

IMMERSION COILS

Slimline Coil™ Model D 500 & QD 500 Heat Exchangers

Niche 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.

Niche 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 Niche Q-Series Slimline Coils to handle many steam heating applications without desuperheating. In metal processing, high efficiency Niche Slimline Coil Heat Exchangers also save energy, reduce waste, and cut processing costs by minimizing acid consumption and spent pickle liquor disposal.

Niche 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).

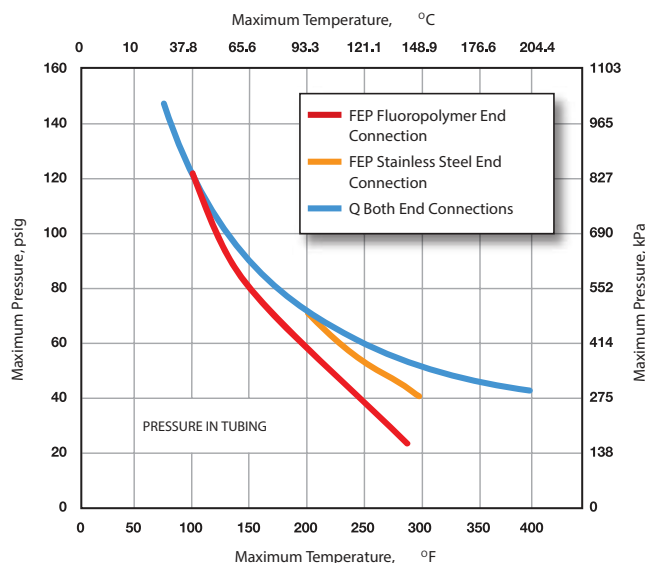
Contact an Niche representative for chemical resistance data on your application.



Model Number

EXAMPLE: Q D C 500 SM 8 10 2			
Q	RESIN TYPE	(blank) = FEP	
		Q = PFA/Graphite	
D	SLIMLINE COIL		
C	SUPPORT RODS (TEFLON COATED)	(blank) = Carbon Steel	
		C = Stainless Steel	
500	MODEL NUMBER		
SM	END CONNECTIONS	S = Stainless Steel	
		T = TEFLON® Type	
		SM = SS/Metric	
8	GENERATION		
10	NOMINAL LENGTH (FT.)		
2	COIL CONFIGURATION	0-12 = H dimension (0-12 ft)	
		SS = Straight coil, side-mounted	
		SB = Straight coil, bottom-mounted	
		U = Tight "U"	

Operation Limits



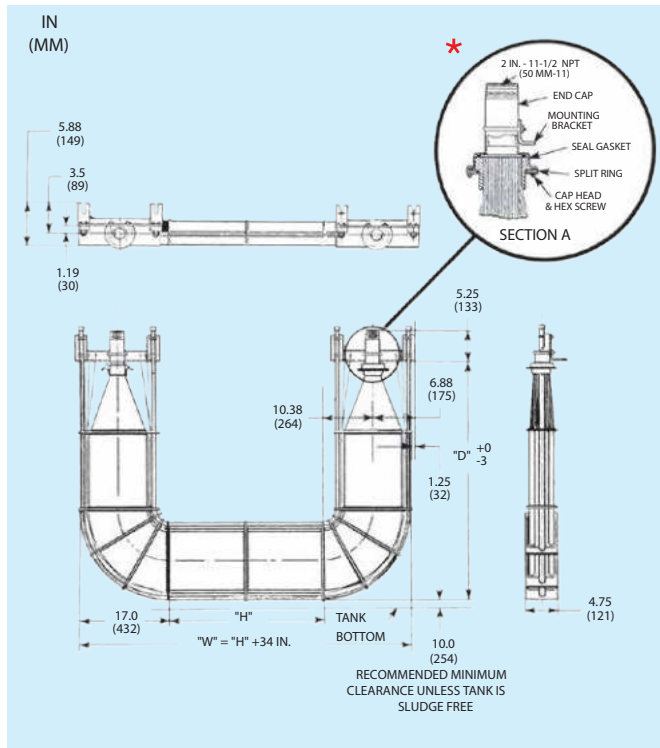
Specifications

Description	Spec
Heat Transfer Area	49 to 245 ft ² (4.6 to 22.8 m ²)
Tube Outside Diameter	.125 inch (3.175 mm)
Tube Wall Thickness	.0125 inch (.3175 mm)
Average Heat Transfer Coefficient Q	60-100 BTU/Hr.-ft. ² -°F (293-488 Kcal/Hr.-m ² -°C)
Average Heat Transfer Coefficient FEP, PFA	30-50 BTU/Hr.-ft. ² -°F (146-244 Kcal/Hr.-m ² -°C)

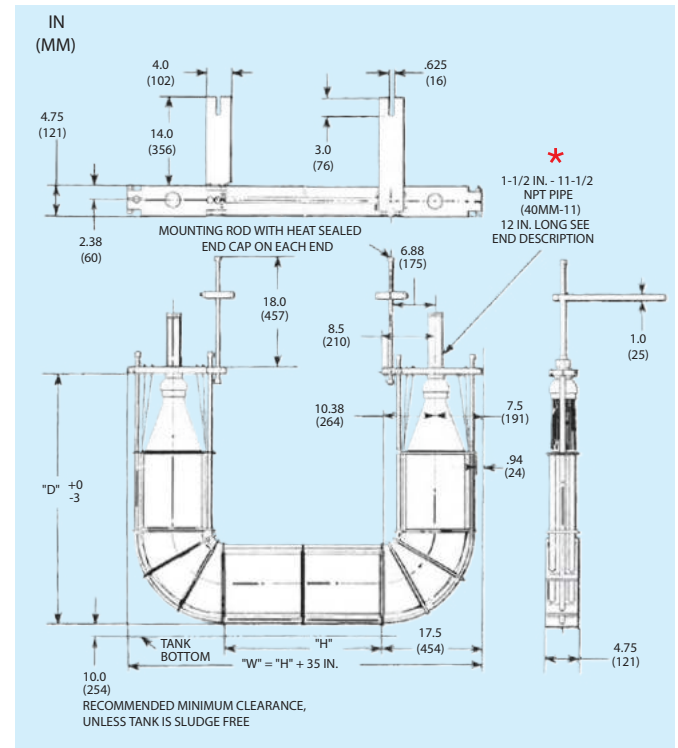
Heat Transfer Area

LENGTH ft	AREA	
	ft ²	m ²
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

Extended Slimline Coil - GENERATION 8 (S end)



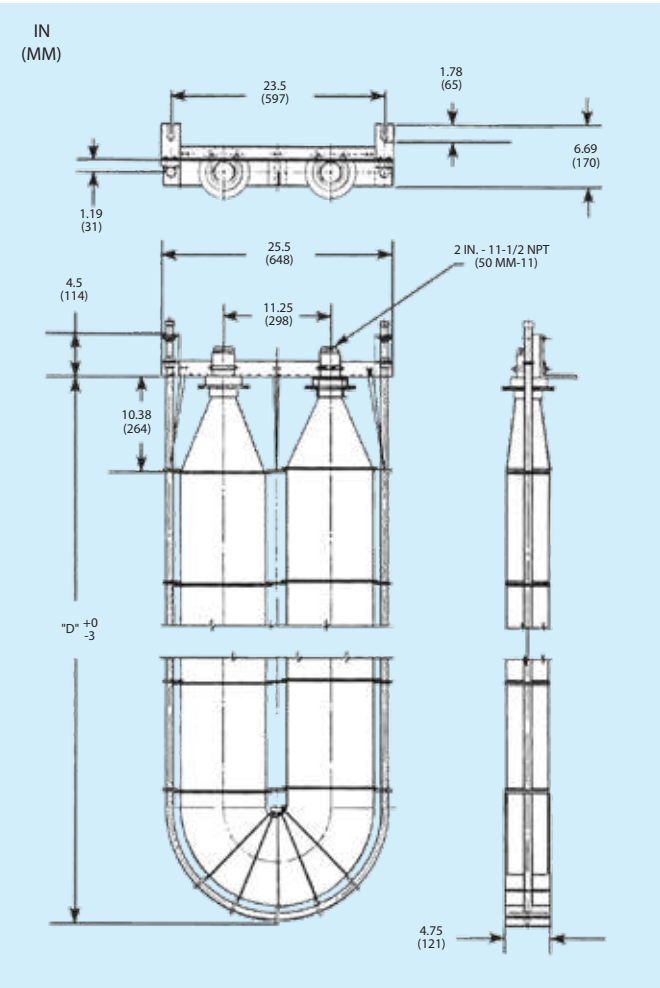
Extended Slimline Coil - GENERATION 8 (T end)



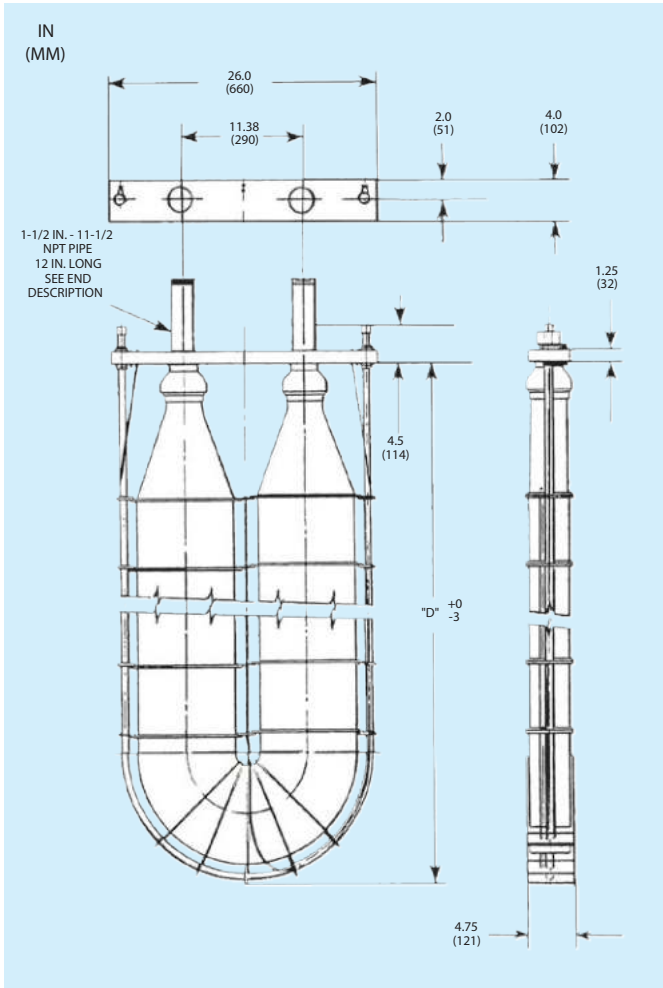
Extended Slimline Coils

NOM. LENGTH ft	H DIMENSION												
	0	1	2	3	4	5	6	7	8	9	10	11	12
	D DIMENSION, +0 IN -3 IN												
5	3 ft 2.25 in	2 ft 8.25 in											
6	3 ft 5.25 in	2 ft 11.25 in	2 ft 5.25 in										
7	3 ft 11.25 in	3 ft 5.25 in	2 ft 11.25 in	2 ft 5.25 in									
8	4 ft 5.25 in	3 ft 11.25 in	3 ft 5.25 in	2 ft 11.25 in	2 ft 5.25 in								
10	5 ft 5.25 in	4 ft 11.25 in	4 ft 5.25 in	3 ft 11.25 in	3 ft 5.25 in	2 ft 11.25 in	2 ft 5.25 in						
12	6 ft 5.25 in	5 ft 11.25 in	5 ft 5.25 in	4 ft 11.25 in	4 ft 5.25 in	3 ft 11.25 in	3 ft 5.25 in	2 ft 11.25 in	2 ft 5.25 in				
14	7 ft 5.25 in	6 ft 11.25 in	6 ft 5.25 in	5 ft 11.25 in	5 ft 5.25 in	4 ft 11.25 in	4 ft 5.25 in	3 ft 11.25 in	3 ft 5.25 in	2 ft 11.25 in	2 ft 5.25 in		
16	8 ft 5.25 in	7 ft 11.25 in	7 ft 5.25 in	6 ft 11.25 in	6 ft 5.25 in	5 ft 11.25 in	5 ft 5.25 in	4 ft 11.25 in	4 ft 5.25 in	3 ft 11.25 in	3 ft 5.25 in	2 ft 11.25 in	2 ft 5.25 in

Tight “U” Slimline Coil - GENERATION 8 (S end)



Tight “U” Slimline Coil - GENERATION 8 (T end)



Tight “U” Slimline Coil - GENERATION 8 (S end)

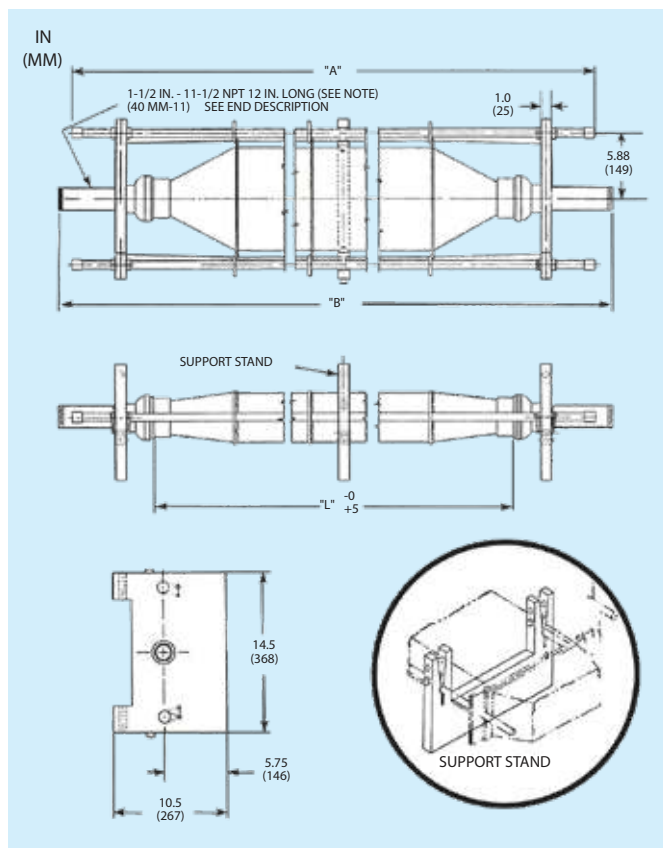
LENGTH, ft	D DIMENSION
5	3 ft 0.5 in
6	3 ft 6.5 in
7	4 ft 0.5 in
8	4 ft 6.5 in
10	5 ft 6.5 in
12	6 ft 6.5 in
14	7 ft 6.5 in
16	8 ft 6.5 in

Tight “U” Slimline Coil - GENERATION 8 (T end)

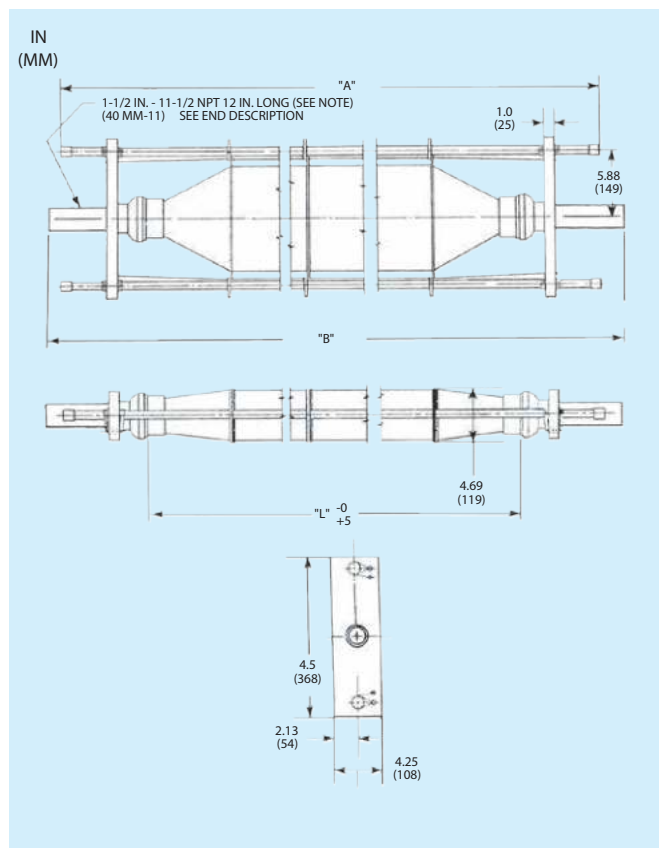
LENGTH, ft	D DIMENSION
5	3 ft 1.75 in
6	3 ft 7.75 in
7	4 ft 1.75 in
8	4 ft 7.75 in
10	5 ft 7.75 in
12	6 ft 7.75 in
14	7 ft 7.75 in
16	8 ft 7.75 in

* Important Connection Note: 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.

Straight Slimline Coil - GENERATION 8-SB



Straight Slimline Coil - GENERATION 8-SS



Straight Slimline Coils

LENGTH ft	QD500-T-8-ML-SB & SS			No. of Support Stands Required
	A	B	L	
4	5 ft 8.25 in	6 ft 11.0 in	4 ft 5.0 in	0
5	6 ft 8.25 in	7 ft 11.0 in	5 ft 5.0 in	0
6	7 ft 8.5 in	8 ft 11.0 in	6 ft 5.0 in	0
7	8 ft 8.25 in	9 ft 11.0 in	7 ft 5.0 in	1
8	9 ft 8.25 in	10 ft 11.0 in	8 ft 5.0 in	1
10	11 ft 8.25 in	12 ft 11.0 in	10 ft 5.0 in	1
12	13 ft 8.25 in	14 ft 11.0 in	12 ft 5.0 in	2
14	15 ft 8.25 in	16 ft 11.0 in	14 ft 5.0 in	2
16	17 ft 8.25 in	18 ft 11.0 in	16 ft 5.0 in	2



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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 Niche 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 occur from exposure to vapors evolved from fluoropolymers at very high temperatures, up to 800F or from smoking materials that contain particles of fluoropolymers. Symptoms pass within 48 hours and are only adverse effects observed in humans to date. Unheated fluoropolymers are essentially inert and are nonirritating to the skin.

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