

TECHNOLOGY OF SUCCESS



EN 2018





## 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-them 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 700 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.



SYSTEM KAN-therm - special award: Pearl of the highest quality and: Golden Quality International Medal 2015, 2014 i 2013.

Distribution of the KAN-therm system is performed through a network of commercial partners all over Poland Germany, Russia, Ukraine, Belarus, Ireland, the Czech Republic, Slovakia, Hungary, Romania and in the Baltic States. Our expansion and dynamic development has proven soeffective that KAN-therm labeled products are exported to almost 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.





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## Sprinkler

KAN-therm Sprinkler is a complete fire extinguishing installation system consisting of pipes and fittings made of zinc-plated carbon steel (Steel Sprinkler) or stainless steel (Inox Sprinkler) in 22–108 mm (Dn20 – DN100) diameter range.

Particular system elements are jointed using the state of the art, professional and, most of all, safe "Press" technique based on pressing fittings on the pipe using dedicated tools.

The KAN-therm Sprinkler System is designed for constructing indoor-use, fire-extinguishing sprinkler systems. Both material versions are verified and certified according to VdS guidelines for application in stationary sprinkler systems after emergency valves, within rooms characterized by low or medium fire hazard (LH, OH1, OH2, OH3, and to OH4 in respect to exhibition halls, cinemas, theaters and concert halls).

KAN-therm Sprinkler Systems are ideal for constructing new and replacing old, traditional fireextinguishing sprinkler installations.

## Advantages

#### fast and easy assembly

Thanks to the "Press" technique, the assembly of pipes and fittings was reduced at least by half, compared to traditional steel systems.

#### safety

Assembly is performed without the use of open flames, which has essential impact on eliminating fire hazard. Moreover, all system fittings are equipped with the LBP (Leak Before Press) function of signaling ill-pressed joints, which allows for detecting assembly errors.

#### ideal solution for old installations

Thanks to a wide range of diameters from 22 – 108 mm, and comprehensive offer of elements, high durability, attractive price and technical and functional properties, the system is particularly recommended for modernizations of old fire extinguishing installations.

#### highest esthetic and resistance to corrosion

Installations performed in the KAN-therm Sprinkler System are characterized by esthetic appearance and may be used without additional paint coatings. An installation consisting of standard system elements will suit every décor.

#### high mechanic durability

Secures the installation, particularly in generally accessible rooms, against any effects of vandalism. For this purpose, the system is particularly recommended for use in all public buildings, such as shopping centers, cinemas, exhibition halls, which are particularly exposed to such acts.

#### resistance to high pressure and temperature

Thanks to the use of the "Press" jointing technique, professional pressing tools and highest quality O-rings, the system will operate at 16bar.



## Application



KAN-therm Steel Sprinkler is designed for constructing pipelines (branches and distribution pipes) for water sprinkler systems after – emergency valves, installed in rooms characterized by low or medium fire hazard LH, OH1, OH2, OH3, and to OH4 in exhibition halls, cinemas, theaters and concert halls.



KAN-therm Inox Sprinkler is designed for constructing pipelines (branches and distribution pipes) for water and air sprinkler systems after – emergency valves, installed in rooms characterized by low or medium fire hazard LH, OH1, OH2, OH3, and to OH4 in exhibition halls, cinemas, theaters and concert halls.



#### Maximum operating pressure for pipes and fittings:

- \_\_\_\_ DN20 to DN50 16 bar
- \_\_\_\_ DN65 12.5 bar
- \_\_\_\_ DN80 to DN100 10 bar



#### Pipes Esthetic and resistance to corrosion

The KAN-therm Steel Sprinkler system utilizes cold-rolled precise pipes with longitudinal seams, made of RSt 34-2 carbon steel, zinc-plated on the outside and on the inside, wherein the zinc plating thickness is min.  $20\mu$ m. In order to ensure that all assembly is performed correctly and the installation is durable, the seam was removed and the area was covered with an additional zinc layer.

The KAN-therm Steel Sprinkler system utilizes cold-rolled precise pipes with longitudinal seams, made of X5CrNiMo17-12-2 alloy steel, no. 1.4401 (AISI 316).

For both material versions, pipes of 22-108 mm (DN20 – DN100) in diameter are delivered in 6m bars:

DN	External diameter × wall thickness	Internal diameter	DN	External diameter $\times$ wall thickness	Internal diameter
	mm×mm	mm		mm×mm	mm
20	22×1,5	19,0	20	22×1,2	19,6
25	28×1,5	25,0	25	28×1,2	25,6
32	35×1,5	32,0	32	35×1,5	32,0
40	42×1,5	39,0	40	42×1,5	39,0
50	54×1,5	51,0	50	54×1,5	51,0
65	76,1×2,0	72,1	65	76,1×2,0	72,1
80	88,9×2,0	84,9	80	88,9×2,0	84,9
100	108×2,0	104,0	100	108×2,0	104,0

Diameter range in the KAN-therm Sprinkler Steel System: Diameter range in the KAN-therm Sprinkler Inox System:

Before they leave the factory, all pipes undergo inspection in terms of dimensions and seam quality.

Thanks to their esthetic appearance, KAN-therm Sprinkler pipes are perfect for on-plaster applications, without the need to add a paint coating.



## Fittings Safety

Fittings in the KAN-therm Steel Sprinkler System are made of RSt 34-2 carbon steel, zinc-plated on the outside and on the inside, wherein the zinc plating thickness is  $8-15\mu$ m.

Fittings in the KAN-therm Inox Sprinkler System are made of X5CrNiMo17-12-2 alloy steel, no. 1.4401 (AISI 316).

- 1 Tightness of pipe-fitting joints in the KAN-therm Sprinkler Systems is guaranteed by high quality O-rings made of temperature-resistant ethylene-propylene rubber (EPDM) and the application of "M" type crimping profile.
- 2 All system fittings are equipped with the LBP (Leak Before Press) function of signaling ill-pressed joints, based on the special structure of sealing O-rings (22-54mm) and the fitting socket structure (76.1-108 mm diameters).
- **3** The structure of fittings and their assembly technique do not require working with open flames and minimize the risk of occurrence of assembly errors.





## Compatibility

KAN-therm Sprinkler offers a wide range of special joints dedicated for sprinkler installations:

**"Groove" union adapters** connect KAN-therm Sprinkler Systems with steel grooved systems applying the threaded joint technique.



**Flexible hoses** with length up to 2000 mm, in a stainless steel weave casing, for quick and easy mount of the installation above suspended ceilings.



**Couplings, four way fittings and union adapters with female threads** for adapting to all installations in the building; Sliding fittings are not equipped with pipe insertion limiters, and are therefore the ideal solution for leveling the sprinkler line (alternative to flexible joints).



#### **Tools** Professionalism

KAN-them Sprinkler is not only pipes and fittings, but also a wide range of professional, advanced tools for safe and secure performance of element joints.

- Electrical and battery-powered tools designed by Novopress, a leading European brand
- A set of jaws
- \_\_\_\_ Manual and mechanic pipe cutters
- Pipe chamfers

Correct execution of joints has essential impact on the undisturbed and reliable operation of the installation, and therefore all pressing tools applied to assemble KAN-therm Sprinkler Systems are equipped with electronic units controlling the condition of the joint performed.





are approved for use by VdS – Europe's leading certifying body for fire extinguishing installations

## Easy and quick assembly

Jointing KAN-therm Sprinkler System elements is performed utilizing a simple, fast and, most importantly, safe "Press" technique, based on pressing the fitting on the pipe using special crimping profiles. Since open flames are not used during assembly, jointing works do not produce any fire hazard.



 Pipe cutting.
 Pipe end chamfering.
 Marking the depth by sliding the pipe into the fitting.

Inspection for the presence of seals.
 Connecting the pipe and the fitting.
 Pressing the fitting on the pipe.



## **Highest quality guaranteed**

Thanks to the high quality of materials used, state of the art and precise production technology and stringent quality control, our pipes and fittings comply with even the strictest standards and requirements regarding fire extinguishing installations.



## **CNBOP** Approval

KAN-therm Steel Sprinkler and KAN-therm Inox Sprinkler Systems are approved for use under CNBOP certificates no. AT-1106-0227/2009 and AT-1106-0249/2009.



#### VdS Certificates

Both KAN-therm Sprinkler Systems comply with the requirements of VdS CEA 4001 guidelines for stationary sprinkler installations and hold respective VdS certificates: G4080007 and G4080037.



#### **FM Certificates**

Both KAN-therm Steel Sprinkler and KAN-therm Inox Sprinkler Systems have been certified by FM in terms of stationary wet and dry sprinkler installations complying with 1630 and 1920 standards.

In addition, the KAN-therm Sprinkler System was approved by:



#### **Past projects**

Prestigious projects performed in the KAN-therm Sprinkler System, both in Poland and abroad are the ideal confirmation of the highest quality of our products:



 Lviv Stadium – Lviv, Ukraine, built for the purposes of the EURO 2012 Football Championships, equipped in a modern sprinkler installation consisting of the KAN-therm Sprinkler System

2. Business Park – Lausanne, Switzerland, modern fire extinguishing system performed in the KAN-therm Sprinkler System

 Shopping Center

 Utrecht, the Netherlands, modern fire extinguishing system performed in the KAN-therm Sprinkler System

4. Alvar Aalto Library – Vyborg, Russia (photo © Liaszko Siergey aliveserg.livejournal.com) modern sprinkler installation in the KAN-therm Sprinkler System

5. City Hall – Biecz, Poland (photo © Michał Gryga), modern fire extinguishing installation in the KAN-therm Sprinkler System.



## 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.

It is the materialization of a vision of a universal system, the fruit of extensive experience, the passion of KAN's constructors, strict quality control of our materials and final products, and vast knowledge of the market of installations to meet the requirements of energy efficient, sustainable construction.

Push Platinum	
Push	
Press LBP	
PP	(C)
Steel	
lnox	
Sprinkler	
Surface heating and automation	1000
Football Stadium installations	
Cabinets and manifolds	



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