

# LK Wallbox UNI Push V3 AX16 and AX20

## Design

- Designed for LK PE-X and PAL Universal Pipes with pre-installed support sleeves. Read more at: <https://www.lksystems.se/en/products/universal/pipes/>
- The LK PE-X pipe-in-pipe system (PIP), including components according to Installation Solutions NT VVS 129, has been tested and approved in accordance with NT VVS 129 and the Sintef Test Method for protective pipes. Read more at: <https://www.lksystems.se/en/dokumentation/>
- Pressure rating PN 10



LK Wallbox UNI Push AX16 V3.



LK Wallbox UNI Push AX20 V3 with LK Jointing Sleeve.



**NOTE!**

LK Systems recommends connecting the wall box using PE-X pipes. Note that connections with LK PAL Universal Pipe in dimensions 16 and 20, as well as LK PE-X Universal Pipe in dimension 20, do not meet the requirements of the Swedish Building Regulations (BBR) for concealed/non-inspectable joints without a service hatch.

## Product Overview

Article. No.	Product
188 26 57	LK Wallbox UNI Push AX16 V3
188 26 58	LK Wallbox UNI Push AX20 V3 with jointing sleeve

## Accessories

Article. No.	Product
188 26 60	LK Wall Support Wallbox UNI Push V3, c.t.c 160 and c.t.c 150
188 26 61	
188 22 03	LK Wall Support Flex Wallbox UNI Push
188 22 95	LK Wall Support CC75/150 Wallbox UNI Push
188 26 59	LK Wallbox UNI Push Clamp V3
188 18 45	LK Connection M26, straight
188 18 48	

TABLE OF CONTENTS	
Design	1
Product Overview	1
Installation requirements	2
Installation - Working procedure	2
Install LK Wall Supports	9
Install LK Connection couplings	13
Replacement of PE-X pipes for LK Wallbox Push	14
LK Reinforcement for Wallbox UNI	14
LK Coupling Extractor UNI V2	14



**Accepterad**  
monteringsanvisning  
2021:1



LK Tappvattensystem är godkänt enligt Nordtestmetoden NT VVS 129.



## Installation requirements

- The LK Wall Support Bracket can be installed in various building structures. This instruction demonstrates installation in a lightweight wall. Installation can also be carried out in masonry or cast walls.
- The LK Wall Box UNI Push can be installed in a wall with studs at least 45 mm deep, either at the back or front edge of the wall, depending on the construction method. The wall box can also be mounted on the side of a stud. Screws for installation are included.
- As an aid to achieving the correct c/c distance between two wall boxes and securing them in various constructions, several accessories are available, such as different wall rails. LK also offers a wide range of connection fittings that can be installed in the wall box.

### Wall penetrations with a waterproofing layer

**NOTE!**

In areas intended for baths or showers, no pipe penetrations are allowed except for the direct connection of bath or shower mixers and shower fixtures.



Wall box must be mounted before the waterproof layer is mounted and be fixed perpendicular to the surface, so that movement cannot occur in the waterproof layer.

For pipe penetration into a wall, the distance between the waterproof layer on the adjacent floor or wall and the box must be at least 60 mm and at least 100 mm from the ceiling. The distance between the boxes in the wall for tap water or heating pipes must be at least 60 mm.

## Installation - Working Procedure

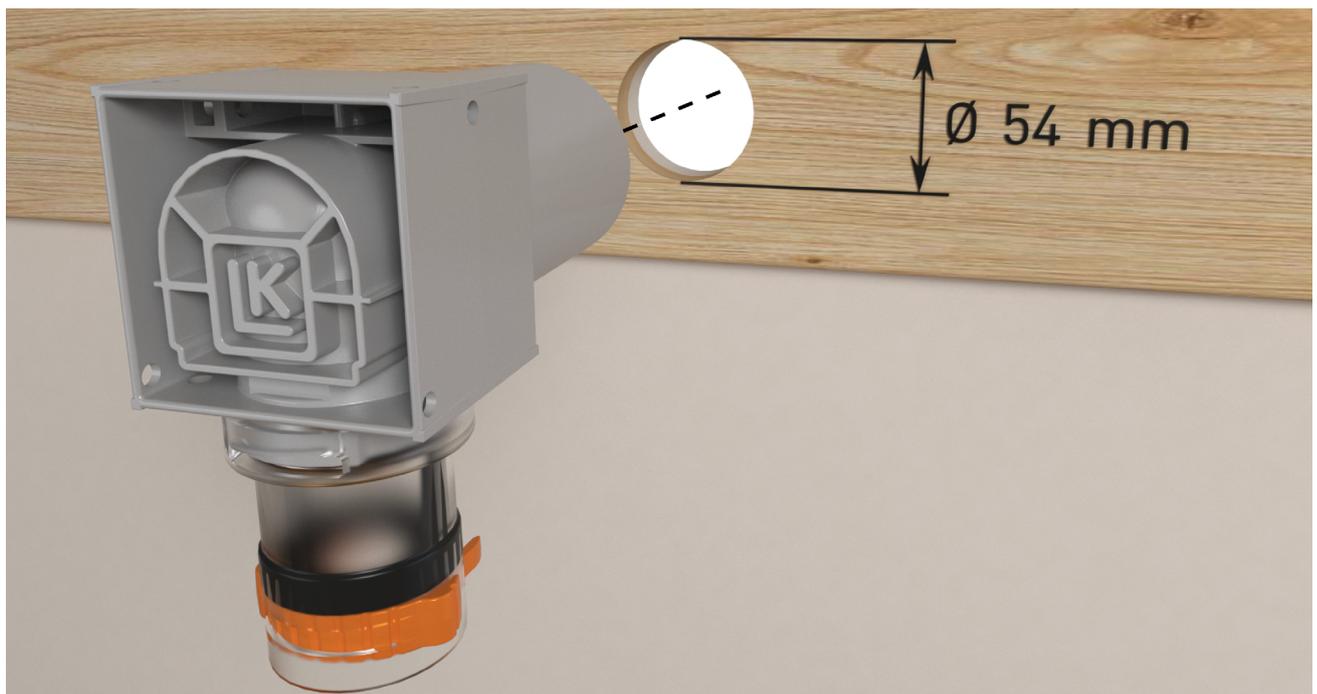
### 1. Install LK Wallbox UNI Push AX16 V3



**INSTRUCTION!**

Read the entire installation instructions before carrying out the installation.

1. Check that all the parts on the wallbox are whole prior to assembly. If any part is damaged, it must be replaced.
2. Drill a hole with a diameter of 54 mm.



## 1.2 Two different ways to install the wall box

- There are two different ways to install the wall box, choose 1.3 or 1.4 . Always aim to install the wall box so that the shank is as short as possible, as this facilitates potential pipe replacement.



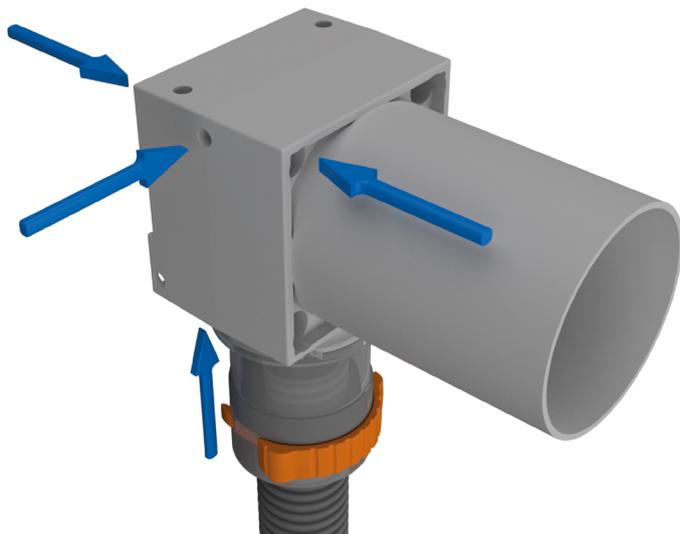
**TIP!**

As the wall box is to be installed from the rear, it may be helpful to use the LK Mounting bracket UNI Push V3 (Article. No. 188 26 59).



**NOTE!**

The distance between the boxes in the wall with a waterproof layer for tap water or heating pipes must be at least 60 mm.



The screw holes in the wall box allow for various mounting methods.

## 1.3 Secure the wall box using the supplied screws

- The wallbox should always be attached against the nogging piece, stud or Wet-Room-Wall 2012 (Safe Water-wall). When assembling from the front or the back, use the four shorter screws. When assembling at the side of a stud or upwards against a nogging piece, use the two longer screws. Proceed to step 1.5.



## 1.4 Start by installing the LK Universal pipe

1. Go to step 1.5 and follow the installation unstructions up to step 1.9.
2. Assemble the wallbox from the front or back with four shorter screws.



**NOTE!**

When assembling at the side of a stud or upwards against a nogging piece, use the two longer screws. The wallbox should always be attached against the nogging piece, stud or Wet-Room-Wall 2012 (Safe Waterwall).

3. Then follow the instructions from point 1.10.



**RISK!**

The wallbox may never be attached only in plaster.

## 1.5 Adjust the length of the LK Universal Pipe

1. Cut the pipe perpendicular with a pipe cutter.
2. Cut the  $\varnothing 34$  mm protective conduit an additional 30 mm for the 16 mm wall box.
3. For the 20 mm wall box, adjust the protective conduit length for the 25/34 jointing sleeve and the included  $\varnothing 25$  mm protective conduit. The LK Universal Pipe should be 27 mm longer than the protective conduit.

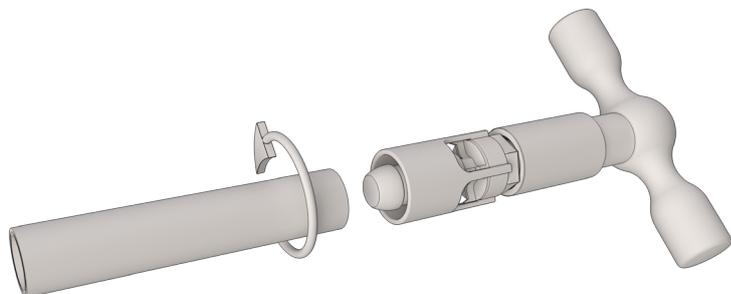
## 1.6 Deburre the LK PE-X and LK PAL Universal Pipes



**RISK!**

Deburre LK PE-X and LK PAL Universal Pipes to prevent damage or displacement of the O-rings, which will inevitably result in a leaking joint.

1. Deburre LK PE-X and LK PAL Universal Pipes
2. Clean the pipes from any shavings, after deburring.



Exemple image. Pipe and deburring tool.



LK Deburrer Article. No.176 80 73.



## 1.7 Mark the insertion depth on the pipe

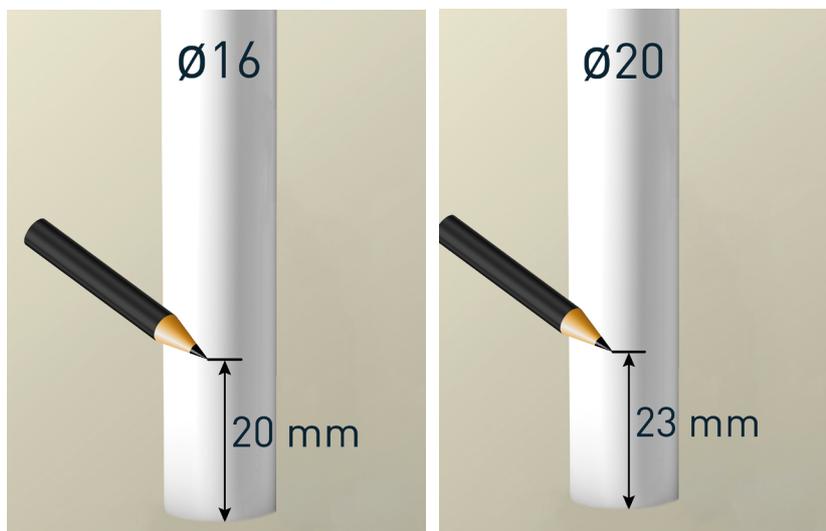


**TIP!**

Use the yardstick on LK Smart Tool Push AX (Article. No. 188 25 49) to measure and mark the insertion depth.

1. Mark the insertion depth with a suitable pen.

Ø16 mm pipe	Insertion depth 20 mm
Ø20 mm pipe	Insertion depth 23 mm



LK Smart Tool Push AX

## 1.8 Mount the 25/34 sleeve coupling

1. Loosen the sleeve coupling and pull out the clip on the 16 mm wall box.
2. Mount the LK Jointing Sleeve 25/34 on the Ø34 mm conduit. Push the conduit as far as possible into the jointing sleeve.
3. Install the included Ø25 mm conduit piece in the joint between the wall box and the jointing sleeve. Push the conduit piece as far as possible into the jointing sleeve. Adjust the Ø25 mm conduit piece so that there is approximately 27 mm between the top of the joint and the insertion mark on the conduit.
4. Then slide the sleeve coupling onto the conduit.



### 1.9 Mount the LK Universal Pipe into the PushFit coupling

1. Insert LK Universal Pipe into the PushFit coupling until it resists and the marking of the insertion depth is barely visible.
2. Then pull the pipe to ensure that it is secured firmly in the coupling.
3. Assemble the sleeve coupling on the wallbox's casing with a rotating movement until it stops, so that it locks firmly.
4. Check that the support sleeve is installed in the fitting.
5. Check that at least one groove on the conduit is visible above the rubber gasket in the sleeve coupling, and that the gasket is midway between two grooves on the conduit.



**TIP!**

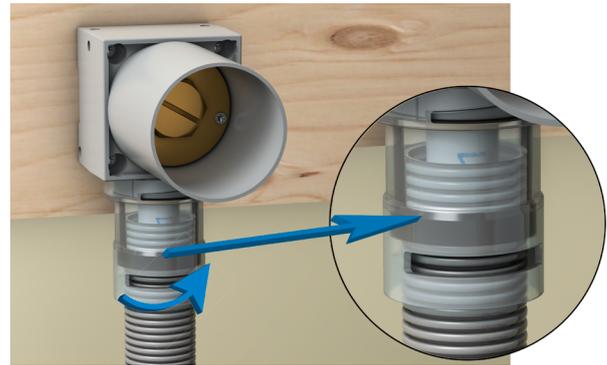
To facilitate installation of LK Universal Pipe in the fitting, use LK Manual Pipe Grip Plier 16-32 (Article no. 188 26 97).



Step 1-2.



Step 3.



Step 4.

6. Install the conduit clip in the 16 mm wall box sleeve coupling. Ensure that the ends go through the slot on the back of the sleeve coupling.
7. Check that the conduit is fixed by pulling on it.



Step 5.



Step 6.



## 1.10 Fix the protective conduit

1. For the 16 and 20 wall boxes with a coupling sleeve, secure the  $\varnothing 34$  mm conduit near the lower end of the coupling sleeve.
2. Then continue with at least one fixation every 0.6 m on the  $\varnothing 25$  and  $\varnothing 34$  mm conduit.



## 1.11 Pressure testing plug and pressure testing

- **The pressure testing plug is fitted and may NOT be used for any other purposes besides pressure testing.** Remove the plug using a screwdriver or a 25 mm box spanner. The pressure and leakage check must be carried out according to the Assembly instructions for LK PE-X, <https://www.lksystems.se/en/dokumentation/>.

## 1.12 Service Hatch

### NOTE!

Please note that LK PAL Universal Pipe dimensions 16 and 20 and LK PE-X Universal Pipe dimension 20 are not exchangeable. This means that a hatch for service is necessary to be installed.

In cases where the wall box is connected with LK PAL Universal Pipe dimensions 16 and 20 and LK PE-X Universal Pipe dimension 20, the wall box must be screwed from the back side in a beam so that it can be dismantled. A service hatch should be mounted behind the box so that dismount of the wall box is possible.



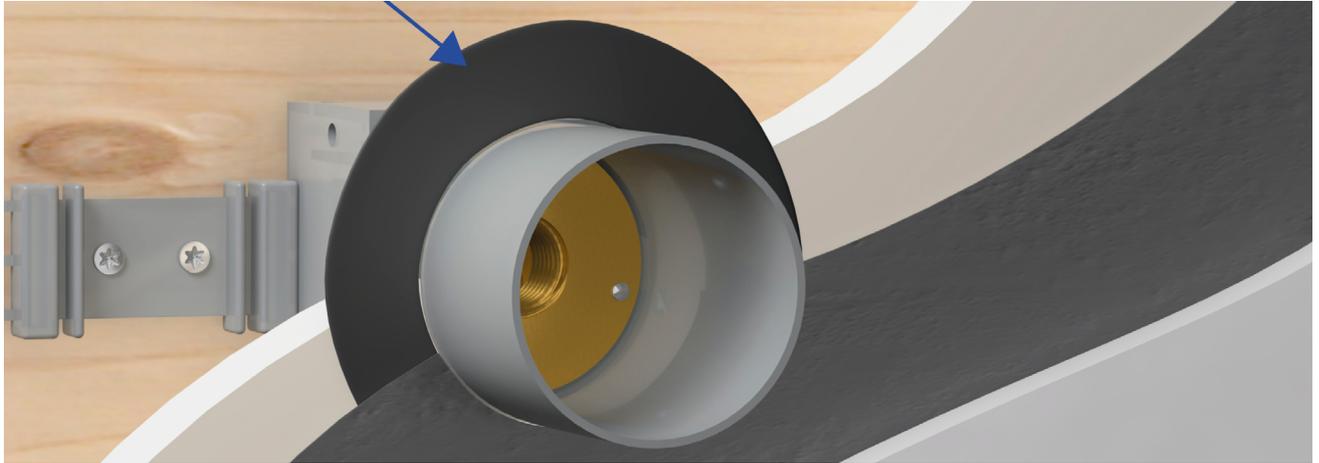
## 1.13 Wall Cladding

### Ceramic tiles



**NOTE!**

If the wall cladding is of ceramic tiles, the pipe membrane should be assembled behind the tiles and connected tightly against the wall lead-through. LK Pipe Membrane Wallbox Push, (Article no. 481 44 23) can be used. The sealing layer contractor is responsible for the sealing layer's adhesive properties in accordance with the industry rules. BBV 21:1 och GVK 2021:1.



### Vinyl Covering



**NOTE!**

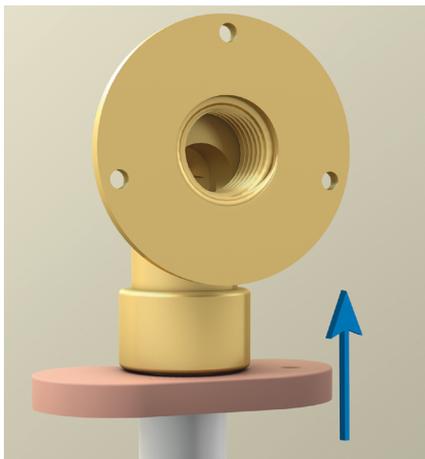
If the wall cladding is of vinyl covering the sealing layer contractor should be responsible for sealing between the wallbox's shank and vinyl covering.

## 1. 14 Disassembling the PushFit coupling



**NOTE!**

In the event of disassembly, LK Disassembly Tool (Article no. 188 06 45 for 16 mm) or 188 06 46 for 20 mm) or LK SmartTool AX (Article no. 188 25 49) must be used.



LK Disassembly tool PushFit is pushed upwards. LK Disassembly tool PushFit.



LK SmartTool AX.

- If the same pipe needs to be reassembled, the pipe ends should be checked so that the coupling's grab ring has not damaged the pipe.
- If damaged, the pipe should be cut at least at the insertion depth which has been marked.
- Check the o-rings on the support sleeve so that they are intact before reassembling the coupling, otherwise the coupling must be replaced. The coupling can be reused a maximum of 10 times.



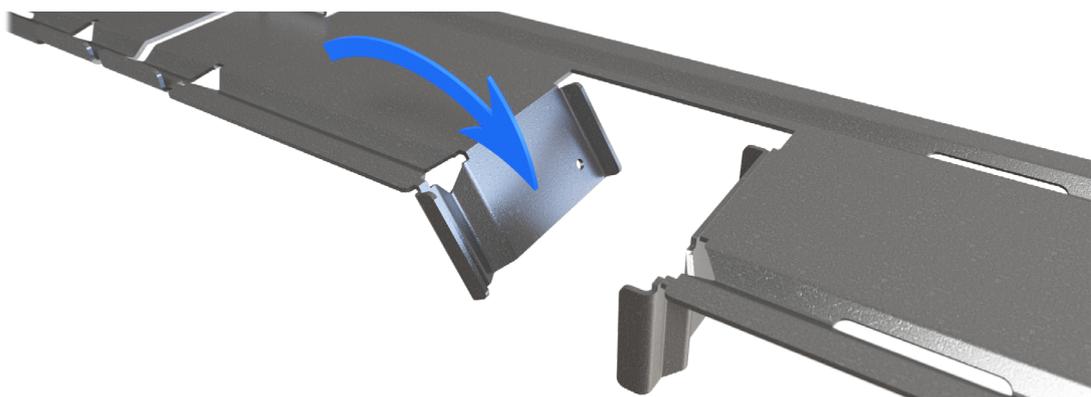
## Install LK Wall Supports

### Prerequisites

- When two wall boxes are to be mounted in a stud construction, LK Wall Support Wallbox UNI Push V3, 160 [Article no. 188 26 60] or LK Wall Support Wallbox UNI Push V3 150 [Article no. 188 26 61], can be used.
- LK Wall Support attaches the boxes and provides the correct c.t.c distance between them.
- LK Wall Support UNI Push V3 is suitable for stud separation dimensions of 300 mm or 450 mm.

### 2.1 Mount LK Wall Support for Wallbox UNI Push

1. Bend out the attachment lugs on the plate.



2. Mount the wall boxes on the plate using the screw included. Pass the screw through the large hole in the plate and through the box so that it tightens in the small hole.



3. The stud must be jacked out 5 mm behind the whole plate to provide space for the plate reinforcement profile.



4. Attach the plate to the stud using four screws, (not included). Continue to mount the box according to step 1.5.

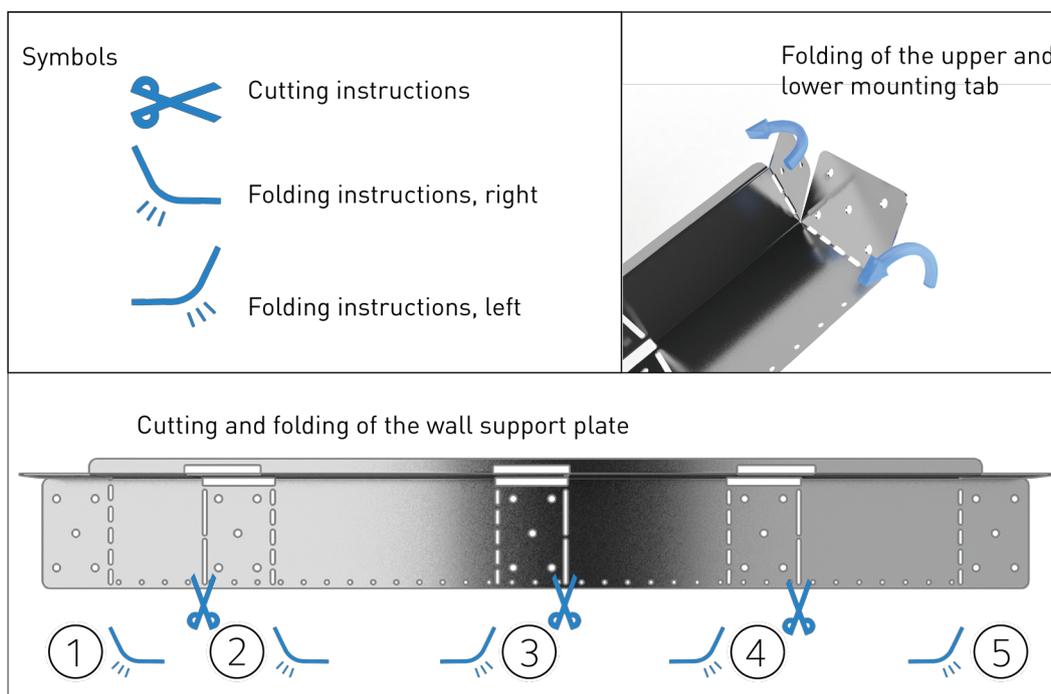
## 2.2 Mount LK Wall Support Flex Wallbox UNI Push

### Requirements

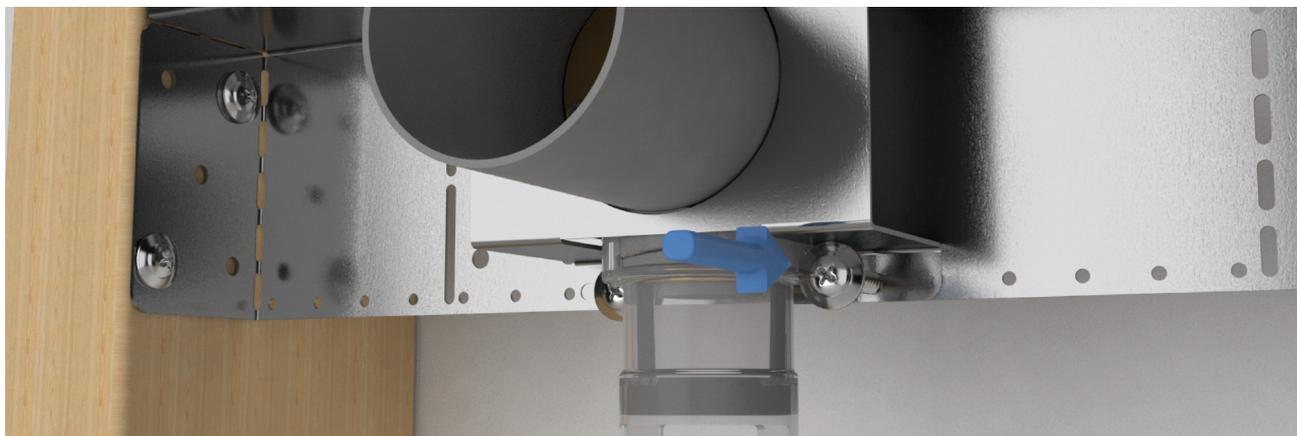
- When two wallboxes are to be installed on a wooden stud, then a LK Wall Support Flex Wallbox UNI Push (Article no. 188 22 03) can be used.
- LK Wall Support fixes the wallboxes and provides a flexible c.t.c distance between them.
- LK Wall Support Flex UNI Push has been adapted for a distance of 300 mm, 450 mm or 600 mm between the studs.

1. Cut the wall support to the required length, see instructions in the table below.
2. Fold the upper mounting ear and turn in the lower mounting ear. See instructions in the table below.

Instructions	Refers to c.t.c dimensions (mm)	Instructions	Refers to c.t.c dimensions (mm)
1+5	600 WoodenStud	2+5	450 Steel Stud
1+4	450 WoodenStud	1+3	300 WoodenStud



3. Attach the bracket to the plate with the screws included.



4. Continue installing the box according to step 1.5.



## 2.3 Mount LK Wall Support Wallbox UNI Push 150 N5

### Requirements

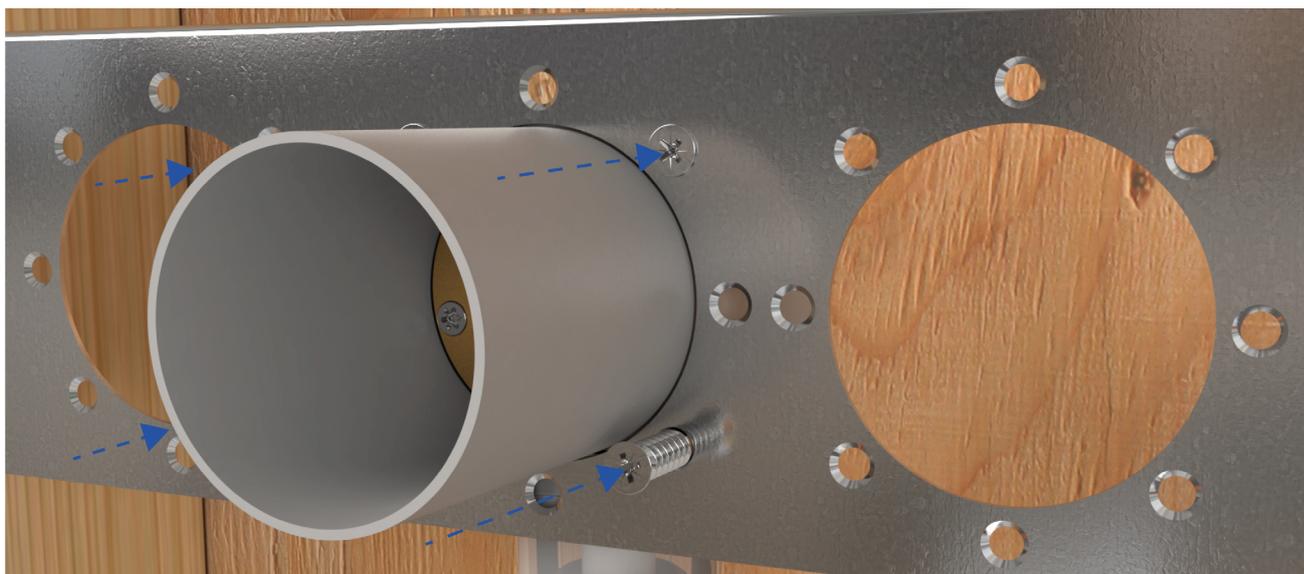
- When two wallboxes are to be installed in a wooden stud framing, LK Wall Support Wallbox UNI Push 150 N5 (Article no. 188 22 95) can be used.
- The wall support is for mixers with c/c 150 mm and is suitable for walls that have maximum 600 mm distance between the studs.



#### NOTE!

It is c/c 75 mm between the holes on the wall support, but there are no collars for this assembly. The distance between the boxes in the wall with a waterproof layer for tap water or heating pipes must be at least 60 mm.

1. Attach each wallbox to the plate with four of the included system screws.



2. The wooden stud must be notched 8 mm deep at the top edge to accommodate the reinforcement edge of the metal plate.



3. Attach the plate to the stud using the four countersunk wood screws included.
4. Continue to mount the wallbox according to step 1.5.

## 2.4 Mount LK Wallbox UNI Push Clamp V3



**TIP!**

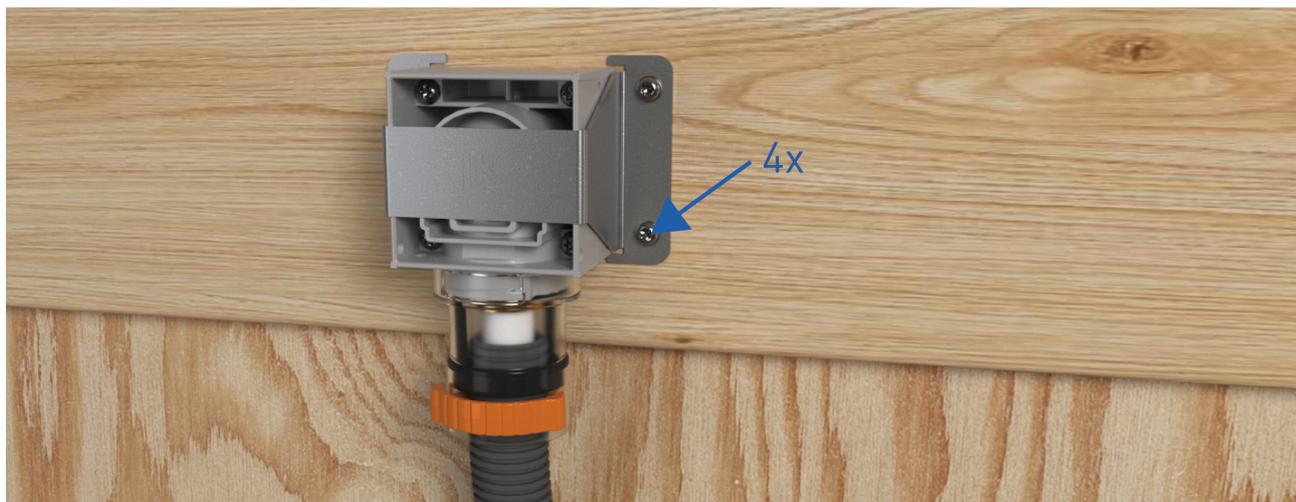
When the wallbox is to be installed from the back then it is easier to use LK Wallbox UNI Push V3 Clamp (Article no. 188 26 59). The clamp means the screw is attached at a slight distance from the wallbox.



**NOTE!**

The distance between the boxes in the wall with a waterproof layer for tap water or heating pipes must be at least 60 mm.

1. Mount the wallbox in the hole (Ø 54 mm), mount the clamp using four screws (not included).
2. Attach the clamp and the wallbox using four screws (not included).



## 2.5 Final work after wall cladding is installed



**NOTE!**

If the wall cladding is to have a vinyl covering then the LK Wall Box Cutter UNI UTV (Article no. 188 21 54) can be used.

- The wall box is cut down to 6-9 mm from the completed wall with LK Wall Box Cutter UNI (Article no. 187 64 94). Aids for correct cutting dimensions can be used, (Article. No. 188 26 76) LK Distance plate 6-9mm.



## Install LK Connection couplings



### NOTE!

Thread tape should not be used on the connection coupling.

### 3.1 Assemble the mixer c.t.c 160 with LK Connection coupling M26

1. Assemble LK Connection coupling M26 (Article no. 188 18 45) with mixer c.t.c 160.
2. Adjust the length of the connection.
3. Seal the thread joint against the angle fitting with, for example, flax and thread paste. Thread tape should not be used.
4. Tighten with a combination wrench or a 14 mm Allen key.



LK Connection coupling M26.



### 3.2 Assemble the mixer c.t.c 150 with LK Connection coupling 3/4" / 1/2"

1. Assemble LK Connection coupling 3/4" / 1/2" (Article no. 188 18 48) with mixer c.t.c 150.
2. Adjust the length of the connection coupling so that approximately 10 mm of the 3/4" pipe thread is exposed when the cover plate is tightened against the wall.
3. Seal the thread joint against the angle fitting with, for example, flax and thread paste. Thread tape should not be used.
4. Tighten with a combination wrench or a 14 mm Allen key.



LK Connection coupling 3/4" / 1/2".



For more variants of connection couplings, visit:

<https://www.lksystems.se/en/products/universal/installation-components/angle-wall-box-mounting/>

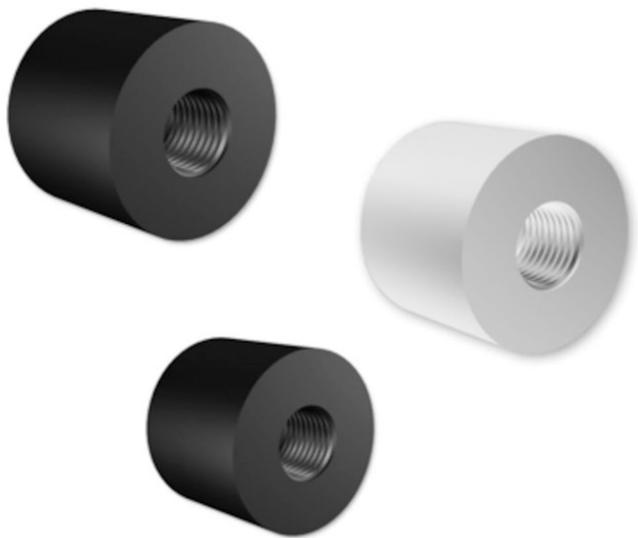


## Replacement of PE-X pipes for LK Wallbox Push

- For replacement of LK PE-X Universal Pipe X, refer to assembly instructions for [LK PEX, PAL and PE-RT](#).

## LK Reinforcement for Wallbox UNI

- The LK Reinforcement for Wallbox UNI (Article. No. 188 10 66) is used when the mixer requires maximum support.
- The sleeve has a female 1/2" thread which is screwed onto a connection coupling.
- The connection coupling is then screwed onto the wallbox angle fitting.



Example image. LK Reinforcement for Wallbox UNI is available in three models.

## LK Coupling Extractor UNI V2

- Intended to be used for LK Wall boxes when replacing PE-X pipes.
- Mount the external G15 thread into the angle connection of the wall box.
- Connect the new PE-X pipe (LK PiP 16 Exchange Nipple V3, Article. No. 188 26 82 can be used) and pull out the old PE-X pipe. Material stainless.



LK Coupling Extractor UNI V2.