

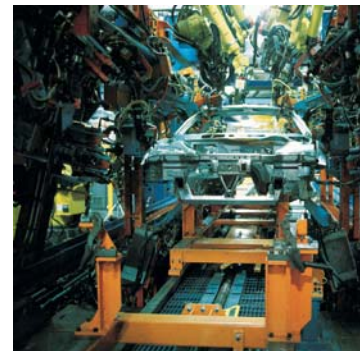


aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



15/40/80CN Series

Coreless Medium Pressure Filters



ENGINEERING YOUR SUCCESS.

15/40/80CN Series

Applications

- 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.

Ecoglass III Replacement Elements

Ecoglass III represents the merging of high performance filtration technology with environmentally conscious engineering. The Ecoglass III line of replacement elements feature 100% non-metallic construction. The design reduces solid waste and minimizes disposal costs for industry. The non-metallic construction means lightweight elements (60% less weight) for easier servicing.

The Ecoglass III elements utilize the same proprietary media design as our Microglass III line of replacement elements.

With Ecoglass III, a reusable core is installed into the filter housing and remains in service throughout the life of the assembly.



| Features | Advantages | Benefits |
|--|--|---|
| <ul style="list-style-type: none"> • 800 psi fatigue rating (eight times that of a spin-on) | <ul style="list-style-type: none"> • Ability to provide reliable service under tough cyclic operating conditions • Can be utilized in applications where high pressure filters may have been only option | <ul style="list-style-type: none"> • Reduced downtime due to premature filter failures • Reduced costs, better “fit” for the application |
| <ul style="list-style-type: none"> • Diametral (side) seal between head and bowl • Dust Seal | <ul style="list-style-type: none"> • Proven reliability in cyclic applications • Reduced importance of bowl torque • Prevents contamination from building up on bowl / head threads | <ul style="list-style-type: none"> • No downtime, no leaks • Performs with “real world” service • Easier service, no galling |
| <ul style="list-style-type: none"> • Cast aluminum head | <ul style="list-style-type: none"> • Low profile, lightweight and durable | <ul style="list-style-type: none"> • Less weight, smaller envelop and cleaner appearance |
| <ul style="list-style-type: none"> • Standard Ecoglass III elements | <ul style="list-style-type: none"> • Multi-layered design produced high capacity and efficiency • Reduces pleat bunching, keeps performance consistent | <ul style="list-style-type: none"> • Great performance value • Reliable performance throughout element life • Reduces downtime, maximizes element life |
| <ul style="list-style-type: none"> • Complete performance data disclosure | <ul style="list-style-type: none"> • All pertinent information is provided in an easy-to-compare format | <ul style="list-style-type: none"> • No hidden deficiencies • Easy selection of proper filtration |
| <ul style="list-style-type: none"> • Visual, electrical or electrical/visual indicators available | <ul style="list-style-type: none"> • Check element condition at a glance • Right style for the application | <ul style="list-style-type: none"> • Optimize element life, prevent bypassing • Matches your system electrical connections |

15/40/80CN Series

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

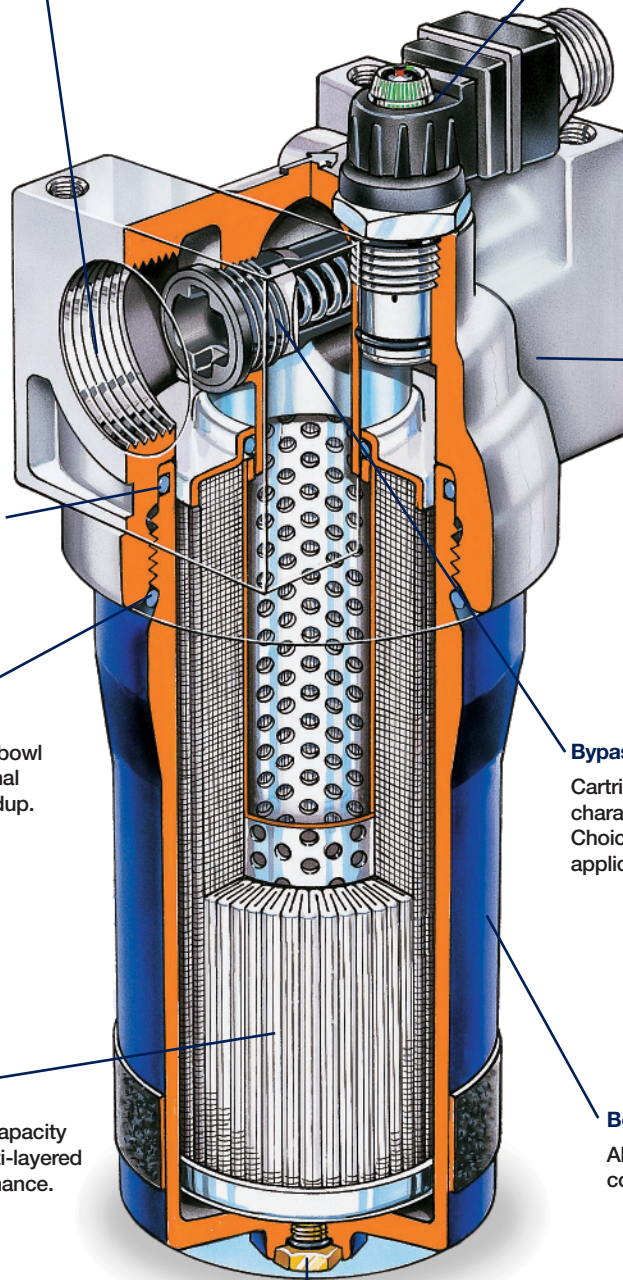
High efficiency ($B_{20} > 200$), high capacity Ecoglass III media with its multi-layered design is unequalled in performance.

Bowl

Aluminum is lightweight and corrosion resistant.

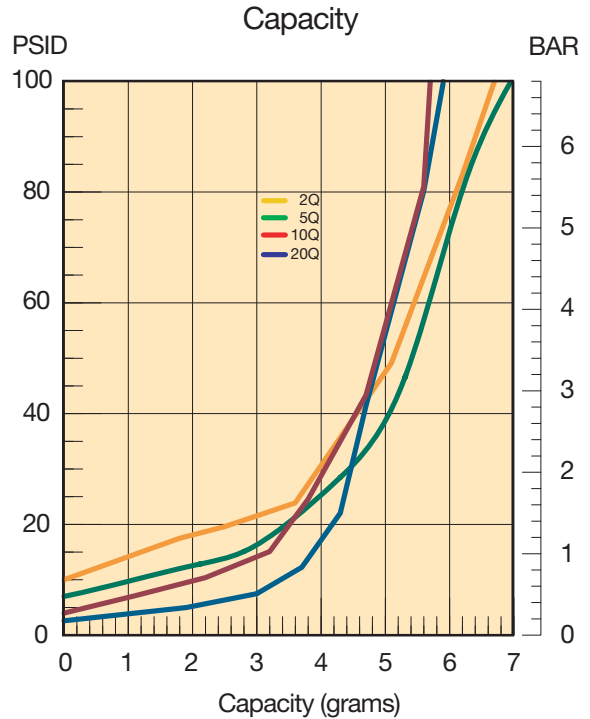
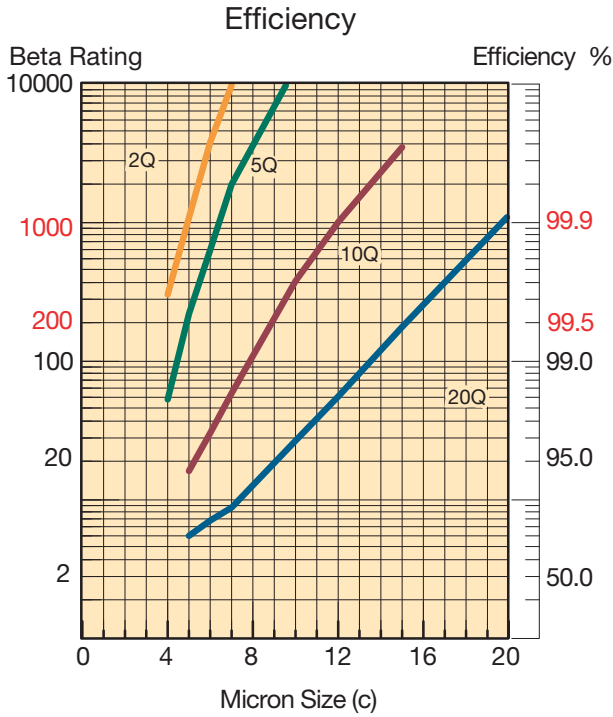
Drain Port (optional)

Optional drain port allows for easy element servicing.



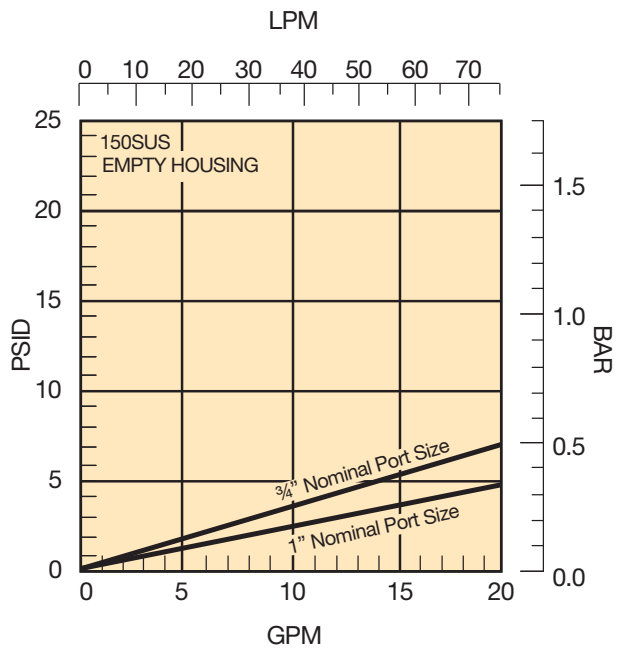
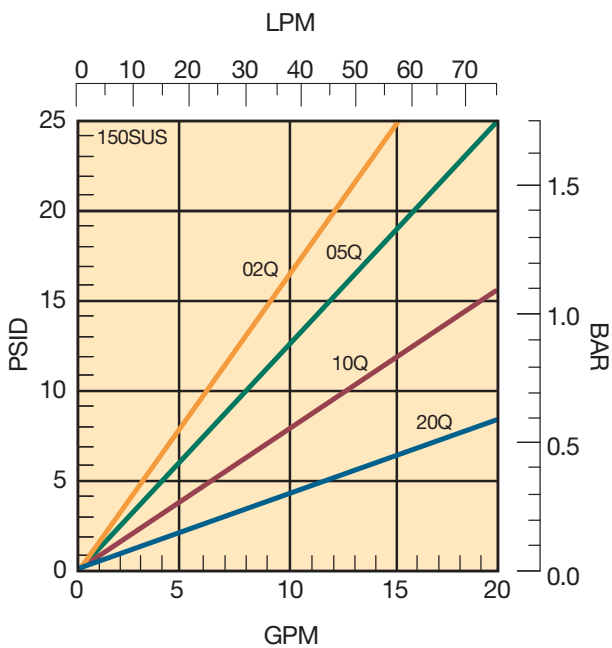
15CN Series

15CN-1 Element Performance



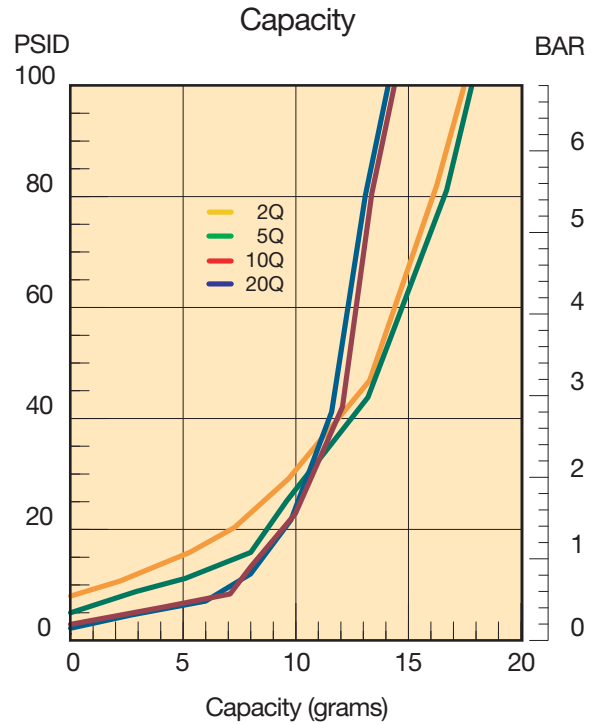
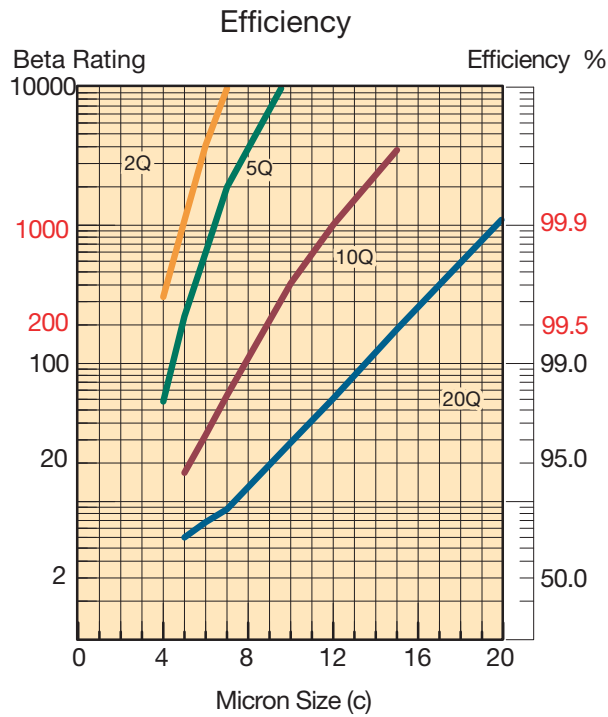
Results typical from Multi-pass tests run per test standard ISO 16889 @ 10 gpm to 100 psid terminal - 10 mg/L BUGL
 Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

Flow vs. Pressure Loss



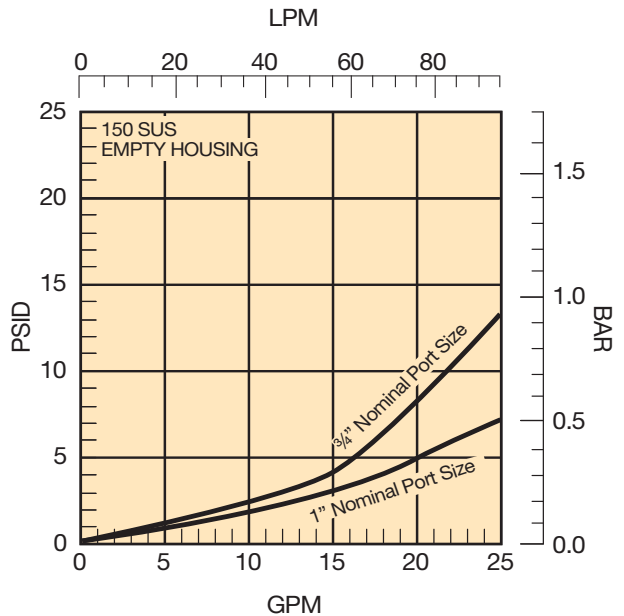
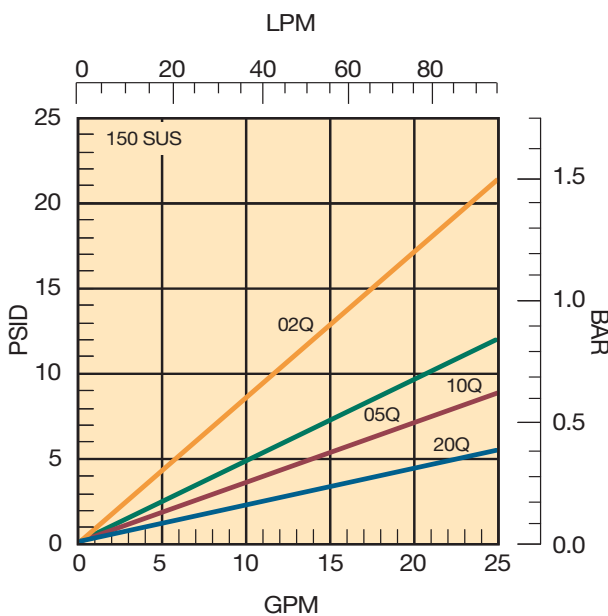
15CN Series

15CN-2 Element Performance



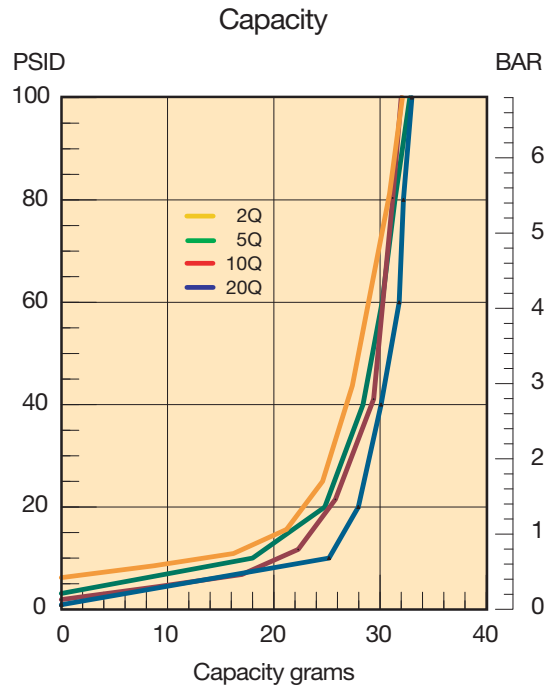
Results typical from Multi-pass tests run per test standard ISO 16889 @ 15 gpm to 100 psid terminal - 10 mg/L BUGL
 Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

Flow vs. Pressure Loss



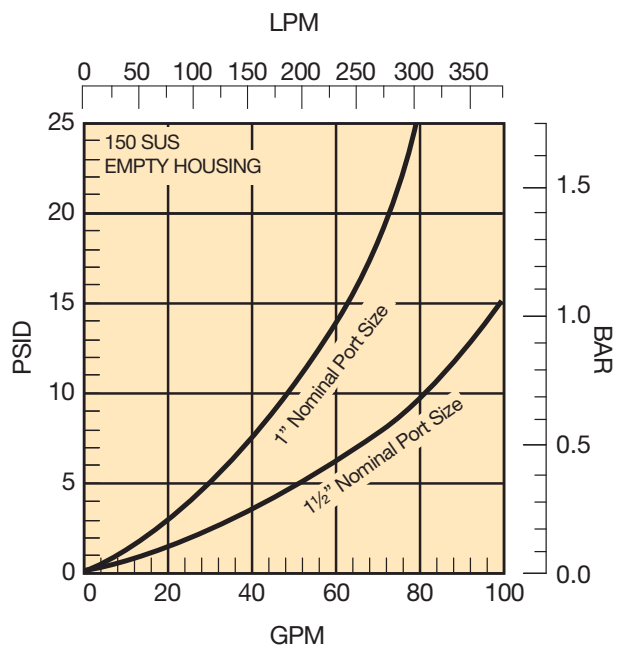
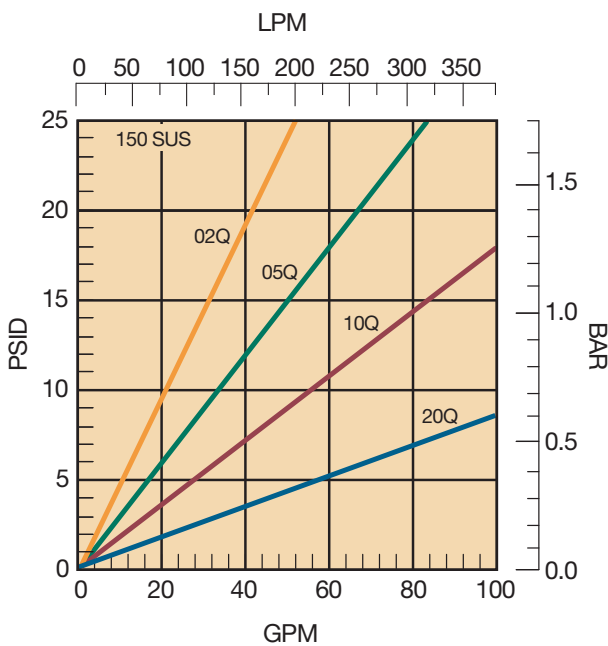
40CN Series

40CN-1 Element Performance



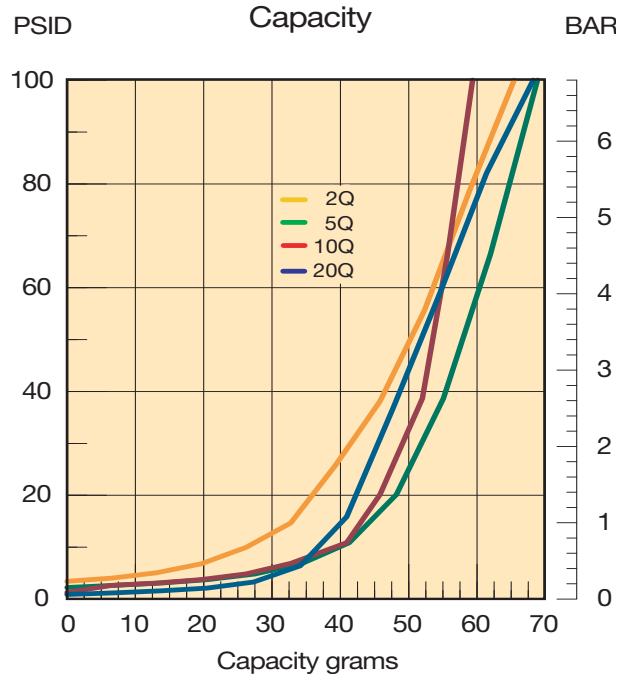
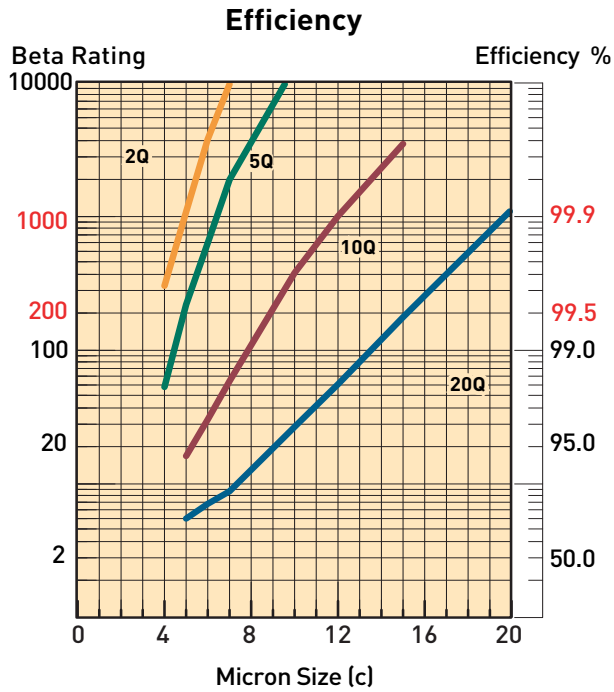
Results typical from Multi-pass tests run per test standard ISO 16889 @ 15 gpm to 100 psid terminal - 10 mg/L BUGL
 Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

Flow vs. Pressure Loss



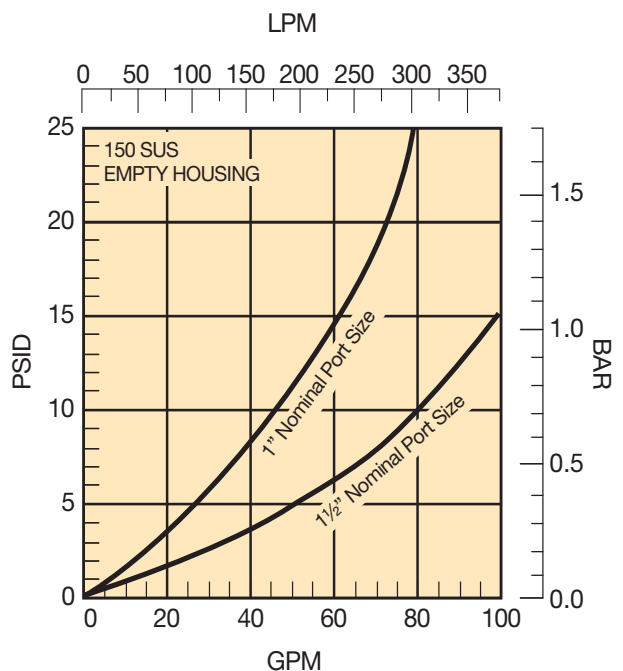
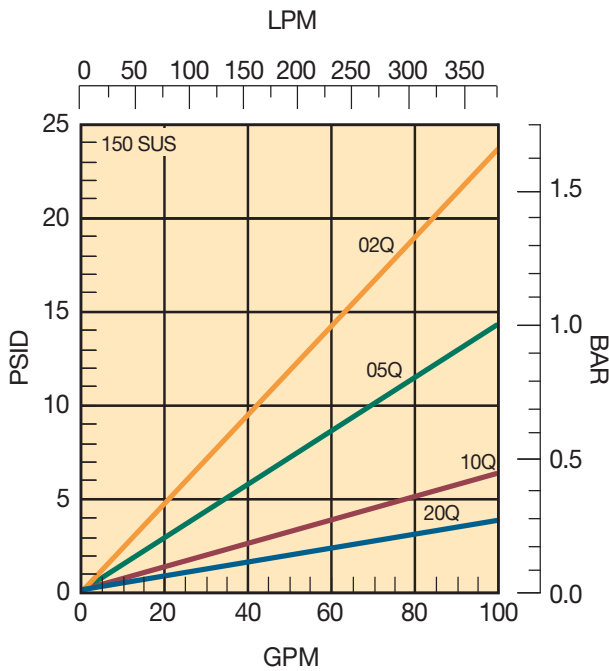
40CN Series

40CN-2 Element Performance



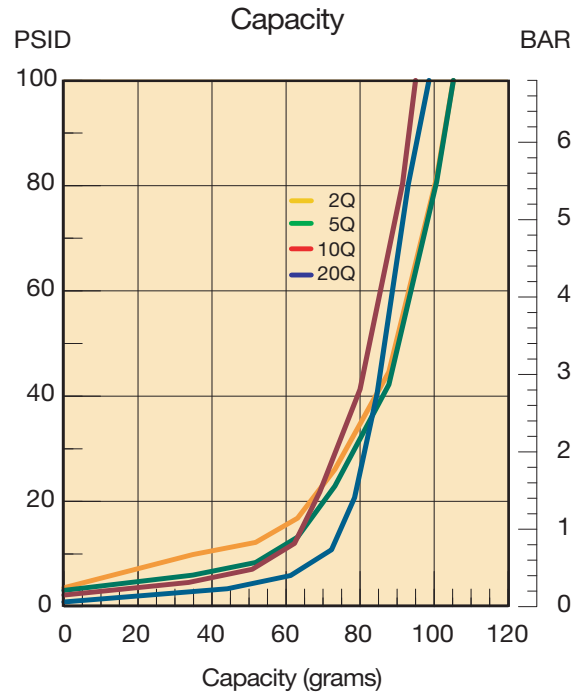
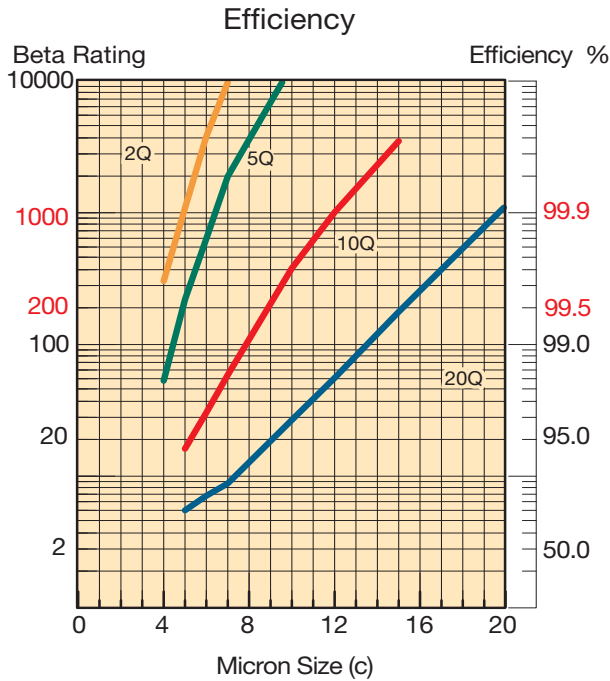
Results typical from Multi-pass tests run per test standard ISO 16889 @ 30 gpm to 100 psid terminal - 10 mg/L BUGL
 Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

Flow vs. Pressure Loss



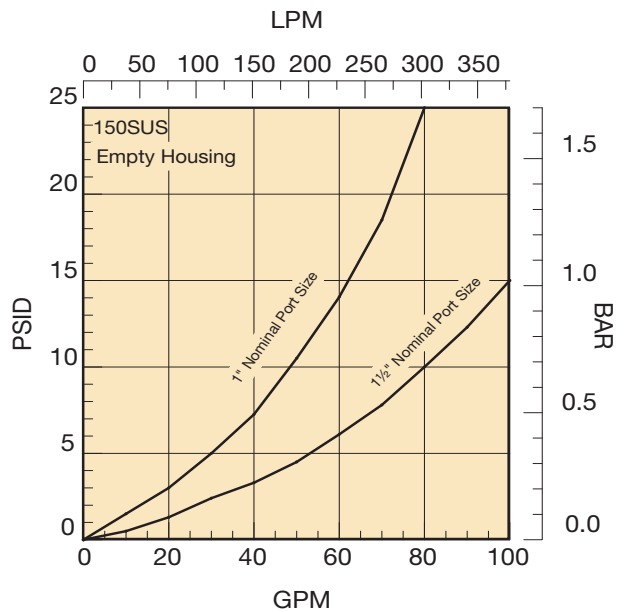
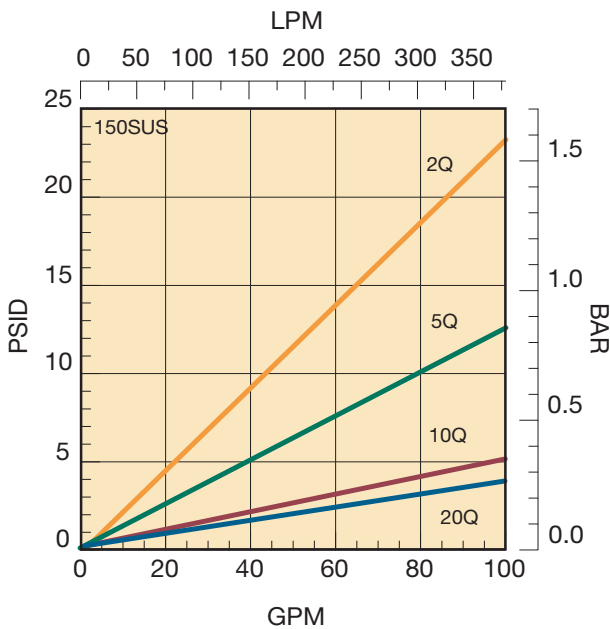
40CN Series

40CN-3 Element Performance



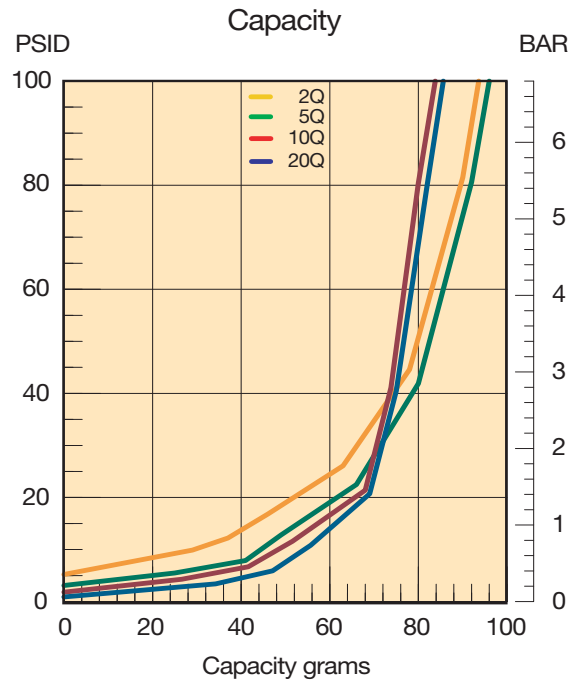
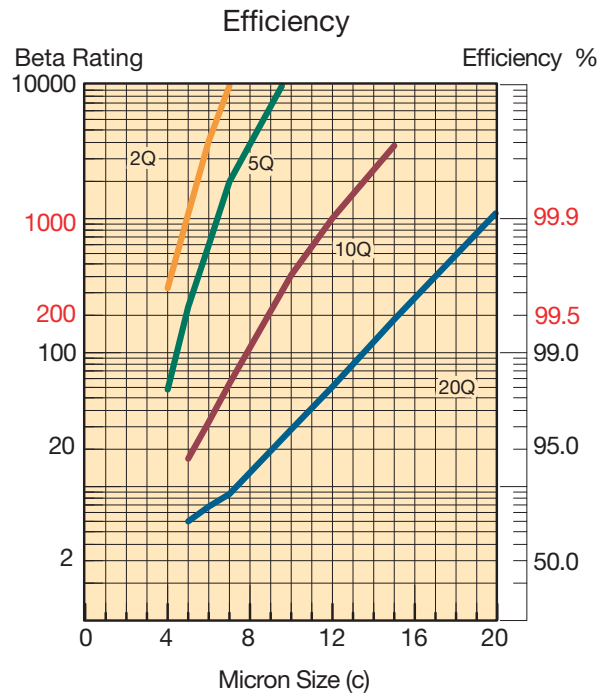
Results typical from Multi-pass tests run per test standard ISO 16889 @ 45 gpm to 100 psid terminal - 10 mg/L BUGL
 Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

Flow vs. Pressure Loss



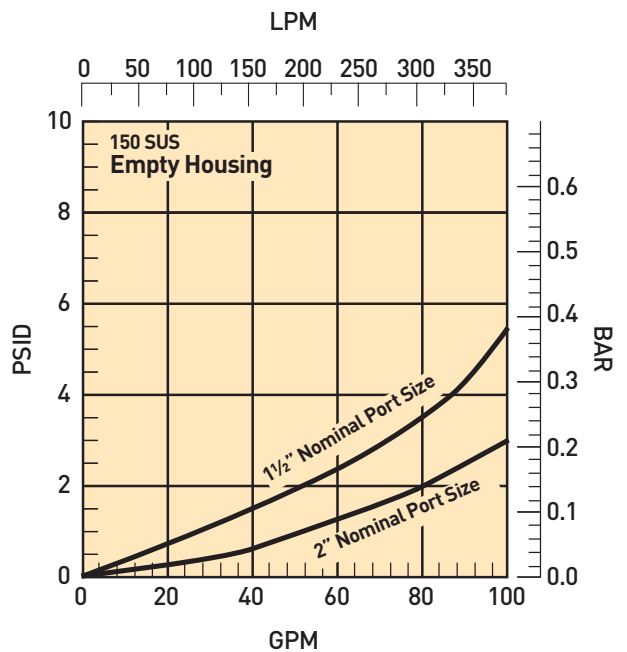
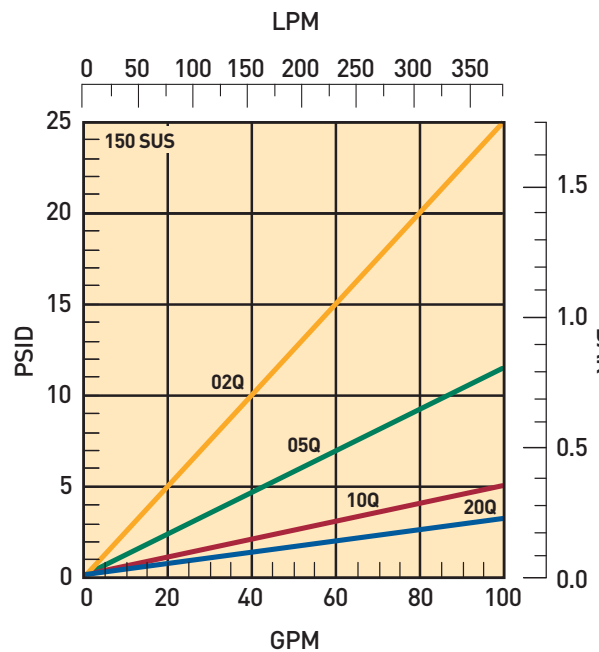
80CN Series

80CN-1 Element Performance



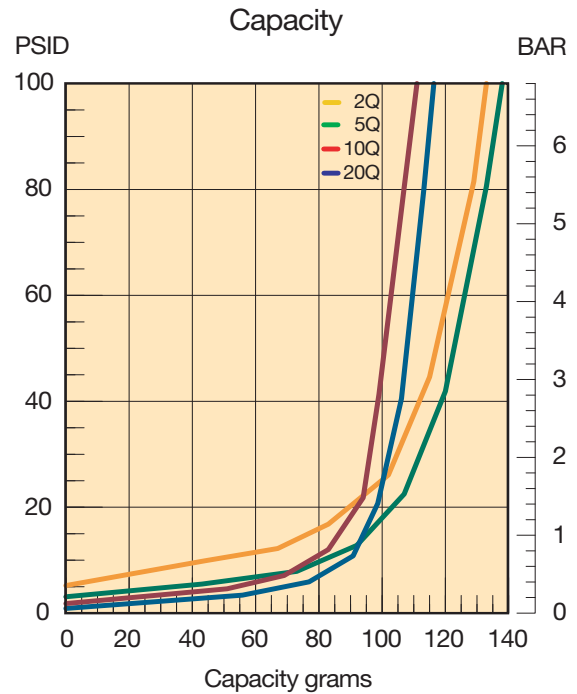
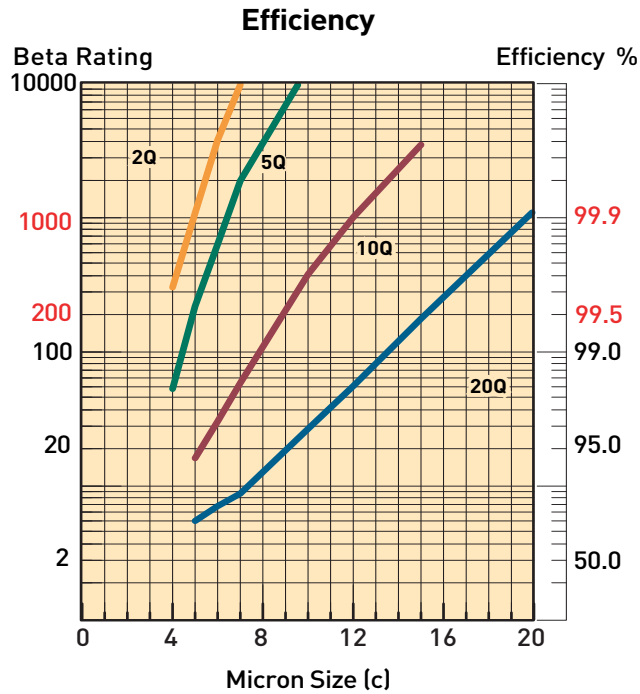
Results typical from Multi-pass tests run per test standard ISO 16889 @ 45 gpm to 100 psid terminal - 10 mg/L BUGL
 Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

Flow vs. Pressure Loss



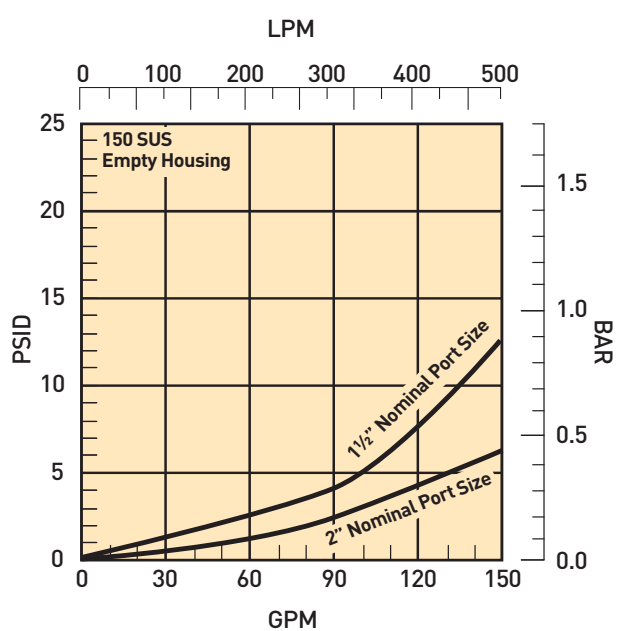
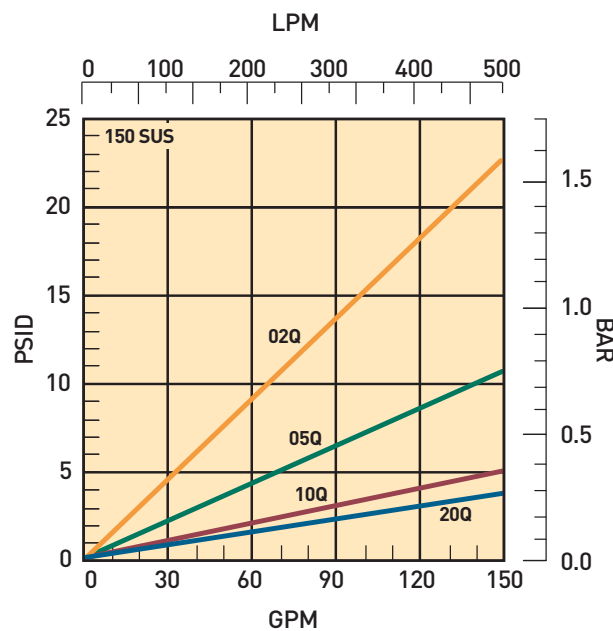
80CN Series

80CN-2 Element Performance



Results typical from Multi-pass tests run per test standard ISO 16889 @ 70 gpm to 100 psid terminal - 10 mg/L BUGL. Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

Flow vs. Pressure Loss



15/40/80CN Series

Specifications

Maximum Allowable Operating Pressure (MAOP):

1000 psi (69 bar)

Rated Fatigue Pressure:

800 psi (55.2 bar)

Design Safety Factor: 2.5:1

Operating Temperatures:

Nitrile: -40°F (-40°C) to 225°F (107°C)

Fluorocarbon: -15°F (-26°C) to 250°F (121°C)

Element Collapse Rating:

Standard: 150 psi (10.3 bar)

Drawings are for reference only.
Contact factory for current version.

Materials:

Head and Bowl: Aluminum

Indicators: Alum. body, plastic connectors

Bypass: Nylon

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)

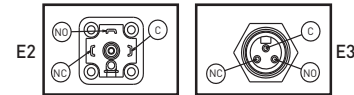
80CN 12.4 lb. (5.62 kg) 15.2 lb. (6.89 kg)

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:

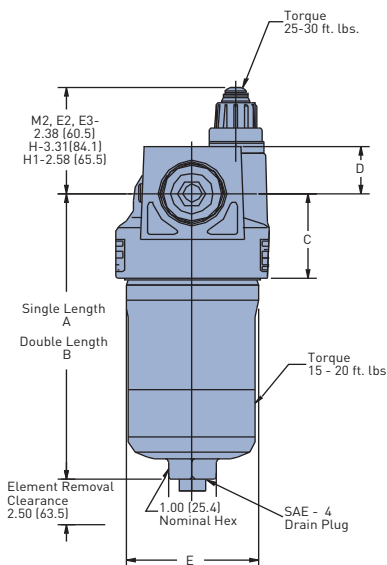
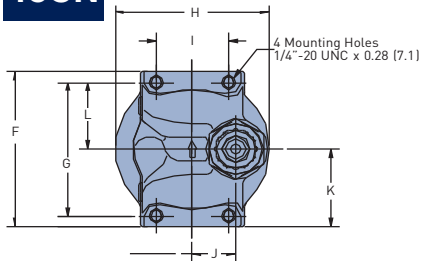
White (common)

Black (normally open)

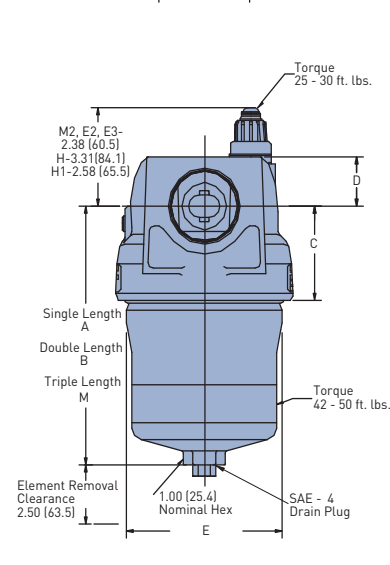
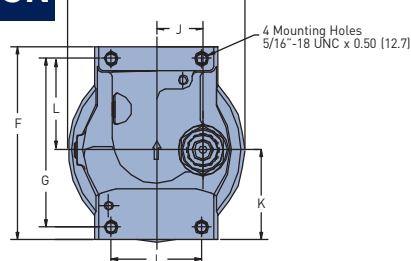
Blue (normally closed)

| Dimensions are in (mm) | A | B | C | D | E | F | G | H | I | J | K | L | M |
|------------------------|------------------|------------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|------------------|
| 15CN | 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) | NA |
| 40CN | 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) | 15.07 (382.8) |
| 80CN | 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) | NA |

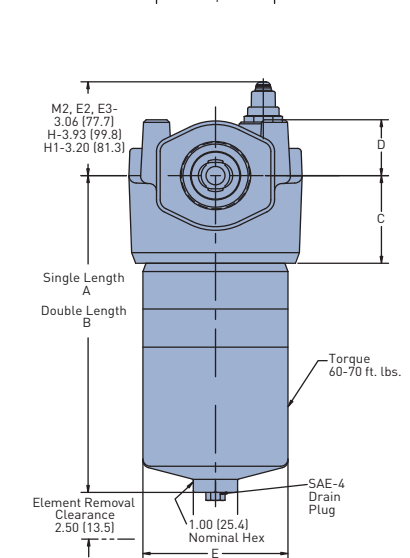
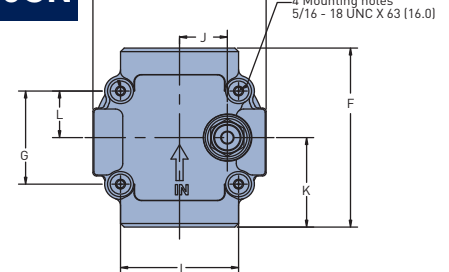
15CN



40CN



80CN



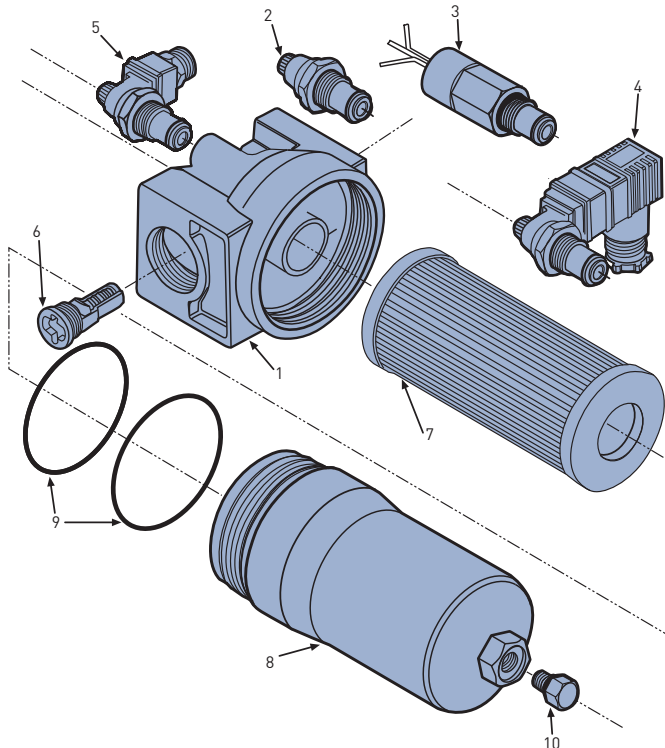
15/40/80CN Series

Element Service Instructions

- 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. Loosen and remove bowl.
- 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 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 | Head | | | | |
| | 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 | 932950 | N/A | |
| | 1" NPT no bypass/ no indicator | 933876 | 932986 | 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 | 932959 | 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 | 932957 | 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 | Indicators | | | | |
| | 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 |
| | Not Shown: | | | | |
| | E-Electrical/Visual 25 psi w/ wire leads | 929610 | 929610 | 929610 | |
| | E-Electrical/Visual 50 psi w/ wire leads | 929587 | 929587 | 929587 | |
| | 4 | E2-Electrical/Visual 25 psi w/ DIN connection | 931153 | 931153 | 931153 |
| | | E2-Electrical/Visual 50 psi w/ DIN connection | 929599 | 929599 | 929599 |
| 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 | Bypass Valve | | | | |
| | 25 psid assembly | 928979 | 930507 | 933628 | |
| | 50 psid assembly | 928981 | 933424 | 933630 | |
| Not Shown: | | | | | |
| No bypass plug | 935744 | 927719 | 934174 | | |
| Element (see model code page) | | | | | |
| 8 | Bowl | | | | |
| | Single length | 936758 | 936760 | 936763 | |
| | Double length | 936759 | 936761 | 936764 | |
| | Triple length | - | 936762 | - | |
| 9 | Bowl and Dust Seal | | | | |
| | Buna N (Nitrile) | N72142 | N72239 | N72244 | |
| | Fluorocarbon | V72142 | V72239 | V72244 | |
| 10 | Drain Plug - SAE-4 | | | | |
| | Buna N (Nitrile) | 921088 | 921088 | 921088 | |
| | Fluorocarbon | 928882 | 928882 | 928882 | |



15/40/80 CN 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 |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 40CN | 1 | 10QE | B | M2 | K | N24 | 4 |

| BOX 1: Filter Series | |
|----------------------|----------------|
| Symbol | Description |
| 15CN | In line Filter |
| 40CN | In line Filter |
| 80CN | In line Filter |

| BOX 2: Element Length | |
|-----------------------|--------------------|
| Symbol | Description |
| 1 | Single |
| 2 | Double |
| 3 | Triple (40CN only) |

| BOX 3: Media Code | |
|-------------------|-------------------------|
| Symbol | Description |
| 02QE | Ecoglass III, 2 micron |
| 05QE | Ecoglass III, 5 micron |
| 10QE | Ecoglass III, 10 micron |
| 20QE | Ecoglass III, 20 micron |

| BOX 4: Seals | |
|--------------|--------------------------|
| Symbol | Description |
| B | Nitrile (NBR) |
| E | Ethylene propylene (EPR) |
| V | Fluorocarbon (FKM) |

| BOX 5: Indicator | |
|------------------|---|
| Symbol | Description |
| M2 | Visual Automatic Reset |
| H | Electrical indicator with ½"-14 NPT connection and 12" leads |
| E | Electrical/Visual with ½" NPT conduit connection and wire leads |
| E2 | Electrical/ Visual (DIN43650 Hirschman style connection) |
| E3 | Electrical/Visual (ANSI B.9355M 3-pin Brad Harrison style connection) |
| P | Plugged indicator port |

| BOX 6: Bypass | |
|---------------|------------------|
| Symbol | Pressure Setting |
| G | 25 PSI (1.7 bar) |
| K | 50 PSI (3.5 bar) |

| BOX 7: Ports | |
|--------------|------------------------------|
| Symbol | Description |
| 15CN | |
| N12 | ¾" NPT |
| N16 | 1" NPT |
| S12 | SAE-12 straight thread |
| S16 | SAE-16 straight thread |
| 40CN | |
| N16 | 1" NPT |
| N24 | 1½" NPT |
| S16 | SAE-16 straight thread |
| S24 | SAE-24 straight thread |
| 80CN | |
| N24 | 1½" NPT |
| N32 | 2" NPT |
| S24 | SAE-24 straight thread |
| S32 | SAE-32 straight thread |
| Y32 | Flange face, SAE-2", Code 61 |

| BOX 8: Options | |
|----------------|-----------------------------|
| Symbol | Description |
| 4 | Standard drain port on bowl |
| 21 | No bypass and drain port |

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

Replacement Elements (Ecoglass)

| MEDIA | 15CN-1 | 15CN-2 | 40CN-1 | 40CN-2 | 40CN-3 | 80CN-1 | 80CN-2 |
|-------|---------|---------|---------|---------|---------|---------|---------|
| 20QE | 936701Q | 936705Q | 936709Q | 936712Q | 936721Q | 936715Q | 936719Q |
| 10QE | 936700Q | 936704Q | 936708Q | 936601Q | 936720Q | 936602Q | 936718Q |
| 05QE | 936699Q | 936703Q | 936707Q | 936711Q | 936623Q | 936714Q | 936717Q |
| 02QE | 936698Q | 936702Q | 936706Q | 936710Q | 936622Q | 936713Q | 936716Q |

Global products as identified are offered worldwide through all Parker locations and utilize a common ordering code.

