

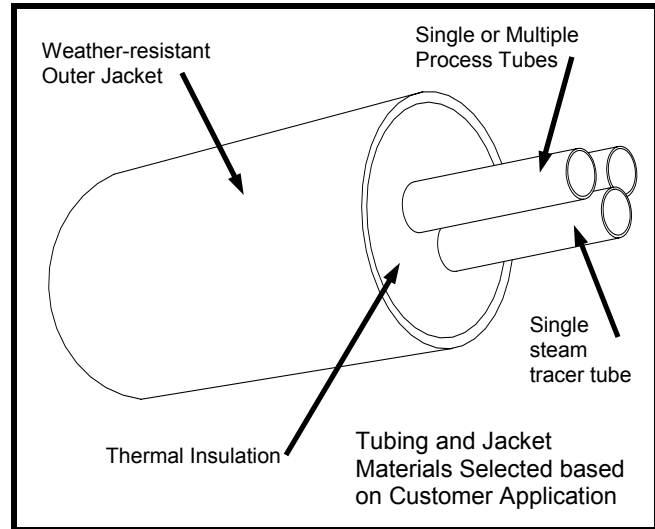
Single and Multiple Process Tube Heavy Steam Traced Bundles for High Temperature Applications

Principal of Operation

Dekoron-Unitherm 2211/2213 pre-insulated steam traced tubing consists of single or multiple process tubes; a single tracer tube; thermal insulation and covered by a weather resistant, flame retardant outer jacket.

These products are designed for **heavy** tracing of process, sampling and impulse lines to help prevent freezing, to decrease fluid viscosity, and to protect against low temperature degradation.

The bundles are designed to maintain an average jacket temperature below 160°F at continuous operating temperatures up to 700°F. Bundles can be designed for applications up to 1100°F. Tubing size and materials are limited in applications above 700°F.



Features

- Preinsulated and prefabricated for fast, easy installation.
- Low heat loss
- Personnel Protection

Applications

- Analyzer and Instrument lines
- Small diameter Process lines
- Impulse lines - D/P Cells

How To Order **2211 - x x A x x - x x x - xxx** Single Process Tube
2213 - x x x x x - x x x - xxx Multiple Process Tubes

Process Tube OD	Process Tube Material	Number Process Tubes	Tracer Tube OD	Tracer Tube Material	Process Tube Wall Thickness	Alternate Jacket Material	Tracer Tube Wall Thickness	Operating Temperature
2 = 1/4"	0 = Type 316 Wld SS to ASTM A-269/A-213EAW	A = 1	2 = 1/4"	0 = Type 316 Wld SS to ASTM A-269/A-213EAW	L = Light	0 = FRPVC	L = Light	500 = 500°F
3 = 3/8"	7 = Type 316 SMSL SS to ASTM A-269/A-213EAW	B = 2	3 = 3/8"	7 = Type 316 SMSL SS to ASTM A-269/A-213EAW	S = Standard	1 = Low Temp PVC	S = Standard	600 = 600°F
4 = 1/2"	9 = Type 316L Wld SS to ASTM A-269	C = 3	4 = 1/2"	9 = Type 316L Wld SS to ASTM A-269	H = Heavy	3 = FRTPE	H = Heavy	700 = 700°F
	A = Type 316L SMSL SS to ASTM A-269			A = Type 316L SMSL SS to ASTM A-269	X = Extra Heavy	5 = FR Urethane	X = Extra Heavy	800 = 800°F
								900 = 900°F
								10H = 1000°F

Technical Specifications—2211/2213 High Temperature Steam Traced Tubing

Typical Bundle Properties

Process Tube OD (in.)	Bundle OD (in.)	Weight/ft (lbs/ft) ¹	Min Bend Radius (in.) ²	Avg Jacket Temp °F ³	Tube Working Press (psig) ⁴
500°F (continuous) rated bundles					
3/8	1.82	0.75	11	<140	3600
2 x 3/8	2.05	0.95	13	<140	3600
1/2	2.15	0.95	13	<140	2650
2 x 1/2	2.35	1.25	14	<140	2650
700°F (continuous) rated bundles					
3/8	3.05	1.30	19	145	3250
2 x 3/8	3.10	1.45	19	145	3250
1/2	3.20	1.45	20	150	2400
2 x 1/2	3.35	1.70	21	155	2400
1000°F (continuous) rated bundles					
3/8	3.20	1.55	25	180	3050
2 x 3/8	3.45	1.60	25	185	3050
1/2	3.40	1.55	25	190	2250
2 x 1/2	3.55	1.90	25	200	2250

Notes:

1. Weight does not include shipping reel.
2. Minimum unsupported bend with standard jacket
3. Average calculated at maximum continuous operating temperature and 80°F ambient.
4. Working pressure from ASME B31.3 Tables for 0.035" wall seamless T316 tubing at maximum operating temperature, rounded to nearest 50 psi.

Material Selections

Tubing:

- Welded or Seamless Type 316 and Type 316L meeting ASTM A-269
- Seamless Type 316 meeting ASTM A-213 (except average wall)

Materials available by special order:

- Seamless Type 316 and Type 316H meeting ASTM A-213

Jacket Material:

- Standard material is a 105°C rated PVC. This is also available in a low temperature version for applications where installation temperature could be as low as -20°F.
- For 700°F and higher process tube temperatures, a 125°C rated Thermoplastic Elastomer is recommended.
- Thermoplastic Polyurethane is also available for special applications.
- All jacket materials are UV and weather resistant as well as flame retardant.