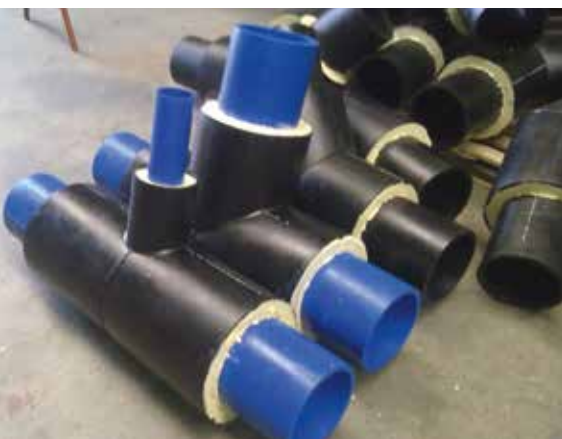


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Pre-insulated Pipe Systems

since 1996



Pre-insulated Pipe Systems



Overview

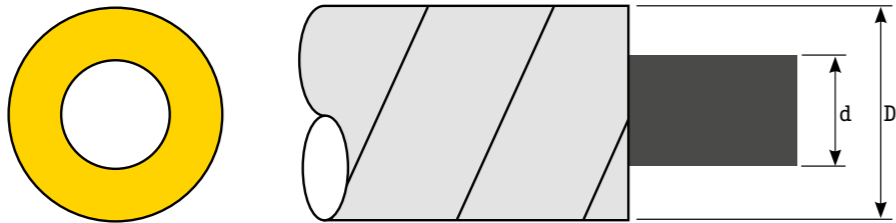


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Medium Pipe HD-PE pipe for drinking water with diffusion barrier, in accordance with corresponding DIN (*Deutsche Industrie-Norm – German Industry Standard*) and approvals

Insulation PUR foam, CFC-free, approx. 70 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe Spiral-wrap pipe with an inside fold made of galvanised steel, aluminium or stainless steel



d Inner Pipe	D Jacket Pipe	D+ reinforced	D++ 2 x reinforced
32	90	110	125
40	90	110	125
50	110	125	140
63	125	140	160
75	140	160	200
90	160	180	225
110	200	225	250
125	225	250	280
140	225	250	280
160	250	280	315
180	280	315	355
200	315	355	400
225	355	400	450
250	400	450	500
280	450	450	500
315	450	500	560
355	500	560	630
400	560	630	710



Up to DN 1000 possible.
All pressure ratings / wall thicknesses

Medium Pipe HD-PE pipe for drinking water with diffusion barrier, in accordance with corresponding DIN and approvals

Insulation PUR foam, CFC-free, approx. 80 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe HD-PE jacket pipe in suitable wall thickness, corona-treated in accordance with DIN EN 253



d Inner Pipe	D Jacket Pipe	D+ reinforced	D++ 2 x reinforced
32	90	110	125
40	90	110	125
50	110	125	140
63	125	140	160
75	140	160	200
90	160	180	225
110	200	225	250
125	225	250	280
140	225	250	280
160	250	280	315
180	280	315	355
200	315	355	400
225	355	400	450
250	400	450	500
280	450	450	500
315	450	500	560
355	500	560	630
400	560	630	710



Up to DN 1000 possible.
All pressure ratings / wall thicknesses

6 WKG Drinking Water

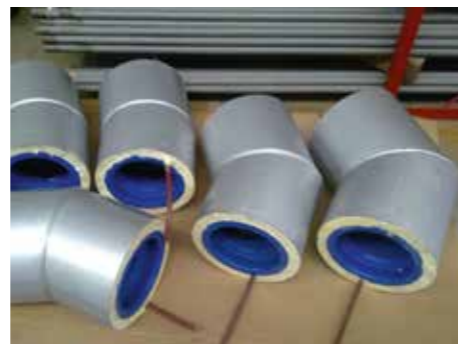
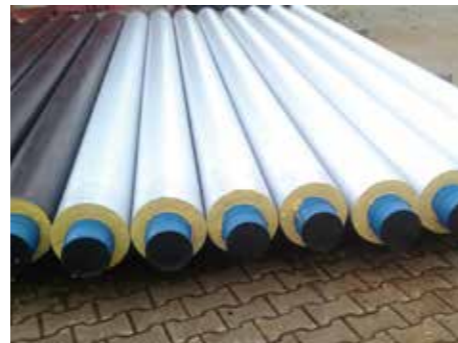
Medium Pipe Ductile cast-iron pipe for drinking water, in accordance with corresponding DIN and approvals

Insulation PUR foam, CFC-free, approx. 70 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe Spiral-wrap pipe with an inside fold made of galvanised steel, aluminium or stainless steel



d Inner Pipe	TYT, BRS D Jacket Pipe	TIS-K, BLS D+ reinforced
80	180	200
100	200	225
125	225	250
150	250	280
200	315	355
250	400	400
300	450	450
400	560	560
500	710	710
600	800	800
700	900	900
800	1000	1000



MMK, MMQ, MMA and Hawlinger

7 WKG Drinking Water

Medium Pipe Ductile cast-iron pipe for drinking water, in accordance with corresponding DIN and approvals

Insulation PUR foam, CFC-free, approx. 80 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe HD-PE jacket pipe in suitable wall thickness, corona-treated in accordance with DIN EN 253



d Inner Pipe	TYT, BRS D Jacket Pipe	TIS-K, BLS D+ reinforced
80	180	200
100	200	225
125	225	250
150	250	280
200	315	355
250	400	400
300	450	450
400	560	560
500	710	710
600	800	800
700	900	900
800	1000	1000

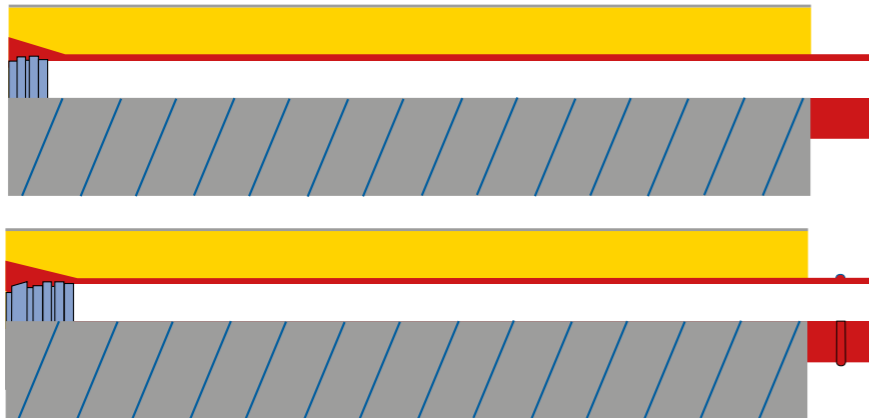


MMK, MMQ, MMA and Hawlinger

Medium Pipe Ductile cast-iron pipe for sewage, in accordance with corresponding DIN and approvals

Insulation PUR foam, CFC-free, approx. 70 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe Spiral-wrap pipe with an inside fold made of galvanised steel, aluminium or stainless steel



d Inner Pipe	TYT, BRS D Jacket Pipe	TIS-K, BLS D+ reinforced
80	180	200
100	200	225
125	225	250
150	250	280
200	315	355
250	400	400
300	450	450
400	560	560
500	710	710
600	800	800
700	900	900
800	1000	1000



MMK, MMQ, MMA and Hawlinger

Medium Pipe Ductile cast-iron pipe for sewage, in accordance with corresponding DIN and approvals

Insulation PUR foam, CFC-free, approx. 80 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe HD-PE jacket pipe in suitable wall thickness, corona-treated in accordance with DIN EN 253



d Inner Pipe	TYT, BRS D Jacket Pipe	TIS-K, BLS D+ reinforced
80	180	200
100	200	225
125	225	250
150	250	280
200	315	355
250	400	400
300	450	450
400	560	560
500	710	710
600	800	800
700	900	900
800	1000	1000

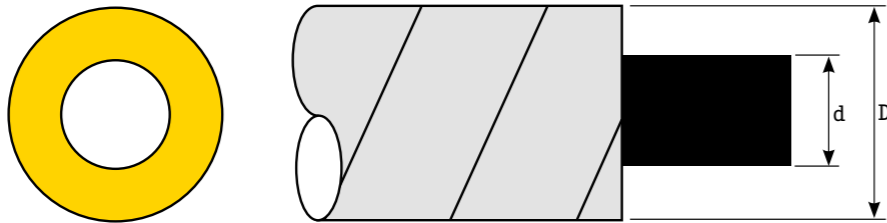


MMK, MMQ, MMA and Hawlinger

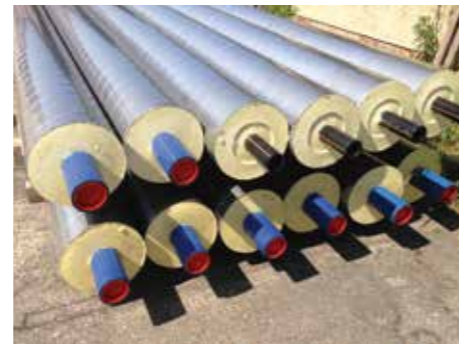
Medium Pipe HD-PE pipe for sewage, in accordance with corresponding DIN and approvals

Insulation PUR foam, CFC-free, approx. 70 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe Spiral-wrap pipe with an inside fold made of galvanised steel, aluminium or stainless steel



d Inner Pipe	D Jacket Pipe	D+ reinforced
32	90	110
40	90	110
50	110	125
63	125	140
75	140	160
90	160	180
110	200	225
125	225	250
140	225	250
160	250	280
180	280	315
200	315	355
225	355	400
250	400	450
280	450	450
315	450	500
355	500	560
400	560	630



Up to DN 1000 possible.
All pressure ratings / wall thicknesses

Medium Pipe HD-PE pipe for sewage, in accordance with corresponding DIN and approvals

Insulation PUR foam, CFC-free, approx. 80 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe HD-PE jacket pipe in suitable wall thickness, corona-treated in accordance with DIN EN 253



d Inner Pipe	D Jacket Pipe	D+ reinforced
32	90	110
40	90	110
50	110	125
63	125	140
75	140	160
90	160	180
110	200	225
125	225	250
140	225	250
160	250	280
180	280	315
200	315	355
225	355	400
250	400	450
280	450	450
315	450	500
355	500	560
400	560	630

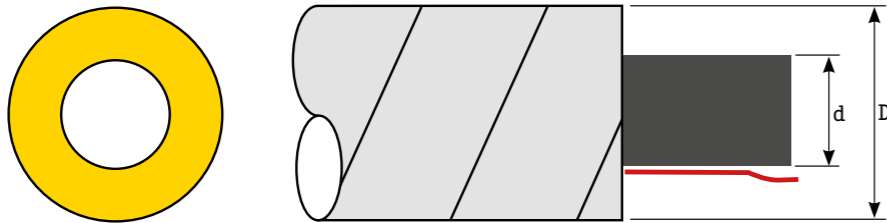


Up to DN 1000 possible.
All pressure ratings / wall thicknesses

Medium Pipe HD-PE pipe for sewage, PE 100 or annealed

Insulation PUR foam, CFC-free, approx. 70 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe Spiral-wrap pipe with an inside fold made of galvanised steel, aluminium or stainless steel



d Inner Pipe	D Jacket Pipe	d Inner Pipe	D Jacket Pipe
32	90	160	250
40	90	180	280
50	110	200	315
63	125	225	355
75	140	250	400
90	160	280	450
110	200	315	450
125	225	355	500
140	225	400	560



Trace Heating

- Heating tapes mounted on the medium pipe with:
- 31 Watt/m heat output
 - Junction and termination boxes
 - Butt connectors
 - Thermostats



All pressure ratings, insulation thicknesses and wall thicknesses

Medium Pipe HD-PE pipe for sewage, PE 100 or annealed

Insulation PUR foam, CFC-free, approx. 80 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe HD-PE jacket pipe in suitable wall thickness, corona-treated in accordance with DIN EN 253



d Inner Pipe	D Jacket Pipe	d Inner Pipe	D Jacket Pipe
32	90	160	250
40	90	180	280
50	110	200	315
63	125	225	355
75	140	250	400
90	160	280	450
110	200	315	450
125	225	355	500
140	225	400	560



Trace Heating

- Heating tapes mounted on the medium pipe with:
- 31 Watt/m heat output
 - Junction and termination boxes
 - Butt connectors
 - Thermostats

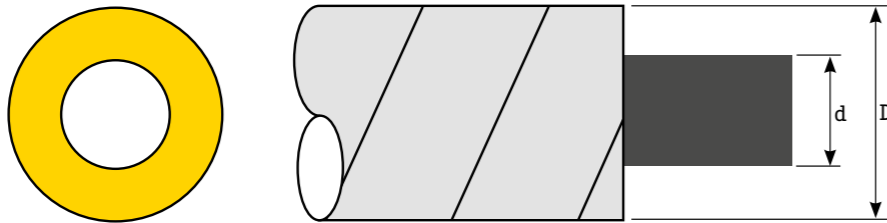


All pressure ratings, insulation thicknesses and wall thicknesses

Medium Pipe Steel pipe welded or seamless in accordance with DIN or ANSI
(American National Standards Institute)

Insulation PUR foam, CFC-free, approx. 70 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe Spiral-wrap pipe with an inside fold made of galvanised steel, aluminium or stainless steel



d Inner Pipe	D Jacket Pipe	D+ reinforced
33,7	90	110
42,4	110	125
48,3	110	125
60,3	125	140
76,1	140	160
88,9	160	180
114,3	200	225
139,7	225	250
168,3	250	280
219,1	315	355
273,0	400	450
323,9	450	500
355,6	500	560
406,4	560	630
457,2	630	710
508,0	710	800
610,0	800	900
711,0	900	1000



Up to DN 1000 possible.
All pressure ratings / wall thicknesses

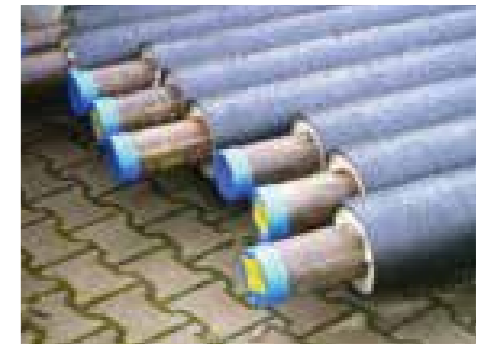
Medium Pipe Steel pipe welded or seamless in accordance with DIN or ANSI

Insulation PUR foam, CFC-free, approx. 80 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe HD-PE jacket pipe in suitable wall thickness, corona-treated in accordance with DIN EN 253



d Inner Pipe	D Jacket Pipe	D+ reinforced
33,7	90	110
42,4	110	125
48,3	110	125
60,3	125	140
76,1	140	160
88,9	160	180
114,3	200	225
139,7	225	250
168,3	250	280
219,1	315	355
273,0	400	450
323,9	450	500
355,6	500	560
406,4	560	630
457,2	630	710
508,0	710	800
610,0	800	900
711,0	900	1000



Up to DN 1000 possible.
All pressure ratings / wall thicknesses

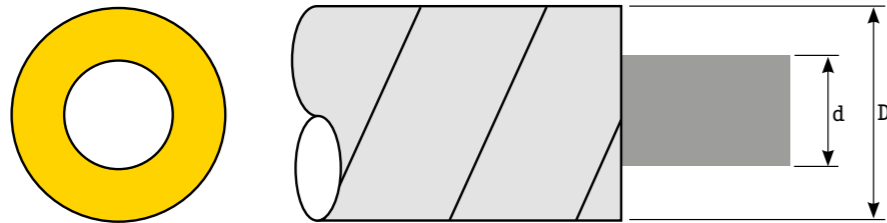
16 Cooling Lines

Cold Water or Refrigerant

Medium Pipe Steel pipe welded or seamless
Coating in accordance with AGI Q 151 (*Arbeitsgemeinschaft Industriebau – Working Group Industrial Construction*), with epoxy and micaceous iron oxide

Insulation PUR foam, CFC-free, approx. 70 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe Spiral-wrap pipe with an inside fold made of galvanised steel, aluminium or stainless steel



d Inner Pipe	D Jacket Pipe	D+ reinforced
33,7	90	110
42,4	110	125
48,3	110	125
60,3	125	140
76,1	140	160
88,9	160	180
114,3	200	225
139,7	225	250
168,3	250	280
219,1	315	355
273,0	400	450
323,9	450	500
355,6	500	560
406,4	560	630
457,2	630	710
508,0	710	800
610,0	800	900
711,0	900	1000



Up to DN 1000 possible.
All pressure ratings / wall thicknesses

17 Cooling Lines

Cold Water or Refrigerant

Medium Pipe Steel pipe welded or seamless
Coating in accordance with AGI Q 151, with epoxy and micaceous iron oxide

Insulation PUR foam, CFC-free, approx. 80 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe HD-PE jacket pipe in suitable wall thickness, corona-treated in accordance with DIN EN 253



d Inner Pipe	D Jacket Pipe	D+ reinforced
33,7	90	110
42,4	110	125
48,3	110	125
60,3	125	140
76,1	140	160
88,9	160	180
114,3	200	225
139,7	225	250
168,3	250	280
219,1	315	355
273,0	400	450
323,9	450	500
355,6	500	560
406,4	560	630
457,2	630	710
508,0	710	800
610,0	800	900
711,0	900	1000



Up to DN 1000 possible.
All pressure ratings / wall thicknesses

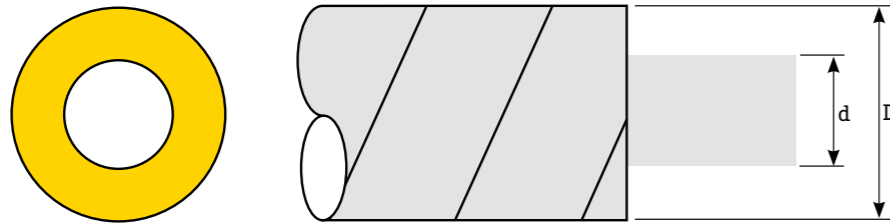
18 Beverage Pipe

Food

Medium Pipe Stainless steel pipe 1.4307/4404 and others

Insulation PUR foam, CFC-free, approx. 70 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe Spiral-wrap pipe with an inside fold made of galvanised steel, aluminium or stainless steel



d Inner Pipe	D Jacket Pipe	D+ reinforced	D++ 2 x reinforced
bis DN 32	90	110	125
DN 40	110	125	140
DN 50	125	140	160
DN 65	140	160	180
DN 80	160	180	200
DN 100	200	225	250
DN 125	225	250	280
DN 150	250	280	315
DN 200	315	355	400
DN 250	400	450	500
DN 300	450	500	560



All common materials and wall thicknesses available

- stained
- stained and ground

19 Beverage Pipe

Food

Medium Pipe Stainless steel pipe 1.4307/4404 and others

Insulation PUR foam, CFC-free, approx. 80 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe HD-PE jacket pipe in suitable wall thickness, corona-treated in accordance with DIN EN 253



d Inner Pipe	D Jacket Pipe	D+ reinforced	D++ 2 x reinforced
bis DN 32	90	110	125
DN 40	110	125	140
DN 50	125	140	160
DN 65	140	160	180
DN 80	160	180	200
DN 100	200	225	250
DN 125	225	250	280
DN 150	250	280	315
DN 200	315	355	400
DN 250	400	450	500
DN 300	450	500	560



All common materials and wall thicknesses available

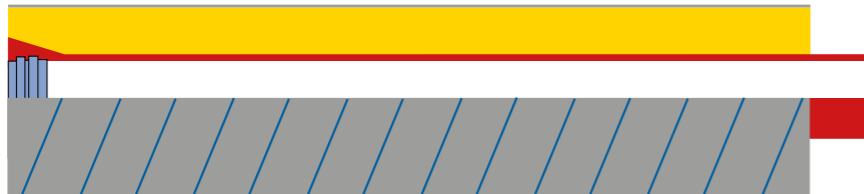
- stained
- stained and ground

Plug-in Socket Pipe

Medium Pipe KG PP, KG 2000, PVC, with wall reinforcement for sewage

Insulation PUR foam, CFC-free, approx. 70 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe Spiral-wrap pipe with an inside fold made of galvanised steel, aluminium or stainless steel



d Inner Pipe DN	D Jacket Pipe
100	200
125	225
150	250
200	315
250	400
300	450
400	560



With trace heating also suitable for fatty sewage

Lengths according to pipe grid or assembled to 6 m lengths

Plug-in Socket Pipe

Medium Pipe KG PP, KG 2000, PVC, with wall reinforcement for sewage

Insulation PUR foam, CFC-free, approx. 80 kg/m³ volume weight, 0,024 W/mK

Jacket Pipe HD-PE jacket pipe in suitable wall thickness, corona-treated in accordance with DIN EN 253



d Inner Pipe DN	D Jacket Pipe
100	200
125	225
150	250
200	315
250	400
300	450
400	560



With trace heating also suitable for fatty sewage

Lengths according to pipe grid or assembled to 6 m lengths



Moulded Parts

Such as Bends, T-Pieces and Pipe Branches

For all ground-installed pipe types, moulded parts are supplied as pre-insulated components, and are assembled at the construction site to the pre-insulated pipes with insulating sleeves.

Short weld-on parts are extended and insulated.

In addition to standard degrees, we also supply special bends.

For open-installed pipes, pre-insulated moulded parts can be supplied or segment bends and pipe branches, which are assembled at the construction site in the same way as an insulating sleeve, and which save two sleeves.



Insulating Sleeves

For the Insulation of the Assembly Points

For all ground-installed pipe types with free pipe ends of 200 mm, we deliver shrink sleeves.

For all open-installed pipe types with free pipe ends of 200 mm, we deliver sheet metal sleeves, bend sleeves, branch sleeves and reductions.

Sleeve sets consist of the respective sleeve types, sealing tape, PUR foam and assembly material.

The assembly can be carried out by the pipe layer or skilled fitters.

All plug-in socket pipes are insulated in such a way that only a small gap remains open after assembly, which is closed with a WPE foam ring supplied and a shrink or sheet metal sleeve.



Wall sealing ring



Shrink end cap for insulation closure

Foaming of pipes of all material types in a jacket pipe made of solid steel, steel with PE coating or paint or stainless steel.

For aggressive environmental conditions such as motorway tunnels or chemical plants, we manufacture pre-insulated pipes with solid stainless steel jackets from 2 mm thickness onwards.

We use a steel pipe in various wall thicknesses as a jacket pipe in such cases when the jacket is to provide special protection. For example, on bridges prone to flooding, to ward off flotsam or when static requirements have to be met.

To this effect, the support distance can be selected so that a PU-insulated pipe with steel jacket (*without extra bridge structures*), resting only on two supports, can span roads or creeks.



Special Pipe for Mining

We manufacture a pipe (4000 m) for transporting chilled water in underground mines, which does not react with the insulation in the event of a fire (*mining approval*). For this purpose, a DN 400 ductile cast-iron pipe was foamed into a 556.9 x 5 steel pipe, and the front ends were welded on both sides with steel covers.

The covers were to be welded steel to steel on the jacket and steel to ductile cast iron on the inner pipe. We sandblasted the steel jacket pipe and applied a multi-layer epoxy protective coating.

For Pipe Storage

For the storage and fastening of our pre-insulated pipes for open installation, we manufacture and supply double clamps.

The double clamp consists of two pipe clamps welded to a T-profile at a distance of 250 mm.

This prevents the pipe clamp from edging into the insulation (sheet metal jacket) when the pipeline moves (*sliding bearing*).

The double clamps are supplied with cleats which, depending on the assembly, allow sliding or fix the double clamps (*fixed bearing*).

We also supply brackets for wall mounting.



In principle, pipes of all material types can be pre-insulated.

Plastics	PE 80, PE 100 PP PVC PVC-u Pex GfK (<i>glasfaserverstärkter Kunststoff – glass fibre reinforced plastic</i>) centrifugally cast GfK wrapped GfK with inliner
Steel	welded seamless boiler tube threaded pipe medium heavy thick-walled steel pipes special steels with ZM (<i>Zementmörtel – cement mortar</i>) lining for drinking water steel pipe with refrigeration coating in accordance with AGI Q 167
Cast-Iron Pipe	Ductile cast TYT, BRS TIS-K, BLS C 40, C 50 etc. SML Pipe
Stainless Steel	1.4301 1.4307 1.4404

As trace heating, self-limiting heating tapes or controlled heating cables are integrated into the insulation structure for frost protection or temperature maintenance.

As one option, the heating is glued directly to the inner pipe, which is to be connected every 6 or 12 m. As another option, empty ducts are installed on the inner pipe, which allows subsequent pulling in or changing.



Heating cable mounted on pipe



Empty duct



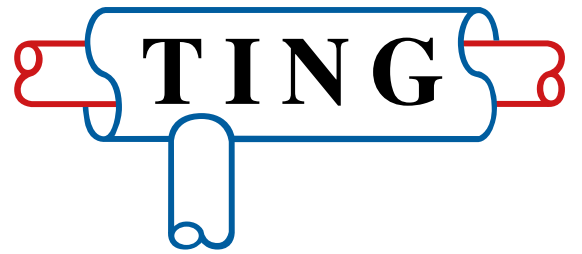
Butt connector



Connection set



Thermostat



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