



SYSTEM **KAN-therm**

Football

We build emotions together

EN 19/11



TECHNOLOGY OF SUCCESS



ISO 9001



About KAN

Innovative water and heating solutions

KAN was established in 1990 and has been implementing state of the art technologies in heating and water distribution solutions ever since.

KAN is a European recognized leader and supplier of state of the art KAN-therm solutions and installations intended for indoor hot and cold tap water installations, central heating and floor heating installations, as well as fire extinguishing and technological installations. Since the beginning of its activity, KAN has been building its leading position on such values as professionalism, innovativeness, quality and development. Today, the company employs over 800 people, a great part of which are specialist engineers responsible for ensuring continuous development of the KAN-therm system, all technological processes applied and customerservice. The qualifications and commitment of our personnel guarantees the highest quality of products manufactured in KAN factories.

Distribution of the KAN-therm system is performed through a network of commercial partners all over Poland, Germany, Russia, Ukraine, Belarus, Hungary, Ireland, the Czech Republic, Slovakia, Romania, in Scandinavia and in the Baltic States. Our expansion and dynamic development has proven so effective that KAN-therm labeled products are exported to 60 countries, and our distribution network assumes Europe, a great part of Asia, and a part of Africa.

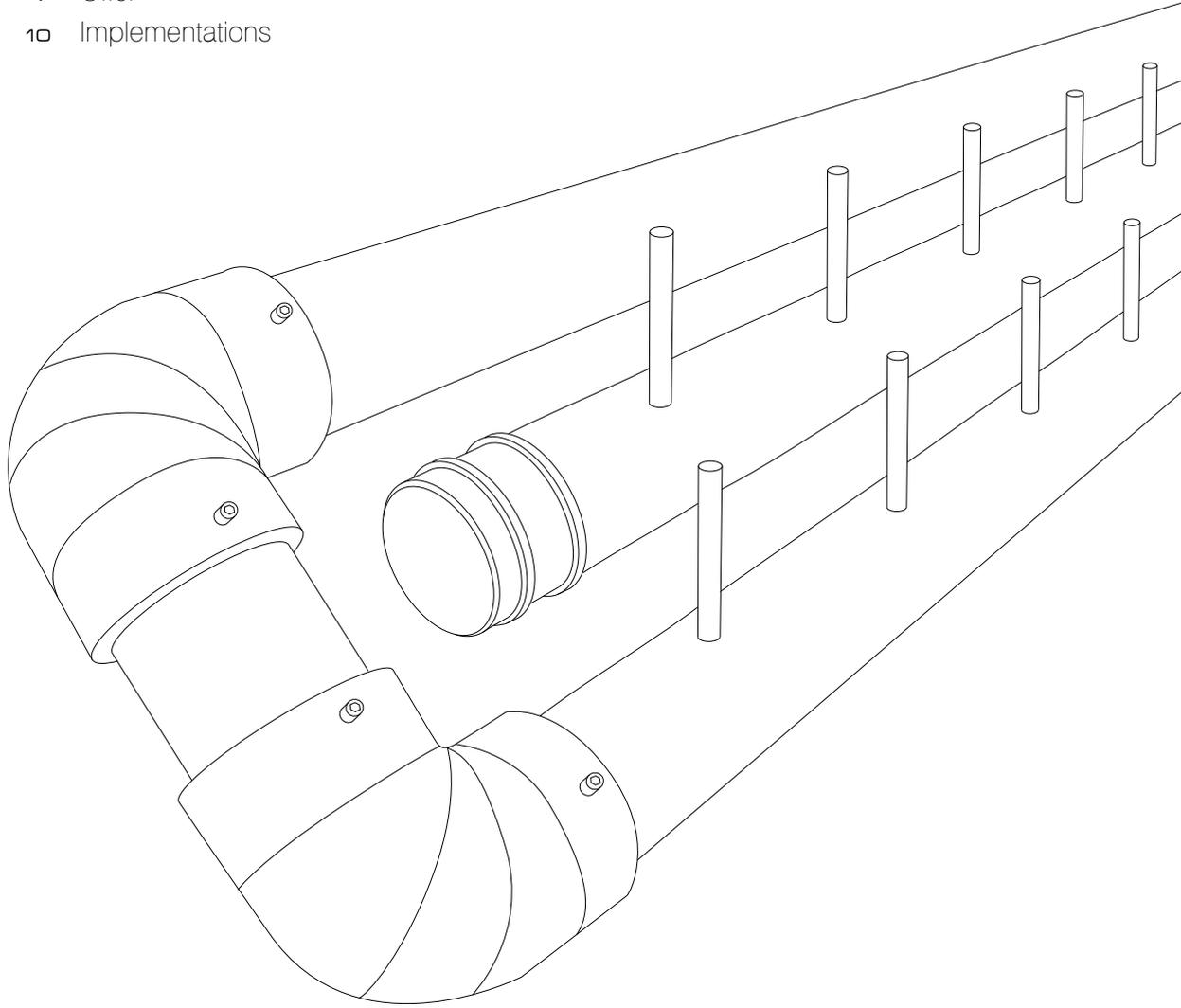
The KAN-therm system is an optimal, complete multipurpose installation system consisting of state of the art, mutually complementary technical solutions for pipe water distribution installations, heating installations, as well as technological and fire extinguishing installations. It is the materialization of a vision of a universal system, the fruit of extensive experience, the passion of KAN's constructors, as well as strict quality control of our materials and final products.

TECHNOLOGY OF SUCCESS



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SYSTEM **KAN-therm**

Football

The KAN-therm Football system is a comprehensive installation system for the construction of heating installations for football pitch turf.

The icy, covered with snow or mud surfaces have become a thing of the past thanks to the application of the KAN-therm system for construction of the pitch turf heating installation. The heated turf, with the KAN-therm system design, allows for use of the pitch throughout the entire year, concurrently minimising the risk of players' injuries.

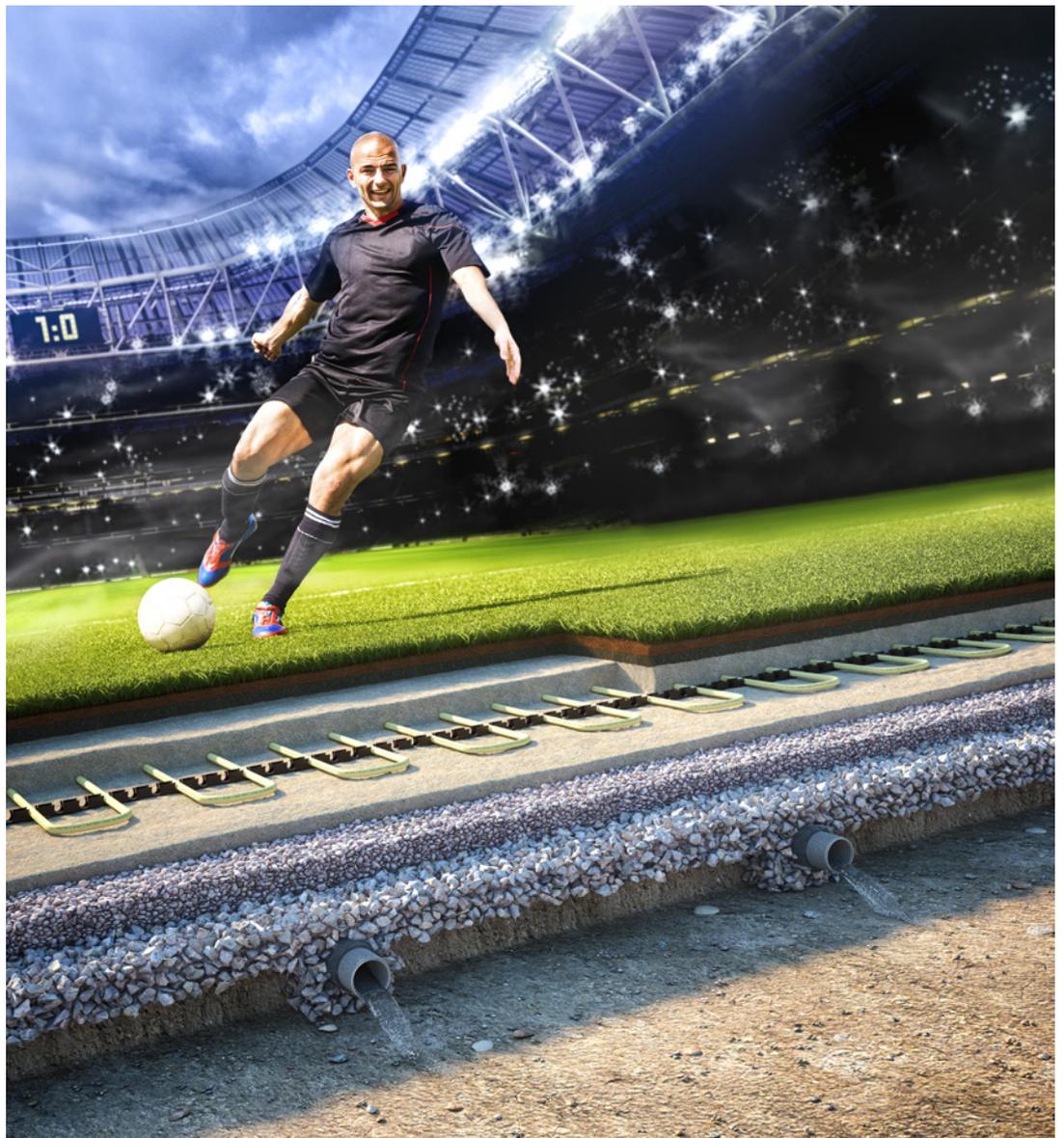
Advantages

Heating of stadium has the following functions:

- prevents formation of ice on the pitch surface,
- maintains the desired surface temperature and dries it,
- defrosts ice layers which have formed on such surfaces.

The KAN-therm System water stadium turf heating is:

- A comfortable and safe in operation,
- highest quality of materials and components,
- easy and quick assembly,
- comprehensive investment service.

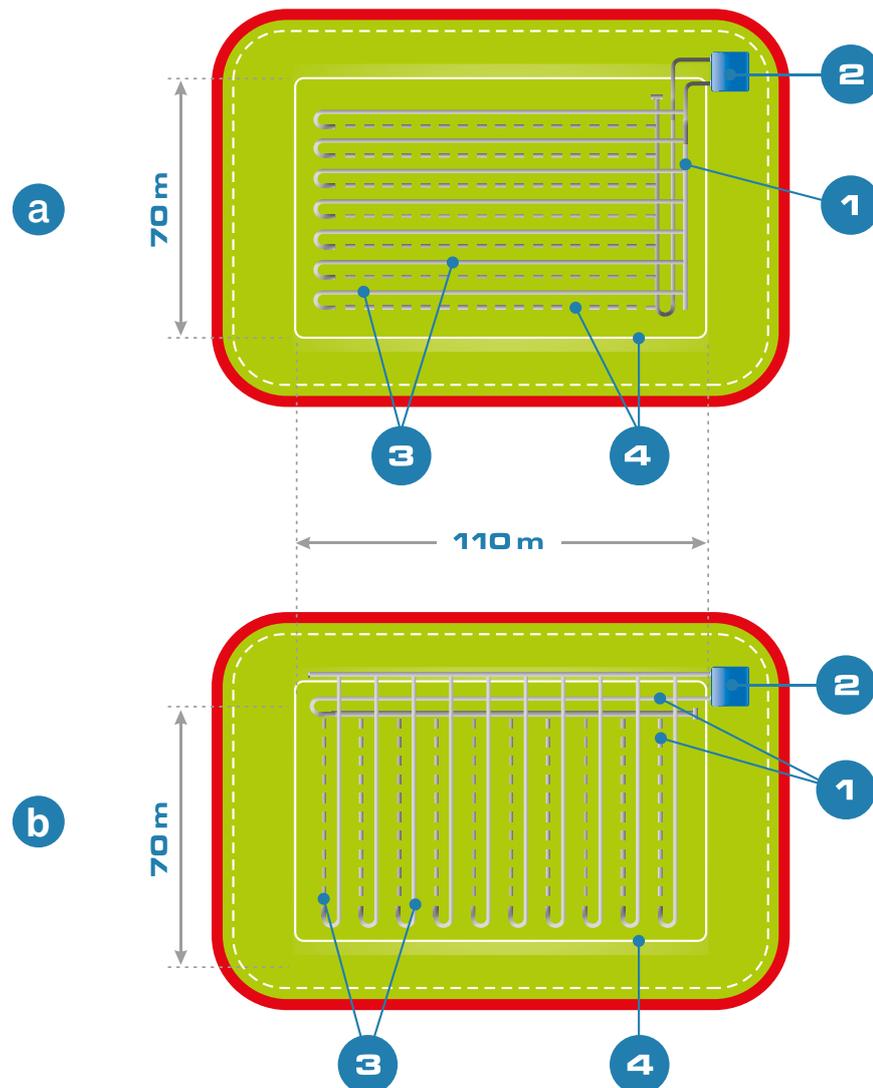


Supply manifold (collector)

- As a standard, the collectors (1) are set along the longer side of the pitch (b) and are made of pipes with diameters ranging from 160 to 180mm. It is also possible to install a collector along the shorter pitch side (a).
- The collector sections are connected by means of butt welding and it is possible to provide a connection by means of electro fusion couplings.
- The leads from the collector to the heating pipes (3) are made of welded polyethylene pipe sections welded with the collector, located at specified distances resulting from the designed arrangement of heating loops.
- The collectors are designed according to the individual technical documentation, customised to the construction site, or delivered as prefabricated segments.
- The Tichelmann system is used to supply the particular loops, by means of proper design and setting of collectors, in order to provide even distribution of the medium in the heating loops. The heating loops with collector branches are connected by means of the KAN-therm Push system sleeve couplings.
- The collectors can be insulated or set directly within the pitch (4) (they are also a heating element themselves).

Installation diagram for football pitch turf heating

1. Main supply and return collector.
2. Heat source.
3. Heating loops.
4. Pitch turf.



Heating pipes

- High quality polyethylene is resistant to increased temperatures and is used as the material for the heating pipes.
- The heating pipes are set directly in the loose layers, according to the designed arrangement.
- The depth of pipe setting should take into account the manner of turf upkeep and exclude the possibility of mechanical damage.
- The pipe setting method consists in covering the installation in the course of backfilling.

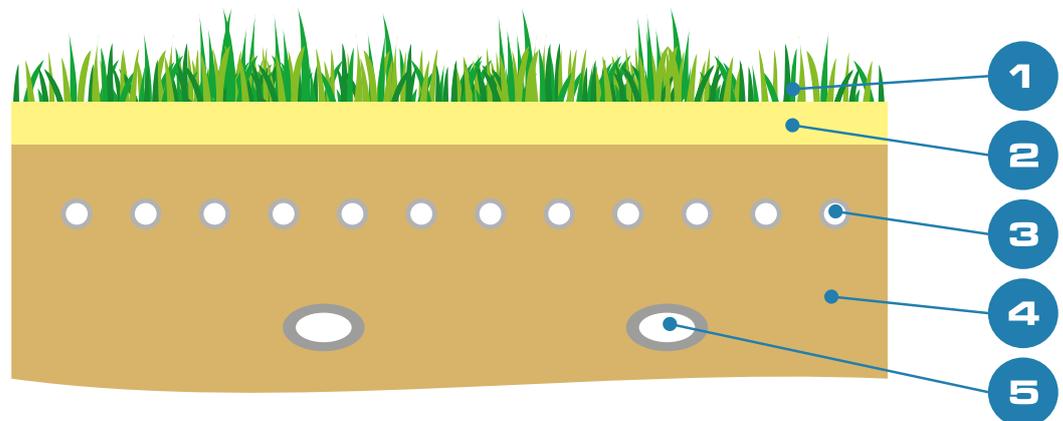
Heating medium

- The system must be secured against freezing. For this purpose, it is filled with aqueous glycol solution.

Section of the football pitch plane with natural and artificial surface.

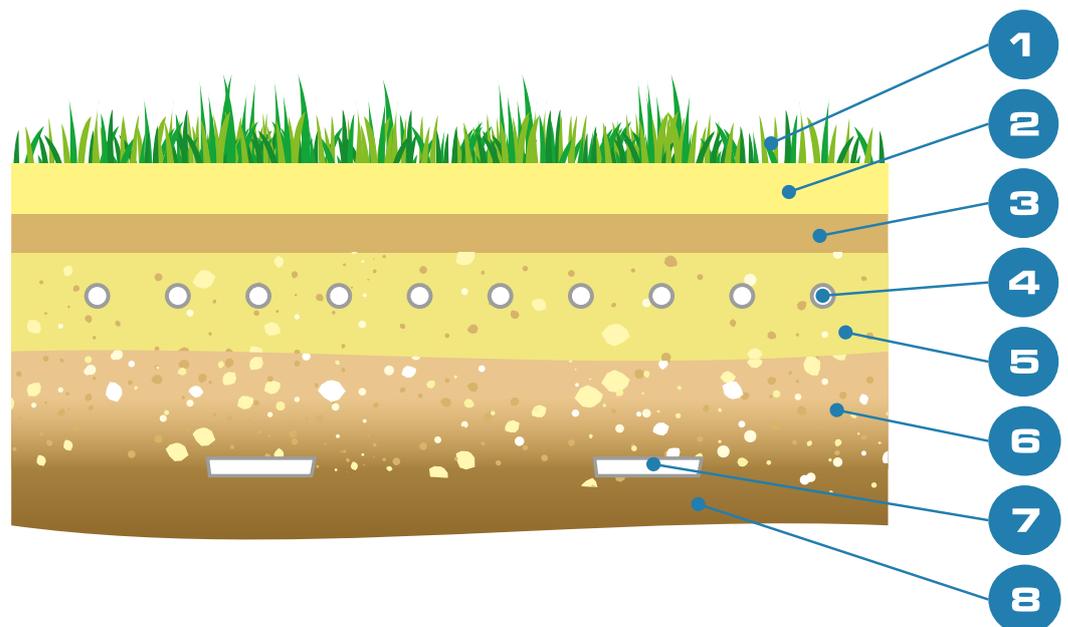
Natural surface:

1. Turf (natural turf).
2. Replaceable base.
3. Heating pipes set at the specified depth with calculated spacing.
4. Native soil.
5. Draining system.



Artificial surface:

1. Artificial turf.
2. Sub crust (consisting of e.g. sand and ground rubber)
3. Gravel.
4. Heating pipes set at the specified depth with calculated spacing.
5. Sand.
6. Gravel.
7. Draining system.
8. Native soil.



Offer

The KAN company, as one of the European leaders in terms of pipe system manufacture for sanitary and heating technology, continuously develops its product offer, trying to meet the increasing demands of the investors, designers and contractors.

Our goal is to provide the customer with comprehensive technology (the so-called KNOW HOW KAN-therm) allowing for quick and problem-free service of such investments. In order to obtain an optimal result, each investment is considered and serviced in an individual manner.

Having contacted the investor, designer and contractor, we determine the needs and requirements for the given investment. On the basis of collected information we can determine the most beneficial technology, select the proper material and prepare the design and construction documentation. These efforts are manifested by the development and implementation of the large area collector system, made of uniform polypropylene pipes PP-R PN20 (SDR 6) and a broad range of KAN-therm PP system saddle fittings.





Implementations

The KAN-therm installation multi-system involves a number of innovative and tested solutions within the scope of broadly understood installation technology.

Therefore, they were a must in the most prestigious European construction investments in the past years including sport facilities for the Euro Cup 2012.

The KAN company accepted the challenge for the contractors and manufacturers of building materials set by these modern stadiums in Europe.

The KAN company supplied kilometres of pipe and thousands of fittings used for construction of the water and heating installations, technological and surface heating installations for all the Euro 2012 facilities located in Poland, including especially the construction of the National Stadium in Warsaw.

The stadiums in Ukraine (Lviv and Kiev) were also equipped with KAN-therm system installations.



2. NSK "Olympic" Stadium
- Kiev, Ukraine.



2

3. "Arena Lviv" Stadium
- Lviv, Ukraine.



4. Wrocław Stadium
- Wrocław, Poland.



5. Inea Stadium
- Poznań, Poland.



6. Legia Warsaw Stadium
- Warsaw, Poland.



7. City Stadium
- Bialystok, Poland.



8. City Stadium
- Lodz, Poland.



SYSTEM **KAN-therm**

Optimal, complete multipurpose installation system consisting of state of the art, mutually complementary technical solutions for pipe water distribution installations, heating installations, as well as technological and fire extinguishing installations.

	UltraLine	
	Push/Push Platinum	
	Press LBP	
	PP	
	Steel	
	Inox	
	Groove	
	Copper	
	Sprinkler	
	Surface heating and automation	
	Football Stadium installations	
	Cabinets and manifolds	

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