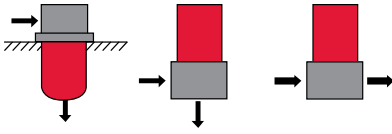


NF Series

In-Tank / Inline Filters

360 psi • up to 450 gpm (4" piping) • up to 1350 gpm (6" piping)



1.0 Version

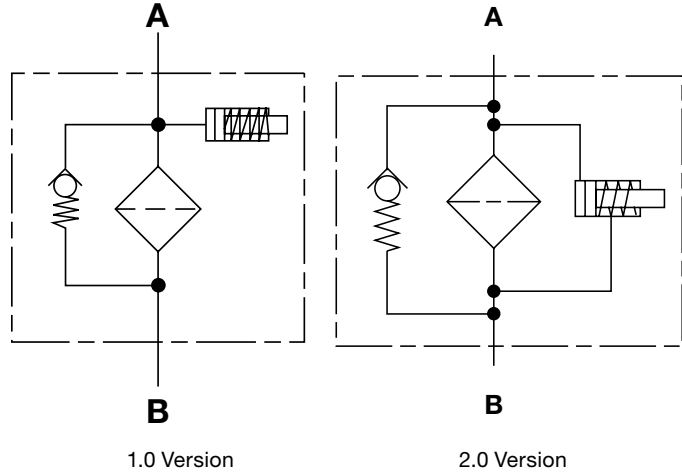


2.0 Version



1350 / 2650

Hydraulic Symbol



Technical Specifications

Mounting Method	See drawings	
Port Connection	4" SAE-64 Flange Code 61 (with M16 bolts included)	
Flow Direction		
1.0 version	Inlet: Side	Outlet: Bottom
2.0 version	Inlet: Side	Outlet: Bottom
1350 / 2650	Inlet: Side	Outlet: Side
Construction Materials		
Head, Housing, Lid	Aluminum	
Elbows, Manifolds	Ductile Iron	
Flow Capacity	4" Headers	
330	80 gpm (303 lpm)	
500	132 gpm (500 lpm)	
750	200 gpm (757 lpm)	
1310, 1350	343 gpm (1300 lpm)	
2610, 2650, 5210, 7810, 10410	450 gpm (1700 lpm)	
	6" Headers	
5210.. D7/D8	900 gpm (3407 lpm)	
7810.. D7/D8	1350 gpm (5110 lpm)	
10410.. D7/D8	1350 gpm (5110 lpm)	
Housing Pressure Rating		
Max. Allowable Working Pressure*	360 psi (25 bar)	
Fatigue Pressure	360 psi (25 bar)	
Burst Pressure	1754 psi (121 bar)	
Element Collapse Pressure Rating		
ON, W/HC	290 psid (20 bar)	
ECON2, BN4AM, P/HC, AM	145 psid (10 bar)	
V	435 psid (30 bar)	
Fluid Temperature Range	-22°F to 212°F (-30°C to 100°C)	
Consult HYDAC for applications below -22°F (-30°C)		
Fluid Compatibility	Compatible with all hydrocarbon based, synthetic, water glycol, oil/water emulsion, and high water based fluids when the appropriate seals are selected.	
Indicator Trip Pressure		
$\Delta P = 29$ psid (2 bar) -10%	1.0 - Static	
$\Delta P = 72$ psid (5 bar) -10%	2.0 - Differential	
Bypass Valve Cracking Pressure		
$\Delta P = 14.5$ psid (1 bar) +10%		
$\Delta P = 43$ psid (3 bar) +10% (standard)		
$\Delta P = 87$ psid (6 bar) +10%		

*Note: All NF...1.0 Filters MAWP reduce to 7 bar (101.5 psi) when using the following "VMF" and "VR" indicators: B, BM, E, ES, GC, LE, LZ.

Features

- NF Filters have an extremely large filtration area and flow capacity of 450 gpm (4" pipe size limitation)
 - NF Filters can be configured for in-tank or in-line applications
 - Vent and drain ports are standard
 - Aluminum alloy is water tolerant - anodizing is not required for high water based fluids (HWBF)
 - Screw-on lid provides easy access to filter element for replacement
 - Reusable contamination basket prevents re-entry of retained contaminants into the reservoir during element replacement (1.0 Version only)
 - Filters can be fitted with clogging indicators to monitor the contamination level of the element
 - Flange connection bolts included for all SAE-DIN flange ports
- Note: This filter is configured with anR.... type (return/low pressure) element, so if the filter requires a bypass, the bypass is located in the closed end cap of the cartridge element.

Model Code

NF ON 1310 D P 3 BM 1.0 / A V

Filter Type _____
 NF = In-Tank Return Line Filter

Element Media _____
 ON = Optimicron® BN/AM = Betamicron®/Aquamicron®
 ECON2 = ECOmicron® AM = Aquamicron®
 W/HC = Wire Mesh P/HC = Polyester
 V = Metal Fiber

Size _____
 330, 500, 750, 1310, 1350, 2610, 2650, 5210, 7810, 10410

Operating Pressure _____
 D = 360 psi (25 bar)
 V = 101.5 psi (7 bar) (When using the following "VR" indicators: B, BM, E, ES, GC, LE, LZ - 1.0 Ver.)

Type of Connection _____
 P = SAE DN 100 (4") flange L = SAE DN 50 (2") flange
 K = SAE DN 38 (1 1/2") flange M = SAE DN 65 (2 1/2") flange (1350/2650 only)
 7 = 6" ANSI CS 300lb. flange N = SAE DN 80 (3") flange

Filtration Rating (micron) _____
 1, 3, 5, 10, 15, 20 = ON 3, 5, 10, 20 = ECON2 3, 10 = BN4AM 40 = AM
 10, 20 = P/HC 25, 74, 149 = W/HC 3, 5, 10, 20 = V

Type of Static or ΔP Clogging Indicator _____
 A, B, BM, C, D, LE (Others available upon request)

Type Number / Modification Number _____
 1.0 = In-Tank Filter - Static indicator (1310/2610 only)
 2.0 = Inline Filter - ΔP indicator

Flow Path (facing Inlet manifold headers) _____
 (omit) = Sizes 330, 500, 750, 1310 and 2610 only C = Left inlet, Right outlet
 A = Left inlet, Left outlet D = Right inlet, Left outlet (sizes 5210 - 10410 only)
 B = Right inlet, Right outlet (sizes 5210 - 10410 only)

Seals _____
 (omit) = Nitrile rubber (NBR) (standard) V = Fluorocarbon elastomer (FKM) EPR = Ethylene propylene rubber (EPR)

Bypass Valve _____
 (omit) = 43 psid (3 bar) (standard)
 B1 = 14.5 psid (1 bar) (lube or coolant)
 B6 = 87 psid (6 bar) (return line extended life)
 KB = no bypass (flushing system)] not available with ECON2

Supplementary Details _____
 SO263 = Modification of ON and W/HC elements for Skydrol or HYJET phosphate ester fluids
 L24, L48, L110, L220 = Lamp for D-type clogging indicator (LXX, XX = voltage)
 EM = Manual vent valve set
 VKD = Drain manifold
 W = Modification of "V" elements for use with oil water emulsions (HFA) and water polymer solutions (HFC)
 SFREE = Element specially designed to minimize electrostatic charge generation

Replacement Element Model Code

1300 R 003 ON / V

Size _____
 330, 500, 750,
 1300 - for housings: 1310, 1350
 2600 - for housings: 2610, 2650,
 5210, 7810, 10410

Filtration Rating (micron) _____
 1, 3, 5, 10, 15, 20 = ON 3, 5, 10, 20 = ECON2
 3, 10 = BN4AM 40 = AM 10, 20 = P/HC
 25, 74, 149 = W/HC 3, 5, 10, 20 = V

Element Media _____
 ON, ECON2, BN4AM, AM, P/HC, W/HC, V

Seals _____
 (omit) = Nitrile rubber (NBR) (standard)
 V = Fluorocarbon elastomer (FKM)
 EPR = Ethylene propylene rubber (EPR)

Bypass Valve _____
 (omit) = 43 psid (3 bar) (standard) B1 = 14.5 psid (1 bar)
 B6 = 87 psid (6 bar) KB = no bypass

Supplementary Details _____
 SO263 = (same as above) W = (same as above)
 SFREE = (same as above)

Clogging Indicator Model Code

VR 2 BM . X / V

Indicator Prefix _____
 VR = Static Pressure, G 1/2" (1.0 ver.)
 VM = ΔP G 1/2" 3000 psi (2.0 ver.)
 VD = ΔP G 1/2" 6000 psi
 (2.0 ver. - LE Indicators only)

Trip Pressure _____
 2 = 29 psid (2 bar) (return filters)
 5 = 72 psid (5 bar) (optional)

Type of Indicator _____
 A = No indicator, plugged port
 B = Pop-up indicator (auto reset - static only)
 BM = Pop-up indicator (manual reset)
 C = Electric switch - SPDT
 D = Electric switch and LED light - SPDT
 LE = Electric switch and pop-up

Modification Number _____

Supplementary Details _____

Seals _____
 (omit) = Nitrile rubber (NBR) (standard)
 V = Fluorocarbon elastomer (FKM)
 EPR = Ethylene propylene rubber (EPR)

Light Voltage (D type indicators only) _____
 L24 = 24V L110 = 110V

W = "VD..." indicator modified with a brass piston for use with high water based emulsions/solutions (HFA) & (HFC)

(For additional details and options, see Section G - Clogging Indicators.)