

Moduflow™ Series

IL2/RF2/CF2 Low Pressure Filters



Global Filtration Technology

Low Pressure Filters

Moduflow™ Series

Applications for Moduflow Filters

- Power Unit Fabrication
- Off-line Filter Loops
- Mobile Equipment

The Moduflow filter is widely considered the most versatile filter available on the market. The unique diverter valve assembly, and inside to outside flow through the element, allows the Moduflow to be configured for in-line, in-tank or suction filtration. The flow diverter

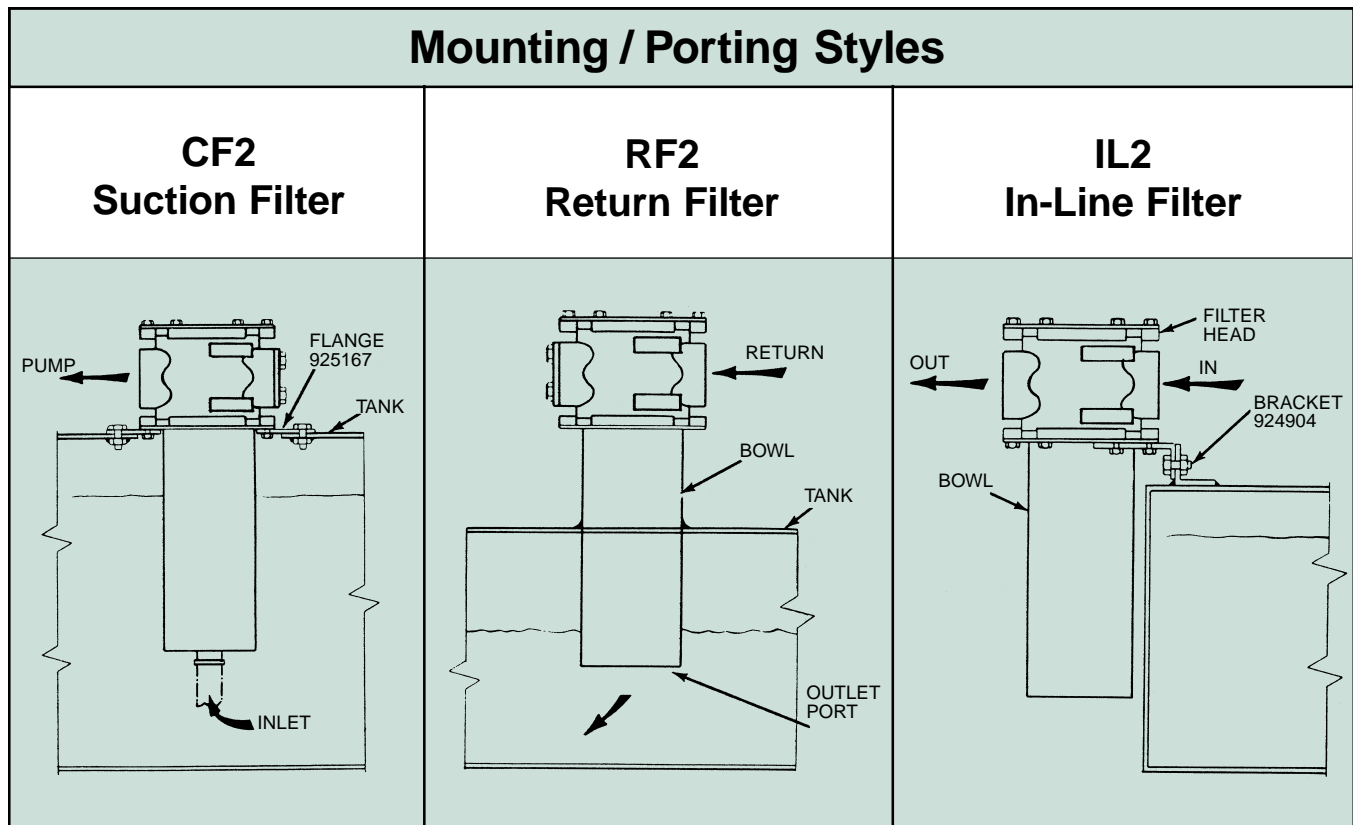
minimizes turbulence and pressure loss through the filter, improving system performance.

The newly designed closed bottom elements for the RF2 and IL2 models insures all contamination remains trapped within the element as the filter is serviced.

A wide variety of visual and electrical indicators allows you to know exactly when the element

needs to be serviced. There is even a “no element” indicator that can sense when there is not an element installed in the filter.

From top to bottom, the Moduflow filter series provides the high level of filtration and long term dependability so vital to today’s hydraulic systems.



Features

Flanges

- NPT or SAE 3/4" to 2"
- Lightweight aluminum

Cover

- Slotted for quick release
- Lightweight aluminum

Indicators

- Visual or electrical
- Mounted on either side
- Optional "no element" indication

Bowl

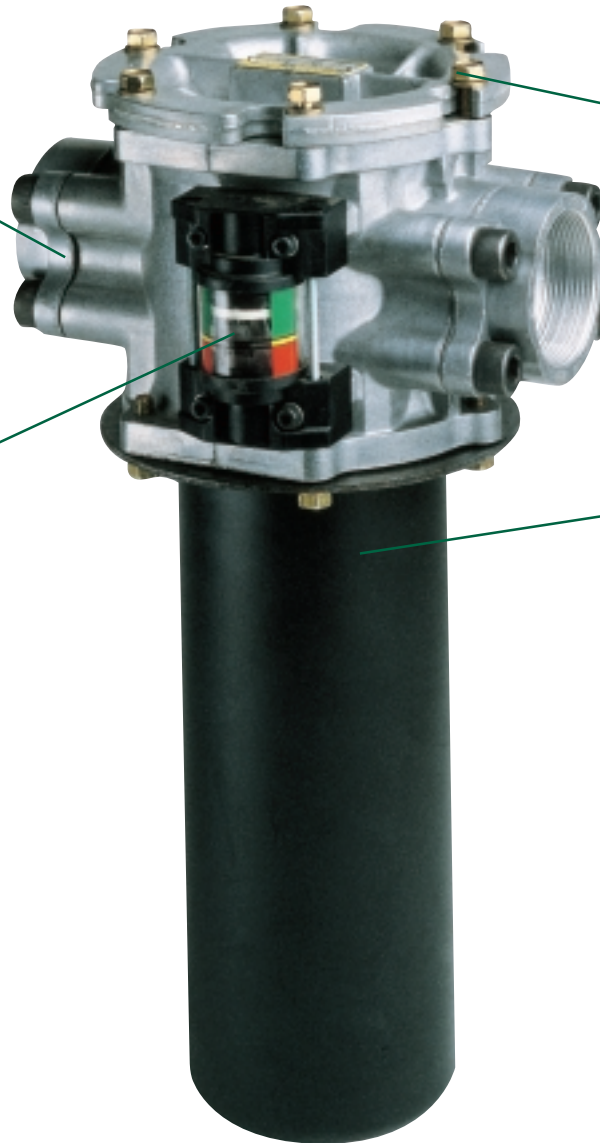
- Single or double length
- Durable steel construction

Bypass/Diverter (not visible)

- 5 different pressure settings
- No bypass option available

Element (not visible)

- Available in cellulose, wire mesh or high performance Microglass II media
- Single or double length

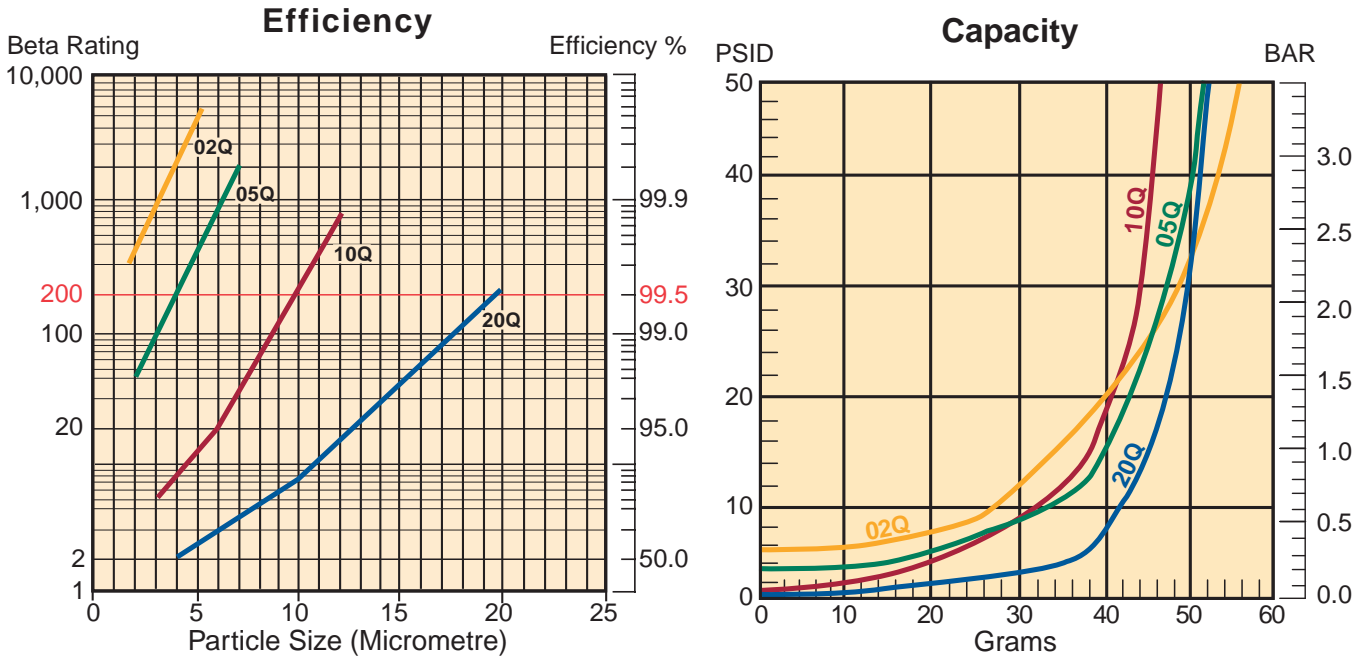


Feature	Advantage	Benefit
<ul style="list-style-type: none"> • Top access element service 	<ul style="list-style-type: none"> • Oil remains in housing • Quicker element change 	<ul style="list-style-type: none"> • No spills • Reduced maintenance costs
<ul style="list-style-type: none"> • Slotted cover 	<ul style="list-style-type: none"> • Quick release cover • Cap screws remain in housing 	<ul style="list-style-type: none"> • Reduced maintenance costs • No loose parts to lose
<ul style="list-style-type: none"> • Closed bottom elements (RF2 and IL2 only) 	<ul style="list-style-type: none"> • Removes all contaminant during element service 	<ul style="list-style-type: none"> • No downstream contamination from servicing
<ul style="list-style-type: none"> • Visual or electrical indicators 	<ul style="list-style-type: none"> • Know exactly when to service elements 	<ul style="list-style-type: none"> • Helps prevent bypass condition • No premature disposal
<ul style="list-style-type: none"> • Flange face ports 	<ul style="list-style-type: none"> • Flexible mounting (3/4" to 2") 	<ul style="list-style-type: none"> • Easy plumbing to your system

Low Pressure Filters

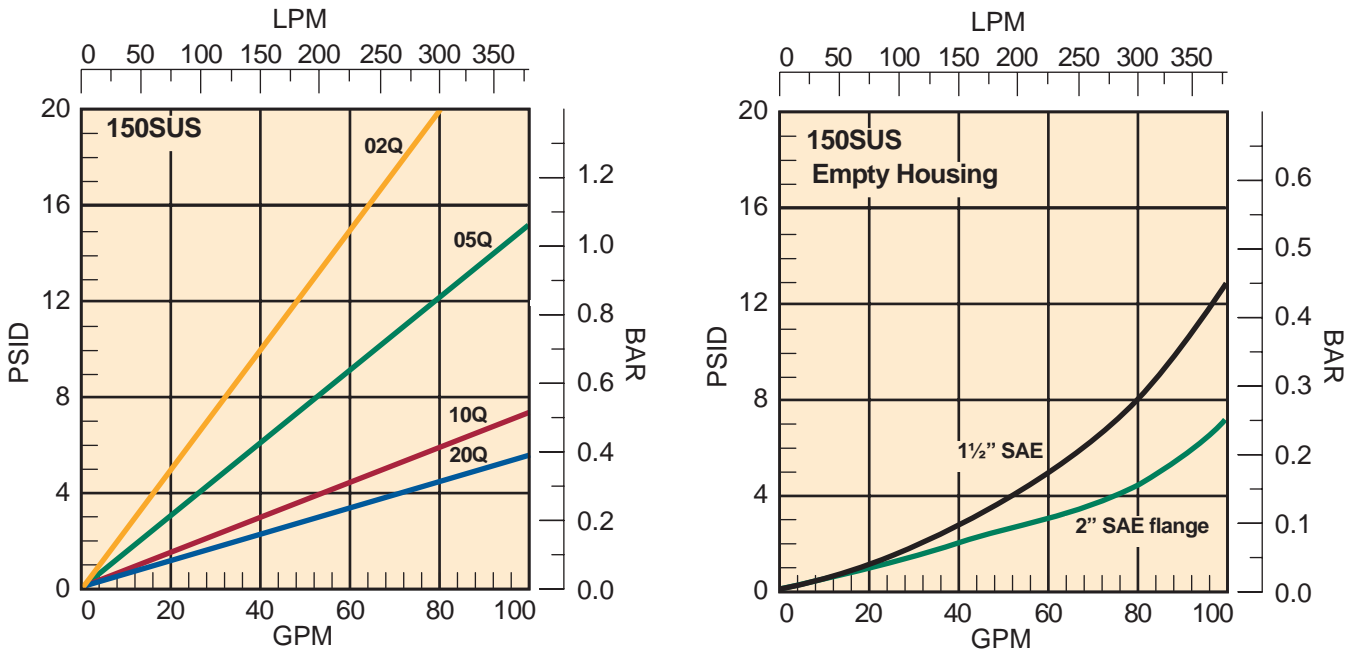
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CF2-1, RF2-1 & IL2-1 Element Performance



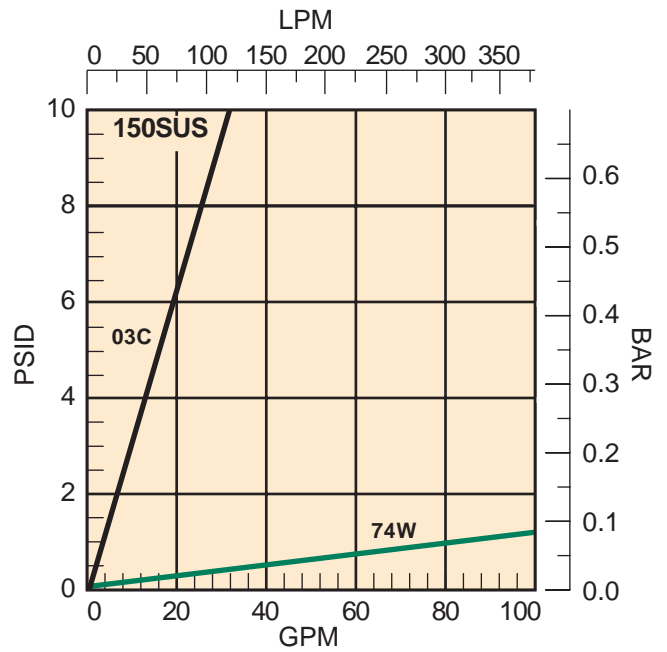
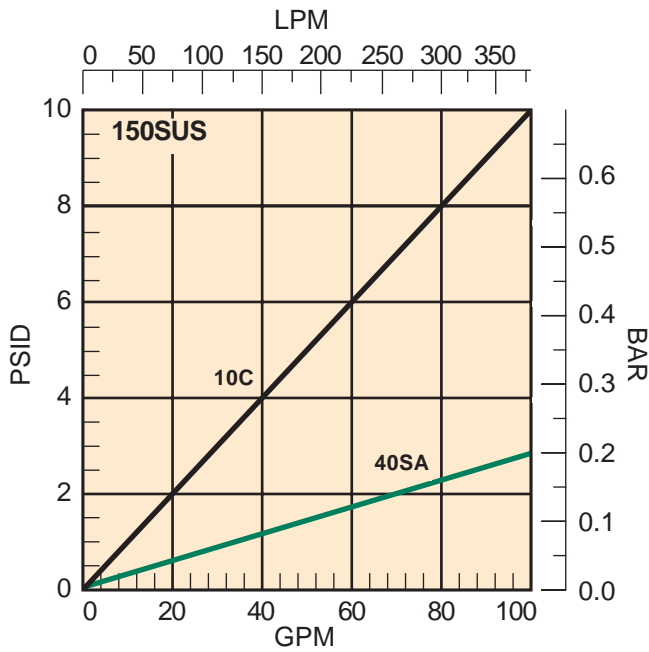
Multipass tests run @ 40 gpm to 50 psid terminal - 5mg/L BUGL

Flow vs. Pressure Loss

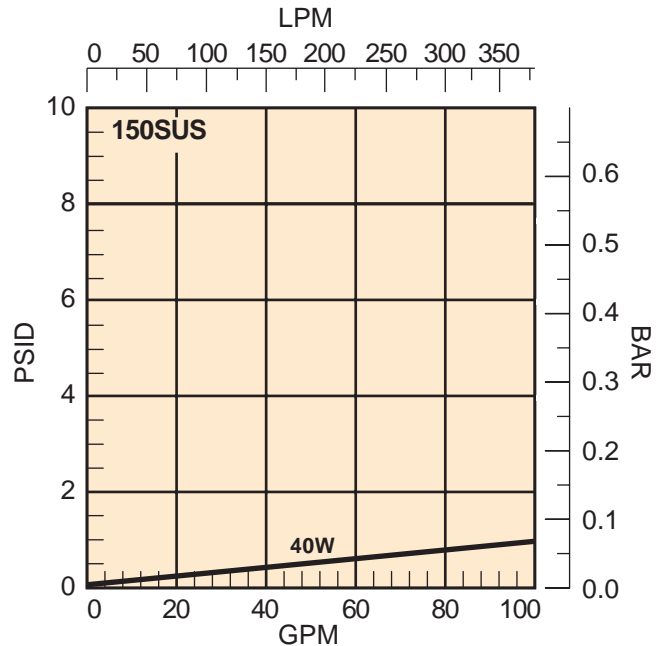
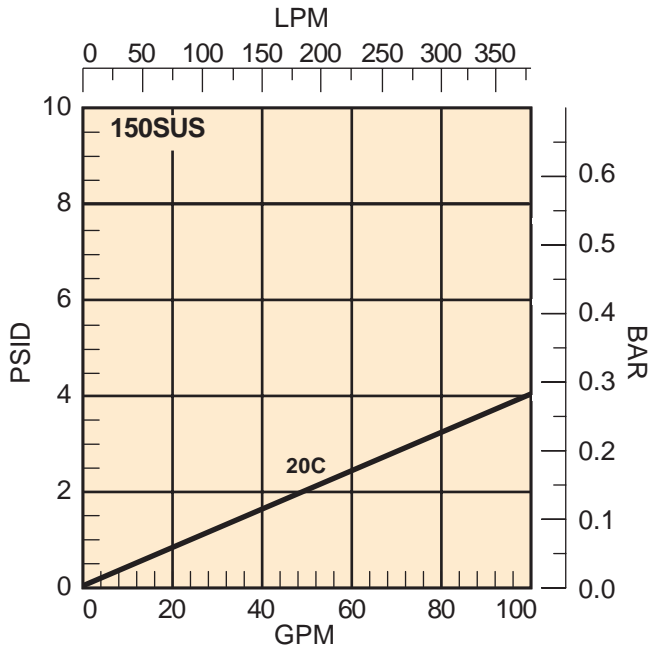


CF2-1, RF2-1 & IL2-1 Element Performance

Flow vs. Pressure Loss



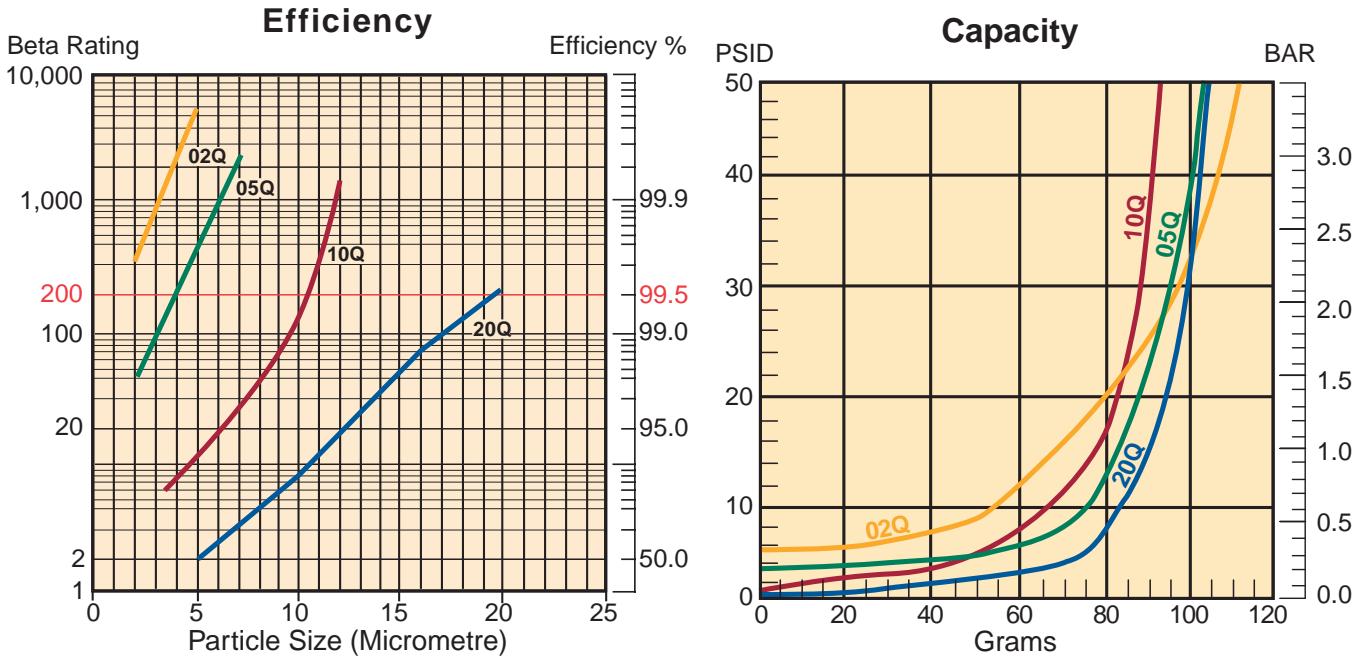
Flow vs. Pressure Loss



Low Pressure Filters

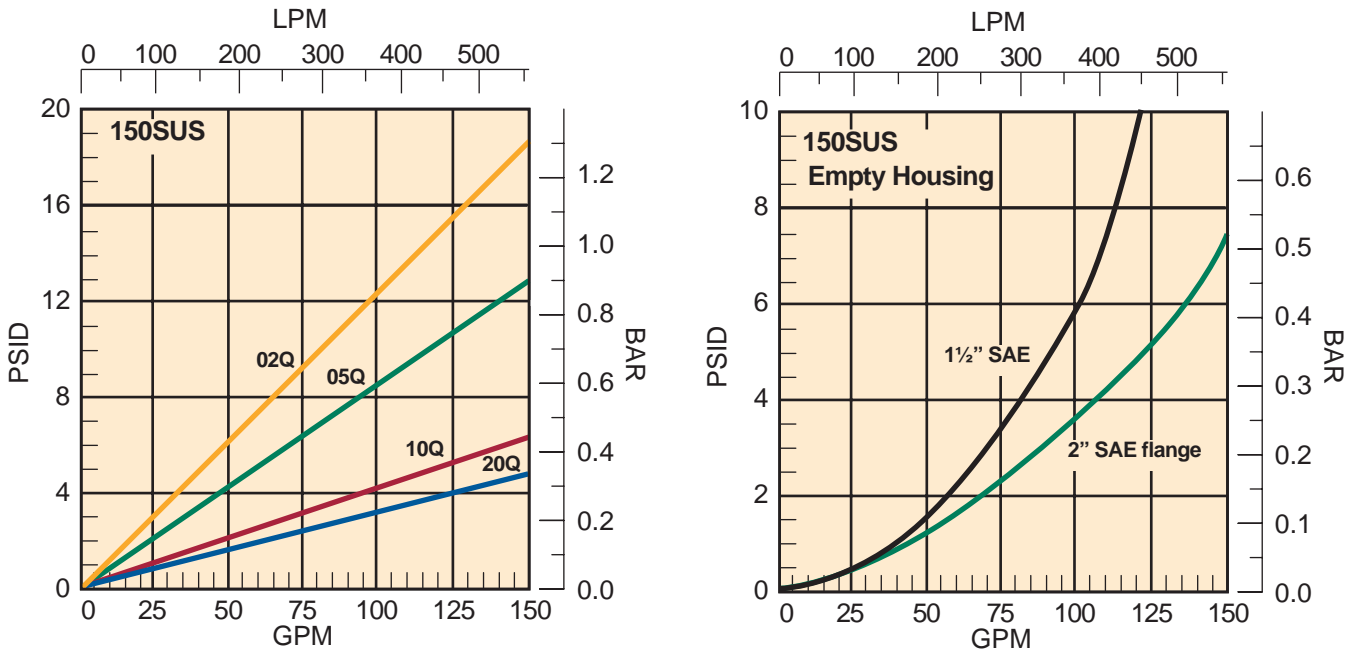
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CF2-2, RF2-2 & IL2-2 Element Performance



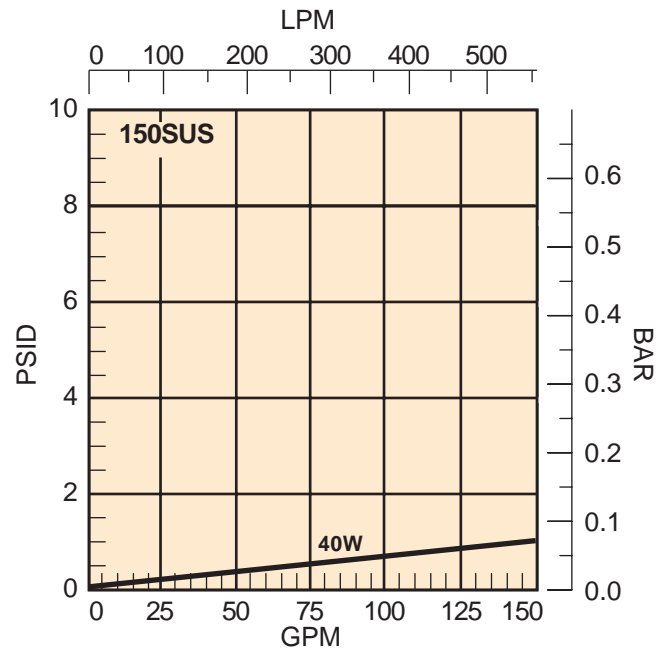
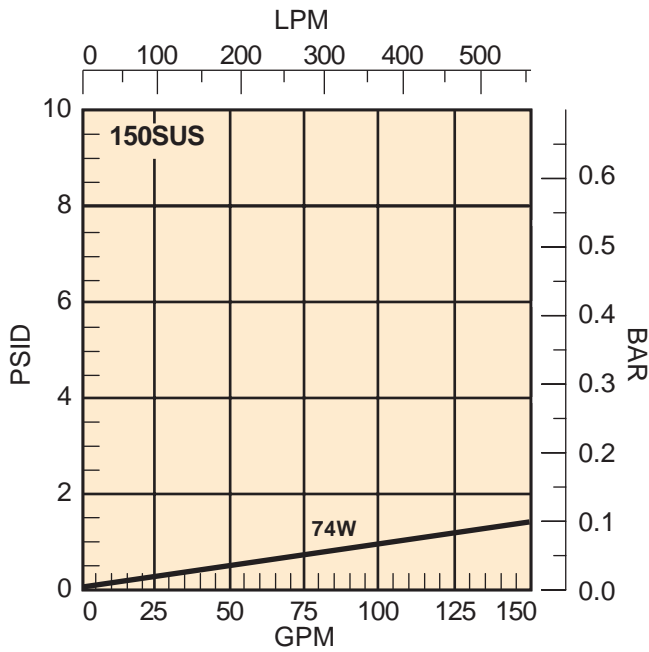
Multipass tests run @ 80 gpm to 50 psid terminal - 5mg/L BUGL

Flow vs. Pressure Loss

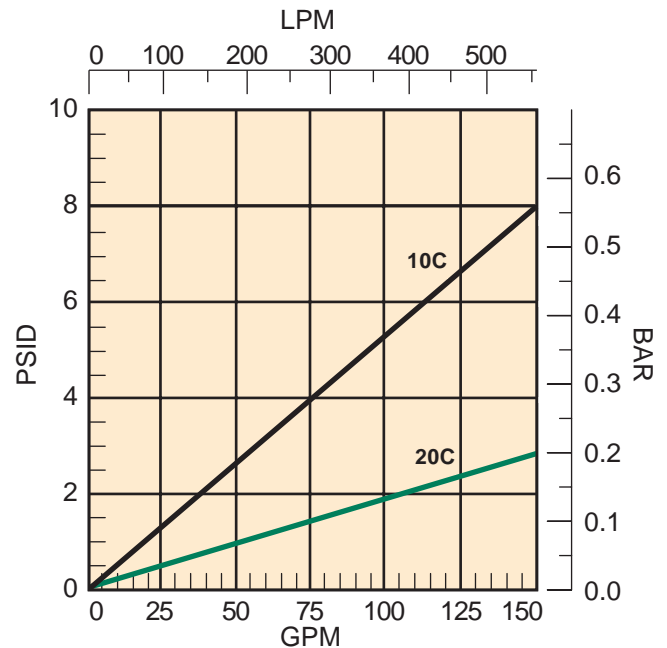
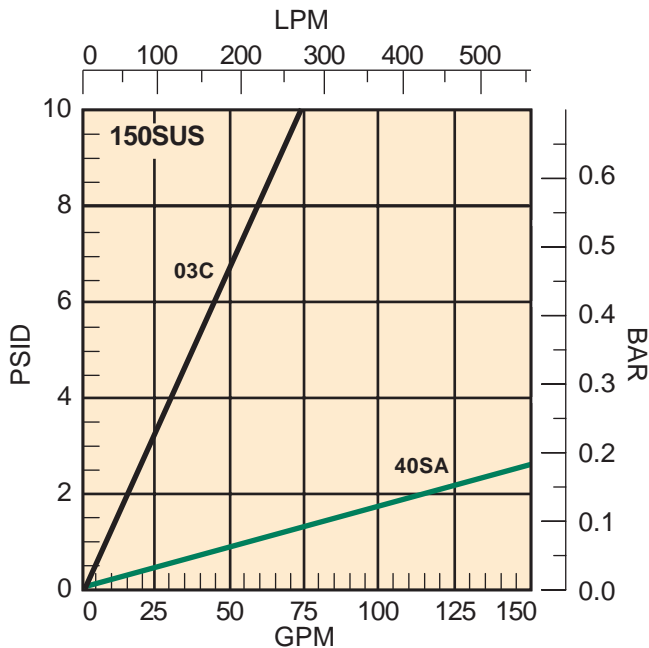


CF2-2, RF2-2 & IL2-2 Element Performance

Flow vs. Pressure Loss



Flow vs. Pressure Loss



Low Pressure Filters

Moduflow™ Series

Specifications: CF2, RF2, IL2

Pressure Ratings:

Maximum Allowable Operating Pressure (MAOP): 200 psi (13.8 bar)

Design Safety Factor: 2:1

Rated Fatigue Pressure: 150 psi (10.3 bar)

Element Burst Rating: 70 psid (4.8 bar)

Filter Materials:

Head, Cover, Flanges: die cast aluminum
Bowl: steel

Operating Temperatures:

Buna: -40°F to 225°F (-40°C to 107°C)

Fluorocarbon: -15°F to 275°F (-26°C to 135°C)

Weight (approximate):

Single: 20 lbs. (9.1 kg)

Double: 25 lbs. (11.3 kg)

Indicators:

Visual (optional)

Electrical (optional) 15A@250VAC / .5A@125 VDC

Electrical ("D" option) 5A@250VAC / 3A@28 VDC

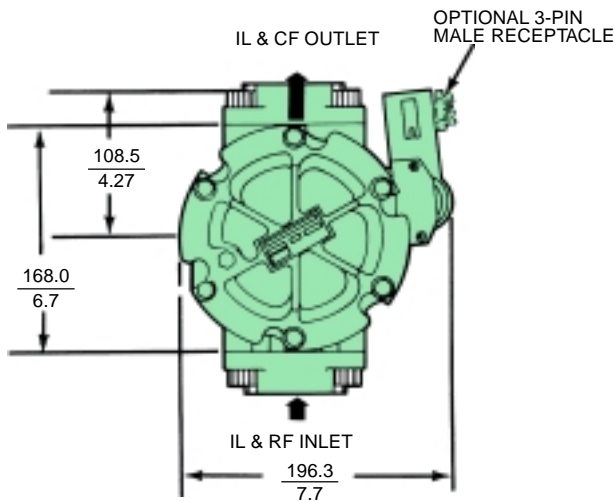
Color Coding:

White (normally closed)

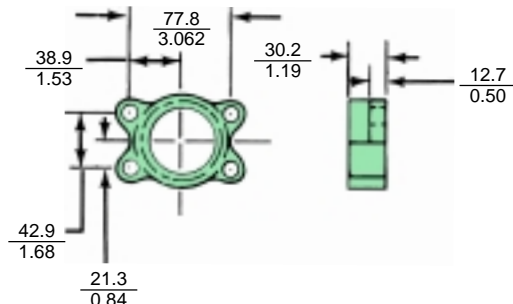
Red (normally open)

Black (common)

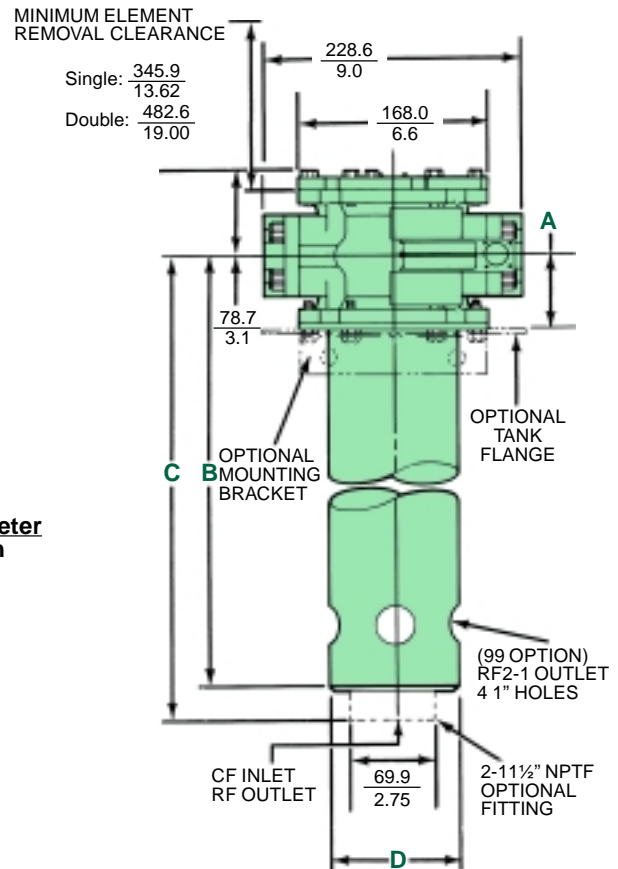
MODEL	Dimensions: $\frac{\text{mm}}{\text{inch}}$			
	A	B	C	D
CF2-1	$\frac{65.0}{2.56}$	N/A	$\frac{352.3}{13.87}$	$\frac{110.0}{4.3}$
RF2-1 without optional 2" fitting	$\frac{65.0}{2.56}$	$\frac{330.2}{13.0}$	—	$\frac{110.0}{4.3}$
IL2-1	$\frac{65.0}{2.56}$	$\frac{330.2}{13.0}$	N/A	$\frac{110.0}{4.3}$
RF2-1 with optional 2" fitting	$\frac{68.3}{2.69}$	—	$\frac{383.4}{15.07}$	$\frac{114.0}{4.5}$
CF2-2	$\frac{68.3}{2.69}$	N/A	$\frac{623.8}{24.56}$	$\frac{114.0}{4.5}$
RF2-2	$\frac{68.3}{2.69}$	$\frac{617.5}{24.31}$	$\frac{623.8}{24.56}$	$\frac{114.0}{4.5}$
IL2-2	$\frac{68.3}{2.69}$	$\frac{617.5}{24.31}$	N/A	$\frac{114.0}{4.5}$



OPTIONAL PORT FLANGE



Linear Measure: **millimeter**
inch



Specifications: DIL2

Pressure Ratings:

Maximum Allowable Operating Pressure (MAOP): 200 psi (13.8 bar)

Design Safety Factor: 2:1

Rated Fatigue Pressure: 150 psi (10.3 bar)

Element Burst Rating: 70 psid (4.8 bar)

Filter Materials:

Diverter Valve Assembly: die cast aluminum

Check Valve Assembly: die cast aluminum

Filter Assembly: see IL2 specifications

Operating Temperatures:

Buna: -40°F to 225°F (-40°C to 107°C)

Fluorocarbon: -15°F to 275°F (-26°C to 135°C)

Weight (approximate):

Single: 55 lbs. (24.9 kg) / Double: 65 lbs. (29.5 kg)

Indicators:

Visual (optional)

Electrical (optional) 15A@250VAC / .5A@125 VDC

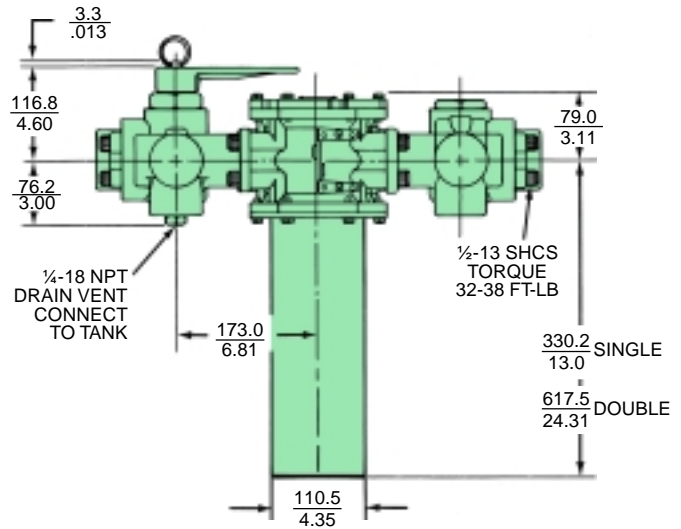
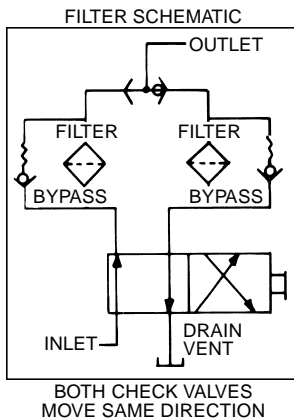
Electrical ("D" option) 5A@250VAC / 3A@28 VDC

Color Coding:

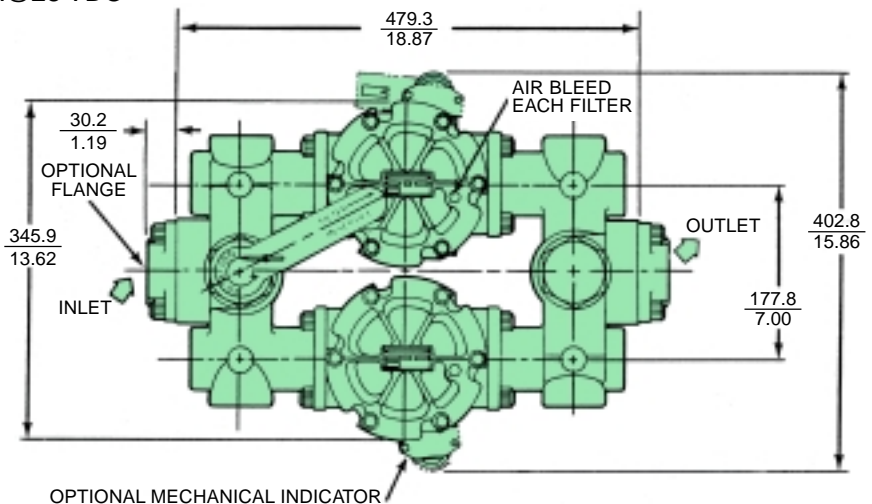
White (normally closed)

Red (normally open)

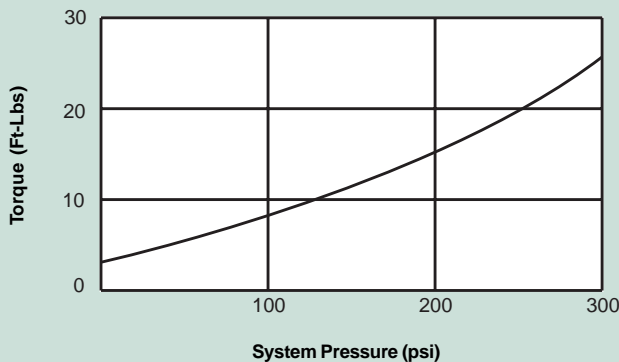
Black (common)



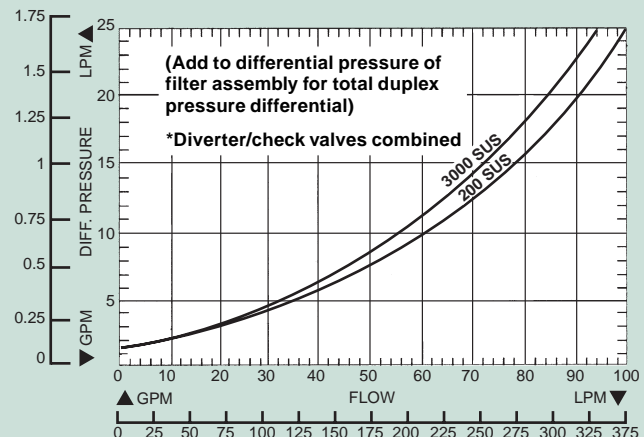
Linear Measure: millimeter
inch



Approximate handle torque required for changeover.



Typical Flow/Pressure Curves For Duplex Valves



Low Pressure Filters

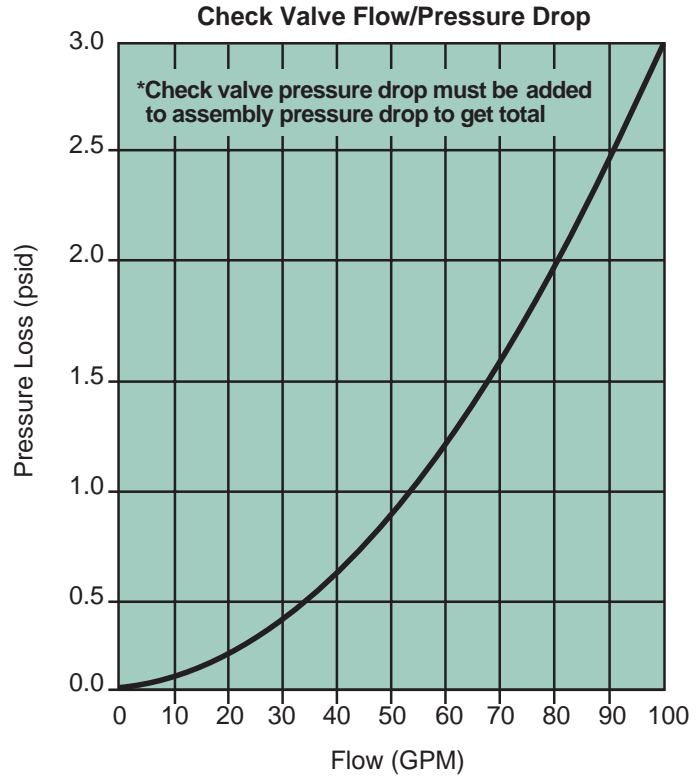
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Submersible Option

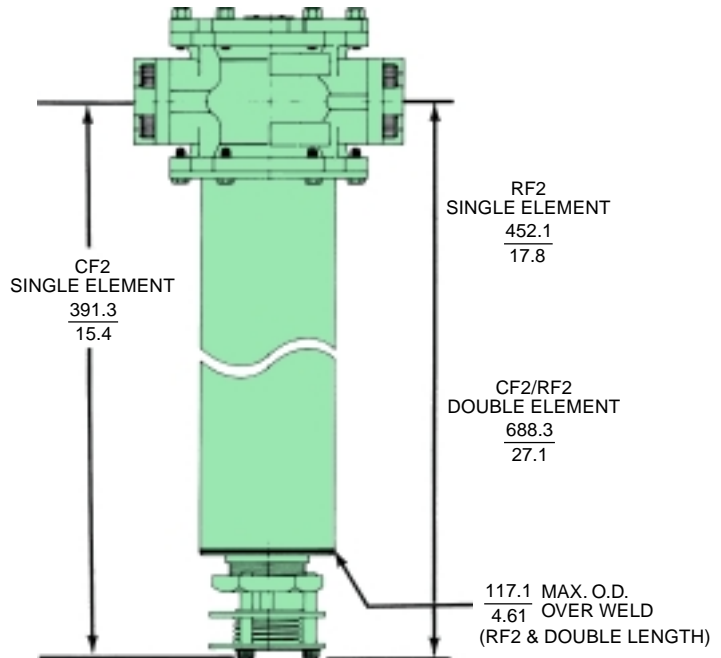
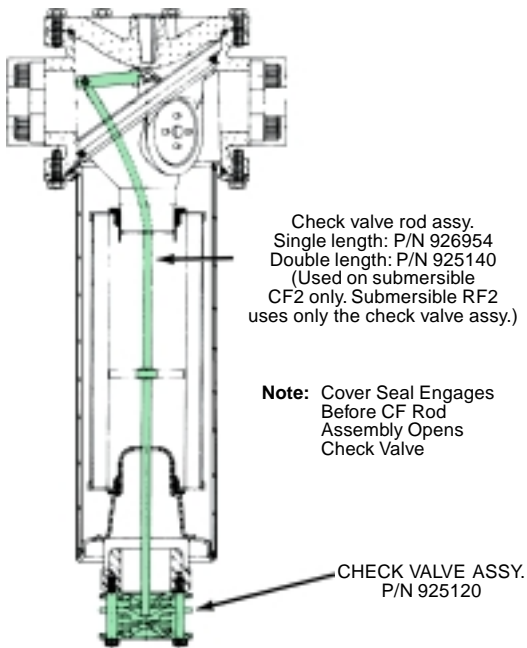
When there is a limited amount of space on the top of the reservoir, the Moduflow filter can be mounted in the side of a reservoir.

A check valve mounted on the filter bowl prevents the reservoir from being drained during servicing of the element. The only fluid drained is from the inside of the filter housing.

For return line applications (RF2), the fluid returning to the reservoir holds the check valve open. When the system is shut down, the check valve closes automatically. In suction applications (CF2), the check valve is held open by a check rod assembly extending from the cover to the check valve at the base of the filter bowl. When the cover is in place, fluid enters the filter. When the cover is removed for servicing, the check valve closes.



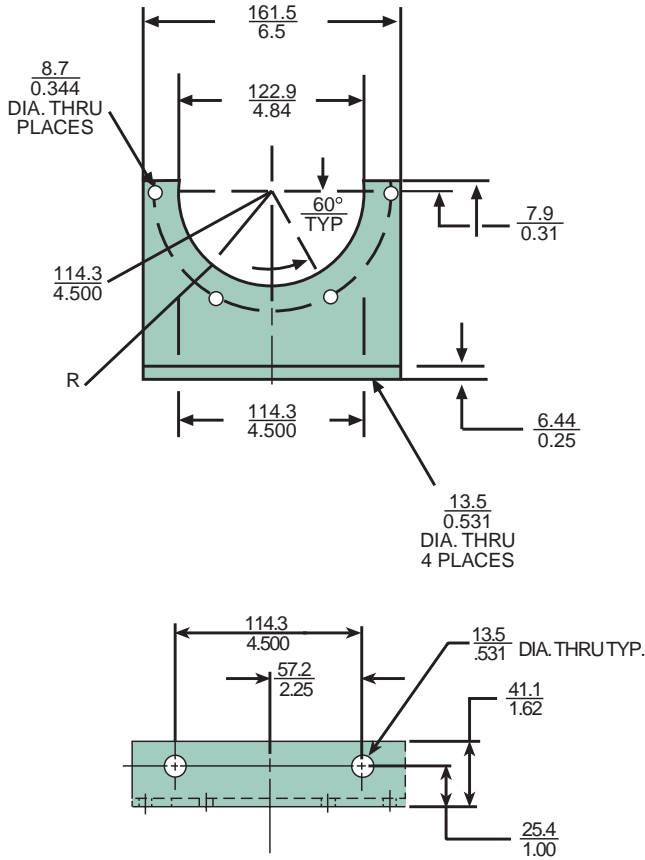
Linear Measure: millimeter
inch



Accessories

Linear Measure: $\frac{\text{millimeter}}{\text{inch}}$

OPTIONAL MOUNTING BRACKET (924904)



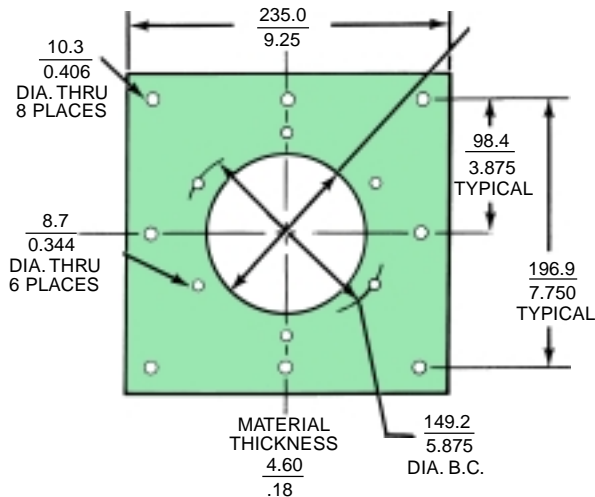
"M" OPTION-VISUAL INDICATOR, NO ELEMENT WARNING



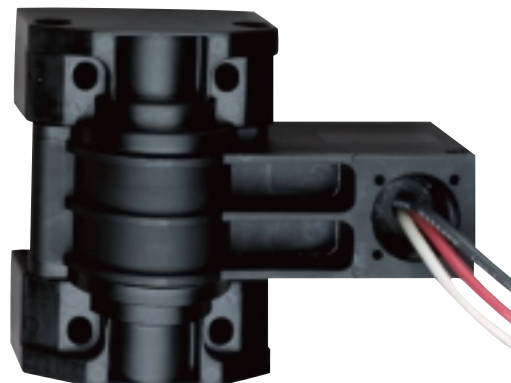
"V" OPTION-VISUAL INDICATOR



OPTIONAL TANK FLANGE (925167)



"E" OPTION-ELECTRICAL INDICATOR



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Parts List

Index	Description	Part No.	Quantity
1	Screws, Nameplate	900028	2
2	Name Plate, Unstamped	924928	1
3	Cover Screws, 5/16-18 UNC x 1"	926633	6
4	Bowl Screws, 5/16-18 UNC x 1"	926633	6
5	Cover, Without nameplate	924634	1
6	O-Ring, cover, bowl and diverter		
	Buna	N72350	3
	Fluorocarbon	V72350	3
7	Diverter/Bypass Valve Assembly		1
	35 psid, Purple	926783	
	25 psid, Metallic Aluminum	926582	
	15 psid, Light Blue	926581	
	3 psid, Yellow	926580	
	2 psid, Pink	926579	
	No Bypass	926578	
8	Head, Machined only	925972	1
9	Flange Kits	Refer	
		to Table	1
10	Grommet (Buna)	924433	2
	Grommet, (Fluorocarbon)	925026	2
11	Single Elements, RF, IL	Refer to	1
		Table	
12	Bowl, Select desired model		
	IL2-1	925916	
	IL2-2	924816	
	RF2-1	925917	
	RF2-1 with 2 inch NPTF fitting	924676	
	RF2-2	924815	
	RF2-2 with 2 inch NPTF fitting	924818	
	CF1-1 with 2 inch NPTF fitting	926207	
	CF2-2 with 2 inch NPTF fitting	924817	
13	Double Elements, CF	Refer to	1
		Table	
14	Plug Kit, Fastener, self-sealing, o-ring seal included with fastener	925974	2
15	Indicator Electrical		Optional
	35 psid	926643	
	25 psid	924964	
	15 psid	924965	
	3 psid	924966	
	2 psid	924967	
16	Indicator Visual		Optional
	35 psid 4-band	926748	
	25 psid 4-band	924776	
	15 psid 4-band	924777	
	3 psid 4-band	924778	
	2 psid 4-band	924779	
	35 psid 3-band	926750	
	25 psid 3-band	924929	
	15 psid 3-band	924824	
	3 psid 3-band	924927	
	2 psid 3-band	924926	
	Flange, In-tank mounting	925167	Optional
	Bracket, Inline mounting	924904	Optional
	Indicator Kit Remote mount	924894	Optional
	Indicator Kit, Bulkhead mount	*925021	Optional
17	Check Valve Assy. (Submersible)	925120	Optional
18	Check Rod Assy.		Optional
	2" - 1 CF	926954	
	2" - 2 CF	925140	
19	Changeover Valve Assy., Duplex	926758	Optional
20	Check Valve Assy., Duplex	926757	Optional

*Two kits required for differential indication

Flange Kits (flange, 4 bolts, o-ring)

Size	Code	Part Number	
		Buna	Fluorocarbon
¾ inch NPTF	YB	924788	926013
1 inch NPTF	YC	924787	926012
1¼ inch NPTF	YD	924912	926004
1½ inch NPTF	YE	924786	926011
2 inch NPTF	YF	924785	926010
SAE - 12	YM	924784	926009
SAE - 16	YN	924783	926008
SAE - 20	YO	924913	926005
SAE - 24	YP	924782	926007
BLANK FLANGE	—	924781	926006

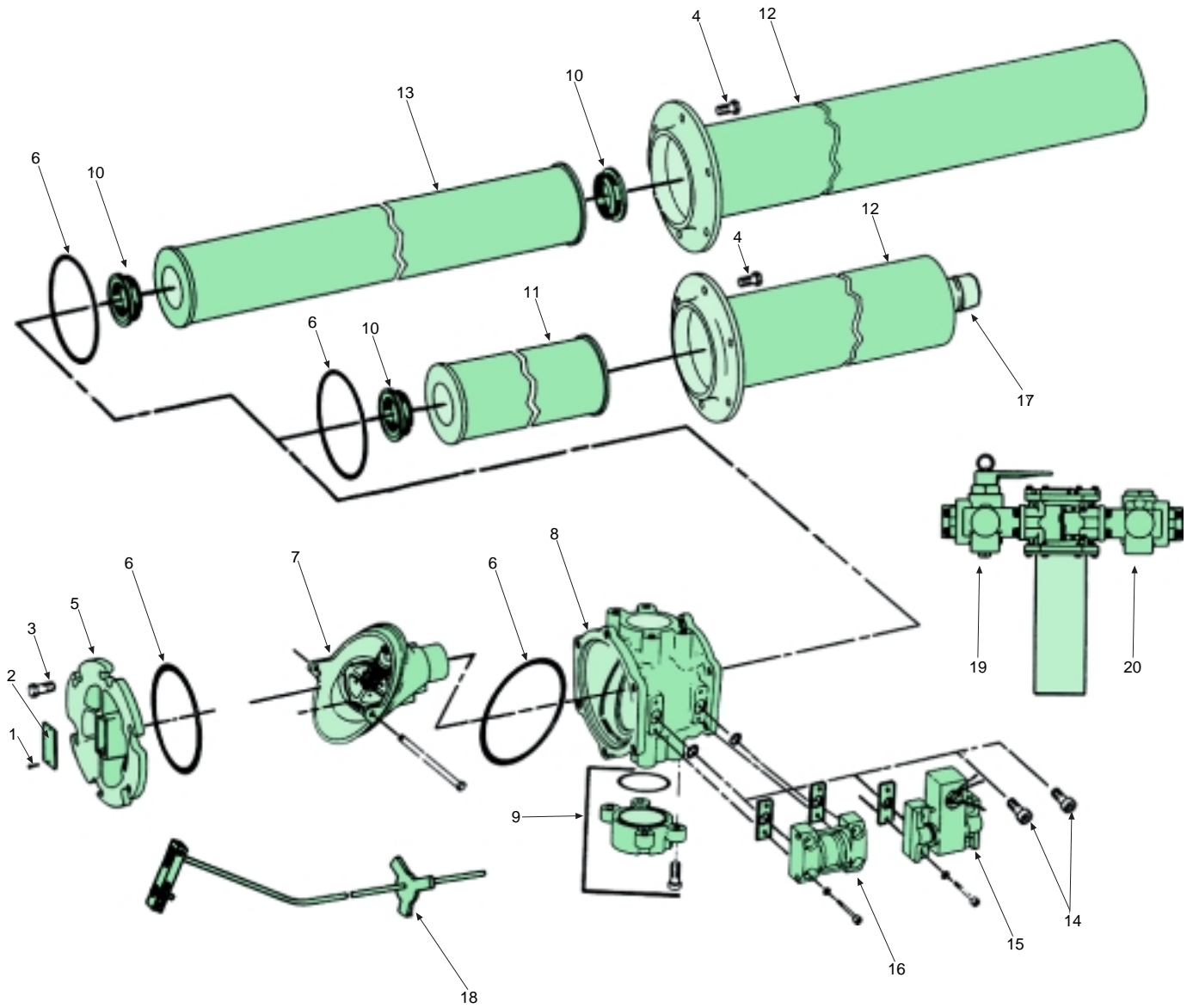
RF2 / IL2 / DIL2 Replacement Elements

MEDIA	BUNA		Fluorocarbon	
	Single	Double	Single	Double
02Q	932686Q	932692Q	932689Q	932695Q
05Q	932687Q	932693Q	932690Q	932696Q
10Q	932688Q	932694Q	932691Q	932697Q
20Q	933116Q	933117Q	933118Q	933119Q
03C	932361	932567	932367	932574
10C	932360	932467	932366	932473
20C	932359	932469	932365	932474
40SA	932358	932468	932364	932475
25W	932563	932566	932570	932573
40W	932562	932565	932569	932572
74W	932561	932564	932568	932571
WR	932363	932476	932370	932575

CF2 Replacement Elements

MEDIA	BUNA		Fluorocarbon	
	Single	Double	Single	Double
05Q	924452Q	934264Q	925039Q	935534Q
10Q	924453Q	934265Q	925040Q	935535Q
03C	924449	924791	925036	925046
10C	924450	924792	925037	925047
20C	924451	924793	925038	925048
40SA	924448	924790	925035	925045
25W	924454	924796	925041	925051
40W	924455	924797	925042	925052
74W	924456	924798	925043	925053
WR	927584	927585	928908	928925

Filter Assembly Exploded View



Low Pressure Filters

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HOW TO ORDER: Select the desired symbol (in the correct position) to construct a model code.

Example:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8	BOX 9
	IL2	1	10Q	MP	35	Y9Y9	1	Design number assigned by Parker

BOX 1: Seals	
Symbol	Description
None	Buna
F3	Fluorocarbon
E8	EPR

BOX 2: Basic Assembly	
Symbol	Description
CF2	Suction filter, inlet on bottom; outlet on side
RF2	Return-line filter, inlet on side; outlet on bottom
IL2	In-line filter
DIL2	In-line duplex
Note: Add "W" before "2" for HWCF modification.	

BOX 3: Length	
Symbol	Description
1	Single element
2	Double element

BOX 4: Filter Media	
Symbol	Description
74W	74-micron wire mesh
40W	40-micron wire mesh
25W	25-micron wire mesh
40SA	40-micron synthetic
20C	20-micron cellulose
10C	10-micron cellulose
03C	3-micron cellulose
02Q*	Microglass III
05Q*	Microglass III
10Q*	Microglass III
20Q	Microglass III
WR	Water removal
*Not available for CF2 model	

BOX 5: Indicators (See Note A)	
Symbol	Description
P	Pressure ports drilled and plugged; no indicator
M	Visual indicator w/ no element warning
E	Electrical indicator; no visual
V	Visual indicator
D	Electrical indicator; 3-pin male quick disconnect
S	Pressure or vacuum switch (Selected based on bypass setting.)
Note A: (First letter of indicator code = left side of filter head when looking into inlet with bowl down; second letter = right side of filter head when looking into inlet with bowl down.)	

BOX 6: Bypass & Indicator Setting	
Symbol	Pressure Setting
2	2 psid
3	3 psid
15	15 psid
25	25 psid
35	35 psid
Note: Indicators installed on filters will be matched to the bypass valve.	

BOX 7: Port Options			
Filter Model	Inlet Symbol/Description		Outlet Symbol/Description
CF2	Y9	2" flange face	Y9 2" flange face
	F9	2" NPTF	P9 SAE-24 integral threads
	F8	External check valve	E9 1½ NPTF integral threads *See table below
RF2	Y9	2" flange face	99 No fitting
	P9	SAE-24 integral threads	F9 2" NPTF
	E9	1½ NPTF integral threads *See table below	F8 External check valve
IL2	Y9	2" flange face	Y9 2" flange face
	P9	SAE-24 integral threads	P9 SAE-24 integral threads
	E9	1½ NPTF integral threads *See table below	E9 1½ NPTF integral threads *See table below
DIL2	Y9	2" flange face *See table below	Y9 2" flange face *See table below

- 1) First pair of symbols denotes inlet for all filter styles; second pair of symbols denotes outlet.
- 2) Four symbols required: two for inlet, two for outlet.
- 3) Unused ports in CF2 and RF2 filters come plugged with a blank flange.
- 4) On CF2, F8 option includes internal rod assembly.

*** Available Port Flange Options For Filter Head**

YB	¾" NPTF flange
YC	1" NPTF flange
YD	1¼" NPTF flange
YE	1½" NPTF flange
YF	2" NPTF flange
YM	SAE-12 flange
YN	SAE-16 flange
YO	SAE-20 flange
YP	SAE-24 flange

BOX 8: Modifications	
Symbol	Description
1	None
3	Magnets
11	No-bypass

BOX 9: Design Number
Applied to the filter by Parker Hydraulic Filter Division. Use the full model code, including the design number when ordering replacement parts.

Please note the bolded options reflect standard options with a reduced lead-time. Consult factory on all other lead-time options.