

STEEL-IN-STEEL PRE-INSULATED PIPE SYSTEM SPECIFICATION

The buried distribution pipework will be a steel-in-steel pre-insulated system supplied and installed by Durotan Ltd,

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The system will be capable of operating temperatures from -30°C to 400°C.
The maximum operating pressure is 64 Bar.

Pipes and fittings will be welded together on site. Welders shall hold an approval certificate to BS EN 287.

The section of pipe around the welds will be insulated and protected by waterproof site joints. Mineral fibre insulation is strapped to the carrier pipe by the use of stainless steel banding. Site joints are cut from longitudinally or spirally wound steel pipe to form two half shells which are welded to the steel outer pipe with two circumferential and longitudinal welds. The steel outer pipe joints are wrapped with corrosion proof wrap.

The pre-insulated steel pipework will be manufactured in 6 and 12 metre lengths.

Carrier pipe (straight lengths)

Material: Longitudinal or spirally welded steel pipe according to P235TR2 according to EN 10217-1.

Seamless steel pipe according to P235GH according to EN 10216-2.

Thermal Insulation

Material: High silicate mineral wool fibre.

Casing

Material: Longitudinal or spirally welded steel pipe according to P235TR2 according to EN 10217-1.

The outer casing steel pipe is to be protected by a low density polyethylene wrap.

Fittings will be factory manufactured and pre-insulated.

Pipes will terminate with a vacuum tight end cap, wall puddle flange and axial expansion compensator to facilitate axial movement of the carrier pipe.

Intermediate anchors are used to direct forces and expansion compensators or casing voids which are present at every change in direction.

The pipes will have leak detection wires within the insulation and be protected by a surveillance system.

Cathodic protection of the buried steel-in-steel system is recommended to protect the outer steel pipe casing.

Evacuation of moisture from the annular space between inner and outer steel pipe is to be carried out to reduce corrosion.

Applications:-

- High Temperature Hot Water Heating (HTHW)
- Steam
- Condensate
- Gas mains
- Secondary containment
- Process water
- Hot air and gases
- Industrial and commercial fluids