



# SENTRY FSR SINGLE HELICAL TUBE

## Sample Coolers

### SAMPLE CONDITIONING

The Sentry® FSR sample cooler cools a sample from a process stream. It may seem simple, but it is a uniquely designed small tube in a shell heat exchanger. The sample to be cooled flows through the tube side of the cooler, and the cooling fluid, usually water, 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

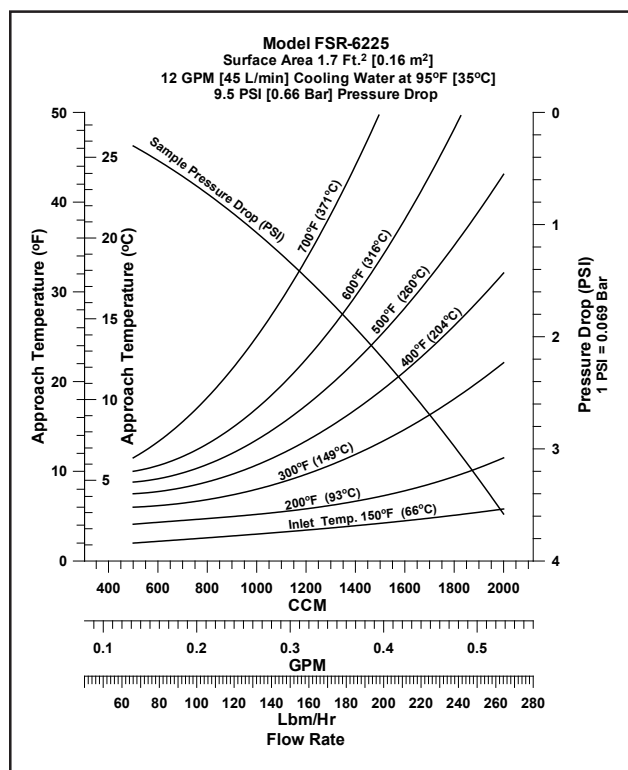
FSR-6222 | FSR-6225 | FSR-6225U | FSR-62B3 | FSR-6BB3  
FSR-6251 | FSR-6261 | FSR-6272 | FSR-6283 | FSR-65J4U

### BENEFITS

The Sentry FSR sample cooler is compact and provides broad application flexibility through the use of a variety of sample tube materials. It offers optimal service for flows below 2000 cc per minute for single phase heat transfer. Standard tube side materials are 316/316L SS and Alloy 625. Special materials include 310 SS, titanium, Hastelloy C and nickel alloys.

### FEATURES

- Single helical coil design
- Wide variety of exotic alloys for corrosion resistance
- Retained shellside gasket reduces reassembly time
- Formed shell eliminates the top shell flange weld interfaces
- Mounting bracket can be installed without removing flange bolts



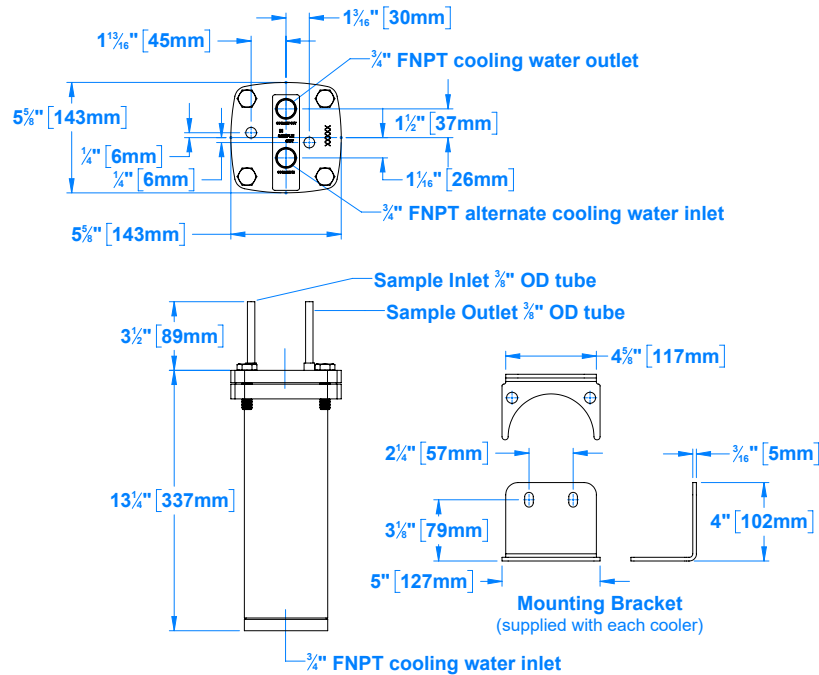
### PERFORMANCE CURVE (Water)



**NOTE:** Not recommended for steam condensing service. See TLR, FLR, FXR series sample coolers for steam applications.



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



## SPECIFICATIONS

models	shell design	tube design	tube material	shell material	area	shipping weight	part numbers
<b>FSR-6222</b>	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 x 0.035 in AW	304 SS	1.7 ft <sup>2</sup> (0.16 m <sup>2</sup> )	24 lb (11 kg)	7-03954C
<b>FSR-6225</b>	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 x 0.065 in MW	304 SS	1.7 ft <sup>2</sup> (0.16 m <sup>2</sup> )	24 lb (11 kg)	7-03954A
<b>FSR-6225U</b>	300 psi at 650°F (21 bar at 343°C)	4500 psi at 1000°F (310 bar at 538°C)	316/316L SS 3/8 in OD x 0.065 in MW	304 SS	1.7 ft <sup>2</sup> (0.16 m <sup>2</sup> )	24 lb (11 kg)	7-03954B
<b>FSR-62B3</b>	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 x 0.035 in AW	304 SS	1.7 ft <sup>2</sup> (0.16 m <sup>2</sup> )	24 lb (11 kg)	7-03954E
<b>FSR-6BB3</b>	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 x 0.035 in AW	Alloy 625	1.7 ft <sup>2</sup> (0.16 m <sup>2</sup> )	24 lb (11 kg)	7-03954G
<b>FSR-6251</b>	450 psi at 650°F (31 bar at 343°C)	1500 psi at 1000°F (103 bar at 538°C)	310 SS 3/8 in OD x 0.049 in AW	304 SS	1.7 ft <sup>2</sup> (0.16 m <sup>2</sup> )	24 lb (11 kg)	7-03954R
<b>FSR-6261</b>	450 psi at 500°F (31 bar at 260°C)	800 psi at 500°F (55 bar at 260°C)	Titanium 3/8 in OD x 0.035 in AW	304 SS	1.7 ft <sup>2</sup> (0.16 m <sup>2</sup> )	24 lb (11 kg)	
<b>FSR-6272</b>	450 psi at 650°F (31 bar at 343°C)	2400 psi at 1000°F (172 bar at 538°C)	Hastelloy C276 3/8 in OD x 0.035 in AW	304 SS	1.7 ft <sup>2</sup> (0.16 m <sup>2</sup> )	24 lb (11 kg)	7-03954J
<b>FSR-6283</b>	450 psi at 650°F (31 bar at 343°C)	3000 psi at 800°F (207 bar at 427°C)	Monel 400 3/8 in OD x 0.049 in AW	304 SS	1.7 ft <sup>2</sup> (0.16 m <sup>2</sup> )	24 lb (11 kg)	7-03954T
<b>FSR-65J4U</b>	300 psi at 600°F (21 bar at 315°C)	4000 psi at 600°F (276 bar at 315°C)	Super Duplex UNS S32750 3/8 in OD x 0.049 in AW	316 SS	1.7 ft <sup>2</sup> (0.16 m <sup>2</sup> )	24 lb (11 kg)	7-03954P

### 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.



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