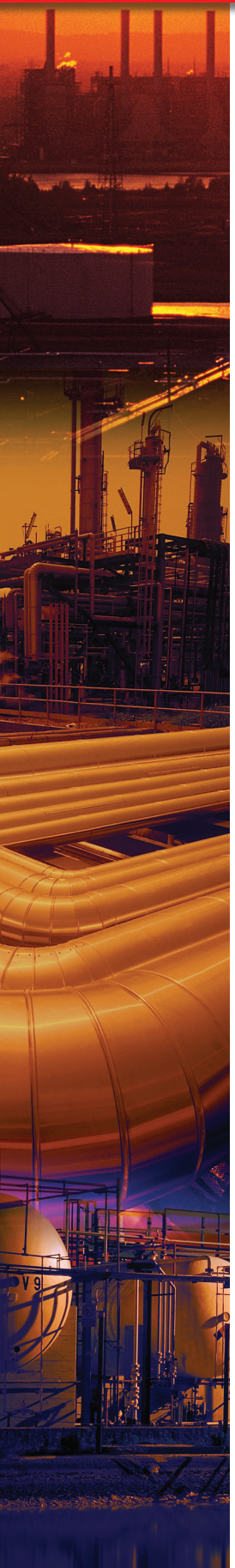
Fluoropolymer HEAT EXCHANGERS
www.ametekfpp.com • info.fpp@ametek.com

AMETEK®
FLUOROPOLYMER PRODUCTS
Customer Service: +1 570-645-6917
Toll Free: 1 800-441-7777



Shell-and-Tube Heat Exchangers 30-Series Mid-Size (4 inch shell)

- *High thermal efficiency*
- *Unmatched corrosion resistance*
- *Unique seal system*
- *FEP, PFA or Q series tubing*

30-Series Mid-Size 4 Inch Shell-and-Tube Heat Exchangers

AMETEK 30-Series Shell-and-Tube Heat Exchangers are single pass, typically counter current flow designs incorporating flexible fluoropolymer tube bundles joined together to form integral honeycomb tube sheets. Units are available with FEP, PFA or Q-Series tubing, all with fluoropolymer-lined heads.

The tube bundle is easily removable for maintenance. Carbon steel shells are most commonly used; a wide variety of other materials are available on request. Metal heat exchanger shells are ASME coded and equipped with TEMA/ANSI end nozzle connections. Contact AMETEK to discuss your specific needs.

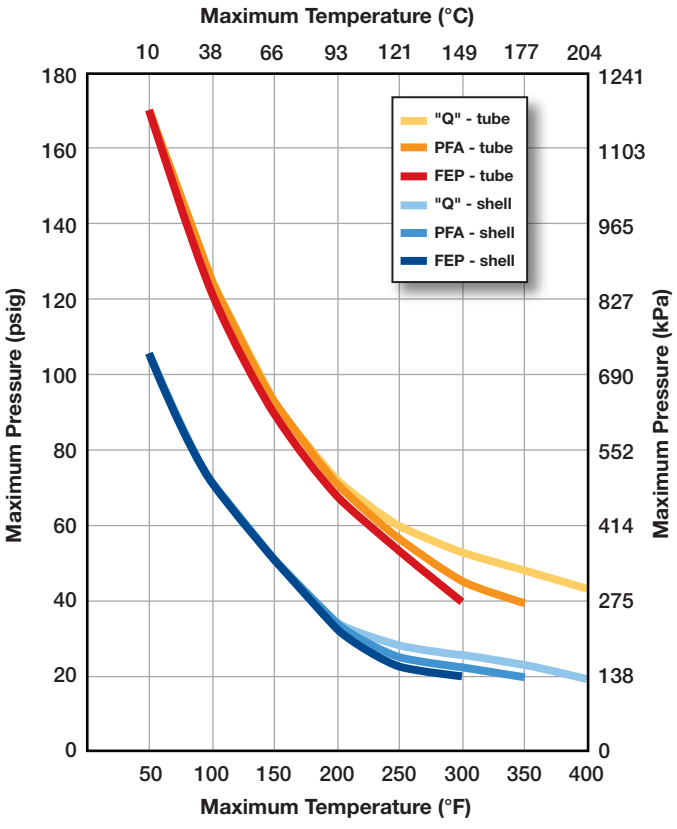
Specifications

Model Number	105	220	440
Tube Outside Diameter	.250" (6.35mm)	.175" (4.45mm)	.125" (3.18mm)
Tube Wall Thickness	.025" (.635mm)	.017" (.44mm)	.012" (.318mm)
Typical Heat Transfer Coefficient (U) FEP & PFA	25-60 BTU/Hr.-ft.^{2}-°F (141-341 watts/m^2-°K)		
Typical Heat Transfer Coefficient (U) Q	35-100 BTU/Hr.-ft.^{2}-°F (199-567 watts/m^2-°K)		
Shell Diameter	4" (101.6 mm)		
Shell Construction†	Carbon Steel, unlined or lined with Fluoropolymer		
Nominal Lengths	3-11 ft. (.9-3.35 m)		
Area for Heat Transfer	19.4-158.3 ft.^{2} (1.8-14.7 m^2)		
Bundle Configuration	SS Basket or Cross Flow Baffle*		

Model Number

EXAMPLE: Q 105 CT 30 8 V E		
Q	TUBING	P = PFA Q = PFA/Graphite *(blank)* = FEP
105	MODEL NUMBER	
CT	SHELL	CT = Carbon steel shell ST = Stainless steel shell† LT = Fluoropolymer lined†
M	END CONNECTIONS	M = Metric *(blank)* = ANSI
30	GENERATION	
8	NOMINAL LENGTH (ft.)	
V	O-RING SEAL MATERIAL	V = VITON® E = Ethylene propylene T = Fluoropolymer encapsulated VITON® K = KALREZ®
E	ENVELOPE GASKET MATERIAL	V = VITON® E = Ethylene propylene

Operating Limits



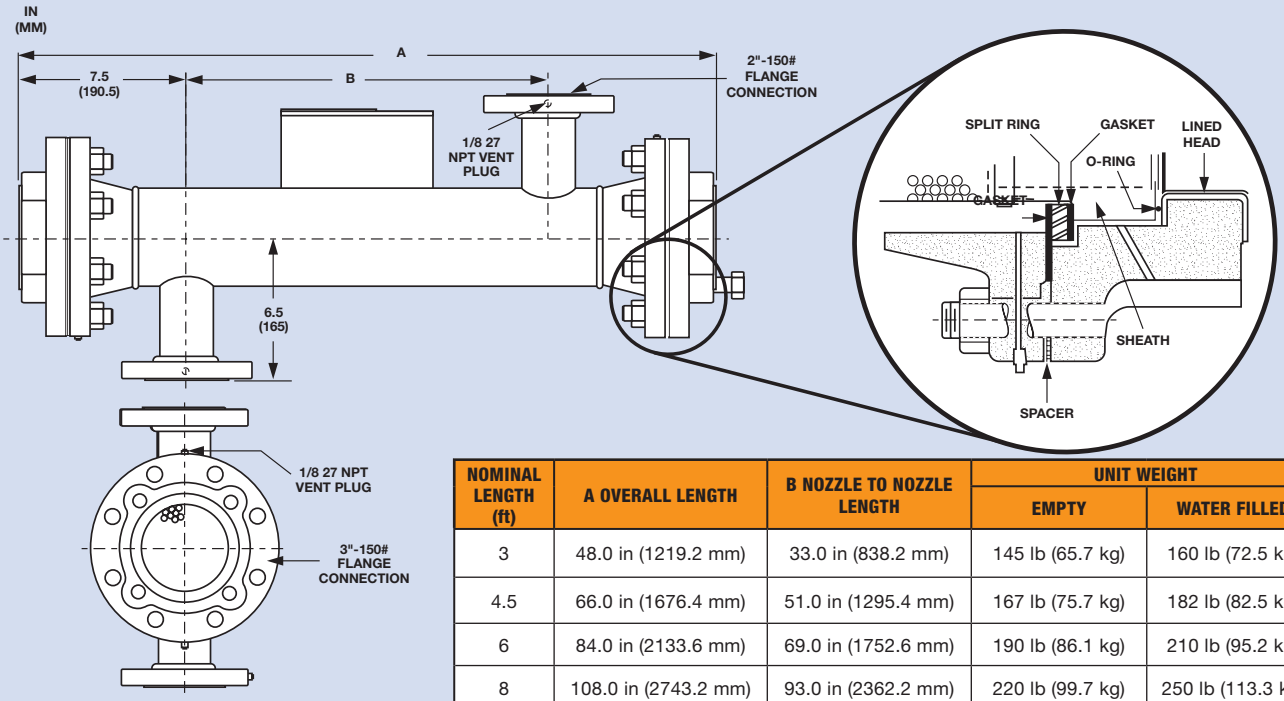
NOTE: The curves on the chart are for the fluoropolymer bundles only.

VITON® and KALREZ® are registered trademarks of the DuPont Company

* *Special order bundle configuration.*

† *Typical shell construction. Special material such as PP, CPVC, stainless steel or other metal alloys, and fiberglass available by special order. Custom configurations also available.*

Dimensions – 30 Series - 4" Shell



NOMINAL LENGTH (ft)	A OVERALL LENGTH	B NOZZLE TO NOZZLE LENGTH	UNIT WEIGHT	
			EMPTY	WATER FILLED
3	48.0 in (1219.2 mm)	33.0 in (838.2 mm)	145 lb (65.7 kg)	160 lb (72.5 kg)
4.5	66.0 in (1676.4 mm)	51.0 in (1295.4 mm)	167 lb (75.7 kg)	182 lb (82.5 kg)
6	84.0 in (2133.6 mm)	69.0 in (1752.6 mm)	190 lb (86.1 kg)	210 lb (95.2 kg)
8	108.0 in (2743.2 mm)	93.0 in (2362.2 mm)	220 lb (99.7 kg)	250 lb (113.3 kg)
11	144.0 in (3657.6 mm)	129.0 in (3276.7 mm)	265 lb (120.1 kg)	305 lb (138.3 kg)

Heat Transfer Area

NOMINAL LENGTH (t)	MODEL 105		MODEL 220		MODEL 440	
	FT^2	M^2	FT^2	M^2	FT^2	M^2
3	19.4	1.8	30.2	2.8	43.0	4.0
4.5	29	2.7	45.3	4.2	64.8	6.0
6	38.7	3.6	60.5	5.6	86.4	8.0
8	51.6	4.8	80.6	7.5	115.2	10.7
11	71	6.6	110.8	10.3	158.3	14.7

FEP and PFA 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.

AMETEK®

FLUOROPOLYMER PRODUCTS

42 MOUNTAIN AVENUE
NESQUEHONING, PENNSYLVANIA, 18240-2201 U.S.A.
TEL: +1 570-645-6917 • 800-441-7777 *(U.S. and Canada only)*
FAX: +1 570-645-6950
www.ametekfpp.com
E-mail: info.fpp@ametek.com

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.

This information set forth herein is furnished free of charge and is based on technical data which AMETEK believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with your use of this information. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents.