

LK Manifold Cabinet Qmax

SCOPE

These assembly instructions are intended for use with the LK Manifold Cabinet Qmax. Installation must be carried out in accordance with Industry Regulations for Safe Water Installation.

LK Manifold Cabinet Qmax

LK Manifold Cabinet Qmax is used when the LK Manifold Qmax G50 is to be concealed. The cabinet must be supplemented with a frame / door.

LK Frame/hatch GV INB

Used with the LK Manifold Cabinet Qmax when it is fitted into a wall. Frame/hatch has a flared frame to cover the holes around the cabinet.

LK Frame/hatch GV UTV

Used with the LK Manifold Cabinet Qmax when it is to be installed on a wall. Frame/hatch ends flush with the outsides of the cabinet.

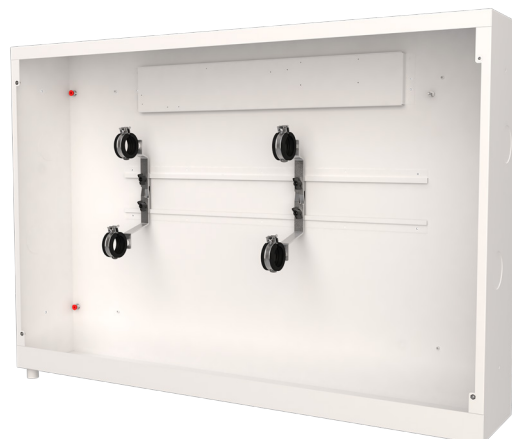
LK Base GV

Complement to the LK Frame/hatch GV UTV which conceals the pipe installation between the cabinet and the floor. Note that the height of the LK Base can be adjusted between 231 and 291 mm.

LK Wet zone hatch PRESEAL

In rooms with sealing layers on the walls, the LK shunt cabinet must be supplemented with a LK Wet zone hatch PRESEAL which is connected to the wall's sealing layer. A service opening (wet zone hatch) must not be used where there is a bath or a shower.

For more information, see separate product range and assembly instruction sheets for LK Wet zone hatch PRESEAL.



LK Manifold cabinet Qmax.

The cabinet is tested according to SP method 5676.



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Installation height

The design of the installation must enable perpendicular pipe penetration in relation to the cabinet bottom. The cabinet should be mounted at least 250 mm above the floor so that the drainage pipe can be laid with a drop along its entire length. To facilitate perpendicular fixing, LK Fixing Plate PIP 25 can be mounted 50-150 mm below the cabinet.



INSTALLATION REQUIREMENTS

Installation in stud walls

A stud-frame thickness of at least 95 mm is required for in-wall installations. Note that when installing in rooms with wall sealing layers, the LK Wet zone hatch PRESEAL requires an installation depth of at least 75 mm measured from the wet room sheet to the front edge of the LK Manifold cabinet.

Note the depth of the cabinet in relation to insulated feed pipes. Refer to the example given in installation step 4.

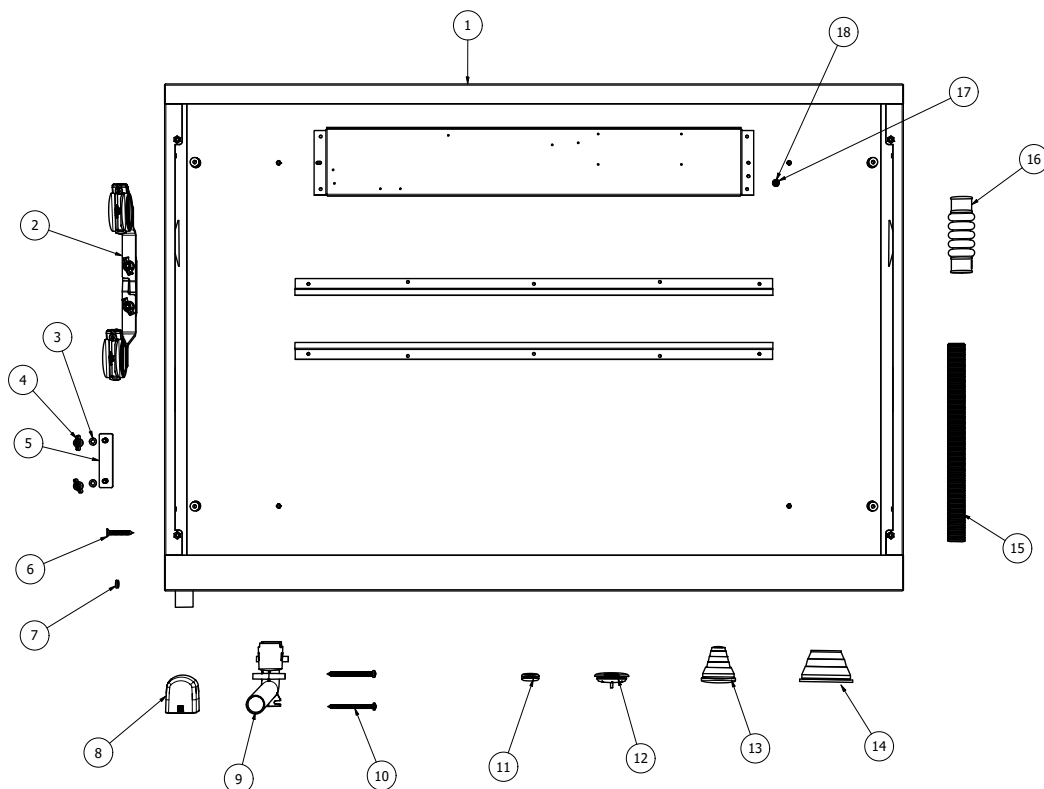


NOTE!

A service opening must not be used where there is a bath or shower.



SUPPLIED WITH THE PRODUCT




No.	Designation	Quantity	Art. no.
1	Manifold Cabinet	1 pc	-
2	Bracket Qmax	1 pair	241 03 16, 1 pair/package
3	Washer M6	8 pcs	included in article no. 33027, 4 pcs /bag
4	Butterfly nut M6	8 pcs	included in article no. 33027, 4 pcs /bag
5	Bracket manifold	4 pcs	included in article no. 33027, 2 pcs /bag
6	Wood screws (5 x 35 mm)	4 pcs	-
7	Seal for wood screws	4 pcs	-
8	LK Outlet plate V2, white	1 pcs	188 26 13 (incl. in package 188 26 11)
9	LK Drainage Elbow V2	1 pcs	188 26 12 (incl. in package 188 26 11)
10	Assembly screws for Drainage Elbow	2 pcs	incl. in package 188 26 11
11	Cable Grommet	10 pcs	33952 (also incl. in package 33950)
12	Sealing Plug Black 40 LP	16 pcs	188 27 21 (10-pack)
13	Pipe Grommet coupling pipe 20-25 LP	14 pcs	188 27 23
14	Pipe Grommet coupling pipe 32-50	4 pcs	188 25 55, 1 pc /bag
15	Conduit Ø25	1,0 m	187 06 65
16	Bellow Sleeve 25 LP	1 pc	188 27 42
17	Internal tooth Lock Washer M5	1 pc	- (preinstalled in cabinet)
18	Lock Nut M5	1 pc	- (preinstalled in cabinet)
-	LK Spray Guard (705 x 400 mm)	3 pcs (1050)	188 24 07

WORKING PROCEDURE

1 - Prepare pipe grommets

Prepare pipe grommets for feed pipes and branch pipes by adapting/cutting grommets to the correct dimension based on the pipe dimension used.



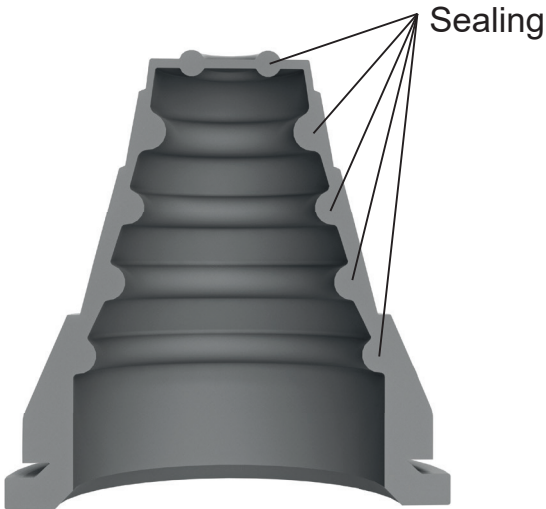
NOTE!

If the seal for the pipe dimension is damaged when cutting, then it must be replaced with a new seal.



Cutting pipe grommet.

Cutting level	Dim. Pipe	Dim. Conduit (PiP)
1	Ø12	–
2	Ø16-20	–
3	Ø25	Ø25
4	Ø32	Ø34

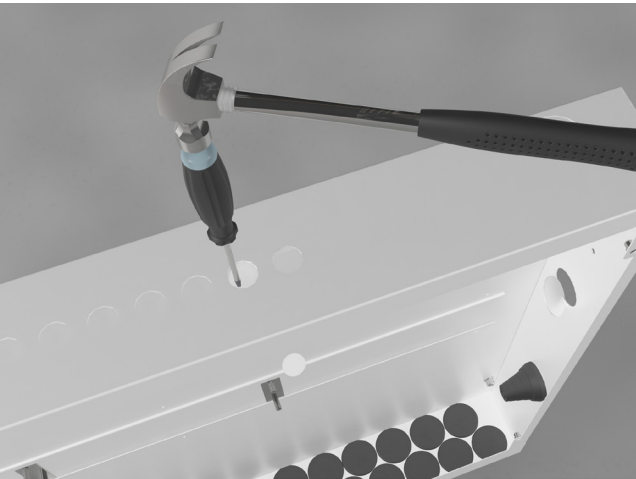


A cross-section of the pipe grommet shows the placement of the pipe seal.

2 - Knock-out holes

Remove the required number of knock-out holes for cables for any room control. Install the cable grommets.

If the feed pipes are to be connected from the side, the knock-out holes are removed from the side of the cabinet. The pipe grommets are then installed for the feed pipes.



Open knock-out holes with a hammer and screwdriver.
(Sample illustration)

3 - Assemble pipe grommets and sealing plugs

Fit the adapted pipe grommets and the LK Sealing Plug before the cabinet is installed in its final location. Pay particular attention during the assembly of pipe grommets and sealing plugs so the cabinet base is sealed.

The LK Sealing Plug is installed so that the LK Logo is visible from inside the cabinet.



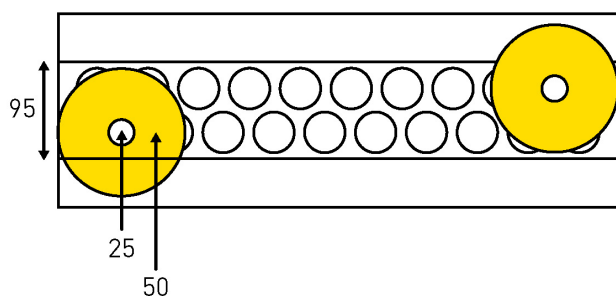
Install pipe grommets and sealing plugs.
(Sample illustration)



4 - Install Cabinet

Install the cabinet in the stud wall or on an existing wall taking into account the Installation requirements section above.

The design of the installation must enable perpendicular pipe penetration in relation to the cabinet bottom. The cabinet should be mounted at least 250 mm above the floor so that the drainage pipe can be laid with a drop along its entire length. Fix the manifold cabinet to the building frame through the holes in the sides or back. For wooden rule construction, use the attached screw and sealing washer. When the attachment is complete, seal unused holes in the cabinet. Alternatively, the cabinet can be fixed with LK Legs for Manifold Cabinet UNI/GV or LK Flexistand. See under *Assembly aids*.



Example, installation with insulation on feed pipe.
The illustration shows a cabinet with a depth of 95 mm.



NOTE!

The cabinet should never be installed further out than edge to edge with the stud-frame, so the Frame/hatch GV INB can be installed.

If the cabinet is placed on an outer wall, it should be installed on the warm side of the construction, inside the airtight foil.

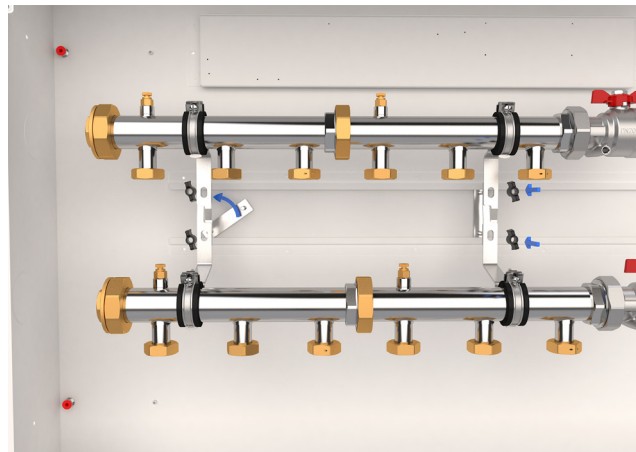


Attaching a cabinet to a stud wall.

5 - Fit manifold

Assemble the bracket attachments on the cabinet's rail. See illustration "Installation of LK Manifold Qmax G50".

LK Manifold QMax G50 is then to be installed on the bracket fixtures. Then follow the included instructions for installation of the manifold and pressure and tightness testing of its pipe connections.



Installation of LK Manifold Qmax G50.

6 - Pipe grommets

Feed coupling pipe through the pipe grommets. This is easier if the pipes have been lubricated with soapy water or similar. The pipes are then connected to the manifold in accordance with the instructions for the manifold.



NOTE

Check to ensure the pipe lead-through is correctly fitted once all pipes have been installed according to section 6 above.

7 - Installing cabinet drainage

Drainage outlets from a cabinet with tap water installation must always drain onto an area with a floor drain or waterproof flooring.

Exception: Cabinets that are placed in stairwells may have leakage indication that open into the stairwell on a watertight or waterproof floor. The exception does not apply to a single residence building.

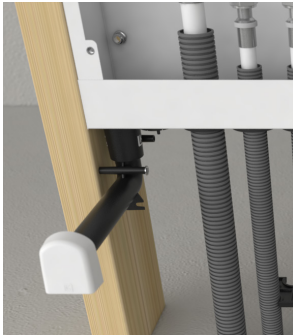
Drainage outlets from cabinets with heating system installation may drain from the wall surface beneath the cabinet.

7a – Drainage elbow connected directly to the cabinet's outlet pipe

Drainage from the wall surface under the cabinet. Connect the drainage elbow directly to the cabinet's outlet pipe after all pipe inlets and sealing plugs have been installed.

Fix the drainage elbow to a wall stud in a suitable position. Insert the two installation screws supplied in any of the fixing holes.

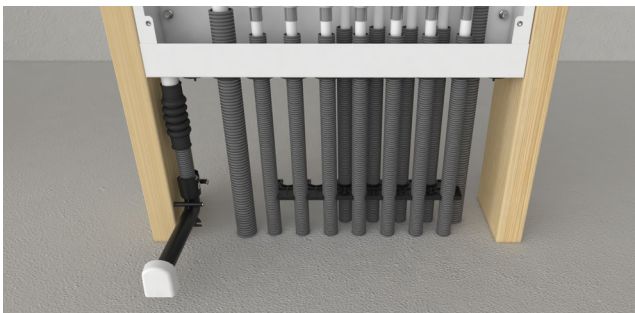
For cabinets mounted externally on the wall, the drainage elbow opens out into the pre-drilled hole in the base.



A drainage elbow directly connected to the cabinet's outlet pipe will drain into the same room as the cabinet's service hatch or, alternatively, the room behind.

7b – Drainage elbow connected via a conduit.

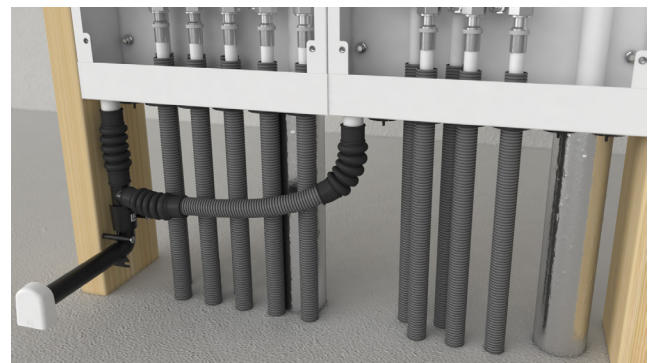
Connect the conduit to the cabinet's drainage pipe using the bellow sleeve. The bellow sleeve must not be deformed in a manner that prevents the flow of any water leaks. Connect the drainage elbow to the conduit. Note that the pipe should rest in the drainage elbow at a depth of approximately 20 mm. Fix the drainage elbow to a wall stud in a suitable position. Insert the two installation screws supplied in any of the fixing holes. Ensure that the conduit is installed sloping downwards towards the outlet and that the conduit is secured.



Drainage elbow connected via a conduit.

7c – Connection of drainage pipes

It is possible to connect drainage pipes from two cabinets. The illustration below shows side-by-side installation but drainage pipes can also be connected when the cabinets are mounted further apart. Use LK Drainage Kit 25 Duo. Fix the drainage elbow to a wall stud in a suitable position. Insert the two installation screws supplied in any of the fixing holes. Ensure that the conduit is installed sloping downwards towards the outlet and that the conduit is secured.



Connection of drainage pipes.

8 – Installation of outlet plate

Install a wall panel with a hole for the drainage elbow's outlet pipe. Hole diameter approx. 26 mm. Connect any sealing layer as per the instructions of the supplier of the sealing layer.

Although LK Systems can supply the LK Pipe Membrane, the sealing contractor should carry out the installation and be responsible for the waterproofing characteristics of the sealing layer in accordance with industry regulations issued by the Swedish Ceramic Tile Council (BBV), Swedish Flooring Trade Association Wet Room Control (GVK) or the Swedish Painting Industry Wet Room Control (MVK).

Once the wall panelling is installed, the drainage elbow should be cut to size using the LK Drainage elbow cutter V2. Alternatively, the drainage elbow can be cut to a suitable length using a tool such as a hacksaw blade. Be careful not to damage the surface layer, leave 2-3 mm of the outlet pipe protruding from the wall.

Install the LK Outlet Plate V2 in the outlet pipe. For a more luxurious finish, the LK Outlet Plate V2 Chrome is available as an accessory.



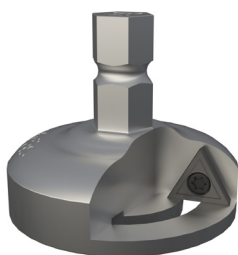


Installation of the LK Outlet Plate V2.

ACCESSORIES



LK Outlet Plate V2 Chrome, article no. 188 26 14.



LK Drainage elbow cutter V2, article no. 188 26 15.

9 - Install Splash protection

Install the splash protection supplied. Take care to ensure that the protections protrude at the side so that the entire width of the cabinet is covered. Should be fitted during the construction period in order to prevent dirt and dust getting into the cabinet. The splash protection is what makes the cabinet safe from water damage, and it must always be mounted.

10 - Install Frame/hatch

There are three types of frames/hatches depending on whether the cabinets are built into or installed externally on an inner wall.

In rooms with sealing layers on walls, the LK manifold cabinet must be supplemented with a LK Wet zone hatch PRESEAL which is connected to the wall's sealing layer. A service opening

(wet zone hatch) must not be used where there is a bath or a shower. For more information, see separate product range and assembly instruction sheets for LK Wet zone hatch PRESEAL.

10a - Install Frame/hatch UFH INB

When the cabinet is built into a wall, the LK Frame/hatch UFH INB is used which has a pre-cipitating frame in order to cover the hole around the cabinet. The frame covers an area of 15 mm beyond the edge of the cabinet.

Install the LK Frame/hatch using the M5 screws provided. If the cabinet is installed so far into the construction that the screws are too short, then these should be replaced with longer screws (not included).

10b - Install Frame/hatch UFH UTV

When the cabinet is installed externally on a wall, the LK Frame/hatch UFH UTV is used, which fits edge to edge with the outsides of the cabinet.

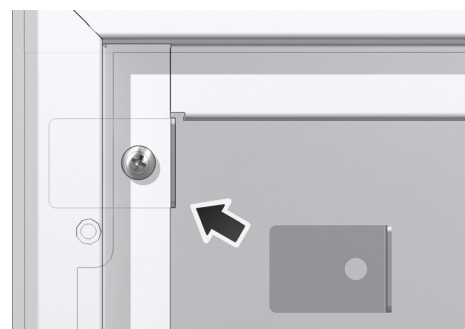


Plate and screws for the LK Frame/hatch UFH UTV.

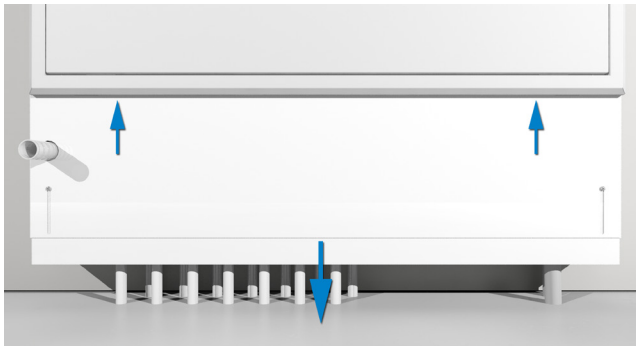
Install the frame using the screws and mounting plate provided. See picture above. Fit the four white cover plugs on the end of the cabinet.

11 – Install Base

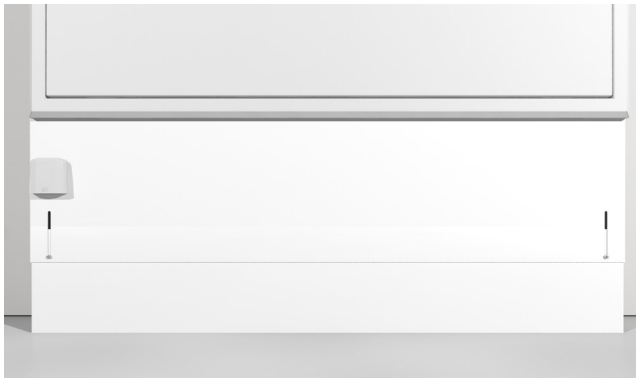
With an external installation of the LK Manifold Cabinet Qmax, install the LK Base by first pushing the upper part of the base into the intended grooves in the cabinet frame.

Also make sure that the drainage elbow opens out into the designated hole. The lower part of the base is then pulled out to meet the floor. When the correct height has been reached, the installation is secured using the screws on the front of the base.

Then adapt the length of the drainage elbow to the outside of the base and install the outlet plate.



LK Base installation.



Outlet plate mounted on base.

Installation LK Manifold Cabinet Qmax – Prefab

The cabinet is installed in accordance with the instructions above with the exception of the installation of the LK Manifold Qmax G50, which is already assembled on delivery.

ASSEMBLY AIDS

Assembly using LK Cabinet Stand L2

The back of the cabinet is fitted with four anchor points (M8 nuts) which can be used to mount the cabinet before the concrete slab is cast. LK Cabinet Stand L2, which is installed as shown below, is available as an aid.



LK Cabinet Stand L2 with anchor clips.

Insert the four M8 bolts supplied in the back of the cabinet. Screw the pipe clamps on to the protruding bolts. Thread in the round bars and slip on the conduit parts supplied with the stand. The conduit prevents the stand from getting stuck, and as a consequence the stand is reversible.

Push the round bars through the insulation and down into the sand until the installation feels steady. Raise the cabinet up to a suitable height and tighten the clamps. Tape the conduits to the stand legs to prevent the conduits from rising during casting.





Mounted cabinet stand.



Close-up of attachment to cabinet.

Assembly using LK Legs

The LK Leg Stand simplifies cabinet assembly on prefabricated concrete joists. Manufactured from galvanized steel sheet.

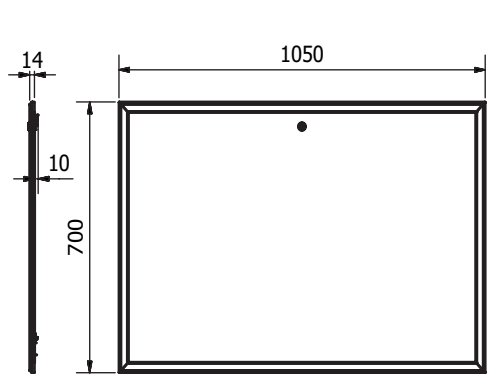
Leg stand is supplied in pairs with 4 self-tapping screws to fix to the manifold cabinet. The feet have 6 mm holes for fixation to the concrete floor structure. The legs are fixated using a bolt or metal nail plug (not supplied). In cases where the manifold cabinet is not adequately secured by the leg stand, then the cabinet should also be secured to the wall.



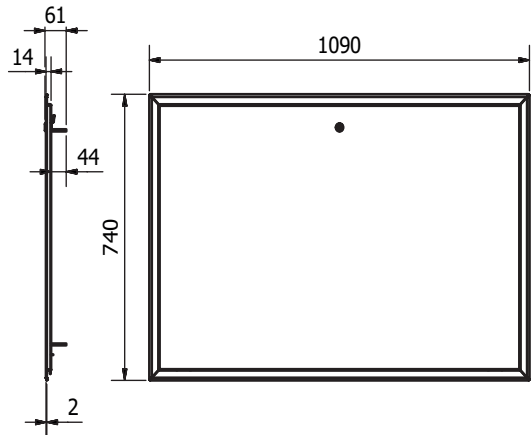
LK Legs.

DIMENSION DRAWINGS

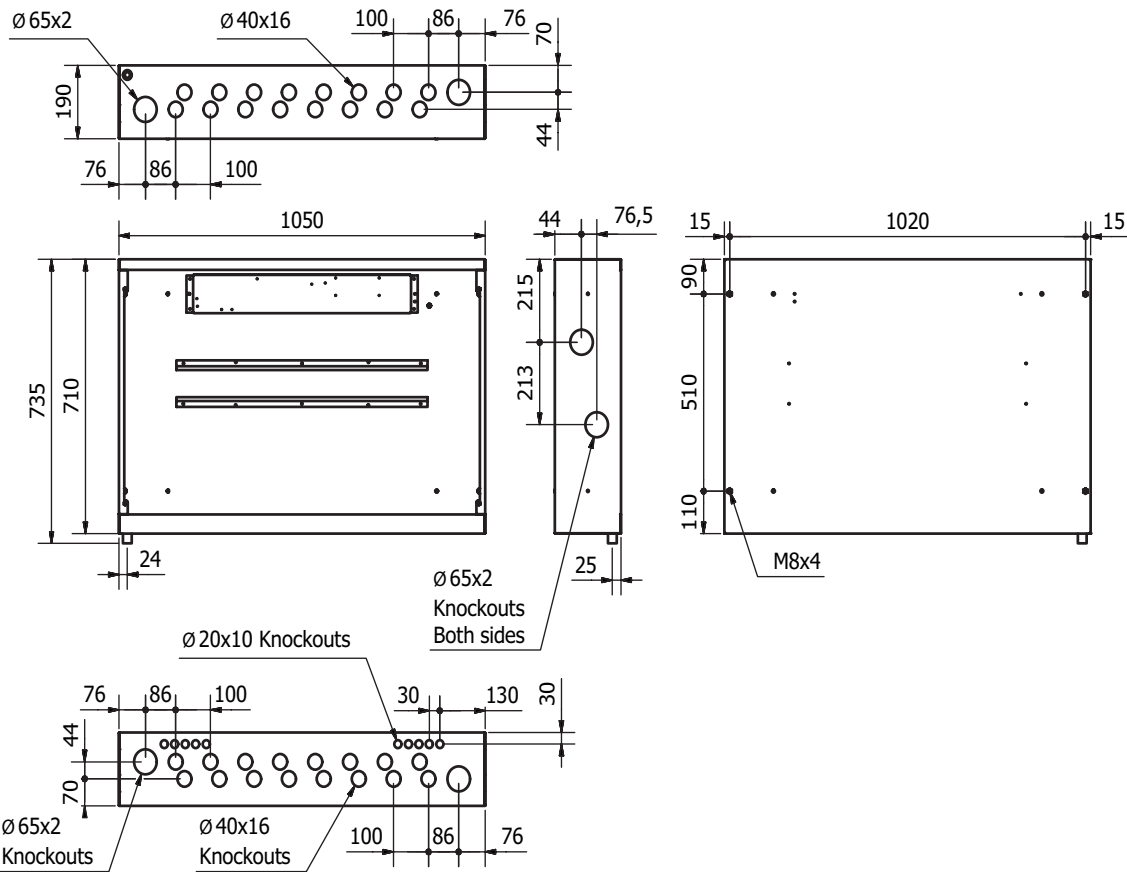
LK Frame/hatch UFH 1050, UTV



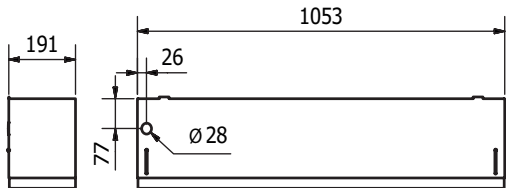
LK Frame/hatch UFH 1050, INB



LK Manifold Cabinet Qmax 1050



LK Base1050x190



PIPE DIMENSIONS

The table shows which dimensions and pipe types that can be connected to the LK Manifold cabinet Qmax. For more information on products included in the LK Underfloor heating system, see: www.lksystems.se/en (products/lk underfloor heating/products/pipes)

Pipe grommet	PE pipes	Metal pipes	Pipe-in-Pipe conduit dimension
Pipe Grommet 8-20*	8, 12, 16 & 20 mm	-	-
Pipe Grommet 20-25 LP for supply pipes in PE	20, 25 & 32 mm	22 & 28 mm	34 mm
LK Pipe Grommet 8, Quattro*	8 mm	-	-
LK Pipe Grommet 32, Pipe-in-Pipe LP*	32 mm	-	40-44 mm

* Ordered separately.

ARTICLE DATA

Name	Article no	Notes
LK Manifold Cabinet Qmax 1050	241 03 10	
LK Frame/hatch GV 1050 INB	243 53 63	Intended for GV 1050 cabinets built into the wall
LK Frame/hatch GV 1050 UTV	243 53 64	Intended for GV 1050 cabinets installed externally on the wall
LK Base 1050 (depth 190)	241 03 11	Accessories for external installation
LK Lock with key	188 23 52	Accessories
LK Pipe Grommet 20-25 LP	188 27 23	Spare part
LK Sealing Plug 40 LP	188 27 21	Spare part
LK Bottom Plug	188 84 88	Accessories
LK Pipe Grommet 32 Pipe-in-Pipe LP with 40 mm conduit	188 27 24	Accessory (sold in pairs)
LK Cabinet Stand L2	243 55 16	Accessories
LK Plastic Clips conduit 25	188 07 62	Spare part
LK Leg Stand UNI/GV	187 82 02	Accessories

