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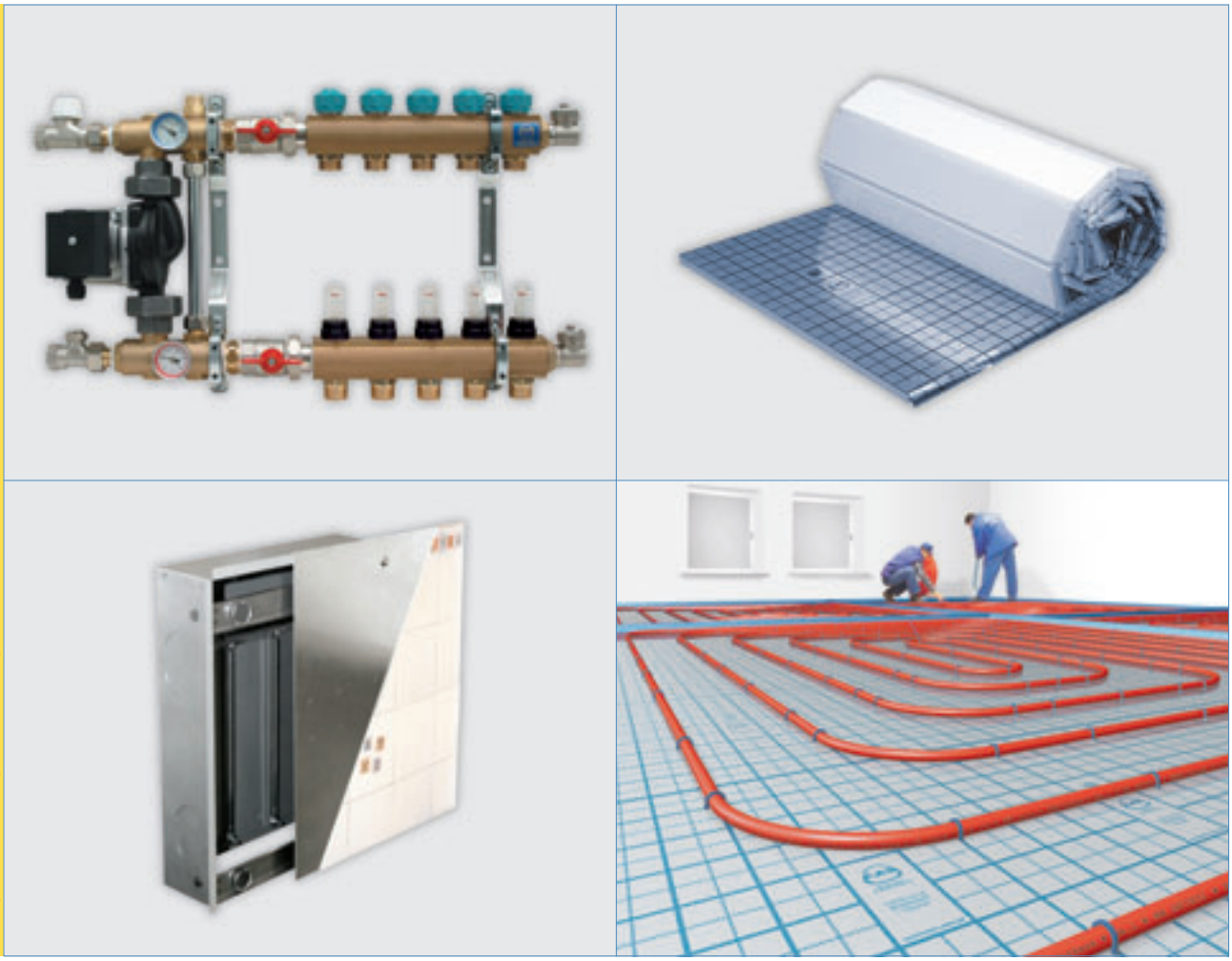
SYSTEM
KAN-therm

The underfloor heating of **KAN-therm** System technical information, catalogue

ISO 9001 : 2000



August 2007

TECHNOLOGY
OF SUCCESS

KAN company, the producer of **KAN-therm** System, for many years have been promoting modern and user friendly plane heating systems. The design of underfloor heating in **KAN-therm** System is very simple. A wide range of design solutions, rich collection of installation accessories (manifolds, system cabinets, automatics elements) allows to precisely choose an underfloor heating system for a specific investment.

Plane heating systems include:

- heating of surfaces that are in contact with air outside (sport grounds, stadiums, communication roads, garage access roads, external stairways and terraces);
- internal heating systems (underfloor, ceiling, and wall heating systems).

In the case of internal heating systems it is possible to apply various plane heater designs depending on architectural conditions and object uses, e.g.:

- sports arenas with heated flexible floors;
- wooden floors with air hollow;
- laid underfloor heating designs - the so-called wet methods
- dry underfloor heating systems - particularly useful in the case of object renovations and adaptations.

Advantages of **KAN-therm** System underfloor heating:

- optimal room temperature profile;
- low energy consumption;
- compatibility with economical heating sources, e.g. heat pumps and condensation boilers;
- optimal room surface use;
- allergy sufferer friendly systems;
- possibility to use as air conditioning in summer;
- high quality and reliability;
- attractive price;
- quick and easy assembly;
- wide range of installation solutions;
- low operation noise, no vibrations;
- corrosion resistant;
- no furring up;
- high aesthetics;
- environment friendly materials.

KAN company also provides supporting computer software for designing underfloor heating systems:

- **KAN** co-Graf for designing heating systems; it has an option of designing underfloor heating systems,
- **KAN** Quick Floor an on-line program for quick calculation of underfloor heating systems on the basis of PN-EN1264 norm, with an option of creating complete material list,
- **KAN** ozc a supplement used for calculating loss of heat in buildings and individual rooms.

All software available on **www.kan.com.pl**

Basic information

Underfloor heating consists in direct pouring of pipes in floor pavement. In that way we get a heater - the floor.
Heating systems of that type are widespread and are successfully used in single-family houses as well as high standard apartment houses.
Also, the underfloor heating system has appeared to be an optimal solution for keeping a proper thermal comfort in building engineering:

- sacred (churches);
- utility (sport arenas, exhibition halls);
- industrial.

The floor heating arranged with the wet method - heating pipe direct pouring in floor pavement.

Thermal comfort

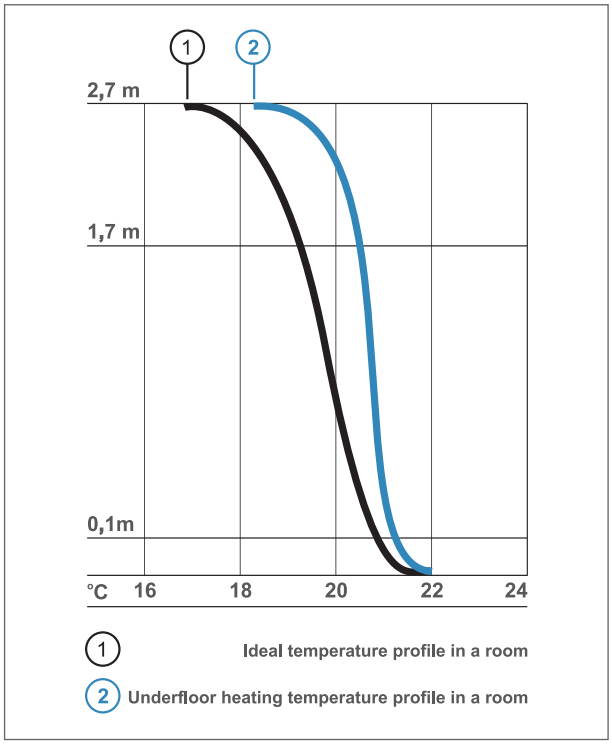
Underfloor heating is a system where a larger amount of heat is given up by radiation. Thermal flux is carried by a pipe and then by a layer of concrete, which constitutes a heating panel, and floor covering and given up to the environment.

The floor is characterized by high temperature and it is not a cold barrier (it does not chill feet) and at the same time it does not influence negatively the so-called felt temperature (a resultant of air temperature, wall temperature and floor temperature in a room) which is decisive in thermal comfort.

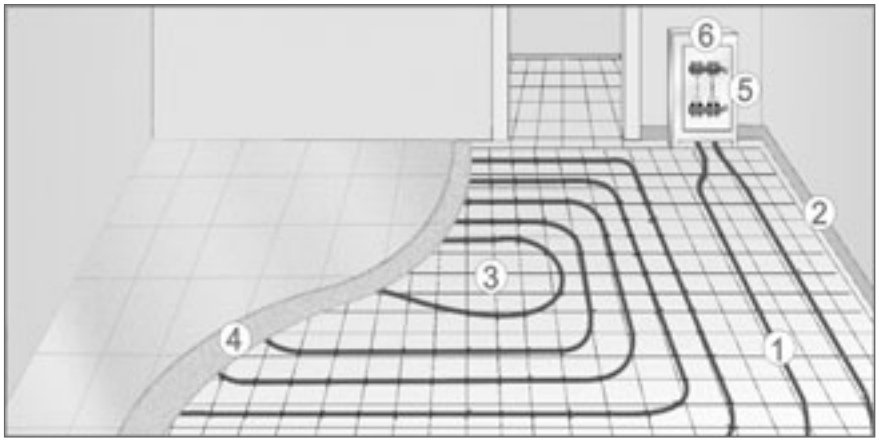
Thus, air temperature of 20°C in a room will give the same thermal comfort as 21°C to 22°C when using traditional heaters and convectors, while fluctuations of temperature inside of 1°C are practically unnoticeable by humans.

Underfloor heating is characterized by the closest to the ideal temperature profile in a room.

Highly important in underfloor heating is reduced air convection when compared with heater (convection) systems which may cause carrying of dust, etc.



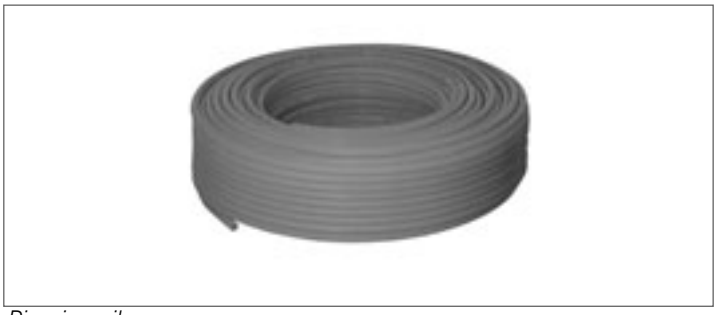
The underfloor heating of **KAN-therm** System - elements



1. Heat pipes.
2. Edge insulation.
3. Thermal and moisture insulation.
4. Heat jointless floor.
5. Underfloor heating manifold.
6. System cabinet.

The underfloor heating of **KAN-therm** System - pipes

The heating element in the underfloor heating of **KAN-therm** System are plastic pipes fixed onto foamed polystyrene boards. **KAN-therm** System for underfloor heating provides a wide range of pipes both in diameter and type. It allows to choose technically and economically optimal solutions when fulfilling customer requirements.
To assemble the underfloor heating system in **KAN-therm** System two types of plastic pipes can be used: PE-Xc polyethylene pipes and PE-RT with oxygen diffusion protection layer EVOH or PE-RT/Al/PE-HD multilayer pipes with aluminum layer inside. Depending on required calorific effect of the underfloor heating system pipes ∅12 - ∅26 mm in diameter can be used.
In the case of wall heating system pipes ∅12 or ∅14 are applied, covered by special plaster.



Pipe in coil

Pipe on drum and reel stand

Pipes are available in coils 100 - 200 m or on reels 600 - 1000 m depending on pipe diameter. Using pipes on reels enable quick and easy forming of coils with no axis twisting. Axis twisting of pipes causes increase in stretching, standing out from the base and requires more strength when fastening. In order to secure reels use stands.

PEX70 pipes

PEX70 pipe consists of PE-Xc base pipe ∅12×2 mm in PE protective pipe 18/14 mm (external diameter/internal diameter).

Because of that design between PE-Xc pipe and protective PE pipe there is a layer of air which reduces giving up the heat. PEX70 pipes can be used for laying underfloor heating systems directly connected to heater system where water temperature does not exceed 70°C. PEX70 pipes are offered in coils.

The underfloor heating of **KAN-therm** System - edge moisture insulation

Materials of moisture insulation:

- PE foil in rolls;
- metalized foil or laminated foil on Tacker boards;
- PS foil on Profil boards.

Edge insulation.

- reduces heat losses through walls;
- constitutes dilatation of concrete heating panel from outer walls and structural components;
- laid up to concrete layer high (in case of ceramic floor covering, also ceramic covering should has dilatation from walls and structural components).

Materials of edge insulation:

Wall tape with incision

Wall tape with incision and apron

The underfloor heating of **KAN-therm** System - thermal insulation

Requirements for thermal insulation according to PN-EN 1264 norm:

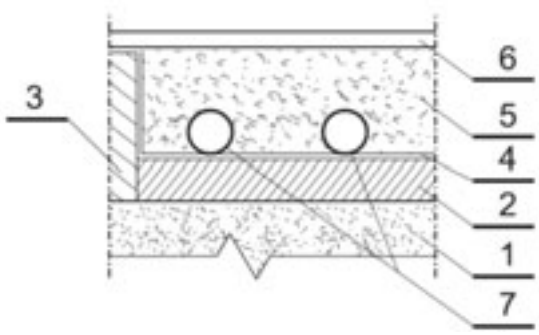
- R = 0,75 [m^2K/W] - required thermal resistance in case of heated room below,
- R = 1,25 [m^2K/W] - required thermal resistance in case of unheated room below or directly on the ground placed floor, or contact with external air of temperature $T_Z \geq 0°C$,
- R = 2,00 [m^2K/W] - required thermal resistance of insulation in case of contact with external air of temperature ($-5°C \geq T_Z \geq -15°C$).

Material of thermal insulation:

- Tacker foamed polystyrene boards with metalized foil or laminated foil 15, 30 and 50 mm thick;
- Profil 1, 2 and 4 foamed polystyrene boards 35, 11, and 20 mm thick;
- TBS foamed polystyrene boards 25 mm thick.

In the case of laying foamed polystyrene on bituminous ground use PE separating foil.

The underfloor heating of **KAN-therm** System - heating panel structure



1. Floor.
2. Thermal insulation.
3. Edge strip.
4. Moisture insulation (foil).
5. Floor concrete.
6. Floor covering.
7. Pipe.

Detailed requirements concerning underfloor heating are included in instruction manuals:

- "**KAN-therm** System Underfloor Heating, Wet Method",
- "**KAN-therm** System A Designer and Installer's Handbook".

The underfloor heating of **KAN-therm** System – manifolds

The basic adjustment of underfloor heating consists in leveling resistance of flow through individual circuits in order to achieve required flow of water.

Such adjustments can be made using:

- control valves built in the lower body of manifold, 51A and 71A series,

Manifold 51A series

Manifold 71A series

- control-measuring valves (flowmeters) built in lower body of manifolds, 55A and 75A series,

Manifold 55A series

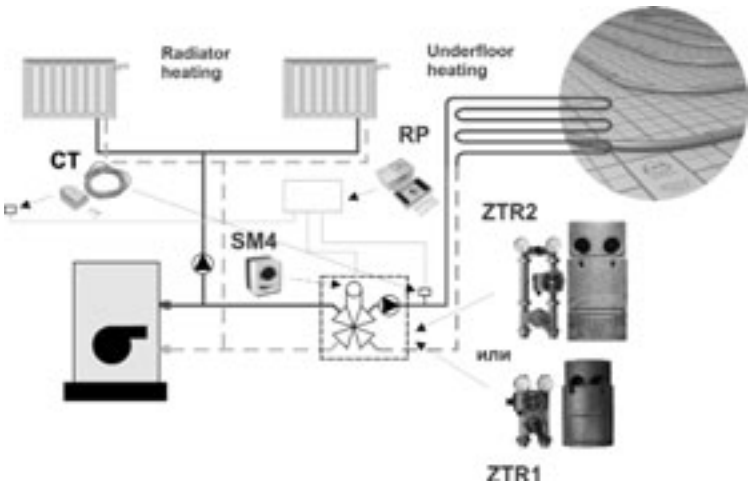
Manifold 75A series

The underfloor heating of **KAN-therm** System - mixing units

The underfloor heating is a system that operates with low parameters. Maximum supply temperature should not exceed 55°C. Thus, if the underfloor heating is supplied from the same source as radiators, it is recommended to use local or central mixing units to reduce the supply temperture of water (max. 55°C):

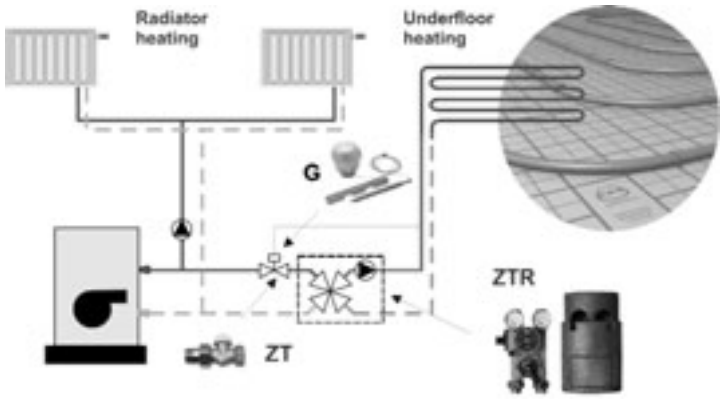
Central mixing units; are used when the underfloor heating is planned on different storeys. Mostly, such systems are located in the boiler-room, near the boiler.

- with automatic control



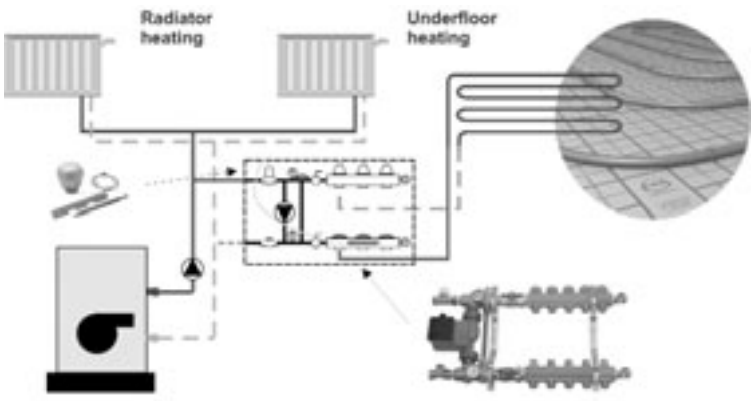
KANBloc (ZTR1) mixer or mixing unit with four-way valve (ZTR2) additionally equipped with servo-motor (SM4), weather controller (RP) and temperature sensors (CT) controls automatically, e.g. in external temperature option

- with semi-automatic control



KANBloc mixer with four-way valve (ZTR) additionally equipped with thermostatic valve (ZT) and head with the pad sensor (G) controls semi-automatically.

Local mixing units: are used when the underfloor heating is planned on one storey. The units should be located in system cabinets, near the underfloor heating system.



73A and 77A series manifold with built in mixing unit connected directly to heater system constitutes a local mixing unit. Thermostatic head with the pad sensor protects against possible temperature rise and also it enables to control temperature "downwards" to 55°C.

The underfloor heating of **KAN-therm** System – cabinets

The underfloor heating system manifolds should be mounted in special system cabinets which are available in three basic versions: wall-mounted, in wall-mounted, and to cover by ceramic tile.

Cabinet for underfloor heating design allows to mount manifolds with and without mixing unit. Inside cabinets there is also room for terminal blocks. Terminal blocks are mounted on screws in specially prepared holes in assembly bus bar in the upper part of the cabinet.
Range of cabinets depending on manifold type, basic equipment and connection type is presented in Table 1.

Tab.1 System cabinet range for underfloor heating depending on manifold type and basic equipment

Cabinet type	Code	Height [mm]	Width [mm]	Depth [mm]	Number of circuits		
					OP manifold	OP + Set-P/Set-K manifold	OP manifold with mixing unit
SWN-OP - 10/3	1100-OP	710	580	140	2-10	2-7/2-6	2-3
SWN-OP - 11/7	1110-OP	710	780	140	11-13	8-11/7-10	4-7
SWN-OP - 15/10	1120-OP	710	930	140	14-15	12-14/11-13	8-10
SWPG-OP - 10/3	1300G-OP	710	580	110-165	2-10	2-7/2-6	2-3
SWPG-OP - 11/7	1310G-OP	710	780	110-165	11-13	8-11/7-10	4-7
SWPG-OP - 15/10	1320G-OP	710	930	110-165	14-15	12-14/11-13	8-10
SWP-OP - 10/3	1300-OP	750-850	580	110-165	2-10	2-7/2-6	2-3
SWP-OP - 11/7	1310-OP	750-850	780	110-165	11-13	8-11/7-10	4-7
SWP-OP - 15/10	1320-OP	750-850	930	110-165	14-15	12-14/11-13	8-10

OP manifold - manifold for underfloor heating 51A, 55A, 71A and 75A series,
OP + Set-P/Set-K manifold - manifold for underfloor heating 51A, 55A, 71A and 75A with angle valves Set-K or straight-run valves Set-P (2-7/2-6 - number of circuits from . Set-K valves / number of circuits from Set-P valves),
OP manifold with mixing unit - manifold with mixing unit 73A and 77A series.

The underfloor heating of **KAN-therm** System - thermostats, servo-motors and terminal blocks

Thermostats and electric servo-motors

Valves mounted in the upper body in manifolds of 71A, 75A, 77A and 73A series enable to install electric servo-motors which allow to control room temperature using room thermostat handwheel. Servo-motors are installed using special adapters.

Electric servo-motor 24 and 230V

Electronic room thermostat 24 and 230V

M28×1.5 adapter for electric servo-motor

- *(red) - used for valves on the upper body of manifolds 71A and 75A*

M30×1.5 adapter for electric servo-motor

- *(grey) - used for thermostatic valves, e.g. on supplying side of manifold with mixing unit 73A and 77A series*

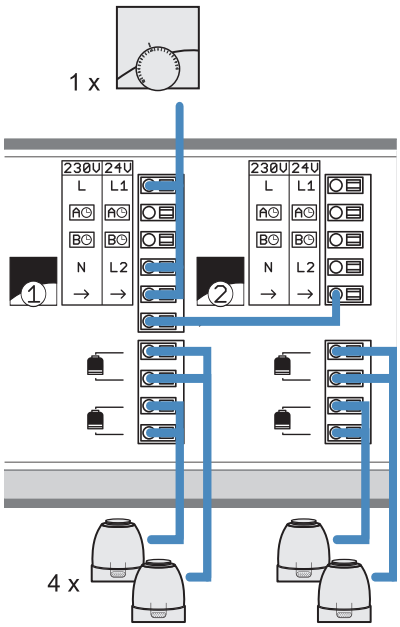
Electronic room thermostats have led indicators indicating operation mode.

Terminal blocks

Terminal blocks are used for connecting servo-motors with thermostats:

230V electric terminal blocks with and without pump module

24V electric terminal blocks with and without pump module



Terminal blocks with pump module additionally enable to connect circulating pump included in manifold 73A and 77A series.

Underfloor heating construction – pipe mounting systems

KAN-therm System Tacker

KAN-therm System provides EPS insulation boards with metalized foil or laminated foil with grid print every 10 cm.

- EPS 100 038 (PS20) Tacker boards can be used for standard floor loads up to 3.5 kN/m^2 in building engineering,
- EPS 200 036 (PS30) Tacker boards should be used for higher floor loads up to 5.0 kN/m^2, e.g. conference halls and lecture halls.

Foil glued on boards constitutes moisture insulation according to DIN 18560 and has an overlap which enables to lay boards tight.

For sealing places where boards are connected to each other use adhesive tape on hand feeder.

Pipes are fastened to Tacker boards by means of clip driven by Tacker tool. For foamed polystyrene boards 15 mm thick use short clip and a Tacker for short clip.

Tacker

Foamed polystyrene clips: in welded packs and separately

Grid printed on foil facilitates laying pipes with particular spacing. It is possible to use pipes ∅14×2, 16×2, 18×2, 20×2 mm in diameter with spacing 10-30 cm.

Fastening pipes to Tacker foamed polystyrene boards can also be made using mountig rail having adhesive tape or NET nets with bands (see **KAN-therm** System Rail and NET).

When laying Tacker boards apply norms PN-EN 1264 regarding minimum thermal resistance of floor with underfloor heating. For floors on the ground and floors which are in contact with air outside system EPS boards with foil should be complemented from below with additional insulation. Requirements and variants of applying multilayer EPS system boards with foil with insulation are given in Table 2.

Tab.2 **KAN-therm** Tacker System *- minimum requirements for insulation according to PN-EN 1264 norm*

Required insulation thickness above heated room R=0,75 [m²K/W] (PN-EN 1264)			
Underfloor heating system	**Additional insulation**	**Insulation resistance**	**Insulation thickness [mm]**
Tacker System 30mm	-	R=0,775	30
Tacker System 15mm	foamed polystyrene PS 20 20mm	R=0,875	35
Required insulation thickness above not heated room or on the ground ($T_z \geq 0°C$) R=1,25 [m²K/W] (PN-EN 1264)			
Underfloor heating system	**Additional insulation**	**Insulation resistance**	**Insulation thickness [mm]**
Tacker System 50mm	-	R=1,250	50
Tacker System 30mm	foamed polystyrene PS 20 20mm	R=1,250	50
Tacker System 15mm	foamed polystyrene PS 20 40mm	R=1,375	55
Required insulation thickness in case of contact with external air of temperature ($-5°C \geq T_z \geq -15°C$) R=2,00 [m²K/W] (PN-EN 1264)			
Underfloor heating system	**Additional insulation**	**Insulation resistance**	**Insulation thickness [mm]**
Tacker System 50mm	foamed polystyrene PS 20 30mm	R=2,000	80
Tacker System 30mm	foamed polystyrene PS 20 50mm	R=2,000	80
Tacker System 15mm	foamed polystyrene PS 20 70mm	R=2,129	85

KAN-therm System Profil

KAN-therm System provides Profil system boards where pipes are fastened by pushing in roll formed upper part of the board. PE-Xc, PE-RT pipes can be applied of diameters ∅16×2, 18×2 mm or PE-RT/Al/PE-HD ∅16×2. possible spacing amounts to 5-30 cm every 5 cm.

Profil *foamed polystyrene boards*

Main types of Profil boards:

- Profil1 35 mm – foamed polystyrene board with PS foil 35 mm thick and dimensions 0.8×1.4 m. Height of the board with roll formed part is 56 mm, and permissible load 50.0 kN/m². Profil1 board meets requirements for floors between heated rooms R=0,75 m²/k/W
- Profil2 11 mm – foamed polystyrene board with PS foil 11 mm thick and dimensions 0.8×1.4 m. Height of the board with roll formed part is 31 mm, and permissible load 5,0 kN/m².
- Profil3 – PS foil without foamed polystyrene board 1 mm thick and dimensions 0.8×1.4 m. Height of the PS foil with roll formed part is 20 mm.
- Profil4 20 mm – foamed polystyrene without PS foil 20 mm thick and dimensions 0.8×0.96 m. Height of the board with roll formed part is 45 mm.

When laying Profil1, Profil2 and Profil4 boards apply PN-EN 1264 norm regarding minimum thermal resistance of floor with underfloor heating. Requirements and application variants of Profil boards are given in Tab. 3.

Tab.3 **KAN-therm** Profil System - *minimum requirements for insulation according to PN-EN 1264 norm*

Required insulation thickness above heated room R=0,75 [m²K/W] (PN-EN 1264)			
Underfloor heating system	**Additional insulation**	**Insulation resistance**	**Insulation thickness [mm]**
Profil1 System 35 mm	-	R=0,750	35
Profil2 System 11 mm	foamed polystyrene PS 20 20 mm	R=0,810	31
Profil4 System 20 mm	foamed polystyrene PS 20 20 mm	R=1,000	40
Required insulation thickness above not heated room or on the ground ($T_z \geq 0°C$) R=1,25 [m²K/W] (PN-EN 1264)			
Underfloor heating system	**Additional insulation**	**Insulation resistance**	**Insulation thickness [mm]**
Profil1 System 35 mm	foamed polystyrene PS 20 20 mm	R=1,250	55
Profil2 System 11 mm	foamed polystyrene PS 20 40 mm	R=1,310	51
Profil4 System 20 mm	foamed polystyrene PS 20 30 mm	R=1,250	50
Required insulation thickness in case of contact with external air of temperature ($-5°C \geq T_z \geq -15°C$) R=2,00 [m²K/W] (PN-EN 1264)			
Underfloor heating system	**Additional insulation**	**Insulation resistance**	**Insulation thickness [mm]**
Profil1 System 35 mm	foamed polystyrene PS 20 50 mm	R=2,000	85
Profil2 System 11 mm	foamed polystyrene PS 20 70 mm	R=2,060	81
Profil4 System 20 mm	foamed polystyrene PS 20 60 mm	R=2,000	80

KAN-therm TBS System

KAN-therm TBS System underfloor heating is made using "dry" method, i.e. after laying the underfloor heating system, it is covered with dry jointless floor (special floor panels).
Assembly of the system of pipe laying can take place only on totally dry and leveled floor surfaces. After laying TBS boards and pipes the system is covered with PE foil for protection and to avoid possible sounds of structure thermal movements. Next, covering board of jointless floor 35-45 mm thick is laid. All information on covering boards (permitted loads) should be obtained from the producer of covering boards.

KAN-therm TBS System includes:
- insulation board, insulation profiled board TBS 25 mm PS 30 with dimensions 0.5×1.0 m;
- insulation board, complementary TBS 25 mm PS 30 with dimensions 1.0×1.0 m;
- straight metal shape TBS with dimensions 1.0×0.12 m;
- PE foil in rolls.

TBS board

Metal shape

PE foil

KAN-therm TBS System allows to lay PE-RT, PE-Xc or PE-RT/Al/PE-HD pipes of diameters ∅16×2 mm with 167-250-333 mm spacing. Because of pipe thermal expansion, straight pipe section should not be longer than 10 m and it is recommended to use PE-RT/Al/PE-HD pipes.

Metal shape is pushed in laid roll formed TBS boards and then pipe is pushed in such a way that it is inside the metal shape. The metal shape has lateral incisions, which facilitates easy adjustment of its length by breaking, every 250 mm. The edge of the metal shape should end approx. 50 mm before the beginning of pipes direction change (avoiding friction of pipes against the shape as a result of thermal expansion).

When laying roll formed TBS boards take into consideration planned coil shape; meander shape is recommended. Complementary insulation board TBS is used in situations when basic boards profile precludes pipes from accessing the manifold (pipe density). In such situations a required profile is cut out by a TBS cutter in complementary board.

TBS *cutter*

TBS *cutter tip*

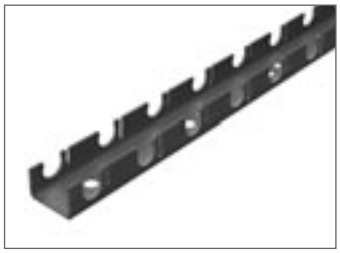
When laying TBS boards comply with requirements of PN-EN 1264 regarding minimum thermal resistance of floor with underfloor heating. Requirements and variants of TBS boards application are given in Table 4.

Tab.4 **KAN-therm** TBS System - *minimum requirements for insulation according to PN-EN 1264 norm*

Required insulation thickness above heated room R=0,75 [m²K/W] (PN-EN 1264)			
Underfloor heating system	**Additional insulation**	**Insulation resistance**	**Insulation thickness [mm]**
TBS System 25 mm	foamed polystyrene PS 20 20 mm	R=1,210	45
Required insulation thickness above not heated room or on the ground ($T_z \geq 0°C$) R=1,25 [m²K/W] (PN-EN 1264)			
Underfloor heating system	**Additional insulation**	**Insulation resistance**	**Insulation thickness [mm]**
TBS System 25mm	foamed polystyrene PS 20 30mm	R=1,460	55
Required insulation thickness in case of contact with external air of temperature ($-5°C \geq T_z \geq -15°C$) R=2,00 [m²K/W] (PN-EN 1264)			
Underfloor heating system	**Additional insulation**	**Insulation resistance**	**Insulation thickness [mm]**
TBS System 25mm	foamed polystyrene PS 20 60mm	R=2,210	85

KAN-therm Rail System

The basic element of **KAN-therm** Rail System are mounting rail for pipe fastening. PE-Xc, PE-RT and PE-RT/Al/PE-HD pipes of diameters ∅12×2, ∅14×2, ∅16×2, ∅18×2, ∅20×2, ∅25, ∅26 mm. Pipes can be laid with 10-30 cm spacing, every 5 cm.



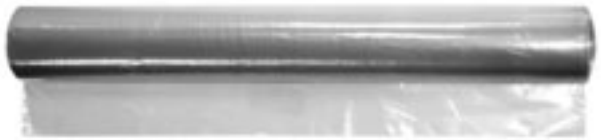
Mounting rails are equipped with adhesive tape and can be fastened to foamed polystyrene boards Tacker or directly to the base.

Applying pipes of ∅12×2 and ∅14×2 mm in diameter fastened to mounting rails works perfectly in wall heating designs where pipes mounted in walls are covered with a layer of special plaster.

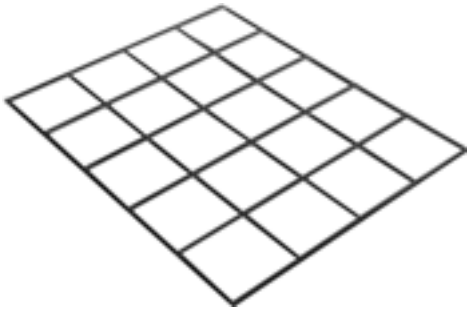
KAN-therm NET System

KAN-therm NET System System is a system of pipe laying on wire nets, available in the following assortment:

- PE foil 2.0 m×50 m×0.8 mm;
- 3 mm wire net 1.2 m×2.1 m and mesh spacing 150×150 mm.
- fastening bands for tying nets;
- PE fastening peg 80 mm - ∅8 mm for foil fastening;
- pipe fastening grips ∅16-18 mm and ∅20mm.



PE foil, dimension: 2,0 m×50 m×0,8 mm



NET *steel wire net is made of steel wire 3 mm thick, mesh size - 150×150 mm.*

Fastening band for connecting NET *nets*

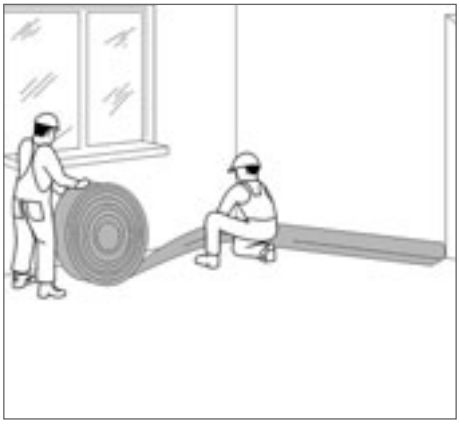
Peg for foil fastening size: 80 mm - ∅8 mm

Grip for fastening pipes on NET *net ∅16-18 mm and ∅20 mm*

On thermal insulation made of EPS 100 038 boards or EPS 200 036 moisture insulation made of PE foil is laid and then wire nets. On wire nets with given spacing pipe grips are mounted (on the wire or crossing of wires) in which pipes are pushed. Spacing between pipe and insulation layer is 17 mm.

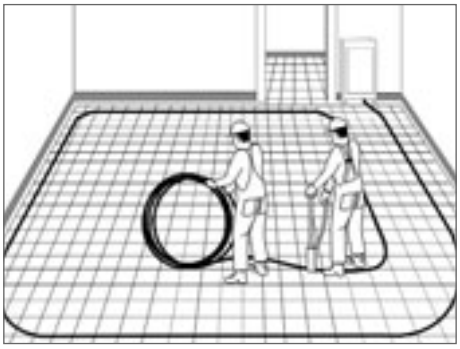
KAN-therm NET System can be successfully applied in order to fasten pipes to Tacker foamed polystyrene boards with metalized foil or laminated foil. In such cases do not use additional foil.

The underfloor heating of **KAN-therm** System - underfloor heating assembly

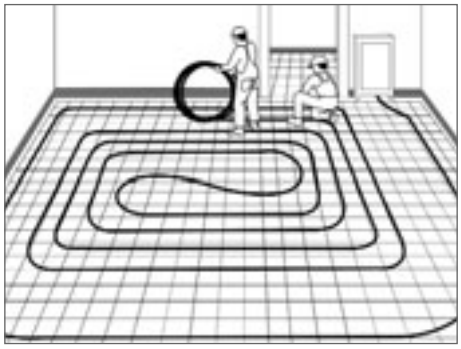


Put along the walls edge insulation.

Put foamed polystyrene with upper PE foil layer.



Connect inlet pipe to manifold, lay with required density (double spacing) and fasten clips to pipes in appropriate places.



Lay outlet pipe "backwards" between inlet pipe coils.

Detailed regulatory guide for underfloor heating assembly in **KAN-therm** System and start-up process are included in instruction manuals:

- "System **KAN-therm** Underfloor Heating, Wet Method",
- "System **KAN-therm**. A Designer and Installer's Handbook".

The underfloor heating of **KAN-therm** System

Catalogue

Contents

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This catalogue is valid from June 25th, 2007 and replaces all its previous editions.
KAN Sp. z o.o. reserves the right to change contents of this catalogue.
When the present catalogue is published, all previous editions are cancelled

KAN-therm pipe PE-Xc acc. to DIN 16892/93 with EVOH layer acc. to DIN 4726

Size	Pipe length in coil/on palette	Code	Price €/m
∅12×2	200/4000	0.2144	
∅14×2	200/4000	0.2145	
∅16×2	200/3000	0.2146	
∅18×2	200/3000	0.2148	
∅20×2	200/3000	K-100005	
∅25×3,5	50/1000	0.9127	

Working parameters T_{rob} 80°C (T_{max} - maximum 90°C, T_{mal} - malfunction 100°C), pressure 6 bar, for central heating and underfloor heating systems.

KAN-therm pipe PE-Xc acc. to DIN 16892/93 with EVOH layer acc. to DIN 4726 - on drum

Size	Pipe length in coil/on palette	Code	Price €/m
∅14×2	1000/any	K-100100	
∅16×2	750/any	K-100101	
∅18×2	750/any	K-100102	
∅20×2	600/any	K-100103	

Working parameters T_{rob} 80°C (T_{max} - maximum 90°C, T_{mal} - malfunction 100°C), pressure 6 bar, for central heating and underfloor heating systems.

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

Size	Pipe length in coil/on palette	Code	Price €/m
∅12×2	200/4000	0.2174	
∅14×2	200/4000	0.2175	
∅16×2	200/3000	0.2176	
∅18×2	200/3000	0.2178	
*∅20×2	200/3000	K-100305	
∅25×3,5	50/1000	0.9226	

Working parameters T_{rob} 80°C (T_{max} - maximum 90°C, T_{mal} - malfunction 100°C), pressure 6 bar, for central heating and underfloor heating systems.

* apply in underfloor heating systems up to 6 bar (T_{rob} = 60°C) and in central heating systems up to 4 bar (T_{rob} = 80°C)

KAN-therm pipe PE-RT with EVOH layer acc. to DIN 4726 - on drum

Size	Pipe length in coil/on palette	Code	Price €/m
∅14×2	1000/any	K-100400	
∅16×2	750/any	K-100401	
∅18×2	750/any	K-100402	
*∅20×2	600/any	K-100403	

Working parameters T_{rob} 80°C (T_{max} - maximum 90°C, T_{mal} - malfunction 100°C), pressure 6 bar, for central heating and underfloor heating systems.

* apply in underfloor heating systems up to 6 bar (T_{rob} = 60°C) and in central heating systems up to 4 bar (T_{rob} = 80°C)

KAN-therm multilayer pipe PE-RT/Al/PE-HD Multi Basic (PN10 series) designed for central heating, operating pressure max. 6 bar.

Size	Pipe length in coil/on palette	Code	Price €/m
∅14×2 (up to 6 bar)	200/3000	0.9314	
∅16×2 (up to 6 bar)	200/3000	0.9316	

Working parameters T_{rob} 90°C (T_{max} - maximum 95°C, T_{mal} - malfunction 100°C), pressure 6 bar, for central heating and underfloor heating systems.

KAN-therm multilayer pipe PE-RT/Al/PE-HD Multi Universal (PN12 series) designed for central heating, operating pressure max. 10 bar.

Size	Pipe length in coil/on palette	Code	Price €/m
∅14×2 (up to 10 bar)	200/3000	0.9414	
∅16×2 (up to 10 bar)	200/3000	0.9416	
∅20×2 (up to 10 bar)	100/1500	0.9420	
∅26×3 (up to 10 bar)	50/600	0.9426	

Working parameters T_{rob} 90°C (T_{max} - maximum 95°C, T_{mal} - malfunction 100°C), pressure 10 bar, for central heating and underfloor heating systems.

KAN-therm PEX70 - PE-Xc pipe in protection pipe for underfloor heating system with feeding parameters up to 70°C

Size	Pipe length in coil/on palette	Code	Price €/m
∅12×2	75/any	K-100200N	

KAN-therm reel stand

Code	Price €/pcs.
K-100500	

KAN-therm coupling

Size	Pcs. in one bag/box	Code	Price €/pcs.
∅12×2	10/120	9014.16	
∅14×2	10/120	9014.13	
∅16×2	10/150	9014.14	
∅18×2	10/120	981	
∅20×2	10/120	K-101205	
∅25×3,5	5/60	9014.19	

The coupling is used for repair purposes (pipe damage, e.g. boring) and for joining long pipe sections.

KAN-therm plastic body for coupling

Pcs. in one bag/box	Code	Price €/pcs.
1	K-101300	

Apply the element for screwed connections laid in concrete, in case of lack of tools or inability to make Press or Push connections - tools are available in rental houses in all **KAN** company branches and all **KAN** Business Partners. The place of embedding in concrete of body and connector should be marked for easy recognition.

KAN-therm cutter for pipes PE-Xc and PE-RT

Code	Price €/pcs.
0.2125	

KAN-therm replacement blade for pipe cutter

Code	Price €/pcs.
0.2125-O	

KAN-therm cutter for multilayer pipe

Code	Price €/pcs.
RS1435	

KAN-therm replacement blade for cutter for multilayer pipe

Code	Price €/pcs.
RSM1435	

KAN-therm calibration and internal bevelling tool for multilayer pipes

Size	Code	Price €/pcs.
∅14	KL14	
∅16	KL16	
∅20	KL20	

KAN-therm calibration and internal bevelling universal tool for multilayer pipes

Size	Code	Price €/pcs.
∅16/∅20/∅26	KL162026	

KAN-therm internal bending spring for multilayer pipes

Size	Code	Price €/pcs.
∅14	SW-1410	
∅16	SW-1612	
∅20	SW-2016	
∅26	SW-2620	

KAN-therm external bending spring for multilayer pipes

Size	Code	Price €/pcs.
∅14	SZ-1410	
∅16	SZ-1612	
∅20	SZ-2016	
∅26	SZ-2620	

KAN-therm Tacker foamed polystyrene board EPS100 038 (PS20) with foil - hard

Version	Size	Thickness	Pcs.	Code	Price €/m²
with metalized foil	1×5,00 m	30 mm	sheet 5,00 m²	720N	
with metalized foil	1×5,00 m	20 mm	sheet 5,00 m²	726N	
with laminated foil	1×5,00 m	30 mm	sheet 5,00 m²	725	
with laminated foil	1×5,00 m	50 mm	sheet 5,00 m²	727	

KAN-therm Tacker foamed polystyrene board EPS200 036 (PS30) with foil - hard

Version	Size	Thickness	Pcs.	Code	Price €/m²
with metalized foil	1×5,00 m	30 mm	sheet 5,00 m²	728N	

KAN-therm Tacker foamed polystyrene board EPS T-30 dB with foil - elastic (sound absorbing)

Version	Size	Thickness	Pcs.	Code	Price €/m²
with metalized foil	1×5,00 m	35-3 mm	sheet 5,00 m²	729N	

KAN-therm Tacker tool

Code	Price €/pcs.
2214	

Applied for fastening pipes using tacker clip code 22022, 22022N, 22022B on Tacker system boards 30 and 50 mm thick.

KAN-therm welded tacker clips

Size	Pcs. in one package/box	Code	Price €/one box
∅14-18	25/875	22022B	

KAN-therm tacker clip for fastening pipes on foamed polystyrene boards

Size	Pcs. in one bag/box	Code	Price €/one bag
∅14-18	100/3000	22022	
∅14-18	200/3000	22022N	

KAN-therm Tacker tool for short clips

Code	Price €/pcs.
K-200501	

Applied for fastening pipes using tacker short clip code K-200601 on Tacker system boards 15 mm thick.

KAN-therm tacker short clip for fastening pipes on foamed polystyrene boards

Size	Pcs. in one bag/box	Code	Price €/pcs.
∅14-20	100/any	K-200601	

KAN-therm adhesive tape with KAN logo

Code	Price €/pcs.
K-200700	

For protecting foamed polystyrene boards with foil.

KAN-therm adhesive tape hand feeder

Code	Price €/pcs.
K-200800	

KAN-therm Rail System - pipe fastening system

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KAN-therm mounting rail for pipe fastening

Size	Amount of m in one package	Code	Price €/m
∅16-18 - 2m length	2/40	0.1025	
∅12 - 3m length	any	K-201100	
∅14 - 3m length	any	K-201101	
∅20 - 3m length	any	K-201105	
∅25 - 3m length	any	K-201106	

KAN-therm System Profil - pipe fastening system

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KAN-therm Profil1 foamed polystyrene board EPS T-24 dB with PS foil - elastic (sound absorbing)

Version	Size	Thickness	Pcs.	Code	Price €/m²
Profil1 (with PS foil)	0,8×1,40 m	35-2 mm	sheet 1,12 m²	K-300000	

Total board thickness with roll formed part is 56 mm.

KAN-therm Profil2 foamed polystyrene board EPS100 038 (PS20) whit PS foil - hard

Version	Size	Thickness	Pcs.	Code	Price €/m²
Profil2 (with PS foil)	0,8×1,40 m	11 mm	sheet 1,12 m²	K-300100	

Total board thickness with roll formed part is 31mm.

KAN-therm profiled PS foli (polystyrene) Profil3

Version	Size	Thickness	Pcs.	Code	Price €/m²
Profil3 (PS foil)	0,8×1,40 m	1 mm	sheet 1,12 m²	K-300200	

Total thickness is 20mm.

KAN-therm Profil4 foamed polystyrene board EPS100 038 (PS20) whitout foil - hard

Version	Size	Thickness	Pcs.	Code	Price €/m²
Profil4 (without foil)	0,8×0,96 m	20 mm	sheet 0,768 m²	722	

Total board thickness with roll formed part is 45mm.

NOTES

KAN-therm TBS foamed polystyrene board EPS200 036 - hard

Version	Size	Thickness	Pcs.	Code	Price €/m²
TBS	0,5×1,0 m	25 mm	sheet 0,50 m²	K-400000	

KAN-therm TBS metal shape

Size	Thickness	Pcs.	Code	Price €/m²
1,0×0,12 m	0,4 mm	1	K-400100	

KAN-therm TBS complementary foamed polystyrene board EPS200 036 - hard

Version	Size	Thickness	Pcs.	Code	Price €/m²
TBS complementary	0,5×1,0 m	25 mm	sheet 1,00 m²	K-400200	

KAN-therm PE foil

Size	Thickness	Amount of m² in one package	Code	Price €/m²
2,0×50 m	0,2 mm	100	K-500200	

Apply as system covering before laying dry jointless floor.

KAN-therm TBS cutter

Pcs./packing	Code	Price €/pcs.
1	K-400300	

TBS cutter is used for cutting grooves for pipes Ć16 in complementary TBS boards

KAN-therm TBS cutter tip

Pcs./packing	Code	Price €/pcs.
1	K-400400	

KAN-therm NET steel wire net

Size	Amount of m² in one package	Code	Price €/pcs.
1,2 m×2,4 m	2,88	K-500300	

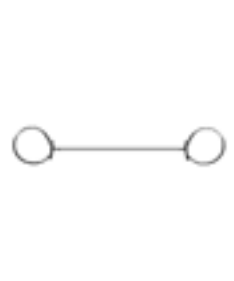
The net is made of steel wire 3 mm thick. Mesh size - 150×150 mm.

KAN-therm grip for fastening pipes on NET net

Size	Pcs./packing	Code	Price €/pcs.
∅16-18 mm	1000	K-500600	
∅20 mm	1000	K-500601	

KAN-therm plastic band for fastening pipes on NET net

Pcs./packing	Code	Price €/100 pcs.
100	K-500401	



KAN-therm fastening band for connecting NET nets

Pcs./packing	Code	Price €/pcs.
100	K-500400	

KAN-therm PE foil

Size	Thickness	Amount of m² in one package	Code	Price €/m²
2,0×50 m	0,2 mm	100	K-500200	

Apply as moisture insulation beneath NET net.

KAN-therm peg for foil fastening

Size	Pcs./packing	Code	Price €/pcs.
∅8 mm	100	K-500500	

KAN-therm complementary foamed polystyrene board EPS100 038 (PS 20)

Thickness/Size	Pcs. / m² in one package	Code	Price €/m²
20 mm / 0,5×1,0 m	24 / 12	K-511100	
30 mm / 0,5×1,0 m	16 / 8	K-511101	
40 mm / 0,5×1,0 m	12 / 6	K-511102	
50 mm / 0,5×1,0 m	9 / 20	K-511103	

Apply as a complement of system boards. Sold in packages.

KAN-therm PIR foam system board

Thickness/Size	Pcs. / m² in one package	Code	Price €/m²
30 mm / 0,6×1,2 m	10 / 7,20	K-510100	
40 mm / 0,6×1,2 m	10 / 7,20	K-510101	
50 mm / 0,6×1,2 m	8 / 5,76	K-510102	
60 mm / 0,6×1,2 m	7 / 5,04	K-510103	
70 mm / 0,6×1,2 m	6 / 4,32	K-510104	
80 mm / 0,6×1,2 m	5 / 3,60	K-510105	

KAN-therm corrugated (protection) pipe

Size	Q-ty in coil	Code	Price €/m
∅12-14	100	1904	
∅16-18	50	1900	
∅20	50	1906	
∅25-26	50	1901	

Apply for hot and cold water system and central heating, as a protecting pipe, in the case of embedding the system in concrete.

KAN-therm concrete additive: BETOKAN

Name	Amount of kg in one package	Code	Price €/kg
BETOKAN	10	0.1007	
BETOKAN	5	0.1006	

Apply for underfloor heating to improve concrete strength

KAN-therm concrete additive: BETOKAN Plus

Name	Amount of kg in one package	Code	Price €/kg
BETOKAN Plus	10	K-500900	

Apply for underfloor heating to improve concrete strength. Allows to reduce floor thickness to 4.5 cm above insulation.

KAN-therm wall tape with incision

Size	Amount of m in coil	Code	Price €/m
8×150 - with incision	25	0.1022	
8×150 - with apron	25	0.1021	

Apply to insulate underfloor heating boards from walls.

KAN-therm dilatation tape with fastening strip

Size	Amount of m in coil	Code	Price €/m
10×150	25	0.1026	

Apply for expanding underfloor heating boards. Pipes going through the expansion shape should also be laid in a corrugated (protection) pipe.

KAN-therm dilatation set

Name of element	Amount of m in package	Code	Price €/m
PE foam	25	K-501001	
rail	2	K-501000	

Name of element	Pcs./packing	Code	Price €/pcs.
*corrugated (protection) pipe 0,4m	10	K-501002	

*increased strength corrugated (protection) pipe with incision

KAN-therm manifold 1" for underfloor heating with return control valves (51A series)

Number of heating circuits	Dimensions (H×W×D)	Code	Price €/pcs.
2	314×100×80	51020A	
3	314×150×80	51030A	
4	314×200×80	51040A	
5	314×250×80	51050A	
6	314×300×80	51060A	
7	314×350×80	51070A	
8	314×400×80	51080A	
9	314×450×80	51090A	
10	314×500×80	51100A	
11	314×550×80	51110A	
12	314×600×80	51120A	

The manifold is compatible with eurocone adapter (for PE-Xc and PE-RT) G¾" and adapter for multilayer pipe (fixed ring) G¾".

KAN-therm reducer

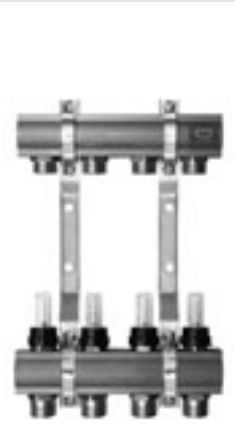
Size	Pcs. in one bag/box	Code	Price €/pcs.
G1"×G½"	10/120	4.12	
G1"×G¾"	10/120	4.13	

It has O-Ring, code U28.

KAN-therm male plug

Size	Pcs. in one bag/box	Code	Price €/pcs.
G1"	10/150	6095.43	

Code 6095.32, 6095.43 has O-Ring, code U28; others without O-Ring.



KAN-therm manifold 1" for underfloor heating with flowmeters (55A series)

Number of heating circuits	Dimensions (H×W×D)	Code	Price €/pcs.
2	314×100×80	55020A	
3	314×150×80	55030A	
4	314×200×80	55040A	
5	314×250×80	55050A	
6	314×300×80	55060A	
7	314×350×80	55070A	
8	314×400×80	55080A	
9	314×450×80	55090A	
10	314×500×80	55100A	
11	314×550×80	55110A	
12	314×600×80	55120A	

The manifold is compatible with eurocone adapter (for PE-Xc and PE-RT) G¾" and adapter for multilayer pipe (fixed ring) G¾".

KAN-therm reducer

Size	Pcs. in one bag/box	Code	Price €/pcs.
G1"×G½"	10/120	4.12	
G1"×G¾"	10/120	4.13	

It has O-Ring, code U28.

KAN-therm male plug

Size	Pcs. in one bag/box	Code	Price €/pcs.
G1"	10/150	6095.43	

Code 6095.32, 6095.43 has O-Ring, code U28; others without O-Ring.

KAN-therm manifold 1" for underfloor heating with control valves (lower manifold body) and servo-motor valves (upper manifold body) (71A series)

Number of heating circuits	Dimensions (H×W×D)	Code	Price €/pcs.
2	314×100×80	71020A	
3	314×150×80	71030A	
4	314×200×80	71040A	
5	314×250×80	71050A	
6	314×300×80	71060A	
7	314×350×80	71070A	
8	314×400×80	71080A	
9	314×450×80	71090A	
10	314×500×80	71100A	
11	314×550×80	71110A	
12	314×600×80	71120A	

The manifold is compatible with eurocone adapter (for PE-Xc and PE-RT) G¾" and adapter for multilayer pipe (fixed ring) G¾".

KAN-therm reducer

Size	Pcs. in one bag/box	Code	Price €/pcs.
G1"×G½"	10/120	4.12	
G1"×G¾"	10/120	4.13	

It has O-Ring, code U28.

KAN-therm male plug

Size	Pcs. in one bag/box	Code	Price €/pcs.
G1"	10/150	6095.43	

Code 6095.32, 6095.43 has O-Ring, code U28; others without O-Ring.

KAN-therm manifold 1" for underfloor heating with servo-motor and flowmeter valves (75A series)

Number of heating circuits	Dimensions (H×W×D)	Code	Price €/pcs.
2	314×100×80	75020A	
3	314×150×80	75030A	
4	314×200×80	75040A	
5	314×250×80	75050A	
6	314×300×80	75060A	
7	314×350×80	75070A	
8	314×400×80	75080A	
9	314×450×80	75090A	
10	314×500×80	75100A	
11	314×550×80	75110A	
12	314×600×80	75120A	

The manifold is compatible with eurocone adapter (for PE-Xc and PE-RT) G¾" and adapter for multilayer pipe (fixed ring) G¾".

KAN-therm reducer

Size	Pcs. in one bag/box	Code	Price €/pcs.
G1"×G½"	10/120	4.12	
G1"×G¾"	10/120	4.13	

It has O-Ring, code U28.

KAN-therm male plug

Size	Pcs. in one bag/box	Code	Price €/pcs.
G1"	10/150	6095.43	

Code 6095.32, 6095.43 has O-Ring, code U28; others without O-Ring.

KAN-therm servo-motor

Type	Pcs. in one box	Code	Price €/pcs.
230V	1	K-600700	
24V	1	K-600701	

KAN-therm servo-motor adapter

Type	Pcs. in one box	Code	Price €/pcs.
Adapter M28×1,5	1	K-600703	

Use adapter M28×1.5 for valves in manifolds 71A, 73A, 75A series of KAN-therm System together with servo-motors K-600700 and K-600701.

KAN-therm valve set, straight

Size	Sets in one bag/box	Code	Price €/set
G1"×G1"	any	K-600400	

Set of valves with screw connection for manifolds of KAN-therm System fixed on a 1" body without any additional sealing.
For manifold with side supply connection.

KAN-therm valve set, angular

Size	Sets in one bag/box	Code	Price €/set
G1"×G1"	1/20	K-600500	

Set of valves with screw connection and elbows for manifolds of KAN-therm System fixed on a 1" body without any additional sealing.
For manifolds supplied from floor.

KAN-therm extension element with flowmeter

Size	Pcs. in one box	Code	Price €/pcs.
G1" L=50mm	1	752	

Apply the element for manifolds 51A and 75A using nipple 1" to extend manifold by one more circuit

KAN-therm extension element with control valve

Size	Pcs. in one box	Code	Price €/pcs.
G1" L=50mm	1	512	

Apply the element for manifolds 51A and 71A using nipple 1" to extend manifold by one more circuit.

KAN-therm extension element with servo-motor cut-off valve

Size	Pcs. in one box	Code	Price €/pcs.
G1" L=50mm	1	712	

Apply the element for manifolds 51A and 71A using nipple 1" to extend by one more circuit.

KAN-therm nipple for manifold extension element

Size	Pcs. in one bag/box	Code	Price €/pcs.
G1"	10/100	R543	

For manifold to extend it by one more circuit.

KAN-therm male-female terminal with special seal

Size	Pcs. in one bag/box	Code	Price €/pcs.
G1"×G½"×G½"	5/70	R542	

For manifold to extend it by one more circuit.

KAN-therm male plug with hex socket

Size	Pcs. in one bag/box	Code	Price €/pcs.
G½"	20/600	6095.34	

It has O-Ring.

KAN-therm male terminal with automatic air vent and drain

Size	Pcs./packing	Code	Price €/pcs.
G1"	5/50	R5541	

Used for 1" manifold.

KAN-therm manual air vent valve

Size	Pcs./packing	Code	Price €/pcs.
G⅜"	50	0.5321	
G½"	50	5322	

KAN-therm male air vent and drain valve

Size	Pcs./packing	Code	Price €/pcs.
G½"	25	1305.11	

Used for manifold.

KAN-therm automatic air vent with stop valve

Size	Pcs./packing	Code	Price €/pcs.
G⅜"	100	0.52072	
G½"	100	0.52071	

Stop valve makes possible to remove air vent without draining the system.

KAN-therm flowmeter

Size	Pcs. in one box	Code	Price €/pcs.
G¾"×G¾" L = 26mm	1	K-601500	

Apply to control flow through heating circuit.

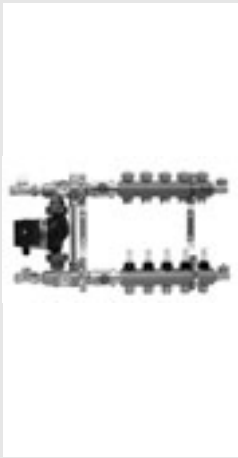
KAN-therm disc thermometer 100°C.

Hue	Pcs. in one box	Code	Price €/pcs.
red	1	K-601400	
blue	1	K-601401	

KAN-therm manifold 1" for underfloor heating with mixing unit (73A series)

Number of heating circuits	Dimensions (H×W×D)	Code	Price €/pcs.
2	410×416×123	7302A	
3	410×466×123	7303A	
4	410×516×123	7304A	
5	410×566×123	7305A	
6	410×616×123	7306A	
7	410×666×123	7307A	
8	410×716×123	7308A	
9	410×766×123	7309A	
10	410×816×123	7310A	

1. Individual circuits of underfloor heating are controlled by electric servo-motors code K-600700 and K-600701.
   Assemble servo-motors on upper manifold body using adapters M28×1.5.
   In the case of controlling temperature using one thermostat placed in characteristic room for controlling use the thermostatic valve build in mixing unit and fix the servo-motor on thermostatic valve using adapter M30×1.5.
2. Manifold is compatible with eurocone adapter (for PE-Xc and PE-RT) G¾" and adapter for multilayer pipe (fixed ring) G¾".



KAN-therm manifold 1" for underfloor heating with mixing unit and flowmeters (77A series)

Number of heating circuits	Dimensions (H×W×D)	Code	Price €/pcs.
2	410×416×123	7702A	
3	410×466×123	7703A	
4	410×516×123	7704A	
5	410×566×123	7705A	
6	410×616×123	7706A	
7	410×666×123	7707A	
8	410×716×123	7708A	
9	410×766×123	7709A	
10	410×816×123	7710A	

1. Individual circuits of underfloor heating are controlled by electric servo-motors code K-600700 and K-600701.
   Assemble servo-motors on upper manifold body using adapters M28×1.5.
   In the case of controlling temperature using one thermostat placed in characteristic room for controlling use the thermostatic valve build in mixing unit and fix the servo-motor on thermostatic valve using adapter M30×1.5
2. Manifold is compatible with eurocone adapter (for PE-Xc and PE-RT) G¾" and adapter for multilayer pipe (fixed ring) G¾".

KAN-therm theromstatic head with the pad sensor for the manifold 73A and 77A series

Size	Pcs. in one box	Code	Price €/pcs.
	1	K-600800	

The element designed for manifold 73A and 77A - it protects against exceeding temperature in the system, and shhould be fixed on the termostatic valve build in mixing unit, the pad sensor should be placed on the lower body of manifold.

KAN-therm servo-motor

Type	Pcs. in one box	Code	Price €/pcs.
230V	1	K-600700	
24V	1	K-600701	

KAN-therm servo-motor adapter

Type	Pcs. in one box	Code	Price €/pcs.
Adapter M28×1,5	1	K-600703	
Adapter M30×1,5	1	K-600702	

Use adapter M28×1.5 for valves mounted in manifolds 71A, 73A and 75A of **KAN-therm** System together with servo-motors K-600700 and K-600701

KAN-therm eurocone adapter (nickel plated nut)

Size	Pcs. in one bag/box	Code	Price €/pcs.
∅12×2 G½"	15/300	9012.91	
∅12×2 G¾"	15/150	9012.92	
∅14×2 G½"	15/300	9003.47	
∅14×2 G¾"	15/150	9006.56	
∅16×2 G¾"	15/150	9006.57	
∅18×2 G¾"	15/150	9006.59	
∅20×2 G¾"	15/150	K-601705	
∅25×3,5 G1"	10/80	9003.67	

It can make possible connections with manifolds with male nipples and fittings

KAN-therm compression ring - service part for screw fittings

Size	Pcs. in one bag/box	Code	Price €/pcs.
∅12	100/1000	9012.913	
∅14	100/1000	9006.95	
∅16	100/1000	9006.97	
∅18	100/1000	9001.96	
∅25	50/500	9001.92	

KAN-therm special spanner for eurocone adapters

Size	Code	Price €/pcs.
30 mm	K-501900	

KAN-therm adapter for multilayer pipe (fixed ring)

Size	Pcs. in one bag/box	Code	Price €/pcs.
∅14 G½"	20/200	9012.060	
**∅14 G½" (MN)	20/200	9012.070	
∅14 G¾"	15/150	9012.60	
**∅14 G¾" (MN)	15/150	9012.70	
∅16 G½"	20/200	9012.00	
**∅16 G½" (MN)	20/200	9012.010	
∅16 G¾"	10/120	9012.080	
**∅16 G¾" (MN)	10/120	9012.090	
∅20 G¾"	10/120	9012.020	
**∅20 G¾" (MN)	10/120	9012.030	
∅20 G1"	5/80	9012.100	
**∅20 G1" (MN)	5/80	9012.110	
∅26 G1"	10/80	9012.040	
**∅26 G1" (MN)	10/80	9012.050	

(MN) - brass fitting, nickel plated
** on request (delivery date about 2 weeks)
It can be used also with **KAN-therm** nipple, or **KAN-therm** male tee and male elbow.

KAN-therm eurocone adapter for multilayer pipe

Size	Pcs. in one bag/box	Code	Price €/pcs.
∅16 G½"	20/200	9012.00N	
∅16 G¾"	15/150	9012.08N	
∅20 G¾"	10/120	9012.02N	

It can be used also with **KAN-therm** nipple, or **KAN-therm** male tee and male elbow.

KAN-therm compression ring for eurocone adapter - service part

Size	Pcs. in one bag/box	Code	Price €/pcs.
∅16	any	9012.00NP	
∅20	any	9012.02NP	

Compression ring is also the service part for straight male connector.

KAN-therm straight male connector with O-Ring seal

Size	Pcs. in one bag/box	Code	Price €/pcs.
∅16×2 G½"	10/150	9025.01	

It has O-Ring for quick connection to manifold body with female.

KAN-therm nipple

Size	Pcs. in one bag/box	Code	Price €/pcs.
G½"	20/300	6032.22	
G¾"	10/150	6033.22	
G1"	10/100	6034.22	

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

KAN-therm reduced nipple

Size	Pcs. in one bag/box	Code	Price €/pcs.
G½"×G⅜"	20/300	702	
G¾"×G½"	10/150	6033.42	
G1"×G¾"	10/100	6034.42	

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

KAN-therm male-female extension

Size	Pcs. in one bag/box	Code	Price €/pcs.
G½" short	10/150	0200.12	
G½" long	10/100	0200.12d	
G¾" short	0/100	6038.32	

Short extension: 30 mm, long exte nsion: 45 mm.

Don't join them with conical external thread (e.g. R½").

KAN-therm reducer

Size	Pcs. in one bag/box	Code	Price €/pcs.
G¾"×G½"	20/200	6037.52	
G1"×G¾"	10/120	6038.52	
G1"×G½"	0/200	4940.00	
G1¼"×G¾"	0/100	4941.00	
G1¼"×G1"	0/100	4942.00	

Don't join them with conical external thread (e.g. R½").

KAN-therm female cap

Size	Pcs. in one box	Code	Price €/pcs.
G½"	600	6095.22	
G¾"	300	6095.23	
G1"	150	6095.24	

KAN-therm wall-mounted cabinet SWN-OP type, for manifolds without/with mixing unit

Type	Number of heating circuits (without/with mixing unit)	Dimensions (H×W×D)	Code	Price €/pcs.
SWN-OP 10/3	10/3	710×580×140	1100-OP	
SWN-OP 11/7	11/7	710×780×140	1110-OP	
SWN-OP 15/10	15/10	710×930×140	1120-OP	

In the technical part of the Catalogue there is a table with cabinet choice (Tab.1).

KAN-therm in wall -mounting cabinet SWPG-OP type, to cover by ceramic tile, for manifolds without/with mixing unit

Type	Number of heating circuits (without/with mixing unit)	Dimensions (H×W×D)	Code	Price €/pcs.
SWPG-OP 10/3	10/3	710×580×140	1300G-OP	
SWPG-OP 11/7	11/7	710×780×140	1310G-OP	
SWPG-OP 15/10	15/10	710×930×140	1320G-OP	

In the technical part of the Catalogue there is a table with cabinet choice (Tab.1).

KAN-therm in wall -mounting cabinet SWP-OP type for manifolds without/with mixing unit

Type	Number of heating circuits (without/with mixing unit)	Dimensions (H×W×D)	Code	Price €/pcs.
SWP-OP 10/3	10/3	710×580×140	1300-OP	
SWP-OP 11/7	11/7	710×780×140	1310-OP	
SWP-OP 15/10	15/10	710×930×140	1320-OP	

In the technical part of the Catalogue there is a table with cabinet choice (Tab.1).

KAN-therm electronic room thermostat with led indicator

Type	Pcs./packing	Code	Price €/pcs.
230V	1	K-800100	
24V	1	K-800101	

Thermostats code K-800100 and K-800101 are compatible with servo-motors code K-600700 and K-600701.

KAN-therm bimetallic room thermostat

Type	Pcs./packing	Code	Price €/pcs.
230V	25	0.6106	
230V/24V	any	0.6107	

The thermostat is compatible with servo-motors code K-600700 and K-600701 by means of strips code B2012, B2022, B4012, B4022 and electric servo-motor code 771000.

KAN-therm week controller

Type	Pcs./packing	Code	Price €/pcs.
	1	K-800201	

KAN-therm terminal block for underfloor heating 230V

Type	Pcs./packing	Code	Price €/pcs.
230V	1	B2012	
230V with pump module	1	B2022	

The terminal block is applied to connect servo-motors with thermostats 230V.
Additionally, the terminal block with pump module turns off the pump when all servo-motors are closed.

KAN-therm terminal block for underfloor heating 24V

Type	Pcs./packing	Code	Price €/pcs.
24V	1	B4012	
24V with pump module	1	B4022	

The terminal block is applied to connect servo-motors with thermostats 24V.
Additionally, the terminal block with pump module turns off the pump when all servo-motors are closed.
The 24V terminal block has no transformer.

KAN-therm underfloor heating unit with valve, thermostatic head and vent

Type	Pcs./packing	Code	Price €/pcs.
	1	K-801300	

KAN-therm four-way H 6 valve 1" with by-pass

Pcs. in one box	Code	Price €/pcs.
1	014001	

Valve for manual control - a constituent of mixing unit (code 060200). To H 6 valve a set union connectors can be purchased (as shown in the picture) code 014070 consisting of 2 female bodies with 2 nuts and 2 seals.

KAN-therm mixing unit with four-way valve - KAN-Bloc

Version	Pcs. in one box	Code	Price €/pcs.
T-40 U35	1	010302	
T-40 U55	1	010304	

Set for manual control (constant value). For automatic control SM4 servo-motor is required (code 004002) controlled by weather controller. Instead of weather controller, boiler automatics can be used (if it has possibility to control additional mixing circuit).

KAN-therm SM 4 servo-motor

Pcs. in one box	Code	Price €/pcs.
1	004002	

The servo-motor allows to use automatic control of mixing unit with four-way valve KAN-Bloc with weather controller, or using boiler automatics (boiler automatics has to have possibility to control an addittional mixing circuit).

KAN-therm weather controller (controlling one circuit with mixer)

Pcs. in one box	Code	Price €/pcs.
1	002187	

Apply for controlling mixing valve code 0144001 and mixing unit with four-way valve KAN-Bloc with SM4 servo-motor (code 004002). The controller set includes external temperature sensor (APS), supply temperature pad sensor (VFAS), controller mounting plate (assembly on wall).

KAN-therm room temperature sensor FBR1 with remote control and different operation mode option

Pcs./packing	Code	Price €/pcs.
1	002160	

KAN-therm thermal switch of pump

Pcs. in one box	Code	Price €/pcs.
1	K-801800	

The element protects against exceeding temperature in underfloor heating system.

ORDER

№..... date .....

Customer Name
(company stamp)

Logistics and Sale Department **KAN** Sp. z o.o.
To: .....
tel./fax .....

№	Item Name	Code	Quantity	Unit of measurement	Price

Order is treated as a purchase contract.
If you don't comply with order conditions, as well as don't pick up ordered goods within 7 days from the date agreed in the order, you will be charged to the amount of 25% order value.

It is a taxpayer	Name/ Surname / telephone of responsible receiver's employee	Customer acceptance
Tax identification number	.....	
I assent to make out tax invoice without my signature.	tel.	..... (stamp, signature)

FIRM KAN FILLS IN

Acknowledgement of the order on receipt time:	**Name/ Surname / telephone of responsible supplier's employee**
From ..... **to** ..... **on time**	
From ..... **to** ..... **on time**	
From ..... **to** ..... **on time**	.....
Condition of payment	**tel.** .....

KAN-therm System - other available catalogues:

1

KAN-therm Push System

The modern push system consists of PE-Xc and PE-RT pipes with brass and PPSU fittings

2

KAN-therm Press System

The modern press system consists of multilayer pipes with brass and PPSU fittings.

3

KAN-therm Steel System

The modern press system consists of carbon steel tubes and fittings

4

KAN-therm Inox System

The modern press system consists of stainless steel tubes and fittings.

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