



# Medium Pressure Filters

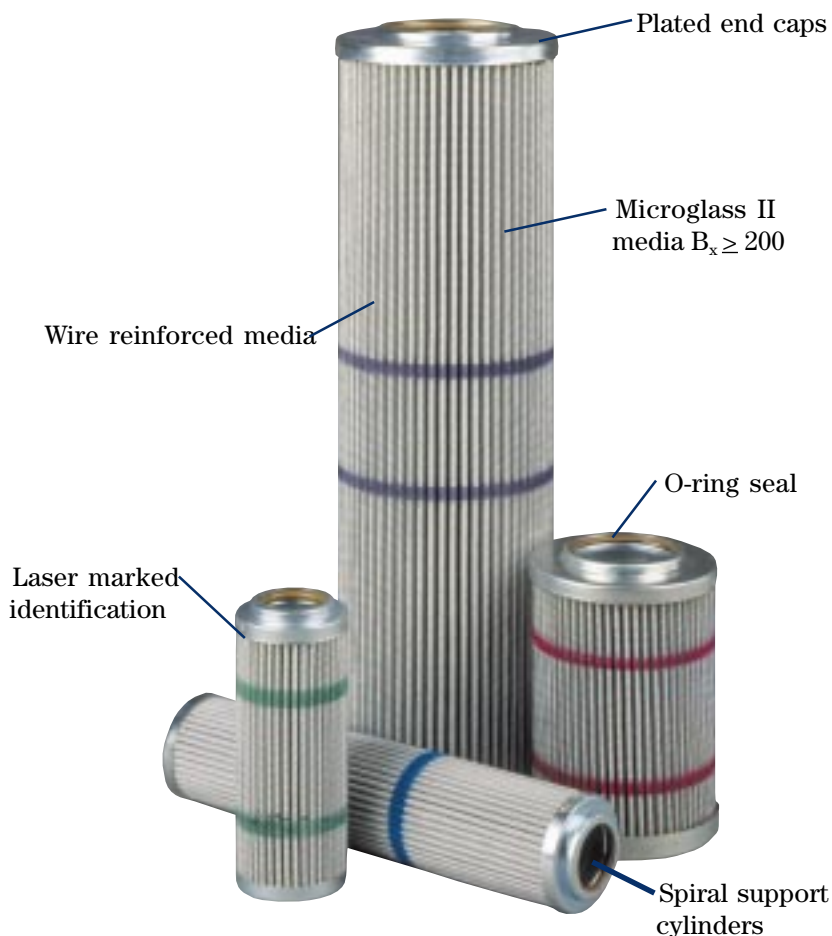
15/40/80CN Series

## Applications for CN series Filters

- Compressor Lube Oil
- Off-line Filter Loops
- Machine Tools (Automotive Standard)
- Hydrostatic Drive Charge Pumps
- Mobile Equipment
- Pilot Lines For Servo Controls
- Oil Patch Drilling Equipment
- Injection Molding

This partial list of applications for Parker "CN" series filters has a common factor, the need for an economical, medium pressure range filter with excellent fatigue pressure ratings. Prior to the availability of the "CN" filter, applications such as those listed were restricted by limitations of a spin-on can, or forced into the higher cost range of high pressure filters.

The "CN" series fills this gap, and now with the newly increased fatigue rating from 550 to 800 psi, the applications are expanded.



Features	Advantages	Benefits
<ul style="list-style-type: none"> <li>800 psi fatigue rating (eight times that of a spin-on)</li> </ul>	<ul style="list-style-type: none"> <li>Ability to provide reliable service under tough cyclic operating conditions</li> <li>Can be utilized in applications where high pressure filters may have been only option</li> </ul>	<ul style="list-style-type: none"> <li>Reduced downtime due to premature filter failures</li> <li>Reduced costs, better "fit" for the application</li> </ul>
<ul style="list-style-type: none"> <li>Diametral (side) seal between head and bowl</li> </ul>	<ul style="list-style-type: none"> <li>Proven reliability in cyclic applications</li> <li>Reduced importance of bowl torque</li> </ul>	<ul style="list-style-type: none"> <li>No downtime, no leaks</li> <li>Performs with "real world" service</li> </ul>
<ul style="list-style-type: none"> <li>Dust Seal</li> </ul>	<ul style="list-style-type: none"> <li>Prevents contamination from building up on bowl / head threads</li> </ul>	<ul style="list-style-type: none"> <li>Easier service, no galling</li> </ul>
<ul style="list-style-type: none"> <li>40CN-2 meets automotive HF3 standard</li> <li>15CN meets automotive HF2 standard</li> </ul>	<ul style="list-style-type: none"> <li>Automotive industry acceptance</li> </ul>	<ul style="list-style-type: none"> <li>Satisfies specifications without need for further testing and/or approval</li> </ul>
<ul style="list-style-type: none"> <li>Cast aluminum head</li> </ul>	<ul style="list-style-type: none"> <li>Low profile, lightweight and durable</li> </ul>	<ul style="list-style-type: none"> <li>Less weight, smaller envelop and cleaner appearance</li> </ul>
<ul style="list-style-type: none"> <li>Reinforced Microglass II replacement elements</li> </ul>	<ul style="list-style-type: none"> <li>Multi-layered design produced high capacity and efficiency</li> <li>Wire support reduces pleat bunching, keeps performance consistent</li> </ul>	<ul style="list-style-type: none"> <li>Great performance value</li> <li>Reliable performance throughout element life</li> <li>Reduces downtime, maximizes element life</li> </ul>
<ul style="list-style-type: none"> <li>Complete performance data disclosure</li> </ul>	<ul style="list-style-type: none"> <li>All pertinent information is provided in an easy-to-compare format</li> </ul>	<ul style="list-style-type: none"> <li>No hidden deficiencies</li> <li>Easy selection of proper filtration</li> </ul>
<ul style="list-style-type: none"> <li>Visual, electrical or electrical/visual indicators available</li> </ul>	<ul style="list-style-type: none"> <li>Check element condition at a glance</li> <li>Right style for the application</li> </ul>	<ul style="list-style-type: none"> <li>Optimize element life, prevent bypassing</li> <li>Matches your system electrical connections</li> </ul>

## Features

### Ports

- SAE, NPT or flange face (80CN) provides mounting flexibility.

### Element Condition Indicators

- Available in visual or electrical, with a choice of several power connections (E3 shown).

### Head

- Cast aluminum is rugged with small profile for easy mounting.

### Diametral (side) Seal

### Dust Seal

- Protects head and bowl threads from external contamination buildup.

### Bypass

- Cartridge style bypass has good sealing characteristics and low hysteresis. Choice of two settings to match application needs.

### Element Assembly

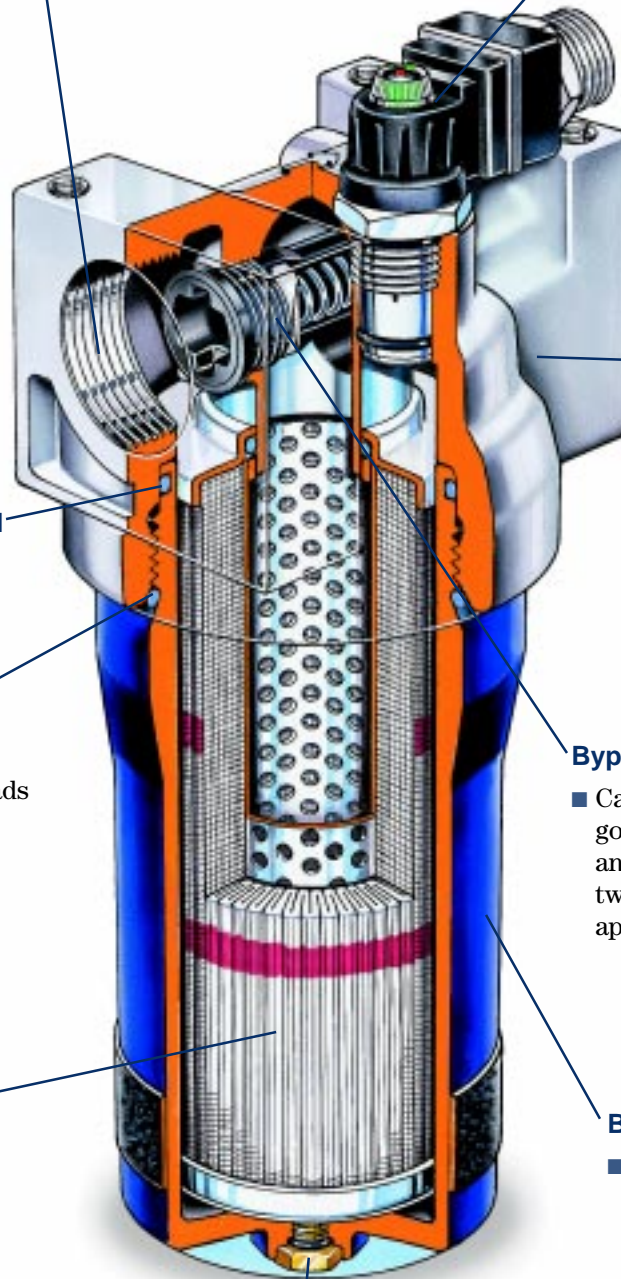
- High efficiency ( $B_x > 200$ ), high capacity Microglass II media with its multi-layered design is unequalled in performance.

### Bowl

- Anodized aluminum is lightweight and corrosion resistant. Friction grip tape prevents slipping when rotating the bowl during service.

### Drain Port (optional)

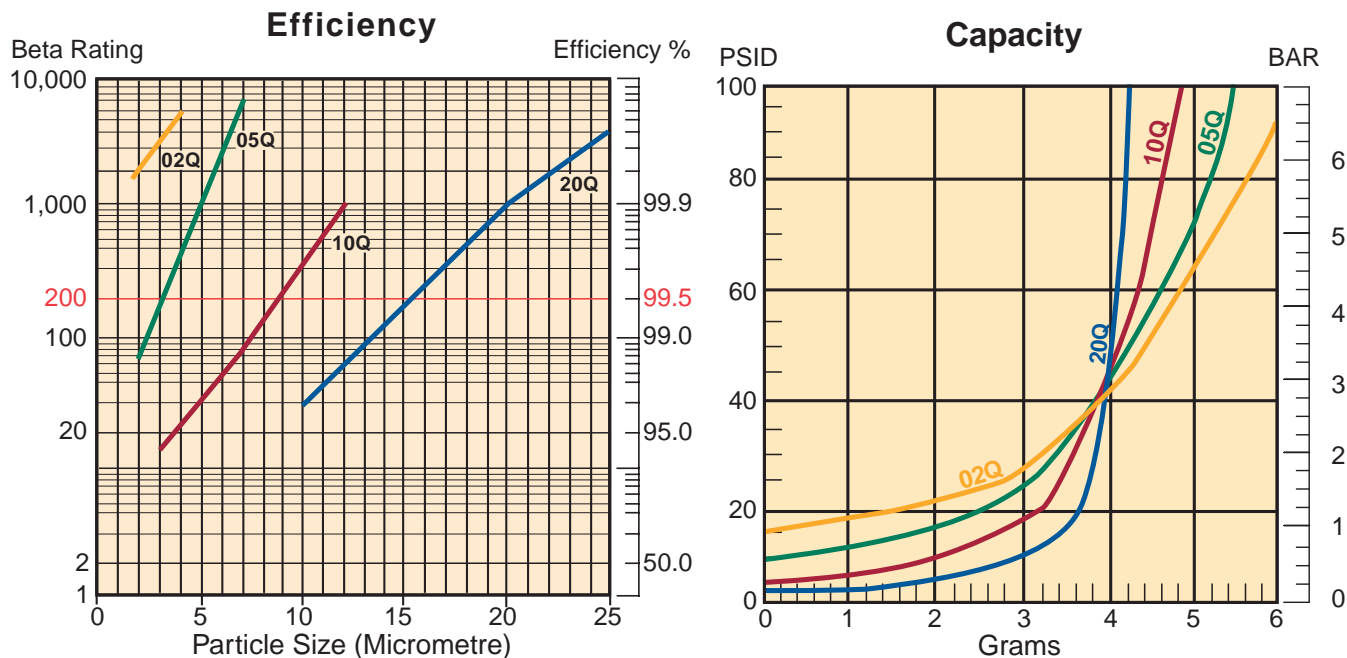
- Optional drain port allows for easy element servicing.



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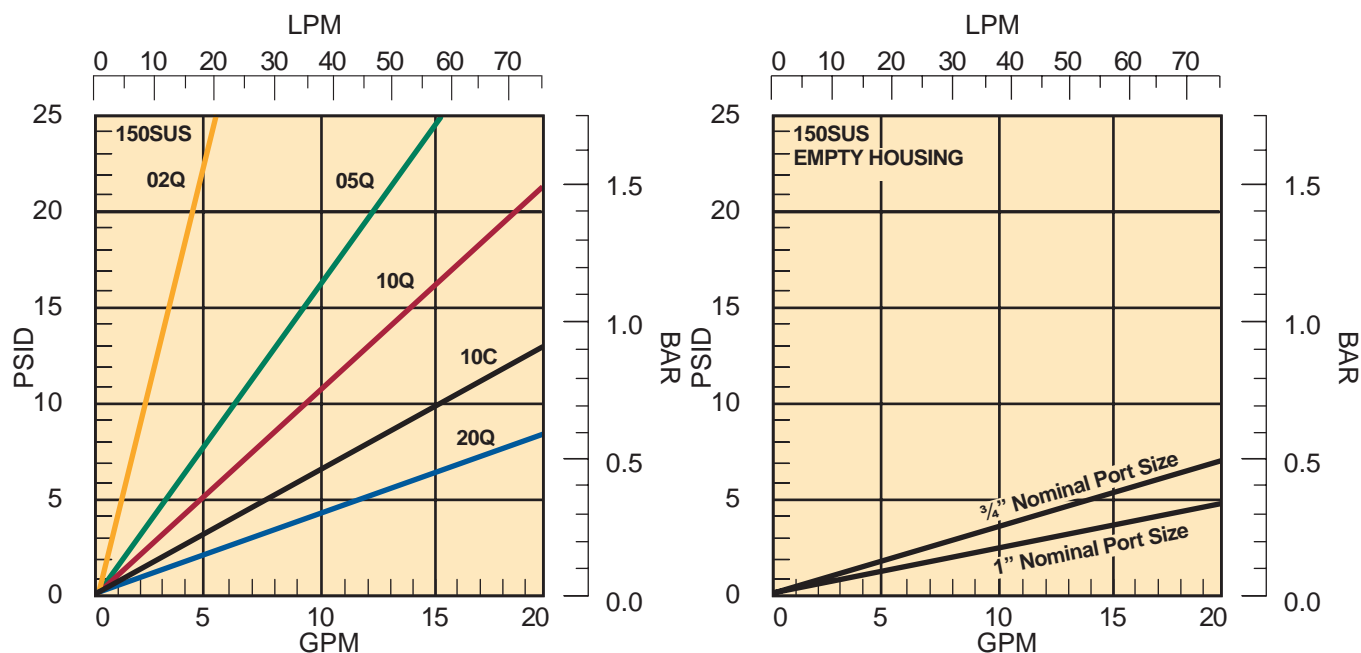
15/40/80CN Series

## 15CN-1 Element Performance



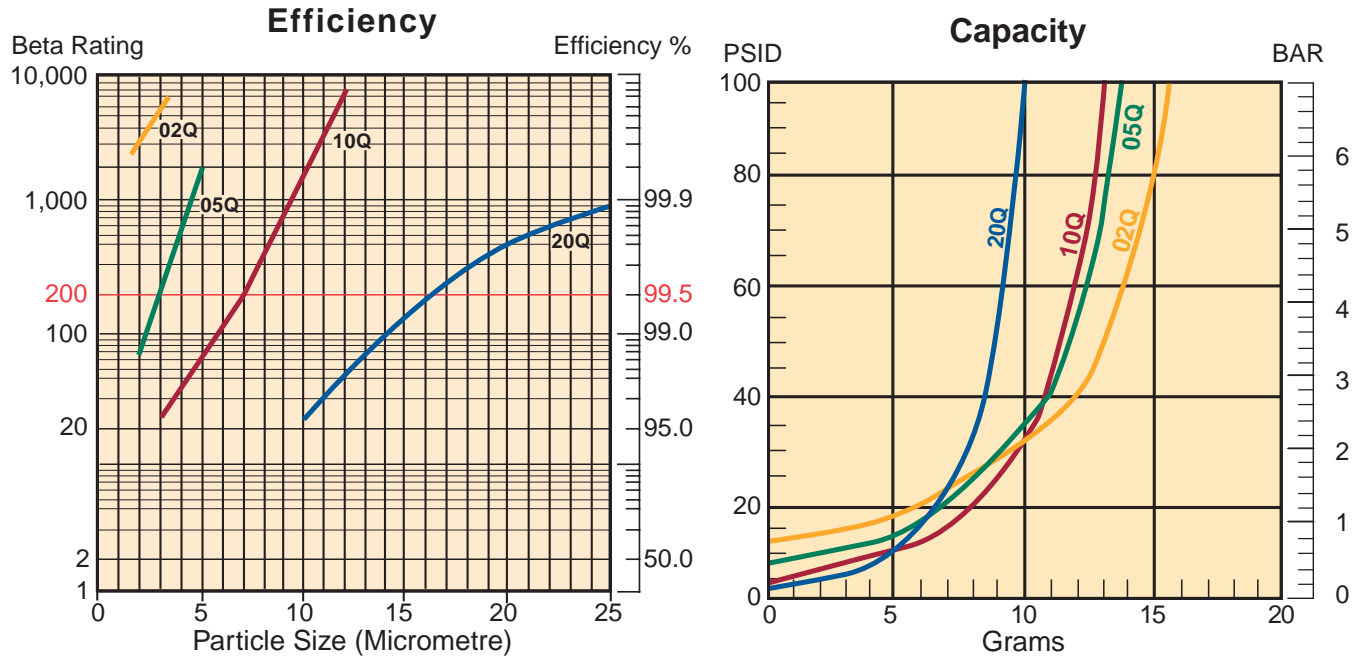
Multipass tests run @ 10 gpm to 100 psid terminal - 5mg/L BUGL

## Flow vs. Pressure Loss



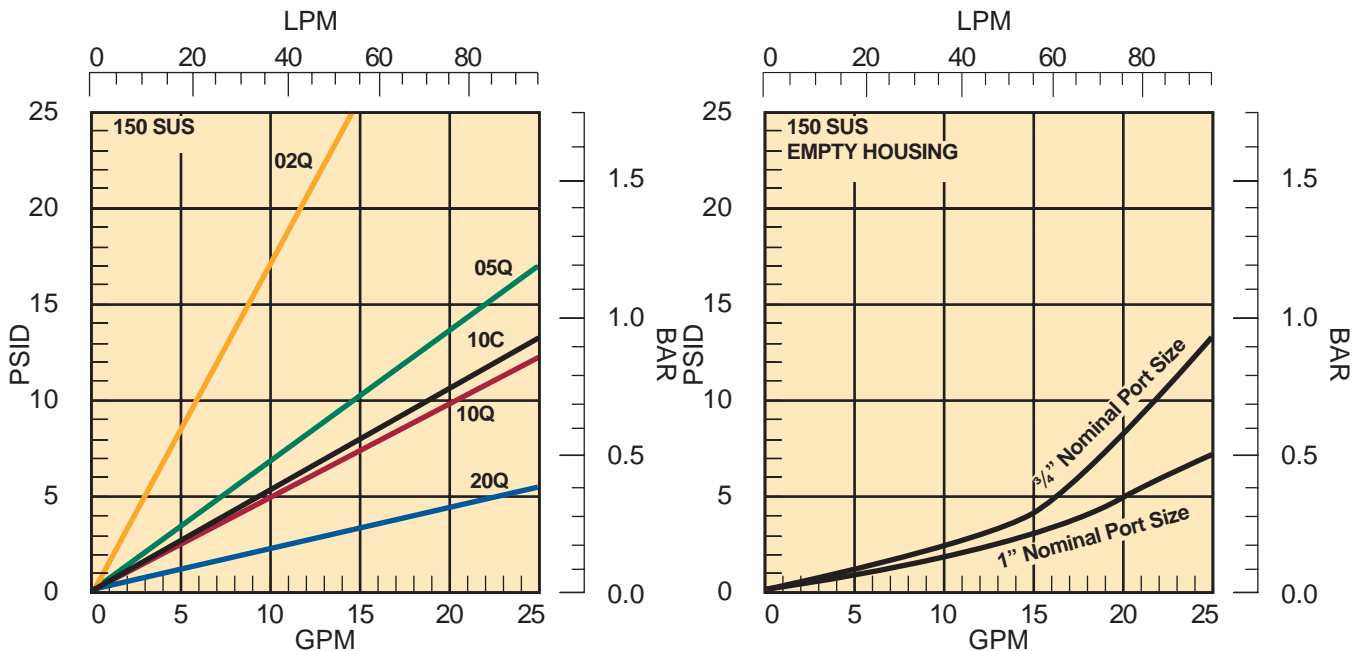


## 15CN-2 Element Performance



Multipass tests run @ 15 gpm to 100 psid terminal - 5mg/L BUGL

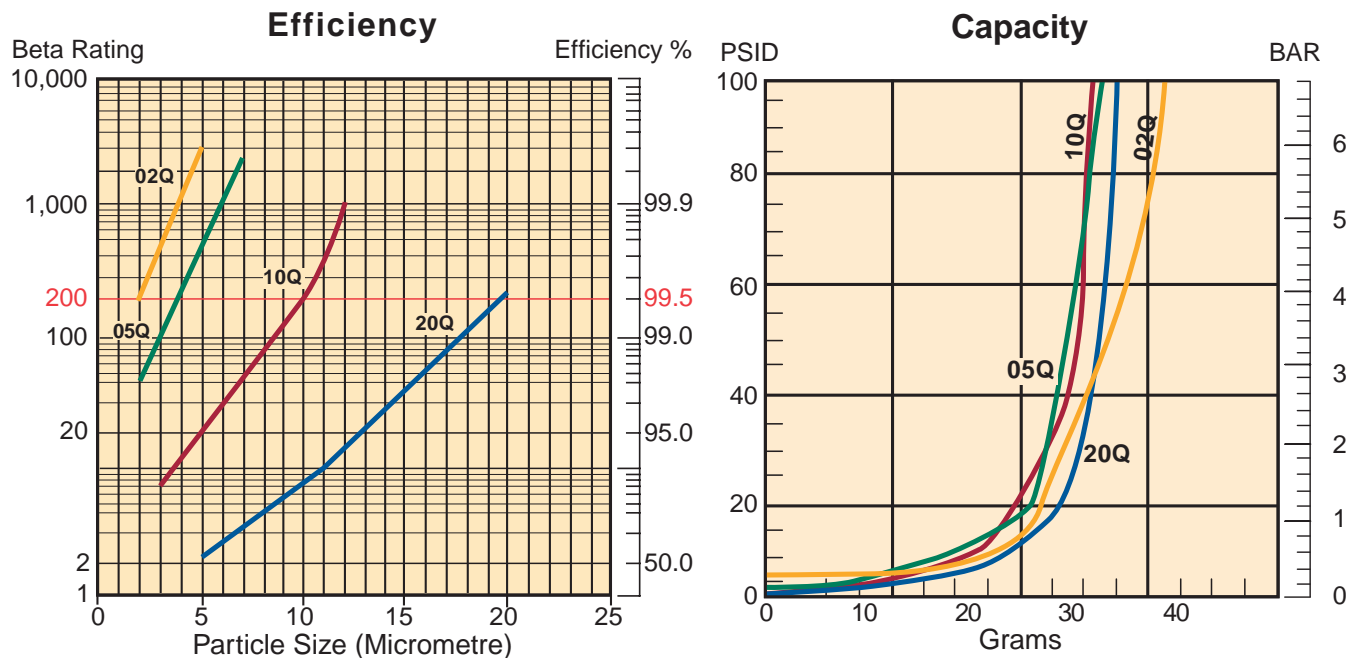
## Flow vs. Pressure Loss



# Medium Pressure Filters

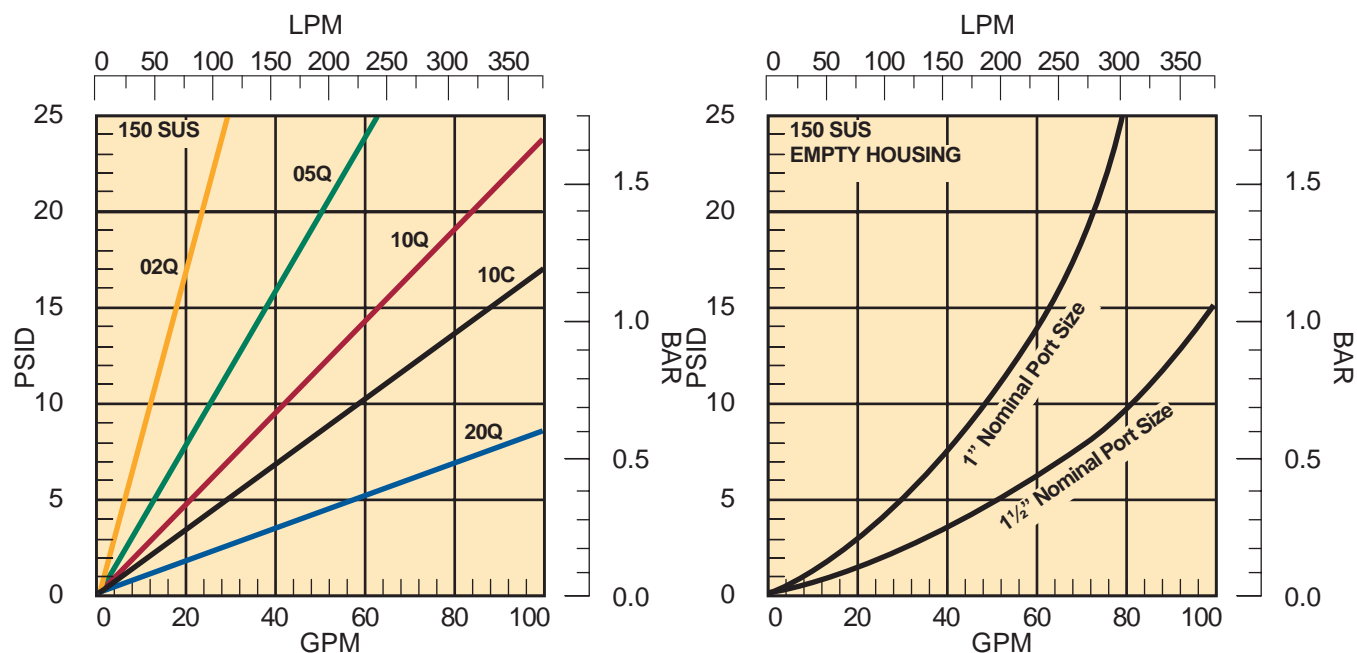
15/40/80CN Series

## 40CN-1 Element Performance

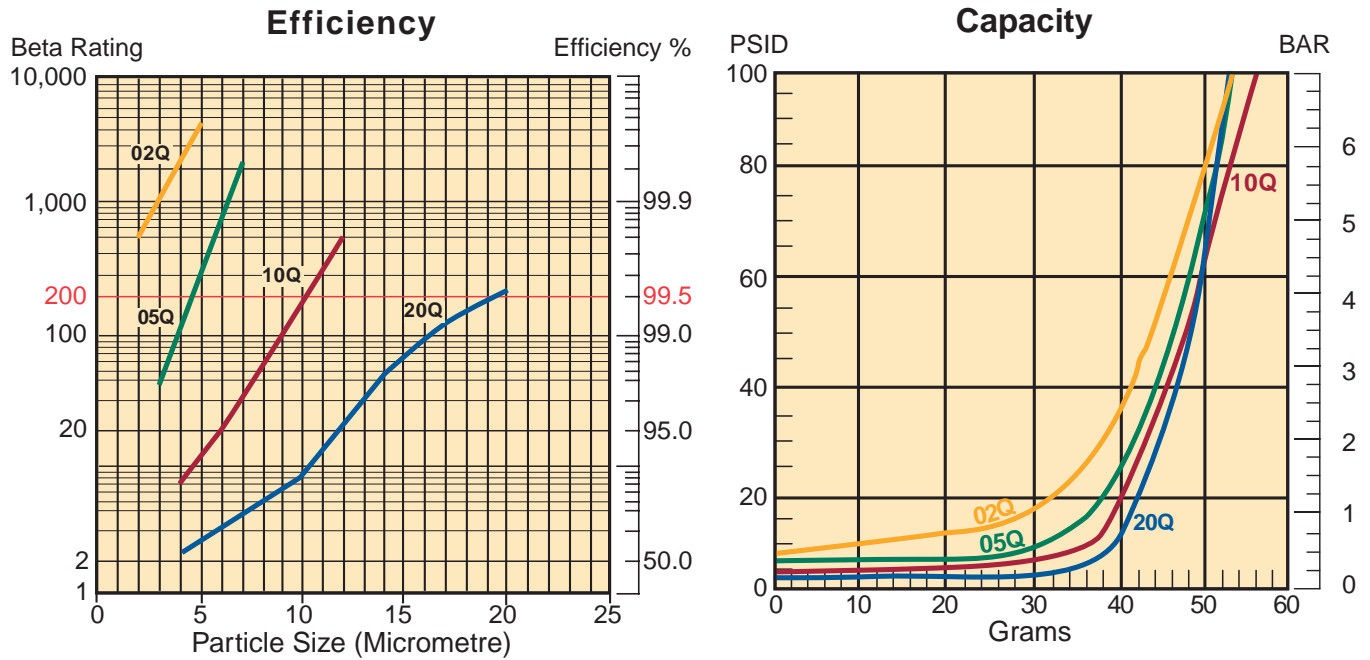


Multipass tests run @ 15 gpm to 100 psid terminal - 5mg/L BUGL

## Flow vs. Pressure Loss

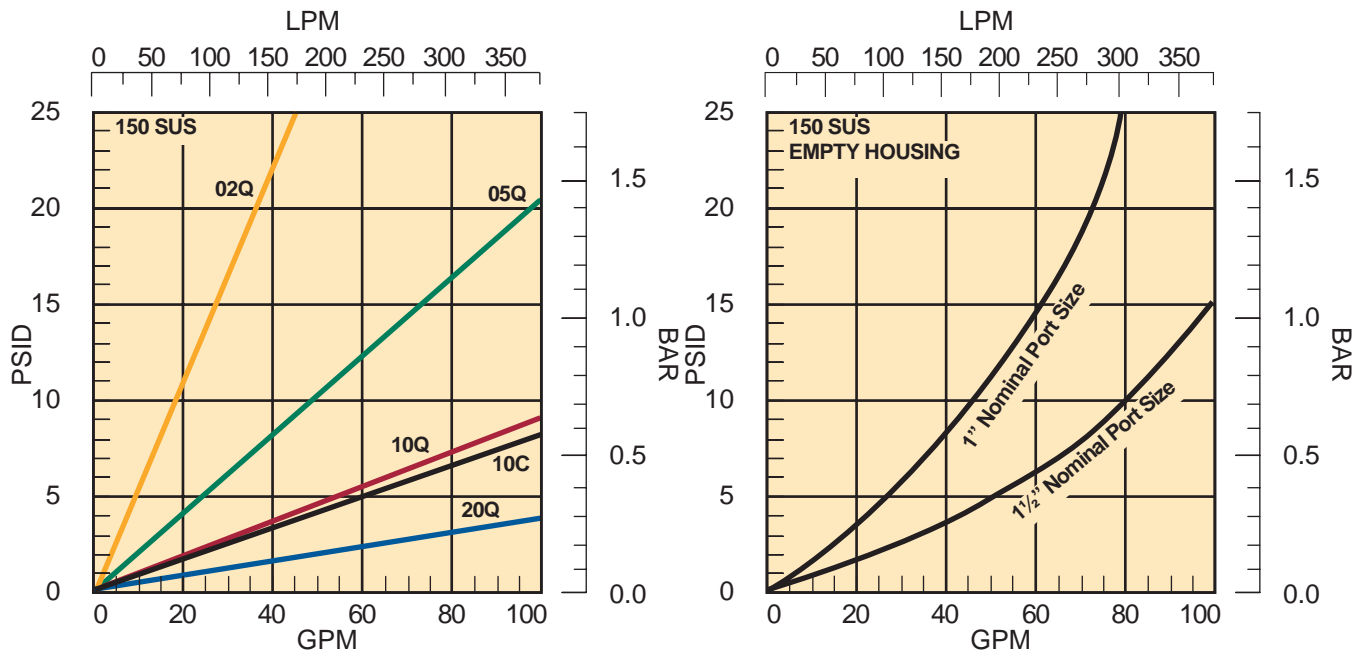


## 40CN-2 Element Performance



Multipass tests run @ 30 gpm to 100 psid terminal - 5mg/L BUGL

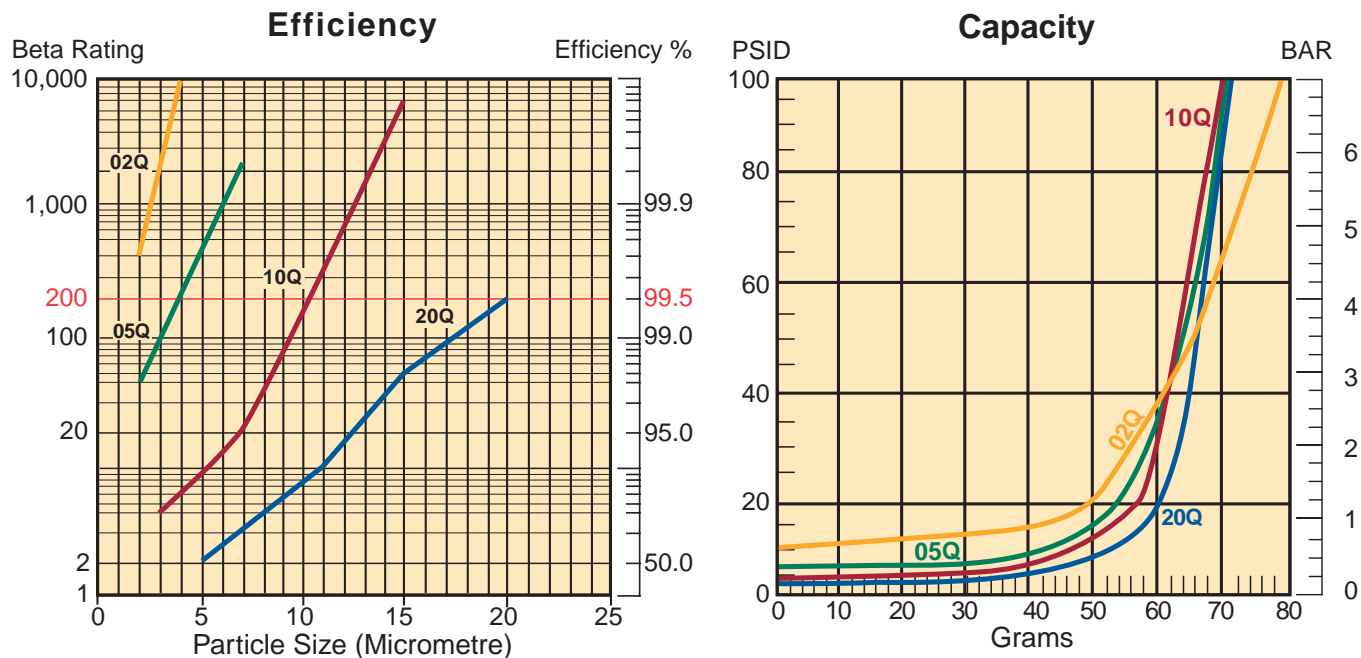
## Flow vs. Pressure Loss



# Medium Pressure Filters

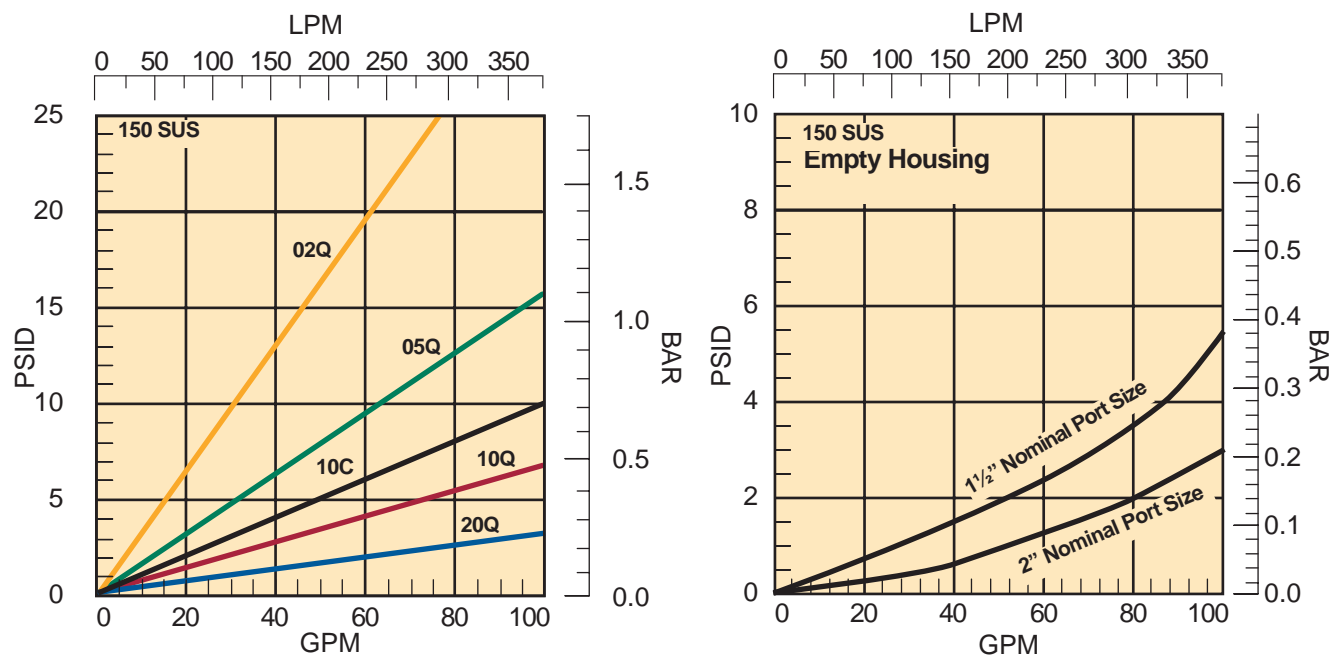
15/40/80CN Series

## 80CN-1 Element Performance



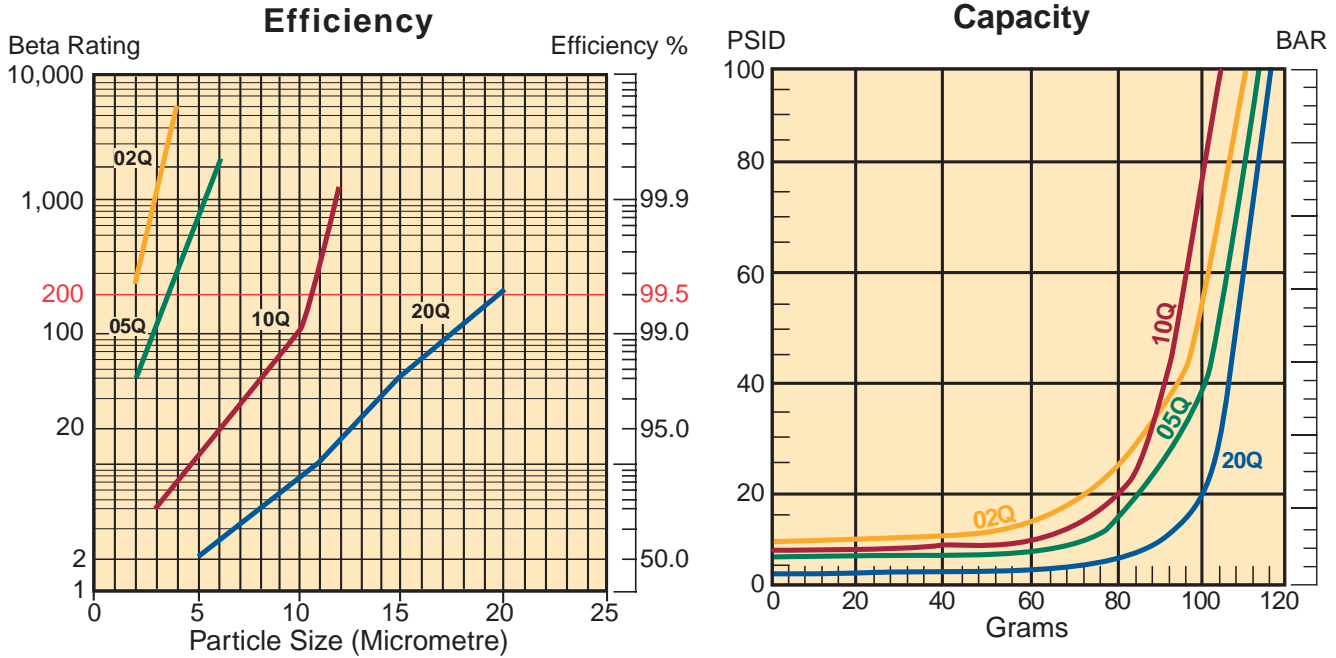
Multipass tests run @ 45 gpm to 100 psid terminal - 5mg/L BUGL

## Flow vs. Pressure Loss



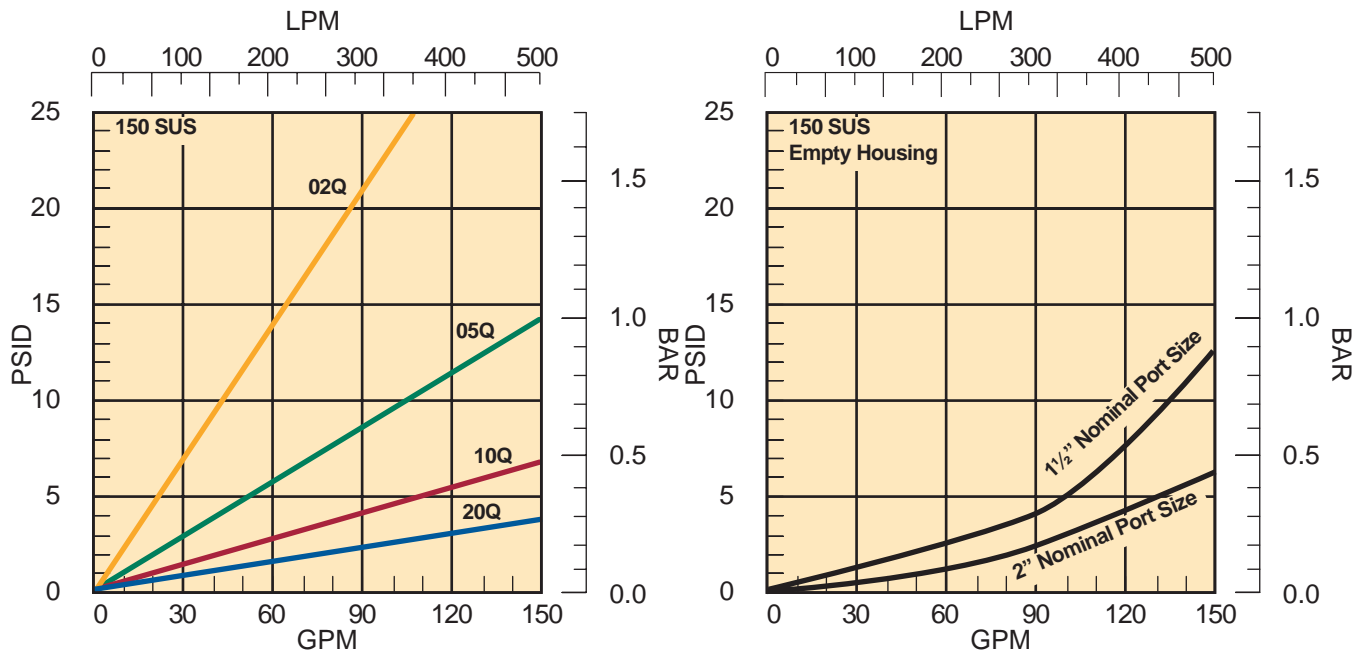


## 80CN-2 Element Performance



Multipass tests run @ 70 gpm to 100 psid terminal - 5mg/L BUGL

## Flow vs. Pressure Loss



# Medium Pressure Filters

15/40/80CN Series

## Specifications: CN Series

### Pressure Ratings:

Maximum Allowable Operating Pressure (MAOP): 1000 psi (69 bar)  
 Rated Fatigue Pressure: 800 psi (55 bar)  
 Design Safety Factor: 2.5:1

### Operating Temperatures:

Buna: -40°F (-40°C) to 225°F (107°C)  
 Viton: -15°F (-26°C) to 250°F (135°C)

### Element Collapse Rating:

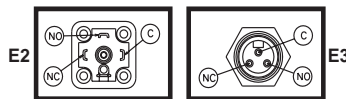
Standard: 150 psi (10.3 bar)

### Materials:

Head and Bowl: Aluminum  
 Indicators: Aluminum body, plastic connectors  
 Bypass: Nylon

### Element Condition Indicators:

Visual 360° green/red auto reset  
 Electrical/Visual  
 5A@240VAC, 3A@28VDC



### Electrical-Heavy Duty

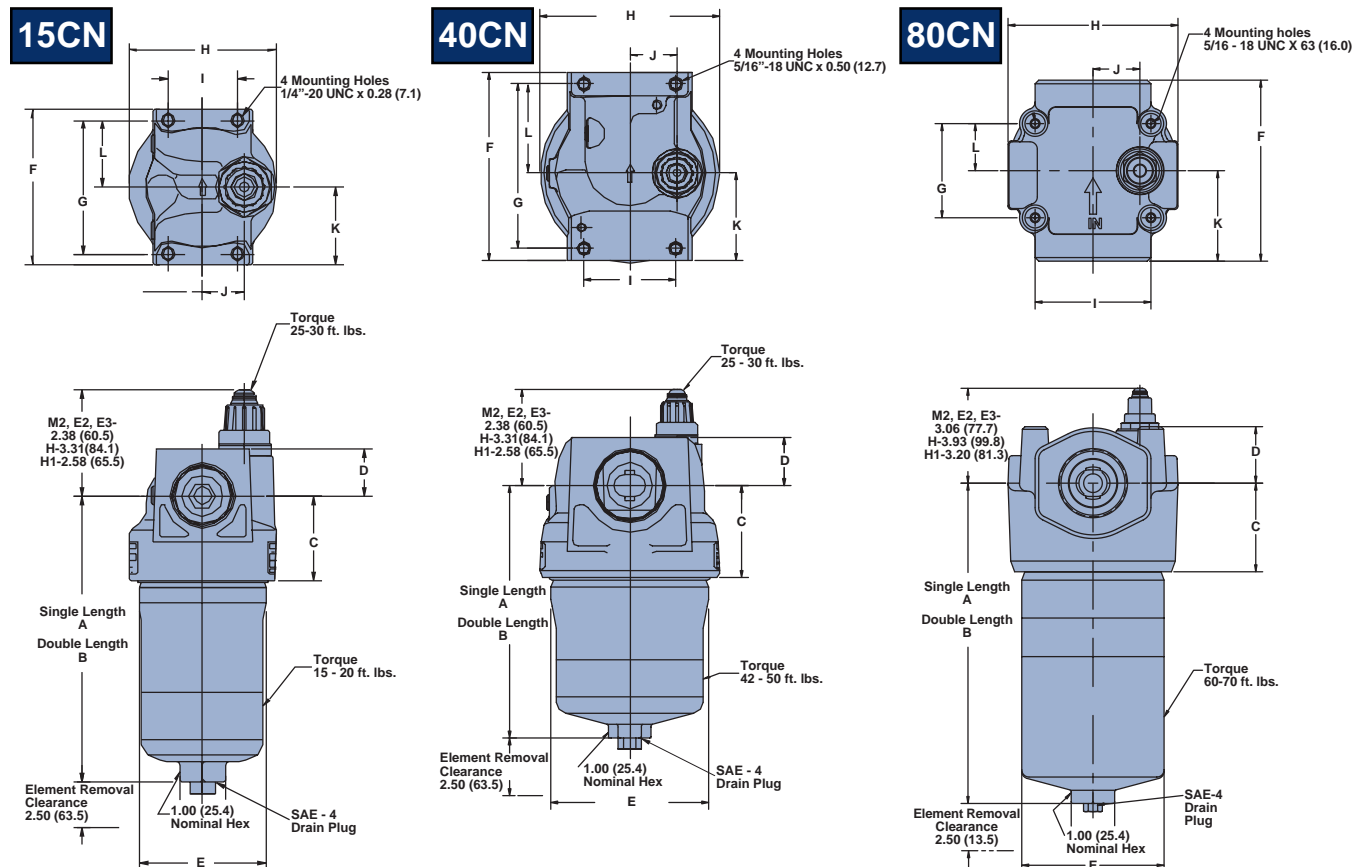
.25A(resistive) MAX 5 watts  
 12 to 28 VDC & 110 to 175 VAC

**Color code:** White (common), Black (normally open),  
 Blue (normally closed)

### Weights (approximate):

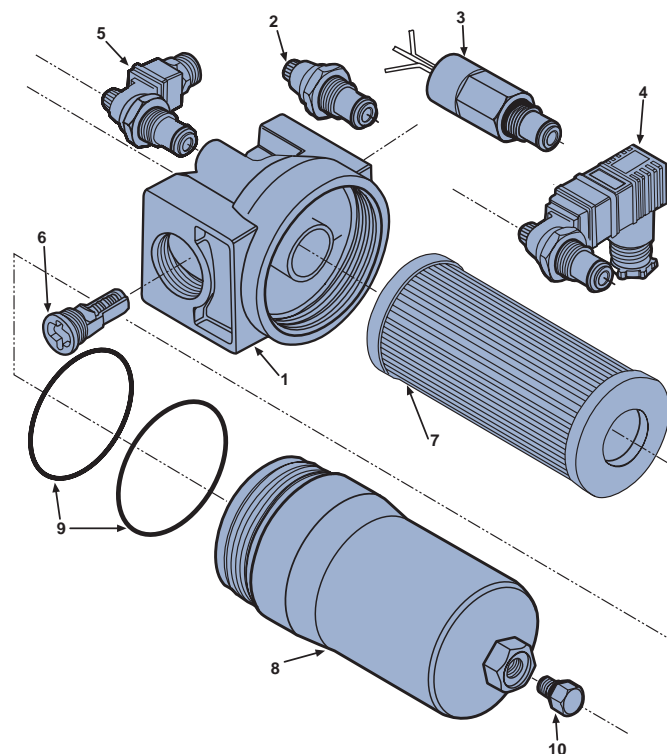
Model	Single length	Double length
15CN	2.5 lb. (1.13 kg)	3.5 lb. (1.6 kg)
40CN	4.5 lb. (2.00 kg)	5.5 lb. (2.49 kg)
80CN	12.4 lb. (5.62 kg)	15.2 lb. (6.89 kg)

Dimensions are in (mm)	A	B	C	D	E	F	G	H	I	J	K	L
<b>15CN</b>	6.17(156.6)	9.87(250.7)	1.83(46.5)	1.09(25.4)	2.80(71.1)	3.38(85.9)	2.88(73.2)	3.25(82.6)	1.50(38.1)	.90(22.9)	1.69(42.9)	1.44(36.6)
<b>40CN</b>	6.73(170.8)	10.33(262.4)	2.44(62.0)	1.28(32.6)	4.22(107.2)	5.00(127.0)	4.37(111.0)	4.80(121.9)	2.44(62.0)	1.25(31.8)	2.32(58.8)	2.37(60.2)
<b>80CN</b>	11.06(280.9)	15.81(401.6)	3.06(77.7)	1.95(49.5)	4.91(124.8)	6.25(158.7)	3.25(82.6)	5.96(151.4)	4.00(101.6)	1.62(41.1)	3.12(79.4)	1.63(41.3)



### Element Service

- A. Stop the system's power unit.
- B. Relieve any system pressure in the filter line.
- C. Drain the filter bowl if drain port option is provided.
- D. Rotate the bowl clockwise (left) and remove.
- E. Remove element by pulling downward with a slight twisting motion and discard.
- F. Check bowl o-ring for damage and replace if necessary.
- G. Lubricate element o-ring with system fluid and place on post in filter head.
- H. Install bowl by rotating count-clockwise (right) and tighten to specified torque.
  - 15CN - 15-20 ft. lbs
  - 40CN - 42-50 ft. lbs
  - 80CN - 60-70 ft. lbs
- I. Confirm there are no leaks after powering the system.



### Parts List

Index	Description	15CN	40CN	80CN
1	<b>Head</b>			
	3/4" NPT bypass/indicator ready	933865	N/A	N/A
	3/4" NPT no bypass/no indicator	933877	N/A	N/A
	3/4" NPT no bypass/indicator ready	933869	N/A	N/A
	3/4" NPT no indicator/bypass ready	933873	N/A	N/A
	SAE-12 bypass/indicator ready	933863	N/A	N/A
	SAE-12 no bypass/no indicator	933875	N/A	N/A
	SAE-12 no bypass/indicator ready	933867	N/A	N/A
	SAE-12 no indicator/bypass ready	933871	N/A	N/A
	1" NPT bypass/indicator ready	933864	932960	N/A
	1" NPT no bypass/no indicator	933876	932966	N/A
	1" NPT no bypass/indicator ready	933868	932962	N/A
	1" NPT no indicator/bypass ready	933872	932974	N/A
	SAE-16 bypass/indicator ready	933862	932947	N/A
	SAE-16 no bypass/no indicator	933874	932983	N/A
	SAE-16 no bypass/indicator ready	933866	932969	N/A
	SAE-16 no indicator/bypass ready	933870	932971	N/A
	1 1/2" NPT bypass/indicator ready	N/A	932948	934012
	1 1/2" NPT no bypass/no indicator	N/A	932984	934018
	1 1/2" NPT no bypass/indicator ready	N/A	932960	934016
	1 1/2" NPT no indicator/bypass ready	N/A	932972	934014
	SAE-24 bypass/indicator ready	N/A	932945	934027
	SAE-24 no bypass/no indicator	N/A	932981	934033
	SAE-24 no bypass/indicator ready	N/A	932967	934031
	SAE-24 no indicator/bypass ready	N/A	932969	934029
	2" NPT bypass/indicator ready	N/A	N/A	934020
	2" NPT no bypass/no indicator	N/A	N/A	934026
	2" NPT no bypass/indicator ready	N/A	N/A	934024
	2" NPT no indicator/bypass ready	N/A	N/A	934022
	SAE-32 bypass/indicator ready	N/A	N/A	934035
	SAE-32 no bypass/no indicator	N/A	N/A	934042
	SAE-32 no bypass/indicator ready	N/A	N/A	934040
	SAE-32 no indicator/bypass ready	N/A	N/A	934037
	Flange face, SAE 2" bypass/indicator ready	N/A	N/A	934103
	Flange face, SAE 2" no bypass/no indicator	N/A	N/A	934109
	Flange face, SAE 2" no bypass/indicator ready	N/A	N/A	934107
	Flange face, SAE 2" no indicator/bypass ready	N/A	N/A	934105
2	<b>Indicators</b>			
	M2-Visual auto reset/ 25 psi	932026	932026	932026
	M2-Visual auto reset/ 50 psi	932027	932027	932027
3	H-Electrical/ 25 psi w/ 1/2" conduit connection	933053	933053	933053
	H-Electrical/ 50 psi w/ 1/2" conduit connection	932905	932905	932905
	H1-Electrical/ 25 psi w/ wire leads	933054	933054	933054
	H1-Electrical/ 50 psi w/ wire leads	932906	932906	932906
4	E2-Electrical/Visual 25 psi w/ DIN connection	931153	931153	931153
	E2-Electrical/Visual 50 psi w/ DIN connection	929599	929599	929599
5	E3-Electrical/Visual 25 psi w/ 3-pin connection	932773	932773	932773
	E3-Electrical/Visual 50 psi w/ 3-pin connection	929596	929596	929596
6	<b>Bypass Valve</b>			
	25 psid assembly	928979	930507	933628
	50 psid assembly	928981	933424	933630
7	<b>Element (see model code page)</b>			
8	<b>Bowl</b>			
	Single length w/o drain	933931	934248	933936
	Double length w/o drain	933932	934249	933937
	Single length w/ drain	933933	934250	933938
	Double length w/ drain	933934	934251	933939
9	<b>Bowl and Dust Seal</b>			
	Buna N (Nitrile)	N72142	N72239	N92244
	Viton	V72142	V72239	N92244
10	<b>Drain Plug - SAE-4</b>			
	Buna N (Nitrile)	921088	921088	921088
	Viton	928882	928882	928882

# Medium Pressure Filters

15/40/80CN Series

## 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
	<b>40CN</b>	<b>1</b>	<b>10Q</b>	<b>M2</b>	<b>25</b>	<b>N4N4</b>	<b>1</b>	Design number assigned by Parker

BOX 1: Seals	
Symbol	Description
None	Buna (N) nitrile
E8	EPR
F3	Fluorocarbon

BOX 2: Model Number	
Symbol	Description
15CN	In-line Filter
40CN	In-line Filter
80CN	In-line Filter

BOX 3: Element Length	
Symbol	Description
1	Single
2	Double

BOX 4: Element Media	
Symbol	Description
10C	Cellulose
20Q	Microglass II
10Q	Microglass II
05Q	Microglass II
02Q	Microglass II
WR	Water Removal

BOX 5: Indicators	
Symbol	Description
M2	Visual/Auto reset
H	Electrical (w/½" npt conduit connection and wire pads)
H1	Electrical (w/12" leads only)
E2	Electrical (DIN 43650 Hirschman style connection)
E3	Electrical (ANSI/B93.55M 3-Pin Brad Harrison style connection)
P	Indicator port plugged
N	No indicator port

BOX 6: Bypass	
Symbol	Pressure Setting
25	25 PSI (1.7 bar) setting
50	50 PSI (3.5 bar) setting
	If "no bypass" option (-11) and an indicator is selected, above symbols (25,50) denote indicator setting

BOX 7: Ports	
Symbol	Description
	<b>15CN</b>
B1B1	¾" NPT
C1C1	1" NPT
M4M4	SAE-12 staight thread
N4N4	SAE-16 staight thread
	<b>40CN</b>
C1C1	1" NPT
E1E1	1½" NPT
N4N4	SAE-16 staight thread
P4P4	SAE-24 staight thread
	<b>80CN</b>
E1E1	1½" NPT
F1F1	2" NPT
P4P4	SAE-24 staight thread
R4R4	SAE-32 staight thread
Y9Y9	Flange face, SAE-2"

BOX 8: Options	
Symbol	Description
1	None
11	No Bypass
19	Drain port on bowl
21	No bypass and drain port

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, elements and cartridges.	

## Replacement Elements (Viton)

MEDIA	15CN-1	15CN-2	40CN-1	40CN-2	80CN-1	80CN-2
20Q	930369Q	930370Q	930100Q	930119Q	929903Q	922927Q
10Q	932612Q	932618Q	932651Q	932655Q	932661Q	932667Q
05Q	932611Q	932617Q	932650Q	932654Q	9332660Q	932666Q
02Q	932610Q	932616Q	932649Q	932653Q	932659Q	932665Q
10C	925385	925394	930096	930115	929912	929936
WR	N/A	N/A	931412	931414	961416	931418