

FLUOROPOLYMER HEAT EXCHANGERS AND TUBING

PV-4 Series Shell & Tube Heat Exchangers (3 inch shell)

FEATURES

- High thermal efficiency
- Corrosion-resistant fluoropolymer construction
- Unique bundle & baffle system
- FEP or "Q" Series tubing
- CPVC shell material



SHELL-AND-TUBE MODEL PV-4

DESCRIPTION

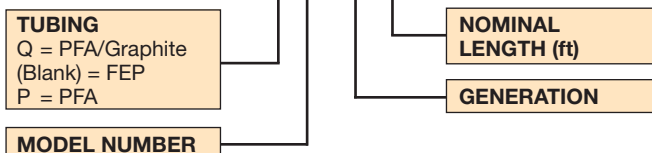
AMETEK Model PV-4 Series Shell and Tube Heat Exchangers are small, inexpensive units ideal for low flow processes. Their design maximizes the heat transfer performance of FEP or PFA, as well as "Q" Series fluoropolymer tubing.

AMETEK PV-4 Heat Exchangers come in standard designs shown in this bulletin and can be custom designed to meet customers' special process needs. Contact AMETEK or your local agent for additional information.

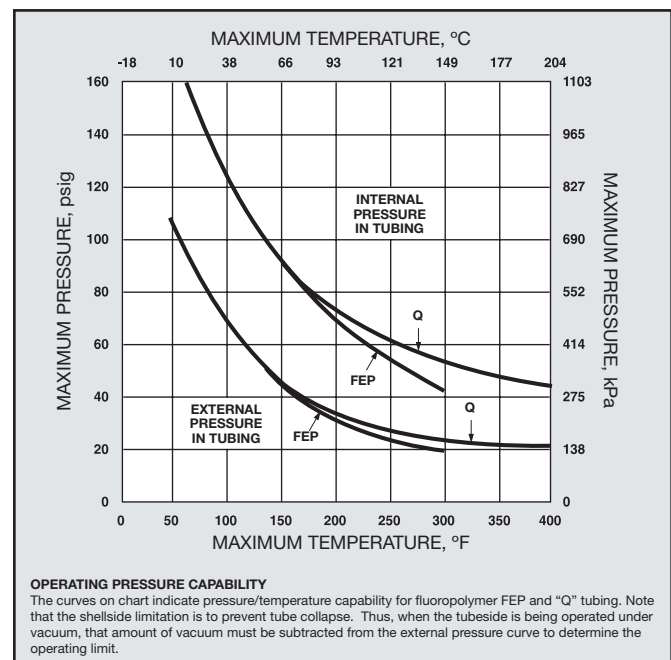
PRODUCT DESCRIPTION

Model Number	40	80	180
Tube Outside Diameter	.250" (6.35 mm)	.175" (4.44 mm)	.125" (3.18 mm)
Tube Wall Thickness	.025" (.635 mm)	.017" (.44 mm)	.012" (.318 mm)
Shell Construction	CPVC, Stainless Steel or other		
Typical Heat Transfer Coefficient (U) FEP	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)		

(Example)
MODEL NUMBER
Q 80 PV-4 4



OPERATING LIMITS



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 (ft)	MODEL 40		MODEL 80		MODEL 180	
	FT ²	M ²	FT ²	M ²	FT ²	M ²
2.0	5	0.47	7	.65	12	1.09
2.5	6	0.56	9	.81	15	1.37
3.0	8	0.72	10	.97	18	1.64
3.5	9	0.83	12	1.13	21	1.91
4.0	10	0.95	14	1.29	24	2.19
4.5	12	1.07	16	1.46	27	2.46
5.0	13	1.19	17	1.62	29	2.73
5.5	14	1.30	19	1.78	32	3.00
6.0	15	1.42	21	1.94	35	3.28

PV-4 SERIES

The technical drawing shows a side view of the PV-4 series tube assembly with dimensions: 5.125" TYP. for the end fitting, NOMINAL LENGTH for the main tube, and OVERALL LENGTH for the entire assembly. A circular callout provides a detailed cross-section of the seal assembly, labeling components: 1-1/2 NPT, GASKET EP-RUBBER OR VITON®, COMPRESSION O-RING SEAL EP-RUBBER OR VITON®, 1-1/2 NPT, "TFE" TEFLON® HEAD & SEAL CLOSURE, AXIAL O-RING SEAL EP-RUBBER OR VITON®, and "TFE" SPLIT RING.

ALL MODELS		
NOMINAL LENGTH IN	OVERALL LENGTH IN	OVERALL LENGTH MM
24	43.25	1098
30	49.25	1251
36	55.25	1403
42	61.25	1556
48	67.25	1708
54	73.25	1861
60	79.25	2013
66	85.25	2165
72	91.25	2318

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.



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