

# Sentry Sample Coolers

The largest selection of models offered by any manufacturer



Water | Steam | Liquid | Slurry



# Cool, Heat or Condense Any Sample

Sentry Equipment has more types of sample coolers than any other manufacturer. Flows from 0.25 gal/hr (1 L/hr) to 100 gal/min (378 L/min) and pressure/temperature ratings up to 5,000 psi (345 bar) and up to 1100° F (593° C) are available using single tube helical coil, multi-tube spiral tube, or tube-in-tube heat exchanger designs.

With over 90 years of heat transfer experience, Sentry Equipment has the manufacturing know-how and engineering expertise to solve even the most complex sample conditioning problem. Special flow configurations, end connections, and exotic materials are our specialties.

A variety of international certifications are available for most of our sample cooler products including ASME and CRN.

Note: Sentry sample coolers are exempt from CE marking per Pressure Equipment Directive 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. Specifically, the vessel meets the general requirements of the ASME Section VIII, Division 1 Boiler And Pressure Vessel Code. The nameplate will bear the name of Sentry Equipment Corp and safety instructions will be included per Article 4, Section 2..

## SENTRY HELICAL COIL

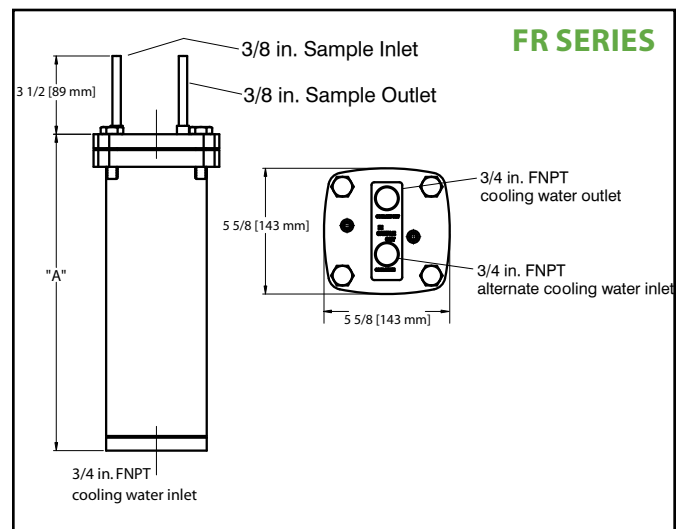
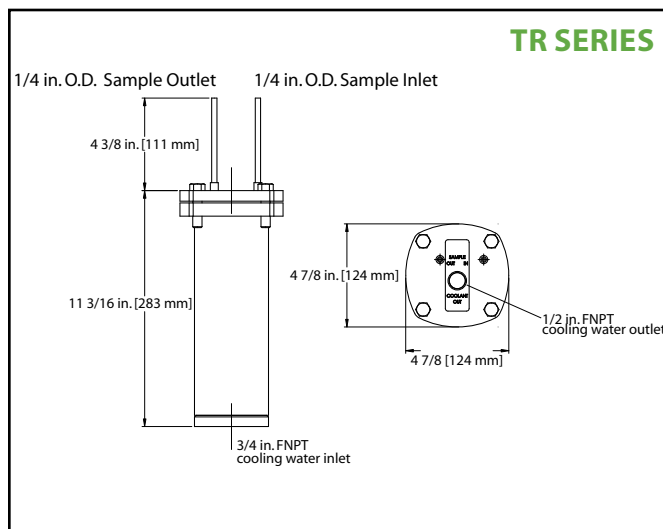
The Sentry® helical coil sample cooler product line includes the most compact and highly efficient sample coolers. A single continuous tube is helically coiled and fitted in a shell. A variety of materials, diameters and lengths are available to suit most applications.



- Flow rates to 1.5 gpm (5.7 L/min)
- Sample conditions up to 5000 psi (345 bar) and up to 1100° F (593° C)
- Single continuous tube
- High efficiency
- Compact design
- Code stamp
- 316 SS, Alloy 625 (e.g., Inconel®) Hastelloy®, titanium and other exotic materials

## SENTRY TR SERIES AND FR SERIES

The TR and FR series are the most popular sample coolers since they provide maximum surface area in a compact space, lowering both acquisition and installation costs. Shells are removable and are manufactured from stainless steel (standard; other materials available).



# Helical Coil Sample Coolers

SPECIFICATIONS: TR SERIES							
models	shell design	tube design	tube material	shell material	area	shipping weight	part number
TSR-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	304 SS	1.2 ft <sup>2</sup> (0.11 m <sup>2</sup> )	14 lb (6 kg)	7-03952A
TSR-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	304 SS	1.2 ft <sup>2</sup> (0.11 m <sup>2</sup> )	14 lb (6 kg)	7-03952C
TSR-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	Alloy 625	1.2 ft <sup>2</sup> (0.11 m <sup>2</sup> )	14 lb (6 kg)	7-03952E
Reference bulletin S-SC&HE-SPS-00129 for complete TSR technical specifications							
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	304 SS	2.4 ft <sup>2</sup> (0.22 m <sup>2</sup> )	17 lb (8 kg)	7-03951A
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	304 SS	2.4 ft <sup>2</sup> (0.22 m <sup>2</sup> )	17 lb (8 kg)	7-03951C
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 SS	2.4 ft <sup>2</sup> (0.22 m <sup>2</sup> )	17 lb (8 kg)	7-04067D
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	Alloy 625	2.4 ft <sup>2</sup> (0.22 m <sup>2</sup> )	17 lb (8 kg)	7-03951E
Reference bulletin S-SC&HE-SPS-00135 for complete TLR technical specifications							

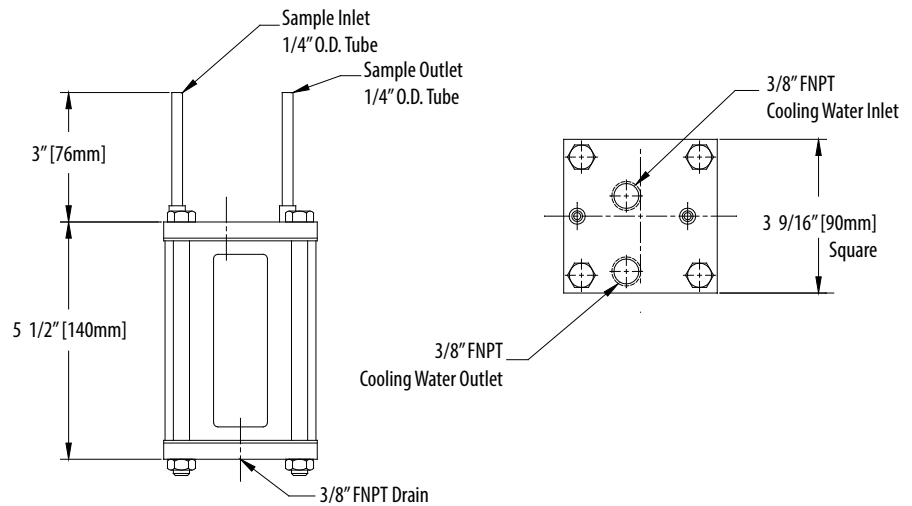
SPECIFICATIONS: FR SERIES							
models	shell design	tube design	tube material	shell material	area	shipping weight	part numbers
FSR-6222	450 psi at 650°F (31 bar at 343°C)	2000 psi at 1000°F (206 bar at 538°C)	316/316L SS 3/8 in OD	304 SS	1.7 ft <sup>2</sup> (0.16 m <sup>2</sup> )	24 lb (11 kg)	7-03954C
FSR-6225	450 psi at 650°F (31 bar at 343°C)	5000 psi at 1000°F (345 bar at 538°C)	316/316L SS 3/8 in OD	304 SS	1.7 ft <sup>2</sup> (0.16 m <sup>2</sup> )	24 lb (11 kg)	7-03954A
FSR-62B3	450 psi at 650°F (31 bar at 343°C)	3400 psi at 1100°F (234 bar at 593°C)	Alloy 625 3/8 in OD	304 SS	1.7 ft <sup>2</sup> (0.16 m <sup>2</sup> )	24 lb (11 kg)	7-03954E
FSR-6BB3	450 psi at 650°F (31 bar at 343°C)	3400 psi at 1100°F (234 bar at 593°C)	Alloy 625 3/8 in OD	Alloy 625	1.7 ft <sup>2</sup> (0.16 m <sup>2</sup> )	24 lb (11 kg)	7-03954G
Reference bulletin S-SC&HE-SPS-00132 for complete FSR technical specifications							
FLR-6222	450 psi at 650°F (31 bar at 343°C)	2000 psi at 1000°F (206 bar at 538°C)	316/316L SS 3/8 in OD	304 SS	3.5 ft <sup>2</sup> (0.33 m <sup>2</sup> )	26 lb (12 kg)	7-03953E
FLR-6225	450 psi at 650°F (31 bar at 343°C)	5000 psi at 1000°F (345 bar at 538°C)	316/316L SS 3/8 in OD	304 SS	3.5 ft <sup>2</sup> (0.33 m <sup>2</sup> )	29 lb (13 kg)	7-03953A
FLR-6525(S)	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	316 SS	3.5 ft <sup>2</sup> (0.33 m <sup>2</sup> )	29 lb (13 kg)	7-04480J
FLR-62B3	450 psi at 650°F (31 bar at 343°C)	3400 psi at 1100°F (234 bar at 593°C)	Alloy 625 3/8 in OD	304 SS	3.5 ft <sup>2</sup> (0.33 m <sup>2</sup> )	29 lb (13 kg)	7-03953G
FLR-6BB3	450 psi at 650°F (31 bar at 343°C)	3400 psi at 1100°F (234 bar at 593°C)	Alloy 625 3/8 in OD	Alloy 625	3.5 ft <sup>2</sup> (0.33 m <sup>2</sup> )	29 lb (13 kg)	7-03953J
Reference bulletin S-SC&HE-SPS-00131 for complete FLR technical specifications							
FXR-6222	450 psi at 650°F (31 bar at 343°C)	2000 psi at 1000°F (138 bar at 538°C)	316/316L SS 3/8 in OD	304 SS	4.7 ft <sup>2</sup> (0.44 m <sup>2</sup> )	30 lb (13.5 kg)	7-03971E
Reference bulletin S-SC&HE-SPS-00134 for complete FXR technical specifications							

Models listed are standard offerings. Consult referenced bulletins or factory for other materials and configurations.

# Helical Coil (continued)

## SENTRY TRB SERIES

The TRB sample cooler is generally used in low pressure boiler application where a small volume of sample is required.



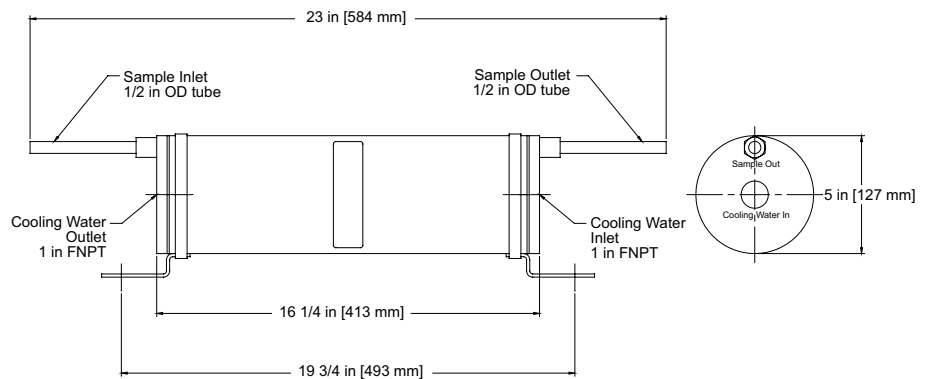
### SPECIFICATIONS: TRB SERIES

model	shell design	tube design	tube material	shell material	area	shipping weight	part number
TRB-4222	250 psi at 450°F (17 bar at 232°C)	2000 psi at 850°F (137 bar at 454°C)	300 Series SS 1/4 in OD	304 SS	1.2 ft <sup>2</sup> (0.11 m <sup>2</sup> )	9 lb (4 kg)	7-00016A

Reference bulletin S-SC&HE-SPS-00136 for complete TRB technical specifications

## SENTRY WSW SERIES

The WSW sample cooler is designed for high viscosity/low pressure drop service and is useful in cooling slurries and very low pressure samples.



### SPECIFICATIONS: WSW SERIES

model	shell design	tube design	tube material	shell material	area	shipping weight	part number
WSW-8222	400 psi at 350°F (27 bar at 177°C)	1200 psi at 650°F (82 bar at 343°C)	316/316L SS 1/2 in OD	304 SS	2.5 ft <sup>2</sup> (0.23 m <sup>2</sup> )	25 lb (11.5 kg)	7-00712A

Reference bulletin S-SC&HE-SPS-00128 for complete WSW technical specifications







