

# Pipes

## LK Underfloor Heating Pipe PE-Xa

PE-Xa pipe with oxygen barrier for under floor heating. PN 6 bar. Maximum operating temperature 70 °C (short time maximum peak temperature 95 °C)

### Material Consumption

- Pipe dim 8 x 1,0 pipe distance c/c 120 mm, approx. 8,8 m/m<sup>2</sup>
- Pipe dim 12 x 2,0 pipe distance c/c 150 mm, approx. 7 m/m<sup>2</sup>
- Pipe dim 16 x 2,0 pipe distance c/c 160 mm, approx. 7 m/m<sup>2</sup>
- Pipe dim 16 x 2,0 pipe distance c/c 200 mm, approx. 5,7 m/m<sup>2</sup>
- Pipe dim 16 x 2,0 pipe distance c/c 240 mm, approx. 4,6 m/m<sup>2</sup>
- Pipe dim 16 x 2,0 pipe distance c/c 300 mm, approx. 3,8 m/m<sup>2</sup>
- Pipe dim 16 x 2,0 pipe distance c/c 320 mm, approx. 3,5 m/m<sup>2</sup>
- Pipe dim 16 x 2,0 pipe distance c/c 400 mm, approx. 2,8 m/m<sup>2</sup> (Industrial premises)



Article	Dim.	Length	Weight (kg)	Packaging
241 72 48	8 x 1,0	45 m	1,5	1/40
241 72 49	8 x 1,0	90 m	3	1/20
241 72 50	8 x 1,0	180 m	6	1/12
241 94 62	12 x 2,0	35 m	2,8	1/12
241 74 98	12 x 2,0	70 m	5,6	1/12
241 74 99	12 x 2,0	140 m	11,2	1/12
241 75 00	12 x 2,0	600 m	42	1/3
241 78 28	16x2,0	75 m	8,2	1/12
241 75 01	16x2,0	120 m	11,4	1/9
241 75 02	16x2,0	160 m	15,1	1/6
241 75 03	16x2,0	200 m	18,9	1/6
271 74 50	16x2,0	360 m	32,7	1/4
241 78 48	16x2,0	500 m	46,5	1/3

## LK Under Floor Heating Pipe PE-RT

PE-RT with oxygen barrier for under floor heating. PN 6 bar. Maximum operating temperature 60 °C (short time maximum peak temperature 70 °C)

### Material Consumption

- Pipe dim. 8 x 1,0 pipe distance c/c 120 mm, approx. 8,8 m/m<sup>2</sup>
- Pipe dim. 12 x 2,0 pipe distance c/c 150 mm, approx. 7 m/m<sup>2</sup>
- Pipe dim. 16 x 2,0 pipe distance c/c 160 mm, approx. 7 m/m<sup>2</sup>
- Pipe dim. 16 x 2,0 pipe distance c/c 200 mm, approx. 5,7 m/m<sup>2</sup>
- Pipe dim. 16 x 2,0 pipe distance c/c 240 mm, approx. 4,6 m/m<sup>2</sup>
- Pipe dim. 16 x 2,0 pipe distance c/c 300 mm, approx. 3,8 m/m<sup>2</sup>
- Pipe dim. 16 x 2,0 pipe distance c/c 320 mm, approx. 3,5 m/m<sup>2</sup>
- Pipe dim. 16 x 2,0 pipe distance c/c 400 mm, approx. 2,8 m/m<sup>2</sup> (Industrial premises)
- Pipe dim. 20 x 2,0 pipe distance c/c 300 mm, approx. 3,8 m/m<sup>2</sup>
- Pipe dim. 20 x 2,0 pipe distance c/c 400 mm, approx. 2,8 m/m<sup>2</sup> (Industrial premises)



Article	Type	Dim.	Length	Weight (kg)	Packaging
241 67 13		16 x 2,0	75 m	8,2	1/12
241 67 14		16 x 2,0	120 m	11,4	1/9
241 67 15		16 x 2,0	160 m	15,1	1/6
241 67 16		16 x 2,0	200 m	18,9	1/6
241 67 27		16 x 2,0	360 m	32,7	1/4
241 67 18		16 x 2,0	500 m	46,5	1/3
241 67 19		20 x 2,0	75 m	10,5	1/9
241 03 12		16 x 2,0	750 m	66,8	1/3
241 67 20		20 x 2,0	120 m	16,3	1/6
241 67 26		20 x 2,0	160 m	19,3	1/6
241 67 21		20 x 2,0	240 m	26,3	1/4
241 67 23		20 x 2,0	360 m	46,5	1/3
241 67 24		20 x 2,0	500 m	50,0	1/2

## LK Heating Pipe PE-Xa PiP

PE-Xa pipe mounted in conduit. Used as feed pipe between heat source and LK Manifold.

Article	Dim. PE-X pipe	Dim. conduit (mm)	Length	Weight (kg)	Packaging
241 78 29	25 x 2,3 mm	34	50 m	15,5	1/6
243 46 34	25 x 2,3 mm	34	25 m	7	1/9
241 78 30	32 x 2,9 mm	42	25 m	12,9	1/3
241 90 74	32 x 2,9 mm	42	50 m	28	1/3





## LK Conduit

Made of parallel corrugated PP as protective conduit to LK PEX and PAL pipes.

The LK Conduit can also be used to reduce heat transmission in underfloor heating systems for the feeding pipes between the manifold and floor heating area.



Article	Dim. conduit (mm)	For pipe dim.	Length	Color	Weight (kg)	Packaging
187 06 65	25	16	50 m	Gray	3,6	1/12
187 06 66	34	20-25	50 m	Gray	5,6	1/18
188 23 55	42	32	50 m	Black	6,8	1/3

# Concrete & Screed Encapsulated Systems

## LK System Plate 30

Insulation plate of EPS, 30 mm thick with castellated pipe holders for LK Universal pipe Ø 16 mm.

Pipe spacing ability c/c 80, 160, 240, 320 mm ect.

Short time lasting compression strengths SS 169524, 200kPa (S200)

Long lasting compression strengths 65 kPa (3% compr. in 50 years).

Thermal conductivity capability 0,033 W/m °C.

Height over all incl. pipes 60 mm.



### Material Consumption

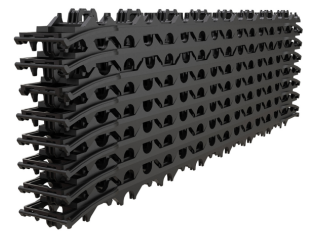
- Approx. 1 package/10 m<sup>2</sup>

Article	For pipe dim.	Length	Width	Height	Area (m <sup>2</sup> )	Weight (kg)	Packaging
241 75 10	16 mm	800 mm	640 mm	30 mm	10.2	12	1

## LK Clip Rail Combi 16/20

- Quick and easy installation
- 100% recycled material

The LK Clip Rail Combi is intended for use in single or double layer concrete structures and is suitable for pipes 16 and 20 mm in size. The clip rail is 10.2 metres long and is supplied folded up. It is easy and fast to lay. Clip rails can be easily joined and extended. Material consumption 0.12 units/m<sup>2</sup>.



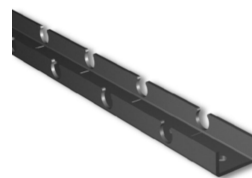
The clip rail is available in two versions and is made from recycled plastic. One version has inbuilt mm barbed staples and is intended for use when laying EPS insulation. The other version does not have barbed staples and is nailed or clipped in place in the slab using concrete nails and a nail gun.



Article	Type	For pipe dim.	Length	Height	Packaging
241 04 56	Without nails	16 & 20	10,2 m	27 mm	1/7/70
241 04 57	With nails	16 & 20	10,2 m	56 mm	1/7/70

## LK Clip Rail

For LK Universal pipe/LK Floor Heating pipe. Intended to be used where necessary additional insulation is satisfactory. Fix to insulation with LK Pipe Holder Art. no. 241 75 17 or 241 81 08. On concrete floors the clip rail is nailed or screwed to the floor.



### Material Consumption

- Dim 8 and 12 approx. 1,7 pcs/m<sup>2</sup>
- Dim 16 and 20 i 2 m length, approx. 0,6 pcs/m<sup>2</sup>
- Dim 16 and 20 i 4 m length, approx. 0,3 pcs/m<sup>2</sup>



Article	For pipe dim.	Length	Height	c/c	Color	Weight (kg)	Packaging
241 93 65	8 mm	1,2 m	10 mm	20 mm	White/Yellow	0,12	1/10/3000
241 77 48	12 mm	1,2 m	14 mm	25 mm	White/Yellow	0,16	1/10
241 81 24	16 mm	2,0 m	25 mm	80 mm	Gray/Purple	0,5	1/10/880
241 75 24	16 mm	4,0 m	25 mm	80 mm	Gray/Purple	1,06	1/10/880
241 81 25	20 mm	2,0 m	25 mm	50 mm	Brown Gray	0,8	1/10/1050
241 76 99	20 mm	4,0 m	25 mm	50 mm	Brown Gray	1,56	1/10/700
243 52 02	20 mm	2,0 m	25 mm	80 mm	Blue Gray	0,7	1/10/1050
243 52 03	20 mm	4,0 m	25 mm	80 mm	Blue Gray	1,4	1/10/700

### LK Clip Rail

For LK Under Floor Heating Pipe dim 16/20. Used where there is no need for additional insulation. The rail has an adhesive tape to fix to the insulation. If necessary it can be completed with LK Pipe Holder Nail, Art. no. 241 75 17. The Clip Rails can be snapped together to form longer lengths.



Article	Dim.	For pipe dim.	Length	Height	Packaging
33800	20	16/20	1 m	27 mm	1

### LK Pipe Holder

Used for fixing pipes at the pipe turns when installing under floor heating using LK Clip Rail or LK System Plate. LK Pipe Holder is also used for fastening the clip rail on to insulation. As standard LK Pipe Holder 65 mm is used. For thin insulation applications the 42 mm version is used.



### Material Consumption

- Length 65 mm approx. 3 pcs/m<sup>2</sup>
- Length 42 mm approx. 6 pcs/m<sup>2</sup>



Article	For pipe dim.	Length	Packaging
241 75 17	8-12-16-20 mm	65 mm	1/100/5000
241 81 08	8-12-16 mm	42 mm	1/100/5000

## LK Staples

LK Staples are used with LK's older Staple Gun (Art.no. 241 81 45, see picture) to fix the floor heating pipe to the insulation in pipe bends and in between clip rails. The staples are delivered in a box with 270 pcs or 300 pcs depending on dimension.

The staples are joined together in rows for easy refill of the staple gun. As standard 50 mm is used, and on concrete slabs with thin insulation the short staple is used.



### Material Consumption

- Length 40 mm, approx. 1 box/75 m<sup>2</sup>
- Length 50 mm, approx. 1 box/100 m<sup>2</sup>

Article	For pipe dim.	Length	Packaging
241 72 97	8-12-16	40 mm	1/300/16
241 81 47	8-12-16-20	50 mm	1

\* Note! Sold in packages of 300 staples (1= 1 carton à 300 staples).

\*\* Note! Sold in packages of 270 staples (1= 1 carton à 270 staples).

## LK Staple Gun and LK Staples 3D Premium

Patented system for fixing clip rails and pipes.

LK Staple Gun 3D Premium is used together with LK Staples 3D Premium for attachment of LK Under Floor Heating Pipe to EPS insulation in e.g. pipe bends and between clip rails. LK Staple Gun 3D Premium is used together with LK Staples 3D Premium for attachment of LK Under Floor Heating Pipe to EPS insulation in e.g. pipe bends and between clip rails. The Staple Gun is also used for attachment of pipes to LK Foil board 30 silent.

The mechanism of the staple gun is safe and robust. If despite this a clip gets stuck in the mechanism, you can easily clean it by opening a cover and removing the clip which is stuck. LK Staples 3D Premium are particularly firmly attached in the EPS insulation, as the leg of the staple has a unique design equipped with holding nails on three sides.

The staples are welded together in rows to allow easy filling of the Staple Gun. The gun is filled with 75 staples each time it is loaded.



### Material Consumption

- about 1 box/130 m<sup>2</sup> for the attachment of LK Clip-Rail 16 and LK Floor Heating pipe on cell foam insulation.
- about 1 box/29 m<sup>2</sup> for the attachment of floor heating pipe with c/c 200 on LK Foil Board 30 Silent.
- about 1 box/42 m<sup>2</sup> for the attachment of floor heating pipe with c/c 300 on LK Foil Board 30 Silent.



Article	Type	For pipe dim.	Length	Packaging
188 06 72	LK Staple Gun 3D Premium			1/48
188 06 71	LK Staples 3D Premium *	8-12-16-20 mm	38 mm **	400/116

\* Note! Sold in packages of 400 staples (1 = 1 carton à 400 staples).

\*\* Refers to insertion length

## LK Nail 90 for Clip Rail

LK Nail for Clip Rail 90 is used to fastening the clip rail against insulation that is both draining and insulating.



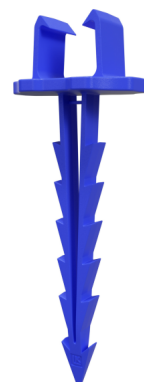
Article	Length	Packaging
241 02 55	90 mm	1/50



## LK Pipe Holding Nail 16-20

LK Pipe Holding Nail 16-20 used for fixing LK Universal Pipe/LK Heating Pipe dim. 16-20 in to insulation.

Article	For pipe dim.	Length	Packaging
241 94 85	16-20 mm	115 mm	1/50/500



## LK Pipe Holding Nail 25-63

LK Pipe Holding Nail 25-63 used for fixing LK Universal Pipe/LK Heating Pipe/LK Heating Pipe PiP dim. 25-63 to insulation. Supplied with cable ties.

Article	For pipe dim.	Length	Packaging
241 94 86	25-63 mm	95 mm	1/25/500



## LK Nail Clip

LK Nail Clip is intended for mounting pipes to concrete construction in wall and floor. Pre-drill with an 8 mm drill



Article	Type	For pipe dim.	Length	Packaging
381 05 13	Single	25-34 mm	110 mm	1/50/1000
381 05 14	Double	25-34 mm	110 mm	1/50/1000
381 05 85	With cable ties	16-63 mm	65 mm	1/50/1000



# Joist Systems

## LK HeatFloor 22, Slotted Board

22 mm floor grade chipboard 'tongue & grooved' all round. The board has slots centered at 200 mm or 300 mm for LK Underfloor heating Pipe Ø 16 mm. The board is made in two quality classes, standard P6 and moisture resistant P7. The board shall be supplemented with LK Heat Distribution Plate 16/190, Art. no. 241 80 09 or LK Heat Distribution Plate 16/280 art.no 298 88 70.



Building height incl. pipes 22 mm.

### Material Consumption

- Approx. 1,0 pcs/m<sup>2</sup> excl. turning zone surface



Article	Length	Width	Height	c/c	Quality class	Weight (kg)	Packaging
241 89 02	1800 mm	600 mm	22 mm	200	P6*	16	1/36
298 88 69	1800 mm	600 mm	22 mm	300	P6*	17,4	1/36
241 92 71	1800 mm	600 mm	22 mm	200	P7	16	1/36

\* Nordic Swan Ecolabelled

## LK HeatFloor 22, Turning Board

Floor grade chipboard 22 mm with turning slots on the upper side at c/c 200 mm or c/c 300 mm for LK Underfloor heating Pipe Ø 16 mm. The board is made in two quality classes, standard P6 and moisture resistant P7.



Building height incl. pipes 22 mm.

Turning slots on the upper side.

Can be installed on floor joists and on existing floor.

4 entry/exit slots.

### Material Consumption

- 1,4 pcs/m turning zone (cc 200)
- 0,85 pcs/m turning zone (cc 300)



Article	Length	Width	Height	c/c	Quality class	Weight (kg)	Packaging
241 78 18	595 mm	800 mm	22 mm	200	P6*	7,1	1/80

Article	Length	Width	Height	c/c	Quality class	Weight (kg)	Packaging
298 88 71	595 mm	1200 mm	22 mm	300	P6*	7,5	1/36
241 81 91	595 mm	800 mm	22 mm	200	P7	7,1	1/80

\* Nordic Swan Ecolabelled

## LK Heat Distribution Plate 16/190

LK Heat Distribution Plate 0,45 mm aluminium made for LK Universal pipe Ø 16 mm. The plate can be shortened by snapping across 3 pcs break lines..



LK Heat Distribution Plate 16/190 is intended for the LK Floor Heating systems below:

LK HeatFloor 22, Slotted board

LK Cross Battening installations

LK Slotted Board EPS 30/50/70 at pipe spacing c/c 200 mm

LK Slotted Board Silencio 36

### Material Consumption

- LK HeatFloor 22, Slotted board, approx. 4 pcs/m<sup>2</sup>
- Cross Battening installations, approx. 4 pcs/m<sup>2</sup>
- LK Slotted Board EPS 30/50/70, approx. 4,2 pcs/m<sup>2</sup>
- LK Slotted Board Silencio 36, approx. 4,2 pcs/m<sup>2</sup>



Article	Length	Width	Weight (kg)	Packaging
241 80 09	1150 mm	190 mm	0,31	1/60/480

## LK Floor Joist Plate 16

3 slots centred at 200 mm adapted for LK Under Floor Heating Pipe Ø 16 mm. Galvanised heat distribution plate 0,5 mm for installation between floor joists with centre distance of 600 mm between the joists and where a load-bearing floor is to be laid directly on the floor joists.



### Material Consumption

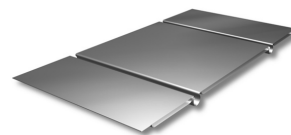
- Approx. 3,7 pcs/m<sup>2</sup>

Article	Length	Width	Weight (kg)	Packaging
241 75 49	300 mm	595 mm	0,96	1/25/200

## LK Floor Joist Plate 20



2 slots centred at 300 mm adapted for LK Under Floor Heating Pipe Ø 20 mm. Galvanised heat distribution plate 0.5 mm for installation between floor joists with centre distance of 600 mm between the joists and where a load bearing floor is to be layed directly on the floor joists.



### Material Consumption

- Approx. 3,7 pcs/m<sup>2</sup>

Article	Length	Width	Packaging
241 80 90	300 mm	595 mm	1/25

## LK Floor Joist Plate AL

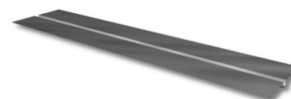
LK Floor Joist Plate AL with omega shaped groves c/c 200 mm for installation on wooden joists at c/c 400 mm. The aluminium plate is available for both 16 mm floor heating pipes and 20 mm pipes. The plate is made of 0.5 mm aluminium. Three break points.



Article	For pipe dim.	Length	Width	Note	Packaging
33509	16	1150 mm	390 mm	Joists c/c 400 mm	1/20
33510	16	1150 mm	405 mm	Joists c/c 411 mm	1/20
33511	20	1150 mm	390 mm	Joists c/c 400 mm	1/20
33512	20	1150 mm	405 mm	Joists c/c 411 mm	1/20

## LK Heat Distribution Plate 20/280

For LK Under Floor Heating pipe Ø 20 mm. Heat distribution plate of aluminium 0,5 mm for laying between cross battening. The plate can be shortened by snapping across the three break lines. The width of the plate is intended for installation with c/c 300 mm.



### Material Consumption

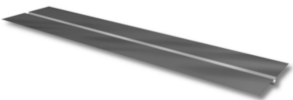
- Approx. 2,8 pcs/m<sup>2</sup>



Article	Length	Width	Weight (kg)	Packaging
241 80 89	1150 mm	280 mm	0,33	1/40

## LK Heat Distribution Plate 16/280

LK Heat distribution plate in 0.45 mm aluminum adapted for LK Universal pipe dim 16. The plate can be length-adjusted with the help of 3 buckling instructions. The heat distribution plate is used for LK Track Disc EPS 30/50/70 mm for pipe laying cc 300 mm or for LK HeatFloor 22 for pipe laying cc 300 mm.



Material Consumption

- Approx. 2,8 pcs/m²



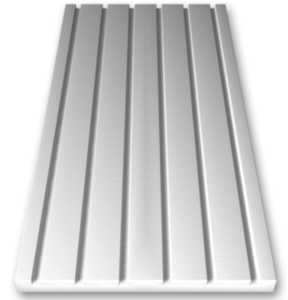
Article	Length	Width	Weight (kg)	Packaging
241 99 08	1150 mm	280 mm	0,42	1/40/320
298 88 70	1150 mm	280 mm		1/40/320

# Solid Floor & Floating Systems

## LK Slotted Board EPS 30/50/70

Insulation board in EPS, with 6 slots for laying pipes with LK Universal Pipe 16. Possible pipe distance is c/c 200 or c/c 300 mm.

Compression strength short time load 200 kPa.  
Long-term loading 70 kPa (3% compr. over 50 years).  
Thermal conductivity 0,034 W/m °C.



When laying pipes at c/c 200 mm the board should be used with LK Heat Distribution Plate 16/190, L 1150, W 190 mm, Art. no. 241 80 09.

When laying pipes at c/c 300 mm the board should be used with LK Heat Distribution Plate 16/280 L 1150, W 280 mm, Art. no. 298 88 70.

### Material Consumption

- 1,5 pcs/m<sup>2</sup> excl. turning zone surface

Article	Length	Width	Height	Weight (kg)	Packaging
241 99 05	1200 mm	600 mm	30 mm	0,7	1/51
241 99 06	1200 mm	600 mm	50 mm	1,2	1/32
241 99 07	1200 mm	600 mm	70 mm	1,6	1/23

## LK HeatFloor 22, Slotted Board

22 mm floor grade chipboard 'tongue & grooved' all round. The board has slots centered at 200 mm or 300 mm for LK Underfloor heating Pipe Ø 16 mm. The board is made in two quality classes, standard P6 and moisture resistant P7. The board shall be supplemented with LK Heat Distribution Plate 16/190, Art. no. 241 80 09 or LK Heat Distribution Plate 16/280 art.no 298 88 70.



Building height incl. pipes 22 mm.

### Material Consumption

- Approx. 1,0 pcs/m<sup>2</sup> excl. turning zone surface



Article	Length	Width	Height	c/c	Quality class	Weight (kg)	Packaging
241 89 02	1800 mm	600 mm	22 mm	200	P6*	16	1/36
298 88 69	1800 mm	600 mm	22 mm	300	P6*	17,4	1/36
241 92 71	1800 mm	600 mm	22 mm	200	P7	16	1/36

## LK Turning Board EPS 30/50/70

Turning board in EPS with pipe turns for 16 mm LK Universal Pipe. The board also has two slots for the feeding pipe.



- Compression strength short time load, 200 kPa.
- Long-term loading 70 kPa (3% compr. over 50 years).
- Thermal conductivity 0,034 W/m °C.

### Material Consumption

- 0,9 pcs/m turning zone

Article	Length	Width	Height	Weight (kg)	Packaging
241 99 02	300 mm	1200 mm	30 mm	0,3	1/104
241 99 03	300 mm	1200 mm	50 mm	0,5	1/64
241 99 04	300 mm	1200 mm	70 mm	0,7	1/46

## LK Heat Distribution Plate 16/190

LK Heat Distribution Plate 0,45 mm aluminium made for LK Universal pipe Ø 16 mm. The plate can be shortened by snapping across 3 pcs break lines..



LK Heat Distribution Plate 16/190 is intended for the LK Floor Heating systems below:

LK HeatFloor 22, Slotted board

LK Cross Battening installations

LK Slotted Board EPS 30/50/70 at pipe spacing c/c 200 mm

LK Slotted Board Silencio 36

### Material Consumption

- LK HeatFloor 22, Slotted board, approx. 4 pcs/m<sup>2</sup>
- Cross Battening installations, approx. 4 pcs/m<sup>2</sup>
- LK Slotted Board EPS 30/50/70, approx. 4,2 pcs/m<sup>2</sup>
- LK Slotted Board Silencio 36, approx. 4,2 pcs/m<sup>2</sup>



Article	Length	Width	Weight (kg)	Packaging
241 80 09	1150 mm	190 mm	0,31	1/60/480

## LK Heat Distribution Plate 16/280

LK Heat distribution plate in 0.45 mm aluminum adapted for LK Universal pipe dim 16. The plate can be length-adjusted with the help of 3 buckling instructions. The heat distribution plate is used for LK Track Disc EPS 30/50/70 mm for pipe laying cc 300 mm or for LK HeatFloor 22 for pipe laying cc 300 mm.



### Material Consumption

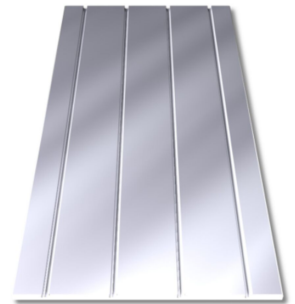
- Approx. 2,8 pcs/m<sup>2</sup>



Article	Length	Width	Weight (kg)	Packaging
241 99 08	1150 mm	280 mm	0,42	1/40/320
298 88 70	1150 mm	280 mm		1/40/320

## LK Slotted Board EPS 16

LK Heating Board made of EPS (polystyrene) 16 mm thick with a full cover aluminium heat distribution sheet. The board has 4 pcs slots centred at 150 mm for LK Floor Heating Pipe Ø 12 mm.



Compression strength short time load (ISO 844) 400 kPa.  
Long lasting compression strength: 140 kPa (2% compr. in 50 years).  
Thermal conductivity 0,034 W/m °C.

### Material Consumption

- Approx. 1,5 pcs/m<sup>2</sup> excl. turning zone surface

Article	Length	Width	Height	Weight (kg)	Packaging
241 82 15	1200 mm	600 mm	16 mm	1,5	1/50

## LK Turning Board EPS 16

Turning board made of EPS (polystyrene) 16 mm thick to be used with LK Slotted Board EPS 16 and LK Floor Heating pipe 12 mm. The board has two extra slots for feed and return pipes.  
T



Compression strength short time load (ISO 844) 400 kPa.  
Long lasting compression strength 140 kPa (2% compr. in 50 years).  
Thermal conductivity 0,034 W/m °C.

### Material Consumption

- Approx. 1,8 pcs/m turning zone

Article	Length	Width	Height	Weight (kg)	Packaging
241 82 16	300 mm	600 mm	16 mm	0,1	1/50

## LK Feeding Board EPS 16

Feeding board made of EPS 16 mm thick. To be used with LK Slotted board EPS 16. The Feeding board is to be used to feed pipes dim 12 mm to each room/heating zone.



Compression strength short time load (ISO 844) 400 kPa.

Long lasting compression strength 140 kPa (2% compr. in 50 years).

Thermal conductivity 0,034 W/m °C.

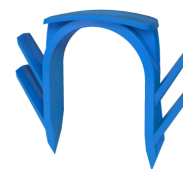
### Material Consumption

- 0.4 pc/mm<sup>2</sup> floor heating space

Article	Length	Width	Height	Weight (kg)	Packaging
241 82 17	300 mm	600 mm	16 mm	0,1	1/50

## LK TB Staple 16

LK TB Staple 16 is used to fix the pipe (Ø16) into tracks on the turning boards and feeding boards of EPS.



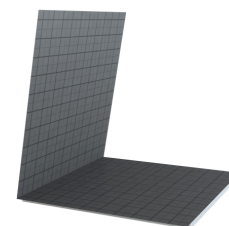
### Material Consumption

- 7 pcs/ turning board

Article	For pipe dim.	Note	Color	Packaging
243 47 76	16	Delivered in a bag with 100 staples	Blue	100/1000

## LK Foil Board Silent

LK Underfloor heating together with LK Foil Board Silent for floating placement on loadbearing floor construction in dry spaces. The system is built with a 30 mm or 50 mm thick insulation board in EPS with step sound-absorbing properties for intermediate floors. The boards are equipped with a foil with a grid pattern for easy installation of underfloor heating pipes together with LK Staple Gun 3D Premium.



EPS insulation board with a 100×100 mm grid-pattern foil for laying of LK Floor Heating.

LK Foil Board 30 Silent has impact-sound reducing properties that have been tested in laboratory in accordance with ISO 140-8.

On request, LK Systems can provide all the necessary data in order for an audio consultant to make accurate calculations for a completed building in accordance with SS-EN 12354.

When the board is installed on intermediate joists of concrete in accordance with LKs instructions, and the surface layer is covered with cell foam and a 14 mm parquet flooring,

the floor heating construction provides a 21 dB impact-sound improvement.

Corresponding impact-sound improvement with 10 mm laminate flooring is 19 dB.

Article	Length	Width	Height	Note	Packaging
243 49 99	2 m	1 m	30 mm	Sold in packages of 5 pcs/boards (1 pack=10 sqm)	5/20
298 89 87	2 m	1 m	50 mm		4/12

## LK Tape for Foil Board

LK Tape for foil board is used to join 2 foil boards where its original tape needs to be supplemented.

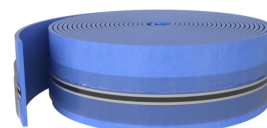
Article	Length	Width	Weight (kg)	Packaging
298 90 20	66 m	50 mm	0,26	



## LK Edge Strip

LK Edge Strip is used to separate casting against walls and other fixed objects. The edge strip is fitted with a plastic film that stops floor screed from seeping under the insulation. The plastic film has a tape for sticking to the insulation. In addition the back of the edge strip is provided with tape to stick to walls or other fixed objects.

Article	Dim.	Length	Packaging
298 88 17	8x150 mm	40 m	1/6



## LK Staple Gun and LK Staples 3D Premium

Patented system for fixing clip rails and pipes.

LK Staple Gun 3D Premium is used together with LK Staples 3D Premium for attachment of LK Under Floor Heating Pipe to EPS insulation in e.g. pipe bends and between clip rails. LK Staple Gun 3D Premium is used together with LK Staples 3D Premium for attachment of LK Under Floor Heating Pipe to EPS insulation in e.g. pipe bends and between clip rails. The Staple Gun is also used for attachment of pipes to LK Foil board 30 silent.

The mechanism of the staple gun is safe and robust. If despite this a clip gets stuck in the mechanism, you can easily clean it by opening a cover and removing the clip which is stuck. LK Staples 3D Premium are particularly firmly attached in the EPS insulation, as the leg of the staple has a unique design equipped with holding nails on three sides.

The staples are welded together in rows to allow easy filling of the Staple Gun. The gun is filled with 75 staples each time it is loaded.



### Material Consumption

- about 1 box/130 m<sup>2</sup> for the attachment of LK Clip-Rail 16 and LK Floor Heating pipe on cell foam insulation.
- about 1 box/29 m<sup>2</sup> for the attachment of floor heating pipe with c/c 200 on LK Foil Board 30 Silent.
- about 1 box/42 m<sup>2</sup> for the attachment of floor heating pipe with c/c 300 on LK Foil Board 30 Silent.



Article	Type	For pipe dim.	Length	Packaging
188 06 72	LK Staple Gun 3D Premium			1/48
188 06 71	LK Staples 3D Premium *	8-12-16-20 mm	38 mm **	400/116

\* Note! Sold in packages of 400 staples (1 = 1 carton à 400 staples).

\*\* Refers to insertion length

## LK Slotted Board Silencio 36

Wood fibreboard 36 mm, with 3 st slots c-c 200 mm suitable for use with LK Universal Pipe 16. The board shall be supplemented with LK Heat Distribution Plate 16/190, Art. no. 241 80 09.

Non stock article.



### Material Consumption

- 1,00 pcs/m<sup>2</sup>

Article	Length	Width	Height	Weight (kg)	Packaging
241 88 07	1800 mm	600 mm	36 mm	10,4	1/30



## LK Turning Board Silencio 36

Wood fibreboard 36 mm with feeding slots on the upper side for LK Universal Pipe 16.



Non stock article.

### Material Consumption

- 0,54 pcs/m<sup>2</sup>

Article	Length	Width	Height	Packaging
241 88 08	1600 mm	300 mm	36 mm	1/60

## LK Feeding Board Silencio 36

Wood fibreboard 36 mm with feeding slots on the upper side for LK Universal Pipe 16.



Non stock article.

### Material Consumption

- Approx. 1,0 pcs/m<sup>2</sup> excl. turning zone surface

Article	Length	Width	Height	Packaging
241 88 09	1800 mm	600 mm	36 mm	1/30

## LK Clip Rail

For LK Under Floor Heating Pipe. Used where there is no need for additional insulation. To fix the rail to insulation use LK Pipe Holder Art. no. 241 75 17 or 241 81 08. On pre-insulated concrete slab screw or nail the rail down.



### Material Consumption

- Approx. 1,7 pcs/m<sup>2</sup>

Article	For pipe dim.	Length	Height	c/c	Color	Weight (kg)	Packaging
241 93 65	8 mm	1,2 m	10 mm	20 mm	White/Yellow	0,12	1/10/3000
241 77 48	12 mm	1,2 m	14 mm	25 mm	White/Yellow	0,16	1/10

## LK Nail Clip

Intended to fix the pipe in e.g. pipe turns when using LK Clip Rail on wooden subfloors. 40 pcs/bag.

### Material Consumption

- 1 bag/5 m<sup>2</sup>

Article	Dim.	Note	Packaging
241 93 63	8 mm	Nail length 15 mm, Clip height 10 mm	1



## LK Turning Board XPE 22

Turning board of LDPE. To be used with LK HeatFloor 22 slotted board and LK Universal Pipe Ø 16 mm, for laying on load-bearing floors.

### Material Consumption

- Approx. 1,4 pcs/m turning zone

Article	Length	Width	Height	Weight (kg)	Packaging
241 79 00	300 mm	800 mm	22 mm	0,49	1/25



## LK Heat Distribution Plate 12

LK Heat Distribution Plate of 0,45 mm aluminium to match LK Under Floor Heating Pipe Ø 12 mm. The plate can be shortened by snapping across the break lines. The width of the plate is intended for installation with c/c 150 mm.

### Material Consumption

- Approx. 5,8 pcs/m<sup>2</sup> with pipe distance c/c 150 mm.

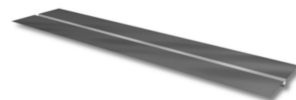


Article	Length	Width	Weight (kg)	Packaging
241 86 80	1150 mm	140 mm	0,22	1/60



## LK Heat Distribution Plate 20/280

For LK Under Floor Heating pipe Ø 20 mm. Heat distribution plate of aluminium 0,5 mm for laying between cross battening. The plate can be shortened by snapping across the three break lines. The width of the plate is intended for installation with c/c 300 mm.



## Material Consumption

- Approx. 2,8 pcs/m<sup>2</sup>



Article	Length	Width	Weight (kg)	Packaging
241 80 89	1150 mm	280 mm	0,33	1/40

# Glue & Primer

## Bostik STIX A555 ULTRA

Water-based glue to be used when gluing LK Slotted Board EPS 16. Only to be used on floors guaranteed not to be exposed to moisture, damp etc. coming from underneath floor construction.



Article	Volume	Packaging
33050	10 l	

## LK Kiilto Floorfix DF

LK Kiilto Floorfix DF for gluing floor boards and for tiling ceramics. Mix with LK Kiilto Fixbinder and water or only water depending on building or construction requirements, see LK assembly instruction for relevant laying procedures. The product is dust reduced.



Article	Weight (kg)	Packaging
33525	20	1/48

## LK Kiilto Fixbinder

To be used with Kiilto Flytfix. See assembly instruction for relevant laying procedure.

### Material Consumption

- 5 litres of Kiilto Fixbinder is mixed with 2 litres of water and 20 kg Flytfix.

Article	Volume	Weight (kg)	Packaging
33522	5 l	5	1/108



## LK Kiilto Start Primer

Adhesion primer. See assembly instruction for relevant laying procedure.

## Material Consumption

- Approx. 1 litre/10 m<sup>2</sup>

Article	Volume	Weight (kg)	Packaging
33521	3 l	3,2	1/144



## LK Kiilto Floor Heat DF

Leveling compound (filler) for embedding under floor heating and to form drainage slope. See assembly instruction for relevant laying procedure.

The product is dust reduced.

## Material Consumption

- 1,7 kg/mm (screed thickness)/m<sup>2</sup>

Article	Weight (kg)	Packaging
33524	20	1/48



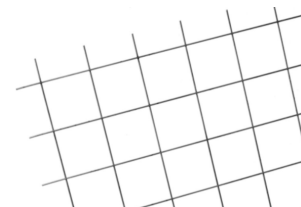
## LK Steel Mesh -2,5

LK Steel Mesh for reinforcement of floors using LK Kiilto UFH Leveling Compound. See assembly instruction for relevant laying procedure.

Dim 1200x800 mm.

Wire thickness 2,5 mm.

Mesh 70x70 mm.



## Material Consumption

- Approx. 1,3 pcs/m<sup>2</sup>

Article	Weight (kg)	Packaging
8912	1,07	1/300

# Manifold RF

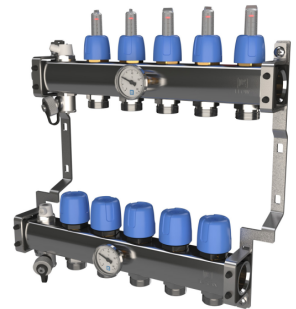
## LK Manifold RF

LK Manifold RF is made of stainless steel, the variants having 1 to 12 floor heating circuits. The manifold is delivered pre-mounted in brackets. The manifold has thermometers on the supply and return, manual air-bleed valves and filling/drain valves\*.

(\*Manifold RF 1 is supplied without thermometer or filling/drain valve)

The upper manifold marked FLOW (supply) is fitted with flow indicators graded from 0,5-5 l/min and adjustment valves for the adjustment of individual circuit flows. The flow indicators are made of temperature and impact resistant plastic.

The lower manifold marked RETURN has hand actuators for shutting off individual circuits. The manifold is ready to be connected to the left-hand side on delivery. Connection from the right is done by removing the end cap assemblies. Marking plates for identifying individual floor heating circuits, assembly instructions and a protective bag used to protect the manifold from e.g. splashes of concrete during the assembly period are enclosed.



The manifold requires additionally:

Two LK Ball Valves (Art. no. 241 75 50) or LK Ball Valve Angle (Art. no. 241 79 58). Where appropriate, the ball valve is replaced by LK OptiFlow EVO II. See product range for LK Adjustment Valves.

LK Connection Coupling for pipe range dim: PE-X/PAL pipe in dim 16 (Art. no. 241 72 98) / PE-X pipe in dim 12x2 (Art. no. 241 94 66 ) / PE-X pipe in dim 20x2 (Art. no. 241 94 68).

Connection dimensions:

Connection feed pipe, 1" female

Connection under floor heating pipe, ¾" male Eurocone

Dimensions:

The dimensions of the manifold are listed in the table below. Center dimension pipe connections is 50 mm with 25 mm displacement between flow and return. Additional length for accessories are stated below.

LK Ball Valve Straight: 65 mm

LK Ball Valve Angle: 70 mm

LK By-Pass RF: 15 mm

LK By-Pass Delta P RF: 155 mm

LK OptiFlow EVO II incl joint nipple straight: 123 mm

LK OptiFlow EVO II incl joint nipple elbow: 93 mm



Article	Length	Height	Depth	No. of circuits	Weight (kg)	Packaging
241 02 58	128 mm	355 mm	90 mm	1	1,2	1/120

Article	Length	Height	Depth	No. of circuits	Weight (kg)	Packaging
241 93 50	220 mm	355 mm	90 mm	2	2,2	1/48
241 93 51	270 mm	355 mm	90 mm	3	2,4	1/48
241 93 52	320 mm	355 mm	90 mm	4	2,6	1/48
241 93 53	385 mm	355 mm	90 mm	5	2,9	1/32
241 93 54	420 mm	355 mm	90 mm	6	3,0	1/32
241 93 55	470 mm	355 mm	90 mm	7	3,2	1/32
241 93 57	520 mm	355 mm	90 mm	8	3,4	1/24
241 93 58	570 mm	355 mm	90 mm	9	3,65	1/24
241 93 59	620 mm	355 mm	90 mm	10	3,8	1/24
241 93 60	670 mm	355 mm	90 mm	11	4,0	1/24
241 93 61	720 mm	355 mm	90 mm	12	4,2	1/24

## LK Connection Coupling RF

For connection to LK Manifold RF.

For connection of 8 mm floor heating pipes use LK PushFit 8. See product range for LK PushFit 8.



Article	Intended for	Dim.	Nipple conn.	Packaging
241 94 66	PE/PE-X	12x2,0	¾" EuroCone	1/24/240
241 72 98	PE/PE-X/PAL	AX16 x ¾"	¾" EuroCone	1/24/240
241 94 68	PE/PE-X	20x2,0	¾" EuroCone	1/24/240

\* AX16 = 16x2,0/2,2

## LK Connection Coupling RF 17x2,0

Connection coupling RF for PE-pipes and multi layer pipes type PE-AL dim 17x2,0.

Article	Intended for	Dim.	Nipple conn.	Packaging
241 94 67	PE/PE-X/AL-PE	17x2,0	¾" EuroCone	1/24/240
243 47 71	Uponor PePEX	17x2,0	¾" EuroCone	1/24/240



## LK Press Connection RF

For connection of LK PE-X and LK PAL Universal pipe dim.16x2,0/2,2 mm and LK PE-X Heating pipe dim 20x2,0 to LK Manifold RF.

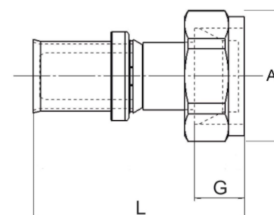
Nipple connection 3/4" EuroCone

Art. no. 187 66 06 has grey plastic ring and Art. no. 241 94 70 red.



Article	Dim.	Nipple conn.	A mm	G mm	L mm	Packaging
187 66 06	AX16 *	3/4" EuroCone	30	11	53	1/10/250
241 94 70	20x2,0	3/4" EuroCone		11	53	1/10/200

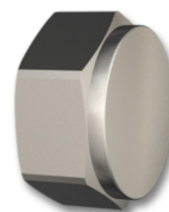
\*AX16 = 16 x 2,0/2,2



## LK Manifold Screw Plug

Manifold screw plug with gasket to plug up unused connections on LK Mini Manifold/LK Manifold RF.

Art. no. 241 74 83 for LK Mini Manifold 12-16 and Art. no. 187 06 68 for LK Mini Manifold 20 and LK Manifold RF.



Article	Dim.	Manifold type	Packaging
241 74 83	1/2"	LK Mini manifold 12-16	1/50/1000
187 06 68	3/4"	LK Mini manifold 20 & LK VKF RF	1/10/50

## LK Bracket RTB RF1

LK Bracket RTB RF1 is intended to mount LK Manifold RF 1 in LK Installation Cabinet RTB-XL. The bracket is available for connecting the feed pipes from the left or right side.

Article	Design	Packaging
298 89 95	Right	1/100
298 89 96	Left	1/100



## LK By-Pass RF



Complete set for assembly of by-pass with kvs 0,05 on LK Manifold RF. The by-pass extends installed width by 15 mm.

Article	Packaging
241 94 69	1/50



## LK By-Pass Delta P RF

LK By-pass Delta P RF is a pressure controlled by-pass valve. The by-pass valve is adapted for easy right or left hand connection to LK Manifold RF. The opening pressure can be set between 10-60 kPa. Maximum capacity 800 l/h. The by-pass extends installed width by 155 mm.

Article	Packaging
241 91 40	1/20



## LK Automatic Air Vent RF

Intended for LK Manifold RF. Replaces the standard manual air vent. The air vent has both a manual and automatic venting function. The thread connection is fitted with an o-ring seal to the manifold.

Article	Dim.	Packaging
241 72 99	½"	1/12/96



## LK Pressure Gauge VKF 0-16 bar

Pressure test gauge with a measuring range of 0-16 bar.

The pressure gauge has a ½" connection that fits the LK Manifold RF, the connection is provided with a o-ring and is self-sealing.

The pressure gauge can be used to test different systems such as underfloor heating, radiators.



Article	Measuring range	Nipple conn.	Packaging
241 03 09	0-16 bar	½" thread with O-ring	1/30

## LK Valve kit VKF RF

LK Valve kit VKF RF is used when you need to expand an existing manifold to include another floor heating circuit.

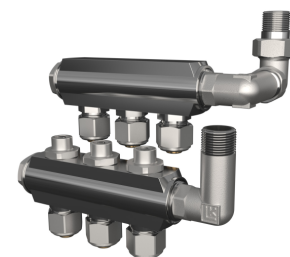
LK Valve kit VKF RF replaces the manifold's drain valve and refill valve and both its air bleeding valves.



Article	Packaging
241 02 57	1

## LK Mini Manifold

Nickel plated manifold for connection to LK Minishunt M60n. The manifolds have integrated lock-shield valves for balancing the flow of the floor heating loops. The manifolds are available for connecting from 2 to 4 under floor heating loops. Delivered incl. angle fittings ½" male thread and necessary connection couplings for LK PE-X pipe dim 12 mm, PE-X and PAL dim 16 mm or PE-X dim 20 mm. Mounted on LK Minishunt M60n the building height will increase by approx 90 mm.



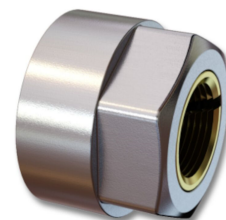
Article	Dim. pipe	Length	No. of circuits	Weight (kg)	Packaging
241 74 76	12	230 mm	3	1,6	1/10
241 74 75	12	195 mm	2	1,2	1/10
241 74 77	12	265 mm	4	1,95	1/10
241 74 78	16	195 mm	2	1,2	1/10
241 74 79	16	230 mm	3	1,6	1/10
241 74 80	16	265 mm	4	1,95	1/10
241 77 27	20	195 mm	2	1,2	1/10

Article	Dim. pipe	Length	No. of circuits	Weight (kg)	Packaging
241 77 28	20	230 mm	3	1,6	1/10
241 77 29	20	265 mm	4	2	1/10

## LK Connection Coupling RF CU

LK Connection coupling for copper pipes to LK Manifold RF.

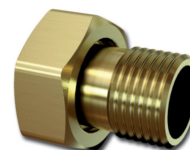
Article	Intended for	Dim.	Nipple conn.	Packaging
241 94 64	CU	12x1,0 CU	¾" EuroCone	1/24/240
241 94 65	CU	15x1,0 CU	¾" EuroCone	1/24/240



## LK Adapter

LK Adapter with loose nut for transition from ½" to ¾" EuroCone. Fits e.g. LK Manifold RF, LK Mini Loop Valve M5 and LK Mini Manifold 20.

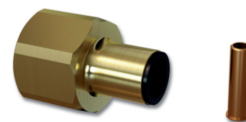
Article	Dim.	Packaging
241 93 78	½" male / ¾" EuroCone	1/12/60



## LK PushFit 8, Single female thread

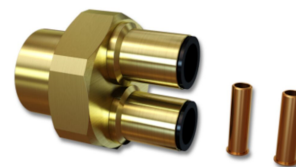
LK PushFit to 8 mm floor heating pipe. E.g. used to connect to LK Manifold RF or LK Mini Loop Valve M5. Supplement with LK Adapter dim. ½" male/¾" EuroCone, Art. no. 241 93 78.

Article	Dim.	Packaging
241 94 13	8 mm / ½" female	1/30



## LK PushFit 8, Duo

LK PushFit to 8 mm floor heating pipe. E.g. used to connect to LK Manifold RF or LK Mini Loop Valve RTB. Supplement with LK Adapter dim. ½" male/¾" EuroCone, Art. no. 241 93 78.



Article	Dim.	Packaging
241 93 79	8 mm / ½" female	1/30

## LK PushFit 8, Quattro

LK PushFit to 8 mm floor heating pipe. E.g. used to connect to LK Manifold RF or LK Mini Loop Valve RTB. Supplement with LK Adapter dim. ½" male/¾" EuroCone, Art. no. 241 93 78.



LK Plug, Art. no. 241 94 11 is used to plug unused connections when only three loops are connected.

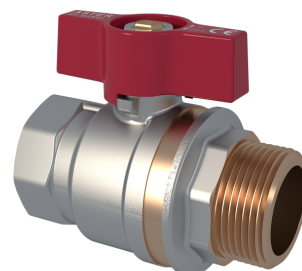
Article	Dim.	Packaging
241 94 12	8 mm / ½" female	1/20

## Ancillaries RF

### LK Ball Valve straight 1"

Isolation valve for LK Manifold RF.

Article	Dim.	Packaging
241 75 50	1" m/f	1/8/48



### LK Ball Valve angle 1"

Isolation valve for LK Manifold RF.



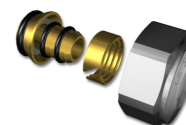
Article	Dim.	Packaging
241 79 58	1" m/f	1/6/24



### LK Connection Coupling RF

For connection to LK Manifold RF.

For connection of 8 mm floor heating pipes use LK PushFit 8. See product range for LK PushFit 8.



Article	Intended for	Dim.	Nipple conn.	Packaging
241 94 66	PE/PE-X	12x2,0	¾" EuroCone	1/24/240
241 72 98	PE/PE-X/PAL	AX16 x ¾"	¾" EuroCone	1/24/240
241 94 68	PE/PE-X	20x2,0	¾" EuroCone	1/24/240

\* AX16 = 16x2,0/2,2

### LK Connection Coupling RF 17x2,0

Connection coupling RF for PE-pipes and multi layer pipes type PE-AL dim 17x2,0.

Article	Intended for	Dim.	Nipple conn.	Packaging
241 94 67	PE/PE-X/AL-PE	17x2,0	¾" EuroCone	1/24/240
243 47 71	Uponor PePEX	17x2,0	¾" EuroCone	1/24/240



## LK Press Connection RF

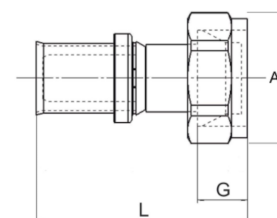
For connection of LK PE-X and LK PAL Universal pipe dim.16x2,0/2,2 mm and LK PE-X Heating pipe dim 20x2,0 to LK Manifold RF.

Nipple connection ¾" EuroCone

Art. no. 187 66 06 has grey plastic ring and Art. no. 241 94 70 red.

Article	Dim.	Nipple conn.	A mm	G mm	L mm	Packaging
187 66 06	AX16 *	3/4" EuroCone	30	11	53	1/10/250
241 94 70	20x2,0	3/4" EuroCone		11	53	1/10/200

\*AX16 = 16 x 2,0/2,2



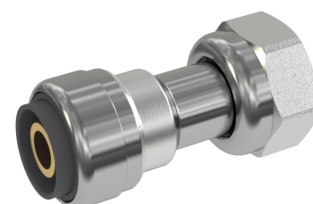
## LK Pushfit Connection PV

Pushfit fitting with loose nut for connection of LK PE-X and LK PAL Universal pipe dim.16x2,0/2,2 mm and LK Heating pipe dim 20x2,0 to LK Manifold RF.

Nipple connection ¾" EuroCone.

Art. no. 188 25 27 has grey plastic ring and Art. no. 241 03 17 red.

Article	Intended for	Dim.	Nipple conn.	Packaging
188 25 27	PEX/PAL/PERT	AX16 x ¾"	G20 EuroCone	1/10/150
241 03 17	PERT	20x2,0mm x ¾"		1/10/120



## LK Connection Set angle

Connection Set for connection of feed pipe PE-X to LK Manifold RF.

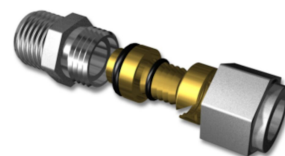
Article	Dim.	Packaging
241 81 12	25x2,3 x 1"	1/40/10
241 81 13	32x2,9 x 1"	1/30



## LK Coupling male thread

Straight coupling with male thread for PE/PE-X pipes.

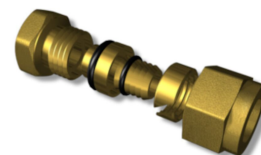
Article	Design	Dim.	Packaging
241 74 66	Yellow	12x2,0 x ½"	1/25/250
241 74 64	Yellow	16x2,0/2,2 x ½"	1/25/250
241 79 08	Yellow	20x2,0 x ½"	1/25/250
241 78 99	Yellow	20x2,0 x ¾"	1/25
241 79 09	Nickel plated	25x2,3 x ¾"	1/10
241 81 10	Nickel plated	25x2,3 x 1"	1/50
241 81 11	Nickel plated	32x2,9/3,0 x 1"	1/40



## LK Coupling female thread

Straight coupling with female thread for PE/PE-X pipes.

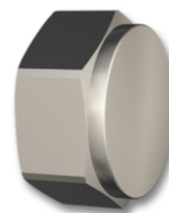
Article	Design	Dim.	Packaging
241 74 65	Yellow	12x2,0 x ½"	1/25/250
241 74 63	Nickel plated	16x2,0/2,2 x ½"	1/25/250
241 79 10	Nickel plated	20x2,0 x ½"	1/25/250
241 78 98	Nickel plated	20x2,0 x ¾"	1/25
241 79 11	Yellow	25x2,3 x ¾"	1/10



## LK Manifold Screw Plug

Manifold screw plug with gasket to plug up unused connections on LK Mini Manifold/LK Manifold RF.

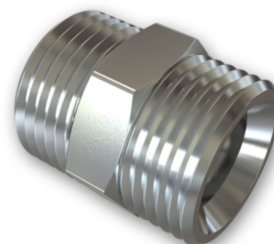
Art. no. 241 74 83 for LK Mini Manifold 12-16 and Art. no. 187 06 68 for LK Mini Manifold 20 and LK Manifold RF.



Article	Dim.	Manifold type	Packaging
241 74 83	½"	LK Mini manifold 12-16	1/50/1000
187 06 68	¾"	LK Mini manifold 20 & LK VKF RF	1/10/50

## LK Joint Nipple RF straight

Repair nipple to LK PE-X/PAL pipes. To be supplemented with LK Connection Coupling RF or LK Press Connection RF.



Article	Designation	Dim.	Nipple conn.	Packaging
241 94 87	LK Nipple RF straight	12/16/20	¾" EuroCone	1/24/240

## LK Joint Nipple

For joining LK Manifold RF/LK Mini Manifold.

Article	Intended for	Dim.	Connection	Manifold type	Packaging
241 91 10	LK Mini Manifold	¾"	¾"	LK Mini Manifold	1/50
241 74 68	LK Manifold RF	1"			1/25/250



## LK Pipe Bending Support



Pipe bending support for LK Universal/Heating Pipe.

Article	For pipe dim.	Radius outer (mm)	Packaging
241 75 60	16 mm	120	1/50/1600



## LK Pipe Bending Support Open

Pipe bending support of plastic for LK Universal/Heating Pipe. Used for fixing pipes in 90°-bends. Fitted on any conduit pipe or directly on the pipe.



Article	For pipe dim.	Radius outer (mm)	Note	Packaging
241 94 21	8 mm	75		1/10/100
243 54 96	12 mm	100		1/10/500
241 79 38	16 mm	120		1/50/500
243 54 98	20 mm	150		1/10/50
243 55 00	25 mm	180	Not suitable for LK Ground heating pipe 25	1/10/50
243 55 03	34 mm	230		1/10/50
243 55 05	25 mm (16 mm RiR)	150		1/10/40



## LK Pipe Bending Support Open with mounting plate

- Mounting plate for easy fixing
- Made from recycled plastic

Pipe bending support of HD polyeten for LK Universal/Heating Pipe. The pipe bending support is equipped with an mounting plate for easy fixing.

Article	For pipe dim.	Radius outer (mm)	Note	Packaging
243 54 97	16 mm	120		1/10/50
243 54 99	20 mm	150		1/10/50
243 55 02	25 mm	180	Not suitable for LK Ground heating pipe 25	1/10/50
243 55 04	34 mm	230		1/10/50



## LK Pipe Bending Support PL

Pipe bending support of galvanized plate for LK Heating Pipe PE-Xa PiP.

Article	For pipe dim.	Radius outer (mm)	Packaging
241 91 38	40-44 mm	260	1/5/25



## LK Pipe Bending Support with ear

Pipe Bending support with fastened ear. Works with Pex RIR with outer dimension 25.

Can be set separately with screws or attached to two together to get 40 c / c.

Convenient for installation for radiators.

Article	For pipe dim.	Radius outer (mm)	Note	Packaging
188 24 01	25 mm	120	not suitable for LK Ground heating pipe 25	1/50



## LK Fixing Plate

Fixes LK Pipe Bend Support Art. no. 241 75 60 during installation to LK Manifold. 8 loops can be fixed with one plate. The plates can be joined together for increased number of loops. Manufactured of polythene.

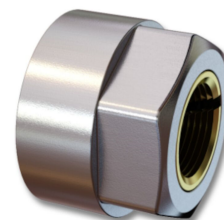
Article	Packaging
241 79 02	1/10/300



## LK Connection Coupling RF CU

LK Connection coupling for copper pipes to LK Manifold RF.

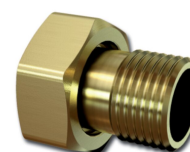
Article	Intended for	Dim.	Nipple conn.	Packaging
241 94 64	CU	12x1,0 CU	¾" EuroCone	1/24/240
241 94 65	CU	15x1,0 CU	¾" EuroCone	1/24/240



## LK Adapter

LK Adapter with loose nut for transition from ½" to ¾" EuroCone. Fits e.g. LK Manifold RF, LK Mini Loop Valve M5 and LK Mini Manifold 20.

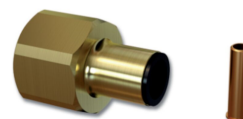
Article	Dim.	Packaging
241 93 78	½" male / ¾" EuroCone	1/12/60



## LK PushFit 8, Single female thread

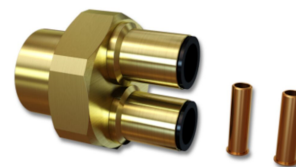
LK PushFit to 8 mm floor heating pipe. E.g. used to connect to LK Manifold RF or LK Mini Loop Valve M5. Supplement with LK Adapter dim. ½" male/¾" EuroCone, Art. no. 241 93 78.

Article	Dim.	Packaging
241 94 13	8 mm / ½" female	1/30



## LK PushFit 8, Duo

LK PushFit to 8 mm floor heating pipe. E.g. used to connect to LK Manifold RF or LK Mini Loop Valve RTB. Supplement with LK Adapter dim. ½" male/¾" EuroCone, Art. no. 241 93 78.



Article	Dim.	Packaging
241 93 79	8 mm / ½" female	1/30

## LK PushFit 8, Quattro

LK PushFit to 8 mm floor heating pipe. E.g. used to connect to LK Manifold RF or LK Mini Loop Valve RTB. Supplement with LK Adapter dim. ½" male/¾" EuroCone, Art. no. 241 93 78.



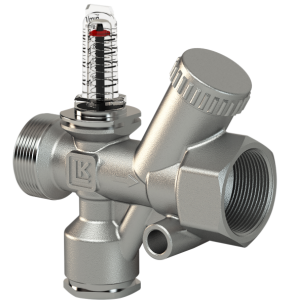
LK Plug, Art. no. 241 94 11 is used to plug unused connections when only three loops are connected.

Article	Dim.	Packaging
241 94 12	8 mm / ½" female	1/20

# Adjustment valves

## LK OptiFlow EVO II

LK OptiFlow EVO II is a group valve for adjusting flow in, for example, under floor heating systems, traditional heating systems and cooling systems. The valve is available in two different flow ranges, 2-16 l/min and 4-36 l/min. The adjustment valve has 1" male thread on the inlet and 1" female thread on the outlet. The male thread is supplemented with an LK Joint Nipple with loose nut for simple assembly to, for example, LK Manifold RF for under floor heating.



Adjustment is performed easily using an Allen key, while the flow is read off on a clear scale. No measuring equipment is needed. The valve has a so-called MemoStop to lock the valve setting. This means that the valve can also be used as an isolation valve without changing the adjustment position when operating the valve. The valve housing is made of nickelplated brass and equipped with an impact and temperature resistant flow indicator. The flow meter continuously measures the flow during operation. The flow meter can be read in all positions. A marking plate for marking and documenting the setting is enclosed. The valve can be supplemented with an LK Thermometer (optional). The thermometer is located in the valve's integral sensor tube.

Article	Dim.	Flow range	Packaging
241 96 11	1" male/female	2-16 l/m	1/10
241 96 10	1" male/female	4-36 l/m	1/10

## LK Joint nipple f/m

LK Joint Nipple can be used when LK OptiFlow Evo II will be installed. Joint Nipple is also suitable for LK Single Zone Manifold Control.

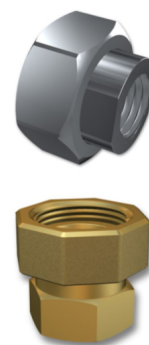
Article	Designation	Design	Type	Dim.	Voltage	Packaging
241 81 60	LK Joint Nipple	Brass	Straight	1" loose nut x ¾" male	-	1/10
241 96 18		Nickel plated	Straight	1" loose nut x 1" male		1/10
241 96 17		Nickel plated	Elbow	1" loose nut x 1" male		1/10



## LK Joint nipple f/f

LK Joint Nipple can be used when LK OptiFlow Evo II will be installed. Joint Nipple is also suitable for LK Single Zone Manifold Control.

Article	Designation	Design	Dim.	Voltage	Packaging
241 94 57	LK Joint Nipple	Nickel plated	1" loose nut x ½" female	-	1/10
241 81 58	LK Joint Nipple	Brass	1" loose nut x ¾" female	-	1/10
241 81 59	LK Joint Nipple	Brass	1" loose nut x 1" female	-	1/10



## LK Insulator OptiFlow EVO II

- Quick assembly with clips
- Thermometer outlet
- For both heating and cooling applications

LK Insulator OptiFlow EVO II is used to insulate adjustment valve LK OptiFlow EVO II. The insulation is made from black EPP and is composed of two halves. The halves are pressed together and secured with two supplied plastic clips.

The insulation has a thermometer outlet.

For use in cooling applications the valve and insulation can be fitted with the optional LK Thermometer -20 - 60° C. (Article no. 243 52 54)

For use in heating applications the valve and insulation can be fitted with the optional LK Thermometer 0 - 80° C. (Article no. 243 47 47)

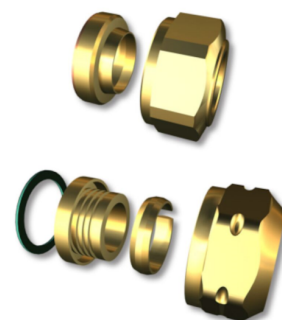


Article	Intended for	Color	Packaging
241 03 15	LK OptiFlow EVO II	Dark gray	1/25/400

## LK Half Coupler

LK Half Coupler is designed to use with LK OptiFlow Evo II or LK Single Zone Manifold Control.

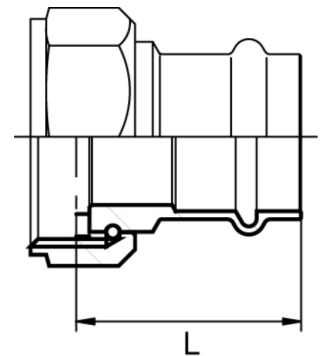
Article	Designation	Dim.	Voltage	Packaging
241 81 64	LK Half Coupler	1" x Cu 22	-	1/10/100
241 81 65	LK Half Coupler	1" x Cu 28	-	1/10/100
241 81 66	LK Half Coupler	1" x PE-X 25x2,3	-	1/10/70



## LK >B<Press transition Cu

LK >B<Press transition to copper pipes with loose nut. Can be used when LK OptiFlow Evo II is installed. The transition is also suitable for LK Single Zone Manifold Control.

Article	Dim.	L mm	Packaging
176 90 06	22 x 1"	39	1/5/80



# Group manifold

## LK Manifold Qmax 2"

LK Manifold Qmax 2" is made of stainless steel and is intended to be used as a manifold for tap water, heating and cooling systems with high volume flow. The manifold is available with two, three, four or six outlets with 1" dia, the individual distance c/c 100 mm. The manifolds can be combined to receive the required number of outlets. The manifold must be supplemented with LK Ball Valve 2" and LK Plug 2" (only for floor heating) and LK Bracket Qmax. The manifold is delivered in a complete package with the required number of gaskets 2" and 1" dia. plus instructions. Also included is a brass plug 1/4" (for tap water) and a manual air vent (for the heating system), connection 1/4".



Area of use, tap water:

LK Manifold Qmax is used as a group manifold in systems where high volume flows are probable. The manifold is mounted in systems with the same pressure and temperature areas as Universal pipes, i.e. max 1.0 MPa at +95 °C.

Area of use, heating:

LK Manifold Qmax is used as a group manifold when several LK Manifolds need to be connected to the same heat source. LK Manifold Qmax is supplemented with LK OptiFlow Evo II allowing an easy adjustment/balancing of the flow to each LK Manifold from the same place.

Article	Length	No. of outlets	Manifold type	Packaging
243 51 68	198 mm	2 x 1"	Group manifold	1/5
243 51 69	298 mm	3 x 1"	Group manifold	1/5
243 51 70	398 mm	4 x 1"	Group manifold	1/5
243 51 71	598 mm	6 x 1"	Group manifold	1/5

## LK Bracket Qmax 2"

Intended for LK Manifold Qmax 2".

The brackets are supplied in pairs.

Article	Packaging
241 03 16	1/10

Note! Sold in pairs, ie. 2 brackets per package.



## LK Ball Valve 2"



Intended for LK Manifold Qmax 2".

Article	Dim.	Length	Packaging
243 51 66	1½" fm x 2"	99 mm	1/12

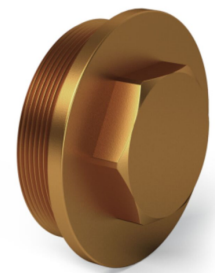


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## LK Plug 2"

LK Plug 2" is used to plug the end of LK Manifold Qmax 2".

Article	Dim.	Packaging
243 51 67	2"	1/10



# Pressfittings PV

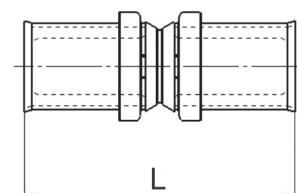
## LK Press fitting PV Straight



Article	Dim.	L mm	Packaging
187 65 00	AX16 *	56	1/10/300
241 70 40	20x2,0	56	1/10/240
241 70 52	25x2,3	60.5	1/5/160
187 65 03	A32 *	59	1/5/120

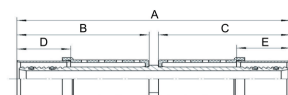
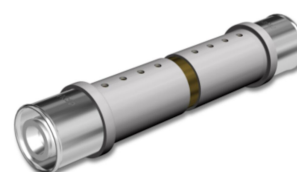
\* AX16 = 16x2,0/1,6x2,2

\*\* AX32 = 32x2,9/32x3,0



## LK Pressfitting PV

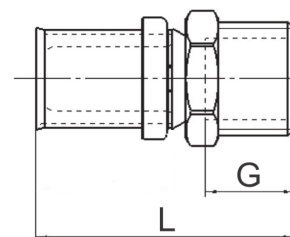
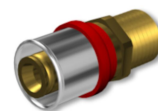
Pressfitting for joining LK Universal PE-Xa and LK Floor Heating pipes. The length of the fitting is adjustable by 20 mm.



## LK Pressfitting PV Straight BSP/M

Article	Dim.	G mm	L mm	Packaging
187 84 33	A32 x ¾"	15	50	1/5/105
187 65 08	AX20 x ¾"	17	48.5	1/10/300
241 70 41	25x2,3/¾" male	195	50	1/5/80
241 70 42	25x2,3/1" male	20	51.5	1/5/160
187 65 09	AX25 x ¾"	17	50	1/5/180
187 65 11	A32 x 1" *	18	51	1/5/105

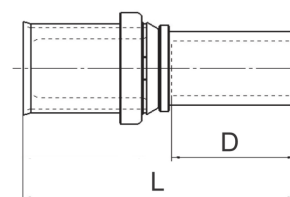
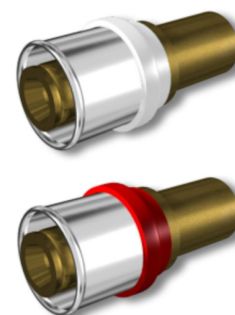
\* AX32 = 32x2,9/32x3,0



## LK Pressfitting PV Straight - CU

Article	Dim.	D mm	L mm	Packaging
241 70 53	25x2,3 x CU22	25,5	57	1/5/180
241 70 62	25x2,3 x CU28	25,5	57	1/5/160
187 84 63	A32 x CU28 *	30	61.5	1/5/105

\*AX32 = 32x2,9/32x3,0



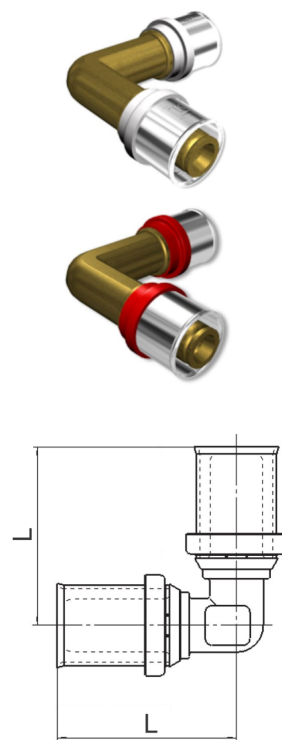
## LK Press fitting PV 90° Elbow



Article	Dim.	L mm	Packaging
187 65 30	AX16 *	40	1/10/200
241 70 39	20x2,0	41.5	1/5/150
241 70 44	25x2,3	46.5	1/5/100
241 70 45	32x2,9/3,0	54	1/5/30
187 65 33	A32 *	49.5	1/5/60

\* AX16 = 16x2,0/16x2,2

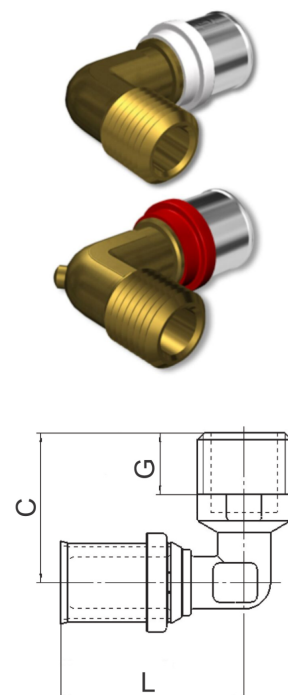
\*\* AX32 = 32x2,9/32x3,0



## LK Pressfitting PV 90° Elbow BSP/M

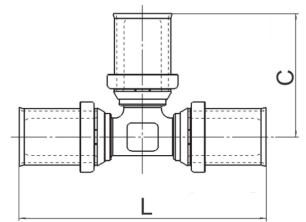
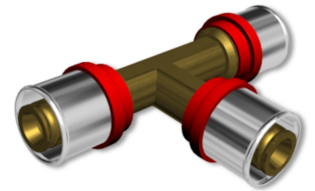
Article	Dim.	C mm	G mm	L mm	Packaging
241 70 46	25x2,3/3/4" male	42	17	47	1/5/90
241 70 63	25x2,3/1" male	42	17	51	1/5/75
241 70 47	32x2,9/3,0/1" male	49	22	56	1/5/30
187 65 40	A32 x 1" *	46	16	50.5	1/5/60

\* AX32 = 32x2,9/32x3,0



## LK Pressfitting PV Tee

Article	Dim.	C mm	L mm	Packaging
241 70 49	32x32x32	53	108	1/5/25
241 70 50	32x25x32	53	108	1/5/30
241 70 51	32x25x25	53	108	1/5/30

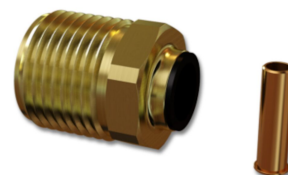


# PushFit 8

## LK PushFit 8, Single male thread

LK PushFit to 8 mm floor heating pipe. Used to connect to LK Minishunt M60n.

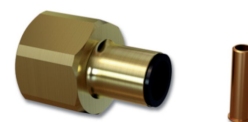
Article	Dim.	Packaging
241 94 19	8 mm / ½" male	1/30



## LK PushFit 8, Single female thread

LK PushFit to 8 mm floor heating pipe. E.g. used to connect to LK Manifold RF or LK Mini Loop Valve M5. Supplement with LK Adapter dim. ½" male/¾" EuroCone, Art. no. 241 93 78.

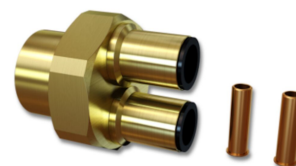
Article	Dim.	Packaging
241 94 13	8 mm / ½" female	1/30



## LK PushFit 8, Duo

LK PushFit to 8 mm floor heating pipe. E.g. used to connect to LK Manifold RF or LK Mini Loop Valve RTB. Supplement with LK Adapter dim. ½" male/¾" EuroCone, Art. no. 241 93 78.

Article	Dim.	Packaging
241 93 79	8 mm / ½" female	1/30



## LK PushFit 8, Quattro

LK PushFit to 8 mm floor heating pipe. E.g. used to connect to LK Manifold RF or LK Mini Loop Valve RTB. Supplement with LK Adapter dim. ½" male/¾" EuroCone, Art. no. 241 93 78.

LK Plug, Art. no. 241 94 11 is used to plug unused connections when only three loops are connected.



Article	Dim.	Packaging
241 94 12	8 mm / ½" female	1/20

## LK Locking ring PushFit 8

Spare part to LK PushFit 8

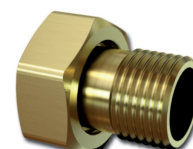
Article	Packaging
33021	1



## LK Adapter

LK Adapter with loose nut for transition from ½" to ¾" EuroCone. Fits e.g. LK Manifold RF, LK Mini Loop Valve M5 and LK Mini Manifold 20.

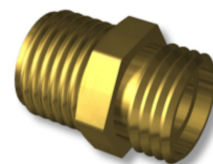
Article	Dim.	Packaging
241 93 78	½" male / ¾" EuroCone	1/12/60



## LK Nipple

LK Nipple for transition from LK PushFit 8 with ½" female to ½" male.

Article	Dim.	Packaging
33051	½"	1



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## LK PushFit 8 Plug

To plug unused connections in PushFit 8 coupling.

Article	Dim.	Packaging
241 94 11	8 mm	1/10/100

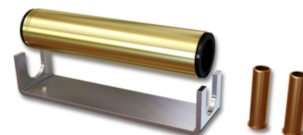


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## LK PushFit 8 Repair coupling

Repair/joint coupling for 8 mm floor heating pipe.

Article	Dim.	Length	Packaging
241 94 20	8 mm	70 mm	1/12



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## LK O-Ring PushFit 8



Spare part to LK PushFit 8



# Cabinets

## LK Manifold Cabinet UFH

LK Manifold Cabinet UFH is designed for use where there is a requirement to conceal LK Manifold RF.

The cabinet has a dense base with rubber pipe grommets. The cabinet base is provided with a drainage opening which allows any water leakage to be drained to a location which can be inspected. The cabinet is manufactured from 1 mm powder-coated sheet steel, RAL 9016.



The cabinet is designed for installation built into a wall or surface-mounted on a wall. When building in the cabinet, the minimum stud thickness is 95 mm.

The cabinet must be supplemented with a frame/hatch. There are two types of frame/hatch, depending on whether the cabinet is built into or surface-mounted on an inner wall.

When surface-mounted, the cabinet must also be supplemented with a base in order to conceal pipes between the cabinet and the floor.

LK Manifold Cabinet UFH is supplied with pipe grommets, a bellow sleeve for drainage, a 1.5-metre conduit for drainage, drainage elbow with outlet plate, cable grommets for room control, spray guard and installation instructions.

The back of the cabinet is provided with four prefitted M8 nuts which can be used for attachment to the LK Cabinet Stand when the cabinet has to be installed before a concrete base is cast.

The ends of the cabinet are provided with knockout holes for any side connection of supply and return pipes.

The top side of the cabinet has knockout holes for any pipe routing through the cabinet and knockout holes for any cable grommets for room control.

NOTE! In cases where a riser is pulled inside the cabinet, the maximum number of outlets may be reduced by one or more.



Article	Intended for	Width	Height	Depth	Weight (kg)	Packaging
243 46 84	Manifold RF 2-4	550 mm	710 mm	95 mm	7,1	1/14
243 46 83	Manifold RF 5-9	800 mm	710 mm	95 mm	10,7	1/11
241 03 13	Manifold RF 10-12	1050 mm	710 mm	95 mm	13,0	1/7

## LK Installation cabinet RTB

The LK Installation cabinet RTB is designed to be used when you wish to hide the LK Mini Loop Valve RTB. The LK Installation cabinet RTB-XL is designed to be used when you wish to hide it together with electronic room control.

Article	Designation	Intended for	Width	Height	Depth	Packaging
298 88 56	Installation Cabinet RTB	LK Mini Loop Valve RTB	350 mm	350 mm	95 mm	1/42
298 88 57	Installation cabinet RTB-XL	LK Mini Loop Valve RTB with electronic control equipment	350 mm	550 mm	95 mm	1/28



## LK Shunt Cabinet VS2

LK Shunt Cabinet VS2 is designed for use where there is a requirement to conceal LK Manifold Shunt VS2 and LK Manifold RF. NOTE: LK Manifold Shunt VS2 should be installed on the right-hand side of the cabinet.

The cabinet has a dense base with rubber pipe grommets. The cabinet base is provided with a drainage opening which allows any water leakage to be drained to a location which can be inspected. The cabinet is manufactured from 1 mm powder-coated sheet steel, RAL 9016.

The cabinet is designed for installation built into a wall or surface-mounted on a wall. When building in the cabinet, the minimum stud thickness is 95 mm. The cabinet must be supplemented with a frame/hatch. There are two types of frame/hatch, depending on whether the cabinet is built into or surface-mounted on an inner wall. When surface-mounted, the cabinet must also be supplemented with a base in order to conceal pipes between the cabinet and the floor.

LK Shunt Cabinet VS2 is supplied with pipe grommets, a bellow sleeve for drainage, a 1.5-metre conduit for drainage, drainage elbow with outlet plate, cable grommets for room control, spray guard and installation instructions.

The back of the cabinet is provided with four prefitted M8 nuts which can be used for attachment to the LK Cabinet Stand when the cabinet has to be installed before a concrete base is cast.



Article	Intended for	Width	Height	Depth	Weight (kg)	Packaging
243 53 61	Manifold Shunt VS2 + Manifold RF 2-7	800 mm	710 mm	95 mm	10,7	1/11
243 53 62	Manifold Shunt VS2 +	1050 mm	710 mm	95 mm	13,2	1/7

Article	Intended for	Width	Height	Depth	Weight (kg)	Packaging
243 53 62	Manifold RF 8-12	1050 mm	710 mm	95 mm	13,2	1/7

## LK Manifold Cabinet HX

LK Manifold Cabinet HX is designed for use where there is a requirement to conceal LK Heat Exchanger Pack -10n2 and LK Manifold RF up to size VKF RF 5.

LK Manifold Cabinet HX with associated assembly instructions full fills Sweden's industry regulations "Säker Vatteninstallation". The cabinet has a dense base with rubber pipe grommets and is provided with a drainage opening which allows any water leakage to be drained to a location which can be inspected. The cabinet is manufactured from 1 mm powder-coated sheet steel, RAL 9016. The cabinet is designed for installation built into a wall or externally on a wall. When building in the cabinet, the minimum stud thickness is 145 mm.



The cabinet must be supplemented with a frame/ hatch, of which there are two types, depending on whether the cabinet is built into or installed externally on an inner wall. When installed externally, the cabinet must also be supplemented with a base in order to conceal pipes between the cabinet on the floor.

LK Heat exchanger package is mounted on the right side of the cabinet

LK Manifold Cabinet HX is supplied with pipe grommets, a bellow sleeve for drainage, a 1.5-metre conduit for drainage, drainage elbow with outlet plate, cable grommets for room control, splash protection and installation instructions.

Article	Width	Height	Depth	Weight (kg)	Packaging
241 03 18	800 mm	710 mm	145 mm	13,2 kg	1/8

## LK Manifold Cabinet Qmax

LK Manifold Cabinet Qmax is designed for use where there is a requirement to conceal LK Manifold Qmax 2". LK Manifold Cabinet Qmax with accompanying instructions is adapted to the industry regulations "Säker Vatteninstallation". The cabinet has a dense base with rubber pipe grommets. The cabinet base is provided with a drainage opening which allows any water leakage to be drained to a location which can be inspected.



The cabinet is manufactured from 1 mm powder-coated sheet steel, RAL 9016. The cabinet is designed for installation built into a wall or surface-mounted on a wall. When building in the cabinet, the minimum stud thickness is 95 mm. The cabinet should be assembled according to the industry regulations "Säker Vatteninstallation".

The cabinet must be supplemented with a frame/hatch. There are two types of frame/hatch, depending on whether the cabinet is built into or surface-mounted on an inner wall. When surface-mounted, the cabinet must also be supplemented with a base in order to conceal

The technical drawings show various components of the LK furniture system:

- LK Framehatch UPH 1050, UTW**: A side panel with dimensions 735x1050mm. It features a top edge with a 65x2 hole, a bottom edge with a 24mm offset, and internal horizontal slots.
- LK Framehatch UPH 1050, INB**: An end panel with dimensions 735x1050mm. It includes a 20x10 Knockouts section and a 65x2 Knockouts section.
- LK Manifold Cabinet Qmax 1050**: A manifold cabinet with dimensions 735x1050mm. It shows a top edge with a 65x2 hole, a bottom edge with a 24mm offset, and internal horizontal slots.
- LK Base1050x190**: A base unit with dimensions 735x1050mm. It features a top edge with a 65x2 hole, a bottom edge with a 24mm offset, and internal horizontal slots.

NOTE! In cases where a riser is pulled inside the cabinet, the maximum number of outlets may be reduced by one or more.

Article	Width	Height	Depth	Weight (kg)	Packaging
241 03 10	1050 mm	710 mm	190 mm	12,5	1/4

## LK Shunt Cabinet M60n

The LK Shunt Cabinet M60n is designed to be used when you wish to hide the LK Minishunt M60n. The cabinet is intended for right mounting, i.e. the primary shunt connection is from the right side via the cabinet base.

The cabinet has a sealed base with rubber pipe grommets. The base of the cabinet is fitted with a drainage opening which allows any water leakage to drain to a location that can be inspected. The cabinet is made from 1 mm powder coated steel plate, RAL 9016.

The cabinet is designed to be fitted built into a wall or externally on a wall. When built into a wall, the wall thickness must be at least 95 mm.

The cabinet should be supplemented with a frame/hatch. There are two types of frame/hatch depending on whether the cabinet is built into or installed externally on an inner wall.

For external mounting, the cabinet should also be supplemented with a base to hide the pipes between the cabinet and floor.



Article	Designation	Intended for	Width	Height	Depth	Weight (kg)	Packaging
243 53 70	LK Shunt Cabinet M60n	LK Minishunt M60n	450 mm	500 mm	95 mm	4,4	1/16

Article	Designation	Intended for	Width	Height	Depth	Weight (kg)	Packaging
243 53 69	LK Shunt Cabinet M60n XL	LK Minishunt M60n with connected LK Mini Manifold	550 mm	710 mm	145 mm	9,1	1/10

# Hatches

## LK Frame/hatch UFH INB

LK Frame/hatch UFH INB is designed for use with LK Manifold Cabinet UFH and LK Shunt Cabinet UFH when these cabinets are built into a wall.

Do not install in rooms with a waterproofing layer on the wall.

LK Frame/hatch UFH INB has a frame for mounting in the wall in order to cover the hole around the cabinet.

The hatch is fitted with a screwdriver latch on delivery, and a key latch is also available as an accessory.



Article	Intended for	Exterior dims. (W x H x D)	Weight (kg)	Packaging
188 23 48	LK Fitting Cabinet UNI	390 x 390 x 26 mm	1,5	1/5/80
188 13 08	UNI 350 LK Installation cabinet RTB-XL	390 x 580 x 26 mm	2,5	1/5/80
243 53 67	LK Shunt cabinet M60n	480 x 530 x 26 mm	2,7	1/40
243 46 80	LK Cabinet UFH 550, LK Shunt cabinet M60n XL, UNI Water meter cabinet 8/6, UNI Water meter cabinet 8/6 CS	590 x 740 x 26 mm	4,9	1/5/40
243 46 79	LK Cabinet UFH 800	840 x 740 x 26 mm	6,8	1/5/30
243 53 64	LK Shunt Cabinet VS2 1050, LK Manifold Cabinet UFH 1050, LK Manifold Cabinet Qmax	1050 x 700 x 26 mm	8,3	1/30
243 53 63	LK Shunt Cabinet VS2 1050, LK Manifold Cabinet UFH 1050, LK Manifold Cabinet Qmax	1080 x 740 x 26 mm	8,6	1/25
243 46 76	LK Cabinet UFH 1150	1190 x 740 x 26 mm	9,4	1/5/30

## LK Frame/hatch UFH UTV

LK Frame/hatch UFH UTV is designed for use with LK Manifold Cabinet UFH and LK Shunt Cabinet UFH when these cabinets are surface-mounted on a wall.



LK Frame/hatch UFH UTV butts up edge to edge with the outsides of the cabinet.

The hatch is fitted with a screwdriver latch on delivery, and a key latch is also available as an accessory.



Article	Intended for	Exterior dims. (W x H x D)	Weight (kg)	Packaging
205 48 38	UNI 350x350, LK Installation cabinet RTB	350 x 340 x 14 mm		1/5/80
188 13 10	UNI 350 LK Installation cabinet RTB-XL	350 x 540 x 26 mm	2,3	1/5/80
243 53 68	LK Shunt Cabinet M60n	450 x 490 x 26 mm	2,5	1/40
243 46 81	LK Cabinet UFH 550, LK Shunt cabinet M60n XL	550 x 700 x 26 mm	4,7	1/5/40
243 46 78	LK Cabinet UFH 800	800 x 700 x 26 mm	6,5	1/5/30
243 53 64	LK Shunt Cabinet VS2 1050, LK Manifold Cabinet UFH 1050, LK Manifold Cabinet Qmax	1050 x 700 x 26 mm	8,3	1/30
243 46 77	LK Cabinet UFH 1150	1150 x 700 x 26 mm	9,1	1/5/30

## LK Hatch HIDDEN

- The hatch becomes a natural part of the rest of the interior
- Adapted to LK's installation cabinet
- Supplied with factory fitted plasterboard

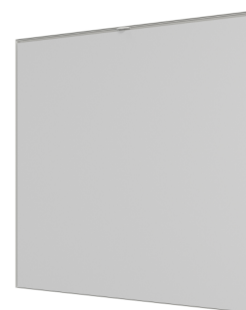
LK Hatch HIDDEN for manifold cabinets GV and UNI mounted built into the wall. Frame with hatch

which has plaster which can be wallpapered or painted in the same color as the wall and becomes a natural

part of the rest of the interior. The hatch has a small grip at the top which is used to open the hatch.

A wall plate of at least 13 mm is required and the cabinet must be mounted 5 mm inside the rule for

the frame to fit, see assembly instructions. When LK Manifold UNI-Valve is installed in the cabinet, the cabinet must be mounted 10 mm inside the rule and the number of connections will be reduced.





Should not be installed in rooms with a waterproof layer on the wall.

Made of 1 mm powder-coated galvanized steel sheet, white color RAL9016.

As standard, the hatch is equipped with a magnetic lock and as an accessory there is a key lock.

The hatch must be stored indoors.

Article	Design	Exterior dims. (W x H x D)	Packaging
188 27 13	350x350	390 x 375 x 25 mm	1/4
188 27 14	350x550	390 x 575 x 25 mm	1/4
188 27 16	550x550	590 x 575 x 25 mm	1/4
188 27 17	550x710	590 x 735 x 25 mm	1/4
188 27 18	700x550	740 x 575x 25 mm	1/4
188 27 19	800x710	840 x 735 x 25 mm	1/4
188 27 20	1050x710	1090 x 735 x 25 mm	1/4

## LK Base UFH

LK Base UFH is used when Manifold Cabinet UFH is installed on the surface of an existing wall. LK Base conceals the pipe installation between cabinet and floor. The base is adjustable in height from 220 to 280 mm. The base is provided with holes for installation of cabinet drainage. If another position is used for cabinet drainage, the cover plug supplied is used to conceal the hole in the base.



Article	Width	Height	Depth	Weight (kg)	Packaging
188 13 01	350 mm	220-280 mm	95 mm	1,4	1/80
188 13 02	450 mm	220-280 mm	95 mm	1,7	1/80
243 53 72	550 mm	220-280 mm	145 mm	2,65	1/35
243 46 88	800 mm	220-280 mm	95 mm	2,3 kg	1/37
243 46 87	800 mm	220-280 mm	120 mm	2,4	1/40
243 52 42	800 mm	220-280 mm	145 mm	3,4 kg	1/28
243 53 65	1050 mm	220-280 mm	95 mm	3,3	1/28
241 03 11	1050 mm	220-280 mm	190 mm	3,8 kg	1/12
243 46 86	1150 mm	220-280 mm	95 mm	3,7	1/30
243 46 85	1150 mm	220-280 mm	120 mm	3,8	1/30

## LK Increased frame UFH

This frame can be used if the cabinet has been mounted too far out from the wall construction. In this case it will cause a problem to get the normal frame/hatch in level with the wall. When the existing frame is replaced with LK Increased frame GV the existing hatch shall be kept and moved over to the new increased frame.



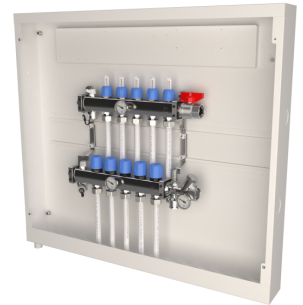
Article	Intended for	Width	Height	Depth	Weight (kg)	Packaging
33014	LK Shunt Cabinet M60n	540 mm	490 mm	17 mm	1,4	
33015	LK Manifold Cabinet UFH 550, LK Shunt Cabinet M60n XL, LK Water meter Cabinet UNI 8/6	590 mm	740 mm	17 mm	1,6	
33016	LK Manifold Cabinet UFH 800, LK Shunt Cabinet VS2 800	840 mm	740 mm	17 mm	2,0	
33017	LK Shunt Cabinet VS2 1050	1090 mm	740 mm	17 mm	8,6	
33018	LK Manifold Cabinet UFH 1150	1190 mm	740 mm	17 mm	9,4	

# Prefabricated cabinets

## LK Manifold Cabinet UFH Prefab

LK Manifold Cabinet UFH Prefab comes supplied as a complete unit with LK Manifold RF already fitted. The manifold has an isolation valve fitted to the supply pipe. For flow adjustment, LK OptiFlow Evo II is fitted to the return. The OptiFlow valve is also used as a shut-off valve. For sizes 2-8 an OptiFlow with flow setting 2-16 l/m is installed. For sizes 9-12 an OptiFlow 4-36 l/m is used.

NOTE: The cabinet is designed for right-hand side installation, i.e. the connection of the manifold is made from the right of the cabinet, either via the side panel or via the cabinet base.



The cabinet has a dense base with rubber pipe grommets. The cabinet base is provided with a drainage opening which allows any water leakage to be drained to a location which can be inspected. The cabinet is manufactured from 1 mm powder-coated sheet steel, RAL 9016.

The cabinet is designed for installation built into a wall or surface-mounted on a wall. When building in the cabinet, the minimum stud thickness is 95 mm.

The cabinet must be supplemented with a frame/hatch. There are two types of frame/hatch, depending on whether the cabinet is built into or surface-mounted on an inner wall. When surface-mounted, the cabinet must also be supplemented with a base in order to conceal pipes between the cabinet and the floor.

The cabinet comes supplied with pipe grommets, a bellow sleeve for drainage, a 1.5-metre conduit for drainage, drainage elbow with outlet plate, cable grommets for room control, spray guard and installation instructions.

The back of the cabinet is provided with four prefitted M8 nuts which can be used for attachment to the LK Cabinet Stand when the cabinet has to be installed before a concrete base is cast. The ends of the cabinet are provided with knockout holes for any side connection of supply and return pipes.

The top side of the cabinet has knockout holes for any pipe routing through the cabinet and knockout holes for any cable grommets for room control.

Article	Width	Height	Depth	No. of circuits	Weight (kg)	Packaging
243 47 20	550 mm	710 mm	95 mm	2	11,4	1/14
243 47 21	550 mm	710 mm	95 mm	3	11,8	1/14
243 47 22	550 mm	710 mm	95 mm	4	12	1/14
243 47 23	800 mm	710 mm	95 mm	5	15,4	1/11
243 47 24	800 mm	710 mm	95 mm	6	15,6	1/11

Article	Width	Height	Depth	No. of circuits	Weight (kg)	Packaging
243 47 25	800 mm	710 mm	95 mm	7	16	1/11
243 47 26	800 mm	710 mm	95 mm	8	16,3	1/11
243 47 27	800 mm	710 mm	95 mm	9	16,7	1/11
243 52 60	1050 mm	710 mm	95 mm	10	20,6	1/7
243 53 08	1050 mm	710 mm	95 mm	11	20,9	1/7
243 53 09	1050 mm	710 mm	95 mm	12	21,3	1/7

## LK Shunt Cabinet VS2 Prefab

LK Shunt Cabinet VS2 Prefab comes supplied as a complete unit with LK Manifold Shunt VS2 and LK Manifold RF already fitted, including couplings for connection of heating pipes dim. 16.

Note: The cabinet is designed for right-hand side installation, i.e. the connection to the shunt unit is made from the right of the cabinet, via the cabinet base.



The cabinet has a dense base with rubber pipe grommets. The cabinet base is provided with a drainage opening which allows any water leakage to be drained to a location which can be inspected.

The cabinet is designed for installation built into a wall or surface-mounted on a wall. When building in the cabinet, the minimum stud thickness is 95 mm.

The cabinet must be supplemented with a frame/hatch. There are two types of frame/hatch, depending on whether the cabinet is built into or surface-mounted on an inner wall.

When surface-mounted, the cabinet must also be supplemented with a base in order to conceal pipes between the cabinet and the floor.

The cabinet comes supplied with pipe grommets, a bellow sleeve for drainage, a 1.5-metre conduit for drainage, drainage elbow with outlet plate, cable grommets for room control, spray guard and installation instructions.

The back of the cabinet is provided with four prefitted M8 nuts which can be used for attachment to the LK Cabinet Stand when the cabinet has to be installed before a concrete base is cast.

The top of the cabinet has knockout holes for any cable grommets for room control.

Article	Width	Height	Depth	No. of circuits	Weight (kg)	Packaging
243 53 79	800 mm	710 mm	95 mm	2	20,2	1/11
243 53 80	800 mm	710 mm	95 mm	3	20,6	1/11
243 53 81	800 mm	710 mm	95 mm	4	21,0	1/11
243 53 82	800 mm	710 mm	95 mm	5	21,4	1/11
243 53 83	800 mm	710 mm	95 mm	6	21,8	1/11
243 53 84	800 mm	710 mm	95 mm	7	22,2	1/11
243 53 85	1050 mm	710 mm	95 mm	8	24,2	1/7

Article	Width	Height	Depth	No. of circuits	Weight (kg)	Packaging
243 53 86	1050 mm	710 mm	95 mm	9	24,6	1/7
243 53 87	1050 mm	710 mm	95 mm	10	25,0	1/7
243 53 88	1050 mm	710 mm	95 mm	11	25,4	1/7
243 53 89	1050 mm	710 mm	95 mm	12	25,8	1/7

## LK Minishunt Cabinet M60n Prefab

- For up to four circuits, 16mm
- With hatches for both built in to wall and for surface mounted cabinet

LK Minishunt Cabinet M60n Prefab comes supplied as a complete unit with LK Minishunt M60n and LK Mini Manifold already fitted, including couplings for connection of heating pipes dim. 16.

Note: The cabinet is designed for right-hand side installation, i.e. the connection to the shunt unit is made from the right of the cabinet, via the cabinet base.



The cabinet has a dense base with rubber pipe grommets. The cabinet base is provided with a drainage opening which allows any water leakage to be drained to a location which can be inspected.

The cabinet is designed for installation built into a wall or surface-mounted on a wall. When building in the cabinet, the minimum stud thickness is 145 mm.

The cabinet must be supplemented with a frame/hatch. There are two types of frame/hatch, depending on whether the cabinet is built into or surface-mounted on an inner wall.

When surface-mounted, the cabinet must also be supplemented with a base in order to conceal pipes between the cabinet and the floor.

The cabinet comes supplied with pipe grommets, a bellow sleeve for drainage, a 1.5-metre conduit for drainage, drainage elbow with outlet plate, cable grommets for room control, spray guard and installation instructions.

The back of the cabinet is provided with four prefitted M8 nuts which can be used for attachment to the LK Cabinet Stand when the cabinet has to be installed before a concrete base is cast.

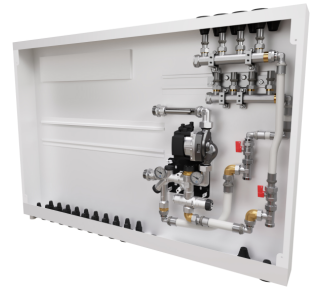
The top of the cabinet has knockout holes for any cable grommets for room control.

Article	Width	Height	Depth	No. of circuits	Weight (kg)	Packaging
298 91 70	550	710	145	4	17	1/10

## LK Combi Cabinet VS2 Prefab

- Eliminates the need for additional radiator cabinets.
- Prefabricated for faster installation

LK Combi Cabinet VS2 Prefab comes supplied as a complete unit with LK Manifold Shunt VS2 and a manifold for four radiator manifolds already fitted, including couplings for connection of heating pipes dim. AX16.



LK Manifold RF and couplings are to be bought separately.

Note: The cabinet is designed for right-hand side installation, i.e. the connection to the shunt unit is made from the right of the cabinet, via the cabinet base.

The cabinet has a dense base with rubber pipe grommets. The cabinet base is provided with a drainage opening which allows any water leakage to be drained to a location which can be inspected.

The cabinet is designed for installation built into a wall or surface-mounted on a wall. When building in the cabinet, the minimum stud thickness is 95 mm.

The cabinet must be supplemented with a frame/hatch. There are two types of frame/hatch, depending on whether the cabinet is built into or surface-mounted on an inner wall.

When surface-mounted, the cabinet must also be supplemented with a base in order to conceal pipes between the cabinet and the floor.

The cabinet comes supplied with pipe grommets, a bellow sleeve for drainage, a 1.5-metre conduit for drainage, drainage elbow with outlet plate, cable grommets for room control, spray guard and installation instructions.

The back of the cabinet is provided with four prefitted M8 nuts which can be used for attachment to the LK Cabinet Stand when the cabinet has to be installed before a concrete base is cast.

The top of the cabinet has knockout holes for any cable grommets for room control.

Article	Width	Height	Depth	Weight (kg)	Packaging
298 91 73	1050	710	95	20	1/7

# Miscellaneous

## LK Outlet Plate

Outlet plate to LK Drainage elbow, in white or chrome.

Fits in LK Drainage elbow. Can also be mounted directly into a LK Sleeve pipe Ø25, advantageously used with a dab silicone or similar to fix the outlet plate properly.

Article	Exterior dims. (W x H x D)	Color	Packaging
188 09 99	48 x 48 x 15 mm	chrome	1
188 21 44	48 x 48 x 15 mm	white	1



## LK Key Lock

Key latch with two keys. It is the same keys for all locks.

For replacement of screwdriver latch on:

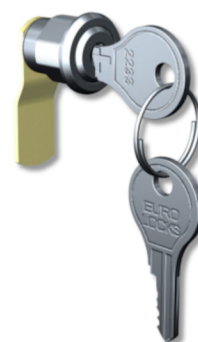
LK Frame/hatch UNI INB: 188 23 48, 188 13 08, 188 13 11, 188 13 05 and 188 13 03

LK Frame/hatch UNI UTV: 188 13 10, 188 13 12, 188 13 06 and 188 13 04

LK Frame/hatch UNI 550 TAK: 188 13 07

LK Frame/hatch UFH INB: 243 53 67, 243 46 80, 243 46 79, 243 53 63 and 243 46 76

LK Frame/hatch UFH UTV: 205 48 38, 243 53 68, 243 46 81, 243 46 78, 243 53 64 and 243 46 77



Article	Packaging
188 23 52	1

## LK Pipe inlet 32 PiP

Pipe inlet for LK Heating Pipe 32 mm PE-X and LK Universal pipe PAL 32 mm with 40-44 mm conduit. Pipe inlet fits all the LK's WP and UNI cabinets with 40 mm pipe entry holes.

Article	Dim.	For pipe dim.	Packaging
241 95 95	32 mm PiP (conduit 40-44 mm)	32 mm RiR	1/8



NOTE! Sold only in pairs, i.e. one bag contains 2 pipe inlets.

## LK Pipe Inlet 8 mm, Quattro

Intended for LK Floor Heating pipe 8 mm, suitable for all LK water proof cabinets.

Article	For pipe dim.	Packaging
241 94 61	8 mm	1/2/20



## LK Sealing socket

LK Sealing socket is designed for sealing pipe-in-pipe. Suitable for corrugated conduits and also for plain pipes with od 40 and 50 mm against inner pipes with od 20, 25, 32, 34 and 42 mm. Suitable for floor through-connections with sealing joint

Article	Dim.	For pipe dim.	Length	Packaging
188 22 06	60-50-40/34-32-25-20 mm	32/25/20 mm	100 mm	1/6/120



## LK Touch-up paint

Touch-up paint to LK Installation Cabinet UNI and GV. RAL 9016. The paint is water-based. Should be shaken before use and protected from freezing.

Article	Packaging
188 25 45	1





# Basic wired communication

## LK Room Thermostat S1 (NO)

Electronic, soundless room thermostat with Triac-output and self-modulation technology. Available in models S1, S1 EXT and S1 Dti; S1 EXT and S1 Dti has got extra connections for the possibility to connect LK External Sensor S1 for control of floor temperature. The room thermostat is powered by 24 V AC and is designed for normally open LK Actuator 24V (NO). Connection is normally made via LK Connection Box (NO) or via LK Connection Box 1. Max 5 LK Actuators 24V (NO) can be connected per room thermostat.

The room thermostat temperature range is between 5-35 °C. Adjustable range can be limited on the back of the dial. Input for external temperature reduction-3K is available. Colour, white polished RAL 9010. The back of the thermostat cover covers a standard junction box. An LK Pattress S1 to extend the thermostat's covering measurements is available as accessory.



Article	Designation	Width	Height	Depth	Voltage	Note	Packaging
241 72 87	S1	78 mm	78 mm	14 mm	24 V AC	-	1/50
241 72 91	S1 EXT	78 mm	78 mm	14 mm	24 V AC	Possible connection of LK External Sensor S1	1/50

## LK Room Thermostat S1 (NC)

Electronic, soundless room thermostat with Triac-output and self-modulation technology. Available in models S1, S1 EXT and S1 Dti; S1 EXT and S1 Dti has got extra connections for the possibility to connect LK External Sensor S1 for control of floor temperature. The room thermostat is powered by 24 V AC and is designed for normally closed LK Actuator 24V (NC). Connection is normally made via LK Connection Box (NC) or via LK Connection Box 1. Max 5 LK Actuators 24V (NC) can be connected per room thermostat.

The room thermostat temperature range is between 5-35 °C. Adjustable range can be limited on the back of the dial. Input for external temperature reduction-3K is available. Colour, white polished RAL 9010. The back of the thermostat cover covers a standard junction box. An LK Pattress S1 to extend the thermostat's covering measurements is available as accessory.



Article	Designation	Width	Height	Depth	Voltage	Note	Packaging
241 72 86	S1	78 mm	78 mm	14 mm	24 V AC	-	1/50
241 72 90	S1 EXT	78 mm	78 mm	14 mm	24 V AC	Possible connection of LK External Sensor S1	1/50

## LK Room Thermostat S1 Dti (NO)

Electronic, soundless room thermostat with Triac-output and self-modulation technology, with possibility to connect an LK External Sensor S1 for control of floor temperature. The room thermostat is powered by 24 V AC and is designed for normally open LK Actuator 24V (NO). Connection is normally made via LK Connection Box (NO) or via LK Connection Box 1. Max 5 LK Actuators 24V (NO) can be connected per room thermostat.

The room thermostat temperature range is between 5-35 °C. Input for external temperature reduction-3K is available. Colour, white polished RAL 9010. The back of the thermostat cover covers a standard junction box. An LK Pattress S1 to extend the thermostat's covering measurements is available as accessory.



Article	Designation	Width	Height	Depth	Voltage	Note	Packaging
241 72 89	S1 Dti	78 mm	78 mm	14 mm	24 V AC	Possible connection of LK External Sensor S1	1/50

## LK Room Thermostat S1 Dti (NC)

Electronic, soundless room thermostat with Triac-output and self-modulation technology, with possibility to connect an LK External Sensor S1 for control of floor temperature. The room thermostat is powered by 24 V AC and is designed for normally closed LK Actuator 24V (NC). Connection is normally made via LK Connection Box (NC) or via LK Connection Box 1. Max 5 LK Actuators 24V (NC) can be connected per room thermostat.

The room thermostat temperature range is between 5-35 °C. Input for external temperature reduction-3K is available. Colour, white polished RAL 9010. The back of the thermostat cover covers a standard junction box. An LK Pattress S1 to extend the thermostat's covering measurements is available as accessory.



Article	Designation	Width	Height	Depth	Voltage	Note	Packaging
241 72 88	S1 Dti	78 mm	78 mm	14 mm	24 V AC	Possible connection of LK External Sensor S1	1/50

## LK Pattress S1

LK Pattress S1 is used as accessory to increase the mounting area of the thermostat. Intended for use with Room Thermostats S1, S1 EXT and S1 Dti. Colour, white polished RAL 9010.

Article	Width	Height	Depth	Packaging
241 72 92	88 mm	88 mm	3 mm	1/250



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## LK Protection Cover

Transparent protection cover of plexi glass for LK Room Thermostat S1.

Article	Width	Height	Depth	Packaging
32610	130 mm	120 mm	33 mm	1



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## LK External Sensor S1

Designed for LK Room Thermostat S1 EXT and LK Room Thermostat S1 Dti for floor temperature control.

Article	Length	Packaging
241 72 94	4 m	1/50



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## LK Room Thermostat S2 (NO)

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Electronic, noiseless room thermostat with Triac output and electronic feedback. Available in models S2 and S2 EXT, where S2 EXT can be connected to LK Remote Sensor ICS/S2 for controlling e.g. floor temperature. The thermostat is fitted to a standard electrical wall box or directly above the cables when these exit a wall via electrical conduit. For installation on a standard electrical wall box, use the pattress supplied.



- Voltage 24 V AC (NO Normally open)
- Switching power max 15 W
- Maximum of 5 LK Actuators per room thermostat
- Covers a standard electrical wall box with the pattress supplied
- Temp. range 5–45°C
- Input for temperature reduction -3K
- Can be connected to LK Remote Sensor ICS/S2 for control of floor temperature. Note: Applies to model S2 EXT.
- Colour, rear section RAL 9003, front white/polished ice grey



Article	Designation	Length	Width	Depth	Note	Packaging
243 43 99	S2	112 mm	80 mm	16 mm	-	1/25
243 44 01	S2 EXT	112 mm	80 mm	16 mm	Possible connection of LK External Sensor ICS/S2	1/25

## LK Room Thermostat S2 (NC)

Electronic, noiseless room thermostat with Triac output and electronic feedback. Available in models S2 and S2 EXT, where S2 EXT can be connected to LK Remote Sensor ICS/S2 for controlling e.g. floor temperature. The thermostat is fitted to a standard electrical wall box or directly above the cables when these exit a wall via electrical conduit. For installation on a standard electrical wall box, use the pattress supplied.



- Voltage 24 V AC (NC Normally closed)
- Switching power max 15 W
- Maximum of 5 LK Actuators per room thermostat
- Covers a standard electrical wall box with the pattress supplied

- Temp. range 5–45°C

- Input for temperature reduction -3K

- Can be connected to LK Remote Sensor ICS/S2 for control of floor temperature. Note:  
Applies to model S2 EXT.

- Colour, rear section RAL 9003, front white/polished ice grey

Article	Designation	Length	Width	Depth	Packaging
243 43 98	S2	116 mm	80 mm	16 mm	1/25
243 44 00		116 mm	80 mm	16 mm	1/25

## LK External Sensor ICS.2/S2

LK Extern Sensor ICS/S2 is an accessory for the LK Thermostat ICS.2-RF/W alternatively LK Room Thermostat S2 EXT in order to regulate, for example, the floor temperature.



Article	Length	Packaging
241 73 23	3 m	1

## LK Connection Box 1

LK Connection Box 1 is a simple connection box used to regulate temperatures in small floor heating systems. The terminal is used for connecting and powering LK Room Thermostat S1 24 V with LK Actuator 24 V and LK Single Zone Manifold Control 24 V. A maximum of one LK Room Thermostat S1 24 V can be connected. The thermostat will control up to five LK 24 V Actuators. LK Connection Box 1 is powered via a LK Transformer 230V/24 V.



Article	Width	Height	Depth	Voltage	Packaging
241 73 28	105 mm	105 mm	50 mm	24 V	1/60

## LK Transformer

Transformer with plug and cable for connection to a LK Connection Box 1 and LK Electronic Thermostat TR 26.



Article	Voltage	Output	Weight (kg)	Packaging
241 77 47	230/24 V AC	60 VA	1,15	1/12

## LK Connection Box (NO)

For electrical connection of LK Room Thermostat S1 or LK Room Thermostat S2 24V NO and LK Actuator 24V NO. The box has an integrated transformer 230/24V AC 40VA.

Up to 8 LK Room Thermostat S1 24V NO and max 12 LK Actuator 24V NO can be connected to the box. The box is equipped with an volt-free relay that make it possible to connect/control a circulation pump. The box has an integrated 24-hour valve and pump logic exercise program.



Article	Width	Height	Depth	Voltage	Weight (kg)	Packaging
241 81 17	350 mm	100 mm	60 mm	230/24 V AC	1,5	1/23/276

## LK Connection Box (NC)

For electrical connection of LK Room Thermostat S1 or LK Room Thermostat S1 24V NC and LK Actuator 24V NC. The box has an integrated transformer 230/24V AC 40VA.

Up to 8 LK Room Thermostat S1 24V NC and max 12 LK Actuator 24V NC can be connected to the box. The box is equipped with an volt-free relay that make it possible to connect/control a circulation pump. The box has an integrated 24-hour valve and pump logic exercise program.



Article	Width	Height	Depth	Voltage	Weight (kg)	Packaging
241 81 18	350 mm	100 mm	60 mm	230/24V AC	1,5	1/23/276

## LK Actuator (NO)

- Power 2W
- Normally open NO

For individual room/zone control for LK Manifold RF. The actuator is used with LK Wired or Wireless Room Control system.



Article	Type	Voltage	Output	Packaging
241 75 91	Normally open (NO)	24 V AC/DC	1,8 W	1/100/2500

## LK Actuator (NC)

- Power 2W
- IP 54
- Normally closed NC

For individual room/zone control for LK Manifold RF. The actuator is used with LK Wired or Wireless Room Control system.



Article	Voltage	Packaging
241 81 20	24V AC	1/100/1600

## LK Actuator Relay 24 V

The LK Actuator Relay 24 V is intended for use when up to 12 LK Actuators 24 V need to be connected to one actuator output in the LK Connection Box or LK Receiver ICS.

The LK Actuator Relay is activated from optional actuator output in the LK Receiver ICS or LK Connection Box NO, thereby enabling up to 12 actuators to be controlled from the same channel/thermostat. The LK Actuator Relay 24 V is supplemented with LK Transformer 230/24 V. Either the LK Actuator 24 V NO (normally open) or the LK Actuator 24 V NC (normally closed) can be connected to the LK Actuator Relay 24 V. All LK Actuators 24 V that are connected must be of the same type.



Article	Width	Height	Depth	Voltage	Packaging
241 98 99	105 mm	105 mm	50 mm	24 V	1/60

# ICS.2 wired/wireless communication

## LK Room Thermostat RF ICS.2

Wireless room thermostat with background-lit display for easy and clear function display.

The display shows, the set and actual temperature, heating on/off, operating mode and any error messages etc.

For the best energy efficiency, the room thermostat uses a so-called self-modulation technique consisting of signal pulses to the valve actuators. The self-modulation technique means that the thermostat adjusts the power output in relation to the set temperature. When the temperature in the room approaches the set temperature, the power output is reduced to avoid overheating. This in turn, minimizes energy consumption.

During use of the thermostat's night set-back/economy temperature function, it works with the adaptive (self-learning) function. The buttons are lockable and as such the thermostat can also be used in a public environment. There is the possibility to connection a floor sensor (read more below LK External sensor ICS/S2). Furthermore there are functions such as Fire place function, Area restriction of the temperature range, By-pass setting of the floor heating circuit and more. The room thermostat is used together with LK Receiver Unit 1 ICS.2 and LK Receiver Unit 8 ICS.2. The connection is wireless.

The thermostat is available in the colours glossy white, silver-grey and glossy black.

Compatible with the ICS.2 series ONLY.



Article	Designation	Width	Height	Depth	Communication	Color	Packaging
243 46 20	LK Room Thermostat RF ICS.2	100 mm	100 mm	20 mm	Wireless	White, High gloss	1/25
243 46 19	LK Room Thermostat RF ICS.2	100 mm	100 mm	20 mm	Wireless	Silver grey	1/25
243 46 18	LK Room Thermostat RF ICS.2	100 mm	100 mm	20 mm	Wireless	Black, high gloss	1/25
243 46 21	LK Room Thermostat W ICS.2	100 mm	100 mm	20 mm	Wired	White, High gloss	1/25
243 46 23	LK Room Thermostat W ICS.2	100 mm	100 mm	20 mm	Wired	Silver grey	1/25
243 46 22	LK Room Thermostat W ICS.2	100 mm	100 mm	20 mm	Wired	Black, high gloss	1/25



Article	Designation	Width	Height	Depth	Communication	Color	Packaging
243 46 22	ICS.2	100 mm	100 mm	20 mm	Wired	Black, high gloss	1/25

## LK Receiver 8 ICS.2 (NO)

LK Receiver 8 ICS.2 is used together with LK Room thermostat RF ICS.2 (wireless) or LK Room thermostat W ICS.2 (wired).

Up to 8 LK Room thermostats ICS.2 can be addressed to the receiver unit, wired or wireless. The unit can control up to 12 floor circuits through LK Actuator 24 V (NO).

The unit has an in-built 24h program for valve and pump exercising. Furthermore, the unit is equipped with two potential-free outputs which, if necessary, are used for start/stop of pump and heat source. For start/stop of pump and heat source to function in a large system, several receiver units can communicate with each other through a wireless connection.

Furthermore, the unit is equipped with 1 input terminal for temperature reduction through an external signal, for example, through GSM Switch. The unit can be supplemented with LK Webserver for control through mobile, tablet or computer. The system can also communicate through Modbus protocol for connection to a Building Management System (BMS).

From the in-built USB input of the receiver the under floor heating system can easily be logged for control and troubleshooting.

Compatible with the ICS.2 series ONLY.



Article	Width	Height	Depth	Communication	Packaging
243 46 24	400 mm	120 mm	60 mm	Wireless/Wired	1/10

## LK Receiver 8 ICS.2 (NC)

LK Receiver 8 ICS.2 (NC) is used together with LK Room thermostat RF ICS.2 (wireless) or LK Room thermostat W ICS.2 (wired).

Up to 8 LK Room thermostats ICS.2 can be addressed to the receiver unit, wired or wireless. The unit can control up to 12 floor circuits through LK Actuator 24 V (NC).

The unit has an in-built 24h program for valve and pump exercising. Furthermore, the unit is equipped with two potential-free outputs which, if necessary, are used for start/stop of pump and heat source. For start/stop of pump and heat source to function in a large system, several receiver units can communicate with each other through a wireless connection.

Furthermore, the unit is equipped with 1 input terminal for temperature reduction through an external signal, for example, through GSM Switch. The unit can be supplemented with LK Webserver for control through mobile, tablet or computer. The system can also communicate through Modbus protocol for connection to a Building Management System (BMS).

From the in-built USB input of the receiver the under floor heating system can easily be logged



for control and troubleshooting.

Compatible with the ICS.2 series ONLY.

Article	Width	Height	Depth	No. of channels	Packaging
243 46 25	400 mm	120 mm	60 mm	8	1/10

## LK Receiver 1 ICS.2 (NO)

LK Receiver 1 ICS.2 is used together with LK Room thermostat RF ICS.2 (wireless) or LK Room thermostat W ICS.2 (wired).

One LK Room thermostat ICS.2 can be addressed/connected to the receiver unit. The unit can control up to 5 LK Actuators 24 V (NO).

The unit has an in-built 24h program for valve exercising. Furthermore in a larger system, the unit can communicate through a wireless connection with several 8-channel LK Receiver ICS.2.

Compatible with the ICS.2 series ONLY.



Article	Width	Height	Depth	No. of channels	Communication	Packaging
243 46 26	100 mm	120 mm	60 mm	1	Wireless/Wired	1/10

## LK Receiver 1 ICS.2 (NC)

LK Receiver 1 ICS.2 is used together with LK Room thermostat RF ICS.2 (wireless) or LK Room thermostat W ICS.2 (wired).

One LK Room thermostat ICS.2 can be addressed/connected to the receiver unit. The unit can control up to 5 LK Actuators 24 V (NC).

The unit has an in-built 24h program for valve exercising. Furthermore in a larger system, the unit can communicate through a wireless connection with several 8-channel LK Receiver ICS.2.

Compatible with the ICS.2 series ONLY.



Article	Packaging
243 46 27	1/10

## LK Webserver

LK Webserver is used to access and control LK Room Temperature Control ICS.2 and LK Water Safety System from your mobile phone, tablet or computer. An intuitive interface makes it easy to both monitor, manage and control all the functions of the underfloor heating system through a web page. The system works with all the common market systems such as smartphones, tablets or computers with associated operating systems and web browsers such as Android, iPhone, iPad, Windows Phone, Windows PC, Mac, Linux, Firefox, Safari, Internet Explorer.



The first start-up/installation of the web server normally requires a Windows computer.

LK Webserver can also be used as a wireless communications bridge. This wireless communications bridge function is used when the Internet is unavailable in the property at the underfloor heating installation's receiver unit. Two web servers are required where one web server is installed at the underfloor heating installation's receiver unit and the other at the property's Internet connection. A wireless communication bridge is set up between the web servers.



Article	Width	Height	Depth	Packaging
241 70 35	137 mm	62 mm	31 mm	1

## LK External Sensor ICS.2/S2

LK Extern Sensor ICS/S2 is an accessory for the LK Thermostat ICS.2-RF/W alternatively LK Room Thermostat S2 EXT in order to regulate, for example, the floor temperature.



Article	Length	Packaging
241 73 23	3 m	1

## LK Actuator (NO)

- Power 2W
- Normally open NO

For individual room/zone control for LK Manifold RF. The actuator is used with LK Wired or Wireless Room Control system.



Article	Type	Voltage	Output	Packaging
241 75 91	Normally open (NO)	24 V AC/DC	1,8 W	1/100/2500

## LK Actuator Relay 24 V

The LK Actuator Relay 24 V is intended for use when up to 12 LK Actuators 24 V need to be connected to one actuator output in the LK Connection Box or LK Receiver ICS.

The LK Actuator Relay is activated from optional actuator output in the LK Receiver ICS or LK Connection Box NO, thereby enabling up to 12 actuators to be controlled from the same channel/thermostat. The LK Actuator Relay 24 V is supplemented with LK Transformer 230/24 V. Either the LK Actuator 24 V NO (normally open) or the LK Actuator 24 V NC (normally closed) can be connected to the LK Actuator Relay 24 V. All LK Actuators 24 V that are connected must be of the same type.



Article	Width	Height	Depth	Voltage	Packaging
241 98 99	105 mm	105 mm	50 mm	24 V	1/60

## LK Antenna Cable ICS.2

LK Antenna Cable ICS.2 is used in case you need to move the antenna (radio link) away from the LK Receiver ICS-RF. The cable is equipped with quick connectors for easy installation.



Article	Length	Packaging
241 73 24	10 m	1

## LK ICS.2 MEM Stick

LK ICS MEM Stick is used to retrieve data from LK Receiver ICS-W8 or LK Receiver ICS-RF8. The data can be analyzed with the program LK Analyzer. Contact your LK representative for more information about LK Analyzer.



Article	Intended for	Packaging
33620	ICS-RF8, ICS-W8 & ICS.2-8	1

# TR 26

## LK Electronic Thermostat TR 26

LK Electronic Thermostat TR26, used in special environments such as wash halls, animal stables etc.

The thermostat is supplemented with floor or room temperature sensor (LK Cable Sensor FK133/4 or LK Room Temperature Sensor FS 103). Up to 10 LK Actuator 24V AC or 10 LK Single Zone Manifold Control can be controlled by the thermostat. The output voltage is put with LK Transformer 230/24V AC.

The thermostat is made for DIN rail mounting and preferably placed in LK DIN Box (IP 55).



Article	Protection class	Temp. range	Note	Packaging
241 81 48	IP21	0-60 °C	1 change over, voltage free 24/230 V AC	1

## LK Cable Sensor FK 133/4

LK Cable Sensor, used with LK Electronic Thermostat TR26 when controlling the floor temperature.



Article	Length	Packaging
241 81 49	4 m	1

## LK Room Temperature Sensor FS 103

LK Room Temperature Sensor FS103, used with LK Electronic Thermostat TR 26 when controlling the room temperature.

Article	Width	Height	Depth	Protection class	Packaging
241 81 74	78 mm	88 mm	41,5 mm	IP55	1



## LK Transformer

Transformer with plug and cable for connection to a LK Connection Box 1 and LK Electronic Thermostat TR 26.



Article	Voltage	Output	Weight (kg)	Packaging
241 77 47	230/24 V AC	60 VA	1,15	1/12

## LK DIN Box

LK Box with DIN rail. Up to 2 LK Electronic Thermostat TR26 can be mounted.

Article	Width	Height	Depth	Protection class	Packaging
241 81 75	105 mm	170 mm	98 mm	IP55	1



## LK Actuator (NO)

- Power 2W
- Normally open NO

For individual room/zone control for LK Manifold RF. The actuator is used with LK Wired or Wireless Room Control system.



Article	Type	Voltage	Output	Packaging
241 75 91	Normally open (NO)	24 V AC/DC	1,8 W	1/100/2500

## LK Actuator (NC)

- Power 2W
- IP 54
- Normally closed NC

For individual room/zone control for LK Manifold RF. The actuator is used with LK Wired or Wireless Room Control system.



Article	Voltage	Packaging
241 81 20	24V AC	1/100/1600



## Other

### LK Zone Control 2-way (NO)

LK Zone Control 2-way (NO) for automatic control of one LK Manifold. 1" control valve incl. electrothermal actuator 24 V AC.

To be supplemented with LK Room Thermostat S1 24 V AC (NO), LK Connection Box 1 and LK Transformer 230/24 V AC. Alternatively LK ICS 1 wired or wireless room control.

The heating system shall be provided with temperature control equipment for shunting of the secondary flow into the manifold.

LK Zone Control is also available with 24V 0-10V DC actuator. Used eg. for C.S.C. (BMS) connection.

Pipe connection to LK Zone Control can be done preferably with LK Joint Nipple, LK Half Coupler, LK >B<Press Transition and LK Connection Set.



Article	Dim.	Voltage	Packaging
241 98 96	1" male	24V AC	1
241 98 98	1" male	24V 0-10V DC	1

### LK Zone Control 2-way (NC)

LK Zone Control 2-way (NC) for automatic control of one LK Manifold. 1" control valve incl. electrothermal actuator 24 V AC.

To be supplemented with LK Room Thermostat S1 24 V AC (NC), LK Connection Box 1 and LK Transformer 230/24 V AC. Alternatively LK ICS 1 wired or wireless room control.

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Pipe connection to LK Zone Control can be done preferably with LK Joint Nipple, LK Half Coupler, LK >B<Press Transition and LK Connection Set.



Article	Dim.	Voltage	Packaging
241 98 97	1" male	24V AC	1
241 98 98	1" male	24V 0-10V DC	1

### LK Thermostat Valve Kit Mini (NO)

LK Thermostat Valve Kit is used for the individual control of respective floor heating circuit on the LK Mini Manifold. The assembly kit includes a LK Thermostat Valve Mini ½", a LK Actuator 24V NO, nipple connection ½" for the Mini Manifold 12 or 16, as well as a pipe connection coupling 12 or 16.



Article	Dim.	Connection	Packaging
241 73 38	½"	12	1
241 73 39	½"	16	1

## LK Thermostat Valve Kit Mini (NC)

LK Thermostat Valve Kit is used for the individual control of respective floor heating circuit on the LK Mini Manifold. The assembly kit includes a LK Thermostat Valve Mini ½", a LK Actuator 24V NC, nipple connection ½" for the Mini Manifold 12 or 16, as well as a pipe connection coupling 12 or 16.



Article	Dim.	Connection	Packaging
241 73 36	½"	12	1
241 73 37	½"	16	1

## LK Actuator 0-10V

For individual room/zone controlling for LK Manifold. Supply voltage 24V AC, control signal 0-10V DC, normally closed. Protection class IP40.

Article	Voltage	Output	Packaging
241 81 22	0-10 V DC/24 V AC	1,5 W	1



## LK Actuator 230V AC (NO)

For individual room/zone controlling for LK Manifold.

Article	Voltage	Output	Packaging
83306	230 V	1,8 W	1



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## LK Actuator (NO)

- Power 2W
- Normally open NO

For individual room/zone control for LK Manifold RF. The actuator is used with LK Wired or Wireless Room Control system.



Article	Type	Voltage	Output	Packaging
241 75 91	Normally open (NO)	24 V AC/DC	1,8 W	1/100/2500

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## LK Actuator 230V AC (NC)

For individual room/zone controlling for LK Manifold.

Article	Type	Voltage	Output	Packaging
241 81 21	Normally closed (NC)	230 V	1,8 W	1/100/1600



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## LK Actuator Adapter VA

Adapter VA for fitting to LK Actuator 24V NO/NC, 230 V NO/NC or 0-10V.



Article	Intended for	Color	Designation	Packaging
243 46 09	Uponor PRO 1 Uponor proVario	Grey		1/10/100
243 46 10	Rehau manifold of brass ReTherm - Armaturjonsson Roth GVF 2004 Altech GVF TECE manifold of stainless Termotech GVF	Grey	VA 10	1/10/100
241 60 91	LK Manifold HKV	Grey	VA 16H	1
243 54 80	MMA (EDVH25, FVXR 15, VXR 2) ICMA (BAS) Industrietechnik Italy (DB VZ2)		VA 17	
243 46 11	Roth GVF 1999. NeoTherm-P.Henning Jensen manifold of brass. NeoTherm-P.Henning Jensen manifold of brass with flow meter.  LK VKF-i Manifold of brass	Grey		1/10/100
243 46 12	Uponor WGF 1 Wirsbo RWG TA manifold of brass	Green		1/10/100
243 46 13	Purmo manifold of brass Sauter GVF	Dark green		1/10/100
243 46 14	Roth MultiTherm	Blue		1/10/100
243 46 15	Termotech older manifold of brass	Grey		1/10/100
243 46 16	Danfoss RA	White		1/10/100
243 46 17	Rehau plastic manifold Tetragonia stainless steel Termotech "RF" older and newer Termeco manifold of stainless steel Energijägarna manifold of brass	White		1/10/100
243 46 33	Roth GVF2009 Uponor manifold of stainless steel (untill 2014) TECE plastic manifold Afrisco ProCalida plastic manifold	Red		1/10/100
243 52 04	Multitherm - multimodul 2000  Tour & Andersson KTM 512 Wieland – Cuproterm Roth – HK2 Warmia manifold in stainless	Blue	VA 91	1/10/100

## LK Timer Thermostat - SR310

LK Timer Thermostat SR310 is designed for temperature control of f. ex. living areas and business facilities etc. Clock thermostat is used for having different temperature levels during the day. For example a normal comfort temperature during the daytime and a reduced temperature at night.

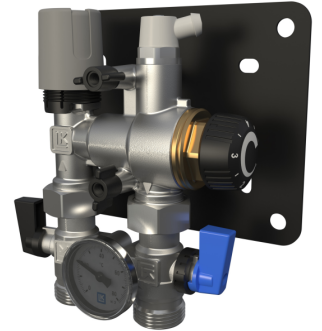
Article	Battery	Temp. range	Color	Packaging
33600	2 x alkaline AA 1,5V LR 6	0° C - 55° C	White	1/10



# Shunts

## LK Mini loop valve RTB

LK Mini loop valve RTB is designed to control smaller floor heating systems that are embedded in concrete or levelling compound with a pipe dimension of 8 mm, 12 mm, 16 mm or 20 mm.



Article	Packaging
243 53 44	1/160

## LK Heater 350

LK Heater 350 is an electric comfort heater for floor heating installations with LK Minishunt M60n. The heater consists of an electric cartridge installed in a brass tub. The electric cartridge is controlled by an electronic controller for the constant regulation of the water temperature. The product is sold complete for 1 or 2 heating circuits in 12 or 16 mm pipe dimensions. The electric cartridge power is 350W and is sufficient under normal conditions for floor heating surfaces up to 12 m².



Article	Dim. pipe	Length	No. of circuits	Weight (kg)	Packaging
241 91 18	12	245 mm	1	2,4	1/55
241 91 19	16	245 mm	1	2,4	1/50
241 91 20	12	245 mm	2	3	1/55
241 91 21	16	245 mm	2	3	1/55

## LK Minishunt M60n

Thermostat controlled shunt unit for use when smaller under floor heating systems are to be connected to an existing heating system. The shunt unit is to be used in systems with main pump in the primary circuit. Its capacity can be set at a flat rate of heating requirements of 50 W/m² to max 60 m² of floor heating area. The capacity is dependent on the primary temperature, pressure, floor heating installing system, etc. Then Shunt unit can be connected to series or parallel radiator systems. Assembly can be made in right or left operation.



Complete premanufactured shunt unit includes;

- Circulation pump Wilo Yonos Para RSB 15/6-RKA, with automatic speed control, 1 phase 230 V AC, 50 Hz, max 45 W, 0,44 A
- Thermostat with room temp. sensor length 2 m
- Connectors for primary pipe connection 2 pcs CU15
- Temperature limiter of feed temperature

- VF valve
- Fill and drain valve and air bleed valve with hose nipple
- Bracket



Article	Width	Height	Depth	c/c pipes prim./sec.	Connection prim./sec.	Weight (kg)	Packaging
243 52 15	256 mm	248 mm	103 mm	50/84	Cu15 3/4"EK / 1/2" FM	4	1/75

## LK Manifold Shunt VS2

The shunt unit is to be used in systems with main pump in the primary circuit. Its capacity can be set at a flat rate of heating requirements of 50W/m<sup>2</sup> to max 200 m<sup>2</sup> of floor heating surface. The capacity is dependent on the primary temperature, pressure, floor heating installing system, etc. The included supply pipe allows in both left- and righthand assembly to LK Manifold RF.

The shunt unit is a complete pre-manufactured unit.

LK Manifold Shunt can be supplemented with LK Control v.3, Art. no. 241 73 25 for outdoor temperature control.



### Items Included

- Circulation pump Grundfos UPM3 Auto L 15-70 130, with automatic speed control, 1 phase 230 V AC 50 Hz, max 45 W, 0,38 A
- Two way control valve Kvs value 2.5, equipped with hand actuator
- VF valve
- Temperature limiter of feed temperature
- Adjustment valve for the primary circuit
- Check valve
- 2 tube thermometers
- Isolation valves for primary circuit
- Fixing bracket



Article	Width	Height	Depth	c/c pipes prim./sec.	Connection prim./sec.	Weight (kg)	Packaging
243 52 14	250/275	330 mm	98 mm	88/213	¾" FM / 1" M	4,6	1/75

## LK Shunt 2/3-2,5

- Can be assembled in both right and left operation

The shunt unit is to be used in systems with main pump in the primary circuit. Its capacity can be set at a flat rate of heating requirements of 50 W/m<sup>2</sup> to max 300 m<sup>2</sup> of floor heating surface. The capacity is dependent on the primary temperature, pressure, floor heating installing system, etc. Complete pre-manufactured shunt unit.

LK Shunt can be supplemented with LK Control v.3, Art. no. 241 73 25.

#### Items Included

- Circulation pump Wilo Para 25-130/8-75/SC, with automatic speed control, 1 phase 230 V AC, 50-60 Hz, max 75 W, 0,66 A.
- Control valve Kvs 2,5 with change over function between 3- and 2-port execution, equipped with hand actuator
- Adjustment valve LK OptiFlow for the primary circuit
- Check valve
- 2 thermometers
- Isolation valves
- Fixing bracket

Article	Type	Width	Height	Depth	c/c pipes prim./sec.	Connection prim./sec.	Weight (kg)	Packaging
241 80 87	2/3-2.5	310 mm	500 mm	200 mm	150/150 mm	¾" female/1" male	9,1 kg	1



## LK Shunt 2/3-4,0

- Can be assembled in both right and left operation

The shunt unit is to be used in systems with main pump in the primary circuit. Its capacity can be set at a flat rate of heating requirements of 50 W/m<sup>2</sup> to max 700 m<sup>2</sup> of floor heating surface. The capacity is dependent on the primary temperature, pressure, floor heating installing system, etc. Complete pre-manufactured shunt unit.

LK Shunt can be supplemented with LK Control v.3, Art. no. 241 73 25.

#### Items Included

- Circulation pump Wilo Yonos Para HF 25/7 180, with automatic speed control, 1 phase 230 V DIN IEC 60038 ±10%, 50/60 Hz, max 120 W, 1,0 A.
- Control valve Kvs 4,0 with change over function between 3- and 2-port execution
- Adjustment valve for the primary circuit
- Check valve
- 2 thermometers
- Isolation valves
- Fixing bracket





Article	Type	Width	Height	Depth	c/c pipes prim./sec.	Connection prim./sec.	Weight (kg)	Packaging
241 78 23	2/3-4.0	300 mm	830 mm	250 mm	170/170 mm	¾" female/1¼" male	10,1	1

## LK Shunt 2/3-6,3

- Can be assembled in both right and left operation

The shunt unit is to be used in systems with main pump in the primary circuit. Its capacity can be set at a flat rate of heating requirements of 50 W/m<sup>2</sup> to max 1000 m<sup>2</sup> of floor heating surface. The capacity is dependent on the primary temperature, pressure, floor heating installing system, etc. Complete pre-manufactured shunt unit.

LK Shunt can be supplemented with LK Control v.3, (Art. no. 241 73 25).

### Items Included

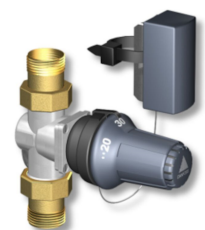
- Circulation pump Wilo Yonos Para HF 25/7 180, with automatic speed control, 1 phase 230 V DIN IEC 60038 ±10%, 50/60 Hz, max 120 W, 1,0 A
- Control valve Kvs 6,3 with change over function between 3- and 2-port execution
- Adjustment valve for the primary circuit
- Check valve
- 2 thermometers
- Isolation valves
- Fixing bracket



Article	Type	Width	Height	Depth	c/c pipes prim./sec.	Connection prim./sec.	Weight (kg)	Packaging
241 78 24	2/3-6.3	340 mm	870 mm	250 mm	150/150 mm	1" female/1½" female	12,5	1

## LK FTK Valve

The temperature limit valve is designed for connection to LK Shunt 2/3-2,5. The valve shall be used when a manual regulated shunt unit is connected to a system with constant temperature on the supply feed. The valve shall be mounted on the primary circuit of the shunt unit's feed pipe. The valve has an adjustable kv value between 0,8 to 2,6.



Article	Dim.	Length	Kv	Temp. range	Packaging
241 74 29	¾" male thread	145 mm	0,8-2,6	15-50 °C	1

## LK Valve Actuator

LK Valve actuator for LK Shunt is used with other control equipment other than LK´s for example DUC-systems.

LK Valve actuator 230V SSY319 used with: LK Manifold Shunt VS2, LK Shunt 2/3-2,5, 4,0 and 6,3 plus LK Shunt UHP -6,3.

LK Valve actuator 0-10V SSB161.05HF used with: LK Manifold Shunt VS2, LK Shunt 2/3-2,5, 4,0, and to LK Shunt UHP -6,3.

LK Valve actuator 0-10V SQS65SL used with: LK Shunt 2/3-6,3.



Article	Designation	Type	Voltage	Packaging
241 81 38	SSY319	230 V	230V	1
241 81 39	SSB61	0-10 V	0-10V	1
241 81 40	SAS61.03	0-10 V	0-10V	1
241 04 58	SSB161.05HF	0-10 V		1
241 81 41	SSA61/AV53	0-10 V	0-10V	1

# Heat Exchanger pack

## LK Heat Exchanger Pack -10

The LK Heat Exchanger Pack 10 is primarily designed for glycol based under floor heating systems that must be isolated from other heating systems. Such heating systems are used in garden summer houses or garages, i.e. in areas where the maintenance of a minimum temperature is required during the winter or, can be completely closed off without the risk of the under floor heating system being damaged by freezing.

The LK Heat Exchanger Pack is a pre-assembled unit complete with heat exchanger, circulation pump, manometer, expansion vessel, filter and a control valve with automatic thermostat and sensor connected via a capillary tube. The control valve has settings for variable Kv values to adjust to the size of the project. The Heat Exchanger Pack is constructed so that it can be mounted directly to LK Manifolds RF. It can be connected to the right of the manifold.



For weather compensated heat regulation for floor heating LK Heat Exchanger Pack can be equipped with LK Control v.3- RA. LK Control v.3 -RA consists of a control unit, valve actuator, outdoor sensor and supply temperature sensor.

Article	Type	Connection prim./sec.	Weight (kg)	Packaging
241 88 10	2-3.2	3/4"/1"	12,5	1/32

## LK Control v.3 RA

Outdoor temperature compensated heating control pre-programmed for LK's floor heating systems. Fits the product LK Heat exchanger pack -10 were it replace the thermostatic head. Consists of a control unit with temperature setback programs and pump control, valve actuators, outdoor sensors and flow sensors. Can be supplemented with LK Room Unit v.3 for affecting the room temperature and remote controlling certain functions of the control unit.



As an accessory LK GSM Switch is available for control via mobile phone. LK GSM Switch allows remote control of normal temperature and reduced temperature.

Article	Voltage	Weight (kg)	Packaging
241 91 16	230 V AC	1,4	1

## LK Room Unit v.3

Accessory to LK Control v.3/LK Control v.3 -RA. Room unit for affecting the room temperature and remote controlling certain functions of the control unit.



Article	Intended for	Width	Height	Depth	Packaging
241 73 26	LK Control v.3 and LK Control v.3 -RA	96 mm	96 mm	47 mm	1

## LK Control v.3

Outdoor temperature compensated heating control pre-programmed for LK's shunt program/floor heating systems. Consists of a control unit with temperature setback programs and pump control, valve actuators, outdoor sensors and flow sensors. Can be supplemented with LK Room Unit v.3 for affecting the room temperature and remote controlling certain functions of the control unit.



As an accessory LK GSM Switch is available for control via mobile phone. LK GSM Switch allows remote control of normal temperature and reduced temperature.

Article	Voltage	Weight (kg)	Packaging
241 73 25	230 V AC	1,4	1

# Electric boiler

## LK Electric Boiler VE9

LK Electric boiler VE9 is a wall-mounted electric boiler, mainly intended for low-temperature heating systems such as floor heating.

The power of the boiler can be adjusted in steps between 1-9 kW, which allows the boiler to be easily adapted to the property's fuses.

In case weather compensated control of the supply temperature in the heating system is required, the boiler can be supplemented with LK Reglercentral VRC 700/6, article no 620 38 36



The electric boiler is manufactured by Vaillant.



Article	Width	Height	Depth	Voltage	Output	Weight (kg)	Packaging
620 38 35	410 mm	740 mm	310 mm	400V	9 kW	32,9	1

## LK Controller VRC 700/6

The LK Controller VRC 700/6 is a complement to the LK Electric boiler VE9 if weather compensated control of the supply temperature is desired.

Article	Length	Width	Depth	Packaging
620 38 36	150 mm	115 mm	47 mm	1

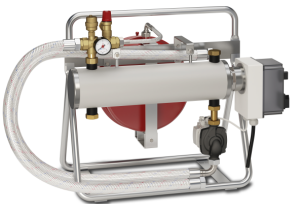


## LK Electric Portable Boiler

The boiler is a portable/mobile boiler primarily for use as a temporary heater to dry concrete screeds and to heat houses during construction using its under floor heating. The boiler power is 9 kW and operates in two steps of 4,5 kW.

It's delivered as a complete unit with pump, expansion vessel, manometer, air-bleed valve and safety valve. Connection to the heating system is made with 1,0 m steel braided flexible hoses. The boiler is fully electrically wired and delivered with an 1,0 m cable and 3-Phase 400 V connection socket.

Temp. control is made by adjusting the thermostat.



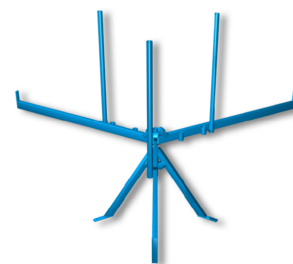
Article	Length	Width	Height	Voltage	Output	Weight (kg)	Packaging
241 84 64	710 mm	430 mm	650 mm	400 V	9 kW	23	1/2

# Tools

## LK Pipe Decoiler

An aid for simple laying of LK PE-X/PAL Pipes. Intended for pip coils 70-600 m. Delivered in a practical storage case.

Article	Weight (kg)	Packaging
241 74 96	10	1



## LK Coil Cart

LK Coil Cart is an accessory for helping with laying of pipes for underfloor heating or tap water installations. The coil of the cart is made to fit the assortments of pipes available from LK Systems. The cart is mobile and easy to move between jobs with its wheels, but at the same time remains stationary when parked.

Article	Packaging
243 51 93	1



## LK Manifold Stand

Stand for fixation of LK Manifold RF (under floor heating) and LK Manifold UNI (potable water) when installing in concrete on insulation. LK UNI Manifold must be mounted on LK Manifold Bracket.

Pipe fixings with bolts (Art. no. 241 94 99) are available as accessories for fixing LK Manifold Cabinet WP or LK Manifold Cabinet UNI when installing these on concrete slabs.

The stand is adjustable height- and sideways. Two 300 mm sleeves are included to prevent the bars being set in the concrete, allowing re-use of the stand.

Article	Width	Height	Weight (kg)	Packaging
241 78 19	800 mm	1500 mm	9,5	1



## LK Cabinet Stand

LK Cabinet Stand is used for temporary fixing/hanging of LK Manifold Cabinet WP RF, LK Shunt Cabinet VS2 and LK Manifold Cabinet UNI. The cabinet stand is used when installing under floor heating or potable water in concrete over insulation when the cabinet shall be mounted before casting the concrete.

The cabinet stand consists of two steel poles, four pole clips complete with bolts which to connect to the rear/back of the cabinet and two 300 mm sleeve pipes. The sleeve pipes prevent the bars being set in the concrete, allowing re-use of the stand.



Article	Length	Width	Height	Weight (kg)	Packaging
241 88 94	1750 mm	68 mm	34 mm	9,3	1

## LK Cabinet Stand L2

LK Cabinet Stand is used for temporary fixing/hanging of LK Manifold Cabinet WP RF, LK Shunt Cabinet VS2 and LK Manifold Cabinet UNI. The cabinet stand is used when installing under floor heating or potable water in concrete over insulation when the cabinet shall be mounted before casting the concrete.

The cabinet stand consists of two steel poles, four pole clips complete with bolts which to connect to the rear/back of the cabinet and two 300 mm sleeve pipes. The sleeve pipes prevent the bars being set in the concrete, allowing re-use of the stand.



Article	Length	Packaging
243 55 16	2000 mm	1

## LK Pipe fixing

Intended to be used with LK Pipe Pole for temporary fixing/hanging of LK Manifold Cabinet WP RF, LK Shunt Cabinet VS2 and LK Manifold Cabinet UNI.

Article	Packaging
241 94 99	4



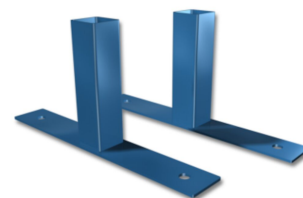
Note! Sold in packages containing four pipe fixings.

## LK Foot for Manifold/Cabinet Stand



A pair of feet to support the LK Manifold and LK Cabinet stand during installation on concrete slab.

Article	Length	Width	Height	Packaging
241 91 08	200 mm	30 mm	95 mm	1



## LK Legs for Manifold Cabinet UNI/GV

Legs are for aiding assembly of LK Manifold Cabinet WP and LK Manifold Cabinet UNI. Advantageous when used on precast concrete floor slab. Manufactured from galvanized steel sheet.

Legs are supplied in pairs, including 4 x self tapping screws to fix to the manifold cabinet. The feet have 6 mm holes for fixing by floor or rawl bolt (not supplied) to concrete slab.

Article	Width	Height	Depth	Weight (kg)	Packaging
187 82 02	160 mm	800 mm	160 mm	3,2	2



## LK Mobile Pumping Unit FSB 30

The LK Mobile pumping unit FSB 30 is a mobile unit for filling and de-aeration of heating, under floor heating, solar and cooling systems. The LK FSB 30 is also used for mixing anti-freeze of the ethylene or propylene glycol type.

An additional 30 litre mixing vessel for preparation of extra glycol mixture is available as an accessory. The unit can also be used with filter bags (accessory) for flushing and cleaning heating and cooling systems.

Article	Width	Height	Depth	Voltage	Weight (kg)	Packaging
624 68 09	465 mm	985 mm	555 mm	230 V AC	23	1



## LK FSB Mixing vessel 30 litres

Additional mixing vessel for LK Mobile Pumping Unit FSB 30.

Article	Volume	Weight (kg)	Packaging
624 68 06	30 l	2,15	1



## LK FSB Filter Set

Filter set consisting of 5 filterbags 40 µm and 5 filterbags 70 µm. Note! To be used together with LK FSB Filter cover for mixing vessel.



Article	Type	Packaging
624 68 08	5 pcs 40 µm + 5 pcs 70 µm	1

## LK FSB Filter Cover

LK FSB Filter Cover for mixing vessel. Intended for use with LK FSB Filter Set.

Article	Packaging
624 68 07	1



## LK Staples

LK Staples are used with LK's older Staple Gun (Art.no. 241 81 45, see picture) to fix the floor heating pipe to the insulation in pipe bends and in between clip rails. The staples are delivered in a box with 270 pcs or 300 pcs depending on dimension.

The staples are joined together in rows for easy refill of the staple gun. As standard 50 mm is used, and on concrete slabs with thin insulation the short staple is used.

### Material Consumption

- Length 40 mm, approx. 1 box/75 m<sup>2</sup>
- Length 50 mm, approx. 1 box/100 m<sup>2</sup>

Article	For pipe dim.	Length	Packaging
241 72 97	8-12-16	40 mm	1/300/16
241 81 47	8-12-16-20	50 mm	1

\* Note! Sold in packages of 300 staples (1= 1 carton à 300 staples).

\*\* Note! Sold in packages of 270 staples (1= 1 carton à 270 staples).



## LK Staple Gun and LK Staples 3D Premium

Patented system for fixing clip rails and pipes.

LK Staple Gun 3D Premium is used together with LK Staples 3D Premium for attachment of LK Under Floor Heating Pipe to EPS insulation in e.g. pipe bends and between clip rails. LK Staple Gun 3D Premium is used together with LK Staples 3D Premium for attachment of LK Under Floor Heating Pipe to EPS insulation in e.g. pipe bends and between clip rails. The Staple Gun is also used for attachment of pipes to LK Foil board 30 silent.

The mechanism of the staple gun is safe and robust. If despite this a clip gets stuck in the mechanism, you can easily clean it by opening a cover and removing the clip which is stuck. LK Staples 3D Premium are particularly firmly attached in the EPS insulation, as the leg of the staple has a unique design equipped with holding nails on three sides.

The staples are welded together in rows to allow easy filling of the Staple Gun. The gun is filled with 75 staples each time it is loaded.

### Material Consumption

- about 1 box/130 m<sup>2</sup> for the attachment of LK Clip-Rail 16 and LK Floor Heating pipe on cell foam insulation.
- about 1 box/29 m<sup>2</sup> for the attachment of floor heating pipe with c/c 200 on LK Foil Board 30 Silent.
- about 1 box/42 m<sup>2</sup> for the attachment of floor heating pipe with c/c 300 on LK Foil Board 30 Silent.



Article	Type	For pipe dim.	Length	Packaging
188 06 72	LK Staple Gun 3D Premium			1/48
188 06 71	LK Staples 3D Premium *	8-12-16-20 mm	38 mm **	400/116

\* Note! Sold in packages of 400 staples (1 = 1 carton à 400 staples).

\*\* Refers to insertion length

## LK Router Bit HF22

LK Router Bit HF22 is to be used with LK Router Template HF22 for routing bends in LK HeatFloor 22 or LK Slotted Board EPS 30/50/70.

Shaft diameter 8 mm.

### Material Consumption

- Material consumption, approx. 1 psc router bit/10 m2 floor surface at c/c 200 mm tracking (approx. 50 m tracking).

Article	Dim.	Packaging
241 98 73	LK16	1



## LK Router template HF22

LK Router template HF22 is intended for making pipe turns in LK HeatFloor 22 or LK Slotted Board EPS 30/50/70. The router template is to be used together with LK Router bit HF22.

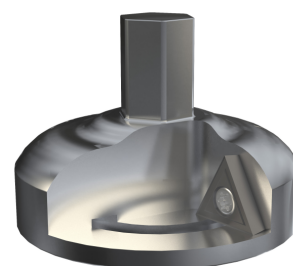
Article	Radius	Packaging
241 98 74	100 mm	1
211 31 91	150 mm	1



## LK Drainage elbow cutter V2

LK Drainage elbow cutter V2 for length adjustment of LK Drainage elbow V2.

Article	Intended for	Dim.	Packaging
188 26 15	LK Drainage elbow V2	26 mm	1



## LK Heating Knife 90W

LK Heating Knife is used together with LK Groove Blade or LK Knife Blade for making pipe grooves or cutting EPS styrofoam boards.



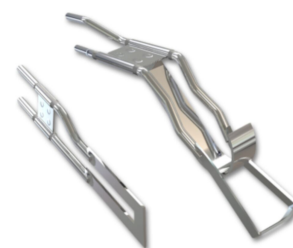
Note! Ensure working areas are well ventilated and wear a protective mask.

Article	Voltage	Output	Weight (kg)	Packaging
241 99 36	230 V AC	90 W	1,13	1

## LK Groove Blade/Knife Blade

LK Groove Blade and LK Knife Blade are used together with LK Heating Knife 90 W for making pipe grooves or cutting EPS styrofoam boards.

The groove blade is used for making pipe grooves in EPS boards. The knife blade is used for cutting boards with a maximum thickness of 50 mm.



Article	Designation	For pipe dim.	Packaging
298 88 12	Groove blade 12	12	1
241 99 38	Groove Blade 16	16	1
241 99 39	Groove Blade 25	25	1
241 99 40	Groove Blade 32-34	32-34	1
241 99 37	Knife Blade 40	-	1

## LK Case for Heat Knife

Case for storing LK Heat Cutter and groove/knife blades.

Article	Packaging
243 46 32	1



## LK Turning Template EPS

Turning Template for making pipe turns in LK Slotted Board EPS 30, 50 or 70 mm. The template is to be used with LK Heat Knife 90W and LK Groove blade 16.



Article	Radius	Packaging
241 95 55	100 mm (c/c 200 mm)	1/40/240
241 95 56	150 mm (c/c 300 mm)	1/40/240

## LK Pipe Cutter

LK Pipe Cutter are high-quality pipe cutters for cutting PE-X and PAL pipes. LK Pipe Cutter comes in five sizes for 8-63 mm pipes.

LK Pipe Cutter Mini 8-16 is a small pipe cutter.

LK Pipe Cutter 25 PRO has an automatic return setting and a conduit cutter for dimension 25-34 mm.

LK Pipe Cutter 25 has an automatic return setting.

LK Pipe Cutter 40 is fitted with gearing for better power.

LK Pipe Cutter 63 is fitted with gearing for better power.



The cutter is made of magnesium alloy, which makes it very light despite its robust design. The blade is teflon coated and manufactured from quality steel.

Replacement blade is available as accessory and is easily changed.

Article	Designation	For pipe dim.	Packaging
188 25 14	LK Pipe Cutter Mini	8-16 mm	1
188 25 15	LK Pipe Cutter 25 Pro	8-25 mm	1
188 25 16	LK Pipe Cutter 25	8-26 mm	1
188 25 17	LK Pipe Cutter 40	8-42 mm	1
188 25 18	LK Pipe Cutter 63	16-63 mm	1

## Accessories

### LK Connection Pipe M60n/VKF RF

LK Connection Pipe M60n/VKF RF is used to connect LK Minishunt M60n to LK Manifold RF, in either left or right-hand assembly to the manifold.

Article	Dim.	Weight (kg)	Packaging
243 52 30	½" male x 1"	0,7	1/10



### LK Elbow pipes M60n

LK Elbow pipes M60n gives a compact assembly to the primary side connection to LK Minishunt M60n when feeding pipes comes from below or above.

Article	Dim.	Packaging
243 52 23	¾" EK	1/25



### LK Marking plate R

For labeling floor heating loops on LK Manifold RF and marking LK OptiFlow Evo II.

The marking plate is also used for pipe marking on LK Manifold UNI and on the outside of PiP with protective pipe dim 25.

Article	Packaging
241 93 62	1/6



### LK Connection Coupling RF 17x2,0

Connection coupling RF for PE-pipes and multi layer pipes type PE-AL dim 17x2,0.

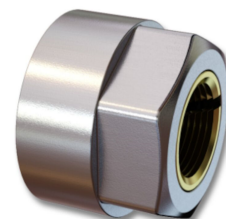
Article	Intended for	Dim.	Nipple conn.	Packaging
241 94 67	PE/PE-X/AL-PE	17x2,0	¾" EuroCone	1/24/240
243 47 71	Uponor PePEX	17x2,0	¾" EuroCone	1/24/240



## LK Connection Coupling RF CU

LK Connection coupling for copper pipes to LK Manifold RF.

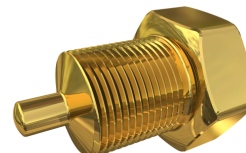
Article	Intended for	Dim.	Nipple conn.	Packaging
241 94 64	CU	12x1,0 CU	¾" EuroCone	1/24/240
241 94 65	CU	15x1,0 CU	¾" EuroCone	1/24/240



## LK Thermometer Pocket

LK Thermometer Pocket is used with LK PressPex T-Piece female G15 (Ø16 Art no 187 65 73, Ø 20 – Art no 187 65 74, Ø 25 – Art no 187 65 76) and LK Themometer 0-80° (Art no 243 47 47). It enables installation of thermometers on pipes in both heating and tap water systems.

Article	Packaging
243 47 42	1



## LK Thermometer 0 - 80°C



Fits:  
LK Manifold RF, LK Manifold Shunt VS, LK Manifold Shunt CS, LK OptiFlow EVO II

Article	Temp. range	Packaging
243 47 47	0-80° C	1



## LK Thermometer -20 - 60°C

LK Thermometer -20 - 60°C, shaft Ø9. Fits LK Manifold RF, LK Manifold Shunt VS, LK Manifold Shunt CS, LK OptiFlow EVO II.

Article	Temp. range	Packaging
243 52 54	-20 - 60° C	1/20



# Manifold RF

## LK Adjustment valve supply, Manifold RF

Adjustment valve with flow indicator 0,5-5 l/min. The valve can be supplemented with LK Cap Art. no. 33944.

Article	Dim.	Packaging
241 03 08	VKF RF	1



## LK Cap adjustment valve, Manifold RF

Article	Packaging
33944	1/100



## LK Glass to flow indicator 0,5-5 l/min, Manifold RF

For dismantling/assembly of glass use LK Key Set Art. no. 33301.

Article	Packaging
33941	1



## LK Key set flow indicator, Manifold RF

Used to replace glass on flow indicator.

Article	Packaging
33301	1



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## LK Adapter LK 26, Manifold RF

Adapter for mounting return valve handle and/or assembly to LK Actuator.

In the spare parts list "Replacing LK Actuator since 1983" LK Actuator is referred to as ST 6.

Article	Packaging
33948	1/6

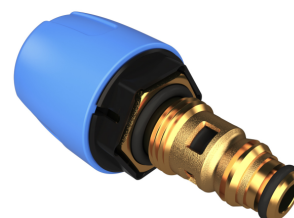


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## LK Return valve complete, VKF RF

Return valve complete with handle and actuator adapter VA 26.

Article	Dim.	Packaging
241 03 07	VKF RF	1



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## LK Return valve handle, Manifold RF

Article	Packaging
33943	1/100



## LK Thermometer 0 - 80°C

Fits:

LK Manifold RF, LK Manifold Shunt VS, LK Manifold Shunt CS, LK OptiFlow EVO II

Article	Temp. range	Packaging
243 47 47	0-80° C	1



## LK Thermometer -20 - 60°C

LK Thermometer -20 - 60°C, shaft Ø9. Fits LK Manifold RF, LK Manifold Shunt VS, LK Manifold Shunt CS, LK OptiFlow EVO II.

Article	Temp. range	Packaging
243 52 54	-20 - 60° C	1/20



## LK End reducer, Manifold RF

End reducer for Manifold RF. Used as end cover. Supplement with plug ½", Art. no. 83323.

Article	Dim.	Packaging
33949	1" male / ½" female	1



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## LK Plug ½"

Fits:

LK Manifold RF. Fits the 1" end cap with ½" outlet on the manifold.

LK Minishunt M60. Fits the ½" connection with is used when the system being filled up.

Article	Packaging
83323	1



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## LK Drain valve, Manifold RF

Article	Packaging
33946	1



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## LK EuroConus nipple, Manifold RF

Article	Dim.	Packaging
33945	½"x¾" EuroCone	1



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## LK Bracket pair, Manifold RF

Article	Packaging
33947	1



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## LK Air vent ½"

Manual air vent for LK Minishunt M60.

Article	Dim.	Packaging
83321	½"	1

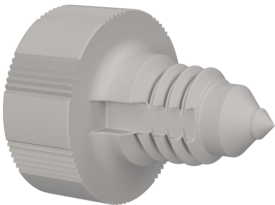


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## LK Grey cap automatic venting

Spare part for LK Automatic Air Vent RF

Article	Packaging
33025	



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## LK Black cap manual venting

Spare part for LK Automatic Air Vent RF

Article	Packaging
33024	



# Manifold VKF/VKF-i

## LK Adjustment valve supply, VKF

LK Adjustment valve for LK Manifold VKF.

Article	Packaging
32876	1



## LK Protection cover adjustment valve, VKF

Protective cover intended for adjustment valve on LK Manifold VKF.

Article	Packaging
32878	1



## LK Adjustment valve supply, VKF-i

Adjustment valve for LK Manifold VKF-i, supply.

Article	Packaging
33913	1



## LK Protection cover adjustment valve, VKF-i



Protective cover for adjustment valve on LK Manifold VKF-i.

Article	Packaging
33911	1



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## LK Balancing key, VKF/VKF-i

Article	Packaging
241 84 30	1/100



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## LK Nut for flowmeter, VKF-i

Nut for flow meter, fits LK Manifold VKF-i.

Article	Packaging
33912	1



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## LK Flow indicator

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Flow meter VKF (accessory) was mounted under the manifold return.

Article	Designation	Packaging
241 74 81	Flowmeter VKF	1/100

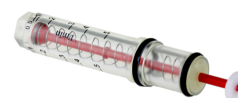


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## LK Flow indicator 0,5-5 l/min, VKF-i

Flow indicator for LK Manifold VKF-i.

Article	Packaging
33915	1

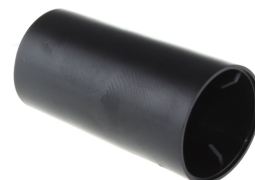


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## LK Protection flow indicator, VKF-i

Protection for LK Flow Indicator, fits LK Manifold VKF-i.

Article	Packaging
33914	1



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## LK Return valve, VKF/VKF-i

LK Return valve, fits LK Manifold VKF/VKF-i.

Article	Packaging
241 84 31	1/10/100



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## LK Hand actuator, VKF/VKF-i

Hand actuator for the return valve on LK Manifold VKF/ VKF-i.

Article	Packaging
32870	1



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## LK Air vent manual, VKF/VKF-i

Manual air vent for LK End Piece VKF/VKF-i.

Article	Packaging
32862	1



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## LK End piece (not complete), VKF/VKF-i

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Article	Dim.	Packaging
32884	1" male x 2" female x 1/2" female	1



## LK End piece complete, VKF/VKF-i

LK End Piece fits both VKF and VKF-i.

Comes complete with filling valve, drain valve, hose nipple and protective cap.

Article	Dim.	Packaging
32860	1"	1



## LK By-Pass, VKF/VKF-i

Kit for mounting by-pass with Kvs 0.05 to LK Manifold VKF-i. Have in previous versions been made of a copper pipe. Drainage/filling valve and air vent from the manifold's supplied end-piece is moved over to the new end pieces included in the by-pass kit.

Article	Length	Packaging
241 78 43	85 mm	1/50



## LK Adapter 12/16/20 to 3/4" male

Fits:

LK Manifold VKF/VKF-i. Joint nipple from thread (nipple conn. thread 12/16/20) to the male  $\frac{3}{4}$ " EuroCone thread.

LK Minishunt M60. Joint nipple for primary connection to LK Minishunt M60 manufactured before September 2012. The joint nipple is used, if needed, to get over to thread connection  $\frac{3}{4}$ " EuroCone.



Article	Nipple conn.	Packaging
83320	$\frac{3}{4}$ " EuroCone	1

## LK Bracket multi G25-G40

Bracket for LK Manifold UNI-25-c/c 50 and LK Manifold UNI-25-c/c 100 and as a spare part for LK Manifold VKF/VKF-i. Sold in pairs.

Article	Packaging
241 94 90	1



# Manifold- & Shunt cabinets VT/VT RF

## LK Hatch WP / LK Hatch WP RF

LK Hatch WP/VP RF fits the older LK Manifold Cabinet WP and LK Shunt Cabinet WP. The hatch also fits the new cabinet models WP RF. The hatch is supplied with a frame for attachment to LK Manifold/Shunt Cabinet WP RF or wall.

The hatch is fitted with a screwdriver latch. Frame and hatch are manufactured from 1.0 mm steel plate, powder coated in white RAL 9016.

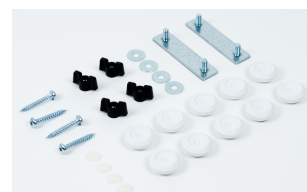


Article	Width	Height	Depth	Weight (kg)	Packaging
241 88 43	550 mm	690 mm	15 mm	3,8	1
241 88 44	800 mm	690 mm	15 mm	5,5	1
241 89 35	900 mm	690 mm	15 mm	6,2	1
241 89 38	1150 mm	690 mm	15 mm	8,1	1/10

## LK Accessory bag Cabinet WP RF

Accessory bag for LK Manifold Cabinet WP RF and Shunt Cabinet WP RF.

Article	Packaging
33950	



## LK Sealing plug black 40

Sealing plug for unused pipe entry holes Ø 40 mm in cabinet.

Article	Dim.	Packaging
188 22 13	40 mm	1/10



## LK Bellow sleeve 25

Sleeve for connecting drain pipe dim 25 to drainage to cabinets WP/WP RF and UNI

Article	Packaging
188 25 46	1



## LK Rubber pipe grommet 8-20

Fits all LK's floor heating and Universal cabinets with 40 mm holes for pipe grommet.

Article	Intended for	For pipe dim.	Note	Packaging
298 87 98	Dia 40 mm x Tj 1 mm	8, 12, 16, 20 mm	Pipe inlet dim. 40 mm	1/10/300



## LK Rubber pipe grommet for feed pipe 12-34

Pipe grommet for LK's installation cabinets for inlet of feed pipe dim 12-34 mm. Pipe inlet dim. 40 mm.

Article	For pipe dim.	Packaging
187 44 84	20-34 mm	1/10/300



## LK Pipe inlet 32 PiP

Pipe inlet for LK Heating Pipe 32 mm PE-X and LK Universal pipe PAL 32 mm with 40-44 mm conduit. Pipe inlet fits all the LK's WP and UNI cabinets with 40 mm pipe entry holes.

Article	Dim.	For pipe dim.	Packaging
241 95 95	32 mm PiP (conduit 40-44 mm)	32 mm RiR	1/8

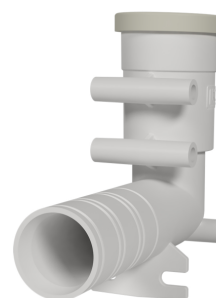


NOTE! Sold only in pairs, i.e. one bag contains 2 pipe inlets.

## LK Drainage elbow

Drainage elbow excluding bellow sleeve, outlet plate and mounting screws.

Article	For conduit dim.	Packaging
188 22 02	25	1



## LK Drainage elbow complete

Complete spare part package for mounting of Drainage elbow with outlet plate to the LK Manifold Cabinet GV and UNI.

LK drainage angle complete is included in LK Manifold Cabinet GV and UNI.

Drainage elbow facilitates the installation of inspection outlet that must be in the installation of all built-in cabinets according to standards for plumbing safety. Spare parts package includes bellow sleeve, drainage elbow, white outlet plate and two mounting screws.



For a more exclusive appearance, can LK Outlet plate Chrome be purchased, Article no. 188 09 99.

For length adjustment of drainage elbow against the wall suitably used LK Pipe Mill DB, Article no. 243 46 08.

Article	Packaging
188 21 43	1/20

## LK Cable grommet WP/WP RF



Cable grommet for 19 mm knockout hole. Fits cabinets WP and WP RF.

Article	Packaging
33952	1



## LK Screwdriver Lock

Spare part lock for UFH och UNI Frame/hatch.

LK Frame/hatch UNI INB: 188 13 08, 188 13 11, 188 13 05 och 188 13 03

LK Frame/hatch UNI 350+350 INB: 188 22 96

LK Frame/hatch UNI UTV: 188 13 10, 188 13 12, 188 13 06 och 188 13 04

LK Frame/hatch UNI 550 TAK: 188 21 37, 188 13 07

LK Frame/hatch UFH INB: 243 53 67, 243 46 80, 243 46 79, 243 53 63 och 243 46 76

LK Frame/hatch UFH UTV: 243 53 68, 243 46 81, 243 46 78, 243 53 64 och 243 46 77



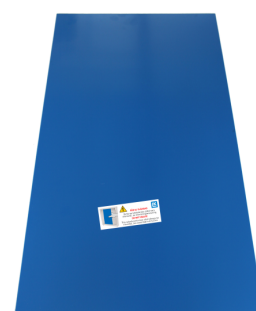
Article	Packaging
29486	1/50

## LK Splash protection

LK Splash Protection is a spare part for all LK Cabinets.

The plastic protection should always be in place after installation to intercept eventual splash from leakage and divert it to the outlet.

Article	Intended for	Dim.	Packaging
188 24 07	Cabinets with hight 710 mm	705x400	1
188 24 08	Cabinets with hight 710 mm	705x200	1
188 24 09	Cabinets with hight 550 mm	533x400	1
188 24 10	Cabinets with hight 550 mm	533x200	1
188 24 11	Cabinet VUK	245x150	1
188 24 19	Cabinets with hight 350 mm	345x200	1



## LK Bracket, manifold

LK Bracket Distributor fits LK's rail system for attachment of manifold in Manifold Cabinet UFH and Manifold Qmax.

Article	Packaging
33027	2/50



# Manifold cabinet INB/UTV

## LK Frame and Hatch INB

LK Hatch and frame INB fits LK Manifold Cabinet, built in type INB. The hatch is fitted with a screwdriver latch. Frame and hatch are manufactured from 1.0 mm steel plate.

Article	Width	Height	Manifold	Manifold type	Weight (kg)	Packaging
241 81 14	540 mm	760-800 mm	RF 2-5	VKF-i 2-6	4,2	1



## LK Screwdriver Lock

Spare part lock for UFH och UNI Frame/hatch.

LK Frame/hatch UNI INB: 188 13 08, 188 13 11, 188 13 05 och 188 13 03

LK Frame/hatch UNI 350+350 INB: 188 22 96

LK Frame/hatch UNI UTV: 188 13 10, 188 13 12, 188 13 06 och 188 13 04

LK Frame/hatch UNI 550 TAK: 188 21 37, 188 13 07

LK Frame/hatch UFH INB: 243 53 67, 243 46 80, 243 46 79, 243 53 63 och 243 46 76

LK Frame/hatch UFH UTV: 243 53 68, 243 46 81, 243 46 78, 243 53 64 och 243 46 77



Article	Packaging
29486	1/50

# ICS/ICS.2

## LK Thermostat ICS

LK Thermostat ICS is intended to be used with LK Receiver ICS.

The thermostat is equipped with a background lit display for easy operation and display of features. The display shows set and actual temperatures, heating on/off, signal strength\*, battery level\*, operation mode and error messages, if any.

For the best energy efficiency, the room thermostat uses a so-called self-modulation technique consisting of signal pulses going to the valve actuator. The self-modulation technique means that the thermostat adjusts the power output in relation to the set temperature. When the temperature in the room approaches the set temperature, the power output is reduced to avoid overheating. This in turn, minimizes energy consumption.

When using the thermostats night reduction-/save energy function, the thermostat uses an adaptive (self-learning) function. The keys are lockable and as such the thermostat can also be used in public settings. It is also possible to connect the floor sensor.

The thermostat is available in glossy white, silver grey or high gloss black.

\*Only in wireless version.



Article	Designation	Width	Height	Depth	Communication	Color	Packaging
241 73 02	LK Thermostat ICS-RF	100 mm	100 mm	20 mm	Wireless	White, high gloss	1/25
241 73 04	LK Thermostat ICS-RF	100 mm	100 mm	20 mm	Wireless	Silver grey	1/25
241 73 03	LK Thermostat ICS-RF	100 mm	100 mm	20 mm	Wireless	Black, high gloss	1/25
241 73 08	LK Thermostat ICS-W	100 mm	100 mm	20 mm	Wired	White, high gloss	1/25
241 73 10	LK Thermostat ICS-W	100 mm	100 mm	20 mm	Wired	Silver grey	1/25
241 73 09	LK Thermostat ICS-W	100 mm	100 mm	20 mm	Wired	Black, high gloss	1/25

## LK Receiver ICS 1 (NO)

The LK Receiver ICS 1 is used with the LK Thermostat ICS. One LK Thermostat ICS can be addressed to the receiver unit. The unit can control up to five 24 V LK Actuators.

The unit has an integrated 24 h program for valve exercise.

The unit is supplied with an external transformer (EU plug). A transformer with UK plug is available as accessory (Article no. 33455).

Article	Designation	Width	Height	Depth	No. of channels	Communication	Packaging
241 73 05	LK Receiver ICS-RF1	100 mm	120 mm	60 mm	1	Wireless	1/10
241 73 11	LK Receiver ICS-W1	100 mm	120 mm	60 mm	1	Wired	1/10



## LK Receiver ICS 1 (NC)

The LK Receiver ICS 1 is used with the LK Thermostat ICS. One LK Thermostat ICS can be addressed to the receiver unit. The unit can control up to five 24 V LK Actuators.

The unit has an integrated 24 h program for valve exercise.

The unit is supplied with an external transformer (EU plug). A transformer with UK plug is available as accessory (Article no. 33455).

Article	Designation	Width	Height	Depth	No. of channels	Communication	Weight (kg)	Packaging
241 73 14	LK Receiver ICS-RF1	100 mm	120 mm	60 mm	1	Wireless	1,5	1/10
241 73 17	LK Receiver ICS-W1	100 mm	120 mm	60 mm	1	Wired	1,5	1/10



## LK Receiver ICS 8 (NO)

The LK Receiver ICS 8 is used with the LK Room Thermostat ICS. Eight ICS Thermostats can be connected to the receiver unit. The unit can control up to twelve LK Actuators 24 V.

The unit has an integrated 24-hour program for valve and pump exercise. Receiver is equipped with two potential-free outputs for starting/stopping the pump and heat source. Multiple receiver units can be linked together to the BUS cable to ensure that starting/stopping of the pump and heat source will work in a larger system. Furthermore, the device is equipped with 1 input for temperature reduction via an external signal, such as GSM switch.

From the unit's integrated USB port, the floor heating system can easily be logged to check operations/troubleshooting.



Article	Designation	Width	Height	Depth	No. of channels	Communication	Packaging
241 73 07	LK Receiver ICS-RF8	400 mm	120 mm	60 mm	8	Wireless	1/10
241 73 13	LK Receiver ICS-W8	400 mm	120 mm	60 mm	8	Wired	1/10

## LK Receiver ICS 8 (NC)

The LK Receiver ICS 8 is used with the LK Room Thermostat ICS. Eight ICS Thermostats can be connected to the receiver unit. The unit can control up to twelve LK Actuators 24 V.

The unit has an integrated 24-hour program for valve and pump exercise. Receiver is equipped with two potential-free outputs for starting/stopping the pump and heat source. Multiple receiver units can be linked together to the BUS cable to ensure that starting/stopping of the pump and heat source will work in a larger system. Furthermore, the device is equipped with 1 input for temperature reduction via an external signal, such as GSM switch.

From the unit's integrated USB port, the floor heating system can easily be logged to check operations/troubleshooting.



Article	Designation	Width	Height	Depth	No. of channels	Communication	Weight (kg)	Packaging
241 73 16	LK Receiver ICS-RF8	400 mm	120 mm	60 mm	8	Wireless	1,5	1/10
241 73 20	LK Receiver ICS-W8	400 mm	120 mm	60 mm	8	Wired	1,5	1/10

## LK Repeater ICS

The signal amplifier for the wireless system LK ICS-RF. The repeater strengthens and amplifies the transmission distance between the LK Room Thermostat ICS-RF and LK Receiver ICS-RF. The repeater is delivered with a transformer.

Article	Packaging
241 73 21	1/9



## LK ICS.2 MEM Stick

LK ICS MEM Stick is used to retrieve data from LK Receiver ICS-W8 or LK Receiver ICS-RF8. The data can be analyzed with the program LK Analyzer. Contact your LK representative for more information about LK Analyzer.



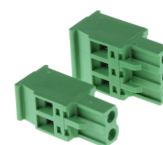
Article	Intended for	Packaging
33620	ICS-RF8, ICS-W8 & ICS.2-8	1

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## LK Connection terminal ICS/ICS.2

Two-pole terminal used for connecting the thermostat and actuator for LK Receiver ICS.

Three-pole terminal used to connect BUS cable to the LK Receiver ICS.



Article	Note	Packaging
33626	2 poles	1
33629	3 poles	1

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## LK Fuse T 200 mA

LK Fuse T 200 mA fits LK Connection Box NO and LK Receiver 8 ICS/ICS.2.



Article	Packaging
33641	1

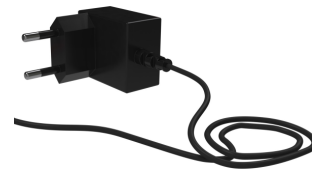
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## LK Transformer ICS/ICS.2 RF1/W1

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Intended for LK Receiver 1 ICS/ICS2

Article	Voltage	Packaging
33623	230/24 V AC	1



## LK Radio Link ICS

LK Radio Link ICS is used as an accessory/spare part to the LK Receiver ICS-W8 and LK Receiver ICS-W1. With the radio link connected, the wireless thermostat, LK Thermostat ICS-RF, is connected to the other wire-connected receiver units. It is thus possible to combine wireless and wire-connected communication in the same receiver unit. (Does not apply to the LK Receiver ICS-W1 or LK Receiver ICS-RF1.) The radio link is delivered with a connecting cable for connection to the receiver unit.

Article	Packaging
241 73 22	1/12



## LK Antenna ICS.2

Spare part to LK Receiver 1 ICS.2 and LK Receiver 8 ICS.2.

Delivered including a 10 cm long connection cable.

Compatible with the ICS.2 series ONLY.

Article	Packaging
243 46 28	1/12







# Basic

## LK Fuse T 200 mA

LK Fuse T 200 mA fits LK Connection Box NO and LK Receiver 8 ICS/ICS.2.

Article	Packaging
33641	1



## LK Fuse holder

Fits LK Connection Box NO.

Article	Packaging
33640	1



# Basic S1

## LK Room Thermostat S1 (NO)

Electronic, soundless room thermostat with Triac-output and self-modulation technology. Available in models S1, S1 EXT and S1 Dti; S1 EXT and S1 Dti has got extra connections for the possibility to connect LK External Sensor S1 for control of floor temperature. The room thermostat is powered by 24 V AC and is designed for normally open LK Actuator 24V (NO). Connection is normally made via LK Connection Box (NO) or via LK Connection Box 1. Max 5 LK Actuators 24V (NO) can be connected per room thermostat.

The room thermostat temperature range is between 5-35 °C. Adjustable range can be limited on the back of the dial. Input for external temperature reduction-3K is available. Colour, white polished RAL 9010. The back of the thermostat cover covers a standard junction box. An LK Pattress S1 to extend the thermostat's covering measurements is available as accessory.



Article	Designation	Width	Height	Depth	Voltage	Note	Packaging
241 72 87	S1	78 mm	78 mm	14 mm	24 V AC	-	1/50
241 72 91	S1 EXT	78 mm	78 mm	14 mm	24 V AC	Possible connection of LK External Sensor S1	1/50

## LK Room Thermostat S1 (NC)

Electronic, soundless room thermostat with Triac-output and self-modulation technology. Available in models S1, S1 EXT and S1 Dti; S1 EXT and S1 Dti has got extra connections for the possibility to connect LK External Sensor S1 for control of floor temperature. The room thermostat is powered by 24 V AC and is designed for normally closed LK Actuator 24V (NC). Connection is normally made via LK Connection Box (NC) or via LK Connection Box 1. Max 5 LK Actuators 24V (NC) can be connected per room thermostat.

The room thermostat temperature range is between 5-35 °C. Adjustable range can be limited on the back of the dial. Input for external temperature reduction-3K is available. Colour, white polished RAL 9010. The back of the thermostat cover covers a standard junction box. An LK Pattress S1 to extend the thermostat's covering measurements is available as accessory.



Article	Designation	Width	Height	Depth	Voltage	Note	Packaging
241 72 86	S1	78 mm	78 mm	14 mm	24 V AC	-	1/50
241 72 90	S1 EXT	78 mm	78 mm	14 mm	24 V AC	Possible connection of LK External Sensor S1	1/50

## LK Room Thermostat S1 Dti (NO)

Electronic, soundless room thermostat with Triac-output and self-modulation technology, with possibility to connect an LK External Sensor S1 for control of floor temperature. The room thermostat is powered by 24 V AC and is designed for normally open LK Actuator 24V (NO). Connection is normally made via LK Connection Box (NO) or via LK Connection Box 1. Max 5 LK Actuators 24V (NO) can be connected per room thermostat.

The room thermostat temperature range is between 5-35 °C. Input for external temperature reduction-3K is available. Colour, white polished RAL 9010. The back of the thermostat cover covers a standard junction box. An LK Pattress S1 to extend the thermostat's covering measurements is available as accessory.



Article	Designation	Width	Height	Depth	Voltage	Note	Packaging
241 72 89	S1 Dti	78 mm	78 mm	14 mm	24 V AC	Possible connection of LK External Sensor S1	1/50

## LK Room Thermostat S1 Dti (NC)

Electronic, soundless room thermostat with Triac-output and self-modulation technology, with possibility to connect an LK External Sensor S1 for control of floor temperature. The room thermostat is powered by 24 V AC and is designed for normally closed LK Actuator 24V (NC). Connection is normally made via LK Connection Box (NC) or via LK Connection Box 1. Max 5 LK Actuators 24V (NC) can be connected per room thermostat.

The room thermostat temperature range is between 5-35 °C. Input for external temperature reduction-3K is available. Colour, white polished RAL 9010. The back of the thermostat cover covers a standard junction box. An LK Pattress S1 to extend the thermostat's covering measurements is available as accessory.

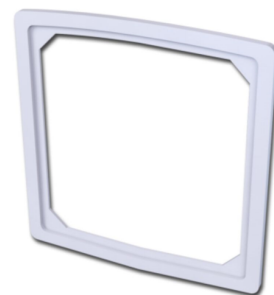


Article	Designation	Width	Height	Depth	Voltage	Note	Packaging
241 72 88	S1 Dti	78 mm	78 mm	14 mm	24 V AC	Possible connection of LK External Sensor S1	1/50

## LK Pattress S1

LK Pattress S1 is used as accessory to increase the mounting area of the thermostat. Intended for use with Room Thermostats S1, S1 EXT and S1 Dti. Colour, white polished RAL 9010.

Article	Width	Height	Depth	Packaging
241 72 92	88 mm	88 mm	3 mm	1/250



## LK External Sensor S1

Designed for LK Room Thermostat S1 EXT and LK Room Thermostat S1 Dti for floor temperature control.

Article	Length	Packaging
241 72 94	4 m	1/50



## LK Connection box (NO)

LK Connection Box NO used to connect and power up LK Room Thermostat S1 24V NO, and LK Actuator 24V NO. The box has an integrated transformer 230/24V AC 40VA.

Up to 8 LK Room Thermostat S1 24V NO and max 12 LK Actuator 24V NO can be connected to the box. The box is equipped with a volt-free relay that makes it possible to connect/control a circulation pump. The box has an integrated 24-hour valve and pump logic exercise program.

LK Connection was first sold in 2002. It can also be used to replace earlier models of connection boxes such as:

LK Connection Box V (Art. no. 241 79 04). Sold in 2001-2004.

LK Connection Box (Art. no. 241 75 87) with green or red LEDs. Sold during 1994-2001.



Article	Width	Height	Depth	Voltage	Weight (kg)	Packaging
241 81 17	350 mm	100 mm	60 mm	230/24 V AC	1,5	1/23/276

## LK Fuse T 200 mA

LK Fuse T 200 mA fits LK Connection Box NO and LK Receiver 8 ICS/ICS.2.

Article	Packaging
33641	1



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## LK Fuse holder

Fits LK Connection Box NO.

Article	Packaging
33640	1



# Basic S2

## LK Room Thermostat S2 (NO)

Electronic, noiseless room thermostat with Triac output and electronic feedback. Available in models S2 and S2 EXT, where S2 EXT can be connected to LK Remote Sensor ICS/S2 for controlling e.g. floor temperature. The thermostat is fitted to a standard electrical wall box or directly above the cables when these exit a wall via electrical conduit. For installation on a standard electrical wall box, use the pattress supplied.



- Voltage 24 V AC (NO Normally open)
- Switching power max 15 W
- Maximum of 5 LK Actuators per room thermostat
- Covers a standard electrical wall box with the pattress supplied
- Temp. range 5–45°C
- Input for temperature reduction -3K
- Can be connected to LK Remote Sensor ICS/S2 for control of floor temperature. Note: Applies to model S2 EXT.
- Colour, rear section RAL 9003, front white/polished ice grey

**bimobject**

Article	Designation	Length	Width	Depth	Note	Packaging
243 43 99	S2	112 mm	80 mm	16 mm	-	1/25
243 44 01	S2 EXT	112 mm	80 mm	16 mm	Possible connection of LK External Sensor ICS/S2	1/25

## LK External Sensor ICS.2/S2

LK Extern Sensor ICS/S2 is an accessory for the LK Thermostat ICS.2-RF/W alternatively LK Room Thermostat S2 EXT in order to regulate, for example, the floor temperature.



Article	Length	Packaging
241 73 23	3 m	1

## LK Pattress S2

LK Pattress used to expand cover dimensions of the thermostat. Always used when installing against the equipment box. Intended for LK Room Thermostat S2 and S2 EXT. Color white 9003.



Article	Length	Width	Depth	Packaging
33454	116 mm	80 mm	2 mm	1

## LK Connection box (NO)

LK Connection Box NO used to connect and power up LK Room Thermostat S1 24V NO, and LK Actuator 24V NO. The box has an integrated transformer 230/24V AC 40VA.



Up to 8 LK Room Thermostat S1 24V NO and max 12 LK Actuator 24V NO can be connected to the box. The box is equipped with a volt-free relay that make it possible to connect/control a circulation pump. The box has an integrated 24-hour valve and pump logic exercise program.

LK Connection was first sold in 2002. It can also be used to replace earlier models of connection boxes such as:

LK Connection Box V (Art. no. 241 79 04). Sold in 2001-2004.

LK Connection Box (Art. no.241 75 87) with green or red LEDs. Sold during 1994-2001.

Article	Width	Height	Depth	Voltage	Weight (kg)	Packaging
241 81 17	350 mm	100 mm	60 mm	230/24 V AC	1,5	1/23/276

## LK Fuse T 200 mA

LK Fuse T 200 mA fits LK Connection Box NO and LK Receiver 8 ICS/ICS.2.

Article	Packaging
33641	1



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## LK Fuse holder

Fits LK Connection Box NO.

Article	Packaging
33640	1







# Actuators

## LK Adapter LK 26, Manifold RF

Adapter for mounting return valve handle and/or assembly to LK Actuator.

In the spare parts list "Replacing LK Actuator since 1983" LK Actuator is referred to as ST 6.



Article	Packaging
33948	1/6

## LK Click adapter

Fits our current actuator ST6 against manifolds VKF/VKF-i/RF and Minishunt M60. (The actuator can be recognized by a blue position indicator, see the link to instruction.)



Article	Intended for	Color	Packaging
243 46 11	Roth GVF 1999. NeoTherm-P.Henning Jensen manifold of brass. NeoTherm-P.Henning Jensen manifold of brass with flow meter.  LK VKF-i Manifold of brass	Grey	1/10/100



# Mini Loop Valve M5

## LK Connection Coupling

For connection of LK Floor Heating Pipe dim 12 mm and 16 mm, and LK Universal Pipe dim 16 mm to LK Mini Loop Valve M5.

(LK Floor Heating Pipe dim 8 mm is connected with LK PushFit 8 and related adapter for the thread transition.)



Article	Intended for	Dim.	Nipple conn.	Packaging
241 94 66	PE/PE-X	12x2,0	¾" EuroCone	1/24/240
241 72 98	PE/PE-X/PAL	AX16 x ¾"	¾" EuroCone	1/24/240
241 94 68	PE/PE-X	20x2,0	¾" EuroCone	1/24/240

\*AX16 = 16x2,0/2,2

## LK Actuator Adapter M5

LK Actuator Adapter M5 is used when LK Actuator is mounted on LK Mini Loop Valve M5.

Article	Designation	Intended for	Color	Packaging
241 60 91	VA 16H	LK Manifold HKV	Grey	1



# Mini Loop Valve RTB

## LK Hand lever & Adaptor RTB/M60n

Article	Weight (kg)	Packaging
33969	0,01 kg	



## LK Thermostatic Head M60n/RTB

Spare part for LK Minishunt M60n and LK Mini loop valve RTB

Not compatible with LK Minishunt M60.

Article	Packaging
33049	1/10



## LK Ballvalve 3/4" EuroCone with adjustment

Spare part for LK Mini loop valve RTB

Article	Packaging
33048	1/10



## LK Ballvalve 3/4" EuroCone

Spare part for LK Mini loop valve RTB

Article	Packaging
33047	1/10



## LK Control Valve Set M60n/RTB

Spare part for LK Minishunt M60n and LK Mini loop valve RTB

Use LK Socket M60n/RTB (33074) to dismantle the control valve.

Article	Packaging
33037	1/10



## LK Socket M60n/RTB

Used for disassembly and reassembly of LK Socket M60n/RTB

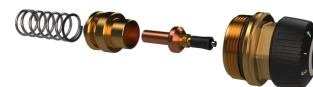
Article	Dim.	Packaging
33074	13 mm	1



# Minishunt M60n

## LK Temperature limiter M60n / RTB

Spare part for LK Minishunt M60n and LK Mini loop valve RTB



Article	Packaging
33959	

## LK Air bleeding valve M60n / RTB

Spare part for LK Minishunt M60n and LK Mini loop valve RTB



Article	Packaging
33966	

## LK Bracket M60n

Spare part for LK Minishunt M60n.



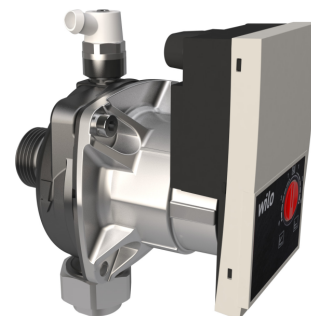
Article	Packaging
33967	

## LK Circulation pump M60n

Spare part for LK Minishunt M60n.

Also suitable for LK's older Minishunt M60.

The pump is delivered without pump contact. If necessary, complement with Wilo WS8 Connector, article no. 33931.



Article	Packaging
33968	

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## LK Hand lever & Adaptor RTB/M60n

Article	Weight (kg)	Packaging
33969	0,01 kg	



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## LK Thermostatic Head M60n/RTB

Spare part for LK Minishunt M60n and LK Mini loop valve RTB

Not compatible with LK Minishunt M60.

Article	Packaging
33049	1/10



---

## LK Control Valve Set M60n/RTB

Spare part for LK Minishunt M60n and LK Mini loop valve RTB

Use LK Socket M60n/RTB (33074) to dismantle the control valve.



Article	Packaging
33037	1/10

---

## LK Socket M60n/RTB

Used for disassembly and reassembly of LK Socket M60n/RTB

Article	Dim.	Packaging
33074	13 mm	1



---

## LK Pump Connector Angle Alpha

Spare part / accessory for Grundfos Alpha 1

Article	Packaging
33075	1/10



# Minishunt M60

## LK Connection Coupling RF CU

LK Connection coupling RF CU for primary connection to LK Minishunt M60 manufactured after September 2012 with ¾" EuroConus connection.



Article	Intended for	Dim.	Nipple conn.	Packaging
241 94 65	CU	15x1,0 CU	¾" EuroCone	1/24/240

## LK Connection Coupling 12/16/20 x CU 15x1

LK Connection Coupling CU for primary connection to LK Minishunt M60 manufactured after September 2012.



Article	Dim.	Nipple conn.	Packaging
241 78 45	Cu 12x1,0	12/16/20	1/250/50
241 78 46	Cu 15x1,0	12/16/20	1/50

## LK Injection pipe M60, conversion

Used for conversion of LK Minishunt M60 in a version with Giacomini Thermostatic valve v.1 M60 to version with LK Thermostat Valve v.3 M60-LKA.



LK Injection pipe used if you have an older M60 with Giacomini valve and want to switch to a LK valve. Inside the minishunt is a 12 mm copper pipe which must be extended by LK Injection pipe. One reason for wanting to switch from Giacomini valve to LK valve may be problems with noise in the Giacomini valve, e.g. a rattling noise because of high primary pressure.

Article	Packaging
33954	1

## LK Thermostatic valve M60 (conn. 12/16/20)



Thermostatic valve v.1 (Giacomini) for LK Minishunt M60.

This valve was used until 2009. Thereafter it was replaced by LK Thermostatic valve v.2 M60-LKA until 2012-09. There after LK Thermostatic valve v.3 M60-LKA is used, art no 339 57.



Note! Not compatible with M60 with thermostatic valve from LKA.

Article	Connection	Packaging
83319	12/16/20	1

---

## LK Air vent ½"

Manual air vent for LK Minishunt M60.

Article	Dim.	Packaging
83321	½"	1



---

## LK Key to air vent M60

Fits manual air vent ½", Art. no. 83321.

Article	Packaging
83322	1



---

## LK Handwheel M60

Handwheel for manual adjustment of the inflow at LK Minishunt M60.

Article	Packaging
33955	1



## LK Temperature limiter M60

Complete temperature limiter for LK Minishunt M60.

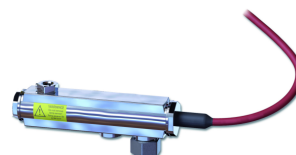
Article	Packaging
33927	1/10



## LK Electric cartridge 350

Electric cartridge for LK Heater. The electric cartridge is available in three different versions. Early versions of the LK Heater had glued thread for the electric cartridge. Those cartridges are not possible to remove. In these cases, there are pre-assembled heating cartridges as below.

1. Loose electric cartridge.
2. Electric cartridge pre-assembled in manifold with 1 outlet.
3. Electric cartridge pre-assembled in manifold with 2 outlets.



Note that the replacement must be carried out by a qualified electrician.

Article	Output	Note	Packaging
33231	350 W	Electric cartridge only	1/4
33233	350 W	Electric cartridge assembled in manifold 1	1/4
33234	350 W	Electric cartridge assembled in manifold 2	1/4

## Wilo WS8 Connector

Connector device for Wilo Yonos Para and Wilo Stratos Para.

Article	Voltage	Packaging
33931	230 V AC	1



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## LK Adapter 12/16/20 to ¾" male

Fits:

LK Manifold VKF/VKF-i. Joint nipple from thread (nipple conn. thread 12/16/20) to the male ¾" EuroCone thread.

LK Minishunt M60. Joint nipple for primary connection to LK Minishunt M60 manufactured before September 2012. The joint nipple is used, if needed, to get over to thread connection ¾" EuroCone.



Article	Nipple conn.	Packaging
83320	¾" EuroCone	1

---

## LK Plug ½"

Fits:

LK Manifold RF. Fits the 1" end cap with ½" outlet on the manifold.

LK Minishunt M60. Fits the ½" connection with is used when the system being filled up.



Article	Packaging
83323	1

---

## LK Joint nipple with loose nut 1" x ½"

For pump connection to LK Minishunt M60/M60n.

Article	Designation	Design	Dim.	Voltage	Packaging
241 94 57	LK Joint Nipple	Nickel plated	1" loose nut x ½" female	-	1/10



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## LK Fiber gasket 1" Graphite

1" graphite gasket for LK Minishunt M60.

Article	Packaging
33935	1

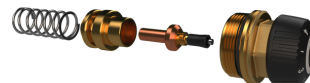


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## LK Temperature limiter M60n / RTB

Spare part for LK Minishunt M60n and LK Mini loop valve RTB

Article	Packaging
33959	



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## LK Air bleeding valve M60n / RTB

Spare part for LK Minishunt M60n and LK Mini loop valve RTB

Article	Packaging
33966	



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## LK Bracket M60n

Spare part for LK Minishunt M60n.

Article	Packaging
33967	



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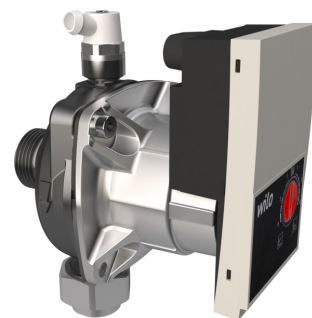
## LK Circulation pump M60n

Spare part for LK Minishunt M60n.

Also suitable for LK's older Minishunt M60.

The pump is delivered without pump contact. If necessary, complement with Wilo WS8 Connector, article no. 33931.

Article	Packaging
33968	



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## LK Thermostatic Head M60

LK Thermostatic Head with 5 m capillary room sensor intended to LK Minishunt M60.

Article	Length	Packaging
241 80 88	5 m	1



# Manifold shunt VS2

## LK Hand actuator VS2

Spare part for LK Manifold Shunt VS2.

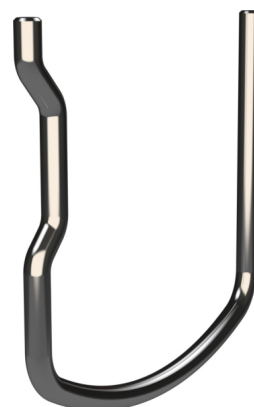
Article	Packaging
33980	



## LK Clasp VS2

Spare part for LK Manifold Shunt VS2.

Article	Packaging
33981	



## Grundfos UPM3 Auto 15/70

Replacement pump for:

LK Manifold Shunt VS2

LK Electric Boiler -4.5

LK Electric Boiler -11

LK Electric Portable Boiler

Article	Designation	Length	Width	Height	Connection	Packaging
33033	Grundfos UPM3 Auto L 15/70	128 mm	117 mm	130 mm	1"	



## LK Pump connector VS2

Spare part for LK Manifold Shunt VS2.

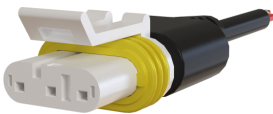


Article	Packaging
33982	

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## LK Pump connector VS2

Spare part for LK Manifold Shunt VS2.



Article	Packaging
298 90 22	

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## LK Knob Flow VS2

Spare part for LK Manifold Shunt VS2.



Article	Packaging
33983	

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## LK Knob Temp VS2



Spare part for LK Manifold Shunt VS2.

Article	Packaging
33984	



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## LK Supply pipe VS2, long design.

Spare part for LK Manifold Shunt VS2. pipe for connecting the shunt to the left of the manifold.



Article	Packaging
33985	

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## LK Supply pipe VS2, short design

Spare part for LK Manifold Shunt VS2, pipe for connection of shunt to the right of the manifold.



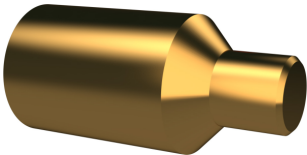
Article	Packaging
33986	

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## LK Spindle extension VS2

Spare part for LK Manifold Shunt VS2.

Article	Packaging
33987	

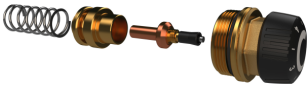


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## LK Temperature limiter VS2

Spare part for LK Manifold Shunt VS2.

Article	Packaging
33988	



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## LK Angle coupling pump VS2

Spare part for LK Manifold Shunt VS2.

Article	Packaging
33989	



# Manifold shunt VS/CS

## LK Inlet pipe short

LK Inlet Pipe short fits LK Manifold Shunt VS & CS. Used at left-hand side assembly to LK Manifold.



Article	Packaging
33916	1

## LK Inlet pipe long

LK Inlet Pipe long fits LK Manifold Shunt VS & CS. Used at right-hand side assembly to LK Manifold.



Article	Packaging
33917	1

## LK Elbow with loose nut

Elbow fitting for LK Manifold Shunt VS & CS. The elbow is assembled between pump and supply pipe.



Article	Packaging
33903	1

## LK Thermometer pocket 1/4"

Fits LK Manifold Shunt VS & CS.

Article	Dim.	Packaging
33920	½" male	1



## LK Plug ½"

Intended to plug unused connections for LK Thermometer pocket on LK Manifold Shunt VS & CS.

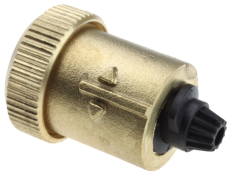
Article	Dim.	Packaging
33921	½" male	1



## LK Adjusting Top Part VS/CS

LK Adjusting Top Part VS/CS fits control valve and temperature limiter on LK Manifold Shunt VS & CS.

Article	Packaging
33929	1/10



## LK Hand lever Flow

LK Hand Lever Flow is intended for shunt-/control valve on LK Manifold Shunt VS & CS.

Article	Packaging
33924	1



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## LK Hand lever Temp

LK Hand Lever Temp is intended for the temperature limit valve on LK Manifold Shunt VS & CS.

Article	Packaging
33923	1



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## LK Cap VS/CS

Intended for VF valve, isolation valve and return valve on LK Manifold Shunt VS & CS.

Supplied with flat seal.

Article	Dim.	Packaging
33925	3/4" female	1



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## LK Replacement pump Grundfos Alpha 2L

Replacement pump for:

LK Manifold Shunt VS

LK Manifold Shunt CS.

LK Manifold Shunt 2/3 -0,63/1,0/2,5

LK Electric Portable Boiler



Years 2001 to 2003 the shunt group LK Manifold Shunt 2/3 was supplied with Myson Cp 53 130 mm. After 2003 to 2007 was it supplied with Grundfos UPS 15-40 130.

LK Manifold Shunt was supplied with Grundfos UPS 15-60 130 mm between 2007-2011.

LK Electric Portable Boiler was until November 2013 supplied with Grundfos UPS 15-60 130 mm. Thereafter with Grundfos Alpha 2L 15-60 130 mm.

Replacement pump Grundfos Alpha 2L 15-60 130 mm replaces Myson Cp 53, Grundfos UPS 15-40 and Grundfos UPS 15-60. Pump connector included.

NOTE! Pay attention to a longer dimension on the drive side than Myson Cp 53 and Grundfos UPS 15-40/UPS 15-60.

Article	Designation	Length	Width	Height	Connection	Packaging
33030	Grundfos Alpha 2L 15-60 150 mm	100 mm	130 mm	1"		1

## LK Pump connector VS Pump

Connector to pump Grundfos Alpha 2L.

Article	Designation	Voltage	Packaging
33029	Plug connection Alpha pump	230 V	1



## LK Thermometer -20 - 60°C

LK Thermometer -20 - 60°C, shaft Ø9. Fits LK Manifold RF, LK Manifold Shunt VS, LK Manifold Shunt CS, LK OptiFlow EVO II.

Article	Temp. range	Packaging
243 52 54	-20 - 60° C	1/20



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## LK Thermometer 0 - 80°C

Fits:

LK Manifold RF, LK Manifold Shunt VS, LK Manifold Shunt CS, LK OptiFlow EVO II

Article	Temp. range	Packaging
243 47 47	0-80° C	1



# Shunt 2/3

## LK Hand actuator

Fits LK Shunt 2/3-1,6, LK Shunt 2/3-2,5 and LK Manifold Shunt UHP-6,3.

Article	Packaging
32780	1



## LK Replacement pump LK Shunt 2/3

LK Shunt 2/3-1,6 had Myson CP 63, conn. 25 with construction length 180 mm assembled.

LK Shunt 2/3-2,5 had Grundfos UPS 25-60 construction length 130 mm assembled. This was changed at the turn of 2012/2013 to Wilo Yonos Para RS 25/6-RKA. This was changed in march 2023 to Wilo Para 25-130/8-75/SC.

LK Shunt 2/3-4,0 and 2/3-6,3 had Grundfos UPS 25-80 construction length 180 mm assembled. This was changed at the turn of 2012/2013 to Wilo Stratos Para 25/1-8. This was changed in march 2023 to Wilo Yonos Para HF 25/7 180.



Article	Designation	Intended for	Length	Packaging
33076	Wilo Yonos Para HF 25/7 180	LK Shunt 2/3-4,0 & 2/3-6,3	180 mm	1
33077	Wilo Para 25-130/8-75/SC	LK Shunt 2/3-2,5	130 mm	1

## Wilo WS8 Connector

Connector device for Wilo Yonos Para and Wilo Stratos Para.

Article	Voltage	Packaging
33931	230 V AC	1





# Manifold shunt 2/3

## LK Replacement pump Grundfos Alpha 2L

Replacement pump for:

LK Manifold Shunt VS

LK Manifold Shunt CS.

LK Manifold Shunt 2/3 -0,63/1,0/2,5

LK Electric Portable Boiler



Years 2001 to 2003 the shunt group LK Manifold Shunt 2/3 was supplied with Myson Cp 53 130 mm. After 2003 to 2007 was it supplied with Grundfos UPS 15-40 130.

LK Manifold Shunt was supplied with Grundfos UPS 15-60 130 mm between 2007-2011.

LK Electric Portable Boiler was until November 2013 supplied with Grundfos UPS 15-60 130 mm. Thereafter with Grundfos Alpha 2L 15-60 130 mm.

Replacement pump Grundfos Alpha 2L 15-60 130 mm replaces Myson Cp 53, Grundfos UPS 15-40 and Grundfos UPS 15-60. Pump connector included.

NOTE! Pay attention to a longer dimension on the drive side than Myson Cp 53 and Grundfos UPS 15-40/UPS 15-60.

Article	Designation	Length	Width	Height	Connection	Packaging
33030	Grundfos Alpha 2L 15-60 150 mm	100 mm	130 mm	1"		1

## LK Pump connector VS Pump

Connector to pump Grundfos Alpha 2L.

Article	Designation	Voltage	Packaging
33029	Plug connection Alpha pump	230 V	1



## LK Hand actuator

Fits LK Shunt 2/3-1,6, LK Shunt 2/3-2,5 and LK Manifold Shunt UHP-6,3.

Article	Packaging
32780	1

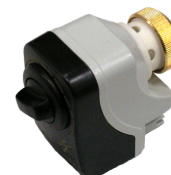


# Manifold shunt UHP-6,3

## LK Hand actuator

Fits LK Shunt 2/3-1,6, LK Shunt 2/3-2,5 and LK Manifold Shunt UHP-6,3.

Article	Packaging
32780	1



## LK Thermostat with sensor FTC

Thermostat FTC with capillary tube sensor, strap and contact grease. Used for Thermostatic valve RA-C 20. Included in the products LK Manifold Shunt Compact, LK Manifold Shunt UHP 6,3, LK Heat Exchanger Pack -10 and LK FTK Valve.

Article	Temp. range	Packaging
33002	15-50 °C	1



## LK Replacement pump LK Manifold Shunt UHP-6,3

Replacement pump for LK Manifold Shunt UHP-6,3. Replaces the earlier models with Myson CP 63 L130 and Grundfos UPS 25/6 L130. Electric plug device Wilo Connector is included.





# LK Control v.2 & LK Control v.2-RA

## LK Remote control unit

Remote control unit for LK Control v.2. There has been a previous version of the remote control unit without display. This newer model also replaces that.



Article	Intended for	Packaging
241 78 42	LK Control & LK Control -RA v.2	1

## LK Valve Actuator 230V

Fits LK Control v.2 and LK Control v.3.



Article	Designation	Type	Voltage	Packaging
241 81 38	SSY319	230 V	230V	1

## LK Valve Actuator 230 V -RA

Fits LK Control -RA v.2 and LK Control -RA v.3.



Article	Designation	Type	Packaging
33651	SSA331.00	230 V	1

## LK Adapter AV 53

For installation of LK Valve Actuator Art. no. 33651 to Danfoss valves type RA.

Article	Designation	Intended for	Type	Packaging
33652	Adapter AV 53 for adjustment of 33651	Valve actuator 33651	AV53	1



# LK Control v.3 & LK Control v.3-RA

## LK Control box v.3

Control box for LK Control v.3 and LK Control v.3 -RA.

Article	Type	Voltage	Packaging
33710	RVS46.530/191	230 V AC	1



## LK Outdoor sensor v.3

Fits LK Control -RA v.2 and LK Control -RA v.3.

Article	Designation	Intended for	Type	Packaging
33711	Outdoor sensor QAC34/101	LK Control v.3 & LK Control v.3 -RA	QAC34/101	1



## LK Flow sensor v.3

Fits LK Control v.3 and LK Control v.3 -RA.

Article	Type	Packaging
33712	QAD36/101	1



## LK Room unit v.3

Accessory for LK Control v.3/LK Control v.3 -RA. Room unit for temperature impact and the possibility of remote control of temperature and time programs.

Article	Intended for	Width	Height	Depth	Packaging
241 73 26	LK Control v.3 and LK Control v.3 -RA	96 mm	96 mm	47 mm	1



## LK Valve Actuator 230V

Fits LK Control v.2 and LK Control v.3.

Article	Designation	Type	Voltage	Packaging
241 81 38	SSY319	230 V	230V	1



## LK Valve Actuator 230 V -RA

Fits LK Control -RA v.2 and LK Control -RA v.3.

Article	Designation	Type	Packaging
33651	SSA331.00	230 V	1



## LK Adapter AV 53

For installation of LK Valve Actuator Art. no. 33651 to Danfoss valves type RA.

Article	Designation	Intended for	Type	Packaging
33652	Adapter AV 53 for adjustment of 33651	Valve actuator 33651	AV53	1





# Zone manifold control

## LK Actuator 24V NO

Article	Type	Voltage	Output	Packaging
241 75 91	Normaly open (NO)	24 V AC/DC	1,8 W	1/100/2500



## LK Actuator 0-10V

Article	Voltage	Output	Packaging
241 81 22	0-10 V DC/24 V AC	1,5 W	1



## LK Actuator, single zone manifold control

Article	Packaging
83318	1



## LK Adapter, single zone manifold control 3-way

Article	Designation	Intended for	Color	Packaging
243 46 10	VA 10	Rehau manifold of brass ReTherm - Armaturjonsson Roth GVF 2004 Altech GVF TECE manifold of stainless Termotech GVF	Grey	1/10/100



# Heat exchanger pack

## LK Thermostatic valve RAC

Used with Thermostat FTC Art. no. 33002 and connections LK Union Nut Art. no. 33004 and LK Union Part  $\frac{3}{4}$ " male Art. no. 33003. Included in the products LK Manifold Shunt Compact 2-2,6/3,2, LK Heat Exchanger Pack -10 and LK FTK valve.

Article	Dim.	Kv	Packaging
33001	RAC 20	0,8-2,6	1



## LK Thermostat with sensor FTC

Thermostat FTC with capillary tube sensor, strap and contact grease. Used for Thermostatic valve RA-C 20. Included in the products LK Manifold Shunt Compact, LK Manifold Shunt UHP 6,3, LK Heat Exchanger Pack -10 and LK FTK Valve.

Article	Temp. range	Packaging
33002	15-50 °C	1



## LK Union part and LK Union nut

Union part and union nut for thermostatic valve RA-C 20.

Article	Designation	Dim.	Packaging
33003	Union part conical	$\frac{3}{4}$ " male	1
33004	Union nut	1"	1



## LK Pressure Gauge 0-4 bar

## Spare part for LK Heat Exchanger Pack -10

Pressure Gauge with G 1/4" thread. Comes with G 1/4" x G 1/2" bushing and fiber gasket.

Article	Packaging
33039	1/10



# Electric boilers

## LK Electric cartridge 400V

Fits:

LK Electric Boiler EK 9 kW, 3 phase 400V

LK Electric Portable Boiler 9 kW, 3 phase 400V

Article	Output	Packaging
33810	9 kW	1



## LK Electric cartridge 230V/400V 4,5 kW

Spare part, EI cartridge 4.5 kW, 230V/400V, suitable for LK Electric Boiler 4.5 (Article no. 623 24 25).

Article	Voltage	Output	Packaging
33960	230V/400V	4,5 kW	1



## LK Electric cartridge 230V

Fits LK Electric Boiler EKN 6+9 kW, 3 phase 230V.

Article	Intended for	Output	Packaging
83325	EKN	6 kW	1
83326		9 kW	1



## LK Electric cartridge 11kW, 400V

Fits:

LK Electric Boiler EK 11 kW, 3 phase 400V

Article	Output	Packaging
33963	11 kW	



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## LK Overheat protection Electric boiler

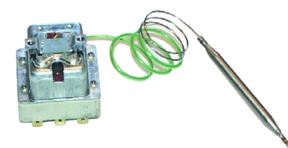
Fits:

LK Electric Boiler EK 6+9 kW, 3 phase 400V

LK Electric Boiler Norway EKN 6+9 kW, 3 x 230V

LK Electric Boiler 11 kW, 3 phase 400V

Article	Packaging
83330	1

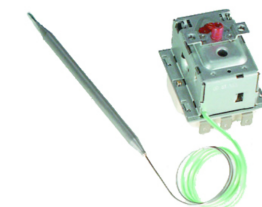


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## LK Overheat protection Electric portable boiler

Fits LK Electric Portable Boiler 9 kW, 3 phase 400V.

Article	Packaging
33805	1

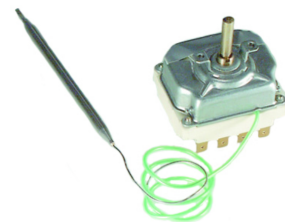


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## LK Operation thermostat

Fits:

LK Electric Boiler EK 6+9 kW, 3 phase 400V  
 LK Electric Boiler Norway EKN 6+9 kW, 3 x 230V  
 LK Electric Portable Boiler 9 kW, 3 phase 400V  
 LK Electric Boiler 11 kW, 3 phase 400V



Article	Packaging
83328	1

## LK Expansion vessel, 12 litres

Fits:

LK Electric Boiler EK 6+9 kW, 3 phase 400V  
 LK Electric Boiler Norway EKN 6+9 kW, 3 x 230V  
 LK Electric Portable Boiler 9 kW, 3 phase 400V



Article	Packaging
83314	1

## LK Replacement pumps Electric boilers

Art. no. 330 30 fits LK Electric Boiler EK 6+9 kW, 3 phase 400V and LK Electric Boiler Norway EKN 6+9 kW, 3 x 230V from years 2000-2007. Older electric boilers had flange connected pumps.

Art. no. 33033 fits LK Manifold Shunt VS2, LK Electric Boiler -4,5 LK Electric Boiler -11 LK Electric Portable Boiler



Article	Designation	Length	Width	Height	Connection	Packaging
33030	Grundfos Alpha 2L 15-60	150 mm	100 mm	130 mm	1"	1
33033	Grundfos UPM3 Auto L	128 mm	117 mm	130 mm	1"	15/70