

**IMMERSION COILS**

## Reactor Coil Model R500

AMETEK Reactor Coil Heat Exchangers—made with tubing of fluoropolymer fluorocarbon resin—are used for heating and cooling of corrosive fluids in a wide range of processes and applications. The well-known non-stick characteristics of fluoropolymer resist corrosion and reduce fouling. AMETEK Reactor Coils are designed for immersion directly into the process vessel, and are most efficient when agitated in the process solution. During agitation, the flexing action of the coils helps reduce fouling and dislodges deposits that may have formed. This and other unique design features make the Model R500 Reactor Coil ideal for crystallizer applications.



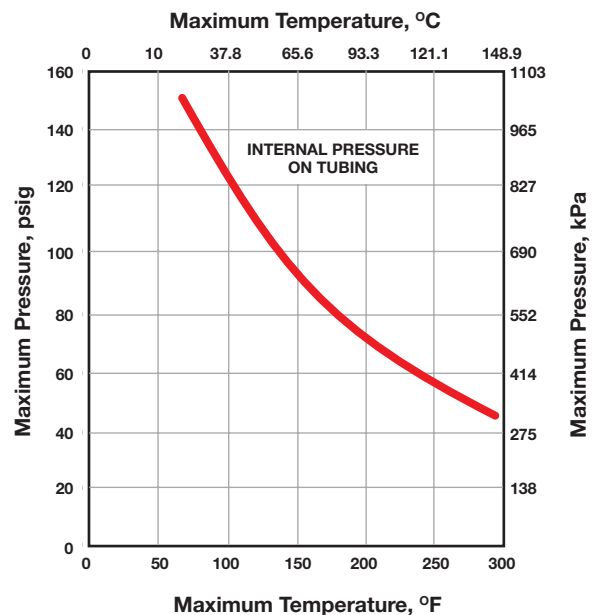
### Specifications

Description	Spec
Tubing Configuration	Loose Bundle
Tube Outside Diameter	.125 inch (3.175 mm)
Tube Wall Thickness	.0125 inch (.3175 mm)
Length Tolerance	Standard: -0, +5.0 inch (-0, +127 mm) Close: ±0.5 inch (±12.7 mm)
Average Heat Transfer Coefficient U	40-50 BTU/Hr/ft <sup>2</sup> /°F (227-284 watts/m <sup>2</sup> -°K)

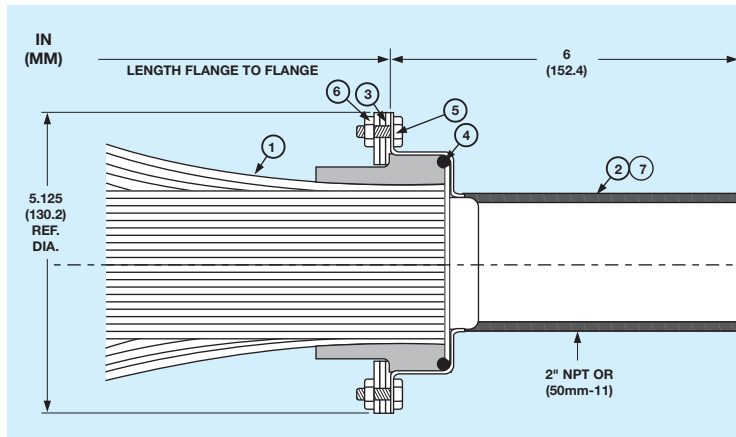
### Model Number

EXAMPLE: R 500 S M C - 4 - 12		
<b>R</b>	REACTOR COIL	
<b>500</b>	MODEL NUMBER	
<b>S</b>	END CONNECTIONS	B = None (bundle only)
		S = Stainless steel
		T = TEFLON®
		W = Through the wall stainless steel
<b>M</b>	LENGTH (ft.)	
<b>C</b>	GENERATION	
<b>4</b>	TOLERANCE	C = Close
		(Blank) = Standard
<b>12</b>	END THREADS	M = Metric
		(Blank) = NPT

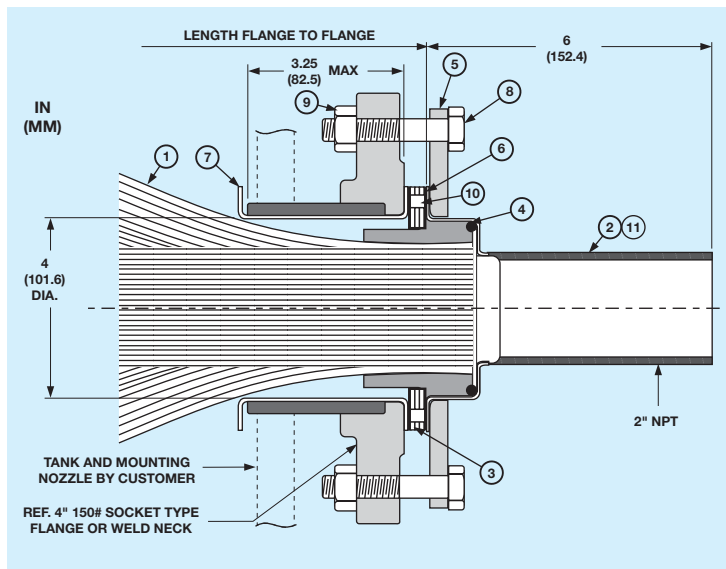
### Operating Limits



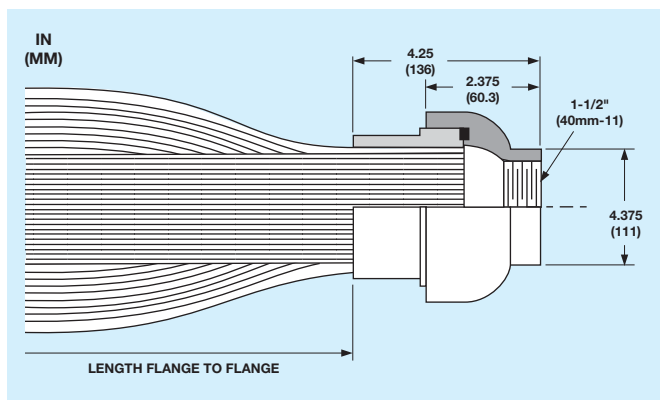
## Dimensions – MODEL R500S, SC, SMC



REF NO.	PART NO.	DESCRIPTION	QTY.
1	13D5257	BUNDLE	1
2	13A706-3	END CAP—316 SS	2
3	13A1005-1	SPLIT RING—316 SS	2
4	2-339	O-RING—EPR	2
5	1/4-20x5/8	HEX HEAD BOLT—316 SS	16
6	1/4-20	HEX NUT—304 SS	16
7	13D6204-3	END CAP—316 SS	2



REF NO.	PART NO.	DESCRIPTION	QTY.
1	13D5257	BUNDLE	1
2	13A706-3	END CAP—316 SS	2
3	13A1005-1	SPLIT RING—316 SS	2
4	2-339	O-RING—EPR	2
5	13A934	HOLD DOWN RING—C.S.	2
6	13A1003	COLLAR—VITON®	2
7	13A1006	SLEEVE—FLUOROPOLYMER	2
8	1/2-13x2 3/4	HEX HEAD BOLT—316 SS	16
9	1/2-13	HEX NUT—316 SS	16
10	13A6226	BUTTON	16
11	13D6204-3	END CAP—316 SS	2



## Heat Transfer Area

LENGTH	AREA	
	FT	M <sup>2</sup>
4	49.1	4.6
6	81.8	7.6
8	114.5	10.6
10	147.2	13.7
12	179.9	16.7
14	212.0	19.8
16	245.3	22.8

## AMETEK® FLUOROPOLYMER PRODUCTS

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1M1117P (040022)

Fluoropolymer resins are generally considered inert to most chemicals. Under certain conditions of pressure and temperature, or combinations of chemicals, fluoropolymer tubing should not be used. Please contact AMETEK for discussion of your specific process to be certain that our products are appropriate for your intended use.

Adequate ventilation should be used where fluoropolymers are heated during tube repairs. Flu-like symptoms may occur from exposure to vapors evolved from fluoropolymers at very high temperatures, up to 800°F or from smoking materials that contain particles of fluoropolymers. Symptoms pass within 48 hours and are the only adverse effects observed in humans to date. Unheated fluoropolymers are essentially inert and are nonirritating to the skin.

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