

Innovative water
and heating solutions



SYSTEM **KAN-therm**

Catalogue
technical information



TECHNOLOGY OF SUCCESS



ISO 9001

- SYSTEM **KAN-therm** Push/Push Platinum1
pipes and fittings with sliding sleeve for heating and potable water systems
- SYSTEM **KAN-therm** Press/**KAN-therm** Press LBP51
pipes and fittings with crimping sleeve for heating and potable water systems
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Ø 12-32 mm



SYSTEM **KAN-therm**

Push Push Platinum

Reliability and Prestige



TECHNOLOGY OF SUCCESS



ISO 9001

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1 System **KAN-therm Push / KAN-therm Push Platinum**

General information

This catalogue of the KAN-therm Push System includes a new KAN-therm Push Platinum System and the standard KAN-therm Push System.

The catalogue is divided into a Technical Part and an Assortment Part:

- KAN-therm Push Platinum System Technical Part,
- KAN-therm Push System Technical Part,
- KAN-therm Push Platinum System and KAN-therm Push System common part.

The technical part includes all information required to order products and for its assembly on a construction site etc. For more details please see „KAN-therm System Designers and Contractors Guide“.

The common assortment part of the catalogue comprises:

- 1 The KAN-therm Push Platinum System used for water supply systems and heating systems and comprising:**
 - PE-Xc/Al/PE-HD Platinum multi-layer pipes within the range of 14-32 mm diameters,
 - PPSU plastic fittings and brass fittings for PE-Xc, PE-RT and PE-Xc/Al/PE-HD Platinum pipes.
- 2 The KAN-therm Push System used for water supply systems and heating systems and comprising two material configurations of pipes and fittings:**
 - PE-Xc pipes with an anti-diffusion barrier within a range of diameters 12–32 mm,
 - PE-RT pipes with an anti-diffusion barrier within a range of diameters 12–32 mm,
 - PPSU plastic fittings and brass fittings for PE-Xc, PE-RT and PE-Xc/Al/PE-HD Platinum pipes.
- 3 Push System fittings – diameters 18×2.**
- 4 Screwed joints for 12 - 32 mm diameters PE-Xc and PE-RT pipes.**
- 5 Tools for assembling KAN-therm Push System pipes and fittings.**
- ! CAUTION!!!**

PE-Xc and PE-RT pipes with the anti-diffusion barrier in diameters 16×2 designed mainly for floor heating and manifold-based heating systems are available in the catalogue KAN-therm System: Screwed joints and KAN-therm System – Underfloor heating..

System KAN-therm Push Platinum

The KAN-therm Push Platinum System is a modern and complete system consisting of multi-layer PE- Xc/Al/PE-HD Platinum pipes and standard KAN-therm Push fittings made of PPSU or brass, within a diameter range of 14–32 mm.



Push Platinum System leak-tight joints without O-Rings are made by pushing a brass sleeve onto a fitting and a pipe. These connections do not require additional sealing like a PTFE tape or tow. The system is complemented by manifolds and installation cabinets available in section Manifolds, cabinets and accessories.

The latest plastic material invention PPSU – phenylene polysulfone – used for fittings production ensures:

- full resistance against corrosion,
- full neutrality against potable water,
- durability of fittings higher than that of pipes,
- high mechanical strength.

The technology of making PPSU fittings practically excludes possible occurrence of hidden defects.

Due to a perfect design of parts of the KAN-therm Push Platinum System and their mutual matching, provides:

- over a 50-years operation lifetime,
- high temperature operation – $T_{\text{work}} = 80^{\circ}\text{C}$ (operating temperature), $T_{\text{max}} = 90^{\circ}\text{C}$ (max. temperature – the heat source must be protected against a temperature rise above that level),
- extremely durable PPSU joints with the max. operating temperatures limited by the pipe life,
- absolutely no corrosion irrespective of the water quality,

The KAN-therm Push Platinum System allows for a selection of best solutions both in technical and cost terms as:

- joints can be hidden in screed and under plaster,
- possibility of connecting with systems made of other materials,
- possible cost-saving distribution systems.

The KAN-therm Push Platinum System guarantees full safety of mounting and operation:

- PPSU fittings are made according to PN-EN ISO 15875-3:2005 and PN-EN ISO 22391-3:2010, and obtains hygiene certificates by PZH,
- brass „Push“ type fittings conform to PN-EN 1254-3:2004, and obtains hygiene certificates by PZH,
- multi-layer PE-Xc/Al/PE-HD Platinum pipes conform to PN-EN ISO 21003 and obtains hygiene certificates by PZH.

Multi-layer PE-Xc/Al/PE-HD Platinum pipes

PE-Xc/Al/PE-HD Platinum pipes are manufactured as multi-layer pipes, where the base-pipe is made of the PE-Xc polyethylene subjected to molecular crosslinking by an electron beam. Laser-welded aluminium layer provides a complete protection against oxygen diffusion and significantly lowers the thermal expansion of a pipe. An external coating of the highdensity polyethylene PE-HD protects the aluminium layer against a mechanical damage. Due to their design, pipes do not have the 'shape memory' and can be given any shape.

Assortment of PE-Xc/Al/PE-HD Platinum pipes:

- PE-Xc/Al/PE-HD Platinum multi-layer pipes according to PN-EN ISO 21003-2 standard – in dia. 14, 18, 25, 32 mm.

Dimensions, application and water volumes of multi-layer PE-Xc/Al/PE-HD Platinum pipes:

Rated diameter DN	OD [mm]	Wall thickness [mm]	For installation	Water volume [dm ³ /m]
14	14	2,25	c.h. / t. c.w. & h.w.	0,071
18	17	2,8	c.h. / t. c.w. & h.w.	0,102
25	25	3,7	c.h. / t. c.w. & h.w.	0,243
32	32	4,7	c.h. / t. c.w. & h.w.	0,401

Parameters of multi-layer PE-Xc/Al/PE-HD Platinum pipes

Operating parameters of multi-layer PE-Xc/Al/PE-HD Platinum pipes acc. to PN-EN ISO 21003-2:

Installation and application class (acc. to ISO 10508)	Nominal dia. DN	External diameter [mm]	Wall thickness [mm]	Operating parameters		Type of connections	
				P _{work} [bar]	T _{work} / T _{max} [°C]	Push (with sliding sleeve)	Screwed (threaded)
Tap cold water	14	14	2,25	10	20	+	+
	18	17	2,8	10	20	+	+
	25	25	3,7	10	20	+	-
	32	32	4,7	10	20	+	-
Tap hot water (class 1)	14	14	2,25	10	60/80	+	+
	18	17	2,8	10	60/80	+	+
	25	25	3,7	10	60/80	+	-
	32	32	4,7	10	60/80	+	-
Tap hot water (class 2)	14	14	2,25	10	70/80	+	+
	18	17	2,8	10	70/80	+	+
	25	25	3,7	10	70/80	+	-
	32	32	4,7	10	70/80	+	-

Installation and application class (acc. to ISO 10508)	Nominal dia. DN	External diameter [mm]	Wall thickness [mm]	Operating parameters		Type of connections	
				P _{work} [bar]	T _{work} /T _{max} [°C]	Push (with sliding sleeve)	Screwed (threaded)
Underfloor heating, radiator heating – low temperature (class 4)	14	14	2,25	10	60/70	+	+
	18	17	2,8	10	60/70	+	+
	25	25	3,7	10	60/70	+	-
	32	32	4,7	10	60/70	+	-
Radiator heating (class 5)	14	14	2,25	10	80/90	+	+
	18	17	2,8	10	80/90	+	+
	25	25	3,7	10	80/90	+	-
	32	32	4,7	10	80/90	+	-

Operating temperature T_{work} for individual classes shall be regarded as a design temperature, the maximal temp. - T_{max} - as a temperature, which should not be exceeded – the system must be protected against it.

Multi-layer PE-Xc/Al/PE-HD Platinum pipes – Physical properties

Property	Symbol	Unit	PE-Xc/Al/PE-HD
Linear extension coefficient	α	mm/m × K	0.025
Thermal conductivity	λ	W/m × K	0.4
Density	ρ	g/cm ³	0.95
Module E	E	N/mm ²	2950
Tensile stretch		%	-
Minimum bend radius	R _{min}		5 × D 3 × D (with a spring)
Internal wall roughness	k	mm	0.007

Transport and storage

Multilayer PE-Xc/Al/PE-HD Platinum pipes are delivered in 25, 50, 200 m coils in carton packages. They can be stored in different temperatures, also below 0°C. Due to vulnerability to UV rays, pipes should be protected against direct, long-lasting exposure to sunlight.

Contact with substances containing solvents, sealing the threads

- Avoid direct contact of KAN-therm elements with solvents or solvent-containing materials, such as paints, aerosols, montage foams, adhesives, etc. Under unfavorable circumstances, these substances may damage plastic parts.
- Make sure that the connection sealants, cleaners or insulation of System KAN-therm components, do not contain compounds that cause stress cracks: ammonia, ammonia retaining compounds, solvents, aromatic or chlorinated hydrocarbons (e.g., ketones and ethers). Do not use montage foams based on methacrylate and acrylate isocyanate.
- For the threaded connections it is recommended to use hemp in an amount such that the tops of the thread are still visible. Using too much hemp may damage the thread. Winding hemp just after first turn of the thread helps to avoid diagonal screwing and thread damage.



CAUTION!!!

Do not use chemical sealants and adhesives.

Push Platinum connections

Performing Push Platinum connection consist in sliding brass sleeve over the pipe and fitting with hand operated, hydraulic or electric machine.

Fittings for the KAN-therm Push Platinum System connections

To perform connections with the KAN-therm Push Platinum pipes, standard KAN-therm Push PPSU System fittings and brass fittings are used.



- elbows and tees,
- elbows, tees and other fittings with nickel-plated Ø15mm copper pipes,



- couplings, Platinum eurocone adapters, male and female connectors,
- wallplate elbows,
- other.

Brass sleeves for KAN-therm Push Platinum System joints

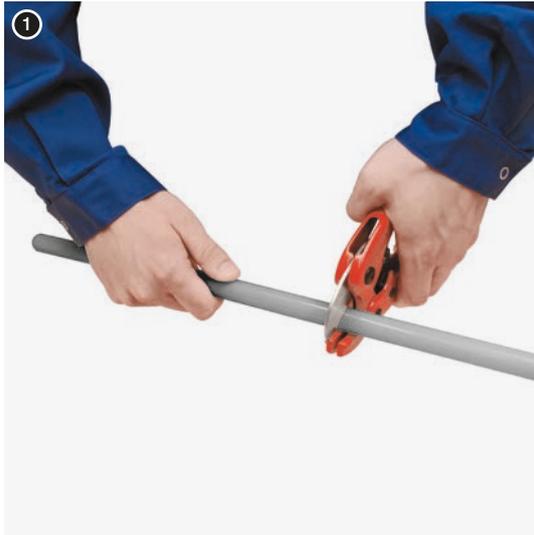
To seal KAN-therm Push Platinum System connection of a pipe and a fitting, standard KAN-therm Push brass sleeves in diameters 14 - 32 mm are used.



Assembling Push Platinum joints

1. Cut a multi-layer PE-Xc/Al/PE-HD Platinum pipe to a required length with scissors. The cut must be perpendicular to the pipe axis.

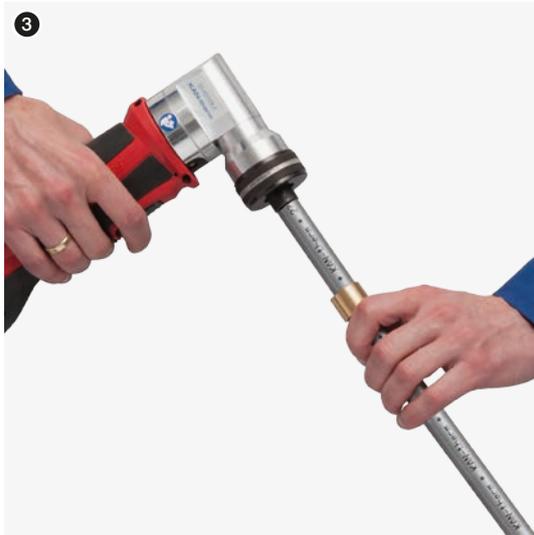
2. Put the sleeve onto a pipe with the internally chamfered end toward a fitting. Select the sleeve properly to the pipe diameter.



! CAUTION! For cutting use only sharp blades.

3. Expand the pipe with a hand or electric expanding tool. In both cases use the expanding tool in three stages. First two expansions not full, with rotation of expanding tool 30° and 15° against the pipe. The third expansion is full.

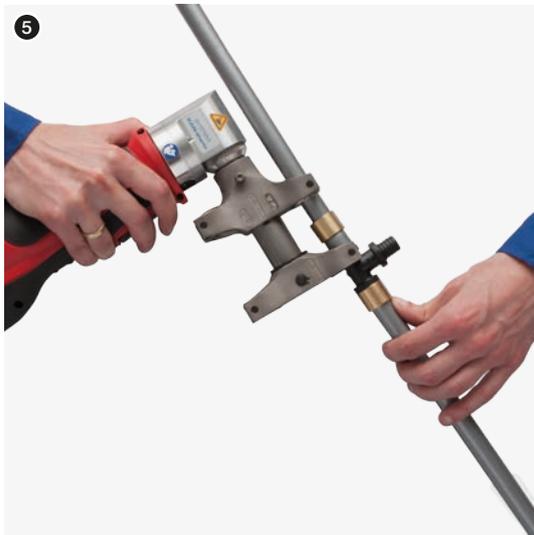
4. Insert the fitting into a pipe up to the last bead on the fitting.



! CAUTION! For expanding use only Push Platinum expanding head.

5. Slide the sleeve with a hand/hydraulic or electric machine Grip fittings only at their flange. Do not slide two sleeves at the same time.

6. Observe assembling process - after sliding the sleeve up to fittings flange, the whole process should be stopped. The connection is ready for pressure test.

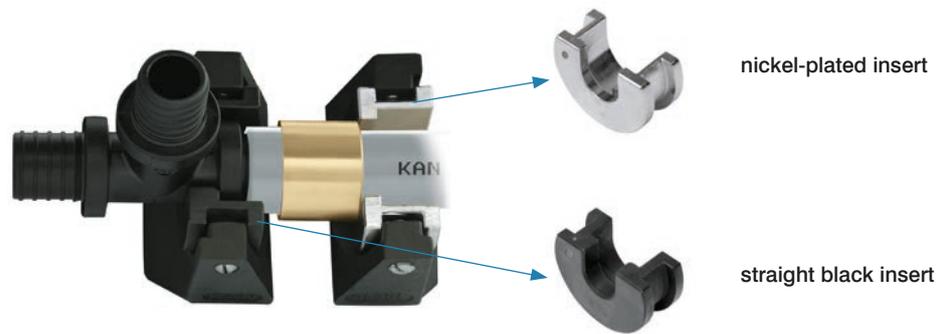


To eliminate the excessive overload on fittings by bending force, it is not recommended to bend pipes at a distance less than 10 external diameters from the fitting.

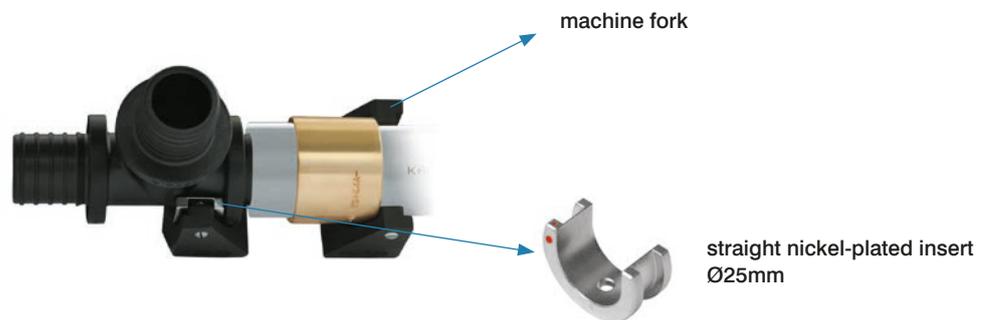
There is possibility of performing Push connections at temperatures below 0° under additional conditions given in KAN-therm System Designers and Contractors guide.

! CAUTION!

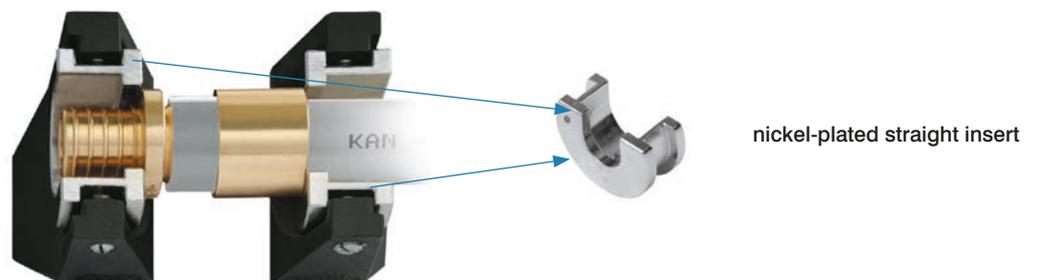
- 1 For assembly of a PPSU fittings use only at the side of a fitting black inserts marked T (14, 18 or 25), and at the sleeve side straight nickel-plated inserts. The PPSU fitting shall be supported at its flange directly next to the stub pipe onto which the sleeve is being pushed.



- 2 When assembling a PPSU fitting dia. 32 mm insert at the fitting end, use a straight nickel-plated insert. dia. 25 mm, and on the sleeve side empty machines fork.



- 3 For assembly of brass elements use straight nickel-plated inserts.



- 4 For screwed connections Ø 32 mm use only forks (no inserts).

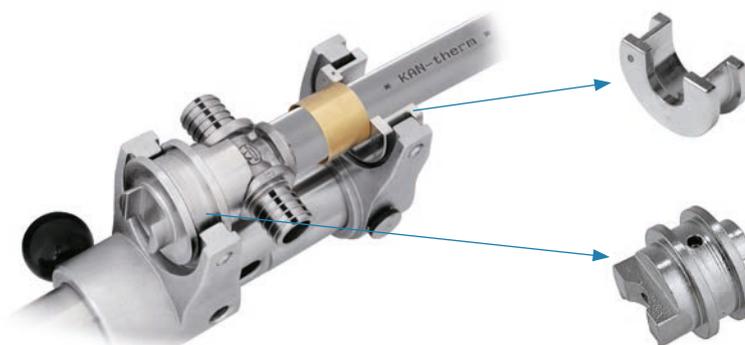


assembling a Ø32 joint without using inserts

- 5 For assembly of other brass elements e.g. screwed couplings, wallplate elbows (excluding angle wallplate elbows) and elements of connections to radiators use straight nickel-plated inserts marked: P1-8471, P1-8469, P1-8468, P1-8467.



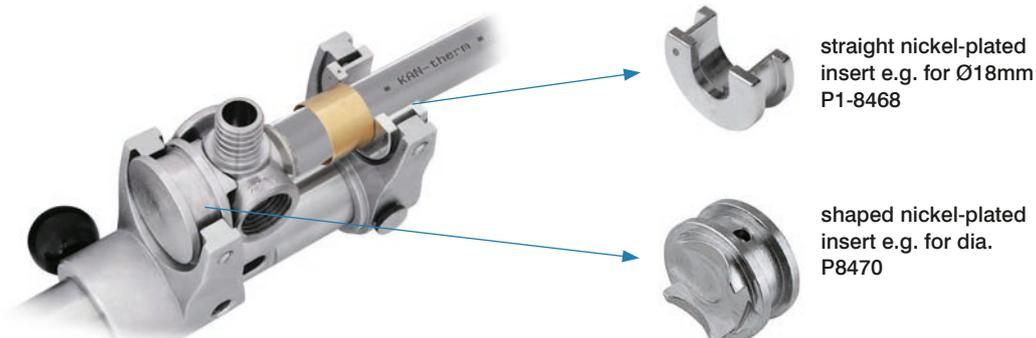
- 6 For brass tees Ø14, 18, 25 mm use at the side of fitting nickel-plated shaped inserts marked respectively P8465, P8463, P8464. At the sleeve side use straight nickel-plated inserts.



straight nickel-plated insert
e.g. for Ø18mm P1-8468

shaped nickel-plated insert
e.g. for dia. P8463

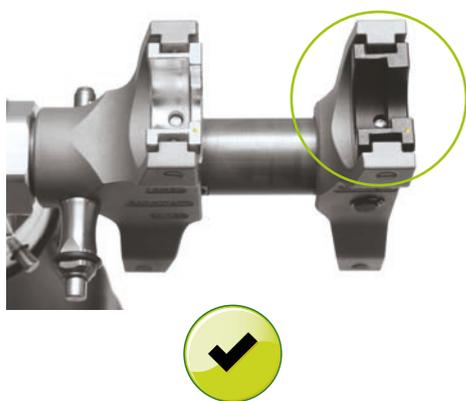
- 7 For brass angle wallplate elbows $\varnothing 18$ mm use at the fitting side shaped nickel-plated insert marked P8470. At the sleeve side use a straight nickel-plated insert.



! CAUTION!

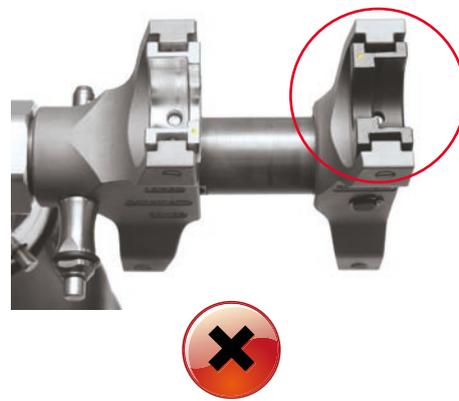
The presented above shaped inserts for brass joints are not a standard part of tool kits, please order them separately.

Novopress tool (battery driven)



Correct way of mounting inserts on machine forks.

Diameter range 14 do 25 mm.



Incorrect way of mounting inserts on machine forks.

Diameter range 14 do 25 mm.

Tools for Push Platinum joints

To make a joint in the KAN-therm Push Platinum System use KAN-therm Push System tools. Tools must be provided with expanding heads for multi-layer PE-Xc/Al/PE-HD Platinum pipes.

There is possibility to order KPPR-PLAT tool set with Platinum expanding heads.

Heads for Push Platinum joints

For connections of the KAN-therm Push Platinum System use standard set of tools additionally equipped with Push Platinum heads.

Push Platinum expanding heads
– 14, 18, 25, 32 (1 piece each)



Tools - Safety

All tools must be applied and used in accordance with their purpose and the manufacturer's instructions.

Use for other purposes or in other areas are considered to be inconsistent with the intended use.

Intended use also requires compliance with the instructions, conditions of inspection and maintenance and relevant safety regulations in their current version. All works done with tools, which do not meet the application compatible with the intended purpose may result in damage to tools, accessories and pipes. The consequence may be the leak and / or damage.

Screwed connections for PE-Xc/Al/PE-HD Platinum pipes

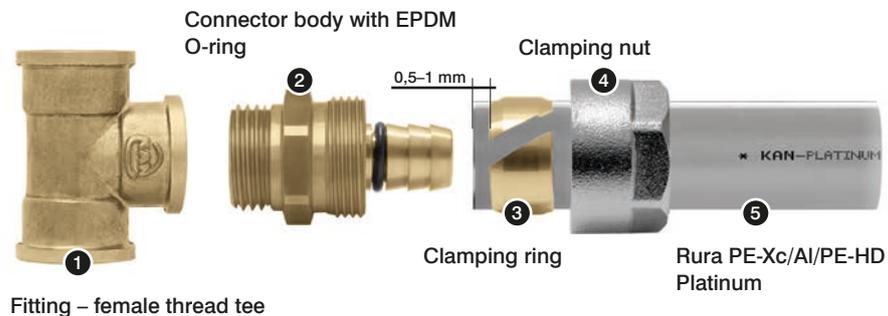
Screwed connections in System KAN-therm Push Platinum may be carried out by:

- Compression fittings for PE-Xc/Al/PE-HD Platinum pipes
- Eurocone adapters for PE-Xc/Al/PE-HD Platinum pipes

Compression fittings for PE-Xc/Al/PE-HD Platinum pipes 14–18 mm

Assembling of a screwed joint:

- 1 Screw the joint body into a fitting provided with a sealed thread.
- 2 Fit the nut and the compression ring on a pipe.
- 3 Push a pipe onto the coupling body and screw on a ring-clamping nut.



Fit a compression ring onto a pipe so that the ring edge is 0,5 - 1 mm away from the pipe edge. A pipe should be pushed to the end of the pipe connectors body. This connection may be taken apart - after the connector body is pulled out of a pipe you should cut away the used pipe end and you may create a new connection.

Do not turn a fitting on a pipe during assembly and after it and do not use any lubricants to push a pipe easier onto a fitting body.

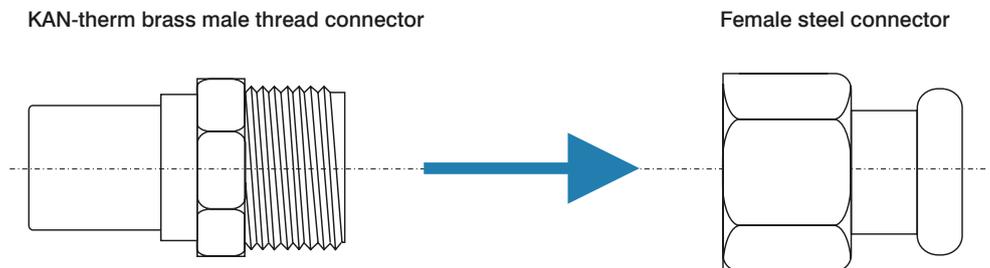
Screwed joints can be combined with:

- female threaded fittings like elbows, tees, wallplate elbows, manifolds without a nipple,
- female thread fixtures.



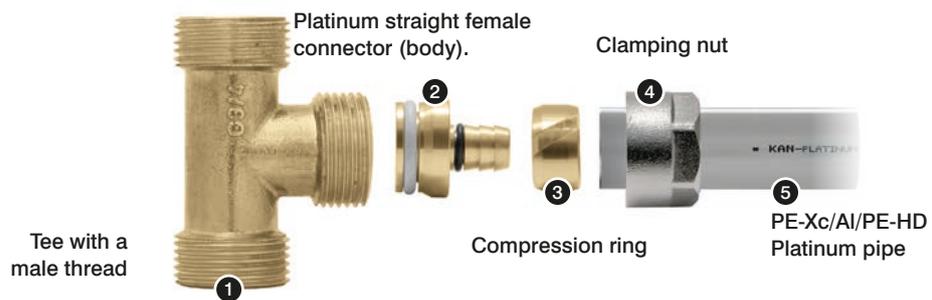
Seal these connections:

- with tow and a paste additive but in case of brass female threads do not use too much tow,
- do not combine female thread (cylindrical profile) brass couplings with male pipe threads (conical profile) as brass can crack,
- observe the rule that female thread pipe connectors and fittings should not be combined with element other than KAN-therm System pieces,
- do not embed them in a floor.



Union connection for PE-Xc/Al/PE-HD Platinum pipes 14 – 18 mm

Union connectors in the KAN-therm Push Platinum System are the only permissible form of union connections. The range of diameters for the KAN-therm Push Platinum System is 14 – 18 mm.



Push Platinum screwed joints (with a white O-Ring) for Eurocone connections can be combined with:

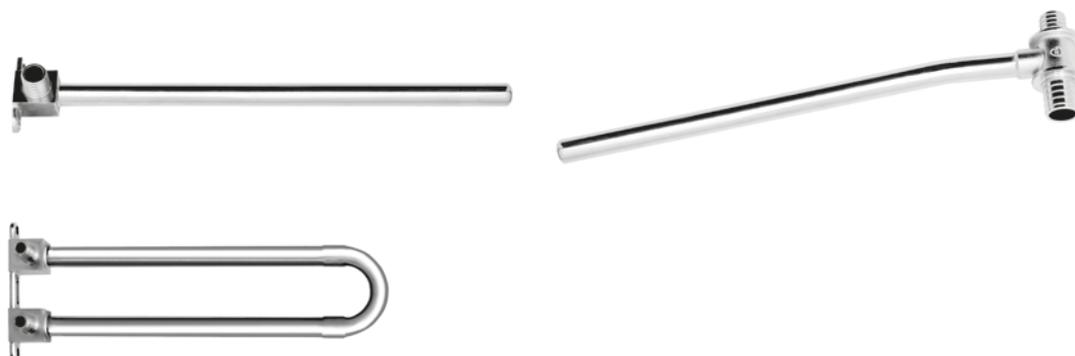
- fittings for screwed joints with a male thread (series of fittings 9012),
- manifolds equipped with special nipples,
- combined radiator valves.



Real advantage of pipe couplings is their automatic sealing after fitting. Connections of this kind are self-sealing and need no additional seal, such as Teflon tape or tow. The combinations should be located in easily available places. This kind of joints is self-sealing and no additional sealing like PTFE tape or tow should be used. Connections must be easily accessible.

Joining fittings with nickel-plated pipes with radiator fixtures

For good looks of a KAN-therm radiator connection both from a floor or a wall we offer special fittings with nickel-plated copper pipes.



Connect fixed elbows and tees with a nickel-plated pipe with radiator valves or directly with VK-type radiators via elements like:

- screwed joint for a copper pipe Ø15 G $\frac{3}{4}$ " , code 9023.08 or universal pipe joints Ø15 G $\frac{3}{4}$ " , code 9023.10,
- screwless joint for a copper pipe Ø15 G $\frac{1}{2}$ " , code K-609010,
- clamp for a copper pipe Ø15 G $\frac{1}{2}$ " , code 729202W,
- coupling body G $\frac{1}{2}$ " , code 9001.35.

All joints of this kind are self-sealing and no additional sealing is needed.

Compensation of thermal elongation

The elongation (ΔL) due to temperature ΔT change can be determined from the following formula:

$$\Delta L = \alpha \times L \times \Delta T$$

where:

α – coefficient of linear expansion [mm/mK]

L – length of pipeline section [m]

ΔT – temperature difference (assembly and operation) [K]

Required length of an flexible arm is determined from the formula:

$$L_s = K \times \sqrt{D_z \times \Delta L}$$

where:

K – material constant

D_z – external diameter [mm]

L_s – length of the elastic arm [mm]

In case a system within diameters 14-25 mm is embedded, we suggest to lay pipes in tight curves for self compensation of the pipelines thermal elongation.

System KAN-therm Push

The KAN-therm Push System is a complete system consisting of PE pipes PE-Xc or PE-RT and PPSU fittings or brass fittings within a diameter range Ø12-32 mm.



A KAN-therm Push System leak-tight joints without O-Rings are made by pushing a brass sleeve onto a fitting and a pipe. These joints do not require additional sealing like a PTFE tape or tow. Other complementing elements of the system are manifolds and installation cabinets.

The KAN-therm Push System was designed on a rule „fast assembly – permanent effect“ thus investment and finishing work can be substantially speed up.

Modern technology

The latest plastic material invention PPSU – phenylene polysulfone – used for joints ensures:

- full resistance against corrosion,
- full neutrality against potable water,
- durability of fittings higher than that of pipes,
- high mechanical strength.

The technology of making PPSU fittings practically excludes possible occurrence of hidden defects.

Technology for many years

Due to a perfect design of parts of the KAN-therm Push System and their matching merits as follows are achieved:

- over a 50-year operation life,
- possible work at high temperatures – $T_{work} = 80^{\circ}\text{C}$ (operating temperature), $T_{max} = 90^{\circ}\text{C}$ (max. temperature – the heat source must be protected against a temperature rise above that level),
- extremely durable PPSU fittings the max. operating parameters are limited by the pipe life,
- absolutely no corrosion irrespective of the water quality.

Optimum technology

The KAN-therm Push System allows for a selection of best solutions both in technical terms and cost terms as:

- Push joints can be hidden in floors,
- possible connecting with systems made of other materials,
- possible cost-saving distribution systems.

Safe technology

The KAN-therm Push System guarantees full safety of mounting and operation:

- „Push“ type fittings made of PPSU conform to PN-EN ISO 15875-3:2005 and PN-EN ISO 22391-3:2010 and obtains hygiene certificates by PZH,
- PE-RT pipes conform to PN-EN ISO 22391-2:2010 and obtains hygiene certificates by PZH,
- PE-Xc pipes conform to PN-EN ISO 15875-2:2005 and obtains hygiene certificates by PZH,
- a 10-year guarantee for the Push system.

PE-RT pipes

PE-RT pipes of the KAN-therm Push System are made of a high thermal resistance polyethylene.

Assortment of PE-RT pipes:

- PE-RT pipes with an anti-diffusion barrier EVOH, series: Ø12×2; Ø14×2; Ø18×2*; Ø18×2,5; Ø25×3,5; Ø32×4,4 do for central heating systems and hot and cold tap water systems.
- PE-RT pipes with an anti-diffusion barrier within diameters 14×2 and 18×2*, 18×2,5, 25×3,5 are available also in a 6 mm thick thermal insulation.



KAN-therm Push pipes: dimensions, application and water volumes:

OD [mm]	Wall thickness [mm]	EVOH shield	For installation	Water volume [dm ³ /m]
12	2,0	yes	c.h. / t. c.w. & h.w.	0,050
14	2,0	yes	c.h. / t. c.w. & h.w.	0,079
18*	2,0	yes	c.h. / t. c.w. & h.w.	0,154
18	2,5	yes	c.h. / t. c.w. & h.w.	0,133
25	3,5	yes	c.h. / t. c.w. & h.w.	0,254
32	4,4	yes	c.h. / t. c.w. & h.w.	0,423

The EVOH (ethylene-vinyl alcohol) coating is applied directly on the base pipe and bound with it with a layer of glue. This coating satisfies the DIN 4726 requirements.

PE-Xc pipes

KAN-therm Push System PE-Xc pipes are manufactured from a high-density polyethylene and are subjected to cross-linking with an electron beam („c” – a physical method, without using chemical agents).

Assortment of PE-Xc pipes:

- PE-Xc pipes with the EVOH anti-diffusion barrier, series Ø12×2; Ø14×2; Ø18×2*; Ø18×2,5; Ø25×3,5; Ø32×4,4 for central heating and hot and cold tap water systems.
- PE-Xc pipes with an anti-diffusion barrier with- in diameters Ø14×2 and Ø18×2*, Ø18×2,5 are available also in a 6 mm thick thermal insulation.



Dimensions of KAN-therm Push System PE-Xc pipes, their application and water volumes:

OD [mm]	Wall thickness [mm]	EVOH coating	installation	Water volume [dm³/m]
12	2,0	yes	c.h. / t. c.w. & h.w.	0,050
14	2,0	yes	c.h. / t. c.w. & h.w.	0,079
18*	2,0	yes	c.h. / t. c.w. & h.w.	0,154
18	2,5	yes	c.h. / t. c.w. & h.w.	0,133
25	3,5	yes	c.h. / t. c.w. & h.w.	0,254
32	4,4	yes	c.h. / t. c.w. & h.w.	0,423

The EVOH (ethylene-vinyl alcohol) coating is applied directly on the base pipe and bound with it with a layer of glue. This coating satisfies the DIN 4726 requirements.

PE-RT and PE-Xc pipes operating parameters

PE-RT pipes acc. to PN-EN ISO 22391-2:2010 and PE-Xc pipes acc. to PN-EN ISO 15875-2:2004: Operating parameters:

Installation and application class (acc. to ISO 10508)	Nominal diameter [mm]	Wall thickness [mm]	EVOH coating	Operating parameters			Connection type	
				P _{work} [bar]		T _{work} /T _{max} [°C]	Push	Screwed
				PE-Xc	PE-RT			
Cold tap water	12	2	yes	10	10	20	+	+
	14	2	yes	10	10	20	+	+
	18	2,5	yes	10	10	20	+	+
	25	3,5	yes	10	10	20	+	+
	32	4,4	yes	10	10	20	+	+
Hot tap water (class 1)	12	2	yes	10	10	60/80	+	+
	14	2	yes	10	10	60/80	+	+
	18	2,5	yes	10	10	60/80	+	+
	25	3,5	yes	10	10	60/80	+	+
	32	4,4	yes	10	10	60/80	+	+
Hot tap water (class 2)	12	2	yes	10	10	70/80	+	+
	14	2	yes	10	10	70/80	+	+
	18	2,5	yes	10	10	70/80	+	+
	25	3,5	yes	10	10	70/80	+	+
	32	4,4	yes	10	10	70/80	+	+

Installation and application class (acc. to ISO 10508)	Nominal diameter [mm]	Wall thickness [mm]	EVOH coating	Operating parameters			Connection type	
				P _{work} [bar]		T _{work} /T _{max} [°C]	Push	Screwed
				PE-Xc	PE-RT			
Underfloor heating, low temperature radiator heating (class 4)	12	2	yes	10	10	60/70	+	+
	14	2	yes	10	10	60/70	+	+
	18*	2	yes	10	8	60/70	+	+
	18	2,5	yes	10	10	60/70	+	+
	25	3,5	yes	10	10	60/70	+	+
	32	4,4	yes	10	10	60/70	+	+
Radiator heating (class 5)	12	2	yes	10	10	80/90	+	+
	14	2	yes	10	8	80/90	+	+
	18*	2	yes	8	6	80/90	+	+
	18	2,5	yes	10	8	80/90	+	+
	25	3,5	yes	10	8	80/90	+	+
	32	4,4	yes	10	8	80/90	+	+

Working temperature, $T_{rob'}$ in individual classes should be treated as design temperature, and the maximum temperature, $T_{max'}$ as the temperature against which all installations should be protected.

PE-RT and PE-Xc pipes: Physical properties

Property	Symbol	Unit	PE-Xc	PE-RT
Linear extension coefficient	α	mm/m × K	0.14 (20 °C) 0.20 (100 °C)	0.18
Thermal conductivity	λ	W/m × K	0.35	0.41
Density	ρ	g/cm ³	0.94	0.933
Module E	E	N/mm ²	600	580
Tensile stretch		%	400	1000
Minimum bend radius	R _{min}		5 × D	5 × D
Internal wall roughness	k	mm	0.007	0.007

Transport and storage

PE-RT and PE-Xc pipes are delivered in coils 25, 50, 200 m in carton packages. They can be stored at different temperatures also below 0°C. As these pipes are sensitive to UV radiation protect them against a long-term sun radiation.

Contact with substances containing solvents, sealing the threads

Avoid direct contact of KAN-therm elements with solvents or solvent-containing materials, such as paints, aerosols, montage foams, adhesives, etc. Under unfavorable circumstances, these substances may damage plastic parts. Make sure that the connection sealants, cleaners or insulation of System KAN-therm components, do not contain compounds that cause stress cracks: ammonia, ammonia retaining compounds, solvents, aromatic or chlorinated hydrocarbons (e.g., ketones and ethers). Do not use montage foams based on methacrylate and acrylate isocyanate.

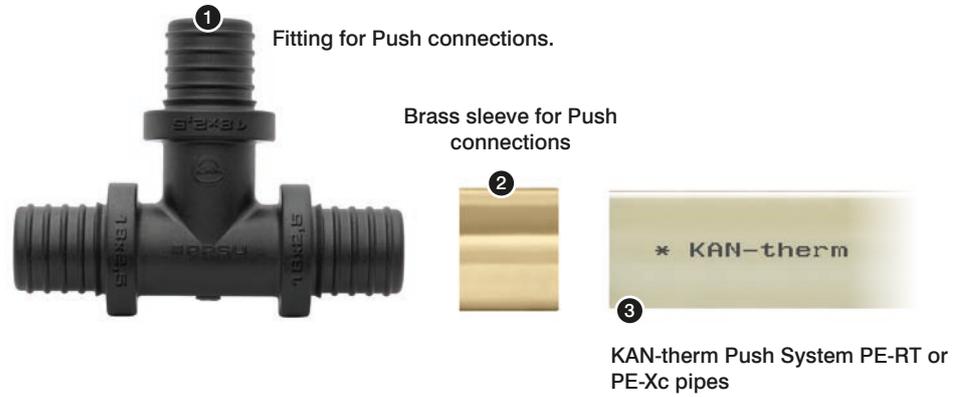
For the threaded connections it is recommended to use hemp in an amount such that the tops of the thread are still visible. Using too much hemp may damage the thread. Winding hemp just after first turn of the thread helps to avoid diagonal screwing and thread damage.

! CAUTION!

Do not use chemical sealants and adhesives.

Push connections

A Push type connection is made by pushing a brass sleeve onto a pipe and a fitting with the help of a hand, hydraulic or battery-driven machine.



Fittings for Push connections:



- elbows and tees,
- elbows, tees and other fittings with nickel-plated pipes Ø15mm,
- connectors, screwed couplings, male thread and female thread connectors,
- wallplate elbows,
- other fittings.

Brass sleeve for Push connections:



Assembly of Push connections

1. Cut a PE-RT or PE-Xc pipe to a required length with scissors. A cut shall be perpendicular to the pipe axis. For cutting use only sharp blades.

2. Put the sleeve onto the pipe with its chamfered end toward the fitting. Select the sleeve appropriately to the pipe diameter



3. Expand the pipe with a hand or electric expanding tool. In both cases use the expanding tool in three stages. First two expansions not full, with rotation of expanding tool through 30° and 15° against the pipe. The third expansion is full.

4. Insert the fitting into a pipe up to the last bead on the fitting.



To eliminate the excessive overload on fittings by bending force, it is not recommended to bend pipes at a distance less than 10 external diameters from the fitting.

There is possibility of performing Push connections at temperatures below 0°C under additional conditions given in KAN-therm System Designers and Contractors guide.

5. Slide the sleeve with a hand/hydraulic or electric machine Grip fittings only at their flange. Do not slide two sleeves at the same time!

6. Observe assembling process - after sliding the sleeve up to fittings flange, the whole process should be stopped. The connection is ready for pressure test.

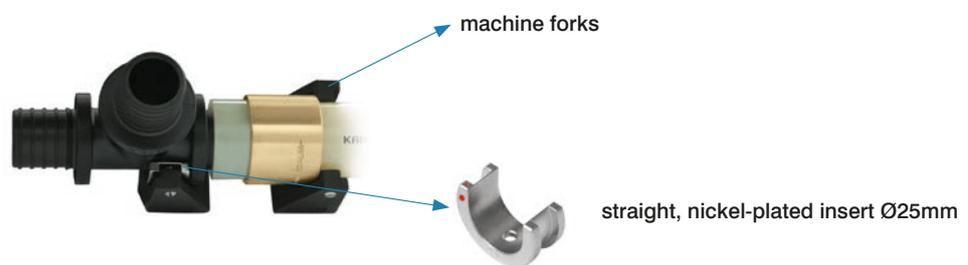


! CAUTION!

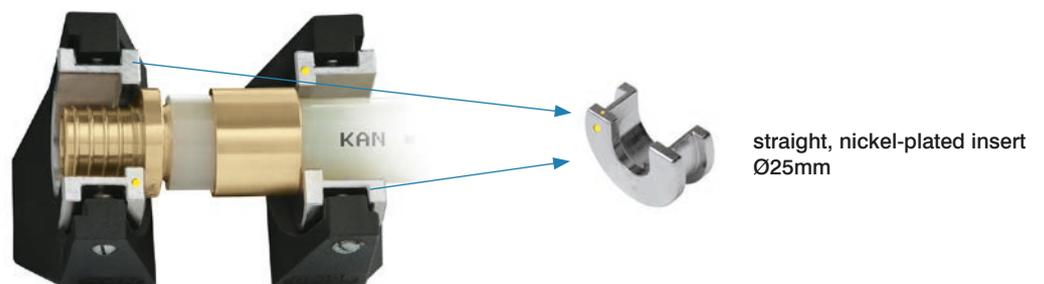
- 1** For assembly of PPSU plastic fittings on the fitting side you must use black inserts marked T (12, 14, 18 or 25), and on the sleeve side straight, nickel-plated inserts. A PPSU fitting must be supported at the collar directly next to the stub pipe you push the sleeve onto.



- 2** When assembling a PPSU fitting dia. 32 mm insert at the fitting end a straight nickel-plated insert. dia. 25 mm, and on the sleeve side empty machines fork.



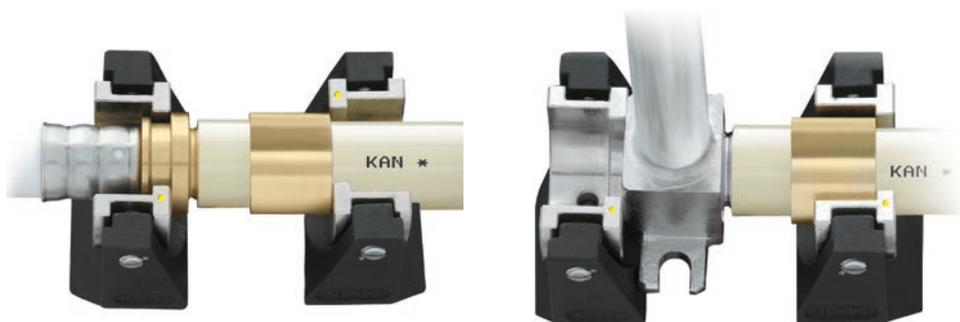
- 3** Brass elements are assembled using straight, nickel-plated inserts



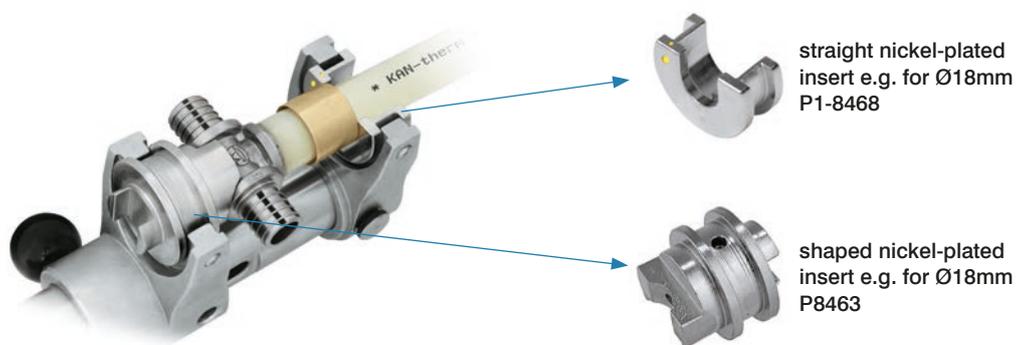
- 4** For screwed joints Ø 32 mm apply only machine forks without inserts.



- 5 For assembly of other brass elements e.g. threaded couplings, wallplate elbows (excluding angle wallplate elbows) and connection pieces to radiators use nickel-plated inserts marked: P1-8471, P1-8469, P1-8468, P1-8467.



- 6 For brass tees (stub pipes at branches) Ø14, 18, 25 mm at the side of fittings use nickel-plated shaped inserts marked: P8465, P8463, P8468, P8464. At the sleeve side use nickel-plated straight inserts.



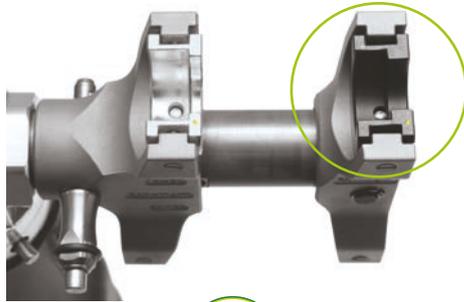
- 7 For brass, angle wallplate elbows Ø18 mm use at the fitting side a nickel-plated insert marked P8470. At the sleeve side use a nickel-plated straight insert.



! CAUTION!

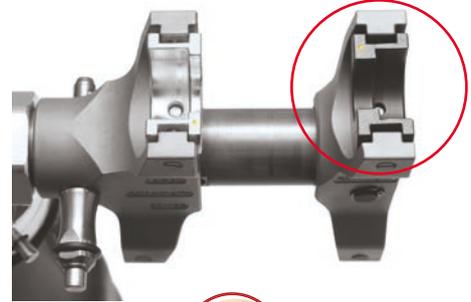
The above presented shape inserts for brass fittings are not a standard part of tool sets; they should be ordered separately.

Novopress tool (battery driven)



Correct way of mounting inserts on machine forks.

Diameter range 14 do 25 mm.



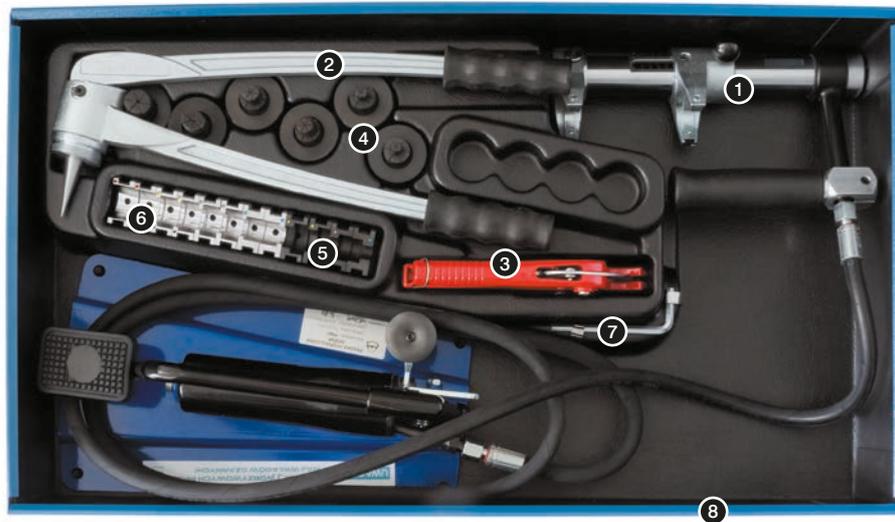
Incorrect way of mounting inserts on machine forks.

Diameter range 12 do 25 mm.

Tools for Push connections

Set – foot driven hydraulic tool

- 1. foot driven hydraulic tool
- 2. expanding tool for pipes
- 3. scissors for PE-RT and PE-Xc pipes
- 4. set of heads for the expanding tool (12×2; 14×2; 18×2; 18×2.5; 25×3.5; 32×4.4) – only for pipes PE-RT and PE-Xc
- 5. set of inserts for PPSU fittings
- 6. set of inserts for brass fittings or sleeves (T12, T14; T18; T25) – 2 pieces each
- 7. hexagonal key
- 8. case



Set – hand tool

1. hand chain machine
2. expanding tool for pipes
3. scissors for pipes
4. set of expanding heads: KPPR-PUSH (12x2,0; 14x2,0; 18x2,0; 18x2,5; 25x3,5; 32x4,4 for PE-RT & PE-Xc pipes) or KPPR-PLAT (14x2,0; 18x2,5; 25x3,5; 32x4,4 for Platinum pipes)
5. set of inserts for sleeves 12, 14, 18, 25 (2 piece each)
6. set of inserts for PPSU fittings (T12, T14; T18; T25) – 1 piece each
7. two pairs of forks for connections of a dia.12-18 mm and 25-32 mm
8. case



Set – expanding tool and a battery-driven tool for Push 12-32 mm connections

1. Battery driven tool AAP101/ AAP102 - 1 pcs.
2. Battery driven expanding tool AXI101/AXI102 - 1 pcs.
3. Battery 9,6V 3,0Ah or 12V 1,5Ah (standard) - 2 pcs.
4. Charger - 1 pcs.
5. Case - 1 pcs.
6. Box for inserts - 1 pcs.
7. Black inserts (for PPSU fittings) 12x2, 14x2, 18x2 (18x2,5), 25x3,5 (1 pcs. each)
8. Inserts (for brass fittings and sleeves) 12x2, 14x2, 18x2, 18x2,5, 25x3,5 (2 pcs each.).
9. Expanding head - 12x2, 14x2, 18x2, 18x2,5, 25x3,5, 32x4,4 (1 pcs. each) – only for PE-RT and PE-Xc pipes.



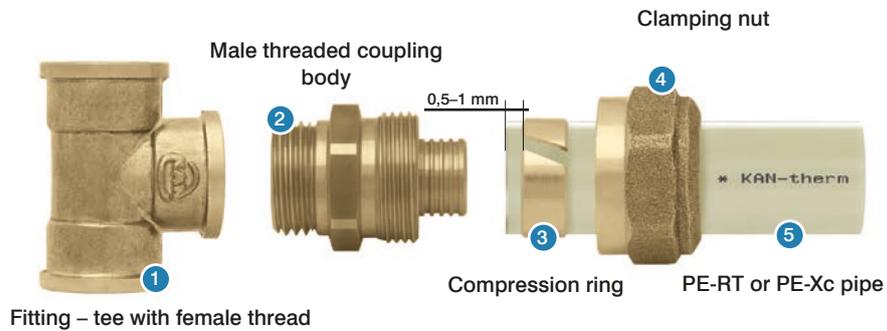
Tools - Safety

All tools must be applied and used in accordance with their purpose and the manufacturer's instructions. Use for other purposes or in other areas are considered to be inconsistent with the intended use. Intended use also requires compliance with the instructions, conditions of inspection and maintenance and relevant safety regulations in their current version. All works done with tools, which do not meet the application compatible with the intended purpose may result in damage to tools, accessories and pipes. The consequence may be the leak and / or damage.

Screwed joints for PE-RT and PE-Xc – Ø12-32 mm

Assembling of a screwed joint:

- 1 Screw the joint body into a fitting provided with a sealed thread.
- 2 Fit the nut and the compression ring on a pipe.
- 3 Push a pipe onto the coupling body and screw on a ring-clamping nut.



Fit a compression ring onto a pipe so that the ring edge is 0,5 - 1 mm away from the pipe edge. A pipe should be pushed to the end of the pipe connectors body. This connection may be taken apart - after the connector body is pulled out of a pipe you should cut away the used pipe end and you may create a new connection.

Do not turn a fitting on a pipe during assembly and after it and do not use any lubricants to push a pipe easier onto a fitting body.

Screwed joints can be combined with:

- female threaded fittings like elbows, tees, wallplate elbows, manifolds without a nipple,
- female thread fixtures.

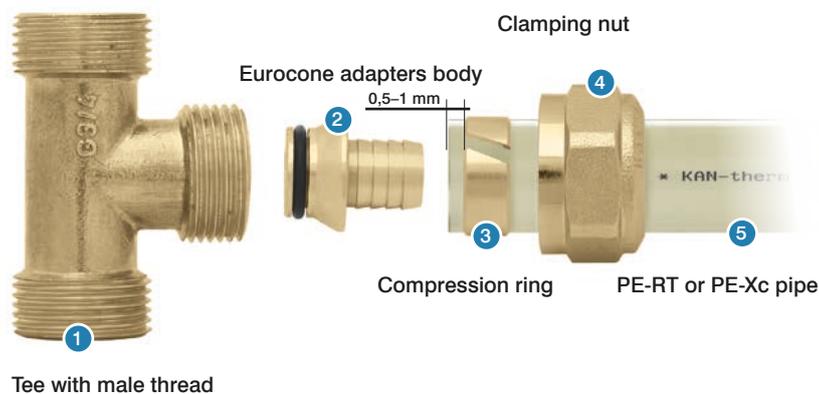


Connections of this type should not be laid in the flooring.

It is advised to seal threaded connections with such an amount of tow, that leaves the thread tops not covered. Using too much tow may lead to thread damage. By winding tow just after the first thread ridge you can avoid skew screwing and damaging the thread.

Eurocone adapters for PE-RT and PE-Xc - Ø12-25 mm pipes

Eurocone adapters are a version of screwed joints.



The main element of such connections is an eurocone adapter body with a sealing O-Ring between a body and a fitting. Eurocones combine with:

- a 9012 series fittings with male threads,
- manifolds with special nipples,
- combined radiator valves.



Eurocone adapters are characteristic for a sealing on the cone and an O-Ring between body and a fitting. This kind of joints is self-sealing and no additional sealing element like a PTFE tape or tow shall be used. Locate such connections at generally accessible places.

Joining fittings with nickel-plated pipes with radiator fixtures



For good looks of a KAN-therm radiator connection both from a floor or a wall we offer special fittings with nickel-plated copper pipes.

Connect fixed elbows and tees with a nickel-plated pipe with radiator valves or directly with VK-type radiators via elements like:

- screwed joint for a copper pipe $\text{Ø}15 \text{ G}\frac{3}{4}$ ", code 9023.08 or universal pipe joints $\text{Ø}15 \text{ G}\frac{3}{4}$ ", code 9023.10
- screwed joint for a copper pipe $\text{Ø}15 \text{ G}\frac{1}{2}$ ", code K-609010,
- clamp for a copper pipe $\text{Ø}15 \text{ G}\frac{1}{2}$ ", code 729202W,
- coupling body $\text{G}\frac{1}{2}$ ", code 9001.35.

All joints of this kind are self-sealing and no additional sealing is needed.

System **KAN-therm** Push/ Push Platinum - assortment

multilayer pipe PE-Xc/Al/PE-HD Push Platinum

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
14×2		0.1420	200/3000	m	
18×2,5		0.1825	200/3000	m	
25×3,5		0.2535	50/750	m	
32×4,4		0.3244	25/375	m	



pipe PE-Xc with EVOH layer acc. DIN 4726

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
12×2		0.2144	200/4000	m	
14×2		0.2145	200/4000	m	
18×2,5		0.9119	200/3000	m	
25×3,5		0.9127	50/1000	m	
32×4,4		0.9133	25/500	m	



pipe PE-Xc with EVOH layer acc. DIN 4726 in a bar

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
32×4,4		0.9135	5/50	m	



pipe PE-Xc with EVOH layer acc. DIN 4726 - in 6 mm thermal insulation

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
12×2 red		0.2144-6C	50/750	m	
12×2 blue		0.2144-6N	50/750	m	
14×2 red		0.2145-6C	50/750	m	
14×2 blue		0.2145-6N	50/750	m	
18×2,5 red		0.9119-6C	50/750	m	
18×2,5 blue		0.9119-6N	50/750	m	



pipe PE-RT with EVOH layer acc. DIN 4726

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
12×2		0.2174	200/4000	m	
14×2		0.2175	200/4000	m	
18×2,5		0.2177	200/3000	m	
25×3,5		0.9226	50/1000	m	
32×4,4		0.9228	25/500	m	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

pipe PE-RT with EVOH layer acc. DIN 4726 - in 6 mm thermal insulation

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
14×2 red		0.2175-6C	50/750	m	
14×2 blue		0.2175-6N	50/750	m	
18×2,5 red		0.2177-6C	50/750	m	
18×2,5 blue		0.2177-6N	50/750	m	
25×3,5 red	*	0.9226-6C	25/375	m	
25×3,5 blue	*	0.9226-6N	25/375	m	



Push brass connector, with flange, with male thread

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2 G½"		9014.580	10/150	pc	
14×2 G½"		9006.37K	10/150	pc	
18×2,5 G½"		9006.39K	10/150	pc	
18×2,5 G¾"		9006.90K	10/150	pc	
25×3,5 G½"		9014.98	10/100	pc	
25×3,5 G¾"		9014.220	10/100	pc	
25×3,5 G1"		9014.200	5/70	pc	
32×4,4 G1"		9019.030	5/50	pc	



Push connector PPSU, with flange, with female thread

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14×2 G½"		9019.47	10/120	pc	
18×2,5 G½"		9019.46	10/120	pc	



Push brass connector, with flange, with female thread

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2 G½"		9014.590	10/150	pc	
14×2 G½"		9014.270	10/150	pc	
18×2,5 G½"		9014.290	10/150	pc	
18×2,5 G¾"		9014.380	10/120	pc	
25×3,5 G½"		9014.400	10/100	pc	
25×3,5 G¾"		9014.300	5/70	pc	
32×4,4 G1"		9019.040	5/50	pc	



PPSU Push coupling

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14×2 / 14×2		9019.23	20/200	pc	
18×2,5 / 18×2,5		9019.26	20/160	pc	
25×3,5 / 25×3,5		9019.28	10/100	pc	
18×2,5 / 14×2		9019.27	20/200	pc	
25×3,5 / 18×2,5		9019.30	10/100	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Push coupling, reducing

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2 / 12×2		9014.610	50/700	pc	
14×2 / 14×2	***	9006.06	50/500	pc	
32×4,4 / 32×4,4		9019.050	5/60	pc	
14×2 / 12×2		9016.250	50/500	pc	
18×2,5 / 12×2		9006.04	20/400	pc	
18×2,5 / 14×2	***	9019.130	20/400	pc	
25×3,5 / 18×2,5	***	9006.11CN	20/200	pc	
32×4,4 / 25×3,5		9019.120	5/70	pc	



brass coupling Push - service element

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 / 18×2,5		9006.12KPL	1/50	pc	

Caution:

Coupling allows for connecting diameter 18x2, 5 to the existing installation made in the diameter 18x2,0. Connector includes two System KAN-therm Push sliding sleeves in diameter 18 mm (code 9001.80).



Push tee PPSU

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2 / 12×2 / 12×2		9014.650	20/200	pc	
14×2 / 14×2 / 14×2		9018.250	10/100	pc	
18×2,5 / 18×2,5 / 18×2,5		9018.020	10/80	pc	
25×3,5 / 25×3,5 / 25×3,5		9018.030	5/40	pc	
32×4,4 / 32×4,4 / 32×4,4		9018.69	2/20	pc	
14×2 / 12×2 / 12×2		9014.570	20/200	pc	
14×2 / 12×2 / 14×2		9014.560	20/200	pc	
14×2 / 18×2,5 / 14×2		9018.650	10/100	pc	
18×2,5 / 14×2 / 14×2		9018.730	10/80	pc	
18×2,5 / 14×2 / 18×2,5		9018.720	10/80	pc	
18×2,5 / 25×3,5 / 18×2,5		9018.240	5/40	pc	
25×3,5 / 14×2 / 18×2,5		9018.760	5/40	pc	
25×3,5 / 14×2 / 25×3,5		9018.740	5/40	pc	
25×3,5 / 18×2,5 / 18×2,5		9018.070	5/40	pc	
25×3,5 / 18×2,5 / 25×3,5		9018.080	5/40	pc	
32×4,4 / 18×2,5 / 25×3,5		9018.510	2/20	pc	
32×4,4 / 18×2,5 / 32×4,4		9018.530	2/20	pc	
32×4,4 / 25×3,5 / 25×3,5		9018.500	2/20	pc	
32×4,4 / 25×3,5 / 32×4,4		9018.520	2/20	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Push brass tee

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14×2 / 14×2 / 14×2	***	9006.16B	20/200	pc	
18×2,5 / 18×2,5 / 18×2,5	***	9006.18B	10/150	pc	
25×3,5 / 25×3,5 / 25×3,5	***	9006.20B	5/60	pc	
18×2,5 / 12×2 / 12×2		9013.580	10/120	pc	
18×2,5 / 12×2 / 14×2		9013.660	10/120	pc	
18×2,5 / 12×2 / 18×2,5		9013.620	10/120	pc	
25×3,5 / 12×2 / 18×2,5		9013.38	5/60	pc	
25×3,5 / 12×2 / 25×3,5		9013.40	5/60	pc	
25×3,5 / 14×2 / 25×3,5	***	9013.42B	5/60	pc	
25×3,5 / 18×2,5 / 18×2,5	***	9006.67B	5/60	pc	
25×3,5 / 18×2,5 / 25×3,5	***	9006.66B	5/60	pc	
25×3,5 / 32×4,4 / 25×3,5		9013.720	2/20	pc	
32×4,4 / 14×2 / 32×4,4		9006.680	2/20	pc	



N

Push crossing pair single

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14×2 / 14×2 / 14×2		9019.32	1/6	pc	

Caution:

Brass nickel plated version with polystyrene insulation. Not suitable for potable water installations.



Push elbow PPSU

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14×2 / 14×2		9018.170	20/300	pc	
18×2,5 / 18×2,5		9018.190	20/160	pc	
25×3,5 / 25×3,5		9018.200	5/60	pc	
32×4,4 / 32×4,4		9018.560	5/30	pc	



Push brass elbow

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2 / 12×2		9006.09	20/400	pc	
14×2 / 14×2	***	9006.11B	20/400	pc	
18×2,5 / 18×2,5	***	9006.13B	20/200	pc	
25×3,5 / 25×3,5	***	9006.15B	10/80	pc	



N

Push brass elbow, with male thread

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14×2 / 15Cu - G1/2"		9029.12	20/200	pc	
18×2,5 / 15Cu - G1/2"		9029.11	20/200	pc	

Caution:

To connect these male elbows to copper pipes use eurocone adapter for copper pipe Ø15, G1/2", code K-609010.



coupling for radiator connection with multilayer pipe, L_{min} = 500 mm

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / 14×2		9027.160	50	pc	
16×2 / 18×2,5		9027.180	50	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

fixed elbow for radiator connection with dia 15 copper pipe, nickel plated

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2 L _{min} = 210 mm		9016.230	60	pc	
12×2 L _{min} = 300 mm		9016.110	40	pc	
12×2 L _{min} = 750 mm		9016.27	25	pc	
14×2 L _{min} = 210 mm		9014.450	60	pc	
14×2 L _{min} = 300 mm		9016.000	50	pc	
14×2 L _{min} = 750 mm		9016.010	25	pc	
18×2,5 L _{min} = 210 mm		9015.230	60	pc	
18×2,5 L _{min} = 300 mm		9016.020	40	pc	
18×2,5 L _{min} = 750 mm		9016.030	25	pc	

Caution:

Various connection options for the fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



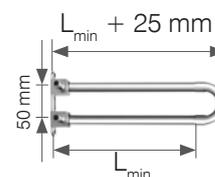
double fixed elbow for radiator connection with dia 15 copper pipe, nickel plated

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2 L _{min} = 200 mm		9016.240	20	pc	
14×2 L _{min} = 200 mm		9014.460	20	pc	
14×2 L _{min} = 300 mm		9015.250	15	pc	
18×2,5 L _{min} = 200 mm		9015.240	20	pc	
18×2,5 L _{min} = 300 mm		9015.270	10	pc	

Caution:

Various connection options for the fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



tee for radiator connection with dia 15 copper pipe, L_{min} = 300 mm, nickel plated

GROUP: A

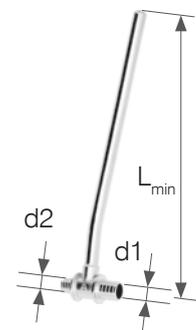
Size	*	Code	Packing	JM	Price EUR/JM
12×2 / 12×2		9013.49	50	pc	
14×2 / 14×2		9013.14	50	pc	
18×2,5 / 18×2,5		9006.310	50	pc	
25×3,5 / 25×3,5		9003.700	40	pc	
32×4,4 / 32×4,4		9019.150	25	pc	

Caution:

All fittings are nickel plated.

Use RH and LH reduction tees to connect radiators. RH tee identification: looking at bigger diameter the copper pipe bow should be at the right side. Drawing shows LH reduction tee.

Various connection options for the fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



**Push reducing tee for radiator connection with dia 15 copper pipe,
L_{min} = 300 mm, nickel plated**

GROUP: A

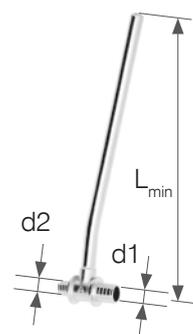
Size	*	Code	Packing	JM	Price EUR/JM
14×2 / 12×2 left		9013.480	50	pc	
14×2 / 12×2 right		9013.470	50	pc	
18×2.5 / 12×2 left		9013.560	50	pc	
18×2.5 / 12×2 right		9013.550	50	pc	
18×2.5 / 14×2 left		9013.500	50	pc	
18×2.5 / 14×2 right		9013.510	50	pc	
25×3.5 / 18×2.5 left		9013.270	40	pc	
25×3.5 / 18×2.5 right		9013.280	40	pc	
32×4.4 / 25×3.5 left		9019.090	30	pc	
32×4.4 / 25×3.5 right		9019.100	30	pc	

Caution:

All fittings are nickel plated.

Use RH and LH reduction tees to connect radiators. RH tee identification: looking at bigger diameter the copper pipe bow should be at the right side. Drawing shows LH reduction tee.

Various connection options for the fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



Push brass tee with copper pipe Ø15 nickel plated, L_{min} = 750 mm

GROUP: A

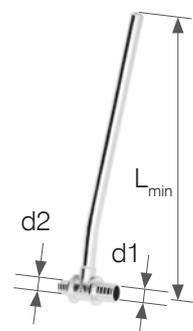
Size	*	Code	Packing	JM	Price EUR/JM
12×2 / 12×2		9013.13	25	pc	
14×2 / 14×2		9013.15	25	pc	
18×2,5 / 18×2,5		9006.320	25	pc	
25×3,5 / 25×3,5		9003.710	15	pc	
32×4,4 / 32×4,4		9019.160	10	pc	

Caution:

All fittings are nickel plated.

Use RH and LH reduction tees to connect radiators. RH tee identification: looking at bigger diameter the copper pipe bow should be at the right side. Drawing shows LH reduction tee.

Various connection options for the fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



**Push reducing tee for radiator connection with dia 15 copper pipe,
L_{min} = 750 mm, nickel plated**

GROUP: A

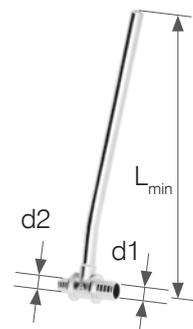
Size	*	Code	Packing	JM	Price EUR/JM
14×2 / 12×2 left		9013.460	25	pc	
14×2 / 12×2 right		9013.440	25	pc	
18×2.5 / 14×2 left		9013.520	25	pc	
18×2.5 / 14×2 right		9013.530	25	pc	
25×3.5 / 18×2.5 left		9013.290	20	pc	
25×3.5 / 18×2.5 right		9013.300	20	pc	
32×4.4 / 25×3.5 left		9019.110	15	pc	
32×4.4 / 25×3.5 right		9019.140	15	pc	

Caution:

All fittings are nickel plated.

Use RH and LH reduction tees to connect radiators. RH tee identification: looking at bigger diameter the copper pipe bow should be at the right side. Drawing shows LH reduction tee.

Various connection options for the fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Push PPSU wallplate elbow with short plastic plug

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2 G½"		9017.340	5/60	pc	
14×2 G½"		9017.000	5/60	pc	
18×2,5 G½"		9017.020	5/60	pc	

Caution:

PPSU Wallplate elbow is sold with M8 nut and short plastic plug in a set.
Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently.
Sealing compounds like adhesives which are chemical aggressive should not be used.
To seal the thread use tow with sealing compound (avoid using excessive amount of tow).



Push wallplate elbow with short plastic plug

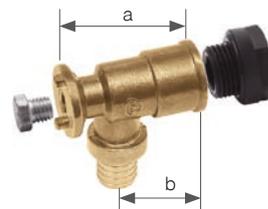
GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14×2 G½" (K)		9017.030	5/70	pc	
18×2,5 G½" (K)		9017.050	5/70	pc	
18×2,5 G½" (D)		9017.070	5/60	pc	

(K) short version: a = 41 mm; b = 20 mm
(D) long version: a = 52,5 mm; b = 31,5 mm

Caution:

To fix the wallplate elbow to the wall use the mounting plate. Battery connections can be used in central heating systems in connections of a radiator with wall outputs (by cables in a wall chase) by angle valve.
Brass Wallplate elbow is sold with fixing bolt and short plastic plug in a set.
Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently



Push wallplate angle elbow with short plastic plug

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2,5 / 18×2,5 G½"		9017.090	5/60	pc	

Caution:

To fix the wallplate elbow to the wall use the mounting plate.
To seal the thread use tow with sealing compound (avoid using excessive amount of tow).
Sealing compounds like adhesives which are chemical aggressive should not be used.
Brass Wallplate elbow is sold with fixing bolt and short plastic plug in a set.
Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently.



Push brass wallplate elbow

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
25×3,5 G¾"		9017.350	2/30	pc	

Caution:

To seal the thread use tow with sealing compound (avoid using excessive amount of tow).
Sealing compounds like adhesives which are chemical aggressive should not be used.



Push stop end cup

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2		9019.39	50/500	pc	
14×2		9019.40	50/500	pc	
18×2,5		9019.42	20/200	pc	
25×3,5		9019.43	10/150	pc	
32×4,4		9019.44	5/60	pc	



plastic plug for pressure test - short - service part

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G½"		6095.33	20/300	pc	

Caution:

Plastic plug is meant only to carry out tightness testing of the installation.
The plug has its own sealing (O-ring).



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

mounting bolt - service part

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
		K-505100	100/2000	pc	

Caution:

Use for wallplate elbow and tee to fix to the mounting plate.



Push sliding sleeve

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2A		9014.490	50/700	pc	
14×2A		9006.01	50/700	pc	
18×2A / 18×2,5A		9001.80	50/500	pc	
25×3,5A		9006.78	20/200	pc	
32×4,4A		9019.07	10/100	pc	

Caution:

When assembling Push connections use assembly tools for PE-RT and PE-Xc pipes with appropriate inserts (purchase or rental of tools available in KAN branches).



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

System **KAN-therm** Push - diameter 18×2,0

pipe PE-Xc with EVOH layer acc. to DIN 4726

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
18×2		0.2148	200/3000	pc	



pipe PE-Xc with EVOH layer acc. to DIN 4726 - in 6 mm thermal insulation

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
18×2 red		0.2148-6C	50/750	pc	
18×2 blue		0.2148-6N	50/750	pc	



pipe PE-RT with EVOH layer acc. to DIN 4726

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
18×2		0.2178	200/3000	pc	



pipe PE-RT with EVOH layer acc. to DIN 4726 - in 6 mm thermal insulation

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
18×2 red		0.2178-6C	50/750	m	
18×2 blue		0.2178-6N	50/750	m	



Push brass connector, with flange, with male thread

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 G½"		9006.89K	10/150	pc	
18x2 G¾"		9006.50K	10/150	pc	



Push PPSU straight female connector

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 G½"		9019.31	10/120	pc	



Push brass connector, with flange, with female thread

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 G½"		9014.280	10/150	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Push PPSU coupling

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 / 18×2		9019.24	20/160	pc	
18×2 / 14×2		9019.25	20/200	pc	
25×3,5 / 18×2		9019.29	10/100	pc	



Push reducing coupling

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 / 12×2		9016.260	20/400	pc	
25×3,5 / 18×2	***	9023.06	20/200	pc	



Caution:

This coupler is used for repair purposes (re-boring faults) as well as for joining of long pipe sections.

Push PPSU tee

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 / 18×2 / 18×2		9018.010	10/80	pc	
14×2 / 18×2 / 14×2		9018.700	10/100	pc	
18×2 / 14×2 / 14×2		9018.220	10/80	pc	
18×2 / 14×2 / 18×2		9018.210	10/80	pc	
18×2 / 25×3,5 / 18×2		9018.230	5/40	pc	
25×3,5 / 14×2 / 18×2		9018.750	5/40	pc	
25×3,5 / 18×2 / 18×2		9018.050	5/40	pc	
25×3,5 / 18×2 / 25×3,5		9018.060	5/40	pc	
32×4,4 / 18×2 / 25×3,5		9018.540	2/20	pc	
32×4,4 / 18×2 / 32×4,4		9018.550	2/20	pc	



Push brass tee

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14×2 / 18×2 / 14×2	***	9013.39B	10/150	pc	
18×2 / 12×2 / 12×2		9013.570	10/120	pc	
18×2 / 12×2 / 14×2		9013.640	10/120	pc	
18×2 / 12×2 / 18×2		9013.600	10/120	pc	
18×2 / 14×2 / 14×2	***	9013.10B	10/150	pc	
18×2 / 14×2 / 18×2	***	9013.11B	10/150	pc	
18×2 / 18×2 / 14×2		9013.70	10/100	pc	
18×2 / 25×3,5 / 18×2	***	9013.12B	5/60	pc	
25×3,5 / 12×2 / 18×2		9013.36	5/60	pc	
25×3,5 / 14×2 / 18×2	***	9013.43B	5/60	pc	
25×3,5 / 18×2 / 18×2	***	9006.22B	5/60	pc	
25×3,5 / 18×2 / 25×3,5	***	9006.21B	5/60	pc	



Push crossing pair single

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 / 18×2 / 18×2		9019.33	1/6	pc	
18×2 / 14×2 / 14×2		9019.34	1/6	pc	
18×2 / 14×2 / 18×2		9019.35	1/6	pc	
14×2 / 14×2 / 18×2		9019.36	1/6	pc	

Caution:

Brass nickel plated version. Not suitable for potable water installations.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Push brass tee, with male thread

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 / 15Cu - G½"		9006.64B	10/120	pc	

Caution:

To connect these male tees to copper pipes use eurocone adapter for copper pipe Ø15, G½", code K-609010..



Push PPSU elbow

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 / 18×2		9018.180	20/160	pc	



Push brass male elbow (for connecting copper pipes Ø15)

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 / 15Cu - G½"		9006.65B	20/200	pc	

Caution:

To connect these male tees to copper pipes use eurocone adapter for copper pipe Ø15, G½", code K-609010.



Push tee for radiator connection with dia 15 copper pipe, L_{min} = 300 mm, nickel plated

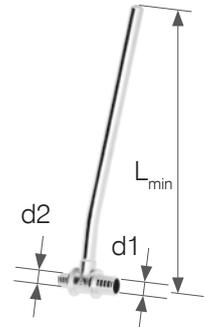
GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 / 18×2		9001.770	50	pc	

Caution:

All fittings are nickel plated.

Use tees to connect radiators. Various connection options for the fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



Push reducing tee for radiator connection with dia 15 copper pipe, L_{min} = 300 mm, nickel plated

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 / 14×2 left		9013.16	60	pc	
18×2 / 14×2 right		9013.17	50	pc	
25×3.5 / 18×2 left		9003.130	40	pc	
25×3.5 / 18×2 right		9003.720	40	pc	

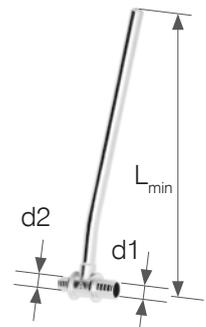
Caution:

All fittings are nickel plated.

Use RH and LH tees to connect radiators. RH tee identification: looking at bigger diameter the copper pipe bow should be at the right side.

Drawing shows LH tee.

Various connection options for the fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



Push tee for radiator connection with dia 15 copper pipe, L_{min} = 750 mm, nickel plated

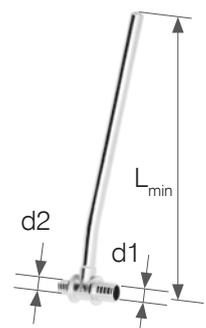
GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 / 18×2		9001.830	25	pc	

Caution:

All fittings are nickel plated.

Use tees to connect radiators. Various connection options for the fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

**Push reducing tee for radiator connection with dia 15 copper pipe,
L_{min} = 750 mm, nickel plated**

GROUP: A

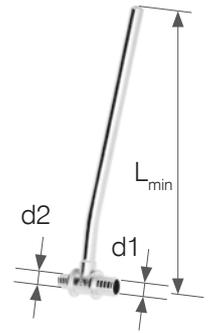
Size	*	Code	Packing	JM	Price EUR/JM
18×2 / 14×2 left		9013.18	25	pc	
18×2 / 14×2 right		9013.19	25	pc	
25×3.5 / 18×2 left		9003.140	20	pc	
25×3.5 / 18×2 right		9003.730	20	pc	

Caution:

All fittings are nickel plated.

Use RH and LH reduction tees to connect radiators. RH tee identification: looking at bigger diameter the copper pipe bow should be at the right side. Drawing shows LH reduction tee.

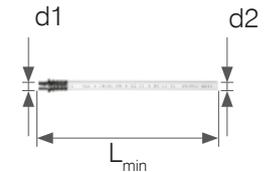
Various connection options for the fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



**Push coupling for radiator connection with dia 16 multilayer pipe,
L_{min} = 500 mm**

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / 18×2		9027.170	50	pc	



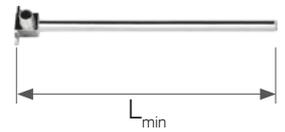
**Push fixed elbow for radiator connection with dia 15 copper pipe,
nickel plated**

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 L _{min} = 210 mm		9014.470	60	pc	
18×2 L _{min} = 300 mm		9016.580	60	pc	
18×2 L _{min} = 750 mm		9016.590	25	pc	

Caution:

Various connection options for the fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



**double fixed elbow for radiator connection with dia 15 copper
pipe, nickel plated**

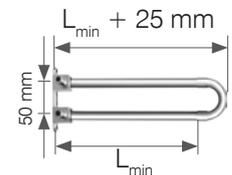
GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 L _{min} = 200 mm		9014.480	20	pc	
18×2 L _{min} = 300 mm		9015.260	15	pc	

Caution:

Pipes to be cut using minicutter, code 210416.

Various connection options for the fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections for pipe PE-RT and PE-Xc".



Push PPSU wallplate elbow with short plastic plug

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 G1/2"		9017.010	5/60	pc	

Caution:

PPSU Wallplate elbow is sold with M8 nut and short plastic plug in a set.

Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently.

Sealing compounds like adhesives which are chemical aggressive should not be used.

To seal the thread use tow with sealing compound (avoid using excessive amount of tow).



Push brass wallplate elbow with short plastic plug

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 G1/2" (K)		9017.040	5/70	pc	
18×2 G1/2" (D)		9017.060	5/60	pc	

(K) short version: a = 41 mm; b = 20 mm

(D) long version: a = 52,5 mm; b = 31,5 mm

Caution:

To fix the wallplate elbow to the wall use the mounting plate. Battery connections can be used in central heating systems in connections of a radiator with wall outputs (by cables in a wall chase) by angle valve.

Brass Wallplate elbow is sold with fixing bolt and short plastic plug in a set.

Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Push brass wallplate angle tee with short plastic plug

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 / 18×2 G½"		9017.080	5/60	pc	

Caution:

To fix the wallplate elbow to the wall use the mounting plate.
Brass Wallplate elbow is sold with fixing bolt and short plastic plug in a set.
Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently



Push brass stop end cup

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2		9019.41	20/200	pc	



plastic plug for pressure test - short - service part

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G½"		6095.33	20/300	pc	

Caution:

It may be repeatedly use (has O-Ring seal) and should be used for all KAN-therm wallplate elbows and wallplate tees.
Plastic short plug is used only to make the pressure test and it cannot be use to blank off the installation permanently



mounting bolt - service part

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
		K-505100	100/2000	pc	

Caution:

Use for wallplate elbow and tee to fix to the mounting plate.



Push brass sliding sleeve

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2A / 18×2,5A		9001.80	50/500	pc	

Caution:

When assembling Push connections use assembly tools for PE-RT and PE-Xc pipes with appropriate inserts (purchase or rental of tools available in KAN branches).



eurocone adapter for PE-RT & PE-Xc pipes

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18×2 G¾"		9006.59	15/150	pc	

Caution:

Eurocone adapter enables self sealing connections with male thread fittings and manifold nipples.



compression ring - service part for screw fittings

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
18		9001.96	100/1000	pc	

Caution:

For screw connections only.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

System **KAN-therm** Push/Push Platinum - and screwed connections

pipe PE-Xc/Al/PE-HD Push Platinum

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
14×2		0.1420	200/3000	m	
18×2,5		0.1825	200/3000	m	



pipe PE-Xc with EVOH layer acc. to DIN 4726

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
12×2		0.2144	200/4000	m	
14×2		0.2145	200/4000	m	
16×2		0.2146	200/3000	m	
18×2		0.2148	200/3000	m	
18×2,5		0.9119	200/3000	m	
25×3,5		0.9127	50/1000	m	
32×4,4		0.9133	25/500	m	



pipe PE-Xc with EVOH layer acc. to DIN 4726 in a bar

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
32×4,4		0.9135	5/50	m	



pipe PE-Xc with EVOH layer acc. to DIN 4726 - in 6 mm thermal insulation

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
12×2 red		0.2144-6C	50/750	m	
12×2 blue		0.2144-6N	50/750	m	
14×2 red		0.2145-6C	50/750	m	
14×2 blue		0.2145-6N	50/750	m	
18×2,5 red		0.9119-6C	50/750	m	
18×2,5 blue		0.9119-6N	50/750	m	



pipe PE-RT with EVOH layer acc. to DIN 4726

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
12×2		0.2174	200/4000	m	
14×2		0.2175	200/4000	m	
16×2		0.2176	200/3000	m	
18×2		0.2178	200/3000	m	
18×2,5		0.2177	200/3000	m	
25×3,5		0.9226	50/1000	m	
32×4,4		0.9228	25/500	m	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

pipe PE-RT with EVOH layer acc. to DIN 4726 - in 6 mm thermal insulation

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
14×2 red		0.2175-6C	50/750	m	
14×2 blue		0.2175-6N	50/750	m	
18×2,5 red		0.2177-6C	50/750	m	
18×2,5 blue		0.2177-6N	50/750	m	
25×3,5 red	*	0.9226-6C	25/375	m	
25×3,5 blue	*	0.9226-6N	25/375	m	



eurocone adapter for PE-Xc/Al/PE-HD Platinum pipes

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14×2 G¾"		9004.16	15/150	pc	
18×2,5 G¾"		9004.24	15/150	pc	

Caution:

Eurocone adapter enables self sealing connections with male thread fittings and manifold nipples.



eurocone adapter for PE-RT & PE-Xc pipes

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2 G½"		9012.91	15/300	pc	
12×2 G¾"		9012.92	15/150	pc	
14×2 G½"		9003.47	15/300	pc	
14×2 G¾"		9006.56	15/150	pc	
16×2 G¾"		9006.57	15/150	pc	
18×2 G¾"		9006.59	15/150	pc	
18×2,5 G¾"		9006.48	15/150	pc	
25×3,5 G1"		9003.67	10/80	pc	

Caution:

Eurocone adapter enables self sealing connections with male thread fittings and manifold nipples



brass compression straight male connector

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2 G½"		9014.23	10/150	pc	
14×2 G½"		9006.42	10/150	pc	
16×2 G½"		9006.43	10/150	pc	
18×2 G½"		9001.94	10/150	pc	
18×2,5 G½"		9006.44	10/150	pc	
25×3,5 G½"		9014.310	10/80	pc	
25×3,5 G¾"		9001.90	10/80	pc	
32×4,4 G1"		9019.000	5/30	pc	

Caution:

Possibility of connecting with general purpose fittings.



brass compression straight male connector for PE-Xc/Al/PE-HD Platinum pipes

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14×2 G½"		9007.42	10/150	pc	
18×2,5 G½"		9007.44	10/150	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

brass compression straight female connector

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2 G½"		9014.320	10/150	pc	
14×2 G½"		9014.330	10/150	pc	
16×2 G½"		9014.340	10/150	pc	
18×2 G½"		9014.350	10/150	pc	
18×2,5 G½"		9014.360	10/150	pc	
25×3,5 G¾"		9014.370	10/80	pc	
32×4,4 G1"		9019.010	5/30	pc	

Caution:

Possibility of connecting with general purpose fittings.



brass coupling

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2		9014.16	10/120	pc	
14×2		9014.13	10/120	pc	
16×2		9014.14	10/150	pc	
18×2		981	10/120	pc	
18×2,5		9014.17	10/120	pc	
25×3,5		9014.19	5/60	pc	
32×4,4		9019.02	2/30	pc	

Caution:

This coupling is used for repair purposes (re-boring faults) as well as for joining of long pipe sections



compression ring - service part for screw fittings

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12		9012.913	100/1000	pc	
14		9006.95	100/1000	pc	
16		9006.97	100/1000	pc	
18		9001.96	100/1000	pc	
25		9001.92	50/500	pc	

Caution:

For screw connections only.



Tools for Push connections Push/Platinum

case set - battery crimping and expanding tools for Push connectors

GROUP: K

*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
	KPPR-PUSHAKE	1	pc		

Caution:

It consists of the following items:

- Battery crimping tool AAP102 - code: KPPR-PUSHAKE1N - 1 pcs.
- Battery expanding tool AXI102 - code: KPPR-PUSHAKE2N - 1 pcs.
- Battery 12V 1,5Ah (standard) - code: 17660-50 - 2 pcs.
- Battery charger - code: 17662-50 - 1 pcs.
- Briefcase - code: 4516601-302 - 1 pcs.
- Insert set box - code: 38530-50 - 1 pcs.
- Insert set (for PPSU tees and elbows) - code: 12×2 - PT1-8471, 14×2 - PT1-8469, 18×2 (18×2,5) - PT1-8468, 25×3,5 - PT1-8467 (1 pc. per set)
- Insert set (for couplings) - code: 12×2 - P1-8471, 14×2 - P1-8469, 18×2 (18×2,5) - P1-8468, 25×3,5 (32×4,4 PPSU) - P1-8467 (2 pcs. per set).
- Expanding head (for PE-RT & PE-Xc only) - code: 12×2 - Z1-P12N, 14×2 - Z1-P14N, 18×2 - Z1-P18N, 18×2,5 - Z1-P185N, 25×3,5 - Z1-P25N, 32×4,4 - Z1-P32N (1 pc. per set) - only for PE-Xc and PE-RT pipes.

Area of application: Push (12-32 mm), Push Platinum (14-32 mm)



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

case set - battery crimping tool for Push connectors

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		AAP102 KPL	1	pc		

Caution:

It consists of the following items:

1. Battery crimping tool AAP102 - code: KPPR-PUSHAK1N - 1 pcs.
2. Battery 12V 1,5Ah (standard) - code: 17660-50 - 2 pcs.
3. Battery charger - code: 17662-50 - 1 pcs.
4. Briefcase - code: 4516601-302 - 1 pcs.
5. Insert set box - code: 38530-50 - 1 pcs.
6. Insert set (for PPSU tees and elbows) - code: 12x2 - PT1-8471, 14x2 - PT1-8469, 18x2 (18x2,5) - PT1-8468, 25x3,5 - PT1-8467 (1 pc. per set).
7. Insert set (for couplings) - code: 12x2 - P1-8471, 14x2 - P1-8469, 18x2 (18x2,5) - P1-8468, 25x3,5 (32x4,4 PPSU) - P1-8467 (2 pcs. per set).

Area of application: Push (12-32 mm), Push Platinum (14-32 mm)



case set - battery expanding tool for PE-Xc and PE-RT pipes (12-32 mm)

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		AXI102 KPL	1	pc		

Caution:

It consists of the following items:

1. Battery expanding tool AXI102 - code: KPPR-PUSHAK2N - 1 pcs.
2. Battery 12V 1,5Ah (standard) - code: 17660-50 - 2 pcs.
3. Battery charger - code: 17662-50 - 1 pcs.
4. Briefcase - code: 4516601-302 - 1 pcs.
5. Expanding head - code 12x2 - Z1-P12N, 14x2 - Z1-P14N, 18x2 - Z1-P18N, 18x2,5 - Z1-P185N, 25x3,5 - Z1-P25N, 32x4,4 - Z1-P32N (1 pc. per set) - only for PE-Xc and PE-RT pipes.

Area of application: Push (12-32 mm), Push Platinum (14-32 mm)



battery crimping tool for Push

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		AAP102 2BAT	1	pc		

Caution:

It consists of the following items:

1. Battery crimping tool AAP102 - code: KPPR-PUSHAK1N - 1 pcs.
2. Battery 12V 1,5Ah (standard) - code: 17660-50 - 2 pcs.

Area of application: Push (12-32 mm), Push Platinum (14-32 mm)



battery expanding tool for PE-Xc and PE-RT pipes (12-32 mm)

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		AXI102 2BAT	1	pc		

Caution:

It consists of the following items:

1. Battery expanding tool AXI102 - code: KPPR-PUSHAK2N - 1 pcs.
2. Battery 12V 1,5Ah (standard) - code: 17660-50 - 2 pcs..

Area of application: Push (12-32 mm), Push Platinum (14-32 mm)



battery charger CLI-12

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		17662-50	1	pc		

Caution:

charger for 12V 1,5Ah batteries code 17660-50



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

hydraulic Push tool with foot drive - KPPN set

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		KPPN-PUSH	1	kpl.		

Caution:

It consists of the following items: PN01, PT1-8471, PT1-8469, PT1-8468, PT1-8467, P1-8471 (2 pcs.), P1-8469 (2 pcs.), P1-8468 (2 pcs.), P1-8467 (2 pcs.), 84550N, Z1-P12N, Z1-P14N, Z1-P18N, Z1-P185N, Z1-P25N, Z1-P32N, 002.001.003, 0.2125.

Caution:

Expanding heads only for PE-RT i PE-Xc pipes.

Area of application: Push (12-32 mm), Push Platinum (14-32 mm).



hydraulic Push tool with foot drive

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
	*	PN01	1	pc		

Caution:

For connection Push/Push Platinum.

Area of application: Push (12-32 mm), Push Platinum (14-32 mm).



Mechanical hand Push Platinum tool set

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		KPPR-PLAT	1	kpl.		

Caution:

It consists of the following items: 0.2125, PR01/N, MZH1418, MZH2532, PT1-8469, PT1-8468, PT1-8467, P1-8469 (2 pcs.), P1-8468 (2 pcs.), P1-8467 (2 pcs.), 84550N, Z-P14PLAT, Z-P18PLAT, Z-P185PLAT, Z-P25PLAT, Z-P32PLAT, 002.001.002.

Caution:

Expanding heads only for PE-Xc/Al/PE-HD Platinum pipes.

Area of application: Push Platinum (14-32 mm).



mechanical hand Push tool - KPPR set

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		KPPR-PUSH	1	kpl.		

Caution:

It consists of the following items: 0.2125, PR01/N, MZH1418, MZH2532, PT1-8471, PT1-8469, PT1-8468, PT1-8467, P1-8471 (2 pcs.), P1-8469 (2 pcs.), P1-8468 (2 pcs.), P1-8467 (2 pcs.), 84550N, Z1-P12N, Z1-P14N, Z1-P18N, Z1-P185N, Z1-P25N, Z1-P32N, 002.001.002.

Caution:

Expanding heads only for PE-RT i PE-Xc pipes.

Area of application: Push (12-32 mm), Push Platinum (14-32 mm)



mechanical hand Push tool - Light set

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		KPPR-PUSH-L	1	kpl.		

Caution:

It consists of the following items: 002.001.002 (1 pcs.); 84550N (1 pcs.); PR01/N (1 pcs.); MZH1418 (1 pcs.); PT1-8469 (2 pcs.); PT1-8468 (2 pcs.); P1-8469 (1 pcs.); P1-8468 (1 pcs.); Z1-P14N (1 pc); Z1-P185N (1 pcs.);

Caution:

Expanding heads only for PE-RT and PE-Xc pipes.

Area of application: Push (14-18 mm)



manual mechanical tool

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
	*	PR01/N	1	pc		

Caution:

For connection Push/Push Platinum.

Area of application: Push (12-32 mm), Push Platinum (14-32 mm))



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

forks set

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12-18 (set - 2pc)	*	MZH1418	1	kpl.		
25-32 (set - 2pc)	*	MZH2532	1	kpl.		

Caution:

For connection Push/Push Platinum.

Area of application: Push (12-32 mm), Push Platinum (14-32 mm)



insert for mechanical Push tool

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12×2	*	PT1-8471	1	pc		
14×2	*	PT1-8469	1	pc		
18×2 (18×2,5)	*	PT1-8468	1	pc		
25×3,5	*	PT1-8467	1	pc		

Caution:

Can be used together with hydraulic with foot drive or mechanical or electric-hydraulic Push tool. For mounting of elbows and tees made of PPSU from fitting side following inserts are to be used:

- PT1-8471 for diameter 12 ((black insert),
- PT1-8469 for diameter 14 ((black insert),
- PT1-8468 for diameter 18 ((black insert),
- PT1-8467 for diameter 25 ((black insert),
- P1-8467 or diameter 32 (nickel plated insert).

For PPSU body never use inserts for brass elbows and tees Push P8465, P8464, P8463 or inserts for wallplate elbows P8470.



insert for mechanical Push tool

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12×2	*	P1-8471	1	pc		
14×2	*	P1-8469	1	pc		
18×2 (18×2,5)	*	P1-8468	1	pc		
25×3,5 (32×4,4 PPSU)	*	P1-8467	1	pc		



insert for mechanical Push tool (for brass Push tees and elbows)

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
14×2	*	P8465	1	pc		
18×2 (18×2,5)	*	P8463	1	pc		
25×3,5 (32×4,4)	*	P8464	1	pc		



insert for mechanical Push tool (for Push brass wallplate elbows)

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
18×2	*	P8470	1	pc		



external bending spring for PE-Xc/Al/PE-HD Platinum pipes

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
14	*	SZ-1410	1	pc		
18		SZ-1814	1	pc		
25		SZ-2620	1	pc		



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

special spanner for eurocone adapters

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
30 mm	*	K-501900	1	pc		

Caution:

The spanner intended for eurocone adapter G¾" montage.



expanding tool for pipes

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12-32	*	84550N	1	pc		



grease for expanding tool

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		smar	1	pc		

Caution:

Used for expanding tool 84550N



one set of Push expanding heads One step

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
14-32		Z1-KPL	1	kpl.		

Caution:

Do not use for KAN-therm Push Platinum System assembly.



expanding head for PE-Xc/Al/PE-HD Platinum pipes

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
14×2		Z-P14PLAT	1	pc		
18×2,5		Z-P185PLAT	1	pc		
25×3,5		Z-P25PLAT	1	pc		
32×4,4		Z-P32PLAT	1	pc		

Caution:

Above expanding heads are not a standard elements of KAN-therm Push tools sets.

In case of mounting KAN-therm Push Platinum system, all tools sets has to be equipped with above expanding heads



expanding head for pipes PE-RT and PE-Xc "One step"

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12×2		Z1-P12N	1	pc		

Caution:

Do not use for mounting KAN-therm Push Platinum System.



expanding head for pipes PE-RT and PE-Xc "One step"

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
14×2		Z1-P14N	1	pc		
18×2		Z1-P18N	1	pc		
18×2,5		Z1-P185N	1	pc		
25×3,5		Z1-P25N	1	pc		
32×4,4		Z1-P32N	1	pc		

Caution:

Do not use for mounting KAN-therm Push Platinum System.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

tool case for hydraulic tool with foot drive

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
	*	002.001.003	1	pc		

Caution:

It consists of the following items: foot operated hydraulic press, code PN01, press inserts, pipe expander, code 84550, expanding heads, pipe cutters PE-Xc and PE-RT, code 0.2125.



tool case for manual mechanical tool

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
	*	002.001.002	1	pc		

Caution:

For manual mechanical Push tool PR01/N, inserts, expanding tool 84550, expanding head, cutter for pipes PE-Xc and PE-RT, code 0.2125



cutter for Ø12-32 pipes

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		0.2125	1/25	pc		



cutters replacement blade for Ø12-32 pipes

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
	*	0.2125-O	1	pc		



minicutter for Ø15 copper pipes 4-16 mm

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		210416	1	pc		



2.9mm cutting wheel for mini pipe cutter

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
	*	334R	1	pc		



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends



Ø 16-63 mm



SYSTEM **KAN-therm**

Press LBP

Innovativeness and uniqueness
- One system, six functions



TECHNOLOGY OF SUCCESS



ISO 9001

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2 System **KAN-therm Press** / **KAN-therm Press LBP**

System KAN-therm Press LBP is new, complete installation system consisting of new generation LBP press fittings, multilayer PE-RT/Al/PE-RT and polyethylene PE-Xc & PE-RT pipes.

Depending on the type and configuration of the material, in Systems KAN-therm Press LBP offer occur:

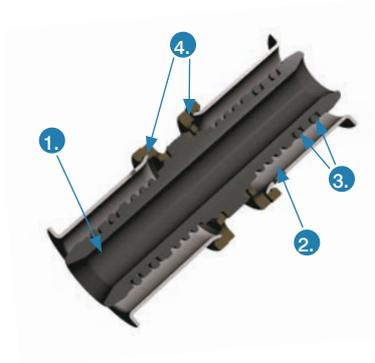
- multilayer pipes PE-RT/Al/PE-RT Multi Universal in diameter range 16–40 mm
- PE-Xc pipes with anti diffusion barrier in diameter range 16–20 mm
- PE-RT pipes with anti diffusion barrier in diameter range 16–20 mm

The method of connecting pipes in KAN-therm Press LBP System is “press” technique based on crimping steel sleeve. For connecting pipes to appliances there may also be used screw connection fittings present in System KAN-therm Press.

System KAN-therm Press LBP

new fittings construction

- Rys. A. View and cross-section of KAN-therm Press LBP fitting
1. Fittings body
 2. Crimping sleeve made of stainless steel
 3. EPDM O-Ring seals
 4. Colour plastic spacer rings



Components of KAN-therm Press LBP fittings

System KAN-therm Press LBP – features

Thanks to its special construction, KAN-therm Press LBP fittings features:

- indication of un-pressed connections (LBP – Leak Before Press) – „unpressed - leaking”,
- colour plastic identification rings,
- possibility of interchangeable use of „U” or „TH” profile jaws (in case of diameter 26 mm - „C” or „TH”),
- elimination of tube edges bevelling necessity,
- precise positioning of crimping jaws on steel sleeve,
- possibility of connecting with multilayer PE-RT/Al/PE-RT and polyethylene PE-Xc & PE-RT pipes,
- elimination of bimetallic corrosion phenomenon (in case when pipe with aluminium layer is inserted) by using plastic spacer rings,
- possibility of concealing joints in floors.

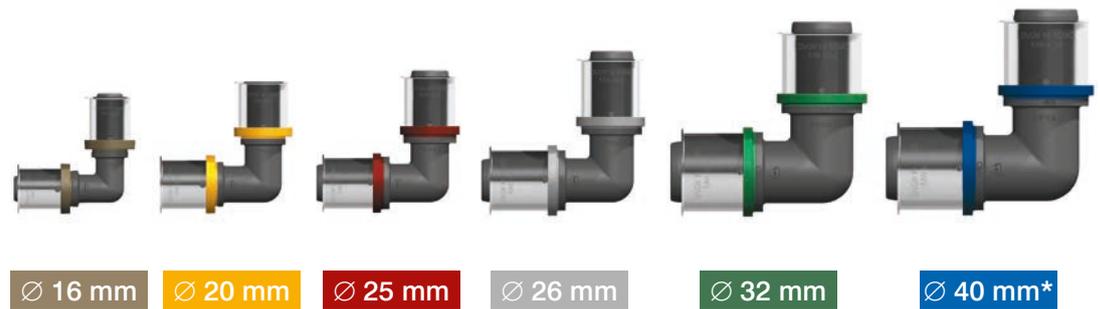
LBP function

LBP - „Leak Before Press”. Mistakenly un-pressed joint is detected by the visible water leak during filling installation with water without pressure - before proper pressure test. This function is consistent with DVGW recommendations („controlled leak”).



Identification

Every fitting has polymer ring, which color depends on the diameter of the connected pipe.



* Fittings of 40 mm in diameter do not have the function of leakage control.

Such solution makes work more efficient both in the warehouse and in the construction site where it is difficult to identify fitting diameter (ex. lack of light). Regardless of the color identification, each nozzle is marked with diameter of connected pipes. Dimensions of connected pipes (outer diameter x wall thickness) are also marked on the steel sleeve.

Universality

Special construction of KAN-therm Press LBP fittings allows for connecting multilayer PE-RT/Al/PE-RT and polyethylene PE-Xc & PE-RT pipes.



Range of applications

Areas of application and operating parameters of KAN-therm Press LBP with multilayer PE-RT/Al/PE-RT pipes are shown in table:

Application (acc. to ISO 10508)	Dimension	Type of pipe
Hot and cold tap water [Class 1(2)] $T_{work}/T_{max} = 60(70)/80^{\circ}\text{C}$ $P_{work} = 10 \text{ bar}$	16 × 2,0 20 × 2,0 25 × 2,5 26 × 3,0 32 × 3,0 40 × 3,5	PE-RT/Al/PE-RT
Surface heating, low parameter radiator heating [Class 4] $T_{work}/T_{max} = 60/70^{\circ}\text{C}$ $P_{work} = 10 \text{ bar}$	16 × 2,0 20 × 2,0 25 × 2,5 26 × 3,0 32 × 3,0 40 × 3,5	PE-RT/Al/PE-RT
Radiator heating [Class 5] $T_{work}/T_{max} = 80/90^{\circ}\text{C}$ $P_{work} = 10 \text{ bar}$	16 × 2,0 20 × 2,0 25 × 2,5 26 × 3,0 32 × 3,0 40 × 3,5	PE-RT/Al/PE-RT
For all classes $T_{mal} = 100^{\circ}\text{C}$	16 × 2,0 20 × 2,0 25 × 2,5 26 × 3,0 32 × 3,0 40 × 3,5	PE-RT/Al/PE-RT

Operating parameters assumed in accordance with current guidelines for granting technical approvals for multilayer pipes, based on ISO 10508, which sets out classes of applications in heating and hot water.

Areas of application and operating parameters of KAN-therm Press LBP with polyethylene PE-Xc and PE-RT pipes are shown in table:

Areas of application (according to ISO 10508)	Dimension	Type of pipe
Low parameter radiator heating [Class 4] $T_{work}/T_{max} = 60/70^{\circ}\text{C}$ $P_{work} = 6 \text{ bar}$	16 × 2,0 20 × 2,0	PE-Xc
Radiator heating [Class 5] $T_{work}/T_{max} = 80/90^{\circ}\text{C}$ $P_{work} = 6 \text{ bar}$	16 × 2,0 20 × 2,0	PE-RT

Contact with substances containing solvents, sealing the threads

Avoid direct contact of KAN-therm elements with solvents or solvent-containing materials, such as paints, aerosols, montage foams, adhesives, etc. Under unfavorable circumstances, these substances may damage plastic parts. Make sure that the connection sealants, cleaners or insulation of System KAN-therm components, do not contain compounds that cause stress cracks: ammonia, ammonia retaining compounds, solvents, aromatic or chlorinated hydrocarbons (e.g., ketones and ethers).

Do not use montage foams based on methacrylate and acrylate isocyanate.

For the threaded connections it is recommended to use hemp in an amount such that the tops of the thread are still visible. Using too much hemp may damage the thread. Winding hemp just after first turn of the thread helps to avoid diagonal screwing and thread damage.



CAUTION

Do not use chemical sealants and adhesives.

Safety

Pipes and fittings in KAN-therm Press LBP System holds a set of necessary approvals and comply with current standards and normatives, which ensures long-lasting and trouble-free operation and full security of the installation:

- KAN-therm Press LBP PPSU fittings with steel sleeve: complies with PN-EN ISO 21003-3:2009 and positive PZH hygienic result,
- KAN-therm Press LBP brass fittings: complies with PN-EN 1254-3 and positive PZH hygienic result,
- PE-RT/Al/PE-RT pipes: complies with PN-EN ISO 21003-2:2009 and positive PZH hygienic result,
- PE-Xc pipes: complies with PN-EN ISO 15875-2:2004 and positive PZH hygienic result,
- PE-RT pipes: complies with PN-EN ISO 22391-2:2010 and positive PZH hygienic result.



Pipes and fittings of KAN-therm Press LBP System also holds positive opinion of Western certification units:

System KAN-therm Press LBP is granted with 10-year material warranty.

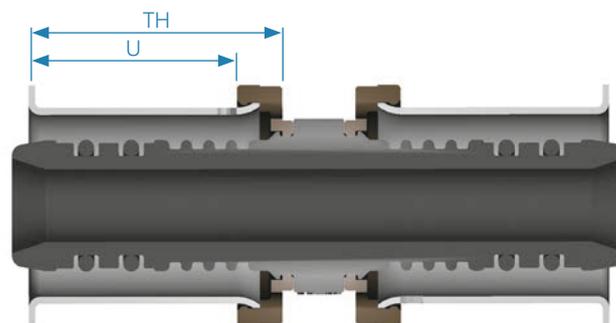


Connections

Press connection is based on crimping steel sleeve embedded on fittings nozzle while the tube is inserted into the coupling. Each nozzle is equipped with O-ring seals made of EPDM synthetic rubber resistant to high temperatures and pressure. Crimping the steel sleeve is made by manual or electric machine equipped with (depending on the diameter) "U", "C" or "TH" profile jaw. This method allows for concealing joints in floors or plaster.

Construction KAN-therm Press LBP System fittings enables usage of different types of jaw for making joints within the same diameter – "U" and "TH" profile ("C" and "TH" for diameter 26 mm), see table below.

While making joints in KAN-therm Press System use only original tools from KAN-therm offer, or tools recommended by KAN. Tools are available as individual components or in complete sets.



Summary of KAN-therm Press LBP fittings regarding of diameter range and crimping profiles

Fitting construction KAN-therm Press LBP	Diameter range	Clamping/pressing profile
	distance ring colours	16.
		U or TH
		20.
		25.
		26.
C or TH		
32.		
U or TH		
40.		

Assembly

1. Cut a pipe at the right angle to its axis to a required length using scissors for multi-layer pipes or with a disc cutter..

2. Shape the pipe. Bend using the external or internal spring. Observe the min. bending radius $R > 5 Dz$.



CAUTION

For cutting use only sharp blades.

3. Insert the pipe into a coupling - push the pipe centrally along the coupling axis. Check the insertion depth - the pipe edge must be visible in inspection holes in the steel ring. rurę.

4. Apply the press jaws exactly on the steel ring between the plastic distance ring and the steel ring collar perpendicularly to its axis. In case of the "TH" profile place the jaws on the plastic distance ring (the ring must be embraced by the jaws outer groove).

In both cases due to the fitting design the clamping tool jaws will not shift during pressing.



5. Start the press drive and make the connection. The process of pressing lasts till the jaws close fully. The ring can be pressed on a pipe only once.

6. After pressing unlock the jaws and take off the tool from a clamped ring. The connection is now ready for the pressure test.



To eliminate the excessive overload on fittings by bending force, it is not recommended to bend pipes at a distance less than 10 external diameters from the fitting.

! CAUTION

In case of KAN-therm Press LBP fittings there's no need for bevelling pipe edges. For bigger diameters (25 mm and above) to facilitate pipe insertion into the fitting it is recommended to use the calibration tool.

Press connections should be performed at temperatures above 0°C. Before start, check tool manuals and safety conditions.

There is possibility of performing Press connections at temperatures below 0°C under additional conditions given in KAN-therm System Designers and Contractors guide.

Tools - Safety

All tools must be applied and used in accordance with their purpose and the manufacturer's instructions.

Use for other purposes or in other areas are considered to be inconsistent with the intended use.

Intended use also requires compliance with the instructions, conditions of inspection and maintenance and relevant safety regulations in their current version.

All works done with tools, which do not meet the application compatible with the intended purpose may result in damage to tools, accessories and pipes.

The consequence may be the leak and / or damage.

Compensation of thermal elongation

Guidelines for fixing pipelines, implementation of fixing points (PS), sliding supports (PP) and compensation of thermal elongation are available in technical part of KAN-therm Press directory or KAN-therm Designers and Contractors guide book.

System KAN-therm Press

KAN-therm Press System is a complete system consisting of press fittings, screwed fittings with manifolds and cabinets, and multilayer pipes in diameters range:

- PE-RT/Al/PE-RT: Ø14-40 mm,
- PE-X/Al/PE-X: Ø50-63 mm.

Modern technology

An ultra modern material - PPSU (phenylene polysulfone) - used in production of press fittings ensures:

- fully corrosion resistant,
- fully neutral towards potable water,
- fitting durability higher than pipes,
- high mechanical strength.

Production technology of PPSU fittings excludes any latent defects.

Multi Universal pipes of KAN-therm Press System consist of inner and outer layer of PE-RT polyethylene of high thermal resistance. Between polyethylene layers there is an aluminum layer that is permanently bounded with the polyethylene. Such a structure provides natural resistance to diffusion of oxygen into the system, elasticity, and the lack of "shape memory" (after bending pipes preserve shape), and also eight times smaller thermal elongation in comparison with polyethylene pipes.

Long lasting technology

KAN-therm Press System, because of the perfect design of its elements and their matching, provides:

- over 50 year of service life,
- possibility of operating in high temperatures - $T_{work}=80^{\circ}\text{C}$ (operating), $T_{max}=90^{\circ}\text{C}$ (maximum; the heat source should be protected against exceeding that temperature) and operating pressure of 10 bar.
- extremely durable PPSU fittings whose maximum operating parameters are limited by pipe durability,
- total lack of corrosion with all kinds of water quality.

Optimal technology

KAN-therm Press System allows to choose optimal technological and economical solutions because of:

- possibility of concealing press fittings in floor screeds and under plaster,
- possibility of using one type of pipes for water and heating systems.

Safe technology

KAN-therm Press System guarantees full safety of assembly and operation:

- Press fittings with sleeves produced acc. to PN-EN ISO 21003-3:2009 obtains positive PZH hygienical results,
- pipes PE-RT/Al/PE-RT produced acc. to PN-EN ISO 21003-2:2009 obtains and positive PZH hygienical results,
- pipes PE-X/Al/PE-X produced acc. to PN-EN ISO 21003-2:2009 also obtains positive PZH hygienical results,
- safe design of press fittings provides full control over O-Ring seals during assembly,
- KAN-therm Press System has a 10-year warranty.
- KAN-therm Press System is approved in many european countries.



Assembly of „pressed” connections

1. Cut the pipe perpendicular to its axis using special cutter.



2. Calibrate the pipe and chamfer its internal edge with a calibrator but not deeper than down to the aluminium layer.



3. Thru inspection holes in the steel ring check if a pipe is inserted right – it must be visible in the holes.



4. Apply the clamping tool jaws on a ring so it contacts the tube coupling collar. The external collar of jaws shall be pushed to the tube coupling collar but not embrace it.



5. Apply the clamping tool jaws on a ring so it contacts the tube coupling collar. The external collar of jaws shall be pushed to the tube coupling collar but not embrace it. Start the clamping tool drive and make the connection.



6. Remove the clamping jaws from the connection.



To eliminate the excessive overload on fittings by bending force, it is not recommended to bend pipes at a distance less than 10 external diameters from the fitting.

The system assembly should be carried out in temperatures below 0 °C.

There is possibility of performing Press connections at temperatures below 0°C under additional conditions given in KAN-therm System Designers and Contractors guide.

Press connections with a pressed-on ring

- are self-sealing,
- can be concealed in walls and also in floors, provided O-Rings have not been damaged during the assembly,
- are made using a jaw adequate to a given pipe diameter,
- should be made using tools delivered by KAN-therm (for diameters 16, 20, 25, 32, 40 mm it is permissible to use "U" standard compatible jaws, for diameter Ø26 "C" standard compatible, and for Ø50, 63 mm "TH" standard compatible according to REMS catalog),
- have a diameter range of Ø16-63 mm.

Assembling screwed joints

1. Cut the pipe perpendicular to its axis using special cutter.
2. Shape the pipe as required.
Bend using external or internal spring. Obey minimum bending radius $R \geq 5 Dz$.



3. Calibrate the pipe and chamfer its edges with a calibrator but not deeper than to the aluminium layer. Fit onto a pipe the screwed joint nut with the cut ring (or a connection nut).



4. Insert the screwed joint body into a pipe till it definitely stops. The joint insertion depth is ca. 9 mm for pipes $\varnothing 14, 16, 20$ and 12 mm for pipes $\varnothing 25, 26$.

5. Slide the adapter body with the pipe into the fitting socket. Slide the compression ring to the fitting body (in case of erurocone adapter).



6. Screw the nut onto the fitting body using flat spanner.

To eliminate the excessive overload on fittings by bending force, it is not recommended to bend pipes at a distance less than 10 external diameters from the fitting.

Screwed joints (pipe joints and couplings)

- are self-sealing – available for diameters Ø14-26mm,
- screwed joints can not be hidden in walls,
- it is not recommended to embed this kind of connections in a floor screed,
- in case of renovating an installation they can be taken apart.

Joining fittings with nickel-plated pipes with radiator fixtures

For good looks of a KAN-therm radiator connection both from a floor or wall we offer special fittings with nickel-plated pipes.

Connect fixed elbows and tees with a nickel-plated pipe within radiator valves or directly with VK type radiators via elements like:

- screwed coupling for copper tube Ø15 G $\frac{3}{4}$ ", code 9023.08,
- screwed coupling for copper tube Ø15 G $\frac{1}{2}$ ", code K-609010,
- clamp for a copper tube Ø15 G $\frac{1}{2}$ ", code 729202W,
- G $\frac{1}{2}$ " tube coupling body, code 9001.35.

All joints of this kind are self-sealing and no additional sealing is needed.

! CAUTION

It is advised to seal threaded connections with such an amount of tow, that leaves the thread tops not covered. Using too much tow may lead to thread damage. By winding tow just after the first thread ridge you can avoid skew screwing and damaging the thread.

Fastening pipelines

For maximum distances between pipeline supports see the Table below:

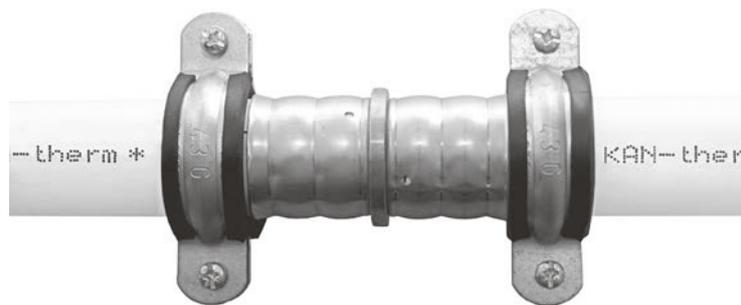
Pipe diameter	14×2	16×2	20×2	25×2,5	26×3	32×3	40×3,5	50×4	63×4,5
Max distances between pipeline fastening supports [m]	1.2.	1.2.	1.3.	1.5.	1.5.	1.6.	1.7.	2.0.	2.2.

Supports can be executed as sliding supports PP. Sliding supports shall be located maintaining required distances as the pipeline weight must be supported properly. If a required location of a sliding support restricts the required length a compensating arm, instead of a sliding, support a pipeline from below.

Fixed point PS and slidable points PP

- fixed points shall prevent any movement of a pipeline therefore they shall be mounted at connections (on both sides of a connection, e.g. coupling),
- with this system pipe clamps serving as fixed points shall not be mounted directly at fittings or on pressed-on rings,
- when mounting fixed points at tees check that pipe clamps blocking a pipeline are not mounted on branches of a diameter smaller by more than one size than a pipeline from which they branch off (forces generated by large diameter pipes can damage a smaller diameter),
- sliding supports allow only axial movements of a pipeline (they act as fixed points in the perpendicular angle to the pipeline axis) and should be made using plastic, snap-on clamps supplied within the KAN-therm System,
- do not mount sliding supports at connections as this may block the pipe thermal expansion,
- don't forget that sliding supports prevent movements transverse to the pipeline axis therefore their locations can determine the length of compensation arms.

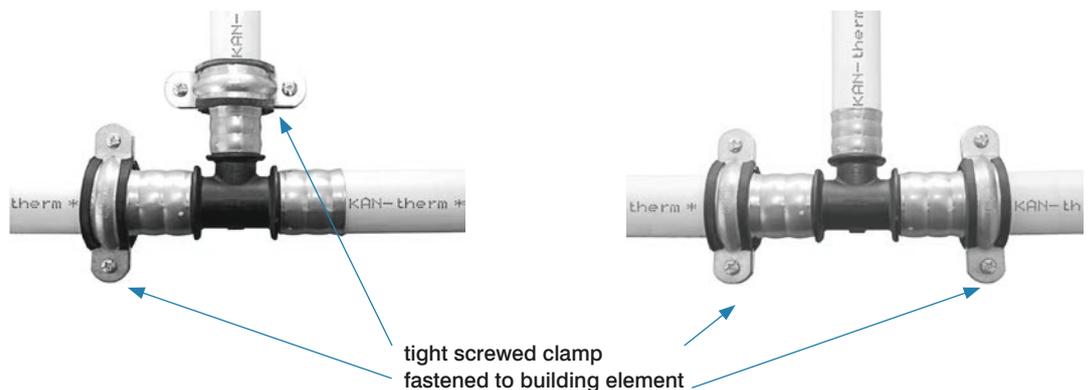
Mounting a fixed points at a joint



tight screwed clamp fastened to building element

Mounting a fixed point at a tee

CAUTION:
do not mount a clamp on a branch if this is smaller by more than one size than the tee nominal diameter



tight screwed clamp fastened to building element

Thermal elongation

Every pipeline, when exposed to temperature difference ΔT undergoes elongation (or shortening) by the ΔL value. This amount is calculated with the below formula:

$$\Delta L = \alpha \times L \times \Delta T$$

where:

α – thermal linear elongation coefficient 0,025 [mm/mK]

L – pipeline section length [m]

ΔT – temperature difference during installation and use [K]

Compensators

In order to eliminate linear elongation effects (uncontrolled movements of pipelines and their deformation), compensation solutions with different structures are used (flexible arm, U- and Z-shape compensators).

$$L_s = K \times \sqrt{D_z \times \Delta L}$$

where:

L_s – flexible arm's length [mm]

K – material coefficient = 36

D_z – external diameter of the pipe [mm]

L – elongation of the pipe-line length [mm]

„L”, „Z”, and „U” compensator selection

Table 1. Pipe elongation for different lengths and various temperature growths

L [m]	ΔL – elongation [mm]							
	ΔT – temperature difference [°C]							
	10	20	30	40	50	60	80	90
0.5	0.13	0.25	0.38	0.50	0.63	0.75	1.00	1.13
1	0.25	0.50	0.75	1.00	1.25	1.50	2.00	2.25
2	0.50	1.00	1.50	2.00	2.50	3.00	4.00	4.50
3	0.75	1.50	2.25	3.00	3.75	4.50	6.00	6.75
4	1.00	2.00	3.00	4.00	5.00	6.00	8.00	9.00
5	1.25	2.50	3.75	5.00	6.25	7.50	10.00	11.25
6	1.50	3.00	4.50	6.00	7.50	9.00	12.00	13.50
7	1.75	3.50	5.25	7.00	8.75	10.50	14.00	15.75
8	2.00	4.00	6.00	8.00	10.00	12.00	16.00	18.00
9	2.25	4.50	6.75	9.00	11.25	13.50	18.00	20.25
10	2.50	5.00	7.50	10.00	12.50	15.00	20.00	22.50
15	3.75	7.50	11.25	15.00	18.75	22.50	30.00	33.75
20	5.00	10.00	15.00	20.00	25.00	30.00	40.00	45.00
25	6.25	12.50	18.75	25.00	31.25	37.50	50.00	56.25
30	7.50	15.00	22.50	30.00	37.50	45.00	60.00	67.50
35	8.75	17.50	26.25	35.00	43.75	52.50	70.00	78.75
40	10.00	20.00	30.00	40.00	50.00	60.00	80.00	90.00

A ΔL elongation causes a pipeline to deform along the length of an elastic arm A .

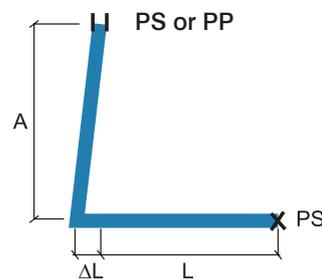
Compensation arm A length should not cause excessive stress in the pipeline (should not be smaller than value given in table 2) and depends on pipe external diameter, pipe thermal elongation, and a constant (linear expansion coefficient) for a given material.

Table 2 Minimum length A of an flexible arm depending on the pipe external diameter and its elongation

ΔL elongation [mm]	A – length of flexible arm [mm]								
	D_z – pipe OD [mm]								
	14	16	20	25	26	32	40	50	63
5	301	322	360	402	410	455	509	569	639
10	426	455	509	569	580	644	720	805	904
15	522	558	624	697	711	789	882	986	1107
20	602	644	720	805	821	911	1018	1138	1278
30	738	789	882	986	1005	1115	1247	1394	1565
40	852	911	1018	1138	1161	1288	1440	1610	1807
50	952	1018	1138	1273	1298	1440	1610	1800	2020
60	1043	1115	1247	1394	1422	1577	1764	1972	2213
70	1127	1205	1347	1506	1536	1704	1905	2130	2391
80	1205	1288	1440	1610	1642	1821	2036	2277	2556
90	1278	1366	1527	1708	1741	1932	2160	2415	2711

Compensation of thermal expansion of pipes type L, Z, U

„L” type compensator



A – flexible arm length

PP – sliding support (allows only axial movement of a pipeline)

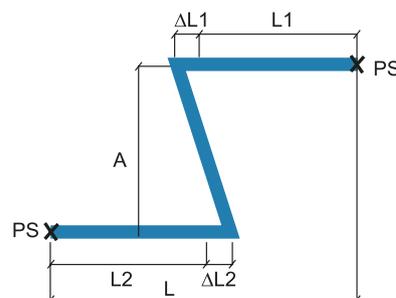
PS – fixed point (prevents any movement of a pipeline)

L – the initial length of a pipeline

ΔL – pipeline thermal elongation

For compensation arm A dimensioning, a substitute length $L_z=L$ is taken, and for L_z length the thermal elongation value ΔL , determined from formula. Next, the expansion compensation length A is determined on the basis of Tab. 2.

„Z” type compensator



A – expansion compensation length

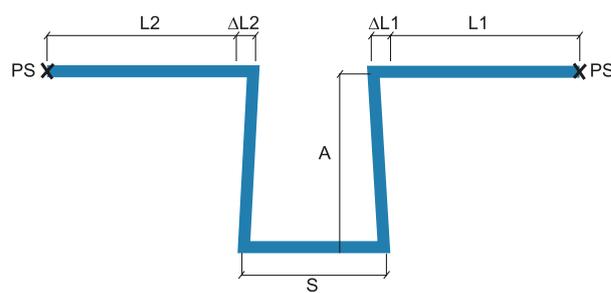
PS – fixed point (prevents the pipeline from moving)

L – pipeline initial length

ΔL – pipeline thermal elongation

For compensation arm A dimensioning, $L1$ and $L2$ sum is taken as a substitute length $L_z=L1+L2$, and for L_z length a substitute ΔL is determined from formula. Next, the expansion compensation length A is determined on the basis of Tab. 2.

„U” type compensator



- A** – expansion compensation length
- PS** – fixed point (prevents the pipeline from moving)
- L** – pipeline initial length
- ΔL** – pipeline thermal elongation
- S** – U type compensator width

In case of placing fixed point **PS** in the section of compensator length **S**, for compensation arm **A** dimensioning, the greater value from **L1** and **L2** is taken as a substitute length for **Lz**: **Lz=max(L1, L2)** and for this length the substitute elongation **ΔL** is determined on the basis of Tab. 1, and then the length of compensation arm **A** is determined on the basis of Tab. 2.

Compensator width: $S = A/2$.

The width **S** of a compensator shall allow a free movement of the sections **L1** and **L2** taking into account an eventual pipe insulation thickness and conditions of assembly.

$$S \geq 2 \times g_{isol} + \Delta L1 + \Delta L2 + S_{min}$$

where:

g_{isol} – insulation thickness

ΔL1, ΔL2 – elongation of sections L1 and L2

S_{min} – minimum length resulting from mounting of elbows or bending pipes.

Strive to minimise the width **S**, and when the width **S** is above 10% of the value of **L1** or **L2** a **U**-compensator with its fixed point in the middle shall be determined as a **Z**-type compensator taking into account the width **Z** and the greater value from **L1** and **L2**.

The minimum allowed pipe bending radius $R_{min} = 5 D_z$ (The minimum allowed pipe bending radius), **D_z** – pipe external diameter.

Assembly and rules for compensation of the thermal elongation

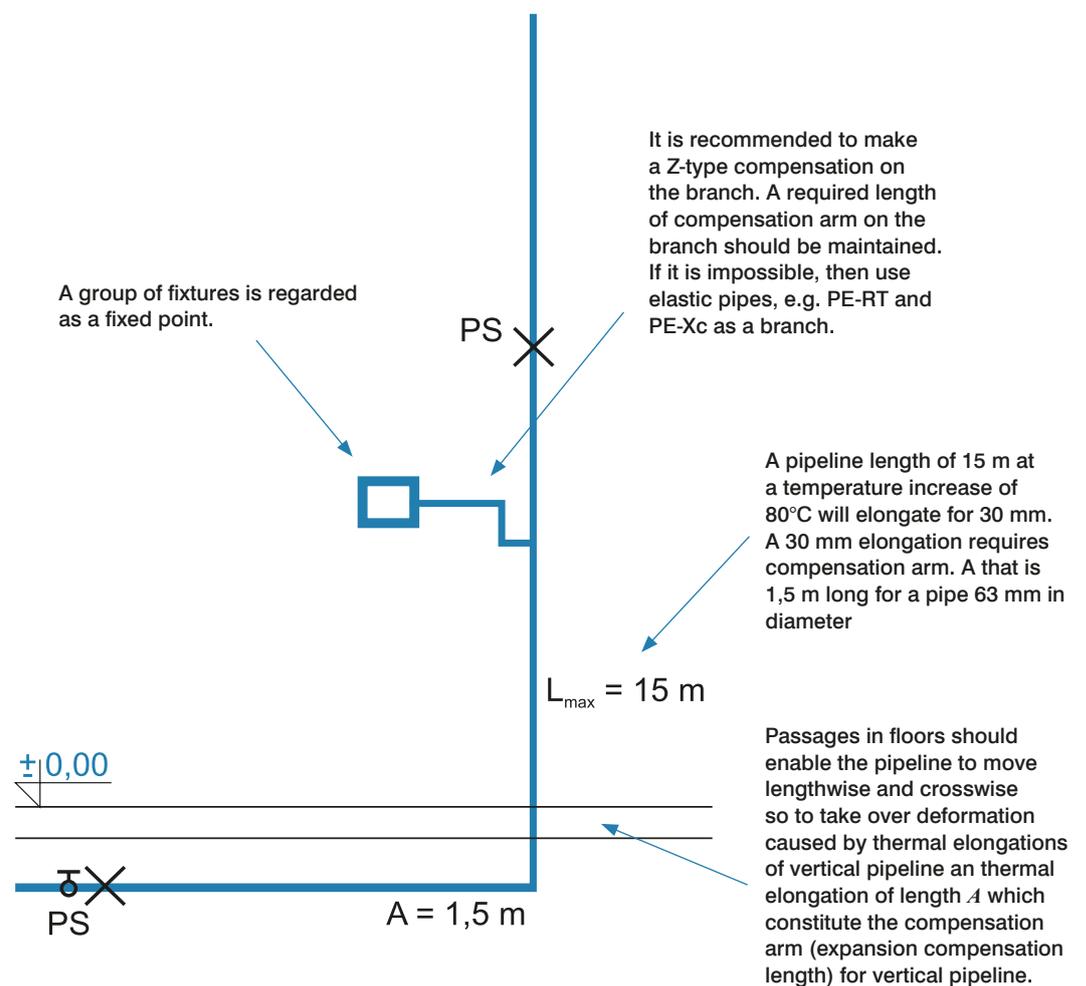
- Do not install fixtures on pipelines at compensation arms and also do not block pipeline movements, e.g. against sliding supports. It is best to use mounted fixtures as fixed points thus a pipeline does not support the weight of fixtures or transfer forces occurring at opening or closing valves,
- by all means a pipeline section must be provided with the compensation of elongations,
- in case pipelines are connected at the right angle to steel tubes, the point of connection shall be regarded as a point preventing movements along the axis of a pipeline of multi-layer pipes – a fixed point for a steel pipeline by mounting pipe clamps on a pipeline made of multi-layer pipes is inadmissible. In the event a steel pipeline at a point of connection of multi-layer pipes can elongate substantially the section of connection of multi-layer pipes must be made as an elastic arm by placing a sliding support at a right place (a fixed point is inadmissible), and the length of that arm shall be determined according to the elongation **ΔL** of a steel pipeline using Table 2,
- in case a multi-layer pipeline is joined with a steel pipeline determine a compensating elastic arm taking into account the elongation of this section resulting from the sum of elongations of both pipelines,
- at a point, where a pipeline of multi-layer pipes connects with a steel pipeline, we recommend a fixed point on a steel pipeline (this should be foreseen when planning a steel pipeline compensation),

- riser sections in shafts should be free to expand thermally. In case compensation arms in riser branches are not possible, it is recommended to use for these branches elastic PE-Xc or PE-RT pipes,
- water meters and heat meters (and fixtures) mounted on pipelines must be fixed to walls (pipelines should not transfer their weight or forces generated by operating fixtures) thus being mounted as fixed points.

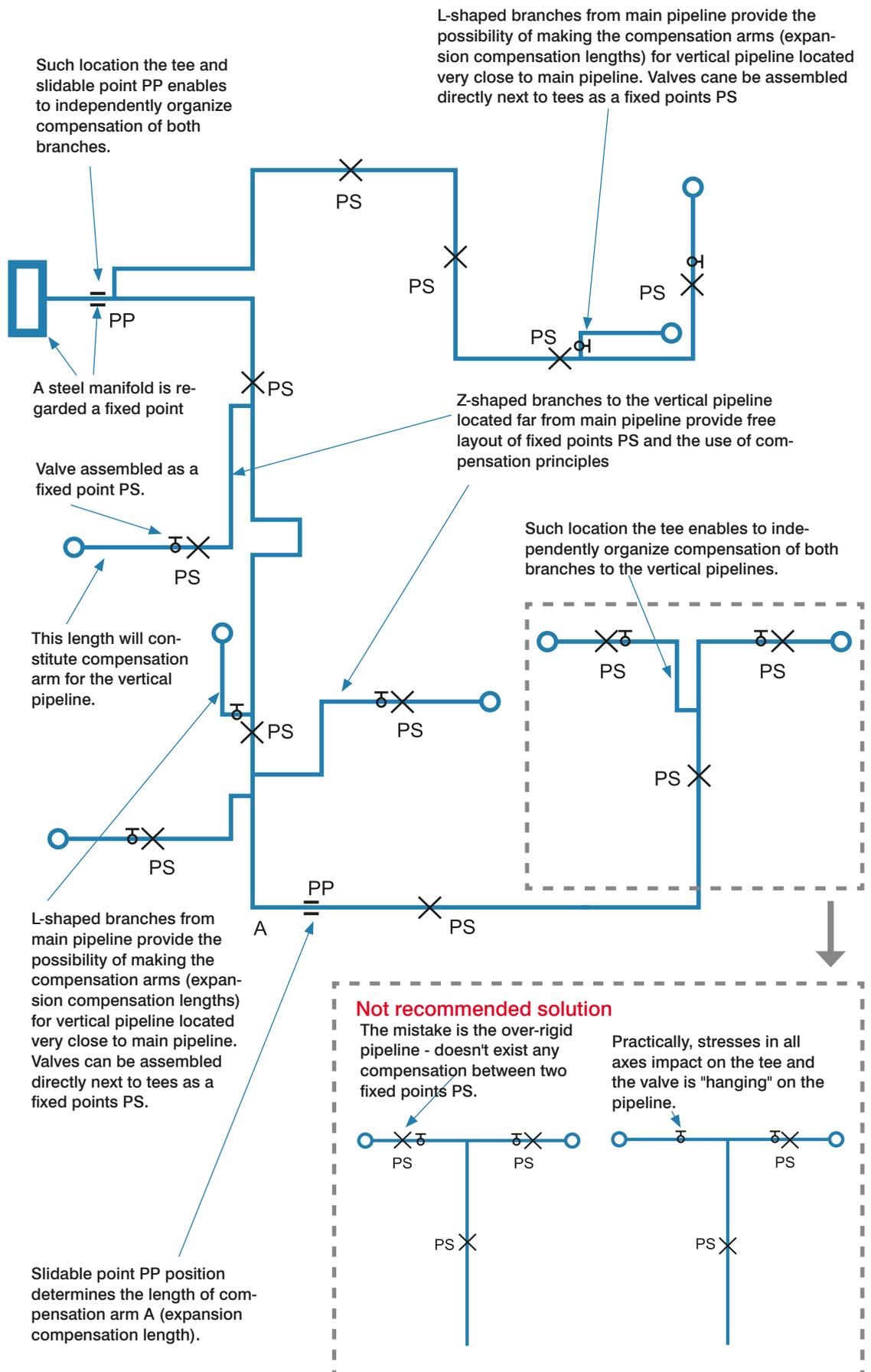
Example of compensating risers and branches

Using the compensation arm at vertical pipeline base $A=1,5$ m and placing a fixed point FP half-way the vertical pipeline height, vertical pipeline height can reach 30 m high (for pipes up to dia 63 mm).

A higher vertical pipeline can be taken if a higher thermal elongation of a segment above fixed point FP is allowed and compensation arm length A is increased.



Example of compensating elongations of main routes and it's branches



System **KAN-therm** Press / Press LBP - assortment

multilayer pipe PE-RT/Al/PE-RT designed for central heating, hot and cold water systems as well as for underfloor heating systems; operating pressure max. 10 bar

GROUP: B

Size	*	Code	Packing	JM	Price EUR/JM
14×2		0.9614	200/3000	m	
16×2		0.9616	200/3000	m	
20×2		0.9620	100/1500	m	
25×2,5		0.9625	50/750	m	
26×3		0.9626	50/600	m	
32×3		0.9632	50/600	m	
40×3,5		0.9640	25/300	m	



multilayer pipe PE-RT/Al/PE-RT designed for central heating, hot and cold water systems as well as for underfloor heating systems; operating pressure max. 10 bar

GROUP: B

Size	*	Code	Packing	JM	Price EUR/JM
32×3		0.9732	5/50	m	
40×3,5		0.9740	5/50	m	



multilayer pipe PE-Xc/Al/PE-Xc (PN12 series) designed for central heating, hot and cold water systems as well as for underfloor heating systems; operating pressure max. 10 bar

GROUP: B

Size	*	Code	Packing	JM	Price EUR/JM
50×4		0.9550	5/15	m	
63×4,5		0.9563	5/5	m	



multilayer pipe PE-RT/Al/PE-RT designed for central heating, hot and cold water systems as well as for underfloor heating systems; operating pressure max. 10 bar
- in 6 mm thermal insulation

GROUP: B

Size	*	Code	Packing	JM	Price EUR/JM
16×2 red		0.9616-6C	50	m	
16×2 blue		0.9616-6N	50	m	
20×2 red		0.9620-6C	50	m	
20×2 blue		0.9620-6N	50	m	
25×2,5 red		0.9625-6C	25	m	
25×2,5 blue		0.9625-6N	25	m	
32×3 red		0.9632-6C	50	m	
32×3 blue		0.9632-6N	50	m	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

pipe PE-Xc with EVOH layer acc. to DIN 4726 for radiator and underfloor heating up to 6 bar

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
16×2		0.2146	200/3000	m	
20×2	*	K-150005	200/3000	m	

Caution:

PE-Xc pipes may only be connected with KAN-therm Press LBP fittings and Eurocone adapters for PE-Xc, PE-RT pipes.



pipe PE-RT with EVOH layer acc. to DIN 4726 for radiator and underfloor heating up to 6 bar

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
16×2		0.2176	200/3000	m	
20×2	*	K-100305	200/3000	m	

Caution:

PE-RT pipes may only be connected with KAN-therm Press LBP fittings and Eurocone adapters for PE-Xc, PE-RT pipes.



Press straight male connector

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 G½"		K-900000	20/200	pc	
20×2 G½"		K-900001	10/120	pc	
20×2 G¾"		K-900002	10/120	pc	
25×2,5 G½"		K-080070	5/50	pc	
25×2,5 G¾"		K-900003	5/50	pc	
25×2,5 G1"		K-900004	5/50	pc	
26×3 G½"		K-080069	5/50	pc	
26×3 G¾"		K-080064	5/50	pc	
26×3 G1"		9024.65	5/50	pc	
32×3 G1"		K-900005	5/40	pc	
32×3 G1¼"		K-900006	5/40	pc	
40×3,5 G1"		K-080068	2/20	pc	
40×3,5 G1¼"		K-900007	2/20	pc	
40×3,5 G1½"		K-900008	2/20	pc	
50×4 G1½"		K-900009	2/20	pc	
63×4,5 G2"		K-900010	1/10	pc	



Press straight female connector

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 G½"		K-900100	20/160	pc	
20×2 G½"		K-900101	10/120	pc	
20×2 G¾"		K-900102	10/80	pc	
25×2,5 G¾"		K-080125	5/50	pc	
25×2,5 G1"		K-900103	5/40	pc	
26×3 G¾"		K-080089	5/50	pc	
26×3 G1"		9024.88	5/40	pc	
32×3 G1"		K-080126	5/40	pc	
32×3 G1¼"		K-900104	5/40	pc	
40×3,5 G1"		K-080096	2/20	pc	
40×3,5 G1¼"		K-080097	2/20	pc	
40×3,5 G1½"		K-900105	2/20	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

PPSU Press stright female connector

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 G½"		K-070253	10/120	pc	



Press Compression fitting

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / 15		K-900381	10/150	pc	
20×2 / 22		K-900382	10/80	pc	
25×2,5 / 22		K-900383	5/50	pc	

Caution:

The fitting can be used with system copper Press and System KAN-therm Steel & Inox.



Press compression elbow

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / 15	*	K-080551	10/120	pc	

Caution:

The coupling can be used with system copper Press and System KAN-therm Steel & Inox.



Press transition fitting Push × Press

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
14×2 / 16×2		K-902716	20/160	pc	
18×2 / 16×2		K-902717	20/160	pc	
18×2,5 / 16×2		K-902718	20/160	pc	



Press PPSU coupling

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / 16×2		K-900250	20/200	pc	
20×2 / 20×2		K-900251	10/150	pc	
25×2,5 / 25×2,5		K-900252	5/60	pc	
26×3 / 26×3		K-070072	5/60	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Press reducing coupling

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
32×3 / 32×3		K-900203	5/40	pc	
40×3,5 / 40×3,5		K-900204	2/20	pc	
50×4 / 50×4		K-900205	2/20	pc	
63×4,5 / 63×4,5		K-900206	1/5	pc	



Press PPSU reducing coupling

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
20×2 / 16×2		K-900350	20/160	pc	
25×2,5 / 16×2		K-900351	5/70	pc	
26×3 / 16×2		K-070066	5/70	pc	
25×2,5 / 20×2		K-900352	5/70	pc	
26×3 / 20×2		K-070076	5/70	pc	



Press straight coupling

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
25×2,5 / 16×2	***	K-900301	10/80	pc	
26×3 / 16×2	***	9024.66	10/80	pc	
32×3 / 16×2		K-080128	5/40	pc	
32×3 / 20×2		K-900310	5/40	pc	
32×3 / 25×2,5		K-900303	5/40	pc	
32×3 / 26×3		9024.67	5/40	pc	
40×3,5 / 20×2		K-080090	2/30	pc	
40×3,5 / 25×2,5		K-900313	2/30	pc	
40×3,5 / 26×3		K-080092	2/30	pc	
40×3,5 / 32×3		K-900304	2/20	pc	
50×4 / 32×3		K-900305	2/20	pc	
50×4 / 40×3,5		K-900306	2/20	pc	
63×4,5 / 40×3,5		K-900307	1/10	pc	
63×4,5 / 50×4		K-900308	1/10	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Press male branch tee

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / G1/2" / 16×2		K-903000	5/60	pc	
20×2 / G1/2" / 20×2		K-083004	5/50	pc	
20×2 / G3/4" / 20×2		K-903001	5/50	pc	
25×2,5 / G3/4" / 25×2,5		K-080129	2/30	pc	
25×2,5 / G1" / 25×2,5		K-903002	2/30	pc	
26×3 / G3/4" / 26×3		K-080130	2/30	pc	
26×3 / G1" / 26×3		K-083003	2/30	pc	
32×3 / G1" / 32×3		K-903003	2/20	pc	
40×3,5 / G1" / 40×3,5		K-903007	1/10	pc	
50×4 / G1" / 50×4	***	9050.110	1/10	pc	
63×4,5 / G1" / 63×4,5	***	9063.110	-/5	pc	



Press male branch reducing tee

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
50×4 / G1" / 40×3,5	***	9050.120	110	pc	
63×4,5 / G1" / 50×4	***	9063.120	-/5	pc	



brass fitting adapter female 1" × male 3/4"

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G1"×G3/4"	***	9032.02	5/60	pc	



Press female branch reducing tee

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / G1/2" / 16×2		K-904000	5/60	pc	
20×2 / G1/2" / 20×2		K-904001	5/50	pc	
20×2 / G3/4" / 20×2		K-904003	5/50	pc	
25×2,5 / G1/2" / 25×2,5		K-080166	2/30	pc	
26×3 / G1/2" / 26×3		K-080167	2/30	pc	
25×2,5 / G3/4" / 25×2,5		K-904002	2/30	pc	
26×3 / G3/4" / 26×3		K-084004	2/30	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Press PPSU tee

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / 16×2 / 16×2		K-900500	10/80	pc	
20×2 / 20×2 / 20×2		K-900501	5/50	pc	
25×2,5 / 25×2,5 / 25×2,5		K-900502	2/30	pc	
26×3 / 26×3 / 26×3		9024.54	2/30	pc	
32×3 / 32×3 / 32×3		K-900503	2/20	pc	
40×3,5 / 40×3,5 / 40×3,5		K-900504	1/10	pc	
50×4 / 50×4 / 50×4		9050.100	1/6	pc	
63×4,5 / 63×4,5 / 63×4,5		9063.100	-/3	pc	
16×2 / 20×2 / 16×2		K-900607	5/60	pc	
20×2 / 16×2 / 16×2		K-900600	10/60	pc	
20×2 / 16×2 / 20×2		K-900601	5/50	pc	
20×2 / 20×2 / 16×2		K-900606	5/50	pc	
20×2 / 25×2,5 / 20×2		K-900608	2/30	pc	
20×2 / 26×3 / 20×2		K-070621	2/30	pc	
25×2,5 / 20×2 / 16×2		K-070618	5/50	pc	
25×2,5 / 16×2 / 20×2		K-900602	5/50	pc	
25×2,5 / 16×2 / 25×2,5		K-900603	2/30	pc	
25×2,5 / 20×2 / 20×2		K-900604	2/30	pc	
25×2,5 / 20×2 / 25×2,5		K-900605	2/30	pc	
25×2,5 / 25×2,5 / 20×2		K-070622	2/30	pc	
25×2,5 / 32×3 / 25×2,5		K-070026	2/20	pc	
26×3 / 16×2 / 20×2		9024.950	5/50	pc	
26×3 / 16×2 / 26×3		9024.940	2/30	pc	
26×3 / 20×2 / 16×2		K-070619	5/50	pc	
26×3 / 20×2 / 20×2		9024.61	2/30	pc	
26×3 / 20×2 / 26×3		9024.600	2/30	pc	
26×3 / 26×3 / 20×2		K-070623	2/30	pc	
26×3 / 32×3 / 26×3		K-070027	2/20	pc	
32×3 / 16×2 / 32×3		K-900609	2/20	pc	
32×3 / 20×2 / 25×2,5		K-900610	2/20	pc	
32×3 / 20×2 / 26×3		9024.970	2/20	pc	
32×3 / 20×2 / 32×3		K-900611	2/20	pc	
32×3 / 25×2,5 / 25×2,5		K-900612	2/20	pc	
32×3 / 25×2,5 / 32×3		K-900613	2/20	pc	
32×3 / 26×3 / 26×3		9024.630	2/20	pc	
32×3 / 26×3 / 32×3		9024.620	2/20	pc	
32×3 / 32×3 / 20×2		K-070615	2/20	pc	
32×3 / 32×3 / 25×2,5		K-070616	2/20	pc	
32×3 / 32×3 / 26×3		K-070617	2/20	pc	
40×3,5 / 20×2 / 32×3		K-900616	1/12	pc	
40×3,5 / 20×2 / 40×3,5		K-900614	2/12	pc	
40×3,5 / 25×2,5 / 32×3		K-900617	2/12	pc	
40×3,5 / 25×2,5 / 40×3,5		K-900615	2/12	pc	
40×3,5 / 26×3 / 32×3		9040.140	2/12	pc	
40×3,5 / 26×3 / 40×3,5		9040.120	2/12	pc	
40×3,5 / 32×3 / 32×3		K-900618	2/12	pc	
40×3,5 / 32×3 / 40×3,5		K-900619	1/10	pc	
40×3,5 / 40×3,5 / 32×3		K-071012	1/10	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Press brass reducing tee

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
50×4 / 20×2 / 50×4		K-081101	1/10	pc	
50×4 / 25×2,5 / 40×3,5		K-081105	1/10	pc	
50×4 / 25×2,5 / 50×4		K-081102	1/10	pc	
50×4 / 26×3 / 40×3,5		K-081115	1/10	pc	
50×4 / 26×3 / 50×4		K-081116	1/10	pc	
50×4 / 32×3 / 40×3,5		K-081103	1/10	pc	
50×4 / 32×3 / 50×4		K-081104	1/10	pc	
50×4 / 40×3,5 / 40×3,5		K-081107	1/10	pc	
50×4 / 40×3,5 / 50×4		K-081106	1/8	pc	
63×4,5 / 20×2 / 63×4,5		K-081108	1/5	pc	
63×4,5 / 25×2,5 / 63×4,5		K-081109	1/5	pc	
63×4,5 / 26×3 / 63×4,5		K-081117	1/5	pc	
63×4,5 / 32×3 / 50×4		K-081110	1/5	pc	
63×4,5 / 32×3 / 63×4,5		K-081111	1/5	pc	
63×4,5 / 40×3,5 / 50×4		K-081112	1/5	pc	
63×4,5 / 50×4 / 50×4		K-081114	1/5	pc	
63×4,5 / 50×4 / 63×4,5		K-081113	1/5	pc	



Crossing pair single Press

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / 16×2 / 16×2		K-900650	1/6	pc	
16×2 / 16×2 / 20×2		K-900651	1/6	pc	
20×2 / 16×2 / 16×2		K-900652	1/6	pc	
20×2 / 20×2 / 20×2		K-900654	1/6	pc	
20×2 / 16×2 / 20×2		K-900653	1/6	pc	

Caution:

Elements in nickel plated version.
Not suitable for potable water systems.



Press PPSU 90° elbow

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / 16×2		K-900400	15/150	pc	
20×2 / 20×2		K-900401	10/80	pc	
25×2,5 / 25×2,5		K-900402	5/40	pc	
26×3 / 26×3		9024.49	5/40	pc	
32×3 / 32×3		K-900403	2/30	pc	
40×3,5 / 40×3,5		K-900404	2/20	pc	
50×4 / 50×4		K-900405	2/10	pc	
63×4,5 / 63×4,5		K-900406	-/5	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Press male branch elbow 90°

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / G½"		K-901000	10/120	pc	
20×2 / G½"		K-081025	10/100	pc	
20×2 / G¾"		K-901001	10/100	pc	
25×2,5 / G¾"		K-080160	5/40	pc	
25×2,5 / G1"		K-901002	5/40	pc	
26×3 / G¾"		K-080161	5/40	pc	
26×3 / G1"		K-081003	5/40	pc	
32×3 / G1"		K-901003	2/30	pc	
40×3,5 / G1¼"		K-080163	2/20	pc	



Press female branch elbow 90°

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / G½"		K-902000	10/120	pc	
20×2 / G½"		K-902001	10/100	pc	
20×2 / G¾"		K-902002	5/60	pc	
25×2,5 / G¾"		K-902003	5/30	pc	
25×2,5 / G1"		K-080172	5/30	pc	
26×3 / G¾"		K-082004	5/30	pc	
26×3 / G1"		K-080173	5/30	pc	
32×3 / G1"		K-080174	2/30	pc	
40×3,5 / G1¼"		K-080164	2/20	pc	



Press PPSU elbow 45°

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
32×3 / 32×3		K-900410	2/30	pc	
40×3,5 / 40×3,5		K-900411	2/20	pc	
50×4 / 50×4		K-900412	1/10	pc	
63×4,5 / 63×4,5		K-900413	-/5	pc	



mixer tap fixture branch Press type "U"

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×½×16	**	K-085081	1	pc	
20×½×20	**	K-085082	1	pc	



rubber acoustic guard for mixer tap fixture branches type "U"

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16-20	**	K-085035	1	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

PPSU Press wallplate elbow, with short plastic plug

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / G½"		K-905000	5/50	pc	
20×2 / G½"		K-905001	5/50	pc	

Caution:

Press Wallplate elbow is sold with steel sleeve, fixing bolt and short plastic plug in a set. Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently. Sealing compounds like adhesives which are chemical aggressive should not be used. Use only bow with sealing compound.



PPSU Press wallplate elbow with nuts, (applicable for dry plaster)

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / G½"		K-085068	2/20	pc	

Caution:

Sealing compounds like adhesives which are chemical aggressive should not be used. Use only bow with sealing compound.



long wallplate elbow, with short plastic plug

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / G½"		K-905002	5/40	pc	
20×2 / G½"		K-905023	5/40	pc	

Caution:

Press Wallplate elbow is sold with steel sleeve and short plastic plug in a set. Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently. Sealing compounds like adhesives which are chemical aggressive should not be used. Use only bow with sealing compound.



Press wallplate angle tee, with short plastic plug

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / G½"		K-905003	5/40	pc	
20×2 / G½"		K-085104	5/40	pc	

Caution:

Press Wallplate elbow is sold with steel sleeve, fixing bolt and short plastic plug in a set. Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently. Sealing compounds like adhesives which are chemical aggressive should not be used. Use only bow with sealing compound.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Press LBP wallplate angle tee directly fixed with short plastic plug

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / G½"		K-085071	5/40	pc	
20×2 / G½"		K-085072	5/40	pc	

Caution:

Press Wallplate elbow is sold with steel sleeve and short plastic plug in a set.
 Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently.
 Sealing compounds like adhesives which are chemical aggressive should not be used.
 Use only bow with sealing compound.



rubber acoustic muffler

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16-20		K-085030	5/25	pc	

Caution:

Use only with: K-905022, K-085069, K-085070.



Press wallplate elbow, directly fixed

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / G½"		K-905022	5/50	pc	
20×2 / G½"		K-085069	5/50	pc	

Caution:

Press Wallplate elbow is sold with steel sleeve and short plastic plug in a set.
 Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently.
 Sealing compounds like adhesives which are chemical aggressive should not be used.
 Use only bow with sealing compound.



Press wallplate elbow, directly fixed - without plug

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
20×2 / G¾"		K-085070	5/50	pc	
25×2,5 / G¾"		K-905026	2/30	pc	
26×3 / G¾"		K-085027	2/30	pc	

Caution:

Press Wallplate elbow is sold with steel sleeve.
 Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently.
 Sealing compounds like adhesives which are chemical aggressive should not be used.
 Use only bow with sealing compound



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Press flat wallplate tee with short plastic plug

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
20×2 / G½"		K-905005	5/50	pc	

Caution:

Press Wallplate elbow is sold with steel sleeve, fixing bolt and short plastic plug in a set. Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently. Sealing compounds like adhesives which are chemical aggressive should not be used. Use only bow with sealing compound.



flat wallplate tee directly fixed with short plastic plug

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
20×2 / G½"		K-085010	5/40	pc	

Caution:

Press Wallplate elbow is sold with steel sleeve, fixing bolt and short plastic plug in a set. Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently. Sealing compounds like adhesives which are chemical aggressive should not be used. Use only bow with sealing compound.



Press LBP wallplate tee with nuts (applicable for dry plaster)

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / G½" / 16×2		K-084010	2/20	pc	
20×2 / G½" / 16×2		K-084020	2/20	pc	
20×2 / G½" / 20×2		K-084030	2/20	pc	

Caution:

Sealing compounds like adhesives which are chemical aggressive should not be used. Use only bow with sealing compound.



wallplate elbows set with mounting plate

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / G½"		K-201050	1/10	pc	

Caution:

Press Wallplate elbow is sold with steel sleeve, fixing bolt and short plastic plug in a set. Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently. Sealing compounds like adhesives which are chemical aggressive should not be used. Use only bow with sealing compound.



Press transition fitting Press × Press

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / 12	*	K-080380	20/160	pc	
16×2 / 15		K-900344	20/160	pc	
20×2 / 22		K-900345	10/120	pc	
25×2,5 / 22		K-900342	5/60	pc	
25×2,5 / 28		K-080384	5/60	pc	
26×3 / 22		K-080386	5/60	pc	
26×3 / 28		K-080385	5/60	pc	

Caution:

The fitting can be used with system Copper Press and System KAN-therm Steel & Inox.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

plastic mounting plate

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
single		6090.050	20/200	pc	
double (L=150mm)		6090.060	10/70	pc	
double (L=80mm)		6090.070	20/120	pc	
double (L=50mm)		6090.080	15/150	pc	

Caution:

Used for mounting wallplates



metal mounting plate

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
podwójna (L= 80, 150mm)		6090.13	1/42	pc	

Caution:

Mounting plate allows for fixing standard and directly fixed wallplate elbows.
Mounting plate includes screws for directly fixed wallplate elbows (6 pcs.)



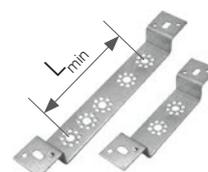
metal mounting plate

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
double (L=50, 80, 150mm)		6090.09	120	pc	
double (L=50mm)		6090.10	150	pc	

Caution:

Used for mounting wallplates



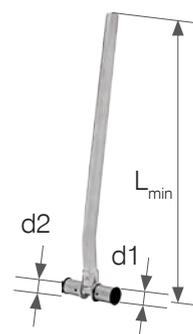
Press tee for radiator connection with dia 15 copper pipe L=300 mm, nickel plated

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / 16×2		K-901930	40	pc	
20×2 / 20×2		K-901931	30	pc	
20×2 / 16×2 left		K-901932	30	pc	
20×2 / 16×2 right		K-901933	30	pc	

Use RH and LH reduction tees to connect radiators. RH tee identification: looking at bigger diameter the copper pipe bow should be at the right side.

Caution: Possibilities of connection fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



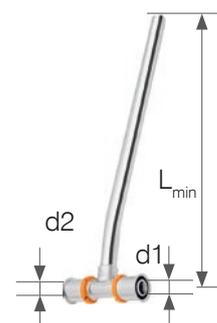
Press tee for radiator connection with dia 15 copper pipe L=750 mm, nickel plated

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / 16×2		K-901934	25	pc	
20×2 / 20×2		K-901935	20	pc	
20×2 / 16×2 left		K-901936	20	pc	
20×2 / 16×2 right		K-901937	20	pc	

Use RH and LH reduction tees to connect radiators. RH tee identification: looking at bigger diameter the copper pipe bow should be at the right side.

Caution: Possibilities of connection fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

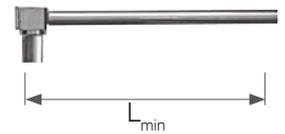
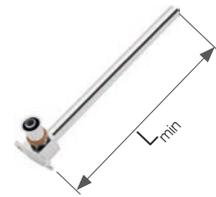
Press fixed elbow for radiator connection with dia 15 copper pipe, nickel plated

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 L _{min} = 210 mm		K-901700	40	pc	
16×2 L _{min} = 300 mm		K-901701	40	pc	
16×2 L _{min} = 750 mm		K-901810	25	pc	

Caution:

Possibilities of connection fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



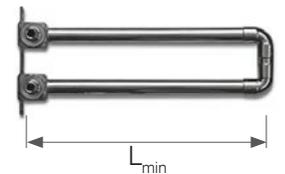
Press double fixed elbow for radiator connection with dia 15 copper pipe, nickel plated

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×2 L _{min} = 200 mm		K-901800	15	pc	
16×2 L _{min} = 300 mm		K-901801	10	pc	

Caution:

Possibilities of connection fittings with nickel plated tubes with all kinds of fittings are described in the technical part of the catalog - "Screw connections".



Press LBP half union with flat rubber gasket

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16×G1/2"		K-080250	10/120	pc	
16 G3/4"		K-080251	10/120	pc	
20 G3/4"		K-080253	10/80	pc	
20×G1"		K-080252	5/60	pc	
25 G3/4"		K-080114	5/60	pc	
25×G1"		K-080255	5/60	pc	
25×G1 1/4"		K-080254	5/50	pc	
26 G3/4"		K-080108	5/60	pc	
26×G1"		K-080109	5/60	pc	
26×G1 1/4"		K-080110	5/50	pc	
32×G1"		K-080107	5/50	pc	
32×G1 1/4"		K-080257	5/40	pc	
32×G1 1/2"		K-080256	5/40	pc	
40×G1 1/2"		K-080258	2/30	pc	
40×G2"		K-080259	2/30	pc	

Caution:

Do not apply for manifold connections.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Press eurocone adapter

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
32 G1"		K-900111	5/50	pc	



Press eurocone adapter

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
16 G3/4"		K-900112	10/120	pc	



Press stop end

GROUP: F

Size	*	Code	Packing	JM	Price EUR/JM
162		K-609032	20/300	pc	
202		K-609033	20/200	pc	
252.5		K-609034	10/120	pc	
263		K-609062	10/120	pc	
323		K-609035	5/50	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Screw connections

plastic pipe joints for multi-layer KAN-therm System pipes

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16 G $\frac{3}{4}$ "		9010.08N	1	pc	

Caution:
pipe joints work with fittings for pipe couplings and distributors with nipples.



eurocone adapter for PE-Xc & PE-RT pipes

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16 G $\frac{3}{4}$ "		9006.57	15/150	pc	
20 G $\frac{3}{4}$ "		K-601705	15/150	pc	

Caution:
pipe joints work with fittings for pipe couplings and distributors with nipples.



eurocone adapter for multilayer pipe

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16 G $\frac{1}{2}$ "		9012.00N	20/200	pc	
16 G $\frac{3}{4}$ "		9012.08N	15/150	pc	
20 G $\frac{3}{4}$ "		9012.02N	10/120	pc	

Caution:
pipe joints work with fittings for pipe couplings and distributors with nipples.



adapter for multilayer pipe (fixed ring)

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14 G $\frac{1}{2}$ "		9012.060	20/200	pc	
14 G $\frac{3}{4}$ "		9012.60	15/150	pc	
16 G $\frac{1}{2}$ "		9012.00	20/200	pc	
16 G $\frac{3}{4}$ "		9012.080	10/120	pc	
20 G $\frac{3}{4}$ "		9012.020	10/120	pc	
20 G1"		9012.100	5/80	pc	
25 G1"		9026.330	10/80	pc	
26 G1"		9012.040	10/80	pc	



straight male connector

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16×2 G $\frac{1}{2}$ "		9025.01	10/150	pc	
16 G $\frac{3}{4}$ "		9025.04	10/80	pc	

Caution:
The fitting is designed to be fixed directly into the manifold beam – connection sealing is provided by the O-Ring seal.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Tools - Press

manual press tool

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
		ZAPR02	1	pc	

Caution:

Used for pipe connections with Ø16, Ø20, Ø25, Ø26 mm.



press jaw

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
16		ZAPR16R	1	pc	
20		ZAPR20R	1	pc	
25		ZAPR25R	1	pc	
26		ZAPR26R	1	pc	
32		ZAPRE32	1	pc	
40		ZAPRE40	1	pc	
50	*	ZAPRE50	1	pc	
63	*	ZAPRE63	1	pc	



pipe cutter for cutting multilayer pipes Ø14-32

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
		RS1435	1/20	pc	



replacement blade for pipe cutter for cutting multilayer pipes Ø14-32

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
	*	RSM1435	1	pc	



pipe roll-cutters for diameter Ø16-63

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
		2519950	1	pc	



blade for roll-cutters for cutting multilayer pipes Ø16-63 - service element

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
	*	290016	1	pc	



calibration and internal bevelling tool for multilayer pipes

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
14	*	KL14	1	pc	
16		KL16	1	pc	
20		KL20	1	pc	
2526		KL26	1	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

calibration and internal bevelling universal tool for multilayer pipes

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
16 / 20 / 25-26		KL162026	1	pc	
25-26 / 32 / 40		KL263240	1	pc	
5063	*	KL5063	1	pc	



case for manual tools

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
	*	002.001.000	1	pc	

Caution:

Price comprises only case price, without equipment. May contain manual press tool, press jaws: ZAPR16R, ZAPR20R, ZAPR25R or ZAPR26R, pipe cutter RS1435, calibration tools KL16, KL20, KL26, KL162026.



battery press tool "mini" - case set

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
		KPPMINI	1	pc	

Caution:

It consists of the following items:

- battery press tool AFP101 - 1 pcs.
- battery charger - 1 pcs.
- battery 3,0 Ah - 2 pcs.
- press jaw U16 - 1 pcs.
- press jaw U20 - 1 pcs.
- press jaw U25 - 1 pcs.
- press jaw U32 - 1 pcs.
- case - 1 pcs.t.



manual press tools - case set

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
		KPPZ/M	1	pc	

Caution:

Press tool is sold with a case.

It consists of the following items:

- manual press tool; ZAPR02,
- press jaw; ZAPR16R,
- press jaw; ZAPR20R,
- press jaw; ZAPR25R (code kpl.: KPPZ/M25), or Ø26 for press tool; ZAPR26R (code kpl.: KPPZ/M),
- pipe cutter; RS1435,
- calibration and internal bevelling universal tool for multilayer pipes Ø16/Ø20/Ø25-26; KL162026,
- case for manual tools; 002.001.000.



manual press tools – light case set

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
		KPPZ-L	1	pc	

Caution:

Press tool is sold with a case (002.001.000).

It consists of the following items:

- manual press tool; ZAPR02,
- press jaw; ZAPR16R,
- press jaw; ZAPR20R,
- calibration and internal bevelling tool for multilayer pipes Ø16; KL16,
- calibration and internal bevelling tool for multilayer pipes Ø20; KL20,
- case for manual tools; 002.001.000.

The set is used for diameters of 16-20 mm.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

electric 220V press machine with case

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
		ZAPR01	1	pc	



Caution:

Electric 230 V press machine is solid with a case in a set.
The set doesn't include jaws and other tools.



rechargeable battery press machine

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
		ZAPRAK	1	pc	



Caution:

Battery press machine is solid with a case in a set.
The set doesn't include jaws and other tools.



external bending spring for multilayer pipes

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
14	*	SZ-1410	1	pc	
16		SZ-1612	1	pc	
20		SZ-2016	1	pc	
25-26		SZ-2620	1	pc	



internal bending spring for multilayer pipes

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
14	*	SW-1410	1	pc	
16		SW-1612	1	pc	
20		SW-2016	1	pc	
25-26		SW-2620	1	pc	



special spanner for eurocone adapters

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
30 mm	*	K-501900	1	pc	

Caution:

The spanner intended for eurocone adapter G $\frac{3}{4}$ " montage.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

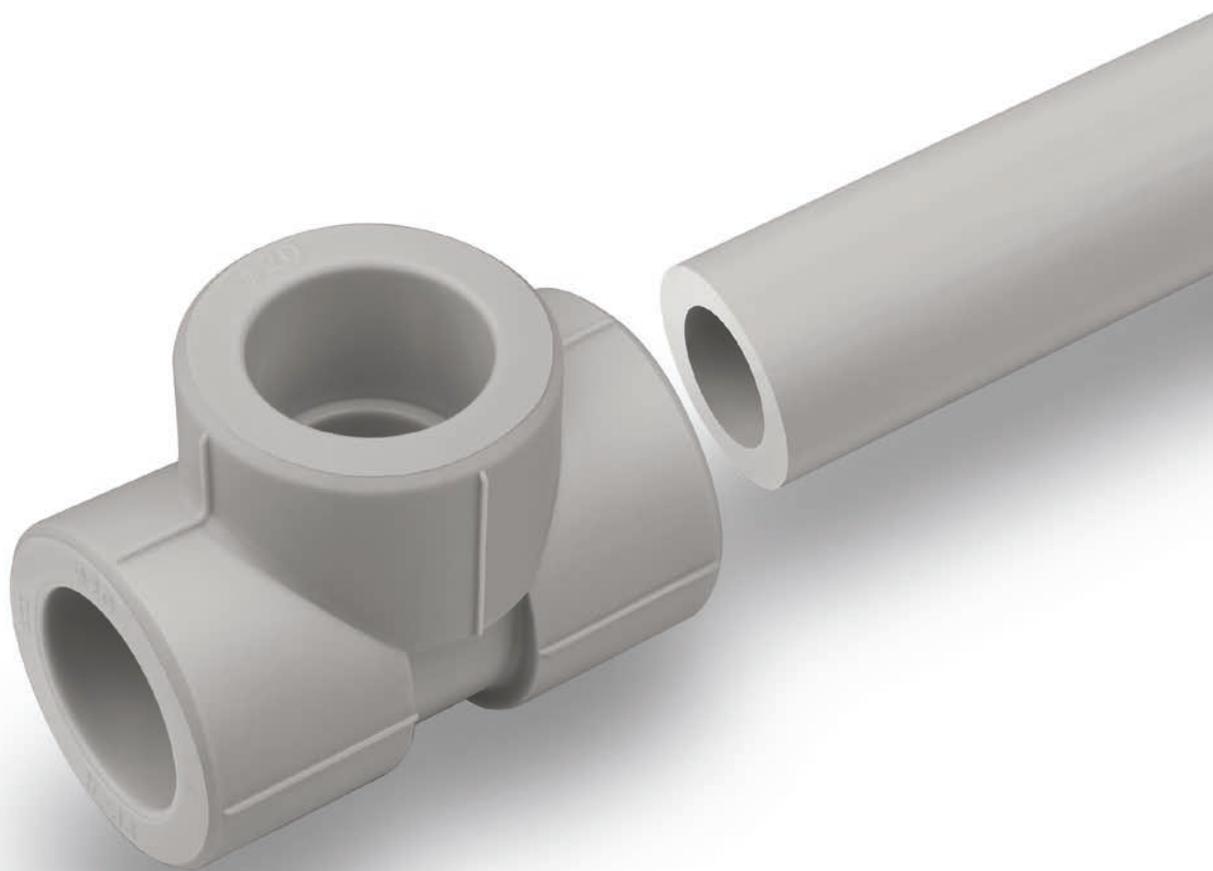
Ø 16-110 mm



SYSTEM **KAN-therm**

PP

High quality
for reasonable price



TECHNOLOGY OF SUCCESS

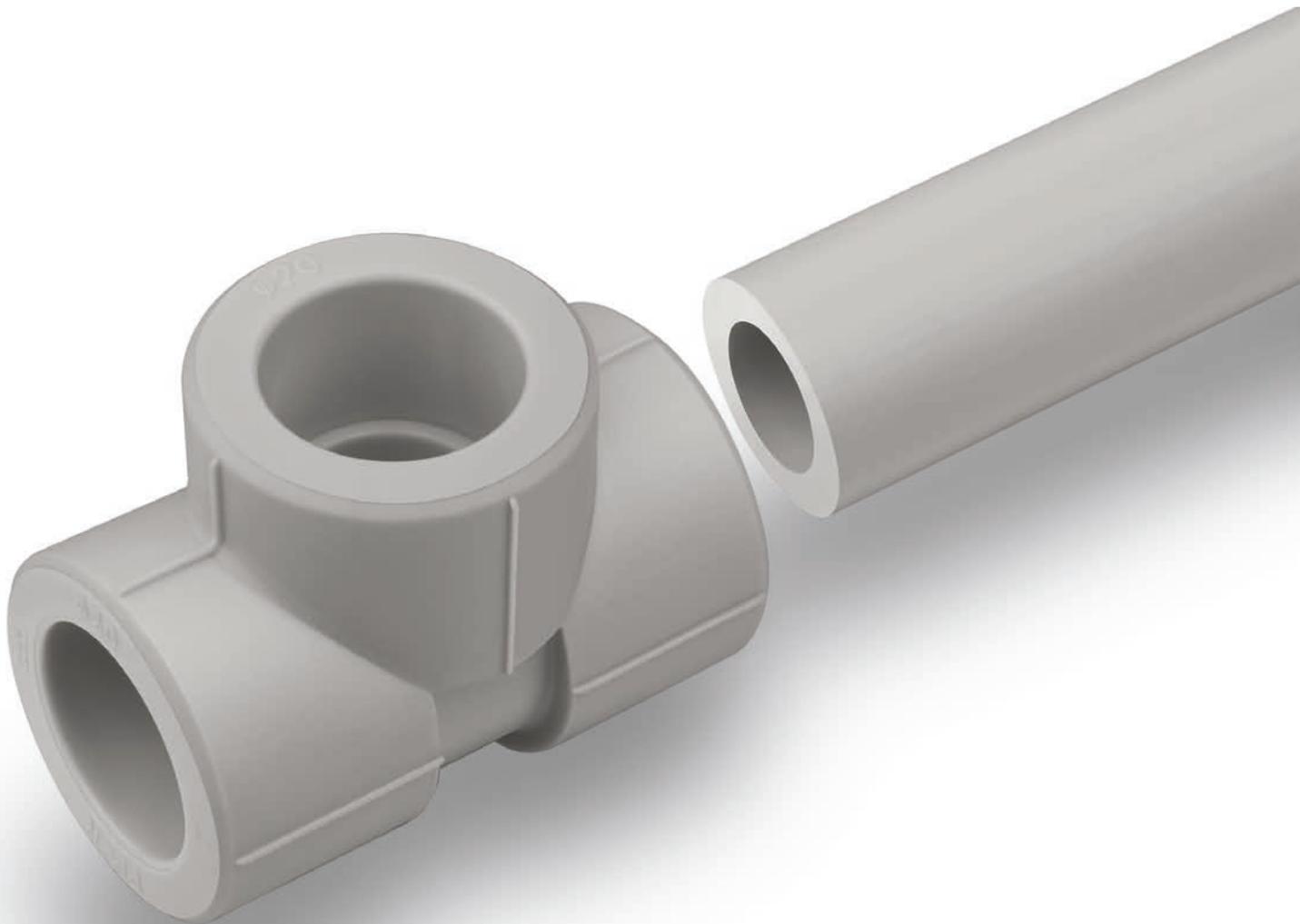


ISO 9001

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3 System **KAN-therm** PP

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3 System **KAN-therm PP**

System KAN-therm PP is a complete installation system consisting of pipes and fittings made of polypropylene PP-R (type3).

The system is widely used in construction, particularly in water supply systems.

The elements of the system are connected by socket welding (thermal polyfusion) with the use of electric welders. Welding technique through a homogeneous combination provides outstanding tightness and mechanical strength of the installation.

The material

The plastic used in the production of pipes and fittings of the System KAN-therm PP is the high quality random polypropylene copolymer (PP-R) which used to be marked as Type 3.

System KAN-therm PP is characterised by a number of advantages:

- high microbiological and physiological inertness of products
- high chemical resistance,
- resistance to material corrosion,
- low thermal conductivity,
- low specific mass,
- resistance to scale accumulation,
- dampening of flow vibrations and noises,
- mechanical strength,
- homogeneity of connections,
- high operation durability.



The scope of uses

The installation System KAN-therm PP, due to its material properties, has a wide range of use:

- cold (20°C/1.0 MPa) and hot (60°C/1.0 MPa) water in residential buildings in hospitals, hotels, office buildings, schools,
- central heating systems (temp. up to 90°C, working pressure up to 0.6 MPa),
- compressed air systems,
- balneological installations,
- installations in agriculture and gardening,
- industrial pipelines, e.g. for transporting of aggressive media and food substances,
- naval installations.

The scope of applications includes new installations, as well as repairs, modernizations and replacements.

Sanitary systems installation

System KAN-therm PP installations, thanks to the special properties of PP-R polypropylene (physiological and microbiological inertness, resistance to corrosion, to scale accumulation, vibration resistance, high thermal insulation of pipes), they are widely used especially in water supply systems, in particular in the installation of risers and horizontal pipes.

This refers to both cold and hot water installations - in residential buildings, hospitals, hotels, office buildings, schools, on ships, etc. System KAN-therm PP installations are indispensable in the replacement of old, corroded water supply installations.

Due to the specific technique of connection, thermal polyfusion, i.e. welding, tightness and durability of the installation is guaranteed.

Elements of the system

System KAN-therm PP includes the following elements:

- PP-R pipes in the form of straight sections, uniform and compound,
- uniform PP-R fittings,
- „adaptor“ couplings with metal threads,
- sleeves for flange connections, pipe joint connections,
- expansion bends, wallplates, ball valves,
- fixing elements,
- tools for cutting, machining and welding.

Pipes

Pipe types

KAN-therm PP System features four pipe types which differ in wall thickness and structure (compound pipes):

- uniform pipes PN 10 (20 –110 mm),
- uniform pipes PN 16 (20 –110 mm),
- uniform pipes PN 20 (16 –110 mm),
- compound pipes PN 16 Stabi Al (20 –75 mm),
- compound pipes PN 20 Stabi Al (16 –110 mm),
- compound pipes PN16 Glass (20-110 mm).
- compound pipes PN20 Glass (20-110 mm).

Dimension (range) and pressure classification of PP-R pipes

S	SDR	PN
5	11	10
3,2	7,4	16
2,5	6	20

$$S = (D-s)/2s$$

$$SDR = 2 \times S + 1 = D/s$$

S – pipe dimension series in accordance with ISO 4065

SDR – standard dimension ratio

D – nominal external tube diameter

s – nominal tube wall thickness

PN – pipe pressure range

Pipes PN10 (S5/SDR11)						
Dimensions	Ext. diameter D	Wall thick s	Int. diameter d	Unit volume	Unit mass	
[mm]	[mm]	[mm]	[mm]	[l/m]	[kg/m]	
20 × 1,9	20	1,9	16,2	0,206	0,107	Uniform, thin-walled pipes, for cold water.
25 × 2,3	25	2,3	20,4	0,327	0,164	
32 × 2,9	32	2,9	26,2	0,531	0,267	Diameter range from 20×1,9 to 110×10,0 mm.
40 × 3,7	40	3,7	32,6	0,834	0,412	
50 × 4,6	50	4,6	40,8	1,307	0,638	Used in installations: cold utility water, with the operating pressure of 10 bar and calculation temperature of 20°C.
63 × 5,8	63	5,8	51,4	2,075	1,010	
75 × 6,8	75	6,8	61,4	2,941	1,420	4 m sections.
90 × 8,2	90	8,2	73,6	4,254	2,030	
110 × 10,0	110	10,0	90,0	6,362	3,010	

Pipes PN16 (S3,2/SDR7,4)						
Dimensions	Ext. diameter D	Wall thick s	Int. diameter d	Unit volume	Unit mass	
[mm]	[mm]	[mm]	[mm]	[l/m]	[kg/m]	
20 × 2,8	20	2,8	14,4	0,163	0,148	Uniform pipes.
25 × 3,5	25	3,5	18,0	0,254	0,230	
32 × 4,4	32	4,4	23,2	0,415	0,370	Diameter range from 20×2,8 mm to 110×15,1 mm.
40 × 5,5	40	5,5	29,0	0,615	0,575	
50 × 6,9	50	6,9	36,2	1,029	0,896	Used in installations: cold and hot utility water, with the operating pressure of 8 bar and calculation temperature of up to 60°C.
63 × 8,6	63	8,6	45,8	1,633	1,410	
75 × 10,3	75	10,3	54,4	2,307	2,010	4 m sections.
90 × 12,3	90	12,3	65,4	3,358	2,870	
110 × 15,1	110	15,1	79,8	4,999	4,300	

Pipes PN20 (S2,5/SDR6)						
Dimensions	Ext. diameter D	Wall thick s	Int. diameter d	Unit volume	Unit mass	
[mm]	[mm]	[mm]	[mm]	[l/m]	[kg/m]	
16 × 2,7	16	2,7	10,6	0,088	0,110	Uniform, thick-walled, universal pipes.
20 × 3,4	20	3,4	13,2	0,137	0,172	
25 × 4,2	25	4,2	16,6	0,216	0,266	Diameter range from 16×2,7 to 110×18,4 mm.
32 × 5,4	32	5,4	21,2	0,353	0,434	
40 × 6,7	40	6,7	26,6	0,556	0,671	Used in installations: cold and hot utility water, with the operating pressure of 10 bar and calculation temperature of up to 60°C, and in heating systems (6 bar/80°C, T _{max} =90°C).
50 × 8,3	50	8,3	33,4	0,866	1,050	
63 × 10,5	63	10,5	42,0	1,385	1,650	4 m sections.
75 × 12,5	75	12,5	50,0	1,963	2,340	
90 × 15,0	90	15,0	60,0	2,827	3,360	
110 × 18,3	110	18,3	73,4	4,208	5,040	

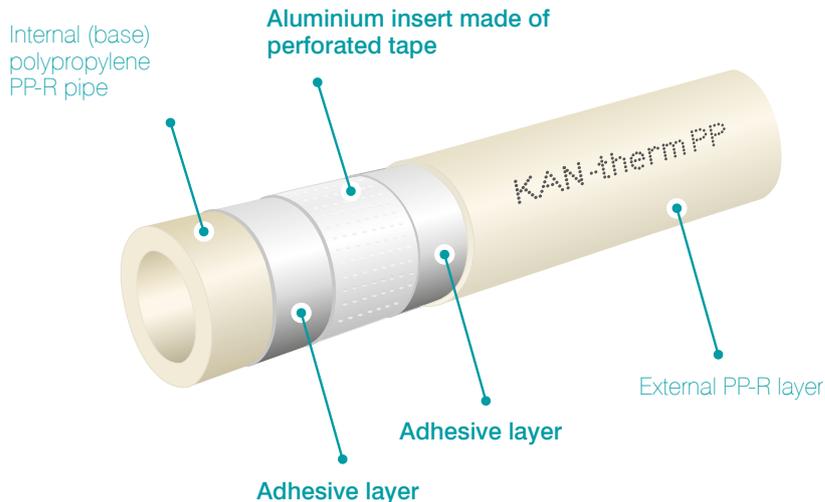
Pipes PN 16 (S3,2/SDR7,4) Stabi Al						
Dimensions	Ext. diameter D	Wall thick s	Int. diameter d	Unit volume	Unit mass	
[mm]	[mm]	[mm]	[mm]	[l/m]	[kg/m]	
20×2,8	20 (21,7)*	2,8	14,4	0,163	0,194	Compound pipes, stabilize, protected by Al foil. Diameter range from 20×2,8 to 75×10,3 mm.
25×3,5	25 (26,7)*	3,5	18	0,254	0,292	
32×4,4	32 (33,7)*	4,4	23,2	0,415	0,462	Used in installations: cold and hot utility water, with the operating pressure of 10 bar and calculation temperature of up to 60°C, and in heating systems (6 bar/80°C, T _{max} =90°C).
40×5,5	40 (41,6)*	5,5	29	0,615	0,682	
50×6,9	50 (51,6)*	6,9	36,2	1,029	1,003	4 m sections
63×8,6	63 (64,5)*	8,6	45,8	1,633	1,540	
75×10,3	75 (76,5)*	10,3	54,4	2,307	2,590	* external outer diameter of the tube with Al foil and protection layer

Pipes PN 20 (S2,5/SDR6) Stabi Al						
Dimensions	Ext. diameter D	Wall thick s	Int. diameter d	Unit volume	Unit mass	
[mm]	[mm]	[mm]	[mm]	[l/m]	[kg/m]	
16 × 2,7	16 (17,8)*	2,7	10,6	0,088	0,160	Compound, stabilized pipes, reinforced with aluminium film. Diameter range from 16×2,7 to 110×15,1 mm. Used in installations: hot utility water, with the operating pressure of 10 bar and calculation temperature of up to 60°C, and in heating systems (6 bar/80°C, T _{max} =90°C). 4 m sections. * in brackets: internal diameter of the pipe with Al film and protective layer
20 × 3,4	20 (21,8)*	3,4	13,2	0,137	0,218	
25 × 4,2	25 (26,9)*	4,2	16,6	0,216	0,328	
32 × 5,4	32 (33,9)*	5,4	21,2	0,353	0,520	
40 × 6,7	40 (41,9)*	6,7	26,6	0,556	0,770	
50 × 8,3	50 (51,9)*	8,3	33,4	0,866	1,159	
63 × 10,5	63 (64,9)*	10,5	42,0	1,385	1,770	
75 × 12,5	75 (76,9)*	12,5	50,0	1,963	2,780	
90 × 15,0	90 (92)*	15,0	60,0	2,830	3,590	
110 × 18,3	110 (112)*	18,3	73,4	4,210	5,340	

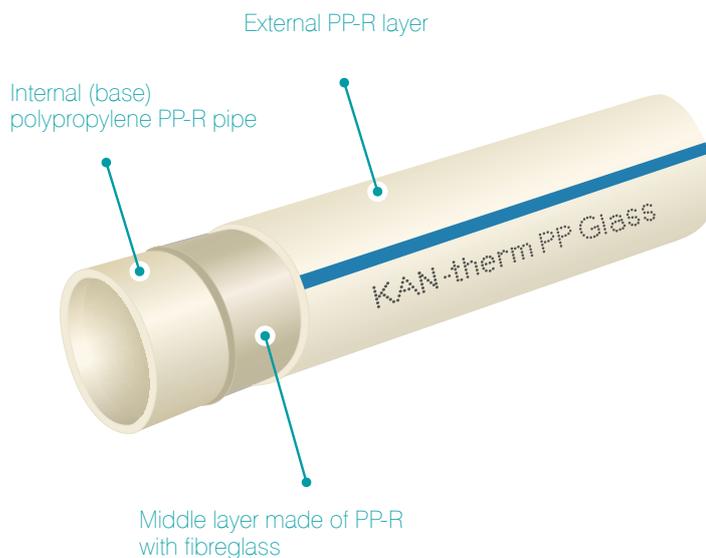
Pipes PN 16 (S3,2/SDR7,4) Glass						
Dimensions	Ext. diameter D	Wall thick s	Int. diameter d	Unit volume	Unit mass	
[mm]	[mm]	[mm]	[mm]	[l/m]	[kg/m]	
20 × 2,8	20	2,8	14,4	0,163	0,160	Compound, fibreglass reinforced pipes. Diameter range from 20×2,8 to 110×15,1 mm. Used in installations: hot utility water, with the operating pressure of 10 bar and operating temperature of up to 60°C, and in heating systems (6 bar/80°C, T _{max} =90°C). 4 m sections.
25 × 3,5	25	3,5	18,0	0,254	0,250	
32 × 4,4	32	4,4	23,2	0,415	0,430	
40 × 5,5	40	5,5	29,0	0,615	0,650	
50 × 6,9	50	6,9	36,2	1,029	1,000	
63 × 8,6	63	8,6	45,8	1,633	1,520	
75 × 10,3	75	10,3	54,4	2,307	2,200	
90 × 12,3	90	12,3	65,4	3,358	3,110	
110 × 15,1	110	15,1	79,8	4,999	4,610	

Pipes PN 20 (S2,5/SDR6) Glass						
Dimensions	Ext. diameter D	Wall thick s	Int. diameter d	Unit volume	Unit mass	
[mm]	[mm]	[mm]	[mm]	[l/m]	[kg/m]	
20 × 3,4	20	3,4	13,2	0,137	0,180	Compound, glass fibre reinforced pipes. Diameter range from 20×3,4 to 110×18,4 mm. Used in installations: hot utility water, with the operating pressure of 10 bar and operating temperature of up to 60°C, and in heating systems (6 bar/80°C, T _{max} =90°C). 4 m sections.
25 × 4,2	25	4,2	16,6	0,216	0,290	
32 × 5,4	32	5,4	21,2	0,353	0,460	
40 × 6,7	40	6,7	26,6	0,556	0,680	
50 × 8,3	50	8,3	33,4	0,866	1,000	
63 × 10,5	63	10,5	42,0	1,385	1,550	
75 × 12,5	75	12,5	50,0	1,963	2,340	
90 × 15,0	90	15,0	60,0	2,827	3,360	
110 × 18,3	110	18,3	73,4	4,208	4,900	

Compound pipes Stabi



Compound pipes Glass



Thermal elongation

Every pipeline, when exposed to temperature difference ΔT , undergoes elongation (or shortening) by the ΔL value. This amount is calculated with the below formula:

$$\Delta L = \alpha \times L \times \Delta T$$

where:

α – thermal linear elongation coefficient [mm/mK]

0,15 [mm/mK] – homogenous PP pipes

0,05 [mm/mK] – PP Glass pipes

0,03 [mm/mK] – PP Stabi pipes

L – pipeline section length [m]

ΔT – temperature difference during installation and use [K]

Example:

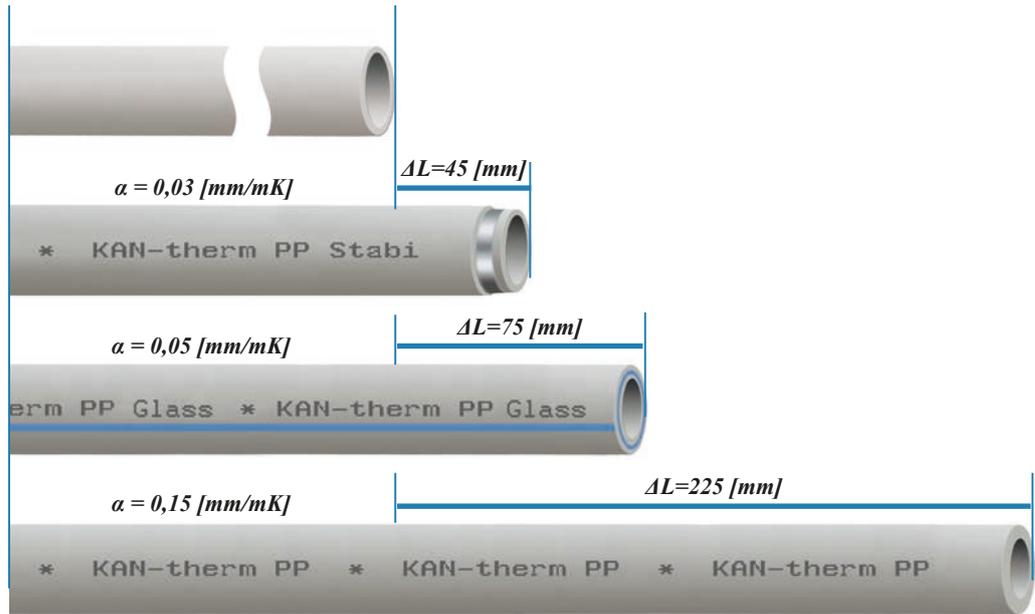
Elongation of 25 m pipe KAN-therm PP Stabi, KAN-therm PP Glass, KAN-therm PP homogenous at temperature difference 60°C.

— KAN-therm PP Stabi $\Delta L = 0,03 \times 25 \times 60 = 45$ [mm]

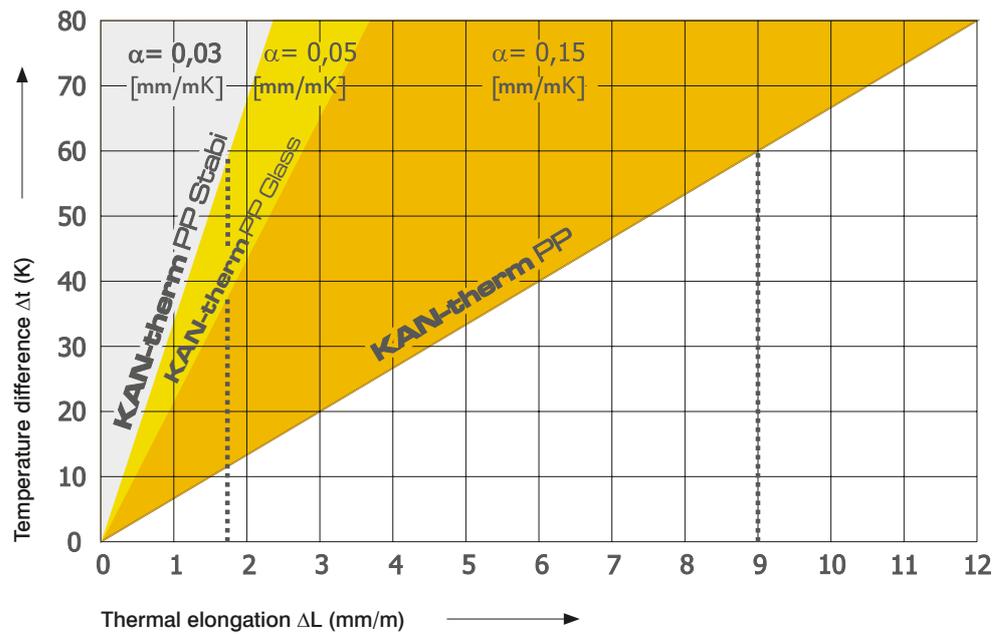
— KAN-therm PP Glass $\Delta L = 0,05 \times 25 \times 60 = 75$ [mm]

— KAN-therm PP homogenous $\Delta L = 0,15 \times 25 \times 60 = 225$ [mm]

Elongation of 25 m pipe



Comparison of thermal elongation or KAN-therm PP pipes, homogeneous and joint Stabi Al and Glass



Compensators

In order to eliminate linear elongation effects (uncontrolled movements of pipelines and their deformation), compensation solutions with different structures are used (flexible arm, U- and Z-shape compensators).

$$L_s = K \times \sqrt{D_z \times \Delta L}$$

where:

L_s – flexible arm's length [mm]

K – material coefficient = 20

D_z – external diameter of the pipe [mm]

ΔL – elongation of the pipe-line length [mm]

„L”, „Z”, and „U” compensator selection

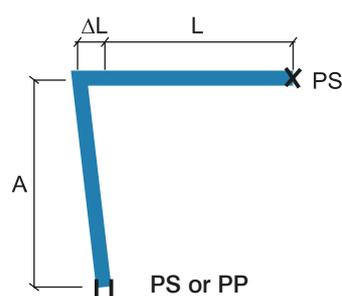
Table 1 Required expansion compensation length A [mm] for System KAN-therm PP

Elongation values ΔL [mm]	Pipe external diameters d_z [mm]									
	16	20	25	32	40	50	63	75	90	110
2	113	126	141	160	179	200	225	245	268	297
4	160	179	200	226	253	283	318	346	380	420
6	196	219	245	277	310	346	389	424	465	514
8	226	253	283	320	358	400	449	490	537	593
10	253	283	316	358	400	447	502	548	600	663
12	277	310	346	392	438	490	550	600	657	727
14	299	335	374	423	473	529	594	648	710	785
16	320	358	400	453	506	566	635	693	759	839
18	339	379	424	480	537	600	674	735	805	890
20	358	400	447	506	566	632	710	775	849	938
22	375	420	469	531	593	663	745	812	890	984
24	392	438	490	554	620	693	778	849	927	1028
26	408	456	510	577	645	721	809	883	968	1070
28	423	473	529	599	669	748	840	917	1004	1110
30	438	490	548	620	693	775	869	949	1039	1149
32	453	506	566	640	716	800	898	980	1073	1187
34	466	522	583	660	738	825	926	1010	1106	1223

Table 1 presents required expansion compensation length A for different thermal elongation values ΔL and pipe external diameters (d_z).

Rules for selection of different types of compensators are given below:

„L” type compensator



A – flexible arm length

PP – sliding support (allows only axial movement of a pipeline)

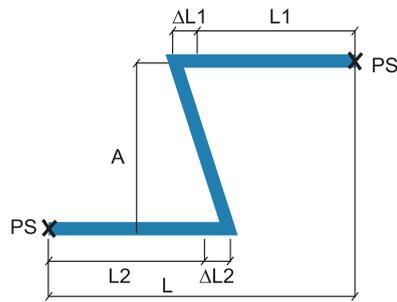
PS – fixed point (prevents any movement of a pipeline)

L – the initial length of a pipeline

ΔL – pipeline thermal elongation

For compensation arm A dimensioning, a substitute length $L_z=L$ is taken, and for L_z length the thermal elongation value ΔL , is determined from formula. Next, the expansion compensation length A is determined on the basis of Tab. 1.

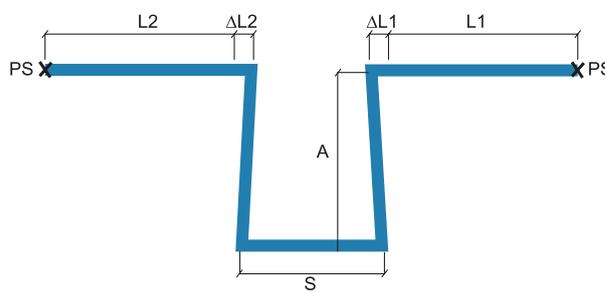
„Z” type compensator



- A – expansion compensation length
- PS – fixed point (prevents the pipeline from moving)
- L – pipeline initial length
- ΔL – pipeline thermal elongation

For compensation arm A dimensioning, $L1$ and $L2$ sum is taken as a substitute length $Lz = L1 + L2$, and for Lz length a substitute ΔL is determined from formula. Next, the expansion compensation length A is determined on the basis of Tab. 1.

„U” type compensator



- A – expansion compensation length
- PS – fixed point (prevents the pipeline from moving)
- L – pipeline initial length
- ΔL – pipeline thermal elongation
- S – U type compensator width

In case of placing fixed point PS in the section of compensator length S , for compensation arm A dimensioning, the greater value from $L1$ and $L2$ is taken as a substitute length for Lz : $Lz = \max(L1, L2)$ and for this length the substitute elongation ΔL is determined on the basis of formula, and then compensation arm A of Tab. 1.

Compensator width $S = A/2$.

Connection technique

1. Cutting the pipes with scissors.
2. Removing of the aluminum foil with a coarse file (only for compound Stabi pipes).



3. Marking of the welding depth.
4. Heating of the pipe and the connector. Parameters:
 - welding depth,
 - welding time.



5. Connecting of the elements.

Parameters:
- joining time.

6. Holding and cooling of the joint.

Parameters:
- cooling time.



CAUTION!

In order to make a tight and strong connection between a pipe and a KAN-therm PP System fitting, it is advised to use heating cover plates available in the KAN-therm PP System offer.

Ext. pipe diameter	Welding parameters			
	Welding depth	Heating time	Joining time	Cooling time
[mm]	[mm]	[sek.]	[sek.]	[min.]
16	13,0	5	4	2
20	14,0	5	4	2
25	15,0	7	4	2
32	16,0	8	6	4
40	18,0	12	6	4
50	20,0	18	6	4
63	24,0	24	8	6
75	26,0	30	10	8
90	29,0	40	10	8
110	32,5	50	10	8

The heating time of thin-walled pipes (PN 10) is reduced by half (the heating time for fittings remains unchanged). The heating time at external temperatures below +5°C should be increased by 50%.

Thread sealing

It is advised to seal threaded connections with such an amount of hemp, that leaves the thread tops not covered. Using too much hemp may lead to thread damage. By winding hemp just after the first thread ridge you can avoid skew screwing and damaging the thread.

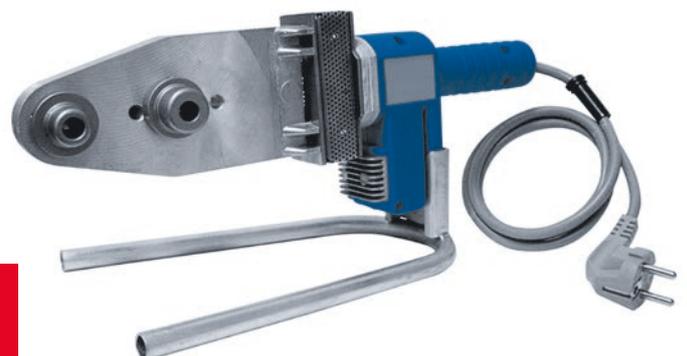


CAUTION

Do not use chemical sealants or glues.

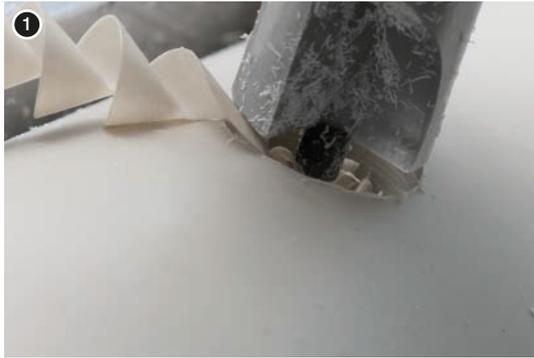


**Welding temperature
260°C**



Installation of pipe saddle fittings PP

1. Drilling a hole under the pipe saddle fitting
2. Processing the hole – removing the burrs made when drilling.

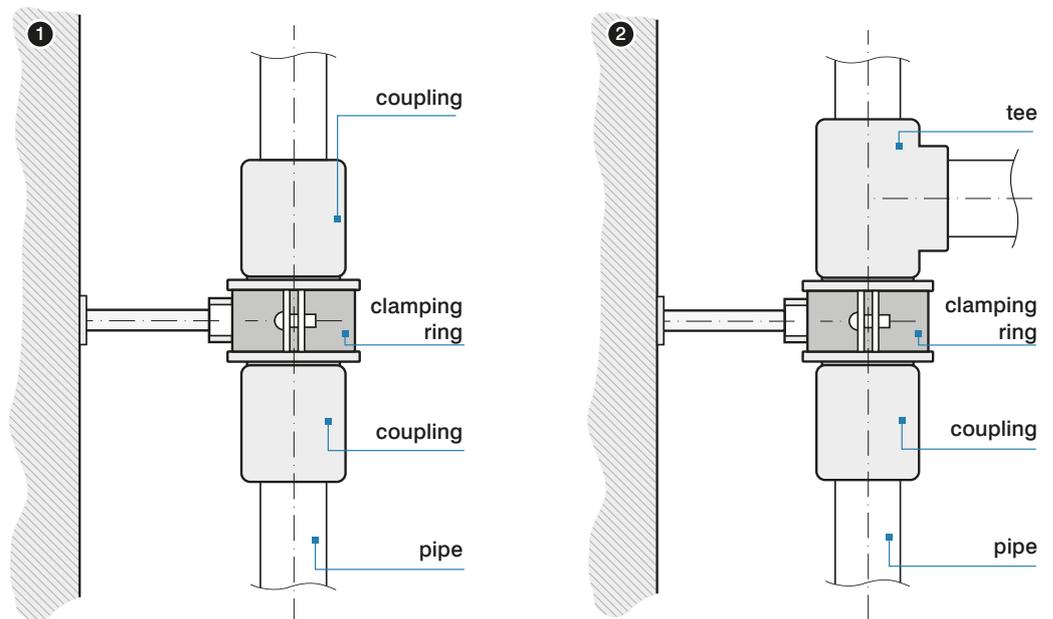


3. Welding the pipe saddle fitting.
4. Ready connection.



Installation procedures

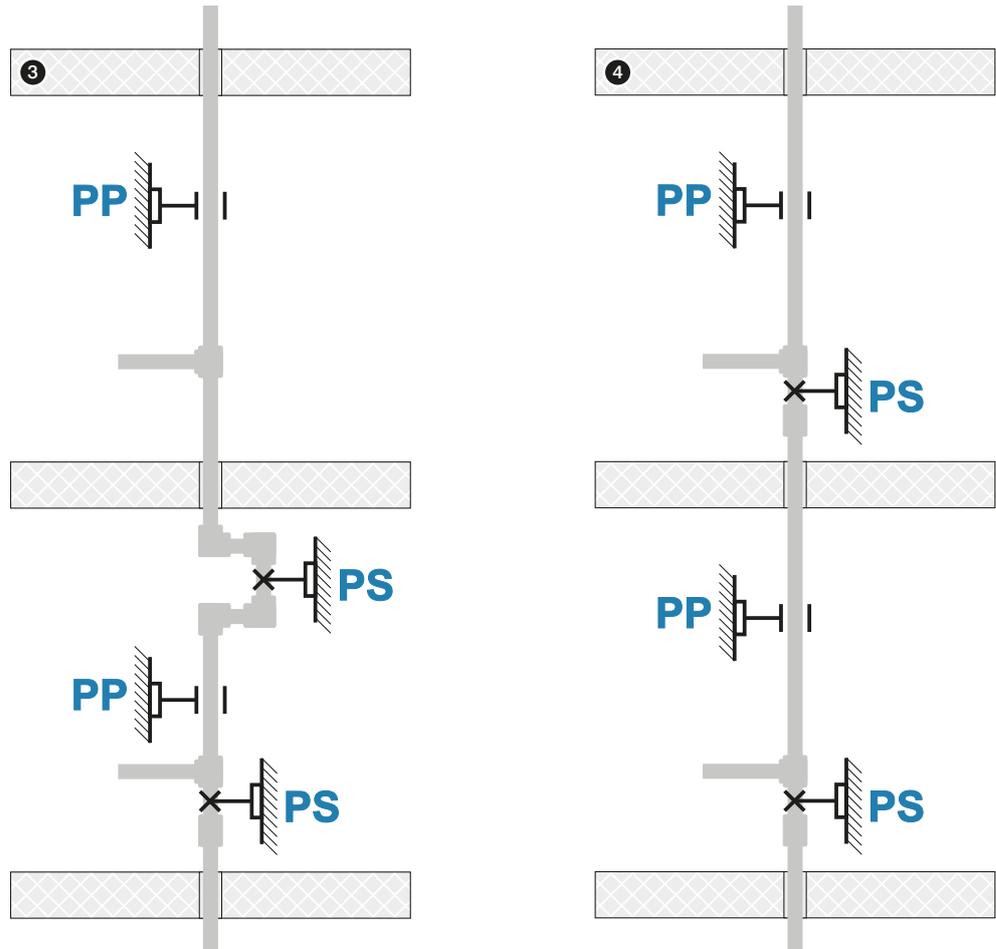
Fixed installation points - installation examples (Fig. 1 and 2)



Examples of installation of hot water risers depending on pipe types (Fig. 3 and 4)

3. Installation made of pipes: System KAN-therm PP PN16, PN20

4. Installation made of pipes: System KAN-therm PP Stabi and KAN-therm PP Glass: PP – slidable point, PS – fixed point



Maximum distances between supports for KAN-therm PP System uniform pipes depending on the diameter and medium temperature. For vertical pipeline sections, the distance between the supports can be increased by about 30%.

T [°C]	External pipe diameter D [mm]									
	16	20	25	32	40	50	63	75	90	110
	Distance between fixing points [cm]									
20	50	60	70	90	100	120	140	150	160	180
30	50	60	70	90	100	120	140	150	160	180
40	50	60	65	80	90	110	130	140	150	170
50	50	60	65	80	90	110	130	140	150	170
60	50	55	60	75	85	100	115	125	140	160
70	50	50	60	70	80	95	105	115	125	140

Maximum distances between supports for KAN-therm Stabi AI System pipes depending on the diameter and medium temperature. For vertical pipeline sections, the distance between the supports can be increased by about 30%.

T [°C]	External pipe diameter D [mm]									
	16	20	25	32	40	50	63	75	90	110
	Distance between fixing points [cm]									
20	100	120	130	150	170	190	210	220	230	250
30	100	120	130	150	170	190	210	220	230	240
40	100	110	120	140	160	180	200	210	220	230
50	100	110	120	140	160	180	200	210	220	210
70	70	90	100	120	140	160	180	190	200	200

Maximum distances between supports for KAN-therm Stabi Al System pipes depending on the diameter and medium temperature. For vertical pipeline sections, the distance between the supports can be increased by about 30%.

T [°C]	External pipe diameter D [mm]									
	16	20	25	32	40	50	63	75	90	110
60	80	100	110	130	150	170	190	200	210	200
70	70	90	100	120	140	160	180	190	200	200

Maximum distances between supports for KAN-therm System PP Glass pipes depending on the diameter and medium temperature. For vertical pipeline sections, the distance between the supports can be increased by about 30%.

T [°C]	External pipe diameter D [mm]								
	20	25	32	40	50	63	75	90	110
Distance between fixing points [cm]									
0	120	140	160	180	205	230	245	260	290
20	90	105	120	135	155	175	185	195	215
30	90	105	120	135	155	175	185	195	210
40	85	95	110	125	145	165	175	185	200
50	85	95	110	125	145	165	175	185	190
60	80	90	105	120	135	155	165	175	180
70	70	80	95	110	130	145	155	165	170

Tools - safety

All tools must be applied and used in accordance with their purpose and the manufacturer's instructions.

Use for other purposes or in other areas are considered to be inconsistent with the intended use.

Intended use also requires compliance with the instructions, conditions of inspection and maintenance and relevant safety regulations in their current version.

All works done with tools, which do not meet the application compatible with the intended purpose may result in damage to tools, accessories and pipes.

The consequence may be the leak and / or damage.

System KAN-therm PP - assortment

pipe PN10 (S5/SDR11)

GROUP: L

Size	*	Code	Packing	JM	Price EUR/JM
20×1,9		04000120	4/200	m	
25×2,3		04000125	4/160	m	
32×2,9		04000132	4/80	m	
40×3,7		04000140	4/60	m	
50×4,6		04000150	4/40	m	
63×5,8		04000163	4/24	m	
75×6,8		04000175	4/20	m	
90×8,2		04000190	4/12	m	
110×10,0		04000111	4/8	m	



pipe PN16 (S3,2/SDR7,4)

GROUP: L

Size	*	Code	Packing	JM	Price EUR/JM
20×2,8		04000220	4/160	m	
25×3,5		04000225	4/100	m	
32×4,4		04000232	4/60	m	
40×5,5		04000240	4/40	m	
50×6,9		04000250	4/28	m	
63×8,6		04000263	4/16	m	
75×10,3		04000275	4/12	m	
90×12,3		04000290	4/8	m	
110×15,1		04000211	4/4	m	



pipe PN20 (S2,5/SDR6)

GROUP: L

Size	*	Code	Packing	JM	Price EUR/JM
16×2,7		04000316	4/200	m	
20×3,4		04000320	4/160	m	
25×4,2		04000325	4/100	m	
32×5,4		04000332	4/60	m	
40×6,7		04000340	4/40	m	
50×8,3		04000350	4/28	m	
63×10,5		04000363	4/16	m	
75×12,5		04000375	4/12	m	
90×15,0		04000390	4/8	m	
110×18,3		04000311	4/4	m	



pipe PN16 (S3,2/SDR7,4) Stabi Al

GROUP: M

Size	*	Code	Packing	JM	Price EUR/JM
20×2,8		03800020	4/100	m	
25×3,5		03800025	4/80	m	
32×4,4		03800032	4/40	m	
40×5,5		03800040	4/28	m	
50×6,9		03800050	4/20	m	
63×8,6		03800063	4/12	m	
75×10,3		03800075	4/8	m	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

pipe PN20 (S2,5/SDR6) Stabi Al

GROUP: M

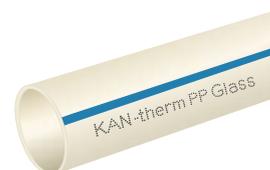
Size	*	Code	Packing	JM	Price EUR/JM
16×2,7		03900016	4/160	m	
20×3,4		03900020	4/100	m	
25×4,2		03900025	4/80	m	
32×5,4		03900032	4/40	m	
40×6,7		03900040	4/28	m	
50×8,3		03900050	4/20	m	
63×10,5		03900063	4/12	m	
75×12,5		03900075	4/8	m	
90×15,0		03900090	4/8	m	
110×18,3		03900011	4/4	m	



pipe PN16 (S3,2/SDR7,4) Glass

GROUP: M

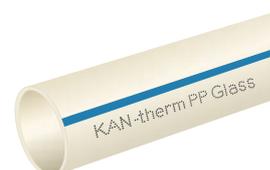
Size	*	Code	Packing	JM	Price EUR/JM
20×2,8		03810020	4/100	m	
25×3,5		03810025	4/80	m	
32×4,4		03810032	4/40	m	
40×5,5		03810040	4/28	m	
50×6,9		03810050	4/20	m	
63×8,6		03810063	4/12	m	
75×10,3		03810075	4/8	m	
90×12,3		03810090	4/8	m	
110×15,1		03810011	4/4	m	



pipe PN20 (S2,5/SDR6) Glass

GROUP: M

Size	*	Code	Packing	JM	Price EUR/JM
20×3,4		03910020	4/100	m	
25×4,2		03910025	4/80	m	
32×5,4		03910032	4/40	m	
40×6,7		03910040	4/28	m	
50×8,3		03910050	4/20	m	
63×10,5		03910063	4/12	m	
75×12,5		03910075	4/8	m	
90×15,0		03910090	4/8	m	
110×18,3		03910011	4/4	m	



saddle coupler PP x Push

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
63 / 18×2		04118263	20/160	pc	
75 / 18×2		04118275	20/160	pc	
90 / 18×2		04118290	20/160	pc	
110 / 18×2		04118211	20/160	pc	



saddle coupler PP GW

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
63×GW½ / 18×2		04118163	20/160	pc	
75×GW½ / 18×2		04118175	20/160	pc	
90×GW½ / 18×2		04118190	20/160	pc	
110×GW½ / 18×2		04118111	20/160	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

crossover

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16		04101016	20	m	
20		04101020	20	m	
25		04101025	15	m	
32		04101032	10	m	

Crossover's diameter Ø150, length 370 mm



crossover

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16		04102016	200	m	
20		04102020	150	m	
25		04102025	100	m	
32		04102032	60	m	



straight coupling

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16		04103016	80/1360	pc	
20		04103020	100/700	pc	
25		04103025	50/550	pc	
32		04103032	40/280	pc	
40		04103040	30/180	pc	
50		04103050	-/110	pc	
63		04103063	-/60	pc	
75		04103075	-/45	pc	
90		04103090	-/24	pc	
110		04103011	-/16	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

reducer

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
20×16		04108020	100/1200	pc	
25×16		04108025	50/1100	pc	
25×20		04108026	100/900	pc	
32×20		04108032	80/640	pc	
32×25		04108033	80/560	pc	
40×20		04108040	50/400	pc	
40×25		04108041	50/350	pc	
40×32		04108042	50/300	pc	
50×32		04108050	30/180	pc	
50×40		04108051	30/150	pc	
63×32		04108063	-/100	pc	
63×40		04108064	-/100	pc	
63×50		04108065	-/100	pc	
75×50		04108075	-/80	pc	
75×63		04108076	-/50	pc	
90×50		04108090	-/48	pc	
90×63		04108091	-/45	pc	
90×75		04108092	-/45	pc	
110×63		04108012	-/27	pc	
110×75		04108013	-/27	pc	
110×90		04108011	-/27	pc	



straight female connector

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16×½"		04103116	20/200	pc	
20×½"		04103120	20/180	pc	
20×¾"		04103121	30/150	pc	
25×½"		04103125	20/160	pc	
25×¾"		04103126	30/150	pc	



straight female connector

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
32×1"		04103132	-/100	pc	
40×1¼"		04103140	-/60	pc	
50×1½"		04103150	-/35	pc	
63×2"		04103163	-/18	pc	
75×2½"		04103175	-/12	pc	
90×3"		04103190	-/8	pc	



Caution:
spanner can be used within the element.

straight male connector

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16×½"		04103216	20/160	pc	
20×½"		04103220	20/160	pc	
20×¾"		04103221	30/120	pc	
25×½"		04103225	20/140	pc	
25×¾"		04103226	30/120	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

straight male connector

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
32×1"		04103232	-/80	pc	
40×1¼"		04103240	-/50	pc	
50×1½"		04103250	-/36	pc	
63×2"		04103263	-/18	pc	
75×2½"		04103275	-/10	pc	
90×3"		04103290	-/6	pc	

Caution:
spanner can be used within the element



elbow 90°

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16		04104016	50/900	pc	
20		04104020	100/500	pc	
25		04104025	50/350	pc	
32		04104032	20/200	pc	
40		04104040	20/120	pc	
50		04104050	60	pc	
63		04104063	32	pc	
75		04104075	20	pc	
90		04104090	12	pc	
110		04104011	8	pc	



nipple elbow 90°

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16		04104216	50/1000	pc	
20		04104220	100/600	pc	
25		04104225	50/400	pc	



elbow 45°

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16		04104316	50/950	pc	
20		04104320	100/700	pc	
25		04104325	50/400	pc	
32		04104332	40/200	pc	
40		04104340	20/140	pc	
50		04104350	-/80	pc	
63		04104363	-/40	pc	
75		04104375	-/25	pc	
90		04104390	-/14	pc	



nipple elbow 45°

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16		04104116	50/1050	pc	
20		04104120	100/700	pc	
25		04104125	50/450	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

wallplate elbow

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16×½"		04104416	20/140	pc	
20×½"		04104420	20/140	pc	
25×½"		04104425	20/120	pc	



male elbow 90°

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16×½"		04104516	20/140	pc	
20×½"		04104520	30/90	pc	
20×¾"		04104521	30/90	pc	
25×½"		04104525	20/120	pc	
25×¾"		04104526	30/90	pc	
32×¾"		04104532	30/60	pc	
32×1"		04104534	-/50	pc	



elbow with female thread

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16×½"		04104616	20/180	pc	
20×½"		04104620	20/140	pc	
20×¾"		04104621	30/120	pc	
25×½"		04104625	20/120	pc	
25×¾"		04104626	30/120	pc	
32×¾"		04104632	30/90	pc	
32×1"		04104634	-/50	pc	



reducing tee

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
20×16×20		04105020	20/380	pc	
25×16×25		04105025	20/260	pc	
25×20×25		04105026	20/240	pc	
32×16×32		04105032	20/140	pc	
32×20×32		04105033	20/140	pc	
32×25×32		04105034	20/140	pc	
40×20×40		04105040	20/80	pc	
40×25×40		04105041	15/90	pc	
40×32×40		04105042	15/90	pc	
50×20×50		04105050	-/60	pc	
50×25×50		04105051	-/65	pc	
50×32×50		04105052	-/60	pc	
50×40×50		04105053	-/50	pc	
63×32×63		04105063	-/30	pc	
63×40×63		04105064	-/22	pc	
63×50×63		04105065	-/22	pc	
75×40×75		04105075	-/17	pc	
90×50×90		04105090	-/12	pc	
90×63×90		04105091	-/10	pc	
90×75×90		04105092	-/12	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

tee**GROUP: N**

Size	*	Code	Packing	JM	Price EUR/JM
16		04105116	40/640	pc	
20		04105120	80/400	pc	
25		04105125	20/240	pc	
32		04105132	20/140	pc	
40		04105140	15/75	pc	
50		04105150	-/50	pc	
63		04105163	-/24	pc	
75		04105175	-/15	pc	
90		04105190	-/10	pc	
110		04105111	-/8	pc	

**corner tee****GROUP: N**

Size	*	Code	Packing	JM	Price EUR/JM
20		04105416	40/360	pc	

**four way fitting****GROUP: N**

Size	*	Code	Packing	JM	Price EUR/JM
16		04106016	80/480	pc	
20		04106020	40/320	pc	

**tee with male thread****GROUP: N**

Size	*	Code	Packing	JM	Price EUR/JM
20 × ½"		04105316	20/120	pc	

**tee with female thread****GROUP: N**

Size	*	Code	Packing	JM	Price EUR/JM
16 × ½" × 16		04105216	20/140	pc	
20 × ½" × 20		04105220	20/120	pc	
20 × ¾" × 20		04105221	30/90	pc	
25 × ½" × 25		04105225	20/180	pc	
25 × ¾" × 25		04105226	30/180	pc	
32 × ¾" × 32		04105232	15/60	pc	

**straight union with gasket****GROUP: N**

Size	*	Code	Packing	JM	Price EUR/JM
20 × ¾"		04107020	20/200	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

half union

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16×¾"		04107116	50/300	pc	
20×¾"		04107120	50/400	pc	
25×1"		04107125	20/100	pc	



straight union

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16×½"		04107216	20/200	pc	
20×½"		04107220	20/200	pc	
20×¾"		04107221	20/200	pc	
25×¾"		04107225	20/100	pc	
25×1"		04107226	20/100	pc	



flange with flat O-Ring seal

GROUP: N

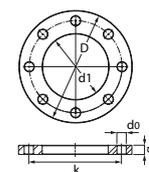
Size	*	Code	Packing	JM	Price EUR/JM
40		04109340	1/40	pc	
50		04109350	1/30	pc	
63		04109360	1/20	pc	
75		04109375	1/15	pc	
90		04109390	1/10	pc	
110		04109310	1/6	pc	



steel flange PN16

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
40		04109140	1	pc	
50		04109150	1	pc	
63		04109163	1	pc	
75		04109175	1	pc	
90		04109190	1	pc	
110		04109110	1	pc	



DN	D	d1	k	d0	q	N
32	140	43	100	18	18	4
40	150	53	110	18	18	4
50	165	66	125	18	20	4
65	185	78	145	18	20	8
80	200	95	160	18	20	8
100	220	114	180	18	22	8

* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

stop end

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16		04110016	100/1000	pc	
20		04110020	200/1000	pc	
25		04110025	100/700	pc	
32		04110032	50/500	pc	
40		04110040	50/250	pc	
50		04110050	-/170	pc	
63		04110063	-/80	pc	
75		04110075	-/50	pc	
90		04110090	-/30	pc	
110		04110011	-/20	pc	



ball valve

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
20		04111220	10/90	pc	
25		04111225	10/50	pc	
32		04111232	5/25	pc	
40		04111240	5/15	pc	
50		04111250	2/10	pc	
63		04111263	2/8	pc	
75		04111275	1/5	pc	



globe valve

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
20		04112220	1/30	pc	
25		04112225	1/30	pc	
32		04112232	1/30	pc	



concealed globe valve

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
20		04113220	1/30	pc	
25		04113225	1/30	pc	
32		04113232	1/30	pc	

Valves delivered with two plugs for marking hot water (red) or cold water (blue).



concealed globe valve with masking and mini handle

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
20		04114220	1/40	pc	
25		04114225	1/40	pc	
32		04114232	1/40	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

pipe clamp

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16		04111016	20/1000	pc	
20		04111020	20/800	pc	
25		04111025	20/700	pc	
32		04111032	20/440	pc	
40		04111040	20/300	pc	
50		04111050	20/240	pc	
63		04111063	20/120	pc	
75		04111075	20/100	pc	
90		04111090	10/60	pc	

Caution:

Use only for uniform pipes.
For Stabi pipes use clamps with rubber insert.



single pipe clamp with rubber dumper - double-sided lock with metric thread

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
15-18		UP-G16	100	pc	
20-23		UP-G20	100	pc	
25-28		UP-G25	100	pc	
32-36		UP-G32	50	pc	
40-44		UP-G40	50	pc	
47-52		UP-G50	50	pc	
57-63		UP-G63	50	pc	
75		UP-G75	25	pc	
90		UP-G90	25	pc	
110		UP-G110	25	pc	

Caution:

Single pipe clamp with rubber dumper contains the closing screws (code WK 8x70) and extension anchor (code KR-12).



double pipe clamp with rubber dumper - double-sided lock with metric thread

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16		UD-G16	50	pc	
20		UD-G20	50	pc	
25		UD-G25	50	pc	
32		UD-G32	50	pc	

Caution:

Single pipe clamp with rubber dumper contains the closing screws (code WK 8x70) and extension anchor (code KR-12).



plastic mounting plate

GROUP: N

Size	*	Code	Packing	JM	Price EUR/JM
16-40		04111000	30/150	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Tools PP

coarse file for Stabi Al pipe

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
16/20		04212016	1	pc	
20/25		04212020	1	pc	
25/32		04212025	1	pc	
32/40		04212032	1	pc	
50		04212050	1	pc	
63		04212063	1	pc	
75		04212075	1	pc	
90		04212090	1	pc	
110		04212011	1	pc	



coarse file blade

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
	*	04210000	1	pc	



pipe cutters

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
16-40 mm		04212200	1	pc	



roll-cutters

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
50-100 mm		04212201	1	pc	



welding machine

GROUP: K

Size, power	*	Code	Packing	JM	Price EUR/JM
16-50 mm, 800 W		04212100	1	pc	
63-110 mm, 1600 W		04212101	1	pc	

Caution:

Every set includes: electric welding machine, welding machine's stand, metal box, set of inserts (depending on the diameter).



long clamping screw for welding machine PP - maintenance component

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
	*	04212104	1	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

tool kit for saddle coupler assembly

GROUP: K

Size, name	*	Code	Packing	JM	Price EUR/JM
63 - set of welding inserts		04212463	1	pc	
75 - set of welding inserts		04212475	1	pc	
90 - set of welding inserts		04212490	1	pc	
110 - set of welding inserts		04212411	1	pc	
25 - drill		04212425	1	pc	



welder inserts

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
16		04212316	1	pc	
20		04212320	1	pc	
25		04212325	1	pc	
32		04212332	1	pc	
40		04212340	1	pc	
50		04212350	1	pc	
63		04212363	1	pc	
75		04212375	1	pc	
90		04212390	1	pc	
110		04212311	1	pc	

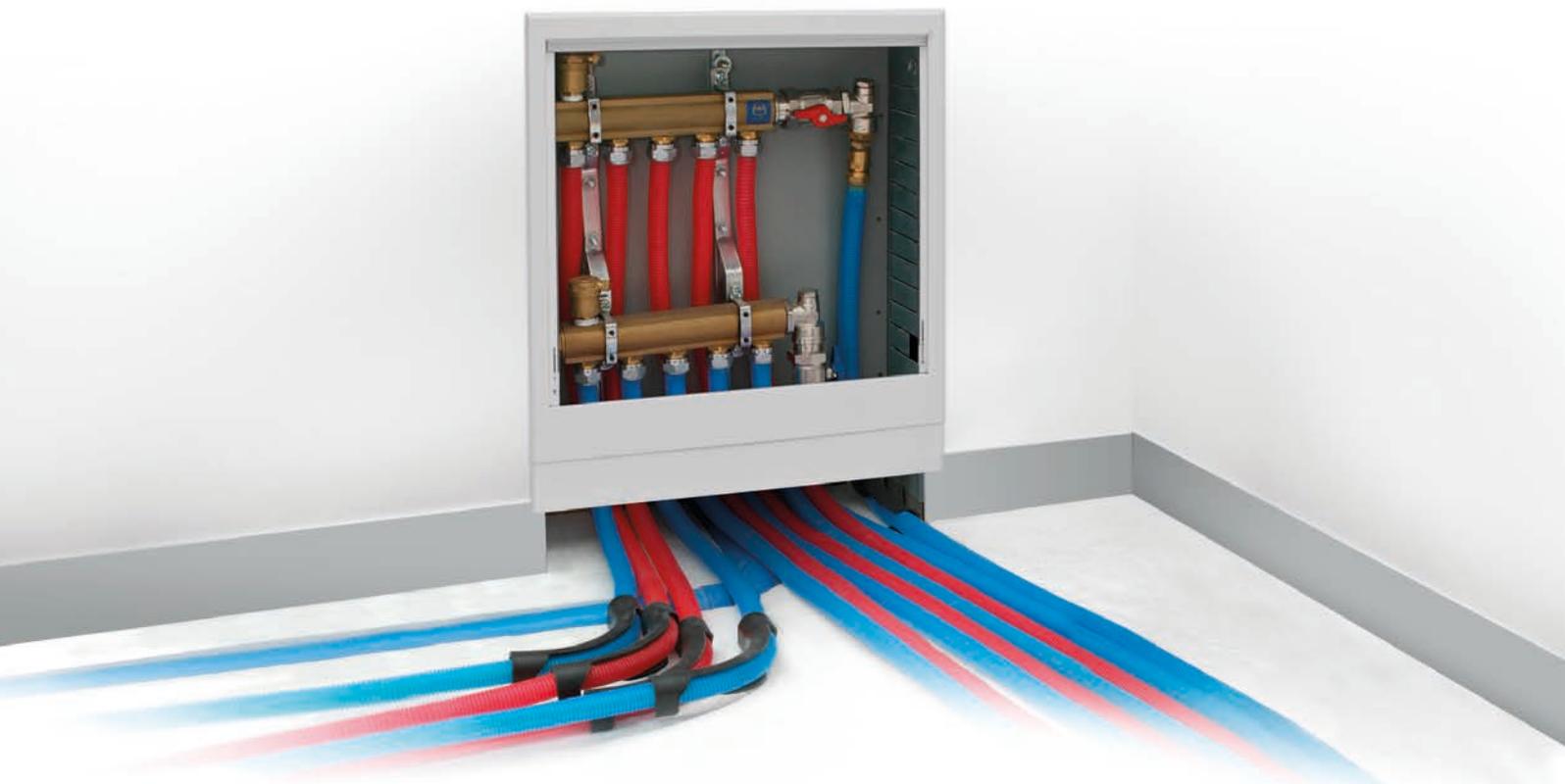




SYSTEM **KAN-therm**

manifolds, cabinets and
supplementary elements

Quality and reliability



TECHNOLOGY OF SUCCESS



ISO 9001

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Fittings for eurocone adapters

nipple

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G1/2"		6032.22	20/300	pc	
G1/2" (MN)		6032.22C	20/300	pc	
G3/4"		6033.22	10/150	pc	
G1"		6034.22	10/100	pc	

(MN) - nickel-plated nipple

Caution:

Nipples are special designed for connection to unions of pipes PE-Xc and PE-RT and PE-RT/Al/PE-RT and nuts for copper pipes.



nipple reducer

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G1/2" x G3/8"		702	20/300	pc	
G3/4" x G1/2"		6033.42	10/150	pc	
G1" x G3/4"		6034.42	10/100	pc	

Caution:

Nipples are special designed for connection to unions of pipes PE-Xc and PE-RT or PE-RT/Al/PE-RT and nuts for copper pipes.



male elbow

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G1/2"		9012.20	20/200	pc	
G3/4"		9012.22	10/120	pc	

Caution:

It can be used with eurocone adapter for pipes PE-RT and PE-Xc or PE-RT/Al/PE-RT.



male-female elbow

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G1/2"		9012.24	10/150	pc	
G3/4"		9012.26	10/80	pc	
G1"		9012.28	5/50	pc	

Caution:

It can be used with eurocone adapter for pipes PE-RT and PE-Xc or PE-RT/Al/PE-RT.



male tee

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G1/2"		9012.30	10/120	pc	
G3/4"		9012.32	5/70	pc	
G1"		9012.34	5/40	pc	

Caution:

It can be used with eurocone adapter for pipes PE-RT and PE-Xc or PE-RT/Al/PE-RT.



male - female - male tee

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G3/4" x G1/2" x G3/4"		9012.36	5/70	pc	
G1" x G1/2" x G1"		9012.38	5/40	pc	
G1" x G3/4" x G1"		9012.40	5/40	pc	

Caution:

It can be used with eurocone adapter for pipes PE-RT and PE-Xc or PE-RT/Al/PE-RT.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

brass adaptor female - male thread GW1"×GZ¾"

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G1"×G¾"	***	9032.02	5/60	pc	



elbow male-female, directly fixed, with short plastic plug

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G½"×G¾"		9017.160	5/60	pc	

Caution:

It can be used with eurocone adapter for pipes PE-RT and PE-Xc or PE-RT/AI/PE-RT. Wallplate angle tee is sold with fixing bolt and short plastic plug in a set. Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently.



wallplate elbow, with short plastic plug

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G½"		9017.180	5/70	pc	

Caution:

It can be used with eurocone adapter for pipes PE-RT and PE-Xc or PE-RT/AI/PE-RT. Wallplate angle tee is sold with fixing bolt and short plastic plug in a set. Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently.



wallplate straight tee, with short plastic plug

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G½"		9017.200	5/60	pc	

Caution:

It can be used with eurocone adapter for pipes PE-RT and PE-Xc or PE-RT/AI/PE-RT. Wallplate angle tee is sold with fixing bolt and short plastic plug in a set. Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently.



wallplate angle tee, with short plastic plug

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G½"		9017.220	5/60	pc	

Caution:

It can be used with eurocone adapter for pipes PE-RT and PE-Xc or PE-RT/AI/PE-RT. Wallplate angle tee is sold with fixing bolt and short plastic plug in a set. Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently.



plastic plug for pressure test - short - service part

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G½"		6095.33	20/300	pc	

Caution:

It may be repeatedly use (has O-Ring seal) and should be used for all KAN-therm wallplate elbows and wallplate tees. Plastic short plug is used only to make the pressure test and it cannot be use to blank off the installation permanently.



mounting bolt - service part

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
		K-505100	100/2000	pc	

Caution:

Use for wallplate elbow and tee to fix to the mounting plate.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

wall male elbow for radiator connection with dia 15 copper pipe, nickel plated

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{3}{4}$ " (MN) L = ~220		9016.22	20	pc	
G $\frac{1}{2}$ " (MN) L = ~100		4400.30	70	pc	

(MN) - brass fitting, nickel plated

Caution:

On request. It can be used with eurocone adapter, adapter for pipes PE-RT and PE-Xc, PE-RT/Al/PE-RT. All types of the possible connections of the KAN-therm fittings with dia 15 copper pipes nickel plated with all types of the sanitary fittings are described in the technical part of the catalogue of products – "Assembling the screw fittings"..



Connections for copper pipes Ø15

eurocone adapter for copper pipe G $\frac{3}{4}$ "

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
15 G $\frac{3}{4}$ "		9023.08	15/150	pc	

Caution:

It can be used for male screw fittings and compact valves.



universal eurocone adapter for 15 mm metal pipes

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
15 G $\frac{3}{4}$ "		9023.10	15/150	pc	

Caution:

universal eurocone adapter allows for connecting metal pipes (copper, nickel plated copper, KAN-therm Steel or KAN-therm Inox) 15 mm diameter. New construction allows for its multiple use.



eurocone adapter for copper pipe G $\frac{1}{2}$ "

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
15 G $\frac{1}{2}$ "		K-609010	20/300	pc	

Caution:

It can be used for nipples and male screw fittings.



compression set for copper pipe Ø15

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{1}{2}$ "		729202W	20/300	pc	

Caution:

Compression coupling works with KAN fittings, thermostatic valves of Honeywell, Herz, Danfoss and also with screw fittings with female thread 2 G $\frac{1}{2}$ ".



straight female nipple body, nickel plated

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{1}{2}$ " × G $\frac{1}{2}$ "		9001.35	20/300	pc	

Caution:

Use with compression set for connection the copper pipe to the female body of thermostatic valves or female VK radiator connection.



single and double cap for copper pipe Cu Ø15

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
15		9016.34	10/150	pc	
15 (joint)	***	9016.35	2/50	pc	

Caution:

On request:

1. Caps for pressure tests (for tee or elbow for radiator connection with dia 15 copper pipe) - may be repeatedly use.
2. Double cap can be used if distance between connections is 50 mm, e.g. for VK radiators.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

General purpose fittings

straight male/female union connector

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G1/2"		4912.00	100	pc	
G3/4"		4913.00	60	pc	
G1"		4914.00	30	pc	

Caution:

Male fitting with conical external thread. Not to connect with female system fittings.



elbow male/female union connector

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G1/2"		4917.00	70	pc	
G3/4"		4918.00	40	pc	
G1"		4919.00	25	pc	

Caution:

Male fitting with conical external thread. Not to connect with female system fittings.



female elbow

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G1/2"		9001.88	10/100	pc	
G3/4"		9001.87	5/50	pc	
G1"		4930.00	-/50	pc	
G1 1/4"	***	4931.00	-/20	pc	



female tee

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G1/2"		9001.85	5/70	pc	
G3/4"		9001.84	5/50	pc	
G1"		4932.00	-/30	pc	



female coupling

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G1/2"		90N	20/200	pc	
G3/4"		91N	10/120	pc	
G1"		4950.00	10/80	pc	
G1 1/4"	***	4951.00	5/50	pc	



female, reducing coupling

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G3/4" x G1/2"		9850	10/120	pc	



male-female extension

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G1/2" short		0200.12	10/150	pc	
G1/2" long		0200.12d	10/100	pc	
G3/4" short		6038.32	10/100	pc	

Caution:

Short extension: 30 mm, long extension: 45 mm.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

male - female extension for eurocone adapters

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{3}{4}$ "		6038.32E	10/100	pc	

Caution:
extension length 41 mm



reducer

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{1}{2}$ " \times G $\frac{3}{8}$ "	***	6036.52	20/400	pc	
G $\frac{1}{2}$ " \times G $\frac{1}{4}$ "	***	22	20/400	pc	
G $\frac{3}{4}$ " \times G $\frac{1}{2}$ "		6037.52	20/200	pc	
G1" \times G $\frac{3}{4}$ "		6038.52	10/120	pc	
G1" \times G $\frac{1}{2}$ "		4940.00	10/200	pc	
G1 $\frac{1}{4}$ " \times G $\frac{3}{4}$ "	***	4941.00	10/100	pc	
G1 $\frac{1}{4}$ " \times G1"	***	4942.00	10/100	pc	



female cap

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{1}{2}$ "		6095.22	20/500	pc	
G $\frac{3}{4}$ "		6095.23	20/300	pc	
G1"		6095.24	10/150	pc	



female wallplate elbow, with short plastic plug

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{1}{2}$ "		9017.100	5/70	pc	

Caution:
To fix the wallplate elbow to the wall use the mounting plates.
To apply to water installations (possibility to fix to the wall with mounting plates). Battery connections can be used in central heating systems in connections of a radiator with wall outputs (by pipes in a wall chase) by angle valve.
Female wallplate elbow is sold with fixing bolt and short plastic plug in a set.
Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently.



male-female wallplate elbow, directly fixed, with short plastic plug

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{1}{2}$ "		9017.120	5/60	pc	

Caution:
For wall mounting using expansion anchors.
Montage directly on the wall using special stud.
Male-female wallplate elbow, directly fixed is sold with fixing bolt and short plastic plug in a set.
Plastic short plug is used to make a pressure test only and it shouldn't be used to blank off the installation permanently.



plastic plug for pressure test - short - service part

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{1}{2}$ "		6095.33	20/300	pc	

Caution:
It may be repeatedly use (has O-Ring seal) and should be used for all KAN-therm wallplate elbows and wallplate tees.
Plastic short plug is used only to make the pressure test and it cannot be use to blank off the installation permanently.



mounting bolt - service part

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
		K-505100	100/2000	pc	

Caution:
Use for wallplate elbow and tee to fix to the mounting plate.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Manifolds

1" manifold type 81 without accessories

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (326×100×80)		81020	1	pc	
3 (326×150×80)		81030	1	pc	
4 (326×200×80)		81040	1	pc	
5 (326×250×80)		81050	1	pc	
6 (326×300×80)		81060	1	pc	
7 (326×350×80)		81070	1	pc	
8 (326×400×80)		81080	1	pc	
9 (326×450×80)		81090	1	pc	
10 (326×500×80)		81100	1	pc	
11 (326×550×80)		81110	1	pc	
12 (326×600×80)		81120	1	pc	

Caution:

Manifold outputs with internal thread G $\frac{1}{2}$ " and 50 mm distance between each one.



1" manifold type 61 with eurocone nipples

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (326×100×80)		61020	1	pc	
3 (326×150×80)		61030	1	pc	
4 (326×200×80)		61040	1	pc	
5 (326×250×80)		61050	1	pc	
6 (326×300×80)		61060	1	pc	
7 (326×350×80)		61070	1	pc	
8 (326×400×80)		61080	1	pc	
9 (326×450×80)		61090	1	pc	
10 (326×500×80)		61100	1	pc	
11 (326×550×80)		61110	1	pc	
12 (326×600×80)		61120	1	pc	

Caution:

Manifold mate with eurocone adapters G $\frac{3}{4}$ ". Manifold output has a 50mm distance between each one.



1" manifold type 74 with open-close valve

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (326×100×80)		74020	1	pc	
3 (326×150×80)		74030	1	pc	
4 (326×200×80)		74040	1	pc	
5 (326×250×80)		74050	1	pc	
6 (326×300×80)		74060	1	pc	
7 (326×350×80)		74070	1	pc	
8 (326×400×80)		74080	1	pc	
9 (326×450×80)		74090	1	pc	
10 (326×500×80)		74100	1	pc	
11 (326×550×80)		74110	1	pc	
12 (326×600×80)		74120	1	pc	

Caution:

Open-close valves built in the lower and upper body of manifold, it's possible to close every circuit. Manifold mate with eurocone adapters G $\frac{3}{4}$ ". Manifold output has a 50mm distance between each one.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

steel manifold 1 1/4" for central heating (series 10)

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (325×136×90)		S10020	1	pc	
3 (325×186×90)		S10030	1	pc	
4 (325×236×90)		S10040	1	pc	
5 (325×286×90)		S10050	1	pc	
6 (325×336×90)		S10060	1	pc	
7 (325×386×90)		S10070	1	pc	
8 (325×436×90)		S10080	1	pc	
9 (325×486×90)		S10090	1	pc	
10 (325×536×90)		S10100	1	pc	
11 (325×586×90)		S10110	1	pc	
12 (325×636×90)		S10120	1	pc	

Caution:

Manifold is suitable only for closed, pressurised heating systems. Beams with female thread G1". Circuits with female thread G1/2" with 50 mm spacing.



steel manifold 1 1/4" for central heating with nipples (series 20)

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (325×136×90)		S20020	1	pc	
3 (325×186×90)		S20030	1	pc	
4 (325×236×90)		S20040	1	pc	
5 (325×286×90)		S20050	1	pc	
6 (325×336×90)		S20060	1	pc	
7 (325×386×90)		S20070	1	pc	
8 (325×436×90)		S20080	1	pc	
9 (325×486×90)		S20090	1	pc	
10 (325×536×90)		S20100	1	pc	
11 (325×586×90)		S20110	1	pc	
12 (325×636×90)		S20120	1	pc	

Caution:

Manifold is suitable only for closed, pressurised heating systems. Beams with female thread G1". Manifold mate with eurocone adapters G3/4". Manifold output has a 50mm distance between each one.



1 1/4" manifold type 91 with eurocone nipples

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (297×117×80)	*	91020	1	pc	
3 (297×167×80)	*	91030	1	pc	
4 (297×217×80)	*	91040	1	pc	
5 (297×267×80)	*	91050	1	pc	
6 (297×317×80)	*	91060	1	pc	
7 (297×367×80)	*	91070	1	pc	
8 (297×417×80)	*	91080	1	pc	
9 (297×467×80)	*	91090	1	pc	
10 (297×517×80)	*	91100	1	pc	
11 (297×567×80)	*	91110	1	pc	
12 (297×617×80)	*	91120	1	pc	

Caution:

Manifold type 91 union connector 1 1/4"×1" code 91000 or 1 1/4"×3/4" code 91001 should be used. Manifold mate with eurocone adapters G3/4". Manifold output has a 50mm distance between each one.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

1" brass manifold with adjustable bracket and 100 mm output spacing, without nipples (82 series)

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (250-400×150×80)		82020	1	pc	
3 (250-400×250×80)		82030	1	pc	
4 (250-400×350×80)		82040	1	pc	

Special design allows for connecting additional fixtures (e.g. water meters, heat meters) on each circuit

Caution: Manifold beams have G1" female thread.

Adjustable beams spacing in range 250 – 400 mm.

Outputs for individual circuits with G1/2" female thread and spacing 100 mm.



Accessories for manifolds

manifold type 91 union connector

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
1 1/4" × 1"	*	91000	10/60	pc	
1 1/4" × 3/4"	*	91001	10/70	pc	

Caution: Use half-union connector for manifold 91 series.



1" manifold body for utility water systems (type 1) with air vent hole

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (100)	*	1.02	1/10	pc	
3 (150)	*	1.03	1/10	pc	
4 (200)	*	1.04	1/10	pc	
5 (250)	*	1.05	1/10	pc	
6 (300)	*	1.06	1/10	pc	
7 (350)	*	1.07	1/10	pc	
8 (400)	*	1.08	1/10	pc	
9 (450)	*	1.09	1/10	pc	
10 (500)	*	1.10	1/10	pc	
11 (550)	*	1.11	1/10	pc	
12 (600)	*	1.12	1/10	pc	

Caution:

It has outputs for individual circuits with female thread G1/2", manifold inputs G1", hole in upper part for automatic air vent.

Manifold outputs has a 50 mm distance between each one



1" manifold body for utility water systems (type 2) without air vent hole

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (100)	*	2.02	1/10	pc	
3 (150)	*	2.03	1/10	pc	
4 (200)	*	2.04	1/10	pc	
5 (250)	*	2.05	1/10	pc	
6 (300)	*	2.06	1/10	pc	
7 (350)	*	2.07	1/10	pc	
8 (400)	*	2.08	1/10	pc	
9 (450)	*	2.09	1/10	pc	
10 (500)	*	2.10	1/10	pc	
11 (550)	*	2.11	1/10	pc	
12 (600)	*	2.12	1/10	pc	

Caution:

It has outputs for individual circuits with female thread G1/2", manifold inputs G1".

Manifold outputs has a 50 mm distance between each one.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

bracket for manifold

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
	*	5309	50	pc	



nipple for manifold with O-Ring

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{3}{4}$ " \times G $\frac{1}{2}$ "		P06	20/200	pc	
G $\frac{3}{4}$ " \times G $\frac{1}{2}$ "		P09	20/200	pc	
G $\frac{1}{2}$ " \times G $\frac{1}{2}$ "		P10	20/300	pc	

Caution:

Nipple P05 used with eurocone adapters G $\frac{3}{4}$ ".
Nipple P06 used with eurocone adapters G $\frac{3}{4}$ ".
Nipple P10 used with eurocone adapters G $\frac{1}{2}$ ".



nipple for manifold series 82 for flat gasket

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{1}{2}$ " \times G $\frac{1}{2}$ "		P12	20/300	pc	

Caution:

Nipple is equipped with O-ring to seal at manifold side. Depending on desired type of sealing, design enables to connect eurocone adapters (self-sealing connections) or fixtures sealed with flat gasket (gasket not included)..



reducer

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1" \times G $\frac{1}{2}$ "		4.12	10/120	pc	
G1" \times G $\frac{3}{4}$ "		4.13	10/120	pc	

Caution:

It contains O-Ring, code U28.



male plug with hex socket

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{1}{2}$ "		6095.34	20/300	pc	

Caution:

It contains O-Ring.



male plug

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{1}{2}$ "		6095.35	20/300	pc	
G $\frac{3}{4}$ "		6095.32	20/300	pc	
G1"		6095.43	10/150	pc	

Caution:

Code 6095.32, 6095.43 contains O-Ring, code U28; others without O-Ring.



O-Ring - service part

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
18,3 \times 2,4	*	U18	100	pc	
17 \times 2	*	U17	100	pc	
24 \times 2	*	U24	100	pc	
28 \times 3	*	U28	100	pc	

Caution:

Use O-Ring, code U18 for manifold nipples, code P06 and P10.
Use O-Ring, code U17 for plug, code 6095.34.
Use O-Ring, code U24 for plug, code 6095.32.
Use O-Ring, code U28 for plug, code 6095.43 and female nipple 4.12 and 4.13



coupling for manifolds

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1"		R543	10/100	pc	

Caution:

For manifold to extend it by one more circuit.



male-female terminal with special seal

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1"×G½"×G½"		R542	5/70	pc	

Caution:

For manifold to extend it by one more circuit.



valve set, straight

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1"×G1"		K-600400	1/20	kpl.	

Caution:

Set of valves with screw connection for manifolds of KAN-therm System fixed on a 1" profile without any additional sealing. For manifold with side supply connection



valve set, angle

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1"×G1"		K-600500	1/20	kpl.	

Caution:

Set of valves with screw connection and elbows for manifolds of KAN-therm System fixed on a 1" profile without any additional sealing. For manifolds supplied from floor.



male terminal with automatic air vent and drain

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1"		R5541	1/50	pc	

Caution:

Used for 1" manifold 51A, 55A, 71A, 75A series.



manual air vent

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G½"		5322	50/500	pc	



manual drain and air vent

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G½"		10612	25	pc	

Caution:

Use by reducing 1"×½" for manifolds of 1" profile series 51A, 55A, 71A, 75A, 61, 81, 82, 74.



manual drain and air vent

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G½"		1305.11	25/100	pc	

Caution:

Use by reducing 1"×½" for manifolds of 1" profile series 51A, 55A, 71A, 75A, 61, 81, 82, 74.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

automatic air vent with stop valve

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1/2"		0.52071	1/100	pc	

Caution:

Stop valve makes possible to remove air vent without draining the system.



Cabinets

wall-mounted cabinet SWNE type, for manifolds without mixing unit

GROUP: D

Size	*	Code	Packing	JM	Price EUR/JM
4 (585×350×110)		1100Z	48	pc	
6 (585×450×110)		1110Z	36	pc	
8 (585×550×110)		1120Z	32	pc	
10 (585×650×110)		1130Z	26	pc	
13 (585×800×110)		1140Z	24	pc	

Features:

- removable painted body,
- removable back wall for easy installation of manifold and system parts,
- four mounting holes in a back wall for extension anchors,
- universal lock (coin, screwdriver),
- white colour, RAL 9016. szafka lakierowana w kolorze białym RAL 9016.

Caution: Cheaper non-painted cabinets SWNE on request.



wall-mounted cabinet SWN type, for manifolds without mixing unit

GROUP: D

Size	*	Code	Packing	JM	Price EUR/JM
4 (630×350×110)		1100S	39	pc	
6 (630×450×110)		1110S	34	pc	
8 (630×550×110)		1120S	26	pc	
10 (630×650×110)		1130S	21	pc	
13 (630×800×110)		1140S	16	pc	

Features:

- removable screwed front body crosspiece for easy installation,
- four mounting holes in a back wall for extension anchors,
- universal lock (coin, screwdriver),
- white colour, RAL 9016.

Caution: Cheaper non-painted cabinets SWN on request.



in wall -mounting cabinet SWPG type, to cover by ceramic tile, for manifolds without/with mixing unit

GROUP: D

Size**	*	Code	Packing	JM	Price EUR/JM
4 (450×350×110-165)	***	1300G	40	pc	
13/7 (450×780×110-165)	***	1330G	16	pc	

SWPG-13/7 (13 heating circuits without mixing system / 7 heating circuits with mixing system).

**External cabinet body dimensions (min. installation recess dimensions).

Features:

- wall cavity depth adjusted from 110 to 165 mm,
- cabinet door fixed with magnets,
- can be covered with glaze or other material.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

in wall -mounting cabinet SWPSE type with 45° frame for manifolds without/with mixing unit

GROUP: D

Size	*	Code	Packing	JM	Price EUR/JM
4 (560-660×350×110-165)		1300Z	42	pc	
6 (560-660×450×110-165)		1310Z	34	pc	
10/3 (560-660×580×110-165)		1320Z	24	pc	
13/7 (560-660×780×110-165)		1330Z	20	pc	
15/10 (560-660×930×110-165)		1340Z	17	pc	

*SWPSE - 10/3 (10 heating circuits without mixing system / 3 heating circuits with mixing system).
 *SWPSE - 13/7 (13 heating circuits without mixing system / 7 heating circuits with mixing system).
 *SWPSE - 15/10 (15 heating circuits without mixing system / 10 heating circuits with mixing system).
 **External cabinet body dimensions (min. installation recess dimensions).

Features:

- cabinet height adjustment from 560 to 660 mm,
- front panel height adjustment using masking part from 525 to 560 mm,
- wall cavity depth adjusted from 110 to 165 mm,
- universal lock (coin, screwdriver),
- white colour, RAL 9016,
- shutter type cabinet sides,
- 45° front panel edge angle provides good flush.

Caution: Cheaper non-painted cabinets SWPSE on request



in wall -mounting cabinet SWPS type with 45° frame for manifolds without/with mixing unit

GROUP: D

Size**	*	Code	Packing	JM	Price EUR/JM
4 (680-780×350×110-165)		1300S	34	pc	
6 (680-780×450×110-165)		1310S	27	pc	
10/3 (680-780×580×110-165)		1320S	20	pc	
13/7 (680-780×780×110-165)		1330S	17	pc	
15/10 (680-780×930×110-165)		1340S	14	pc	

SWPS - 10/3 (10 heating circuits without mixing system / 3 heating circuits with mixing system).
 SWPS - 13/7 (13 heating circuits without mixing system / 7 heating circuits with mixing system).
 SWPS - 15/10 (15 heating circuits without mixing system / 10 heating circuits with mixing system).

**External cabinet body dimensions (min. installation recess dimensions).

Features:

- cabinet height adjustment from 680 to 780 mm,
- frame height adjustment using masking part from 570 to 625 mm,
- wall cavity depth adjusted from 110 to 165 mm,
- universal lock (coin, screwdriver),
- white colour, RAL 9016,
- shutter type cabinet sides,
- 45° front panel edge angle provides good flush

Caution:

90° front panel edge angle for above types (on request) as well as cheaper non-painted cabinets SWPS on request.



cabinet front panel RAMSE type with 45° frame for manifolds without/with mixing unit

GROUP: D

Size**	*	Code	Packing	JM	Price EUR/JM
4 (525-560×350)		1600Z	40	pc	
6 (525-560×450)		1610Z	40	pc	
10/3 (525-560×580)		1620Z	36	pc	
13/7 (525-560×780)		1630Z	26	pc	
15/10 (525-560×930)		1640Z	20	pc	

RAMSE - 10/3 (10 heating circuits without mixing system / 3 heating circuits with mixing system).
 RAMSE - 13/7 (13 heating circuits without mixing system / 7 heating circuits with mixing system).
 RAMSE - 15/10 (15 heating circuits without mixing system / 10 heating circuits with mixing system).

**Recess assembly dimensions.

Features:

- front can be used directly for recess masking purpose without mounting of SWPS and SWPSE cabinets,
- mounting lugs, 150 mm long, for direct front panel installation,
- fastening extension anchors,
- panel height adjustment using masking part from 570 to 625 mm,
- universal lock (coin, screwdriver),
- white colour, RAL 9016,
- 45° front panel edge angle provides good flush.

Caution:

2 pcs. in one packing.

Cheaper non-painted front RAMS on request.



cabinet front panel RAMS type with 45° frame for manifolds without/with mixing unit

GROUP: D

Size**	*	Code	Packing	JM	Price EUR/JM
4 (570-625×350)	*	1600S	40	pc	
6 (570-625×450)	*	1610S	40	pc	
10/3 (570-625×580)	*	1620S	36	pc	
13/7 (570-625×780)	*	1630S	26	pc	
15/10 (570-625×930)	*	1640S	20	pc	

RAMS - 10/3 (10 heating circuits without mixing system / 3 heating circuits with mixing system).
 RAMS - 13/7 (13 heating circuits without mixing system / 7 heating circuits with mixing system).
 RAMS - 15/10 (15 heating circuits without mixing system / 10 heating circuits with mixing system).

**Recess assembly dimensions.

Features:

- front can be used directly for recess masking purpose without mounting of SWPS and SWPSE cabinets,
- mounting lugs, 150 mm long, for direct front panel installation,
- fastening extension anchors,
- panel height adjustment using masking part from 570 to 625 mm,
- universal lock (coin, screwdriver),
- white colour, RAL 9016,
- 45° front panel edge angle provides good flush.

Caution:

2 pcs. in one packing.

Cheaper non-painted front RAMS on request.



lock & key

GROUP: D

	*	Code	Packing	JM	Price EUR/JM
		85/834	1	pc	

Features:

- many key combinations,
- can be used for all type of KAN cabinets and front panels.



Installation equipment and mounting accessories

corrugated (protection) pipe - red

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12-14 (Dz 23 mm)		1904C	100	m	
16-18 (Dz 25 mm)		1900C	50	m	
20 (Dz 28 mm)		1906C	50	m	
25-26 (Dz 35 mm)		1901C	50	m	
32 (Dz 43 mm)		1908C	50	m	
40 (Dz 50 mm)		1910C	25	m	

Caution:

Apply for hot and cold water system and central heating, as a protecting pipe, in the case of embedding the system in concrete.



corrugated (protection) pipe - blue

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12-14 (Dz 23 mm)		1904N	100	m	
16-18 (Dz 25 mm)		1900N	50	m	
20 (Dz 28 mm)		1906N	50	m	
25-26 (Dz 35 mm)		1901N	50	m	
32 (Dz 43 mm)		1908N	50	m	
40 (Dz 50 mm)		1910N	25	m	

Caution:

Apply for hot and cold water system and central heating, as a protecting pipe, in the case of embedding the system in concrete



plastic mounting plate

GROUP: A

Size	*	Code	Pcs./packing	JM	Price EUR/JM
Single		6090.050	20/200	pc	
Double (L=150mm)		6090.060	10/70	pc	
Double (L=80mm)		6090.070	20/120	pc	
Double (L=50mm)		6090.080	15/150	pc	

Caution:

Used for mounted wallplates.



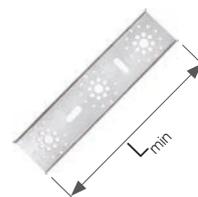
metal mounting plate

GROUP: A

Size	*	Code	Pcs./packing	JM	Price EUR/JM
Double (L= 80, 150mm)		6090.13	1/42	pc	

Caution:

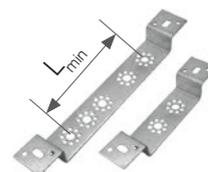
Mounting plate allows for fixing standard and directly fixed wallplate elbows. Mounting plate includes screws for directly fixed wallplate elbows (6pc)



metal mounting plate

GROUP: A

Size	*	Code	Pcs./packing	JM	Price EUR/JM
Double (L=50, 80, 150mm)		6090.09	120	pc	
Double (L=50mm)		6090.10	150	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

single plastic pipe hook

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12-20/12-26 (L=48mm, 8mm)		0.8048	100/5000	pc	
12-20/12-26 (L=77mm, 8mm)		8051	100/4000	pc	
12-20/12-26 (L=100mm, 10mm)		8053	100/3000	pc	
12-20/12-26 (L=80mm, 10mm)		1851N	200/1600	pc	
12-20/12-26 (L=80mm, 10mm)		1851W	100/4000	pc	

Caution:

Use in case of pipe in corrugated (protection) pipe.



double plastic pipe hook

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12-20/12-26 (L=48mm, 8mm)		0.8049	100/3000	pc	
12-20/12-26 (L=77mm, 8mm)		8052	100/2400	pc	
12-20/12-26 (L=100mm, 10mm)		8054	100/2000	pc	
12-20/12-26 (L=80mm, 10mm)		1951N	200/800	pc	
12-20/12-26 (L=80mm, 10mm)		1951W	100/2000	pc	

Caution:

Use in case of pipe in corrugated (protection) pipe.



snap-in pipe clip with extension anchor and spacer

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16-18 single	*	1730	100	pc	
16-18 double	*	1630U	100	pc	

Caution:

Use directly on pipe (without corrugated pipe).



masking Ø15

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
single		2215	100	pc	
double		2220	50	pc	

Caution:

Used for masking of floor outgoing pipes.



single pipe clamp with insulation

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
15-18		UP-G16	100	pc	
20-23		UP-G20	100	pc	
25-28		UP-G25	100	pc	
32-36		UP-G32	50	pc	
40-44		UP-G40	50	pc	
47-52		UP-G50	50	pc	
54		UP-G60	50	pc	
57-63		UP-G63	50	pc	
76,1		UP-G75	25	pc	
88,9		UP-G90	25	pc	
108		UP-G110	25	pc	
139	**	UP-G139	1/-	pc	
168	**	UP-G168	1/-	pc	

Caution:

Single pipe clamp with insulation contains the closing screws and extension anchor.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

double pipe clamp with insulation

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
15-18		UD-G16	50	pc	
20-23		UD-G20	50	pc	
25-28		UD-G25	50	pc	
32-36		UD-G32	50	pc	

Caution:

Double pipe clamp with insulation contains the closing screws and extension anchor..



plastic hinged pipe clip

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16		8019950A	optional	pc	
20		8020950A	optional	pc	
25		8021950A	optional	pc	
32		8022950A	optional	pc	
40		8023950A	optional	pc	
50		8024950A	optional	pc	
63		8025950A	optional	pc	

Caution:

Clasps code 8020950A-8025950A replace clasps code 8020950-8025950. Use as a slide support only



plastic plug for pressure test - long

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{1}{2}$ "		2100C	20	pc	
G $\frac{3}{4}$ "	*	2110C	20	pc	

Caution:

It may be repeatedly use (has O-Ring seal) and should be used for all KAN-therm wallplate elbows and wallplate tees.



plastic plug for pressure test - long

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G $\frac{1}{2}$ "		2100N	20	pc	
G $\frac{3}{4}$ "	*	2110N	20	pc	

Caution:

It may be repeatedly use (has O-Ring seal) and should be used for all KAN-therm wallplate elbows and wallplate tees.



anti-freezing agent

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
-20°C	*	0.1008	20	l	
-25°C	*	0.1009	20	l	
-35°C	*	0.1010	20	l	

Caution:

Used for central heating, air conditioning, cooling and solar systems.



double metal floor clip for pipe in protecting tube

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12-18/16-26		276	50/1000	pc	
16-32/25-40		278	40/800	pc	

Caution:

Use only in case of pipe in corrugated (protection) pipe.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

plastic bend support

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
brak /14-18		8058	50/200	pc	
12-14/20		8059	100	pc	
12-18/25		8060	80	pc	



metal bend support

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
25-26		265	50	pc	
12-18		267	120	pc	



slip lock elbow

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14-18		8008	100	pc	

Caution:

Used for pipe connection to a radiator (to set in concrete).



plastic protection for slip lock elbow

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14-18		0.8050	100	pc	

Caution:

Used as a mask or protection for pipes PE-Xc or PE-RT connected to a radiator.



plastic plug for pressure test - short - service part

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
G1/2"		6095.33	20/300	pc	

Caution:

It may be repeatedly use (has O-Ring seal) and should be used for all KAN-therm wallplate elbows and wallplate tees. Plastic short plug is used only to make the pressure test and it cannot be use to blank off the installation permanently.



nut M8 - service part for wallplate elbow

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
M8		6096.03	100/3000	pc	



mounting bolt - service part

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
		K-505100	100/2000	pc	

Caution:

Use for wallplate elbow and tee to fix to the mounting plate.



Ø 12-108 mm



SYSTEM **KAN-therm**

Steel

Traditional material
in modern technology



TECHNOLOGY OF SUCCESS



ISO 9001

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5 System **KAN-therm Steel**

System KAN-therm Steel is a system made of carbon steel pipes and fittings of diameters 12 to 108 mm. Pipes and fittings produced of high quality carbon steel covered with thin zinc layer which protects external surface against corrosion.

Modern connection technology

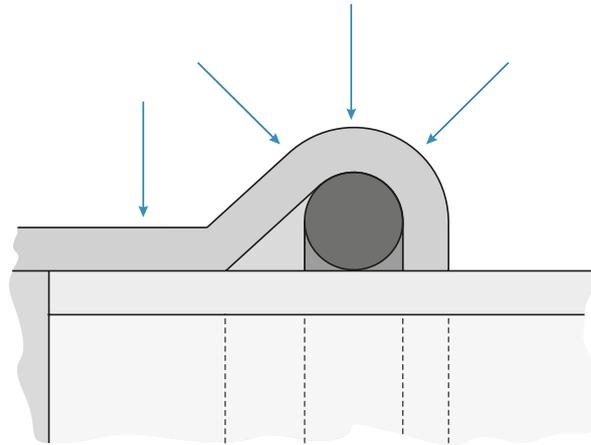
“Press” technology used in System KAN-therm Steel enables to make fast and reliable connections by pressing fittings using widely available press tools, and to eliminate twisting and welding of individual elements. The system permits a very quick assembly even when using pipes and fittings in large diameters.

System KAN-therm Steel pipes and fittings are made of thin-walled steel, which significantly decreases weight of individual elements and facilitates system assembly.

Connecting elements in “press” technology allows to obtain connections with minimized pipe section narrowing, which significantly decreases waste of system pressure and creates excellent hydraulic conditions.

Long-lasting connection technology

Connection leak tightness in System KAN-therm Steel is provided by special O-Ring seals and a three-point crimping profile „M”.



Application possibilities

- closed water heating installation (cannot be used for potable water installations),
- closed cooling water systems.

Advantages

- quick and reliable system assembly without welding and twisting,
- wide range of pipe and fitting diameters up to 108 mm,
- wide range of operating temperatures: from -35°C to 135°C,
- high operating pressure up to 16 bar,
- compatible with plastic systems KAN-therm Press and Push,
- lightweight pipes and fittings,
- system high aesthetics,
- resistance to mechanical damage.

Fitting assembly



1 Pipe cutting

Pipes should be cut perpendicular to their axes using pipe roll-cutter (full cut, with no breaking off nicked pipe segments). Using other tools is permissible provided the cut is perpendicular and cut edges are not damaged (no breaking off, no material decrements or other deformations of pipe section). Tools that emit a lot of heat, e.g. a flame torch, an angle grinder, etc., cannot be used.



2 Beveling

Using a hand operated stripping tool (for 66,7-108 mm half-rounded steel file), bevel outside and inside the tip of the cut pipe, and remove all file dust that can damage an O-Ring during assembly. Stripping tool may also be mounted on electric machines (for instance electric drill).



3 Marking the insertion depth of the pipe in the fitting

In order to obtain proper connection strength it is necessary to keep the correct insertion depth (Tab.1, Fig 1) of the pipe in the fitting (it should be slid home). To make sure the pipe is properly slid into the fitting during pressing, mark the required insertion depth with a pen marker. After the connection have been made, the marking should be visible just next to edge of the fitting. Also, there are special markers for marking the insertion depth.



4 Control

Before assembly, check visually that there is an O-Ring in the fitting, whether it is not damaged, and whether there are no file dust or any other sharp objects which can cause damage to the O-Ring during assembly. In order to proper assembling it is necessary to check the minimal allowed distance between the fittings according to Table. In order to proper assembling it is necessary to check the minimal allowed distance between the fittings according to Table 1. Fig.1).

5 Pipe and fitting assembly

Before making the connection, axially insert the pipe into the fitting to a marked depth (To make the assembly easier it is possible to slightly twist the pipe in relation to the fitting).

Using any kinds of oils, lubricating oils and fats in order to make the montage of the pipe into the fitting easier is not allowed (it is allowed to use only water or spoiled soap - recommended in case of pressure test by air) In the case of making many connections (inserting pipes into fittings and pressing) it is very important to watch the pipe insertion depth. To do so watch previously made markings on pipes near fitting edges.



6 Making a press connection

Before the beginning of the process of making the press connection, please check the efficiency of tools. Recommended is the usage of pressing machine and jaws provided by the System KAN-therm. Always choose the suitable size of the jaw to the diameter of executing connection. The jaw should be placed on the fitting in the way, which will ensure that the grooves in the jaw will cover the space, where are the O-Rings placed (raised parts of the fitting). After start of pressing, the process takes place automatically and cannot be stopped. If for some reasons the process of the pressing will be aborted, the connection need to be disassembled (cut out) and then the new connection should be executed one more time in correct way. If the contractors have different machines and jaws than those supplied by KAN, every use of them must be consulted with the KAN company individually.

7 Making a press connection in range 66,7–108 mm Preparing the jaw

To make a press connection of the three biggest dimensions of the Steel (64, 66,7, 76,1; 88,9; 108) a special jaws should be used (tetramerous) and the Klauke pressing machine. The jaw after release should be unlocked by removing the special bolt.



8 Locking the jaw

Unlocked jaw need to be put on the fitting. The jaw has special groove, where the fitting edge need to be placed.

! Caution The label on the jaw should be always at the pipe side (see picture).

- 9 After the correct assembling the jaw onto the fitting, the jaw need be to locked using the special bolt. At this moment the jaw is ready to do the connection.



10 **Assembling the machine to the jaw**

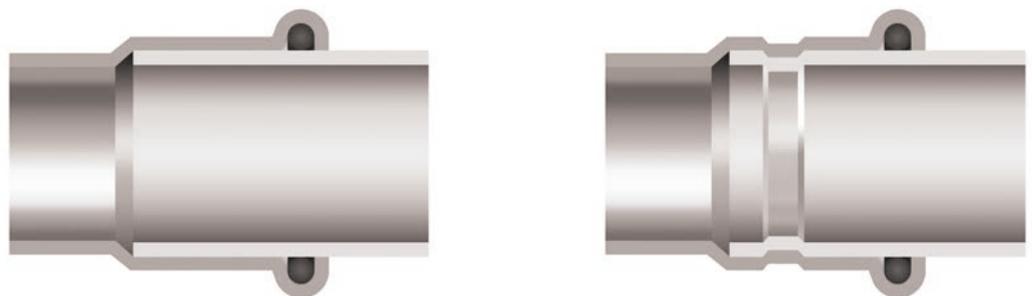
The machine need to be connected with the jaw in the way how it is shown on the picture. The arms of the machine have to be slip in up to the end. Maximal slip in is marked on the arm of the machine. Now, the machine is ready to be started.

11 **Making a connection**

The time of the full press connection is about 1 min. After the start of pressing, the process takes place automatically and cannot be stopped. If, for some reasons the process of the pressing will be aborted, the connection need to be disassembled (cut out) and then the new connection should be executed one more time in correct way. After the connection is finished, the machine will automatically back to the previous position. The arms of the machine need to be move out form the jaw. To remove the jaw from the fitting, the jaw need to be unlocked. The jaws should be stored in the locked box.

Check and lubricate the equipment before starting work and during the intervals determined by the producer.

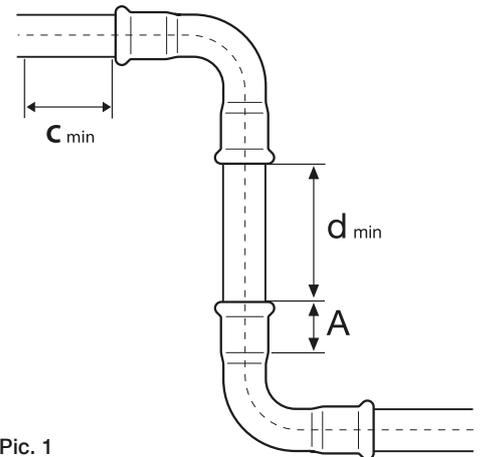
Press conection before and after press



Mounting distance

Table 1. Pipe insertion depth in the fitting and minimum distance between pressed fittings

\varnothing [mm]	A [mm]	d_{min} [mm]
12	17	10
15	20	10
18	20	10
22	21	10
28	23	10
35	26	10
42	30	20
54	35	20
64	50	30
66,7	50	30
76,1	55	55
88,9	63	65
108	77	80



Pic. 1

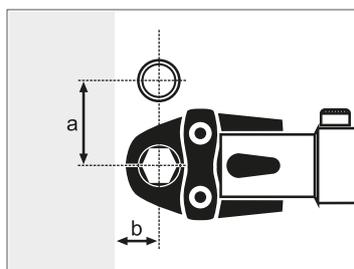
A – Pipe insertion depth in the fitting,

d_{min} – minimum distance between fittings allowing for press correctness

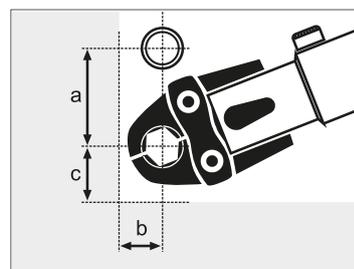
Table 2. Minimum assembly distances

\varnothing [mm]	Rys. 2		Rys. 3		
	a [mm]	b [mm]	a [mm]	b [mm]	c [mm]
12/15	56	20	75	25	28
18	60	20	75	25	28
22	65	25	80	31	35
28	75	25	80	31	35
35	75	30	80	31	44
42	140/115*	60/75*	140/115*	60/75*	75
54	140/120*	60/85*	140/120*	60/85*	85
64	145*	110*	145*	100*	100*
66,7	145*	110*	145*	100*	100*
76,1	140*	110*	165*	115*	115
88,9	150*	120*	185*	125*	125
108	170*	140*	200*	135*	135

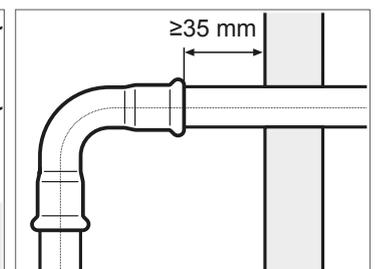
*applies to four-part pressing jaws



Pic. 2



Pic. 3



Pic. 4

Tools

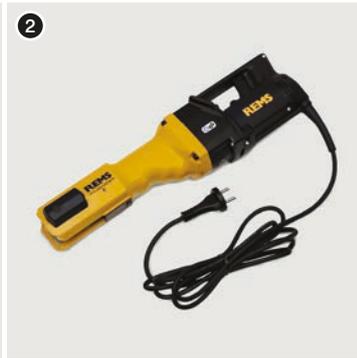
Depending on the diameter, KAN-therm provides various configuration of tools. In order to select optimal set of tools, please follow chart:

Tab. 3 Selection of tools table: System KAN-therm Steel & Inox

Brand	Press machine		Diameter [mm]	Press jaws / collars		Adapter		Type of System KAN-therm			
	Marking	Code		Marking	Code	Marking	Code	Steel	Inox	Steel Sprinkler	Inox Sprinkler
REMS	Power Press E Aku Press ZAPR01 ZAPRAK		12	M12	570100	-	-	+	-	-	-
			15	M15	570110	-	-	+	+	-	-
			18	M18	570120	-	-	+	+	-	-
			22	M22	570130	-	-	+	+	-	-
			28	M28	570140	-	-	+	+	-	-
			35	M35	570150	-	-	+	+	-	-
			42	M42	570160	-	-	+	+	-	-
			54	M54	570170	-	-	+	+	-	-
KLAUKE	UAP100	UAP100	64	KSP3 64	BP64M	-	-	+	-	-	-
			67	KSP3 66,7	BP667M	-	-	+	-	-	-
			76,1	KSP3 76,1	BP761M	-	-	+	+	-	-
			88,9	KSP3 88,9	BP889M	-	-	+	+	-	-
			108	KSP3 108	BP108M	-	-	+	+	-	-
NOVOPRESS	ECC301	620570.5	12	M12	620572.7	-	-	+	-	-	-
			15	M15	620573.8	-	-	+	+	-	-
			18	M18	620574.9	-	-	+	+	-	-
			22	M22	620575.1	-	-	+	+	+	+
			28	M28	620576.0	-	-	+	+	+	+
			35	HP 35 Snap On	634106.0	ZB 303	634111.5	+	+	+	+
			42	HP 42 Snap On	634107.1			+	+	+	+
	54	HP 54 Snap On	634108.2	+	+			+	+		
	66,7	M 67	634139.0	ZB 323	634143.4	+	+	-	-		
	ACO401	634008.1	76,1	HP 76,1	634009.2	-	-	+	+	+	+
			88,9	HP 88,9	634010.3	-	-	+	+	+	+
			108	HP 108	634011.4	-	-	+	+	+	+
			139,7	HP 139,7	BF139	-	-	-	+	-	-
			168,3	HP 168,3	BF168	-	-	-	+	-	-

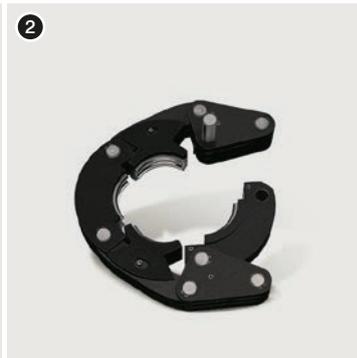
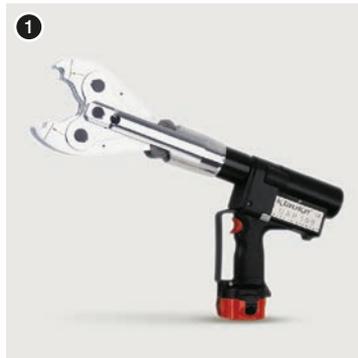
REMS tools:

1. Aku Press machine
2. Power Press E machine
3. Press jaw M12 – 54 mm



KLAUKE tools:

1. UAP100 machine
2. Press collar KSP3 64 – 108 mm

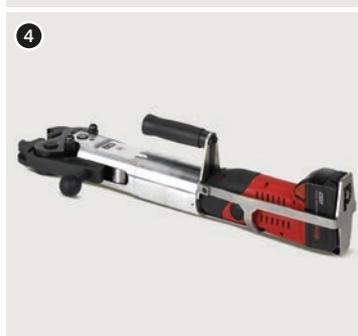


NOVOPRESS tools:

1. ECO 301 machine
2. Press jaw M12-28
3. Press collar HP 35 Snap On



4. ACO 401 machine
5. Press collar HP 42 – 54 Snap On
6. Collar M67



7. Press collar HP 76,1 – 168,3
8. Adapter ZB 303
9. Adapter ZB 323



Tools - safety

All tools must be applied and used in accordance with their purpose and the manufacturer's instructions.

Use for other purposes or in other areas are considered to be inconsistent with the intended use.

Intended use also requires compliance with the instructions, conditions of inspection and maintenance and relevant safety regulations in their current version.

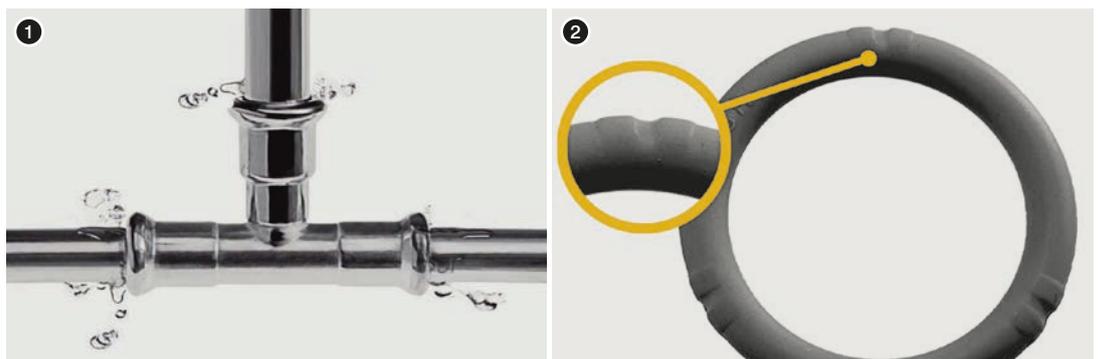
All works done with tools, which do not meet the application compatible with the intended purpose may result in damage to tools, accessories and pipes. The consequence may be the leak and / or damage.

LBP Function

All the KAN-therm Steel System fittings have LBP function (signaling unpressed connections - LBP-Leak Before Press). In scope of 12–54 mm diameters the function is implemented by means of special construction of O-rings. Thanks to their special grooves, the LBP O-rings guarantee optimal connection control during pressure test.

Unpressed connections are leaky and therefore easy to locate. In diameters over 54 mm the LBP function is realized by means of an appropriate fitting construction (fitting socket ovalization).

1. The activity of O-Rings with the function of signalling not pressed connections (LBP).
2. O-Rings with the function of signalling not pressed connections (LBP)



Detailed information

Pipes and fittings - material

Carbon steel RSt 34-2 (1.0034 acc. DIN EN 10305-3), pipes externally zinc coated (Fe/Zn 88), zinc layer thickness 8-15 μm .

O-Rings

O-Ring	Properties and work parameters	Application
<p>EPDM (butyl rubber)</p> 	<p>color: black max. operating pressure: 16 bar operating temperature: -35°C to 135°C short duration: 150°C</p>	<p>potable water hot water treated water (softened, decalcified, distilled, with glycol up to 50%) compressed air (dry)</p>
<p>FPM / Viton (fluorine rubber)</p> 	<p>color: green max. operating pressure: 16 bar operating temperature: -30°C to 200°C short duration: 230°C</p>	<p>solar systems compressed air fuel oil vegetable fat engine fuels Caution Not suitable for pure hot water applications.</p>



Fittings come with standard EPDM O-Rings.

For special applications, Viton O-Rings are delivered separately. In case of exchanging the standard EPDM to the VITON O-Rings, it is not allowed to use again the dismantled O-Rings. Areas of application that are outside the elementary scope of the closed heating installations, should be always consulted with the company KAN.

Elongation and thermal conductivity data

Material	Linear elongation coefficient [mm/(m×K)]	Elongation of 4 m segment at 60°C [mm]	Thermal conductivity [W/(m²×K)]
Steel	0,0108	2,59	58

Guidelines for applications

- KAN-therm Steel pipes cannot be bent when warm. Cold bending is permissible provided the minimum bending radius is kept ($R=3.5 \times dz$). Do not expose pipe external surface to prolonged direct moisture during storage and use.
- Pipes over $\varnothing 28$ mm should not be bent.
- Use ready-made pipe bends or 90° and 45° elbows offered by System KAN-therm Steel.
- It is not allowed to cut pipes using tools which emit a lot of heat, e.g. flame torches or grinders. To cut KAN-therm Steel pipes use only pipe cutters (hand operated and mechanical).
- Systems filled with water should not be emptied. In the case a system has to be emptied after a pressure test, it is advised to perform pressure tests using compressed air.
- When KAN-therm Steel system is concealed in building elements, pipes and fittings should be tightly insulated, allowing for compensation of thermal elongation and building chemicals protection.
- If pipes and fittings of System KAN-therm Steel may contact with water or other corrosive environment it is necessary to use tight anti-corrosion protection. The thickness of used insulation should make possible free thermal movement of installation – compensation.
- In the case of transporting chemical substances the possible use of KAN-therm Steel pipes should be consulted with KAN Technical Department.
- System KAN-therm Steel installations require potential equalization.

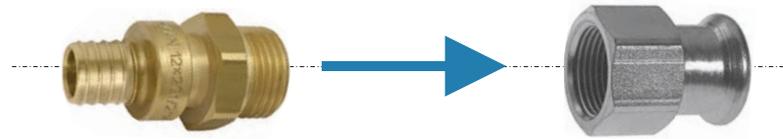
Screw connections and joining with other KAN-therm Systems

System KAN-therm Steel offers the wide range of male and female threaded fittings. Because in the Steel and Inox fittings threads are the cone-shaped, to make a connections with KAN-therm Push and Press brass fittings, use only male threads with the small quantity of tow at the brass side. To not stress the press connection, it is advised to make a screw connection before the press one.

Recommended method of connecting plastic systems (Push, Press) with steel systems (Steel, Inox) is a properly made screw connection.

Male brass fitting System KAN-therm Push, Press

Female steel fitting System KAN-therm Steel, KAN-therm Inox



Thread sealing

It is advised to seal threaded connections with such an amount of tow, that leaves the thread tops not covered. Using too much tow may lead to thread damage. By winding tow just after the first thread ridge you can avoid skew screwing and damaging the thread.



Caution

Do not use chemical sealants or glues.

Elements of the System KAN-therm Steel can be assembled (through the screw or flanged connections) with elements made of others materials (see the table below).

Possibility of connections for Systems KAN-therm Steel and Inox with other materials

Type of installation		Pipes/Fittings			
		Copper	Bronze/Brass	Carbon steel	Stainless steel
Steel	closed	yes	yes	yes	yes
	open	no	no	no	no
Inox	closed	yes	yes	yes	yes
	open	yes	yes	no	yes

Remember, that connecting directly the elements made of the stainless steel with the elements made of zinc plated carbon steel (eg. pipes) can lead to corrosion. This process can be eliminated by using the plastic inserts or independent metal inserts (bronze, brass) with minimal length of 50 mm (eg. using the brass ball valve).

Pipeline assembly

Maximum distances between attachment points are presented in Table 4:

Table 4 Maximum distances between pipeline attachment points

Pipe diameter [mm]	Distance between attachment points [m]
12	1,00
15	1,25
18	1,50
22	2,00
28	2,25
35	2,75
42	3,00
54	3,50
64	3,75
66,7	4,25
76,1	4,25
88,9	4,75
108	5,00

Attachment points can be done as:

- slidable points PP - slidable points should enable free axial motion of the pipeline (caused by thermal motions), that is why they shouldn't be fixed next to the fittings (minimal distance from fitting flange must be higher than maximum elongated of pipeline). The slidable point can be made as "unscrewed" metal clamps with rubber pads,
- fixed points PS - to make fixed point, the metal clamp with rubber pad should be used, it should enable precise and reliability stabilization of the pipe on the whole circuit. The metal clamp should be maximally tighten on the pipe,
- attachment points preventing the pipeline from moving downwards; used if the pipeline movement on compensation arm length was blocked by required PP position.

Fixed (PS) and slidable (PP) points

- fixed points should prevent any movement of pipelines and should be fixed next to fittings (at both sides of a fitting, e.g. coupling, tee connection),
- fixed or slidable points cannot be fixed directly onto fittings,
- when fixing PSs near tee connections make sure that clamps blocking the pipeline are not fixed onto branches of smaller diameters than one dimension in relation to the pipeline (forces induced by large diameter pipes can damage small diameters), PPs enable only axial motion of the pipeline (they should be treated as fixed points for perpendicular direction to the pipeline axis) and should be made by clamps,
- PPs should not be fixed next to fittings because this may block thermal motions of the pipeline,
- remember that PPs prevent the pipeline from moving transverse to its axis and that is why their position may determine compensation arms length.

Elongation compensation

Along with water temperature rise ΔT pipelines become elongated by ΔL value. Thermal elongation ΔL causes pipeline deformation on expansion compensation length A . Expansion compensation length A should not cause excessive stresses in the pipeline and depends on the pipeline external diameter, thermal elongation ΔL and a linear expansion coefficient for a given material. Elongations ΔL in function of pipe length L and temperature rise ΔT are presented in Table 5:

Table 5 Total length elongation ΔL [mm] – System KAN-therm Steel

L [m]	ΔT [°C]									
	10	20	30	40	50	60	70	80	90	100
1	0,11	0,22	0,32	0,43	0,54	0,65	0,76	0,86	0,97	1,08
2	0,22	0,43	0,65	0,86	1,08	1,30	1,51	1,73	1,94	2,16
3	0,32	0,65	0,97	1,30	1,62	1,94	2,27	2,59	2,92	3,24
4	0,43	0,86	1,30	1,73	2,16	2,59	3,02	3,46	3,89	4,32
5	0,54	1,08	1,62	2,16	2,70	3,24	3,78	4,32	4,86	5,40
6	0,65	1,30	1,94	2,59	3,24	3,89	4,54	5,18	5,83	6,48
7	0,76	1,51	2,27	3,02	3,78	4,54	5,29	6,05	6,80	7,56
8	0,86	1,73	2,59	3,46	4,32	5,18	6,05	6,91	7,78	8,64
9	0,97	1,94	2,92	3,89	4,86	5,83	6,80	7,78	8,75	9,72
10	1,08	2,16	3,24	4,32	5,40	6,48	7,56	8,64	9,72	10,80
12	1,30	2,59	3,89	5,18	6,48	7,78	9,07	10,37	11,66	12,96
14	1,51	3,02	4,54	6,05	7,56	9,07	10,58	12,10	13,61	15,12

Table 5 Total length elongation ΔL [mm] – System KAN-therm Steel

L [m]	ΔT [°C]									
	10	20	30	40	50	60	70	80	90	100
16	1,73	3,46	5,18	6,91	8,64	10,37	12,10	13,82	15,55	17,28
18	1,94	3,89	5,83	7,78	9,72	11,66	13,61	15,55	17,50	19,44
20	2,16	4,32	6,48	8,64	10,80	12,96	15,12	17,28	19,44	21,60

„L”, „Z”, and „U” compensator selection

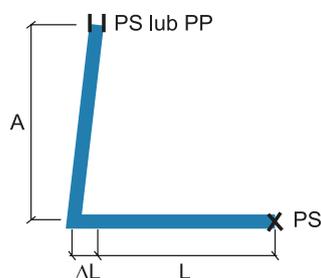
Table 6 Required expansion compensation length A [mm] for KAN-therm Steel System

Elongation values ΔL [mm]	Pipe external diameters d_z [mm]												
	12	15	18	22	28	35	42	54	64	66,7	76,1	88,9	108
2	220	246	270	298	337	376	412	468	509	520	555	600	661
4	312	349	382	422	476	532	583	661	720	735	785	849	935
6	382	427	468	517	583	652	714	810	882	900	962	1039	1146
8	441	493	540	597	673	753	825	935	1018	1039	1110	1200	1323
10	493	551	604	667	753	842	922	1046	1138	1162	1241	1342	1479
12	540	604	661	731	825	922	1010	1146	1247	1273	1360	1470	1620
14	583	652	714	790	891	996	1091	1237	1347	1375	1469	1588	1750
16	624	697	764	844	952	1065	1167	1323	1440	1470	1570	1697	1871
18	661	739	810	895	1010	1129	1237	1403	1527	1559	1665	1800	1984
20	697	779	854	944	1065	1191	1304	1479	1610	1644	1756	1897	2091
22	731	817	895	990	1117	1249	1368	1551	1689	1724	1841	1990	2193
24	764	854	935	1034	1167	1304	1429	1620	1764	1800	1923	2079	2291
26	795	889	973	1076	1214	1357	1487	1686	1836	1874	2002	2163	2385
28	825	922	1010	1117	1260	1409	1543	1750	1905	1945	2077	2245	2475
30	854	955	1046	1156	1304	1458	1597	1811	1972	2013	2150	2324	2561
32	882	986	1080	1194	1347	1506	1650	1871	2036	2079	2221	2400	2645
34	909	1016	1113	1231	1388	1552	1700	1928	2099	2143	2289	2474	2727

Table 6 presents required expansion compensation length A for different thermal elongation values ΔL and pipe external diameters d_z .

Rules for selection of different types of compensators are given below:

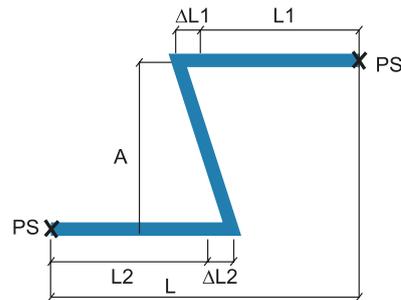
„L” type compensator



- A – flexible arm length
- PP – sliding support (allows only axial movement of a pipeline)
- PS – fixed point (prevents any movement of a pipeline)
- L – the initial length of a pipeline
- ΔL – pipeline thermal elongation

For compensation arm A dimensioning, a substitute length $L_z = L$ is taken, and for L_z length the thermal elongation value ΔL is determined from Tab. 5. Next, the expansion compensation length A is determined on the basis of Tab. 6.

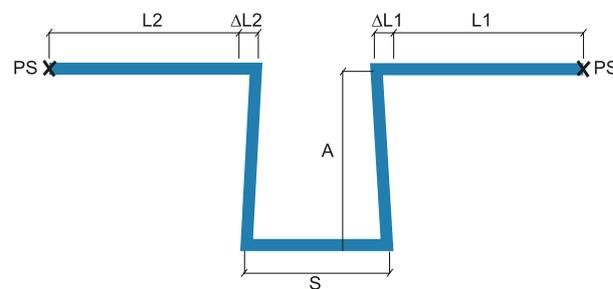
„Z” type compensator



- A – expansion compensation length
- PS – fixed point (prevents the pipeline from moving)
- L – pipeline initial length
- ΔL – pipeline thermal elongation

For compensation arm A dimensioning, $L1$ and $L2$ sum is taken as a substitute length $L_z = L1 + L2$, and for L_z length a substitute ΔL is determined on the basis of Tab. 5. Next, the expansion compensation length A is determined on the basis of Tab. 6.

„U” type compensator



- A – expansion compensation length
- PS – fixed point (prevents the pipeline from moving)
- L – pipeline initial length
- ΔL – pipeline thermal elongation
- S – U type compensator width

In case of placing fixed point PS in the section of compensator length S , for compensation arm A dimensioning, the greater value from $L1$ and $L2$ is taken as a substitute length for L_z : $L_z = \max(L1, L2)$ and for this length the substitute elongation ΔL is determined on the basis of Tab. 5, and then the length of compensation arm A is determined on the basis of Tab. 6.

Compensator width: $S = A/2$.

Pressure drops

Coefficient of local pressure drops ζ and equivalent length for fluid flow through fittings are presented in Table 7.

Table 7. Coefficient of local pressure drops ζ and equivalent length for fittings

									
Ø15 – 54 mm									
Analytical direct method									
ζ	1,5	0,7	0,5	0,5	0,4	0,9	1,3	1,5	3,0
Method of equivalent length [m]									
15	0,90	0,40	0,30	0,30	0,25	0,50	0,70	0,90	1,80
18	1,10	0,50	0,40	0,40	0,30	0,65	0,90	1,10	2,30
22	1,40	0,60	0,50	0,50	0,40	0,80	1,20	1,40	2,80
28	1,90	0,90	0,60	0,60	0,50	1,10	1,50	1,90	3,80
35	2,50	1,20	0,80	0,80	0,70	1,50	2,10	2,50	5,00
42	3,10	1,40	1,00	1,00	0,90	1,80	2,60	3,10	6,20
54	4,00	1,80	1,30	1,30	1,10	2,30	3,30	4,00	8,00
Ø64 – 66,7 – 76,1 – 88,9 – 108 mm									
Analytical direct method									
ζ	1,3	0,6	0,4	0,5	0,1	1,0	1,3	1,5	3,0
Method of equivalent length [m]									
64	4,70	2,15	1,45	1,80	0,40	3,60	4,70	5,40	10,80
76,1	6,10	2,80	1,90	2,40	0,50	4,70	6,10	7,10	14,20
88,9	7,80	3,60	2,40	3,00	0,60	6,00	7,80	9,00	18,00
108	10,60	4,90	3,30	4,10	0,80	8,20	10,60	12,30	24,60

Tables 8 and 9 present linear pressure drops R [Pa/m] caused by pipe wall friction, in function of flow rate V_s [l/s] and flow velocity w [m/s] at temperatures of 20°C (tab.8) and 60°C (tab.9).

Table 10 presents linear pressure drops R [Pa/m] for water at a temperature of 80°C power Q [W] at a temperature drop Δt 20°C, or in a function of water flow m_i [kg/s].

Tab. 8 Linear pressure drops R for water at a temperature of 20°C

Vs [l/s]	12x1,2		15x1,2		18x1,2		22x1,5		28x1,5		35x1,5	
	w [m/s]	R [Pa/m]										
0,07	0,97	337	0,56	114	0,37	48	0,25	22	0,14	7	0,09	3
0,14	1,94	5482	1,12	1464	0,73	524	0,49	204	0,29	55	0,17	17
0,15	2,08	6210	1,21	1655	0,79	591	0,53	230	0,31	62	0,19	19
0,20	2,77	10481	1,61	2770	1,05	984	0,71	381	0,41	103	0,25	32
0,21			1,69	3024	1,10	1073	0,74	415	0,43	112	0,26	35
0,24			1,93	3849	1,26	1362	0,85	526	0,49	141	0,30	44
0,25			2,01	4144	1,31	1465	0,88	565	0,51	152	0,31	47
0,33			2,65	6873	1,73	2415	1,17	927	0,67	247	0,41	76
0,40					2,10	3424	1,41	1309	0,82	347	0,50	106
0,50					2,62	5148	1,77	1960	1,02	517	0,62	158
0,60							2,12	2730	1,22	717	0,75	218
0,70							2,47	3620	1,43	947	0,87	287
0,80									1,63	1206	1,00	364
0,90									1,84	1494	1,12	450
1,00									2,04	1811	1,25	544
1,10									2,24	2155	1,37	646
1,20											1,49	756
1,30											1,62	875
1,40											1,74	1001
1,50											1,87	1135
1,60											1,99	1277
1,70											2,12	1428
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42×1,5		54×1,5		64×1,5		66,7×1,5		76,1×2		88,9×2		108×2	
w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]
0,06	1												
0,12	7	0,07	2	0,05	1	0,04	1						
0,13	8	0,07	2	0,05	1	0,05	1						
0,17	12	0,10	4	0,07	2	0,06	1						
0,18	14	0,10	4	0,07	2	0,07	1						
0,20	17	0,12	5	0,08	2	0,08	2	0,06	1				
0,21	18	0,12	5	0,09	2	0,08	2	0,06	1				
0,28	30	0,16	8	0,11	4	0,10	3	0,08	2				
0,34	41	0,20	12	0,14	5	0,13	4	0,10	2	0,07	1		
0,42	61	0,25	17	0,17	7	0,16	6	0,12	3	0,09	2		
0,50	84	0,29	23	0,21	10	0,19	8	0,15	5	0,11	2		
0,59	111	0,34	31	0,24	13	0,22	11	0,17	6	0,12	3	0,08	1
0,67	140	0,39	39	0,27	16	0,25	13	0,20	7	0,14	3	0,09	1
0,75	173	0,44	48	0,31	20	0,28	16	0,22	9	0,16	4	0,11	2
0,84	209	0,49	57	0,34	24	0,31	20	0,25	11	0,18	5	0,12	2
0,92	248	0,54	68	0,38	29	0,35	23	0,27	13	0,19	6	0,13	2
1,01	290	0,59	79	0,41	34	0,38	27	0,29	15	0,21	7	0,14	3
1,09	335	0,64	92	0,45	39	0,41	32	0,32	17	0,23	8	0,15	3
1,17	382	0,69	105	0,48	44	0,44	36	0,34	20	0,25	9	0,17	3
1,26	433	0,74	118	0,51	50	0,47	41	0,37	22	0,27	10	0,18	4
1,34	487	0,78	133	0,55	56	0,50	46	0,39	25	0,28	12	0,19	4
1,43	543	0,83	148	0,58	63	0,53	51	0,42	28	0,30	13	0,20	5
1,51	603	0,88	164	0,62	69	0,57	56	0,44	31	0,32	14	0,21	5
1,59	665	0,93	181	0,65	76	0,60	62	0,47	34	0,34	16	0,22	6
1,68	731	0,98	198	0,69	84	0,63	68	0,49	37	0,35	17	0,24	6
1,76	799	1,03	217	0,72	91	0,66	74	0,52	41	0,37	19	0,25	7
1,84	869	1,08	236	0,75	99	0,69	80	0,54	44	0,39	20	0,26	8
1,93	943	1,13	255	0,79	107	0,72	87	0,56	48	0,41	22	0,27	8
2,01	1020	1,18	276	0,82	116	0,75	94	0,59	52	0,42	24	0,28	9
		1,23	297	0,86	125	0,79	101	0,61	56	0,44	25	0,29	10
		1,27	319	0,89	134	0,82	109	0,64	60	0,46	27	0,31	10
		1,32	342	0,93	143	0,85	116	0,66	64	0,48	29	0,32	11
		1,37	365	0,96	153	0,88	124	0,69	68	0,50	31	0,33	12
		1,42	389	0,99	163	0,91	132	0,71	73	0,51	33	0,34	12
		1,47	414	1,03	173	0,94	141	0,74	77	0,53	35	0,35	13
		1,52	439	1,06	184	0,97	149	0,76	82	0,55	37	0,37	14
		1,57	465	1,10	195	1,01	158	0,79	87	0,57	39	0,38	15
		1,62	492	1,13	206	1,04	167	0,81	92	0,58	42	0,39	16
		1,67	520	1,17	218	1,07	176	0,83	97	0,60	44	0,40	17
		1,72	548	1,20	229	1,10	186	0,86	102	0,62	46	0,41	17
		1,77	577	1,23	241	1,13	196	0,88	107	0,64	49	0,42	18
		1,81	607	1,27	254	1,16	205	0,91	113	0,65	51	0,44	19
		1,86	637	1,30	266	1,19	216	0,93	118	0,67	54	0,45	20
		1,91	668	1,34	279	1,23	226	0,96	124	0,69	56	0,46	21
		1,96	700	1,37	292	1,26	237	0,98	130	0,71	59	0,47	22
		2,01	733	1,41	306	1,29	248	1,01	136	0,73	62	0,48	23
				1,44	319	1,32	259	1,03	142	0,74	64	0,50	24
				1,47	333	1,35	270	1,05	148	0,76	67	0,51	25
				1,51	348	1,38	282	1,08	154	0,78	70	0,52	26
				1,54	362	1,41	293	1,10	161	0,80	73	0,53	27
				1,58	377	1,45	305	1,13	167	0,81	76	0,54	28
				1,61	392	1,48	318	1,15	174	0,83	79	0,55	30
				1,65	408	1,51	330	1,18	181	0,85	82	0,57	31
				1,68	423	1,54	343	1,20	188	0,87	85	0,58	32
				1,71	439	1,57	356	1,23	195	0,88	88	0,59	33
				1,89	523	1,73	423	1,35	231	0,97	105	0,65	39
				2,06	614	1,89	497	1,47	271	1,06	123	0,71	46
						2,04	576	1,59	314	1,15	142	0,77	53
								1,72	360	1,24	162	0,83	61
								1,84	408	1,33	184	0,88	69
								1,96	460	1,42	207	0,94	77
								2,09	514	1,50	231	1,00	86
										1,59	257	1,06	96
										1,68	284	1,12	106
										1,77	312	1,18	116
										1,86	341	1,24	127
										1,95	372	1,30	138
										2,03	403	1,36	150
												1,42	162
												1,47	174
												1,53	187
												1,59	201
												1,65	215
												1,71	229
												1,77	244
												1,83	259
												1,89	275
												1,95	291
												2,00	307
												2,06	324
												2,12	341

Tab. 9 Linear pressure drops R for water at a temperature of 60°C

Vs [l/s]	12×1,2		15×1,2		18×1,2		22×1,5		28×1,5		35×1,5	
	w [m/s]	R [Pa/m]										
0,07	0,97	160	0,57	54	0,37	23	0,24	9	0,15	3	0,09	1
0,14	1,94	4 891	1,14	1276	0,75	449	0,47	149	0,29	46	0,18	14
0,15	2,08	5 561	1,22	1448	0,80	509	0,51	168	0,31	52	0,19	16
0,20	2,77	9 524	1,63	2457	1,06	858	0,67	282	0,41	87	0,25	27
0,21			1,71	2690	1,12	938	0,71	308	0,44	95	0,27	29
0,24			1,96	3446	1,28	1198	0,81	392	0,50	120	0,30	37
0,25			2,04	3718	1,33	1292	0,84	422	0,52	129	0,32	39
0,33			2,69	6250	1,76	2157	1,11	700	0,68	213	0,42	65
0,40					2,13	3086	1,35	996	0,83	302	0,51	91
0,50					2,66	4688	1,69	1505	1,04	454	0,63	136
0,60							2,02	2114	1,24	635	0,76	190
0,70							2,36	2820	1,45	843	0,89	251
0,80									1,66	1080	1,01	320
0,90									1,86	1345	1,14	398
1,00									2,07	1638	1,26	483
1,10									2,28	1958	1,39	576
1,20											1,52	677
1,30											1,64	786
1,40											1,77	902
1,50											1,90	1026
1,60											2,02	1157
1,70											2,15	1297
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42×1,5		54×1,5		64×1,5		66,7×1,5		76,1×2		88,9×2		108×2	
w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]
0,12	6	0,07	2	0,05	1	0,04	1						
0,13	6	0,07	2	0,05	1	0,05	1						
0,17	10	0,10	3	0,07	1	0,06	1						
0,18	11	0,10	3	0,07	1	0,07	1						
0,20	14	0,12	4	0,08	2	0,08	1	0,06	1				
0,21	15	0,12	4	0,09	2	0,08	1	0,06	1				
0,28	25	0,16	7	0,11	3	0,11	2	0,08	1				
0,34	35	0,20	10	0,14	4	0,13	3	0,10	2	0,07	1		
0,43	52	0,25	14	0,17	6	0,16	5	0,12	3	0,09	1		
0,51	72	0,30	20	0,21	8	0,19	7	0,15	4	0,11	2		
0,60	96	0,35	26	0,24	11	0,22	9	0,17	5	0,13	2	0,08	1
0,68	122	0,40	33	0,28	14	0,26	11	0,20	6	0,14	3	0,10	1
0,77	151	0,45	41	0,31	17	0,29	14	0,22	8	0,16	4	0,11	1
0,85	183	0,50	50	0,35	21	0,32	17	0,25	9	0,18	4	0,12	2
0,94	218	0,55	59	0,38	25	0,35	20	0,27	11	0,20	5	0,13	2
1,02	256	0,60	69	0,42	29	0,38	24	0,30	13	0,22	6	0,14	2
1,11	296	0,65	80	0,45	34	0,41	27	0,32	15	0,23	7	0,16	3
1,19	340	0,70	91	0,49	38	0,45	31	0,35	17	0,25	8	0,17	3
1,28	386	0,75	104	0,52	43	0,48	35	0,37	19	0,27	9	0,18	3
1,36	435	0,80	117	0,56	49	0,51	40	0,40	22	0,29	10	0,19	4
1,45	487	0,85	130	0,59	54	0,54	44	0,42	24	0,31	11	0,20	4
1,53	541	0,90	145	0,63	60	0,57	49	0,45	27	0,32	12	0,22	5
1,62	598	0,95	160	0,66	67	0,61	54	0,47	30	0,34	13	0,23	5
1,70	658	1,00	176	0,70	73	0,64	59	0,50	33	0,36	15	0,24	6
1,79	721	1,05	192	0,73	80	0,67	65	0,52	36	0,38	16	0,25	6
1,87	787	1,10	209	0,77	87	0,70	71	0,55	39	0,40	18	0,26	7
1,96	855	1,15	227	0,80	95	0,73	77	0,57	42	0,41	19	0,28	7
2,04	926	1,20	246	0,84	102	0,77	83	0,60	45	0,43	20	0,29	8
		1,24	265	0,87	110	0,80	89	0,62	49	0,45	22	0,30	8
		1,29	285	0,90	118	0,83	96	0,65	52	0,47	24	0,31	9
		1,34	306	0,94	127	0,86	103	0,67	56	0,49	25	0,32	10
		1,39	327	0,97	136	0,89	110	0,70	60	0,50	27	0,34	10
		1,44	349	1,01	145	0,93	117	0,72	64	0,52	29	0,35	11
		1,49	372	1,04	154	0,96	125	0,75	68	0,54	31	0,36	11
		1,54	395	1,08	164	0,99	132	0,77	72	0,56	33	0,37	12
		1,59	420	1,11	174	1,02	140	0,80	77	0,57	35	0,38	13
		1,64	444	1,15	184	1,05	149	0,82	81	0,59	37	0,40	14
		1,69	470	1,18	194	1,09	157	0,85	86	0,61	39	0,41	14
		1,74	496	1,22	205	1,12	166	0,87	90	0,63	41	0,42	15
		1,79	523	1,25	216	1,15	175	0,90	95	0,65	43	0,43	16
		1,84	550	1,29	227	1,18	184	0,92	100	0,66	45	0,44	17
		1,89	578	1,32	239	1,21	193	0,95	105	0,68	47	0,46	18
		1,94	607	1,36	251	1,24	202	0,97	110	0,70	50	0,47	18
		1,99	637	1,39	263	1,28	212	1,00	115	0,72	52	0,48	19
		2,04	667	1,43	275	1,31	222	1,02	121	0,74	54	0,49	20
				1,46	288	1,34	232	1,05	126	0,75	57	0,50	21
				1,50	300	1,37	243	1,07	132	0,77	59	0,51	22
				1,53	314	1,40	253	1,10	138	0,79	62	0,53	23
				1,57	327	1,44	264	1,12	144	0,81	64	0,54	24
				1,60	341	1,47	275	1,15	149	0,83	67	0,55	25
				1,64	355	1,50	286	1,17	156	0,84	70	0,56	26
				1,67	369	1,53	298	1,20	162	0,86	73	0,57	27
				1,71	383	1,56	309	1,22	168	0,88	75	0,59	28
				1,74	398	1,60	321	1,25	174	0,90	78	0,60	29
				1,91	476	1,76	384	1,37	208	0,99	93	0,66	35
				2,09	560	1,92	452	1,49	245	1,08	110	0,72	41
						2,07	525	1,62	284	1,17	127	0,78	47
								1,74	327	1,26	146	0,84	54
								1,87	372	1,35	166	0,90	61
								1,99	420	1,44	187	0,96	69
								2,12	470	1,53	209	1,02	77
										1,62	233	1,08	86
										1,71	258	1,14	95
										1,80	284	1,20	104
										1,89	311	1,26	114
										1,98	339	1,32	124
										2,07	369	1,38	135
												1,44	146
												1,50	158
												1,56	170
												1,62	182
												1,68	195
												1,74	209
												1,80	222
												1,86	236
												1,92	251
												1,98	266
												2,04	281
												2,10	297
												2,16	313

Tab. 10 Linear pressure drops R for water at a temperature of 80°C in a function of power Q transported at a temperature drop ΔT 20°C or in a function of water flow mi

Q [W]	mi [kg/s]	12×1,2		15×1,2		18×1,2		22×1,5		28×1,5		35×1,5	
		w [m/s]	R [Pa/m]										
500	0,01	0,08	10	0,05	4	0,03	1						
1000	0,01	0,17	56	0,10	16	0,06	6	0,04	1				
1500	0,02	0,25	111	0,15	31	0,10	11	0,06	5	0,04	1		
2000	0,02	0,34	182	0,20	50	0,13	18	0,09	7	0,05	2		
2500	0,03	0,42	267	0,25	74	0,16	27	0,11	11	0,06	3	0,04	1
3000	0,04	0,51	366	0,30	101	0,19	37	0,13	15	0,07	4	0,05	1
3500	0,04	0,59	478	0,34	132	0,22	48	0,15	19	0,09	5	0,05	2
4000	0,05	0,68	603	0,39	166	0,26	61	0,17	24	0,10	7	0,06	2
4500	0,05	0,76	741	0,44	204	0,29	74	0,19	29	0,11	8	0,07	3
5000	0,06	0,85	891	0,49	245	0,32	89	0,22	35	0,12	10	0,08	3
6000	0,07	1,02	1 226	0,59	337	0,38	122	0,26	48	0,15	13	0,09	4
7000	0,08			0,69	441	0,45	160	0,30	63	0,17	17	0,11	5
8000	0,10			0,79	558	0,51	202	0,35	79	0,20	22	0,12	7
9000	0,11			0,89	686	0,58	248	0,39	97	0,22	26	0,14	8
10000	0,12					0,64	299	0,43	117	0,25	32	0,15	10
12000	0,14					0,77	412	0,52	161	0,30	44	0,18	14
14000	0,17					0,90	541	0,61	211	0,35	57	0,21	18
16000	0,19							0,69	267	0,40	72	0,24	22
18000	0,22							0,78	329	0,45	89	0,27	28
20000	0,24							0,87	397	0,50	107	0,30	33
25000	0,30							1,08	589	0,62	159	0,38	49
30000	0,36									0,75	220	0,46	68
35000	0,42									0,87	289	0,53	89
40000	0,48									1,00	366	0,61	113
45000	0,54									1,12	452	0,69	139
50000	0,60									1,25	546	0,76	168
60000	0,72											0,91	232
70000	0,84											1,07	305
80000	0,96											1,22	388
90000	1,08											1,37	479
100000	1,20												
120000	1,44												
140000	1,68												
160000	1,92												
180000	2,16												
200000	2,40												
220000	2,65												
240000	2,89												
260000	3,13												
280000	3,37												
300000	3,61												
350000	4,21												
400000	4,81												
450000	5,41												
500000	6,01												
550000	6,61												
600000	7,21												
650000	7,82												
700000	8,42												
750000	9,02												
800000	9,62												
850000	10,22												
900000	10,82												
950000	11,42												
1000000	12,02												
1050000	12,63												
1100000	13,23												
1150000	13,83												
1200000	14,43												
1250000	15,03												
1300000	15,63												
1350000	16,23												
1400000	16,83												
1450000	17,44												
1500000	18,04												
1550000	18,64												
1600000	19,24												
1650000	19,84												
1700000	20,44												
1750000	21,04												
1800000	21,64												
1850000	22,25												
1900000	22,85												
1950000	23,45												
2000000	24,05												

System **KAN-therm** Steel - assortment

press carbon steel pipe, zinc coated - bar 6 m

GROUP: J

Size	*	Code	Packing	JM	Price EUR/JM
12×1,2	*	620459.4	6/624	m	
15×1,2		620460.5	6/1290	m	
18×1,2		620461.6	6/1524	m	
22×1,5		620462.7	6/1290	m	
28×1,5		620463.8	6/624	m	
35×1,5		620464.9	6/402	m	
42×1,5		620465.1	6/150	m	
54×1,5		620466.0	6/366	m	
64×1,5	***	6304516	6/222	m	
66,7×1,5		620483.6	6/222	m	
76,1×2		620480.3	6/222	m	
88,9×2		620481.4	6/222	m	
108×2		620482.5	6/114	m	



press male connector

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
12×R $\frac{3}{8}$	*	620226.2	10/200	pc	
15×R $\frac{3}{8}$		620227.3	10/200	pc	
15×R $\frac{1}{2}$		620228.4	10/200	pc	
15×R $\frac{3}{4}$	***	6302806	20/160	pc	
18×R $\frac{1}{2}$		620229.5	10/160	pc	
18×R $\frac{3}{4}$		620230.6	10/100	pc	
22×R $\frac{1}{2}$		6241015	10/70	pc	
22×R $\frac{3}{4}$		6240135	10/100	pc	
22×R1		6241026	10/60	pc	
28×R $\frac{3}{4}$		6249852	10/60	pc	
28×R1		6240146	10/60	pc	
35×R1		6341247	10/40	pc	
35×R1 $\frac{1}{4}$		6240157	10/40	pc	
42×R1 $\frac{1}{2}$		6240168	4/24	pc	
54×R2		6240179	4/12	pc	
66,7×R2 $\frac{1}{2}$		6340422	2/4	pc	
76,1×R2 $\frac{1}{2}$		6302823	2/26	pc	
88,9×R3		6302825	2/20	pc	



press male union connector

GROUP: J

Size	*	Code	Packing	JM	Price EUR/JM
15×R $\frac{1}{2}$		620719.0	2/50	pc	
18×R $\frac{1}{2}$		6207036	2/60	pc	
22×R $\frac{3}{4}$		6240916	2/40	pc	
28×R1		6240927	2/30	pc	
35×R1 $\frac{1}{4}$		6240938	2/20	pc	
42×R1 $\frac{1}{2}$		6240949	2/16	pc	
54×R2		6240951	2/10	pc	



press female union connector (for VK radiators)

GROUP: J

Size	*	Code	Packing	JM	Price EUR/JM
15×G¾		620816.9	10/100	pc	
18×G¾		620817.1	10/100	pc	



press half union

GROUP: J

Size	*	Code	Packing	JM	Price EUR/JM
15×G¾	*	6340521	10/120	pc	
18×G¾	*	6340532	10/100	pc	
22×G1	*	6340554	10/60	pc	
28×G1¼	*	6340565	10/40	pc	
35×G1½	*	6340576	4/32	pc	
42×G1¾	*	6340587	4/12	pc	
54×G2½	*	6340598	4/8	pc	



press female union connector

GROUP: J

Size	*	Code	Packing	JM	Price EUR/JM
15×Rp½		6208906	2/50	pc	
18×Rp½		6208917	2/60	pc	
22×Rp¾		6208928	2/40	pc	
28×Rp1		6208939	2/30	pc	
35×Rp1¼		6208941	2/16	pc	
42×Rp1½		6208950	2/12	pc	
54×Rp2		6208961	2/4	pc	



press female connector

GROUP: J

Size	*	Code	Packing	JM	Price EUR/JM
12×Rp½	*	620236.1	10/130	pc	
15×Rp½		620237.2	10/130	pc	
18×Rp½		620238.3	10/120	pc	
18×Rp¾		620239.4	10/80	pc	
22×Rp½		6302708	20/100	pc	
22×Rp¾		6240102	10/100	pc	
28×Rp½		6240113	10/60	pc	
28×Rp¾		6249830	10/60	pc	
28×Rp1		6240124	10/60	pc	
35×Rp½		6340917	10/40	pc	
35×Rp¾		6340928	10/40	pc	
35×Rp1		6340939	10/40	pc	
35×Rp1¼		6241004	10/30	pc	
42×Rp1½		6302721	4/42	pc	
54×Rp2		6302723	4/32	pc	



press nipple female connector

GROUP: J

Size	*	Code	Packing	JM	Price EUR/JM
12×Rp $\frac{3}{8}$	*	620987.4	10/200	pc	
12×Rp $\frac{1}{2}$	*	620242.7	10/200	pc	
15×Rp $\frac{1}{2}$		620243.8	10/200	pc	
18×Rp $\frac{1}{2}$		620244.9	10/160	pc	
18×Rp $\frac{3}{4}$		620245.1	10/100	pc	
22×Rp $\frac{1}{2}$		6240960	10/70	pc	
22×Rp $\frac{3}{4}$		6240971	10/100	pc	



press coupling

GROUP: J

Size	*	Code	Packing	JM	Price EUR/JM
12×12	*	620135.1	10/140	pc	
15×15		620136.0	10/140	pc	
18×18		620137.1	10/140	pc	
22×22		6240003	10/80	pc	
28×28		6240014	10/60	pc	
35×35		6240025	10/40	pc	
42×42		6240036	4/24	pc	
54×54		6240047	4/16	pc	
64×64	***	6302523	4/40	pc	
66,7×66,7		6340411	2/4	pc	
76,1×76,1		6206200	2/-	pc	
88,9×88,9		6206211	2/-	pc	
108×108		6206222	2/-	pc	



press reducing coupling

GROUP: J

Size	*	Code	Packing	JM	Price EUR/JM
22×15		620112.9	10/140	pc	



press slip coupling

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
12×12	*	620143.7	10/60	pc	
15×15		620144.8	10/60	pc	
18×18		620145.9	10/60	pc	
22×22		6240058	10/60	pc	
28×28		6240069	10/40	pc	
35×35		6240071	10/20	pc	
42×42		6240080	4/16	pc	
54×54		6240091	4/8	pc	
66,7×66,7		6341357	2/4	pc	
76,1×76,1		6206233	2/-	pc	
88,9×88,9		6206244	2/-	pc	
108×108		6206255	2/-	pc	



press 90° elbow

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
12×12	*	620154.7	10/150	pc	
15×15		620155.8	10/150	pc	
18×18		620156.9	10/90	pc	
22×22		6240181	10/60	pc	
28×28		6240190	10/30	pc	
35×35		6240201	10/10	pc	
42×42		6240212	2/16	pc	
54×54		6240223	2/8	pc	
64×64	***	6301046	2/16	pc	
66,7×66,7		6340281	1/2	pc	
76,1×76,1		6208004	2/-	pc	
88,9×88,9		6208048	2/-	pc	
108×108		6208059	2/-	pc	



press nipple 90° elbow

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
12×12	*	620162.4	10/120	pc	
15×15		620163.5	10/120	pc	
18×18		620164.6	10/80	pc	
22×22		6240410	10/60	pc	
28×28		6240421	10/30	pc	
35×35		6240432	10/10	pc	
42×42		6240443	2/8	pc	
54×54		6240454	2/6	pc	
64×64	***	6301146	2/16	pc	
66,7×66,7		6340290	1/2	pc	
76,1×76,1		6208061	2/-	pc	
88,9×88,9		6208070	4/-	pc	
108×108		6208081	4/-	pc	



press 45° elbow

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
15×15		620170.1	10/150	pc	
18×18		620171.2	10/120	pc	
22×22		6240511	10/70	pc	
28×28		6240520	10/40	pc	
35×35		6240531	5/25	pc	
42×42		6240542	4/16	pc	
54×54		6240553	2/8	pc	
64×64	***	6301446	2/20	pc	
66,7×66,7		6340312	1/2	pc	
76,1×76,1		6208125	4/-	pc	
88,9×88,9		6208136	4/-	pc	
108×108		6208147	2/-	pc	



press nipple 45° elbow

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
15×15		620177.8	10/150	pc	
18×18		620178.9	10/120	pc	
22×22		6240465	10/60	pc	
28×28		6240476	10/40	pc	
35×35		6240487	5/25	pc	
42×42		6240498	4/16	pc	
54×54		6240509	2/8	pc	
64×64	***	6301546	2/20	pc	
66,7×66,7		6340301	1/2	pc	
76,1×76,1		6208092	2/-	pc	
88,9×88,9		6208103	2/-	pc	
108×108		6208114	2/-	pc	



press tee

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
12×12×12	*	620248.2	10/80	pc	
15×15×15		620249.3	10/80	pc	
18×18×18		620250.4	10/70	pc	
22×22×22		6240564	10/40	pc	
28×28×28		6240575	10/30	pc	
35×35×35		6240586	5/15	pc	
42×42×42		6240597	4/8	pc	
54×54×54		6240608	2/6	pc	
64×64×64	***	6303223	2/16	pc	
66,7×66,7		6340334	1/2	pc	
76,1×76,1×76,1		6206442	2/-	pc	
88,9×88,9×88,9		6206453	2/-	pc	
108×108×108		6206464	2/-	pc	



press reducing tee

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
12×15×12	*	620276.8	10/80	pc	
15×12×15	*	620256.1	10/80	pc	
15×18×15		620277.9	10/80	pc	
15×22×15		620278.1	10/60	pc	
18×12×18	*	620257.0	10/70	pc	
18×15×18		620258.1	10/60	pc	
18×22×18		620279.0	10/70	pc	
22×12×22	*	620259.2	10/50	pc	
22×15×22		620260.3	10/50	pc	
22×18×22		620261.4	10/50	pc	
22×28×22		6240718	10/40	pc	
28×15×28		620262.5	10/30	pc	
28×18×28		620263.6	10/30	pc	
28×22×28		6240729	10/30	pc	
35×15×35		620265.8	10/20	pc	
35×18×35		620266.9	10/20	pc	
35×22×35		6240731	5/20	pc	
35×28×35		6240740	10/20	pc	
42×22×42		6240751	4/12	pc	
42×28×42		6240762	4/12	pc	
42×35×42		6240773	4/12	pc	
54×22×54		6240784	2/8	pc	
54×28×54		6240795	2/8	pc	
54×35×54		6240806	2/8	pc	
54×42×54		6240817	2/8	pc	
64×28×64	***	6303231	2/20	pc	
64×35×64	***	6303233	2/22	pc	
64×42×64	***	6303235	2/20	pc	
64×54×64	***	6303239	2/20	pc	
66,7×28×66,7		6340345	1/2	pc	
66,7×35×66,7		6340356	1/2	pc	
66,7×42×66,7		6340367	1/2	pc	
66,7×54×66,7		6340378	1/2	pc	
76,1×22×76,1		6303371	2/14	pc	
76,1×28×76,1		6303373	2/14	pc	
76,1×35×76,1		6303375	2/14	pc	
76,1×42×76,1		6303377	2/14	pc	
76,1×54×76,1		6206475	2/-	pc	
76,1×64×76,1	***	6303378	2/12	pc	
76,1×66,7×76,1		6340389	1/1	pc	



press reducing tee

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
88,9×22×88,9		6303379	2/14	pc	
88,9×28×88,9		6303381	2/14	pc	
88,9×35×88,9		6303383	2/14	pc	
88,9×42×88,9		6303385	2/12	pc	
88,9×54×88,9		6303387	2/12	pc	
88,9×64×88,9	***	6303388	2/12	pc	
88,9×66,7×88,9		6340391	1/1	pc	
88,9×76,1×88,9		6206486	2/-	pc	
108×22×108		6303389	2/12	pc	
108×28×108		6303391	2/12	pc	
108×35×108		6303393	2/12	pc	
108×42×108		6303395	2/12	pc	
108×54×108		6303397	2/12	pc	
108×76,1×108		6303399	2/10	pc	
108×88,9×108		6206497	2/-	pc	



press reducing tee

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
22×15×15		620673.9	10/50	pc	
22×22×15		620674.1	10/50	pc	



press pipe cross

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
15×15×15×15		620288.9	5/50	pc	
18×15×18×15		620289.1	5/50	pc	
22×15×22×15		620290.0	10/30	pc	
22×18×22×18		620291.1	10/30	pc	
28×15×28×15		620713.5	10/30	pc	
28×18×28×18		620714.6	10/30	pc	
28×22×28×22		6240828	10/20	pc	



press crossing

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
35×35×35×35	*	6340972	2/8	pc	
42×42×42×42	*	6340983	2/8	pc	
54×54×54×54	*	6340994	2/4	pc	
35×28×35×28	*	6341005	2/14	pc	
42×28×42×28	*	6341016	2/8	pc	
54×28×54×28	*	6341027	2/4	pc	



press crossing pair single**GROUP: I**

Size	*	Code	Packing	JM	Price EUR/JM
18×12	*	620685.1	10	pc	
22×12	*	620687.1	10	pc	
28×12	*	620689.3	10	pc	
15×15		620684.9	10	pc	
18×15		620686.0	10	pc	
22×15		620688.2	10	pc	
28×15		620690.4	8	pc	

**press crossing pair double****GROUP: I**

Size	*	Code	Packing	JM	Price EUR/JM
12×12	*	620675.0	8	pc	
15×12	*	620676.1	8	pc	
18×12	*	620678.3	8	pc	
28×12	*	620681.6	8	pc	
15×15		620677.2	8	pc	
18×15		620679.4	8	pc	
22×15		620680.5	6	pc	
28×15		620682.7	6	pc	
35×15		620683.8	6	pc	



press nipple reducer

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
15×12	*	620211.9	10/200	pc	
18×12	*	620212.1	10/200	pc	
22×12	*	620214.1	10/140	pc	
18×15		620213.0	10/200	pc	
22×15		620215.2	10/140	pc	
22×18		620216.3	10/120	pc	
28×15		620217.4	10/70	pc	
28×18		620218.5	10/100	pc	
28×22		6240234	10/80	pc	
35×22		6240245	10/50	pc	
35×28		6240256	10/60	pc	
42×22		6246651	4/24	pc	
42×28		6240267	5/30	pc	
42×35		6240278	4/24	pc	
54×18		620667.3	4/16	pc	
54×22		6240289	4/16	pc	
54×28		6240291	4/16	pc	
54×35		6240300	10/30	pc	
54×42		6240993	4/16	pc	
64×28	***	6303564	4/36	pc	
64×35	***	6303565	4/36	pc	
64×42	***	6303567	4/32	pc	
66,7×28		6340213	2/4	pc	
66,7×35		6340224	2/4	pc	
66,7×42		6340235	2/4	pc	
66,7×54		6340246	2/4	pc	
76,1×42		6206387	2/-	pc	
76,1×54		6206398	2/-	pc	
76,1×64	***	6303561	4/32	pc	
76,1×66,7		6340257	2/4	pc	
88,9×54		6206409	2/-	pc	
88,9×64	***	6303562	4/20	pc	
88,9×66,7		6340268	2/4	pc	
88,9×76,1		6206411	2/-	pc	
108×64	***	6303563	4/16	pc	
108×66,7		6340279	2/4	pc	
108×76,1		6206420	2/-	pc	
108×88,9		6206431	2/-	pc	



press male elbow

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
12×R $\frac{3}{8}$	*	620197.6	10/150	pc	
15×R $\frac{3}{8}$		620198.7	10/150	pc	
15×R $\frac{1}{2}$		620199.8	10/150	pc	
18×R $\frac{1}{2}$		620200.9	10/100	pc	
22×R $\frac{3}{4}$		6240366	10/60	pc	
28×R1		6240377	10/30	pc	
35×R1 $\frac{1}{4}$		6240388	10/10	pc	
42×R1 $\frac{1}{2}$		6240399	4/12	pc	
54×R2		6240401	2/8	pc	



press male elbow - short

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
12×Rp $\frac{3}{8}$	*	620206.4	10/100	pc	
15×Rp $\frac{3}{8}$		620207.5	10/100	pc	
15×Rp $\frac{1}{2}$		620208.6	10/100	pc	
18×Rp $\frac{1}{2}$		620209.7	10/100	pc	
22×Rp $\frac{3}{4}$		6240982	10/60	pc	



press female elbow

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
15×Rp $\frac{3}{8}$		620093.1	10/150	pc	
15×Rp $\frac{1}{2}$		620094.2	10/100	pc	
18×Rp $\frac{1}{2}$		620095.3	10/60	pc	
22×Rp $\frac{1}{2}$		6249577	10/30	pc	
22×Rp $\frac{3}{4}$		6240964	10/30	pc	
28×Rp $\frac{1}{2}$		6241169	5/30	pc	
28×Rp $\frac{3}{4}$		6241171	5/30	pc	
28×Rp1		6249588	5/30	pc	
35×Rp $\frac{1}{2}$		6241180	5/10	pc	
35×Rp $\frac{3}{4}$		6241061	5/10	pc	
35×Rp1		6249599	5/10	pc	



press female elbow - short

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
22xRp $\frac{1}{2}$	*	6341038	10/50	pc	
28xRp $\frac{1}{2}$	*	6341049	5/30	pc	
35xRp $\frac{1}{2}$	*	6341051	5/10	pc	



press female tee

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
15×Rp½×15		620281.2	10/80	pc	
18×Rp½×18		620282.3	10/50	pc	
18×Rp¾×18		620984.1	10/50	pc	
22×Rp½×22		6240619	10/50	pc	
22×Rp¾×22		6240621	10/40	pc	
28×Rp½×28		6240630	10/30	pc	
28×Rp¾×28		6240641	10/30	pc	
28×Rp1×28		6249601	10/30	pc	
35×Rp½×35		6240652	10/20	pc	
35×Rp¾×35		6240663	10/20	pc	
35×Rp1×35		6249610	5/20	pc	
42×Rp½×42		6240674	4/16	pc	
42×Rp¾×42		6240685	4/16	pc	
42×Rp1×42		6249621	4/12	pc	
54×Rp½×54		6240696	2/8	pc	
54×Rp¾×54		6240707	2/8	pc	
54×Rp1×54		6241070	2/8	pc	
64×Rp¾×64	***	6303425	3/20	pc	
66,7×Rp¾×66,7		6340400	1/2	pc	
76,1×Rp¾×76,1		6206508	2/-	pc	
88,9×Rp¾×88,9		6206519	1/-	pc	
108×Rp¾×108		6206521	1/-	pc	



crossover

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
12×12	*	620192.1	10/80	pc	
15×15		620193.2	10/80	pc	
18×18		620194.3	10/60	pc	
22×22		6240883	10/50	pc	
28×28		6240894	10/20	pc	



bend 90°

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
12×12	*	620184.4	10/80	pc	
15×15		620185.5	10/80	pc	
18×18		620186.6	10/60	pc	
22×22		6240839	10/40	pc	
28×28		6240841	10/20	pc	
35×35		6240850	4/8	pc	
42×42		6240861	2/4	pc	
54×54		6240872	2/2	pc	



press cup

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
15		620295.5	20/80	pc	
18		620296.6	20/300	pc	
22		6240311	10/240	pc	
28		6240322	10/130	pc	
35		6240333	5/75	pc	
42		6240344	4/48	pc	
54		6240355	4/32	pc	
64	***	6303866	2/50	pc	
66,7		6340171	1/4	pc	
76,1		6206915	4/-	pc	
88,9		6206926	4/-	pc	
108		6206937	4/-	pc	

Caution:

In case of using a plug 64 mm in diameter it is necessary to use a sleeve of the same diameter in order to make a connection.

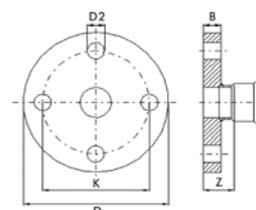


press flange PN16

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
35		6341500	1	pc	
42		6341511	1	pc	
54		6341522	1	pc	
64	***	6303043	1	pc	
66,7		6340323	1	pc	
76,1		620659.6	1	pc	
88,9		620660.7	1	pc	
108		620661.8	1	pc	

Code	Z	D	D2	K	B
6341500	44	140	14	100	18
6341511	47	150	18	110	18
6341522	52	165	18	125	18
6303043	44	185	18	145	18
6340323	39	185	18	145	18
620659.6	79	185	18	145	18
620660.7	78	200	18	160	20
620661.8	88	220	18	188	20



LBP EPDM O-Ring

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
12	*	622220.5	20/600	pc	
15		6222216	20/600	pc	
18		6222227	20/500	pc	
22		6222238	20/500	pc	
28		6222249	20/400	pc	
35		6222251	20/400	pc	
42		6222260	20/300	pc	
54		6222271	20/300	pc	

Caution:

The LBP EPDM O-Rings can be used in System KAN-therm Steel and Inox.



O-Ring LBP FPM Viton

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
15		6119401	20/600	pc	
18		6119410	20/500	pc	
22		6119421	20/500	pc	
28		6119432	20/400	pc	
35		6119443	20/400	pc	
42		6119454	20/300	pc	
54		6119465	20/300	pc	

Caution:
The LBP FPM/Viton O-Rings can be used in System KAN-therm Steel and Inox.
Caution:
Do not use in hot water installations.



EPDM O-Ring

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
64	***	6308016	-/1000	pc	
66,7		6208180	5/100	pc	
76,1		620801.5	5/100	pc	
88,9		620802.6	5/100	pc	
108		620803.7	5/50	pc	



O-Ring FPM Viton

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
64	***	6119476	-/750	pc	
66,7		6119475	5/100	pc	
76,1		611937.7	5/100	pc	
88,9		611938.8	5/100	pc	
108		611939.9	5/50	pc	

Caution:
Do not use in hot water installations.



Tools for Steel

cutter for steel pipes

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12-54 mm		113000	1	pc		
35-108 mm		113100	1	pc		



wheel for cutter for steel pipes - service element

GROUP: K

*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
	341614	1	pc		



electric cutter

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
22-108 mm		845000	1	pc		



wheel for electric cutter for steel pipes - service element

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		845050	1	pc		



electric cutter

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
108-169 mm		845004	1	pc		
pipe support 108-169 mm		845220	1	pc		



stripping tool -drill set

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12-54 mm		113835	1	pc		



electric press tool 230V - Power Press E Basic Pack

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12-54 mm		ZAPR01	1	pc		



rechargeable press tool - Aku Press

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12-54 mm		ZAPRAK	1	pc		



M profile press jaws for Power and Aku Press

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12		570100	1	pc		
15		570110	1	pc		
18		570120	1	pc		
22		570130	1	pc		
28		570140	1	pc		
35		570150	1	pc		
42		570160	1	pc		
54		570170	1	pc		



rechargeable press tool UAP-100

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
64-108 mm		UAP100	1	pc		



press jaws for UAP-100

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
64	***	BP64M	1	pc		
66,7		BP667M	1	pc		
76,1		BP761M	1	pc		
88,9		BP889M	1	pc		
108		BP108M	1	pc		



ECO 301 press machine

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		620570.5	1	pc		



ECO 301 press jaw

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12		620572.7	1	pc		
15		620573.8	1	pc		
18		620574.9	1	pc		
22		620575.1	1	pc		
28		620576.0	1	pc		



ECO 301 HP Snap On collar

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
35		634106.0	1	pc		
42		634107.1	1	pc		
54		634108.2	1	pc		
66,7		634139.0	1	pc		



Caution:
collars 35 – 54 mm needs additional adapter ZB 303.
collar 66,7 mm needs additional adapter ZB 323.

adapter ZB 303 for ECO 301 press machine

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
35-42-54		634111.5	1	pc		



adapter ZB 323 for ECO301

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
66,7		634143.4	1	pc		



ACO 401 press machine (battery powered)

GROUP: K

Size Pcs./	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
76,1-168		634008.1	1	pc		



HP collar for ACO 401 press machine

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
76,1		634009.2	1	pc		
88,9		634010.3	1	pc		
108		634011.4	1	pc		



Ø 15–168,3 mm



SYSTEM **KAN-therm**

Inox

Noble material
Giga possibilities



TECHNOLOGY OF SUCCESS



ISO 9001

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6 System **KAN-therm** Inox

System KAN-therm Inox is a system made of stainless steel pipes and fittings in diameters 15 to 168 mm. The use of stainless steel enables to design long-lasting and failure-free systems for transporting highly corrosive media.

Modern connection technology

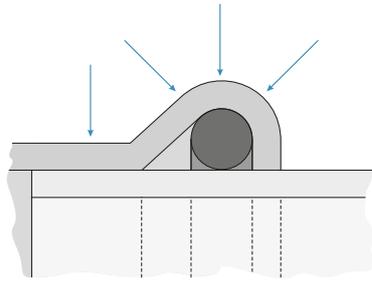
„Press“ technology used in System KAN-therm Inox enables to make fast and reliable connections by pressing fittings using widely available press tools, eliminating twisting and welding of individual elements. The system permits a very quick assembly even when using pipes and fittings in large diameters.

System KAN-therm Inox pipes and fittings are made of thin-walled steel, which significantly decreases weight of individual elements and facilitates system assembly.

Connecting elements in „press“ technology allows to obtain connections of minimized pipe section narrowing, which significantly decreases waste of system pressure and creates excellent hydraulic conditions.

Long-lasting connection technology

Connection leak tightness in System KAN-therm Inox is provided by special O-Ring seals and a three-point „M” type jaw.



Application possibilities

- central heating, hot and cold potable water systems (Attention!!! 1.4301 steel type pipes are not suitable for potable water installations),
- fire protection systems,
- industrial systems,
- compressed air systems,
- cooling water systems,
- heat pumps.

Advantages

- quick and reliable system assembly without welding and twisting,
- wide range of pipe and fitting diameters up to 168 mm,
- wide range of working temperatures: from -35°C to 135°C,
- high pressure resistance up to 16 bar,
- compatible with plastic systems KAN-therm Press and Push,
- lightweight pipes and fittings,
- system high aesthetics,
- resistance to mechanical damage.

Fitting assembly



1 Pipe cutting

Pipes should be cut perpendicular to their axes using pipe roll-cutter (full cut, with no breaking off nicked pipe segments). Using other tools is permissible provided the cut is perpendicular and cut edges are not damaged (no breaking off, no material decrements or other deformations of pipe section). Tools that emit a lot of heat, e.g. a flame torch, an angle grinder, etc., cannot be used.



2 Beveling

Using a hand operated stripping tool (for 76,1-108 mm half-rounded steel file), bevel outside and inside the tip of the cut pipe, and remove all file dust that can damage an O-Ring during assembly. Stripping tool may also be mounted on electric machines (for instance electric drill).



3 Marking the insertion depth of the pipe in the fitting

In order to obtain proper connection strength it is necessary to keep the correct insertion depth (Tab.1, Fig.1) of the pipe in the fitting (it should be slid home).

To make sure the pipe is properly slid into the fitting during pressing, mark the required insertion depth with a pen marker. After the connection have been made, the marking should be visible just next to edge of the fitting. Also, there are special markers for marking the insertion depth.



4 Control

Before assembly, check visually that there is an O-Ring in the fitting, whether it is not damaged, and whether there are no file dust or any other sharp objects which can cause damage to the O-Ring during assembly. In order to proper assembling it is necessary to check the minimal allowed distance between the fittings according to Table In order to proper assembling it is necessary to check the minimal allowed distance between the fittings according to Table 1. Fig.1).

5 Pipe and fitting assembly

Before making the connection, axially insert the pipe into the fitting to a marked depth (To make the assembly easier it is possible to slightly twist the pipe in relation to the fitting).

Using any kinds of oils, lubricating oils and fats in order to make the montage of the pipe into the fitting easier is not allowed (it is allowed to use only water or spoiled soap - recommended in case of pressure test by air). In the case of making many connections (inserting pipes into fittings and pressing) it is very important to watch the pipe insertion depth. To do so watch previously made markings on pipes near fitting edges.



6 Making a press connection

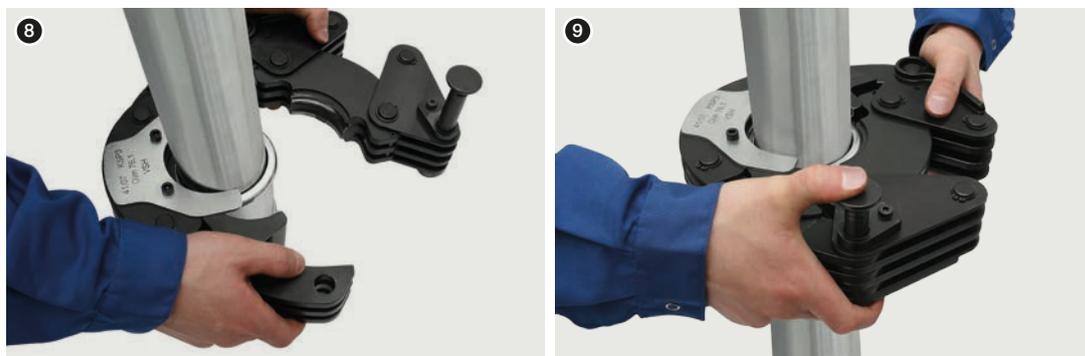
Before the beginning of the process of making the press connection, please check the efficiency of tools. Recommended is the usage of pressing machine and jaws provided by the System KAN-therm.

Always choose the suitable size of the jaw to the diameter of executing connection.

The jaw should be placed on the fitting in the way, which will ensure that the grooves in the jaw will cover the space, where are the O-Rings placed (raised parts of the fitting). After start of pressing, the process takes place automatically and cannot be stopped. If for some reasons the process of the pressing will be aborted, the connection need to be disassembled (cut out) and then the new connection should be executed one more time in correct way. If the contractors have different machines and jaws than those supplied by KAN, every use of them must be consulted with the KAN company individually.

7 Making a press connection in range 76,1–108 mm Preparing the jaw

To make a press connection of the three biggest dimensions of the Steel and Inox (76,1; 88,9; 108, 139,7, 168,3) a special jaws should be used (tetramerous) and the Klauke pressing machine. The jaw after release should be unlocked by removing the special bolt.

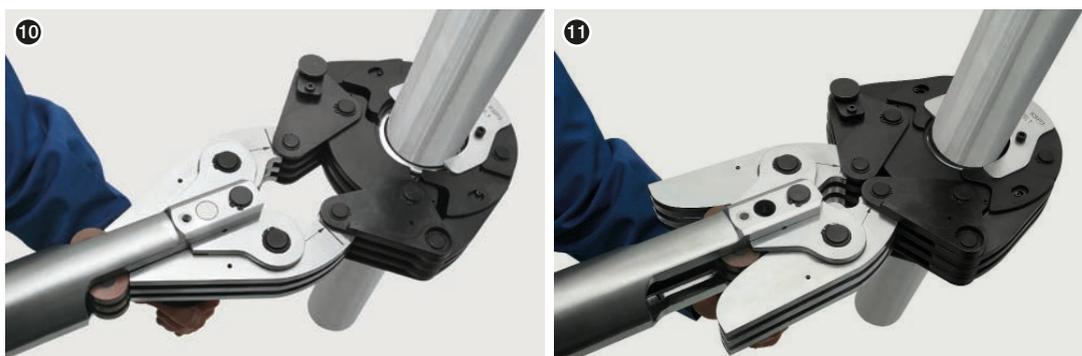


8 Locking the jaw

Unlocked jaw need to be put on the fitting. The jaw has special groove, where the fitting edge need to be placed.

Caution: The label on the jaw should be always at the pipe side (see picture).

- 9 After the correct assembling the jaw onto the fitting, the jaw need be to locked using the special bolt. At this moment the jaw is ready to do the connection.



- 10 Assembling the machine to the jaw

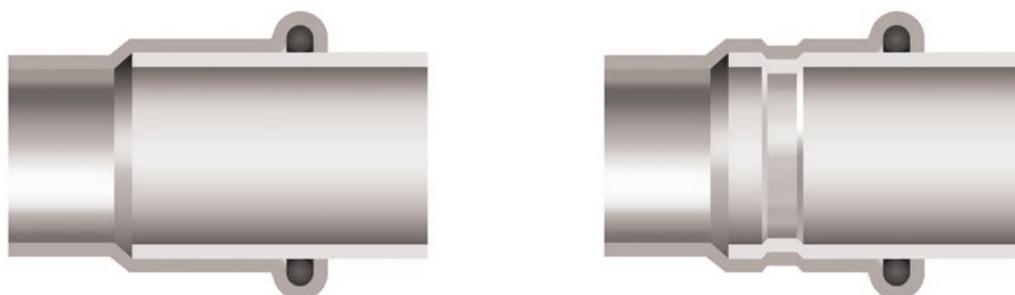
The machine need to be connected with the jaw in the way how it is shown on the picture. The arms of the machine have to be slip in up to the end. Maximal slip in is marked on the arm of the machine. Now, the machine is ready to be started.

- 11 Making a connection

The time of the full press connection is about 1 min. After the start of pressing, the process takes place automatically and cannot be stopped. If, for some reasons the process of the pressing will be aborted, the connection need to be disassembled (cut out) and then the new connection should be executed one more time in correct way. After the connection is finished, the machine will automatically back to the previous position. The arms of the machine need to be move out form the jaw. To remove the jaw from the fitting, the jaw need to be unlocked. The jaws should be stored in the locked box.

Check and lubricate the equipment before starting work and during the intervals determined by the producer.

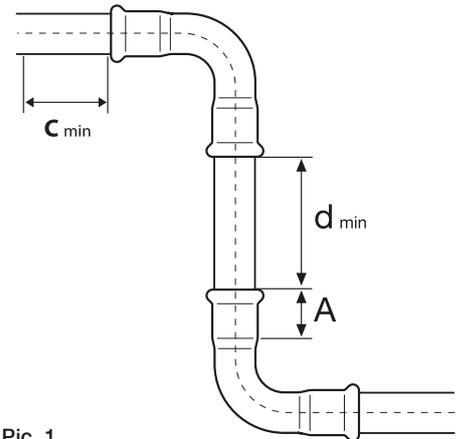
Press conection before and after press



Mounting distance

Table 1 Pipe insertion depth into the fitting and minimum distance between pressed fittings

Ø [mm]	A [mm]	d _{min} [mm]
15	20	10
18	20	10
22	21	10
28	23	10
35	26	10
42	30	20
54	35	20
76	55	55
88	63	65
108	77	80
139	100	32
168	121	37



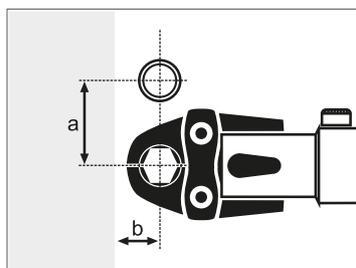
Pic. 1

A – pipe insertion depth into the fitting,
d_{min} – minimum distance between fittings allowing for press correctness

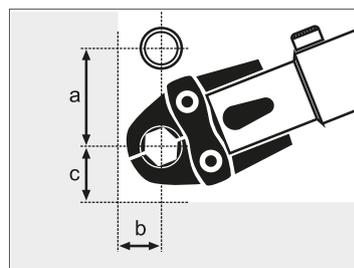
Table 2 Minimum assembly distances

Ø [mm]	Pic. 2		Pic. 3		
	a [mm]	b [mm]	a [mm]	b [mm]	c [mm]
15	56	20	75	25	28
18	60	20	75	25	28
22	65	25	80	31	35
28	75	25	80	31	35
35	75	30	80	31	44
42	140/115*	60/75*	140/115*	60/75*	75
54	140/120*	60/85*	140/120*	60/85*	85
76	140*	110*	165*	115*	115
88	150*	120*	185*	125*	125
108	170*	140*	200*	135*	135
139	290*	230*	290*	230*	230*
168	330*	260*	330*	260*	260*

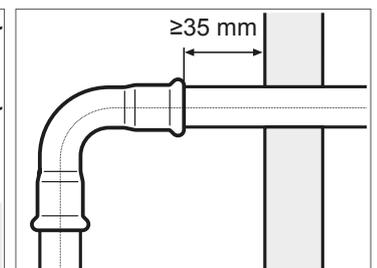
*applies to four-part pressing jaws



Pic. 2



Pic. 3



Pic. 4

Tools

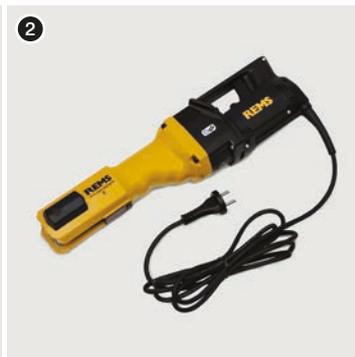
Depending on the diameter, KAN-therm provides various configuration of tools. In order to select optimal set of tools, please follow chart:

Tab. 3 Selection of tools table: System KAN-therm Steel & Inox

Brand	Press machine		Diameter [mm]	Press jaws / collars		Adapter		Type of System KAN-therm			
	Marking	Code		Marking	Code	Marking	Code	Steel	Inox	Steel Sprinkler	Inox Sprinkler
REMS	Power Press E Aku Press	ZAPR01 ZAPRAK	12	M12	570100	-	-	+	-	-	-
			15	M15	570110	-	-	+	+	-	-
			18	M18	570120	-	-	+	+	-	-
			22	M22	570130	-	-	+	+	-	-
			28	M28	570140	-	-	+	+	-	-
			35	M35	570150	-	-	+	+	-	-
			42	M42	570160	-	-	+	+	-	-
			54	M54	570170	-	-	+	+	-	-
KLAUKE	UAP100	UAP100	64	KSP3 64	BP64M	-	-	+	-	-	-
			67	KSP3 66,7	BP667M	-	-	+	-	-	-
			76,1	KSP3 76,1	BP761M	-	-	+	+	-	-
			88,9	KSP3 88,9	BP889M	-	-	+	+	-	-
			108	KSP3 108	BP108M	-	-	+	+	-	-
NOVOPRESS	ECO301	620570.5	12	M12	620572.7	-	-	+	-	-	-
			15	M15	620573.8	-	-	+	+	-	-
			18	M18	620574.9	-	-	+	+	-	-
			22	M22	620575.1	-	-	+	+	+	+
			28	M28	620576.0	-	-	+	+	+	+
			35	HP 35 Snap On	634106.0	ZB 303	634111.5	+	+	+	+
			42	HP 42 Snap On	634107.1			+	+	+	+
			54	HP 54 Snap On	634108.2			+	+	+	+
	66,7	M 67	634139.0	ZB 323	634143.4			+	+	-	-
	ACO401	634008.1	76,1	HP 76,1	634009.2	-	-	+	+	+	+
			88,9	HP 88,9	634010.3	-	-	+	+	+	+
			108	HP 108	634011.4	-	-	+	+	+	+
			139,7	HP 139,7	BF139	-	-	-	+	-	-
			168,3	HP 168,3	BF168	-	-	-	+	-	-

REMS tools:

1. Aku Press machine
2. Power Press E machine
3. Press jaw M12-54 mm



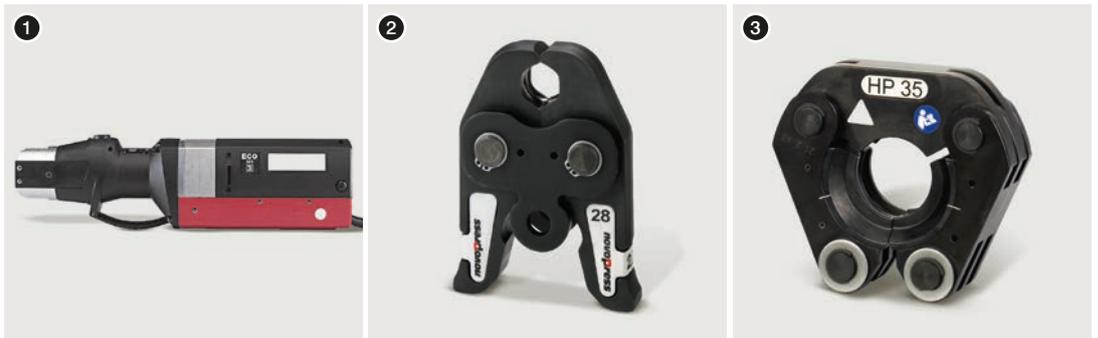
KLAUKE tools:

1. UAP100 machine
2. Press collar KSP3 64-108 mm



NOVOPRESS tools:

1. ECO 301 machine
2. Press jaw M12-28 mm
3. Press collar HP 35 Snap On



4. ACO 401 machine
5. Press collar HP 42 - 54 Snap On
6. Collar M67



7. Press collar HP 76,1 - 168,3
8. Adapter ZB 303
9. Adapter ZB 323



For connecting KAN-therm Inox Giga Size 139,7 mm and 168,3 mm elements, company KAN delivers appropriate tools directly to the building site.

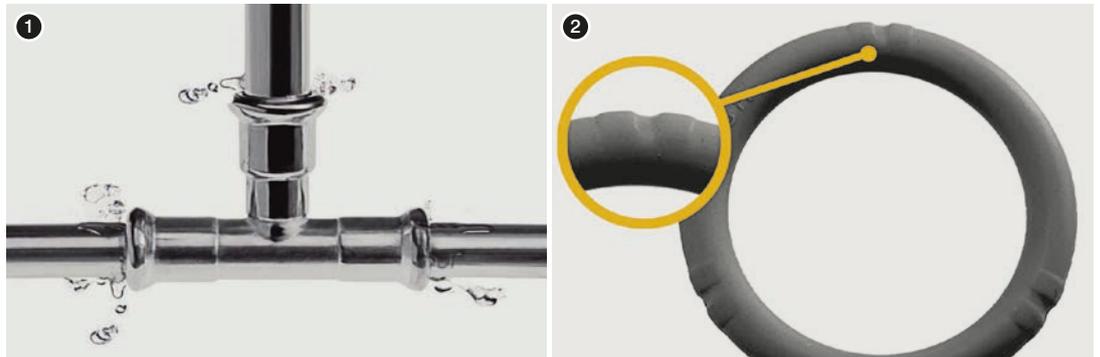
Tools - Safety

All tools must be applied and used in accordance with their purpose and the manufacturer's instructions. Use for other purposes or in other areas are considered to be inconsistent with the intended use. Intended use also requires compliance with the instructions, conditions of inspection and maintenance and relevant safety regulations in their current version. All works done with tools, which do not meet the application compatible with the intended purpose may result in damage to tools, accessories and pipes. The consequence may be the leak and / or damage.

LBP Function

All the KAN-therm Inox System fittings in diameter range of 15-168 mm have LBP function (signaling unpressed connections - LBP-Leak Before Press). In scope of 12–54 mm diameters the function is implemented by means of special construction of O-rings. Thanks to their special grooves the LBP O-rings guarantee optimal connection control during pressure test. Unpressed connections are leaky and therefore easy to locate. In diameters over 54 mm the LBP function is realized by means of an appropriate fitting construction (stub ovalization).

1. The activity O-Rings with the function of signalings not pressed connections (LBP)
2. O-Rings with the function of signalings not pressed connections (LBP)



Detailed information

Pipes and fittings - material

- Corrosion-proof chrome-nickel-molybdenum steel X2CrNiMo17-12-2, no. 1.4404, in accordance with DIN-EN 10088 and AISI 316L.
- Corrosion-proof chrome-nickel-molybdenum steel X2CrMoTi18-2, no. 1.4521, in accordance with DIN-EN 10088 and AISI 444.

O-Rings

O-Ring	Properties and work parameters	Application
<p>EPDM (butyl rubber)</p> 	<p>color: black max. operating pressure: 16 bar operating temperature: -35°C to 135°C short duration: 150°C</p>	<p>potable water hot water treated water (softened, decalcified, distilled, with glycol up to 50%) compressed air (with no oil content)</p>
<p>FPM / Viton (fluorine rubber)</p> 	<p>color: green max. operating pressure: 16 bar operating temperature: -30°C to 200°C short duration: 230°C</p>	<p>solar systems compressed air fuel oil vegetable fat engine fuels Caution!! Not suitable for pure hot water installations. Do not use in potable water systems.</p>
<p>FPM / Viton (fluorine rubber)</p> 	<p>color: gray max. operating pressure: 9 bar operating temperature: -20°C to 175°C short duration: 190°C</p>	<p>steam installations 15 - 54 mm</p>



Fittings come with standard EPDM O-Rings.

For special applications Viton O-Rings are delivered separately. In case of exchanging the standard O-Rings EPDM to the VITON one it is not allowed to use again the dismantled O-Rings. Areas of application that are outside the elementary scope of the closed heating installations, should be always consulted with the company KAN.

Elongation and thermal conductivity data

Material	Linear elongation coefficient [mm/(m×K)]	Elongation of 4 m segment at 60°C [mm]	Thermal conductivity [W/(m²×K)]
Inox	0,0160	3,84	15

Recommendations

- System KAN-therm Inox pipes made of thin walled stainless steel 1.4404 and 1.4301 can not be used in installations that will be exposed to additional loads (such as hanging on the pipes, devastation, etc.).
- KAN-therm Inox steel pipes cannot be bent when warm. Cold bending is permissible provided the minimum bending radius is kept ($R=3.5 \times dz$). Do not expose pipe external surface to prolonged direct moisture during storage and use.
- Pipes over $\varnothing 28$ mm should not be bent. ATTENTION!!! - it's not recommended to bend System KAN-therm Inox pipes (also with mechanical benders) made of stainless steel type 1.4404 and 1.4301.
- Use ready-made pipe bends or 90° and 45° elbows offered by System KAN-therm Inox.
- It is not allowed to cut pipes using tools which emit a lot of heat, e.g. flame torches or grinders. To cut KAN-therm Inox pipes use only pipe cutters (hand operated and mechanical).
- When KAN-therm Inox pipes are concealed in walls, pipes should be insulated because of thermal elongation compensation and construction chemicals.
- In the case of using external heat sources (e.g. heating cables) heating a pipe wall, the pipe wall temperature should not exceed 60°C.
- General content of chlorides in water cannot exceed 250 mg/l. In the case of transporting chemical substances the possible use of KAN-therm Inox pipes should be consulted with KAN Technical Department.
- System KAN-therm Inox installations require potential equalization.

Screw connections and joining with other KAN-therm Systems

KAN-therm Steel and Inox System offers a wide range of connectors with male and female threads. In fittings with male thread there are taper threads (pipe), therefore in brass fittings for brass couplings only male threads are acceptable, sealed e.g. with a small amount of hemp. To avoid loading the clamp connection it is advised to make a threaded connection (screwing) before pressing the connector.

Standard PTFE (Teflon) tape and other halide agents (e.g. chlorides) must not be used to seal threads in KAN-therm Inox installations.

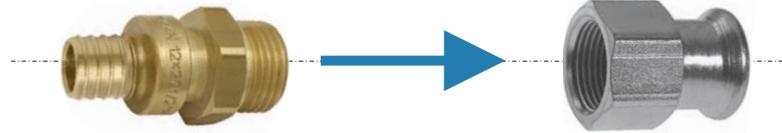
Thread sealing

It is advised to seal threaded connections with such an amount of tow, that leaves the thread tops not covered. Using too much tow may lead to thread damage. By winding tow just after the first thread ridge you can avoid skew screwing and damaging the thread.

Recommended method of connecting plastic systems (Push, Press) with steel systems (Steel, Inox) is a properly made screw connection.

Male brass fitting
System KAN-therm Push, Press

Female steel fitting
System KAN-therm Inox



! Caution

Do not use chemical sealants or glues.

Elements of the System KAN-therm Steel can be assembled (through the screw or flanged connections) with elements made of others materials (see the table below).

Possibility of connections for Systems KAN-therm Steel and Inox with other materials

Type of installation		Pipes/Fittings			
		Copper	Bronze/Brass	Carbon steel	Stainless steel
Steel	closed	yes	yes	yes	yes
	open	no	no	no	no
Inox	closed	yes	yes	yes	yes
	open	yes	yes	no	yes

Remember, that connecting directly the elements made from the stainless steel with the elements made of carbon steel zinc plated (eg. pipes) can lead to corrosion. This process can be eliminated by using the plastic inserts or independent metal inserts (bronze, brass) with minimal length of 50 mm (eg. using the brass ball valve).

Pipeline assembly

Maximum distances between attachment points are presented in Table 4:

Table 4 Maximum distances between pipeline attachment points

Pipe diameter [mm]	Distance between attachment points [m]
15	1,25
18	1,50
22	2,00
28	2,25
35	2,75
42	3,00
54	3,50
76,1	4,25
88,9	4,75
108	5,00
139	5,00
168	5,00

Attachment points can be done as:

- slidable points PP - slidable points should enable free axial motion of the pipeline (caused by thermal motions), that is why they shouldn't be fixed next to the fittings (minimal distance from fitting flange must be higher than maximum elongated of pipeline). The slidable point can be made as "unscrewed" metal clamps with rubber pads,
- fixed points PS - to make fixed point, the metal clamp with rubber pad should be used, it should enables precise and reliability stabilization of the pipe on the whole circuit. The metal clump should be maximally tighten on the pipe,

- attachment points preventing the pipeline from moving downwards; used if the pipeline movement on compensation arm length was blocked by required PP position.

Fixed (PS) and slidable (PP) points

- fixed points should prevent any movement of pipelines and should be fixed next to fittings (at both sides of a fitting, e.g. coupling, tee connection),
- fixed or slidable points cannot be fixed directly onto fittings,
- when fixing PSs near tee connections make sure that clamps blocking the pipeline are not fixed onto branches of smaller diameters than one dimension in relation to the pipeline (forces induced by large diameter pipes can damage small diameters),
- PPs enable only axial motion of the pipeline (they should be treated as fixed points for perpendicular direction to the pipeline axis) and should be made by clamps,
- PPs should not be fixed next to fittings because this may block thermal motions of the pipeline,
- remember that PPs prevent the pipeline from moving transverse to its axis and that is why their position may determine compensation arms length.

Elongation compensation

Along with water temperature rise ΔT pipelines become elongated by ΔL value. Thermal elongation ΔL causes pipeline deformation on expansion compensation length A. Expansion compensation length A should not cause excessive stresses in the pipeline and depends on the pipeline external diameter, thermal elongation ΔL and a linear expansion coefficient for a given material. Elongations ΔL in function of pipe length (L) and temperature rise ΔT are presented in Table 5:

Table 5 Total length elongation ΔL [mm] – System KAN-therm Inox

L [m]	ΔT [°C]									
	10	20	30	40	50	60	70	80	90	100
1	0,16	0,32	0,48	0,64	0,80	0,96	1,12	1,28	1,44	1,60
2	0,32	0,64	0,96	1,28	1,60	1,92	2,24	2,56	2,88	3,20
3	0,48	0,96	1,44	1,92	2,40	2,88	3,36	3,84	4,32	4,80
4	0,64	1,28	1,92	2,56	3,20	3,84	4,48	5,12	5,76	6,40
5	0,80	1,60	2,40	3,20	4,00	4,80	5,60	6,40	7,20	8,00
6	0,96	1,92	2,88	3,84	4,80	5,76	6,72	7,68	8,64	9,60
7	1,12	2,24	3,36	4,48	5,60	6,72	7,84	8,96	10,08	11,20
8	1,28	2,56	3,84	5,12	6,40	7,68	8,96	10,24	11,52	12,80
9	1,44	2,88	4,32	5,76	7,20	8,64	10,08	11,52	12,96	14,40
10	1,60	3,20	4,80	6,40	8,00	9,60	11,20	12,80	14,40	16,00
12	1,92	3,84	5,76	7,68	9,60	11,52	13,44	15,36	17,28	19,20
14	2,24	4,48	6,72	8,96	11,20	13,44	15,68	17,92	20,16	22,40
16	2,56	5,12	7,68	10,24	12,80	15,36	17,92	20,48	23,04	25,60
18	2,88	5,76	8,64	11,52	14,40	17,28	20,16	23,04	25,92	28,80
20	3,20	6,40	9,60	12,80	16,00	19,20	22,40	25,60	28,80	32,00

„L”, „Z”, and „U” compensator selection

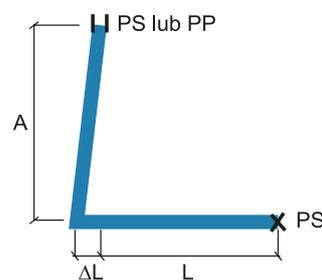
Table 6 Required expansion compensation length A [mm] for System KAN-therm Inox

Elongation values ΔL [mm]	Pipe external diameters d_z [mm]											
	15	18	22	28	35	42	54	76,1	88,9	108	139,7	168,3
2	246	270	298	337	376	412	468	555	600	661	753	826
4	349	382	422	476	532	583	661	785	849	935	1064	1168
6	427	468	517	583	652	714	810	962	1039	1146	1303	1431
8	493	540	597	673	753	825	935	1110	1200	1323	1505	1652
10	551	604	667	753	842	922	1046	1241	1342	1479	1683	1846
12	604	661	731	825	922	1010	1146	1360	1470	1620	1843	2022
14	652	714	790	891	996	1091	1237	1469	1588	1750	1990	2185
16	697	764	844	952	1065	1167	1323	1570	1697	1871	2128	2336
18	739	810	895	1010	1129	1237	1403	1665	1800	1984	2257	2477
20	779	854	944	1065	1191	1304	1479	1756	1897	2091	2379	2611
22	817	895	990	1117	1249	1368	1551	1841	1990	2193	2495	2738
24	854	935	1034	1167	1304	1429	1620	1923	2079	2291	2606	2860
26	889	973	1076	1214	1357	1487	1686	2002	2163	2385	2712	2977
28	922	1010	1117	1260	1409	1543	1750	2077	2245	2475	2815	3090
30	955	1046	1156	1304	1458	1597	1811	2150	2324	2561	2914	3198
32	986	1080	1194	1347	1506	1650	1871	2221	2400	2645	3009	3302
34	1016	1113	1231	1388	1552	1700	1928	2289	2474	2727	3102	3404

Table 6 presents required expansion compensation length A for different thermal elongation values ΔL and pipe external diameters d_z .

Rules for selection of different types of compensators are given below:

„L” type compensator



A – flexible arm length

PP – sliding support (allows only axial movement of a pipeline)

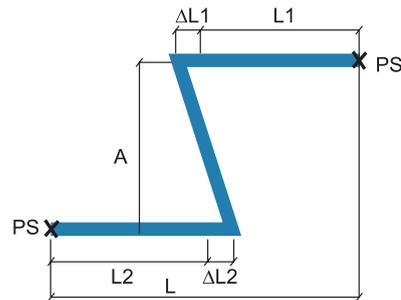
PS – fixed point (prevents any movement of a pipeline)

L – the initial length of a pipeline

ΔL – pipeline thermal elongation

For compensation arm A dimensioning, a substitute length $L_z=L$ is taken, and for L_z length the thermal elongation value ΔL is determined from Tab. 5. Next, the expansion compensation length A is determined on the basis of Tab 6.

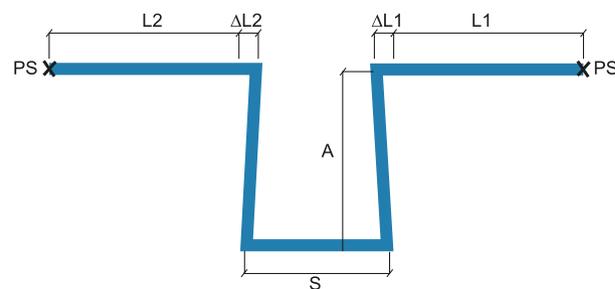
„Z” type compensator



- A – expansion compensation length
- PS – fixed point (prevents the pipeline from moving);
- L – pipeline initial length;
- ΔL – pipeline thermal elongation.

For compensation arm A dimensioning, $L1$ and $L2$ sum is taken as a substitute length $Lz = L1 + L2$, and for Lz length a substitute ΔL is determined on the basis of Tab. 5. Next, the expansion compensation length A is determined on the basis of Tab. 6.

„U” type compensator



- A – expansion compensation length
- PS – fixed point (prevents the pipeline from moving)
- L – pipeline initial length
- ΔL – pipeline thermal elongation
- S – U type compensator width

In case of placing fixed point PS in the section of compensator length S , for compensation arm A dimensioning, the greater value from $L1$ and $L2$ is taken as a substitute length for Lz : $Lz = \max(L1, L2)$ and for this length the substitute elongation ΔL is determined on the basis of Tab. 5, and then the length of compensation arm A is determined on the basis of Tab. 6.

Compensator width $S = A/2$.

Pressure drop

Coefficient of local pressure drops ζ and equivalent length for fluid flow through fittings are presented in Table 7.

Table 7 Coefficient of local pressure drops ζ and equivalent length for fittings



Ø15 – 54 mm

Analytical direct method									
ζ	1,5	0,7	0,5	0,5	0,4	0,9	1,3	1,5	3,0
Method of equivalent length [m]									
	15	18	22	28	35	42	54		
	0,90	0,40	0,30	0,30	0,25	0,50	0,70	0,90	1,80
	1,10	0,50	0,40	0,40	0,30	0,65	0,90	1,10	2,30
	1,40	0,60	0,50	0,50	0,40	0,80	1,20	1,40	2,80
	1,90	0,90	0,60	0,60	0,50	1,10	1,50	1,90	3,80
	2,50	1,20	0,80	0,80	0,70	1,50	2,10	2,50	5,00
	3,10	1,40	1,00	1,00	0,90	1,80	2,60	3,10	6,20
	4,00	1,80	1,30	1,30	1,10	2,30	3,30	4,00	8,00

Ø76,1 – 88,9 – 108 – 139 – 168 mm

Analytical direct method									
ζ	1,3	0,6	0,4	0,5	0,1	1,0	1,3	1,5	3,0
Method of equivalent length [m]									
	76,1	88,9	108	139	168				
	6,10	2,80	1,90	2,40	0,50	4,70	6,10	7,10	14,20
	7,80	3,60	2,40	3,00	0,60	6,00	7,80	9,00	18,00
	10,60	4,90	3,30	4,10	0,80	8,20	10,60	12,30	24,60
	-	4,75	3,49	-	2,93	5,87	9,08	10,34	20,96
	-	5,72	4,21	-	3,53	7,07	10,94	12,45	25,25

Tab. 8 Linear pressure drops R for water at a temperature of 20°C

Vs [l/s]	15×1		18×1		22×1,2		28×1,2		35×1,5		42×1,5	
	w [m/s]	R [Pa/m]										
0,07	0,53	100	0,35	44	0,23	19	0,14	7	0,09	3	0,06	1
0,14	1,06	1259	0,70	464	0,46	176	0,27	49	0,17	17	0,12	7
0,15	1,13	1423	0,75	524	0,50	198	0,29	56	0,19	19	0,13	8
0,20	1,51	2379	1,00	871	0,66	328	0,39	92	0,25	32	0,17	12
0,21	1,58	2597	1,05	950	0,70	358	0,41	100	0,26	35	0,18	14
0,24	1,81	3304	1,20	1205	0,80	453	0,47	126	0,30	44	0,20	17
0,25	1,89	3558	1,25	1296	0,83	487	0,49	135	0,31	47	0,21	18
0,33	2,49	5895	1,64	2135	1,10	798	0,64	220	0,41	76	0,28	30
0,40			1,99	3025	1,33	1126	0,78	310	0,50	106	0,34	41
0,50			2,49	4545	1,66	1684	0,97	461	0,62	158	0,42	61
0,60					1,99	2345	1,17	639	0,75	218	0,50	84
0,70					2,32	3107	1,36	844	0,87	287	0,59	111
0,80							1,56	1074	1,00	364	0,67	140
0,90							1,75	1331	1,12	450	0,75	173
1,00							1,95	1612	1,25	544	0,84	209
1,10							2,14	1919	1,37	646	0,92	248
1,20									1,49	756	1,01	290
1,30									1,62	875	1,09	335
1,40									1,74	1001	1,17	382
1,50									1,87	1135	1,26	433
1,60									1,99	1277	1,34	487
1,70									2,12	1428	1,43	543
1,80											1,51	603
1,90											1,59	665
2,00											1,68	731
2,10											1,76	799
2,20											1,84	869
2,30											1,93	943
2,40											2,01	1020
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54×1,5		76,1×2		88,9×2		108×2		139,7×2,0		168,3×2,0	
w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]						
0,07	2										
0,07	2										
0,10	4										
0,10	4										
0,12	5	0,06	1								
0,12	5	0,06	1								
0,16	8	0,08	2								
0,20	12	0,10	2	0,07	1						
0,25	17	0,12	3	0,09	2						
0,29	23	0,15	5	0,11	2						
0,34	31	0,17	6	0,12	3	0,08	1				
0,39	39	0,20	7	0,14	3	0,09	1				
0,44	48	0,22	9	0,16	4	0,11	2				
0,49	57	0,25	11	0,18	5	0,12	2	0,07	1		
0,54	68	0,27	13	0,19	6	0,13	2	0,08	1		
0,59	79	0,29	15	0,21	7	0,14	3	0,08	1		
0,64	92	0,32	17	0,23	8	0,15	3	0,09	1		
0,69	105	0,34	20	0,25	9	0,17	3	0,10	1		
0,74	118	0,37	22	0,27	10	0,18	4	0,10	1		
0,78	133	0,39	25	0,28	12	0,19	4	0,11	1		
0,83	148	0,42	28	0,30	13	0,20	5	0,12	1	0,08	1
0,88	164	0,44	31	0,32	14	0,21	5	0,12	2	0,09	1
0,93	181	0,47	34	0,34	16	0,22	6	0,13	2	0,09	1
0,98	198	0,49	37	0,35	17	0,24	6	0,14	2	0,09	1
1,03	217	0,52	41	0,37	19	0,25	7	0,15	2	0,10	1
1,08	236	0,54	44	0,39	20	0,26	8	0,15	2	0,10	1
1,13	255	0,56	48	0,41	22	0,27	8	0,16	2	0,11	1
1,18	276	0,59	52	0,42	24	0,28	9	0,17	3	0,11	1
1,23	297	0,61	56	0,44	25	0,29	10	0,17	3	0,12	1
1,27	319	0,64	60	0,46	27	0,31	10	0,18	3	0,12	1
1,32	342	0,66	64	0,48	29	0,32	11	0,19	3	0,13	1
1,37	365	0,69	68	0,50	31	0,33	12	0,19	3	0,13	1
1,42	389	0,71	73	0,51	33	0,34	12	0,20	4	0,14	1
1,47	414	0,74	77	0,53	35	0,35	13	0,21	4	0,14	1
1,52	439	0,76	82	0,55	37	0,37	14	0,21	4	0,15	2
1,57	465	0,79	87	0,57	39	0,38	15	0,22	4	0,15	2
1,62	492	0,81	92	0,58	42	0,39	16	0,23	4	0,16	2
1,67	520	0,83	97	0,60	44	0,40	17	0,24	5	0,16	2
1,72	548	0,86	102	0,62	46	0,41	17	0,24	5	0,17	2
1,77	577	0,88	107	0,64	49	0,42	18	0,25	5	0,17	2
1,81	607	0,91	113	0,65	51	0,44	19	0,26	5	0,17	2
1,86	637	0,93	118	0,67	54	0,45	20	0,26	6	0,18	2
1,91	668	0,96	124	0,69	56	0,46	21	0,27	6	0,18	2
1,96	700	0,98	130	0,71	59	0,47	22	0,28	6	0,19	2
2,01	733	1,01	136	0,73	62	0,48	23	0,28	6	0,19	3
		1,03	142	0,74	64	0,50	24	0,29	7	0,20	3
		1,05	148	0,76	67	0,51	25	0,30	7	0,20	3
		1,08	154	0,78	70	0,52	26	0,30	7	0,21	3
		1,10	161	0,80	73	0,53	27	0,31	8	0,21	3
		1,13	167	0,81	76	0,54	28	0,32	8	0,22	3
		1,15	174	0,83	79	0,55	30	0,33	8	0,22	3
		1,18	181	0,85	82	0,57	31	0,33	9	0,23	3
		1,20	188	0,87	85	0,58	32	0,34	9	0,23	4
		1,23	195	0,88	88	0,59	33	0,35	9	0,24	4
		1,35	231	0,97	105	0,65	39	0,38	11	0,26	4
		1,47	271	1,06	123	0,71	46	0,42	13	0,28	5
		1,59	314	1,15	142	0,77	53	0,45	15	0,31	6
		1,72	360	1,24	162	0,83	61	0,48	17	0,33	7
		1,84	408	1,33	184	0,88	69	0,52	19	0,35	8
		1,96	460	1,42	207	0,94	77	0,55	21	0,38	9
		2,09	514	1,50	231	1,00	86	0,59	24	0,40	9
				1,59	257	1,06	96	0,62	26	0,43	11
				1,68	284	1,12	106	0,66	29	0,45	12
				1,77	312	1,18	116	0,69	32	0,47	13
				1,86	341	1,24	127	0,73	35	0,50	14
				1,95	372	1,30	138	0,76	38	0,52	15
				2,03	403	1,36	150	0,80	41	0,54	16
						1,42	162	0,83	44	0,57	18
						1,47	174	0,87	48	0,59	19
						1,53	187	0,90	51	0,61	20
						1,59	201	0,94	55	0,64	22
						1,65	215	0,97	59	0,66	23
						1,71	229	1,00	63	0,69	25
						1,77	244	1,04	67	0,71	26
						1,83	259	1,07	71	0,73	28
						1,89	275	1,11	75	0,76	30
						1,95	291	1,14	79	0,78	31
						2,00	307	1,18	84	0,80	33
						2,06	324	1,21	88	0,83	35
						2,12	341	1,25	93	0,85	37

Tab. 9 Linear pressure drops R for water at a temperature of 60°C

Vs [l/s]	15x1		18x1		22x1,2		28x1,2		35x1,5		42x1,5	
	w [m/s]	R [Pa/m]										
0,07	0,54	47	0,35	21	0,24	9	0,14	3	0,09	1	0,06	1
0,14	1,07	1095	0,71	397	0,47	149	0,28	41	0,18	14	0,12	6
0,15	1,15	1242	0,76	450	0,51	168	0,30	47	0,19	16	0,13	6
0,20	1,53	2106	1,01	758	0,67	282	0,40	77	0,25	27	0,17	10
0,21	1,61	2304	1,06	829	0,71	308	0,41	84	0,27	29	0,18	11
0,24	1,84	2950	1,21	1058	0,81	392	0,47	107	0,30	37	0,20	14
0,25	1,92	3183	1,26	1140	0,84	422	0,49	115	0,32	39	0,21	15
0,33	2,53	5345	1,67	1903	1,11	700	0,65	190	0,42	65	0,28	25
0,40			2,02	2720	1,35	996	0,79	269	0,51	91	0,34	35
0,50			2,53	4131	1,69	1505	0,99	404	0,63	136	0,43	52
0,60					2,02	2114	1,19	565	0,76	190	0,51	72
0,70					2,36	2820	1,38	750	0,89	251	0,60	96
0,80							1,58	961	1,01	320	0,68	122
0,90							1,78	1196	1,14	398	0,77	151
1,00							1,98	1456	1,26	483	0,85	183
1,10							2,17	1740	1,39	576	0,94	218
1,20									1,52	677	1,02	256
1,30									1,64	786	1,11	296
1,40									1,77	902	1,19	340
1,50									1,90	1026	1,28	386
1,60									2,02	1157	1,36	435
1,70									2,15	1297	1,45	487
1,80											1,53	541
1,90											1,62	598
2,00											1,70	658
2,10											1,79	721
2,20											1,87	787
2,30											1,96	855
2,40											2,04	926
2,50												
2,60												
2,70												
2,80												
2,90												
3,00												
3,10												
3,20												
3,30												
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17,50												
18,00												

54×1,5		76,1×2		88,9×2		108×2		139,7×2,0		168,3×2,0	
w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]	w [m/s]	R [Pa/m]						
0,07	2										
0,07	2										
0,10	3										
0,10	3										
0,12	4										
0,12	4	0,06	1								
0,16	7	0,08	1								
0,20	10	0,10	2	0,07	1						
0,25	14	0,12	3	0,09	1						
0,30	20	0,15	4	0,11	2						
0,35	26	0,17	5	0,13	2	0,08	1				
0,40	33	0,20	6	0,14	3	0,10	1				
0,45	41	0,22	8	0,16	4	0,11	1				
0,50	50	0,25	9	0,18	4	0,12	2				
0,55	59	0,27	11	0,20	5	0,13	2	0,08	1		
0,60	69	0,30	13	0,22	6	0,14	2	0,08	1		
0,65	80	0,32	15	0,23	7	0,16	3	0,09	1		
0,70	91	0,35	17	0,25	8	0,17	3	0,10	1		
0,75	104	0,37	19	0,27	9	0,18	3	0,11	1		
0,80	117	0,40	22	0,29	10	0,19	4	0,11	1		
0,85	130	0,42	24	0,31	11	0,20	4	0,12	1		
0,90	145	0,45	27	0,32	12	0,22	5	0,13	1	0,09	1
0,95	160	0,47	30	0,34	13	0,23	5	0,13	1	0,09	1
1,00	176	0,50	33	0,36	15	0,24	6	0,14	2	0,10	1
1,05	192	0,52	36	0,38	16	0,25	6	0,15	2	0,10	1
1,10	209	0,55	39	0,40	18	0,26	7	0,15	2	0,11	1
1,15	227	0,57	42	0,41	19	0,28	7	0,16	2	0,11	1
1,20	246	0,60	45	0,43	20	0,29	8	0,17	2	0,12	1
1,24	265	0,62	49	0,45	22	0,30	8	0,18	2	0,12	1
1,29	285	0,65	52	0,47	24	0,31	9	0,18	2	0,12	1
1,34	306	0,67	56	0,49	25	0,32	10	0,19	3	0,13	1
1,39	327	0,70	60	0,50	27	0,34	10	0,20	3	0,13	1
1,44	349	0,72	64	0,52	29	0,35	11	0,20	3	0,14	1
1,49	372	0,75	68	0,54	31	0,36	11	0,21	3	0,14	1
1,54	395	0,77	72	0,56	33	0,37	12	0,22	3	0,15	1
1,59	420	0,80	77	0,57	35	0,38	13	0,23	4	0,15	1
1,64	444	0,82	81	0,59	37	0,40	14	0,23	4	0,16	2
1,69	470	0,85	86	0,61	39	0,41	14	0,24	4	0,16	2
1,74	496	0,87	90	0,63	41	0,42	15	0,25	4	0,17	2
1,79	523	0,90	95	0,65	43	0,43	16	0,25	4	0,17	2
1,84	550	0,92	100	0,66	45	0,44	17	0,26	5	0,18	2
1,89	578	0,95	105	0,68	47	0,46	18	0,27	5	0,18	2
1,94	607	0,97	110	0,70	50	0,47	18	0,27	5	0,19	2
1,99	637	1,00	115	0,72	52	0,48	19	0,28	5	0,19	2
2,04	667	1,02	121	0,74	54	0,49	20	0,29	6	0,20	2
		1,05	126	0,75	57	0,50	21	0,30	6	0,20	2
		1,07	132	0,77	59	0,51	22	0,30	6	0,21	2
		1,10	138	0,79	62	0,53	23	0,31	6	0,21	3
		1,12	144	0,81	64	0,54	24	0,32	7	0,22	3
		1,15	149	0,83	67	0,55	25	0,32	7	0,22	3
		1,17	156	0,84	70	0,56	26	0,33	7	0,23	3
		1,20	162	0,86	73	0,57	27	0,34	7	0,23	3
		1,22	168	0,88	75	0,59	28	0,34	8	0,24	3
		1,25	174	0,90	78	0,60	29	0,35	8	0,24	3
		1,37	208	0,99	93	0,66	35	0,39	10	0,26	4
		1,49	245	1,08	110	0,72	41	0,42	11	0,29	4
		1,62	284	1,17	127	0,78	47	0,46	13	0,31	5
		1,74	327	1,26	146	0,84	54	0,49	15	0,34	6
		1,87	372	1,35	166	0,90	61	0,53	17	0,36	7
		1,99	420	1,44	187	0,96	69	0,56	19	0,38	7
		2,12	470	1,53	209	1,02	77	0,60	21	0,41	8
				1,62	233	1,08	86	0,63	23	0,43	9
				1,71	258	1,14	95	0,67	26	0,46	10
				1,80	284	1,20	104	0,70	28	0,48	11
				1,89	311	1,26	114	0,74	31	0,50	12
				1,98	339	1,32	124	0,77	34	0,53	13
				2,07	369	1,38	135	0,81	37	0,55	14
						1,44	146	0,84	40	0,58	16
						1,50	158	0,88	43	0,60	17
						1,56	170	0,91	46	0,62	18
						1,62	182	0,95	49	0,65	19
						1,68	195	0,98	53	0,67	21
						1,74	209	1,02	56	0,70	22
						1,80	222	1,05	60	0,72	23
						1,86	236	1,09	64	0,74	25
						1,92	251	1,13	67	0,77	26
						1,98	266	1,16	71	0,79	28
						2,04	281	1,20	76	0,82	30
						2,10	297	1,23	80	0,84	31
						2,16	313	1,27	84	0,86	33

Tab. 10 Linear pressure drop R for water at a temperature of 80°C in a function of power Q transported at a temperature drop Δt 20°C or in a function of water flow mi

Q [W]	mi [kg/s]	15×1		18×1		22×1,2		28×1,2		35×1,5		42×1,5	
		w [m/s]	R [Pa/m]										
500	0,01	0,05	3	0,03	1								
1000	0,01	0,09	13	0,06	5	0,04	1						
1500	0,02	0,14	27	0,09	10	0,06	4	0,04	1				
2000	0,02	0,18	44	0,12	16	0,08	6	0,05	2				
2500	0,03	0,23	64	0,15	24	0,10	9	0,06	3	0,04	1		
3000	0,04	0,28	87	0,18	33	0,12	13	0,07	4	0,05	1		
3500	0,04	0,32	114	0,21	43	0,14	16	0,08	5	0,05	2		
4000	0,05	0,37	143	0,24	54	0,16	21	0,10	6	0,06	2	0,04	1
4500	0,05	0,42	176	0,27	66	0,18	25	0,11	7	0,07	3	0,05	1
5000	0,06	0,46	211	0,30	79	0,20	30	0,12	9	0,08	3	0,05	1
6000	0,07	0,55	290	0,37	108	0,24	41	0,14	12	0,09	4	0,06	2
7000	0,08	0,65	380	0,43	142	0,28	54	0,17	15	0,11	5	0,07	2
8000	0,10	0,74	481	0,49	179	0,33	68	0,19	19	0,12	7	0,08	3
9000	0,11	0,83	591	0,55	220	0,37	84	0,21	24	0,14	8	0,09	3
10000	0,12			0,61	265	0,41	101	0,24	28	0,15	10	0,10	4
12000	0,14			0,73	365	0,49	139	0,29	39	0,18	14	0,12	5
14000	0,17			0,85	479	0,57	182	0,33	51	0,21	18	0,14	7
16000	0,19					0,65	231	0,38	65	0,24	22	0,16	9
18000	0,22					0,73	284	0,43	80	0,27	28	0,18	11
20000	0,24					0,81	342	0,48	96	0,30	33	0,21	13
25000	0,30					1,02	508	0,60	142	0,38	49	0,26	19
30000	0,36							0,71	196	0,46	68	0,31	26
35000	0,42							0,83	258	0,53	89	0,36	35
40000	0,48							0,95	327	0,61	113	0,41	44
45000	0,54							1,07	404	0,69	139	0,46	54
50000	0,60							1,19	487	0,76	168	0,51	65
60000	0,72									0,91	232	0,62	90
70000	0,84									1,07	305	0,72	118
80000	0,96									1,22	388	0,82	150
90000	1,08									1,37	479	0,92	186
100000	1,20											1,03	224
120000	1,44											1,23	311
140000	1,68											1,44	410
160000	1,92											1,64	522
180000	2,16												
200000	2,40												
220000	2,65												
240000	2,89												
260000	3,13												
280000	3,37												
300000	3,61												
350000	4,21												
400000	4,81												
450000	5,41												
500000	6,01												
550000	6,61												
600000	7,21												
650000	7,82												
700000	8,42												
750000	9,02												
800000	9,62												
850000	10,22												
900000	10,82												
950000	11,42												
1000000	12,02												
1050000	12,63												
1100000	13,23												
1150000	13,83												
1200000	14,43												
1250000	15,03												
1300000	15,63												
1350000	16,23												
1400000	16,83												
1450000	17,44												
1500000	18,04												
1550000	18,64												
1600000	19,24												
1650000	19,84												
1700000	20,44												
1750000	21,04												
1800000	21,64												
1850000	22,25												
1900000	22,85												
1950000	23,45												
2000000	24,05												

System **KAN-therm** Inox - assortment

stainless steel pipe - 1.4404 - bar 6 m

GROUP: H

Size	*	Code	Packing	JM	Price EUR/JM
15×1,0		611791.4	6/840	m	
18×1,0		611792.5	6/450	m	
22×1,2		611793.6	6/360	m	
28×1,2		611794.7	6/300	m	
35×1,5		611795.8	6/180	m	
42×1,5		611796.9	6/150	m	
54×1,5		611797.1	6/90	m	
76,1×2		611798.0	6/168	m	
88,9×2		611799.1	6/136	m	
108×2		611800.2	6/108	m	
139,7×2,0	**	6310100	6/108	m	
168,3×2,0	**	6310101	6/84	m	



press stainless steel pipe - 1.4521 - bar 6 m

GROUP: H

Size	*	Code	Packing	JM	Price EUR/JM
15×1,0		6221506	6/840	m	
18×1,0		6221807	6/450	m	
22×1,2		6222207	6/360	m	
28×1,2		6222808	6/300	m	
35×1,5		6223510	6/180	m	
42×1,5		6224212	6/150	m	
54×1,5		6225412	6/90	m	



press male connector

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×R½		6190580	10/200	pc	
15×R¾		6190591	10/80	pc	
18×R½		6190602	10/160	pc	
18×R¾		6190613	10/100	pc	
22×R½		6190635	10/70	pc	
22×R¾		6190646	10/100	pc	
22×R1		6190624	10/60	pc	
28×R¾		6190679	10/50	pc	
28×R1		6190657	10/60	pc	
28×R1¼		6190668	10/30	pc	
35×R1		6190681	10/40	pc	
35×R1¼		6190701	5/40	pc	
35×R1½		6190690	10/20	pc	
42×R1¼		6190723	4/12	pc	
42×R1½		6190712	4/24	pc	
54×R1½		6190734	4/16	pc	
54×R2		6190745	4/12	pc	
76,1×R2½		620475.9	2/-	pc	
88,9×R3		620476.1	2/-	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

press union connector

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×R $\frac{1}{2}$		6192120	2/50	pc	
15×R $\frac{3}{4}$		6192131	2/60	pc	
18×R $\frac{1}{2}$		6192142	2/60	pc	
18×R $\frac{3}{4}$		6192153	2/60	pc	
22×R $\frac{1}{2}$		6192164	2/40	pc	
22×R $\frac{3}{4}$		6192175	2/40	pc	
22×R1		6192186	2/30	pc	
28×R1		6192197	2/30	pc	
35×R1 $\frac{1}{4}$		6192208	2/16	pc	
42×R1 $\frac{1}{2}$		6192219	2/12	pc	
54×R2		6192296	2/4	pc	



press female connector

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×Rp $\frac{1}{2}$		6190415	10/130	pc	
15×Rp $\frac{3}{4}$		6190426	10/90	pc	
18×Rp $\frac{1}{2}$		6190437	10/120	pc	
18×Rp $\frac{3}{4}$		6190448	10/80	pc	
22×Rp $\frac{1}{2}$		6190461	10/100	pc	
22×Rp $\frac{3}{4}$		6190470	10/100	pc	
22×Rp1		6190459	10/60	pc	
28×Rp $\frac{1}{2}$		6193308	10/40	pc	
28×Rp $\frac{3}{4}$		6190503	10/40	pc	
28×Rp1		6190481	10/60	pc	
28×Rp1 $\frac{1}{4}$		6190492	10/30	pc	
35×Rp1		6190514	10/20	pc	
35×Rp1 $\frac{1}{4}$		6190536	10/30	pc	
35×Rp1 $\frac{1}{2}$		6190525	10/20	pc	



press female connector

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
42×Rp1 $\frac{1}{4}$		6190558	4/12	pc	
42×Rp1 $\frac{1}{2}$		6190547	4/24	pc	
54×Rp1 $\frac{1}{2}$		6190569	4/12	pc	
54×Rp2		6190571	4/12	pc	



press female union connector

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×Rp $\frac{1}{2}$		6192021	2/60	pc	
15×Rp $\frac{3}{4}$		6192032	2/40	pc	
18×Rp $\frac{1}{2}$		6192043	2/40	pc	
18×Rp $\frac{3}{4}$		6192054	2/40	pc	
22×Rp $\frac{3}{4}$		6192065	2/40	pc	
22×Rp1		6192076	2/30	pc	
28×Rp1		6192087	2/26	pc	
35×Rp1 $\frac{1}{4}$		6192098	1/20	pc	
42×Rp1 $\frac{1}{2}$		6192109	2/8	pc	
54×Rp2		6192111	2/4	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

press half union connector (with flat gasket)

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×G¾"		6191735	10/120	pc	
18×G¾"		6191746	10/100	pc	
22×G1"		6191757	10/60	pc	
28×G1¼"		6191768	10/40	pc	
35×G1½"		6191779	4/32	pc	
42×G1¾"		6191781	4/12	pc	
54×G2¾"		6191790	4/8	pc	



press coupling

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×15		6190943	10/140	pc	
18×18		6190954	10/140	pc	
22×22		6190965	10/80	pc	
28×28		6190976	10/60	pc	
35×35		6190987	5/40	pc	
42×42		6190998	4/24	pc	
54×54		6191009	4/16	pc	
76,1×76,1		620415.4	4/-	pc	
88,9×88,9		620416.5	4/-	pc	
108×108		620417.6	4/-	pc	
139,7×139,7	**	6310001	1	pc	
168,3×168,3	**	6310011	1	pc	



press slip coupling

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×15		6191284	10/140	pc	
18×18		6191295	10/100	pc	
22×22		6191306	10/60	pc	
28×28		6191317	10/40	pc	
35×35		6191328	5/20	pc	
42×42		6191339	4/16	pc	
54×54		6191341	2/8	pc	
76,1×76,1		620428.6	2/-	pc	
88,9×88,9		620429.7	2/-	pc	
108×108		620430.8	2/-	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

press 90° elbow

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×15		6190206	10/150	pc	
18×18		6190217	10/90	pc	
22×22		6190228	10/60	pc	
28×28		6190239	5/30	pc	
35×35		6190241	5/20	pc	
42×42		6190250	2/8	pc	
54×54		6190261	2/8	pc	
76,1×76,1		6230004	2/-	pc	
88,9×88,9		6230015	2/-	pc	
108×108		6230026	1/-	pc	
139,7×139,7	**	6310002	1	pc	
168,3×168,3	**	6310012	1	pc	



press nipple 90° elbow

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×15		6190349	10/120	pc	
18×18		6190351	10/60	pc	
22×22		6190360	5/60	pc	
28×28		6190371	5/30	pc	
35×35		6190382	5/10	pc	
42×42		6190393	2/8	pc	
54×54		6190404	2/6	pc	
76,1×76,1		6230037	1/-	pc	
88,9×88,9		6230048	1/-	pc	
108×108		6230059	1/-	pc	



press 45° elbow

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×15		6190041	10/150	pc	
18×18		6190052	10/120	pc	
22×22		6190063	10/70	pc	
28×28		6190074	10/40	pc	
35×35		6190085	5/25	pc	
42×42		6190096	2/16	pc	
54×54		6190107	2/8	pc	
76,1×76,1		6230061	2/-	pc	
88,9×88,9		6230070	2/-	pc	
108×108		6230081	2/-	pc	
139,7×139,7	**	6310003	1	pc	
168,3×168,3	**	6310013	1	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

press nipple 45° elbow

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×15		6190118	10/150	pc	
18×18		6190129	10/120	pc	
22×22		6190131	10/60	pc	
28×28		6190140	10/40	pc	
35×35		6190151	5/25	pc	
42×42		6190162	4/16	pc	
54×54		6190173	2/8	pc	
76,1×76,1		6230092	2/-	pc	
88,9×88,9		6230103	2/-	pc	
108×108		6230114	2/-	pc	



press tee

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×15×15		6191350	10/80	pc	
18×18×18		6191372	10/40	pc	
22×22×22		6191405	10/40	pc	
28×28×28		6191449	5/25	pc	
35×35×35		6191493	5/15	pc	
42×42×42		6191537	4/8	pc	
54×54×54		6191581	2/6	pc	
76,1×76,1×76,1		620431.9	2/-	pc	
88,9×88,9×88,9		620432.1	2/-	pc	
108×108×108		620433.0	2/-	pc	
139,7×139,7×139,7	**	6310004	1	pc	
168,3×168,3×168,3	**	6310014	1	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

press reducing tee

GROUP: G



Size	*	Code	Packing	JM	Price EUR/JM
18×15×18		6191361	10/60	pc	
22×15×22		6191383	10/50	pc	
22×18×22		6191394	10/50	pc	
28×15×28		6191416	5/30	pc	
28×18×28		6191427	10/30	pc	
28×22×28		6191438	5/30	pc	
35×15×35		6191451	5/20	pc	
35×18×35		6191460	5/20	pc	
35×22×35		6191471	5/20	pc	
35×28×35		6191482	5/20	pc	
42×22×42		6191504	4/12	pc	
42×28×42		6191515	4/12	pc	
42×35×42		6191526	4/12	pc	
54×22×54		6191548	2/8	pc	
54×28×54		6191559	2/8	pc	
54×35×54		6191561	2/8	pc	
54×42×54		6191570	2/8	pc	
76,1×22×76,1		620434.1	2/-	pc	
76,1×28×76,1		620435.2	2/-	pc	
76,1×35×76,1		620436.3	2/-	pc	
76,1×42×76,1		620437.4	2/-	pc	
76,1×54×76,1		620438.5	2/-	pc	
88,9×22×88,9		620439.6	2/-	pc	
88,9×28×88,9		620440.7	2/-	pc	
88,9×35×88,9		620441.8	2/-	pc	
88,9×42×88,9		620442.9	2/-	pc	
88,9×54×88,9		620443.1	2/-	pc	
88,9×76,1×88,9		620444.0	2/-	pc	
108×22×108		620445.1	2/-	pc	
108×28×108		620446.2	2/-	pc	
108×35×108		620447.3	2/-	pc	
108×42×108		620448.4	2/-	pc	
108×54×108		620449.5	2/-	pc	
108×76,1×108		620450.6	2/-	pc	
108×88,9×108		620451.7	2/-	pc	
139,7×76,1×139,7	**	6310007	1	pc	
139,7×88,9×139,7	**	6310006	1	pc	
139,7×108×139,7	**	6310005	1	pc	
168,3×76,1×168,3	**	6310018	1	pc	
168,3×88,9×168,3	**	6310017	1	pc	
168,3×108×168,3	**	6310016	1	pc	
168,3×139,7×168,3	**	6310015	1	pc	

* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

press nipple reducer

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
18×15		6191121	10/200	pc	
22×15		6191130	10/140	pc	
22×18		6191141	10/120	pc	
28×15		6191152	10/70	pc	
28×18		6191163	10/100	pc	
28×22		6191174	10/80	pc	
35×15		6192221	5/50	pc	
35×18		6191185	5/50	pc	
35×22		6191196	5/50	pc	
35×28		6191207	5/60	pc	
42×15		6192230	5/30	pc	
42×18		6192241	5/30	pc	
42×22		6191218	4/24	pc	
42×28		6191229	4/24	pc	
42×35		6191231	4/24	pc	
54×15		6192252	4/16	pc	
54×18		6192263	4/16	pc	
54×22		6191240	4/16	pc	
54×28		6191251	4/16	pc	
54×35		6191262	4/16	pc	
54×42		6191273	4/16	pc	
76,1×42		620421.1	2/-	pc	
76,1×54		620422.0	2/-	pc	
88,9×54		620423.1	2/-	pc	
88,9×76,1		620424.2	2/-	pc	
108×54		620425.3	2/-	pc	
108×76,1		620426.4	2/-	pc	
108×88,9		620427.5	2/-	pc	
139,7×88,9	**	6310009	1	pc	
139,7×108	**	6310008	1	pc	
168,3×88,9	**	6310021	1	pc	
168,3×108	**	6310020	1	pc	
168,3×139,7	**	6310019	1	pc	



press male elbow

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×R½		6190877	10/80	pc	
18×R½		6190888	10/80	pc	
22×R¾		6190899	10/60	pc	
28×R1		6190901	10/30	pc	
35×R1¼		6190910	5/20	pc	
42×R1½		6190921	2/16	pc	
54×R2		6190932	2/8	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

press female elbow

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×Rp½		6190822	10/80	pc	
18×Rp½		6190833	10/90	pc	
22×Rp½		6198456	10/50	pc	
22×Rp¾		6190844	10/50	pc	
28×Rp½		6198467	10/30	pc	
28×Rp¾		6198478	10/30	pc	
28×Rp1		6190855	10/30	pc	
35×Rp½		6198489	5/10	pc	
35×Rp¾		6198491	5/10	pc	
35×Rp1		6198500	5/10	pc	
35×Rp1¼		6190866	5/10	pc	



press nipple female elbow

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×Rp½ krótkie		6192274	10/40	pc	



press female tee

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×Rp½×15		6191592	10/70	pc	
18×Rp½×18		6191603	10/50	pc	
18×Rp¾×18		6191614	10/50	pc	
22×Rp½×22		6191625	10/40	pc	
22×Rp¾×22		6191636	10/40	pc	
28×Rp½×28		6191647	5/30	pc	
28×Rp¾×28		6191658	10/30	pc	
28×Rp1×28		6198599	10/30	pc	
35×Rp½×35		6191669	5/20	pc	
35×Rp¾×35		6191671	5/20	pc	
35×Rp1×35		6198601	10/20	pc	
42×Rp½×42		6191680	4/16	pc	
42×Rp¾×42		6191691	4/12	pc	
42×Rp1×42		6198610	4/16	pc	
54×Rp½×54		6191702	2/8	pc	
54×Rp¾×54		6191724	2/8	pc	
54×Rp1×54		6198621	2/6	pc	
54×Rp2×54		6191713	2/6	pc	
76,1×Rp¾×76,1		620452.8	2/-	pc	
76,1×Rp2×76,1		620455.0	2/-	pc	
88,9×Rp¾×88,9		620453.9	2/-	pc	
88,9×Rp2×88,9		620456.1	2/-	pc	
108×Rp¾×108		620454.1	2/-	pc	
108×Rp2×108		620457.2	2/-	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

press short wallplate elbow

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×Rp½		6191801	10/90	pc	
18×Rp½		6191812	10/90	pc	
22×Rp¾		6191823	10/50	pc	



press long wallplate elbow

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×Rp½		6191999	20/40	pc	
18×Rp½		6192001	20/40	pc	
22×Rp¾		6192010	10/40	pc	



press cup

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15		6191011	20/80	pc	
18		6191020	20/300	pc	
22		6191031	10/150	pc	
28		6191042	10/130	pc	
35		6191053	5/75	pc	
42		6191064	4/48	pc	
54		6191075	4/24	pc	
76,1		620418.7	4/-	pc	
88,9		620419.8	4/-	pc	
108		620420.9	4/-	pc	



crossover

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×15		6191086	10/80	pc	
18×18		6191097	10/50	pc	
22×22		6191108	10/50	pc	
28×28		6191119	10/20	pc	



bend 15°

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
28×28		6190008	10/40	pc	
35×35		6190019	5/15	pc	
42×42		6191834	2/20	pc	
54×54		6191845	2/10	pc	



bend 30°

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
28×28		6190021	10/40	pc	
35×35		6190030	4/12	pc	
42×42		6191856	2/20	pc	
54×54		6191867	2/8	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

bend 60°

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
28×28		6190184	5/30	pc	
35×35		6190195	4/12	pc	
42×42		6191878	5/5	pc	
54×54		6191889	2/6	pc	



bend 90°

GROUP: G

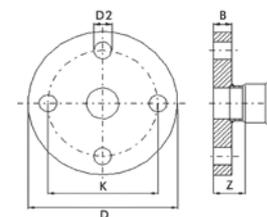
Size	*	Code	Packing	JM	Price EUR/JM
15×15		6190272	10/70	pc	
18×18		6190283	10/50	pc	
22×22		6190294	10/30	pc	
28×28		6190305	5/20	pc	
35×35		6190316	4/8	pc	
42×42		6190327	2/4	pc	
54×54		6190338	2/2	pc	



press flange PN16

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15		6190756	1/15	pc	
18		6190767	1/15	pc	
22		6190778	1/12	pc	
28		6190789	1/12	pc	
35		6190791	1/6	pc	
42		6190800	1/4	pc	
54		6190811	1/2	pc	
76,1		620412.1	4/-	pc	
88,9		620413.2	2/-	pc	
108		620414.3	2/-	pc	
139,7	**	6310010	1	pc	
168,3	**	6310022	1	pc	



Code	Z	D	D2	K	B
6190756	34	95	14	65	11
6190767	40	95	14	65	11
6190778	42,5	105	14	75	12
6190789	48	115	14	85	14
6190791	53	140	18	100	15
6190800	61	150	18	110	16
6190811	77	165	18	125	18
620412.1	71	185	18	145	18
620413.2	84	200	18	160	20
620414.3	90	220	18	180	20
6310010	46	250	18	210	25
6310022	53	285	22	240	26

* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

press flange connector

GROUP: G

Size	*	Code	Packing	JM	Price EUR/JM
15×1½		6191891	20/100	pc	
15×1½		6191900	20/100	pc	
18×1¼		6191911	20/100	pc	
18×1½		6191922	20/100	pc	
22×1¼		6191933	20/80	pc	
22×1½		6191944	20/80	pc	
28×1½		6191955	20/80	pc	
35×2		6191966	10/30	pc	
42×2¼		6191977	10/30	pc	
54×2¾		6191988	5/20	pc	



LBP EPDM O-Ring

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
15		6222216	20/600	pc	
18		6222227	20/500	pc	
22		6222238	20/500	pc	
28		6222249	20/400	pc	
35		6222251	20/400	pc	
42		6222260	20/300	pc	
54		6222271	20/300	pc	

Caution: LBP EPDM O-rings may be used in KAN-therm Steel and Inox system.



LBP FPM Viton O-Ring

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
15		6119401	20/600	pc	
18		6119410	20/500	pc	
22		6119421	20/500	pc	
28		6119432	20/400	pc	
35		6119443	20/400	pc	
42		6119454	20/300	pc	
54		6119465	20/300	pc	

Caution: LBP EPDM O-Rings can be used in System KAN-therm Steel and Inox.
Caution: Not suitable for hot water installations.



EPDM O-Ring

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
76,1		620801.5	5/100	pc	
88,9		620802.6	5/100	pc	
108		620803.7	5/50	pc	
139,7	**	620804.8	1	pc	
168,3	**	620805.9	1	pc	



FPM Viton O-Ring

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
76,1		611937.7	5/100	pc	
88,9		611938.8	5/100	pc	
108		611939.9	5/50	pc	
139,7	**	620806.0	1	pc	
168,3	**	620806.1	1	pc	

Caution: Not suitable for hot water installations.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

LBP Viton O-Ring grey

GROUP: I

Size	*	Code	Packing	JM	Price EUR/JM
15		6119784	20/600	pc	
18		6119795	20/500	pc	
22		6119806	20/500	pc	
28		6119817	20/400	pc	
35		6119828	20/400	pc	
42		6119839	20/300	pc	
54		6119841	20/300	pc	

Caution: use for water steam installation only.



Tools Inox

cutter for steel pipes

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12-54 mm		113000	any	pc		
35-108 mm		113100	any	pc		



wheel for cutter for steel pipes - service element

GROUP: K

*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
	341614	any	pc		



electric cutter

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
22-108 mm		845000	1	pc		



wheel for electric cutter for steel pipes - service element

GROUP: K

*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
	845050	any	pc		



electric cutter

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
108-169 mm	*	845004	1	pc		
pipe support 108-169 mm	*	845220	1	pc		



stripping tool - drill set

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12-54 mm		113835	any	pc		



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

electric press tool 230V - Power Press E Basic Pack

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12-54 mm		ZAPR01	any	pc		



rechargeable press tool - Aku Press

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
12-54 mm		ZAPRAK	any	pc		



M profile press jaws for Power and Aku Press

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
15		570110	any	pc		
18		570120	any	pc		
22		570130	any	pc		
28		570140	any	pc		
35		570150	any	pc		
42		570160	any	pc		
54		570170	any	pc		



rechargeable press tool UAP-100

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
76,1-108 mm		UAP100	any	pc		



press jaws for UAP-100

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
76,1		BP761M	any	pc		
88,9		BP889M	any	pc		
108		BP108M	any	pc		



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

ECO 301 press machine

GROUP: K

	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
		620570.5	1	pc		



ECO 301 press jaw

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
15		620573.8	1	pc		
18		620574.9	1	pc		
22		620575.1	1	pc		
28		620576.0	1	pc		



ECO 301 HP Snap On collar

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
35		634106.0	1	pc		
42		634107.1	1	pc		
54		634108.2	1	pc		



Caution:

Collars 35 – 54 mm needs additional adapter ZB 303.

adapter ZB 303 for ECO 301 press machine

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
35-42-54		634111.5	1	pc		



ACO 401 press machine (battery powered)

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
76,1-168		634008.1	1	pc		



HP collar for ACO 401 press machine

GROUP: K

Size	*	Code	Packing	JM	Suggested price for fitter	Price EUR/JM
76,1		634009.2	1	pc		
88,9		634010.3	1	pc		
108		634011.4	1	pc		
139,7		BF139	1	pc		
168,3		BF168	1	pc		



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends



SYSTEM **KAN-therm**

Underfloor heating

Comfort and efficiency



TECHNOLOGY OF SUCCESS



ISO 9001

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7 The underfloor heating of System **KAN-therm**

The KAN Company, manufacturer of the KAN-therm systems for many years promotes modern and user-friendly surface heating installations. The design of a System KAN-therm surface heating is very simple. Thanks to a rich selection of design solutions, wide assortment of system elements (manifolds, installation cabinets and automation elements) you can precisely select a heating system depending on the local conditions.

Among surface heating systems we offer:

- heating of surfaces in contact with open air (sports field pitches, stadium pitches, transport routes, garage drives/ramps, external stairs and terraces),
- floor, ceiling and wall type heating inside buildings.

For heating inside buildings different designs of surface heaters can be chosen depending on construction conditions, the use of a building etc:

- sports halls with elastic floors,
- wooden structure floors with an air void,
- poured structures of a floor heating – laid by a so-called wet method,
- structures of a floor heating laid by a dry method – especially useful for an overhaul or adaptation of buildings.

Advantages of a System KAN-therm floor heating:

- best temperature distribution in a room,
- energy saving,
- possible cooperation with cost-effective heat sources, e.g. heat pumps and condensing boilers,
- maximum use of the space surface,
- system friendly for allergists,
- in summer the system can cool spaces,
- high quality and reliability,
- competitive price,
- fast and easy assembly,
- rich selection of system designs,
- quiet run, no vibration,
- resistance against corrosion
- materials do not cover in limestone,
- environment friendly materials.

The KAN Company supplies also computer programmes aiding to design floor heating systems:

- **KAN co-Graf** for designing heating systems with an option for designing a floor heating,
- **KAN Quick Floor** – an Internet programme for a quick calculation of a floor heating based on the PN-EN1264 standard with an option of listing materials,
- **KAN ozc**, as an addition for calculating heat losses in buildings and individual spaces.
- **KAN SDG** is a programme for quick selection of floor heating and convection heaters, with an option to approximately calculate rooms design heat load.

All programmes are available at www.kan-therm.com

Basic information

A floor heating is directly immersed in a poured on layer of screed (floor leveller). Thus a heater is made, which in fact is a floor itself.

This kind of heating is very popular and can be successfully used in one-family houses and high standard apartment buildings.

The floor heating system has turned out to be the best solution to maintain the best warmth comfort in the building industry, e.g:

- churches,
- public buildings (sports halls, exhibition halls),
- industrial buildings.

Wet laid floor heating – pipes embedded in a cast screed



Thermal comfort

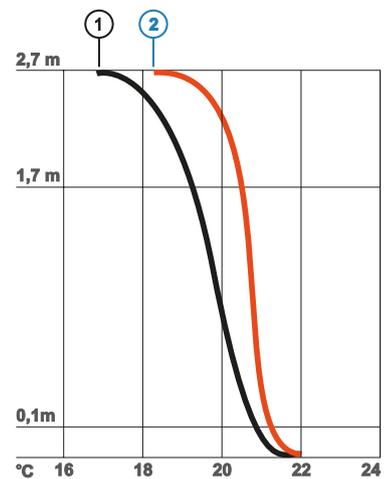
A floor heating is a heating system, where the most of the heat is given up by radiation. The heat flux is conducted by the pipe, then thru the concrete layer as the heating plate, and next thru the flooring and is given up to the environment.

The floor temperature is raised thus it is not a cold barrier (does not cool feet) and does not negatively affect the wind chill (the resultant of the air temperature, wall temperature and floor temperature in a room), which decides on the warmth comfort.

Therefore the air temperature in a room of 20°C provides the same thermal comfort as 21°C - 21°C, achieved with traditional heaters and convectors. The human body does not feel variations of the room temperature by 1°C.

With the floor heating a heat distribution almost ideal for the human is achieved.

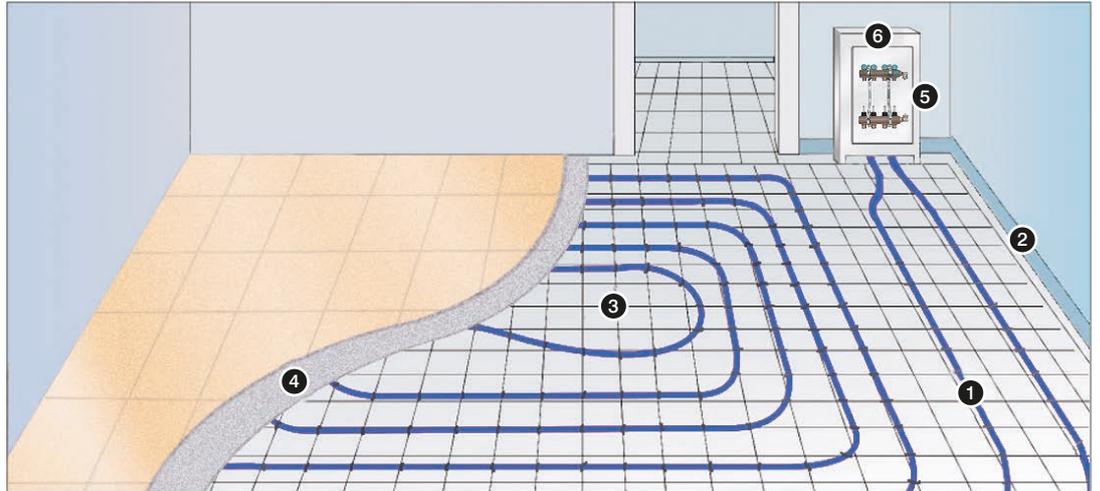
What's important with a floor heating is the reduced air convection as compared to radiators (convection type), which can raise dust.



- 1 Idealny rozkład temperatur
- 2 Rozkład temperatur przy ogrzewaniu podłogowym

System KAN-therm floor heating - elements

- 1. Heat pipes.
- 2. Edge insulation.
- 3. Thermal and damp-proof insulation.
- 4. Heating screed.
- 5. Manifold for floor heating.
- 6. Installation box



Pipes

Plastic pipes laid and fixed to Styrofoam sheets are the heating element of the System KAN-therm.

The KAN-therm System for floor and wall heating offers a very wide assortment of pipes both in terms of diameters and types. This allows selecting a best technical and cost-effective solution to satisfy all customers' requirements.

For construction of a KAN-therm floor heating two kinds of plastic pipes can be used: PE-Xc and PE-RT with an antidiffusion barrier or multi-layer PE-RT/Al/PE-RT pipes with an aluminum insert. Depending on the required heat capacity of a floor heating system we use pipes of a diameter between Ø12 and 26 mm. For wall heating system we use Ø12 – 14 mm pipes covered with a special plaster are used.

Pipes are available in coils 100-600 m depending on the pipe diameter. Uncoiling pipes from coils 600 m allows you to form heating coils fast and easy without turning them around their axis. Turning pipes around their axis causes tensions and a tendency of a pipe to separate from a substrate therefore forces to make it fast to the substrate must be greater.

- 1. Pipe in coil
- 2. Decoiler for pipe coils

1



2



Edge and damp-proof insulation

Materials for damp proof insulation:

- PE foil in rolls,
- metalized or laminated foil on Tacker plates,
- PS-foil on Profil plates.

Edge insulation:

- reduces heat losses through walls;
- constitutes dilatation of concrete heating panel from outer walls and structural components,
- laid up to concrete layer high (in case of ceramic floor covering, also ceramic covering should have dilatation from walls and structural components).

Materials of edge insulation:

1. Wall tape with incision
2. Wall tape with incision and apron

1



2



Thermal insulation

Requirements for thermal insulation to PN-EN 1264:

- $R = 0,75$ [m^2K/W] – required insulation thermal resistance above a heated space,
- $R = 1,25$ [m^2K/W] – required insulation thermal resistance above a not heated space or on the ground ($T_z \geq 0$ °C),
- $R = 2,00$ [m^2K/W] – required insulation thermal resistance on the ground (-5 °C $\geq T_z \geq -15$ °C).

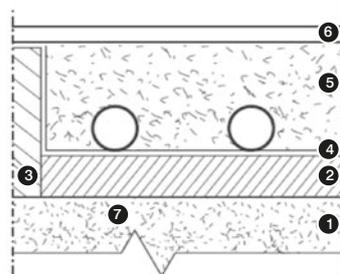
Material for thermal insulation:

- Styrofoam sheets Tacker with a metalised or laminated foil 20, 30, 35 and 50 mm thick,
- Styrofoam sheets Profil – 2 and 4 thickness 11 and 30 mm,
- Styrofoam sheets TBS – thickness 25 mm.

When you lay Styrofoam on a bitumen substrate use a separating PE-foil.

Heating plate design

1. floor slab design.
2. thermal insulation.
3. edge tape.
4. damp proof insulation (foil).
5. concrete screed.
6. sheet flooring.
7. Pipe.



For detailed requirements for heating plates (screeds) see instructions delivered by KAN company.

Manifolds

The basic adjustment of a floor heating consists in equalisation of flow resistance thru individual loops to ensure an even water flow distribution.

This regulation can be done with:

- regulation valves on their lower beam of 51A and 71A manifolds,
- regulation and measuring valves (flow meters) on the bottom beam of 55A and 75A series manifolds N75E,



Manifold series N75E



Manifold series 51A



Manifold series 71A



Manifold series 55A



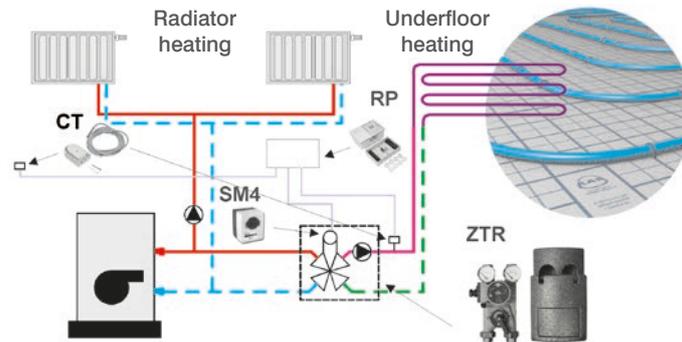
Manifold series 75A

Mixing systems

Surface heating is a system operating on low parameters. The max supply temperature shall not exceed 55°C. Therefore in case of supplying a surface heating from the same source as traditional radiators local or central mixing sets shall be used:

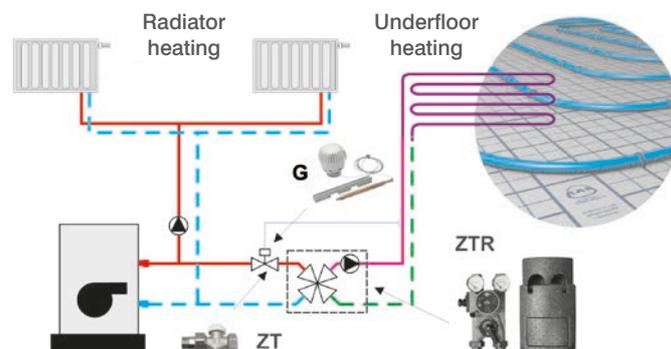
Central mixing sets: are used in case a surface heating is planned on a number of building stories. These sets are usually installed in a boiler room, close to a boiler:

- with automatic control



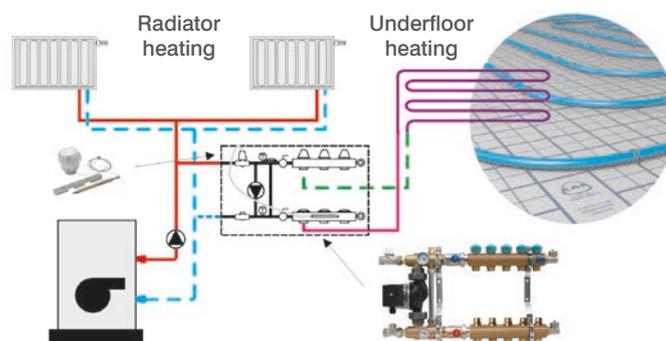
A KAN Bloc (ZTR) mixer provided additionally with an actuator, weather regulator (RP) and temperature sensors adjusts the system automatically, e.g. as a function of the external temperature.

- with semi-automatic control



A KAN Bloc (ZTR) mixer with a 4-way valve provided additionally with a thermostatic valve (ZT), adjusts a system semi-automatically.

Local mixing units: are used in case a surface heating is planned within one storey. These sets shall be installed in installation boxes, close that a heating installation cabinets, near the underfloor heating system.



A 73A and 77A series manifold connected directly to a heating system operates as a local mixing system. A thermostatic head with a capillary tube serves as a protection against a possible temperature rise. It can be adjusted "down" from 55°C.

Caution! do not use with low temperature heat sources.

Installation cabinets

Manifolds for surface heating shall be mounted in special installation cabinets available in three versions: surface –mounted, embedded and clad with glazed tiles.



Due to the design of cabinets for floor heating manifolds can be mounted with or without a mixing device. In cabinets there is also room for electrical terminal blocks. Terminal blocks are attached by screws, which enter into special holes in a mounting strip in the upper part of a box.

The Table 1 below allows a fast selection of boxes depending on the manifold type, basic equipment and the way of connection.

Tab. 1 Selection of installation boxes for floor heating depending on the type of manifold and basic equipment

Cabinet type	Code	Height [mm]	Width [mm]	Depth [mm]	Number of circuits		
					OP Manifold	OP + Set-P/ Set-K Manifold	Manifold OP with a mixing system*
SWN-OP – 10/3	1100-OP	710	580	140	2–10	2–7/2–6	2–3
SWN-OP – 13/7	1110-OP	710	780	140	11–13	8–11/7–10	4–7
SWN-OP – 15/10	1120-OP	710	930	140	14–15	12–14/11–13	8–10
SWPG-OP – 10/3	1300G-OP	570	580	110–165	2–10	2–7/2–6	2–3
SWPG-OP – 13/7	1310G-OP	570	780	110–165	11–13	8–11/7–10	4–7
SWPG-OP – 15/10	1320G-OP	570	930	110–165	14–15	12–14/11–13	8–10
SWP-OP – 10/3	1300-OP	750–850	580	110–165	2–10	2–7/2–6	2–3
SWP-OP – 13/7	1310-OP	750–850	780	110–165	11–13	8–11/7–10	4–7
SWP-OP – 15/10	1320-OP	750–850	930	110–165	14–15	12–14/11–13	8–10

* Required depth of cabinet: min. 140 mm

OP manifold – manifold series 51A, 55A, 71A and 75A for floor heating,

OP + Set-P/Set-K manifold – manifold series 51A, 55A, 71A and 75A for floor heating with Set-K angle valves or straight valves type Set-P (2-7/2-6 – number of circuits with Set-K valves/number of circuits with Set-P valves),

OP manifold with a mixing unit – manifold series 73A and 77A with a mixing unit.

Design of floor heaters - pipe fastening system

System KAN-therm Tacker

System KAN-therm delivers insulation plates with a metalised or laminated plate with an overprint every 5 cm.

- Use plates Tacker EPS 100 038 (PS20) for standard floor slab loads up to 3.5 kN/m² in residential or office buildings,
- Plates Tacker EPS 200 036 (PS30) shall be used for higher floor slab loads up to 5.0 kN/m², e.g. conference rooms or lecture rooms,
- Tacker EPS T-30 dB plates shall be used in sound-proof rooms; e.g. recording studios.



The foil glued onto plates serves as a damp proof insulation to DIN 18560 and can be overlapped, thus plates can be laid tight.

To seal places, where plates join, use adhesive tape dispensed from a hand feeder.

Pipes are fixed to Tacker plates with staples driven with a tacking tool. For 20 mm thick Styrofoam plates use short staples driven with a tacking tool for short staples.



Thanks to an overprinted grid it is easy to lay pipes at a determined spacing. You can use Ø14×2, 16×2, 18×2, 20×2 mm pipes spaced every 10-30 cm.

Pipes can be fastened to Styrofoam sheets of the Tacker type also using Rail strips provided with an adhesive tape or with NET nets with clamps (see: System KAN-therm Rail and NET).

When laying Tacker plates with a foil observe requirements from the EN 1264 standard regarding the minimum heat resistance of a floor-ceiling assembly with the floor heating. In case of floors on the ground and floor slabs in contact with atmospheric air under the EPS system plates there should be an additional insulation. For requirements and versions of using multi-layer system plates type EPS with an additional foil see Table 2.

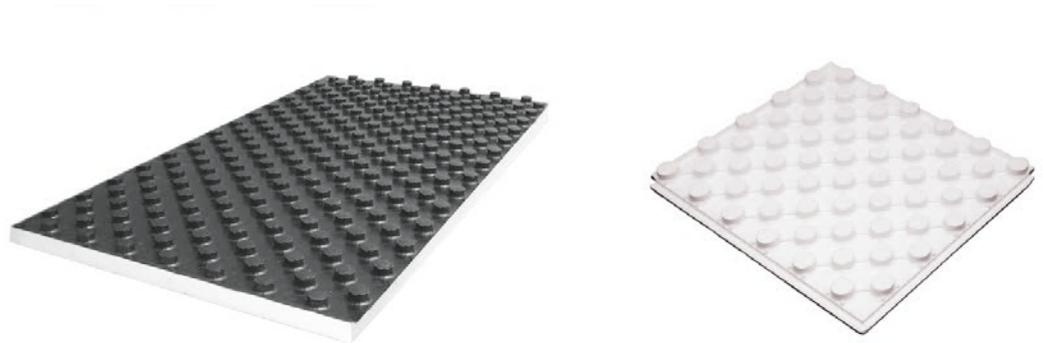
Tab.2 System KAN-therm Tacker – Minimum requirements for insulation according to the PN-EN 1264 standard

Required insulation thickness above a heated room $R=0,75$ [m^2K/W] (PN-EN 1264)			
Floor heating system	Additional insulation	Insulation resistance	Insulation thickness [mm]
System Tacker 30 mm	-	$R=0,775$	30
System Tacker 20 mm	styropian EPS100 (PS20) 20 mm	$R=0,875$	40
Required insulation thickness above an unheated room or on the ground ($T_z \geq 0$ °C) $R=1,25$ [m^2K/W] (PN-EN 1264)			
Floor heating system	Additional insulation	Insulation resistance	Insulation thickness [mm]
System Tacker 50 mm	-	$R=1,250$	50
System Tacker 30 mm	styropian EPS100 (PS20) 20 mm	$R=1,250$	50
System Tacker 20 mm	styropian EPS100 (PS20) 40 mm	$R=1,375$	60
Required insulation thickness in case of the contact with air (-5 °C $\geq T_z \geq -15$ °C) $R=2,00$ [m^2K/W] (PN-EN 1264)			
Floor heating system	Additional insulation	Insulation resistance	Insulation thickness [mm]
System Tacker 50 mm	styropian EPS100 (PS20) 30 mm	$R=2,000$	80
System Tacker 30 mm	styropian EPS100 (PS20) 50 mm	$R=2,000$	80
System Tacker 20 mm	styropian EPS100 (PS20) 70 mm	$R=2,129$	90

System KAN-therm Profil

KAN-therm System provides Profil system boards where pipes are fastened by pushing in roll formed upper part of the board. PE-Xc, PE-RT pipes can be applied of diameters $\varnothing 16 \times 2$, 18×2 mm or PE-RT/Al/PE-RT $\varnothing 16 \times 2$. possible spacing amounts to 5-30 cm every 5 cm.

Profil foamed polystyrene boards



Profil foamed polystyrene boards:

- Profil1 30 mm – foamed polystyrene board with PS foil 30 mm thick and dimensions 0.8×1.4 m. Height of the board with roll formed part is 50 mm, and permissible load 3.5 kN/m². Profil1 board meets requirements for floors between heated rooms $R=0,75$ m²/k/W.
- Profil2 11 mm – foamed polystyrene board with PS foil 11 mm thick and dimensions 0.8×1.4 m. Height of the board with roll formed part is 31 mm, and permissible load 5 kN/m².
- Profil3 – PS foil without foamed polystyrene board 1 mm thick and dimensions 0.8×1.4 m. Height of the PS foil with roll formed part is 20 mm.
- Profil4 20 mm – foamed polystyrene without PS foil 20 mm thick and dimensions 1.1×0.7 m. Height of the board with roll formed part is 47 mm.

When laying Profil1, Profil2 and Profil4 boards apply PN-EN 1264 norm regarding minimum thermal resistance of floor with underfloor heating. Requirements and application variants of Profil boards are given in Tab. 3.

Tab. 3 KAN-therm Profil System - minimum requirements for insulation according to PN-EN 1264 norm

Required insulation thickness above heated room $R=0,75$ [m^2K/W] (PN-EN 1264)			
Underfloor heating system	Additional insulation	Insulation resistance	Insulation thickness [mm]
System Profil1 30 mm	-	$R=0,750$	30
System Profil2 11 mm	foamed polystyrene EPS100 (PS20) 20 mm	$R=0,810$	31
System Profil4 20 mm	foamed polystyrene EPS100 (PS20) 20 mm	$R=1,145$	40
Required insulation thickness above not heated room or on the ground ($T_z \geq 0^\circ C$) $R=1,25$ [m^2K/W] (PN-EN 1264)			
Underfloor heating system	Additional insulation	Insulation resistance	Insulation thickness [mm]
System Profil1 30 mm	foamed polystyrene EPS100 (PS20) 20 mm	$R=1,250$	50
System Profil2 11 mm	foamed polystyrene EPS100 (PS20) 40 mm	$R=1,310$	51
System Profil4 20 mm	foamed polystyrene EPS100 (PS20) 30 mm	$R=1,395$	50
Required insulation thickness in case of contact with external air of temperature ($-5^\circ C \geq T_z \geq -15^\circ C$) $R=2,00$ [m^2K/W] (PN-EN 1264)			
Underfloor heating system	Additional insulation	Insulation resistance	Insulation thickness [mm]
System Profil1 30 mm	foamed polystyrene EPS100 (PS20) 50 mm	$R=2,000$	80
System Profil2 11 mm	foamed polystyrene EPS100 (PS20) 70 mm	$R=2,060$	81
System Profil4 20 mm	foamed polystyrene EPS100 (PS20) 60 mm	$R=2,145$	80

System KAN-therm TBS

System KAN-therm TBS underfloor heating is made using "dry" method, i.e. after laying the underfloor heating system, it is covered with dry „jointless" floor (special floor panels).

Assembly of the system of pipe laying can take place only on totally dry and leveled floor surfaces. After laying TBS boards and pipes the system is covered with PE foil for protection and to avoid possible sounds of structure thermal movements.

Next, covering board of jointless floor 35-45 mm thick is laid. All information on covering boards (permitted loads) should be obtained from the producer of covering boards.

System KAN-therm includes:



- insulation board, insulation profiled board TBS 25 mm EPS200 (PS30) with dimensions 0.5×1.0 m;
- insulation board, complementary TBS 25 mm EPS200 (PS30) with dimensions 0.5×1.0 m,
- straight metal lamel TBS with dimensions 1.0×0.12 m;
- PE foil in rolls.

System KAN-therm TBS allows to lay PE-RT, PE-Xc or PE-RT/Al/PE-RT pipes of diameters Ø16×2 mm with 167 - 250 - 333 mm spacing. Because of pipe thermal expansion, straight pipe section should not be longer than 10 m and it is recommended to use PE-RT/Al/PE-RT pipes.

Metal lamel is pushed in laid roll formed TBS boards and then pipe is pushed in such a way that it is inside the metal lamel.

The metal lamel has lateral incisions, which facilitates easy adjustment of its length by breaking, every 250 mm. The edge of the metal lamel should end approx. 50 mm before the beginning of pipes direction change (avoiding friction of pipes against the lamel as a result of thermal expansion).

When laying roll formed TBS boards take into consideration planned coil shape; meander shape is recommended. Complementary insulation board TBS is used in situations when basic boards profile precludes pipes from accessing the manifold (pipe density). In such situations a required profile is cut out by a TBS cutter in complementary board.



TBS cutter



TBS cutter tip

When laying TBS boards comply with requirements of PN-EN 1264 regarding minimum thermal resistance of floor with underfloor heating. Requirements and variants of TBS boards application are given in Table 4.

Tab. 4 KAN-therm TBS System - minimum requirements for insulation according to PN-EN 1264 norm

Required insulation thickness above heated room $R=0,75$ [m^2K/W] (PN-EN 1264)			
Underfloor heating system	Additional insulation	Insulation resistance	Insulation thickness [mm]
System TBS 25 mm	styrofoam EPS100 (PS20) 20 mm	$R=1,210$	45
Required insulation thickness above not heated room or on the ground ($T_z \geq 0^\circ C$) $R=1,25$ [m^2K/W] (PN-EN 1264)			
Underfloor heating system	Additional insulation	Insulation resistance	Insulation thickness [mm]
System TBS 25 mm	styrofoam EPS100 (PS20) 30 mm	$R=1,460$	55
Required insulation thickness in case of contact with external air of temperature ($-5^\circ C \geq T_z \geq -15^\circ C$) $R=2,00$ [m^2K/W] (PN-EN 1264)			
Underfloor heating system	Additional insulation	Insulation resistance	Insulation thickness [mm]
System TBS 25 mm	styrofoam EPS100 (PS20) 60 mm	$R=2,210$	85

System KAN-therm Rail

The basic element of KAN-therm Rail System are mounting rail for pipe fastening. PE-Xc, PE-RT and PE-RT/Al/PE-RT pipes of diameters Ø12×2, Ø14×2, Ø16×2, Ø18×2, Ø20×2, Ø25, Ø26 mm. Pipes can be laid with 10-30 cm spacing, every 5 cm.



Mounting rails are equipped with adhesive tape and can be fastened to foamed polystyrene boards Tacker or directly to the base. Applying pipes of $\text{Ø}12 \times 2$ and $\text{Ø}14 \times 2$ mm in diameter fastened to mounting rails works perfectly in wall heating designs where pipes mounted in walls are covered with a layer of special plaster.

System KAN-therm NET

System KAN-therm NET is a system of pipe laying on wire nets, available in the following assortment:

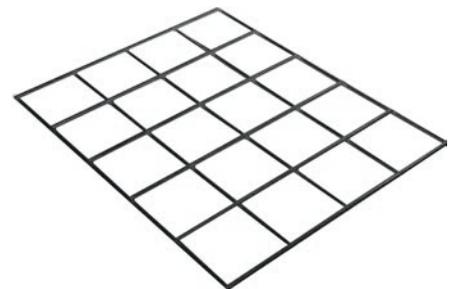
- PE foil 2.0 m \times 50 m \times 0.8 mm,
- 3 mm wire net 1.2 m \times 2.1 m and mesh spacing 150 \times 150 mm,
- fastening bands for tying nets,
- PE fastening peg 80 mm - $\text{Ø}8$ mm for foil fastening,
- pipe fastening grips $\text{Ø}16$ -18 mm and $\text{Ø}20$ mm.

On thermal insulation made of EPS 100 038 boards or EPS 200 036 moisture insulation made of PE foil is laid and then wire nets. On wire nets with given spacing pipe grips are mounted (on the wire or crossing of wires) in which pipes are pushed. Spacing between pipe and insulation layer is 17 mm.

System KAN-therm NET can be successfully applied in order to fasten pipes to Tacker foamed polystyrene boards with metalized foil or laminated foil. In such cases do not use additional foil.



PE foil, dimension 2,0 m \times 50 m \times 0,8 mm



NET steel wire net is made of steel wire 3 mm thick, mesh size 150 \times 150 mm



Fastening band for connecting NET nets



Peg for foil fastening size 80 mm - $\text{Ø}8$ mm



Grip for fastening pipes on NET net $\text{Ø}16$ -18 mm and $\text{Ø}20$ mm

Execution of floor screed

Prepared floor heating systems should be covered with a layer of concrete or anhydrite screed (wet). In the case of anhydrite screeds must comply with it's manufacturer's / supplier.

When making underfloor heating systems, observe the following guidelines:

- while laying screed keep pipes under pressure at least 3 bar (recommended 6 bar),
- pipes should be protected from mechanical damage during construction,
- determine passageways for example by using boards,
- screed needs to be nurtured,
- cement screed bonding period is 21-28 days, only after this period, you can run the heating,
- Installation start is carried out with an initial water temperature of 20°C, temperature should be raised about 5°C each day until it's value reaches designed level,
- after start-up periods screed should be basked min for 4 days with a maximum (designed) temperature to remove excess moisture,
- floor coverings should be laid at a temperature of 18-20°C of the floor, after screed is basked,
- pay attention to the proper implementation of joint of ceramic tiles (they should coincide with dilatation),
- adhesives should be permanently flexible at 55°C (hold manufacturers certificates for use in underfloor heating).

Requirements for concrete slab:

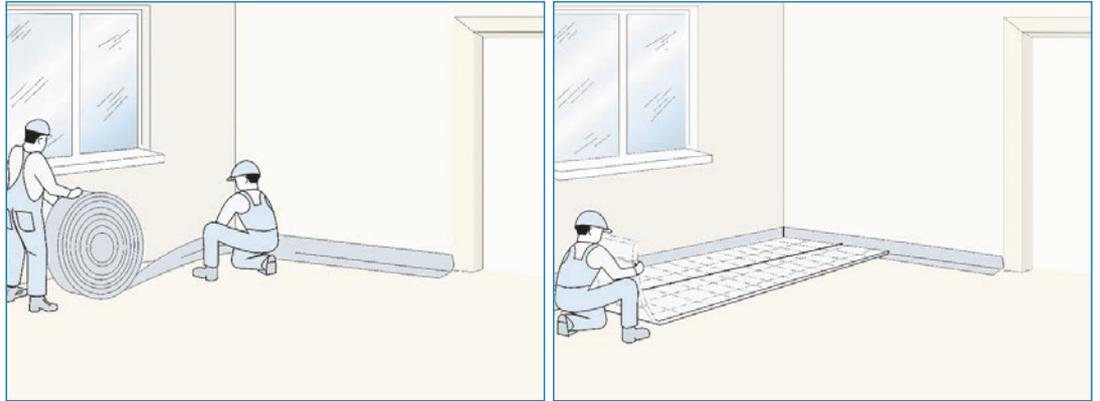
- minimum layer thickness over the pipe: 4.5 cm (6.5 cm thick over the thermal insulation),
- using concrete plasticizer BETOKAN Plus you can reduce the thickness of concrete slab above the pipe to 2.5 cm (4.5 cm thick over the thermal insulation),
- large casted areas should be divided into smaller with dilatation tape (with minimum thickness of 0.5 cm) so that the length of homogeneous plates do not exceed 8 m, the whole area of 30 m, and the ratio of the length of its width is 1:2,
- in case of ceramic tiles and ceilings carrying heavy loads, we recommended reinforcement by placing over the pipes fiberglass mesh with a mesh of 40×40 mm. Using reinforcement is not essential, however, the strength of the floor in the event of a crack is reduced in the height and width. Mesh must be stopped in the dilatation points. For floors carrying heavy loads (more than for residential buildings) such type of insulation and concrete slab height should be selected, so that the deflection does not exceed 5 mm,
- use B20 concrete class with the addition of a new plasticizer BETOKAN or BETOKAN Plus,
- concrete slab as a result of thermal work can not create pressure for structural elements of buildings (use dilatation joints).

The composition of cement to aggregate ratio is 1:4.5 parts by weight:

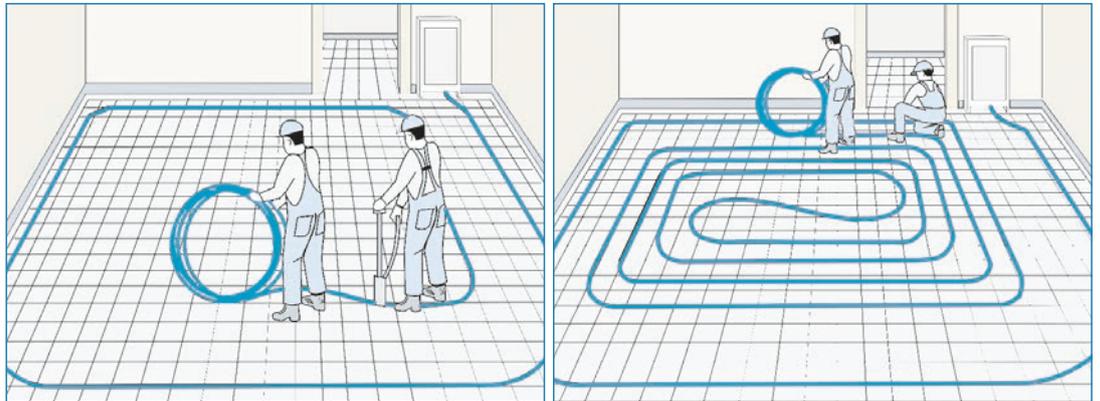
- 50 kg cement CEMI (DIN 1164),
- 225 kg of aggregate (60% sand with a grain size up to 4 mm and 40% gravel with a grain size of 4 - 8 mm), in case of use of BETOKAN plasticizer:
 - 16 – 18 l of water,
 - 0.2 kg of BETOKAN,
 - Use 0.25 - 0.6% related to the cement mass (on average 200 ml for 50 kg of cement), together with batched water and aggregate. In hot weather it is recommended to double this dose to extend concrete workability.
- in case of use BETOKAN Plus plasticizer:
 - 8 – 10 l of water,
 - 5 kg of BETOKAN Plus,
 - average consumption rate is: 10 kg per 7,5 m² of screed, at slab thickness 4,5 cm, which is 30 to 35 kg per 1 m³ of concrete.

Assembly

- 1 Deploy the wall edge tape.



- 2 Spread the Styrofoam with PE-foil on top of it.



- 3 Connect the supply pipe to the manifold, lay at a required spacing (doubled), fasten pipes with staples at right places.

- 4 Lay the outlet pipe „backwards“ between the supply pipe coils.

For detailed information on the assembly of System KAN-therm floor heating and on the start-up of the system see: "Laying the System KAN-therm by the Wet Method".

Automatic control of heating systems

Presently the automatic control even the most simple one counts as an indispensable element of heating systems (mounted in single family houses, blocks of apartments, public houses and industrial buildings) and as well of all types of external surface heating.

Diversity of technical solutions for the heating technology and in first line solutions of very commonly used mixed heating systems, e.g. a surface heating combined with a conventional radiator heating, despite many advantages, without proper control elements, can lead to a substantial discomfort. Usually overheating, underheating or not a uniform temperature in individual spaces causes this discomfort.

Without a correctly configured automatic control controlling individual heating systems can cause significant heat losses (overheated rooms), therefore an increase in the operation cost of a heating system.

System KAN-therm offer of surface heating automatic control allows to optimise a heating system depending on local requirements by selection of appropriate devices, elements etc.

There are two versions of the KAN-therm surface heating automatic control available.

- terminal blocks and thermostats – version Basic
- Terminal blocks with LAN module, room thermostats and actuators SMART



Terminal blocks Basic

With the Basic 230V or 24V terminal block as a version with or without a pumping module – you can connect thermostats and actuators at one place (e.g. in an installation cabinet above a manifold). It is possible to connect max. 6 thermostats and 12 actuators.



A terminal block with a pumping module allows connecting a circulation pump included in a series 73A, 73E, 77A, 77E manifold and a pump group K-803000, K-803001, K-803002, K-803003, K-803005.

The terminal block acts as a heater.

The pumping module – stops a pump in case all floor heating actuators are shut down by a thermostat because a required temperature in a room has been reached. A pump is restarted when at least one actuator opens.

24V terminal blocks are delivered without a power converter.



The Basic terminal block for heating and cooling with a pumping module in a 230V and 24V version allows to connect thermostats and actuators at one place in an installation cabinet (above a manifold). Maximally you can connect 6 thermostats and 12 actuators.

As a standard function a terminal block heats, however, by using special thermostats it can cool.

Both versions (230V and 24V) may be equipped with a pump module.

The 230 V terminal blocks is delivered without a power cord and the 24V version without a power converter.

Room thermostats Basic



Electronic, room thermostat Basic with a diode, 230 or 24V – for an individual temperature control in a room. A LED under the thermostat housing signals the operation status of the heating installation – when ON, the system is active.



Electronic, room thermostat Basic – for heating and cooling, 230 or 24V, for an individual temperature control in a room. It may operate in heating and cooling installations thanks to Basic heating / cooling terminal block.

Week thermostats



A week thermostat with a floor sensor 230 V – allows to individually adjust the room temperature. The thermostat can be week-programmed. It is provided with a floor temperature sensor. It has an option of a manual or automatic control. It can cooperate with 230V Basic terminal blocks.



A 230V or 24V week thermostat can individually adjust the room temperature

The thermostat is provided with a week programming function and can adjust the system in a manual or automatic mode. The thermostat can cooperate with a Basic 230V or 24V terminal block.

Additional elements



A controller of open space surface ice formation – with a sensor of snow and ice cooperating with a heating system protects from ice formation and snow accumulation on traffic courses (external stairs, sidewalks, parking places, drives etc.).

A snow and ice sensor is available with a 15 m long cord.



A 230V – 24V voltage power converter –for the terminal block Basic – an additional element for the 24V version Basic terminal blocks.



An M28×1,5 Smart adapter for electric actuators (grey with red rod) – used for valves on the upper beam of 71A, 75A, 73A, 73E, 77A, 77E.



An M30×1,5 adapter for electric actuators (grey) – used for thermostatic valves e.g. on the manifold supply with a mixing system 73A, 73E, 77A, 77E.

SMART automatics

Smart and intelligent - new KAN-therm Smart wireless automatics system

A comfortable and energy efficient home is the goal and the dream of today's families planning to build or modernize their houses and apartments. The method of heating is one of the most important factors determining the operating costs and the sense of security and comfort of use. Surface heating (floor or wall) is the optimal solution that assures meeting such requirements. However, like any heating system, it requires a proper control system. Precise devices regulating the temperature in the room provide an adequate thermal comfort and on the other hand allow for significant energy savings. The regulation can be done manually or in the automatic mode, with the use of the appropriate sensors, regulators and actuators.

The requirements of the users are constantly increasing. They are expecting not only the reliability and effective operation of these devices but also hassle-free, easy operation and the possibility of varied configuration, including remote configuration using mobile devices such as a laptop or a smartphone. The attractive aesthetics of these devices and the possibility to expand the system in the future are also of great significance.

KAN-therm radiant heating and cooling offer includes a wide range of modern solutions like controlling devices and automatic regulation of the temperature. This also includes technologically advanced wireless devices communicating through the radio waves, greatly simplifying installation of the heating system controls and eliminating the problems and costs associated with distributing many meters of wires in the building. They are virtually indispensable in the case of retrofitting existing modernized installations with automatics.



Devices of the KAN-therm Smart System are a completely new generation in this group of automation elements, offering unprecedented operating and handling possibilities. They are used for the wireless control and regulation of temperature and other parameters of the heating and cooling systems, which determine the sense of comfort in the rooms. The System also provides a number of additional advanced features, which make the operation and handling of the heating system very effective, energy efficient and user-friendly.

Basic component and the heart of KAN-therm Smart System is the modern wireless terminal block with an LAN connection. Using radio communication (868 MHz, two-way transmission) it communicates with the wireless, elegant thermostats with LCD display, which function both as temperature sensors in the rooms and are also displaying and transmitting a number of settings and information controlling the entire system. This information is transmitted, through the terminal block, to the executive elements - modern, energy-efficient KAN-therm Smart actuators located on the valves of the manifolds of the heating (or cooling) circuits. The terminal blocks and actuators are available in the 230 and 24V power supply options. Depending on the used version, the terminal block can operate 4, 8 or 12 thermostats controlling respectively 6, 12 or 18 actuators.

The KAN-therm Smart system is a multi-functional system which in addition to controlling and regulating the temperature in various heating zones, also realizes the switching between heating / cooling modes, the control of the heat source and operation of the pump as well as control of humidity in the cooling mode. The terminal blocks also enable connecting a temperature limiter and an external control timer. Functions such as protection of the pump and valves (activated after periods of extended downtime) and protection from frost and excessive critical temperature are also realized.

Measure of the system's high technological advancement is the method of installation and configuration. These operations can be done in several ways:

- Configuration using a microSD card. Using the computer and the intuitive KAN-therm Manager program we can determine individual configuration settings, which are then transferred using a microSD card to the terminal block equipped with a card reader.
- Remote configuration of the terminal block connected directly to the Internet or the local network through the KAN-therm Manager software interface.
- Direct configuration thanks to KAN-therm Smart thermostat (with the use of the LCD display).

In any case, the configuration and operation of the system is user friendly. Many processes take place automatically and the settings both with thermostat or the KAN-therm Manager program are very intuitive. The expansion of the system and a quick update of the terminal block settings does not cause any trouble either.

Thanks to the radio technique, in the case of bigger installations, with the use of 2 or 3 KAN-therm Smart terminal blocks, it is possible to combine them into one system enabling mutual communication.



KAN-therm Smart wireless terminal blocks with LAN connection



- Two-way 868 MHz wireless technology
- 230V or 24V (with a power converter)
- The possibility of connecting up to 12 thermostats and up to 18 actuators
- Heating and cooling modes as a standard
- Pump protection and manifold valves protection functions, frost protection function, safety temperature limiter, emergency mode
- Operating modes of the actuators: NC (normally closed) or NO (normally open)
- MicroSD card reader
- RJ 45 Ethernet socket (for connecting to the Internet)
- The ability to connect additional devices: pump module, dew point sensor, external timer, additional heat source controller
- Clear visualization of the operating status with LED indicators
- 25 m range inside buildings
- Start „SMART“ function – the ability to run an automatic adjustment of the system to the conditions in the room / building
- Configuration using a microSD card, through the software interface of the network version or by the wireless thermostat
- The possibility of easy and simple expansion of the system and quick updating of settings (through the network or the microSD card).

Wireless LCD thermostat KAN-therm Smart



- Modern and elegant design, high quality scratch-resistant material,
- Small size of the device 85 × 85 × 22 mm,
- Large (60 × 40 mm) clear LCD display with a backlight,

- Communication System based on pictograms and a rotary knob ensure intuitive and easy operation,
- Very low energy consumption - over two years battery lifetime,
- Possibility of connecting a floor temperature sensor,
- Two-way radio data transmission within a range of 25 m,
- Comfortable and safe use guaranteed by a three-level MENU layout: user functions, parameters of user settings, installer settings (service),
- Many useful features such as: child safety lock, standby mode, modes of operation day / night or auto, „Party“, „Vacation“ features,
- A number of possible parameter settings - temperature (heating / cooling, temperature drop), timer, programs.

KAN-therm Smart Actuators



- 230V or 24V Version,
- „First Open“ feature facilitating installation of the actuator and the performance of the pressure test,
- NC or NO operating mode versions,
- Fast installation with the use of M28×1,5 or M 30×1,5 KAN-therm adapters,
- Reliable mounting with a three-point locking system,
- Calibration of the actuator – automatic adjustment to the valve,
- Visualization of the operating mode of the actuator,
- Installation of the actuator in any position,
- 100% protection against water and moisture,
- Energy efficiency - only 1W power consumption.

Automatic control – configuration of devices

For best configuration of automatic devices please read the Table below:

Conformity of module selection	Terminal block Basic 230V B2012	Terminal block Basic 230V z modulem pompowym B2022	Terminal block Basic 24V B4012	Terminal block Basic 24V with pump module B4022	Terminal block Basic 230V Heating/cooling K 800 030	Terminal block Basic 24V Heating/cooling K 800 031
 Power converter Basic 24V K 800 310			■	■		■
 Room thermostat Basic 230V K 800 100	■	■				
 Room thermostat Basic 24V K 800 101			■	■		
 Room thermostat Basic 230V Heating/cooling K 800 035					■	
 Room thermostat Basic 24V Heating/cooling K 800 036						■

The underfloor heating of System **KAN-therm** - pipes and pipe accessories

pipe PE-RT with EVOH layer for underfloor heating,
class 4/6 bars, $T_{max} 70^{\circ}$

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
16×2		0.2176OP	200/3000	m	
16×2		0.2176OP 600M	600/1800	m	
18×2		0.2178OP	200/3000	m	
18×2		0.2178OP 600M	600/1800	m	



pipe PE-Xc with EVOH layer acc. to DIN 4726

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
12×2		0.2144	200/4000	m	
14×2		0.2145	200/4000	m	
16×2		0.2146	200/3000	m	
18×2		0.2148	200/3000	m	
20×2	*	K-150005	200/3000	m	
25×3,5		0.9127	50/1000	m	

Operating parameters $T_{work} 80^{\circ}C$ (T_{max} - maximum $90^{\circ}C$, T_{mal} - malfunction $100^{\circ}C$), pressure 6 bar, for central heating and underfloor heating systems.



pipe PE-RT with EVOH layer acc. to DIN 4726

GROUP: C

Size	*	Code	Packing	JM	Price EUR/JM
12×2		0.2174	200/4000	m	
14×2		0.2175	200/4000	m	
16×2		0.2176	200/3000	m	
18×2		0.2178	200/3000	m	
20×2		K-100305	200/3000	m	
25×3,5		0.9226	50/1000	m	

Operating parameters $T_{work} 80^{\circ}C$ (T_{max} - maximum $90^{\circ}C$, T_{mal} - malfunction $100^{\circ}C$), pressure 6 bar, for central heating and underfloor heating systems.



multilayer pipe PE-RT/Al/PE-RT Multi Universal designed for
central heating, hot and cold water systems as well as for floor
heating systems; operating pressure max. 10 bar

GROUP: B

Size	*	Code	Packing	JM	Price EUR/JM
14×2		0.9614	200/3000	m	
16×2		0.9616	200/3000	m	
16×2		0.9616 600M	600/2400	m	
20×2		0.9620	100/1500	m	

Operating parameters $T_{work} 90^{\circ}C$ (T_{max} - maximum $95^{\circ}C$, T_{mal} - malfunction $100^{\circ}C$), pressure 10 bar, for central heating and underfloor heating systems.



universal pipe de-coiler

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
		K-100620	1	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

coupling

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2		9014.16	10/120	pc	
14×2		9014.13	10/120	pc	
16×2		9014.14	10/150	pc	
18×2		981	10/120	pc	
20×2	*	K-101205	10/100	pc	
25×3,5		9014.19	5/60	pc	

Caution:

The coupling is used for repair purposes (pipe damage, e.g. boring) and for joining long pipe sections.



Push coupling

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2 / 12×2		9014.610	50/700	pc	
14×2 / 14×2 (P)		9019.23	20/200	pc	
18×2 / 18×2 (P)		9019.24	20/160	pc	
25×3,5 / 25×3,5 (P)		9019.28	10/100	pc	

(P) - PPSU fitting

Caution:

Tools for assembly Push connectors available in chapter System KAN-therm - Tools for Push connections.



Push sliding sleeve

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2A		9014.490	50/700	pc	
14×2A		9006.01	50/700	pc	
18×2A / 18×2,5A		9001.80	50/500	pc	
25×3,5A		9006.78	20/200	pc	

Caution:

Size with A letter means use of sleeve for pipes PE-Xc or PE-RT with EVOH layer only.

When assembling Push connections use assembly tools for PE-RT and PE-Xc pipes with appropriate inserts (purchase or rental of tools available in KAN branches).

Caution:

Tools used to montage the Push couplings are presented in System KAN-therm - tools for Push connections chapter.



Press PPSU coupling

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16×2 / 16×2		K-900250	20/200	pc	
20×2 / 20×2		K-900251	10/150	pc	
25×2,5 / 25×2,5		K-900252	5/60	pc	

Caution:

Tools used to montage the Press couplings are presented in System KAN-therm - tools for Press connections chapter.



cutter for Ø12-32 PE-Xc and PE-RT

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
		0.2125	1/25	pc	



replacement blade for cutter for Ø12-32 pipes PE-Xc and PE-RT

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
	*	0.2125-O	1	pc	



pipe cutter for cutting multilayer pipes Ø14-32

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
		RS1435	1/20	pc	

Caution:
May be used to cut the Platinum pipes.



replacement blade for pipe cutter for cutting multilayer pipes Ø14-32

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
	*	RSM1435	1	pc	

Caution:
May be used to cut the Platinum pipes.



calibration and internal bevelling tool for multilayer pipes

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
14	*	KL14	1	pc	
16		KL16	1	pc	
20		KL20	1	pc	
25 / 26		KL26	1	pc	



calibration and internal bevelling universal tool for multilayer pipes

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
16 / 20 / 25-26		KL162026	1	pc	



internal bending spring for multilayer pipes

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
14	*	SW-1410	1	pc	
16		SW-1612	1	pc	
20		SW-2016	1	pc	
25-26		SW-2620	1	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

external bending spring for multilayer pipes

GROUP: K

Size	*	Code	Packing	JM	Price EUR/JM
14	*	SZ-1410	1	pc	
16		SZ-1612	1	pc	
20		SZ-2016	1	pc	
25-26		SZ-2620	1	pc	



Tacker - pipe fastening system

Tacker foamed polystyrene board EPS100 038 (PS20) with foil - sheet 5 m²

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
30 mm (1×5,00 m) with metalized foil		720N	1	m ²	
20 mm (1×5,00 m) with metalized foil		726N	1	m ²	
30 mm (1×5,00 m) with laminated foil		725	1	m ²	
50 mm (1×5,00 m) with laminated foil		727	1	m ²	



Tacker foamed polystyrene board EPS200 036 (PS30) with foil - hard - sheet 5 m²

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
30 mm (1×5,00 m) with metalized foil	*	728N	1	m ²	



Tacker foamed polystyrene board EPS T-30 dB with foil - elastic (sound absorbing) - sheet 5 m²

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
35-3 mm (1×5,00 m) with metalized foil	*	729N	1	m ²	



tacker tool

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
		2214	1	pc	



integrated tacker clips

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14-18 (42 mm)		22022S	1000	pc	

Clips are packed in blocks 50 pcs.



tacker clip for fastening pipes on foamed polystyrene boards

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14-18 (42 mm)		22022	100/3000	pc	
14-18 (42 mm)		22022N	200/3000	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

tacker tool for short clips

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
	*	K-200501	1	pc	



short clip on a tape for fastening pipes to expanded polystyrene mats

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14-18 (37,2 mm)	*	K-200601	1000	pc	

Clips are packed in blocks 50 pcs.



adhesive tape with KAN logo

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
		K-200700	1	pc	



adhesive tape hand feeder

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
	*	K-200800	1	pc	



Rail - pipe fastening system

mounting rail for pipe fastening

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16 - dlug. 2 m		K-201109	2/100	m	
18 - dlug. 2 m		0.1025	2/40	m	
20 - dlug. 3 m	*	K-201105	dowolna	m	
25 - dlug. 3 m	*	K-201106	dowolna	m	



mounting rail for pipe fastening

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12-17 length 0.2 m		K-201117	1/100	m	
16-17 length 0.5 m		K-201003	1/100	m	
12-22 length 1 m		K-201120	1/100	m	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Profil - pipe fastening system

Profil1 foamed polystyrene board EPS T-24 dB with PS foil - elastic (sound absorbing) - sheet 1,12 m²

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
30-2 mm (0,8×1,40 m)	*	K-300300	1	m ²	

Total board thickness with roll formed part is 50 mm.



Profil2 foamed polystyrene board EPS200 036 (PS30) with PS foil - hard - sheet 1,12 m²

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
11 mm (0,8×1,40 m)		K-300100	1	m ²	

Total board thickness with roll formed part is 31 mm.

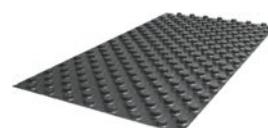


profiled PS foil (polystyrene) Profil3 - sheet 1,12 m²

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
1 mm (0,8×1,40 m)	*	K-300200	1	m ²	

Total board thickness with roll formed part is 20 mm.



Profil4 foamed polystyrene board EPS200 036 (PS30) whitout foil - hard - sheet 0,77 m²

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
20 mm (1,1×0,7 m)		730	1	m ²	

Total board thickness with roll formed part is 47 mm.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

TBS - pipe fastening system

TBS foamed polystyrene board EPS200 036 (PS30) - hard
- sheet 0,5 m²

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
25 mm (0,5×1,0 m)		K-400000	1	m ²	



TBS metal shape

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
0,4 mm (1,0×0,12 m)		K-400100	1/40	pc	



TBS complementary foamed polystyrene board EPS200 036
(PS30) - hard - sheet 0,5 m²

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
25 mm (0,5×1,0 m)	*	K-400200	1	m ²	



PE foil

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
0,2 mm (2,0×50 m)		K-500200	100	m ²	

Caution:

Apply as system covering before laying dry jointless floor.



TBS cutter tip

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
		K-400300	1	pc	

Caution:

TBS cutter is suitable for cutting grooves for pipes Ø16 mm in TBS styroboards.



TBS cutter tip

GROUP: K

	*	Code	Packing	JM	Price EUR/JM
		K-400400	1	pc	



NET - pipe fastening system

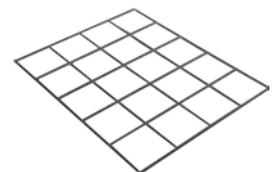
NET steel wire net

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
1,2 m×2,1 m		K-500300	2,52	m ²	

Caution:

Net is made of 3 mm steel wire. Spacing - 150×150 mm.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

grip for fastening pipes on NET net

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16-18 mm		K-500600	1000	pc	
20 mm	*	K-500601	1000	pc	



plastic band for fastening pipes on NET net

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
	*	K-500401	100	pc	



fastening band for connecting NET nets

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
	*	K-500400	100	pc	



PE foil

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
0,2 mm (2,0×50 m)		K-500200	100	m ²	

Caution:
Apply as moisture insulation beneath NET net..



PE foil mounting peg

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
8 mm		K-500500	100	pc	



Underfloor heating accessories

corrugated (protection) pipe - red

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12-14 (Dz 23 mm)		1904C	100	m	
16-18 (Dz 25 mm)		1900C	50	m	
20 (Dz 28 mm)		1906C	50	m	
25-26 (Dz 35 mm)		1901C	50	m	
32 (Dz 43 mm)		1908C	50	m	
40 (Dz 50 mm)		1910C	25	m	

Caution:
Apply for hot and cold water system and central heating, as a protecting pipe, in the case of embedding the system in concrete



corrugated (protection) pipe - blue

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12-14 (Dz 23 mm)		1904N	100	m	
16-18 (Dz 25 mm)		1900N	50	m	
20 (Dz 28 mm)		1906N	50	m	
25-26 (Dz 35 mm)		1901N	50	m	
32 (Dz 43 mm)		1908N	50	m	
40 (Dz 50 mm)		1910N	25	m	

Caution:

Apply for hot and cold water system and central heating, as a protecting pipe, in the case of embedding the system in concrete



concrete additive: BETOKAN

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
	***	0.1007	10	kg	
	***	0.1006	5	kg	

Caution:

Apply for underfloor heating to improve concrete strength.



concrete additive: BETOKAN (New Formula)

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
		0.1004	10	kg	
		0.1005	5	kg	

Caution:

Apply for underfloor heating to improve concrete strength.



concrete additive: BETOKAN Plus

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
		K-500900	10	kg	

Caution:

Apply for underfloor heating to improve concrete strength. Allows to reduce floor thickness to 4.5 cm above insulation.



fibre glass mesh - roll 50 m²

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
0,017×1×50 m		K-500310	1	m ²	

Mesh size 40×40 mm.

Caution:

Mesh used with small amount of BETOKAN or BETOKAN Plus concrete increases floor elasticity and perfectly protects against cracks and offsets (keeps the flooring surface even).



anti-freezing agent

GROUP: A

Version	*	Code	Packing	JM	Price EUR/JM
-20°C	*	0.1008	20	l	
-25°C	*	0.1009	20	l	
-35°C	*	0.1010	20	l	

Caution:

Used for central heating, air conditioning, cooling and solar systems.



wall tape with incision

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
8×150 - with notch		0.1022	25	m	
8×150 - with skirt		0.1021	25	m	

Caution:

Apply to insulate underfloor heating boards from walls.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

dilatation tape with fastening strip

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
10×150		0.1026	25	m	

Caution:

Apply for expanding underfloor heating boards. Pipes going through the expansion shape should also be laid in a corrugated (protection) pipe.



dilatation set

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
PE foam		K-501001	2	m	
rail		K-501000	2	m	
peszel 0,4m*		K-501002	10	pc	



Manifolds and accessories for manifoldsy

manifold 1" for underfloor heating with control valves (51A series)

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (326×100×80)		51020A	1	pc	
3 (326×150×80)		51030A	1	pc	
4 (326×200×80)		51040A	1	pc	
5 (326×250×80)		51050A	1	pc	
6 (326×300×80)		51060A	1	pc	
7 (326×350×80)		51070A	1	pc	
8 (326×400×80)		51080A	1	pc	
9 (326×450×80)		51090A	1	pc	
10 (326×500×80)		51100A	1	pc	
11 (326×550×80)		51110A	1	pc	
12 (326×600×80)		51120A	1	pc	

Caution:

The manifold is compatible with eurocone adapter (for PE-Xc and PE-RT) G $\frac{3}{4}$ " and adapter for multilayer pipe (fixed ring) G $\frac{3}{4}$ ".
Manifold outputs has a 50 mm distance between each one.



manifold 1" for underfloor heating with flowmeters (55A series)

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (326×100×80)		55020A	1	pc	
3 (326×150×80)		55030A	1	pc	
4 (326×200×80)		55040A	1	pc	
5 (326×250×80)		55050A	1	pc	
6 (326×300×80)		55060A	1	pc	
7 (326×350×80)		55070A	1	pc	
8 (326×400×80)		55080A	1	pc	
9 (326×450×80)		55090A	1	pc	
10 (326×500×80)		55100A	1	pc	
11 (326×550×80)		55110A	1	pc	
12 (326×600×80)		55120A	1	pc	

Caution:

The manifold is compatible with eurocone adapter (for PE-Xc and PE-RT) G $\frac{3}{4}$ " and adapter for multilayer pipe (fixed ring) G $\frac{3}{4}$ ".
Manifold outputs has a 50mm distance between each one.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

manifold 1" for underfloor heating with control valves (lower manifold body) and servomotor valves (upper manifold body) (71A series)

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (326×100×80)		71020A	1	pc	
3 (326×150×80)		71030A	1	pc	
4 (326×200×80)		71040A	1	pc	
5 (326×250×80)		71050A	1	pc	
6 (326×300×80)		71060A	1	pc	
7 (326×350×80)		71070A	1	pc	
8 (326×400×80)		71080A	1	pc	
9 (326×450×80)		71090A	1	pc	
10 (326×500×80)		71100A	1	pc	
11 (326×550×80)		71110A	1	pc	
12 (326×600×80)		71120A	1	pc	

Caution:

The manifold is compatible with eurocone adapter (for PE-Xc and PE-RT) G $\frac{3}{4}$ " and adapter for multilayer pipe (fixed ring) G $\frac{3}{4}$ ".
Manifold outputs has a 50mm distance between each one.



Manifold 1" for underfloor heating with servomotor valves (upper manifold body) and flowmeter valves (lower manifold body) (75A series)

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (326×100×80)		75020A	1	pc	
3 (326×150×80)		75030A	1	pc	
4 (326×200×80)		75040A	1	pc	
5 (326×250×80)		75050A	1	pc	
6 (326×300×80)		75060A	1	pc	
7 (326×350×80)		75070A	1	pc	
8 (326×400×80)		75080A	1	pc	
9 (326×450×80)		75090A	1	pc	
10 (326×500×80)		75100A	1	pc	
11 (326×550×80)		75110A	1	pc	
12 (326×600×80)		75120A	1	pc	

Caution:

The manifold is compatible with eurocone adapter (for PE-Xc and PE-RT) G $\frac{3}{4}$ " and adapter for multilayer pipe (fixed ring) G $\frac{3}{4}$ ".
Manifold outputs has a 50mm distance between each one.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

stainless steel manifold 1 ¼", with flowmeter and servomotor valves M30x1.5 (series N75A)

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (326×100×80)		N75020A	1	pc	
3 (326×150×80)		N75030A	1	pc	
4 (326×200×80)		N75040A	1	pc	
5 (326×250×80)		N75050A	1	pc	
6 (326×300×80)		N75060A	1	pc	
7 (326×350×80)		N75070A	1	pc	
8 (326×400×80)		N75080A	1	pc	
9 (326×450×80)		N75090A	1	pc	
10 (326×500×80)		N75100A	1	pc	
11 (326×550×80)		N75110A	1	pc	
12 (326×600×80)		N75120A	1	pc	

Caution:

The manifold is compatible with screw connections G¾" and studs G¾".

Manifold outputs for individual circuits have 50 mm spacing between them.

Use servomotors with adapter M30×1.5.

Manifold supply - lower part.

Manifold return - upper part.



reducer

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1"×G½"		4.12	10/120	pc	
G1"×G¾"		4.13	10/120	pc	

Caution:

Reducer Code 4.12 and 4.13 contains O-Ring Code U28.



male plug

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1"		6095.43	10/150	pc	

Caution:

Code 6095.43 contains O-Ring, code U28; others without O-Ring.



valve set, straight

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1"×G1"		K-600400	1/20	kpl	

Caution:

Set of valves with screw connection for manifolds of System KAN-therm fixed on a 1" profile without any additional sealing.

For manifold with side supply connection.



valve set, angular

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1"×G1"		K-600500	1/20	kpl	

Caution:

Set of valves with screw connection and elbows for manifolds of System KAN-therm fixed on a 1" profile without any additional sealing.

For manifolds supplied from floor.



brass handle for manifold

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
M28×1,5		6095.28	10/150	pc	
M30×1,5		6095.30	10/150	pc	

Caution:

Apply the element for thermostatic valves to cut-off each circuit flow:
M28×1,5 - in manifolds 71, 75, 73A and 77A series.
M30×1,5 - in manifolds 73A and 77A series on pump unit connection



extension element with flowmeter

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1" L=50mm		752	1/20	kpl	

Caution:

Apply the element for manifolds 55A, 75A using nipple 1" to extend manifold by one more circuit.



extension element with control valve

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1" L=50mm		512	1/20	kpl	

Caution:

Apply the element for manifolds 55A, 75A using nipple 1" to extend manifold by one more circuit.



extension element with servomotor cut-off valve

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1" L=50mm		712	1/20	pc	

Caution:

Apply the element for manifolds 55A, 75A using nipple 1" to extend manifold by one more circuit



coupling for manifolds

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1"		R543	10/100	pc	

Caution:

For manifold to extend it by one more circuit.



male-female terminal with special seal

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1"×G1/2"×G1/2"		R542	5/70	pc	

Caution:

For manifold to extend it by one more circuit.



new male plug with hex socket

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1/2"		6095.34	20/300	pc	

Caution:

It contains O-Ring.



male terminal with automatic air vent and drain

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G1"		R5541	1/50	pc	

Caution:

Suitable for 1" manifold 51A, 55A, 71A, 75A series.



manual air vent valve

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G½"		5322	50/500	pc	



plastic male air vent and drain valve

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G½"		10612	25	pc	

Caution:

Use by reducing 1"×½" for manifolds of 1" profile series 51A, 55A, 71A, 75A.



male air vent and drain valve

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G½"		1305.11	25/100	pc	

Caution:

Use by reducing 1"×½" for manifolds of 1" profile series 51A, 55A, 71A, 75A.



automatic air vent with stop valve

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G½"		0.52071	1/100	pc	

Caution:

Foot valve makes it possible to screw out a vent without necessity to remove water from the installation. Use tow to seal.



flowmeter with thermometer

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
G¾"×G¾" L = 8 cm	*	K-601501	dowlina	pc	

Caution:

Apply to check flow through heating circuit.



disc thermometer 100°C

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
red	*	K-601400	1	pc	
blue	*	K-601401	1	pc	



Manifold 1" for underfloor heating with mixing unit (series 73E)

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (410×451×123)		7302E	1	pc	
3 (410×501×123)		7303E	1	pc	
4 (410×551×123)		7304E	1	pc	
5 (410×601×123)		7305E	1	pc	
6 (410×651×123)		7306E	1	pc	
7 (410×701×123)		7307E	1	pc	
8 (410×751×123)		7308E	1	pc	
9 (410×801×123)		7309E	1	pc	
10 (410×851×123)		7310E	1	pc	



Manifold 1" for underfloor heating with mixing unit and flowmeters (series 73E)

GROUP: E

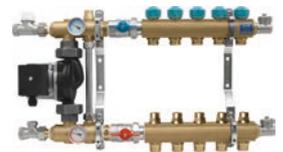
Size	*	Code	Packing	JM	Price EUR/JM
2 (410×451×123)		7702E	1	pc	
3 (410×501×123)		7703E	1	pc	
4 (410×551×123)		7704E	1	pc	
5 (410×601×123)		7705E	1	pc	
6 (410×651×123)		7706E	1	pc	
7 (410×701×123)		7707E	1	pc	
8 (410×751×123)		7708E	1	pc	
9 (410×801×123)		7709E	1	pc	
10 (410×851×123)		7710E	1	pc	



manifold 1" for underfloor heating with mixing unit (73A series)***

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (410×451×123).	***	7302A	1	pc	
3 (410×501×123)	***	7303A	1	pc	
4 (410×551×123)	***	7304A	1	pc	
5 (410×601×123)	***	7305A	1	pc	
6 (410×651×123)	***	7306A	1	pc	
7 (410×701×123)	***	7307A	1	pc	
8 (410×751×123)	***	7308A	1	pc	
9 (410×801×123)	***	7309A	1	pc	
10 (410×851×123)	***	7310A	1	pc	



Caution:

- Individual circuits of underfloor heating are controlled by electric servomotors code K-800011 and K-800013. Assemble servomotors on upper manifold body using adapters M28×1,5. In the case of controlling temperature with one thermostat placed in characteristic room, for controlling use the thermostatic valve build in mixing unit and fix the servomotor on thermostatic valve by adapter M30×1,5.
- Manifold is compatible with eurocone adapter G¾" and adapter for multilayer pipe G¾". Manifold outputs has a 50mm distance between each one.

Caution:

Not suitable for a low parameter heating sources.

***Caution: Available in EU until 31.07.2015

manifold 1" for underfloor heating with mixing unit and flowmeters (77A series)***

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
2 (410×451×123)	***	7702A	1	pc	
3 (410×501×123)	***	7703A	1	pc	
4 (410×551×123)	***	7704A	1	pc	
5 (410×601×123)	***	7705A	1	pc	
6 (410×651×123)	***	7706A	1	pc	
7 (410×701×123)	***	7707A	1	pc	
8 (410×751×123)	***	7708A	1	pc	
9 (410×801×123)	***	7709A	1	pc	
10 (410×851×123)	***	7710A	1	pc	

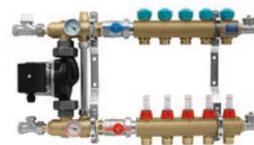
Caution:

- Individual circuits of underfloor heating are controlled by electric servomotors code K-800011 and K-800013. Assemble servomotors on upper manifold body using adapters M28×1,5. In the case of controlling temperature with one thermostat placed in characteristic room, for controlling use the thermostatic valve build in mixing unit and fix the servomotor on thermostatic valve by adapter M30×1,5.
- Manifold is compatible with eurocone adapter G¾" and adapter for multilayer pipe G¾". Manifold outputs has a 50mm distance between each one.

Caution:

Not suitable for a low parameter heating sources.

***Caution! Available in EU until 31.07.2015



pump group***

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
25 / 4	***	K-803000	1	pc	
25 / 6	***	K-803001	1	pc	

Caution:

Not suitable for a low parameter heating sources.

***Caution! Available in EU until 31.07.2015



electronic pump group

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
		K-803002	1	pc	

Caution:

Not suitable for a low parameter heating sources



electronic pump group with three-way mixing valve

GROUP: E

Size	*	Code	Packing	JM	Price EUR/JM
35-60°C		K-803003	1	pc	
20-43°C		K-803005	1	pc	



thermostatic valve 1/2", M30×1,5

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
Rp 1/2"		V2000DUB15	1	pc	

Caution:

Service element for manifolds series 73A & 77A and pump group.
Within M30x1,5 (grey) adapter, servomotor and room thermostat it may be used for temperature control of whole heating zone.
Within thermostatic head and four way valve it performs as half automatic underfloor heating controller.



reversing valve

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
Rp 1/2"		V2420D0015	1	pc	

Caution:

Service element for manifolds series 73A & 77A and pump group.
Enables hydraulic regulation of surface heating systems - setting the temperature of heating loops supply.



thermostatic head with the pad sensor for the manifold 73A and 77A series

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
M30×1,5		K-600800	1	pc	

Caution:

The element designed for manifold 73A and 77A - it protects against exceeding temperature in the system, and should be fixed on the thermostatic valve build in mixing unit, the pad sensor should be placed on the lower body of manifold.



servomotor SMART adapter

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
Adapter M28×1,5		K-800019	20/300	pc	

Caution:

Use adapter M28×1.5 for valves mounted in manifolds 71A, 73A, 75A and 77A System KAN-therm with servomotors K-600700, K-600701 and K-800011, K-800012, K-800013, K-800014.



servomotor adapter

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
Adapter M30×1,5		K-600702	20/300	pc	

Caution:

Use adapter M30×1.5 for thermostatic valves mounted in manifolds series 73A and 77A, and for thermostatic valves in pump groups codes K-803000, K-803001 and K-803002.

Use adapter with servomotor SMART codes: K-800011, K-800012, K-800013, K-800014.



eurocone adapter (nickel plated nut)

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12×2 G1/2"		9012.91	15/300	pc	
12×2 G3/4"		9012.92	15/150	pc	
14×2 G1/2"		9003.47	15/300	pc	
14×2 G3/4"		9006.56	15/150	pc	
16×2 G3/4"		9006.57	15/150	pc	
18×2 G3/4"		9006.59	15/150	pc	
18×2,5 G3/4"		9006.48	15/150	pc	
20×2 G3/4"		K-601705	15/150	pc	
25×3,5 G1"		9003.67	10/80	pc	

Caution: It enables connections with manifolds with male nipples and fittings.



compression ring - service part for screw fittings

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
12		9012.913	100/1000	pc	
14		9006.95	100/1000	pc	
16		9006.97	100/1000	pc	
18		9001.96	100/1000	pc	
20		9014.183	100/1000	pc	
25		9001.92	50/500	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

special spanner for eurocone adapters

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
30 mm	*	K-501900		pc	

Caution:

The spanner intended for eurocone adapter G $\frac{3}{4}$ " montage.



adapter for multilayer pipe (fixed ring)

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
14 G $\frac{1}{2}$ "		9012.060	20/200	pc	
14 G $\frac{3}{4}$ "		9012.60	15/150	pc	
16 G $\frac{1}{2}$ "		9012.00	20/200	pc	
16 G $\frac{3}{4}$ "		9012.080	10/120	pc	
20 G $\frac{3}{4}$ "		9012.020	10/120	pc	
20 G1"		9012.100	5/80	pc	
25 G1"		9026.330	10/80	pc	
26 G1"		9012.040	10/80	pc	

Caution:

All elements detailed above are available in nickel plated version (on request).



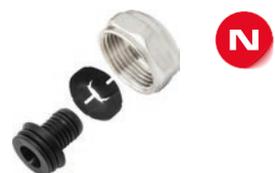
plastic pipe joints for multi-layer KAN-therm System pipes

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16 G $\frac{3}{4}$ "		9010.08N	1	pc	

Caution:

pipe joints work with fittings for pipe couplings and distributors with nipples.



eurocone adapter for multilayer pipe

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16 G $\frac{1}{2}$ "		9012.00N	20/200	pc	
16 G $\frac{3}{4}$ "		9012.08N	15/150	pc	
20 G $\frac{3}{4}$ "		9012.02N	10/120	pc	

Caution:

It may be used with KAN-therm nipple, or KAN-therm male tee or male elbow.



straight male connector

GROUP: A

Size	*	Code	Packing	JM	Price EUR/JM
16×2 G $\frac{1}{2}$ "		9025.01	10/150	pc	
16×2 G $\frac{3}{4}$ "		9025.04	10/80	pc	

Caution:

The fitting is designed to be fixed directly into the manifold beam – connection sealing is provided by the O-Ring seal.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Underfloor heating cabinets

surface mounted cabinet SWN-OP for manifolds without/with mixing units

GROUP: D

Size	*	Code	Packing	JM	Price EUR/JM
10 / 3 (710×580×140)		1100-OP	20	pc	
13 / 7 (710×780×140)		1110-OP	14	pc	
15 / 10 (710×930×140)		1120-OP	11	pc	



Table with cabinets SWN-OP

Number of circuits

Cabinet type	Code	Height [mm]	Width [mm]	Depth [mm]	manifold OP	manifold OP + Set-P/Set-K	manifold OP with mixing unit*
SWN-OP - 10/3	1100-OP	710	580	140	2-10	2-7/2-6	2-3
SWN-OP - 13/7	1110-OP	710	780	140	11-13	8-11/7-10	4-7
SWN-OP - 15/10	1120-OP	710	930	140	14-15	12-14/11-13	8-10

* Required depth of cabinet: min. 140 mm

in wall -mounted cabinet SWPG-OP type, to cover by ceramic tile, for manifolds without/with mixing unit

GROUP: D

Size	*	Code	Packing	JM	Price EUR/JM
10 / 3 (570×580×110-165)	*	1300G-OP	20	pc	
13 / 7 (570×780×110-165)	*	1310G-OP	16	pc	
15 / 10 (570×930×110-165)	*	1320G-OP	10	pc	



Table with cabinet choice SWPG-OP

Number of circuits

Cabinet type	Code	Height [mm]	Width [mm]	Depth [mm]	manifold OP	manifold OP + Set-P/Set-K	manifold OP with mixing unit*
SWPG-OP - 10/3	1300G-OP	570	580	110-165	2-10	2-7/2-6	2-3
SWPG-OP - 13/7	1310G-OP	570	780	110-165	11-13	8-11/7-10	4-7
SWPG-OP - 15/10	1320G-OP	570	930	110-165	14-15	12-14/11-13	8-10

* Required depth of cabinet: min. 140 mm

in wall -mounted cabinet SWP-OP type for manifolds without/with mixing unit

GROUP: D

Size	*	Code	Packing	JM	Price EUR/JM
10 / 3 (750-850×580×110-165)		1300-OP	20	pc	
13 / 7 (750-850×780×110-165)		1310-OP	17	pc	
15 / 10 (750-850×930×110-165)		1320-OP	14	pc	



Table with cabinet choice SWP-OP

Number of circuits

Cabinet type	Code	Height [mm]	Width [mm]	Depth [mm]	manifold OP	manifold OP + Set-P/Set-K	manifold OP with mixing unit*
SWP-OP - 10/3	1300-OP	750-850	580	110-165	2-10	2-7/2-6	2-3
SWP-OP - 13/7	1310-OP	750-850	780	110-165	11-13	8-11/7-10	4-7
SWP-OP - 15/10	1320-OP	750-850	930	110-165	14-15	12-14/11-13	8-10

* Required depth of cabinet: min. 140 mm

* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

Basic - automatics

electronic room thermostat with led indicator

GROUP: A

Version	*	Code	Packing	JM	Price EUR/JM
230V		K-800100	1	pc	
24V		K-800101	1	pc	

Caution:

The thermostat is compatible with servomotors code K-600700 and K-600701 by means of strips code B2012, B2022, B4012, B4022. Required at least 3-wire installation.



electronic room thermostat heating/cooling

GROUP: A

Version	*	Code	Packing	JM	Price EUR/JM
230V		K-800035	1	pc	
24V		K-800036	1	pc	

Caution:

The thermostat is compatible with servomotors code K-800011 and K-800013 via the Basic strip with heating and cooling option, codes K-800030 and K-800031. Required at least 4-wire installation.



bimetallic room thermostat

GROUP: A

Version	*	Code	Packing	JM	Price EUR/JM
230V		0.6106	1/25	pc	
230V / 24V		0.6107	1/25	pc	

Caution:

The thermostat is compatible with servomotors code K-600700 and K-600701 by means of strips code B2012, B2022, B4012, B4022. Thermostat 0.6106 - 3-wire. Thermostat 0.6107 - 2-wire.



week controller

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
		K-800201	1	pc	

Caution:

Controller with battery power supply. Required at least 2-wire installation.



week controller with floor temperature sensor

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
		TH232-AF-230	1	pc	

Caution:

Flush-mounted. Required at least 3-wire installation.



terminal block for underfloor heating 230V

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
230V		B2012	1	pc	
230V with pump module		B2022	1	pc	

Caution:

The terminal block is applied to connect servomotors with thermostats 230V. Additionally, the terminal block with pump module turns off the pump when all servomotors are closed.



terminal block for underfloor heating 24V

GROUP: A

Version	*	Code	Packing	JM	Price EUR/JM
24V		B4012	1	pc	
24V with pump module		B4022	1	pc	

Caution:

The terminal block is applied to connect servomotors with thermostats 24V. Additionally, the terminal block with pump module turns off the pump when all servomotors are closed. The 24V terminal block has no transformer



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

terminal block heating/cooling with pump module Basic 230V
(without power cord)

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
		K-800030	1	pc	



terminal block heating/cooling with pump module
Basic 24V (without power adapter)

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
		K-800031	1	pc	



power adapter 230V - 24V for Basic terminal block

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
		K-800310	1	pc	



Smart - automatics

room thermostat with LCD display

GROUP: A

Version	*	Code	Packing	JM	Price EUR/JM
without floor sensor		K-800004	1	pc	
with floor sensor		K-800005	1	pc	



230V terminal block with LAN module

GROUP: A

Version	*	Code	Packing	JM	Price EUR/JM
up to 4 room thermostats and 6 servomotors		K-800007	1	pc	
up to 8 room thermostats and 12 servomotors		K-800009	1	pc	
up to 12 room thermostats and 18 servomotors		K-800016	1	pc	



24V terminal block with LAN module and power converter

GROUP: A

Version	*	Code	Packing	JM	Price EUR/JM
up to 4 room thermostats and 6 servomotors		K-800008	1	pc	
up to 8 room thermostats and 12 servomotors		K-800010	1	pc	
up to 12 room thermostats and 18 servomotors		K-800018	1	pc	



actuator 230V

GROUP: A

Version	*	Code	Packing	JM	Price EUR/JM
NC type		K-800011	1	pc	
NO type	*	K-800012	1	pc	



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

actuator 24V

GROUP: A

Version	*	Code	Packing	JM	Price EUR/JM
NC type		K-800013	1	pc	
NO type	*	K-800014	1	pc	



external antenna

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
		K-800020	1	pc	

Set includes 5 m cable.



repeater

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
		K-800022	1	pc	

Set includes 230V power converter.



Additional accessories

servomotor SMART adapter

GROUP: A

Version	*	Code	Packing	JM	Price EUR/JM
Adapter M28×1,5		K-800019	20/160	pc	

Caution:

Use adapter M28×1.5 for valves mounted in manifolds 71A, 73A, 75A and 77A System KAN-therm with servomotors K-600700, K-600701 and K-800011, K-800012, K-800013, K-800014.



servomotor adapter

GROUP: A

Version	*	Code	Packing	JM	Price EUR/JM
Adapter M30×1,5		K-600702	20/300	pc	

Caution:

Use adapter M30×1.5 for thermostatic valves mounted in manifolds series 73A and 77A, and for thermostatic valves in pump groups codes K-803000, K-803001 and K-803002.
Use adapter with servomotor SMART codes: K-800011, K-800012, K-800013, K-800014.



four-way H 6 valve 1" with by-pass

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
	*	014001	1	pc	



Mixer with four-way valve - KAN Bloc T - 60 Delta HE 55 with insulation

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
	*	010454	1	pc	

Caution:

Valve insulation included.



SM 4 servomotor

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
	*	004002	1	pc	

Caution:

The servomotor allows to use automatic control of mixing unit with four-way valve KAN-Bloc with weather controller, or using boiler automatics (boiler automatics has to have possibility to control an additional mixing circuit).



whether controller indented for on wall assembly

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
	*	002187N	1	pc	

Caution:

Apply for controlling and mixing unit with four way valve KAN-Bloc with SM4 servomotor (code 004002). The controller set includes external temperature sensor (APS), supply temperature pad sensor (VFAS), controlling mounting plate (assembly on wall).



room temperature sensor with remote control and LCD screen

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
	*	002160N	1	pc	

Caution:

Room temperature sensor is provided as an additional equipment for weather week controller code 002187N.



pump thermal switch

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
	*	K-801800	1	pc	



underfloor heating unit with valve, thermostatic head and vent pcs. in one Code

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
	*	K-801300	1	pc	



ice cover controller

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
	*	K-802305	1	pc	

Caution:

Controller requires snow and ice sensor.



snow and ice sensor with 15 m cord

GROUP: A

	*	Code	Packing	JM	Price EUR/JM
	*	K-802304	1	pc	

Caution:

Snow and ice sensor works with ice cover controller to heat open surfaces code K-802305.



* on request (delivery time up to 4 weeks)

** availability by individual arrangements

*** till stock ends

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1910C	246	4940.00	123	6034.42	119	611794.7	201	6190151	205
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1910N	247	4942.00	123	6037.52	123	611796.9	201	6190173	205
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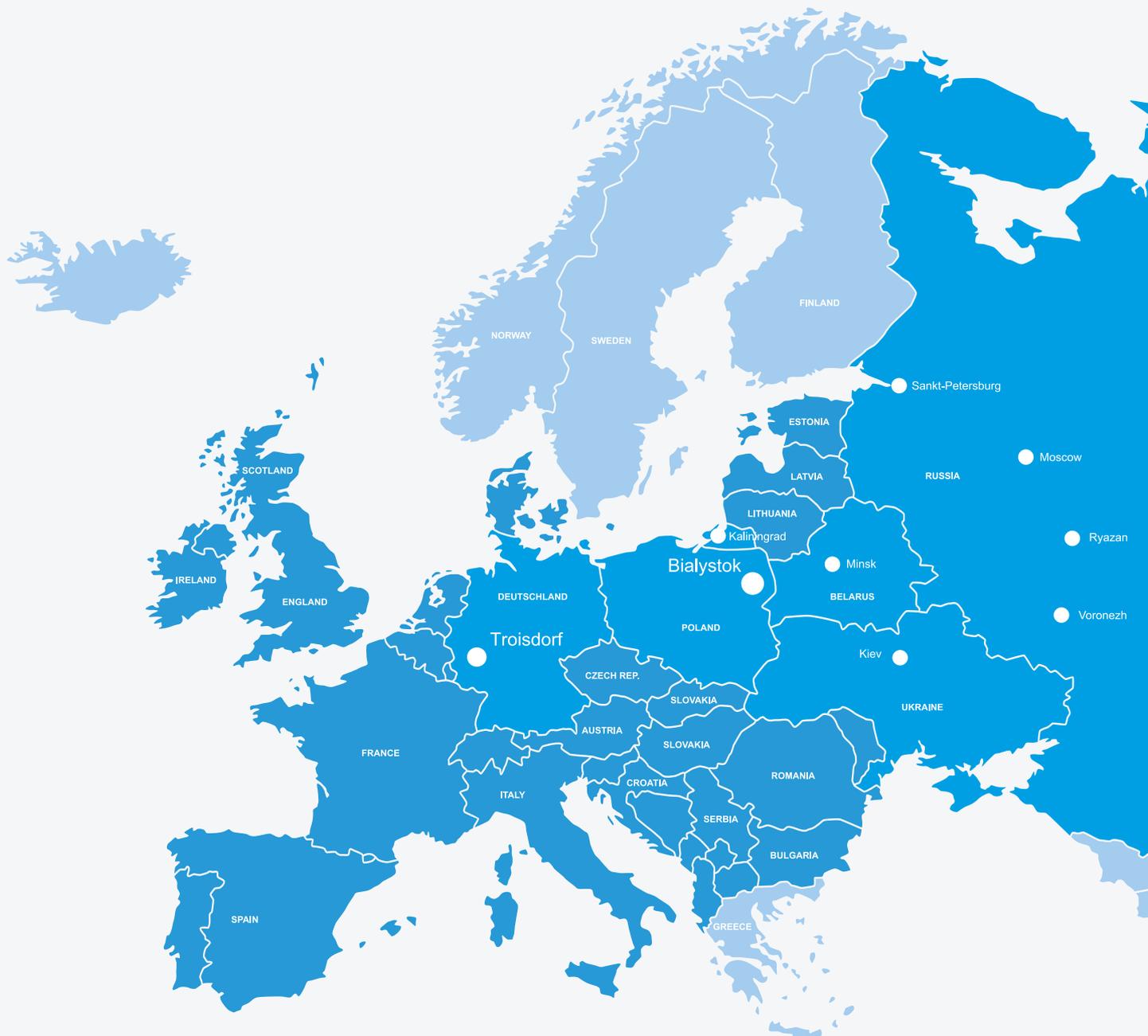
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