

STEEL PIPE SYSTEM



HILINE STEEL

Pre-insulated steel pipe
systems for district heating
and cooling networks

INTRODUCTION

Hiline Steel comprises a range of pre-insulated steel pipe systems that are perfect for district heating and cooling networks. Whether it's for a simple connection between two buildings or a large-scale network, it offers outstanding thermal performance coupled with exceptional levels of reliability.



Steel Service Pipe

With a choice of seamless or welded service pipes that meet the EN 10216-2 and EN 10217-2 & 5 standards respectively, it is intended for heating and cooling networks operating at temperatures between 4°C and 140°C. Service pipes are also available in heavy gauge carbon steel, galvanised finish and stainless steels.

Hiline Steel is available in single and twin service pipe configurations, plus as a flexible pipe system supplied on a coil.

Tough Outer Casing

Manufactured in HDPE to the requirements of the EN253 standards, the tough and resilient outer casing enables the pipe to be buried directly in the ground – so ensuring the network's insulation integrity is maintained throughout its service life. When installing a network in contaminated ground, a barrier casing can be specified. For above-ground applications, although UV stable, Hiline Steel is also available with a spiral-wound galvanised steel outer casing.

High-Performance Insulation

A layer of CFC-free rigid polyurethane foam provides outstanding insulation properties, with values of 0.022 W/mK in accordance with EN 253. Insulation thicknesses are available as Series 1, 2 and 3 as well as composite insulation layers for high-temperature hot water and steam applications. With the service pipe and outer casing being bonded together by the foam insulation, the system far out-performs other systems with an air gap. With

this increased efficiency, comes lower heat loss and therefore a saving in both operational costs and carbon emissions.

Complete System

Hiline Steel has a comprehensive range of pre-fabricated bends, tees, valves, fittings and accessories that enable it to be adapted to meet all possible configurations – including transitions to other types of pre-insulated pipe systems – such as Hiline Aqua or Hiline Flex. Hiline Steel can be offered as off-site pre-fabricated fittings and spool assemblies to meet a client's bespoke requirements – significantly reducing installation time and cost.

Robust and Adaptable Joints

The Hiline Steel service pipe is normally joined by manual arc welding, TIG or gas welding in accordance with the relevant standards.

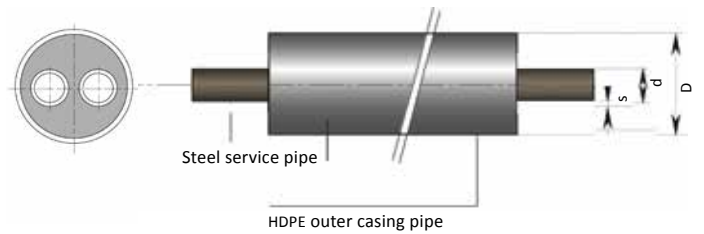
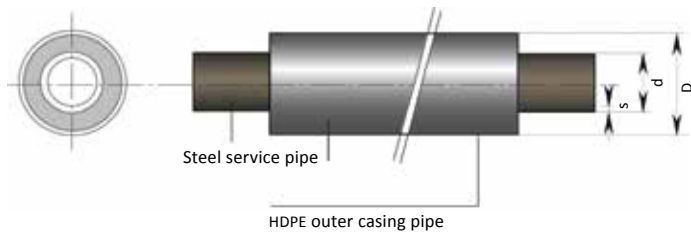
The HDPE outer casing can be joined using the proven Hiline range of wrap-around heat-shrink or electro-fusion couplings to ensure the very tightest of joints to protect against the ingress of ground water.

Surveillance Systems

All of the Hiline Steel range is available with the option of integrated wires for electronic surveillance systems that warn of moisture ingress into the insulation should the outer casing become damaged. All main types of surveillance technologies are supported, including Nordic, Brandes and customer-specified systems.



Available Dimensions



Hiline Steel with a single service pipe (6m and 12m lengths)
Available with service pipe dimensions up to DN 1,000mm

Hiline Steel with a twin service pipe (6m and 12m lengths)

Service Pipe (Single)					Outer Casing	
Type	DN	OD	Wall (Welded)	Wall (Seamless)	Series 1 Insulation	Series 2 Insulation
		d	s	s	D	D
	mm	mm	mm	mm	mm	mm
20/75	20	26.9	2.6	2.9	75	90
25/90	25	33.7	2.6	2.9	90	110
32/110	32	42.4	2.6	2.9	110	125
40/110	40	48.3	2.6	2.9	110	125
50/125	50	60.3	2.9	3.2	125	140
65/140	65	76.1	2.9	3.2	140	160
80/160	80	88.9	3.2	3.6	160	200
100/200	100	114.3	3.6	4.0	200	225
125/225	125	139.7	3.6	4.0	225	250
150/250	150	168.3	4.0	4.5	250	315
200/315	200	219.1	4.5	6.3	315	355
250/400	250	273.0	5.0	7.1	400	450
300/450	300	323.9	5.6	7.1	450	500
350/500	350	355.6	5.6	8.0	500	560
400/560	400	406.4	6.3	8.8	560	630
450/560	450	457.0	6.3	10.0	560	630

Service Pipe (Twin)					Outer Casing	
Type	DN	OD	Wall (Welded)	Wall (Seamless)	Series 1 Insulation	Series 2 Insulation
		d	s	s	D	D
	mm	mm	mm	mm	mm	mm
2x20	20	26.9	2.6	2.9	125	140
2x25	25	33.7	2.6	2.9	140	160
2x32	32	42.4	2.6	2.9	160	180
2x50	50	60.3	2.9	3.2	200	225
2x65	65	76.1	2.9	3.2	225	250
2x80	80	88.9	3.2	3.6	250	280
2x100	100	114.3	3.6	4.0	315	355
2x125	125	139.7	3.6	4.0	400	450
2x150	150	168.3	4.0	4.5	450	500
2x200	200	219.1	4.5	6.3	560	630

Standards

Hiline Steel pre-insulated pipes and fittings for thermal utilities are manufactured within an ISO 9001 accredited environment, generally in accordance with the requirements of EN 253 and in compliance with EN 448, EN 488, EN 489 and EN 13941

Complete Range

Hiline Steel is part of the wider Hiline range of pre-insulated pipe systems that include the following service pipe options:

- PE-Xa
- Copper
- Glass-Reinforced Epoxy (GRE)
- Polyethylene
- ABS
- Polypropylene

World-Class Support

The Hiline range is backed by world-class support services that include assistance with:

- System design and stress analysis
- Planning and drawing support
- Technical support and on-site advice
- Installation training
- Commissioning and operational support services
- Tool hire

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