

TubeTrace® & ThermoTube



Product Reference Legend (Metric Units)

For design assistance contact Thermon or visit www.thermon.com and download CompuTrace® IT Computer Design Software for Instrument Tubing

Typical Electrically Heat Traced Bundles

SE-12 F1-63-7-ATP-1-M⁷

Bundle Type	Process Tube O.D.	Process Tube Material	Number of Tubes ⁶	Heater Cable Option	Jacket Type	Process Tube(s) Wall Thickness (inches)	M or I
SE = Single Tube							Metric or Imperial
ME = Multiple Tubes							
	<u>Metric</u>						
	6 = 6 mm	A = 316L SS Welded	1	1=BN (HPT Only)	ATP ⁵	030 = .030	
	8 = 8 mm	As = 316Ti SS Welded	2	3=OJ (BSX Only)	TPU	032 = .032 (Copper Only)	
	10 = 10 mm	B = B68 Copper	3	7=OJ/Fluoropolymer		035 = .035	
	12 = 12 mm	C = PFA Teflon ²	4	8=Division 1 Approved ⁴		040 = .040 (Plastic Only)	
	<u>Imperial</u>	D = Monel ³				047 = .047 (Plastic Only)	
	1 = 1/8"	E = Titanium				049 = .049	
	2 = 1/4"	F = 316L SS Seamless				062 = .062 (Plastic Only)	
	3 = 3/8"	Fs = 316Ti SS Seamless				065 = .065	
	4 = 1/2"	G = 304 SS Welded				1 = 1 mm	
	6 = 3/4"	H = 304 SS Seamless				1.5 = 1.5 mm ⁷	
		J = Hastaloy C276					
		K = Alloy 825					
		M = FEP Teflon					
		P = Polyethylene					
		T = PTFE Teflon					
		X = Special					

Heat Trace Type (See Heat Trace Application Below)

Self-Regulating Cables Power-Limiting Cables

41 = BSX 9 W/m 230 V	51 = HPT 14 W/m 230 V
43 = BSX 15 W/m 230 V	53 = HPT 28 W/m 230 V
45 = BSX 25 W/m 230 V	55 = HPT 42 W/m 230 V
47 = BSX 32 W/m 230 V	57 = HPT 57 W/m 230 V
61 = HTSX 9 W/m 230 V	
63 = HTSX 18 W/m 230 V	
65 = HTSX 27 W/m 230 V	
67 = HTSX 37 W/m 230 V	
69 = HTSX 48 W/m 230 V	
71 = HTSX 64 W/m 230 V	
91 = VSX-HT 16 W/m 230 V	
93 = VSX-HT 33 W/m 230 V	
95 = VSX-HT 49 W/m 230 V	
97 = VSX-HT 66 W/m 230 V	

Notes

- Contact factory for options of tubing 25 mm (1") O.D. (not available in all materials).
- Teflon is a trademark of E.I. du Pont de Nemours & Co., Inc.
- Monel and Inconel are trademarks of Inco Alloys International, Inc.
- Contact factory for design review.
- Black ATP is standard, other jacket materials include TPU (Urethane)
- Maximum number of tubes dependent on tube size.
- Ensure distinction between metric and imperial tubing are noted.

A complete line of accessories for TubeTrace and ThermoTube are available.



Typical TubeTrace Type ME

Typical TubeTrace Type MP

Typical ThermoTube Type SL

Typical Steam Traced Bundles

SP-12F1-10F1-ATP-1/1-M⁷

Bundle Type	Process Tube(s) O.D.	Process Tube Material	Number of Process Tube(s) ⁶	Tracer Tube O.D.	Jacket Type	Process Tube(s) Wall Thickness	Tracer Tube(s) Wall Thickness (inches)	M or I
SI = Single Isolated Tube								Metric or Imperial
MI = Multiple Isolated Tubes								
SP = Single Tube								
MP = Multiple Tubes								
	<u>Metric</u>							
	6 = 6 mm	A = 316L SS Welded	1	6 = 6 mm	ATP ⁵	035 = .035	035 = .035	
	8 = 8 mm	As = 316Ti SS Welded	2	8 = 8 mm	TPU	040 = .040 (Plastic Only)	040 = .040 (Plastic Only)	
	10 = 10 mm	B = B68 Copper		10 = 10 mm		047 = .047 (Plastic Only)	047 = .047 (Plastic Only)	
	12 = 12 mm	C = PFA Teflon ²		12 = 12 mm		049 = .049	049 = .049	
	<u>Imperial</u>	D = Monel ³		6 = 6 mm		062 = .062 (Plastic Only)	062 = .062 (Plastic Only)	
	1 = 1/8"	E = Titanium		10 = 10 mm		065 = .065	065 = .065	
	2 = 1/4"	F = 316L SS Seamless		12 = 12 mm		1 = 1 mm	1 = 1 mm	
	3 = 3/8"	Fs = 316Ti SS Seamless		Imperial		1.5 = 1.5 mm ⁷	1.5 = 1.5 mm ⁷	
	4 = 1/2"	G = 304 SS Welded						
		H = 304 SS Seamless						
		J = Hastaloy C276						
		K = Alloy 825						
		M = FEP Teflon						
		P = Polyethylene						
		T = PTFE Teflon						
		X = Special						

ThermoTube® Type SL Pre-Insulated Tubing (For Steam Supply and Condensate Return-Not Heated)

SL-12B1-01-ATP-M⁷

Bundle Type	Tube O.D.	Tube Material	Number of Process Tubes	Tube Wall Thickness (inches)	Jacket Type	M or I
SL = Single Tube						Metric or Imperial
	<u>Metric</u>					
	6 = 6 mm	A = 316L SS Welded	1	30 = .030	ATP ⁵	
	8 = 8 mm	As = 316Ti SS Welded		32 = .032 (Copper Only)	TPU	
	10 = 10 mm	B = B68 Copper		35 = .035		
	12 = 12 mm	C = PFA Teflon ²		40 = .040 (Plastic Only)		
	<u>Imperial</u>	D = Monel ³		47 = .047 (Plastic Only)		
	2 = 1/4"	E = Titanium		49 = .049		
	3 = 3/8"	F = 316L SS Seamless		62 = .062 (Plastic Only)		
	4 = 1/2"	Fs = 316Ti SS Seamless		65 = .065		
		G = 304 SS Welded		1 = 1 mm		
		H = 304 SS Seamless		1.5 = 1.5 mm ⁷		
		J = Hastaloy C276				
		K = Alloy 825				
		M = FEP Teflon				
		P = Polyethylene				
		T = PTFE Teflon				
		X = Special				

Electrical Heat Trace Application

For Freeze Protection or Maintain 65°C NO STEAM OUTS

Heat Trace Exposure* Limited to 85°C

BSX Self-Regulating Heat Tracing (All BSX includes braid & overjacket. Standard overjacket is polyolefin, also available with an optional fluoropolymer overjacket.)

41 = BSX 9 W/m 230 V	45 = BSX 25 W/m 230 V	47 = BSX 32 W/m 230 V
43 = BSX 15 W/m 230 V		

For Freeze Protection or Maintain 121°C

Heat Trace Exposure* to 215°C

HTSX Self-Regulating Heat Tracing (All HTSX cables include braid & overjacket BNOI)

61 = HTSX 9 W/m 230 V	65 = HTSX 27 W/m 230 V	69 = HTSX 48 W/m 230 V
63 = HTSX 18 W/m 230 V	67 = HTSX 37 W/m 230 V	71 = HTSX 64 W/m 230 V

For Freeze Protection or Maintain 200°C

Heat Trace Exposure* to 250°C

VSX-HT Self-Regulating Heat Tracing (All VSX-HT cables include braid & overjacket BNOI)

91 = VSX-HT 15 W/m 230 V	95 = VSX-HT 48 W/m 230 V	97 = VSX-HT 64 W/m 230 V
93 = VSX-HT 32 W/m 230 V		

For Freeze Protection or Maintain 205°C

Exposure** to 260°C

HPT Power-Limiting Heat Tracing (All HPT cables include BN braid & may include OJ)

51 = HPT 14 W/m 230 V	55 = HPT 42 W/m 230 V	57 = HPT 57 W/m 230 V
53 = HPT 28 W/m 230 V		

* Exposure temperatures are generally with cable de-energized (off). Exceptions are for HTSX and VSX-HT self-regulating heat tracing ratings which allow intermittent exposure, on or off.

** Standard TubeTrace and ThermoTube bundles have a maximum tube temperature rating of 204°C if outer jacket is to remain below 60°C in a max ambient of 27°C with no wind. Extra insulation (bundle option "XINS") maybe considered if tube temperatures approach HPT Power-limiting heating cable limits of 260°C, power off. For higher exposures (up to 588°C) consider TubeTrace HT or HTX bundles.