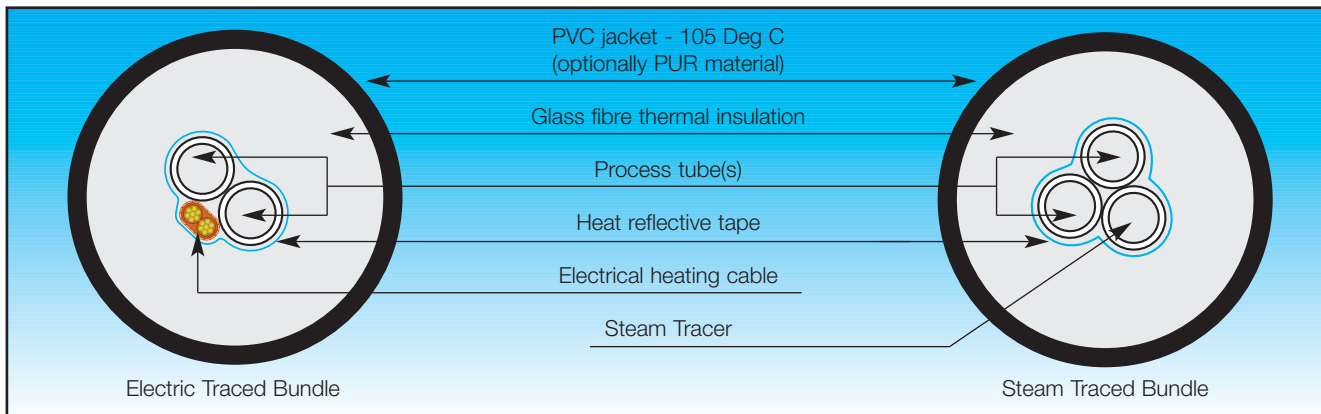


HOTLINE™ Insulated Tubing for Steam Supply & Condensate Returns Lines



ELECTRIC TRACED TUBING BUNDLE

H	L	1	3	/	8	C	0	3	5	1	7	F	S	E	2	-	C	T	HOTLINE™ Electric Traced, Tube Bundle
																		* Overjacket (T)hermoplastic or (F)luoropolymer	
																		* Tinned Copper Braid	
																		Power Supply Voltage, 115V or 230V	
																		Heating Cable Type	
																		Process Tube Wall Thickness 0.030", 0.032", 0.035", 0.049"	
																		Process Tube Material (S)eamless Stainless Steel, (W)elded Stainless Steel, (C)opper	
																		Process Tube Size 1/4", 3/8", 1/2"	
																		Single (1) or Dual (2) Process Tube(s)	
																		HOTLINE™ Pre-Insulated Tube Bundle	

* Not applicable to AHT heating cable

STEAM TRACED TUBING BUNDLE

L	H	L	1	1	/	4	S	0	4	9	B	HOTLINE™ Steam Traced, Tube Bundle
												Steam Tracer Type A 1/4" x 0.030" Copper, B 3/8" x 0.032" Copper
												Process Tube Wall Thickness 0.030", 0.032", 0.035", 0.049"
												Process Tube Material (S)eamless Stainless Steel, (W)elded Stainless Steel, (C)opper
												Process Tube Size 1/4", 3/8", 1/2"
												Single (1) or Dual (2) Process Tube(s)
												HOTLINE™ Pre-Insulated Tube Bundle
												(L)ight or (H)eavy Steam Traced

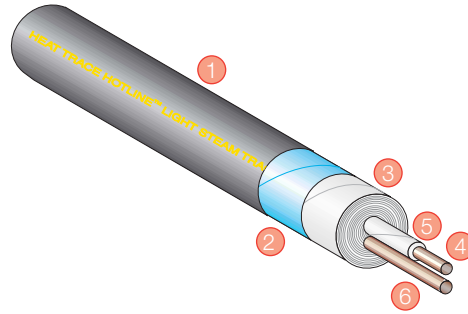
PRE-INSULATED TUBING BUNDLE

H	L	1	1	/	4	S	0	4	9	HOTLINE™ Pre-Insulated Tube Bundle
										Process Tube Wall Thickness 0.030", 0.032", 0.035", 0.049"
										Process Tube Material (S)eamless Stainless Steel, (W)elded Stainless Steel, (C)opper
										Process Tube Size 1/4", 3/8", 1/2"
										Single (1) or Dual (2) Process Tube(s)
										HOTLINE™ Pre-Insulated Tube Bundle

Steam Traced Tube Bundles

HOTLINE™ LIGHT STEAM TRACE TUBE BUNDLES

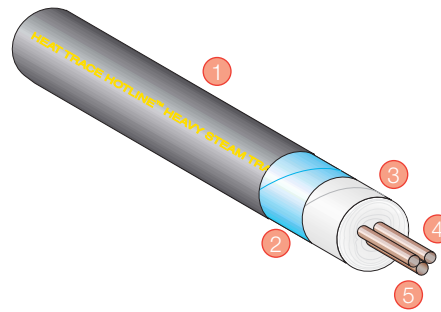
The HOTLINE™ “light” steam trace tubing consists of a single thermally insulated process line and a single thermally insulated tracer. This is designed for temperature sensitive process lines, sample lines and impulse lines to help prevent freezing and protect fluids against high temperature degradation.



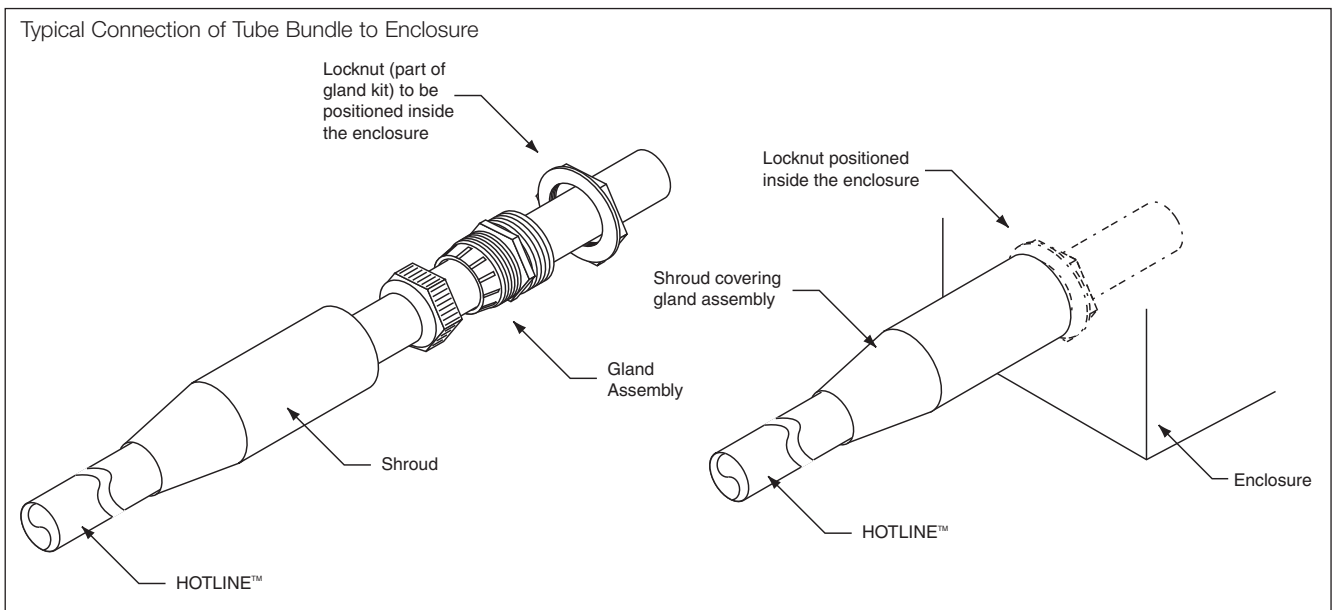
- Black Thermoplastic Jacket ①
- Heat Reflective Tape ②
- Non-hygroscopic Glass Fibre ③
- Process Tube ④
- Non-hygroscopic Glass Fibre ⑤
- Steam Tracer ⑥

HOTLINE™ HEAVY STEAM TRACE TUBE BUNDLES

The HOTLINE™ “heavy” steam trace bundle consists of multiple process lines and a single tracer line designed for the direct heating of process lines and impulse lines.



- Black Thermoplastic Jacket ①
- Heat Reflective Tape ②
- Non-hygroscopic Glass Fibre ③
- Process Tubes ④
- Steam Tracer ⑤



Design Performance

DESIGN PERFORMANCE

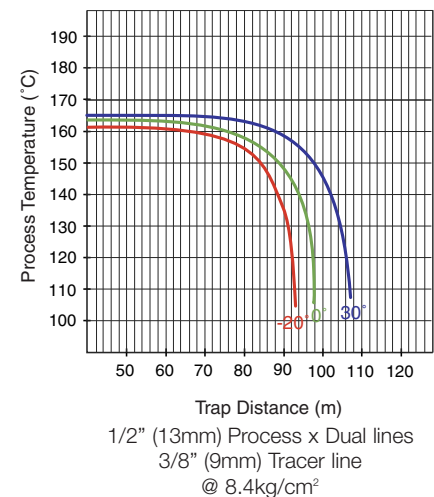
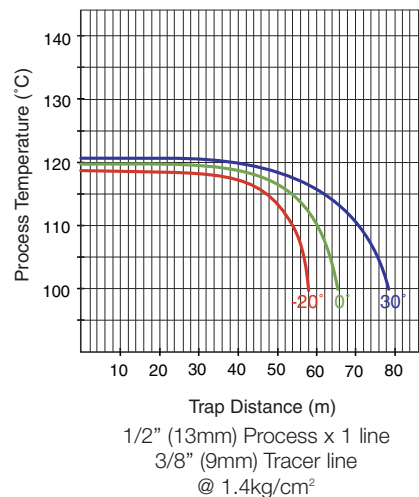
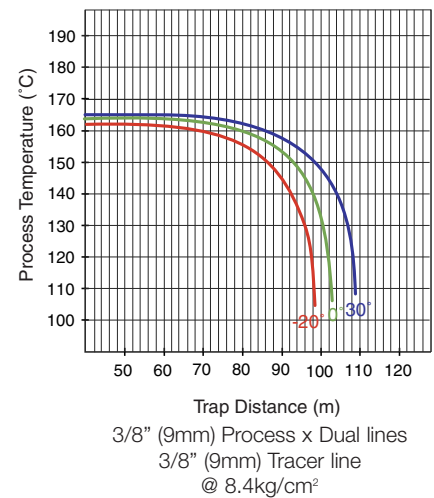
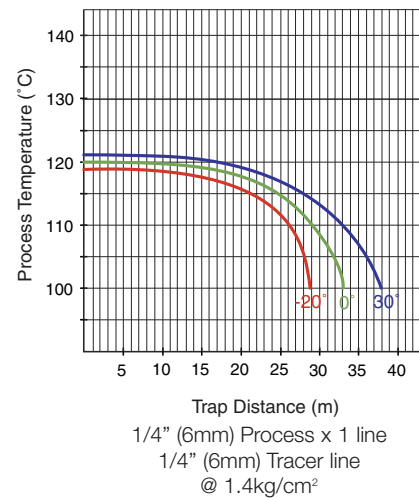
Design Performance

The HOTLINE™ system is designed such that the outer jacket surface temperature will not exceed 60°C, when the process tube is at 200°C and the ambient temperature is at 27°C.

Typical Tube Bundle Data

Process Tube O.D.		Steam Tracer O.D.	Overall Bundle O.D. (mm)	Nom. Bundle Weight (kg/m)	Min. Bending Radius (mm)
Single Tube	Dual Tube				
1/4"	-	1/4"	30.5	0.75	200
3/8"	-	1/4"	35	0.9	250
3/8"	-	3/8"	39	1.05	300
1/2"	-	3/8"	40.5	1.15	300
-	1/4"	1/4"	35	0.9	300
-	3/8"	3/8"	39	1.15	350
-	1/2"	3/8"	40.5	1.3	350

PERFORMANCE CURVES

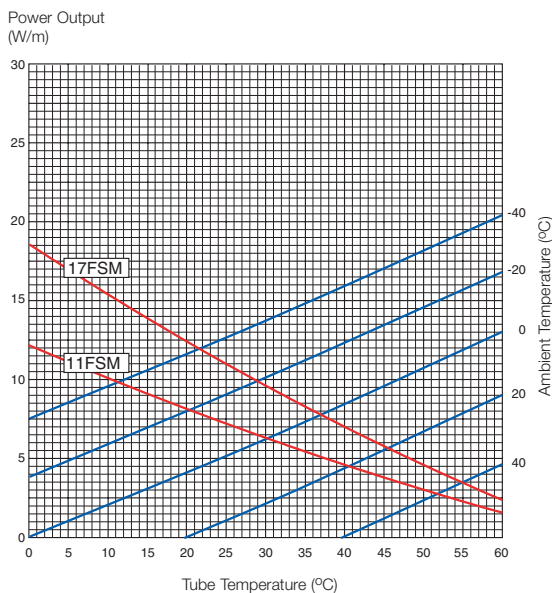


HOTLINE™ ELECTRIC TRACING PERFORMANCE

The following are *typical* performance charts. This is because we have various power outputs available and there are a multitude of line sizes and materials. The charts provide a guide only to a systems potential performance.



1. FSM FREEZESTOP MICRO self-regulating heating cable

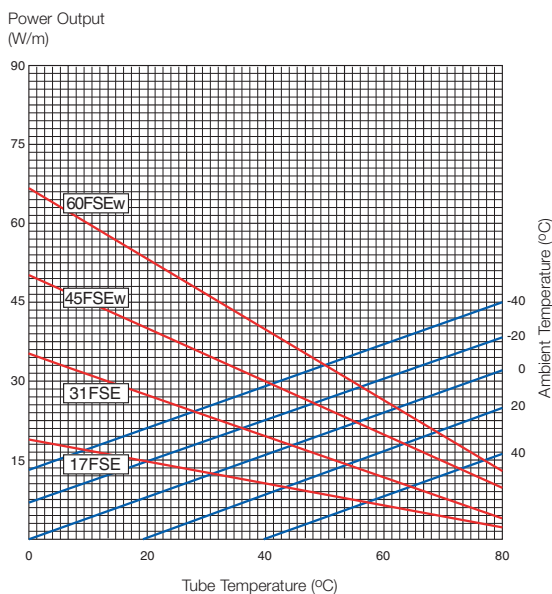


1 x 6mm copper tube
 Heating cable power output curves are based on 115V or 230V power supplies

Winterisation and low temperature maintenance



2. FSE FREEZESTOP EXTRA self-regulating heating cable

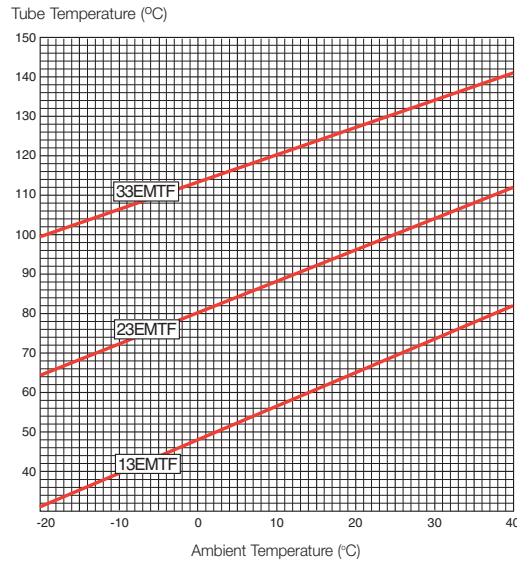


1 x 19mm stainless steel tube
 Heating cable power output curves are based on 115V or 230V power supplies

Process temperature maintenance to 70°C

Electric Heat Traced Tube Bundles

3. EMTF MICROTRACER constant power heating cable

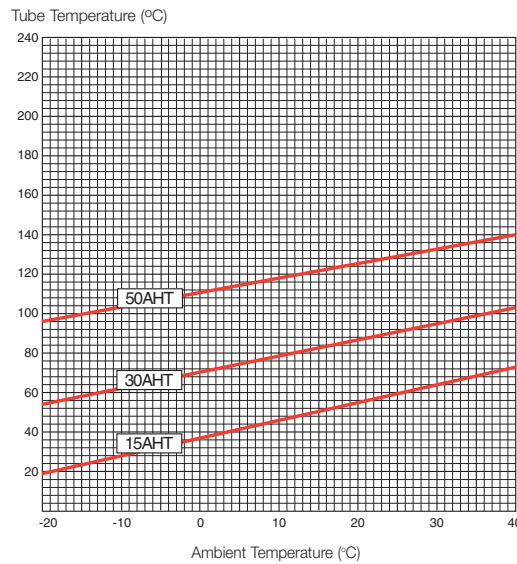


SINGLE

1 x 9mm process tube

Process temperature maintenance to 120°C

4. AHT POWERHEAT constant power heating cable



DUAL

2 x 9mm process tubes

Process temperature maintenance to 300°C

Electric Heater Types

Cable	FSM FREEZSTOP MICRO	FSE FREEZSTOP EXTRA	EMTF MICROTRACER	AHT POWERHEAT
Output	11W/m @ 5 Deg C 17W/m @ 5 Deg C	17W/m @ 10 Deg C 31W/m @ 10 Deg C 45W/m @ 10 Deg C 60W/m @ 10 Deg C	13W/m 23W/m 33W/m	15W/m 30W/m 50W/m
Max. Process	65 Deg C	85 Deg C	205 Deg C	425 Deg C
Voltage	115/230V	115/230V	115/230V	115/230V
Approvals				
FM Cert.	3009080	from Dec 2002	from Dec 2002	3009080
ATEX Cert.	Sira 02ATEX3075	Sira 02ATEX3076	-	Sira 02ATEX3079
SIRA Cert.	SCS Ex 99E3147	-	-	SCS Ex 94D3114
Standard	EN50019 IEEE 515	EN50019 IEEE 515	EN50019 IEEE 515	EN50019 IEEE 515

Presented by:



ibemo Kazakhstan Ltd.

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ПОСТАВЩИК ИНДУСТРИАЛЬНОГО И ЭЛЕКТРИЧЕСКОГО ОБОРУДОВАНИЯ И МАТЕРИАЛОВ
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