

Hot Water Temperature Maintenance Introduction . . .

WarmTrace™ systems replace heat loss through the thermal insulation on hot water supply piping to maintain the water at desired nominal temperatures without the need for costly insulated recirculation lines, pumps and balancing valves. Preventing the hot water from cooling also ensures readily available hot water when needed.

Typically, the main and branch lines 15 mm and larger are the primary applications for a WarmTrace hot water temperature maintenance system. Where a recirculation system would only be able to provide temperature maintenance within the recirculation loop, a heat-traced line can maintain hot water to every point of use. Systems which have different pressure or temperature zones can be easily accommodated in the design and layout of HSX heating circuits.

The desired maintenance temperatures for most applications are listed in the Design Selection Chart. Based on the maintain temperature desired, choose the appropriate HSX self-regulating cable. For temperatures other than those shown contact your Thermon representative.

Anti Legionella Prevention and Purging Introduction . . .

Hot water supply installations are seen as a breeding source for Legionnaires disease. The causes are to be found in the condition and the mode of operation. The only remedy is the guarantee of a certain holding temperature or an increase in temperature. Contact Thermon for more information.

Select the HSX Heating Cable Based on Your Water Temperature Requirement . . .

Using the pipe diameter, insulation thickness, find the recommended heating cable using the Design Selection Chart.

1. Find the section indicating the temperature which is equal to the desired maintain temperature.
2. Use the row which corresponds to the pipe insulation thickness.
3. Based on the pipe diameter(s) for the application, read across the table to the pipe diameter and note the HSX cable recommended for that set of conditions.
4. Note that larger pipe sizes and lower ambient temperatures may require multiple passes of heating cable, contact Thermon.
5. On piping 25 mm in diameter and smaller, the insulation must be one pipe size larger to accommodate the heating cable.
6. For more information refer to the planning instructions, contact Thermon.

Design Selection Chart-Temperature Maintenance

	Temp.	Minimum Insulation Thickness k = 0,036 W/m °C	Pipe - Nominal Diameter mm						
			15	20	25	32	40	50	65
Small Systems Hot Water Storage Tank < 400 Litres	50°C	20 mm							
		30 mm							
		40 mm							
	55°C	20 mm							
		30 mm							
		40 mm							
	60°C	20 mm							
		30 mm							
		40 mm							

Large Systems Hot Water Storage Tank > 400 Litres	55°-60°C	20 mm							
		30 mm							
		40 mm							
		50 mm							
		65 mm							
		80 mm							
		100 mm							
	55°-70°C	20 mm							
		30 mm							
		40 mm							
		50 mm							
		65 mm							
		80 mm							
		100 mm							

- HSX 50-2
- HSX 55-2
- HSX 60-2
- Contact Thermon

Note . . .
Heat loss calculations are based on IEC 62086-2, Equation 1, with the following provisions:

- Metallic piping insulated with glass fiber, k = 0,036 W/m C
- A 10% safety factor has been included.
- Design based on 20°C ambient temperature.



THERMON . . . The Heat Tracing Specialists®
www.thermon.com

European Headquarters
Boezemweg 25 • PO Box 205
2640 AE Pijnacker • The Netherlands
Phone: +31 (0) 15-36 15 370

Corporate Headquarters
100 Thermon Dr. • PO Box 609
San Marcos, TX 78667-0609 • USA
Phone: +1 512-396-5801

For the Thermon office nearest you
visit us at . . .
www.thermon.com