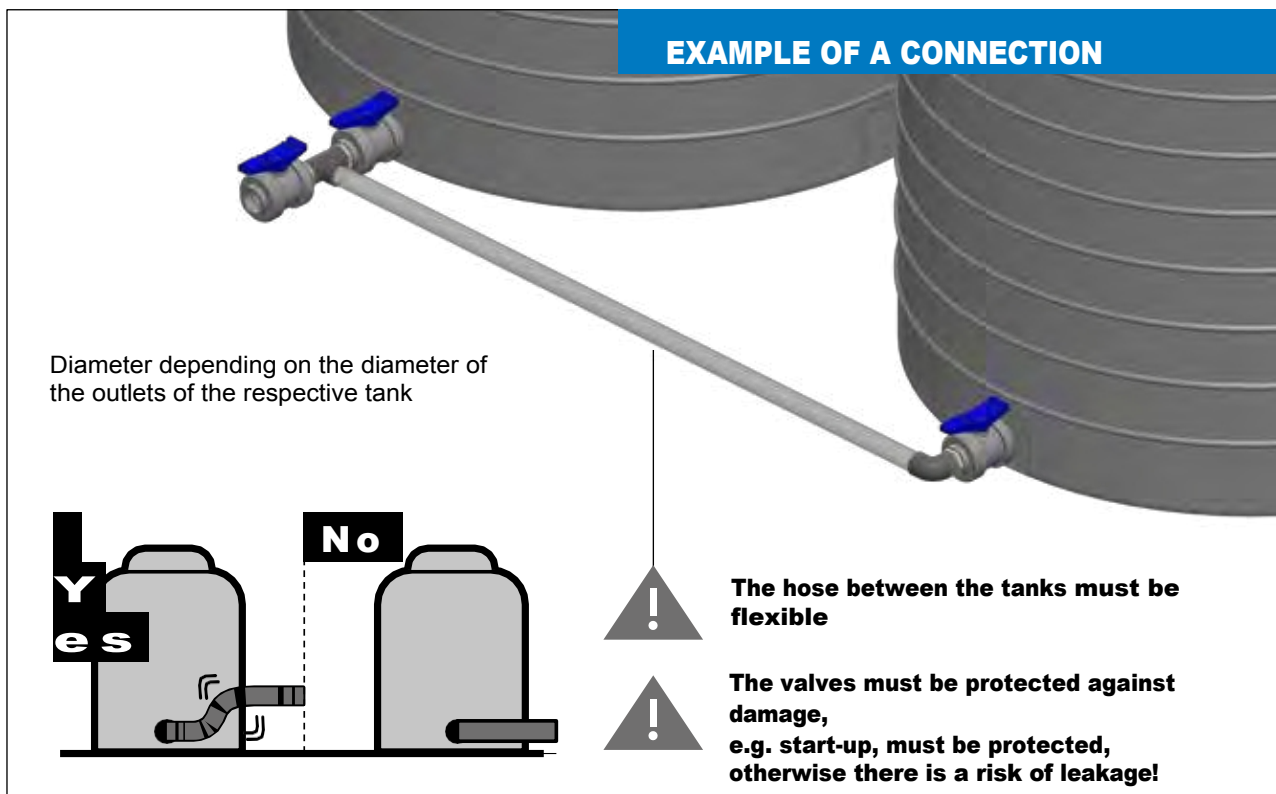
- 1 x PVC T-piece IG according to valve connection (see table)
- 3 x PVC double nipple AG according to valve connection (see table)
- 1 x PVC elbow 90° IG according to valve connection (see table)
- 2 x hose connection according to valve connection (see table)
- Individual length of flexible hose according to valve connection (see table)
- 2 x hose clamp according to hose diameter



Optionally orderable

1 x drain valve according to table

Model (liters)	DN drain valve
5.000L	2" (DN 50)
7.500L	2.5" (DN 65)
10.000L	
15.000L	3" (DN 80)
20.000L	



6 LADDER WITH BACK PROTECTION

6.1 AVAILABLE OPTIONS



From a height of 3 m (10,000 l), the use of a ladder with back protection is required

Order no.	Volume
120250	10.000 l
120251	15.000 l
120252	20.000 l

6.2 ASSEMBLY STEPS LADDERS FOR TANKS OF SIZES 10 AND 15 M3



The ladder must be assembled on the floor

6.2.1 MOUNTING THE LADDER STOP

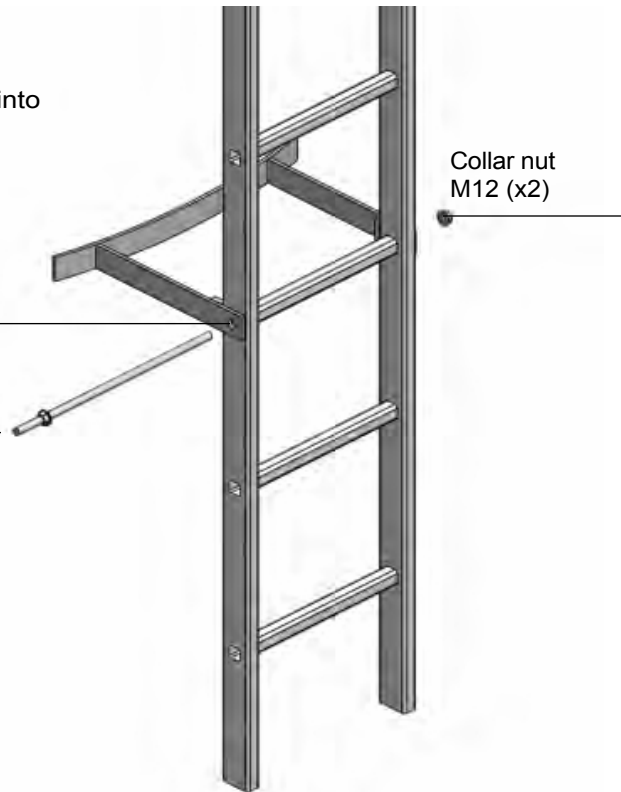
10-M3 version

Insert the threaded rod into the stop and screw tight using the nut.

Stop 10 m³ (x1)

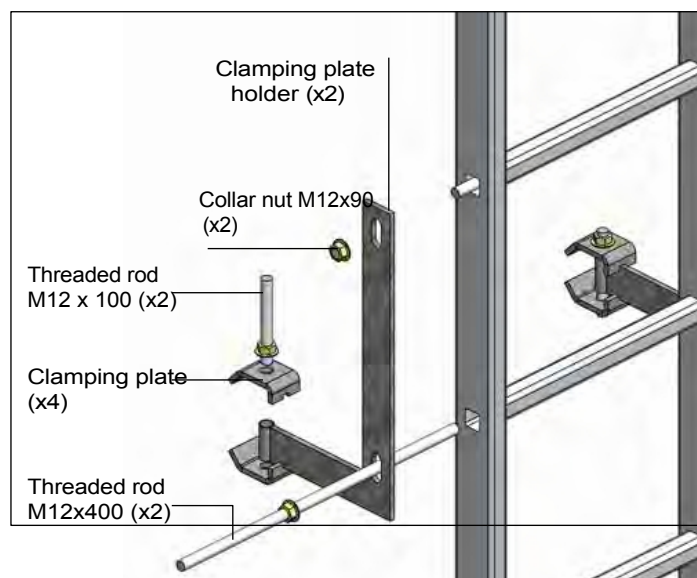
Threaded rod M12 x 400 (x1)

Collar nut M12 (x2)



10-key 18-key
22-key

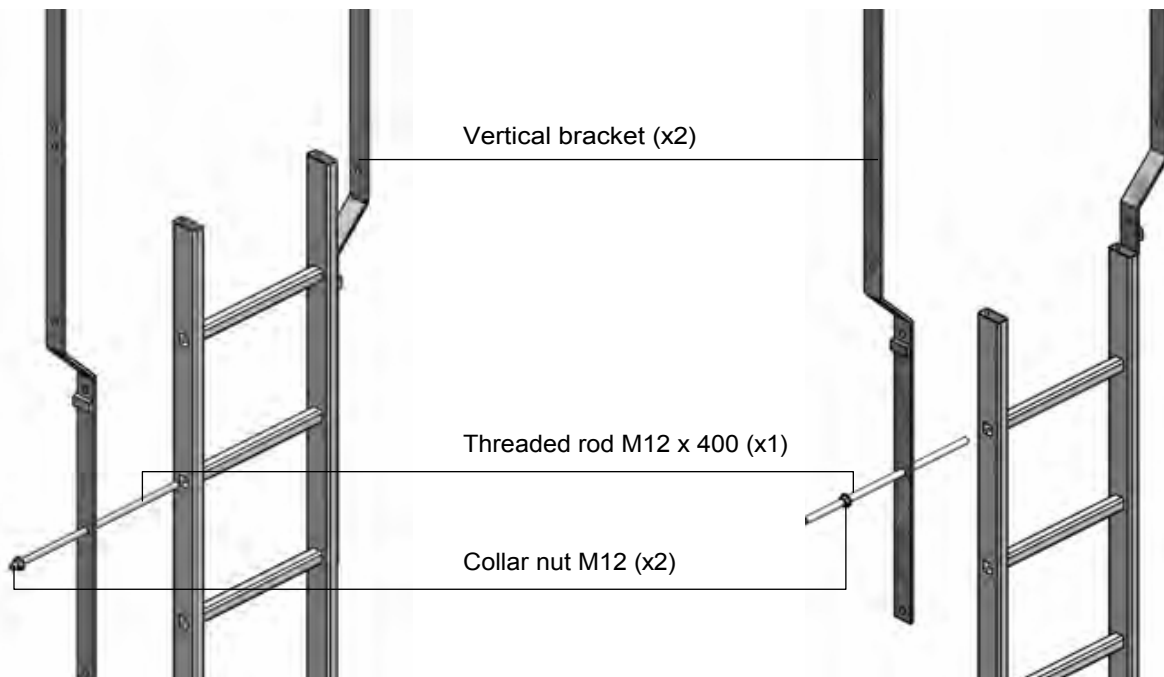
13/15-M3 version



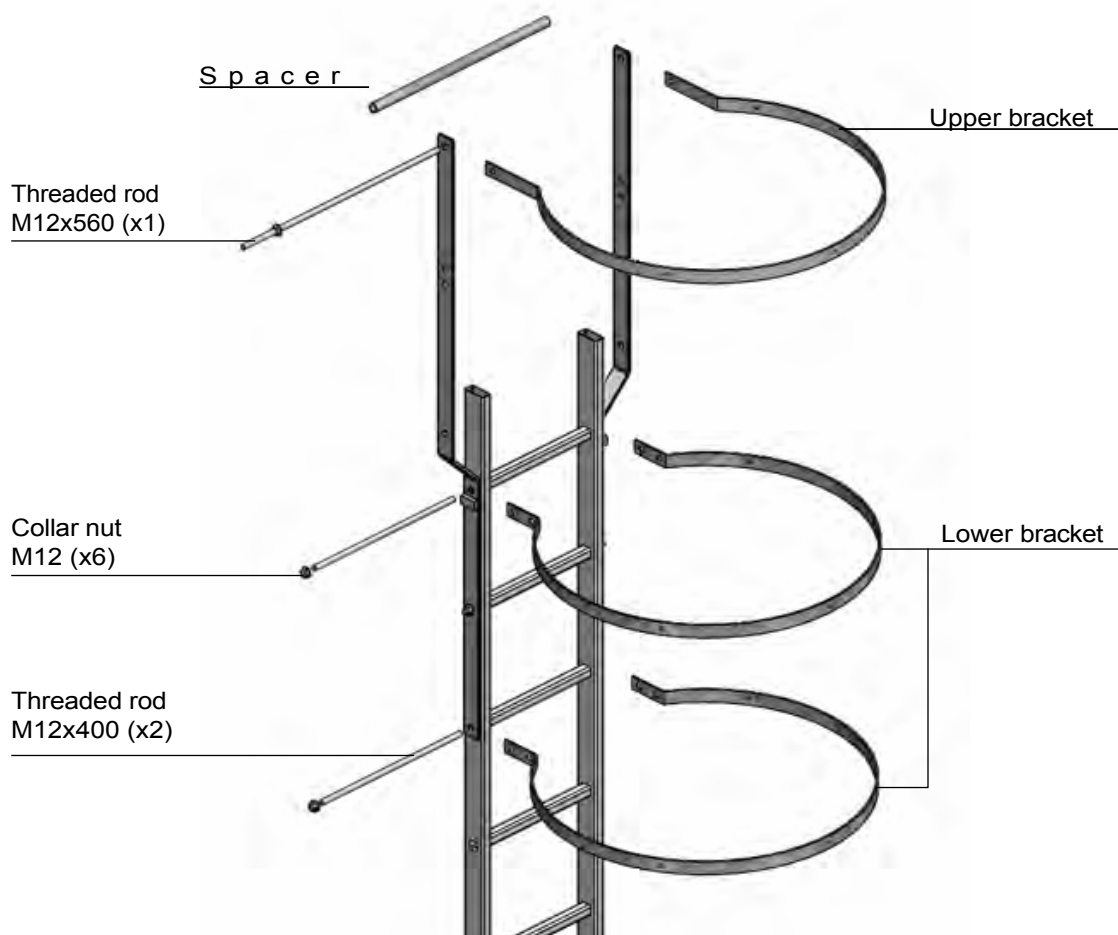
6.2.2 MOUNTING THE VERTICAL SUPPORTS ON THE LADDER

10-M3 version

13- AND 15-M3 version

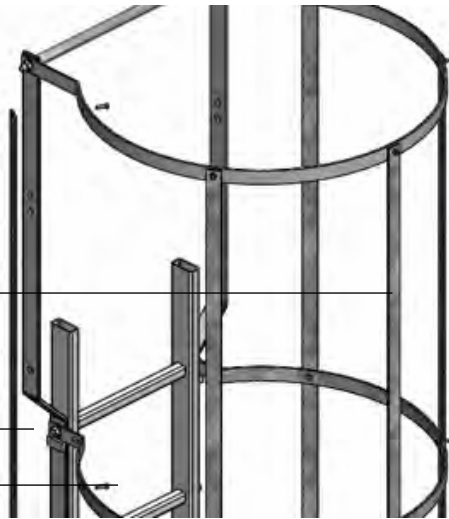


6.2.3 MOUNTING THE BRACKETS



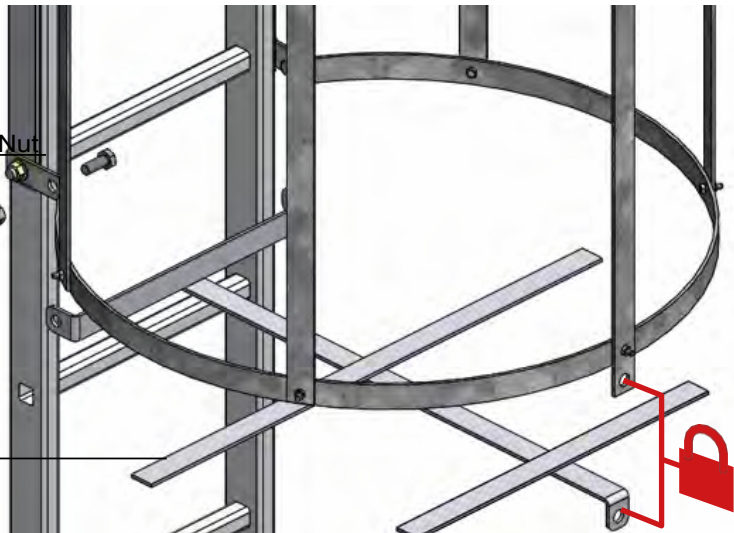
6.2.4 MOUNTING THE VERTICAL FLAT BARS ON THE BRIDGES

- Nut M6 (x15)
- Vertical flat bar with hole for locking (x1)
- Vertical flat bar (x4)
- M6 screw (x15)



6.2.5 ASSEMBLY OF THE LOCK

- Screw 12x30 (x2)
- Nut M12 (x2)
- Shutter (x1)



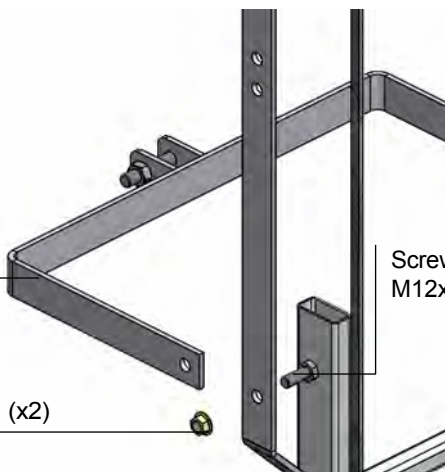
Provide a padlock to secure the back guard

6.2.6 ASSEMBLY OF THE HORIZONTAL SUPPORTS

Horizontal support (x1)

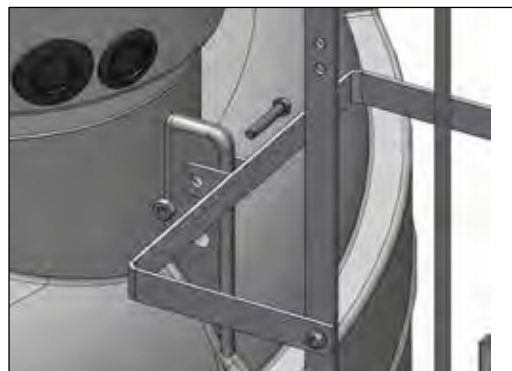
Collar nut M12 (x2)

Screw M12x30 x1



6.2.7 CONNECTION TO THE TANK

Once the ladder has been assembled on the ground, it must be lifted using a suitable transport device



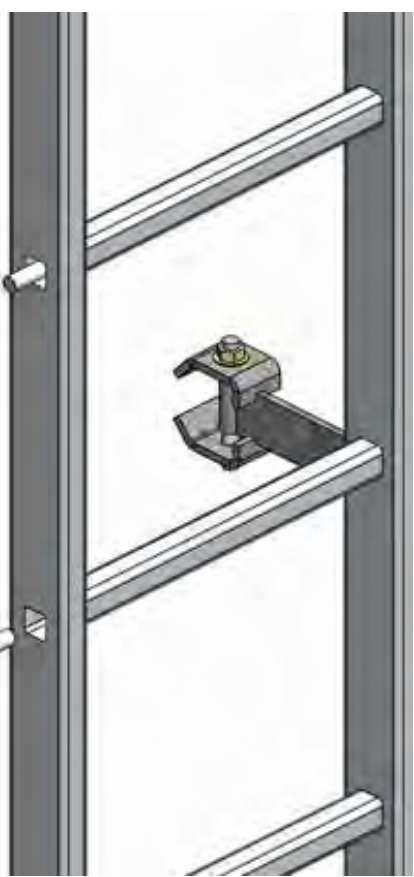
6.3 ASSEMBLY STEPS LADDER FOR 20 M3 TANKS

 **The ladder must be assembled on the floor**



6.3.1 MOUNTING THE HORIZONTAL SUPPORTS

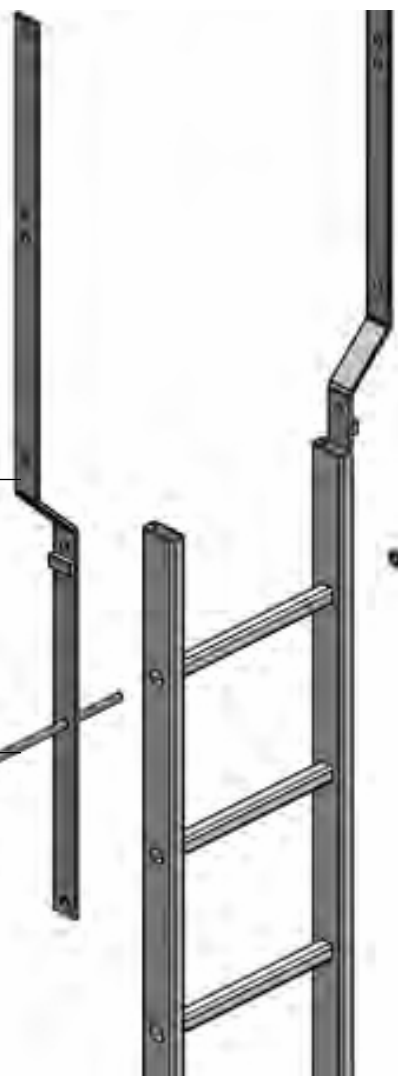
- Clamping plate holder (x2)
- Collar nut M12 (x2)
- Threaded rod M12x100 (x2)
- Clamping plate
- Threaded rod M12x420 (x2)



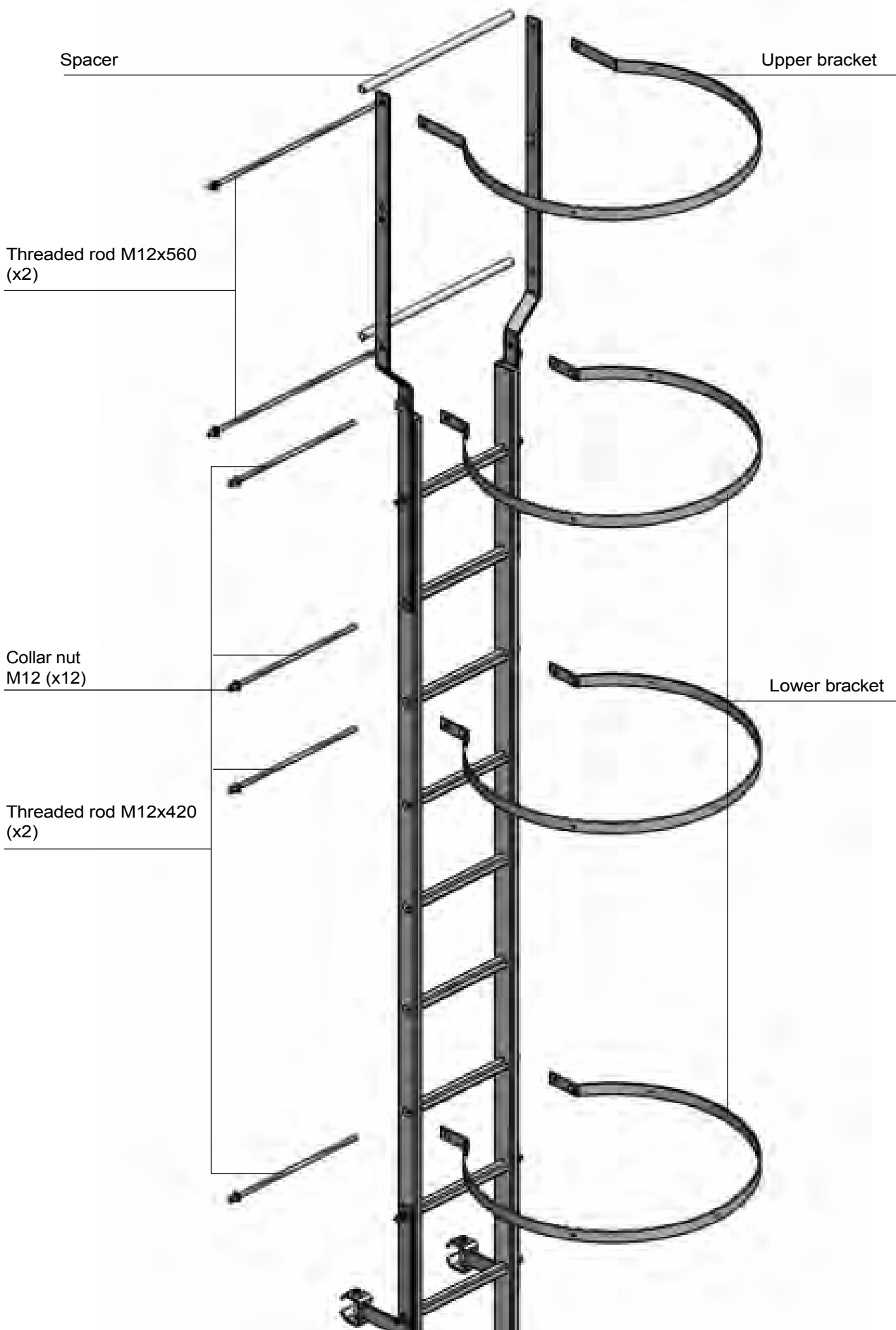
10, 18 and 22 mm keys

6.3.2 MOUNTING THE VERTICAL SUPPORTS

- Vertical bracket (x2)
- Threaded rod M12x560 (x1)
- Collar nut M12 (x2)



6.3.3 MOUNTING THE BRACKETS



6.3.4 MOUNTING THE VERTICAL FLAT BARS

M6 screw (x20)

Vertical flat bar x4

Nut M6 (x20)

Vertical flat bar with hole for locking (x1)

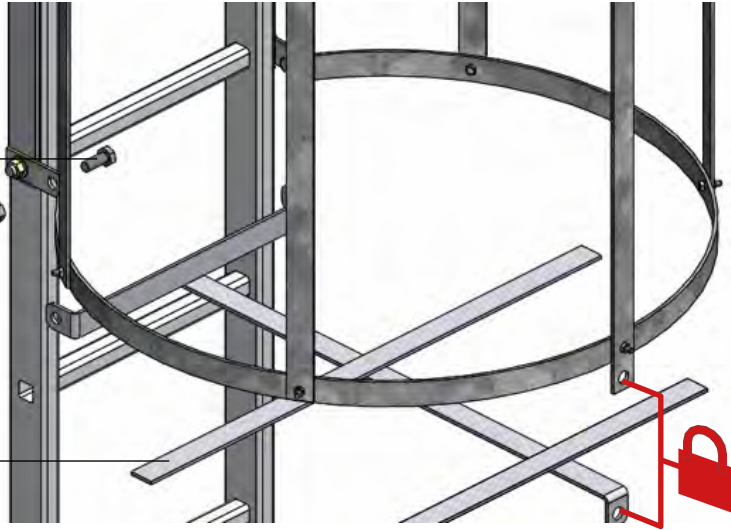


6.3.5 ASSEMBLY OF THE LOCK

M12x30 screw (x2)

Nut M12 (x2)

Shutter (x1)



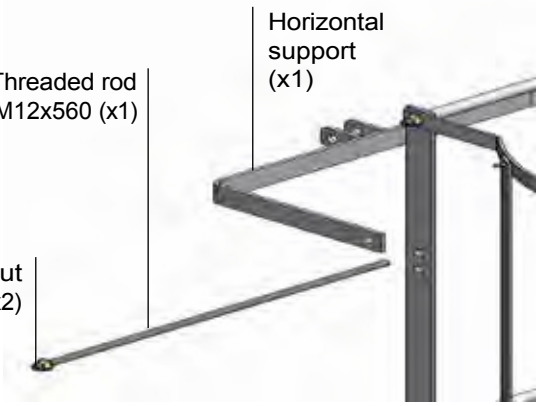
Provide a padlock to secure the back guard

6.3.6 MOUNTING THE HORIZONTAL SUPPORT

Threaded rod M12x560 (x1)

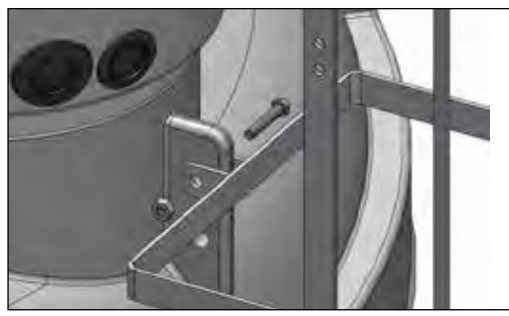
Horizontal support (x1)

Collar nut M12 (x2)



6.3.7 CONNECTION TO THE TANK

Once the ladder has been assembled on the ground, it must be lifted using suitable transportation equipment



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