Gas
Liquid & Slurry
Solid & Powder
Steam & Water

# SENTRY TLR SINGLE HELICAL TUBE
## Sample Coolers

SAMPLE CONDITIONING

The Sentry® TLR sample cooler/heat exchanger cools a sample from a process stream. It may seem simple, but it is a uniquely designed small tube and shell heat exchanger. The sample to be cooled flows through the tube side of the cooler, and the cooling fluid flows through the shell side. The cooled sample then is taken to a laboratory for analysis or piped to in-line process instrumentation for continuous monitoring of properties such as conductivity, pH or other chemical constituents.


### MODELS

TLR-4225 | TLR-42B5 | TLR-4525(S) | TLR-4BB5
TLR-4225U | TLR-42B5U | TLR-4525U(S) | TLR-45B5(S)

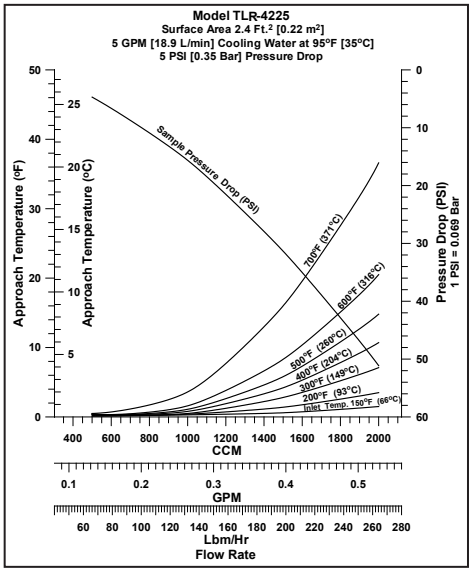
### BENEFITS

The Sentry TLR sample cooler is the most efficient and cost-effective sample cooler available. Offers optimal service for flows below 1800 cc per minute for single phase and below 1000 cc per minute for condensing heat transfer. The Sentry TLR sample cooler is optimized for steam condensing service.

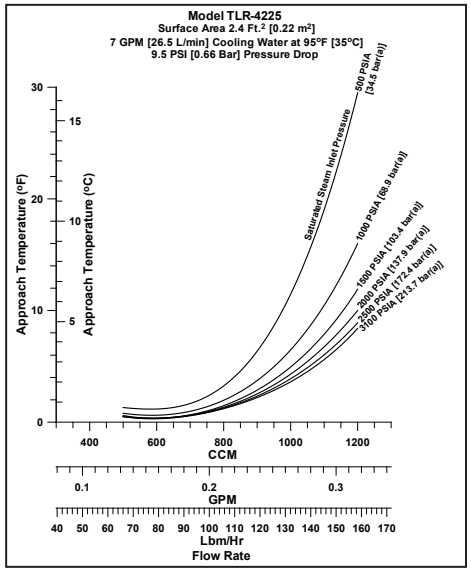
### FEATURES

- Double-wound helical coil design
- Minimizes cooling water needs
- Wide variety of exotic alloys for corrosion resistance
- Retained shellside gasket reduces reassembly time
- Formed shell eliminates top shell flange weld interfaces
- Mounting bracket can be installed without removing flange bolts
- All 316 SS construction available where higher corrosive resistance is desired

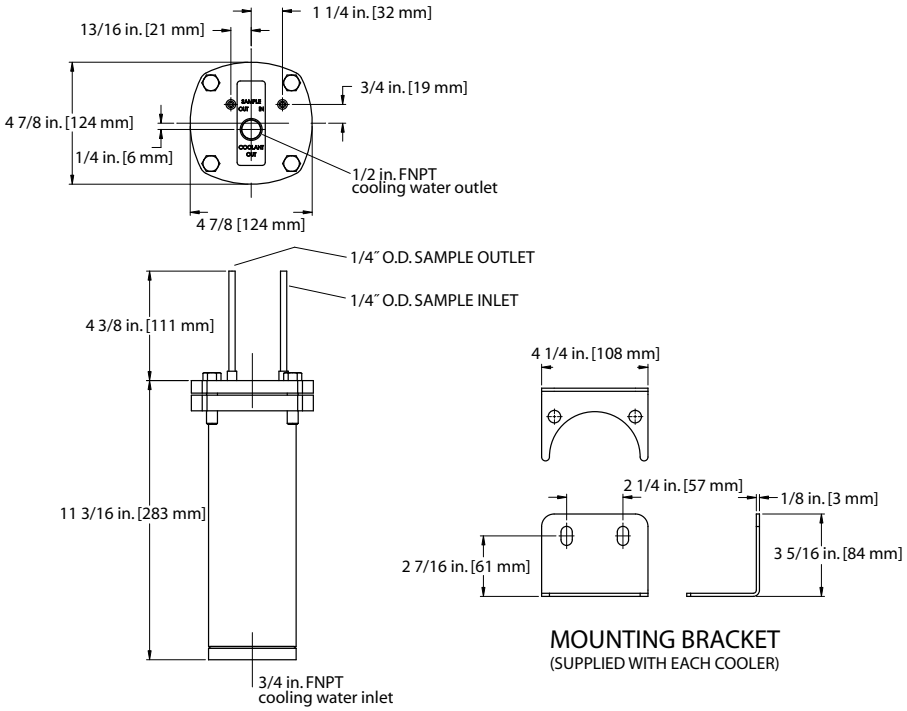
### PERFORMANCE CURVE - WATER




### PERFORMANCE CURVE - STEAM




Sample. Monitor. Measure.
SENTRY
Any Application. Anywhere.




MOUNTING BRACKET
(SUPPLIED WITH EACH COOLER)

## SPECIFICATIONS

| models | shell design | tube design | tube material | shell material | area | shipping weight | part number |
|---|---|---|---|---|---|---|---|
| **TLR-4225** | 450 psi at 650°F (31 bar at 343°C) | 5000 psi at 1000°F (345 bar at 538°C) | 316/316L SS 1/4 in OD x 0.049 in AW | 304/304L SS | 2.4 ft² (0.22 m²) | 17 lb (8 kg) | 7-03951A |
| **TLR-4225U** | 450 psi at 650°F (31 bar at 343°C) | 4400 psi at 1000°F (303 bar at 538°C) | 316/316L SS 1/4 in OD x 0.049 in AW | 304/304L SS | | | 7-03951B |
| **TLR-42B5** | 450 psi at 650°F (31 bar at 343°C) | 5000 psi at 1100°F (345 bar at 593°C) | Alloy 625 1/4 in OD x 0.035 in AW | 304/304L SS | | | 7-03951C |
| **TLR-42B5U** | 450 psi at 650°F (31 bar at 343°C) | 5000 psi at 1100°F (345 bar at 593°C) | Alloy 625 1/4 in OD x 0.035 in AW | 304/304L SS | | | 7-03951D |
| **TLR-4525(S)** | 430 psi at 650°F (30 bar at 343°C) | 5000 psi at 1000°F (345 bar at 538°C) | 316/316L SS 1/4 in OD | 316/316L SS | | | 7-04067D |
| **TLR-4525U(S)** | 430 psi at 650°F (30 bar at 343°C) | 4400 psi at 1000°F (303 bar at 538°C) | 316/316L SS 1/4 in OD | 316/316L SS | | | 7-04067M |
| **TLR-4BB5** | 450 psi at 650°F (31 bar at 343°C) | 5000 psi at 1100°F (345 bar at 593°C) | Alloy 625 1/4 in OD x 0.035 in AW | Alloy 625 | | | 7-03951E |
| **TLR-45B5(S)** | 450 psi at 650°F (31 bar at 343°C) | 5000 psi at 1100°F (345 bar at 593°C) | Alloy 625 1/4 in OD x 0.035 in AW | 316/316L SS | | | 7-03951V |

NOTES:
- U in model number denotes ASME stamped model.
- Canadian Registration Number available for ASME stamped models only. Consult factory for CRN and other options and information.
- Vessels are exempt from CE marking per PED 2014/68/EU, TÜV. Vessels are below or equal to the limits set forth in Article 4, Sections 1(a), 1(b), 1(c) and Section 2 as applicable, and are designed and manufactured in accordance with sound engineering practice (meets the general requirements of the ASME Section VIII, Division 1, Boiler And Pressure Vessel Code). Nameplate will bear the Sentry name and safety instructions will be included per Article 4, Section 2.

**sentry-equip.com**

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