Pre-insulated steel pipe system

For your heating and cooling network

BRUGG
Pipes

Pioneers in Infrastructure

HEAT INSULATED - RELIABLE - MONITORING POSSIBLE

BRUGG Pipes provides integrated solutions from heat uncoupling all the way to the end consumer. Our complete range of products contains rigid pre-insulated steel pipes, flexible pipe systems as well as accessories for any application.

Together with our service package - from engineering to production, delivery and assembly - we are a qualified systems supplier for district and local heating networks.

Application

PREMANT is the registered name for a pre-insulated, rigid plastic pipe system for district heating, local heating and industrial applications. The system is designed for trenchless, direct underground installation and is now considered the industry standard.

PREMANT is suitable for:

- Hot water and low-temperature district heating
- Hot water and domestic hot water
- Cooling applications
- Industrial media such as condensates or process fluids (non-corrosive)

System architecture

The PREMANT pipe consists of:

- One or two medium pipes made of steel (welded, seamless or galvanised) or stainless steel
- PUR rigid foam insulation
- An outer PE-HD jacket pipe

All three components are firmly connected to each other and form a composite pipe system.

Thermal insulation

Rigid polyurethane foam (PUR) has excellent insulating properties and can withstand temperatures of up to 144 °C.

The typical thermal conductivity is λ_{50} = 0,027 W/mK.

The pipe system is available in three insulation thicknesses and can be designed for different temperature classes in accordance with EN standards.

Your advantages at a glance

- Excellent thermal insulation*
- Three insulation thicknesses available
- One or two medium pipes (UNO/DUO)
- Long service life even at high continuous temperatures
- Monitoring cable systems for modern leak detection
- High energy efficiency
- Wide range DN 20–1000
- Complies with EN 253, EN 448, EN 488, EN 489
- ISO 9001 and 14001 certified
- EPD certified

* **Thermal insulation with pentane-driven PUR foam offers enormous energy-saving potential (λ_{50} = 0,027 W/mK)**

LOW PLANNING EFFORT

The construction units of PREMANT transmission pipes and all associated fittings – including elbows, T-pieces, ball valves for venting and fixed points – are prefabricated in the factory to ensure a perfect fit. It goes without saying that all components comply with current standards and individual project requirements.

Planning & delivery programme

The system components are available in all standard dimensions. Medium pipe material, foam insulation and monitoring wire systems can be selected individually. The modular system architecture simplifies planning and installation.
If necessary, the components can be adapted to individual project requirements.

Scope of delivery

- Standard pipe lengths (6 m, 12 m, 16 m)
- Standard fittings from stock
- Pre-bent pipes (bent pipes) for optimising the route of the pipes
- Customised special parts in record time
- DN 20 - DN 1000

Assembly

All components are connected on site using circular welds.
Weld seams and welded ends are insulated using suitable connecting sleeves.
Our trained installation specialists carry out the following work – within hours if necessary:

- Laying
- Drilling
- Repairs
- Renovations

ELECTRIC FUSION SOCKETS - INNOVATIVE TECHNOLOGY

The connection of the pipes is the weak link in a district heating system, which is why post-insulation of the highest quality is necessary. Our electric fusion sockets are setting new standards in socket technology. They ensure force-locking, waterproof and firmly bonded post-insulation due to the homogeneous welding to the pre-insulated steel pipe.

BRUGG INDUCON Welding joint

Contact-free induction-based welding process for PE sleeves for retrofitting insulation to pipes in new projects. This innovative technology enables uninterrupted, continuous and homogeneous weld seams of the highest strength and durability.

Process-controlled welding process

With INDUCON welding technology, you always achieve the same high quality thanks to an automatic welding process.
The welding generator automatically recognises the correct coil tool.
Each socket is pressure tested for leaks.

EWELCON welding sleeve

Pre-assembled HD-PE plate with heating conductor for sleeve mounting of pipes in new projects as well as repairs and renovations up to a jacket dimension of 1200 mm.

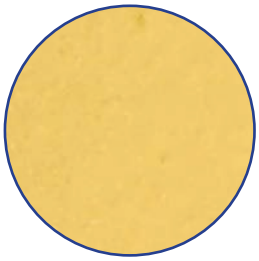
EXTENSIVE RANGE OF PRODUCTS

FOR YOUR APPLICATION

Carrier pipes

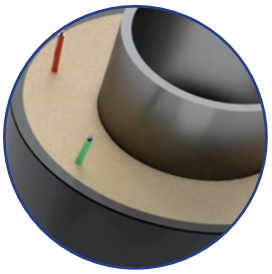
- One or two carrier pipes
- Steel P235 GH TC1
- Plastic and composite material
- CrNi-Steel

Foam systems



- PUR-insulation (pentane-driven)
- PUR-insulation (CO_2-driven)
- On request, also available for even higher temperature requirements

Monitoring wire systems



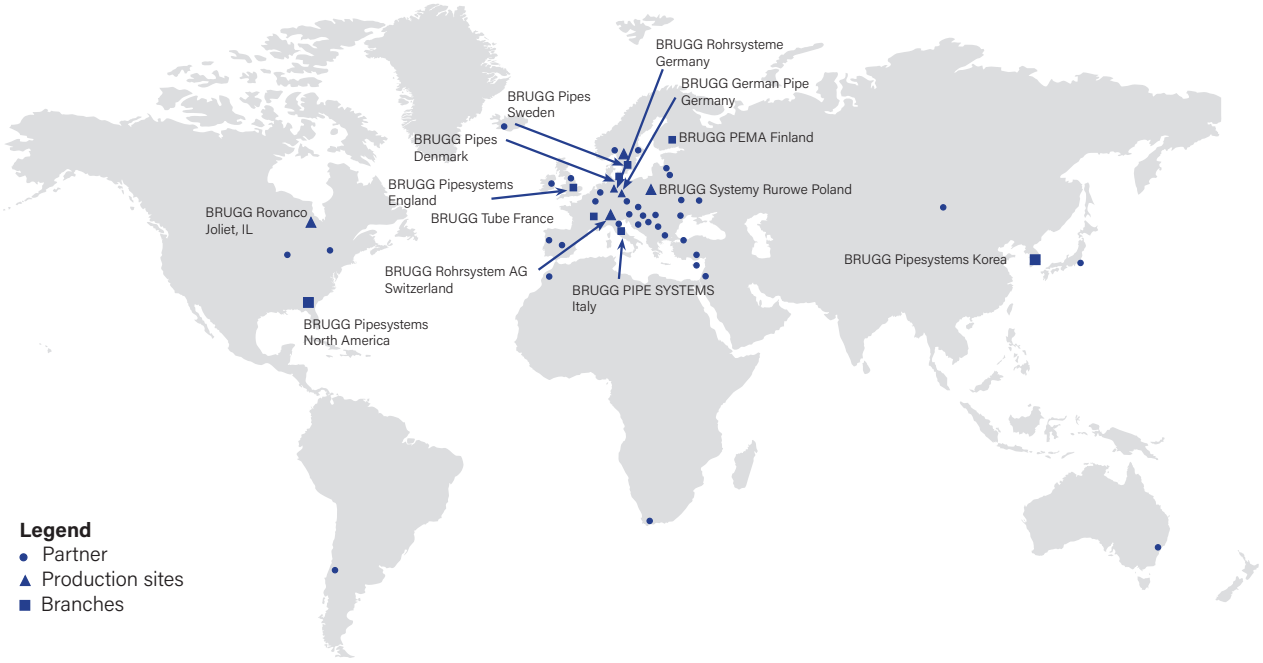
- Brandes
- Nordic/EMS
- Additional systems or double wiring available on request

PREMANT

Nominal width	Steel pipe d x s	Insulation thickness 1		Insulation thickness 2		Insulation thickness 3		Delivery length	
		UNO	DUO	UNO	DUO	UNO	DUO	UNO	DUO
		D	D	D	D	D	D		
DN	mm	mm	mm	mm	mm	mm	mm	m	m
20	26.9 x 2.6	90	125	110	140	125	160	6	6
25	33.7 x 2.6	90	140	110	160	125	180	6	6
32	42.4 x 2.6	110	160	125	180	140	200	6/12	6/12
40	48.3 x 2.6	110	160	125	180	140	200	6/12	6/12
50	60.3 x 2.9	125	200	140	225	160	250	6/12	6/12
65	76.1 x 2.9	140	225	160	250	180	280	6/12	6/12
80	88.9 x 3.2	160	250	180	280	200	315	6/12	6/12
100	114.3 x 3.6	200	315	225	355	250	400	6/12/16	6/12/16
125	139.7 x 3.6	225	400	250	450	280	500	6/12/16	6/12/16
150	168.3 x 4.0	250	450	280	500	315	560	6/12/16	6/12/16
200	219.1 x 4.5	315	560	355	630	400	710	6/12/16	6/12/16
250	273.0 x 5.0	400	710	450	800	500	900	6/12/16	6/12/16
300	323.9 x 5.6	450		500		560		6/12/16	-
350	355.6 x 5.6	500		560		630		6/12/16	-
400	406.4 x 6.3	560		630		710		6/12/16	-
450	457.2 x 6.3	630		710		800		6/12/16	-
500	508.0 x 6.3	710		800		900		6/12/16	-
600	610.0 x 7.1	800		900		1000		6/12/16	-
700	711.0 x 8.0	900		1000		1100		6/12/16	-
800	813.0 x 8.8	1000		1100		1200		6/12/16	-
900	914.0 x 10.0	1100		1200		-		-	-
1000	1016.0 x 11.0	1200		-		-		-	-

The values given in the table apply to the standard version.
Other wall thicknesses are also available for even higher loads.

04/24 / 1000 ex. / 1055962



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