

Ronningen-Petter® F-Series



Backwashing Pressure Filter System

For liquid filtering applications that require unattended operation, maximum uptime, and solids removal from 1 to 1,700 microns, the F-Series family of filter systems delivers unbeatable performance.

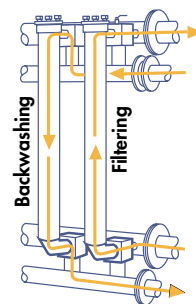
The key to the F-Series' versatility is its modular design that enables future capacity and configuration flexibility. F-Series systems can include 2 to 20 body tubes on a single framed skid and can be ordered with blank stations to allow low-cost expanded capacity.

Like many Eaton (Ronningen-Petter) filters, the F-Series uses cleanable media. This further reduces life-cycle costs and maximizes productivity in your plant by eliminating the labor, replacement, disposal costs and lost production of bags and cartridges. Key benefits include:

- Single system flow rates up to 3,000 gpm (681 m³/hr)
- Smooth pipe and nozzle connection transitions to avoid dead spots in the fluid stream and minimize pressure drop
- A broad selection of filter media materials and retentions suitable for a wide range of applications
- Proprietary 3-way, full-ported valves allow fast, frequent sequencing and maximum cleaning force during backwashing
- Isolated top-to-bottom backwash flow ensures complete and efficient media cleaning while continuing to deliver filtered product downstream
- Numerous automated backwash options for operator-free service and minimal backwash effluent (<2% of system volume)
- Available ACCUFLUX® media dramatically increases filter surface area in the same footprint

How the F-Series Works

When cleaning is required (triggered by time or pressure differential), a single valve removes the tube to be backwashed from the incoming flow stream. The resulting pressure drop redirects a portion of the clean process flow downward, flushing the contaminants to the drain manifold. When process liquids are very valuable, or hazardous, an external backwash configuration, which uses a small amount of secondary liquid introduced through a separate manifold, is recommended.



External Backwashing



Industrial liquid filtration,
separation and mixing solutions

Ronningen-Petter F-Series Backwashing Pressure Filter System

Product Specifications

Connection

Inlet and Outlet: 3 in. ANSI or 80mm DIN to 12 in. ANSI or 300mm DIN Flanged
Drain: 3 in. ANSI or 80mm DIN Flanged
Backwash (if external): 3 in. (80mm) weld stub

Process Parameters

Temperature: 350°F (177°C) system maximum (determined by screen material and elastomer seals)
Operating pressure: up to 250 psig (17 bar)

Elastomer Seals

Standard: Buna-N (180°F (82°C) maximum)
Optional: Food-grade Neoprene (180°F (82°C) maximum); Nardel (230°F (110°C) maximum); Viton® (300°F (149°C) maximum); Teflon® (350°F (176°C) maximum); silicone (350°F (177°C) maximum)

Housing/Wetted Parts Materials

Standard: 316 stainless steel
Optional: Wide range possible; ask your representative for more information

Frame Materials

Standard: Painted carbon steel
Optional: 304 stainless steel

Automation

Standard: Choice of Programmable Logic Controller (PLC), semi-automatic, or manual
Optional: Wide range possible; ask your representative for more information

Utilities

Electrical (automated models only): 110 or 220 Volt, 50 or 60 Hz, single-phase
Air (automated models only): 60-116 psig (4-8 bar) at 5 CFM (140 m³/m). Air must be clean, dry and non-lubricated
Backwash minimum flow: 90 gpm (340 l/min) for single and Tri-Cluster media; 150 gpm (567 l/min) for ACCUFLUX™ media

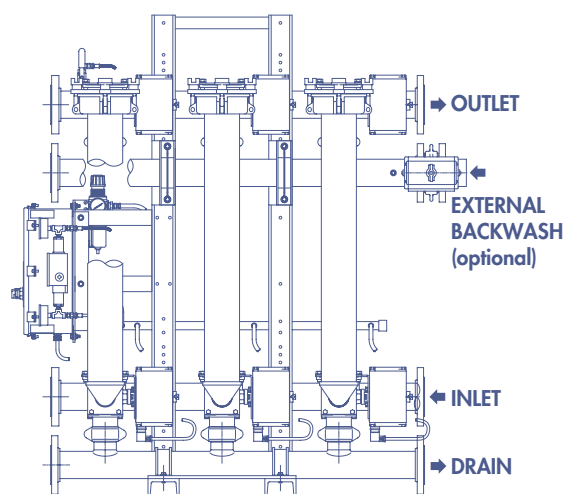
Options

Internal or external backwashing
Media-cleaning diffusers for more effective cleaning at low operating pressures or volumes
Drain header trap
Quick-coupler valve connectors for body tube removal

Media

Table shows available media (with corresponding filter surface area) and material (with corresponding retention). Other configurations are available on request.

	Single element 364 in² (.23 m²)	TRI-CLUSTER® 510 in² (.33 m²)	ACCUFLUX® 7 791 in² (.51 m²)
316 SS Slotted wedge wire 23-1700 microns	(1) 3-1/4" x 36" Filter Stick	(3) 1-1/2" x 36" Filter Stick	(7) 1" x 36" Filter Stick
316 SS Wire mesh 2-1700 microns	(1) 3-1/4" x 36" Filter Stick	(3) 1-1/2" x 36" Filter Stick	(7) 1" x 36" Filter Stick
Fabric mesh 1-230 microns	(1) 3-1/4" x 36" Sock over perforated	(3) 1-1/2" x 36" Sock over perforated	N/A
316 SS Perforated .024 to 1 in.	(1) 3-1/4" x 36"	N/A	N/A



Footprint measurements on table at left

Model	Dimensions					Configuration Number of Tubes
	Weight (dry) lbs (kg)	Height in (mm)	Footprint width x length in (mm)	Volume gal (l)		
F202	450 (204)	62 (1575)	28.5 x 45 (725 x 1145)	18 (68)		2
F203	600 (272)	62 (1575)	28.5 x 48 (725 x 1220)	23 (87)		3
F204	750 (340)	62 (1575)	28.5 x 63 (725 x 1600)	30 (114)		4
F205	900 (408)	62 (1575)	28.5 x 78 (725 x 1980)	37 (140)		5
F206	1200 (544)	62 (1575)	28.5 x 93 (725 x 2360)	65 (246)		6
F207	1350 (612)	62 (1575)	28.5 x 108 (725 x 2745)	75 (284)		7
F208	1500 (680)	62 (1575)	28.5 x 123 (725 x 3125)	85 (322)		8
F209	1800 (816)	62 (1575)	28.5 x 138 (725 x 3505)	124 (470)		9
F210	1950 (885)	62 (1575)	28.5 x 153 (725 x 3885)	138 (522)		10
F211	2100 (952)	62 (1575)	28.5 x 168 (725 x 4265)	151 (572)		11
F212	2400 (1089)	62 (1575)	28.5 x 183 (725 x 4650)	165 (625)		12

Weights and volumes are given for external backwash configured units. Internal backwash units weights and volumes will be lower.

Eaton
9151 Shaver Road
Portage, Michigan 49024 USA
Toll Free: 800-656-3344 (North America)
Phone: +1 269-323-1313
Fax: +1 269-323-0065
E-mail: info@eaton.com
Web: www.filtration.eaton.com

Ronningen-Petter, TRI-CLUSTER and ACCUFLUX are registered trademarks of Eaton. All other registered trademarks and trademarks are the property of their respective owners.

Eaton reserves the right to change specifications without prior notice.

RPA-FSS
PWB RPF-140 04/02 4M
Litho in U.S.A.

Eaton SAS
Immeuble Colisée Défense
50-64 avenue François Arago
F-92022 Nanterre Cedex France
Phone: +33 (0)1 56 83 83 00
Fax: +33 (0)1 56 83 83 01

