

# STEEL-THERM

D.I. COUPLED STEEL PIPING SYSTEM



## STEEL-THERM

THERMACOR'S STEEL-THERM is a factory-fabricated, pre-insulated piping system for chilled water, heating water, or domestic hot water. The system is designed with a steel carrier pipe (type and grade specified, as required) joined with Ductile Iron couplings, closed cell polyurethane foam insulation, and a High Density Polyethylene (HDPE) jacket.

### Carrier Pipe

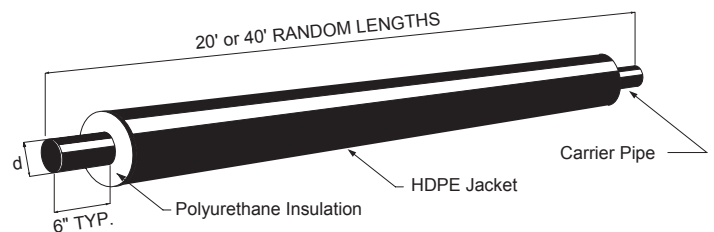
- $d \geq 2"$  - A53 ERW Grade B, Std. Wt. Black Steel
- $d < 2"$  - A106 SML, Std. Wt. Black Steel
- Seamless & Schedule 80 pipe are available for all sizes.
- Std. Wt. is the same as Schedule 40 through 10".
- Ductile Iron Couplings

### Polyurethane Insulation

- |                        |                           |
|------------------------|---------------------------|
| • Density              | > 2.0 lbs/ft <sup>3</sup> |
| • "K" Factor           | ≤ 0.16 @ 75°F             |
| • Compressive Strength | > 30 psi                  |
| • Closed Cell Content  | ≥ 90% @ 75°F              |

### Jacket

- High Density Polyethylene (HDPE)



## **SPECIFICATION GUIDE \***

### **GENERAL**

All underground and above ground piping materials transporting chilled water, heating water, or domestic hot water shall be **STEEL-THERM** as manufactured by **THERMACOR PROCESS INC.** All straight pipe, fittings, insulating materials, and technical support shall be provided by the manufacturer.

### **SERVICE PIPE**

The carrier or service pipe shall be A-53, Grade B, ERW, Standard Weight for pipe sizes 2" and larger and A106/ A53, Grade B, seamless, standard weight for pipe sizes 1.5" and smaller. All carbon steel pipe shall have ends cut square and beveled for gasket coupling joints. Straight sections shall be supplied in 20 or 40 foot random lengths with cutbacks to allow for coupling at the field joints.

### **INSULATION**

Insulation of the service pipe shall be rigid polyurethane foam with a minimum 2.0 lbs/ft<sup>3</sup> density, 90% minimum closed cell content, and a "K" factor not higher than .16 at 75°F per ASTM C518. The polyurethane foam shall be CFC-free. The polyurethane foam shall completely fill the annular space between the service pipe and jacket, and shall be bonded to both. Insulation shall be provided to the minimum insulation thickness specified.

### **JACKET**

The outer protective jacket shall be high density polyethylene (HDPE). No FRP, HDUP, or tape jacket allowed.

### **FITTINGS**

Fittings shall be butt-welded steel. The fittings are uninsulated and anchored with concrete thrust blocks. Fittings are thrust blocked at all changes of direction and pipe size changes. Thrust block design and sizing is the responsibility of the design engineer. Steel fittings are to be coated with brush applied mastic provided by Thermacor.

### **FIELD JOINTS**

Service pipe shall be hydrostatically tested as per the Engineer's specification with a factory recommendation of 1.5 times the specified pressure of the system. Joints between pipe sections are joined using ductile iron couplings. (*At the Engineer's option*, joints may be jacketed with an HDPE split sleeve and sealed with a heat shrink sleeve to prevent the ingress of moisture or debris.) All jacketing materials shall be furnished by THERMACOR.

### **INSTALLATION**

Installation of the piping system shall be in accordance with the manufacturer's instructions. Factory trained field technicians shall be provided for critical periods of installation, unloading, field joint instruction, and testing.

*\* For alternate specifications, please contact SANDALE UTILITY PRODUCTS.*

## **Sandale Utility Products**

19438 - 96TH AVENUE  
SURREY, BC V1M 4B4

Phone 604-882-2080  
www.sandale.ca