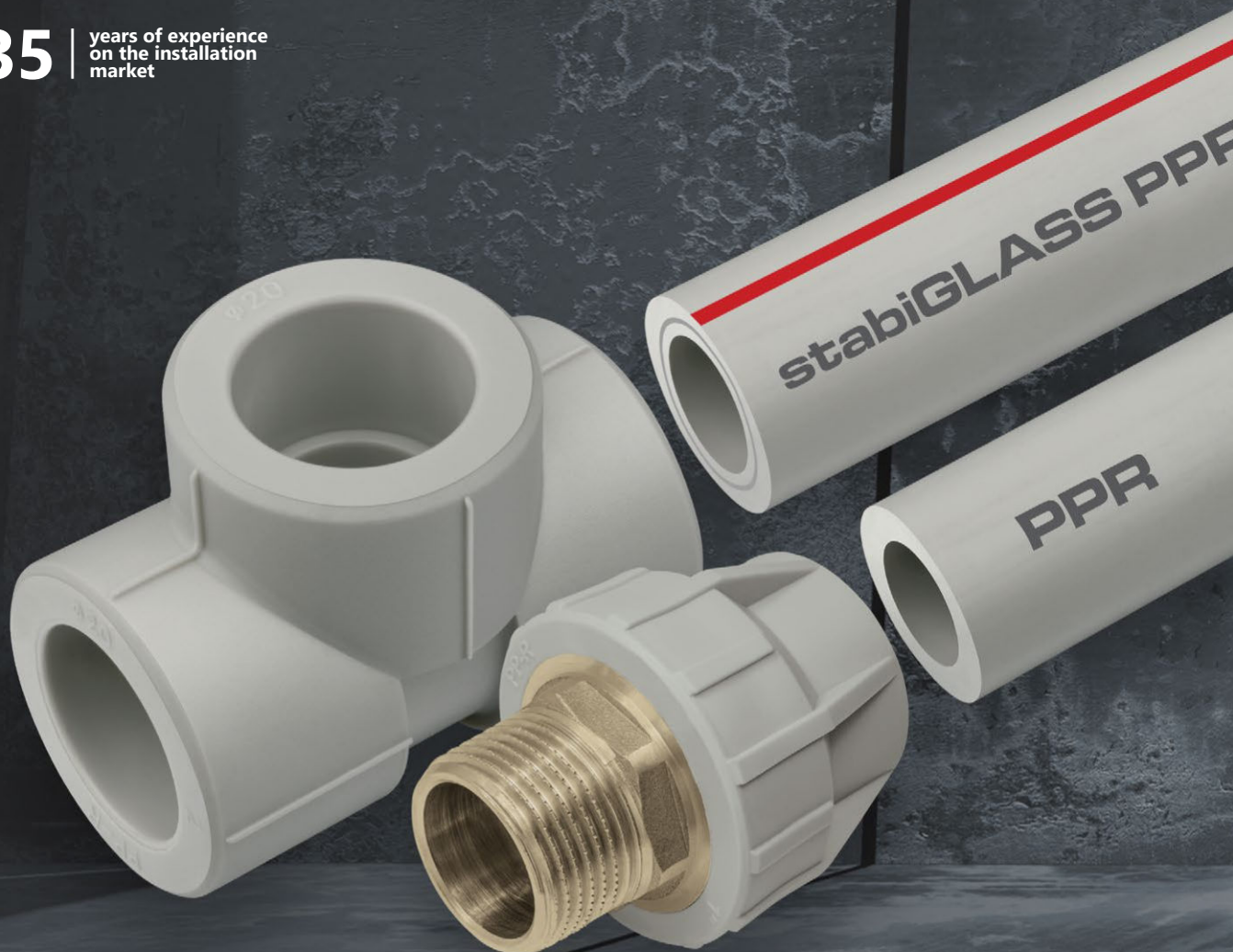




**KAN-therm  
MULTISYSTEM**

**> 35** | years of experience  
on the installation  
market



**KAN-therm**  
**PP**

**HIGH QUALITY  
FOR REASONABLE PRICE**

Install the **future**

# 1 SYSTEM **KAN-therm** PP

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# 1 SYSTEM **KAN-therm** PP

## 1.1 **General information**

KAN-therm PP is a complete installation system consisting of pipes and fittings made of polypropylene PP-R (type 3), a thermoplastic material, with diameter range: 16–110 mm. Connecting elements is performed using the socket welding technique (thermal polyfusion) and electric welders. This welding technique creates continually uniform joints and therefore guarantees exceptional tightness and mechanic durability of the installation. The system is designed for indoor water supply installations (hot and cold potable water), heating installations and technological installations.

The KAN-therm PP system is characterized by:

- high hygiene of all products (physiological and microbiological neutrality),
- high chemical resistance,
- resistance to material corrosion,
- low thermal conductivity (high thermal isolation of pipes),
- low specific weight,
- resistance to scaling,
- muffling vibrations and noises,
- mechanic durability,
- uniform joints,
- high usage durability.

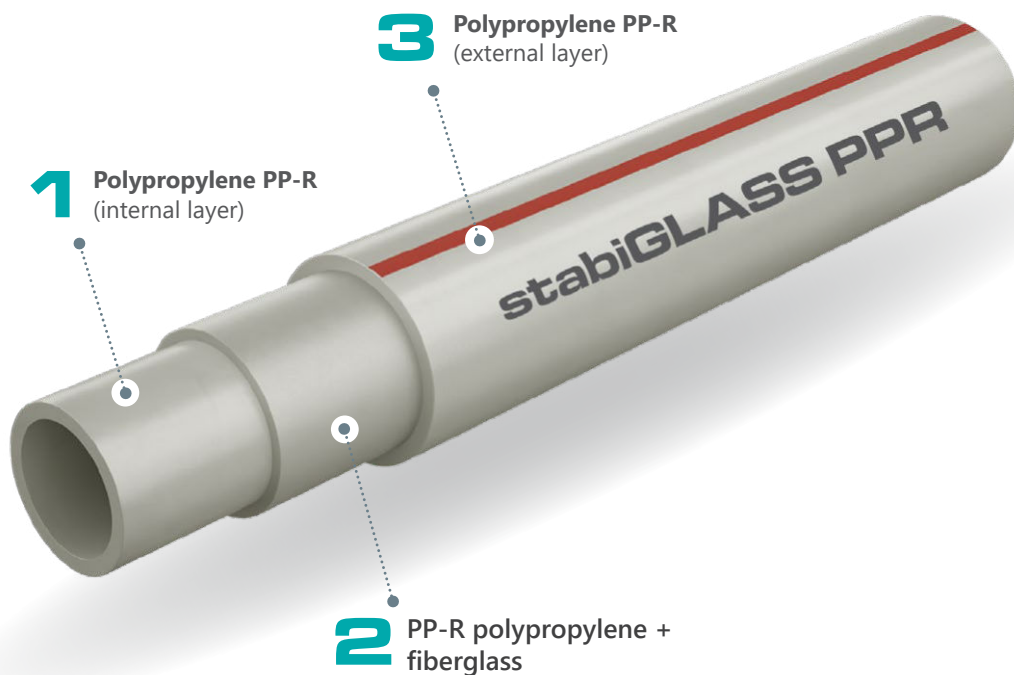
## 1.2 KAN-therm PP pipes

KAN-therm PP pipes and fittings are manufactured of high quality PP-R polypropylene (random copolymer of polypropylene), formerly marked as polypropylene type 3.

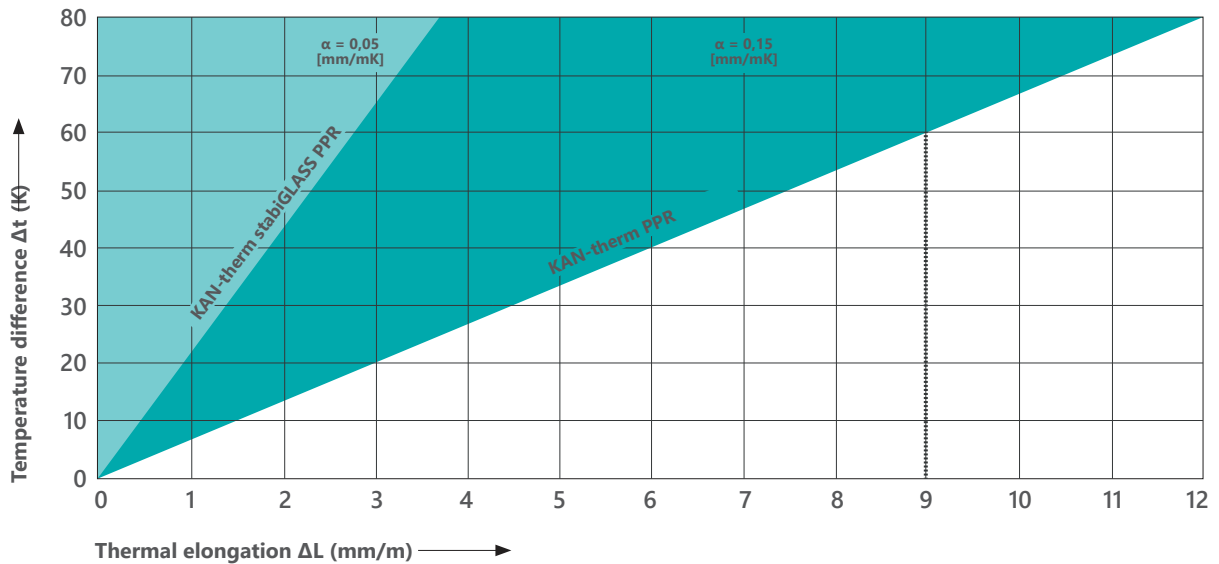
In terms of structure, we differentiate these types of pipes: uniform and multilayer pipes reinforced with a layer of glass fiber, the so-called stabiGLASS pipes.



KAN-therm PP stabiGLASS PPR pipes also feature multilayer structure. Their internal layer, which is reinforced with glass fibre (40% of pipe wall thickness) determines very high durability of the pipe and its low thermal elongation  $\alpha=(0,05 \text{ mm/m} \times \text{K})$ .



Structure of a stabiGLASS PPR



Comparison of the thermal expansion factor in uniform PPR and stabiGLASS PPR pipes.

## Physical properties of KAN-therm PP pipe material

Property	Symbol	Unit	Value
			PPR
linear elongation coefficient	$\alpha$	mm/m × K	0,15 for uniform pipes
			0,05 for stabiGLASS PPR pipes
thermal conductivity	$\lambda$	W/m × K	0,24
density	$\rho$	g/cm <sup>3</sup>	0,90
elasticity module		N/mm <sup>2</sup>	900
minimum bend radius	$R_{min}$	mm	8 × De (for diameters 16-32 mm)
internal wall roughness	k	mm	0,007

## Pipe marking, color

Our pipes are marked in a continuous manner with inscriptions with a 1-meter span, containing i. e. the following indications:

Marking description	Example of marking
Name of manufacturer and/or trademark:	KAN, KAN-therm
Nominal external diameter x wall thickness	16 × 2,7
Dimension class	A
Pipe structure (material)	PP-R
Pipe code	04000316
Number of Standard or Technical Certificate	PN-EN 15874
Pressure/dimension ratio	PN20 SDR6
Application class/es with design pressure	Class 1/10 bar – 2/8 bar – 4/10 bar – 5/6 bar
Date of production	18.08.09
Other manufacturer markings, e.g. running meter, batch number	045 m



**Notice – other, additional markings, e.g. numbers of certificates may also be inscribed on the pipe.**

**Pipe color:** gray;

**Pipe surface:** mat. stabiGLASS PPR pipes are gray with a red stripe.

Pipes are supplied 4 m long bars.

## Dimension parameters of KAN-therm PP pipes

KAN-therm PP system offers seven types of pipes, differing in terms of wall thickness and structures (compound pipes):

PPR PN16 pipes	(20 –110 mm)
PPR PN20 pipes	(16 –110 mm)
stabiGLASS PPR PN16 pipes	(20 –110 mm)
stabiGLASS PPR PN20 pipes	(20 –110 mm)



### KAN-therm PP PPR PN16 pipes (S3,2/SDR7,4)

Size [mm]	External diameter D [mm]	Wall thickness s [mm]	Internal diameter d [mm]	Capacity by unit [l/m]	Weight by unit [kg/m]
20 x 2,8	20	2,8	14,4	0,163	0,148
25 x 3,5	25	3,5	18,0	0,254	0,230
32 x 4,4	32	4,4	23,2	0,415	0,370
40 x 5,5	40	5,5	29,0	0,615	0,575
50 x 6,9	50	6,9	36,2	1,029	0,896
63 x 8,6	63	8,6	45,8	1,633	1,410
75 x 10,3	75	10,3	54,4	2,307	2,010
90 x 12,3	90	12,3	65,4	3,358	2,870
110 x 15,1	110	15,1	79,8	4,999	4,300

### KAN-therm PP PPR PN20 pipes (S2,5/SDR6)

Size [mm]	External diameter D [mm]	Wall thickness s [mm]	Internal diameter d [mm]	Capacity by unit [l/m]	Weight by unit [kg/m]
16 x 2,7	16	2,7	10,6	0,088	0,110
20 x 3,4	20	3,4	13,2	0,137	0,172
25 x 4,2	25	4,2	16,6	0,216	0,266
32 x 5,4	32	5,4	21,2	0,353	0,434
40 x 6,7	40	6,7	26,6	0,556	0,671
50 x 8,3	50	8,3	33,4	0,866	1,050
63 x 10,5	63	10,5	42,0	1,385	1,650
75 x 12,5	75	12,5	50,0	1,963	2,340
90 x 15,0	90	15,0	60,0	2,827	3,360
110 x 18,3	110	18,3	73,4	4,208	5,040

### KAN-therm PP stabiGLASS PPR PN16 (S3,2/SDR7,4) pipes

Size [mm]	External diameter D [mm]	Wall thickness s [mm]	Internal diameter d [mm]	Capacity by unit [l/m]	Weight by unit [kg/m]
20 x 2,8	20	2,8	14,4	0,163	0,160
25 x 3,5	25	3,5	18,0	0,254	0,250
32 x 4,4	32	4,4	23,2	0,415	0,430
40 x 5,5	40	5,5	29,0	0,615	0,650
50 x 6,9	50	6,9	36,2	1,029	1,000
63 x 8,6	63	8,6	45,8	1,633	1,520
75 x 10,3	75	10,3	54,4	2,307	2,200
90 x 12,3	90	12,3	65,4	3,358	3,110
110 x 15,1	110	15,1	79,8	4,999	4,610

## KAN-therm PP stabiGLASS PPR PN20 (S2,5/SDR6) pipes

Size [mm]	External diameter D [mm]	Wall thickness s [mm]	Internal diameter d [mm]	Capacity by unit [l/m]	Weight by unit [kg/m]
20 × 3,4	20	3,4	13,2	0,137	0,218
25 × 4,2	25	4,2	16,6	0,216	0,328
32 × 5,4	32	5,4	21,2	0,353	0,520
40 × 6,7	40	6,7	26,6	0,556	0,770
50 × 8,3	50	8,3	33,4	0,866	1,159
63 × 10,5	63	10,5	42,0	1,385	1,770
75 × 12,5	75	12,5	50,0	1,963	2,780
90 × 15,0	90	15,0	60,0	2,830	3,590
110 × 18,3	110	18,3	73,4	4,210	5,340

### Explanation of markings of uniform PPR pipes

S	dimension series according to ISO 4	$S = (D-s)/2s$
SDR	Standard Dimension Ratio	$SDR = 2 \times S + 1 = D/s$
D(dn)	nominal external pipe diameter	
s(en)	nominal wall thickness	in brackets: markings acc. to standard
PN	Pressure nominal	

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

## 1.3 Fittings and other elements of the system

The basic method of executing joints in polypropylene installations is thermal welding which, thanks to the use of proper fittings, allows connecting pipes (pipe couplings), closing the pipeline (end caps), redirecting the pipeline (elbows, bends, passing loops, tees), changing the diameter of the pipe (couplings and reducers), executing branch-offs (tees, four-ways), connecting devices and fixtures (collar joints and metal threaded joints). Ball valves with polypropylene couplings serve as the joints here.

All of the above mentioned elements allow connecting fittings to pipes or connecting two or more pipe sections, forming inseparable joints, requiring the pipe to be cut off if there is a need for disassembling the fitting. In order to execute a separated joint, sleeves for collar joints and union adapters must be used. All joints are universal and may be used with all types of KAN-therm PP pipes, irrespective of their wall thickness or structure.

All of the KAN-therm PP system fittings are designed in PN20 pressure rating.

KAN-therm PP system, apart from pipes, consists of the following elements:

- fittings (uniform) made of PP-R polypropylene (couplings, reducers, elbows, nipple elbows, tees),
- couplings with female and male metal threads ½" – 3" – used for connecting to devices and fixtures,
- sleeves for collar joints with loose collars, union adapters – for detachable joints,
- expansion bends, mounting plates, ball valves,
- mounting elements – plastic or metal with rubber insert clamps,
- tools for pipe bending, treatment and welding.

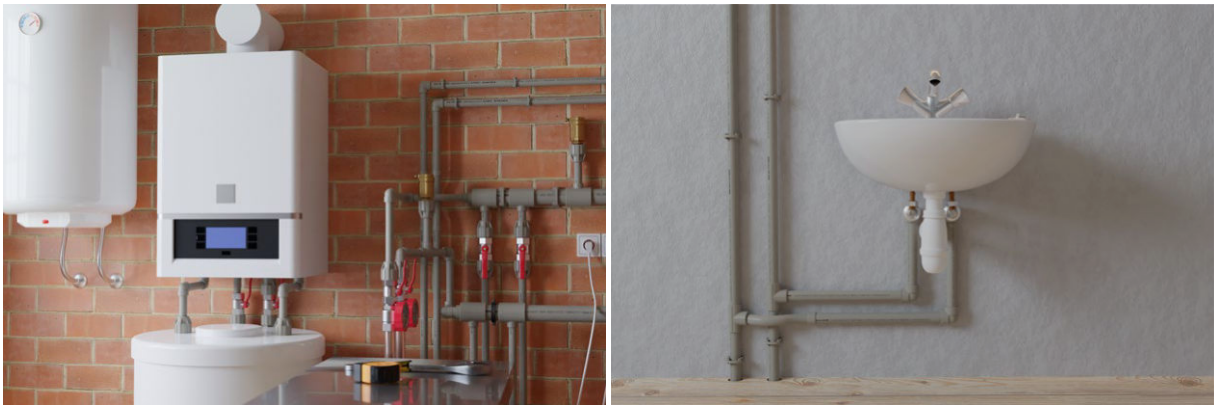
## 1.4 Scope of use

Thanks to the properties of PP-R and PP-RCT material, the KAN-therm PP installation system has a wide spectrum of applications:

- cold (20 °C/1,0 MPa) and hot (60 °C/1,0 MPa) water installations in housing buildings, hospitals, hotels, office buildings, schools,
- central heating installations (temp. up to 90 °C, working pressure up to 0,8 MPa),
- compressed air installations,
- balneology installations,
- installations in agriculture and horticulture,
- pipelines in the industry, e.g. for transporting aggressive media and food products,
- ship installations.

The scope of use assumes new installations, as well as repairs, modernization and exchange projects.

Thanks to special properties of polypropylene (physiological and microbiological neutrality, resistance to corrosion, resistance to scaling, immunity to vibrations, very good thermal insulation of pipes), KAN-therm PP system installations are widely used, particularly in water supply installations, when mounting water supply risers and installation levels. This refers to both hot and cold tap water installations in housing buildings, hospitals, hotels, office buildings, schools, on ships, etc.



KAN-therm PP installations

KAN-therm PP installations are irreplaceable when replacing old, corroded water supply installations. They are also used in renovations of old heating installations.

Pipes and joints in the KAN-therm PP system are in full compliance with applicable standards, which guarantees their long-term and reliable operation as well as full security of assembly and use of the installation.

Certificates and technical approvals are available at [www.kan-therm.com](http://www.kan-therm.com).

The operational parameters and scopes of use of KAN-therm PP pipe installations in heating and water supply installations are presented in the table.

Application (acc. to ISO 10508)	Total time of exploitation, years	Time of operation years/hours	Operating temperature T °C	PPR	
				SDR6 (S2,5), SDR6 (S2,5) stabiGLASS	SDR7,4 (S3,2), SDR7,4 (S3,2) stabiGLASS
				Maximum operating pressure (bar)	
Hot domestic water [application class 1] $T_d/T_{max} = 60/80$ °C	50	49	60	10	8
		1	80		
		Time of operation at $T_{kr}$	100 hours	95	
Hot domestic water [application class 2] $T_d/T_{max} = 70/80$ °C	50	49	70	8	6
		1	80		
		Time of operation at $T_{kr}$	100 hours	95	
Radiant heating, low temperature radiator heating [application class 4] $T_d/T_{max} = 60/70$ °C	50	2,5	20	10	10
		20	40		
		25	60		
		2,5	70		
		Time of operation at $T_{kr}$	100 hours		
Radiator heating [application class 5] $T_d/T_{max} = 80/90$ °C	50	14	20	6	6
		25	60		
		10	80		
		1	90		
		Time of operation at $T_{kr}$	100 hours		

**Maximal operating pressure of PPR and PPRCT pipes depending on the temperature and service life of the installation (safety factor C = 1,5)**

Temperature [°C]	Time [years]	PPR pipes	
		PN16 / SDR7,4 / S3,2	PN20 / SDR6 / S2,5
10	1	27,6	35,4
	5	26	33,3
	10	25,4	32,5
	25	24,5	31,4
	50	23,9	30,6
20	1	23,6	30,2
	5	22,2	28,4
	10	21,6	27,6
	25	20,8	26,7
	50	20,3	26
40	1	17	21,8
	5	15,9	20,4
	10	15,5	19,8
	25	14,9	19
	50	14,5	18,5
60	1	12,2	15,6
	5	11,3	14,5
	10	11	14
	25	10,5	13,4
	50	10,2	13

Temperature [°C]	Time [years]	PPR pipes	
		PN16 / SDR7,4 / S3,2	PN20 / SDR6 / S2,5
70	1	10,2	13,1
	5	9,5	12,1
	10	9,2	11,7
	25	8	10,2
	50	6,7	8,6
80	1	8,6	11
	5	7,6	9,7
	10	6,4	8,2
	25	5,1	6,6
	50	4,3	5,6
90	1	7,2	9,2
	5	5	6,4
	10	4,2	5,4
	25	3,4	4,3
95	1	6,1	7,8
	5	4,1	5,3
	10	3,5	4,4



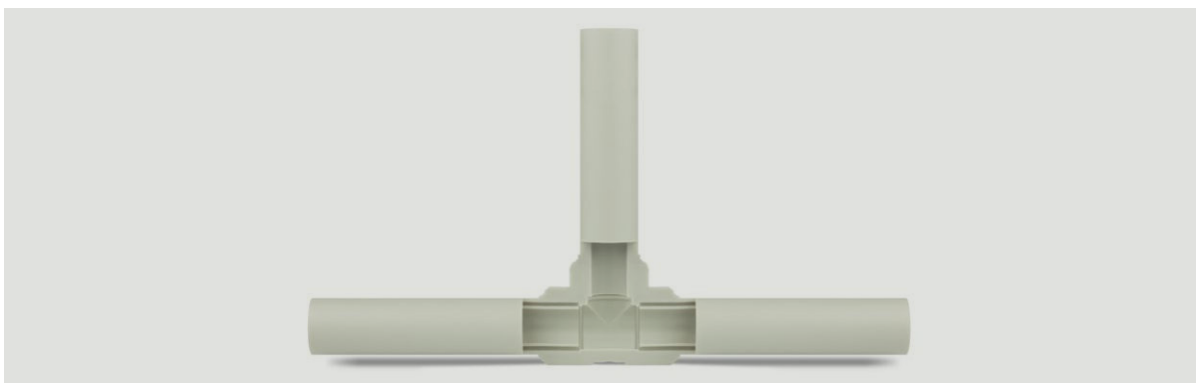
#### Note

Conditions of using the KAN-therm PP system in installations other than heating and water supply installations - chemical resistance.

Elements of the KAN-therm PP system are characterized by high chemical resistance. You should remember, however, that the chemical resistance feature of polypropylene depends on the type and concentration of substances, as well as other factors, e.g. temperature and pressure of the medium, and ambient temperature. Chemical resistance of the couplings inserts (metal) must not be compared to the resistance of PP-R elements. Due to this fact, transition couplings are not applicable for all industrial usages. Before deciding on the application of KAN-therm PP pipes and joints in installations conducting substances different than water, please contact the KAN's Technical Support Department.

## 1.5 Technique of connecting KAN-therm PP installations – welded joints

Welding is the basic technology used for connecting KAN-therm PP polypropylene pipelines. The welding process is based on plasticizing the elements to be connected under high temperature (to a certain depth), and then joining, under right pressure, the plasticized layers and, finally, cooling the entire area to a temperature of hardening.



Cross-section of a welded joint



KAN-therm PP tools

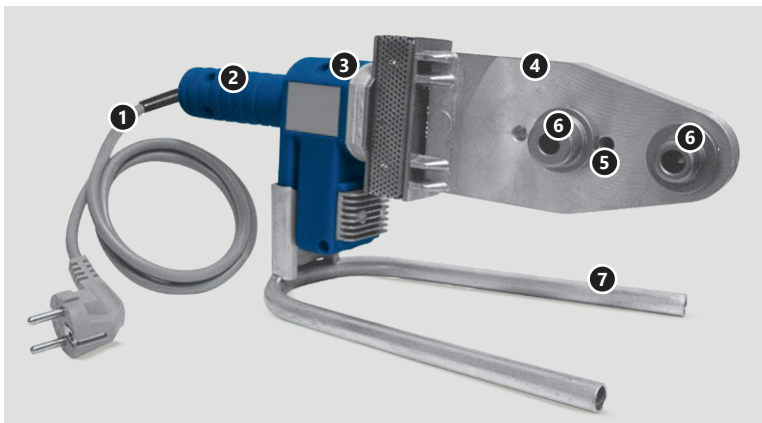
Plasticization of layers to be connected takes place at 260 °C in a temporal function, taking into account the need to warm up a layer of material (external surface of the pipe and internal surface of the coupling) and a required depth. The essence of the process of welding polypropylene, also called thermal polyfusion, is relocating and mixing the polymer chains of plasticized and then pressed layers of elements being connected. Maintaining proper conditions in this process (temperature, time, pressure force and area, cleanness of elements being connected) guarantees proper execution of the joint and its durability.

The process of heating (plasticizing) takes place with the use of an electric welder equipped with a heating plate with exchangeable (for each diameter) heating inserts covered with Teflon.

Depending on the diameter of the pipe, heating takes from 5 to 50 seconds. After this time, heated elements are removed from the inserts and the pipe is immediately mounted (without rotation!) inside the coupling at a depth which must be marked earlier. It is then that the particles of both elements penetrate one another and mix. A joint formed through thermal welding has impressive mechanic durability, exceeding the durability of the pipe itself (the cross section of the joint exceeds the cross section of the pipe).

## Tools – preparation of the welder

In order to execute a polypropylene joint, use a welder designed to work under 230 V. This device consists of a power supply cable (1), a grip (2) with an in-built thermostat and controls (diodes) (3) and a heating plate (4), which heating inserts (6) are mounted to. The power of KAN-therm welders is 800 or 1600 W.



Welder elements

1. Power supply cable
2. Welder grip
3. Power supply and thermostat controls
4. Heating plate
5. Openings in the heating plate
6. Heating inserts
7. Stand



### **Welding temperature 260 °C**

- Before starting any works, read the instruction manual to the corresponding welder type.
- Heating inserts (coupling and heating rod) must be screwed tightly using a wrench included in the set. They must contact the surface of the heating plate tightly. The inserts must not extend over the edge of the heating plate.
- Secure the inserts against scratching or polluting. Clean all pollutions with a natural cloth and rubbing alcohol.
- Connection to power supply is signaled by the lamp or diode on the casing lighting up.
- The required welding temperature (on the surface of inserts) is 260 °C. The temperature of the heating plate is higher (280-300 °C). When the device reaches the correct welding temperature, a thermostat control most often (depends on the model of the welder) signals it.

- After finishing all works, disconnect the welder from power supply and leave it to cool down. Do not cool the welder rapidly, e.g. using cold water, since this may lead to the damage of heating circuits.
- Do not use a power supply cable of small cross section or one which is too long. Voltage fluctuations might disturb the proper operation of the device.
- Do not use the power supply cable to transport or hang the welder. When out of work, place it on the stand included in the set.



## NOTICE

Due to varying tolerances of pipes and fittings by other manufacturers, to ensure the execution of a sealed and durable joint, we suggest the use of original tools, particularly heating inserts, as offered within the KAN-therm PP system.



### Tools – work safety

**All tools must be used according to their dedication and the manufacturer's instruction manual. During the use of tools, one must observe the terms of regular inspections and all applicable safety regulations. Using tools against their designed use may lead to their damage or to the damage of their accessories. It may also lead to the occurrence of leakages in installation joints.**

## Preparation of elements for welding



### 1. Cutting the pipe.

Use a pipe cutter, (or for bigger diameters) a round pipe cutter or a mechanic saw with a blade adapted to cutting polypropylene to cut the pipe. When cutting the pipe with a saw, remove all remainings from the surface and from the interior of the pipe.



### 2. Marking the depth of the weld.

Mark (using a ruler or, a template and a pencil) the depth of the weld at the end of the pipe (PPR, PPRCT and stabiGLASS PPR pipes). Insufficient welding depth may weaken the joint. On the other hand, if the pipe is mounted too deep, it may become narrower (flange). The depths of welds are provided in the table.



### 3. Removing Al foil

In the case of stabiAL PPR pipes, before welding, remove the layer of aluminum using a scraper (together with the PP protective shield and binding layers). Slide the end of the Stabi pipe into the hole of the scraper and, applying rotary motion, scrape off the layer of aluminum until the scraper ceases to produce chips. The length of the section with the foil removed signals the depth of the weld, hence there is no need to mark it, as in point 2.

Always check for aluminum or binding layer (adhesive) remains on the surface. Scraper blades must not be blunt or chipped. Replace used blades with new, spare ones.

## Welding parameters

External pipe diameter [mm]	Welding depth [mm]	Heating time [sek]	Binding time [sek]	Cooling time [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



### Notice

The time of heating in ambient temperatures below +5 °C should be increased by 50%.

## Welding technique



### 4. Heating the pipe and the joint.

The surfaces to be heated must be clean and dry. Slide the pipe end (without rotation) into the heating sleeve, up to the marked depth of the weld. At the same time, slide the fitting (also without rotation) on the heating rod, until it stops. Start counting the heating time when the pipe and the fitting are mounted at their entire welding depths. After the lapse of a half of the heating time (according to the table), continue to heat the fitting and start heating the pipe, until the end of required heating time.

### 5. Connecting elements.

After heating take the pipe and fitting out of heating inserts in a continuous manner and immediately, without rotating, connect them. The marked welding border should then be covered by outflowing excess material. Do not heat beyond the marked welding border, since it could result in a narrowing or even a clog in the joint. When connecting elements, the joint can be slightly adjusted on the axis (up to a few degrees). Rotating elements being connected is absolutely prohibited.



### 6. Stabilizing and cooling.

After the welding time has lapsed, the joint must be stabilized and cooling must be initiated (time of cooling is provided in the table). In this period, you must not apply any mechanic pressure on the pipe. After all joints have cooled down, connect the installation to water supply and conduct a pressure test.

## Fittings with metal threads and collars

Apart from welded joints, KAN-therm PP offers threaded and collar joints.



KAN-therm PP fittings with brass threads

The most basic elements with metal threads are PP-R polypropylene fittings (couplings, elbows, tees) with brass “inserts” with male and female threads. They form inseparable joints. Unscrewing a joint like this requires the pipe to be cut off. Such joints are used for connecting installations to heating and water supply devices and fixtures. Joints with 1” and bigger female and male threads are equipped with a six-sided mount for a flat wrench, allowing devices to be screwed-in and – out without applying excessive pressure on the weld and the fitting itself.

The group of detachable joints, allowing performance of multiple, exchangeable connections, includes KAN-therm PP union adapters (used e.g. to connect water meters) and “half unions” with specially formed stubs (for mounting rubber seals) and metal nuts.

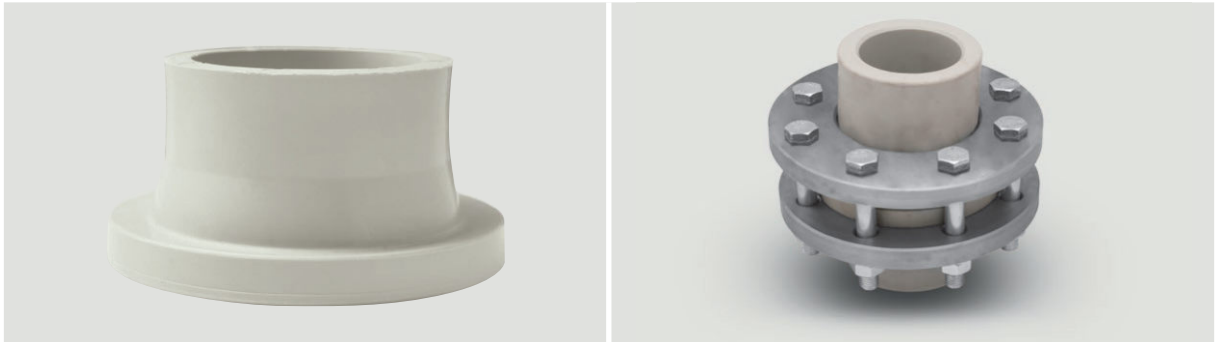


KAN-therm PP detachable fittings – male union adapter, female union adapter, half-union and union

KAN-therm PP also offers double union adapters (with two PP-R couplings) which allow mounting flanges on the pipe. An additional coupling with internal diameter corresponding to the external diameter of the pipe is required to connect these joints with the pipe.

For large pipe diameters, use flange couplings to execute detachable joints. Flange couplings are used e.g. to connect devices to flange stubs (pumps, valves, water meters). In installations, KAN-therm PP adapters are used with loose flanges.

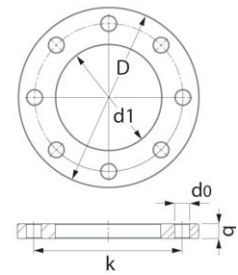
It is necessary to assemble a separate, flat seal. The seal should be made of a material type suitable for the parameters of the medium running through the joint. The connection between flange adapter and pipe is done with a utilization of muff coupling or by other fitting.



Ø110 mm flange joint

### Flanges

Sleeve size	DN	D	d1	k	d0	q	N
Ø40	32	140	43	100	18	18	4
Ø50	40	150	53	110	18	18	4
Ø63	50	165	66	125	18	20	4
Ø75	65	185	78	145	18	20	8
Ø90	80	200	95	160	18	20	8
Ø110	100	220	114	180	18	22	8



N - number of bolt holes

KAN-therm PP offers a wide selection of shut-off valves and fixtures welded onto pipelines:



- ball valves,
- shut-off globe valves,
- globe valves for flush assembly.

## 1.6 Transport, storage and handling



Components of plastic piping systems must be protected against impact, falling, blow or any other mechanical damage during their transport and installation.

Store and transport pipes in horizontal position, preventing them from bending.

Maximum storage height – 1,2 m. Be extra careful when transporting or carrying pipes in temperatures below 0 °C (in these conditions pipes are more vulnerable to mechanic damages, especially stabiGLASS PPR pipes).



Protect pipes against shocks or mechanic impacts, particularly their endings.

Do not throw or drag pipes during transport.

Only the components that are not damaged or contaminated, during storage or transportation, may be used for installation works.



Protect pipes and fittings against polluting (particularly with oil or grease).

Protect pipes and joints from the access of chemical substances (e.g. paint or organic solvents, steam containing chlorine).



min. +5 °C

A minimum temperature for plastic piping installation, as regards welding, is +5 °C. At lowers temperatures it is difficult to provide working conditions for high quality pipe joints.



Pipeline crossings are made by means of the components specially designed for this purpose.



Joining of plastic parts is done by polyfusion welding which results in a high-quality homogeneous joint.

Joining must be performed under specified working conditions with the use of appropriate tools.

It is not recommended to weld KAN-therm PP Green components together with other brand products (no warranty).



Components must not be exposed to open fire.





During storage, pipes and joints must not be exposed to sun rays (they must be protected against heat and UV rays).

# SYSTEM KAN-therm PP - assortment

## Pipes

### Pipe PPR SDR7.4 PN16 - bar

GROUP: L

Size [mm]	*	Code			UM
20×2,8		1229203001	4	160	m
25×3,5		1229203003	4	100	m
32×4,4		1229203005	4	60	m
40×5,5		1229203008	4	40	m
50×6,9		1229203010	4	28	m
63×8,6		1229203012	4	16	m
75×10,3		1229203014	4	12	m
90×12,3		1229203016	4	8	m
110×15,1		1229203000	4	4	m



**Note:**

Application class 1; 8 bar.  
 Application class 2; 6 bar.  
 Application class 4; 10 bar.  
 Application class 5; 6 bar.



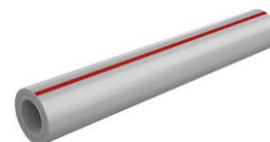
### Pipe PPR stabiGLASS SDR7.4 PN16 - bar

GROUP: M

Size [mm]	*	Code			UM
20×2,8		1229204002	4	100	m
25×3,5		1229204003	4	80	m
32×4,4		1229204004	4	40	m
40×5,5		1229204005	4	28	m
50×6,9		1229204006	4	20	m
63×8,6		1229204007	4	12	m
75×10,3		1229204008	4	8	m
90×12,3		1229204009	4	8	m
110×15,1		1229204000	4	4	m

**Note:**



Application class 1; 8 bar.  
 Application class 2; 6 bar.  
 Application class 4; 10 bar.  
 Application class 5; 6 bar.





### Pipe PPR SDR6 PN20 - bar

GROUP: L

Size [mm]	*	Code			UM
16×2,7		1229206031	4	200	m
20×3,4		1229206033	4	160	m
25×4,2		1229206035	4	100	m
32×5,4		1229206037	4	60	m
40×6,7		1229206039	4	40	m
50×8,3		1229206041	4	28	m
63×10,5		1229206043	4	16	m
75×12,5		1229206045	4	12	m
90×15,0		1229206047	4	8	m
110×18,3		1229206029	4	4	m



**Note:**

Application class 1; 10 bar.  
 Application class 2; 8 bar.  
 Application class 4; 10 bar.  
 Application class 5; 6 bar.



### Pipe PPR stabiGLASS SDR6 PN20 - bar

GROUP: M

Size [mm]	*	Code			UM
20×3,4		1229205025	4	100	m
25×4,2		1229205026	4	80	m
32×5,4		1229205027	4	40	m
40×6,7		1229205011	4	28	m
50×8,3		1229205014	4	20	m
63×10,5		1229205017	4	12	m
75×12,5		1229205020	4	8	m
90×15,0		1229205024	4	8	m
110×18,3		1229205001	4	4	m


**Note:**

Application class 1; 10 bar.  
 Application class 2; 8 bar.  
 Application class 4; 10 bar.  
 Application class 5; 6 bar.

## Connectors

### Saddle fitting PP/Push

GROUP: N

Size [mm]	*	Code			UM
63 / 18x2,0		1209238010	20	160	pc.
75 / 18x2,0		1209238011	20	160	pc.
90 / 18x2,0		1209238012	20	160	pc.
110 / 18x2,0		1209238009	20	160	pc.



**Note:**

The external diameter of PP pipe is given to which the saddle is welded, as well as the connection pipe diameter.



### Female saddle fitting

GROUP: N

Size [mm]	*	Code			UM
40 Rp½"		1209238022	20	160	pc.
50 Rp½"		1209238023	20	160	pc.
63 Rp½"		1209230007	20	160	pc.
75 Rp½"		1209230009	20	160	pc.
90 Rp½"		1209230011	20	160	pc.
110 Rp½"		1209230003	20	160	pc.

**Note:**

The external diameter of PP pipe is given to which the saddle is welded, as well as the diameter and type of thread.



### Compensation loop

GROUP: N

Size [mm]	*	Code		UM
16		1209036000	20	pc.
20		1209036002	20	pc.
25		1209036003	15	pc.
32		1209036004	10	pc.


**Note:**

Loop diameter Ø150, length 370 mm.



### Crossover

GROUP: N

Size [mm]	*	Code		UM
16		1209269000	200	pc.
20		1209269001	200	pc.
25		1209269002	130	pc.
32		1209269003	75	pc.





## Coupling

GROUP: N

Size [mm]	*	Code							UM
16		1209245001	80				1360		pc.
20		1209245002	100				700		pc.
25		1209245003	50				550		pc.
32		1209245004	40				280		pc.
40		1209245005	30				180		pc.
50		1209245006	-				110		pc.
63		1209245007	-				60		pc.
75		1209245008					45		pc.
90		1209245009					24		pc.
110		1209245000					16		pc.



## Coupling reducer

GROUP: N

Size [mm]	*	Code							UM
25 / 20	N	1209220021	50				550		pc.
32 / 25	N	1209220022	40				280		pc.



## Nipple reducer

GROUP: N

Size [mm]	*	Code							UM
20 / 16		1209220004	100				1200		pc.
25 / 16		1209220005	50				1100		pc.
25 / 20		1209220006	100				900		pc.
32 / 20		1209220007	80				640		pc.
32 / 25		1209220008	80				560		pc.
40 / 20		1209220009	50				400		pc.
40 / 25		1209220010	50				350		pc.
40 / 32		1209220011	50				300		pc.
50 / 32		1209220000	30				180		pc.
50 / 40		1209220012	30				150		pc.
63 / 32		1209220013	-				100		pc.
63 / 40		1209220014	-				100		pc.
63 / 50		1209220015	-				100		pc.
75 / 50		1209220016	-				80		pc.
75 / 63		1209220017	-				50		pc.
90 / 50		1209220018	-				48		pc.
90 / 63		1209220019	-				45		pc.
90 / 75		1209220020	-				45		pc.
110 / 63		1209220001	-				27		pc.
110 / 75		1209220002	-				27		pc.
110 / 90		1209220003	-				27		pc.

### Note:


Nipple reducers are intended for direct welding into the fitting socket from the bigger diameter side. The smaller diameter is intended for direct connection with the pipe.

coil bar pipes in tube bag carton box pallet **N** new available soon

\* custom-made - lead time max 4 weeks | \*\* availability as agreed | \*\*\* while stock lasts

## Female connector

GROUP: N

Size [mm]	*	Code			UM
16 Rp1/2"		1209050002	20	200	pc.
20 Rp1/2"		1209050003	20	180	pc.
20 Rp3/4"		1209050004	30	150	pc.
25 Rp1/2"		1209050005	20	160	pc.
25 Rp3/4"		1209050006	30	150	pc.
25 Rp1"		1209245020	-	100	pc.
32 Rp1"		1209050007	-	100	pc.
40 Rp1 1/4"		1209050009	-	60	pc.
50 Rp1 1/2"		1209050011	-	35	pc.
63 Rp2"		1209050012	-	18	pc.
75 Rp2 1/2"		1209050013	-	12	pc.
90 Rp3"		1209050014	-	8	pc.



**Note:**

Elements with 1" thread and bigger have a polygon for a wrench.



## Male connector

GROUP: N

Size [mm]	*	Code			UM
16 R1/2"		1209051003	20	160	pc.
20 R1/2"		1209051004	20	140	pc.
20 R3/4"		1209051005	30	120	pc.
25 R1/2"		1209051006	20	140	pc.
25 R3/4"		1209051007	20	120	pc.
25 R1"		1209245018	-	80	pc.
32 R1 1/4"		1209245019	-	50	pc.
40 R1 1/4"		1209051010	-	50	pc.
50 R1 1/2"		1209051012	-	36	pc.
63 R2"		1209051013	-	18	pc.
75 R2 1/2"		1209051014	-	10	pc.
90 R3"		1209051015	-	6	pc.



**Note:**

Elements with 1" thread and bigger have a polygon for a wrench.



## Elbow 90°

GROUP: N

Size [mm]	*	Code			UM
16		1209068010	50	900	pc.
20		1209068011	100	500	pc.
25		1209068012	50	350	pc.
32		1209068013	20	200	pc.
40		1209068014	20	100	pc.
50		1209068015	-	60	pc.
63		1209068016	-	32	pc.
75		1209068017	-	20	pc.
90		1209068018	-	12	pc.
110		1209068009	-	8	pc.





### Nipple elbow 90°

GROUP: N

Size [mm]	*	Code			UM
16		1209068022	50	1000	pc.
20		1209068023	100	600	pc.
25		1209068024	50	400	pc.
32		1209068025	50	200	pc.



### Elbow 45°

GROUP: N

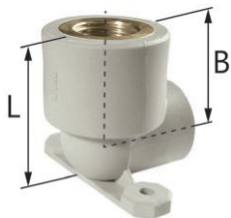
Size [mm]	*	Code			UM
16		1209068000	50	950	pc.
20		1209068001	100	700	pc.
25		1209068002	50	400	pc.
32		1209068003	40	200	pc.
40		1209068004	20	140	pc.
50		1209068005	-	80	pc.
63		1209068006	-	40	pc.
75		1209068007	-	25	pc.
90		1209068008	-	14	pc.
110		1209068028	-	10	pc.



### Nipple elbow 45°

GROUP: N

Size [mm]	*	Code			UM
16		1209068019	50	1050	pc.
20		1209068020	100	700	pc.
25		1209068021	50	450	pc.

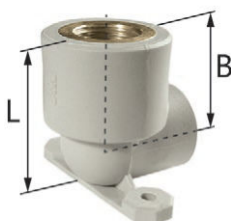


### Female directly fixed wallplate elbow - L = 45 mm

GROUP: N

Size [mm]	*	Code			UM
20 Rp1/2"		1209069007	20	140	pc.

Note:  
B = 29 mm.



### Female directly fixed wallplate elbow - L = 47 mm

GROUP: N

Size [mm]	*	Code			UM
16 Rp1/2"		1209069006	20	140	pc.

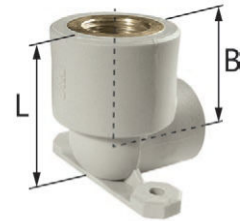
Note:  
B = 35 mm.

### Female directly fixed wallplate elbow - L = 57 mm

GROUP: N

Size [mm]	*	Code			UM
25 Rp½"		1209069008	20	120	pc.

Note:  
B = 36 mm.

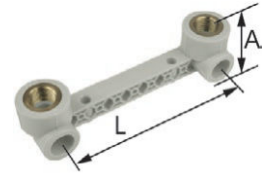


### Double female directly fixed wallplate elbow 90° - L = 148,5 mm

GROUP: N



Size [mm]	*	Code			UM
20 Rp½"		1209285000	1	30	pc.
25 Rp½"		1209285001	1	30	pc.

Note:  
20 Female thread ½ A = 45,5 mm.  
25 Female thread ½ A = 50,7 mm.



### Female elbow 90°

GROUP: N



Size [mm]	*	Code			UM
16 Rp½"		1209069000	20	180	pc.
20 Rp½"		1209069001	20	140	pc.
20 Rp¾"		1209069002	30	120	pc.
25 Rp½"		1209069003	30	120	pc.
25 Rp¾"		1209069004	30	120	pc.
32 Rp¾"		1209069005	30	90	pc.
32 Rp1"		1209069009	-	50	pc.

Note:  
The fitting has a polygon for a wrench.



### Male elbow 90°

GROUP: N

Size [mm]	*	Code			UM
16 R½"		1209070000	20	140	pc.
20 R½"		1209070001	30	90	pc.
20 R¾"		1209070002	30	90	pc.
25 R½"		1209070003	20	120	pc.
25 R¾"		1209070004	30	90	pc.
32 R¾"		1209070005	30	60	pc.
32 R1"		1209070006	-	50	pc.

Note:  
A fitting with 1" thread and bigger has a polygon for a wrench.





### Tee

GROUP: N

Size [mm]	*	Code			UM
16		1209257001	40	640	pc.
20		1209257002	80	400	pc.
25		1209257003	20	240	pc.
32		1209257004	20	140	pc.
40		1209257005	15	75	pc.
50		1209257006	-	50	pc.
63		1209257007	-	24	pc.
75		1209257008	-	15	pc.
90		1209257009	-	10	pc.
110		1209257000	-	6	pc.



### Reducing tee

GROUP: N

Size [mm]	*	Code			UM
20 / 16 / 20		1209257011	20	180	pc.
25 / 20 / 20		1209260012	20	140	pc.
25 / 16 / 25		1209257012	20	260	pc.
25 / 20 / 25		1209257013	20	240	pc.
25 / 25 / 20		1209260014	20	140	pc.
32 / 16 / 32		1209257016	20	140	pc.
32 / 20 / 20		1209260013	20	140	pc.
32 / 20 / 32		1209257017	20	140	pc.
40 / 20 / 40		1209257019	20	80	pc.
40 / 25 / 40		1209257020	15	90	pc.
40 / 32 / 40		1209257021	15	90	pc.
50 / 20 / 50		1209257022	-	60	pc.
50 / 25 / 50		1209257023	-	65	pc.
50 / 32 / 50		1209257024	-	60	pc.
50 / 40 / 50		1209257025	-	50	pc.
63 / 32 / 63		1209257026	-	30	pc.
63 / 40 / 63		1209257027	-	22	pc.
63 / 50 / 63		1209257028	-	22	pc.
75 / 40 / 75		1209257029	-	17	pc.
90 / 50 / 90		1209257030	-	12	pc.
90 / 63 / 90		1209257031	-	10	pc.
90 / 75 / 90		1209257032	-	12	pc.
110 / 63 / 110		1209260011	-	8	pc.
110 / 75 / 110		1209260010	-	8	pc.
110 / 90 / 110		1209260009	-	8	pc.



### Side outlet tee

GROUP: N

Size [mm]	*	Code			UM
20		1209257010	40	360	pc.

coil 
 bar 
 pipes in tube 
 bag 
 carton box 
 pallet 
 new 
 available soon

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## Cross



GROUP: N

Size [mm]	*	Code			UM
16		1209057000	80	480	pc.
20		1209057001	40	320	pc.



## Female tee

GROUP: N

Size [mm]	*	Code			UM
16 Rp $\frac{1}{2}$ "		1209258000	20	140	pc.
20 Rp $\frac{1}{2}$ "		1209258002	20	120	pc.
20 Rp $\frac{3}{4}$ "		1209258003	30	90	pc.
25 Rp $\frac{1}{2}$ "		1209258004	20	180	pc.
25 Rp $\frac{3}{4}$ "		1209258005	30	180	pc.
32 Rp1"		1209258007	15	60	pc.



### Note:

An element with 1" thread has a polygon for a wrench.



## Male tee



GROUP: N

Size [mm]	*	Code			UM
20 R $\frac{1}{2}$ "		1209259000	20	120	pc.
<b>N</b> 25 R $\frac{1}{2}$ "		1209259005	30	90	pc.
<b>N</b> 25 R $\frac{3}{4}$ "		1209259006	30	90	pc.



## Union


GROUP: N

Size [mm]	*	Code			UM
20 G $\frac{3}{4}$ "		1209065001	20	200	pc.



## Female half union with flat sealing



GROUP: N

Size [mm]	*	Code			UM
16 G $\frac{3}{4}$ "		1209105000	50	300	pc.
20 G $\frac{3}{4}$ "		1209105001	50	400	pc.
25 G1"		1209105002	20	100	pc.
<b>N</b> 32 G1 $\frac{1}{4}$ "		1209105003	10	100	pc.



## Female half union coupling with flat sealing

GROUP: N

Size [mm]	*	Code			UM
20 G $\frac{1}{2}$ "		1209271006	20	200	pc.
20 G $\frac{3}{4}$ "		1209271007	20	200	pc.
25 G $\frac{3}{4}$ "		1209271008	20	200	pc.



 coil  bar  pipes in tube  bag  carton box  pallet **N** new  available soon

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### Female union

GROUP: N

Size [mm]	*	Code			UM
N 20 G½"		1209271010	20	200	pc.
N 25 G¾"		1209271011	20	100	pc.
N 32 G1"		1209271012	20	80	pc.



### Male union

GROUP: N

Size [mm]	*	Code			UM
16 G½"		1209271000	20	200	pc.
20 G½"		1209271001	20	200	pc.
20 G¾"		1209271002	20	200	pc.
25 G¾"		1209271004	20	100	pc.
25 G1"		1209271003	20	100	pc.
32 G1"		1209272000	20	80	pc.



### Flange adapter

GROUP: N

Size [mm]	*	Code			UM
40		1209091016	1	40	pc.
50		1209091017	1	30	pc.
63		1209091018	1	20	pc.
75		1209091019	1	15	pc.
90		1209091020	1	10	pc.
110		1209091015	1	6	pc.

**Note:**

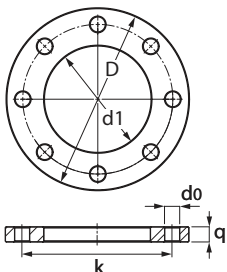
The flange adapter is delivered with an EPDM seal.



### Steel flange PN16

GROUP: N

Size [mm]	*	Code		UM
40 DN32		1209091002	1	pc.
50 DN40		1209091003	1	pc.
63 DN50		1209091004	1	pc.
75 DN65		1209091005	1	pc.
90 DN80		1209091006	1	pc.
110 DN100		1209091001	1	pc.





Code	D	d1	k	d0	q	N
1209091002	140	43	100	18	18	4
1209091003	150	53	110	18	18	4
1209091004	165	66	125	18	20	4
1209091005	185	78	145	18	20	8
1209091006	200	95	160	18	20	8
1209091001	220	114	180	18	22	8

coil bar pipes in tube bag carton box pallet **N** new available soon

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## Stop end



GROUP: N

Size [mm]	*	Code			UM
16		1209025001	100	1000	pc.
20		1209025002	200	1000	pc.
25		1209025003	100	700	pc.
32		1209025004	50	500	pc.
40		1209025005	50	250	pc.
50		1209025006	-	170	pc.
63		1209025007	-	80	pc.
75		1209025008	-	50	pc.
90		1209025009	-	30	pc.
110		1209025000	-	20	pc.



## Ball valve



GROUP: N

Size [mm]	*	Code			UM
20		1209278001	10	80	pc.
25		1209278002	10	50	pc.
32		1209278014	5	25	pc.
40		1209278003	5	15	pc.
50		1209278004	2	10	pc.
63		1209278005	2	8	pc.
75		1209278006	1	5	pc.



## Globe valve

GROUP: N

Size [mm]	*	Code			UM
20		1209280000	1	30	pc.
25		1209280001	1	30	pc.
32		1209280002	1	30	pc.



## Concealed globe valve with a knob

GROUP: N

Size [mm]	*	Code			UM
20		1209280006	1	30	pc.
25		1209280007	1	30	pc.
32		1209280008	1	30	pc.



**Note:**

The valves are delivered in a set with two plastic clips to mark hot (red) or cold (blue) water.



## Concealed globe valve with masking

GROUP: N

Size [mm]	*	Code			UM
20		1209280003	1	30	pc.
25		1209280004	1	30	pc.
32		1209280005	1	30	pc.



 coil  bar  pipes in tube  bag  carton box  pallet **N** new **!** available soon

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## Accessories



### Pipe clip

GROUP: N

Size [mm]	*	Code			UM
16		1209107030	20	1000	pc.
20		1209107031	20	800	pc.
25		1209107032	20	700	pc.
32		1209107033	20	440	pc.
40		1209107034	20	300	pc.
50		1209107035	20	240	pc.
63		1209107036	20	120	pc.
75		1209107037	10	100	pc.
90		1209107038	10	60	pc.

**Note:**

Use only as sliding points.



### Single pipe clamp with rubber insert

GROUP: A

Size [mm]	*	Code		UM
15-18		1700081025	100	pc.
20-23		1700081028	100	pc.
25-28		1700081029	100	pc.
32-36		1700081030	50	pc.
40-44		1700081031	50	pc.
47-52		1700081032	50	pc.
57-63		1700081034	50	pc.
74-78		1700081035	25	pc.
85-91		1700081036	25	pc.
108-112		1700081023	25	pc.

**Note:**

The clamp has a double-threaded screw with a collar (8x70) a plastic dowel (Ø12) in the set.



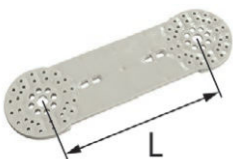
### Double pipe clamp with rubber insert

GROUP: A

Size [mm]	*	Code		UM
15-18		1700081019	50	pc.
20-23		1700081020	50	pc.
25-28		1700081021	50	pc.
32-36		1700081022	50	pc.

**Note:**

The clamp has a double-threaded screw with a collar (8x70) a plastic dowel (Ø12) in the set.



### Mounting plate

GROUP: N

Spacing (L) [mm]	*	Code			UM
150		1209210000	30	150	pc.

**Note:**

Mounting plate 150 mm - plate total length 215 mm, width 64 mm, depth 6 mm.


coil bar pipes in tube bag carton box pallet **N** new available soon

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## Tools

### Cutter for pipes Virax PC 42

GROUP: K

Range [mm]	*	Code		UM
16-40		1933267029	1	pc.



### Roller cutter for PP pipes REMS RAS P

GROUP: K

Range [mm]	*	Code		UM
50-100		1933267032	1	pc.



### Stationary welding device

GROUP: K

Range [mm], power [W]	*	Code		UM
63-110, 1600 W		1933267036	1	pc.

Each set includes:

- welding device PZ-125,
- welding machine 1600 W,
- 1933345003 - jaws PZ-125 for pipes Ø 63 mm,
- 1933345002 - jaws PZ-125 for pipes Ø 75 mm,
- 1933345001 - jaws PZ-125 for pipes Ø 90 mm,
- 1933345000 - jaws PZ-125 for pipes Ø 110 mm,
- case.

**Note:**

The set does not include heating sockets!



### KAN-therm welding set

GROUP: K

Range [mm], power [W]	*	Code		UM
16-50, 800 W		1933267078	1	pc.
63-110, 1600 W		1933267079	1	pc.

Each set includes:

- electric welding machine 800 W or 1600 W,
- rack for the welding machine,
- bolt for fastening heating sockets,
- case,
- set of heating inserts 16-50 mm or 63-110 mm.

**Note:**

The set does not include heating sockets for saddle fittings!



### Welding device RITMO PRISMA JIG

GROUP: K

Range [mm]	*	Code		UM
63-125		1933267081	1	pc.

**Note:**

Tool is sold in set with case.





## Welding device SPIDER 125 McElroy

GROUP: K

Range [mm]	*	Code		UM
63-125		1933267082	1	pc.

**Note:**  
Tool is sold in set with case.



## Bolt for heating sockets - service part

GROUP: K

	*	Code		UM
	*	1933267037	1	pc.



## Heating sockets for saddle fittings

GROUP: K

Size [mm]	*	Code		UM
40	**	1933267004	1	pc.
50	**	1933267005	1	pc.
63	**	1933267006	1	pc.
75	**	1933267007	1	pc.
90	**	1933267008	1	pc.
110	**	1933267002	1	pc.

**Note:**  
The set includes a female and male socket and a mounting bolt (Allen).  
Heating sockets for saddle fittings are not included in heating sets: 1933267078, 1933267079.



## Drill bit for mounting saddle fittings

GROUP: K

Size [mm]	*	Code		UM
25		1933267038	1	pc.



## Heating sockets

GROUP: K

Size [mm]	*	Code		UM
16		1933267011	1	pc.
20		1933267013	1	pc.
25		1933267015	1	pc.
32		1933267017	1	pc.
40		1933267019	1	pc.
50		1933267021	1	pc.
63		1933267023	1	pc.
75		1933267025	1	pc.
90		1933267027	1	pc.
110		1933267009	1	pc.

**Note:**  
The heating sockets are intended for electric welding machines.

coil bar pipes in tube bag carton box pallet **N** new available soon

\* custom-made - lead time max 4 weeks | \*\* availability as agreed | \*\*\* while stock lasts



Install your **future**

## THE PRODUCTS WITH THE LABEL KAN-therm ARE DISTRIBUTED TO 67 COUNTRIES IN THE WORLD.

The distribution network covers Europe, a large part of Asia and also reaches Africa and America.



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