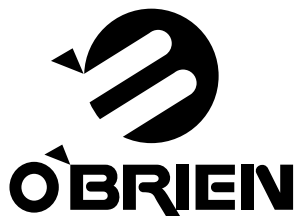


TECHNICAL SPECIFICATIONS

TRACEPAK



TRACEPAK® TPL AND TPH

Technical Specifications

Model Number

Product Family

TPL1	Preinsulated Light Steam Traced Single Process Tube
TPL2	Preinsulated Light Steam Traced Dual Process Tubes
TPH1	Preinsulated Heavy Steam Traced Single Process Tube
TPH2	Preinsulated Heavy Steam Traced Dual Process Tubes

Process and Tracer Tubes

MF6	6mm x 1mm wall seamless 316 SS
MF8	8mm x 1mm wall seamless 316 SS
MB10	10mm x 1.5mm wall seamless 316 SS
MB12	12mm x 1.5mm wall seamless 316 SS
MD6	6mm x 1mm wall copper
MD8	8mm x 1mm wall copper
MD10	10mm x 1mm wall copper
MD12	12mm x 1mm wall copper
MG6	6mm x 1mm wall PFA Teflon*
MG8	8mm x 1mm wall PFA Teflon*
MG10	10mm x 1mm wall PFA Teflon*
MG12	12mm x 1mm wall PFA Teflon*
A2	¼" x 0.035 wall welded 316 SS
A3	⅜" x 0.035 wall welded 316 SS
A4	½" x 0.035 wall welded 316 SS
F1	⅛" x 0.035 wall seamless 316 SS
F2	¼" x 0.035 wall seamless 316 SS
F3	⅜" x 0.035 wall seamless 316 SS
B4	½" x 0.049 wall seamless 316 SS
J2	¼" x 0.030 wall copper
C3	⅜" x 0.032 wall copper
M4	½" x 0.049 wall copper
G2	¼" OD x 0.030 wall PFA Teflon*
G3	⅜" OD x 0.030 wall PFA Teflon*
H4	½" OD x 0.062 wall PFA Teflon*
N2	¼" OD x 0.035 wall seamless Monel® 400
N3	⅜" OD x 0.035 wall seamless Monel 400
P4	½" OD x 0.049 wall seamless Monel 400

*Not recommended for use as tracer.

Examples:

TPL2-MB12-MD8

Two 12mm x 1.5mm wall seamless 316 SS process lines with a 8mm x 1mm wall copper tracer.

TPH2-MB12-MD8

Two 12mm x 1.5mm wall seamless 316 SS process lines with a 8mm x 1mm wall copper tracer.

Material Specifications

Jacket

Thermoplastic Polyether Urethane Elastomer
Hydrolytically Stabilized
Halogen Free
Abrasion Resistant
UV Resistant
Low Temperature Flexibility

Insulation

Fibrous Glass
Water Soluble Chlorides less than 100 ppm.
Non-hygroscopic

Tubing

OD	WALL	MATERIAL AND CONSTRUCTION	ASTM
6mm	1 mm	seamless 316 SS	A-269, A-213 EAW
8mm	1mm	seamless 316 SS	A-269, A-213 EAW
10mm	1.5mm	seamless 316 SS	A-269, A-213 EAW
12mm	1.5mm	seamless 316 SS	A-269, A-213 EAW
6mm	1mm	copper	B-68, B-75
8mm	1mm	copper	B-68, B-75
10mm	1mm	copper	B-68, B-75
12mm	1mm	copper	B-68, B-75
6mm	1mm	PFA Teflon	
8mm	1mm	PFA Teflon	
10mm	1mm	PFA Teflon	
12mm	1mm	PFA Teflon	
¼"	0.035	welded 316 SS	A-269
⅜"	0.035	welded 316 SS	A-269
½"	0.035	welded 316 SS	A-269
⅛"	0.035	seamless 316 SS	A-269, A-213 EAW
¼"	0.035	seamless 316 SS	A-269, A-213 EAW
⅜"	0.035	seamless 316 SS	A-269, A-213 EAW
½"	0.049	seamless 316 SS	A-269, A-213 EAW
¼"	0.030	copper	B-68, B-75
⅜"	0.032	copper	B-68, B-75
½"	0.049	copper	B-68, B-75
¼"	0.030	PFA Teflon	
⅜"	0.030	PFA Teflon	
½"	0.062	PFA Teflon	
¼"	0.035	seamless Monel 400	B-163, B-165
⅜"	0.035	seamless Monel 400	B-163, B-165
½"	0.049	seamless Monel 400	B-163, B-165

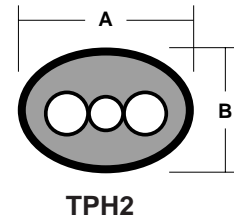
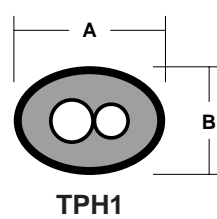
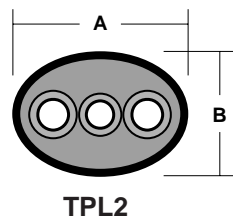
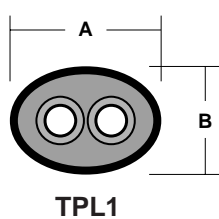
Metric tubing is provided with inspection certificate 3.1.B per EN10204. Tubing meeting NACE MR-01-75-90 is also stocked. Consult factory for the availability of other materials and specifications.

Temperature Limits

Minimum installation temperature -40°C
Maximum process temperature 204°C
Maximum tracer temperature 204°C
Maximum jacket surface temperature 60°C at ambient temperature of 27°C with a 16 km/h wind.

Installation and Dimensions

	MIN. BEND RADIUS - MM	SUPPORT CENTERS - M		NOMINAL WT. KG/M	NOMINAL DIMENSIONS - MM	
		HORIZ.	VERT.		A	B
TPL1- One 8mm Process with 8mm Tracer	200	1.5	4.0	.74	41	28
TPL1- One 12mm Process with 8mm Tracer	200	1.5	4.0	.89	48	30
TPL1- One 12mm Process with 12mm Tracer	200	1.5	4.0	1.04	48	30
TPL2- Two 8mm Process with 8mm Tracer	200	1.5	4.0	.89	58	30
TPL2- Two 12mm Process with 8mm Tracer	200	1.5	4.0	1.19	66	33
TPL2- Two 12mm Process with 12mm Tracer	200	1.5	4.0	1.34	66	33
TPH1- One 8mm Process with 8mm Tracer	200	1.5	4.0	.74	38	30
TPH1- One 12mm Process with 8mm Tracer	200	1.5	4.0	.89	41	30
TPH1- One 12mm Process with 12mm Tracer	200	1.5	4.0	1.04	43	30
TPH2- Two 8mm Process with 8mm Tracer	200	1.5	4.0	.89	51	30
TPH2- Two 12mm Process with 12mm Tracer	200	1.5	4.0	1.19	56	30



Typical Performance

The information presented represents typical performance data for the conditions given. Actual results may vary with the conditions of installation. For critical applications, consult the factory for specific performance data.

Winter ambients, below 16°C, assume a 40 km/h wind and summer ambients, above 16°C, assume a 16 km/h wind. For freeze protection use 10°C as the minimum allowable process tube temperature. This will provide a sufficient safety factor.

Expected process temperatures for ambient conditions not shown can be determined by interpolation.

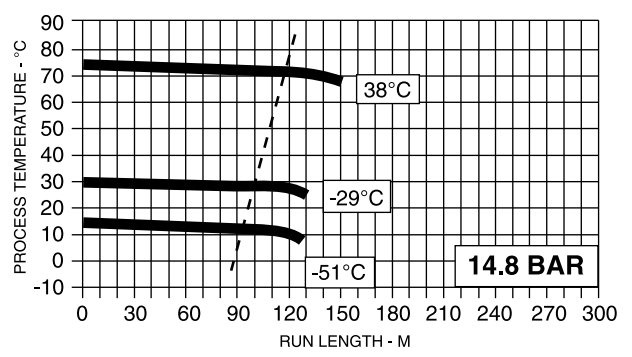
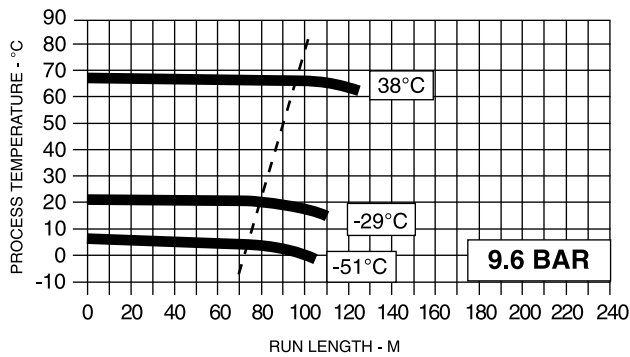
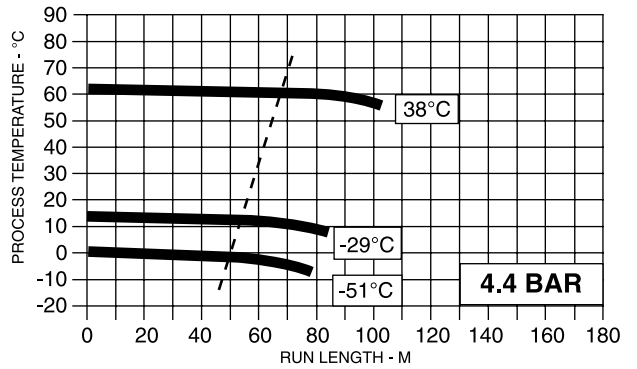
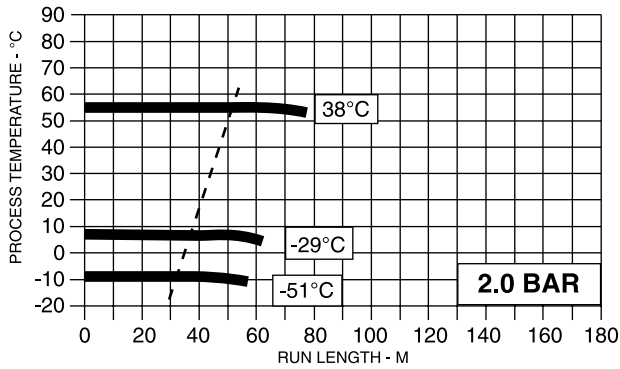
Ideal design of a steam traced installation dictates a slope of 20mm per meter of run and a maximum steam pressure drop of 10%. The dashed line (---) on the graphs indicates the length at which a 10% drop in steam pressure can be expected.

Recommended Accessories

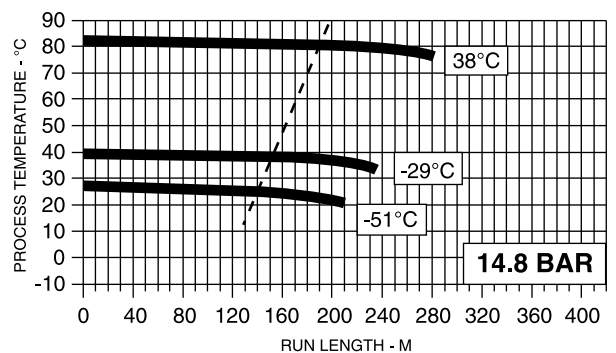
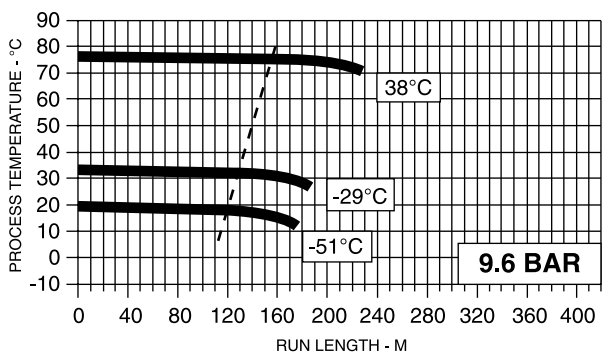
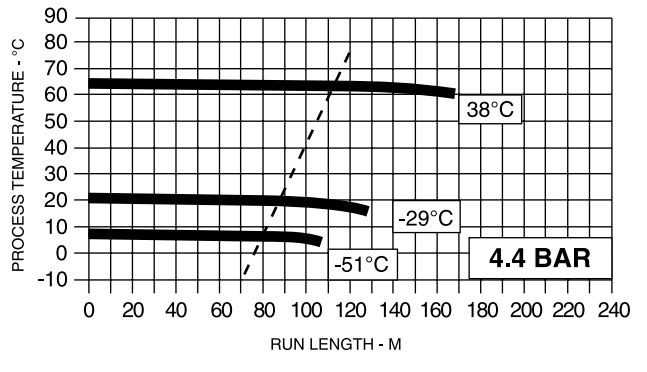
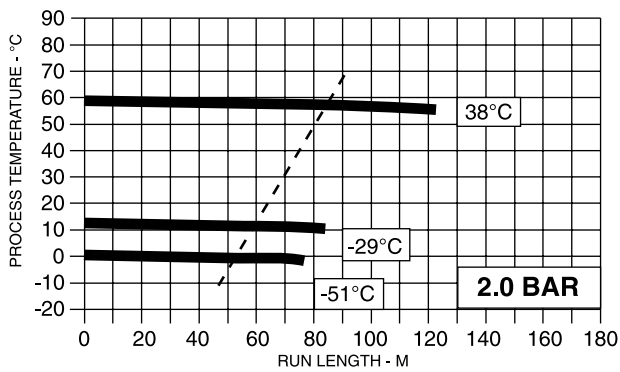
Silicone Sealant	Model TPKSK-3 or -10
Heat Shrink Boot	Model TPKHS-C2, -D2, -A3 or -B3
Jacket Patch Kit	Model TPKJP-1 or -2

Typical Performance-TPL1

TPL1 - 12mm Process with 8mm Tracer

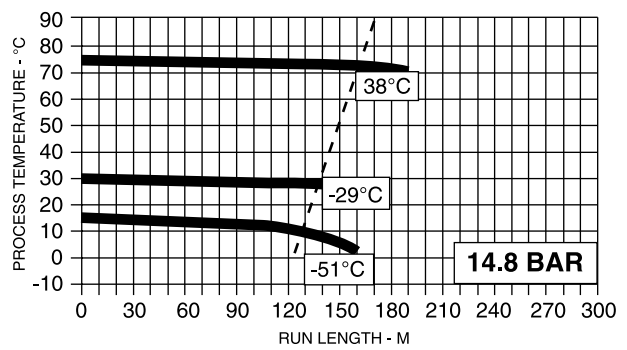
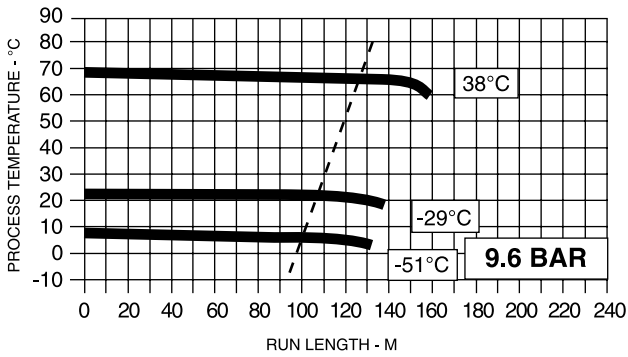
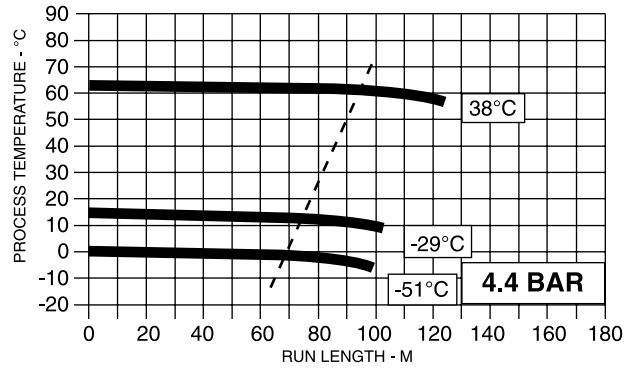
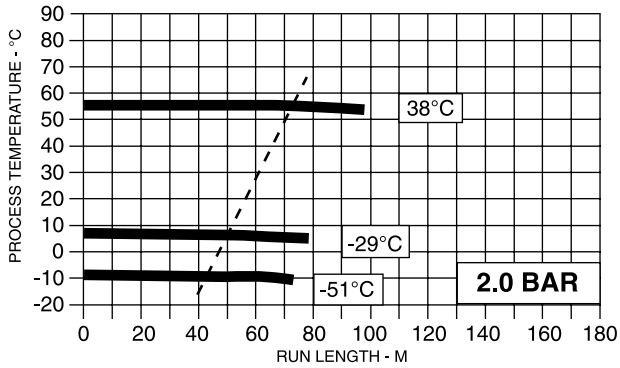


TPL1 - 12mm Process with 12mm Tracer

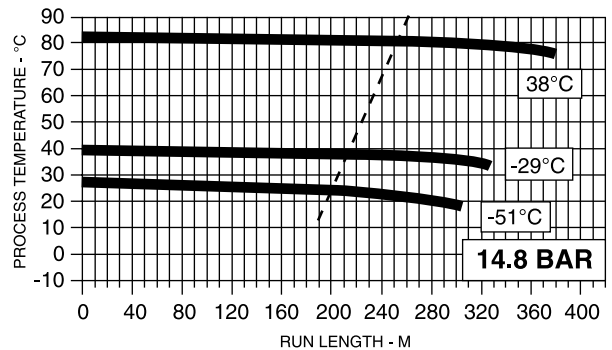
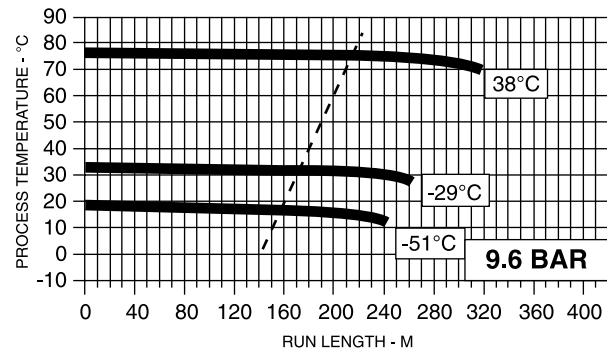
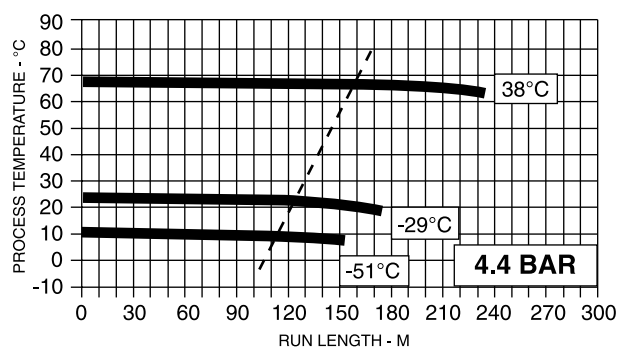
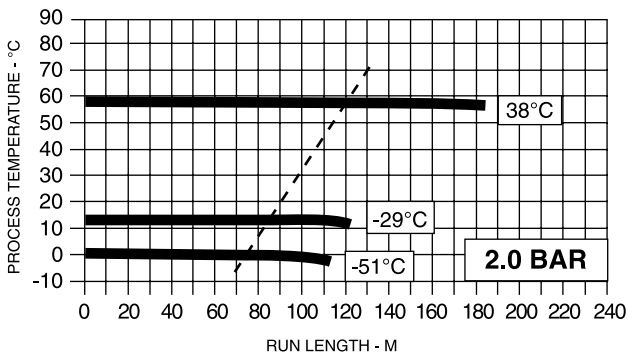


Typical Performance-TPL2

TPL2 - 12mm Process with 8mm Tracer

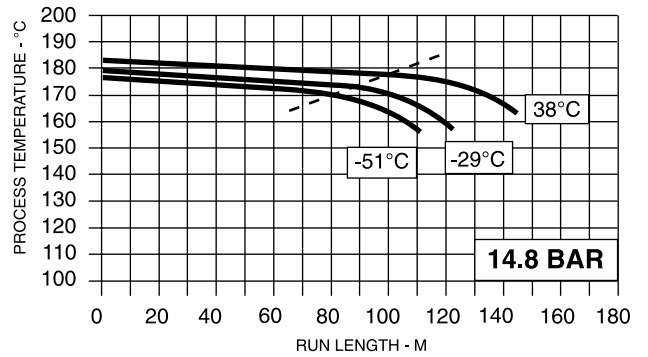
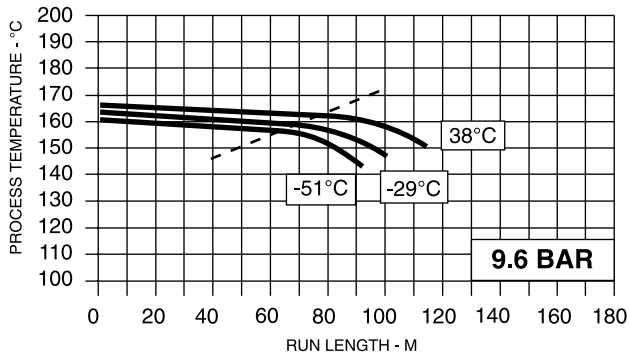
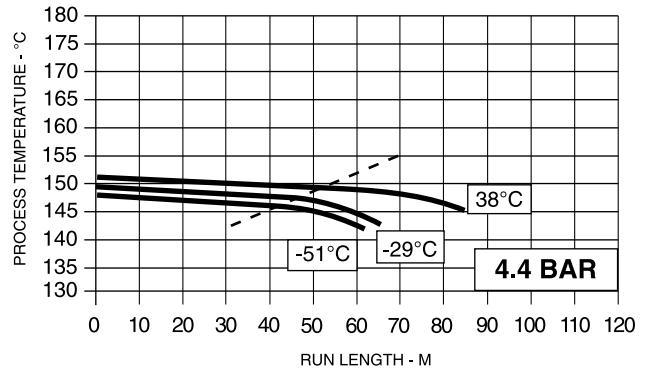
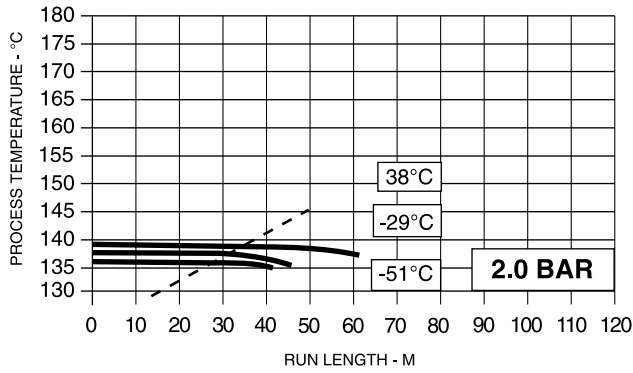


TPL2 - 12mm Process with 12mm Tracer

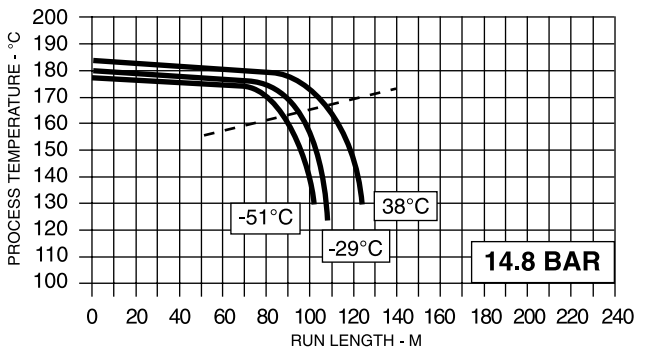
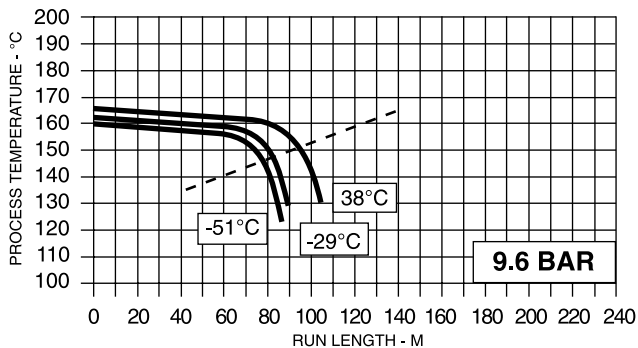
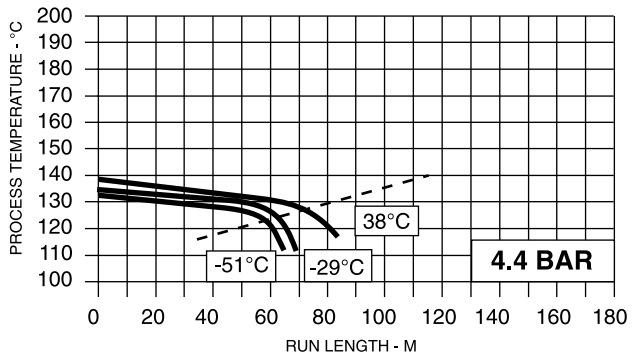
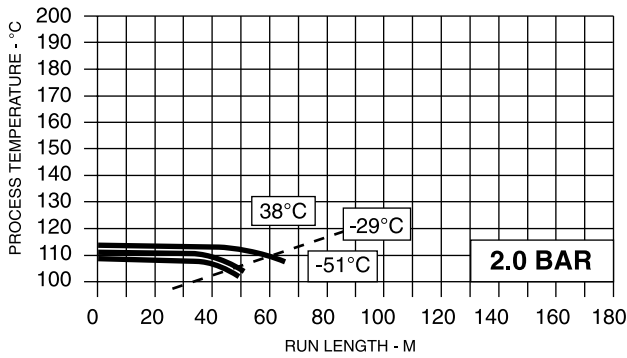


Typical Performance-TPH1

TPH1 - 8mm Process with 8mm Tracer

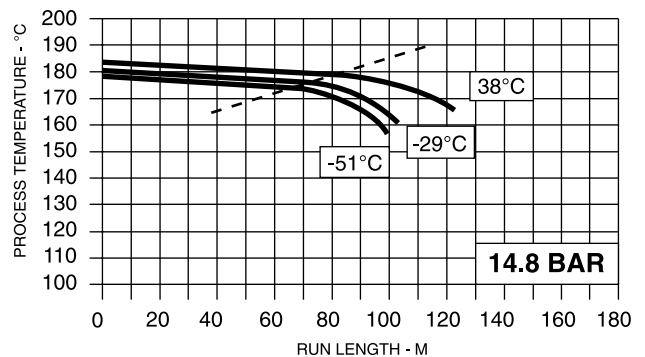
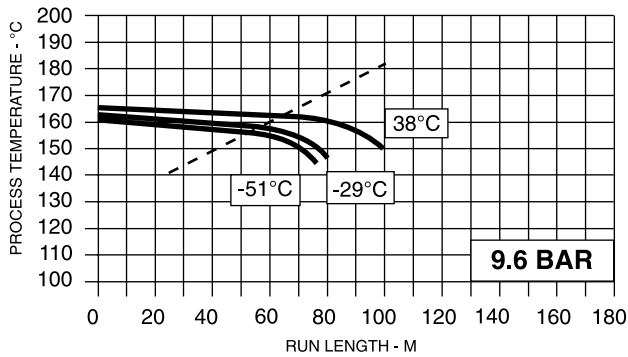
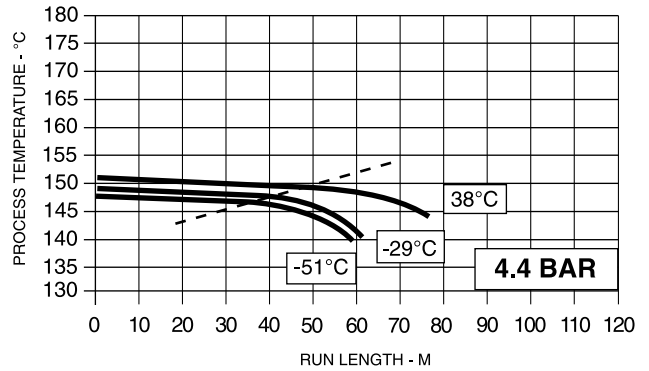
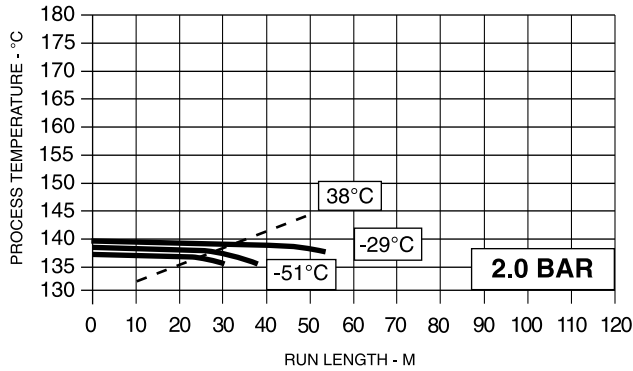


TPH1 - 12mm Process with 8mm Tracer

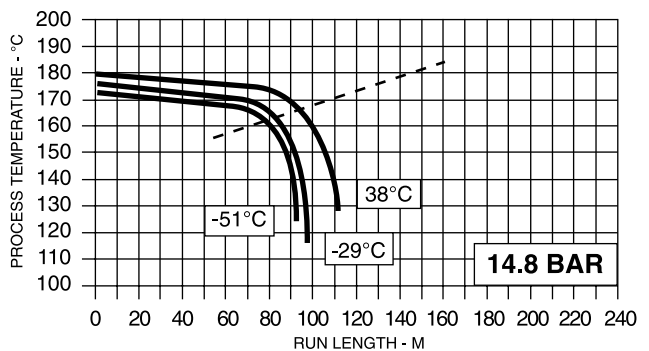
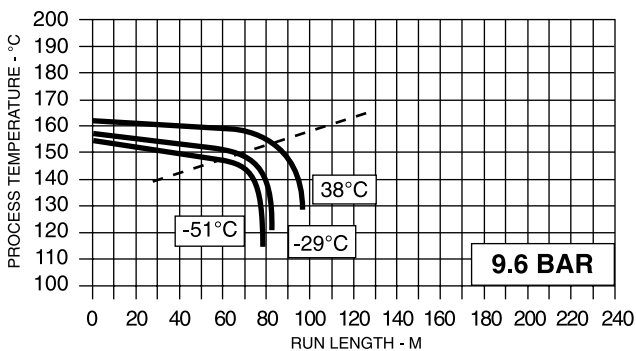
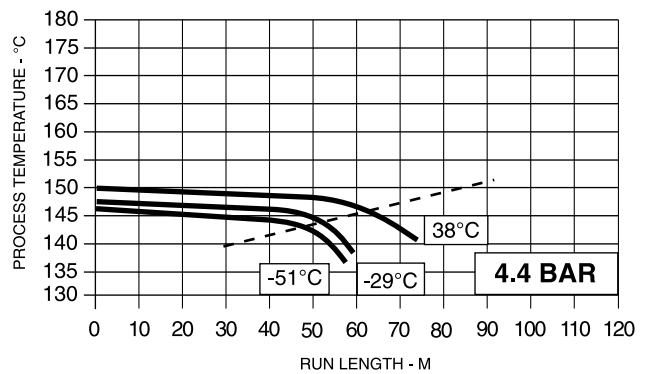
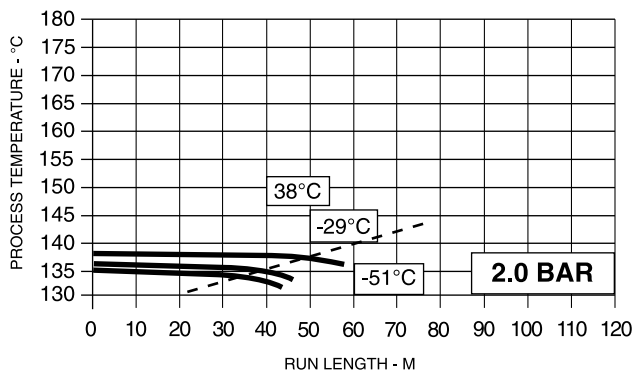


Typical Performance-TPH2

TPH2 - 8mm Process with 8mm Tracer



TPH2 - 12mm Process with 8mm Tracer



TRACEPAK® TPE

Self-Regulating Technical Specifications

Model Number

Product Family

TPE1 Electrically Traced Single Process Tube

TPE2 Electrically Traced Dual Process Tubes

Process Tube

MF6	6mm x 1mm wall seamless 316 SS
MF8	8mm x 1mm wall seamless 316 SS
MB10	10mm x 1.5mm wall seamless 316 SS
MB12	12mm x 1.5mm wall seamless 316 SS
MD6	6mm x 1mm wall copper
MD8	8mm x 1mm wall copper
MD10	10mm x 1mm wall copper
MD12	12mm x 1mm wall copper
MG6	6mm x 1mm wall PFA Teflon
MG8	8mm x 1mm wall PFA Teflon
MG10	10mm x 1mm wall PFA Teflon
MG12	12mm x 1mm wall PFA Teflon
A2	¼" x 0.035 wall welded 316 SS
A3	⅜" x 0.035 wall welded 316 SS
A4	½" x 0.035 wall welded 316 SS
F1	⅛" x 0.035 wall seamless 316 SS
F2	¼" x 0.035 wall seamless 316 SS
F3	⅜" x 0.035 wall seamless 316 SS
B4	½" x 0.049 wall seamless 316 SS
J2	¼" x 0.030 wall copper
C3	⅜" x 0.032 wall copper
M4	½" x 0.049 wall copper
G2	¼" OD x 0.030 wall PFA Teflon
G3	⅜" OD x 0.030 wall PFA Teflon
H4	½" OD x 0.062 wall PFA Teflon
N2	¼" OD x 0.035 wall seamless Monel 400
N3	⅜" OD x 0.035 wall seamless Monel 400
P4	½" OD x 0.049 wall seamless Monel 400

Tracer

XTV-High Temperature Heater

MN4 12 watt per meter @10°C, 240 vac

MN12 35 watt per meter @10°C, 240 vac

MN designated tracers are approved by:

BASEEFA Ex e II T3

PTB Ex s II T3

BTV-Low Temperature Heater

P5 15 watt per meter @10°C, 240 vac

P10 32 watt per meter @10°C, 240 vac

P designated tracers are approved by:

BASEEFA Ex e II T6

PTB Ex s II T6

Example:

TPE2-MB12-MN4

Two 12mm x 1.5mm wall seamless 316 SS process line with a 12 watt/m XTV tracer.

Material Specifications

Jacket

Thermoplastic Polyether Urethane Elastomer

Hydrolytically Stabilized

Halogen Free

Abrasion Resistant

UV Resistant

Low Temperature Flexibility

Insulation

Fibrous Glass

Water Soluble Chlorides less than 100 ppm.

Non-hygroscopic

Tubing

OD	WALL	MATERIAL AND CONSTRUCTION	ASTM
6mm	1 mm	seamless 316ss	A-269, A-213 EAW
8mm	1mm	seamless 316ss	A-269, A-213 EAW
10mm	1.5mm	seamless 316ss	A-269, A-213 EAW
12mm	1.5mm	seamless 316ss	A-269, A-213 EAW
6mm	1mm	copper	B-68, B-75
8mm	1mm	copper	B-68, B-75
10mm	1mm	copper	B-68, B-75
12mm	1mm	copper	B-68, B-75
6mm	1mm	PFA Teflon	
8mm	1mm	PFA Teflon	
10mm	1mm	PFA Teflon	
12mm	1mm	PFA Teflon	
¼"	0.035	welded 316ss	A-269
⅜"	0.035	welded 316ss	A-269
½"	0.035	welded 316ss	A-269
⅛"	0.035	seamless 316ss	A-269, A-213 EAW
¼"	0.035	seamless 316ss	A-269, A-213 EAW
⅜"	0.035	seamless 316ss	A-269, A-213 EAW
½"	0.049	seamless 316ss	A-269, A-213 EAW
¼"	0.030	copper	B-68, B-75
⅜"	0.032	copper	B-68, B-75
½"	0.049	copper	B-68, B-75
¼"	0.030	PFA Teflon	
⅜"	0.030	PFA Teflon	
½"	0.062	PFA Teflon	
¼"	0.035	seamless Monel 400	B-163, B-165
⅜"	0.035	seamless Monel 400	B-163, B-165
½"	0.049	seamless Monel 400	B-163, B-165

Metric tubing is provided with inspection certificate

3.1.B per EN10204. Tubing meeting NACE

MR-01-75-90 is also stocked. Consult factory for the availability of other materials and specifications.

Electric Tracer

TPE- Self Regulating products utilize Chemelex®

electric tracers. Chemelex Models 4XTV2-CT,

12XTV2-CT, 5BTV2-CT and 10BTV2-CT are

BASEEFA and PTB certified for use in hazardous

areas when installed with the recommended

components approved by the country of use.

Temperature Limits

Minimum installation temperature -40°C
 Maximum jacket surface temperature 60°C at ambient temperature of 27°C with a 16 km/h wind.

XTV Tracer- (MN designated tracer)

Maximum process tube maintenance temperature 120°C. For higher process tube maintenance temperatures, consult factory.

Maximum tracer temperature T3 - 200°C.

Maximum intermittent exposure 1000 hours (power on or off) 215°C.

Maximum continuous power off exposure 187°C.

BTV Tracer (P designated tracer)

Maximum process tube maintenance temperature 65°C.

Maximum tracer temperature T6 - 85°C.

Maximum intermittent exposure 85°C.

Optional Accessories

Thermostats When used with electrically traced tubing bundles, optional thermostats are used to control the temperature of the process tube or to turn on the heater at a specified ambient temperature. Consult your local representative to select the appropriate thermostat for your application.

Recommended Accessories

Silicone Sealant Model TPKSK-3 or -10
 Heat Shrink Boots Model TPKHS-D2 or -B3
 Jacket Patch Kits Model TPKJP-1 or -2

TRACER	POWER CONNECTION		TRACER TERMINATION	
	M25 THREADS	PG16 THREADS	HEAT SHRINK	MECHANICAL
5BTV-CT	C25-21	C16-29	E-06	E-12
10BTV-CT	C25-21	C16-29	E-06	E-14
4XTV-CT	C25-21	C16-29	E-19	E-23
12XTV-CT	C25-21	C16-29	E-19	E-23

Maximum Circuit Length Vs. Circuit Breaker Rating-XTV (m)

	START-UP TEMP. °C	240 VAC			
		16A	25A	32A	40A
4 XTV	-20	140	215	245	-----
Heater	10	165	245	-----	-----
12 XTV	-20	65	100	130	145
Heater	10	75	120	145	-----

Maximum Circuit Length Vs. Circuit Breaker Rating-BTV (m)

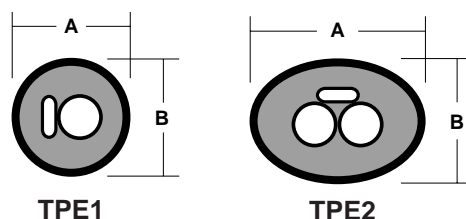
	START-UP TEMP. °C	240 VAC			
		16A	20A	25A	32A
5 BTV	-20	110	140	160	-----
Heater	10	160	-----	-----	-----
10 BTV	-20	55	70	85	100
Heater	10	85	100	-----	-----

Installation and Dimensions

	NOMINAL WT. KG/M	NOMINAL DIMENSIONS - MM	
		A	B
TPE1- 6mm Process Tube	0.45	28	25
TPE1- 8mm Process Tube	0.60	33	25
TPE1- 12mm Process Tube	0.74	36	28
TPE2- 6mm Process Tubes	0.60	33	28
TPE2- 8mm Process Tubes	0.89	38	30
TPE2- 12mm Process Tubes	1.19	43	36

Minimum bending radius 200mm.

Maximum support centers- Horizontal 1.5m, Vertical 4m.



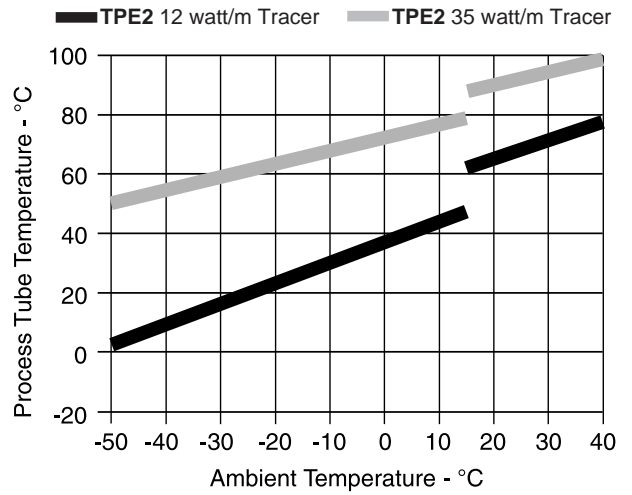
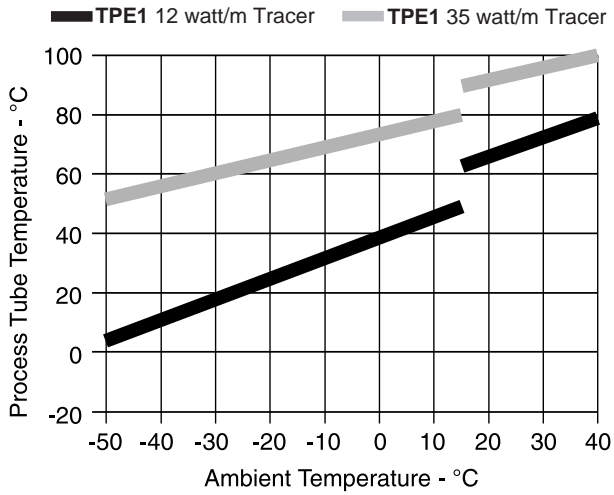
Typical Performance

The information presented represents typical performance data for the conditions given and at the rated voltage. Actual results may vary with the conditions of installation. For critical applications, consult the factory for specific performance data.

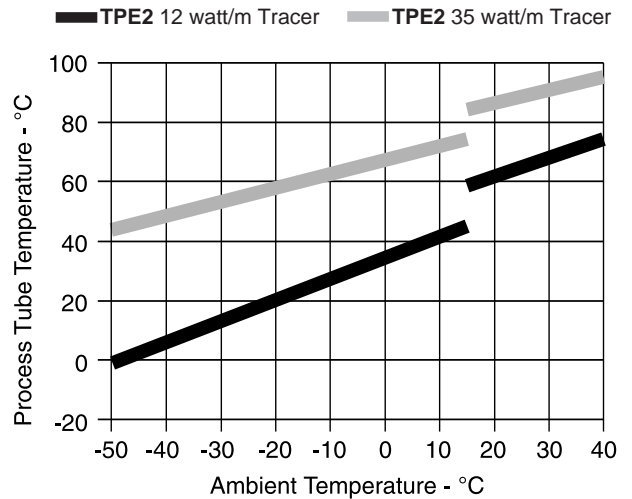
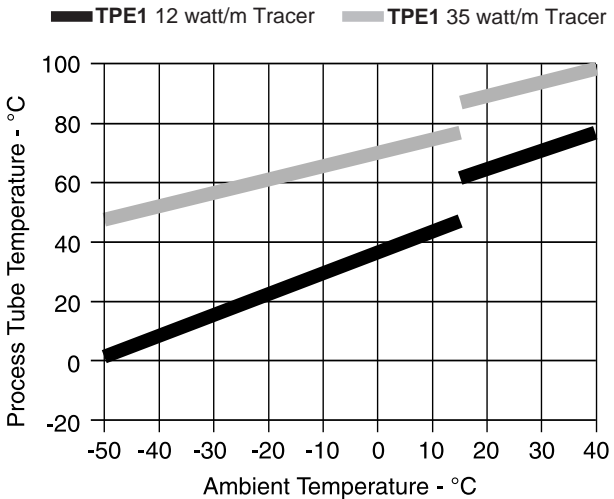
Winter ambients, below 16°C, assume a 40 km/h wind and summer ambients, above 16°C, assume a 16 km/h wind. For freeze protection use 10°C as the minimum allowable process tube temperature. This will provide a sufficient safety factor.

Typical Performance for XTV

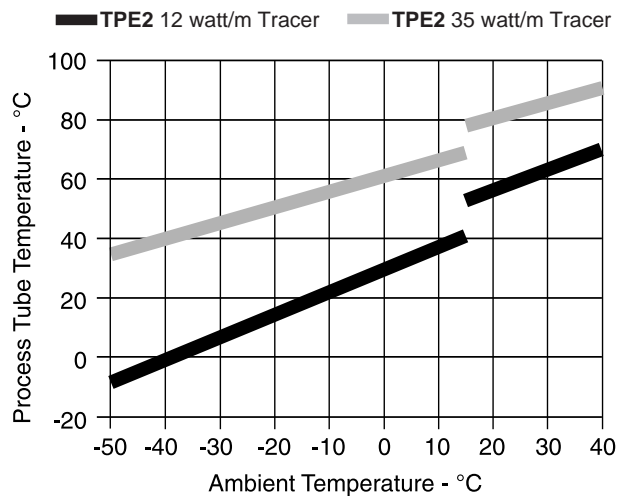
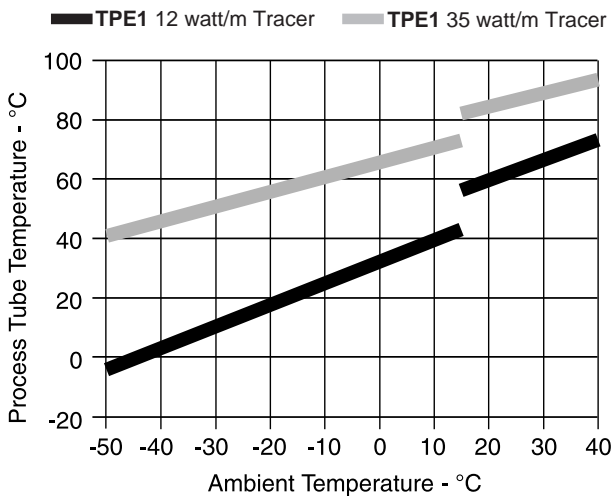
6mm Process



8mm Process

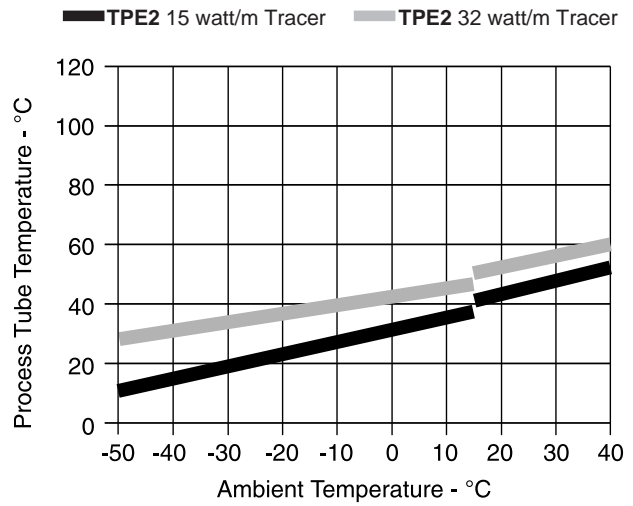
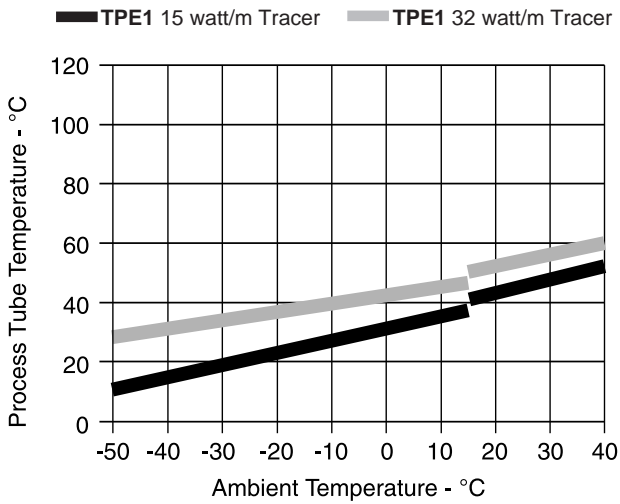


12mm Process

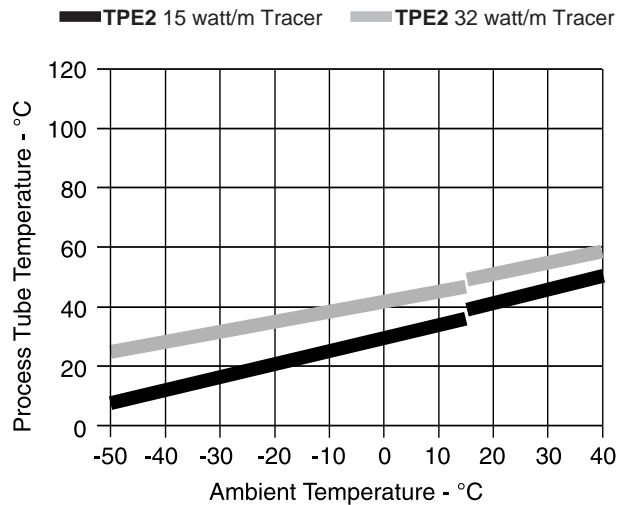
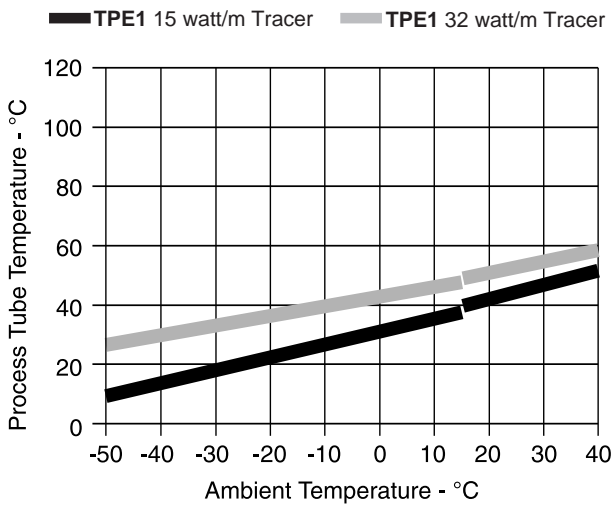


Typical Performance for BTV

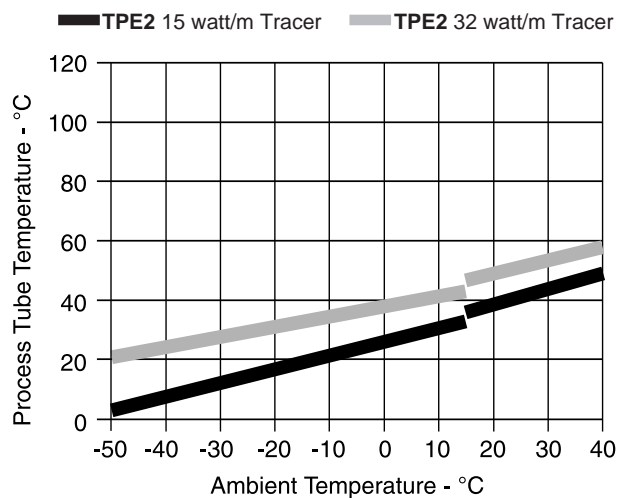
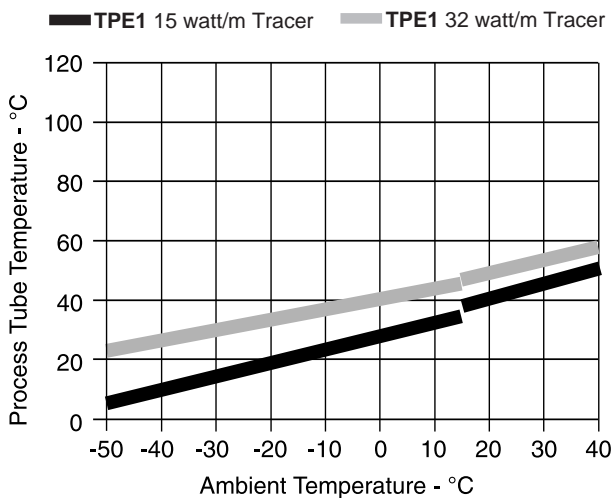
6mm Process



8mm Process



12mm Process



TRACEPAK® TPS

Technical Specifications

Model Number

Product Family

TPS1 Preinsulated Single Process Tube

Process Tube

MF6	6mm x 1mm wall seamless 316 SS
MF8	8mm x 1mm wall seamless 316 SS
MB10	10mm x 1.5mm wall seamless 316 SS
MB12	12mm x 1.5mm wall seamless 316 SS
MD6	6mm x 1mm wall copper
MD8	8mm x 1mm wall copper
MD10	10mm x 1mm wall copper
MD12	12mm x 1mm wall copper
MG6	6mm x 1mm wall PFA Teflon
MG8	8mm x 1mm wall PFA Teflon
MG10	10mm x 1mm wall PFA Teflon
MG12	12mm x 1mm wall PFA Teflon
A2	1/4" x 0.035 wall welded 316 SS
A3	3/8" x 0.035 wall welded 316 SS
A4	1/2" x 0.035 wall welded 316 SS
F1	1/8" x 0.035 wall seamless 316 SS
F2	1/4" x 0.035 wall seamless 316 SS
F3	3/8" x 0.035 wall seamless 316 SS
B4	1/2" x 0.049 wall seamless 316 SS
J2	1/4" x 0.030 wall copper
C3	3/8" x 0.032 wall copper
M4	1/2" x 0.049 wall copper
G2	1/4" OD x 0.030 wall PFA Teflon
G3	3/8" OD x 0.030 wall PFA Teflon
H4	1/2" OD x 0.062 wall PFA Teflon
N2	1/4" OD x 0.035 wall seamless Monel 400
N3	3/8" OD x 0.035 wall seamless Monel 400
P4	1/2" OD x 0.049 wall seamless Monel 400

Example:

TPS1-MB12

12mm x 1.5mm wall seamless 316 SS process line.

Material Specifications

Jacket

Thermoplastic Polyether Urethane Elastomer
Hydrolytically Stabilized
Halogen Free
Abrasion Resistant
UV Resistant
Low Temperature Flexibility

Insulation

Fibrous Glass
Water Soluble Chlorides less than 100 ppm.
Non-hygroscopic

Tubing

OD	WALL	MATERIAL AND CONSTRUCTION	ASTM
6mm	1 mm	seamless 316 SS	A-269, A-213 EAW
8mm	1mm	seamless 316 SS	A-269, A-213 EAW
10mm	1.5mm	seamless 316 SS	A-269, A-213 EAW
12mm	1.5mm	seamless 316 SS	A-269, A-213 EAW
6mm	1mm	copper	B-68, B-75
8mm	1mm	copper	B-68, B-75
10mm	1mm	copper	B-68, B-75
12mm	1mm	copper	B-68, B-75
6mm	1mm	PFA Teflon	
8mm	1mm	PFA Teflon	
10mm	1mm	PFA Teflon	
12mm	1mm	PFA Teflon	
1/4"	0.035	welded 316 SS	A-269
3/8"	0.035	welded 316 SS	A-269
1/2"	0.035	welded 316 SS	A-269
1/8"	0.035	seamless 316 SS	A-269, A-213 EAW
1/4"	0.035	seamless 316 SS	A-269, A-213 EAW
3/8"	0.035	seamless 316 SS	A-269, A-213 EAW
1/2"	0.049	seamless 316 SS	A-269, A-213 EAW
1/4"	0.030	copper	B-68, B-75
3/8"	0.032	copper	B-68, B-75
1/2"	0.049	copper	B-68, B-75
1/4"	0.030	PFA Teflon	
3/8"	0.030	PFA Teflon	
1/2"	0.062	PFA Teflon	
1/4"	0.035	seamless Monel 400	B-163, B-165
3/8"	0.035	seamless Monel 400	B-163, B-165
1/2"	0.049	seamless Monel 400	B-163, B-165

Metric tubing is provided with inspection certificate 3.1.B per EN10204. Tubing meeting NACE MR-01-75-90 is also stocked. Consult factory for the availability of other materials and specifications.

Temperature Limits

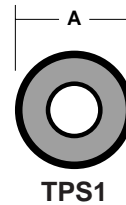
Minimum installation temperature -40°C
Maximum process temperature 204°C
Maximum jacket surface temperature 60°C at ambient temperature of 27°C with a 16 km/h wind.

Installation and Dimensions

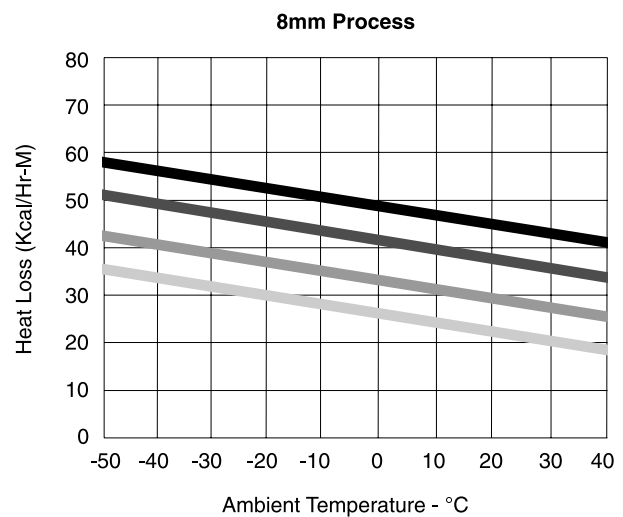
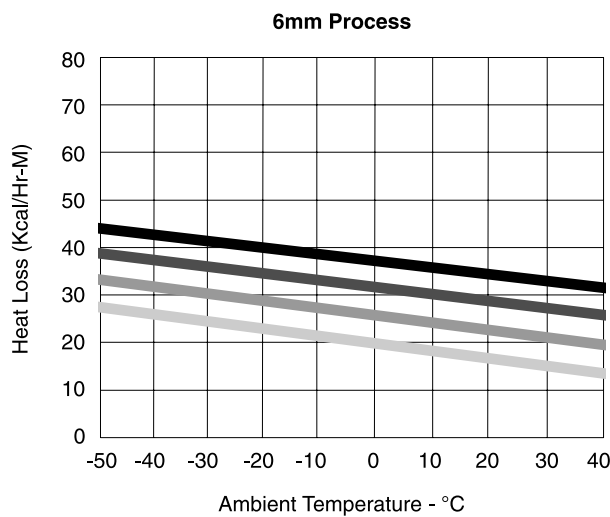
	MIN. BEND RADIUS - MM	SUPPORT CENTERS - M HORIZ. VERT.	NOMINAL WT. KG/M	NOMINAL DIMENSIONS A - MM
TPS1- 6mm Process Tube	200	1.5 4.0	.30	25
TPS1- 8mm Process Tube	200	1.5 4.0	.40	27
TPS1- 10mm Process Tube	200	1.5 4.0	.50	28
TPS1- 12mm Process Tube	200	1.5 4.0	.60	30

Recommended Accessories

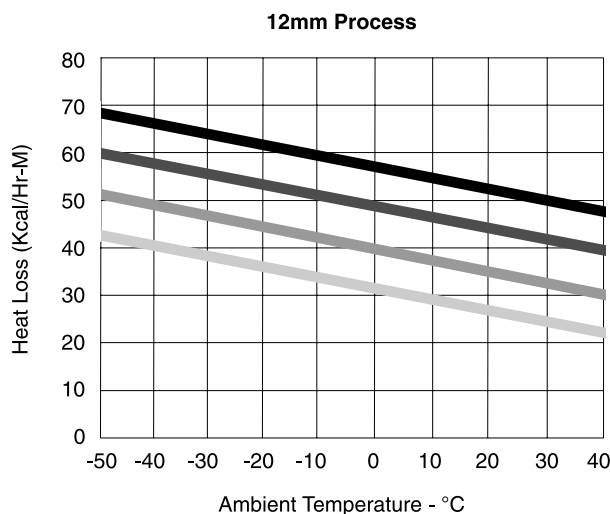
Silicone Sealant	Model TPKSK-3 or -10
Heat Shrink Boot	Model TPKHS-E1
Jacket Patch Kit	Model TPKJP-1 or -2



Typical Performance



14.8 Bar Steam 198°C
 9.6 Bar Steam 178°C
 4.4 Bar Steam 148°C
 2.0 Bar Steam 121°C



The information presented represents typical performance data for the conditions given. Actual results may vary with the conditions of installation. Heat loss calculated with 40 km/h wind.

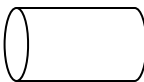
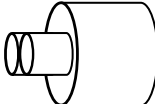
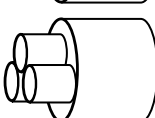
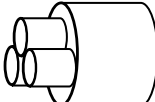
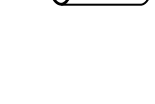
TRACEPAK® END SEALS

TPKSK, TPKHS and TPKES

Even though O'Brien's TRACEPAK products use a non-hygroscopic, non-wicking insulation, all bundle ends must be sealed to prevent contamination of the insulation.

TPKHS - Heat Shrink Boots

TPKHS is a series of heat-shrinkable end seal boots made of a thermally stabilized, modified polyolefin. They are designed to provide a weatherproof seal at the end of tubing bundles. These boots may be used for process temperatures up to 200°C.

		Body dia. Min/Max	Leg dia. Min/Max
	TPKHS-E1	9mm/33mm	-----
	TPKHS-C2	24mm/48mm	8mm/19mm
	TPKHS-D2	11mm/40mm	4mm/14mm
	TPKHS-A3	36mm/60mm	12mm/28mm
	TPKHS-B3	22mm/43mm	8mm/20mm

TPKHS Selection

TRACEPAK Family	Process Tube	Tracer Tube	Model Number-Size
TPS	6 or 8mm	----	*TPKHS-E1
	10 or 12mm	----	TPKHS-E1
TPL1	6 or 8mm	6 or 8mm	TPKHS-D2
	10 or 12mm	6 or 8mm	*TPKHS-C2
TPL2	10 or 12mm	10 or 12mm	TPKHS-C2
	6 or 8mm	6 or 8mm	*TPKHS-B3
TPH1	10 or 12mm	6 or 8mm	*TPKHS-A3
	10 or 12mm	10 or 12mm	TPKHS-A3
	6 or 8mm	6 or 8mm	TPKHS-D2
TPH2	10 or 12mm	6 or 8mm	*TPKHS-C2
	6 or 8mm	6 or 8mm	*TPKHS-B3
	10 or 12mm	6 or 8mm	*TPKHS-A3
TPE1	10 or 12mm	10 or 12mm	TPKHS-A3
	6mm	----	TPKHS-D2
	8, 10 or 12mm	----	TPKHS-C2
TPE2	6, 8, 10 or 12mm	----	*TPKHS-B3

*Boot leg should be pinched with pliers while hot and held until cool to reduce leg diameter.

TPKSK - Silicone Sealant

TPKSK is a black silicone RTV sealant used to prevent moisture from contaminating the bundle. The cure time is approximately 24 hours at 25°C. Service temperature is from, -45°C to 205°C. It has excellent resistance to weather, oil, and many chemicals. This option should be used to seal both ends of the tubing bundle. TPKSK-10 will seal approximately 10 bundles.

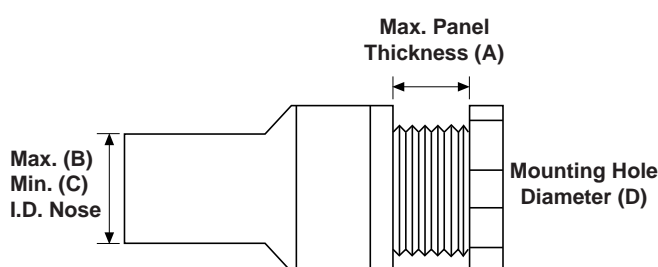
Order **TPKSK-10**.

TPKES - Entry Seal

TPKES The heat-shrinkable entry seal provides a waterproof fitting where TRACEPAK enters an enclosure. They can be added to parting line or surface mounted plates on VIPAK enclosures or any enclosure. The thermally stabilized, modified polyolefin entry seal consists of an O-ring assembly that seals at the enclosure and a heatshrinkable nose that seals to the TRACEPAK bundle.

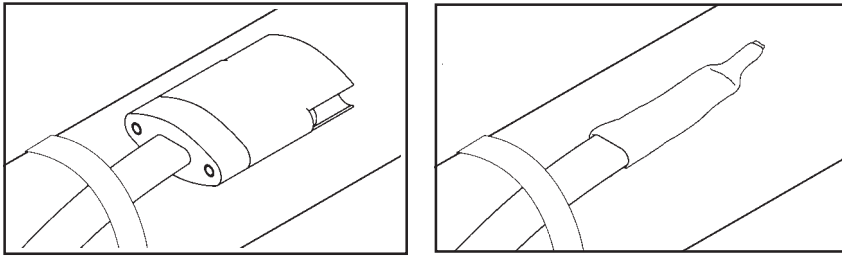
TPKES Selection

Model Number	Max. Panel Thickness (A)	Maximum I.D. Nose (B)	Minimum I.D. Nose (C)	Mounting Hole Diameter (D)
TPKES-4	12mm	40mm	19mm	50mm
TPKES-5	25mm	70mm	36mm	88mm



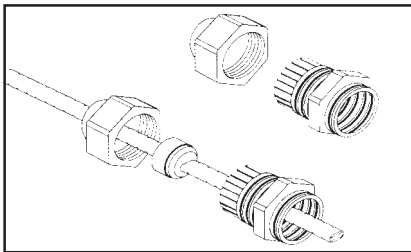
TRACEPAK® ACCESSORIES

Power connection and Tracer termination



Tracer End Seal Kits

End seal kits are approved and selected for country of use. For 5 or 10BTV-CT tracer select heat shrink end seal E-06 or mechanical end seal E-12 for 5BTV-CT or E-14 for 10BTV-CT. For 4 or 12XTV-CT tracer, select heat shrink end seal E-19 or mechanical end seal E-23. Consult your local representative for proper selection.



Power Connection Kits

Power connection kits are approved and selected for the country of use. For BTV-CT or XTV-CT tracer, select connection kit C25-21 with M25 threads or C16-29 with Pg16 threads. Power connection kits and tracer end seal kits are BASEEFA and PTB approved to CENELEC standards.

Kit Selection

TRACER	POWER CONNECTION		TRACER TERMINATION	
	M25 THREADS	PG16 THREADS	HEAT SHRINK	MECHANICAL
5BTV-CT	C25-21	C16-29	E-06	E-12
10BTV-CT	C25-21	C16-29	E-06	E-14
4XTV-CT	C25-21	C16-29	E-19	E-23
12XTV-CT	C25-21	C16-29	E-19	E-23