

RADOPRESS



Distribution of sanitary & drinking water and radiator heating

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PIPELIFE 
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Multilayer composite Radopress pipes from Pipelife are filling the gap between steel and plastic pipes, setting new standards for the distribution of hygienic hot and cold water. The embedded aluminium layer within our Radopress pipes helps to make them incredibly resilient against temperature changes, pressure stroke loading, torsion and tension. This results in a long service life of not just our pipes, but the whole housing applications as well.

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1. INTRODUCTION

Pipelife RADOPRESS is a universal pipe system applicable in all water pressure pipe systems

- domestic hot and cold water
- radiator heating

Advantages of the Pipelife RADOPRESS system:

- one system for hot and cold water and heating
- quick and economic installation
- permanently leak-proof connection
- flexible, but formstable pipe system
- simple control of connection through inspection windows
- corrosion resistant and free of incrustation
- 100% free of oxygen diffusion
- excellent chemical resistance
- low longitudinal thermal expansion
- professional installation tools
- wide fitting assortment
- applicable both for renovation of old systems and installation of new systems
- international experience for many years

The quality of the Pipelife RADOPRESS system is warranted by the following:

- experienced employees
- modern production equipment

- strict process and final product quality control

The Radopress system consists of **PEX/AL/PEX** or **PERT/AL/PERT** multilayer pipes, fittings made of brass (free of zinc precipitation) PPSU (polyphenylsulphone) and a wide range of accessories.

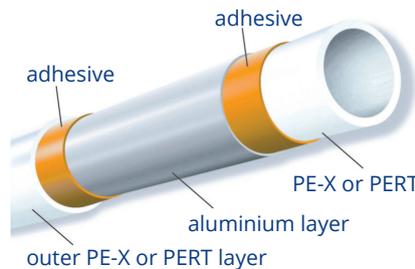
2. RADOPRESS PIPES

The different pipe types enable the selection of a system most suitable for the application.

The structure of the RADOPRESS five-layer metal (M type) pipe consists of

- PE-X or PERT inner layer
- adhesive layer
- aluminium pipe produced by longitudinal edge welding
- adhesive layer
- PE-X or PERT outer layer

Properties of the RADOPRESS pipes



The multilayer RADOPRESS pipe combines

- the beneficial properties of plastic, like corrosion resistance, flexibility, good stress corrosion resistance, or chemical resistance, and
- the properties of aluminium: high thermal and pressure resistance, form stability, oxygen tightness, and low longitudinal thermal expansion

2.1. Thermal and pressure resistance, operating conditions of RADOPRESS pipes

RADOPRESS is an "M" type multilayer pipe system fulfilling the criteria of the application classes 1, 2, 4 and 5 within the application classes determined in the standard EN ISO 21003-1. Maximum operating pressure of the pipe system is 10 bars.

The following table shows how the minimum expected lifetime of 50 years is distributed at the individual accumulated design temperatures for the different application classes according to the standard.

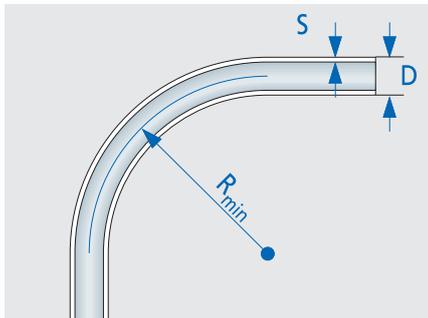
Classifications of service conditions according to EN ISO 21003-1							
Application class	Design temperature TD°C	Time b at TD- years	Tmax°C	Time at Tmax-years	Tmal°C	Time at mal-hours	Typical field of application
1	60	49	80	1	95	100	Hot water supply (60°C)
2	70	49	80	1	95	100	Hot water supply (70°C)
4	20 plus cumulative 40 plus cumulative 60	2,5 20 25	70	2,5	100	100	Underfloor heating and low temperature radiators
5	20 plus cumulative 60 plus cumulative 80	14 25 10	90	1	100	100	High temperature radiators
Overall design time period is 50 years.							
Note	For values of TD, TMax, Tmal excess of those in the table, this standard does not apply.						

2.2. Bending RADOPRESS pipes

The multilayer RADOPRESS pipes can be easily bent, in case of smaller diameters by hand (5xD; D – outer pipe diameter) or with bending spring (3.5xD). In this way, time and fittings can be saved.

To use of the inner bending spring: insert the spring into the pipe, bend the pipe by hand in the desired radius. Finally pull the spring out from the pipe. To use of the outer bending spring, insert the pipe into the bending spring, bend the pipe by hand, then push the spring onward to the next bending point. After finishing the bending operations, push the spring to the end of the pipe and remove it.

Smallest bending radius of the pipe
 $R_{min} = 3.5xD$



2.3. Other properties of RADOPRESS pipes

The multilayer RADOPRESS pipes do not only have high corrosion resistance and pressure resistance but also perform very well in terms of hygienic and toxicologic aspects. As the multilayer pipe furthermore transmits no light, cilia growth is reliably prohibited. For free installation in buildings, the outer layer is sufficiently stabilized against the UV light. Radopress pipes cannot be exposed to direct sunlight for a longer time period.

2.4. Dimensions of RADOPRESS pipes

The multilayer RADOPRESS pipes are delivered in the following dimensions:

D16x2,0 mm	D18x2,0 mm	D20x2,0 mm	D26x3,0 mm
D32x3,0 mm	D40x3,5 mm	D50x4,0 mm	D63x4,5 mm

The pipes D16 to 32 are delivered in coils or alternatively on request in bars. DN40 to 63 only in bars.

2.5. Pre-insulated RADOPRESS pipes

Pipes with the diameters D16, D18, D20, D26 and D32 are available also with 6 mm thermal insulation, in pre-insulated version, in red and blue color. Coil length is 50 m. The extruded PE foam insulating layer prevents condensation on normal cold water pipes and absorbs length changes due to temperature differences of pipes built into walls (being protective tube and insulation simultaneously in this case).

Advantages of RADOPRESS pipes

The multilayer Pipelife RADOPRESS pipes combine the advantages of plastic and metal pipes and offer numerous advantages: perfect corrosion resistance, flexible, but form stable, fast installation. Moreover, directly in the course of the heating connection, many advantages are offered. There is no more time consuming additional painting of connecting places and heating body connection. In addition, the multilayer pipe efficiently decreases transfer of noise and media streaming and pump noise, providing thus noticeable, and gentle warmth.

2.6. Longitudinal thermal expansion

Even at high temperatures, Pipelife RADOPRESS pipes only have a slight thermal expansion due to the aluminum layer. The thermal

expansion expected in operation can, among others, be read from the diagrams seen below or calculated using the following equation

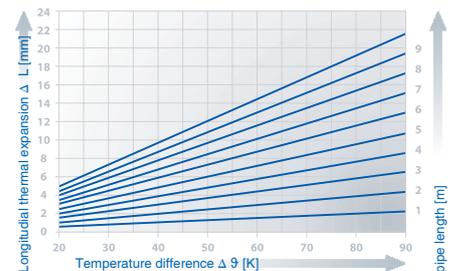
$$\Delta l = \alpha \cdot l \cdot \Delta \vartheta$$

- α coefficient of linear thermal expansion [mm/mK]
- l pipe length [m]
- $\Delta \vartheta$ change of operating temperature [K]
- Δl change of length [mm]

The coefficient of linear thermal expansion of the multilayer Pipelife RADOPRESS pipes is comparable with the one of steel pipes:

$$\alpha = 0.024 \text{ mm/mK.}$$

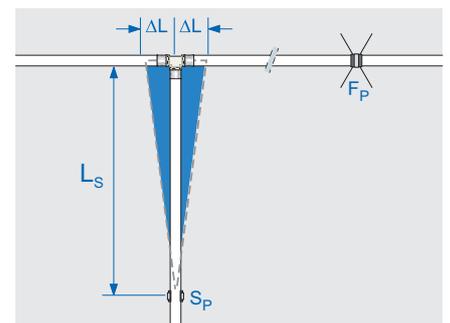
Figure – longitudinal thermal expansion of multi-layer RADOPRESS pipes

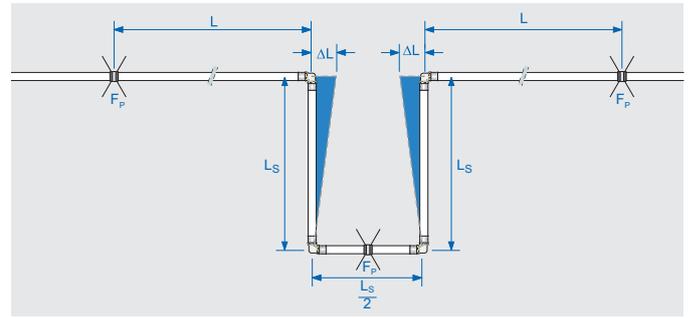
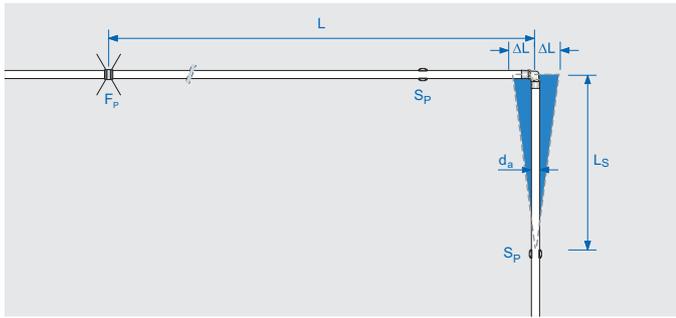


Examples for use of fixed and gliding clamping for surface-mounted installation

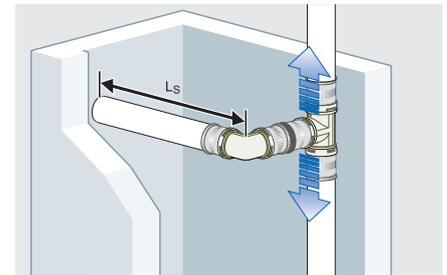
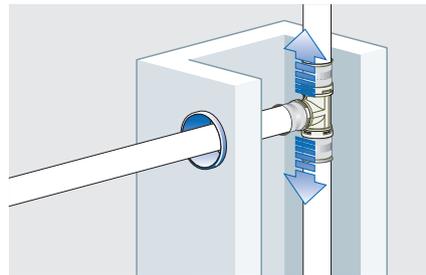
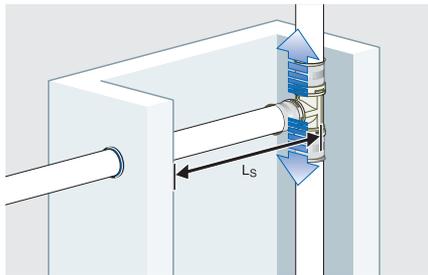
$$L_S = k \times \sqrt{d_a \times \Delta L}$$

- k material constant (= 33)
- d_a outer diameter [mm]
- F_P fixed clamping
- S_P gliding clamping
- L length of expanding pipe section [mm]
- ΔL change of length [mm]
- L_S length of section absorbing expansion [mm]





Compensation of length change at riser branches



2.7. Technical specifications of RADOPRESS pipes

RADOPRESS pipe technical data – type PE-X/Al/PE-X								
Pipe dimension [mm]	16x2,0	18x2,0	20x2,0	26x3,0	32x3,0	40x3,5	50x4,0	63x4,5
Outer diameter [mm]	16	18	20	26	32	40	50	63
Wall thickness [mm]	2	2	2	3	3	3,5	4,0	4,5
Inner diameter [mm]	12	14	16	20	26	33	42	54
Weight [g/m]	103	140	143	243	393	580	880	1320
Weight with water [g/m]	216	297	344	557	924	1436	2265	3610
Volume [l/m]	0,113	0,157	0,201	0,314	0,531	0,855	1,385	2,29
Thermal conductivity (medium value) [W/mK]	0,43	0,43	0,43	0,43	0,43	0,43	0,43	0,43
Thermal expansion coefficient [mm/mK]	0,024	0,024	0,024	0,024	0,024	0,024	0,024	0,024
Surface roughness (inner pipe) [μm]	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5
Oxygen diffusion [mg/l/d]	0	0	0	0	0	0	0	0
Max. operating temperature [°C]	70	70	70	70	70	70	70	70
Short-term max. operating temperature [°C]	95	95	95	95	95	95	95	95
Max. operating pressure (at 70°C) [bar]	10	10	10	10	10	10	10	10
Short-term max. pressure (at 95°C) [bar]	10	10	10	10	10	10	10	10
Bend radius at free bending	5xD	5xD	5xD	5xD	5xD	(5xD)	(5xD)	(5xD)
Bend radius with bending tools	3,5xD							

3. RADOPRESS FITTINGS

A wide assortment of fittings made of brass or PPSU plastic is available.

The brass fittings are made of a non corrosive alloy, free of zinc precipitation, representing a solution for all installation circumstances.

The plastic fittings are made of PPSU (polyphenylsulphone) with very good thermal and pressure resistance. The fittings made of plastic can be recommended as alternative if the elements do not contain threads.



Brass fittings



PPSU fittings



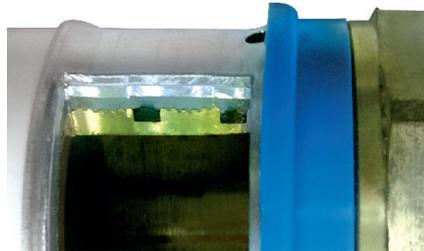
Separated fitting parts

The pipe ends are fastened by pressing (TH pressing profile) on the fitting body. The maximum pressing force is 100 kN. The perfect and safe tightness of the connections is ensured by O-rings. The RADOPRESS fittings are absolutely leak-free. The fittings can be used both inside concrete layer (protected by pipe insulating material) and over concrete layer. Exceptions to this are connection fittings with inner thread for connection to other systems – their use is recommended over concrete layer only. These fittings cannot be connected with conical thread. Through the inspection hole, it is easy to check if the pipe end is perfectly inserted into the fitting. The RADOPRESS fittings are not sensitive to temperature changes, pressure shocks, torsion and tensile stresses. All fittings are available in the entire size range between D16 and D63.

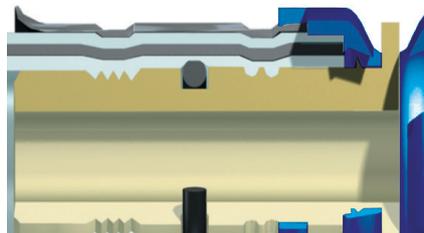
As parts of the system, also the fittings fulfil the conditions specified in the standard EN ISO 21003-1 (see page 3).

Advantages of RADOPRESS fittings

- sophisticated, versatile product range
- the same fitting system can be used for heating and domestic hot water supply systems
- fast, simple and safe installation
- visual checkability before and after pressing
- protection against electrochemical corrosion
- thanks to the design of the fittings, the most common installation failures (incorrect insertion of the fitting between the pressing jaws) can be prevented



Cross-section of the PPSU fitting



Cross-section of the brass fitting

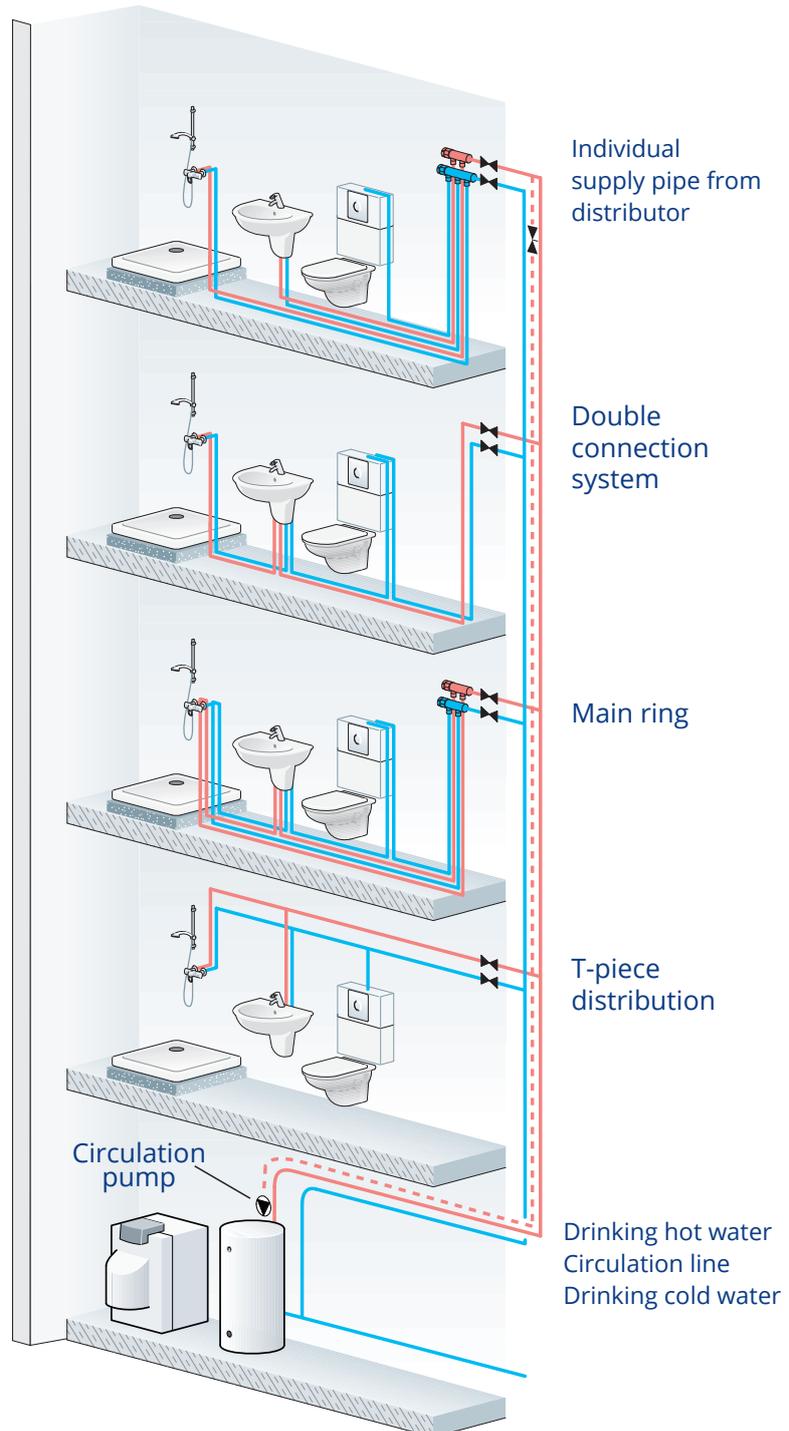
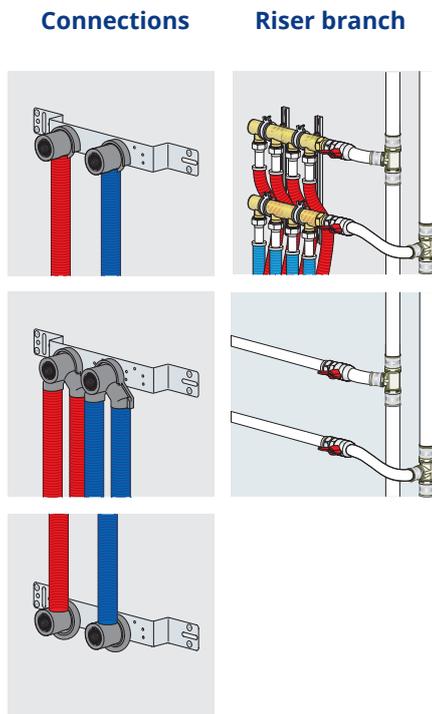
4. DRINKING WATER AND HOT WATER LINES

The system of sanitary distribution is fast and safe. Especially the high installation speed significantly compensates slightly higher component prices in comparison with purely plastic PP-R solutions or purely steel systems made of zinc-coated steel. However, safety and flexibility of the RADOPRESS system are much higher.

Principle of water distribution

The RADOPRESS system can be used for the distribution of drinking and sanitary water, in a common way, using T-pieces, with serial installation using double wall pieces or with a technique making use of a manifold installation. To ensure the required water

temperature even at the last point of the system, a so called circulation line is used, that runs parallel with hot water line and equipped with circulation pump. Having the necessary temperature (60°C) in the pipe, unwanted legionella bacteria will not be able to survive. For compensating dilatation movements and avoiding vapour condensation pre-insulated pipes or insulating tubes could be used. Wallpiece connections are available in both single and double designs



To improve the protection against noise (and prevent condensation), armature connections can be equipped with antinoise protection elements.



Tab elbow - short



Tab elbow - long



Tab elbow - flow-through



Pre-mounted tab elbows (with 3 positions)



Sound insulating cover for tab elbow



Tab elbow with external thread

4.1. Thermal insulation of the pipes

- Inner water conduit piping cannot be conducted through spaces where, under normal operation, the temperature falls below 5°C, if the distribution is not treated against the effects of temperature decreasing (by e.g. insulation).
- Cold water piping (conducted freely, placed in slots in installation channels etc.) must be protected against dewing.
- Freely conducted cold water piping in warm or heated surroundings, conducted in parallel to heating distribution or warm and circulation water distribution, must be protected against temperature increasing (by e.g. insulation).
- Parallel piping of cold drinking water and warm water must be insulated against heat, thus preventing reproducing of undesirable bacteria.
- Hot water piping and circulation piping with forced water circulation must be thermally insulated against heat losses and linear thermal expansion, in agreement with the requirements of valid standards.
- For insulation various materials

can be used such as foam, foamed polystyrene, mineral fiberglass or insulations based on foamed PE, PP or PUR.

- Insulation tubes must be mounted with a pre-stress, according to manufacturer's instructions, because natural shrinkage must be expected in longitudinal direction in foamed materials.
- PE, PP or PUR foam, mineral or glass fibre insulating materials can be used. The insulating material layer must have a minimum thickness of 4 mm for warm water and 10 mm for cold water.

4.2. Pressure test

- After finishing the assembly, the inner water conduit must be, still prior to connection to public water conduit or own water source, inspected and subjected to pressure tests. A record is made about the inspection and pressure test, in compliance with appropriate instructions.
- During testing the piping, the pressure resistance and water tightness of the entire system must be checked.
- Before the pressure test, all of the

inner water conduit must be rinsed with water and, simultaneously, discharged in the lowest point.

- The pressure test shall be performed after installation of all the accessories, fittings, meters and other devices (taps in the water network, safety fittings, pumps, radiators etc.).
- The indoor water pipes must be tested at room temperature (23 + 2°C or below) and 1.5 times the operating pressure but not higher than 15 bars. The pressure test must be performed in two phases
- First, pressurizing the pipe for 10 minutes, then depressurizing. After 10 minutes, repeating the test for another 10 minutes, and depressurizing again. Finally, application of the test pressure for 30 minutes. The pressure drop must not be higher than 0.6 bar/5 minutes.
- In the second phase (immediately after finishing the first one) application of the test pressure. After two hours, the pressure drop must not be higher than 0.2 bar.

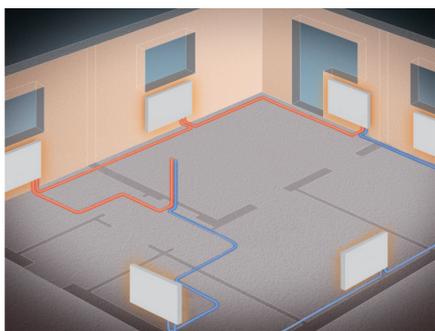
5. RADIATOR HEATING

The range of RADOPRESS products practically covers all segments of the heating systems. The extensive product range offered by the RADOPRESS system enables excellent technical and economical solutions for most connection types.

5.1. Connection types

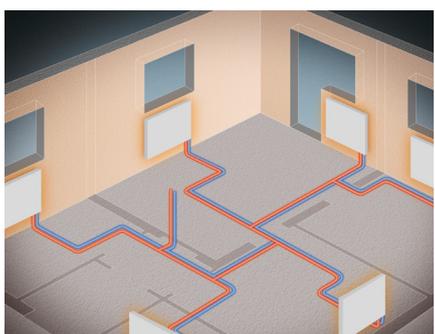
One-pipe system

The simplest way of radiator installation is a single pipe system. Because of the serial connection heat distribution is not even between the radiators, but becomes less and less towards the end of the system. Resistance of all elements of the system is cumulating which requires a high pump flow and pressure.



Double-pipe system

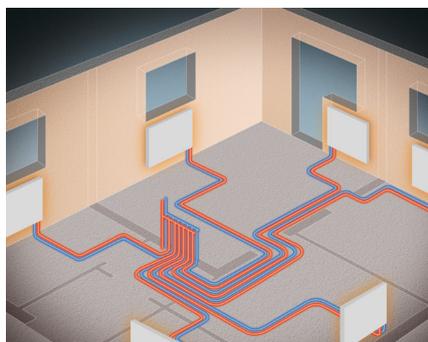
Our RADOPRESS system with multilayer pipes is the most suitable for the double-pipe system installation, without a heating circuit central manifold. A wide range of dimensions D16 to D63, as well as our extensive fitting assortment enables fast, safe and trouble-free double-pipe system performance.



Do not perform the connection of heating bodies, manifolds and collectors directly in straight lines. To retain linear expansion, the pipes should be placed in the distance of approx. 1.5 m from a heating body, in the angle of 90°. This way the pipe system will absorb the linear expansion.

Manifold system

To connect the radiators, pipes of the size D16 are generally sufficient. In case of radiators with extremely high thermal performance and high temperature gradient, pipes with higher diameters may be necessary.



The heating manifolds are preassembled in the factory. The heating pipes are connected to the manifold by Eurocone connectors.



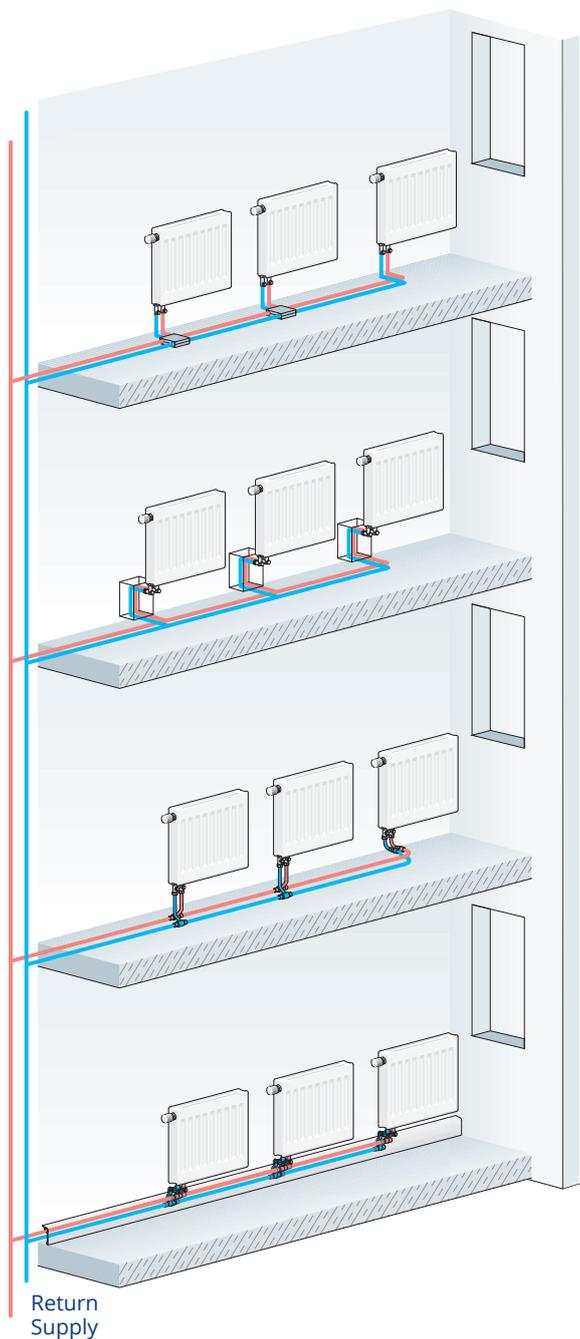
Manifold



Eurocone connectors

5.2. Connection to the radiator

In the RADOPRESS system, numerous radiator connection types are available.

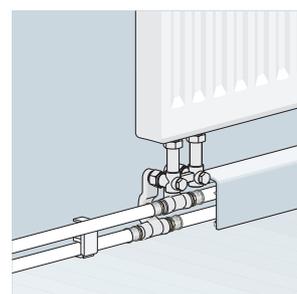
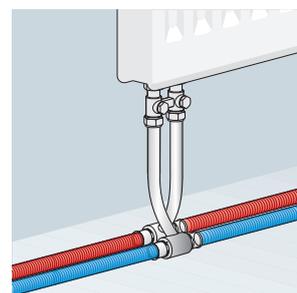
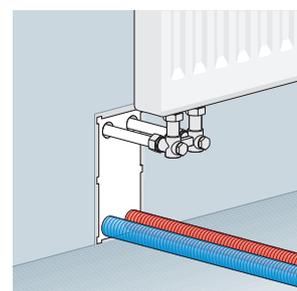
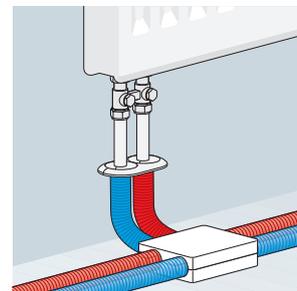


Radiator connection via crossing T-pieces

Radiator connection with connection box

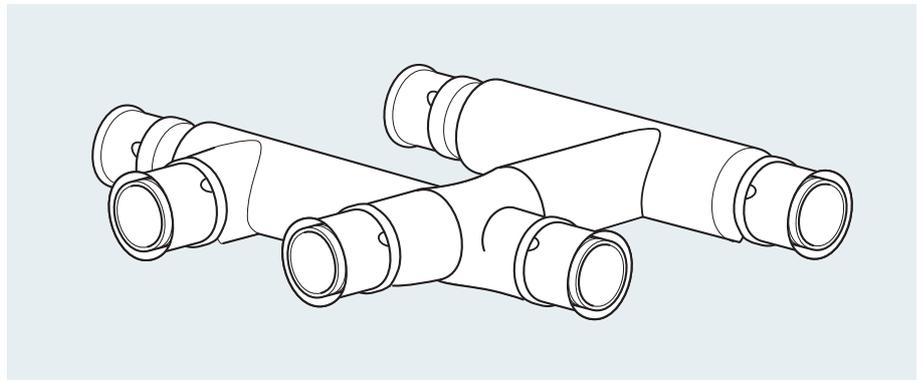
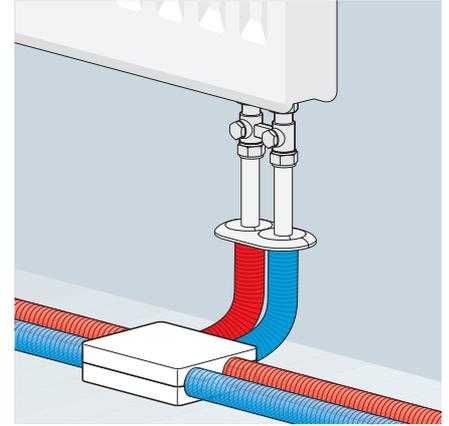
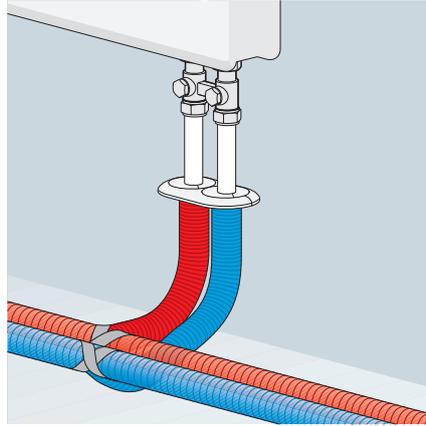
Radiator connection with radiator T-pieces

Radiator connection in the base board



Direct pipe connection

The direct pipe connection with a binder screw is considered the simplest and most favorable way of heating body connection. In the system of multilayer RADOPRESS pipes, the pipes are bent mostly with a bending spring in appropriate radius and connected to the heating body. In case of limited height of the upper concrete layer the radiator connection can be done by using non crossing t-pieces.



Connection sets

If the radiators are connected from the floor or the wall, also chromium-plated RADOPRESS connecting bends and T-pieces can be used. The multilayer pipes are connected to the fitting as pressed connection. For the straight outgoing pipes, T-pieces, and for the last radiator, a connection bend should be used. The bends and T-pieces are 300 and 1100 mm long to allow connections to the valves both at the top and the bottom of the radiators. The connecting fittings shall be installed in a way to prevent displacement due to thermal expansion of the piping. Expansion bends shall be formed also in the straight pipe sections that can compensate the longitudinal thermal expansion.



Radiator connecting elbow



Radiator connecting T-piece



Assembly with radiator connecting elbow fittings



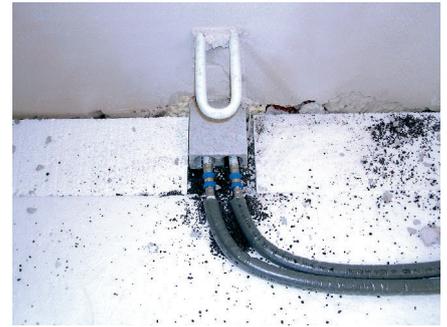
Assembly with radiator connecting T-pieces

Radiator connection box

The premature installation of the radiators due to the pressure test can cause various problems in many cases. The radiators must be, because of concreting and painting work, dismantled and temporarily stored, often leading to damage of the devices. In case of bottom-connected radiators, the radiators can be installed after the painting work by means of the Pipelife RADOPRESS connection box (RP-BOX).

Use of the connection box

1. Stem the space for the junction box into the wall.
2. Fix it in its position with PU foam or model plaster.
3. After plastering, remove the protection element from the bottom connecting ends.
4. Calibrate the so exposed pipe ends, and connect the pipes by pressing joint.
5. After the successful tightness test of the piping, cut the upper loop to the desired size and connect it to the radiator.



Baseboard connector

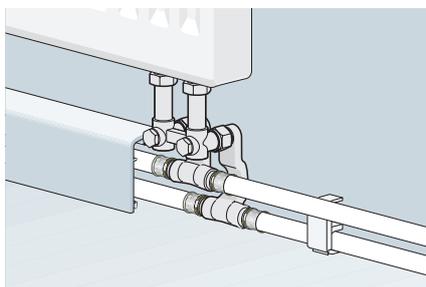
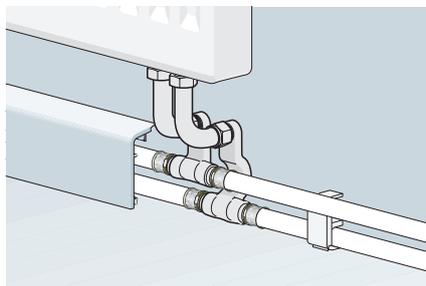
Should the radiator connection and the piping be placed in the border running along the wall (generally in case of renovations when there is no subsequent possibility to lead the pipes in the floor), a wall border connector is used.

For connecting to the radiator, two different connecting bends are available:

- simple chromium-plated short connecting bend
- or its version with throttle. Both are provided with a gland screw joint for connection to the fitting (for connecting to the valve, a separate Eurocone connector is necessary).

concreting or masonry work. The test pressure is 1.3 times the operating pressure but not less than the operating pressure + 1 bar.

The duration of the pressure test is 24 hours. The maximum permissible pressure drop is 0.2 bar. In case of systems filled with cold water, the risk of frost must be taken into account.



5.3. Pressure test

The pressure test of the radiator heating system must be performed after the assembly but before the



Wall border connector



Connecting bend for wall border connector



Connecting bend with throttle for wall border connector

6. REGULATION OF THE HEATING

Every heating system requires an accurate and well functioning control system, by which an appropriate feeling of comfort and energy efficient operation can be achieved. Various solutions are available to control radiator heating.

6.1. Boiler control by room thermostat

The function (switching on and off) of the entire heating system is controlled by a thermostat placed in the living room.

In this case, the thermostat is directly connected to the boiler, and the boiler is controlled by the thermostat depending on the temperature setting. To prevent over- or underheating of the other rooms, thermo heads are used on the radiators, which, upon setting the right level, keep the temperature next to the desired value in the rooms during operation of the boiler.

Besides the simplicity and favourable price, its disadvantage is that the heating is functioning exclusively based on the demand of the thermostat in the living room.

For a more energy-efficient function, the boiler can be controlled also by a programmable room thermostat. In the rooms not used during the day, a lower temperature can be kept, and until a warmer temperature is needed again, the program increases the temperature in due time. The same principle can be followed to decrease the temperature at night. This is not only economical but also healthy. Some room thermostats are also available in wireless (radio frequency – RF) version.

Typically in community rooms, it is possible to use thermostats where the temperature cannot be adjusted by unauthorised persons. These

thermostats have a fixed cover to hide the controls.

Room thermostats with control feature:

- electronic room thermostat (with dial)
- electronic room thermostat with LCD screen
- programmable room thermostat (weekly program)
- electronic room thermostat with cover to prevent unauthorised adjustment
- RF room thermostat with LCD screen
- RF programmable room thermostat (weekly program) with receiver (accessory)
- RF receiver for other wireless tasks (e.g. also to control a 230 V valve actuator)

6.2. Independent room temperature control

The radiators are connected to a manifold equipped with valves able to receive thermoelectric valve actuators. All rooms are fitted with an individual room thermostat performing opening and closing the circuits using the junction box and the valve actuators.

Once a circuit opens, the junction box gives a start signal to the boiler and (if necessary, separately) to the pump. When closing the last circuit, the boiler and the pump are stopped. This unit can be completed with a program controller that keeps the comfort (upper) or reduced (lower) temperature based on the selected factory or own inserted program.

For this control option, both a wired 230 V and a wireless (radio frequency – RF) version are available.

In the wired system, the rooms can follow, depending on the connection, a program “A” or “B”. In the wireless system, every room can follow an individual program as desired.

If also a program controller is used with the junction box, no programmable room thermostats are needed, only the simpler ones without program as the program is provided by the controller. Moreover, this assembly is much cheaper than using a programmable thermostat in every room.

Wired (230 V) elements with control feature:

- electronic room thermostat (with dial)
- electronic room thermostat with LCD screen
- junction box “Master”
- junction box extender
- program controller
- thermoelectric valve actuator (230 V)

Wireless (RF) elements with control feature:

- RF room thermostat with LCD screen,
- RF junction box “Master”, with RF program controller, (the program controller is accessory here),
- RF junction box extender,
- thermoelectric valve actuator (230 V)

6.3. Description of control elements

Valve actuator

The thermoelectric valve actuator opens or closes the control valves of the heating circuits depending on the heating level set by the user. Using its M30x1.5 thread, it can be mounted directly on the control valves of the manifold. The currently opened or closed position can be seen through a small sight glass. The actuator operated with 230 V, with a 2-core cable is IP54 protected, and is built with approx. 1 m cable, and can be used in ambient temperatures of up to 50°C. It is closed by default.



Electronic room thermostat (with dial)

The room thermostat is used to control the room temperature. Adjustable temperature range: 5 to 30°C. Sensitivity: 0.5 K, noiseless triac switching, to be used at an ambient temperature of max. 50°C. Output power: 15 W, IP protection: 30. Available in simple or 3 mode version.



Electronic room thermostat with LCD display and floor sensor

Electronic room thermostat with 3 detecting methods:

- with room temperature sensor
- with floor temperature sensor
- with room temperature sensor and floor temperature limiter

The floor temperature limitation can be set in the range of 10 to 40°C and is delivered with a 3 m cable.

Adjustable temperature range: 5 to 30°C. Sensitivity: 0.5 K, noiseless triac switching, to be used at an ambient temperature of max. 50°C. Output power: 15 W, IP protection: 30. Normal, reduced or timer modes. (Only for heating)



Room thermostat with weekly program

Electronic thermostat that can be programmed separately for each day of the week, with LCD screen, 3 x 1.5 V (AA) batteries and low battery display. Adjustable temperature range: 5 to 35°C. Normal and reduced mode. 9 selectable basic programs, 4 user defined programs, antifreeze mode, holiday mode, code protection, reset function. Output signal: 8 A – 50 V AC, IP protection: 30.



Electronic Room Thermostat with cover preventing unauthorised adjustment

A closed panel protects the front plate of the thermostat from unauthorised access. Electronic room thermostat with 3 detecting methods:

- with room temperature sensor
- with floor temperature sensor
- with room temperature sensor and floor temperature limiter

The floor temperature limitation can be set in the range of 10 to 40°C and is delivered with a 3 m cable. Adjustable temperature range: 5 to 30°C. Sensitivity: 0.5 K, noiseless triac switching, to be used in an ambient temperature of max. 50°C. Output power: 15 W, IP protection: 30. Normal, reduced or timer modes (only for heating).



Connecting box Master

It provides connection between the different control elements (thermostat, valve actuator or controller). Proportional integral regulation. It controls 6 zones altogether with up to 2 valve actuators per zone. 6 additional zones can be added as an extension. The box should be mounted on the wall, near the manifold. To be used in an ambient temperature of max. 50°C, having IP30 protection, pump relay output (to control switching on and off the pump): 8 A.



Connecting box extender

To be used together with the Master junction box with single-handed attachment. It controls 6 zones altogether with up to 2 valve actuators per zone. To be used in an ambient temperature of max. 50°C, having IP30 protection.



Program controller

To be used together with the Master junction box. Allows complex multi-channel programming. Using this unit means you can choose the simplest of thermostats as most of the functions are provided by the controller. 7-day programming capability, autonomous power source for 3 hours in case of power outage. To be used in an ambient temperature of max. 50°C, having IP30 protection. The program set on the controller overrides the program set on the room thermostat (if suitable).



Wireless (RF) control elements

As radio frequency thermostats and control elements do not require any cables between the room thermostat and the controller/junction box, they can be freely installed anywhere (respecting the rules of positioning) even in a later phase. Each room thermostat communicates with the RF junction box/controller at a different frequency. Their range is approx. 50 m (in open space) and they receive signals through an antenna. They are triggered by the radio signal coming from the thermostat to open or close the valve actuators (or to start or stop the pump) that are cable connected (similarly to wired versions) so they also have to be installed near the manifold.

Wireless room thermostat with LCD display

Adjustable temperature range: 5 to 30°C. Sensitivity: 0.3 K, to be used in an ambient temperature of max. 50°C. Range: 50 m (in open space), frequency: 433 MHz. Works with 2 AAA batteries. (For heating and cooling).



Wireless room thermostat with weekly program

Electronic thermostat that can be programmed separately for each day of the week, with LCD screen, 3 x 1.5 V (AA) batteries and low battery display. Adjustable temperature range: 5 to 35°C. Normal and reduced mode. 9 selectable basic programs, 4 user defined programs, antifreeze mode, holiday mode, code protection, reset function. Output signal: 8 A – 50 V AC, IP protection: 30. Range: 40m (in open space), frequency: 433 MHz. Delivered with RF receiver.



Wireless connecting box Master with wireless controller

It controls 6 zones altogether with up to 2 valve actuators per zone but for a thermostat input, up to 12 valve actuator outputs can be programmed. Proportional integral regulation. 6 additional zones can be added as an extension. The box should be mounted on the wall, near the manifold. To be used in an ambient temperature of max. 50°C, having IP30 protection, pump relay output (to control switching on and off the pump): 8 A. The radio signal is received by a controller with external antenna. Radio frequency controller that can be programmed separately for each day of the week. Easy radio and program setup with the two-coloured LCD display, with autonomous power source for 3 hours. Adjustable temperature range: 5 to 35°C. Normal and reduced mode. 9 selectable basic programs, 12 user defined programs, antifreeze mode, holiday mode, code protection, reset function. Output signal: 8 A – 50 V AC, IP protection: 30. Frequency: 433 MHz, open space range: 50m.



Wireless connecting box extender

Only to be used together with the RF Master + controller. It controls 6 zones altogether with up to 2 valve actuators per zone. To be used in an ambient temperature of max. 50°C, having IP30 protection.

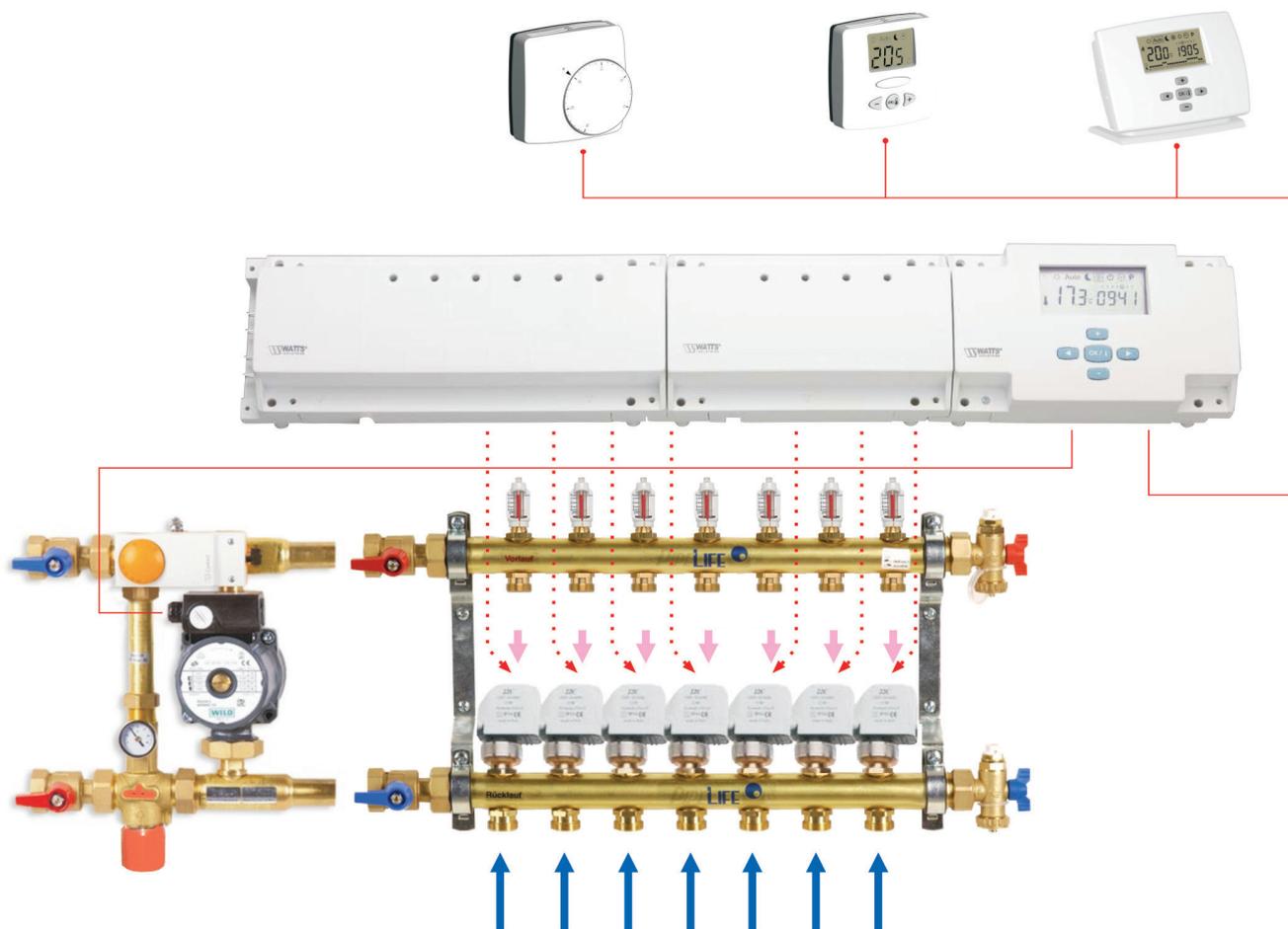


Wireless receiver

Can be used with any RF room thermostats. Wired devices can be switched or started by the radio signal (e.g. boiler, valve actuator). Several RF receivers can be operated with one RF room thermostat. Automatic/manual mode and radio setting. Output signal: 13 A, protection: IP44, frequency: 433 MHz.



6.4. Function of the control



The room thermostat sends signals for switching on and off to the Master junction box and the extender depending on the temperature. The junction box opens or closes the valve actuators and starts or stops the pump (also in the boiler) and the gas burner of the boiler if necessary. On the controller connected to the junction boxes, the switching on and off signals can be set (timed) for any period of the day and the week.

So it may happen that the room thermostat sends a signal to open the corresponding valve actuator due to the set temperature but the program, knowing that nobody is at home currently during the day, “overrides” the sent signal according to the entered program, so the valve actuator will not open.

The same happens in the afternoon: the heating can be restarted according to the set program, so the controller lets the signal of the room thermostat pass to the valve actuator, and until the residents are back at home, the heating is running again.

7. TOOLS

To install our products we offer the appropriate tools in top quality.

The RADOPRESS pressing tools are available in three versions.

The most frequently used tool is the **battery press**. It is compact, portable and lightweight, it presses between Ø16 to 63. Power supply is provided by a battery; the device weighs only 4.5 kg so it can be used anywhere. The pressing jaws can be turned by 180° so the device can be used also in areas of obstructed access. Depending on the size of the pressing jaw, 150 pressings can be done with one battery charge on average, independently from the electrical network. After the booming sound signalling the finish of the pressing, the device automatically resets, and the jaws can be manually opened. This device is delivered in a metal case with charger and battery. There is room in the case for a reserve battery and also for smaller pressing jaws.

Wired (230 V), electrohydraulic press to form pressed connections with the diameter of 10 to 108 mm. This device weighing 4.8 kg is also delivered in a metal case that offers room for the pressing jaws.

Manual pressing tool to form small (D16 – 26) pressed connections. The tool weighs with the handles merely 1.6 kg. It is compatible with Rems pressing jaws only.

The RADOPRESS **pressing jaws** with TH profile can be used with most presses available on the market. After having the press, make sure that it can be used with the RADOPRESS pressing jaws. The pressing jaws are available in the following sizes: D16, D18, D20, D26, D32, D40, D50, and D63.

Plastic case for pressing jaws. Available in 4 and 5 compartment versions.

Separate **calibrating unit** for every size from D16 to 63 mm. The tool can be used as manual calibrating device or, after removing the handle, clamped also in a drill chuck. For manual calibration, a ratchet handle is available.

Three-armed calibrating unit for sizes D16, 20, 26 mm. Its ergonomic design ensures good grip during work.

Professional pipe cutter up to D26 mm. Thanks to the extremely sharp, replaceable blade and the pipe support, the cut is straight and nearly free of ovality. The rubber stops of the handle help to fix the pipes with smaller diameters during installation.

Outer and inner **bending spring** for bends with the radius of 3.5D (without spring min. 5D) for pipe sizes 16 – 63 mm. For bends near the pipe end (e.g. to form radiator connections), the inner spring, and for bends away from the pipe end, the outer spring should be used.

Tool service

Check the condition of the pressing jaws for cracks and wear regularly. Have the manufacturer check the pressing tools and pressing jaws once a year. The perfect condition of the tools is an indispensable precondition of pressing.



8. INSTALLATION GUIDE

8.1. Making connections

1. Cut the pipes for the desired length, perpendicular to the pipe axis.
2. Insert the calibrating tool with the correct diameter completely into the pipe by turning it clockwise. Calibration of the inner diameter of the pipe, and chamfering the outer and inner edge of the pipe are done in one operation. After finishing the operation, remove any chips from the pipe end. Check the cleanliness of the pipe and the chamfers of the edges (the 15° chamfer must be circumferentially visible).
IMPORTANT: The edge chamfer must be continuous along the entire edge of the pipe to prevent damaging or pushing out the O-ring.
3. Insert the pipe into the fitting until it stops. It can be checked through the inspection holes at the end of the pressing ring if the pipe was inserted until the required depth into the fitting.
4. Place the opened pressing jaw onto the fitting so that it sits onto the plastic ring of the fitting.
WARNING! Perfect pressing is possible by clean pressing jaws free of damages only.
5. Turn on the press. The pressing is successful if the pressing jaws close completely, and a sharp click or bump is audible. The pressed grooves must be continuous on the entire outer circumference of the fitting.
6. Checking the pressing:
 - The pipe must be visible through the inspection gaps on the fitting.
 - On the circumference of the pressing ring, two parallel, concave, curved recesses are visible.
 - Between both recesses, a parallel camber bow is visible.

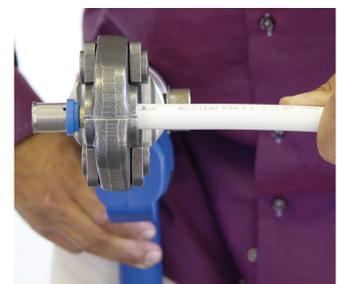
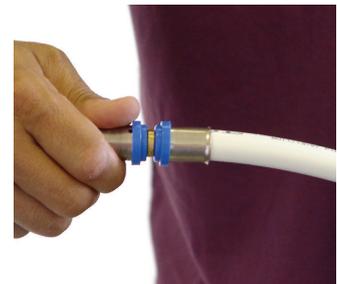
WARNING! - After the pressing ring of the fitting, the pipe must continue with a straight section; the pipe cannot be bent for a distance of at least 1xD after the press fitting.

8.2. Installation temperature

RADOPRESS pipes are well bendable also in the cold, they can be mounted until -5°C. No installation is allowed below -5°C.

8.3. Laying into underground

The pressing joint of the RADOPRESS pipes can be placed also in concrete layer (underground). The pressed joints must be tested before insulation and concreting by pressure test (see Chapter 5.3). After the successful pressure test, the fittings must be wrapped by self-adhesive thermal insulation band. Beyond thermal insulation, this joint also ensures protection of the fitting during concreting. In the underground, not only the fittings but of course also the pipes must be thermally insulated. For this, pre-insulated RADOPRESS pipes are available.



9. CERTIFICATES

The RADOPRESS system has the performance declarations required for construction products (according to the Government Decree 275/2013. (VII. 16.)). The product range also has the ÁNTSZ certificate according to the Government Decree 201/2001. (X. 25.) and the DVGW on products in contact with drinking water. The documents can be downloaded on our webpage. www.pipelife.hu.

10. WARRANTY

According to joint decree No. 11/1985 (VI.22.) of ÉVM-IpM-KM-MÉN-BKM, Pipelife Hungária Műanyagipari Kft. provides a statutory warranty of 10 years on all components of the RADOPRESS WATT system. According to Act X of 1993 on product responsibility, the company recovers damages resulting from justified other defects of any system components for a period of 10 years. This warranty is valid for the homogeneous RADOPRESS system that was constructed using RADOPRESS system components, i.e. exclusively RADOPRESS pipes and fittings, and if the user followed the storage and installation requirements, as well as the relevant technical regulations and standards. To validate this warranty, please send us a copy of the report on the pressure test subsequent to installation, right after it was carried out by fax (+36/52-510-744) or e-mail (radopress@pipelife.com).

11. HANDLING AND STORAGE

- Components of the RADOPRESS system should not be stored outdoors or exposed to continuous direct sunlight and climatic factors.
- System components should be deposited in a storage room, in a dry and dust free environment.
- The system should not be stored together with organic solvents,

products containing solvents or other chemicals, unless inactivity of the stored product (gasoline, oils, chemicals containing sulphur, etc.) is guaranteed.

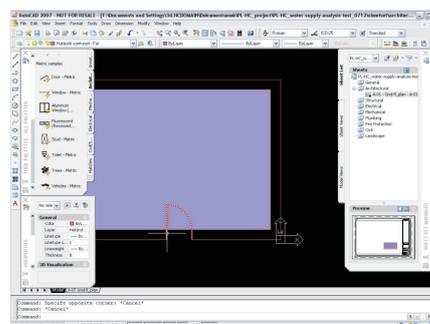
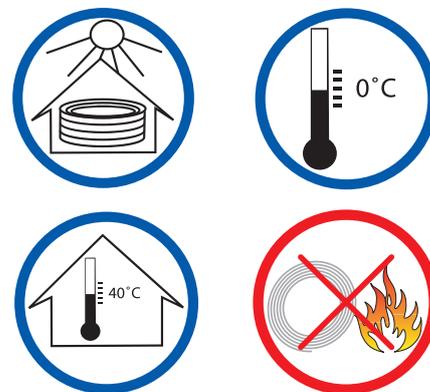
- System components should not be exposed to heat radiation; a minimum distance of 1 m should be guaranteed from radiators with a temperature of 40°C or higher.
- Pipes should be stored in the coils or cardboard boxes used for delivery.
- Storage temperature should not exceed +40°C.
- The pipes should not be placed on sharp supporting surfaces during storage and handling.
- Pipes delivered in bar form should be stored in horizontal position, at least 10 cm above floor level (e.g. on pallets); stack height should not exceed 60 cm.
- Pipes delivered in coils should be stored in horizontal position, at least 10 cm above floor level; a maximum of 10 coils should be stacked on top of one another.
- Be careful not to damage packaging when handling RADOPRESS system components.
- Pipes and other components should not be slid across the floor or touch sharp objects, and components should not be subjected to strong mechanical impacts (shocks, cuts). When taking over the delivery, check the following:
 - Material quantities - accuracy of the data in the documentation
 - Apparent integrity of the goods and packaging
 - Compliance of the specified dimensions

12. DESIGN SUPPORT

Our HVAC consulting centre provides professional support for the RADOPRESS system to be installed.

Our experts are happy to be at your side. Our staff will make a proposal according to your demand and submitted data, and plan the drinking water, domestic hot water and

radiator heating network consisting of RADOPRESS systems. Technical specifications and schematic diagrams are available for all system components. Our designers provide access to the diagram(s) used for calculation as well. If you find this opportunity interesting, do not hesitate to contact our sales representatives or directly our HVAC consulting centre using the following e-mail: radopress@pipelife.com.



TABLES

Are you interested in further technical parameters of the RADOPRESS system?
Here they are!

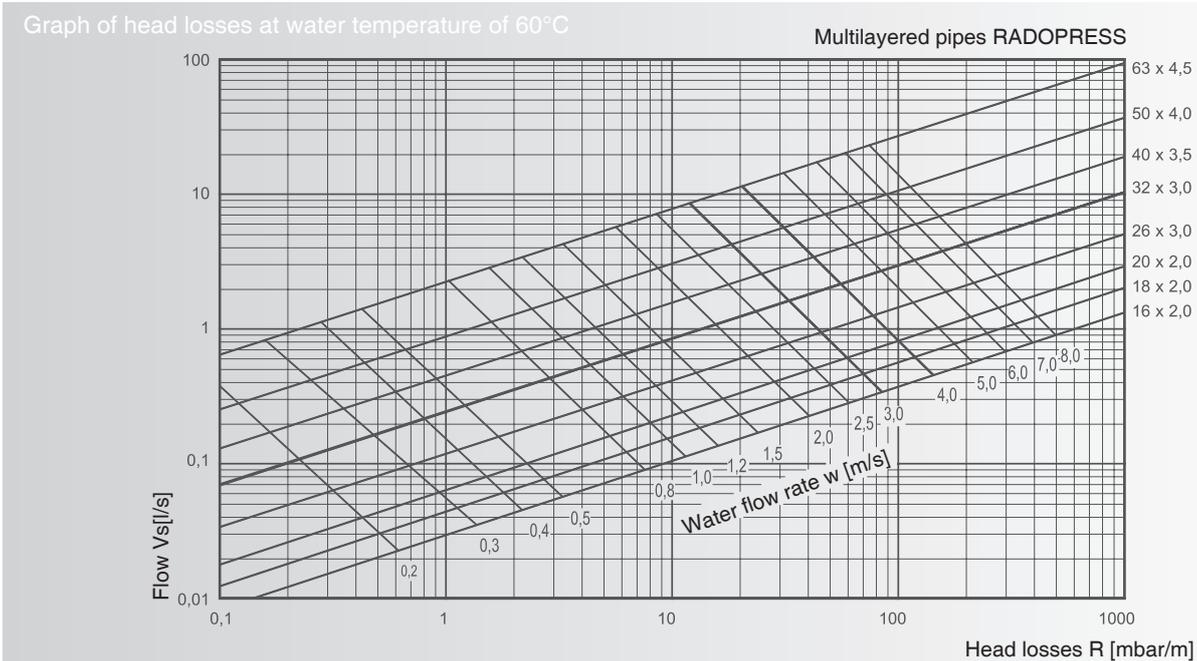
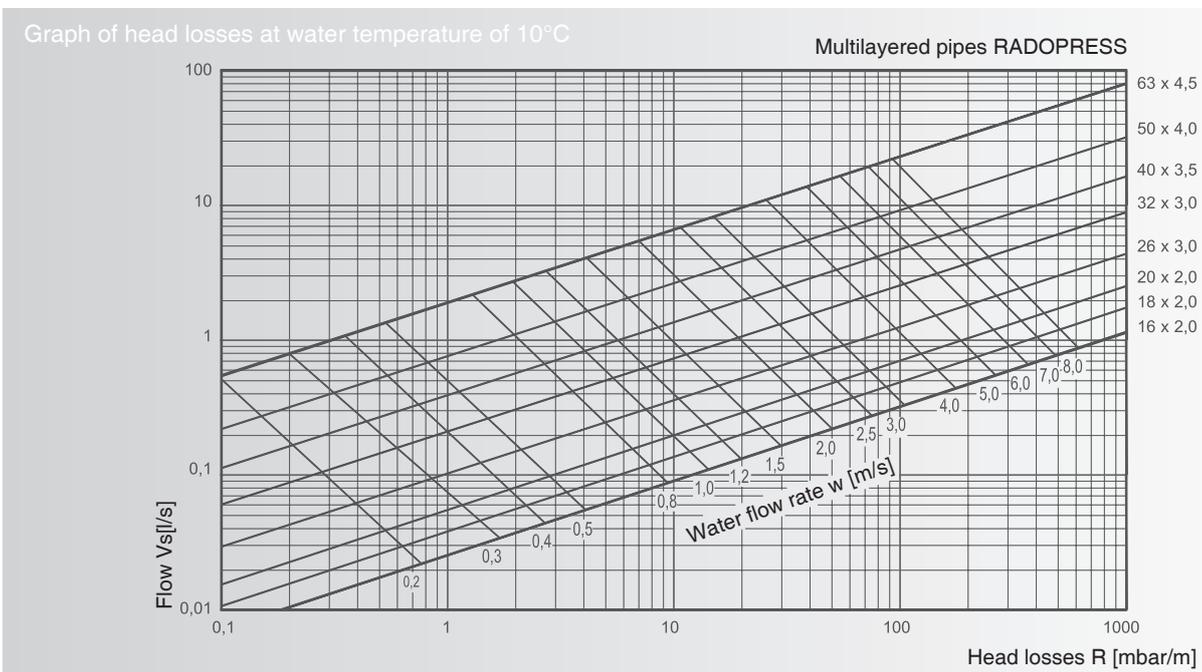
Head losses in pipes

During designing devices, head losses of used modules in relation to flow have to be taken into account. You may read values of head losses for the Radopress multilayer pipes from the diagram.

The basis of head losses specification is a definition of the mass flow rate:

$$m = \frac{Q}{1,163 \times \Delta\vartheta} \text{ [kg / h]}$$

Where Q = heating body output in watts, $\Delta\vartheta$ = temperature difference in Kelvins.



Summary of head losses R in RADOPRESS pipes Installation of drinking and hot water

w	16 x 2,0 mm		20 x 2,0 mm		26 x 3,0 mm		32 x 3,0 mm		40 x 3,5 mm		50 x 4,0 mm		63 x 4,5 mm	
	Vs m/s	R l/s mbar/m	Vs l/s	R mbar/m	Vs l/s	R mbar/m	Vs l/s m	R bar/m	Vs l/s m	R bar/m	Vs l/s	R mbar/m	Vs l/s	R mbar/m
0,10	0,01	0,18	0,02	0,14	0,03	0,10	0,05	0,07	0,09	0,05	0,14	0,04	0,23	0,02
0,15	0,02	0,37	0,03	0,28	0,05	0,20	0,08	0,14	0,13	0,11	0,21	0,08	0,34	0,05
0,20	0,02	0,61	0,04	0,47	0,06	0,33	0,11	0,24	0,17	0,18	0,28	0,13	0,46	0,09
0,25	0,03	0,91	0,05	0,69	0,08	0,49	0,13	0,35	0,21	0,26	0,35	0,19	0,57	0,15
0,30	0,04	1,25	0,05	0,95	0,09	0,67	0,16	0,48	0,26	0,36	0,42	0,27	0,69	0,21
0,35	0,04	1,36	0,06	1,24	0,11	0,88	0,19	0,63	0,30	0,47	0,48	0,36	0,80	0,28
0,40	0,05	2,06	0,07	1,57	0,13	1,11	0,21	0,80	0,34	0,59	0,55	0,44	0,92	0,37
0,45	0,05	2,54	0,08	1,93	0,14	1,37	0,24	0,99	0,38	0,73	0,62	0,54	1,03	0,47
0,50	0,06	3,05	0,09	2,32	0,16	1,64	0,27	1,18	0,43	0,88	0,69	0,65	1,15	0,58
0,55	0,06	3,60	0,10	2,74	0,17	1,94	0,29	1,40	0,47	1,04	0,76	0,77	1,26	0,70
0,60	0,07	4,20	0,11	3,19	0,19	2,26	0,32	1,63	0,51	1,21	0,83	0,89	1,37	0,84
0,65	0,08	4,83	0,12	3,67	0,20	2,60	0,35	1,87	0,56	1,39	0,90	1,03	1,49	0,98
0,70	0,08	5,50	0,13	4,18	0,22	2,96	0,37	2,13	0,60	1,60	0,97	1,17	1,60	1,14
0,75	0,09	6,20	0,14	4,71	0,24	3,34	0,40	2,41	0,64	1,79	1,04	1,32	1,72	1,31
0,80	0,09	6,94	0,15	5,27	0,25	3,74	0,42	2,70	0,68	2,00	1,11	1,48	1,83	1,49
0,85	0,10	7,72	0,15	5,86	0,27	4,16	0,45	3,00	0,73	2,23	1,18	1,65	1,95	1,68
0,90	0,11	8,53	0,16	6,48	0,28	4,60	0,48	3,31	0,77	2,46	1,25	1,80	2,06	1,88
0,95	0,11	9,38	0,17	7,13	0,30	5,06	0,50	3,64	0,81	2,70	1,32	2,00	2,18	2,10
1,00	0,12	10,26	0,18	7,79	0,31	5,53	0,53	3,98	0,86	2,96	1,39	2,19	2,29	2,33
1,10	0,13	12,12	0,20	9,21	0,35	6,53	0,58	4,71	0,94	3,49	1,52	2,58	2,52	2,81
1,20	0,14	14,12	0,22	10,72	0,38	7,61	0,64	5,48	1,03	4,07	1,66	3,01	2,75	3,35
1,30	0,15	16,24	0,24	12,34	0,41	8,75	0,69	6,31	1,11	4,68	1,80	3,46	2,98	3,93
1,40	0,16	18,49	0,25	14,04	0,44	9,97	0,74	7,18	1,20	5,33	1,94	3,94	3,21	4,56
1,50	0,18	20,86	0,27	15,85	0,47	11,24	0,80	8,10	1,28	6,01	2,08	4,45	3,44	5,23
1,60	0,19	23,35	0,29	17,74	0,50	12,59	0,85	9,07	1,37	6,73	2,22	4,98	3,66	5,95
1,70	0,20	25,97	0,31	19,73	0,53	14,00	0,90	10,08	1,45	7,49	2,36	5,54	3,89	6,72
1,80	0,21	28,70	0,33	21,80	0,57	15,47	0,96	11,15	1,54	8,27	2,49	6,12	4,12	7,53
1,90	0,22	31,55	0,34	23,97	0,60	17,01	1,01	12,25	1,63	9,09	2,63	6,73	4,35	8,39
2,00	0,23	34,51	0,36	26,22	0,63	18,60	1,06	13,40	1,71	9,95	2,77	7,36	4,58	9,30
2,10	0,25	37,58	0,38	28,55	0,66	20,26	1,11	14,60	1,80	10,83	2,91	8,01	4,81	10,25
2,20	0,26	40,77	0,40	30,97	0,69	21,98	1,17	15,83	1,88	11,75	3,05	8,69	5,04	11,25
2,30	0,27	44,07	0,42	33,48	0,72	23,76	1,20	17,12	1,97	12,70	3,19	9,40	5,27	12,30
2,40	0,28	47,48	0,44	36,07	0,75	25,60	1,27	18,44	2,05	13,69	3,32	10,12	5,50	13,39
2,50	0,29	50,99	0,45	38,74	0,79	27,49	1,33	19,88	2,14	14,70	3,46	10,87	5,73	14,53
2,60					0,82	29,44	1,38	21,21	2,22	15,74	3,60	11,65	5,95	15,72
2,70					0,85	31,45	1,43	22,66	2,31	16,82	3,74	12,44	6,18	16,95
2,80					0,88	33,52	1,49	24,15	2,39	17,92	3,88	13,26	6,41	18,23
2,90					0,91	35,64	1,54	25,68	2,48	19,06	4,02	14,10	6,64	19,55
3,00					0,94	37,82	1,59	27,25	2,57	20,22	4,16	14,96	6,87	20,93
3,60					1,13	52,04	1,91	37,49	3,08	27,83	4,99	20,58	8,24	30,13
4,00					1,26	62,57	2,12	45,08	3,42	33,46	5,54	24,75	9,16	37,20
4,60					1,45	79,91	2,44	57,57	3,93	42,73	6,37	31,61	10,53	49,20
5,00					1,57	92,47	2,65	66,61	4,28	49,44	6,93	36,58	11,45	58,13

Summary of head losses in RADOPRESS pipes

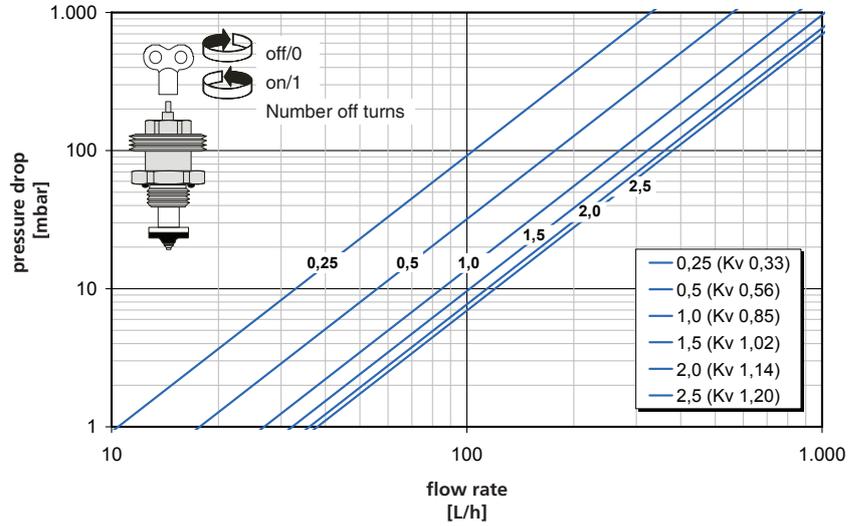
Power requirement [W]				Mass flow rate m kg/h	Head losses in pipe by friction R [mbar/m]											
Temperature gradient					16 x 2,0 mm			20 x 2,0 mm			26 x 3,0 mm			32 x 3,0 mm		
20 K	15 K	10 K	5 K	m/s	mbar/m	Pa/m	m/s	mbar/m	Pa/m	m/s	mbar/m	Pa/m	m/s	mbar/m	Pa/m	
200	150	100	50	9	0,0	0,01	1									
300	225	150	75	13	0,0	0,02	2									
400	300	200	100	17	0,0	0,04	4									
600	450	300	150	26	0,1	0,08	8									
800	600	400	200	34	0,1	0,14	14									
1000	750	500	250	43	0,1	0,21	21									
1200	900	600	300	52	0,1	0,28	28									
1400	1050	700	350	60	0,2	0,37	37									
1600	1200	800	400	69	0,2	0,47	47									
1800	1350	900	450	77	0,2	0,57	57									
2000	1500	1000	500	86	0,2	0,69	69	0,1	0,24	24						
2300	1725	1150	575	99	0,2	0,88	88	0,2	0,31	31						
2500	1875	1250	625	108	0,3	1,02	102	0,2	0,35	35						
2800	2100	1400	700	120	0,3	1,24	124	0,2	0,43	43						
3000	2250	1500	750	129	0,3	1,40	140	0,2	0,49	49						
3500	2625	1750	875	151	0,4	1,84	184	0,2	0,64	64						
4000	3000	2000	1000	172	0,4	2,32	232	0,3	0,80	80	0,2	0,21	21			
4500	3375	2250	1125	194	0,5	2,85	285	0,3	0,99	99	0,2	0,25	25			
5000	3750	2500	1250	215	0,5	3,43	343	0,3	1,19	119	0,2	0,30	30			
5500	4125	2750	1375	237	0,6	4,05	405	0,4	1,40	140	0,2	0,36	36			
6000	4500	3000	1500	258	0,6	4,72	472	0,4	1,64	164	0,2	0,42	42			
6500	4875	3250	1625	280	0,7	5,43	543	0,4	1,88	188	0,3	0,48	48			
7000	5250	3500	1750	301	0,8	6,18	618	0,5	2,14	214	0,3	0,55	55	0,2	0,16	16
7500	5625	3750	1875	323	0,8	6,97	697	0,5	2,42	242	0,3	0,62	62	0,2	0,18	18
8000	6000	4000	2000	344				0,6	2,71	271	0,3	0,69	69	0,2	0,20	20
8500	6375	4250	2125	366				0,6	3,01	301	0,3	0,77	77	0,2	0,22	22
9000	6750	4500	2250	387				0,6	3,32	332	0,3	0,85	85	0,2	0,24	24
9500	7125	4750	2375	409				0,7	3,65	365	0,4	0,93	93	0,2	0,27	27
10000	7500	5000	2500	430				0,7	4,00	400	0,4	1,02	102	0,2	0,29	29
10500	7875	5250	2625	452				0,7	4,35	435	0,4	1,11	111	0,2	0,32	32
11000	8250	5500	2750	473				0,8	4,72	472	0,4	1,20	120	0,3	0,35	35
11500	8625	5750	2875	495				0,8	5,11	511	0,4	1,30	130	0,3	0,37	37
12500	9375	6250	3125	538							0,5	1,51	151	0,3	0,43	43
13000	9750	6500	3250	559							0,5	1,61	161	0,3	0,46	46
14000	10500	7000	3500	602							0,5	1,84	184	0,3	0,53	53
15000	11250	7500	3750	645							0,6	2,07	207	0,3	0,60	60
16000	12000	8000	4000	688							0,6	2,32	232	0,4	0,67	67
17000	12750	8500	4250	731							0,7	2,58	258	0,4	0,74	74
18000	13500	9000	4500	775							0,7	2,85	285	0,4	0,82	82
19000	14250	9500	4750	818							0,7	3,13	313	0,4	0,90	90
20000	15000	10000	5000	861							0,8	3,43	343	0,5	0,99	99
22000	16500	11000	5500	947										0,5	1,17	117
24000	18000	12000	6000	1033										0,6	1,36	136
26000	19500	13000	6500	1119										0,6	1,56	156
28000	21000	14000	7000	1205										0,6	1,78	178
30000	22500	15000	7500	1291										0,7	2,00	200
32000	24000	16000	8000	1377										0,7	2,24	224
34000	25500	17000	8500	1463										0,8	2,50	250
36000	27000	18000	9000	1549										0,8	2,76	276
38000	28500	19000	9500	1635										0,9	3,03	303
40000	30000	20000	10000	1721										0,9	3,32	332
42000	31500	21000	10500	1807										1,0	3,61	361
44000	33000	22000	11000	1893										1,0	3,92	392
46000	34500	23000	11500	1979												
48000	36000	24000	12000	2065												
50000	37500	25000	12500	2151												
52000	39000	26000	13000	2238												
54000	40500	27000	13500	2324												
56000	42000	28000	14000	2410												
58000	43500	29000	14500	2496												
60000	45000	30000	15000	2582												
62000	46500	31000	15500	2668												
64000	48000	32000	16000	2754												
66000	49500	33000	16500	2840												
68000	51000	34000	17000	2926												
70000	52500	35000	17500	3012												
72000	54000	36000	18000	3098												

Summary of head losses in RADOPRESS pipes

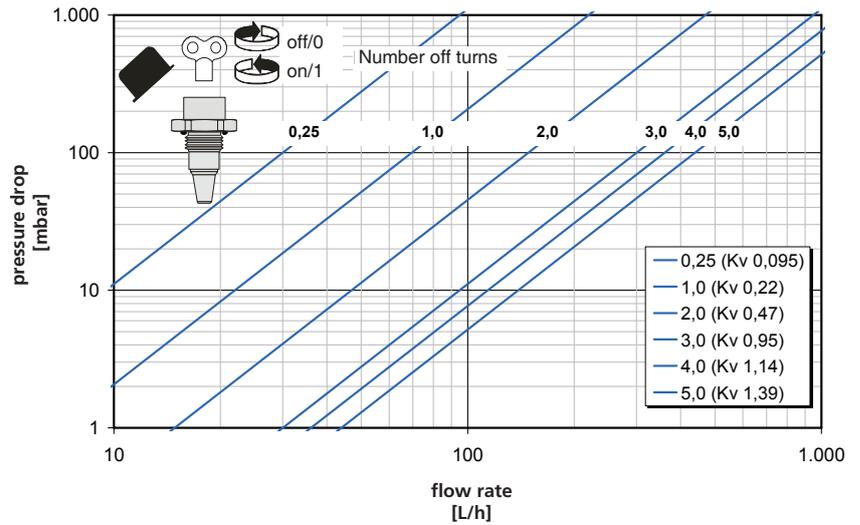
Power requirement [W]				Mass flow rate	Head losses in pipe by friction R [mbar/m]								
Temperature gradient					m	40 x 3,5 mm			50 x 4,0 mm			63 x 4,5 mm	
20 K	15 K	10 K	5 K	kg/h	m/s	mbar/m	Pa/m	m/s	mbar/m	Pa/m	m/s	mbar/m	Pa/m
7500	5625	3750	1875	323									
8000	6000	4000	2000	344									
8500	6375	4250	2125	366									
9000	6750	4500	2250	387									
9500	7125	4750	2375	409									
10000	7500	5000	2500	430									
10500	7875	5250	2625	452									
11000	8250	5500	2750	473	0,2	0,11	11						
11500	8625	5750	2875	495	0,2	0,12	12						
12500	9375	6250	3125	538	0,2	0,14	14						
13000	9750	6500	3250	559	0,2	0,15	15						
14000	10500	7000	3500	602	0,2	0,17	17						
15000	11250	7500	3750	645	0,2	0,19	19						
16000	12000	8000	4000	688	0,2	0,22	22						
17000	12750	8500	4250	731	0,2	0,24	24						
18000	13500	9000	4500	775	0,3	0,26	26						
19000	14250	9500	4750	818	0,3	0,29	29						
20000	15000	10000	5000	861	0,3	0,32	32						
22000	16500	11000	5500	947	0,3	0,38	38						
24000	18000	12000	6000	1033	0,3	0,44	44						
26000	19500	13000	6500	1119	0,4	0,50	50						
28000	21000	14000	7000	1205	0,4	0,57	57						
30000	22500	15000	7500	1291	0,4	0,65	65	0,3	0,21	21			
32000	24000	16000	8000	1377	0,5	0,72	72	0,3	0,23	23			
34000	25500	17000	8500	1463	0,5	0,80	80	0,3	0,26	26			
36000	27000	18000	9000	1549	0,5	0,89	89	0,3	0,28	28			
38000	28500	19000	9500	1635	0,5	0,98	98	0,3	0,31	31			
40000	30000	20000	10000	1721	0,6	1,07	107	0,4	0,34	34			
42000	31500	21000	10500	1807	0,6	1,16	116	0,4	0,37	37			
44000	33000	22000	11000	1893	0,6	1,26	126	0,4	0,40	40			
46000	34500	23000	11500	1979	0,7	1,36	136	0,4	0,43	43			
48000	36000	24000	12000	2065	0,7	1,47	147	0,4	0,47	47	0,3	0,12	12
50000	37500	25000	12500	2151	0,7	1,58	158	0,4	0,50	50	0,3	0,13	13
52000	39000	26000	13000	2238	0,7	1,69	169	0,5	0,54	54	0,3	0,14	14
54000	40500	27000	13500	2324	0,8	1,81	181	0,5	0,57	57	0,3	0,15	15
56000	42000	28000	14000	2410	0,8	1,93	193	0,5	0,61	61	0,3	0,16	16
58000	43500	29000	14500	2496	0,8	2,05	205	0,5	0,65	65	0,3	0,17	17
60000	45000	30000	15000	2582	0,9	2,17	217	0,5	0,69	69	0,3	0,18	18
62000	46500	31000	15500	2668	0,9	2,30	230	0,5	0,73	73	0,3	0,19	19
64000	48000	32000	16000	2754	0,9	2,43	243	0,6	0,77	77	0,3	0,21	21
66000	49500	33000	16500	2840	0,9	2,57	257	0,6	0,82	82	0,3	0,22	22
68000	51000	34000	17000	2926	1,0	2,71	271	0,6	0,86	86	0,4	0,23	23
70000	52500	35000	17500	3012	1,0	2,85	285	0,6	0,91	91	0,4	0,25	25
72000	54000	36000	18000	3098	1,0	2,99	299	0,6	0,95	95	0,4	0,26	26
76000	57000	38000	19000	3270				0,7	1,05	105	0,4	0,29	29
80000	60000	40000	20000	3442				0,7	1,14	114	0,4	0,32	32
84000	63000	42000	21000	3614				0,7	1,25	125	0,4	0,36	36
88000	66000	44000	22000	3787				0,7	1,35	135	0,5	0,39	39
92000	69000	46000	23000	3959				0,7	1,46	146	0,5	0,43	43
96000	72000	48000	24000	4131				0,7	1,57	157	0,5	0,47	47
100000	75000	50000	25000	4303				0,9	1,69	169	0,5	0,51	51
104000	78000	52000	26000	4475				0,9	1,80	180	0,5	0,55	55
108000	81000	54000	27000	4647				0,9	1,93	193	0,6	0,59	59
112000	84000	56000	28000	4819				1,0	2,06	206	0,6	0,64	64
116000	87000	58000	29000	4991				1,0	2,19	219	0,6	0,68	68
120000	90000	60000	30000	5164				1,1	2,32	232	0,6	0,73	73
126000	94500	63000	31500	5417							0,7	0,80	80
132000	99000	66000	33000	5675							0,7	0,88	88
138000	103500	69000	34500	5933							0,7	0,96	96
144000	108000	72000	36000	6191							0,8	1,05	105
150000	112500	75000	37500	6449							0,8	1,14	114
156000	117000	78000	39000	6707							0,8	1,23	123
162000	121500	81000	40500	6965							0,8	1,33	133
168000	126000	84000	42000	7223							0,9	1,43	143
174000	130500	87000	43500	7481							0,9	1,53	153
180000	135000	90000	45000	7739							0,9	1,64	164
186000	139500	93000	46500	7997							1,0	1,75	175
192000	144000	96000	48000	8255							1,0	1,86	186
198000	148500	99000	49500	8512							1,1	1,98	198
204000	153000	102000	51000	8770							1,1	2,10	210
210000	157500	105000	52500	9028							1,1	2,23	223
216000	162000	108000	54000	9286							1,1	2,36	236
222000	166500	111000	55500	9544							1,2	2,49	249
228000	171000	114000	57000	9802							1,2	2,63	263
234000	175500	117000	58500	10060							1,2	2,77	277
240000	180000	120000	60000	10318							1,3	2,91	291

Diagramms of the radiator manifold

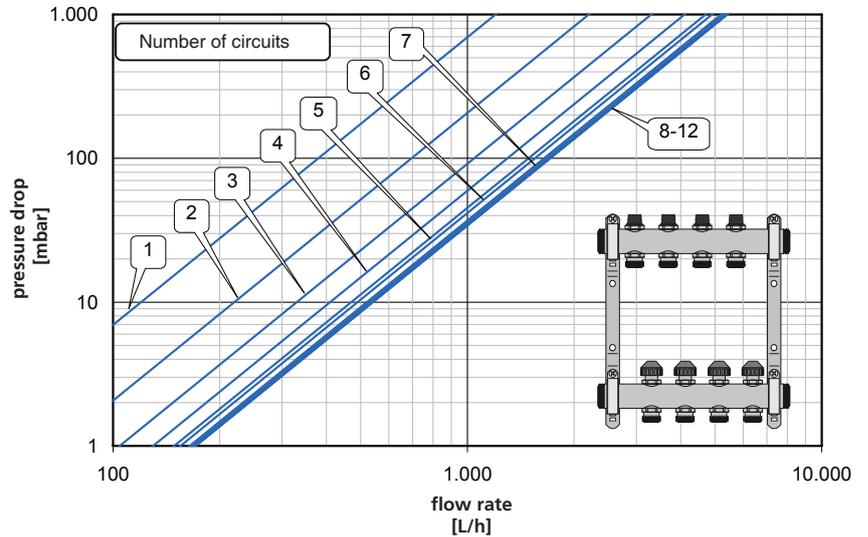
Adjustment of regulation valves



Total pressure drop



Pressure and temperature limits



Head losses in a fitting

What is the separate resistance coefficient?

The resistance coefficient is defined by a test. Therefore, this is a purely empiric value that may differ significantly. The values stated in the following tables are the values, proven good at practice as a base for the calculation of head losses in the piping system.

To calculate the total piping head loss, it is necessary to include all separated parts with a care. In case you apply other fittings than in the table, it is recommended to additionally include them with their resistance coefficient. Summary of different coefficients are shown in the table on the right. Using the summary and the equation stated below, it is now possible to calculate the total loss originating from the use of fittings.

To enumerate the total device head losses, the sum is added to the losses originated in piping and other used modules and components.

Total resistance coefficient

$$Z = \sum \xi \cdot w^2 \cdot 5$$

$$\Delta p_g = R \cdot l + Z + \Delta p_v$$

Z = sum of separated resistances
[mbar]

w = medium flow rate [m/s]

ξ = loss factor
(depending on geometry)

Δp_g = total loss in a heating circuit

R = head loss per m of pipe [Pa/m]

l = pipe length in m

Z = sum of separated resistances

Δp_v = head loss of e.g. thermostatic valve or heating circuit

More information

In case you need more technical information or consultation on the RADOPRESS system, contact our company salesmen or directly Service Centre on its e-mail address: radopress@pipelife.com.

Resistance coefficient values (depending on geometry):

Armature connector (long/short bend)		$\xi = 1,6$
Reduction-bend with an inner or outer thread		$\xi = 1,6$
Direction changes by bend		$\xi = 1,3$
T-piece (stream dividing / distribution)		$\xi = 1,6$
T-piece (passing)		$\xi = 0,3$
T-piece (passage / counter-flowing stream distribution)		$\xi = 1,7$
Reduction piece		$\xi = 0,6$
Manifold output		$\xi = 1,6$

PIPES

RADOPRESS UNIVERSAL PIPING SYSTEM FOR RADIATOR HEATING AND HOT & COLD WATER



RP16X2-200	PEX-AL-PEX PIPE 16X2 MM / 200M
RP18X2-200	PEX-AL-PEX PIPE 18X2 MM / 200M
RP20X2-100	PEX-AL-PEX PIPE 20X2 MM / 100M
RP26X3-100	PEX-AL-PEX PIPE 26X3 MM / 100M
RP32X3-50	PPEX-AL-PEX PIPE 32X3 MM / 50M

5 LAYER PEX-ALU-PEX PIPES ACC. TO: EN ISO 21003-1

PIPE APPLICATION CLASS 2
70°C DESIGN TEMPERATURE,
10 BAR DESIGN PRESSURE



RP16X2-5	PEX-AL-PEX PIPE 16X2 MM / 5 M
RP18X2-5	PEX-AL-PEX PIPE 18X2 MM / 5 M
RP20X2-5	PEX-AL-PEX PIPE 20X2 MM / 5 M
RP26X3-5	PEX-AL-PEX PIPE 26X3 MM / 5 M
RP32X3-5	PEX-AL-PEX PIPE 32X3 MM / 5 M
RP40X3,5-5	PEX-AL-PEX PIPE 40X3,5 MM / 5 M
RP50X4-5	PEX-AL-PEX PIPE 50X4 MM / 5 M
RP63X4,5-5	PEX-AL-PEX PIPE 63X4,5 MM / 5 M

PIPE APPLICATION, CLASS 4
20-60°C DESIGN TEMPERATURE,
10 BAR DESIGN PRESSURE

PIPE APPLICATION CLASS 5,
20-80°C DESIGN TEMPERATURE,
10 BAR DESIGN PRESSURE

RADOPRESS UNIVERSAL PIPING SYSTEM FOR RADIATOR HEATING AND HOT & COLD WATER



RP16X2-200PERT	PE-RT-AL-PE-RT PIPE 16X2 MM / 200 M
RP18X2-200PERT	PE-RT-AL-PE-RT PIPE 18X2 MM / 200 M
RP20X2-100PERT	PE-RT-AL-PE-RT PIPE 20X2 MM / 100 M
RP26X3-100PERT	PE-RT-AL-PE-RT PIPE 26X3 MM / 100 M
RP32X3-50PERT	PE-RT-AL-PE-RT PIPE 32X3 MM / 50 M

5 LAYER PE-RT-AL-PE-RT PIPES ACC. TO: EN ISO 21003-1

PIPE APPLICATION CLASS 2
70°C DESIGN TEMPERATURE,
10 BAR DESIGN PRESSURE



RP16X2-5PERT	PE-RT-AL-PE-RT PIPE 16X2 MM / 5 M
RP18X2-5PERT	PE-RT-AL-PE-RT PIPE 18X2 MM / 5 M
RP20X2-5PERT	PE-RT-AL-PE-RT PIPE 20X2 MM / 5 M
RP26X3-5PERT	PE-RT-AL-PE-RT PIPE 26X3 MM / 5 M
RP32X3-5PERT	PE-RT-AL-PE-RT PIPE 32X3 MM / 5 M

PIPE APPLICATION, CLASS 4
20-60°C DESIGN TEMPERATURE,
10 BAR DESIGN PRESSURE

PIPE APPLICATION CLASS 5,
20-80°C DESIGN TEMPERATURE,
10 BAR DESIGN PRESSURE

PRE-INSULATED PEX-ALU-PEX PIPE



RP16X2-100-I-B/B.M	PEX-ALU-PEX PIPE 16/12 MM / 200 M INSULATED BLUE
RP16X2-100-I-R/B.M	PEX-ALU-PEX PIPE 16/12 MM / 200 M INSULATED RED
RP20X2-100-I-B/B.M	PEX-ALU-PEX PIPE 20 / 16 MM / 100 M INSULATED BLUE
RP20X2-100-I-R/B.M	PEX-ALU-PEX PIPE 20 / 16 MM / 100 M INSULATED RED

PE FOAM INSULATION PREVENTS HEAT LOSS, CONDENSATION ON COLD WATER LINE AND PROVIDES SPACE FOR HEAT EXPANSION

PROTECTION PIPE

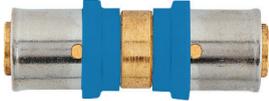


RP-PROT16-50R	CORRUGATED PROTECTION PIPE FOR 16X2 PIPE RED
RP-PROT16-50B	CORRUGATED PROTECTION PIPE FOR 16X2 PIPE BLUE
RP-PROT16-50BK	CORRUGATED PROTECTION PIPE FOR 16X2 PIPE BLACK
RP-PROT20-50R	CORRUGATED PROTECTION PIPE FOR 20X2 PIPE RED
RP-PROT20-50B	CORRUGATED PROTECTION PIPE FOR 20X2 PIPE BLUE
RP-PROT20-50BK	CORRUGATED PROTECTION PIPE FOR 20X2 PIPE BLACK
RP-PROT26-50R	CORRUGATED PROTECTION PIPE FOR 26X2 PIPE RED
RP-PROT26-50B	CORRUGATED PROTECTION PIPE FOR 26X2 PIPE BLUE
RP-PROT26-50BK	CORRUGATED PROTECTION PIPE FOR 26X2 PIPE BLACK

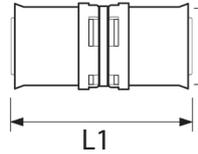
PROVIDES MECHANICAL PROTECTION AND ABSORBES PIPE'S HEAT EXPANSION

PRESS FITTINGS

COUPLING - BRASS



RP-M16	16
RP-M18	18
RP-M20	20
RP-M26	26
RP-M32	32
RP-M40	40
RP-M50	50
RP-M63	63

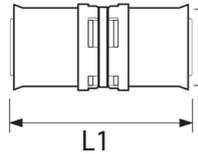


D1	D2	D3	L1	L2
16X2	-	-	57	-
18X2	-	-	65	-
20X2	-	-	57,7	-
26X3	-	-	65	-
32X3	-	-	65	-
40X3,5	-	-	65	-
50X4	-	-	97	-
63X4,5	-	-	98	-

COUPLING - PPSU



PUM-016KARM	16
PUM-020KARM	20
PUM-026KARM	26
PUM-032KARM	32

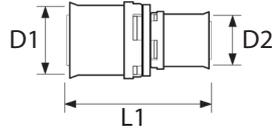


D1	D2	D3	L1	L2
16X2	-	-	50	-
20X2	-	-	56	-
26X3	-	-	66	-
32X3	-	-	76	-

REDUCTION COUPLING - BRASS



RP-R18/16	18 / 16
RP-R20/16	20 / 16
RP-R20/18	20 / 18
RP-R26/16	26 / 16
RP-R26/18	26 / 18
RP-R26/20	26 / 20
RP-R32/16	32 / 16
RP-R32/18	32 / 18
RP-R32/20	32 / 20
RP-R32/26	32 / 26
RP-R40/26	40 / 26
RP-R40/32	40 / 32
RP-R50/26	50 / 26
RP-R50/32	50 / 32
RP-R50/40	50 / 40
RP-R63/26	63 / 26
RP-R63/32	63 / 32
RP-R63/40	63 / 40
RP-R63/50	63 / 50

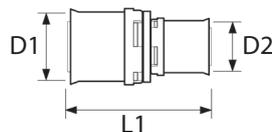


D1	D2	D3	L1	L2
18X2	16X2	-	65	-
20X2	16X2	-	61,7	-
20X2	18X2	-	65	-
26X3	16X2	-	65	-
26X3	18X2	-	65	-
26X3	20X2	-	65	-
32X3	16X2	-	65	-
32X3	18X2	-	65	-
32X3	20X2	-	65	-
32X3	26X3	-	65	-
40X3,5	26X3	-	65	-
40X3,5	32X3	-	65	-
50X4	26X3	-	81	-
50X4	32X3	-	81	-
50X4	40X3,5	-	81	-
63X4,5	26X3	-	81,5	-
63X4,5	32X3	-	81,5	-
63X4,5	40X3,5	-	81,5	-
63X4,5	50X4	-	97,5	-

REDUCTION COUPLING - PPSU



PUR-20 / 16	20 / 16
PUR-26 / 20	26 / 20
PUR-32 / 26	32 / 26

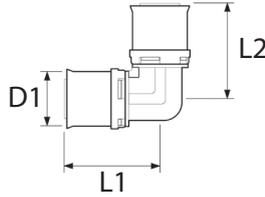


D1	D2	D3	L1	L2
20X3	16X2	-	53	-
26X3	20X2	-	61	-
32X3	26X3	-	71	-

ELBOW 90° - BRASS



RP-W16/90	16
RP-W18/90	18
RP-W20/90	20
RP-W26/90	26
RP-W32/90	32
RP-W40/90	40
RP-W50/90	50
RP-W63/90	63

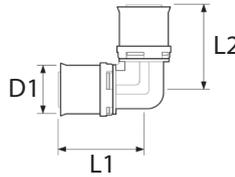


D1	D2	D3	L1	L2
16X2	-	-	38,5	38,5
18X2	-	-	41,5	41,5
20X2	-	-	41,5	41,5
26X3	-	-	48,5	48,5
32X3	-	-	53	53
40X3,5	-	-	55	55
50X4	-	-	76	76
63X4,5	-	-	83	83

ELBOW 90° - PPSU



PUW016KONYOK90	16
PUW020KONYOK90	20
PUW026KONYOK90	26
PUW032KONYOK90	32

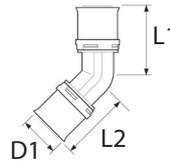


D1	D2	D3	L1	L2
16X2	-	-	38	38
20X2	-	-	43	43
26X3	-	-	53	53
32X3	-	-	60	60

ELBOW 45° - BRASS



RP-W32/45	32
RP-W40/45	40
RP-W50/45	50
RP-W63/45	63

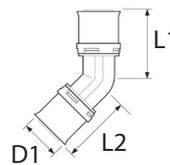


D1	D2	D3	L1	L2
32X3	-	-	58	58
40X3,5	-	-	55,5	55,5
50X4	-	-	76	76
63X4,5	-	-	83	83

ELBOW 45° - PPSU



PUW026IV45	26
PUW032IV45	32

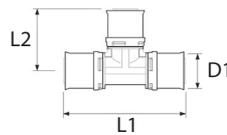


D1	D2	D3	L1	L2
26X2	-	-	51	51
32X3	-	-	56	56

T-PIECE - BRASS



RP-T16	16
RP-T18	18
RP-T20	20
RP-T26	26
RP-T32	32
RP-T40	40
RP-T50	50
RP-T63	63

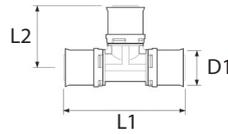


D1	D2	D3	L1	L2
16X2	-	-	77	38,5
18X2	-	-	83	41,5
20X2	-	-	83	41,5
26X3	-	-	102	51
32X3	-	-	106	53
40X3,5	-	-	110	55
50X4	-	-	152	76
63X4,5	-	-	166	83

T-PIECE - PPSU



PUT16X16X16TIDOM	16
PUT20X20X20TIDOM	20
PUT26X26X26TIDOM	26
PUT32X32X32TIDOM	32

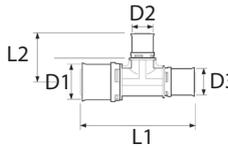


D1	D2	D3	L1	L2
16X2	-	-	80	40
20X2	-	-	86	43
26X3	-	-	110	55
32X3	-	-	120	60

REDUCTION T-PIECE - BRASS



RP-T16/18/16	16 X 18 X 16
RP-T16/20/16	16 X 20 X 16
RP-T18/16/16	18 X 16 X 16
RP-T18/16/18	18 X 16 X 18
RP-T20/16/16	20 X 16 X 16
RP-T20/16/18	20 X 16 X 18
RP-T20/16/20	20 X 16 X 20
RP-T20/18/18	20 X 18 X 18
RP-T20/18/20	20 X 18 X 20
RP-T20/20/16	20 X 20 X 16
RP-T20/26/20	20 X 26 X 20
RP-T26/16/20	26 X 16 X 20
RP-T26/16/26	26 X 16 X 26
RP-T26/18/18	26 X 18 X 18
RP-T26/18/26	26 X 18 X 26
RP-T26/20/16	26 X 20 X 16
RP-T26/20/20	26 X 20 X 20
RP-T26/20/26	26 X 20 X 26
RP-T26/26/16	26 X 26 X 16
RP-T26/26/20	26 X 26 X 20
RP-T32/16/32	32 X 16 X 32
RP-T32/18/32	32 X 18 X 32
RP-T32/20/26	32 X 20 X 26
RP-T32/20/32	32 X 20 X 32
RP-T32/26/26	32 X 26 X 26
RP-T32/26/32	32 X 26 X 32
RP-T32/32/26	32 X 32 X 26
RP-T40/26/32	40 X 26 X 32
RP-T40/26/40	40 X 26 X 40
RP-T40/32/32	40 X 32 X 32
RP-T40/32/40	40 X 32 X 40
RP-T40/40/26	40 X 40 X 26
RP-T40/40/32	40 X 40 X 32
RP-T50/26/50	50 X 26 X 50
RP-T50/32/50	50 X 32 X 50
RP-T50/40/40	50 X 40 X 40
RP-T50/40/50	50 X 40 X 50
RP-T50/50/32	50 X 50 X 32
RP-T50/50/40	50 X 50 X 40
RP-T63/40/63	63 X 40 X 63
RP-T63/50/63	63 X 50 X 63

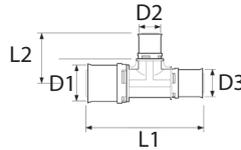


D1	D2	D3	L1	L2
16X2	18X2	16X2	88	44
16X2	20X2	16X2	83	41,5
18X2	16X2	16X2	88	44
18X2	16X2	18X2	88	44
20X2	16X2	16X2	83	41,5
20X2	16X2	18X2	88	44
20X2	16X2	20X2	83	41,5
20X2	18X2	18X2	88	44
20X2	18X2	20X2	88	44
20X2	20X2	16X2	83	41,5
20X2	26X3	20X2	102	51
26X3	16X2	20X2	97	51
26X3	16X2	26X3	97	48,5
26X3	18X2	18X2	102	51
26X3	18X2	26X3	102	51
26X3	20X2	16X2	102	51
26X3	20X2	20X2	102	51
26X3	20X2	26X3	97	48,5
26X3	26X3	16X2	112	56
26X3	26X3	20X2	112	56
32X3	16X2	32X3	106	53
32X3	18X2	32X3	106	53
32X3	20X2	26X3	106	53
32X3	20X2	32X3	106	53
32X3	26X3	26X3	106	53
32X3	26X3	32X3	106	53
32X3	32X3	26X3	106	53
32X3	32X3	26X3	106	53
40X3,5	26X3	32X3	110	55
40X3,5	26X3	40X3,5	110	55
40X3,5	32X3	32X3	110	50
40X3,5	32X3	40X3,5	110	55
40X3,5	40X3,5	26X3	110	55
40X3,5	40X3,5	32X3	110	55
50X4	26X3	50X4	152	62
50X4	32X3	50X4	152	62
50X4	40X3,5	50X4	152	61
50X4	40X3,5	40X3,5	152	62
50X4	50X4	32X3	152	76
50X4	50X4	40X3,5	152	76
63X4,5	40X3,5	63X4,5	153	70
63X4,5	50X4	63X4,5	166	82,5

REDUCTION T-PIECE - PPSU



PUT16X20X16TIDOM	16 X 20 X 16
PUT20X16X16TIDOM	20 X 16 X 16
PUT20X16X20TIDOM	20 X 16 X 20
PUT20X20X16TIDOM	20 X 20 X 16
PUT20X26X20TIDOM	20 X 26 X 20
PUT26X16X20TIDOM	26 X 16 X 20
PUT26X16X26TIDOM	26 X 16 X 26
PUT26X20X16TIDOM	26 X 20 X 16
PUT26X20X20TIDOM	26 X 20 X 20
PUT26X20X26TIDOM	26 X 20 X 26
PUT26X26X16TIDOM	26 X 26 X 16
PUT26X26X20TIDOM	26 X 26 X 20
PUT32X16X32TIDOM	32 X 16 X 32
PUT32X20X20TIDOM	32 X 20 X 20
PUT32X20X32TIDOM	32 X 20 X 32
PUT32X26X26TIDOM	32 X 26 X 26
PUT32X26X32TIDOM	32 X 26 X 32

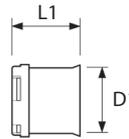


D1	D2	D3	L1	L2
16X2	20X2	16X2	80	41
20X2	16X2	16X2	79	40
20X2	16X2	20X2	82	40
20X2	20X2	16X2	83	43
20X2	26X3	20X2	96	50
26X3	16X2	20X2	89	44
26X3	16X2	26X3	94	45
26X3	20X2	16X2	92	48
26X3	20X2	20X2	95	48
26X3	20X2	26X3	100	48
26X3	26X3	16X2	98	53
26X3	26X3	20X2	101	53
32X3	16X2	32X3	104	47
32X3	20X2	20X2	98	50
32X3	20X2	32X3	108	50
32X3	26X3	26X3	109	55
32X3	26X3	32X3	114	55

PLUG - BRASS



RP-END16	16
RP-END18	20
RP-END20	26
RP-END50	50

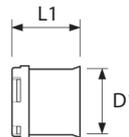


D1	D2	D3	L1	L2
16X2	-	-	30,85	-
18X2	-	-	32,5	-
20X2	-	-	30,85	-
50X4	-	-	48,5	-

PLUG - PPSU



PUK-VEGELZARO016	16
PUK-VEGELZARO020	20
PUK-VEGELZARO026	26
PUK-VEGELZARO032	32



D1	D2	D3	L1	L2
16X2	-	-	21	-
20X2	-	-	24	-
26X3	-	-	28	-
32X3	-	-	32	-

COUPLING WITH MALE THREAD



RP-UAG16/1/2	16 X 1/2"
RP-UAG18/1/2	18 X 1/2"
RP-UAG18/3/4	18 X 3/4"
RP-UAG20/1/2	20 X 1/2"
RP-UAG20/3/4	20 X 3/4"
RP-UAG26/1	26 X 1"
RP-UAG26/3/4	26 X 3/4"
RP-UAG32/1	32 X 1"
RP-UAG32/5/4	32 X 5/4"
RP-UAG40/1	40 X 1"
RP-UAG40/5/4	40 X 5/4"
RP-UAG50/6/4	50 X 6/4"
RP-UAG63/2	63 X 2"

COUPLER WITH OUTER THREAD, FOR RADOPRESS MLCP. COMPONENTS IN CONTACT WITH DRINKING WATER MADE FROM DEZINCIFICATION RESISTANT BRASS.

COUPLING WITH FEMALE THREAD



RP-UIG16/1/2	16 X 1/2"
RP-UIG18/1/2	18 X 1/2"
RP-UIG20/1/2	20 X 1/2"
RP-UIG20/3/4	20 X 3/4"
RP-UIG26/1	26 X 1"
RP-UIG26/3/4	26 X 3/4"
RP-UIG32/1	32 X 1"
RP-UIG32/5/4	32 X 5/4"
RP-UIG40/1	40 X 1"
RP-UIG40/5/4	40 X 5/4"
RP-UIG50/6/4	50 X 6/4"
RP-UIG63/2	63 X 2"

COUPLER WITH INNER THREAD, FOR RADOPRESS MLCP. DO NOT USE WITH CONICAL THREADS, ONLY ABOVE PLASTER, COMPONENTS IN CONTACT WITH DRINKING WATER MADE FROM DEZINCIFICATION RESISTANT BRASS.

ELBOW 90° WITH MALE THREAD



RP-UWA16/1/2	16 X 1/2"
RP-UWA18/1/2	18 X 1/2"
RP-UWA20/1/2	20 X 1/2"
RP-UWA20/3/4	20 X 3/4"
RP-UWA26/3/4	26 X 3/4"
RP-UWA32/1	32 X 1"
RP-UWA40/5/4	40 X 5/4"

CONNECTION ELBOW 90° WITH OUTER THREAD, FOR RADOPRESS MLCP. DO NOT USE WITH CONICAL THREADS, ONLY ABOVE PLASTER, COMPONENTS IN CONTACT WITH DRINKING WATER MADE FROM DEZINCIFICATION RESISTANT BRASS.

ELBOW 90° WITH FEMALE THREAD WITH UNION NUT



RP-UPWI16/3/4	16 X 3/4"
RP-UPWI18/3/4	18 X 3/4"
RP-UPWI20/3/4	20 X 3/4"

CONNECTION ELBOW 90° WITH UNION NUT. FACILITATES EASY DISCONNECTION OF COMPONENTS. TO BE USED WITH FLAT SEALING.

ELBOW 90° WITH FEMALE THREAD



RP-UWI16/1/2	16 X 1/2"
RP-UWI18/1/2	18 X 1/2"
RP-UWI20/1/2	20 X 1/2"
RP-UWI20/3/4	20 X 3/4"
RP-UWI26/3/4	26 X 3/4"
RP-UWI32/1	32 X 1"
RP-UWI40/5/4	40 X 5/4"

CONNECTION ELBOW 90° WITH INNER THREAD, FOR RADOPRESS MLCP. DO NOT USE WITH CONICAL THREADS, ONLY ABOVE PLASTER, COMPONENTS IN CONTACT WITH DRINKING WATER MADE FROM DEZINCIFICATION RESISTANT BRASS.

T-PIECE WITH MALE THREAD



RP-TA16/1/2	16 X 1/2"
RP-TA18/1/2	18 X 1/2"
RP-TA20/1/2	20 X 1/2"
RP-TA20/3/4	20 X 3/4"
RP-TA26/1	26 X 1"
RP-TA26/1/2	26 X 1/2"
RP-TA26/3/4	26 X 3/4"
RP-TA32/1	32 X 1"
RP-TA32/3/4	32 X 3/4"
RP-TA40/5/4	40 X 5/4"
RP-TA50/5/4	50 X 5/4"
RP-TA63/2	63 X 2"

T-PIECE WITH OUTER THREAD, FOR RADOPRESS MLCP. COMPONENTS IN CONTACT WITH DRINKING WATER MADE FROM DEZINCIFICATION RESISTANT BRASS.

T-PIECE WITH FEMALE THREAD



RP-TI16/1/2	16 X 1/2"
RP-TI18/1/2	18 X 1/2"
RP-TI20/1/2	20 X 1/2"
RP-TI20/3/4	20 X 3/4"
RP-TI26/1/2	26 X 1/2"
RP-TI26/3/4	26 X 3/4"
RP-TI32/1	32 X 1"
RP-TI32/1/2	32 X 1/2"
RP-TI32/3/4	32 X 3/4"
RP-TI32/5/4	32 X 5/4"
RP-TI40/1	40 X 1"
RP-TI40/5/4	40 X 5/4"
RP-TI50/5/4	50 X 5/4"
RP-TI50/6/4	50 X 6/4"
RP-TI63/2	63 X 2"

T-PIECE WITH INNER THREAD, FOR RADOPRESS MLCP. DO NOT CONNECT WITH CONICAL THREADS, ONLY ABOVE WALL INSTALLATION, COMPONENTS IN CONTACT WITH DRINKING WATER MADE FROM DEZINCIFICATION RESISTANT BRASS.

COUPLING WITH SLEEVE NUT



RP-UPV16/3/4	16 X 3/4"
RP-UPV16/1	16 X 1"
RP-UPV20/3/4	20 X 3/4"
RP-UPV20/1	20 X 1"
RP-UPV26/1	26 X 1"
RP-UPV26/5/4	26 X 5/4"
RP-UPV32/5/4	32 X 5/4"
RP-UPV32/6/4	32 X 6/4"
RP-UPV40/5/4	40 X 5/4"
RP-UPV40/6/4	40 X 6/4"
RP-UPV40/2	40 X 2"
RP-UPV50/6/4	50 X 6/4"
RP-UPV50/2	50 X 2"

COUPLER WITH SCREW CONNECTION, FLAT-SEALING, WITH LOOSE NUT, FOR RADOPRESS MLCP. ONLY ABOVE PLASTER, COMPONENTS IN CONTACT WITH DRINKING WATER MADE FROM DEZINCIFICATION RESISTANT BRASS.

DEMOUNTABLE CONNECTION



RP-VK16	16 X 3/4"
RP-VK20	20 X 3/4"
RP-VK26	26 X 1"
RP-VK32	32 X 5/4"
RP-VK40	40 X 5/4"
RP-VK50	50 X 6/4"

PRESS-SCREW CONNECTION, FLAT-SEALING, FOR RADOPRESS MLCP. COMPONENTS IN CONTACT WITH DRINKING WATER MADE FROM DEZINCIFICATION RESISTANT BRASS.

DOUBLE TAB ELBOW



RP-AAD16/16
RP-AAD20/20

TAB ELBOW, DOUBLE, FOR RADOPRESS MLCP. COMPONENTS IN CONTACT WITH DRINKING WATER MADE FROM DEZINCIFICATION RESISTANT BRASS.

EXTENDED TAB ELBOW



RP-AAE16/1/2/80	16 X 1/2" - 80 MM
RP-AAE18/1/2/80	18 X 1/2" - 80 MM
RP-AAE20/1/2/80	20 X 1/2" - 80 MM

TAB ELBOW LONG (80MM), INCL. FLANGE, SINGLE, FOR RADOPRESS MLCP. COMPONENTS IN CONTACT WITH DRINKING WATER MADE FROM DEZINCIFICATION RESISTANT BRASS.

TAB ELBOW



RP-AAE16/1/2	16 X 1/2"
RP-AAE18/1/2	18 X 1/2"
RP-AAE20/1/2	20 X 1/2"
RP-AAE20/3/4	20 X 3/4"
RP-AAE26/3/4	26 X 3/4"

TAB ELBOW, INCL. FLANGE, SINGLE, FOR RADOPRESS MLCP. COMPONENTS IN CONTACT WITH DRINKING WATER MADE FROM DEZINCIFICATION RESISTANT BRASS.

PRESSURE TEST PLUG



PPVAKDUGO1/2CPNYI	1/2" RED
PPVAKDUGO1/2CKNYI	1/2" BLUE

LARGE BODY FOR EASY HAND TIGHTENING (NO WRENCH NEEDED). 1/2" MALE THREAD. FOR EASY USE DELIVERED WITH O-RING. AVAILABLE IN RED AND BLUE.

TAB ELBOW BRACKET



SI-DHE	1 HOLE
SI-DH100	2 HOLE 100 MM
SI-DH80/153	3 HOLE 80/150 MM

PREFOLDED, "HAT" PROFILE FIXING BRACKET FOR FLANGED TAB ELBOW. MAKES TAB ELBOW FIXATION QUICKER, EASIER AND NICER. CAN BE INSTALLED INWARD OR OUTWARD. PRESET STANDARD DISTANCE FOR WALL FAUCETS, EASY LEVELING ON WALL, MASSIVE FIXATION.

TAB ELBOW BRACKET, BENDABLE



SI-DHB	FOR WALL PLATES WITH 100 AND 150 MM DISTANCE, 6 PCS FIXING SCREWS INCLUDED
--------	--

BEND YOUR BRACKET TO THE SIZE NEEDED. FOR TAB ELBOWS WITH 100 AND 150 MM DISTANCE. 6 PCS FIXING SCREWS INCLUDED.

PREASSEMBLED TAB ELBOW



RP-WALP16/1/2	16 X 1/2", 3 POSITIONS: CENTER, 100 MM, 150 MM
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TAB ELBOWS ON FIXING BRACKET. POSITIONS: 150 MM, 100MM, MIDDLE.

TAB ELBOW WITH RETAINING NUTS



RP-WDF16/1/2	16 X 1/2"
RP-WDF20/1/2	20 X 1/2"

FACILITATES MOUNTING ON THIN WALL SURFACES (EX. DUCTS) WITH RETAINING NUTS. 1/2" FEMALE THREAD. COMPONENTS IN CONTACT WITH DRINKING WATER MADE FROM DEZINCIFICATION RESISTANT BRASS.

ANTI NOISE BUSHING FOR TAB ELBOW



RP-SSE1	SHORT 1/2"
RP-SSE4	SHORT 3/4"
RP-SSE3	LONG 1/2"
RP-SSE2	DOUBLE U

SOLID RUBBER SEPARATES FLOW NOISE FROM WALL STRUCTURE. FOR TAB ELBOW AND EXTENDED TAB ELBOW. CONSISTS OF BOTTOM AND TOP PIECE.

CONCEALED MALE ELBOW



RP-SP16	CONCEALED CONNECTOR FOR 16X2 MM PIPE
RP-SP18	CONCEALED CONNECTOR FOR 18X2 MM PIPE

SPACE SAVING CONNECTING ELBOW FOR UNDER PLASTER TOILET FLUSH TANK WATER CONNECTION. ELBOW MOUNTS DIRECTLY TO FLUSH TANK WALL WITH WHITE RETAINING NUT. COMPONENTS IN CONTACT WITH DRINKING WATER MADE FROM DEZINCIFICATION RESISTANT BRASS.

CONCEALED MALE T-PIECE



RP-SP16/16

CONCEALED CONNECTOR FOR
16X2 MM PIPE

RP-SP20/20

CONCEALED CONNECTOR FOR
20X2 MM PIPE

SPACE SAVING CONNECTING T FOR UNDER
PLASTER TOILET FLUSH TANK WATER CONNECTION.
ELBOW MOUNTS DIRECTLY TO FLUSH TANK WALL
WITH WHITE RETAINING NUT. COMPONENTS IN
CONTACT WITH DRINKING WATER MADE FROM
DEZINCIFICATION RESISTANT BRASS.

BALL VALVE - LONG LEVER TYPE



RP-BVL16

FOR 16X2 MM PIPE

RP-BVL20

FOR 20X2 MM PIPE

RP-BVL26

FOR 26x2 MM PIPE

BALL VALVE WITH PRESSING SLEEVE ON BOTH
ENDS. QUICK AND SIMPLE INSTALLATION.

BUILT IN VALVE



RP-WTV16

FOR 16X2 MM PIPE

RP-WTV20

FOR 20X2 MM PIPE

RP-WTV26

FOR 26x3 MM PIPE

USE AS A SHUT-OFF POINT FOR GROUP OF SINKS,
TOILET, ETC. CHROME ELEMENTS GO OVER THE
TILE.

CONNECTING BOX



RP-BOX16/230

FOR 16X2 MM PIPE

EPS BOX WITH INTEGRATED PIPE LOOP FOR
PRESSURE TESTING PIPELINE BEFORE CONNECTING
RADIATORS. AFTER PRESSURE TEST CUT OFF THE
MIDDLE OF THE LOOP AND CONNCT DIRECTLY
TO RADIATOR. PIPE DISTANCE 50 MM, H=230 WITH
RADOPRESS MLCP. D = 16 X 2,0 MM.

CONNECTING BEND TO RADIATOR



RP-HKW16/300

16 / 300 MM

RP-HKW18/300

18 / 300 MM

RP-HKW20/300

20 / 300 MM

RP-HKW16/1100

16 / 1100 MM

RP-HKW18/1100

18 / 1100 MM

RP-HKW20/1100

20 / 1100 MM

RADIATOR CONNECTING BEND, 15 MM, NICKEL-
PLATED, SHORT 300 MM OR LONG 1100 MM.

CONNECTING T-PIECE TO RADIATOR



RP-HKT16/300

16 / 300 MM

RP-HKT18/300

18 / 300 MM

RP-HKT20/300

20 / 300 MM

RP-HKT16/1100

16 / 1100 MM

RP-HKT18/1100

18 / 1100 MM

RP-HKT20/1100

20 / 1100 MM

RADIATOR CONNECTING T-PIECE, 15 MM, NICKEL-
PLATED, SHORT 300 MM OR LONG 1100 MM.

BASEBOARD CONNECTOR



RP-SO16
RP-SO20

FOR 16X2 MM PIPE, 1/2" MALE
FOR 20X2 MM PIPE, 1/2" MALE

IDEAL FOR RENOVATION. NEWLY INSTALLED PIPING RUNS OUTSIDE THE WALL (NO WALL GROOVE CARVING), COVERED BY THE BASEBOARD.

BEND FOR BASEBOARD CONNECTOR



RP-SO15

CONE SCREWING CONNECTION ON FITTING SIDE

CONNECTS THE RADIATOR WITH BASEBOARD CONNECTOR WITH SCREW CONNECTION 1/2".

ELBOW FOR BASEBOARD CONNECTOR



RP-WA15

CONE SCREWING CONNECTION ON FITTING SIDE, WITH BUILT IN LOCKSHIELD VALVE

CONNECTS THE RADIATOR WITH BASEBOARD CONNECTOR WITH SCREW CONNECTION 1/2". WITH BUILT IN LOCKSHIELD VALVE.

PIPE CONNECTING SCREWS

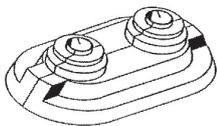


RP-SCMI-15/1/2
RP-SCMI-16/1/2
RP-SCMI-15/3/4
RP-SCMI-16/3/4

Ø15 COPPER PIPE - 1/2" EUROCONES
Ø16 PLASTIC MLC PIPE - 1/2" EUROCONES
Ø15 COPPER PIPE - 3/4" EUROCONES
Ø16 PLASTIC MLC PIPE - 3/4" EUROCONES

FOR CONNECTING 16X2 MLCP PIPE AND 15 MM METAL PIPE TO RADIATOR VALVE.

ROSETTE



RA-ROSETTE
RA-DUOROS50

SIMPLE WHITE, CONSISTS OF TWO PARTS
DOUBLE WHITE, CONSISTS OF TWO PARTS WITH 50 MM DISTANCE

COVERS UP PIPE BRACKETHROUGH ON WALL AND FLOOR

PRESS CONNECTION TO COPPER



RP-MCU16-15
RP-MCU16-18
RP-MCU18-15
RP-MCU20-15
RP-MCU20-18
RP-MCU20-22
RP-MCU26-22
RP-MCU26-28

Ø16 RADOPRESS - Ø15 COPPER
Ø16 RADOPRESS - Ø18 COPPER
Ø18 RADOPRESS - Ø15 COPPER
Ø20 RADOPRESS - Ø15 COPPER
Ø20 RADOPRESS - Ø18 COPPER
Ø20 RADOPRESS - Ø22 COPPER
Ø26 RADOPRESS - Ø22 COPPER
Ø26 RADOPRESS - Ø28 COPPER

FACILITATES TRANSITION BETWEEN COPPER AND RADOPRESS PIPE. COPPER END CAN BE SOLDERED.

NON CROSSING T-PIECE



RP-NOCT-16

FOR PIPE 16X2 MM

FLOOR SPACE SAVING SOLUTION. ALLOWS CROSSING PIPES TO RUN IN A PLANE

INSULATION FOR NON CROSSING T-PIECE



RP-INOCT-16

FOR NOCT-16

INSULATION BOX FOR NON-CROSSING T-PIECE

PRESSING SLEEVE



RP-PH16

FOR PIPE 16X2 MM

REPLACEMENT SLEEVE FOR PRESS FITTINGS

RP-PH18

FOR PIPE 18X2 MM

RP-PH20

FOR PIPE 20X2 MM

RP-PH26

FOR PIPE 26X2 MM

RP-PH32

FOR PIPE 32X2 MM

RP-PH40

FOR PIPE 40X2 MM

RP-PH50

FOR PIPE 50X2 MM

RP-PH63

FOR PIPE 63X2 MM

O-RING FOR BRASS FITTING



RP-O16

FOR PIPE 16X2 MM

REPLACEMENT O-RING FOR PRESS FITTINGS

RP-O18

FOR PIPE 18X2 MM

RP-O20

FOR PIPE 20X2 MM

RP-O26

FOR PIPE 26X2 MM

RP-O32

FOR PIPE 32X2 MM

RP-O40

FOR PIPE 40X2 MM

RP-O50

FOR PIPE 50X2 MM

RP-O63

FOR PIPE 63X2 MM

RADIATOR CONNECTION ACCESSORIES

DOUBLE BLOCK RADIATOR VALVE WITHOUT BYPASS



RP-DRVS
RP-DRVA

STRAIGHT, 3/4" - 3/4" EUROCONES
STRAIGHT, 3/4" - 3/4" EUROCONES

FOR RADIATORS WITH BOTTOM CONNECTION WITH BUILT IN SHUT-OFF VALVE.

PIPE CONNECTING SCREWS



RP-SCMI-15/1/2
RP-SCMI-16/1/2
RP-SCMI-15/3/4
RP-SCMI-16/3/4

Ø15 COPPER PIPE - 1/2" EUROCONES
Ø16 PEX-AL-PEX PIPE - 1/2" EUROCONES
Ø15 COPPER PIPE - 3/4" EUROCONES
Ø16 PEX-AL-PEX PIPE - 3/4" EUROCONES

FOR CONNECTING 16X2 MLCP PIPE AND 15 MM METAL PIPE TO RADIATOR VALVE

ADAPTOR SCREW FOR DOUBLE BLOCK RADIATOR VALVE



RP-DRVNIP

1/2" - 3/4" REDUCER WITH O-RING

CONVERTS 3/4" FEMALE THREAD TO 1/2" MALE

AIR VENT VALVES



RP-AVE1/2
RP-AVEM3/8

MANUAL, 1/2" MALE
AUTOMATIC, 3/8" FEMALE

REMOVES EXCESS AIR FROM RADIATOR AND PIPELINE

END CAP FOR RADIATORS



RP-BP1/2OR

THREADED PLUG FOR RADIATOR.
1/2" MALE, WITH O-RING.

FOR PERMANENT CLOSER OF NOT USED RADIATOR THREAD OPENING

MANIFOLD EXTENSION PIECE



RP-MEX-1

1", SEALING INCLUDED

MANIFOLD COUPLER 1", TO CONNECT MANIFOLD, ENLARGE CIRCUITS, SEALING INCLUDED

RADIATOR MANIFOLD

MANIFOLD FOR RADIATOR HEATING



RP-HKV2	2 CIRCUITS
RP-HKV3	3 CIRCUITS
RP-HKV4	4 CIRCUITS
RP-HKV5	5 CIRCUITS
RP-HKV6	6 CIRCUITS
RP-HKV7	7 CIRCUITS
RP-HKV8	8 CIRCUITS
RP-HKV9	9 CIRCUITS
RP-HKV10	10 CIRCUITS

BRASS ROUND PIPE MANIFOLD ACCORDING TO EN 1264-4 WITH BILATERAL FLAT SEALING, MALE THREADS, 1", LOW INSTALLATION DEPTH. FUNCTION AND PRESSURE TESTED. SUPPLY: FINE-CONTROL AND SHUT-OFF VALVE; RETURN: CONTROL AND SHUT-OFF VALVE WITH ADAPTION M30×1,5 (SM: 11,8). CONNECTION NIPPLE G 3/4 WITH EUROCONE, 50 MM DISTANCE. SUPPLY AND RETURN BRANCHES EXCHANGEABLE.

BALL VALVE SET



RP-KH1	1", SET OF 2 PIECES OF BALL STOPCOCKS, 1 BLUE AND 1 RED. SEALING INCLUDED.
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MANIFOLD END PIECE SET

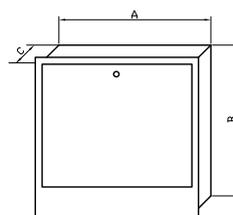


RP-MAPS1	CHARGE-DISCHARGE, AIR VENT. SEALING INCLUDED.	1", CHARGE-DISCHARGE, AIR VENT. SEALING INCLUDED
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MANIFOLD CABINET - UNDER PLASTER



FT-VK1	FOR 2-5 CIRCUITS MANIFOLDS
FT-VK2	FOR 6-9 CIRCUITS MANIFOLDS
FT-VK3	FOR 10-12 CIRCUITS MANIFOLDS



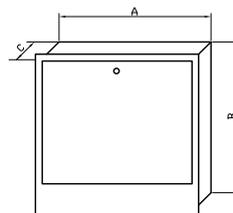
ALL UNITS ARE IN MM

A	B	C
580	680	110
780	680	110
930	680	110

MANIFOLD CABINET - OVER PLASTER



SF-WEK0	FOR 2-3 CIRCUITS MANIFOLDS
SF-WEK1	FOR 4-5 CIRCUITS MANIFOLDS
SF-WEK2	FOR 6-10 CIRCUITS MANIFOLDS



ALL UNITS ARE IN MM

A	B	C
450	585	110
550	585	110
800	585	110

ROOM THERMOSTATS, TIMERS

THERMOELECTRIC ACTUATOR



RP-ACT1

2 WIRE TYPE

NORMALLY CLOSED THERMOELECTRIC ACTUATOR WITH POSITION INDICATOR FOR OPENING AND CLOSING CIRCUITS ON THE MANIFOLD. OPERATING VOLTAGE 230V, POWER CONSUMPTION 1.8 W, CABLE 1 M - 2X0,5 MM², PROTECTION CLASS IP54, STROKE 3.5 MM, MAX. AMBIENT TEMPERATURE 50°C, CONNECTING RING M30 × 1,5. THE ACTUATOR KEEPS THE VALVE CLOSED (NC) WHEN CURRENTLESS.

ELECTRONIC ROOM THERMOSTAT



RP-RTH1

RP-RTH2

WITH SELECTION MODE, SEE PAGE 14.

ELECTRONIC ROOM THERMOSTAT FOR HEATING TO REGULATE THE ROOM TEMPERATURE. ADJUSTMENT RANGE 5 - 30°C, DIFFERENTIAL GAP 0,5 K, OPERATING TEMPERATURE 0 - 50°C, NOISELESS TRIAC CONTACT, NTC TEMPERATURE SENSOR, OUTPUT 15/75 W, IP 30.

ELECTRONIC ROOM THERMOSTAT WITH LCD DISPLAY AND FLOOR SENSOR



RP-RTD

SEE PAGE 14.

ELECTRONIC ROOM THERMOSTAT TO REGULATE THE ROOM TEMPERATURE. ADJUSTMENT RANGE 5 - 30°C, DIFFERENTIAL GAP 0,5 K, OPERATING TEMPERATURE 0 - 50°C, NOISELESS TRIAC CONTACT, NTC TEMPERATURE SENSOR, OUTPUT 15/75 W, IP 30. MODE SELECTION NORMAL, REDUCED OR PILOT WIRE (CLOCK TIMER). FLOOR SENSOR WITH ADJUSTABLE TEMPERATURE LIMITATION 10 - 40°C, 3 M SENSOR CABLE.

3 CONTROL MODES:

- 1) VIA INTERNAL ROOM SENSOR.
- 2) VIA EXTERNAL ROOM SENSOR (FLOOR SENSOR).
- 3) VIA INTERNAL ROOM SENSOR AND FLOOR TEMPERATURE LIMITATION.

ROOM THERMOSTAT WITH WEEKLY PROGRAM



RP-CTM

SEE PAGE 14.

ELECTRONIC CLOCK THERMOSTAT WITH LCD DISPLAY. ADJUSTMENT RANGE 5 - 35°C. FOR NORMAL OR REDUCED MODE, 9 INTEGRATED STANDARD PROGRAMS AND 4 VARIABLE USER PROGRAMS, FROST PROTECTION AND HOLIDAY FUNCTION, KEY LOCK, RESET FUNCTION. OUTPUT 8 A - 250 V, 3 BATTERIES 1,5 V (AA), BATTERIES WEAK DISPLAY, PROTECTION CLASS IP 30.

ELECTRONIC ROOM THERMOSTAT WITH TAMPER PROOF SETTINGS



RP-SENS

SEE PAGE 14.

TEMPER-PROOF ELECTRONIC ROOM THERMOSTAT. ADJUSTMENT RANGE 5 - 30°C, DIFFERENTIAL GAP 0,5 K, OPERATING TEMPERATURE 0 - 50°C, NOISELESS TRIAC CONTACT, NTC TEMPERATURE SENSOR, OUTPUT 15/75 W, IP 30. INTERNAL SWITCH FOR NC/NO-ACTUATORS. MODE SELECTION NORMAL, REDUCED OR PILOT WIRE (CLOCK TIMER). FLOOR SENSOR WITH ADJUSTABLE TEMPERATURE LIMITATION 10 - 40°C, 3 M SENSOR CABLE.
3 CONTROL MODES:
1) VIA INTERNAL ROOM SENSOR.
2) VIA EXTERNAL ROOM SENSOR (FLOOR SENSOR).
3) VIA INTERNAL ROOM SENSOR AND FLOOR TEMPERATURE LIMITATION.

CONNECTING BOX, MASTER



RP-CBM

SEE PAGE 15.

6-ZONE, PUMP LOGIC WIRING CENTRE WITH ALL MAIN CONNECTIONS FOR A HEATING SYSTEM. PROPORTIONAL INTEGRAL REGULATION. EACH ZONE HAS TWO SOCKETS FOR ACTUATORS. EXTENDABLE WITH FURTHER 6 ZONES (SLAVE), 2 ACTUATORS PER ZONE. MOUNTABLE DIRECTLY ON THE WALL OR ON A DIN-RAIL CLOSE TO THE MANIFOLD. CONNECTS THE ROOM THERMOSTATS TO THEIR CORRESPONDING ACTUATORS. FACE PANEL LED INDICATION OF THE STATES OF THE ACTUATORS, OPERATING TEMPERATURE 0 - 50°C, PUMP RELAY (OUTPUT 8 A), IP 30, MODULAR DESIGN.

CONNECTING BOX EXTENDER



RP-CBS

SEE PAGE 15.

6 ZONE SLAVE UNIT, USED IN COMBINATION WITH CONNECTING BOX MASTER (RP-CBM) AS EXTENSION. OPERATING TEMPERATURE 0 - 50°C, IP 30, MODULAR DESIGN.

PROGRAM CONTROLLER



RP-DCT

SEE PAGE 15.

CONTROL UNIT TO BE USED WITH CONNECTING BOX - MASTER RP-CBM. NORMAL AND DECREASED MODE OF OPERATION. 9 SELECTABLE BASIC PROGRAMS, 12 USER PROGRAMS, FROST-FREE OPERATING MODE, HOLIDAY OPERATING MODE, PROTECTABLE WITH CODE, RESET FUNCTION.

WIRELESS - ROOM THERMOSTAT WITH LCD DISPLAY



RP-RTDRF

SEE PAGE 15.

WIRELESS ELECTRONIC ROOM THERMOSTAT WITH LCD DISPLAY. ADJUSTMENT RANGE 5 - 30°C, DIFFERENTIAL GAP 0,3 K, OPERATING TEMPERATURE 0 - 50°C. HEATING OR COOLING FUNCTION. INPUT FOR EXTERNAL SENSOR FOR FLOOR LIMITATION ETC. OPERATES WITH 2 AAA BATTERIES, WITH ON-OFF SWITCH ON THE SIDE. RF DISTANCE WITHIN BUILDINGS APPROX. 30 M.

WIRELESS - ROOM THERMOSTAT WITH WEEKLY PROGRAM



RP-CTMRF

SEE PAGE 15.

RF-THERMOSTAT WITH LCD DISPLAY, WEEKLY PROGRAM. HEATING AND/OR COOLING FUNCTION. ADJUSTMENT RANGE 5 - 35°C, ANTIFREEZE AND HOLIDAY FUNCTION, KEY LOCK. 3 BATTERIES WITH 1,5 V (AA), BATTERIES WEAK DISPLAY, PROTECTION CLASS IP 30. RF DISTANCE WITHIN BUILDINGS APPROX. 40 M.

WIRELESS - CONNECTING BOX MASTER WITH WIRELESS CONTROLLER



RP-CBSRF

SEE PAGE 16.

WIRELESS CONNECTING BOX CONTROLLING 6 ZONES, 2 ACTUATORS PER ZONE. CAN BE EXTENDED WITH 6 ADDITIONAL ZONES. PROPORTIONAL INTEGRAL REGULATION. TO BE MOUNTED ON THE WALL, NEAR THE MANIFOLD. CAN BE USED IN AN ENVIRONMENT OF MAX. 50°C, HAS A PROTECTION OF IP 30, PUMP RELAY OUTPUT (FOR CONTROLLING THE PUMP SWITCHING ON AND OFF) 8A. LED DISPLAY IN TWO COLORS FOR EASY RADIO AND PROGRAM SETUP, WITH AN OWN POWER SOURCE ENOUGH FOR 3 HOURS. ADJUSTABLE TEMPERATURE 5-35°C. NORMAL AND DECREASED MODE OF OPERATION. 9 SELECTABLE BASIC PROGRAMS, 12 USER PROGRAMS, FROST-FREE OPERATING MODE, HOLIDAY OPERATING MODE, PROTECTABLE WITH CODE, RESET FUNCTION. OUTPUT SIGNAL 8A- 50VAC, IP PROTECTION 30. FREQUENCY 433 MHZ, OPEN SPACE RANGE 50 M. FOR HEATING AND COOLING.

WIRELESS - CONNECTING BOX, SLAVE



RP-BMRF

SEE PAGE 16.

6 ZONE SLAVE UNIT, USED IN COMBINATION WITH CONNECTING BOX MASTER (RP-CBSRF) AS EXTENSION. OPERATING TEMPERATURE 0 - 50°C, IP 30, MODULAR DESIGN.

WIRELESS - RECIEVER FOR 1 ZONE



RP-RECRF

SEE PAGE 16.

RECEIVER FOR ALL RF-THERMOSTATS. USING ONE RF-THERMOSTAT AS TRANSMITTER, MULTIPLE RECEIVERS CAN BE OPERATED. SWITCH FOR AUTOMATIC/MANUAL MODE AND RADIO CONFIGURATION. OUTPUT 12 A, PROTECTION CLASS IP 44. RF DISTANCE WITHIN BUILDINGS APPROX. 40 M.

TOOLS

PRESSING TOOL - BATTERY DRIVEN



RE-AKPRESS 10-54

PRESSING MACHINE UP TO Ø63 MM

BASIC-PACK: PRESSING MACHINE, AKKU, CHARGER, STEEL CASE. MAX: Ø63 MM APPROX. 150 PRESSING Ø16 MM WITH ONE CHARGE.

PRESSING MACHINE, 230V



ROMAX-AC-ECO-BASIC

PRESSING MACHINE UP TO Ø110 MM

ELECTRO HYDRAULIC CABLE PRESS MACHINE, UP TO Ø110 MM; RUBBER HANDLE; 32 -34KN; CFT - CONSTANT PRESSING FORCE OVER MIN. 10,000 PRESSING CYCLES; 230V / 50-60HZ; 5 M CABLE LENGTH; SAFETY LOCK; EMERGENCY STOP SWITCH; BASIC-PACK CONSISTING OF PRESSING MACHINE AND PLASTIC CASE.

PRESSING TOOL - ELECTRICAL



RE-ELPRESS 10-54

PRESSING MACHINE UP TO Ø110 MM

BASIC-PACK: PRESSING MACHINE, STEEL CASE. MAX DIA.: Ø110 MM.

HAND PRESS TOOL



RE-ECOPRESS

PRESSING UP TO Ø26 MM

REMS MANUAL PRESSING TOOL UP TO Ø26 MM, WEIGHT 1.6 KG. ONLY COMPATIBLE WITH REMS JAWS.

PRESSING JAWS - CONTOUR TH



RE-PRESSZ16P

FOR 16 MM FITTING

RE-PRESSZ18P

FOR 18 MM FITTING

RE-PRESSZ20P

FOR 20 MM FITTING

RE-PRESSZ26P

FOR 26 MM FITTING

RE-PRESSZ32P

FOR 32 MM FITTING

RE-PRESSZ40P

FOR 40 MM FITTING

RE-PRESSZ50P

FOR 50 MM FITTING

RE-PRESSZ63

FOR 63 MM FITTING

JAWS COMPATIBLE WITH MOST PRESSING MACHINES

PRESSING TOOL ACCESSORIES



571510
565220
570295

BATTERY, 12V, 2AH.
FAST CHARGER 230V, 50-60HZ, 50W.
SHEET-METAL CASE FOR 6 PRESSING JAWS.

CALIBRATOR



RP-EK16 FOR 16 MM FITTING
RP-EK18 FOR 18 MM FITTING
RP-EK20 FOR 20 MM FITTING
RP-EK26 FOR 26 MM FITTING
RP-EK32 FOR 32 MM FITTING
RP-EK40 FOR 40 MM FITTING
RP-EK50 FOR 50 MM FITTING
RP-EK63 FOR 63 MM FITTING

SINGLE CALIBRATOR FOR CALIBRATING AND CHAMFERING RADOPRESS AND FLOORTHERM MLCP. IF HANDLE REMOVED, CAN ALSO BE APPLIED TO DRILLING TOOLS.

PRO-CAL16-26



PRO-CAL16-26 SUPER ERGONOMIC CALIBRATOR FOR PIPE 16, 20, 26 MM

FOUR BRANCH CALIBRATOR



RP-EK16/26 FOR PIPE Ø16, 18, 20, 26 MM

PIPE CUTTER



VAGOOLLOD35 SHEAR UP 35 MM

CUTS PLASTIC PIPES WITH RATCHET MECHANISM UP TO 35 MM

PROFESSIONAL PIPE CUTTER



PRO-CUT16-26	PREMIUM PIPE CUTTER WITH REPLACABLE BLADE FOR PIPE 16-26 MM
PRO-CUT2	SPARE BLADE FOR PIPE CUTTER

BENDING SPRING – OUTER



RP-BFA16	FOR 16 MM PIPE	SUITABLE FOR BENDING ANYWHERE ALONG THE PIPE
RP-BFA18	FOR 18 MM PIPE	
RP-BFA20	FOR 20 MM PIPE	
RP-BFA26	FOR 26 MM PIPE	

BENDING SPRING – INNER



RP-BFI16	FOR 16 MM PIPE	SUITABLE FOR BENDING NEAR PIPE END
RP-BFI18	FOR 18 MM PIPE	
RP-BFI20	FOR 20 MM PIPE	
RP-BFI26	FOR 26 MM PIPE	

PIPE FIXATION

PIPE ANCHOR



SI-HAK60	SIMPLE ANCHOR, LENGTH 60 MM, 50 PIECES PER PACKAGE.	FIXES PIPE TO CONCRET FLOOR (DRILLING A HOLE IS NEEDED), SINGLE OR DOUBLE, FOR PIPES UP TO Ø32 MM, 60 MM LONG, 50 PCS / BAG.
SI-DUOHAK60	DOUBLE ANCHOR, LENGTH 60 MM, 50 PIECES PER PACKAGE.	

SNAP-IN PIPE CLAMP



SNAP16	FOR 16 MM PIPE	MODULAR SNAP-IN FIXING FOR EACH PIPE DIAMETER. SERIALY LINKABLE. MATERIAL HEAT RESISTANT PP. CENTRAL SCREW SLOT FOR SIDE ADJUSTMENT.
SNAP20	FOR 18 MM PIPE	
SNAP26	FOR 26 MM PIPE	
SNAP32	FOR 32 MM PIPE	
SNAP40	FOR 40 MM PIPE	
SNAP50	FOR 50 MM PIPE	
SNAP63	FOR 63 MM PIPE	

