SENTRY TUBE-IN-TUBE DTC-4 Heat Exchangers

Liquid & Slurry
Solid & Powder
Steam & Water

Gas

SAMPLE CONDITIONING

Sentry[®] DTC-4 (dual tube coil) tube-in-tube heat exchangers are spirally wound, full counter flow heat exchangers well suited for a variety of applications where low flow rates of high temperature and/or high pressure fluids need cooling or heating.

MODELS

DTC-CUA/CUA-4-1-1

DTC-SSA/CUA-4-1-1

DTC-IN1/CUA-4-1-1

DTC-SSA/SSB-4-1-1

DTC-IN1/SSB-4-1-1

BENEFITS

The sturdy tube-within-a-tube concept uses heavy duty terminal fittings to provide for a plain tube end interface for the inner tube, and a compression connection for the outer tube. The plain end of the inner tube is easily adapted to a variety of connections including compression, threaded, socket weld, sanitary clamp and many more.

The tube-within-a-tube design also provides for high pressure/temperature capabilities on both sides of the heat exchanger, providing greater application flexibility.

The single continuous inner tube increases reliability and cleanliness and allows the unit to be completely drainable.

FEATURES

- Fully drainable inner and outer coil
- Spiral wound for maximum counterflow efficiency
- Constant fluid velocity
- No dead spots or crevices
- Excellent for multi-phase/multicomponent fluids and slurries
- Highly resistant to thermal and hydraulic shock
- Materials to meet any application: 300 grade stainless steel, copper, nickel alloys, titanium (inner tube only) or zirconium (inner tube only)





SENTRY TUBE-IN-TUBE DTC-4 > HEAT EXCHANGERS > SAMPLE CONDITIONING



SPECIFICATIONS						
models	inner tube design	outer tube design	inner tube material	outer tube material	h.t. area	weight
DTC-CUA/CUA-4-1-1	2000 psig @300°F 137 bar @148°C	700 psig @300°F 48 bar @148°C	1/4 in. O.D. copper	1/2 in. O.D. copper	1.26 ft. ² (0.12 m. ²)	12 lb. (5.5 kg.)
DTC-SSA/CUA-4-1-1	4900 psig @1000°F 337 bar @537°C	700 psig @300°F 48 bar @148°C	1/4 in. O.D. 316SS	1/2 in. O.D. copper	1.26 ft. ² (0.12 m. ²)	12 lb. (5.5 kg.)
DTC-IN1/CUA-4-1-1	5450 psig @1100°F 375 bar @593°C	700 psig @300°F 48 bar @148°C	1/4 in O.D. Inconel	1/2 in. O.D. copper	1.26 ft. ² (0.12 m. ²)	12 lb. (5.5 kg.)
DTC-SSA/SSB-4-1-1	4900 psig @1000°F 337 bar @537°C	2300 psig @1000°F 158 bar @537°C	1/4 in. O.D. 316SS	1/2 in. O.D. 316SS	1.26 ft. ² (0.12 m. ²)	12 lb. (5.5 kg.)
DTC-IN1/SSB-4-1-1	5450 psig @1100°F 375 bar @593°C	2300 psig @1000°F 158 bar @537°C	1/4 in. O.D. Inconel	1/2 in. O.D. 316SS	1.26 ft. ² (0.12 m. ²)	12 lb. (5.5 kg.)

Performance data shows approach temperature (outer tube inlet + approach temp. = inner tube outlet temp) for three inner tube inlet temperatures and various flow rates. Data based on thermal properties of water. Cooling water 95°F (35°C) @1.5 GPM (5.7 L/min). Pressure drop <18 psi (1.2 bar). Consult company for other fluids flow, rates and pressure drops.

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COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =