



**PipeFix**





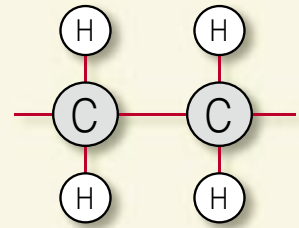
**T**he HERZ composite pipe has been developed for multiple use and complex installation tasks. It is economical to process and is characterised by its high quality, safety and durability. It is also completely recyclable.

This multi-layered pipe is manufactured with the most up-to-date production machines and is backed up by decades of experience and expertise. It consists of a basic pipe made from polyethylene, which is covered by a seam welded aluminium layer and covered by a further layer of polyethylene. This composite material combines the excellent characteristics of plastic with the proven advantages of aluminium. A consistent round pipe profile is achieved using this production process, which guarantees precise accuracy of fit for all connections. Only polyethylene (PE) is used for the HERZ composite pipe. PE is a polyolefin, consisting of the chemical elements of carbon and hydrogen, which is very similar to the molecular structure of wax, but the molecular chains are very much longer.



Only polyethylene (PE) is used for the HERZ composite pipe. PE is a polyolefin, consisting of the chemical elements of carbon and hydrogen, which is very similar to the molecular structure of wax, but the molecular chains are very much longer.

**P**olyethylene is a versatile plastic and can be recycled after being separated from the aluminium, for example, as an oil substitute in combustion plants. This aluminium layer gives the pipe rigidity, 100% watertightness and an oxygen barrier.

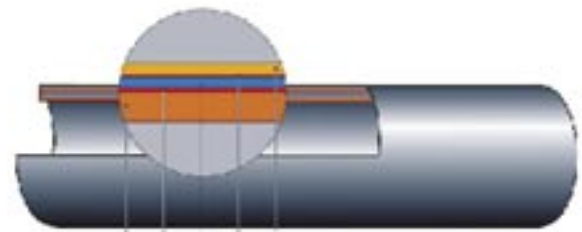


**T**he pipes are supplied in straight lengths or coils and are connected using HERZ press fittings or HERZ screw connections. HERZ pipe and HERZ connection fittings are tested for conformity to standards and accredited by externally recognised testing centres in many European countries. The system is registered as **HERZ PipeFix**.

HERZ pipes have good electrical conductivity due to the **“continuous”** aluminium layer. **“Lateral”** to the pipe shaft, the polyethylene layer works as an electrical insulator up to a voltage of around 35,000 V. It is not possible to earth the piping.

HERZ plastic and aluminium composite pipes are used for under-floor heating, radiator heating and domestic water distribution. All HERZ pipes are printed as follows:

> | < xxx m HERZ-HV pipe PE-xx/Al/PE-xx dimension x wall thickness country of production 95°C/10 bar tested date/time/equipment no./order no. /layer /operative no.



High heat stabilised polymer outer pipe, white, UV stabilised  
Adhesion layer  
Uniform longitudinally butt-welded, absolutely round, solid aluminium pipe  
Adhesion layer  
High heat stabilised, PE-X or PE-RT inner pipe

In addition to this there is the HERZ FH plastic and aluminium composite pipe with thinner aluminium layer for installation in floor or surface heating and cooling systems.

## HERZ plastic and aluminium composite pipe, PE-RT

Pipe ID: PE-RT / AL / PE-HD

Reference

PE	... Polyethylene
RT	... Raised temperature, Higher temperature
AL	... Aluminium
HD	... High density

Supplied in coils or straight lengths in various thickness of aluminium depending on the pipe size (see table).

Maximum operating temperature	... 95°C
Maximum operating pressure	... 10 bar
Transient temperature and pressure (short-term)	... 110°C, 15 bar
Inner surface roughness	... 0.007mm
Heat conductivity	... 0.5 W / m x °K
Linear expansion coefficient	... 0.024 mm/m°K
Colour	... white
Oxygen diffusion	... <0.005 mg/l d
Minimum bending radius without tools	... 5d
Minimum bending radius with tools	... 3d

HERZ order number	Outside Diameter (mm)	Wall thickness (mm)	Aluminium thickness (mm)	Coils (m)	Straight Lengths (m)	Weight (kg / 100 m)	Water capacity (L)
<b>Pipe Coil</b>							
3 C140 20	14	2	0.4	200	-	11.10	0.075
3 C160 20	16	2	0.4	200	-	12.90	0.113
3 C180 20	18	2	0.4	200	-	15.20	0.154
3 C200 20	20	2	0.4	100	-	17.50	0.201
3 C260 30	26	3	0.5	50	-	29.60	0.307
3 C320 30	32	3	0.5	50	-	36.60	0.523
3 C400 30	40	3.5	0.5	50	-	51.00	0.845
<b>Pipe lengths</b>							
3 C160 34	16	2	0.4	-	5	12.90	0.113
3 C200 34	20	2	0.4	-	5	17.50	0.154
3 C260 35	26	3	0.5	-	5	29.60	0.307
3 C320 35	32	3	0.5	-	5	36.60	0.523
3 C400 36	40	3.5	0.5	-	5	51.00	0.845
3 C500 45	50	4.0	0.6	-	5	87.00	1.385
3 C630 45	63	4.5	0.8	-	5	131.50	2.229
<b>FH composite pipe</b>							
3 C101 30	10	1.3	0.2	250	-	4.65	0.043
3 D160 14	14	2	0.2	200	-	8.80	0.075
3 D160 20	16	2	0.2	200	-	10.20	0.113
3 D160 18	18	2	0.25	200	-	12.20	0.154

HERZ order number	Outside Diameter (mm)	Wall thickness (mm)	Aluminium thickness (mm)	Coils (m)	Protective pipe (m)	Weight (kg / 100 m)	Water capacity (L)
3 C160 31	16	2	0.4	200	4	13.15	0.113
3 C200 31	20	2	0.4	100	4	17.78	0.201
3 C260 31	26	3	0.5	50	4	30.00	0.307
3 C160 32	16	2	0.4	200	9	13.40	0.113

## Heating and sanitation pipes with thermal insulation

Heating and domestic water pipes with varying thickness (4 mm and 9 mm) of insulation offer optimum protection against heat loss and also offer protection against mechanical damage.

## Pipe in pipe

Heating or domestic water pipes drawn into a corrugated protective sleeve to protect pipes or to facilitate subsequent replacement during building refurbishment.

HERZ order number	Outside Diameter (mm)	Wall thickness (mm)	Aluminium thickness (mm)	Coils (m)	Protective pipe (m)	Weight (kg / 100 m)	Water capacity (L)
3 C160 33	16	2	0.4	50	20/25 black	13.80	0.113
3 C160 39	16	2	0.4	50	20/25 blue	13.80	0.113
3 C200 33	20	2	0.4	50	25/30 black	18.30	0.201
3 C200 39	20	2	0.4	50	25/30 blue	18.30	0.201

## HERZ plastic composite pipe, PE-Xc

Pipe ID: PE-Xc / AL / PE-Xc

Reference

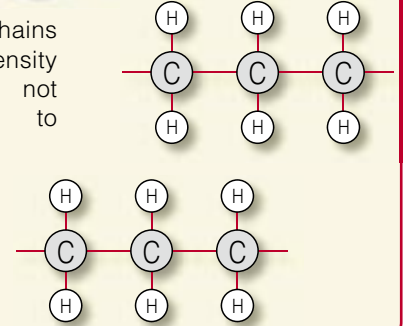
PE ... Polyethylene  
 Xc ... X-linked  
 AL ... Aluminium

The composition of the spatial lattice structure is achieved using energy-rich betatron radiation. The accelerated  $\beta$  particles provide the energy for the reaction of the molecular chain. Supplied in coils or straight lengths in various thickness of aluminium depending on the pipe size (see table).

Maximum operating temperature ... 95°C  
 Maximum operating pressure ... 10 bar  
 Durability under these conditions ... 440,000 h (50 years)  
 Transient temperature and pressure ... 110°C, 15 bar  
 Inner surface roughness ... 0.007 mm  
 Heat conductivity ... 0.39 W / m x°K  
 Linear expansion coefficient ... 0.024 mm / m°K  
 Colour ... white  
 Oxygen diffusion ... < 0.005 mg/l d  
 Minimum bending radius without tools ... 5d  
 Minimum bending radius with tools ... 3d



The molecule chains for high density polyethylenes are not directly connected to one another. The structure is held together by two-way forces.



HERZ order number	Outside Diameter (mm)	Wall thickness (mm)	Aluminium thickness (mm)	Coils (m)	Straight Lengths (m)	Weight (kg/100m)	Water capacity (L)
3 A140 20	14	2	0.4	100	-	11.10	0.075
3 A160 20	16	2	0.4	100	-	12.90	0.113
3 A180 20	18	2	0.4	100	-	15.20	0.154
3 A200 20	20	2	0.5	100	-	17.50	0.201
3 A260 30	26	3	0.5	50	-	29.60	0.307
3 A320 30	32	3	0.5	50	-	36.60	0.531
3 A320 35	32	3	0.5	-	5	36.60	0.531
3 A400 35	40	3.5	0.5	-	5	51.00	0.855
3 A500 45	50	4	0.5	-	5	87.00	1.385
3 A630 45	63	4.5	0.5	-	5	131.50	2.290

Various methods are used for connecting chains to the network. Through the connection of existing transverse connections between the polyethylene molecular chains. These transverse connections reduce the movements of the molecular chains between themselves.

PE ... Polyethylene

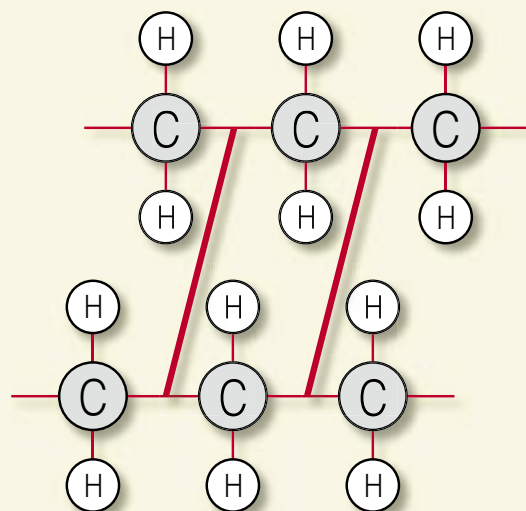
X ... Cross linked

C ... Methods of networking

PE- Xa: Cross linked by organic peroxides (chemical connection) Engel procedure

PE- Xb: Cross linked by silan followed by water treatment (chemical networking)

PE- Xc: electronic connection using bombardment with electrons (physical networking)



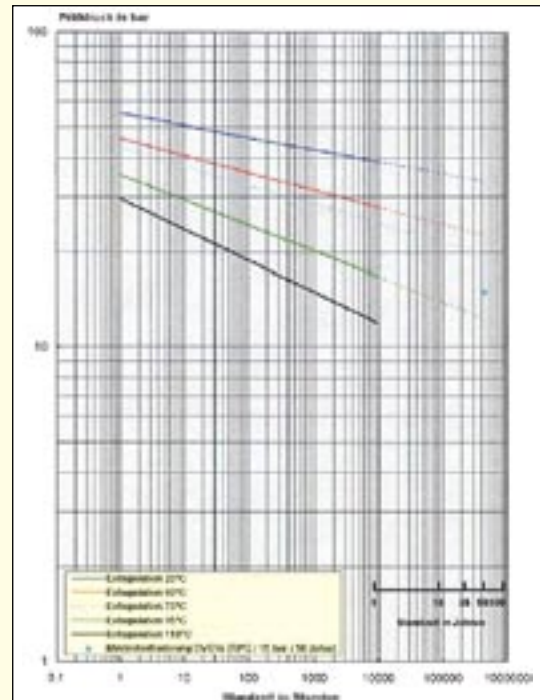
## Creep behaviour of HERZ pipe

The creep behaviour indicates what maximum pipe wall stress (pipe inner pressure) is permissible under constant operating temperatures, in order to achieve a certain operating time. The hoop stress resistance, particularly due to the creep strength of the relatively thick aluminium layer, is proven in HERZ pipes.

The creep behaviour of HERZ pipes is far above the temperatures relevant to the housing market for heating and domestic water installations. The HERZ pipe consists of various layers of materials, the individual contributions of which add to the creep strength of the whole pipe. An appropriate creep diagram can therefore be drawn for each individual pipe size.

The creep behaviour is indicated by testing the pipe over 10,000 hours, with a temperature 40°C higher than the maximum operating temperature. Afterwards, these results are extrapolated to 50 years with a safety factor of 1.5. In accordance with the standards, the pipes are dimensioned for 50-year durability. A decrease in the durability must be calculated where higher temperatures or pressures are used.

## Inner creep pressure – behaviour according to DIN 16 892 for 16 x 2 mm pipe



Diagrams are available on request for other sizes or materials

## Thermal expansion

The linear expansion coefficient, independent of the pipe size, totals 0.024 mm/m°K.

The length change between installation and operating temperature may be calculated using the following formula.

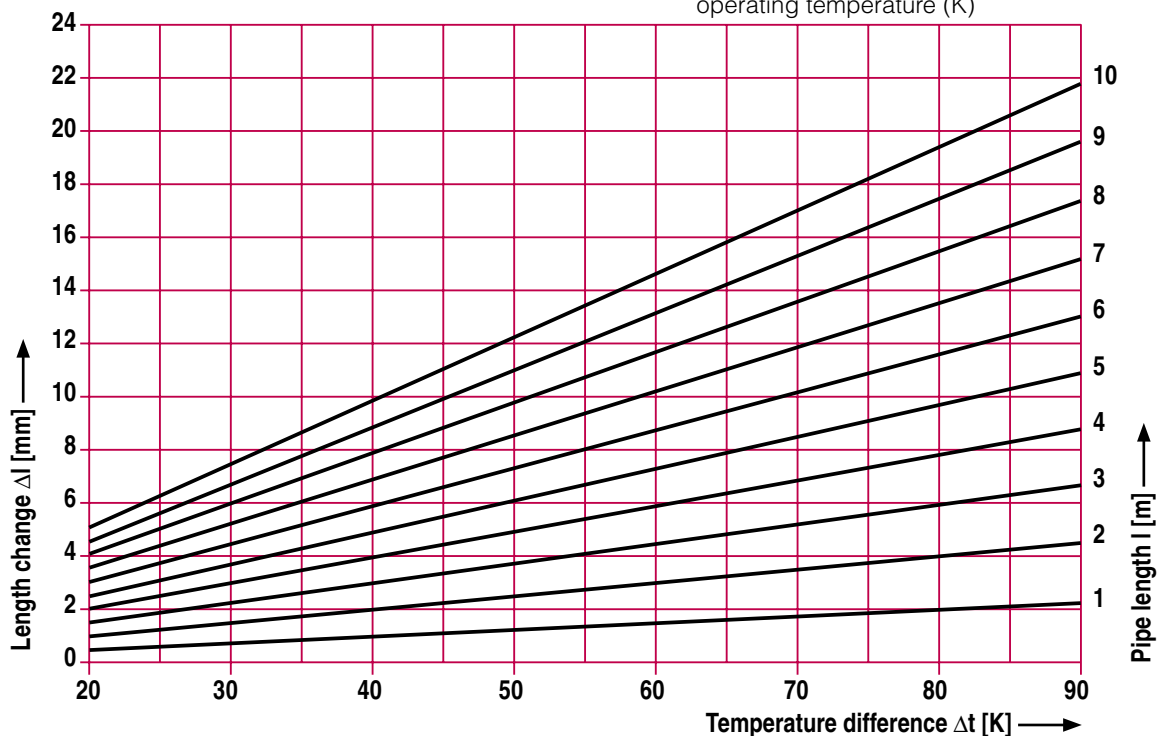
$$\Delta l = a \cdot l \cdot \Delta t$$

$\Delta l$  = length change

$a$  = Expansion coefficient (0.024 mm/m°K)

$l$  = installed pipe length (m)

$\Delta t$  = temperature difference between installation and operating temperature (K)



Pipe expansion is compensated by professional installation.

## Expansion sections and fixing intervals

With normally installed pipes or 'pipe in pipe' installations, sufficient flexible sections must be left to compensate for the expansion. When installing buried

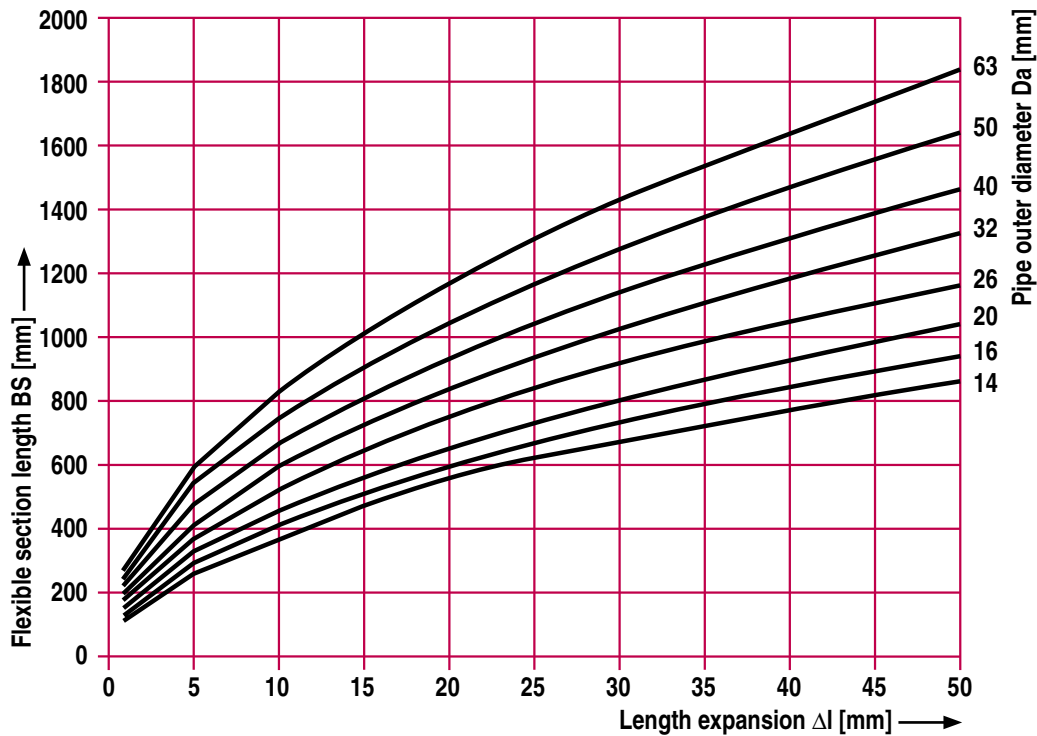
or under screed (under-floor heating) pipes, the expansion is recorded as radial. The flexible section can be calculated as follows:

$$BS = c \cdot \sqrt{Da \cdot \Delta l}$$

$c = 33$ , (dimensionless material constants)

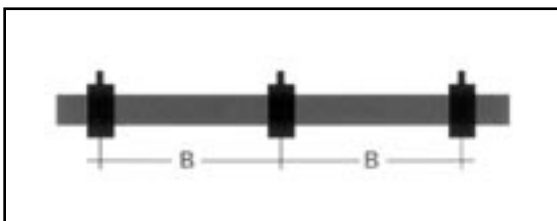
$Da$  = outer diameter of the pipe

$\Delta l$  = length change



Loose laid pipes do not require any supports, such as clips, clamps, etc. due to their stable shape. The support intervals can be found in the table below. Plastic or metal

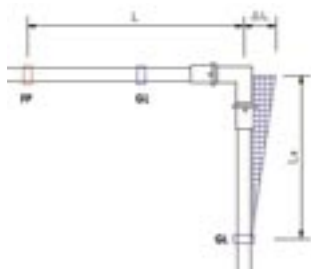
pipe clamps should have a soft lining, of rubber or another soft material, in order to avoid damage to the pipe and to reduce noise transmission.



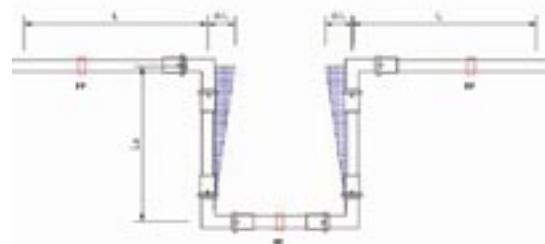
Dimension (mm)	Support Interval B (m)	Dimension (mm)	Support Interval B (m)
14	0.8	32	1.6
16	0.8	40	1.7
20	1	50	1.8
26	1.2	63	2

The arrangement of fixed points and sliding supports is very important when installing, so that sufficient flexible sections are available. Fittings (elbows, 'T's etc) are recommended

for changes in direction, For pipe sizes DN 32 and above they must be utilised. The pipe expansion can be halved by around 50% by pre-stressing the pipes.

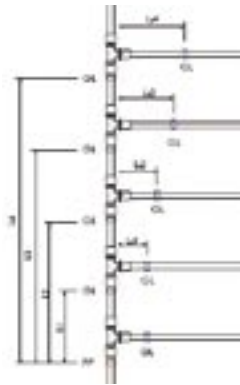


Pipe expansion for directional changes, flexible section to be calculated using the diagram

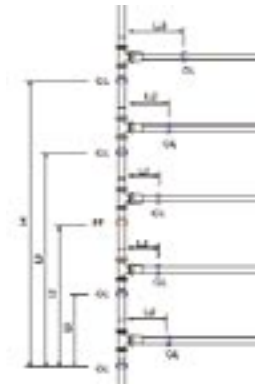


Inclusion of the pipe expansion in long pipes, including expansion through U-bends, flexible sections by calculation or from the diagram

For risers it is advisable to set the fixed point in the middle of the run. The result is smaller intervals for the flexible sections.



Fixed point at the end of the ascending pipe = flexible sections become increasingly larger



Fixed point in the centre of the ascending pipe = flexible sections remain relatively short

Protective pipes should be used when working through wall or ceilings. To avoid severe damage to the pipes, the pipes

should not be bent around sharp angles. For rounding off, sufficiently large openings should be used.



For pipes branching off into ducts, care should be taken that the flexible sections are maintained. If this is not possible, then the duct should be made sufficiently large

to allow for the expansion. A protective pipe running through the duct is recommended.



## Bending radii

The pipe can be bent using a bending tool such as an inner or outer spring, or the usual bending tools or by hand. The minimum bending radii must always

be adhered to. For DN 32 pipes or larger, fittings must always be used.

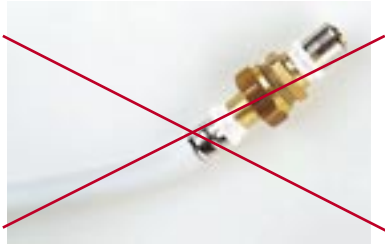
DN	Radius with bending tool (mm)	Radius without bending tool (mm)
10	50	100
14	70	140
16	80	160
18	90	180
20	100	200
26	130	260
32 -63	HERZ PipeFix elbows	HERZ PipeFix elbows

For a working environment temperature less than +5°C there is an increased risk of the pipe snapping or kinking

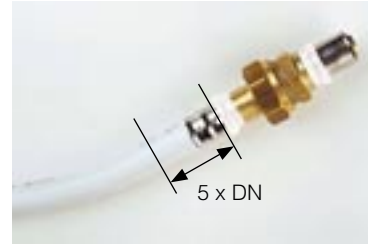
during bending. For bending pipes under +5°C the relevant part of the pipe must be warmed up.



Pipe bends after a press fitting or clip must have a section of pipe 5 x DN between fitting and bend in order to avoid damage to the pipes.



Where there are creases in the piping these sections must always be changed.



## Durability

**D**urability against chemicals, hard drinking water, etc. comes from the characteristics of polyethylene. The medium does not come into contact with the aluminium pipe. The advantages of polyethylene lie in the fact that it is odour and taste-neutral, it is very durable, has a high capacity as well as its validity for food use and is recyclable. Where installing in areas with high concentrations of chemical gases or moisture (stables, large kitchens, etc.) the metallic connection parts must be protected.

The aluminium pipe gives it resistance against UV rays. The growth of algae requires UV rays and is therefore prevented. Short ray UV rays encourage plastics to age. The high density PE outer casing is sufficiently stable for surface installation in buildings, so that further protective measures are superfluous.

The material used, PE, has a good resistance against glycol-based frost protection materials. Where it is used at less than 0°C, the use of anti-freeze is essential.

The use of electrical heating tape to keep the piping free of frost is an option. For better heat distribution the heating tape can be fitted with adhesive foil. Heating tape must be technically tested and have the appropriate accreditation. Heating tape is only suitable for frost protection and not for additional heating. The advice of HERZ engineers is required for any other solutions.

For temperatures lower than +5°C the pipes must not be subjected to unreasonably harsh external mechanical loads. The pipes are installed free of stress – without stress from bending, pulling or torsion. For tight bending radii under an installation temperature of 0°C there is an increased risk of the pipe snapping off. We recommend the use of bending aids and the corresponding pipe parts being warmed to a temperature of over +5°C. The press tool must also guarantee sufficient press strength at low temperatures. The details from the tool manufacturer must be noted here.

## Processing and operating temperatures

**T**he lowest operating temperature for PE is -20°C, and an installation temperature of -40°C is possible.

## Behaviour in fire

**D**uring the manufacture of HERZ pipes only polyolefin-based plastics are used in addition to aluminium. During normal combustion the same fumes are given off as when a candle burns out. Unfavourable conditions (too little oxygen) may produce carbon monoxide or soot, which always occurs during the incomplete combustion of organic matter. Aluminium is incombustible under normal conditions. Oxidation products are non-toxic and are often even an element of natural soil composition. No halogens, acids or other toxic environmentally harmful materials are released during the combustion of HERZ pipes.

Where ventilation zones are crossed, the standards

corresponding to fire protection system shutting devices to prevent the spread of fire are to be used. These system shutting devices may be yielding partitions, fire protection pads or fire protection sleeves. These partitions shut down the area of the fire after the plastic pipes are burnt away. HERZ plastic pipes fall into fire category B2 (normal inflammable building materials) according to DIN 4102, Part 1.

ceilings and floors.

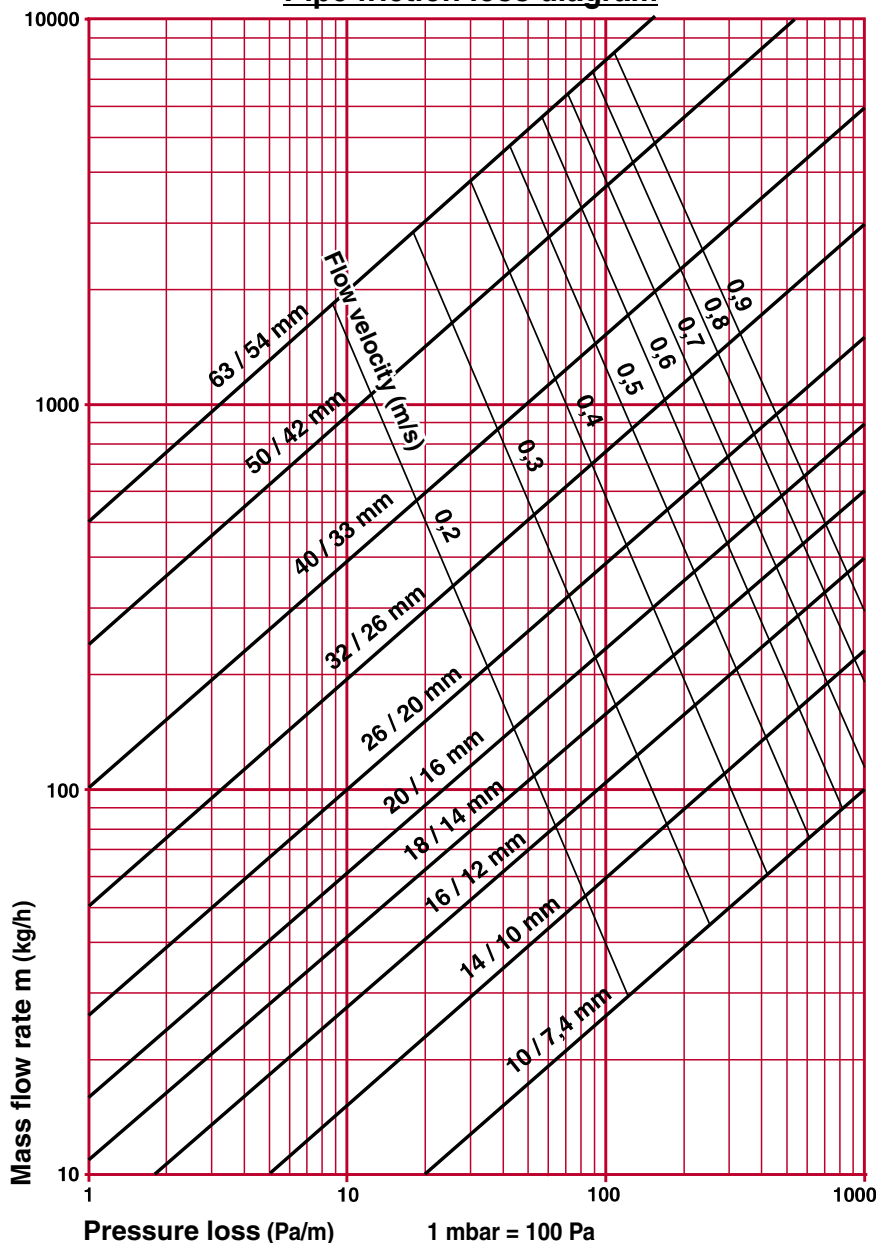
For special requirements such as lawn heating or concrete core cooling HERZ pipes can also be used. Where wall heating or cooling panels are used, HERZ pipes of size 10 x 1.3 mm are used. Where diffusion-tight pipes are used (oxygen and steam diffusion) there is no need for system separation with heat exchangers.

## Instances of usage

**H**ERZ pipes can be used in all heating and cooling systems as well as in domestic and service water installations. HERZ pipes are also most suitable for under-floor heating systems or to heat and cool areas in walls,

Oxygen diffusion causes bacteria in the water that leads to the accumulation of matter in pipes. This matter can form deposits in the pipe inner wall and lead to reduced flow. The pipe resistance is increased until there is no flow. This then requires very expensive chemical cleaning.

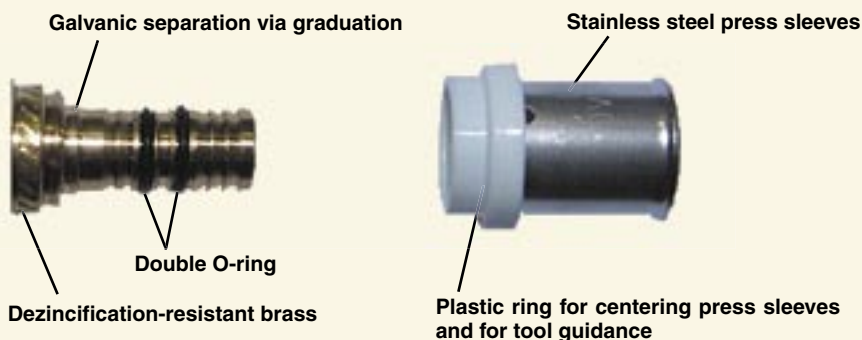
### Pipe friction loss diagram



### HERZ installation aids and HERZ fittings

**H**ERZ press fittings can be connected quickly and with absolute safety in conjunction with Herz multi-layer pipes. Herz, with its decades of experience in pipe connections, produces radial press fittings of dezincification-resistant brass with stainless steel bushes, of recognised higher quality, based on its own in-house

patented developments. These are available in a large range of forms and sizes for the connection of plastic composite pipes for heating and cooling systems. Our experience is your security, with a 10-year guarantee for HERZ PipeFix systems.



## Processing of HERZ pipes with HERZ fittings

The pipe is cut perpendicular, with a suitable tool.



The pipe is trimmed and calibrated with the special tool suitable for its diameter. The resulting shavings must be removed from the end of the pipe. If the calibrator is fixed in a drilling machine, the maximum revolutions of 10rpm must not be exceeded.



Placing the fitting on the pipe. Check the correct pipe engagement through the vision ports on the press sleeve – the pipe must have fully engaged on the fitting and be visible in the ports.



Complete pressure sealing using a press device or manual press pliers. The pipes must be free of stress. The press procedure is complete if the jaws have been closed completely.

Press tools are precision tools and should be handled accordingly. HERZ PipeFix is pressed using the profile "TH", so that the usual tools (hand press device, accu-press device, etc.) can be used. Small "A" intervals to the wall or floor are possible.

DN	A (mm)	DN	A (mm)	DN	A (mm)
10	25	20	30	40	40
14	25	26	30	50	70
16	25	32	40	63	70



Checking the pressure sealing: On the side of the press sleeves you can see two parallel, ring-shaped pressed grooves with a bulge between them.

Non-detachable connections such as press fittings can be buried after installation (See local or national legislation for confirmation). Press connections are prohibited from being buried in floors in the Fernwärme Wien (Vienna's remote heating programme) area. To avoid corrosion to the fittings there must be galvanic separation from the concrete or masonry using moisture insulation. This insulation can, for example, be carried out using heat shrinking materials or corrosion protection tape. In each case, compatibility with the pipe material and fitting must be checked.

It is imperative that the stated pipe diameter and pipe wall thickness are adhered to when processing.

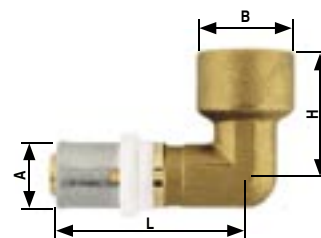
Connection resistances								
Pipe dim.	Pipe bend	Angles	T-piece flow re-director, one-way (1 into 2)	T-piece flow mixer (2 into 1)	T-piece flow re-director two-way (1 into 2)	T-piece flow collection (2 into 1)	Passage piece	wall angles
Values in equivalent pipe lengths in m								
14	0.70	1.50	1.30	1.60	1.70	1.70	1.00	1.40
16	0.60	1.40	1.20	1.50	1.60	1.60	0.90	1.30
18	0.55	1.20	0.90	1.40	1.50	1.50	0.70	1.20
20	0.50	1.10	0.60	1.30	1.40	1.40	0.50	1.10
26	0.40	1.00	0.50	1.20	1.30	1.30	0.40	
32	0.30	0.80	0.30	1.00	1.10	1.10	0.30	
40	0.26	0.76	0.28	0.95	1.00	1.00	0.26	
50	0.22	0.72	0.26	0.90	0.95	0.95	0.22	
63	0.18	0.70	0.24	0.85	0.90	0.90	0.18	

To simplify the pipe network calculation the resistance values of the fittings are given in equivalent pipe lengths. These pipe lengths are to be found in the above table and are added to the length of the pipe network when calculating the pipe network.

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

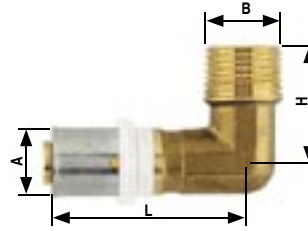
- $\Delta p_g$  Total pressure loss in the heating circuit
- R Pressure loss per running m of pipe [Pa/m]
- l Pipe length in m
- Z Sum of the individual resistances
- $\Delta p_v$  Pressure loss of the heating circuit thermostatic valves

## HERZ Angle with internal thread



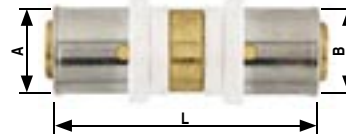
Order number	A	B	L	H
P 7114 21	14 x 2	1/2	53	34
P 7116 21	16 x 2	1/2	44	34
P 7118 21	18 x 2	1/2	53	34
P 7120 21	20 x 2	1/2	50	34
P 7120 22	20 x 2	3/4	52	45
P 7126 22	26 x 3	3/4	56	45
P 7132 23	32 x 3	1	55	49
P 7140 24	40 x 3,5	1 1/4	55	55
P 7150 24	50 x 4	1 1/4	76	63
P 7150 25	50 x 4	1 1/2	76	63
P 7163 26	63 x 4,5	2	83	70

## HERZ Angle with external thread



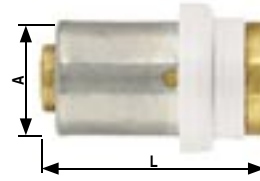
Order number	A	B	L	H
P 7114 11	14 x 2	1/2	53	34
P 7116 11	16 x 2	1/2	44	34
P 7118 11	18 x 2	1/2	53	34
P 7120 11	20 x 2	1/2	50	34
P 7120 12	20 x 2	3/4	50	34
P 7126 12	26 x 3	3/4	56	45
P 7132 13	32 x 3	1	55	49
P 7140 14	40 x 3.5	1 1/4	55	55
P 7150 14	50 x 4	1 1/4	76	61
P 7163 16	63 x 4.5	2	83	70

## HERZ Coupling, Reduced Coupling



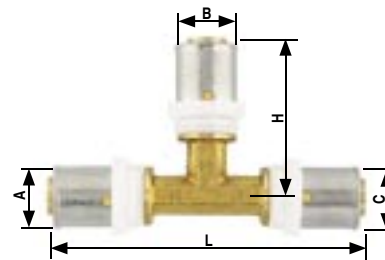
Order number	A	B	L
P 7010 00	10 x 1.3	10 x 1.3	41
P 7014 00	14 x 2	14 x 2	65
P 7016 00	16 x 2	16 x 2	58
P 7016 01	16 x 2	14 x 2	65
P 7018 00	18 x 2	18 x 2	65
P 7018 01	18 x 2	14 x 2	65
P 7018 02	18 x 2	16 x 2	65
P 7020 00	20 x 2	20 x 2	58
P 7020 03	20 x 2	14 x 2	62
P 7020 01	20 x 2	16 x 2	62
P 7020 02	20 x 2	18 x 2	65
P 7026 00	26 x 3	26 x 3	65
P 7026 01	26 x 3	16 x 2	65
P 7026 03	26 x 3	17 x 2	65
P 7026 05	26 x 3	18 x 2	65
P 7026 02	26 x 3	20 x 2	65
P 7032 00	32 x 3	32 x 3	65
P 7032 01	32 x 3	16 x 2	65
P 7032 07	32 x 3	18 x 2	65
P 7032 02	32 x 3	20 x 2	65
P 7032 06	32 x 3	26 x 3	65
P 7040 00	40 x 3.5	40 x 3.5	65
P 7040 02	40 x 3.5	26 x 3	65
P 7040 03	40 x 3.5	32 x 3	65
P 7050 00	50 x 4	50 x 4	97
P 7050 01	50 x 4	26 x 3	81
P 7050 02	50 x 4	32 x 3	81
P 7050 03	50 x 4	40 x 3.5	81
P 7063 00	63 x 4.5	63 x 4.5	98
P 7063 01	63 x 4.5	26 x 3	82
P 7063 02	63 x 4.5	32 x 3	82
P 7063 03	63 x 4.5	40 x 3.5	82
P 7063 04	63 x 4.5	50 x 4	98

## HERZ End-stop



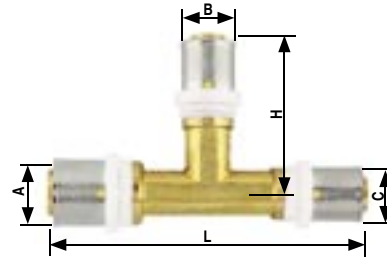
Order number	A	L
P 7014 10	14 x 2	33
P 7016 10	16 x 2	31
P 7017 10	17 x 2	33
P 7018 10	18 x 2	33
P 7020 10	20 x 2	31
P 7026 10	26 x 3	33
P 7032 10	32 x 3	33
P 7040 10	40 x 3,5	33
P 7050 10	50 x 4	49
P 7063 10	63 x 4,5	49

## HERZ T-piece



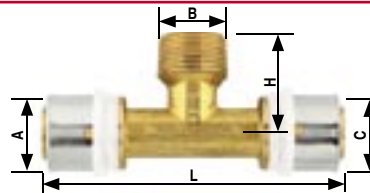
Order number	A	B	C	L	H
P 7214 00	14 x 2	14 x 2	14 x 2	83	42
P 7214 01	14 x 2	16 x 2	14 x 2	83	42
P 7216 00	16 x 2	16 x 2	16 x 2	77	39
P 7216 01	16 x 2	14 x 2	16 x 2	83	42
P 7216 05	16 x 2	18 x 2	16 x 2	88	44
P 7216 03	16 x 2	20 x 2	16 x 2	83	42
P 7217 00	17 x 2	17 x 2	17 x 2	107	54
P 7218 00	18 x 2	18 x 2	18 x 2	83	42
P 7218 01	18 x 2	14 x 2	18 x 2	88	44
P 7218 02	18 x 2	16 x 2	18 x 2	88	44
P 7220 00	20 x 2	20 x 2	20 x 2	83	42
P 7210 00	20 x 2	10 x 1,3	20 x 2	88	33
P 7220 10	20 x 2	14 x 2	20 x 2	88	44
P 7220 02	20 x 2	18 x 2	20 x 2	88	44
P 7220 06	20 x 2	26 x 3	20 x 2	102	51
P 7220 01	20 x 2	16 x 2	20 x 2	83	42
P 7220 03	20 x 2	16 x 2	16 x 2	83	42
P 7220 08	20 x 2	20 x 2	16 x 2	83	42
P 7226 00	26 x 3	26 x 3	26 x 3	102	51
P 7226 17	26 x 3	32 x 3	26 x 3	106	53
P 7226 03	26 x 3	16 x 2	26 x 3	97	49
P 7226 04	26 x 3	18 x 2	26 x 3	102	51
P 7226 05	26 x 3	20 x 2	26 x 3	97	49
P 7232 00	32 x 3	32 x 3	32 x 3	106	53
P 7232 10	32 x 3	40 x 3,5	32 x 3	106	53
P 7232 01	32 x 3	16 x 2	32 x 3	106	53
P 7232 03	32 x 3	18 x 2	32 x 3	106	53
P 7232 04	32 x 3	20 x 2	32 x 3	106	53
P 7232 07	32 x 3	26 x 3	32 x 3	106	53
P 7240 00	40 x 3,5	40 x 3,5	40 x 3,5	110	55
P 7240 12	40 x 3,5	50 x 4	40 x 3,5	120	76
P 7240 02	40 x 3,5	26 x 3	40 x 3,5	110	55
P 7240 03	40 x 3,5	32 x 3	40 x 3,5	110	55
P 7250 00	50 x 4	50 x 4	50 x 4	152	76
P 7250 03	50 x 4	26 x 3	50 x 4	152	62
P 7250 01	50 x 4	32 x 3	50 x 4	152	62
P 7250 02	50 x 4	40 x 3,5	50 x 4	152	61
P 7263 00	63 x 4,5	63 x 4,5	63 x 4,5	166	83
P 7263 01	63 x 4,5	32 x 3	63 x 4,5	166	67
P 7263 02	63 x 4,5	40 x 3,5	63 x 4,5	153	70
P 7263 03	63 x 4,5	50 x 4	63 x 4,5	166	83

## HERZ T-piece, reduced



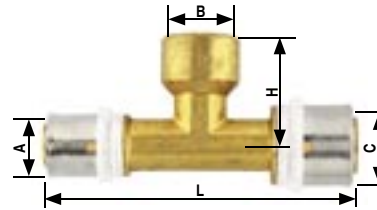
Order number	A	B	C	L	H
P 7216 02	16 x 2	14 x 2	14 x 2	83	42
P 7218 04	18 x 2	16 x 2	14 x 2	107	54
P 7218 03	18 x 2	16 x 2	16 x 2	88	44
P 7220 11	20 x 2	14 x 2	16 x 2	88	44
P 7220 03	20 x	16 x 2	16 x 2	83	42
P 7220 07	20 x 2	16 x 2	18 x 2	88	44
P 7220 04	20 x 2	18 x 2	18 x 2	88	44
P 7220 09	20 x 2	20 x 2	14 x 2	88	44
P 7220 08	20 x 2	20 x 2	16 x 2	88	44
P 7226 18	26 x 3	18 x 2	18 x 2	102	51
P 7226 12	26 x 3	18 x 2	20 x 2	102	51
P 7226 13	26 x 3	20 x 2	16 x 2	102	51
P 7226 14	26 x 3	20 x 2	20 x 2	102	51
P 7226 19	26 x 3	20 x 2.5	16 x 2	102	51
P 7226 16	26 x 3	26 x 3	16 x 2	112	56
P 7226 15	26 x 3	26 x 3	20 x 2	112	56
P 7232 11	32 x 3	20 x 2	26 x 3	106	53
P 7232 09	32 x 3	26 x 3	26 x 3	106	53
P 7232 15	32 x 3	32 x 3	20 x 2	106	53
P 7232 14	32 x 3	32 x 3	26 x 3	106	53
P 7240 06	40 x 3.5	26 x 3	32 x 3	110	55
P 7240 04	40 x 3.5	32 x 3	32 x 3	110	50
P 7240 07	40 x 3.5	40 x 3.5	26 x 3	110	55
P 7240 08	40 x 3.5	40 x 3.5	32 x 3	110	55
P 7250 06	50 x 4	32 x 3	40 x 3.5	152	62
P 7250 05	50 x 4	40 x 3.5	40 x 3.5	152	62
P 7250 07	50 x 4	50 x 4	32 x 3	152	76
P 7250 08	50 x 4	50 x 4	40 x 3.5	152	76
P 7263 04	63 x 4.5	40 x 3.5	50 x 4	166	67
P 7263 05	63 x 4.5	50 x 4	50 x 4	166	83
P 7263 06	63 x 4.5	63 x 4.5	40 x 3.5	150	83
P 7263 07	63 x 4.5	63 x 4.5	50 x 4	166	83

## HERZ T-piece with external thread



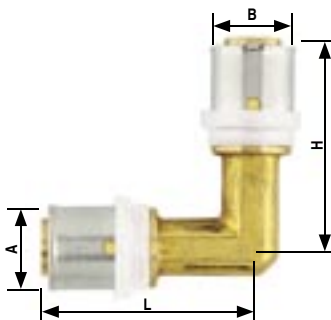
Order number	A	B	C	L	H
P 7216 51	16 x 2	1/2	16 x 2	90	34
P 7218 51	18 x 2	1/2	18 x 2	98	34
P 7220 51	20 x 2	1/2	20 x 2	91	34
P 7226 51	26 x 3	1/2	26 x 3	112	38
P 7220 52	20 x 2	3/4	20 x 2	98	34
P 7226 52	26 x 3	3/4	26 x 3	112	38
P 7232 51	32 x 3	3/4	32 x 3	110	47
P 7226 53	26 x 3	1	26 x 3	112	43
P 7232 52	32 x 3	1	32 x 3	110	47
P 7240 52	40 x 3.5	1	40 x 3.5	110	55
P 7240 53	40 x 3.5	1 1/4	40 x 3.5	110	55
P 7250 53	50 x 4	1 1/4	50 x 4	152	61
P 7250 54	50 x 4	1 1/2	50 x 4	152	61
P 7263 54	63 x 4.5	1 1/2	63 x 4.5	166	68
P 7263 55	63 x 4.5	2	63 x 4.5	166	70

## HERZ T-piece with internal thread



Order number	A	B	C	L	H
P 7216 41	16 x 2	1/2	16 x 2	90	34
P 7218 41	18 x 2	1/2	18 x 2	98	34
P 7220 41	20 x 2	1/2	20 x 2	91	34
P 7226 42	26 x 3	1/2	20 x 2	112	38
P 7226 41	26 x 3	1/2	26 x 3	112	37
P 7232 43	32 x 3	1/2	32 x 3	110	47
P 7220 42	20 x 2	3/4	20 x 2	112	43
P 7226 44	26 x 3	3/4	26 x 3	112	43
P 7232 41	32 x 3	3/4	32 x 3	110	47
P 7232 42	32 x 3	1	32 x 3	110	47
P 7240 41	40 x 3.5	1	40 x 3.5	110	55
P 7232 44	32 x 3	1 1/4	32 x 3	125	55
P 7240 42	40 x 3.5	1 1/4	40 x 3.5	110	55
P 7250 42	50 x 4	1 1/4	50 x 4	152	63
P 7250 43	50 x 4	1 1/2	50 x 4	152	63
P 7263 43	63 x 4.5	1 1/2	63 x 4.5	166	68
P 7263 44	63 x 4.5	2	63 x 4.5	166	70

## HERZ 90° angle



Order number	A	B	L	H
P 7114 00	14 x 2	14 x 2	42	42
P 7116 00	16 x 2	16 x 2	39	39
P 7118 00	18 x 2	18 x 2	42	42
P 7120 00	20 x 2	20 x 2	42	42
P 7110 00	20 x 2	10 x 1.3	42	33
P 7126 00	26 x 3	26 x 3	49	49
P 7132 00	32 x 3	32 x 3	53	53
P 7140 00	40 x 3.5	40 x 3.5	55	55
P 7150 00	50 x 4	50 x 4	76	76
P 7163 00	63 x 4.5	63 x 4.5	83	83

## Compression Connections

**C**ompression connections are manufactured using HERZ plastic pipe connectors. The HERZ adapter and screw connections are also used for pipe connections.

The plastic pipe connection represents a completely safe connection between the pipe and valve. This connection can be detached at any time as required. Compression connections must not be used for buried systems. Perfect liquid tightness is only achieved if the installation is carried out in accordance with the HERZ installation instructions.

It is imperative that the stated pipe diameter and pipe wall thickness are adhered to when installing compression connections.

### 1) Non-detachable connections:

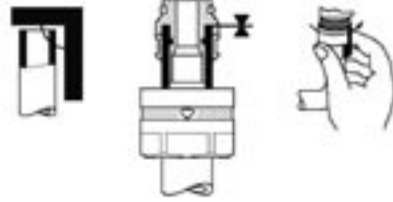
- Press fittings for heating systems may be buried in the wall or the floor.
- Press fittings for domestic water systems may be buried in the wall but not in the floor.
- Press fittings for remote heating systems for Fernwärme Wien may not be buried in the wall or floor.

### 2) Detachable connections must always remain accessible in order for liquid tightness to be checked.



## Installation of HERZ plastic screw connections

The pipe is cut perpendicular to the pipe axis and calibrated. The plastic screw connections are installed and tightened by hand. The grommets are fitted with an insulation plate for electrical separation from the aluminium.



A suitable spanner is used according to the design of the connection.



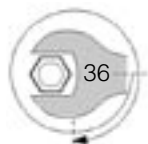
1 1/4 (450°)

Plastic screw connection M 22 x 1,5  
1 **6066** xx and 1 **6067** xx



1 (360°)

Plastic screw connection G 3/4  
1 **6098** xx



1 (360°)

Plastic screw connection G1  
1 **6198** xx



Order numbers from the HERZ catalogue, part 3.

HERZ clamp set, 1 **6092** xx for plastic pipe connections, suitable for the connection of PE-X-, PB- and aluminium composite pipes to radiator fittings in the "D" dimension range (with DIN thread lengths). Consisting of clamp nut, and spigot piece.



Cut off the pipe at a right angle and trim. Slide on the clamp nut, push in the spigot piece.

Place the pipe into the clamping ring.

Connect to the fitting with the clamp nut.

Tighten with a suitable tool.



1 **6092** 01  
1 **6092** 02

HERZ compression set for plastic pipe connections, 16 x 2.0 mm  
HERZ compression set for plastic pipe connections, 14 x 2.0 mm

For easier tightening, connection pieces (spigot piece and clamp nut) can be lubricated. Silicone or Teflon-based lubricants are permitted. Lubricants containing mineral oil or hydrocarbon must not be used as they damage sealing elements.

For detachable pipe connections, it can also be combined with HERZ screw fittings made of nickel-plated brass.



Order numbers from the HERZ catalogue, part 3.

## Application of HERZ pipes and connections

**Nap plate** with or without bottom insulating layer



HERZ nap plate for laying pipes for under-floor heating, for pipes of 14 to 17 mm diameter.

HERZ nap plates are particularly flexible and have good pipe holding strength. The advantages are: one-man laying, little cutting, simple correction of pipe laying, moisture protection according to DIN 18560. Particularly suitable for cement, floating screed and environmentally-friendly material suitable for material recycling.



Pipe separation of 50 mm and multiples thereof (100, 150, 200, etc.) Plate size, 1400 x 800 mm, and the plates are laid with an overlap of 50 mm, effective area 1.12 m<sup>2</sup>.

Supplied in two designs:

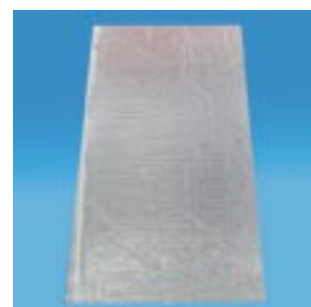
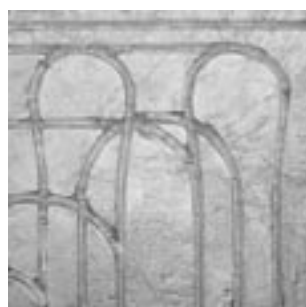
- 3 **F030 01** nap plate with tread noise insulation, 30-2, made of hard polystyrene foam (EPS)
- 3 **F030 02** nap plate with heat insulation, 11 mm, made of hard polystyrene foam (EPS)
- 3 **F030 03** nap plate for individual heat insulation design

The diagonal retainer, 3 **F030 04**, is also available for the diagonal laying of pipes.

**Multi-clamping system plate** made from hard polystyrene foam, for increased loads, with pre-prepared laying grids for ease of laying under-floor heating without additional pipe fixing accessories. Can also be used for dry screed.



Even and effective surface heating using comprehensive pure aluminium foil. Turns and re-directions are also made with aluminium re-direction plates. Pipe laying interval, 125 mm or multiples thereof. The plate can subsequently be treated with a knife or a hot cropping device. Plate size, 1,000 x 500 mm for pipe diameters of 16 or 17 mm. Heat conductivity, 0.035 W/mK according to ÖNORM B6015.



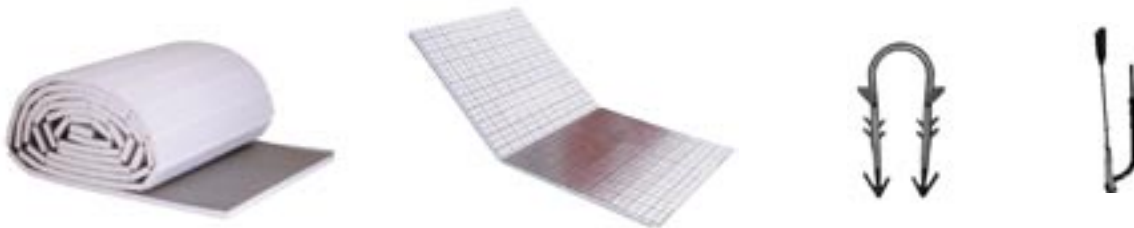
Supplied in two designs with different insulation thickness:

- 3 **F020 01** multi-clamping plate, insulation thickness 30 mm
- 3 **F020 02** multi-clamping plate, insulation thickness 50 mm
- 3 **F020 03** re-direction plate, insulation thickness 30 mm
- 3 **F020 04** re-direction plate, insulation thickness 50 mm
- 3 **F020 05** plate without laying grids, insulation thickness 30 mm
- 3 **F020 06** plate without laying grids, insulation thickness 50 mm

The multi-clamp system plates are most suitable for wall heating. To protect against aggressive screed or wall plaster, the system has to be covered using PE foil.

When using for floor heating, a load distribution layer, e.g. with 2 x 10 mm Fermacell plates or chip-board panels, is required, which can be laid over with the multi-clamping plates.

**System rolls or system plates** for floor heating, made of alu-metallised highly tear-proof woven film, insulation with tread insulation polystyrene and grids at intervals of 50 mm and with single-sided self-sticking overlaps of 40 mm. Simple laying by rolling out the system rolls or unfolding the folding plates. Pipe fixing with tacking needles. The reinforced film prevents tearing by the tacking needles. The pipe laying distance is selected individually with the help of the printed grid.



Supplied in two designs with three different insulation thicknesses:

- 3 **F040 01** system roll, 1,000 x 10,000 mm, tread noise insulation, 15-2 mm
- 3 **F040 02** system roll, 1,000 x 10,000 mm, tread noise insulation, 22/20 mm
- 3 **F040 03** system roll, 1,000 x 10,000 mm, tread noise insulation, 32/30 mm
- 3 **F040 04** system plate, 1,000 x 2,000 mm, tread noise insulation, 15-2 mm
- 3 **F040 05** system plate, 1,000 x 2,000 mm, tread noise insulation, 22/20 mm
- 3 **F040 06** system plate, 1,000 x 2,000 mm, tread noise insulation, 32/30 mm



Tacking needles and tacking device from the HERZ accessories catalogue, Part 3

**Notched rails** made of plastic U-profile for fixing plastic pipes, diameter 16 and 17 mm for wall or under-floor heating. The notched rails are fixed to a heat insulator using double-sided sticking tape or tacking needles. The pipes are fixed at intervals of 50 mm or a multiple thereof, using formed pipe holder clips. The target break line every 100 mm serves to cross-cut the notched rails, or is cut off as required using a saw.

**Example version:**



Pipe laying for floor heating



Floor heating – edge area



- 3 **F110 01** notched rails, length 2.1 m
- 3 **F110 02** notched rails, length 3.9 m

All accessories for under-floor heating or cooling, such as screed test points, screed additives, sticking tape, edge insulation strips, expansion joint profiles, covering

foil, angle pipe clasps, plate dowels, pipe holder dowels, hot cropping device, etc., are detailed in the HERZ brochure.

Quick selection / summary of HERZ pipes, dimension 16 x 2.0 mm. 10K temperature difference					40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130		
Heat load for surface heating W/m <sup>2</sup>					24.3	24.7	25.0	25.2	25.7	26.1	26.5	26.9	27.3	27.8	28.2	28.6	29.0	29.4	29.8	30.2	30.6	31.0	31.4		
Surface temperature of surface heating at a room temperature of 20°C					28.3	28.7	29.0	29.2	29.7	30.1	30.5	30.9	31.3	31.8	32.2	32.6	33.0	33.4	33.8	34.2	34.6	35.0	35.4		
Surface temperature of surface heating at a room temperature of 24°C					28.3	28.7	29.0	29.2	29.7	30.1	30.5	30.9	31.3	31.8	32.2	32.6	33.0	33.4	33.8	34.2	34.6	35.0	35.4		
Flow temperature 40 °C	Room temperature 20 °C	Rλ.B=0,02 (m²K)/W	Ceramic tiles	VA in mm	250	200	150	100	70																
				Amax in m²	36.7	30.3	22.1	14.3	8.9																
		Rλ.B=0,05 (m²K)/W	Wood / parquet	VA in mm		200	150	100	70																
				Amax in m²		30.2	22.4	15.5	9.75																
		Rλ.B=0,10 (m²K)/W	Carpet	VA in mm	200	150	100	70																	
				Amax in m²	28.3	18.9	12.4	9.8																	
	Rλ.B=0,15 (m²K)/W	Deep-pile carpet	VA in mm	200	150	100																			
			Amax in m²	25	19.7	13.5																			
	Room temperature 24 °C	Rλ.B=0,02 (m²K)/W	Ceramic tiles	VA in mm	200	150	100	70																	
				Amax in m²	28.3	20.8	14.3	8.5																	
Flow temperature 45 °C	Room temperature 20 °C	Rλ.B=0,02 (m²K)/W	Ceramic tiles	VA in mm		250	200	150	100	70															
				Amax in m²		38.1	28.8	20.3	14.5	9															
		Rλ.B=0,05 (m²K)/W	Wood / parquet	VA in mm			200	150	100	70															
				Amax in m²			30	20.6	14.4	8.7															
		Rλ.B=0,10 (m²K)/W	Carpet	VA in mm	250	200	150	100	70																
				Amax in m²	36.5	26.4	17.6	12.6	8.8																
	Rλ.B=0,15 (m²K)/W	Deep-pile carpet	VA in mm	250	200	150	100																		
			Amax in m²	36	28.3	18.5	11.7																		
	Room temperature 24 °C	Rλ.B=0,02 (m²K)/W	Ceramic tiles	VA in mm		200	150	100	70																
				Amax in m²		31.2	20.5	14.5	9.5																
Flow temperature 50 °C	Room temperature 20 °C	Rλ.B=0,02 (m²K)/W	Ceramic tiles	VA in mm			250	200	150	100															
				Amax in m²			39.3	32.2	22	11.3															
		Rλ.B=0,05 (m²K)/W	Wood / parquet	VA in mm				200	150	100	70														
				Amax in m²				31.3	21.9	12.1	8.5														
		Rλ.B=0,10 (m²K)/W	Carpet	VA in mm		250	200	150	100	70															
				Amax in m²		40	34.5	24.8	15.4	8.4															
	Rλ.B=0,15 (m²K)/W	Deep-pile carpet	VA in mm		250	200	150	100	70																
			Amax in m²		40	33.4	23.9	23	8.5																
	Room temperature 24 °C	Rλ.B=0,02 (m²K)/W	Ceramic tiles	VA in mm			200	150	100	70															
				Amax in m²			34.5	24.5	16.2	9.7															
Flow temperature 55 °C	Room temperature 20 °C	Rλ.B=0,02 (m²K)/W	Ceramic tiles	VA in mm					250	200	150	100													
				Amax in m²					38	29.5	21.6	18													
		Rλ.B=0,05 (m²K)/W	Wood / parquet	VA in mm					200	150	100														
				Amax in m²					30.5	21.5	15.5														
		Rλ.B=0,10 (m²K)/W	Carpet	VA in mm			250	200	150	100	70														
				Amax in m²			39.4	32.3	23	15.5	8.5														
	Rλ.B=0,15 (m²K)/W	Deep-pile carpet	VA in mm		250	200	150	100	70																
			Amax in m²		40	32.5	22.5	14	7.9																
	Room temperature 24 °C	Rλ.B=0,02 (m²K)/W	Ceramic tiles	VA in mm					200	150	100	70													
				Amax in m²					32.5	23.7	17.3	15.4													

## HERZ pipe and fittings in domestic water installations



Example: Installation in partition walls in domestic areas with HERZ pipes

## HERZ pipe and fittings in radiator connection



Example: Connection of HERZ under-floor/surface distributor

HERZ SwitchFix 1 **3030** 01

## HERZ pipe and fittings in surface heating and cooling



Connection of wall heating



Renovation of apartments

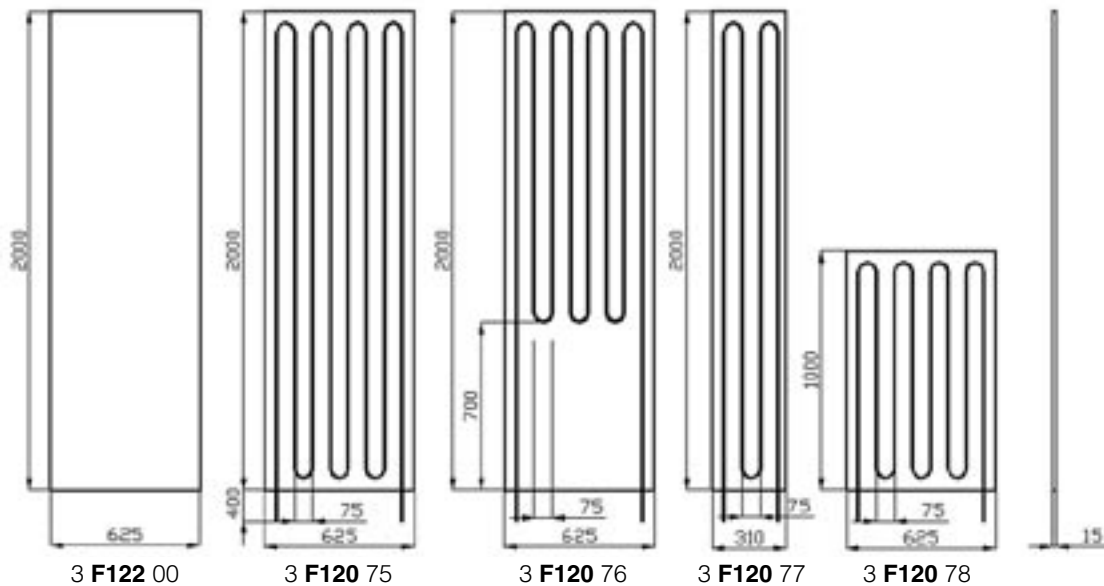


Installation of cooling ceiling

## HERZ air-conditioning system

For heating and cooling rooms in buildings, with attention to low energy costs, healthier air circulation without annoying operating noise with "hidden" comfort. Fermacell gypsum-fibre plates, 15 mm, with ex-factory incorporated 10 x 1.3 Herz composite pipe with 75 mm interval from the pipe

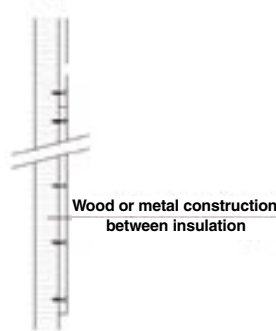
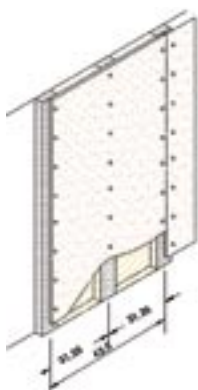
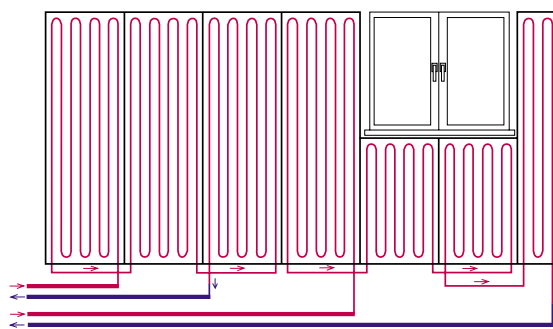
centre, in four different plate sizes for fast and clean laying in dry build in walls, floors or ceilings. Performance values for cold and hot water operation tested in accordance with EN 14037 at the accredited heating, ventilation and air-conditioning testing centre in Stuttgart.



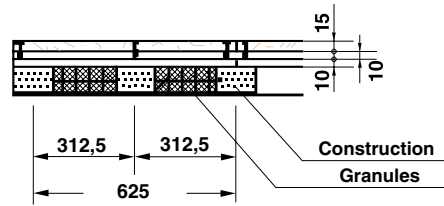
The aluminium composite pipes are clamped at the factory in the ready-milled grooves of the gypsum-fibre plate. The panels are suitable for direct installation on a substructure on the wall, ceiling or floor. Panels are available in dimensions 2,000 x 625, 2,000 x 310 and 1,000 x 625. The smooth plate side is the side that is seen and this installed facing out to the room and after the drill holes are puttied it can be painted, carpeted, tiled or covered with thin plaster.

Panel heating plates made of 15 mm thick gypsum-fibre plate, with integrated aluminium composite pipe, 10.0 x 1.3 mm, oxygen-resistant according to DIN 4726, suitable for operating temperatures up to a maximum of

45°C. The panel heating plates have to be fixed on a dry sub-construction, suitable for interiors and with a 31.2 cm interval. The press couplings and the panel heating plates, mounted in series, are connected directly to the distributor by means of coupling adapters. Before installation of the plates on the sub-structure, the pipe ends for connection to the supply circulation are released from the plate and directed into the room. Up to three whole plates are connected together and are connected to the distributors as a heating circuit. The panel heating plates (serial connection up to approximately 55 m pipes) is connected directly to the distributor outflow or a return temperature liwither.



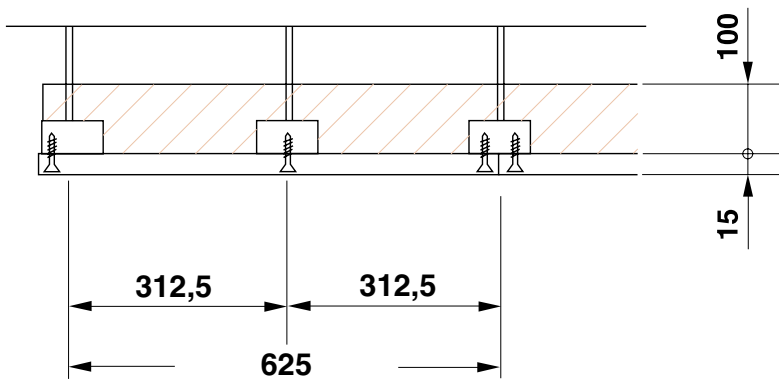
The heating plates can also be used for floor heating. A dry base of 2 x 10 Fermacell plates is installed and the heating plates are then stuck and screwed to this dry base. The top covering is laid directly on the heating plates and may be plastic, carpet, tiles or wood. The floor covering must be suitable for the floor heating. The single or net load is to be adhered to in accordance with DIN 1055-3 (traffic load for ceilings).



Floor construction with 2 x 10 mm Fermacell plates

For suspended ceilings the usual commercially available systems are used. To fix these constructions on solid floors, technically approved dowels must be used, which are suitable for this application and load. The profile of the suspension must be measured so that the static safety of the ceiling to be suspended from it is guaranteed. The intervals on the sub-construction for installing the heating plates is to be selected for the heating plate in accordance with the drilling plan. The construction must be measured so that the approved deflection of 1/500 of the support range is not exceeded.

Where heating plates are used for ceiling heating, an insulation layer made of rock wool or polystyrene with a thickness of at least 100 mm is recommended. The weight of the insulation must be taken into account for calculating the ceiling construction.



The heating plates are stuck fast together. The glue is applied from the cartridge. The surplus glue is scraped away after drying out (around 24 hours) with a putty knife or wood chisel. The glue is frost-proof but requires moisture from the air to set. Plate customisations must, where possible, be laid with the cut edge in the direction of the expansion joint.



Joint glue

Lining up of the wall heating plates and empty plates as they only in danger of breaking at the edge. Processing of the gypsum-fibre plates > + 5 °C.

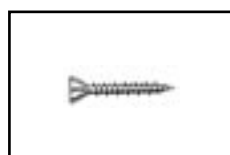
Fixing of the gypsum-fibre plates with quick build screws.

Screw length = plate thickness x 2 for metal frame constructions (30 mm)

Screw length = plate thickness x 3 for wooden frame constructions (45 mm)

The screws are sunk in around 2 mm and puttied in using the joint spatula.

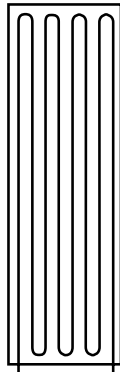
Customised plates under a width of 5 cm should be avoided for fixing because of the risk of fracture.



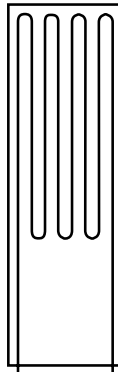
Quick-build screws



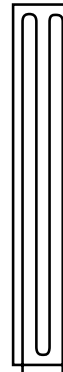
Joint spatula



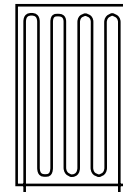
3 F120 75



3 F120 76



3 F120 77



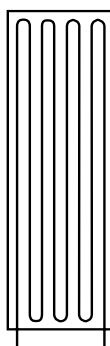
3 F120 78

Heating table

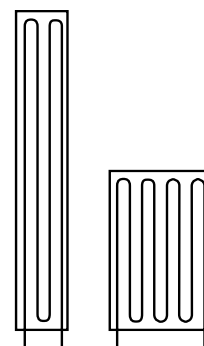
Herz panel		WH 75 116-200 3 F120 75					WH 75 116-100 3 F120 76					WH 75 58-200 3 F120 77					Herz panel	
VL (°C)	RT (°C)	RL (°C)					RL (°C)					RL (°C)					RT (°C)	VL (°C)
		25	30	35	40	45	25	30	35	40	45	25	30	35	40	45		
45	15	122	144	165	182		78	92	105	116		61	72	82	91		15	45
40		107	128	145			68	81	92			53	64	72				40
35		92	109				58	70				46	55					35
30		76					48					38						30
45	18	101	122	142	160		64	78	91	102		50	91	71	80		18	45
40		86	106	123			55	67	79			43	53	62				40
35		71	88				45	56				35	44					35
30		55					35					28						30
45	20	87	108	128	145		55	69	81	92		43	54	64	72		20	45
40		72	92	109			46	58	70			36	46	55				40
35		57	76				37	48				29	38					35
30		42					27					21						30
45	22	73	93	113	131		46	60	72	83		36	47	57	65		22	45
40		59	78	95			37	50	61			29	39	48				40
35		44	62				28	40				22	31					35
30		30					19					15						30
45	24	59	80	99	116		38	51	63	74		30	40	49	58		24	45
40		45	64	83			29	41				23	32	41				40
35		32	49				20	31				16	24					35
30		18					11					9						30
45	26	46	66	85	102		29	42	54	65		23	33	42	51		26	45
40		33	51	69			21	32	44			16	25	34				40
35		19	36				12	23				10	18					35
30		7					4					3						30
45	28	33	53	71	88		21	33	45	56		17	26	36	44		28	45
40		21	38	55			13	24	35			10	19	28				40
35		8	24				5	15				4	12					35

Performance values in watts, tested in accordance with EN 14037.





3 F120 75



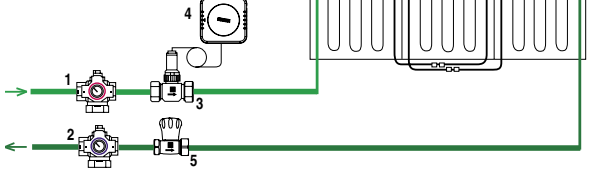
3 F120 77 3 F120 78

Cooling table

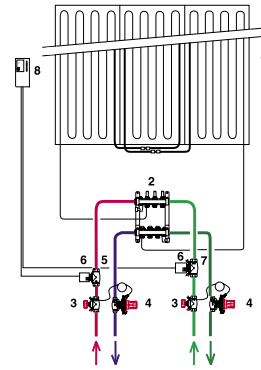
Herz panel		P / 3 F120 75						P / 3 F120 77 - 3 F120 78					
RL	RT	VL						VL					
		16	17	18	19	20	21	16	17	18	19	20	21
19	22	24	21	18				12	11	9,2			
19	23	31	27	24				15	14	12			
19	24	37	34	31				18	17	15			
19	25	43	40	37				22	20	18			
19	26	50	46	43				25	23	22			
19	27	56	53	50				28	27	25			
19	28	63	60	56				32	30	28			
19	29	70	66	63				35	33	32			
20	22	21	18	15	13			11	9	8	6		
20	23	27	24	21	18			14	12	11	9		
20	24	34	31	27	24			17	15	14	12		
20	25	40	37	34	31			20	18	17	15		
20	<b>26</b>	46	43	40	37			23	22	20	<b>18</b>		
20	<b>27</b>	53	50	46	43			27	25	23	<b>22</b>		
<b>20</b>	<b>28</b>	<b>60</b>	56	53	50			30	28	27	<b>25</b>		
20	<b>29</b>	66	63	60	56			33	32	30	<b>28</b>		
21	<b>22</b>	18	15	13	10	7		9	8	6	<b>5</b>	4	
21	23	24	21	18	15	13		12	11	9	8	6	
21	24	31	27	24	21	18		15	14	12	11	9	
21	25	37	34	31	27	24		18	17	15	14	12	
21	26	43	40	37	34	31		22	20	18	17	15	
21	27	50	46	43	40	37		25	23	22	20	18	
21	28	56	53	50	46	43		28	27	25	23	22	
21	29	63	60	56	53	50		32	30	28	27	25	
22	22	15	13	10	7	5	2	8	6	5	4	2	1
22	23	21	18	15	13	10	7	11	9	8	6	5	4
22	24	27	24	21	18	15	13	14	12	11	9	8	6
22	25	34	31	27	24	21	18	17	15	14	12	11	9
22	26	40	37	34	31	27	24	20	18	17	15	14	12
22	27	46	43	40	37	34	31	23	22	20	18	17	15
22	28	53	50	46	43	40	37	27	25	23	22	20	18
22	29	60	56	53	50	46	43	30	28	27	25	23	22
23	22	13	10	7	5	2	0	6	5	4	2	1	0
23	23	18	15	13	10	7	5	9	8	6	5	4	2
23	24	24	21	18	15	13	10	12	11	9	8	6	5
23	25	31	27	24	21	18	15	15	14	12	11	9	8
23	26	37	34	31	27	24	21	18	17	15	14	12	11
23	27	43	40	37	34	31	27	22	20	18	17	15	14
23	28	50	46	43	40	37	34	25	23	22	20	18	17
23	29	56	53	50	46	43	40	28	27	25	23	22	20

Performance values for cooling per panel in watts, tested in accordance with EN 14037.

1	1 2414 02	multi-function valve, red
2	1 2415 02	multi-function valve, blue
3	1 7760 5x	thermostat – cooling valve
4	1 934x 00	thermostat with remote sensor
5	1 6837 91	manual control valve



Example: Mechanical control of a cooling circuit



1	3 F120 75	wall-heating panel
2	1 8532 xx	distributors
3	1 4217 xx	circuit control valve
4	1 4007 xx	differential pressure control
5	1 7723 xx	area valve
6	1 7710 00	thermomotor
7	1 7217 xx	area valve
8	1 7794 23	Room temperature control

Example: Connection for heating and cooling

## Connection to HERZ distributor

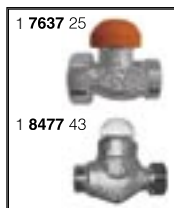
HERZ pipes can be connected to all distributors for drinking water, radiator connection and surface heating and cooling from the HERZ catalogue, using HERZ fittings.

HERZ compact distributors, 1 8441 xx are supplied as pairs with 3 to 12 outlets with distributor holders, vent valve and end caps.

HERZ compact distributors represent a simple system for the single connection of radiators. They consist of nickel-coated

cast distributor components that can be coupled. They are produced as single components. Connection to one another utilises a protected O-ring seal, which remains water-tight and is reliable over time. The distributor assembled at the top is fitted with the ventilation valve.

The distribution outlets are supplied with M 22 x 1.5 external threads. The connection of the distributor outlets to the HERZ pipes is achieved using connectors.



HERZ compact distributors, 1 8541 xx are supplied as pairs of distributors with 3 to 12 outlets with distributor holders, vent valve and end caps.

HERZ compact distributors represent a simple system for the single connection of radiators. They consist of nickel-coated cast distributor components that can be coupled. They are produced as single components. Connection to one another

utilises a protected O-ring seal, which remains water-tight and is reliable over time. The distributor assembled at the top is fitted with the ventilation valve.

The distribution outflows are supplied with G 3/4 external thread. The connection of the distributor outflows to the HERZ pipes is achieved using connectors.



Shut-off valve DN 25



End caps  
8545



6274  
6276

6098

8525

Clamping sets M 22 x 1,5

Locking cap



1 7637 25



1 3041 01



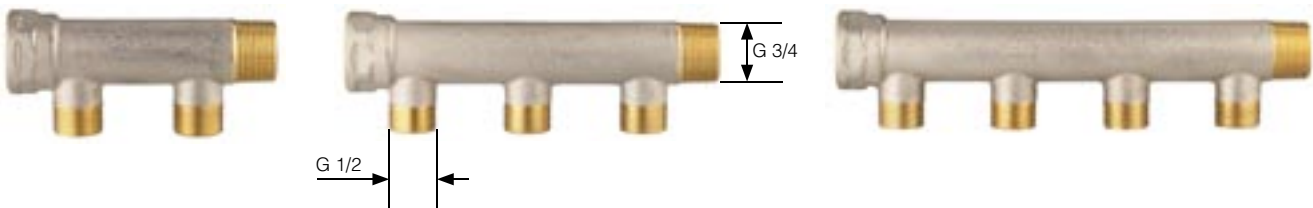
1 3741 01



1 8437 43

HERZ compact distributors, 2 **8451** xx are supplied as pairs of distributors with 2, 3 or 4 outlets with distributor holders. These distributors are made from dezincification-resistant brass and are suitable for distribution in domestic water systems and conform to DVGW-AB W534. They consist of nickel-coated cast distributor components that can be coupled. They are produced as single

components. Connection to one another utilises a protected O-ring seal, which remains water-tight and is reliable over time. The distribution outflows are supplied with G 1/2 external thread. In the compact distributor 2 **8451** 32, the distributor outlets are designed with G 3/4. The connection of the distributor outflows to the HERZ pipes is achieved using connectors.



The pipes are connected to the distributor using fittings, G 1/2.  
1 **6092** 11 for pipe 12 x 2, 1 **6092** 12 for pipe 14 x 2, 1 **6092** 13 for pipe 16 x 2

HERZ distributors, 1 **851x** 93 are supplied as pairs of distributors with 2, 3 or 4 outlets with distributor holders, ventilation valve and end caps. HERZ distributors can be combined to up 12 outlets. Distributor coupling with O-ring seal. They are produced as single nickel-coated components. Consisting of flow distributor with shut off upper parts and return collector with thermostatic upper parts for fitting manual drives or servo-

motor. Venting and draining are included in the end cap. The commissioning of the individual heating circuits with one another is conducted via the controls for the valves on the flow distributor using an internal hex driver. The distribution outlets are supplied with G 3/4 external thread. The connection of the distributor outlets to the HERZ pipes is achieved using connectors.



1 8531 xx



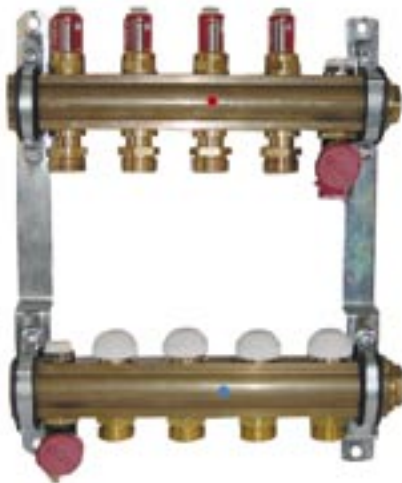
1 8532 xx



1 853 xx



**HERZ circuit control distributor-set, 8531** with shut-off and thermostatic upper parts for under-floor heating. Flow distributor with shut-off upper parts, and return collector with thermostatic upper parts. Flow and return distributors with offset arranged 3/4 outflows, with vent and drain, end cap and distributor holders. IG 1 distributor connection.



**HERZ circuit control distributor-set, 8532** with shut-off and flow meter control upper parts for under-floor heating. Flow distributor with flow meter control upper parts for water capacity up to 2.5 l/min, and return collector with thermostatic upper parts. Flow and return distributors with offset arranged 3/4 outflows, with vent and drain, end cap and distributor holders. IG 1 distributor connection.

**HERZ circuit control distributor-set, 8533** with shut-off and flow meter control upper parts for under-floor heating. Flow distributor with flow meter control upper parts for water capacity up to 6.0 l/min, and return collector with thermostatic upper parts. Flow and return with offset arranged 3/4 outflows, with vent and drain, end cap and distributor holders. IG 1 distributor connection.



## HERZ distribution boxes

**D**istribution boxes are available for HERZ distributors for wall installation.

Distribution boxes are produced from hot-galvanised sheet steel, with front frame and doors fitted with bolts or cylinder lock, and white powder coated according to RAL9003. Fixing rails for distributor holders are provided in the distribution boxes. Height-adjustable feet mean that the box can be adjusted to a height of 705 to 75 mm. The installation depth for distribution box **8569** and **8570** can be adjusted to between 80 mm and 110 mm. For distributor box **8572** the installation depth can be selected between 110 mm and 140 mm. The frame of the distribution box has pre-punched recesses for inserting the pipes. The front panel is for balancing the different installation heights and is removable.

- 1 **8569** xx distribution box, installation depth 80-110 mm, with bolts
- 1 **8570** xx distribution box, installation depth 80-110 mm, with cylinder lock
- 1 **8572** xx distribution box, installation depth 110-140 mm, with bolts

Order number	Nominal width	Cabinet		Front panel	
		Width	Width, interior	Width	Width, interior
1 <b>8569</b> 03	300	385	345	409	341
1 <b>8569</b> 04	400	435	395	459	391
1 <b>8569</b> 05	500	489	449	513	445
1 <b>8569</b> 10	600	574	534	598	530
1 <b>8569</b> 15	750	724	684	748	680
1 <b>8569</b> 20	900	874	834	898	830
1 <b>8569</b> 25	1050	1024	984	1048	980
1 <b>8569</b> 30	1200	1174	1134	1198	1130
1 <b>8569</b> 40	1500	1474	1434	1498	1430



The breadth of the distribution boxes can be selected individually according to the distributors and connection fittings used.

Selection table for Herz compact distributors for sanitation installations, nickel-coated, DN20				
Outflows	Distributor length in mm		Distributor box, order no. 1 8569 ..	
	Outflows in G1/2			
	Shut-off valve – connection with iron pipe connector, 6210		Shut-off valve – connection with iron pipe connector, 6210	
	without	with	without	with
3	110	255	1 <b>8569</b> 03	1 <b>8569</b> 03
4	160	305	1 <b>8569</b> 03	1 <b>8569</b> 04
5	210	355	1 <b>8569</b> 03	1 <b>8569</b> 05
6	260	405	1 <b>8569</b> 03	1 <b>8569</b> 10
7	310	455	1 <b>8569</b> 04	1 <b>8569</b> 10
8	360	505	1 <b>8569</b> 05	1 <b>8569</b> 15
9	410	555	1 <b>8569</b> 10	1 <b>8569</b> 15
10	460	605	1 <b>8569</b> 10	1 <b>8569</b> 15
11	510	655	1 <b>8569</b> 15	1 <b>8569</b> 20
12	560	705	1 <b>8569</b> 15	1 <b>8569</b> 20

Selection table for Herz compact distributors for domestic water installations, nickel-plated, DN20					
Outflows	Distributor length in mm			Distributor box, order no. 1 8569 ..	
	Outflows in G 3/4				
	Shut-off valve – connection with iron pipe connector, 6210			Shut-off valve – connection with iron pipe connector, 6210	
	without	with		without	with
4	160	305		1 8569 03	1 8569 04
6	260	405		1 8569 03	1 8569 10
8	360	505		1 8569 05	1 8569 15
10	460	605		1 8569 10	1 8569 15
12	560	705		1 8569 15	1 8569 20

Selection table for Herz compact distributors, DN20 (3/4) 8441						
Outflows	Distributor length in mm			Distributor box, order no. 1 8569 ..		
	Distributor outlet M 22 x 1,5					
	Shut-off valve, 843X			Shut-off valve, 843X		
	without	Straight model	Angle model	without	Straight model	Angle model
3	140	245	283	1 8569 03	1 8569 03	1 8569 03
4	180	285	323	1 8569 03	1 8569 03	1 8569 04
5	220	325	363	1 8569 03	1 8569 04	1 8569 05
6	260	365	403	1 8569 03	1 8569 05	1 8569 10
7	300	405	443	1 8569 04	1 8569 10	1 8569 10
8	340	445	483	1 8569 05	1 8569 10	1 8569 10
9	380	485	523	1 8569 05	1 8569 15	1 8569 15
10	420	525	563	1 8569 10	1 8569 15	1 8569 15
11	460	565	603	1 8569 10	1 8569 15	1 8569 15
12	500	605	643	1 8569 15	1 8569 15	1 8569 20

Selection table for Herz compact distributors, DN25 (1) 8541						
Outflows	Distributor length mif in mm			Distributor box, order no. 1 8569 ..		
	Distributor outlet G 3/4					
	Shut-off valve, 853X			Shut-off valve, 853X		
	without	Straight model	Angle model	without	Straight model	Angle model
3	170	263	320	1 8569 03	1 8569 03	1 8569 04
4	220	313	370	1 8569 03	1 8569 04	1 8569 05
5	270	363	420	1 8569 03	1 8569 05	1 8569 10
6	320	413	470	1 8569 04	1 8569 10	1 8569 10
7	370	463	520	1 8569 05	1 8569 10	1 8569 15
8	420	513	570	1 8569 10	1 8569 15	1 8569 15
9	470	563	620	1 8569 10	1 8569 15	1 8569 15
10	520	613	670	1 8569 15	1 8569 15	1 8569 20
11	570	663	720	1 8569 15	1 8569 20	1 8569 20
12	620	713	770	1 8569 15	1 8569 20	1 8569 20

Selection table for Herz rod distributors, DN25 (1) 8531, 8532						
Outflows	Distributor with end cap length in mm			Distributor box, order no. 1 8569 ..		
	Distributor outlet G 3/4					
	Shut-off valve			Shut-off valve		
	without	Straight model	Angle model	without	Straight model	Angle model
3	221	306	372	1 8569 03	1 8569 04	1 8569 05
4	271	356	422	1 8569 03	1 8569 05	1 8569 10
5	321	406	472	1 8569 04	1 8569 10	1 8569 10
6	371	456	522	1 8569 05	1 8569 10	1 8569 15
7	421	506	572	1 8569 10	1 8569 15	1 8569 15
8	471	556	622	1 8569 10	1 8569 15	1 8569 15
9	521	606	672	1 8569 15	1 8569 15	1 8569 20
10	571	656	722	1 8569 15	1 8569 20	1 8569 20
11	621	706	772	1 8569 15	1 8569 20	1 8569 20
12	671	756	822	1 8569 20	1 8569 20	1 8569 25
13	721	806	872	1 8569 20	1 8569 25	1 8569 25
14	771	856	922	1 8569 20	1 8569 25	1 8569 25
15	821	906	972	1 8569 25	1 8569 25	1 8569 30
16	871	956	1022	1 8569 25	1 8569 30	1 8569 30

Selection table for Herz floor distributors, DN25 (1) 8512, 8513 and 8514						
Outflows	Distributor with end cap length in mm			Distributor box, order no. 1 8569 ..		
	Distributor outlet G 3/4			1 8569 03	1 8569 03	1 8569 04
	Shut-off valve			Shut-off valve		
	without	Straight model	Angle model	without	Straight model	Angle model
3	111	251	301	1 8569 03	1 8569 03	1 8569 04
4	166	306	356	1 8569 03	1 8569 04	1 8569 05
5	221	361	411	1 8569 03	1 8569 05	1 8569 10
6	276	416	466	1 8569 03	1 8569 10	1 8569 10
7	331	471	521	1 8569 04	1 8569 10	1 8569 15
8	386	526	576	1 8569 05	1 8569 15	1 8569 15
9	441	581	631	1 8569 10	1 8569 15	1 8569 20
10	496	636	686	1 8569 15	1 8569 20	1 8569 20
11	551	691	741	1 8569 15	1 8569 20	1 8569 20
12	606	746	796	1 8569 15	1 8569 20	1 8569 25
13	661	801	851	1 8569 20	1 8569 25	1 8569 25
14	716	856	906	1 8569 20	1 8569 25	1 8569 25
15	771	911	961	1 8569 25	1 8569 25	1 8569 30
16	826	966	1016	1 8569 25	1 8569 30	1 8569 30
17	881	1021	1071	1 8569 25	1 8569 30	1 8569 30
18	936	1076	1126	1 8569 25	1 8569 30	1 8569 40
19	991	1131	1181	1 8569 30	1 8569 40	1 8569 40
20	1046	1186	1236	1 8569 30	1 8569 40	1 8569 40
21	1101	1241	1291	1 8569 40	1 8569 40	1 8569 40
22	1156	1296	1346	1 8569 40	1 8569 40	1 8569 40
23	1211	1351	1401	1 8569 40	1 8569 40	1 8569 40

Distributor stations ready for connection, for radiator heating, floor heating and combinations, are in the HERZ catalogue, Part 3. These distributor stations are ready for connection, and the distributors are pre-assembled in distributor boxes and fitted with shut-offs.

Ready-to-connect control stations for floor heating and combinations of floor and radiator heating are also available in the HERZ catalogue, Part 3.

**Selection table for HERZ pipes** according to heat performance or flow rate. Values are only given for water 70°C and 20°C temperature difference and the pipe

selection. A pipe network calculation is required for piping with press fittings. Grey background fields should not be used.

kW capacity	1	2	3	4	5	10	15	20	25	30	35	40	45	50	60	70	80	90	100	150	200	
Water capacity l/h	43	86	129	172	215	430	645	860	1075	1290	1505	1720	1935	2150	2580	3010	3440	3870	4300	6045	8600	
Pipe 14 x 2	Pressure loss Pa/m	46	150	302	499	731	2501	5147														
	Flow rate m/s	0.15	0.3	1.28	0.61	0.76	1.52	2.28														
Pipe 16 x 2	Pressure loss Pa/m	17	63	128	210	310	1048	2150														
	Flow rate m/s	0.11	0.21	0.32	0.42	0.53	1.06	1.59														
Pipe 18 x 2	Pressure loss Pa/m	7	31	62	101	149	502	1029	1566													
	Flow rate m/s	0.08	0.16	0.23	0.31	0.39	0.78	1.16	1.48													
Pipe 20 x 2	Pressure loss Pa/m	3	16	33	54	79	266	544	906													
	Flow rate m/s	0.06	0.12	0.18	0.24	0.3	0.59	0.89	1.19													
Pipe 26 x 3	Pressure loss Pa/m					38	92	188	312	464	641											
	Flow rate m/s					0.23	0.38	0.57	0.76	0.95	1.14											
Pipe 32 x 3	Pressure loss Pa/m					8	27	54	89	133	183	241	305	376	454							
	Flow rate m/s					0.11	0.23	0.34	0.45	0.56	0.68	0.79	0.9	1.01	1.13							
Pipe 40 x 3.5	Pressure loss Pa/m					9	17	29	43	59	77	98	120	145	201	265	336					
	Flow rate m/s					0.14	0.21	0.28	0.35	0.42	0.49	0.56	0.63	0.7	0.84	0.98	1.12					
Pipe 50 x 4	Pressure loss Pa/m							9	14	19	24	31	28	46	63	83	106	131	158	327		
	Flow rate m/s							0.17	0.22	0.26	0.3	0.35	0.39	0.43	0.52	0.6	0.69	0.78	0.86	1.29		
Pipe 63 x 4.5	Pressure loss Pa/m									6	7	9	11	14	19	25	32	39	47	98	146	
	Flow rate m/s									0.16	0.18	0.21	0.23	0.26	0.31	0.37	0.42	0.47	0.52	0.78	1.04	

**HERZ guarantees** perfect quality for its HERZ pipes, which are manufactured with the greatest care. Only excellent raw materials are used to produce them. HERZ pipes fulfil the requirements of the standards, DIN 4726, DIN 16833 and DIN 16892.

## Warranty

and this also applies to automatic water feeds, etc.) otherwise all guarantees are void.

This guarantee applies to all cases of damage, which arise within 10 years of the manufacture of the HERZ pipes.

Measures taken by HERZ for the purpose of limited damage, do not impact on acknowledgment of the guarantee liability. Negotiations for replacement services do not mean release from the argument that advice was not received been on time, was realistically unfounded or otherwise insufficient.

This guarantee statement loses its validity if HERZ products (pipes as well as fittings) or accessories recommended by us are not exclusively used, and if the installation has not been carried out exclusively using HERZ tools or tools recommended by HERZ.

The HERZ guarantee includes free replacement of the HERZ pipes that have been damaged, which are proven to have been caused by production errors and for which we are obliged to put right other damages that have been cause to items of the builder or other third party.

Any guarantee from HERZ is also null and void if planning, installation and service regulations are not adhered to, and if installation has not been carried out by a registered and expert installation or heating company.

Moreover, those costs will also be reimbursed that arise from the exposure, removal or taking down of faulty parts, which will be replaced by fault-free HERZ products. This also includes any maintenance works that are required to reinstate the condition prior to the damage occurring. Replacement of usage and production failure, interruptions to operations and hold-ups, decrease of value and other indirect results of damage are excluded from the guarantee.

Damage of any kind that is caused by outside interference (e.g. bored cables, etc.) as well as errors or omissions during installation, are excluded from the guarantee.

The liability with regard to this guarantee is limited to an amount of €1,000,000 per case of damage and totals a maximum of €10,000,000 per year

In the event of damage, HERZ must be informed immediately, but within 3 days at the latest, after occurrence of the damage and before repair measures are undertaken, and must be given the opportunity to examine the damage. If this is neglected then all guarantees are void.

HERZ reserves the right to instruct specialist companies of its own choice to carry out any recuperative measures.

The builder or equipment operator has a duty to limit damage in the event of damage (e.g. where there are leaky pipes, the water supply must be switched off immediately,

Recourse to a guarantee during the guarantee period does not extend the total duration of the guarantee.



## Pressure tests

The installer of heating, cooling or sanitation systems is obliged to test the water-tightness of the pipes before they are covered with cement, gypsum or other materials.

Pressure devices should be used for this test, which give a reading of 0.1 bar, which is to be placed at the lowest lying point.

The equipment must be ventilated and protected against frost, if necessary.

**Pressure test for radiator installations** according to DIN 18380

The heating system must be able to withstand pressure that corresponds to 1.3 times the total pressure of the equipment (= static pressure of the system) and at least 1 bar excess pressure at each point of the system.

The pressure test is tested over 24 hours and the pressure decrease must total 0.2 bar at the highest. The system must remain water-tight.

**Pressure test for floor heating** according to DIN 4725

The piping are put under pressure and ventilated.

The water pressure is to be tested directly before and after the covering work.

The test pressure must correspond to 1.3 times the operating pressure of the equipment and may fall by 0.2 bar at the most during the test period. The system must remain water-tight.

During the covering work, the pressure in the pipes must be reduced to the maximum permissible operating pressure. A pressure test of 6 bar is recommended over a period of 24 hours.

**Pressure test for sanitation systems** according to DIN 1988

All system parts are ready for installation and uncovered to undergo pressure testing. The pipes must be ventilated.

2 tests are to be conducted.

test 1:

- The pressure test is carried out using the maximum admissible constant operating pressure of 10 bar + 5 bar excess pressure, thus a total of 15 bar over a period of 30 minutes. After a break lasting 10 minutes the pressure test is carried out a second time.
- Then another pressure test is conducted over 30 minutes, in which the pressure may only drop by 0.6 bar every 5 minutes. The system must not display any leaks.

Test 2:

- This pressure test is carried out immediately after the first one and lasts 2 hours.
- The pressure measured in the first pressure test may fall over by no more than 0.2 bar during these 2 hours. The equipment must remain water-tight.

### HERZ note:

We recommend that the piping be flushed with warm water at least three times before the system is started up, in order to remove dirt or installation residues from the system. We also recommend the installation of dirt filters.

According to DIN 1822 the flushing must take at least 2 minutes or 15 seconds per running metre of pipe, with a minimum water flow speed of 0.5m/s.

## HERZ multi-functional ball valve



A ball valve with 4 connections for installation in cold and hot water equipment as a shut-off, filling and emptying valve, especially for filling, ventilating and emptying surface systems for heating and cooling. Operating pressure 25 bar, operating temperature -10°C to 120°C, material – nickel-coated brass, plastic hand wheel, 360° rotatable, with integrated turnable thermometer.

Thread connection 2 x 1 IG, 1 x 1 1/4 AG with cap, 1 x 1/2 IG with stopper

Design:

HERZ 1 **2414** 02 with red hand wheel

HERZ 1 **2415** 02 with blue hand wheel

**Zertifikat**  
über die Verleihung des Rechts  
zur Führung der ÖVGW-Qualitätsmarke Wasser

**Registrierungsnummer:** W 1.279  
**Produkt:** Kunststoffrohrsystem PE/RT / Al / PE HD und Pressverbindungen aus Messing  
**Standort:** W 1.279  
**Hersteller:** HERZ Armaturen Ges.m.b.H., A-1212 Wien, Richard Strauss Straße 22  
**Produktbeschreibung:** System mit Pressverbindern aus Metall und Verbundrohr aus PE-HD/PE-RT, PE-HD/PE-RT bzw. PE-HD/PE-Al

**Prüfungsbereich:** Druckrohrleitung für kaltes Wasser und Abwasser  
**Druck:** max. 10 bar  
**Temperatur:** max. 20°C

**Prüfungstermin:** 19.04.2007 / 02-0284-0002

**Prüfungsort:** 1100 Wien, Richard Strauss Straße 22

**Prüfungsergebnis:** Das System erfüllt die Anforderungen der ÖVGW-Prüfung 1000 für Druckrohrleitungen für kaltes Wasser und Abwasser. Die Ausführung der Pressverbindungen ist zulässig. Die Ausführung der Verbundrohre ist zulässig. Die Ausführung der Pressverbindungen ist zulässig. Die Ausführung der Verbundrohre ist zulässig.

**Prüfungstermin:** 19.04.2007 / 02-0284-0002

**Prüfungsort:** 1100 Wien, Richard Strauss Straße 22

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**Zertifikat**  
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**Hersteller:** HERZ Armaturen Ges.m.b.H., A-1212 Wien, Richard Strauss Straße 22  
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**Druck:** max. 10 bar  
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**Prüfungstermin:** 19.04.2007 / 02-0284-0002

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**Zertifikat über ein DVGW Prüfzeichen**  
certificate for a DVGW test mark

**Anwendungsbereich:** Druckrohrleitung für kaltes Wasser und Abwasser  
**Hersteller:** HERZ Armaturen Ges.m.b.H., Richard Strauss Straße 22, A-1212 Wien 22  
**Produkt:** Verbinder und Installationssysteme, Trinkwasserinstallationssysteme (2007)  
**Produktbeschreibung:** System mit Pressverbindern aus Metall und Verbundrohr aus PE-HD/PE-RT, PE-HD/PE-RT bzw. PE-HD/PE-Al  
**Material:** Metall, Kunststoff  
**Prüfungstermin:** 19.04.2007 / 02-0284-0002  
**Prüfungsort:** 1100 Wien, Richard Strauss Straße 22  
**Prüfungsergebnis:** Das System erfüllt die Anforderungen der DVGW-Prüfung 1000 für Druckrohrleitungen für kaltes Wasser und Abwasser. Die Ausführung der Pressverbindungen ist zulässig. Die Ausführung der Verbundrohre ist zulässig. Die Ausführung der Pressverbindungen ist zulässig. Die Ausführung der Verbundrohre ist zulässig.

**Zertifikat über ein DVGW Prüfzeichen**  
certificate for a DVGW test mark

**Anwendungsbereich:** Druckrohrleitung für kaltes Wasser und Abwasser  
**Hersteller:** HERZ Armaturen Ges.m.b.H., Richard Strauss Straße 22, A-1212 Wien 22  
**Produkt:** Verbinder und Installationssysteme, Trinkwasserinstallationssysteme (2007)  
**Produktbeschreibung:** System mit Pressverbindern aus Metall und Verbundrohr aus PE-HD/PE-RT, PE-HD/PE-RT bzw. PE-HD/PE-Al  
**Material:** Metall, Kunststoff  
**Prüfungstermin:** 19.04.2007 / 02-0284-0002  
**Prüfungsort:** 1100 Wien, Richard Strauss Straße 22  
**Prüfungsergebnis:** Das System erfüllt die Anforderungen der DVGW-Prüfung 1000 für Druckrohrleitungen für kaltes Wasser und Abwasser. Die Ausführung der Pressverbindungen ist zulässig. Die Ausführung der Verbundrohre ist zulässig. Die Ausführung der Pressverbindungen ist zulässig. Die Ausführung der Verbundrohre ist zulässig.

**DVGW**  
Zertifizierungsgesellschaft

**DVGW-Baumusterprüfzertifikat**  
DVGW type examination certificate

**DW-6001AU2486**  
Zertifizierungsnummer

**Anwendungsbereich**  
Art of application: Produkt der Wasserversorgung  
product of water supply

**Zertifizierender**  
owner of certificate: IFA, Produktions- & Vertriebsgesellschaft m. b. H.  
Währ 103, A-2012 Kautenberg

**Hersteller**  
manufacturer: HERZ Anlagen Ges.m.b.H.  
Richard Strauss-Strasse 22, A-1220 Wien 23

**Produkt**  
product name: Installationssysteme und Systemzubehör  
Tiefwasserzuleitungsrohren (DWR)

**Produktbezeichnung**  
product description: System mit Verbundrohr PE-ALU/PE-IB und Press- 32er  
Klammerelement aus Metall

**Modell**  
model: FVDF30

**Prüfberichte**  
test reports: Kuntzprüfung Labor VA-KU 21094 vom 21.01.2008 (DWA)  
Mechanikprüfung K 96 (D44) vom 24.02.1999 (DPA)  
Mechanikprüfung VA-KU 17010 vom 13.02.1999 (DPA)  
Mechanikprüfung 22 000090-0 vom 07.04/04 (DPA)  
KVA Prüfung C-00000-00-0a vom 09.09.2008 (DPA)

**Prüfungsbogen**  
form of test examination: DVGW W 634 (01.08.2006)  
SGL-KT6 (07.01.1975)

**Abschlußdatum / AZ**  
date of issue / file no.: 24.02.2009 / 04-0000-V009

**DVGW**  
Zertifizierungsgesellschaft

**DW-6001AU2486**

Typ	Technische Daten	Materialien
DWR	Druckrohr	PE-ALU/PE-IB
PE-ALU/PE-IB	Nennrohrweite: 110 mm	PE-ALU/PE-IB
PE-ALU/PE-IB	Nennrohrweite: 90 mm	PE-ALU/PE-IB
PE-ALU/PE-IB	Nennrohrweite: 75 mm	PE-ALU/PE-IB
PE-ALU/PE-IB	Nennrohrweite: 60 mm	PE-ALU/PE-IB
PE-ALU/PE-IB	Nennrohrweite: 45 mm	PE-ALU/PE-IB
PE-ALU/PE-IB	Nennrohrweite: 30 mm	PE-ALU/PE-IB

**Zertifizierungspflichtige Bauteile / Werkstoffe**

Regist.-Nr.	Bezeichnung (Produkt)	Hersteller
00000000-00	komponent	HERZ Anlagen
00000000-00	komponent	HERZ Anlagen
00000000-00	komponent	HERZ Anlagen

**Verantwortlichkeiten / Verantwortungen**

Art of authority / responsibility: IFA, Produktions- & Vertriebsgesellschaft m. b. H., Währ 103, A-2012 Kautenberg

**HERZ**  
Anlagen Ges.m.b.H.

**WERKSCHREINIGUNG 2.1 nach EN 10204**

**HERZ Verbundrohr, System „Papier“**

Wir bestätigen auf Basis von Prüfungen der Versuchsanstalt für Kunststoff- und Umformtechnik am Technischen Gewerbemuseum, dass das Herz-Verbundrohr, angeordnet im Herz-Papier-System, für die Anwendung der Klassen A, B und C, gemäß ONORM S 1137 geeignet ist.

HERZ Anlagen Ges.m.b.H.  
Richard Strauss-Strasse 22  
A-1220 Wien

**QM**  
HERZ  
März 10, 2009  
Tüpfelng. Qualifizierung

**HERZ**  
Anlagen Ges.m.b.H.

**WERKSCHREINIGUNG 2.1 nach EN 10204**

**HERZ Verbundrohr, System „Papier“**

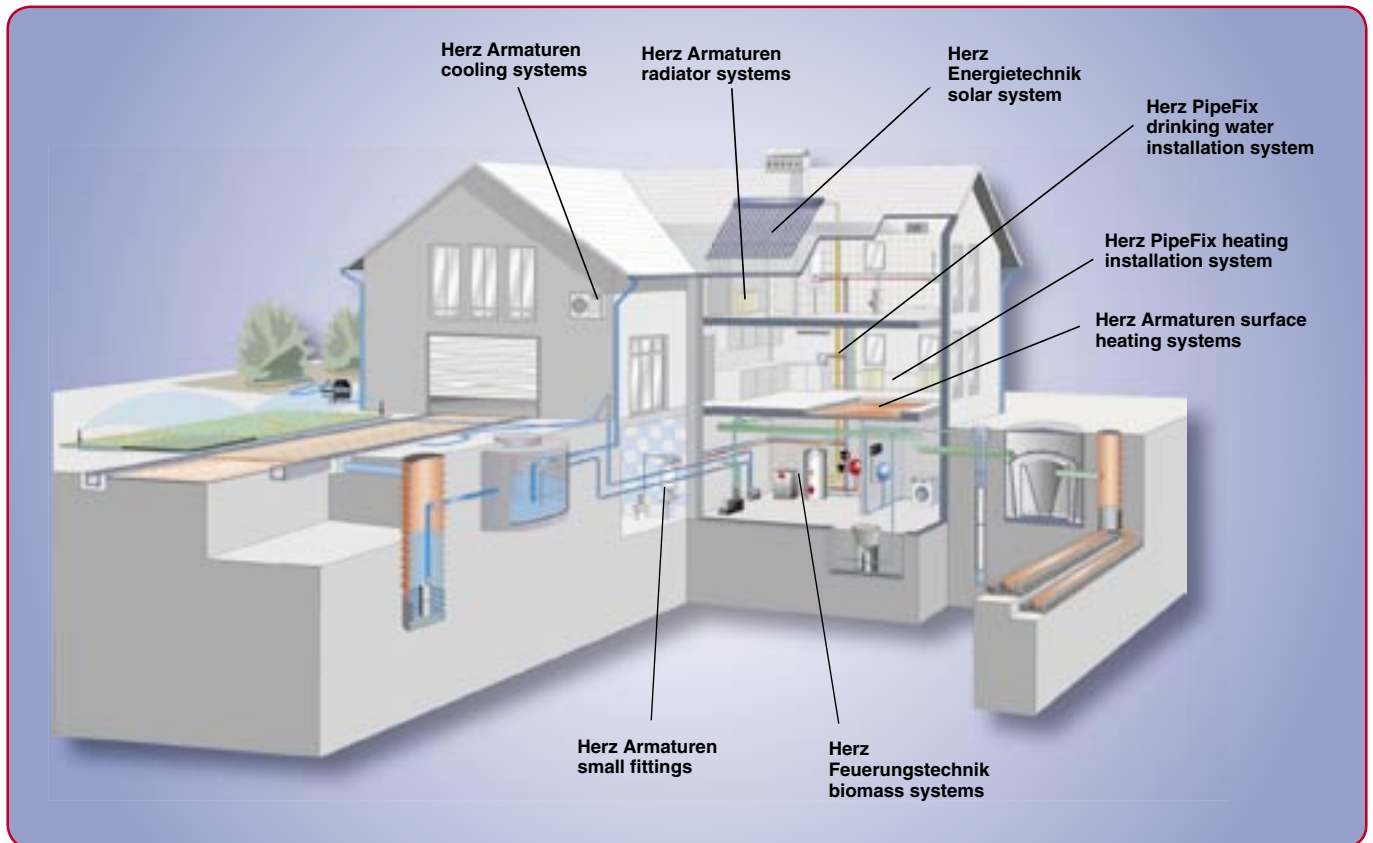
Wir bestätigen auf Basis von Prüfungen der Versuchsanstalt für Kunststoff- und Umformtechnik am Technischen Gewerbemuseum, dass das Herz-Verbundrohr, angeordnet im Herz-Papier-System, für die Anwendung der Klassen A, B und C, gemäß ONORM S 1137 geeignet ist.

HERZ Anlagen Ges.m.b.H.  
Richard Strauss-Strasse 22  
A-1220 Wien

**QM**  
HERZ  
März 10, 2009  
Tüpfelng. Qualifizierung



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**Fax: +43/(0)1/616 26 31-27**  **E-Mail: [office@herz-armaturen.com](mailto:office@herz-armaturen.com)**  **[www.herz-armaturen.com](http://www.herz-armaturen.com)**

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