

FLUOROPOLYMER HEAT EXCHANGERS AND TUBING

Slimline Coil™ Model D 500 & QD 500 Heat Exchangers

FEATURES

AMETEK Slimline Coil™ Fluoropolymer Heat Exchangers are widely used in the metal finishing and chemical processing industries, and are especially suited to batch and continuous steel pickling applications. The inherent non-stick characteristics of fluoropolymer resins resist corrosion and fouling, extend heat exchanger service life, and improve value-in-use through savings in plant maintenance costs.

AMETEK Q-Series Slimline Coil™ Heat Exchangers are constructed from a proprietary resin compound that improves durability, and pressure and temperature capabilities over conventional coils—high performance that enables AMETEK Q-Series Slimline Coils™ to handle many steam heating applications without desuperheating. In metal processing, high efficiency AMETEK Slimline Coil™ Heat Exchangers also save energy...reduce waste...and cut processing costs by minimizing acid consumption and spent pickle liquor disposal.

SPECIFICATIONS

AMETEK Slimline Coil™ Heat Exchangers are available in Q-Series as well as FEP, in U-shape as well as straight configurations ranging in lengths from 4 to 16 feet (1.2 to 4.9 m).

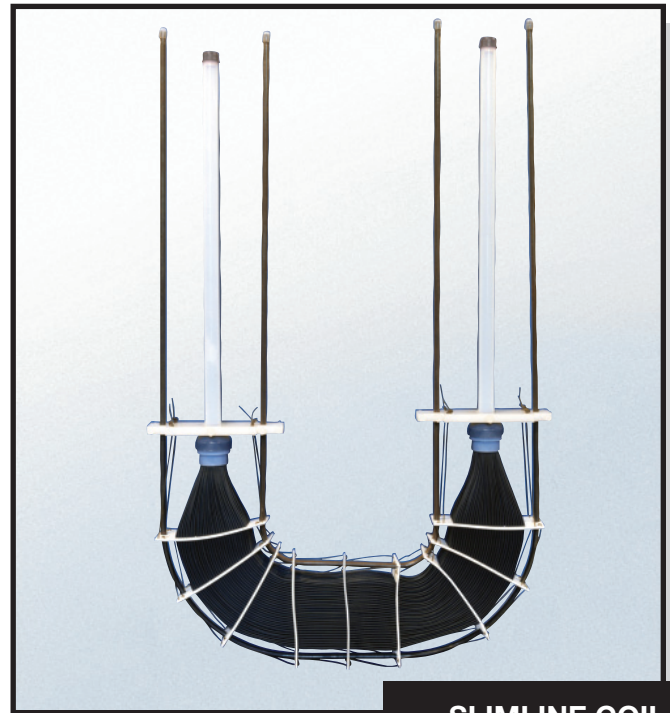
Heat Transfer Area—49 to 245 ft.² (4.6 to 22.8 m²).

PRODUCT DESCRIPTION

Tube Outside Diameter	.125 inch (3.175 mm)
Tube All Thickness	.0125 inch (.3175 mm)
Average Heat Transfer Coefficient (U) Q Resin	60-100 BTU/Hr.-ft. ² -°F (293-488 Kcal/Hr.-m ² -°C)
Average Heat Transfer Coefficient (U) FEP, PFA	30-50 BTU/Hr.-ft. ² -°F (146-244 Kcal/Hr.-m ² -°C)

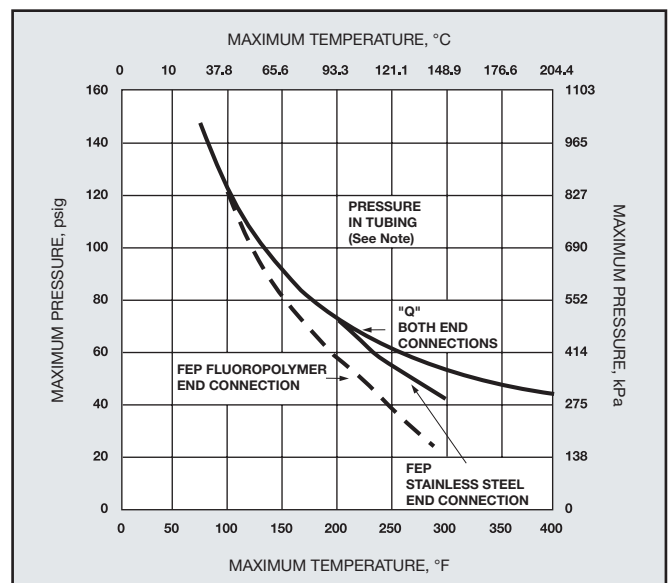
APPLICATION LIMITATIONS

Contact an AMETEK representative for chemical resistance data on your application.



SLIMLINE COIL

OPERATING LIMITS



NOTE: Maximum steam pressure tubeside—50 psig (345 kPa) using Q-tubing

FEP Series coils are considered inert to corrosive chemicals. Contact an AMETEK representative for chemical resistance data on your specific application. Q-Series heat exchangers are inert to most corrosive chemicals except for certain concentrated hot, oxidizing acids.

HEAT TRANSFER AREA

NOMINAL LENGTH	AREA	
	ft.	ft. ²
4	49.0	4.6
5	65.0	6.1
6	82.0	7.6
7	98.0	9.1
8	114.0	10.6
10	147.0	13.6
12	180.0	16.7
14	213.0	19.7
16	245.0	22.8

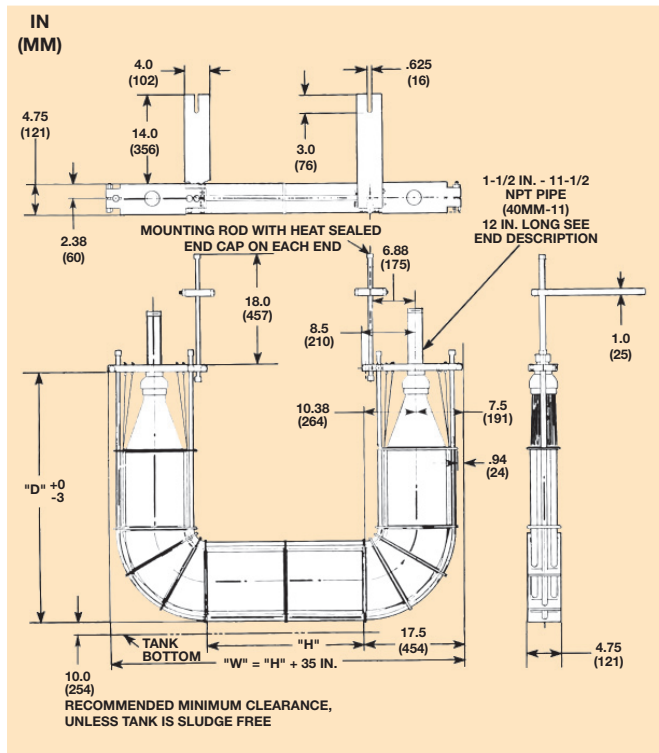
NOMENCLATURE

Q-D-C-500-SM-8-10-2

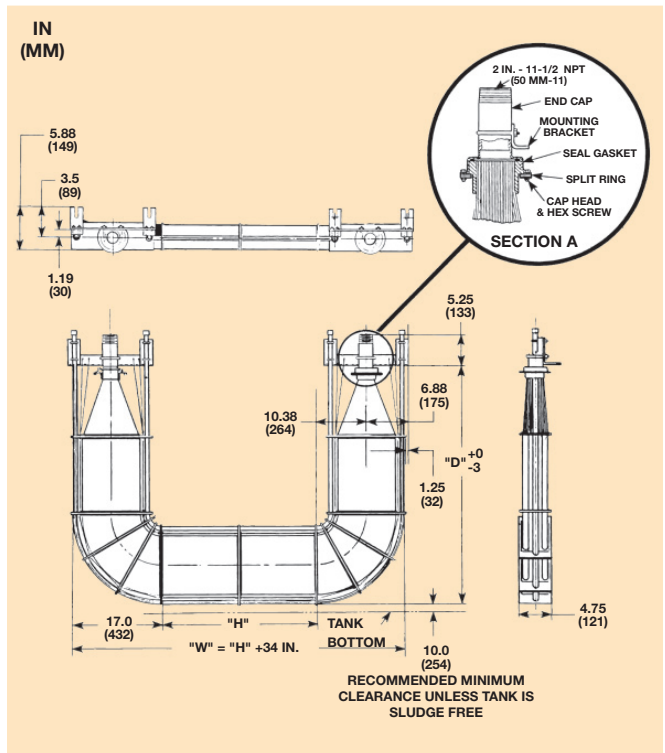
RESIN TYPE (Blank) = FEP Q = PFA/G		COIL CONFIGURATION 0-12 = H Dimension (0-12 ft.) SS = Straight coil – side-mounted SB = Straight coil – bottom-mounted U = Tight "U"
SLIMLINE COIL		NOMINAL LENGTH (FT.)
SUPPORT RODS (TEFLON® COATED) (Blank) = Carbon Steel C = Stainless Steel		GENERATION
MODEL NUMBER		
END CONNECTIONS S = Stainless Steel T = TEFLON® Type SM = SS/Metric		

TEFLON® is a registered trademark of the DuPont Company

EXTENDED SLIMLINE COIL—GENERATION 8 ("T" End)



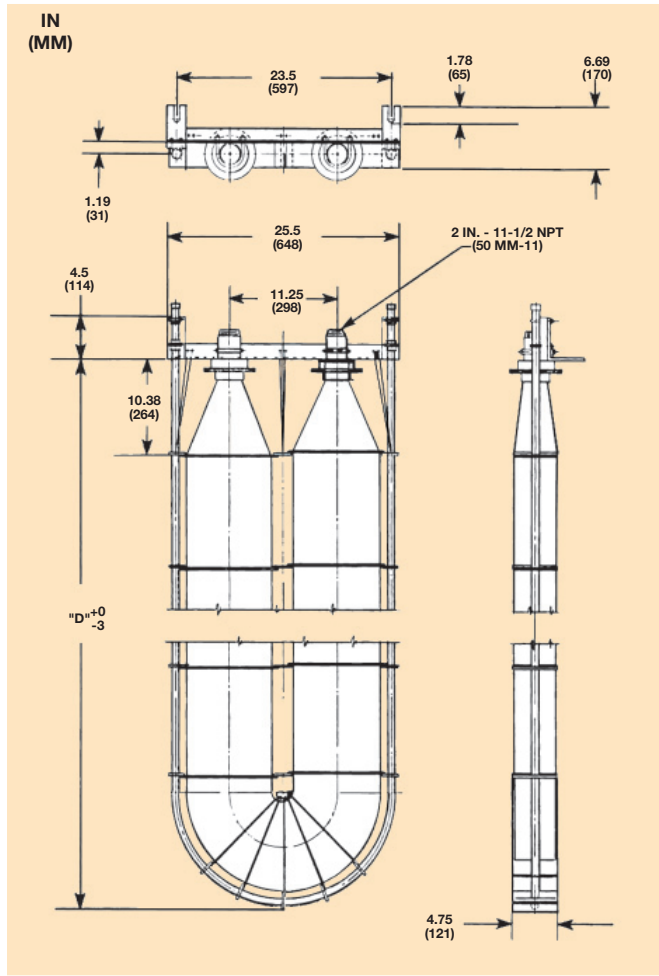
EXTENDED SLIMLINE COIL—GENERATION 8 ("S" End)



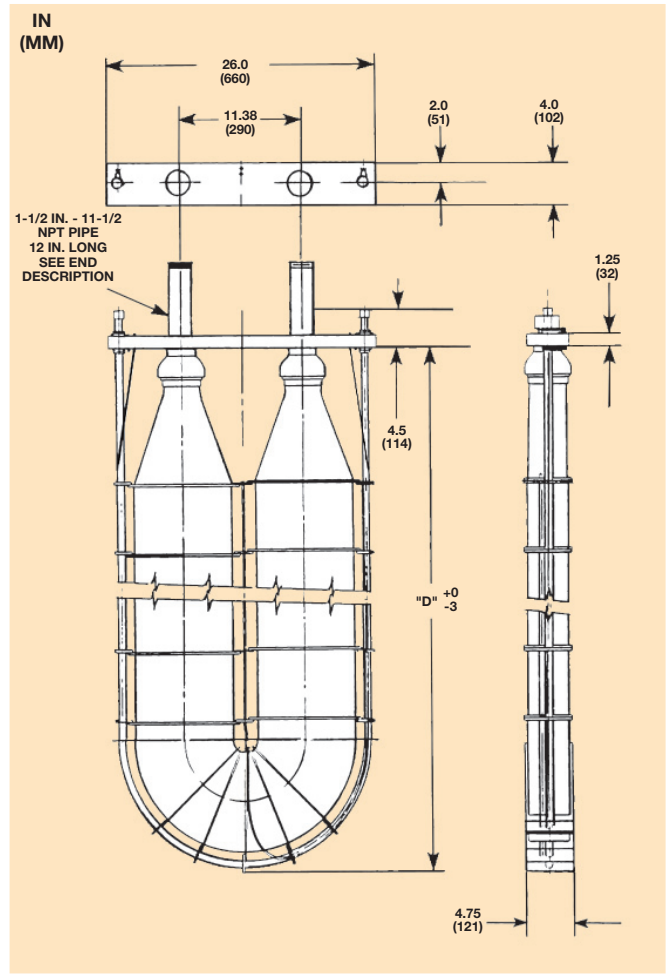
EXTENDED SLIMLINE COILS

NOM. LENGTH, FEET	"H" DIMENSION, (ft.)												
	0	1	2	3	4	5	6	7	8	9	10	11	12
	"D" DIMENSION +0 IN. -3 IN.												
5	3 ft. 2-1/4 in.	2 ft. 8-1/4 in.											
6	3 ft. 5-1/4 in.	2 ft. 11-1/4 in.	2 ft. 5-1/4 in.										
7	3 ft. 11-1/4 in.	3 ft. 5-1/4 in.	2 ft. 11-1/4 in.	2 ft. 5-1/4 in.									
8	4 ft. 5-1/4 in.	3 ft. 11-1/4 in.	3 ft. 5-1/4 in.	2 ft. 11-1/4 in.	2 ft. 5-1/4 in.								
10	5 ft. 5-1/4 in.	4 ft. 11-1/4 in.	4 ft. 5-1/4 in.	3 ft. 11-1/4 in.	3 ft. 5-1/4 in.	2 ft. 11-1/4 in.	2 ft. 5-1/4 in.						
12	6 ft. 5-1/4 in.	5 ft. 11-1/4 in.	5 ft. 5-1/4 in.	4 ft. 11-1/4 in.	4 ft. 5-1/4 in.	3 ft. 11-1/4 in.	3 ft. 5-1/4 in.	2 ft. 11-1/4 in.	2 ft. 5-1/4 in.				
14	7 ft. 5-1/4 in.	6 ft. 11-1/4 in.	6 ft. 5-1/4 in.	5 ft. 11-1/4 in.	5 ft. 5-1/4 in.	4 ft. 11-1/4 in.	4 ft. 5-1/4 in.	3 ft. 11-1/4 in.	3 ft. 5-1/4 in.	2 ft. 11-1/4 in.	2 ft. 5-1/4 in.		
16	8 ft. 5-1/4 in.	7 ft. 11-1/4 in.	7 ft. 5-1/4 in.	6 ft. 11-1/4 in.	6 ft. 5-1/4 in.	5 ft. 11-1/4 in.	5 ft. 5-1/4 in.	4 ft. 11-1/4 in.	4 ft. 5-1/4 in.	3 ft. 11-1/4 in.	3 ft. 5-1/4 in.	2 ft. 11-1/4 in.	2 ft. 5-1/4 in.

"U"=TIGHT "U" SLIMLINE COIL—GENERATION 6 ("S" End)



"U"=TIGHT "U" SLIMLINE COIL—GENERATION 6 ("T" End)



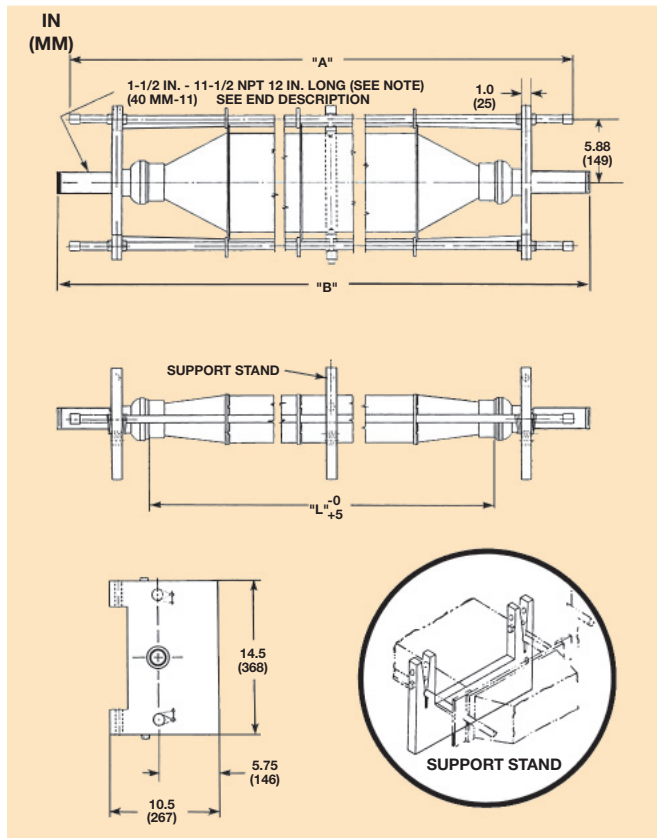
TIGHT "U" SLIMLINE COIL—GENERATION 6

LENGTH (ft.)	"D" DIMENSION
5	3 ft. 1/2 in.
6	3 ft. 6-1/2 in.
7	4 ft. 1/2 in.
8	4 ft. 6-1/2 in.
10	5 ft. 6-1/2 in.
12	6 ft. 6-1/2 in.
14	7 ft. 6-1/2 in.
16	8 ft. 6-1/2 in.

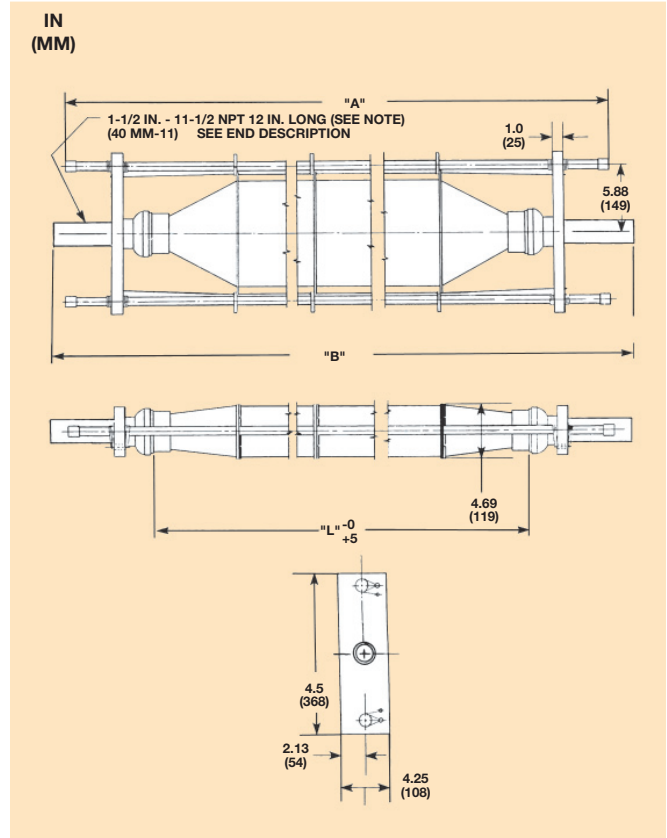
TIGHT "U" SLIMLINE COIL—GENERATION 6

LENGTH (ft.)	"D" DIMENSION
5	3 ft. 1-3/4 in.
6	3 ft. 7-3/4 in.
7	4 ft. 1-3/4 in.
8	4 ft. 7-3/4 in.
10	5 ft. 7-3/4 in.
12	6 ft. 7-3/4 in.
14	7 ft. 7-3/4 in.
16	8 ft. 7-3/4 in.

STRAIGHT SLIMLINE COIL—GENERATION 8-SB



STRAIGHT SLIMLINE COIL—GENERATION 8-SS



LENGTH (ft.)	QD500-T-8-NL-SB & SS			NUMBER OF SUPPORT STANDS REQUIRED
	"A"	"B"	"L"	
4	5 ft. 8-1/4 in.	6 ft. 11 in.	4 ft. 5 in.	0
5	6 ft. 8-1/4 in.	7 ft. 11 in.	5 ft. 5 in.	0
6	7 ft. 8-1/2 in.	8 ft. 11 in.	6 ft. 5 in.	0
7	8 ft. 8-1/4 in.	9 ft. 11 in.	7 ft. 5 in.	1
8	9 ft. 8-1/4 in.	10 ft. 11 in.	8 ft. 5 in.	1
10	11 ft. 8-1/4 in.	12 ft. 11 in.	10 ft. 5 in.	1
12	13 ft. 8-1/4 in.	14 ft. 11 in.	12 ft. 5 in.	2
14	15 ft. 8-1/4 in.	16 ft. 11 in.	14 ft. 5 in.	2
16	17 ft. 8-1/4 in.	18 ft. 11 in.	16 ft. 5 in.	2

END DESCRIPTION

The 12 inch welded pipe shown as "T" end hardware is standard only for units produced from Q tubing (QD500T-). Units produced from FEP tubing (D500T-) are supplied with 1-1/2 inch NPT female threads in the endbell.

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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BULLETIN H1012