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

12AT/50AT Series

Spin-On Filters

ENGINEERING YOUR SUCCESS.

12AT/50AT Series

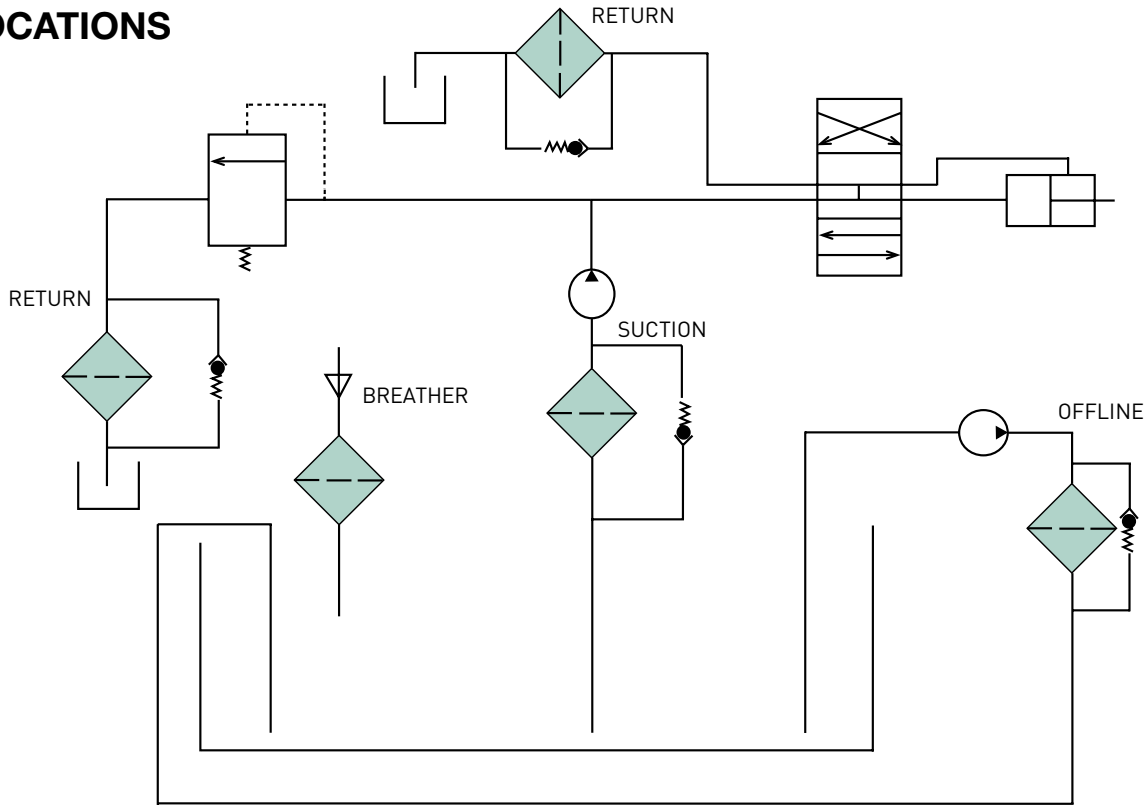
Spin-On Filters

Applications for Spin-On Filters

- Mobile Equipment
- Hydrostatic Drives
- Industrial Power Units
- Reservoir Breathers

Often, economic conditions dictate what type of filter is used on a piece of equipment. When costs are tight, you need a filter that is inexpensive, yet uncompromising in performance and quality. Parker's spin-on filters fit that need. They are built to fit demanding design parameters in today's mobile and industrial equipment. No compromising.

TYPICAL LOCATIONS



12AT/50AT Series

Spin-On Filters

Typical Element Performance: 12AT

Media Code	Filter Media	Beta Ratios	Particle Size/Efficiency
25C	Cellulose	B_{25}=2	25 / 50%
10C	Cellulose	B_{10}=2	10 / 50%
03C	Cellulose	B_{3}=2	3 / 50%
20B	Microglass	B_{20}=75	20 / 98.7%
10B	Microglass	B_{10}=75	10 / 98.7%

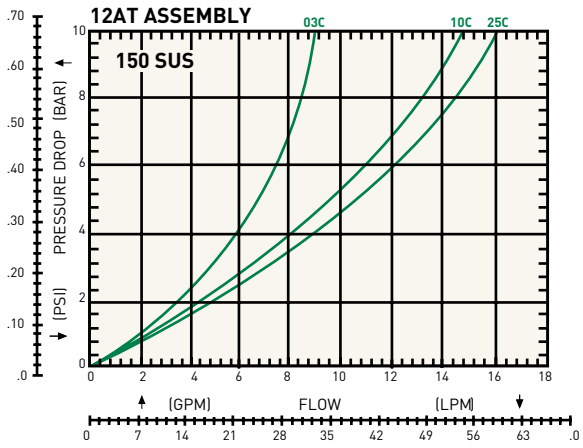
Actual results are dependent on system flow rates, fluid viscosities, and other parameters.

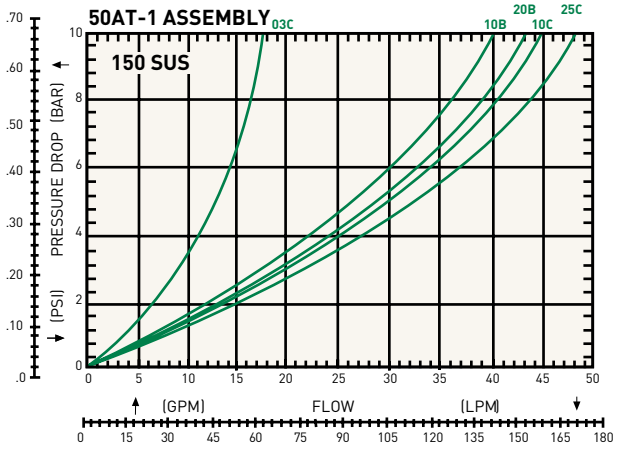
Typical Element Performance: 50AT

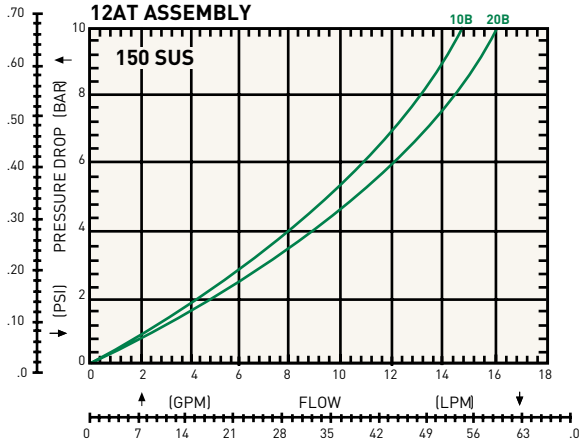
Media Code	Filter Media	Beta Ratios	Particle Size/Efficiency
25C	Cellulose	B_{25}=2	25 / 50%
10C	Cellulose	B_{10}=2	10 / 50%
03C	Cellulose	B_{3}=2	3 / 50%
20B	Microglass	B_{20}=75	20 / 98.7%
10B	Microglass	B_{10}=75	10 / 98.7%
10C-2	Cellulose	B_{10}=2	10 / 50%
20B-2	Microglass	B_{20}=75	20 / 98.7%
10B-2	Microglass	B_{10}=75	10 / 98.7%
03B-2	Microglass	B_{3}=75	3 / 98.7%

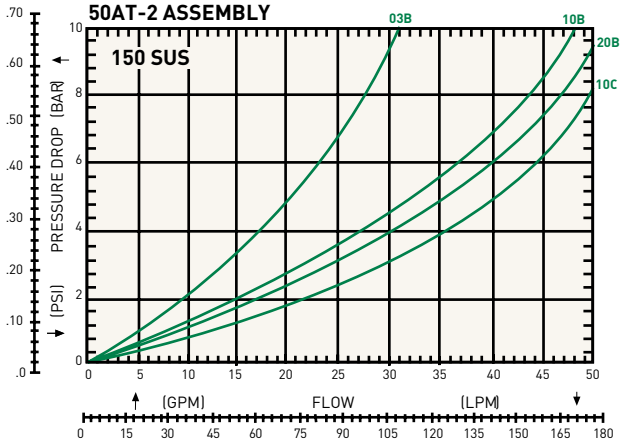
Actual results are dependent on system flow rates, fluid viscosities, and other parameters.

Beta Rating	Efficiency at (X) Particle Size
Bx = 2	50.0%
Bx = 20	95.0%
Bx = 75	98.7%
Bx = 200	99.5%
Bx = 1000	99.99%









12AT/50AT Series

Spin-On Filters

Installation and Specification Data Model 12AT

Pressure Ratings:
Maximum Allowable Operating Pressure (MAOP): 150 psi (10.3 bar)

Design Safety Factor: 2.5:1

Operating Temperatures:
-40°F to 225°F (-40°C to 107°C)

Element Collapse Rating:
100 psid minimum

Element Condition Indicators:
Gauge: Color coded 15/25 psi

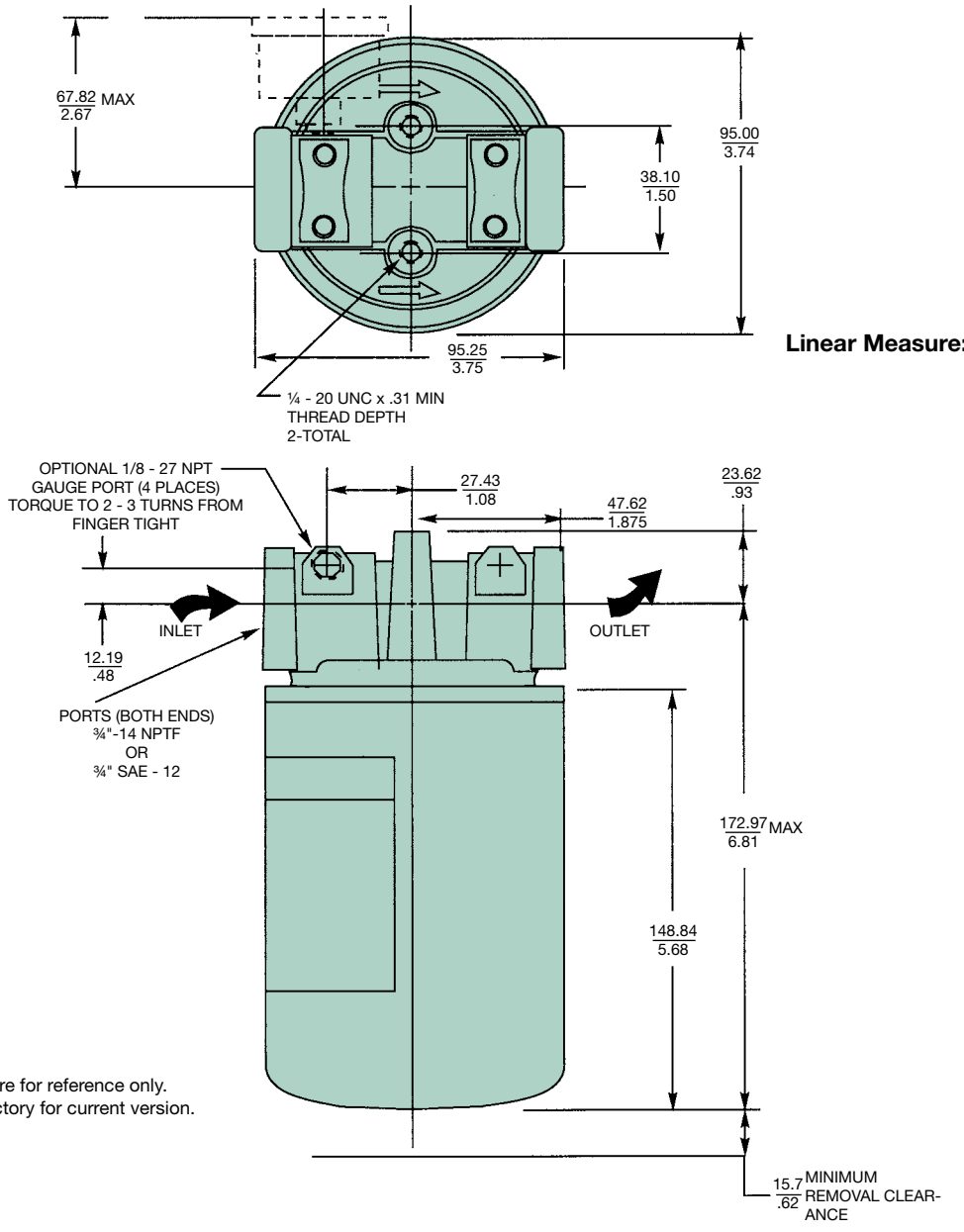
Gauge: Color coded vacuum

Pressure Switch: Normally open
20 +/- 2 psi
5 Amps @ 24 VDC

Vacuum Switch: Normally open
5" +/- 1" Hg
1.0 Amp @ 120 VAC

Filter Material:
Head: Aluminum
Cannister: Low Carbon Steel

Shipping Weights (approximate):
1.6 lbs.



Linear Measure: millimeter / inch

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

12AT/50AT Series

Spin-On Filters

Installation and Specification Data Model 50AT

Pressure Ratings:
Maximum Allowable Operating Pressure (MAOP): 150 psi (10.3 bar)

Design Safety Factor: 2.5:1

Operating Temperatures:
-40°F to 225°F (-40° C to 107°C)

Element Collapse Rating:
100 psid minimum

Element Condition Indicators:
Gauge: Color coded 15/25 psi

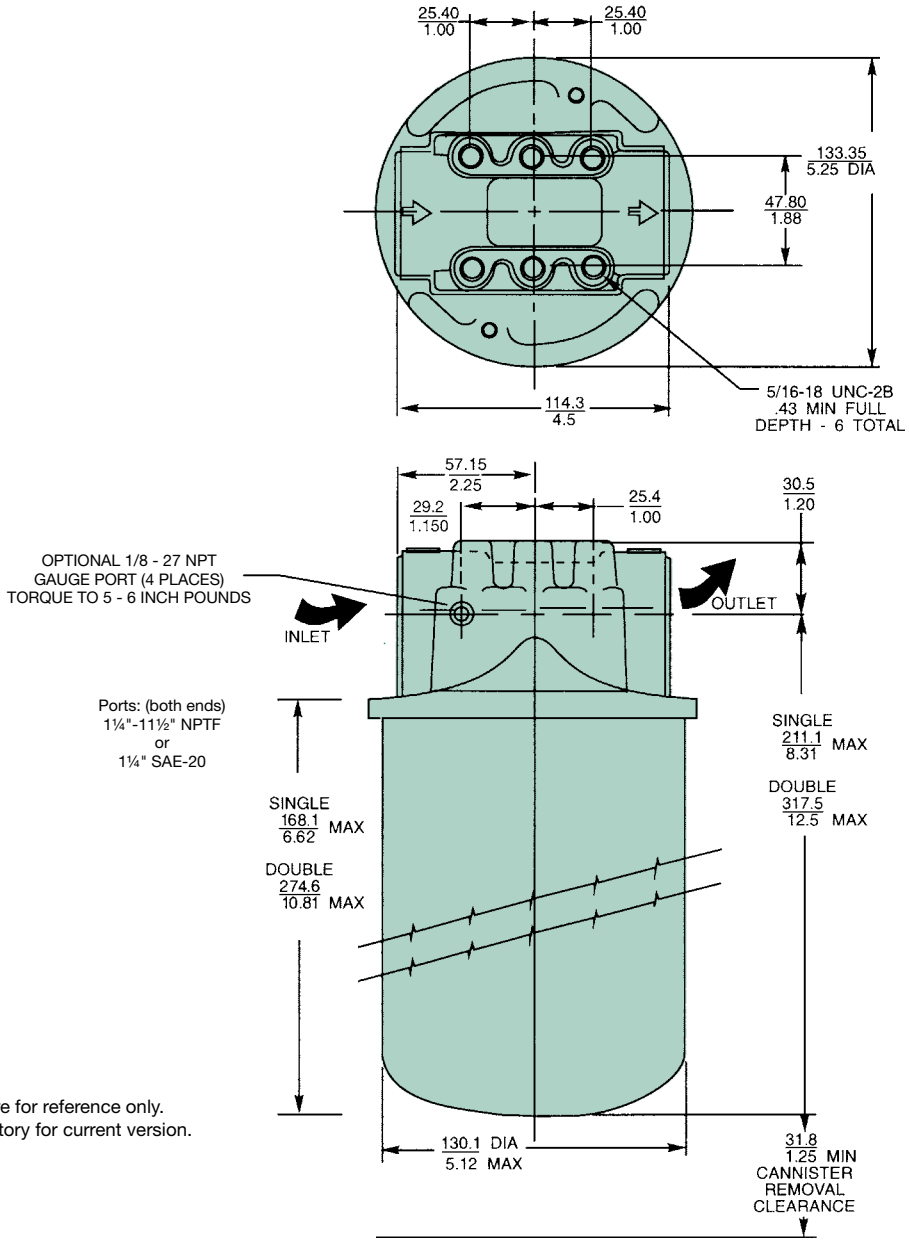
Gauge: Color coded vacuum

Pressure Switch: Normally open
20 +/- 2 psi
5 Amps @ 24 VDC

Vacuum Switch: Normally open
5" +/- 1" Hg
1.0 Amp @ 120 VAC

Filter Material:
Head: Aluminum
Cannister: Low Carbon Steel

Shipping Weights (approximate):
Single length: 3.7 lbs.
Double length: 5.3 lbs.



Linear Measure: millimeter / inch

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

12AT/50AT Series

Spin-On Filters

Reservoir Breather Assemblies 12AT and 50AT

Sizing

Select the proper size cannister for the maximum rate of reservoir draw down or air exchange rate. As a rule of thumb, clean pressure drop should be limited to 0.18 psid (5" H_2O).

A pipe flange, weld collar, etc. may be used to connect the cannister adapter kit to the reservoir. Make sure that air is not able to leak around the adapter. When mounting on the side of the reservoir, make sure the installation is above the surface of the fluid.

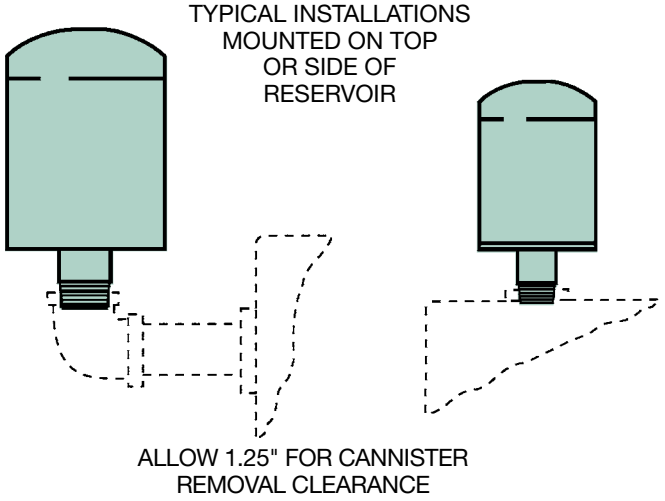
Recommended cannister change out is after 500 hours of operation. More frequent replacement may be required when operated in heavily contaminated areas such as grinding operations, primary metal mills, and on mobile equipment. Under such conditions, increase replacement frequency to every 250 hours.

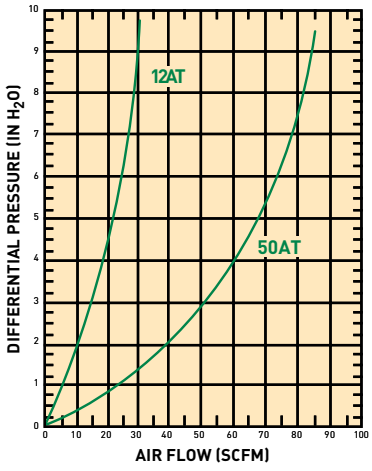
Model	Air Rating*	Element	Adapter Kit
12AT-03C	1 micron	926543	926876
12AT-10C	2 micron	921999	926876
12AT-25C	5 micron	925023	926876
50AT-03C	1 micron	926541	926875
50AT-10C	2 micron	926169	926875
50AT-25C	5 micron	926170	926875

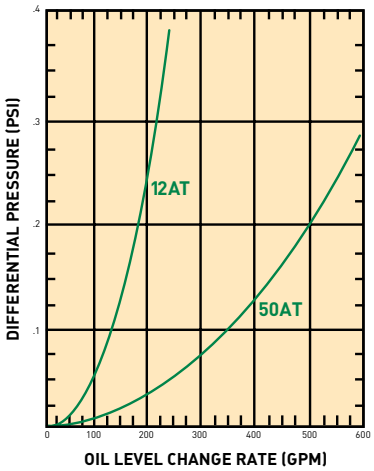
* 99% Removal efficiency for particles larger than the stated size in air.

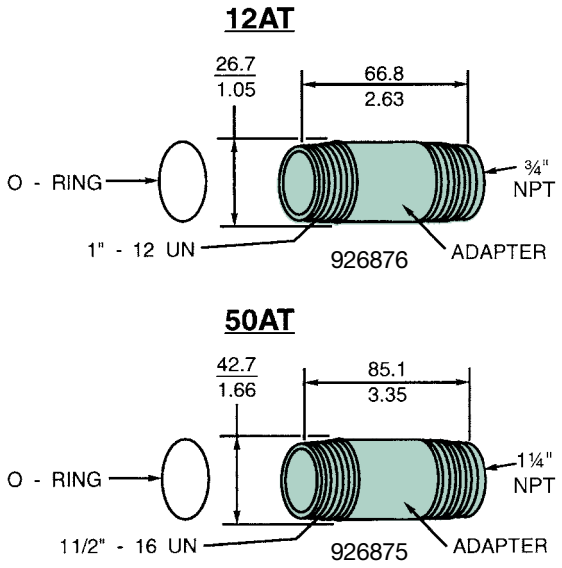
Graphs are for 03C cannisters only. Total pressure drop across cannister, adapter, and pipe may be found by adding pressure drops below:

+ 1.5% for each inch of 12AT adapter or 3/4" pipe used.
+ 3.0% for each 3/4" elbow used.
+ 1.0% for each inch of 50AT adapter or 1-1/4" pipe used.
+ 2.0% for each 1-1/4" elbow used.









12AT/50AT Series

Spin-On Filters

Filter Service

Filter cannisters need to be replaced when the pressure gauge reads the filter bypass setting. For example, if a 12AT filter has a 25 psi bypass valve, it needs to be replaced when the pressure gauge reads 25 psi. If no indicator of any kind is used, replace the cannister after the first 50 hours of operation, and every 250 hours thereafter. More frequent replacement could be required depending on operating conditions.

When servicing a 12AT or 50AT filter, use the following procedure:

A. Shut down the main system and release pressure in the filter line.
B. Unthread the cannister and discard it along with the accompanying seal. A strap wrench may be required.
C. Apply a small amount of lubricant to the new cannister seal.
D. Install the new cannister and hand tighten 3/8 to 1/2 turn after gasket makes contact with head.

Accessory Parts List

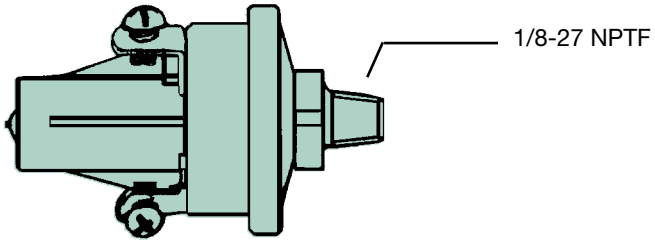
Description	12AT	50AT
Gauge - 15 psi	936911	936911
Gauge - 25 psi	936912	936912
Pressure switch-25 psi	926923	926923
Vacuum switch	926949	926949
Breather adapter kit	926876	926875
Vacuum gauge	936909	936909

Replacement Cannisters

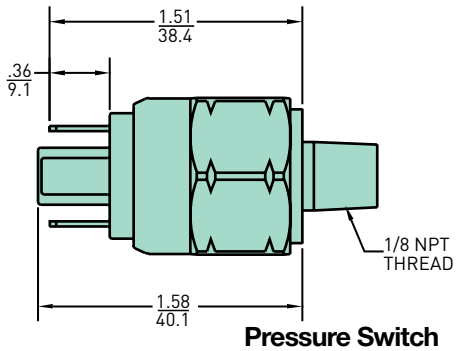
Media	12AT	50AT	50AT-2
25C	925023	926170	N/A
10C	921999	926169	927736
03C	926543	926541	N/A
20B	928764	928767	929446
10B	928763	928766	929445
03B	N/A	934200	932073

Indicator Gauge (15 PSI)

Indicator Gauge (25 PSI)



Vacuum Switch



Pressure Switch

Linear Measure = inches / mm

12AT/50AT Series

Spin-On Filters

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
	50AT	2	10C	N	25	DD	N

BOX 1: Seals	
Symbol	Description
None	**Buna**

BOX 2: Basic Assembly	
Symbol	Description
12AT	**Spin-on (¾" nom.)**
50AT	**Spin-on (1¼" nom.)**

BOX 3: Length	
Symbol	Description
None	**Single length cannister**
2	Double length cannister (50AT only)

BOX 4: Cannister Media	
Symbol	Description
25C*	**Cellulose**
10C	**Cellulose**
03C*	Cellulose
20B	Microglass
10B	Microglass
03B **	Microglass

* Not available in 50AT-2
** Not available in 12AT

BOX 5: Indicator Symbol	
	Description
N	**None**

BOX 6: Bypass Setting	
Symbol	Description
25	**25 psid**
15	15 psid
3	3 psid
X	No bypass

BOX 7: Ports	
Symbol	Description
12AT	
BB	**3/4" NPTF**
MM	**SAE-12**
50AT	
DD	**1-1/4" NPTF**
OO	**SAE-20**

BOX 8: Gauge Port Location	
Symbol	Description
N	**None**
H	**Inlet and outlet, both sides (all ports drilled and tapped)**

NOTE: Gauges must be ordered separately.

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

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

PT Series

Tank Top Filters

Parker

ENGINEERING YOUR SUCCESS.

PT Series

Applications

Together we can…

Preserve the environment.
Minimize waste and promote energy efficiency.

Achieve worldwide filtration solutions.
Build global confidence.

Redefine new limits.
Forge ahead with advanced technology.

Keep contamination under control.
Reduce maintenance costs.

Enhance total system reliability.
Focus on customer satisfaction.

Reach optimum potential.
Drill to greater depths.

…engineer your success.

The new PT series filter is available in two diameters and three lengths for flow ranges from 5-50 gpm. The PT2 and PT4 filter cartridges utilize Microglass media in 2, 5, 10 and 20 microns for the industry's best particle removal efficiency and retention.

This unique design simply threads into a ported weld ring or flange, which can be bolted to a metal reservoir.

The disposable filter cartridge is a single-piece construction, which incorporates the nylon cover and integral 25 psi bypass valve. The flow path is inside-out and requires no special tools for service.

This concept assures minimal installation costs with the least space requirements for return line applications.

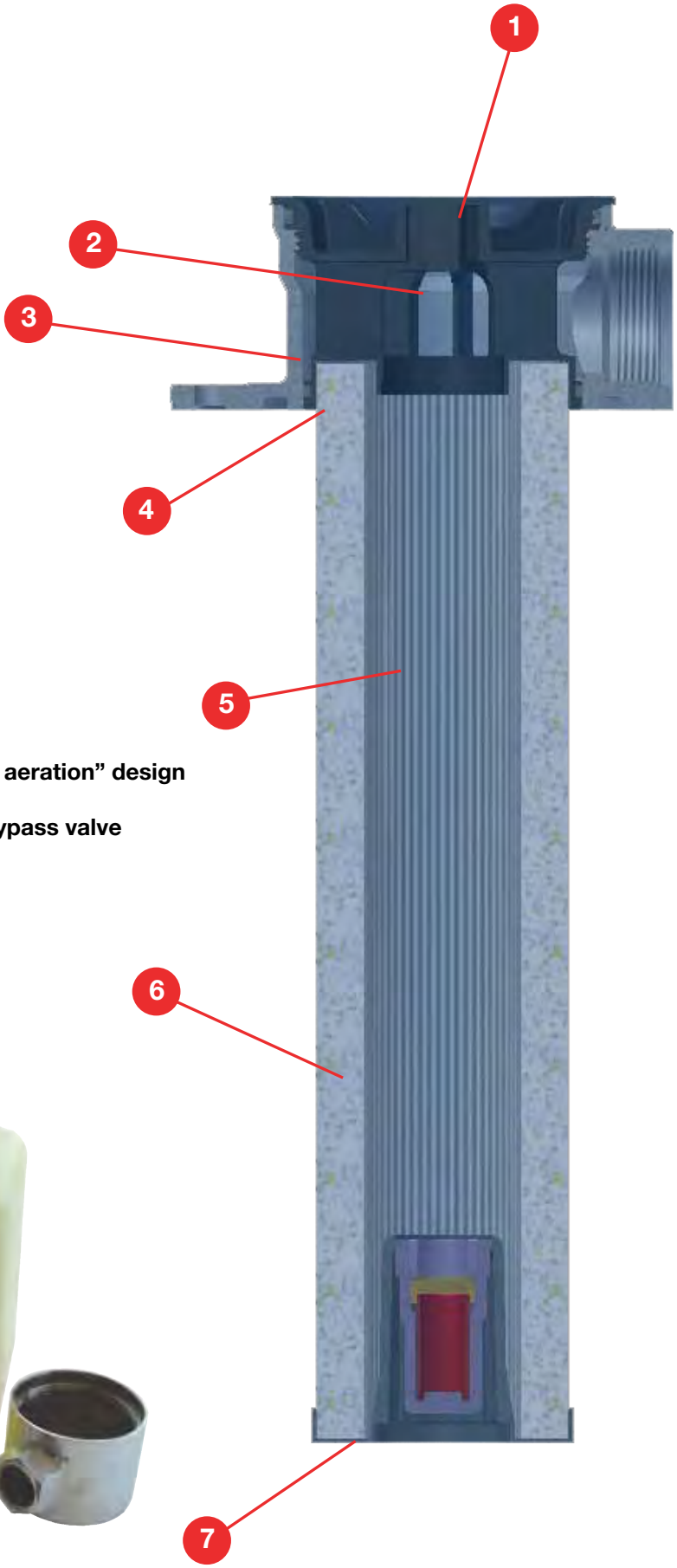
Typical Applications

- **Turf Maintenance**
- **Material Handling**
- **Aerial Lifts**
- **Fan Drive**

The PT Series filter combines high efficiency Microglass filtration with low cost installation featured in a new patented element design.

PT Series

Features



1. **Easy element assembly removal**
2. **Unique high flow top end cap**
3. **Lightweight cast aluminum head**
4. **Patented filter element assembly**
5. **Bowl-less, inside-out flow**
6. **Downstream element support with “no aeration” design**
7. **Solid bottom endcap with integrated bypass valve**
8. **Low profile tank top design**

PT Series

Patented Filter Element

Premium original equipment performance every time

Tank Top, Bowl-Less Design
Reduces weight

Significant cost savings over filters with bowls

Bottom Endcap Integrated Bypass Valve
New bypass valve with every element change

Insures reliable performance

Inside-Out Element Flow Path
Contamination contained within the element

No system contamination during element servicing

No Aeration Design
Oil cascades down the perforated outer support core

No system aeration

High Flow, Low Pressure Drop Top Endcap Design
Long element life

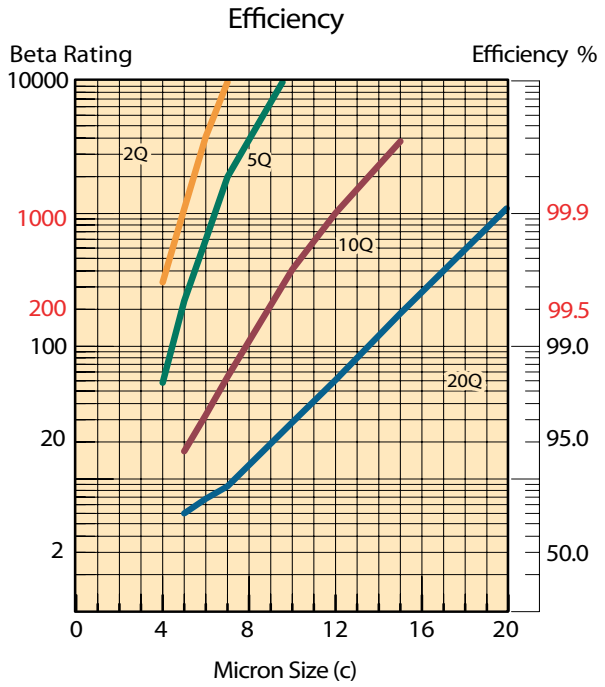
Lower maintenance costs

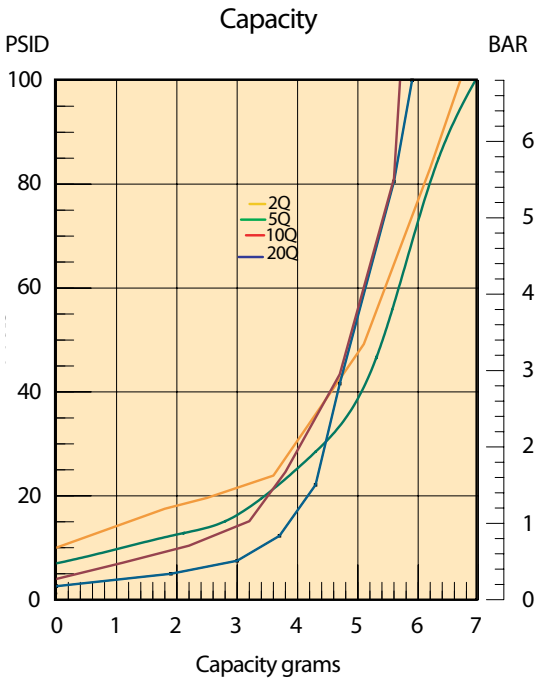
Premium Microglass Media
Superior dirt holding capacity and efficiency

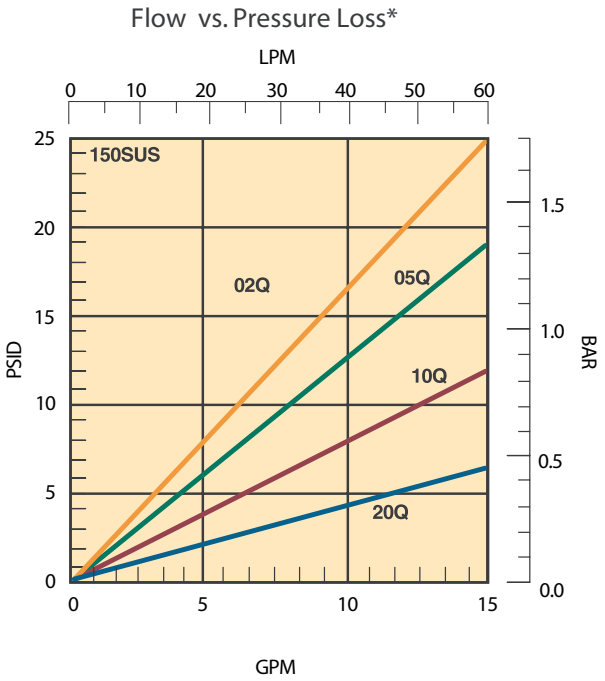
Less maintenance and downtime

PT Series

PT2-1 Element Performance





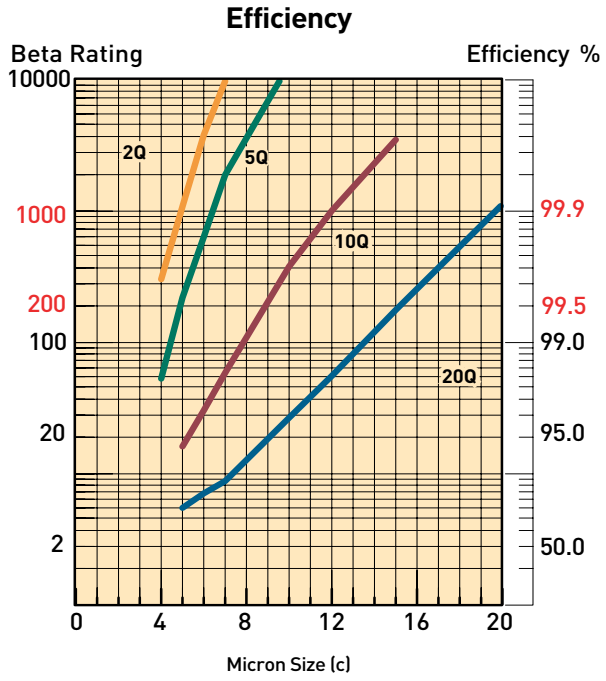


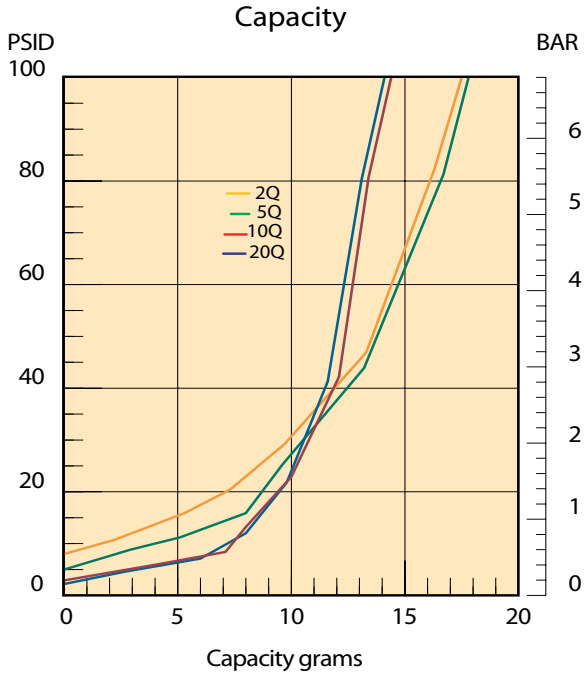
Results typical from Multi-pass tests run per test standard ISO 16889 @ 10 gpm to 100 psid terminal - 10 mg/L BUGL.
Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

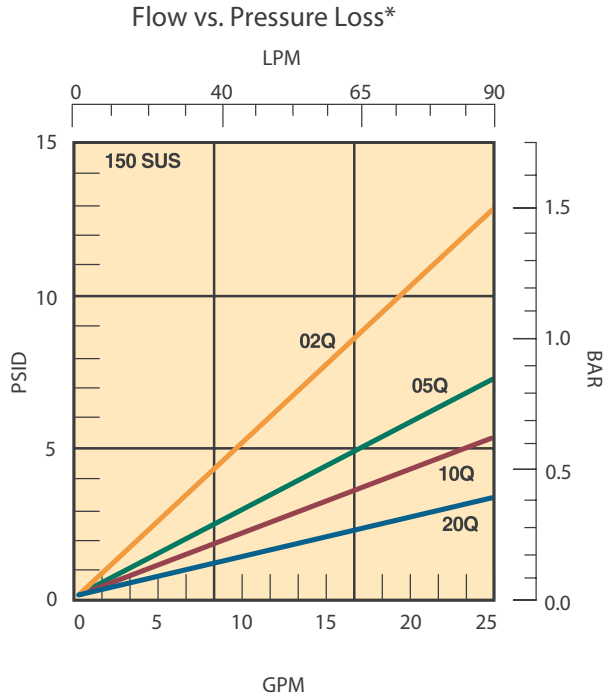
*Note: Pressure drop calculations are based on SAE-12 porting.

PT Series

PT2-2 Element Performance





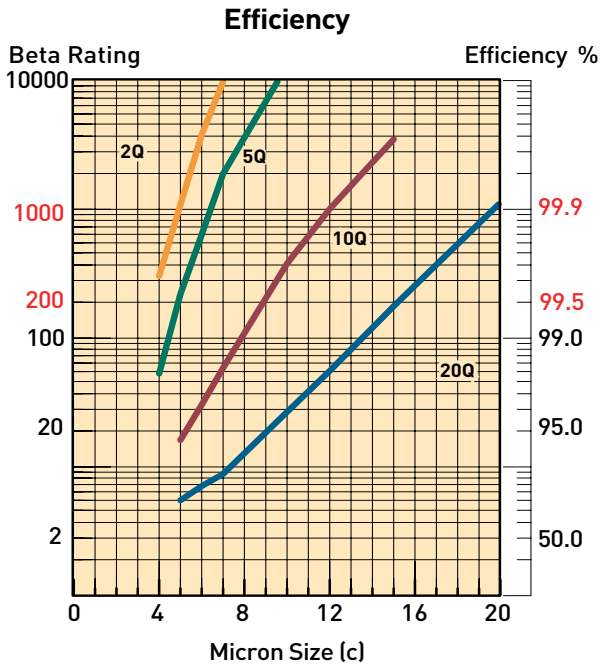


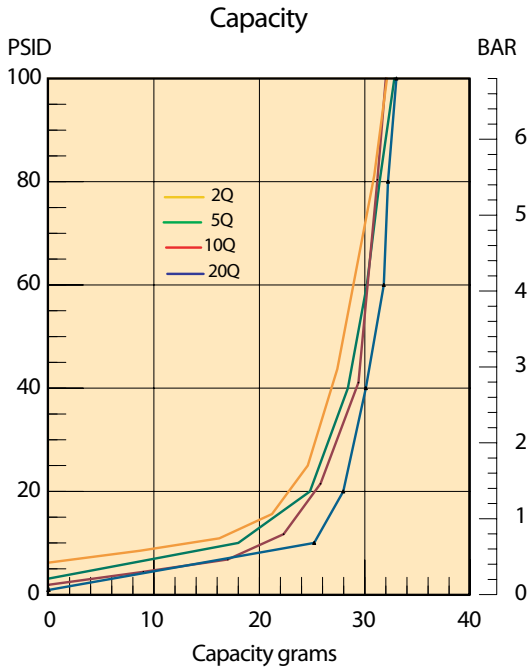
Results typical from Multi-pass tests run per test standard ISO 16889 @ 15 gpm to 100 psid terminal - 10 mg/L BUGL.
Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

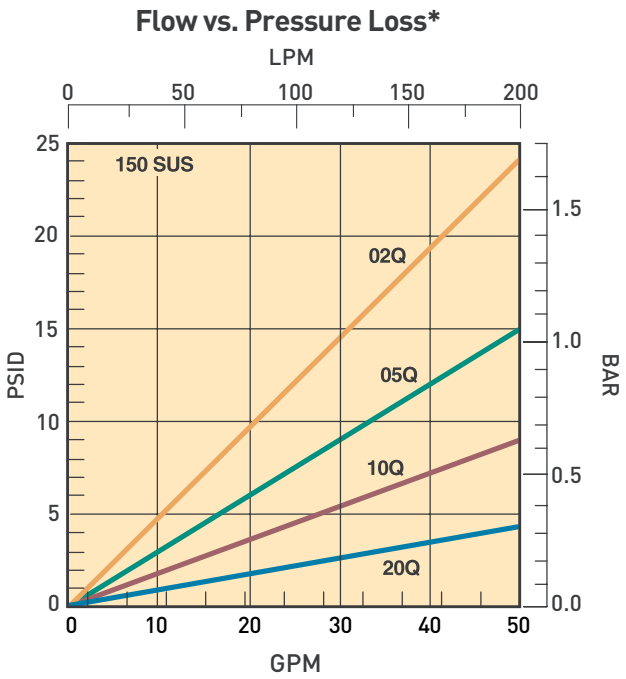
*Note: Pressure drop calculations are based on SAE-12 porting.

PT Series

PT4-1 Element Performance





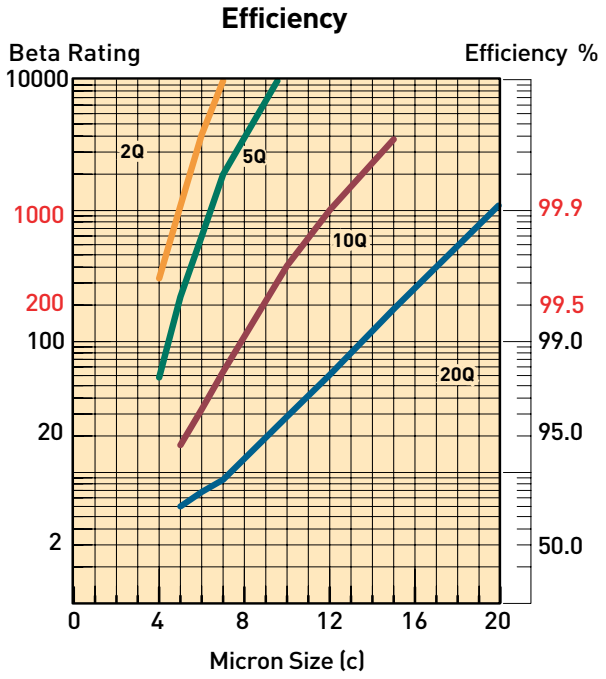


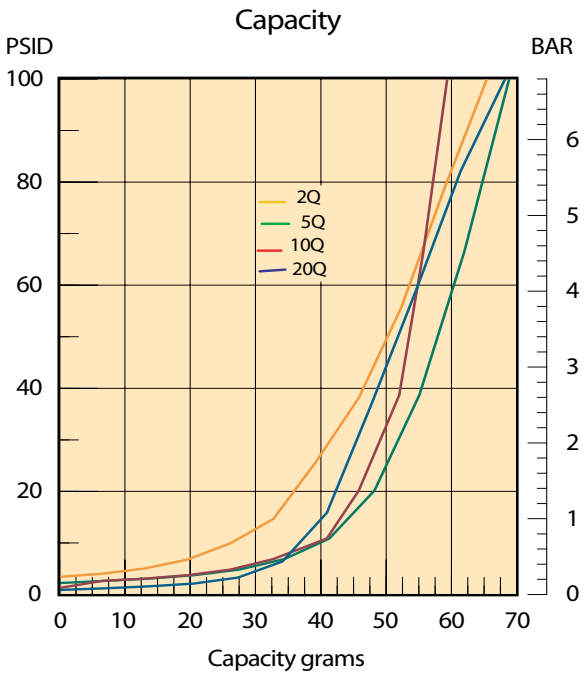
Results typical from Multi-pass tests run per test standard ISO 16889 @ 15 gpm to 100 psid terminal - 10 mg/L BUGL.
Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

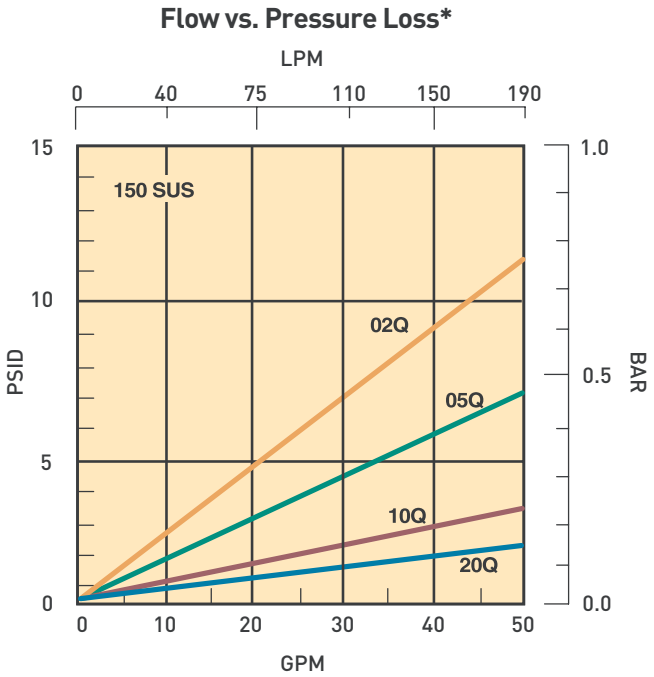
*Note: Pressure drop calculations are based on SAE-16 porting.

PT Series

PT4-2 Element Performance





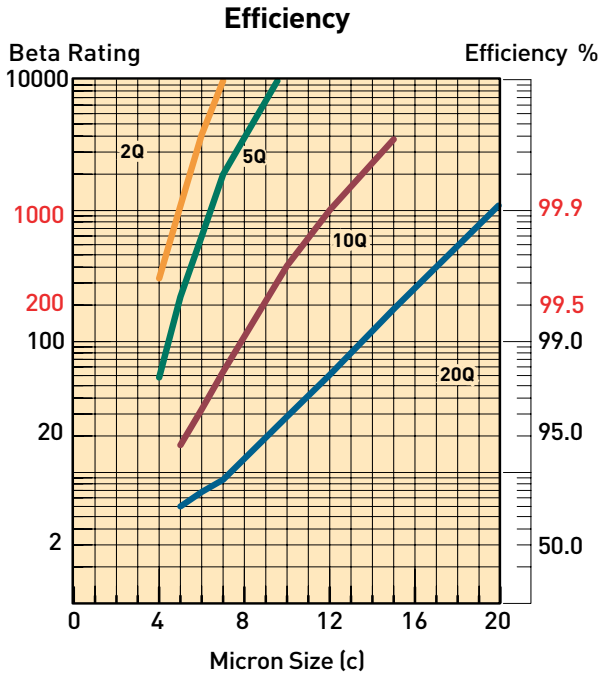


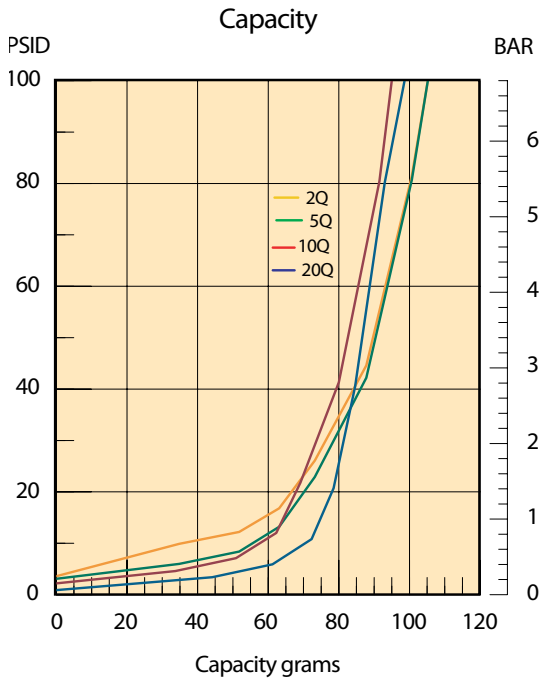
Results typical from Multi-pass tests run per test standard ISO 16889 @ 30 gpm to 100 psid terminal - 10 mg/L BUGL.
Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

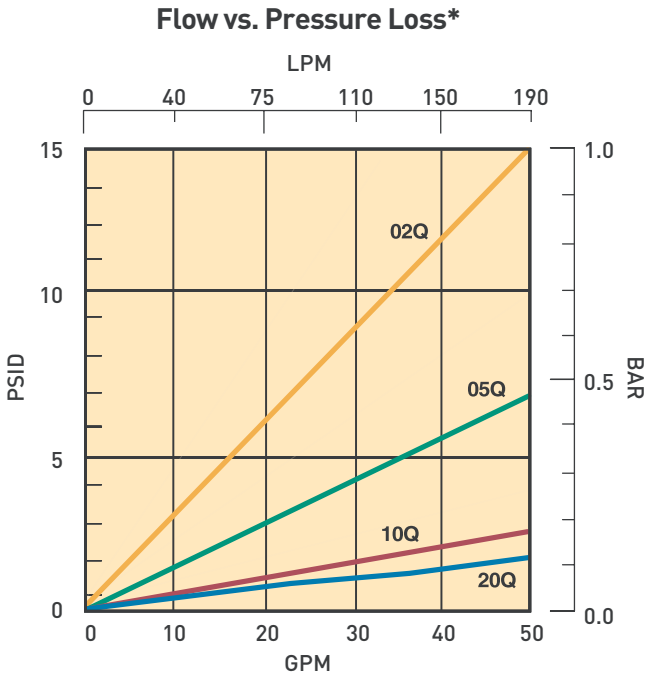
*Note: Pressure drop calculations are based on SAE-16 porting.

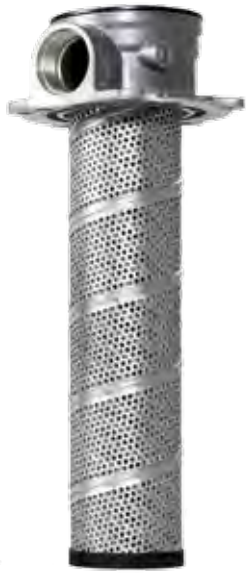
PT Series

PT4-3 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.

*Note: Pressure drop calculations are based on SAE-16 porting.

PT Series

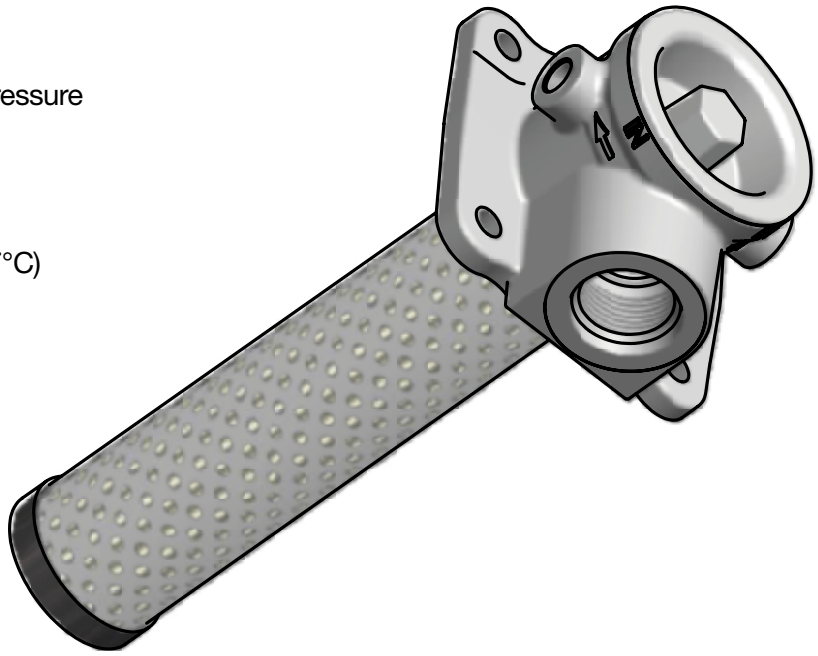
Specifications - PT2

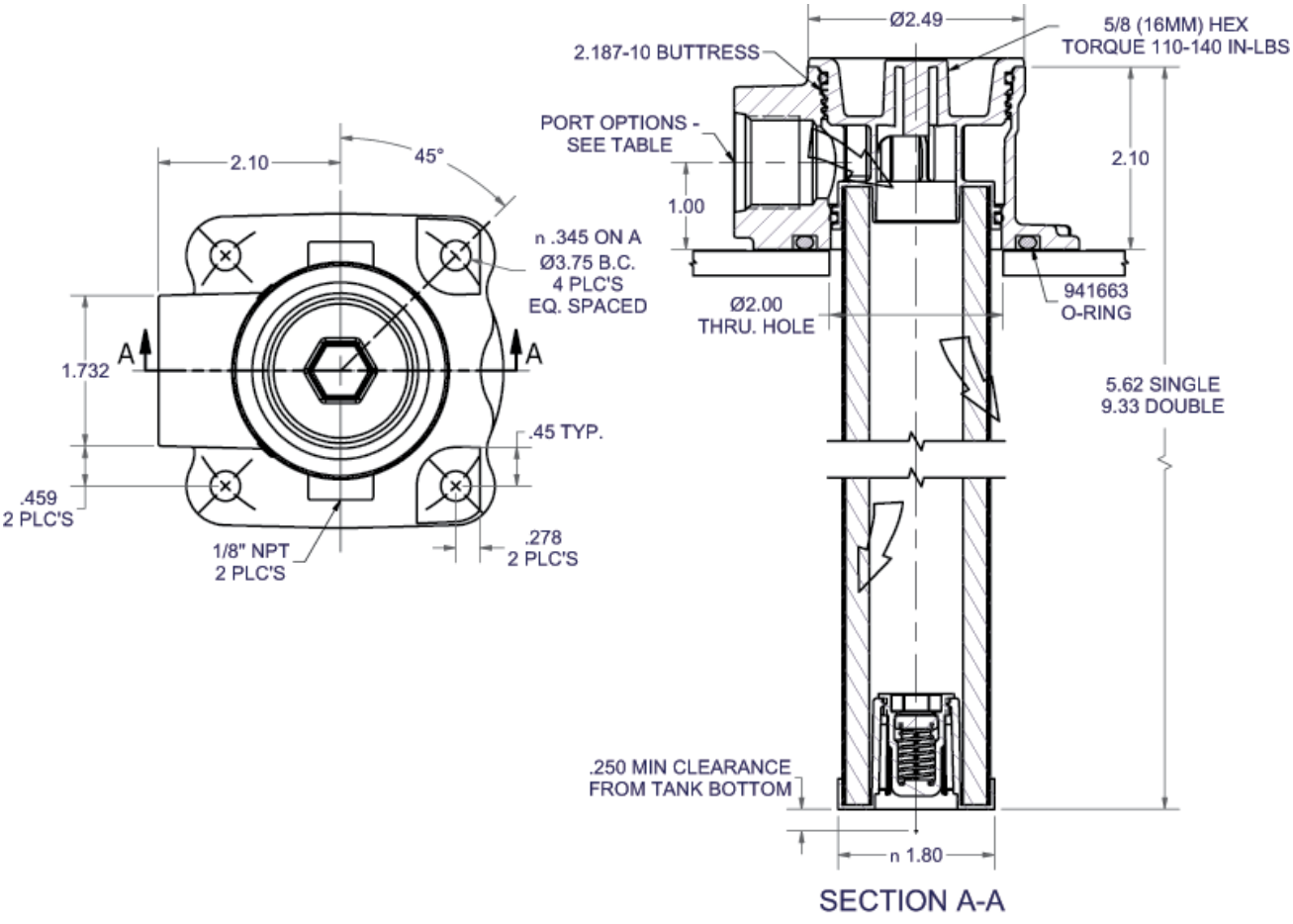
Maximum Allowable Operating Pressure (MAOP): 150 psi (10.3 bar)

Element Burst Rating: 150 psid

Operating Temperatures:
Buna: -40°F (-40°C) to 225°F (107°C)

Materials:
Tank Flange: aluminum
Endcaps: nylon





PT Series

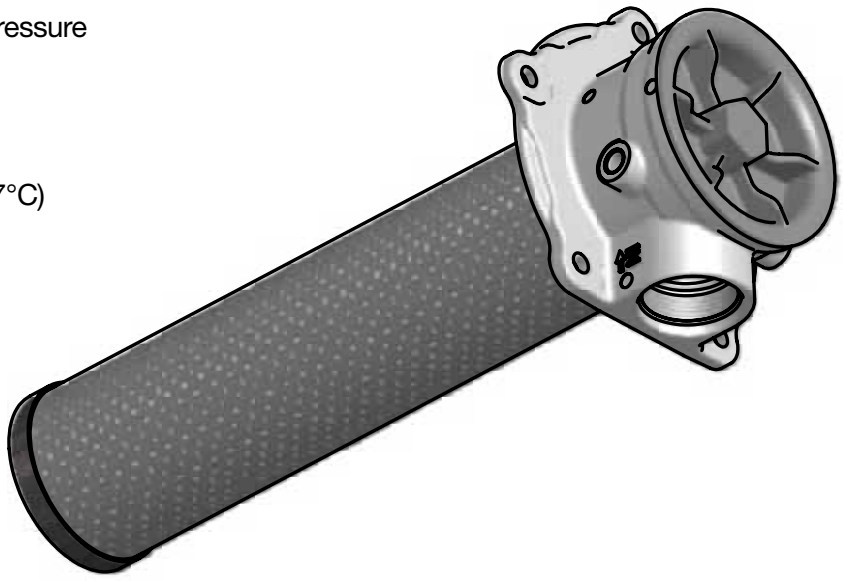
Specifications - PT4

Maximum Allowable Operating Pressure (MAOP): 150 psi (10.3 bar)

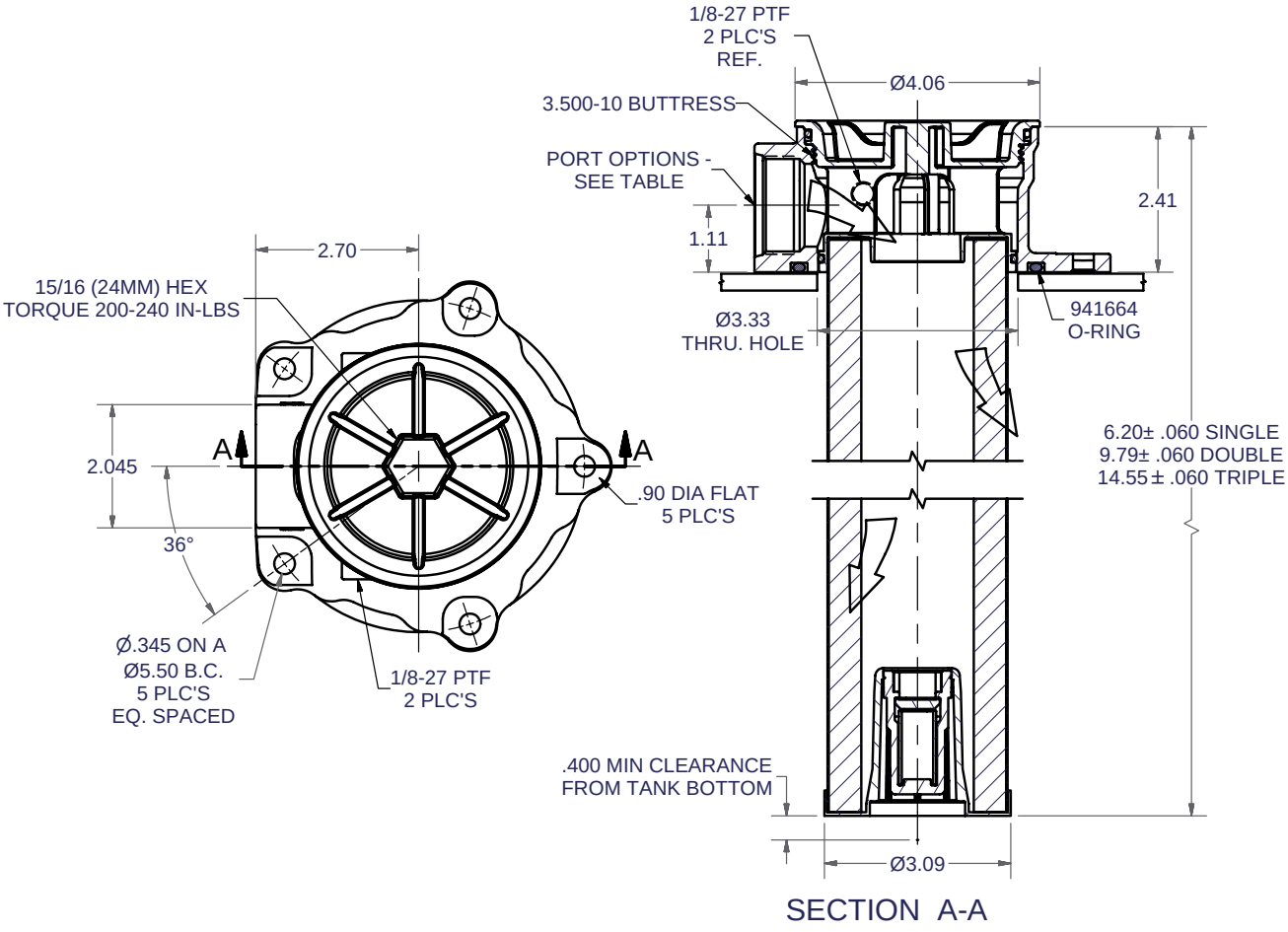
Element Burst Rating: 150 psid

Operating Temperatures:
Buna: -40°F (-40°C) to 225°F (107°C)

Materials:
Tank Flange: aluminum
Endcaps: nylon



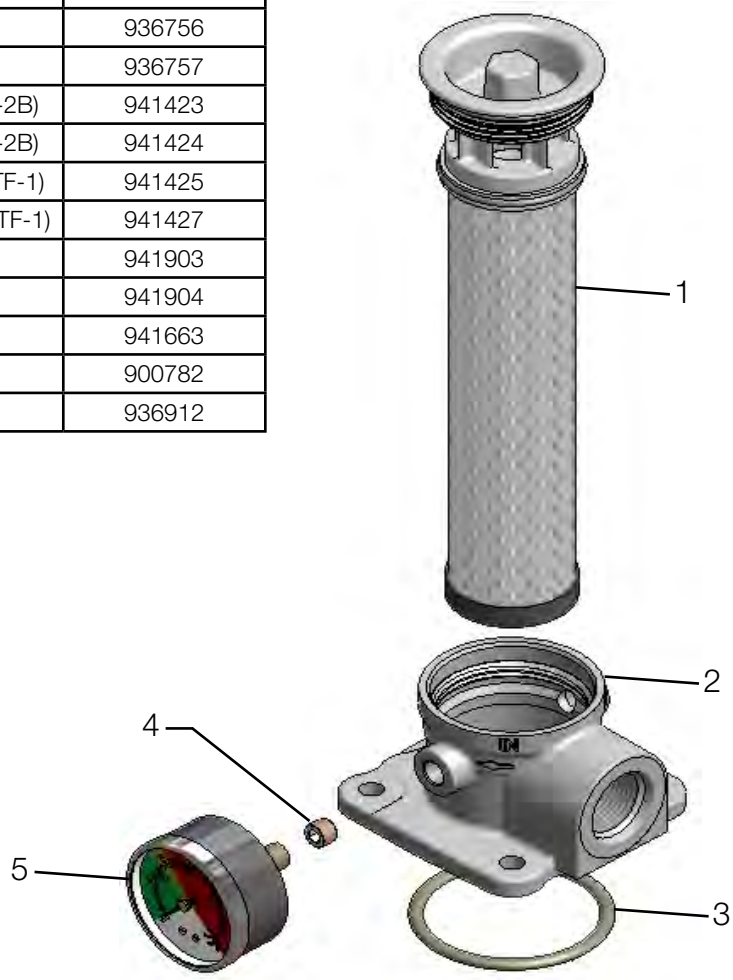
Drawings are for reference only.
Contact factory for current version.

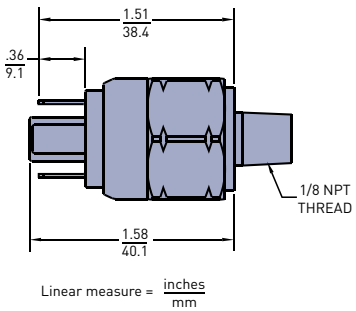


PT Series

PT2 Parts List

INDEX	PART DESCRIPTION	PART NUMBER
1	PT2-1-02Q-25 psid bypass	936750
	PT2-1-05Q-25 psid bypass	936751
	PT2-1-10Q-25 psid bypass	936752
	PT2-1-20Q-25 psid bypass	936753
	PT2-2-02Q-25 psid bypass	936754
	PT2-2-05Q-25 psid bypass	936755
	PT2-2-10Q-25 psid bypass	936756
	PT2-2-20Q-25 psid bypass	936757
2	PT2 DIE CAST SAE-12 (1.062-12 UN-2B)	941423
	PT2 DIE CAST SAE-16 (1.312-12 UN-2B)	941424
	PT2 DIE CAST 3/4" NPT (.750-14 NPTF-1)	941425
	PT2 DIE CAST 1" NPT (1.000-11.5 NPTF-1)	941427
	PT2 DIE CAST G3/4" BSPF	941903
	PT2 DIE CAST G1" BSPF	941904
3	O-RING	941663
4	1/8-27 PIPE PLUG	900782
5	1/8-27 PRESSURE GAUGE	936912



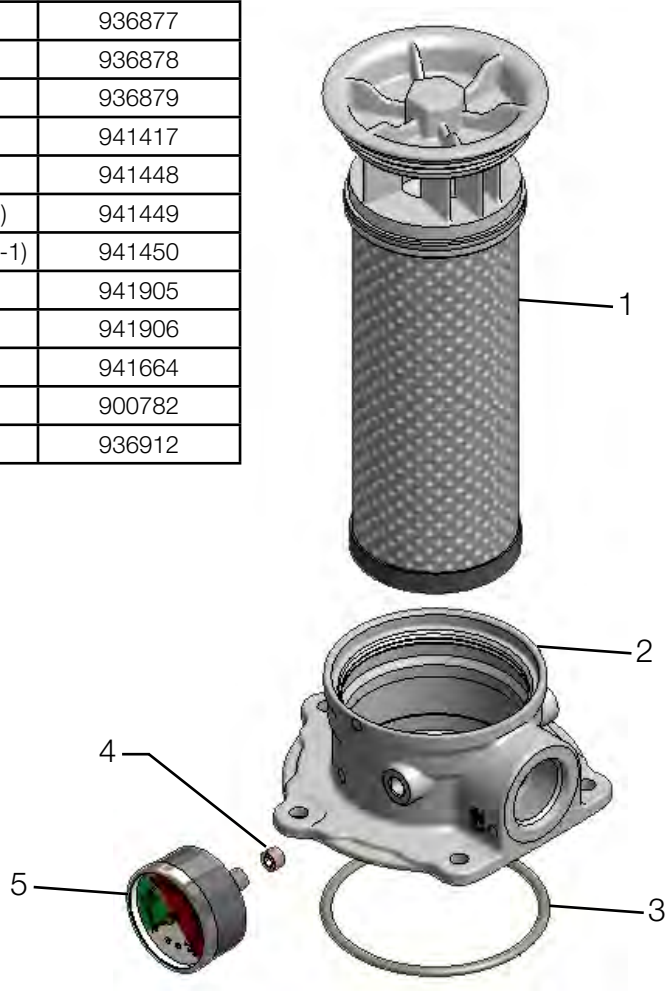


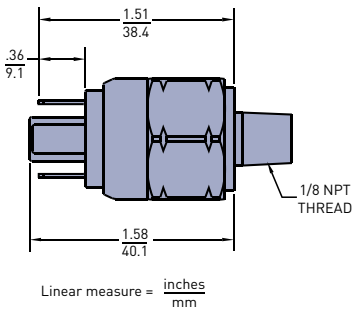
Pressure Switch (926923)

PT Series

PT4 Parts List

INDEX	PART DESCRIPTION	PART NUMBER
1	PT4-1-02Q-25 psid bypass	936742
	PT4-1-05Q-25 psid bypass	936743
	PT4-1-10Q-25 psid bypass	936744
	PT4-1-20Q-25 psid bypass	936745
	PT4-2-02Q-25 psid bypass	936746
	PT4-2-05Q-25 psid bypass	936747
	PT4-2-10Q-25 psid bypass	936748
	PT4-2-20Q-25 psid bypass	936749
	PT4-3-02Q-25 psid bypass	936876
	PT4-3-05Q-25 psid bypass	936877
	PT4-3-10Q-25 psid bypass	936878
	PT4-3-20Q-25 psid bypass	936879
2	PT4 DIE CAST SAE-16 (1.312-12 UN-2B)	941417
	PT4 DIE CAST SAE-20 (1.625-12 UN-2B)	941448
	PT4 DIE CAST 1" NPT (1.000-11.5 NPTF-1)	941449
	PT4 DIE CAST 1 1/4" NPT (1.250-11.5 NPTF-1)	941450
	PT4 DIE CAST G1" BSPF	941905
	PT4 DIE CAST G1 1/4" BSPF	941906
3	O-RING	941664
4	1/8-27 PIPE PLUG	900782
5	1/8-27 PRESSURE GAUGE	936912





Pressure Switch (926923)

PT 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
PT2	1	10Q	B	G	G	S16	1

BOX 1: Filter Series[1]

Symbol	Description
PT2	**Tank top filter**
PT4	**Tank top filter**

BOX 2: Element Length

Symbol	Description
1	**Single**
2	**Double**
3	**Triple (Avail. on PT4 only)**

Consult factory for additional element lengths

BOX 3: Media Code

Symbol	Description
02Q	**Microglass III, 2 micron**
05Q	**Microglass III, 5 micron**
10Q	**Microglass III, 10 micron**
20Q	**Microglass III, 20 micron**

BOX 4: Seals

Symbol	Description
B	**Nitrile (NBR)**
V	Fluorocarbon (FKM)

BOX 5: Indicator

Symbol	Description
P	**Port plugged**
G	Pressure Gauge, 25 psi
S	Pressure Switch

BOX 6: Bypass

Symbol	Pressure Setting
G	**25 PSI (1.7 bar)**

BOX 7: Ports

Symbol	Description
	PT2
G12	G¾" BSPP
G16	G1" BSPP
N12	¾" NPT
N16	1"NPT
S12	SAE-12
S16	**SAE-16**
	PT4
G16	G1"BSPP
G20	G1¼" BSPP
N16	1"NPT
N20	1¼"NPT
S16	SAE-16
S20	**SAE-20**

BOX 8: Options

Symbol	Description
1	**None**
W[2]	**Steel weld ring**

Notes:
1. The filters include the element you select already installed.
2. When "W" is selected in Box 8, the PT2 port options are "N12" and "S12"; the PT4 port options are "N16" and "S16".

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

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

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

KLT and KLS Series

Tank Top Return Line Filters

ENGINEERING YOUR SUCCESS.

KLT/KLS Series

Tank Top Return Line Filters

Applications for KLT and KLS Filters

- Mobile Equipment
- Construction, Refuse
- Industrial Power Units
- Machine Tool
- Oil Field

Parker's new KLS /KLT Tank Top Return Line Filters are ideally suited for Mobile and Industrial high to medium flow return applications, from 30 to 120 GPM. This cost-effective, in-tank filter series provides maximum flow and dirt holding capacity for longer filter element life in a simple, easy-to-install-and-service assembly.

The generous element size with extensive media area ensures continuous filtration during cold start up conditions. The inside-to-out flow path with closed bottom provides additional assurance that all contaminants remain captured during element service removal.

The filters have a pressure rating of 150 psi static, a temperature range of -40˚F to 225˚F, and are available in a wide range of high-efficiency Microglass III media in 2, 5, 10 and 20 micron for all system cleanliness requirements. Bypass valves are built into the element to ensure further performance integrity. A new bypass is provided with each element change.

This rugged design meets the needs for the demanding applications in mobile off -highway and on-highway applications for construction equipment, logging, refuse vehicles, mining, oil and gas recovery, marine, and industrial power units.

Feature	Advantage	Benefit
• Tank top mounted filter	• Saves space and reduces mounting hardware	• Lower cost, easy to integrate • KLS model directly retrofits competitive housing
• Two-piece head and element construction perforated with metal outer wrap	• No bowl required • Provides excellent flow diffusing, eliminating aeration	• Reduced cost and assembly weight • Improved performance
• High efficiency Microglass media maximizing filtration area	• Combines high particle capture efficiency with high dirt holding capacity and lower ΔP	• Cleaner fluids, longer lasting with fewer service intervals • Continuous filtration for cold start ups • Lower operating costs
• Element design includes intergral disposable bypass valve with closed bottom end cap	• New bypass with each element change • Ensures captured contaminants are removed with each element change	• Ensures reliable bypass performance • No leakage • Cleaner fluids reduce risk for contamination during service
• Magnetic prefiltration	• Removes large ferrous contaminants	• Extends element life • Visual indication of component wear
• Fill and gauge ports	• Add fluid through high performance filter media • Gauge ports allow for added instrumentation	• Initial fluid integrity extends system component life • Monitor element life

KLT/KLS Series

Specifications

Pressure Ratings:
Maximum Allowable Operating Pressure (MAOP): 150 psi (10.3 bar)

Operating Temperatures:
-40°F (-40°C) to 225°F (107°C)

Element Burst Rating:
150 psid (10.3 bar)

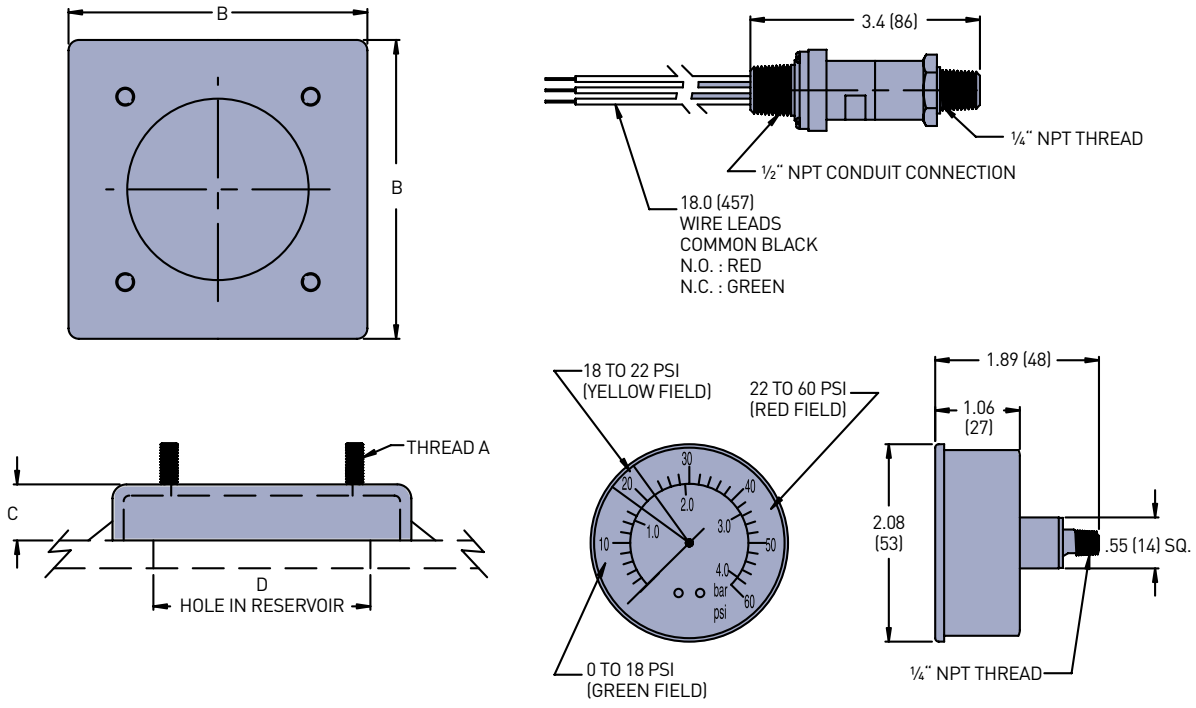
Filtration Rating:
2, 5, 10 & 20 Microns at Beta > 200

Element Condition Indicators:
Gauge: 0-60 psi color coded
Switch: SPDT 5A @ 24 VDC and 250 VAC

Materials:
Head & Cover: Cast Aluminum Alloy
Bypass Valve: Nylon
Filter Media: Microglass III
Element End Caps: Nylon

Weights (approximate):
KLT-2 . . . . . .3 lbs. (1.36 kg)
KLT-4 . . . . . .4 lbs. (1.81 kg)
KLT(S)-7 . . . . . .8 lbs. (3.63 kg)
KLT(S)-8 . . . . . .10 lbs. (4.54 kg)

KLT Weld Plate Drawings



Linear Measure: inch (mm)

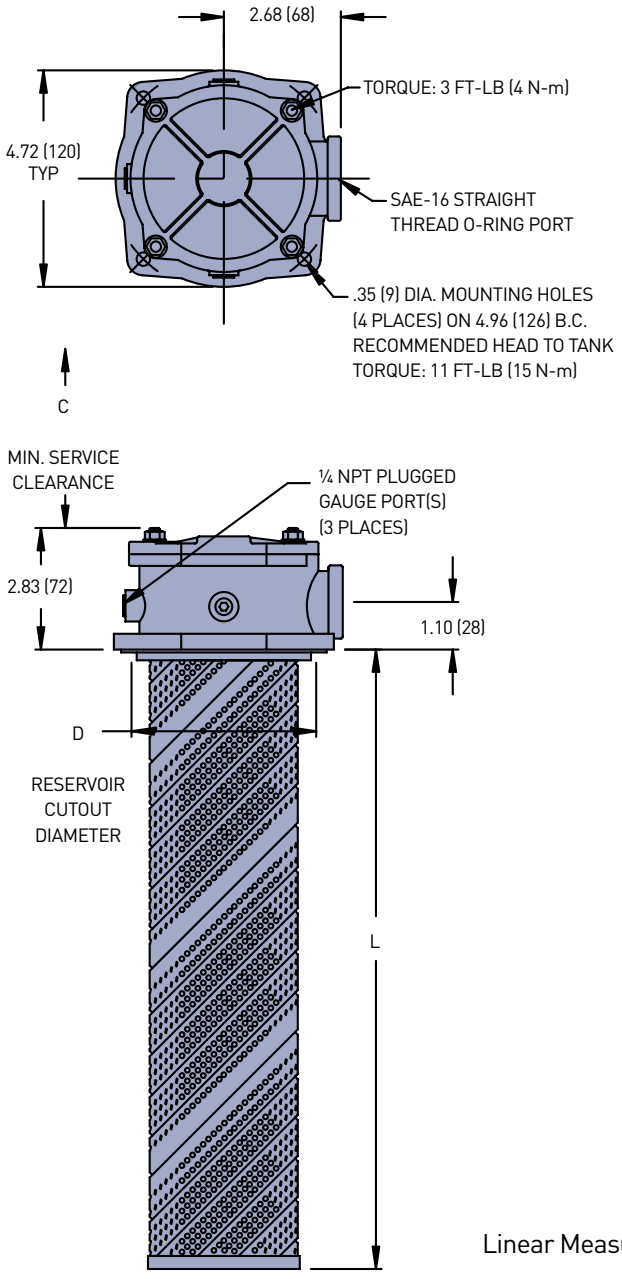
Dimension	KLT Filter Model	
	KLT-2/KLT-4	KLT-7/KLT-8
A	5/16-18 UNC-2A	3/8-16 UNC-2A
B	5.33 (135)	7.15 (182)
C	1.00 (25)	1.00 (25)
D	4.50/3.75 (114/95)	6.25/5.50 (159/140)

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

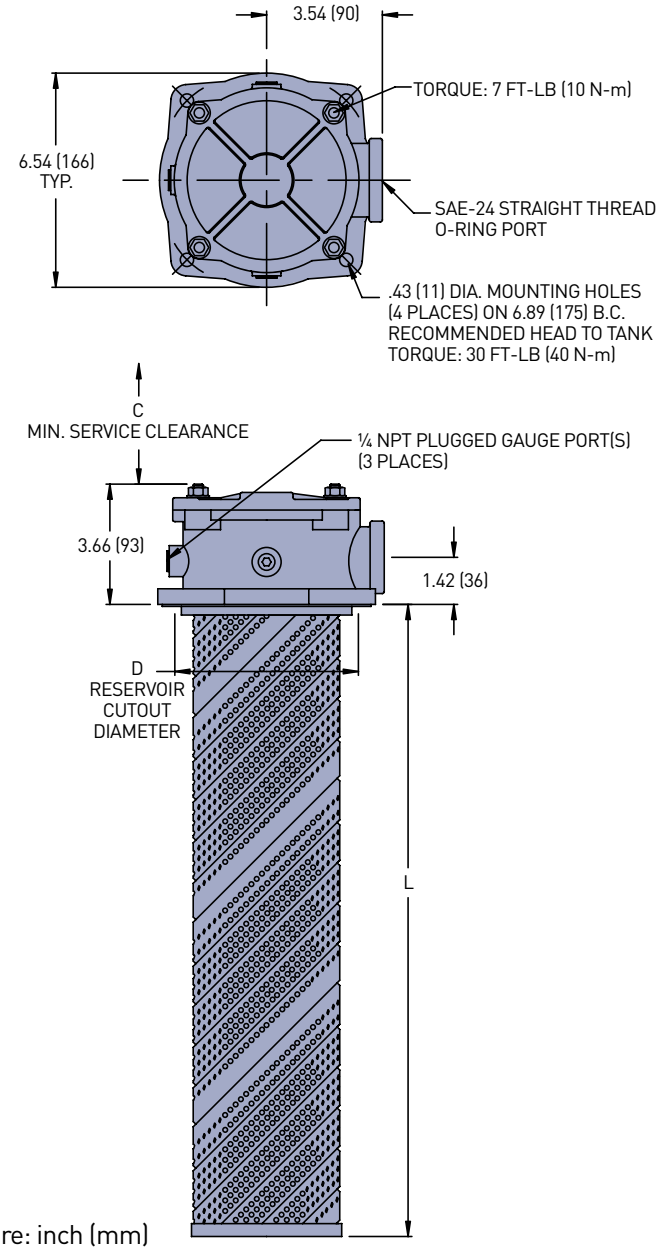
KLT Series

Dimensional Drawings

KLT 2 / KLT 4



KLT 7 / KLT 8



Linear Measure: inch (mm)

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

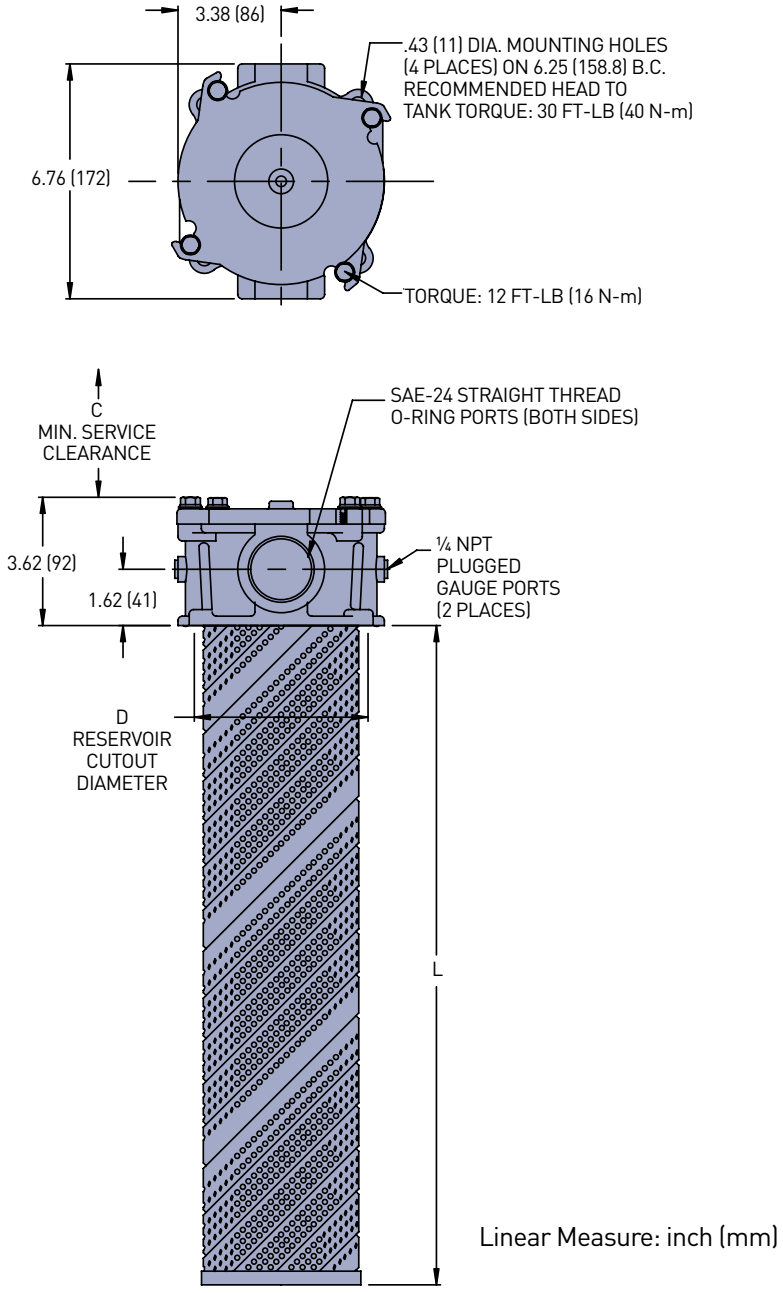
Dimensions	KLT Filter Model	
	KLT-2	KLT-4
C	5.75 (146)	9.50 (241)
L	4.16 (106)	7.75 (197)
D	3.6 (93) / 3.56 (90)	

Dimensions	KLT Filter Model	
	KLT-7	KLT-8
C	13.00 (330)	19.25 (489)
L	11.46 (291)	17.70 (450)
D	5.36 (136) / 5.26 (133)	

KLT Series

Dimensional Drawings

KLS 7 / KLS 8



Linear Measure: inch (mm)

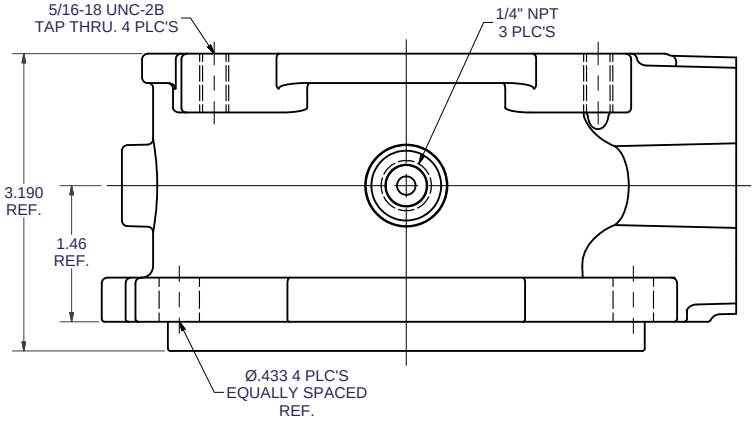
Dimensions	KLS Filter Model	
	KLS-7	KLS-8
C	13.00 (330)	19.25 (489)
L	11.46 (291)	17.70 (450)
D	5.00 (127) / 4.80 (122)	

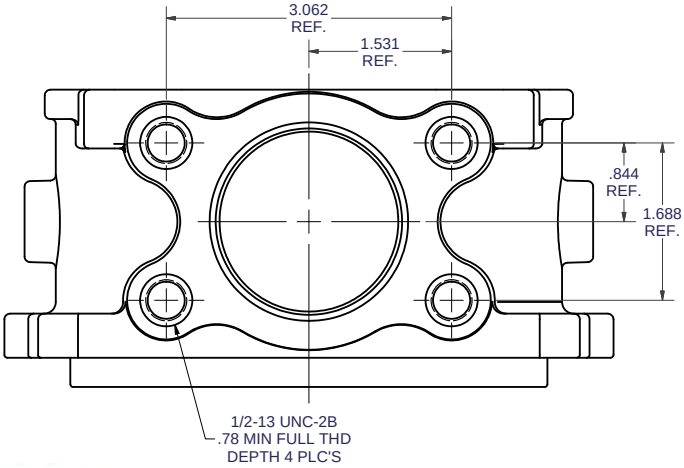
Drawings are for reference only.
Contact factory for current version.

KLT Series

Dimensional Drawing

KLT with 2” Port

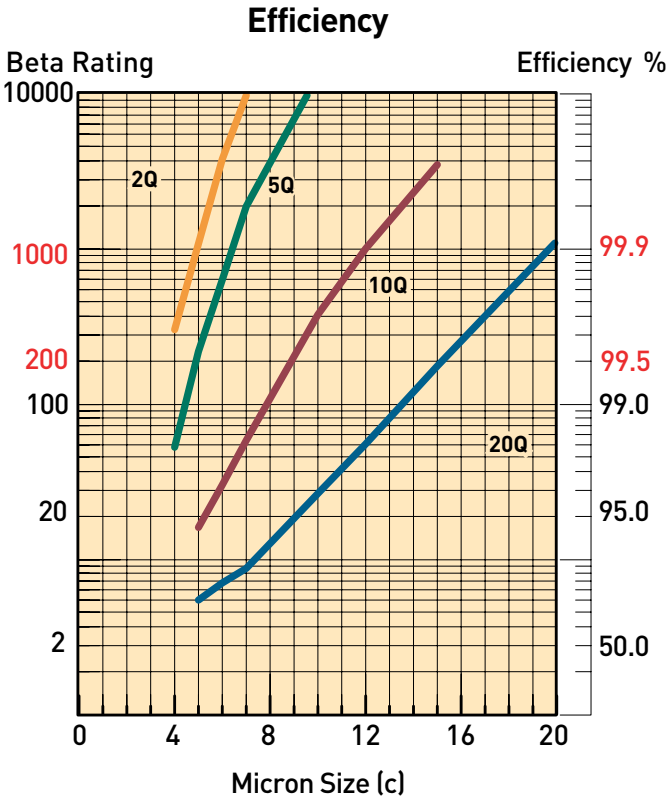


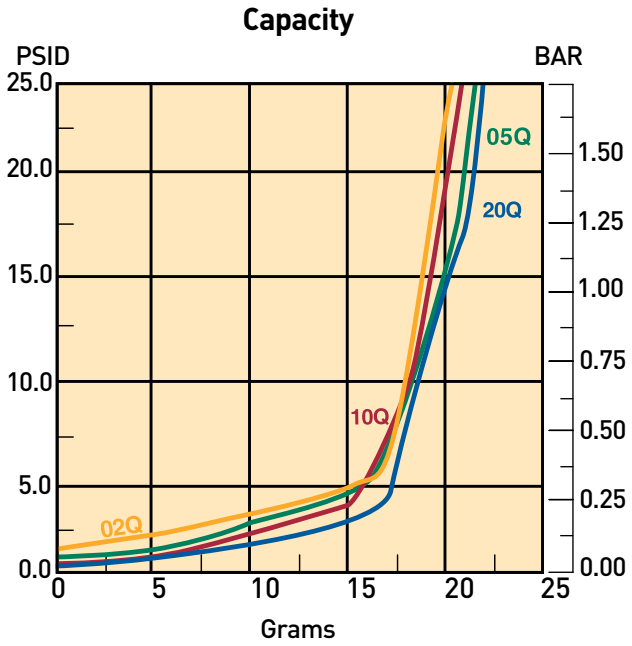


Drawings are for reference only.
Contact factory for current version.

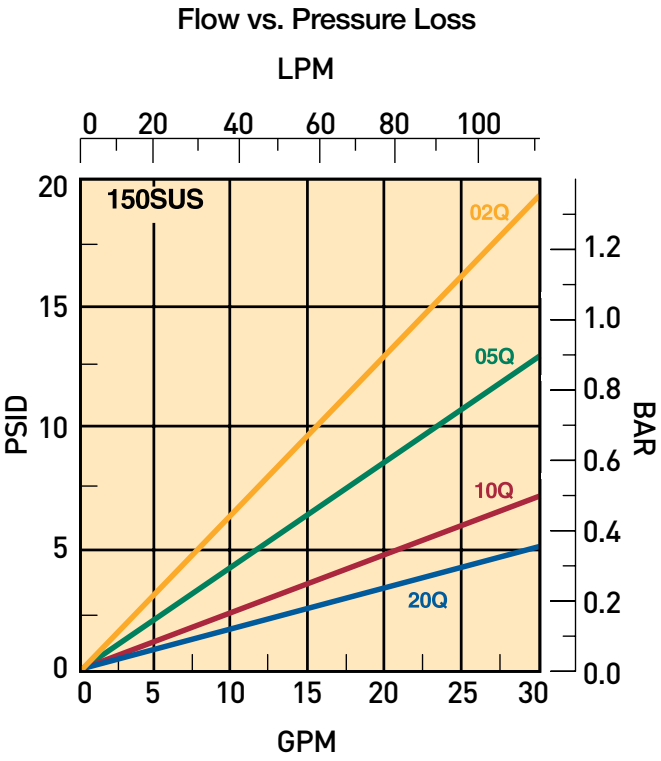
KLT Series

KLT-2 Element Performance



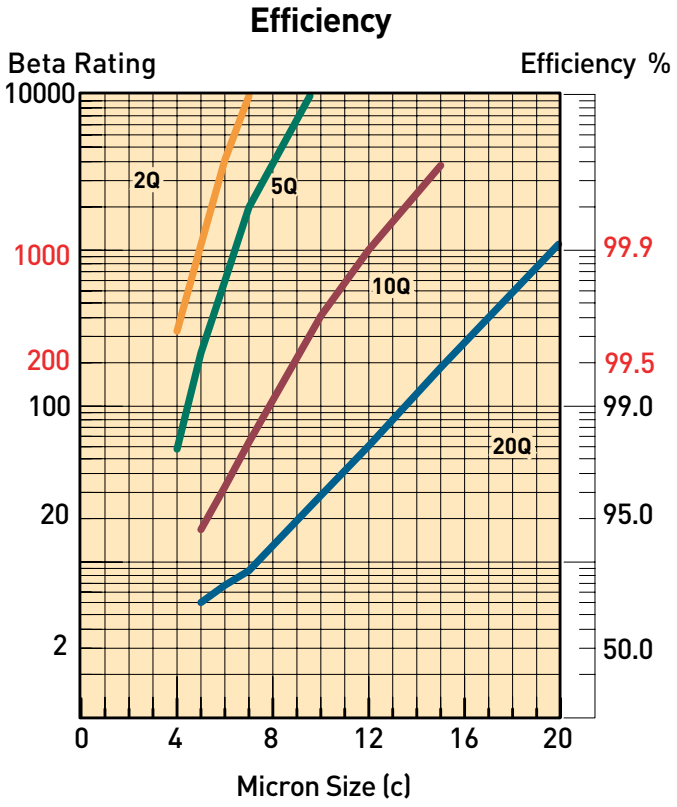


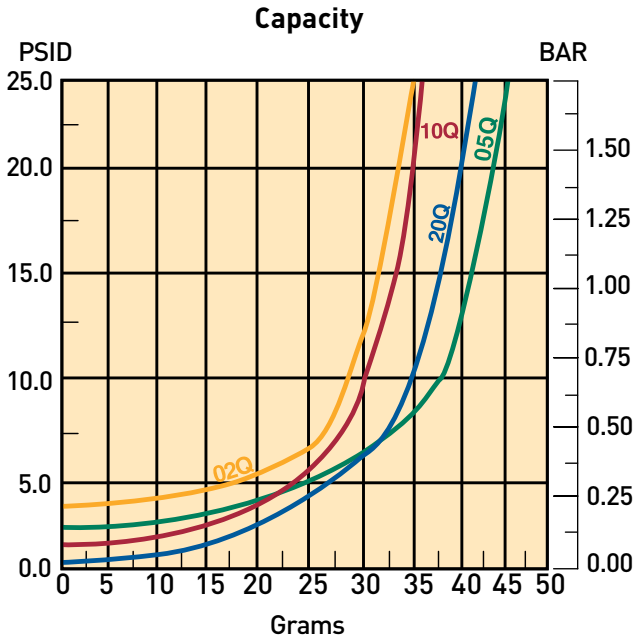
Multipass tests run @ 15 gpm to 25 psid terminal - 10 mg/L BUGL



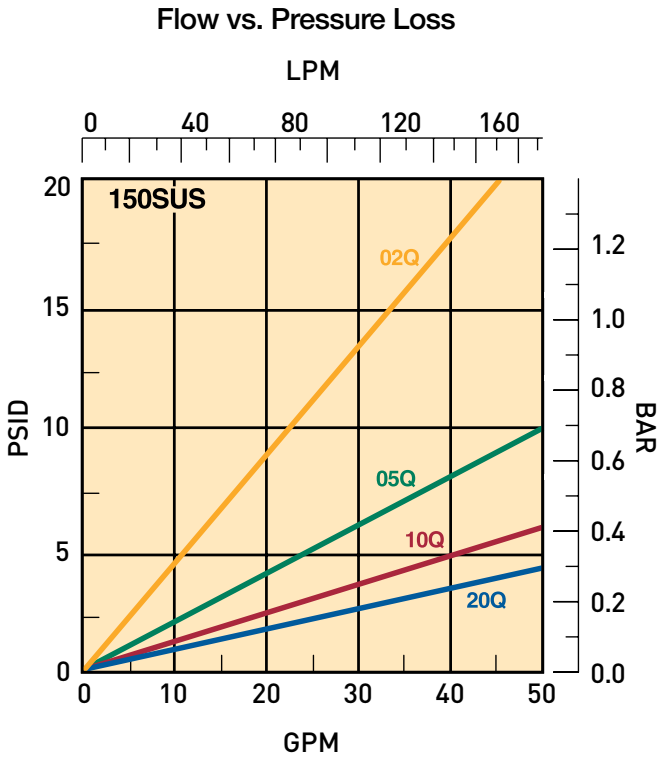
KLT Series

KLT-4 Element Performance



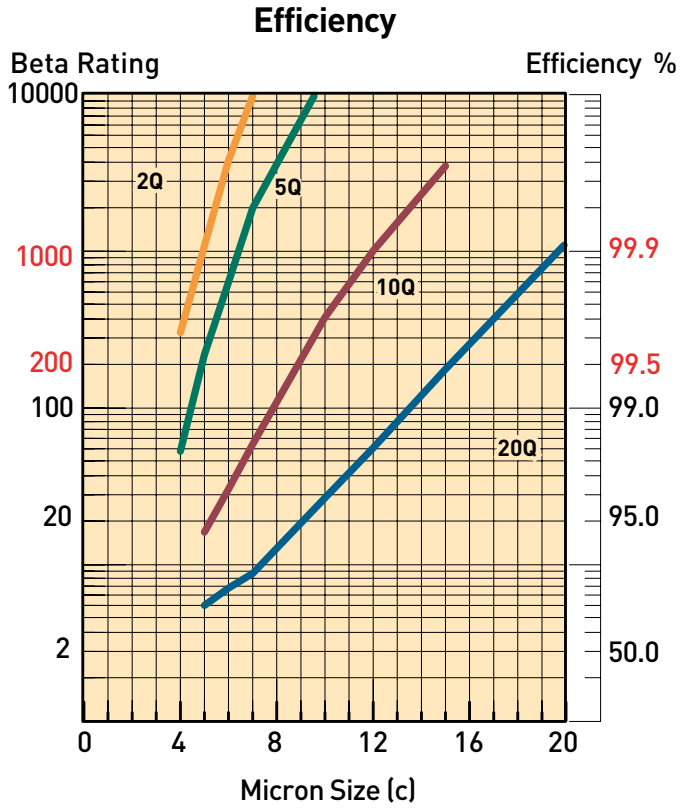


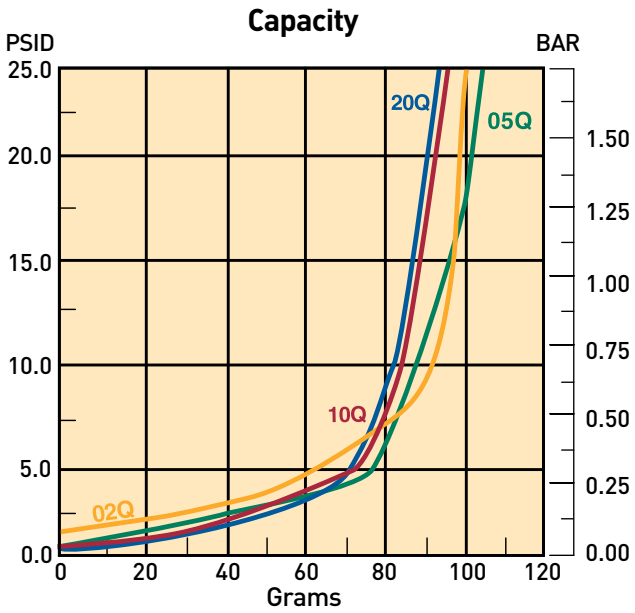
Multipass tests run @ 30 gpm to 25 psid terminal - 10 mg/L BUGL



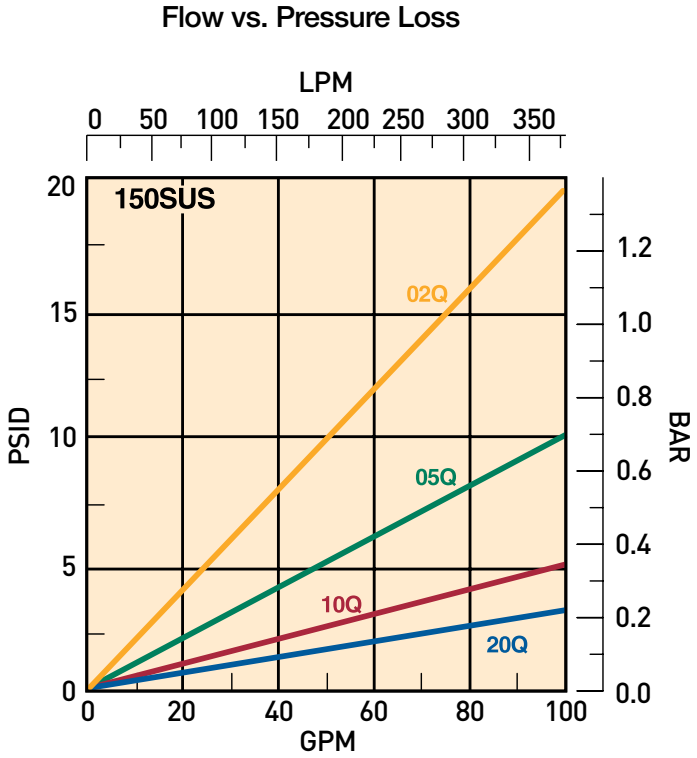
KLT/KLS Series

KLT/KLS-7 Element Performance



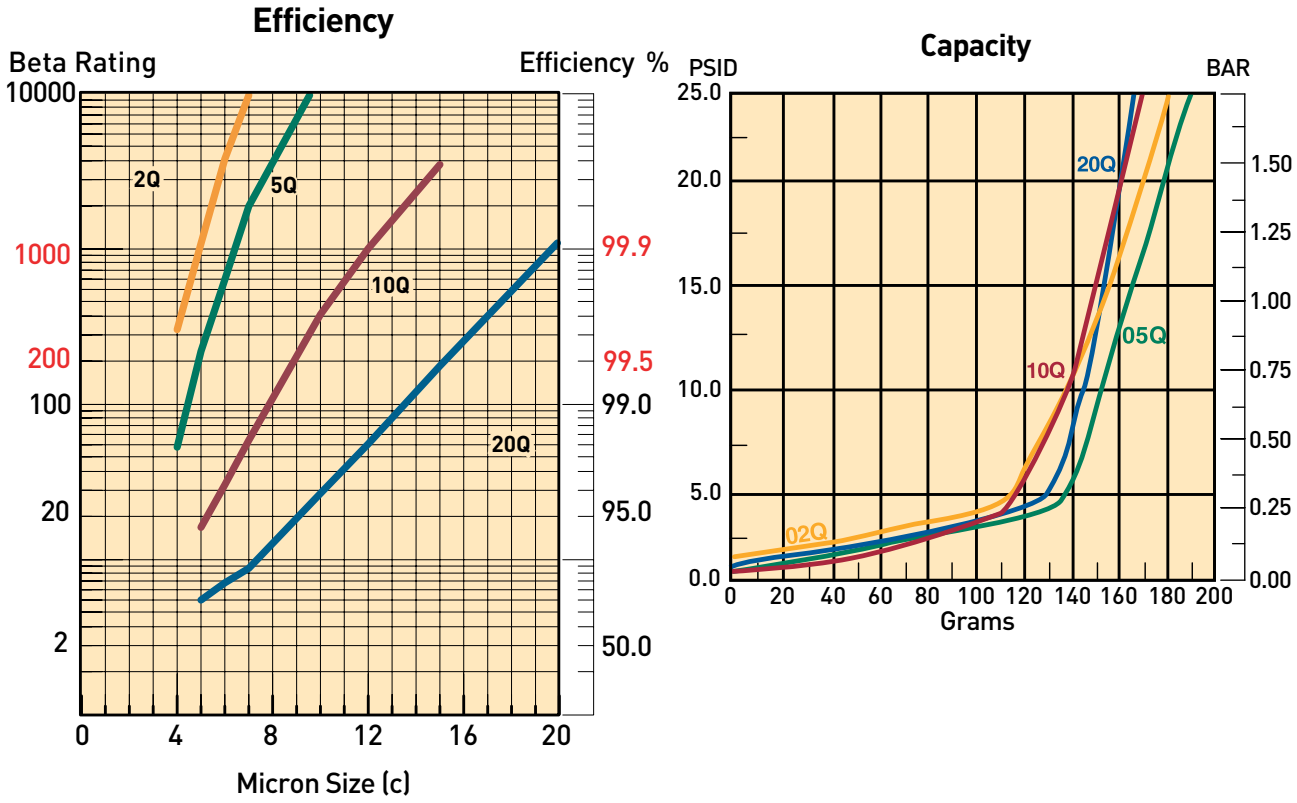


Multipass tests run @ 50 gpm to 25 psid terminal - 10 mg/L BUGL

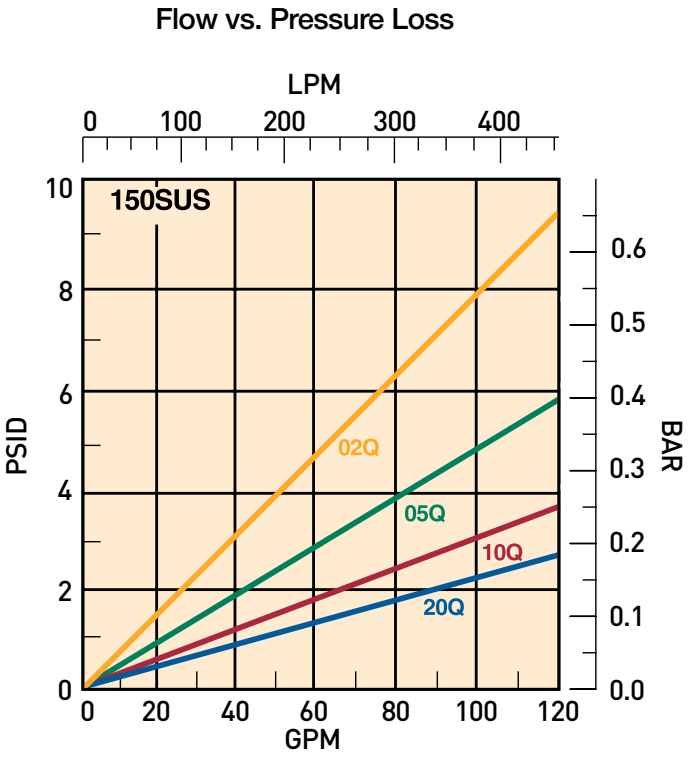


KLT/KLS Series

KLT/KLS-8 Element Performance



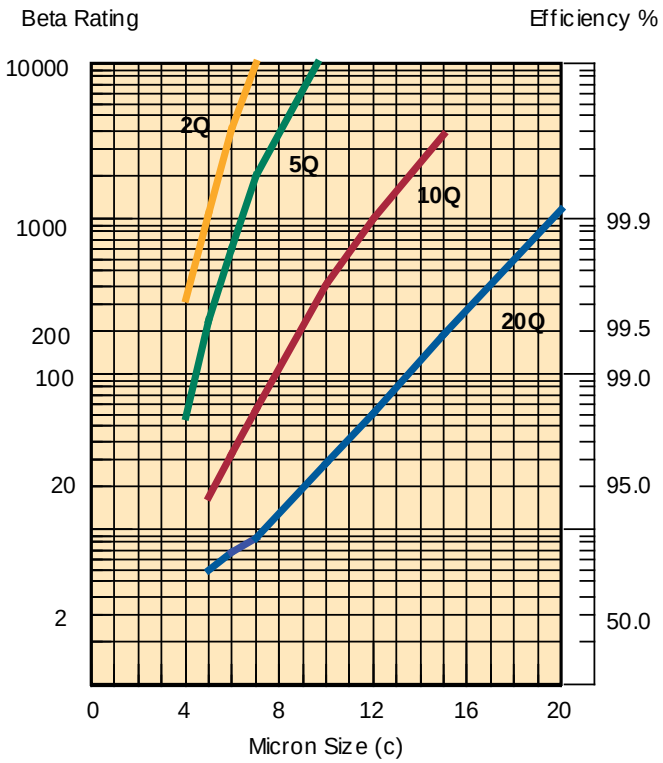
Multipass tests run @ 70 gpm to 25 psid terminal - 10 mg/L BUGL



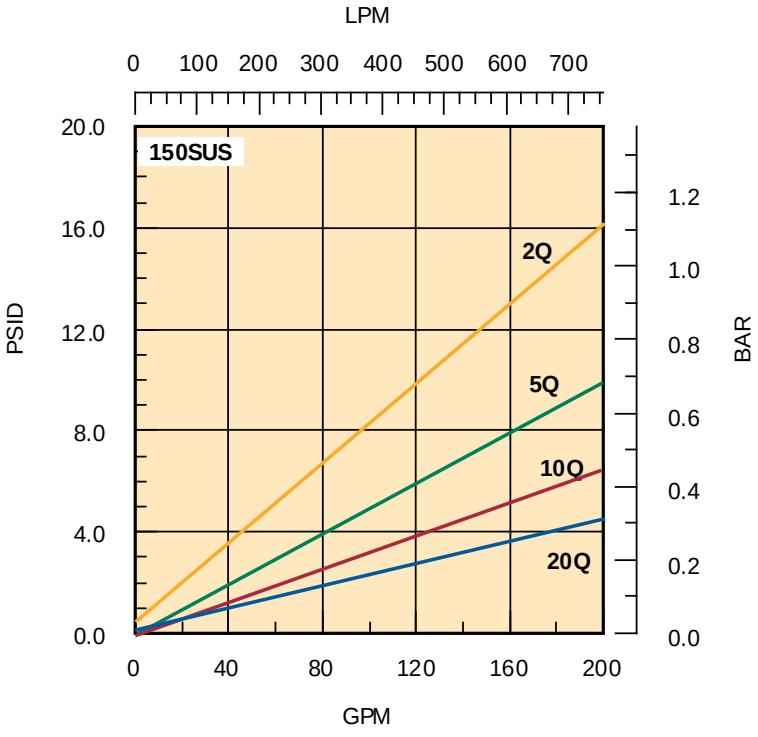
KLT/KLS Series

KLT with 2” Port - Element Performance

Efficiency



Flow vs. Pressure Loss



KLT and KLS Series

Operating and Maintenance Instructions

A. Mounting

1. Standard mounting.
   a. Cut proper size hole in the top of the reservoir.
   b. Drill holes for studs within the proper bolt circle.
   c. Set the filter into the cutout hole and secure with proper size bolts, nuts and lock washers.
   d. Torque nuts in accordance with drawing.
2. Mounting procedure using weld plate.
   a. Rough cut proper size hole in the top of reservoir.
   b. Weld the weld plate concentric to the rough cut hole.
   c. Mount the filter onto the studs and secure with nuts and lock washers.
   d. Torque nuts in accordance with drawing.
3. Utilize proper fittings.

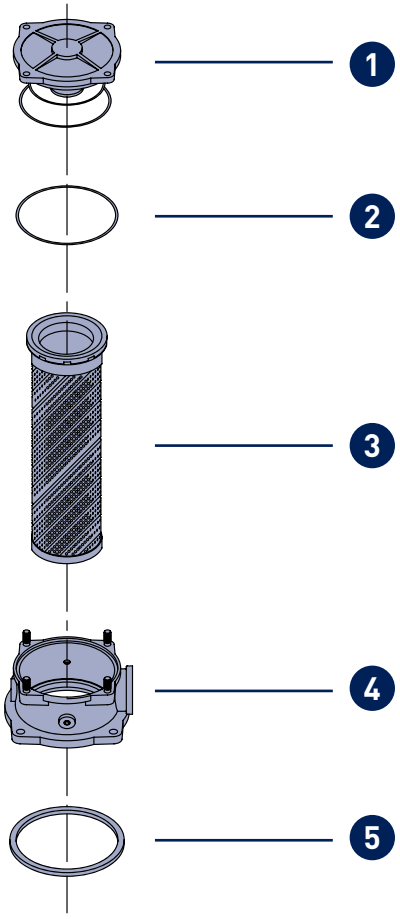
B. Start-Up

1. Check for and eliminate leaks upon system start-up.
2. Check differential pressure indicator, if installed, to monitor element condition.

C. Service

1. An element must be serviced when the indicator indicates service is required.

NOTE: If the filter is not equipped with an indicator, the element should be serviced according to machine manufacturer's instructions.



Parts List

Index	Description	Part Number	Quantity
1	Cover Assembly (Includes Cover o-ring)		
	KLT2/KLT4	937049	1
	KLT7/KLT8	937047	1
	KLS7/KLS8	937048	1
2	Cover o-ring		
	KLT2/KLT4, Nitrile	N72239	1
	KLT2/KLT4, FKM	V72239	1
	KLT7/KLT8, Nitrile	N72251	1
	KLT7/KLT8, FKM	V72251	1
	KLS7/KLS8, Nitrile	N72251	1
	KLS7/KLS8, FKM	V72251	1
3	Element (see How to Order page)		
4	Filter Head (Includes gauge plugs & studs)		
	KLT2/KLT4 (S16)	5841216	1
	KLT7/KLT8 (S24)	5841224	1
	KLS7/KLS8 (S24)	937318	1
	KLS7/KLS8 (2" Flange)	942157	1
5	Tank Gasket		
	KLT2/KLT4	108x98x5.5B	1
	KLT7/KLT8	152x136x6B	1
	KLS7/KLS8 (O-Ring)	N72355 (C.F.)	1
Not Shown	Weld Plate		
	KLT2/KLT4	300041	1
	KLT7/KLT8	300042	1
Not Shown	Pressure Switch	NS-1C-19R/EL	1
Not Shown	Pressure Gauge	936913	1

C.F. = Consult Factory

D. Servicing Dirty Element

1. Shut system down to assure that there is NO PRESSURE OR FLOW into the filter housing.
2. Remove the filter cover.
3. Remove and discard the contaminated element cartridge.

E. Before Installing a New Element Cartridge

1. Clean the magnetic core with a lint-free cloth.
2. Check all seals and replace if necessary.

F. To Install a New Element Cartridge

1. Lubricate all seals.
2. Mount new filter cartridge.
3. Re-install the cover.
4. Torque the cover nuts per drawing.

Perform procedures B1 and B2 to ensure no leaks are present.

KLT and KLS 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
KLT	7	10Q	B	P	G	S24	1

BOX 1: Filter Series

Symbol	Description
KLT	**Single port return-line filter**
KLS	**Dual port return-line filter (-7 and -8 models only)**

BOX 2: Filter Model

Symbol	Description
2	**30 GPM (115 l/m nominal flow)**
4	**50 GPM (190 l/m nominal flow)**
7	**100 GPM (380 l/m nominal flow)**
8	**120 GPM (455 l/m nominal flow)**

BOX 3: Media Code

Symbol	Description
02Q	**Microglass III, 2 micron**
05Q	**Microglass III, 5 micron**
10Q	**Microglass III, 10 micron**
20Q	**Microglass III, 20 micron**
WR	Water Removal

BOX 4: Seals

Symbol	Description
B	**Nitrile (NBR)**
V	Fluorocarbon

*NOTE: Nitrile tank gasket always supplied.

BOX 5: Indicator

Symbol	Description
P	**No indicator; plugged pressure port(s)**
G	**Pressure gauge, 0-60 psig**
S	Pressure switch

BOX 6: Bypass

Symbol	Pressure Setting
G	**25 psid (1.7 bar)**

BOX 7: Ports

Symbol	Description
	KLT-2/4
S16	**SAE-16 (1 5/16”-12)**
	KLT-7/8
S24	**SAE-24 (1 7/8”-12)**
N24	**1 1/2” NPT**
Y32	**2” Code 61 Flange Face**
	KLS-7/8
S24	**2 x SAE-24 (1 7/8”-12)**
N24	**2 x 1 1/2-NPT**

BOX 8: Options

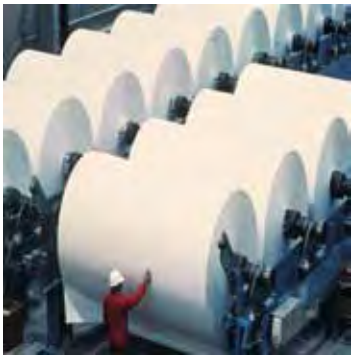
Symbol	Description
1	**None**
TP	Weld plate (KLT only)

Replacement Elements

Element Code	Nitrile				Fluorocarbon			
	2	4	7	8	2	4	7	8
20Q	**936967Q**	**936971Q**	**936975Q**	**936979Q**	937269Q	937273Q	937277Q	937281Q
10Q	**936966Q**	**936970Q**	**936974Q**	**936978Q**	937268Q	937272Q	937276Q	937280Q
05Q	**936965Q**	**936969Q**	**936973Q**	**936977Q**	937267Q	937271Q	937275Q	937279Q
02Q	**936964Q**	**936968Q**	**936972Q**	**936976Q**	937266Q	937270Q	937274Q	937278Q
WR	937258	937259	937260	937261	C.F.	C.F.	C.F.	C.F.

C.F. = Consult Factory

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



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

Moduflow™ *Plus* Series

Low Pressure Filters

Parker

ENGINEERING YOUR SUCCESS.

Moduflow™ *Plus* Series

Applications

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

The Moduflow filter is widely considered the most versatile filter available on the market.

The patented end cap minimizes turbulence and pressure loss through the filter, improving system performance.

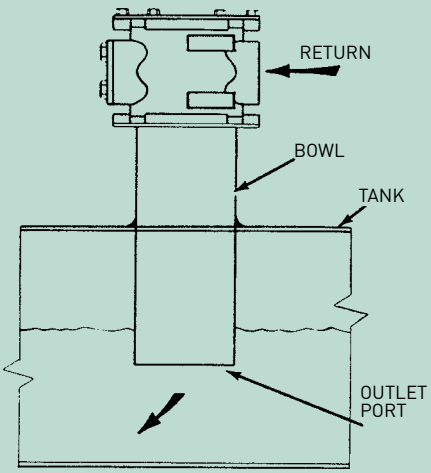
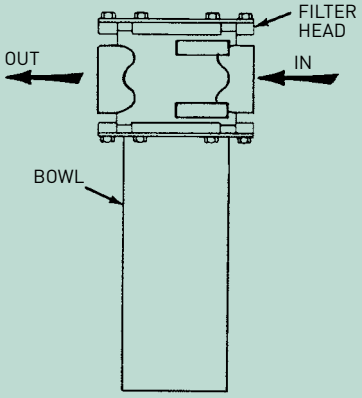
The newly designed closed bottom elements for the RFP and ILP models insures all contamination remains trapped within the element as the filter is serviced.

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.

Parker's new patented Moduflow element was designed with built-in diverter and bypass valve, to meet your application needs.

Mounting / Porting Styles

RFP Return Filter	ILP In-Line Filter
	

Moduflow™ *Plus* Series

Features

Flanges
- NPT or SAE ¾" to 2"
- Lightweight aluminum

Cover
- Slotted for quick release
- Lightweight aluminum

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

Bowl
- Single or double length
- Durable steel construction

Bypass
(not visible)
- Integral 35 psi bypass replaced with every element change

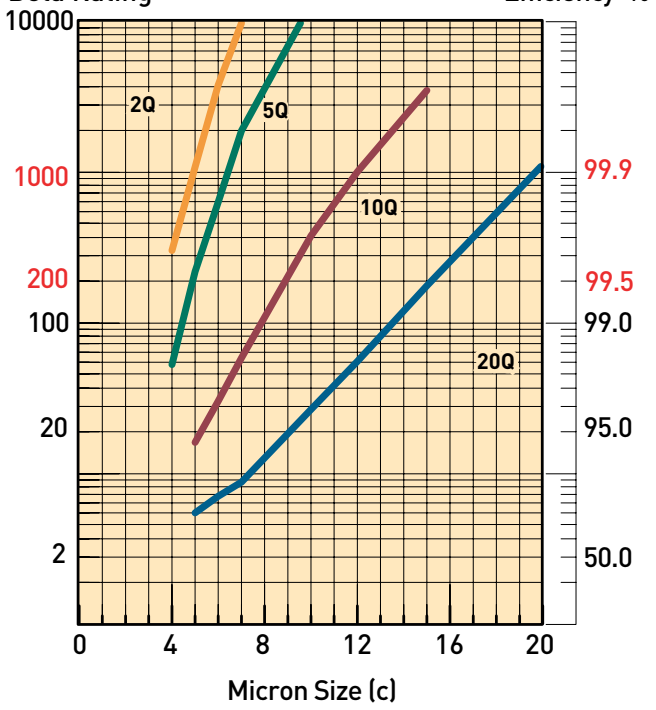
Element
(not visible)
- Available in high performance Microglass III media
- Single or double length

Feature	Advantage	Benefit
• Top access element service	• Oil remains in housing • Quicker elements change	• No Spills • Reduced maintenance costs
• Slotted cover	• Quick release cover • Cap screws remain in housing	• Reduced maintenance costs • No loose parts to lose
• Closed bottom elements	• Removes all contaminant during element service	• No downtime contamination from servicing
• Visual or electrical indicators	• Know exactly when to service elements	• Helps prevent bypass condition • No premature disposal
• Flange face ports	• Flexible mounting (3/4" to 2")	• Easy plumbing to your system

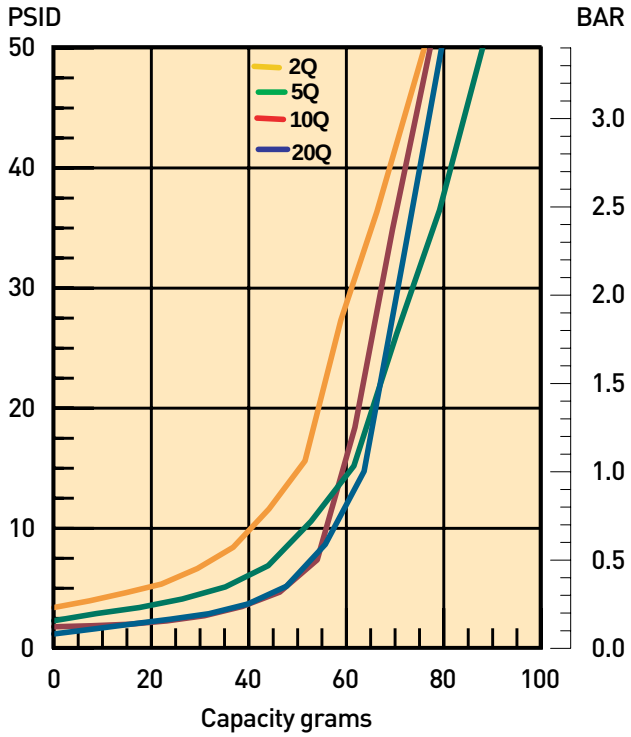
Moduflow™ *Plus* Series

RFP-1 and ILP-1 Element Performance

Efficiency

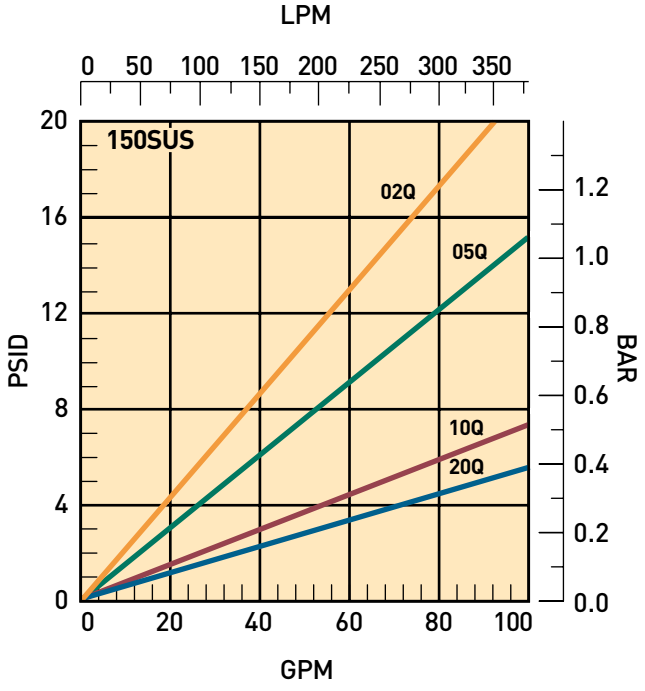


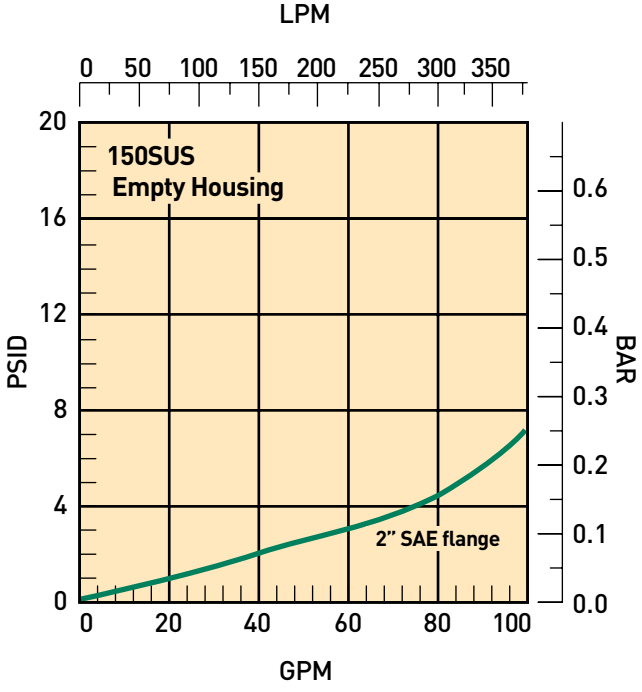
Capacity



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

Flow vs. Pressure Loss

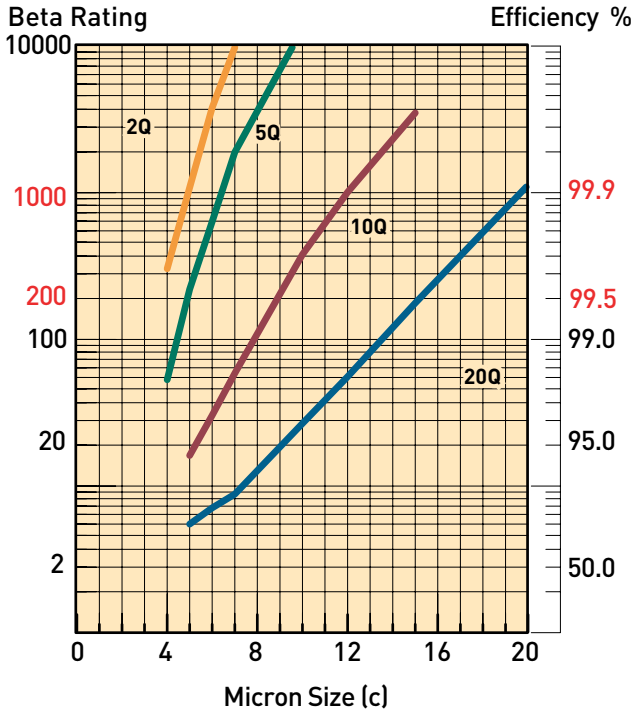




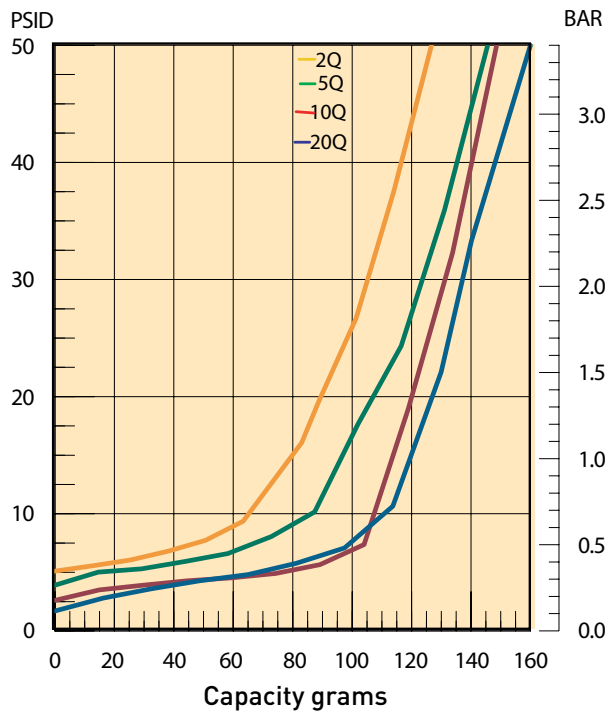
Moduflow™ *Plus* Series

RFP-2 and ILP-2 Element Performance

Efficiency

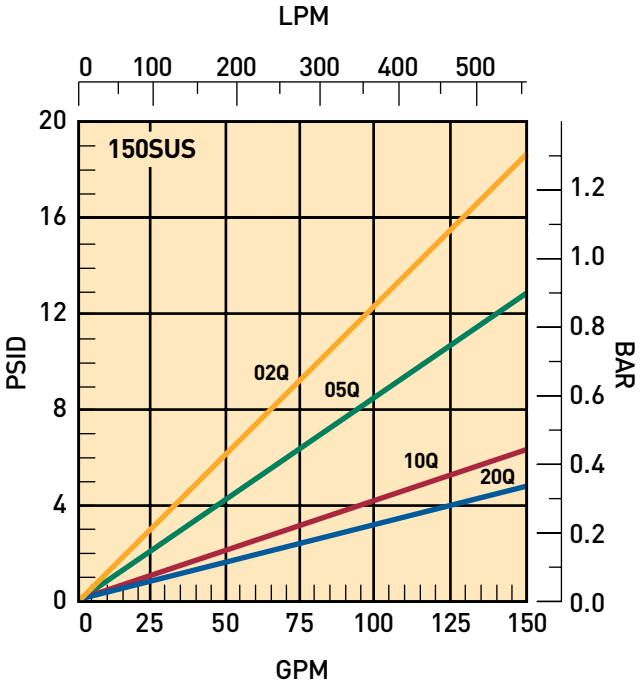


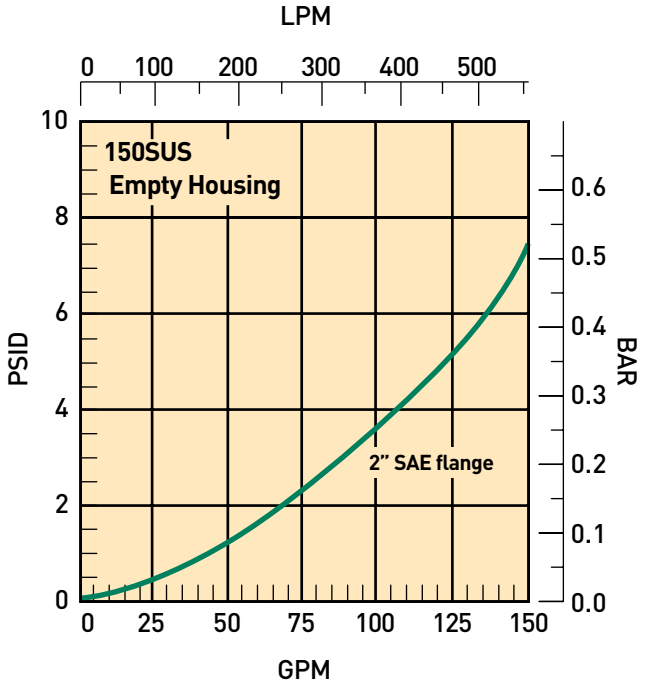
Capacity



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

Flow vs. Pressure Loss





Moduflow™ *Plus* Series

Specifications: RFP, ILP

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:
Nitrile: -40°F to 225°F (-40°C to 107°C)
Fluorocarbon: -15°F to 275°F (-26°C to 135°C)

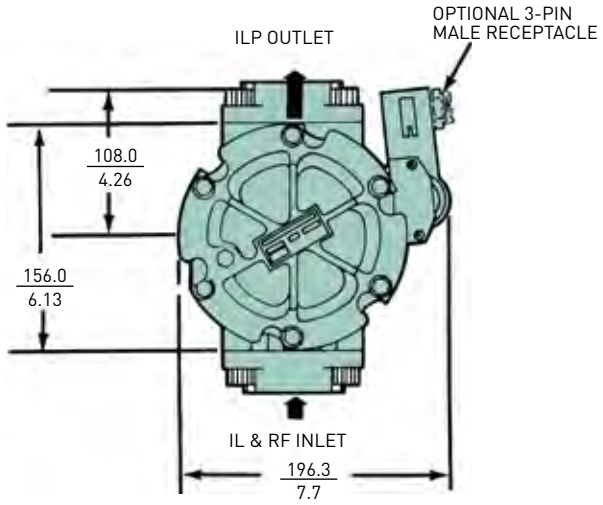
Weight (approximate):
Single: 20 lbs. (9.1 kg)
Double: 25 lbs. (11.3 kg)

Indicators:
Visual (optional)
Electrical (optional) 15A @ 250VAC / .5A @ 125 VDC
Electrical ("D" option) 5A @ 250VAC / 3A @ 28 VDC

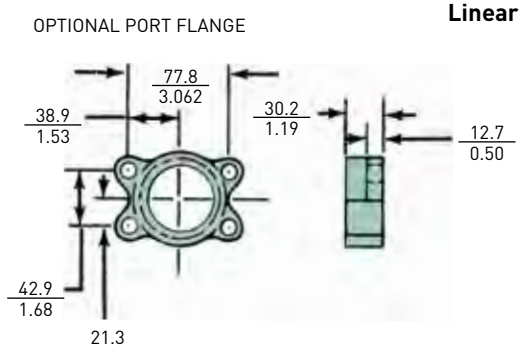
Color Coding:
White (normally closed)
Red (normally open)
Black (common)

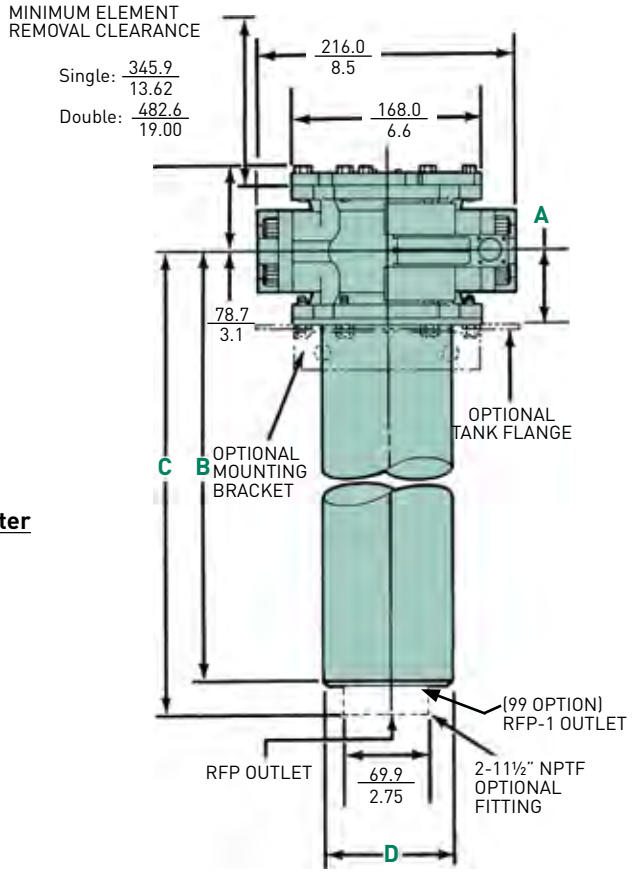
	Dimensions: mm / inch			
Model	**A**	**B**	**C**	**D**
RFP-1 with optional 2" fitting	68.3 / 2.69	—	390.0 / 15.37	117.1 / 4.61
RFP-1 without optional 2" fitting	65.0 / 2.56	378.0 / 14.87	—	114.0 / 4.50
RFP-2 with optional 2" fitting	68.3 / 2.69	—	625.0 / 24.61	117.1 / 4.61
RFP-2 without optional 2" fitting	68.3 / 2.69	612.0 / 24.11	—	114.0 / 4.50
ILP-1	65.0 / 2.56	336.0 / 13.24	N/A	117.1 / 4.61
ILP-2	68.3 / 2.69	618.0 / 24.32	N/A	117.1 / 4.61

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



Linear Measure: millimeter / inch





Moduflow™ *Plus* Series

Specifications: DILP

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

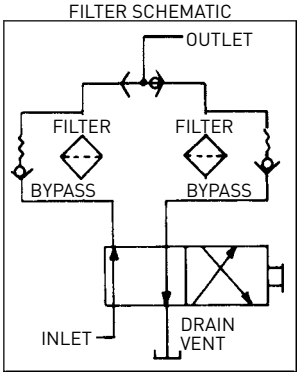
Operating Temperatures:
Nitrile: -40°F to 225°F (-40°C to 107°C)
Fluorocarbon: -15°F to 275°F (-26°C to 135°C)

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

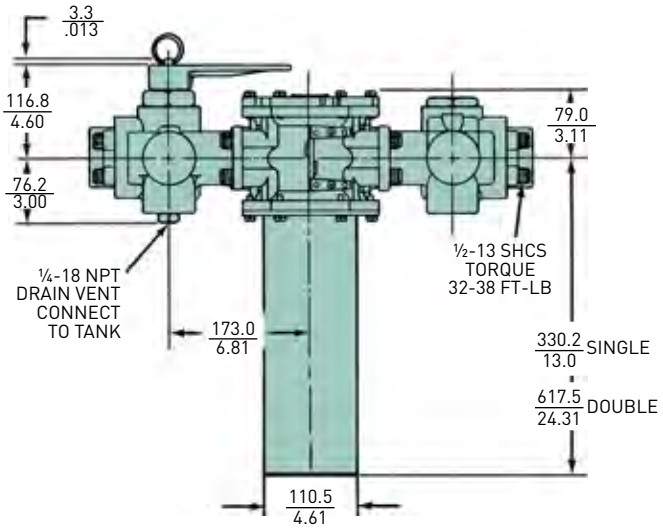
Color Coding:
White (normally closed)
Red (normally open)
Black (common)

FILTER SCHEMATIC

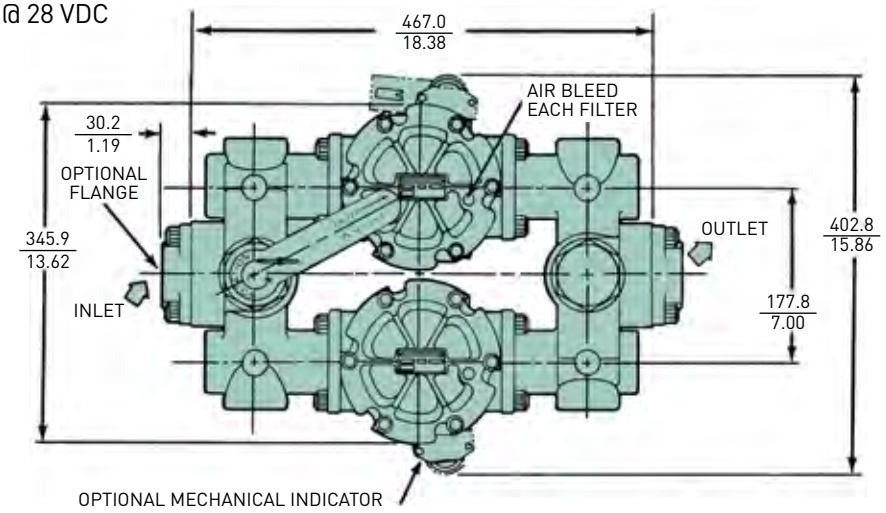


BOTH CHECK VALVES MOVE SAME DIRECTION

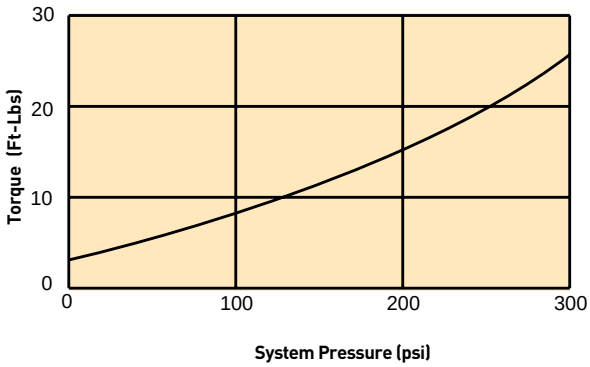
Drawings are for reference only.
Contact factory for current version.



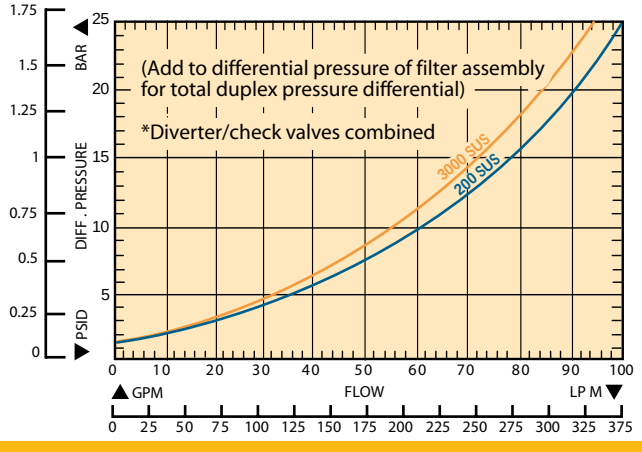
Linear Measure: millimeter / inch



Approximate handle torque required for changeover.



Typical Flow/Pressure Curves For Duplex Valves

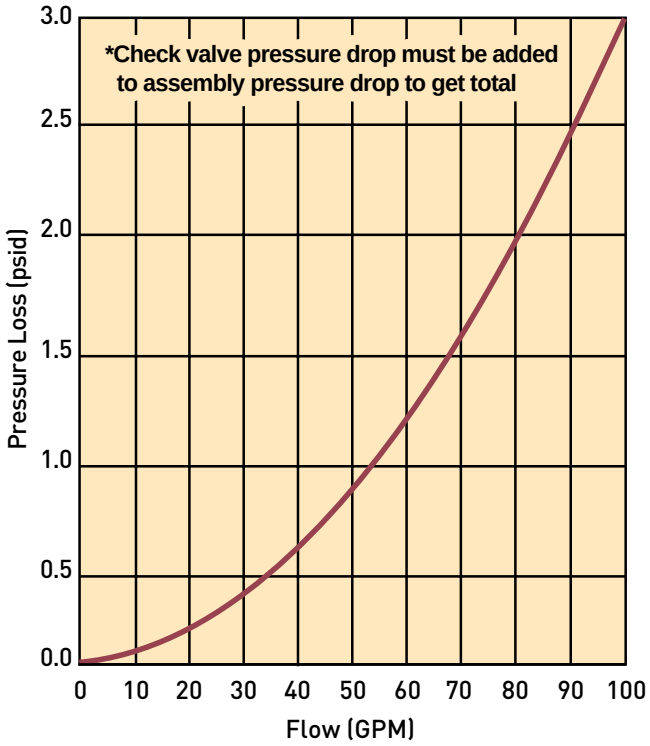


Moduflow™ *Plus* Series

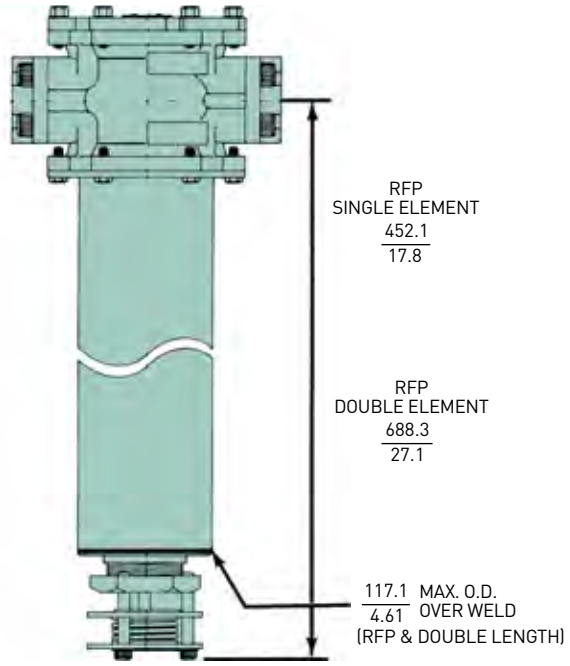
Specifications

For return line applications (RFP), the fluid returning to the reservoir holds the check valve open. When the system is shut down, the check valve closes automatically.

Check Valve Flow/Pressure Drop



Linear Measure: millimeter / inch



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

Moduflow™ *Plus* Series

Specifications

Lower Cost than many single unit filters.

Moduflow™ Manifold Extended Filter Range

Use Model MM Manifold to handle return line flows up to 130 gpm.

- Rated static pressure: 300 psi
- Typical burst pressure: 900 psi
- Easily mounted on ModuFlow™

High Flows At Low Cost

The model MM manifold is designed to extend the flow range of ModuFlow™ Filters when operating with 10 Micron and finer filter media. When mounted to a pair of RFP-2 or ILP-2 filters, this manifold will allow flows up to 130 gpm in return lines (15 fps velocity).
Note: The Model MM manifold is not applicable to suction lines due to its pressure drop characteristics.

When used with two ModuFlow™ filters, the total cost is often less than a single unit filter rated for 130 gpm flow. Tank-top mounted (Model RFP) filters will require only one manifold on the filter inlet pports. In-line mounted (Model ILPav) filters will require two manifolds, one on the inlet and one on the outlet ports.

Multiple Uses

Although designed for manifold ModuFlow™ filters, the Model MM can be used in a variety of applications which require:

- Splitting flow between components

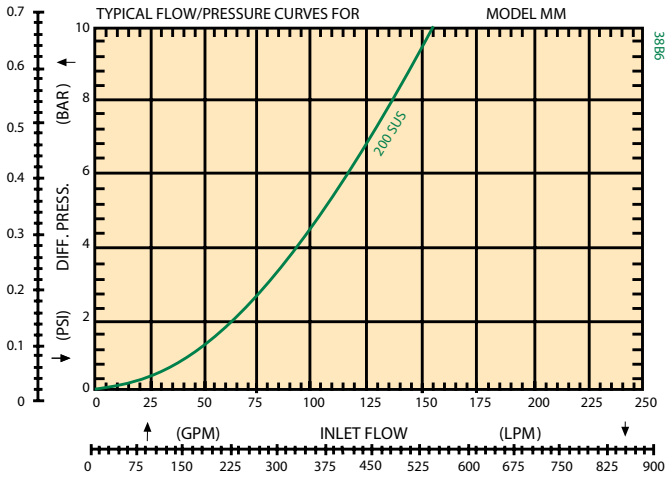
Such applications are frequently encountered on mobile equipment, machine tools, and large lubricating systems. In such applications, use of a manifold can often reduce total piping and installation costs.

Proven Reliability

The rugged design of the Model MM manifold has been proven in demanding mobile equipment applications, At the factory, we have cycle tested the Model MM through the full range of rated flow and pressure to insure reliable service.

Parker Filter Division maintains the same high standards in delivery, quality, and service. Considering this, plus features, flexibility, price, and performance, the Model MM manifold is a valuable addition to your fluid power component list.

FLOW/PRESSURE CURVE



Moduflow™ *Plus* Series

Specifications

MANIFOLD SPECIFICATIONS

Rated Static Pressure, maximum:
20.7 bar (300 psi)
Typical Burst Pressure:
62.1 bar (900 psi)
Operating Temperature (Buna seals):
+121°C to —40°C (+250°F to 40°F)

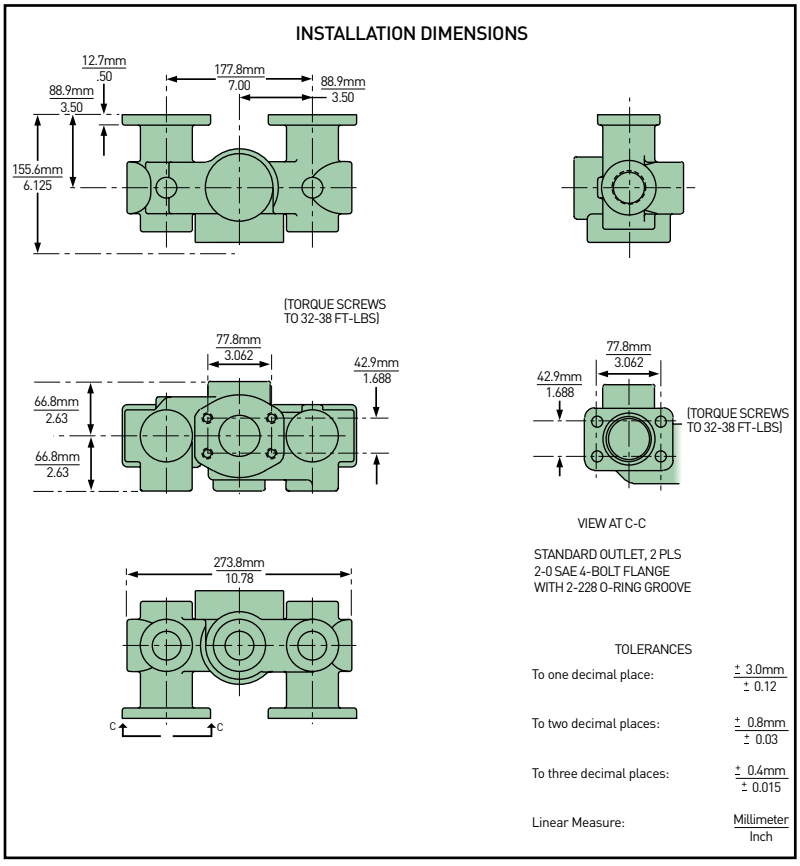
Housing Material:
ANSI 356-T6 cast aluminum
Approximate Shipping Weight:
3.6 kg (8 lbs)
Porting: See Options Below

Order Screws and O-Rings Seperately:
Inlet & outlet screws (12 required):
Order P/N 900228
Outlet port o-rings (2 required):
Nitrite: Order P/N N72228
Fluorocarbon: Order P/N V92228

HOW TO ORDER MANIFOLDS:

Part Number	Description
926466	Moduflow Manifold

* Tank-top mounted RFP filters will require one manifold on filter inlets: in-line mounted ILP filters will require two manifolds on both inlets and outlets.



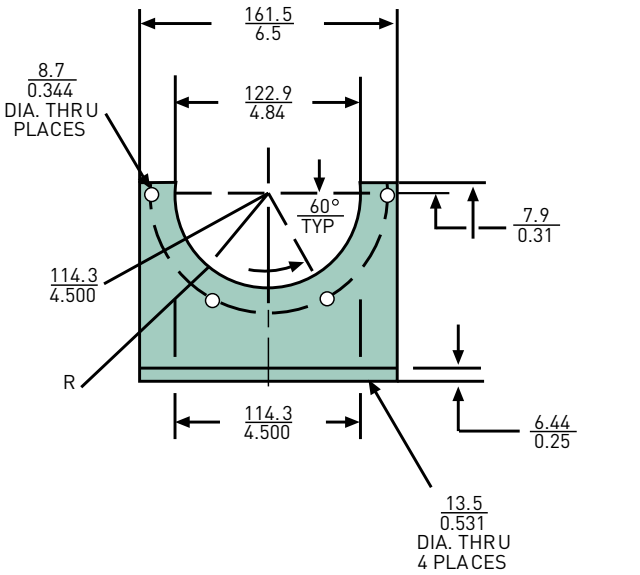
Drawings are for reference only.
Contact factory for current version.

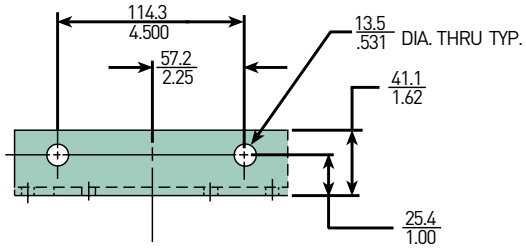
Moduflow™ *Plus* Series

Accessories

Linear Measure: millimeter / inch

OPTIONAL MOUNTING BRACKET (924904)





"M" OPTION-VISUAL INDICATOR, NO ELEMENT WARNING

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

"E" OPTION-ELECTRICAL INDICATOR

Moduflow™ *Plus* Series

Parts List

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

RFP / ILP / DILP Replacement Elements

Media	Nitrile Seals				Fluorocarbon Seals			
	New Single	Replaces Old Single	New Double	Replaces Old Double	New Single	Replaces Old Single	New Double	Replaces Old Double
02Q	937393Q	932686Q	937397Q	932692Q	937401Q	932689Q	937405Q	932695Q
05Q	937394Q	932687Q	937398Q	932693Q	937402Q	932690Q	937406Q	932696Q
10Q	937395Q	932688Q	937399Q	932694Q	937403Q	932691Q	937407Q	932697Q
20Q	937396Q	933116Q	937400Q	933117Q	937404Q	933118Q	937408Q	933119Q
WR	940733		940734		940735		940736	

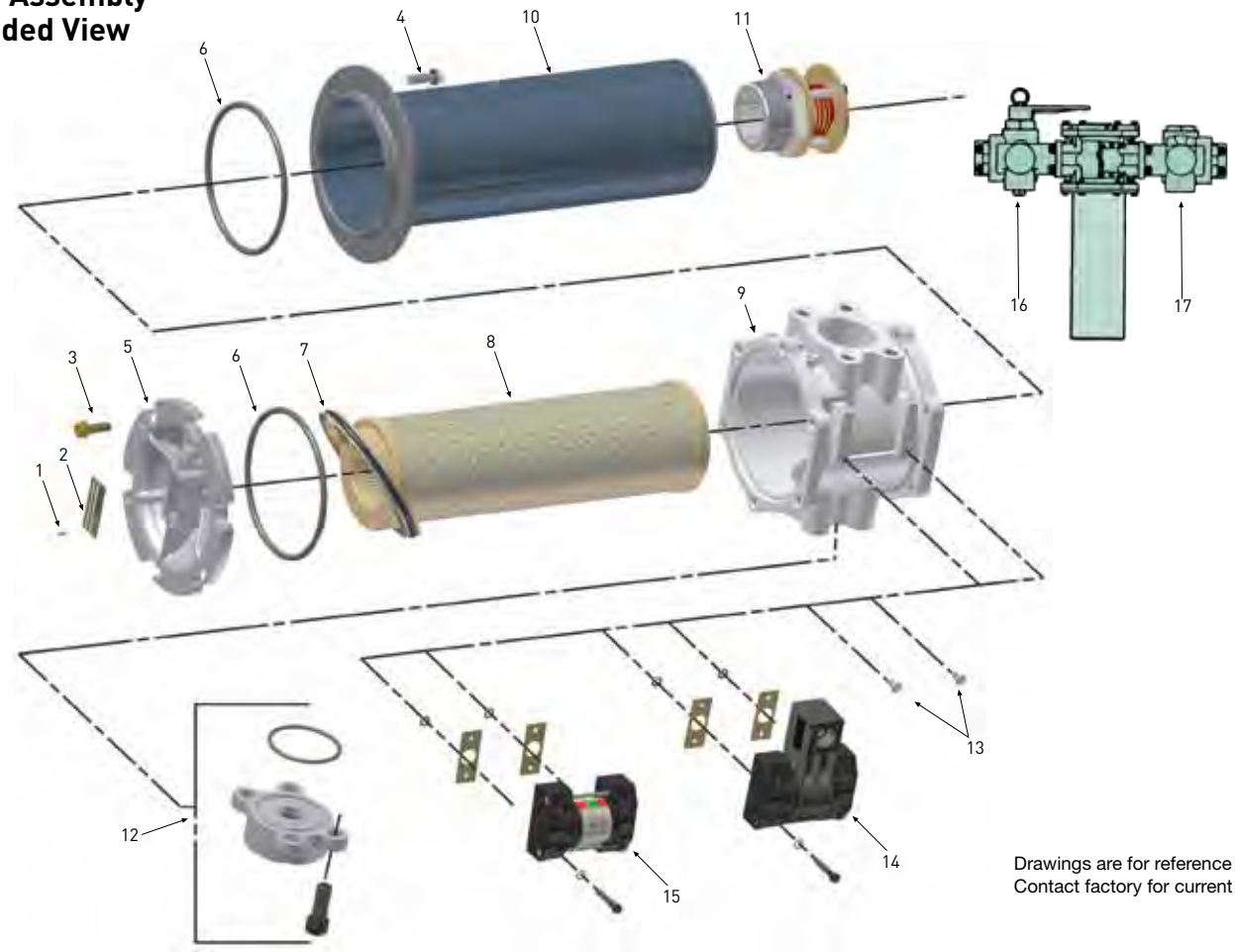
Moduflow™ *Plus* Series

Parts List

Index	Description	Part No.	Quantity
1	**Screws**, Nameplate	900028	2
2	**Name Plate**, Unstamped	920928	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		
	Nitrile	N72350	2
	Fluorocarbon	V72350	2
7	**Element Seal**		
	Nitrile	937410	1
	Fluorocarbon	937411	1
8	**Element**	Refer to Table	1
9	**Head,** Machined only		1
	2" SAE Flange	925972	1
	1½"SAE Flange	926146	1
	1½" NPTF	925949	
10	**Bowl,** Select desired model		1
	ILP-1	925916	
	ILP-2	924816	
	RFP-1	937626	
	RFP-1 with 2 inch NPTF fitting	924676	
	RFP-2	937627	
	RFP-2 with 2 inch NPTF fitting	924818	

Index	Description	Part No.	Quantity
11	**Check Valve Assy.**	925120	1
12	**Flange Kits**	Refer to Table	1
	O-Ring	V72228	1
13	**Plug Kit,** Fastener, self-sealing, o-ring seal included with fastener	925974	2
14	**Indicator Electrical**		Optional
	35 psid	926643	
	35 psid, 3-pin male receptacle	926753	
	Gasket	926126	2
	O-Ring	V72010	2
15	**Indicator Visual**		Optional
	35 psid 4-band	926748	
	Bracket, Inline mounting	924904	Optional
	Indicator Kit, Remote mount	924894	Optional
16	**Changeover Valve Assy.,** Duplex	926758	Optional
17	**Check Valve Assy.,** Duplex	926757	Optional
Not Shown	**Drain Plug,** SAE-24 for RFP model		
	Nitrile	909992	1
	Fluorocarbon	928363	1
Not Shown	**O-Ring between tank and bowl**	N72265	1

Filter Assembly Exploded View



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

Moduflow™ *Plus* Series

How to Order

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
ILP	1	10Q	B	MP	35	Y9Y9	1

BOX 1: Filter Series Symbol	Description
RFP	Return-line filter, inlet on side outlet on bottom
ILP	In-line filter
DILP	In-line duplex

BOX 2: Element Length Symbol	Description
1	Single
2	Double

BOX 3: Media Code Symbol	Description
02Q	Microglass III, 2 micron
05Q	Microglass III, 5 micron
10Q	Microglass III, 10 micron
20Q	Microglass III, 20 micron
WR	Water Removal

BOX 4: Seals Symbol	Description
B	Nitrile
E	EPR
V	Fluorocarbon

BOX 5: Indicator Symbol	Description
P	Pressure ports drilled & plugged only; no indicator
M	Visual indicator w/"no element" warning
E	Electrical indicator only
D	Electrical indicator only, 3-pin male receptacle

Note: 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 Setting Symbol	Description
35	35 psid

BOX 7: Port Options

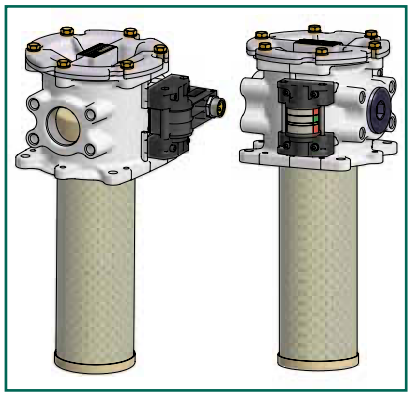
Filter Model	Inlet Symbol/Description		Outlet Symbol/Description	
RFP	Y9	2" flange face	**99**	**No fitting**
	P9	**SAE-24 integral threads**	F9	2" NPTF
			F8	External check valve
ILP	**Y9**	**2" flange face**	**Y9**	**2" flange face**
	P9	SAE-24 integral threads	P9	SAE-24 integral threads
DILP	**Y9**	**2" flange face**	**Y9**	**2" flange face**

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 filters come plugged with a blank flange.
4) See Flange Kits table for port flange options. Flange Kits are ordered separately.

BOX 8: Options Symbol	Description
1	None

Moduflow™ *Plus* TFP Series

Bowl-less Design



Features	Advantages
Shorter port-to-port distance.	Provides a smaller footprint and reduced weight.
Direct tank mount capability eliminates need for adaptor flanges and bowl.	Aluminum die cast head reduces weight and direct tank mount flange reduces installation time and cost.
Standard head incorporates 2" SAE flange face with integral SAE-24 port configuration.	Enables one common head to be used. Simplifies ordering model code.
Filter head and element 2-piece construction requires no filter bowl.	Reduces assembly cost by 25%.
Patented element design with integral bypass valve and inside to out flow path.	Ensures all contaminants remain captured during service. New bypass valve with each element ensures operation reliability.

Moduflow™ *Plus* TFP Series

How to Order

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
TFP	1	10Q	B	MP	35	C32	1

BOX 1: Series Symbol	Description
TFP	Return-line filter
TFPW	Return-line filter anodized for HWHC fluid

Box 2: Element Length Symbol	Description
1	Single
2	Double

Box 3: Media Code Symbol	Description
02Q	Microglass III, 2 micron
05Q	Microglass III, 5 micron
10Q	Microglass III, 10 micron
20Q	Microglass III, 20 micron
WR	Water Removal

BOX 4: Seals Symbol	Description
B	Nitrile
E	EPR
V	Fluorocarbon

BOX 5: Indicator Symbol	Description
P	Pressure ports drilled & plugged only; no indicator
M	Visual indicator w/"no element" warning
E	Electrical indicator only
D	Electrical indicator only, 3-pin male receptacle

Note: Two letters are required for the indicator code (e.g. "MP")

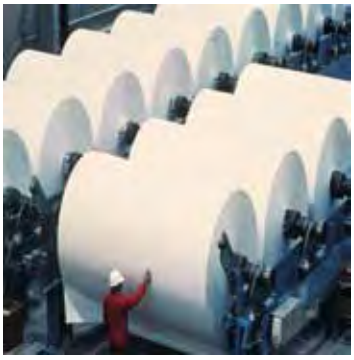
BOX 6: Bypass Symbol	Description
35	35 (2.4 bar) psid

BOX 8: Ports Symbol	Description
C32	2" SAE flange face/SAE-24 combination inlet port

BOX 8: Options Symbol	Description
1	None

Replacement Elements

Media	TFP-1			Media	TFP-2		
	Nitrile	Fluorocarbon	Ethylene Propylene		Nitrile	Fluorocarbon	Ethylene Propylene
02Q	937393Q	937401Q	937671Q	02Q	937397Q	937405Q	937675Q
05Q	937394Q	937402Q	937672Q	05Q	937398Q	937406Q	937676Q
10Q	937395Q	937403Q	937673Q	10Q	937399Q	937407Q	937677Q
20Q	937396Q	937404Q	937674Q	20Q	937400Q	937408Q	937678Q
WR	940733	940735	N/A	WR	940734	940736	N/A



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

RF7 Series

Low Pressure Filters

ENGINEERING YOUR SUCCESS.

RF7 Series

Applications

- Mobile equipment
- Power unit fabricators
- Off-line filter loops

The Parker RF7 filter is designed for those applications where dependable, yet economical, return line system protection is required. The in-tank mounting design makes the RF7 ideally suited for use by power unit fabricators and mobile equipment manufacturers...or anyone who views equipment space at a premium, but not at the expense of performance.

Element Condition Indicator
- True pressure differential
- Know, at a glance, when to change the filter element
- Gauge also available

Two-Piece Construction (Head/Tube)
- Easy in-tank mounting

Diffuser Tube
- Disperses return flow below reservoir fluid level
- Prevents fluid aeration
- Closed bottom provides for even fluid dispersal
- Prevents objects from falling into the reservoir during element servicing

Cartridge/Element Handle

Bypass Valves
- Virtually zero leakage
- Multiple valves for high flow

Vent
- For variable displacement pump applications

- Easy to remove entire assembly for servicing

Bypass Filter Screen
- Prevents gross contamination from passing through the filter — even during bypass

Cover Lock-Band with "T" Handle
- Easy access for servicing
- No loose parts to remove and handle
- No special tools required for removal

RF7 Series

Element Features

Inside each Parker Filter... a quality Parker Element

The important item in a filter assembly is the element. It has to capture and hold contaminants that can damage or stop a machine...while at the same time allowing the required flow of clean fluid so the machine can function properly.

There are many ways to design and build an element, and it's easy to produce a low cost element. However, cost is not a good selection criteria... especially when the risk is loss of critical performance.

For instance, consider wire mesh reinforcement. Not all filter elements have it. It's used in Parker elements to keep the pleats from collapsing or bunching.

If pleats bunch, the effective surface area of the element is reduced, excessive pressure drop develops, and the filter assembly may go into the bypass mode. This condition wastes energy and allows unfiltered fluid flow back into the system, effectively shortening filter life.

Gasket Ring Seal
- Positive sealing for optimum element efficiency

Protective Perforated Cylinder
- Necessary for inside-to-outside flow
- Prevents media "blow out"

Wire Reinforced Media (Not Visible)
- Prevents pleat bunching
- Helps prevent media migration
- Maintains media efficiency

Engineered Element Design
- The right combination of pleat depth and number of pleats means lower pressure losses (longer life)
- Dirt holding capability is maximized for less frequent element change-out

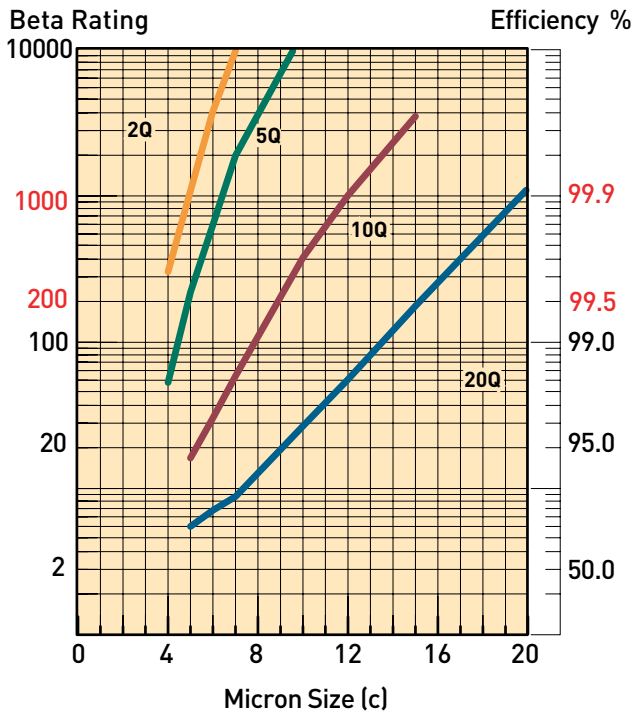
Elements for Every Application
- Standard Microglass III media for long life and excellent system protection
- Economical cellulose elements also available

Features	Advantage	Benefits
• Tank mounted design.	• Saves space and reduces hardware requirements.	• Easy to integrate into system design.
• Cover fill port.	• Allows 100% filtration of all new system oil.	• Eliminates contamination before it can cause problems.
• High flow capacity.	• One filter may handle all return line flows.	• Cost savings in filters and hardware.
• Broad range of filter media available – including water removal.	• Choose the proper medium for system parameters.	• Cost savings by avoiding both "over" and "under" filtration.
• Inside-to-outside flow through element with a closed bottom end cap.	• All contamination is trapped inside of element assembly.	• Contamination is not reintroduced into the system during replacement.
• Wire reinforced Microglass III elements.	• Rugged construction stands up to abuse of cyclic flows without performance loss. • Wire support reduces pleat bunching, keeps pressure drop consistent.	• The reliable filtration provided assures equipment protection, reduces downtime, maximizes element life, and allows the hydraulic system to operate properly.
• Multipass tested elements (per ANSI/NFPA T3.10.8.8 R1-1990 modified for fine filtration).	• Filter performance backed by recognized and accepted laboratory test standards.	• Filters you select have consistent performance levels.
• Complete element performance data disclosure.	• All pertinent information is provided in an easy-to-compare format.	• Provides an easy guide to proper filter selection.

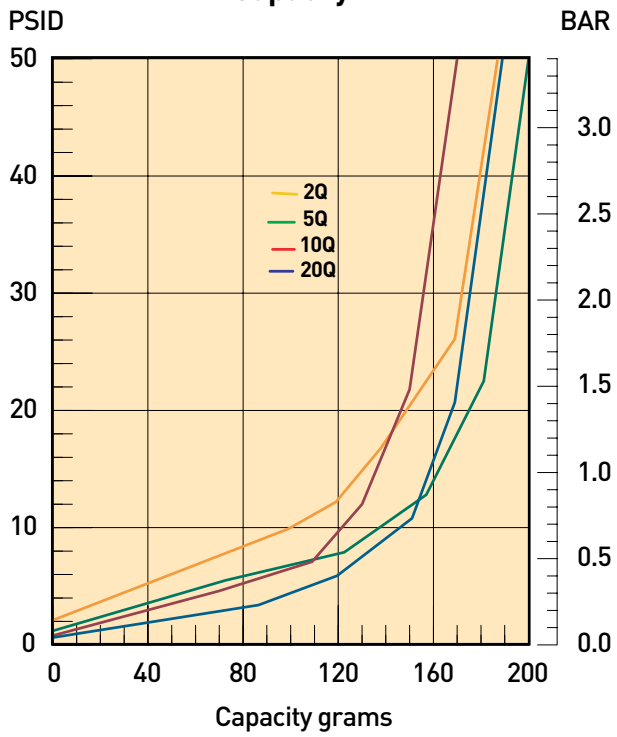
RF7 Series

RF7-1 Element Performance

Efficiency

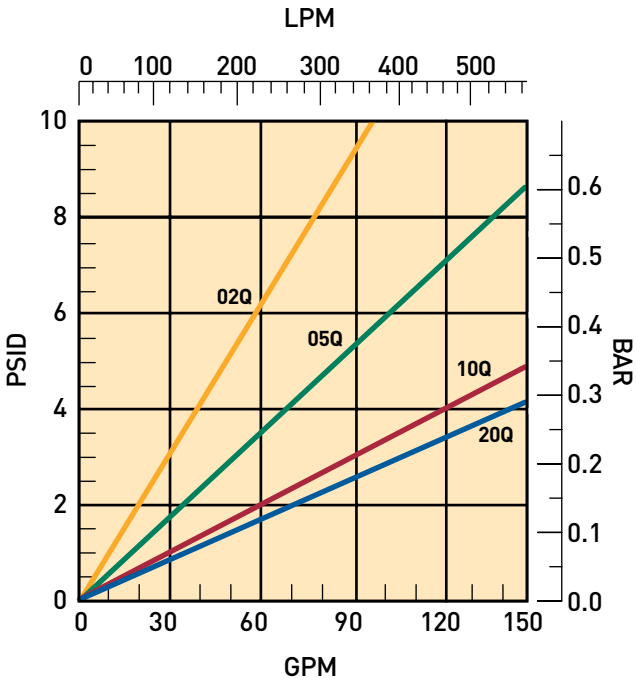


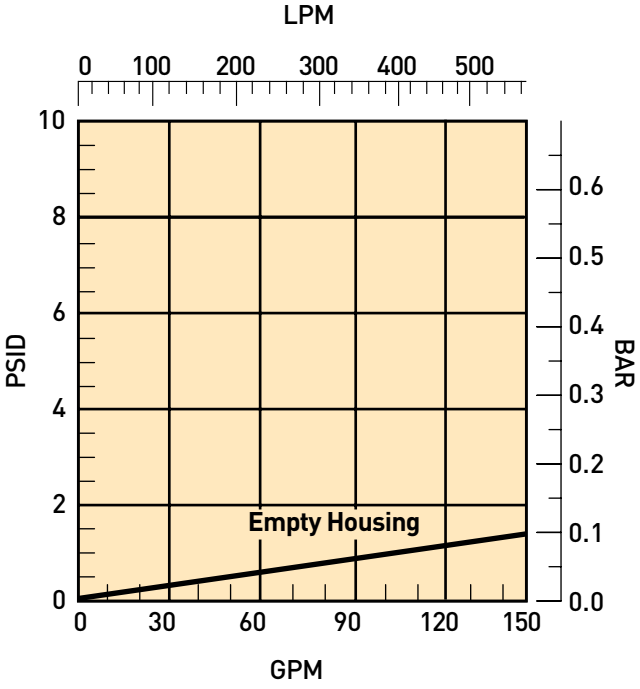
Capacity



Results typical from Multi-pass tests run per test standard ISO 16889 @ 50 gpm to 50 psid terminal - 10 mg/L BUGL
Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

Flow vs. Pressure Loss

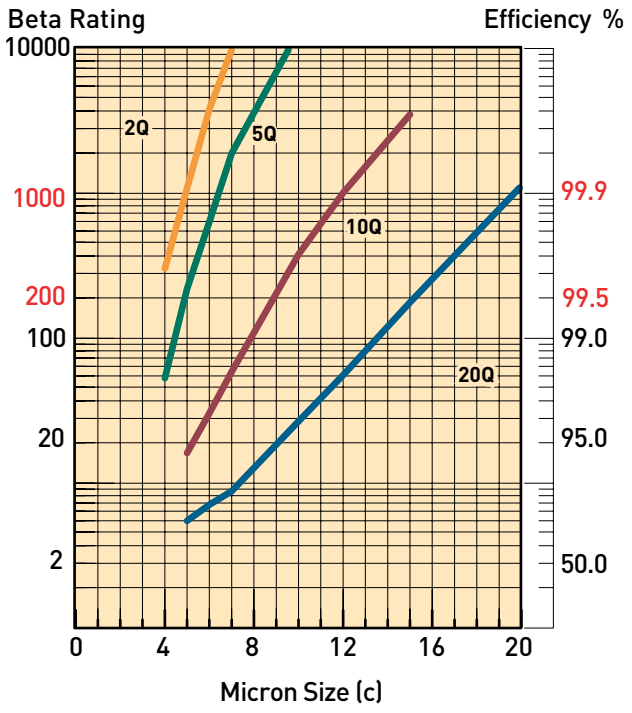




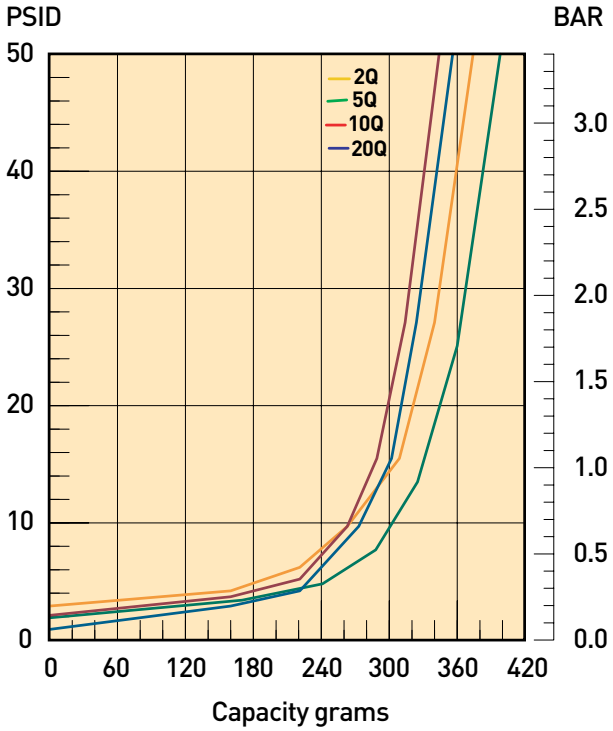
RF7 Series

RF7-2 Element Performance

Efficiency

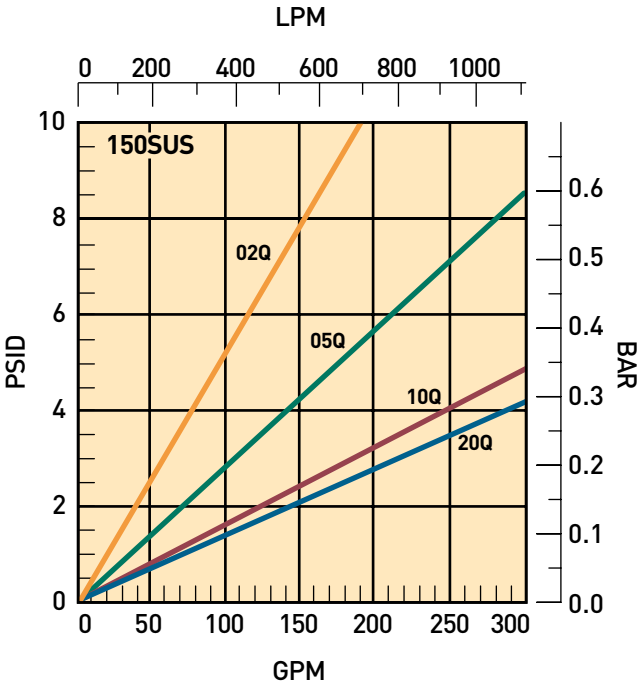


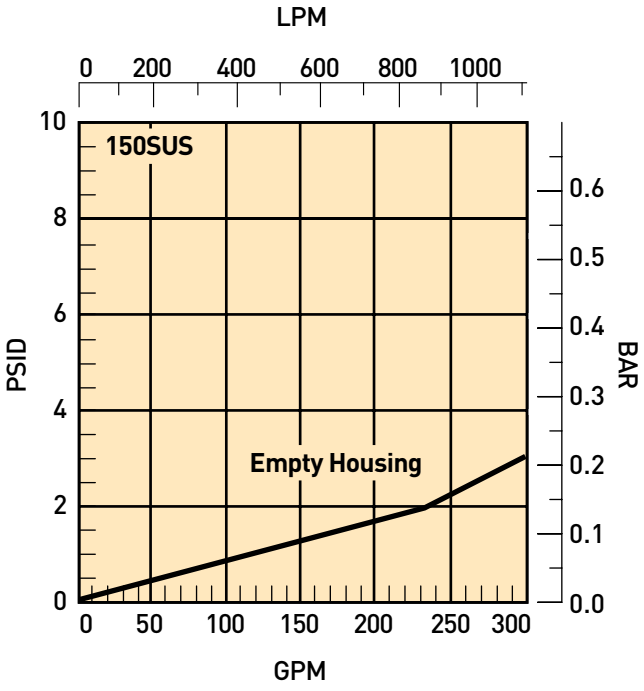
Capacity



Results typical from Multi-pass tests run per test standard ISO 16889 @ 80 gpm to 50 psid terminal - 10 mg/L BUGL
Refer to Appendix on pages 264-265 for relationship to test standard ISO 4572.

Flow vs. Pressure Loss





RF7 Series

Specifications

Pressure Ratings:
Maximum Allowable Operating Pressure (MAOP): 150 psi (10.3 bar)

Design Safety Factor: 3:1

Element Burst Rating:
50 psid (3.4 bar) minimum.

Materials:
Cast Aluminum Head & Cover
Steel Diffuser Tube
Steel Clamp

Operating Temperatures:

Nitrile;	-40°F to 225°F (-40°C to 107°C)
Fluorocarbon;	-15°F to 275°F (-26°C to 135°C)

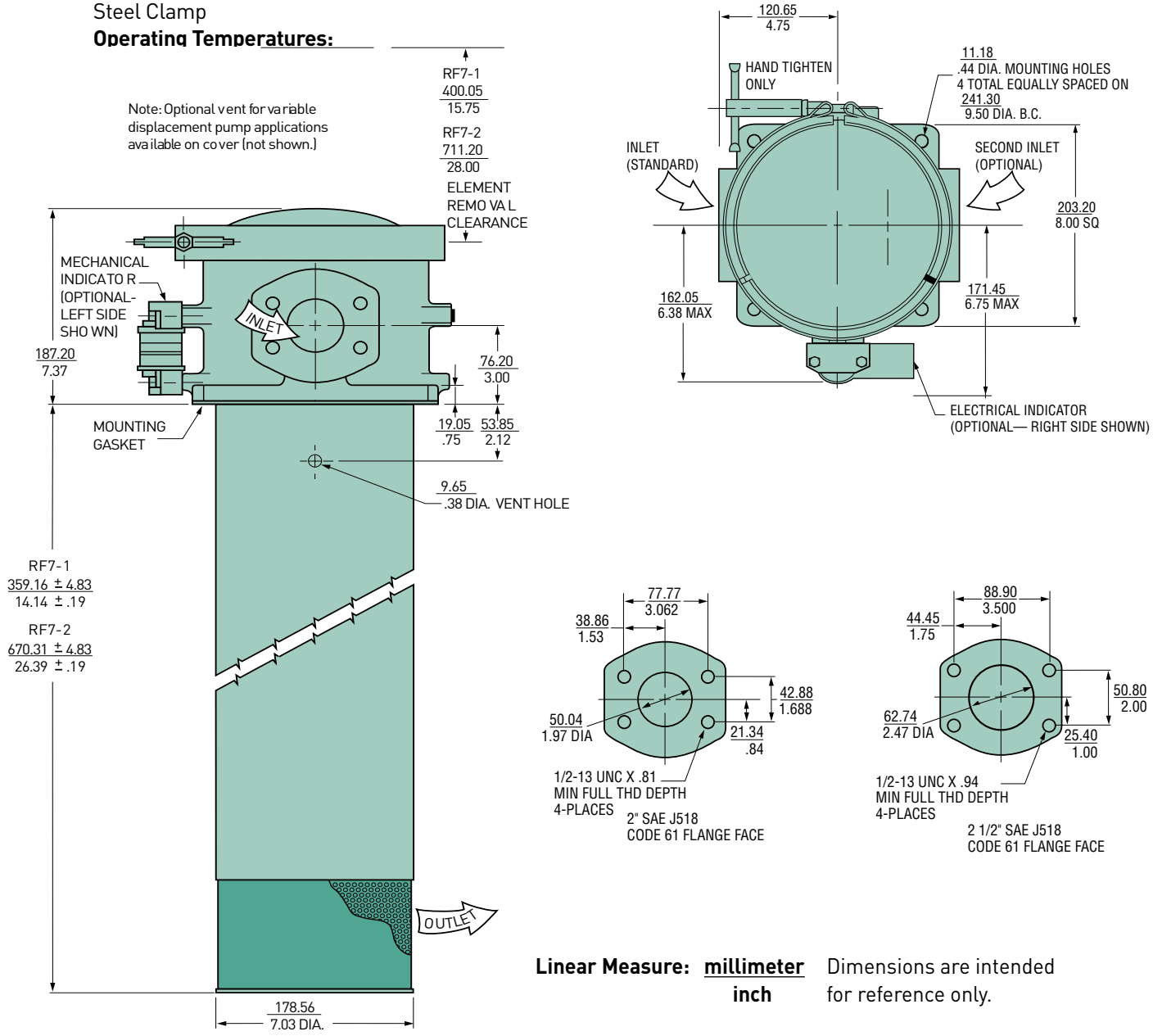
Weight (approximate):
RF7-1 34 lbs. (15.4 kg)
RF7-2 42 lbs. (19 kg)

Indicators:

Visual system pressure type (gauge or pressure switch).

Visual pressure differential type.

Electrical pressure differential type.
15A @ 250 VAC
.5A @ 125 VDC



Clearance hole in tank reservoir to be 7 1/8 IN. ± 1/16 IN. DIA.

Linear Measure: **millimeter** / **inch**

Dimensions are intended for reference only.

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

RF7 Series

Specifications

Filter Service

When servicing an RF7 filter, use the following procedure:

A. Stop all flow to the filter.

B. Loosen the clamp handle counterclockwise and remove the clamp assembly.

C. Remove the filter cover by lifting upward.

D. Pull the entire cartridge assembly out by grabbing onto the "T" handle.

E. Unscrew the "T" handle from the bypass assembly (with mesh screen) and remove the bypass assembly.

F. Lift the element over the exposed rod assembly and discard.

G. Place a new element over the rod and seat on the bottom.

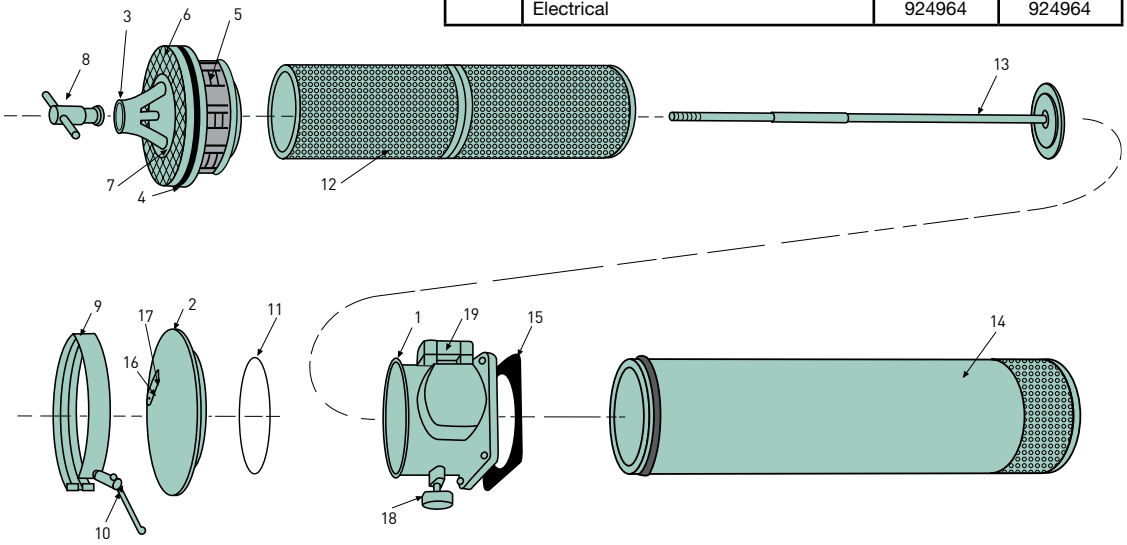
H. Re-attach the bypass assembly to the top of the element.

I. Replace the "T" handle and hand-tighten.

J. Firmly place the entire cartridge assembly back into the filter housing.

K. Set the cover back on the housing, reattach the clamp assembly and hand tighten the handle.

Parts List			
Index	**Description**	**Part Number**	
		RF7-1	**RF7-2**
1	**Head - Single Inlet**		
	2" SAE Flange Face w/gage ports	932549	932549
	2 1/2" SAE Flange Face w/gage ports	932483	932483
	2" SAE Flange Face w/indicator	932484	932484
	2 1/2" SAE Flange Face w/indicator	932485	932485
	Head - Double Inlets		
	2" SAE Flange Face w/gage ports	932550	932550
	2 1/2" SAE Flange Face w/gage ports	932551	932551
	2" SAE Flange Face w/indicator	932552	932552
	2 1/2" SAE Flange Face w/indicator	932553	932553
2	**Cover**	932288	932288
3	**Bypass Mount**	932521	932521
4	**Lipseal**		
	Nitrile	932415	932415
	Fluorocarbon	932488	932488
5	**Bypass Valve (6)**	930507	930507
6	**Screen**	932416	932416
7	**Screen Retaining Ring**	932417	932417
8	**"T" Handle Assembly**	903889	903889
9	**Clamp**	909876	909876
10	**Clamp Handle**	926768	926768
11	**Cover O-Ring**		
	Nitrile	N72263	N72263
	Flourocarbon	V72263	V72263
12	**Element (See model code page)**		
13	**Cartridge Rod Assembly**	933067	932418
14	**Diffuser Tube Assembly**	933064	932419
15	**Gasket**		
	Nitrile	932420	932420
	Fluorocarbon	932489	932489
16	**Nameplate**	920928	920928
17	**Drivescrew (2)**	900028	900028
18	**Pressure Gauge**	936912	936912
19	**Indicators**		
	Visual	924776	924776
	Electrical	924964	924964



RF7 Series

How to Order

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
	RF7	2	10Q	MP	25	Y999	1

BOX 1: Seals Symbol	Description
None	**Nitrile**
F3	Fluorocarbon

BOX 2: Basic Assembly Symbol	Description
RF7	In-tank return filter

BOX 3: Length Symbol	Description
1	**Single length**
2	**Double length**

BOX 5: Indicator(s) (See Note A) Symbol (2 Required)	Description
P	**Gauge, port plugged**
G	Gauge, color coded
S	Pressure switch
M	Visual indicator
E	Electrical indicator

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 7: Ports Symbol	Description
Inlet	Side
Y9	**2" SAE flange face (Standard)**
Z9	**2½" SAE flange face (Standard)**
2Y9	Two Inlets, 180° apart (Optional)
2Z9	Two Inlets, 180° apart (Optional)
Outlet **99**	**No fitting**

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

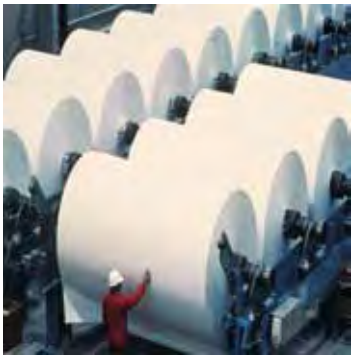
BOX 6: Bypass Setting Symbol	Description
25	**25 psid**

BOX 8: Modifications Symbol	Description
1	**None**

Replacement Elements

Media	Single Length		Double Length	
	Nitrile	Fluorocarbon	Nitrile	Fluorocarbon
20Q	933800Q	933808Q	933812Q	933156Q
10Q	933802Q	933809Q	933814Q	933155Q
05Q	933804Q	933810Q	933816Q	933153Q
02Q	933806Q	933811Q	933818Q	933152Q
10C	908648	923551	932498	932503
WR	928563	933853	932501	932506

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



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BGT Series

Low Pressure Filters

Parker

ENGINEERING YOUR SUCCESS.

BGT Series

Applications

- Flows to 640 GPM
- 3 Micron Absolute to 120 Micron Absolute
- Disposable or Recleanable Elements
- Visual and Electrical Indicators
- Microglass elements
- Magnetic prefiltration
- Full flow bypass valve
- No internal leakage paths
- Inside-to-out flow thru element
- Complete contaminant removal during element service
- LEIF® element (600 and 1000 Series only)

Specifications

Housing Data:

Material:

Head – Aluminum Alloy
Diffusor – Steel
Internals – Carbon Steel and Aluminum
Seals – Nitrile (Standard), Fluorocarbon

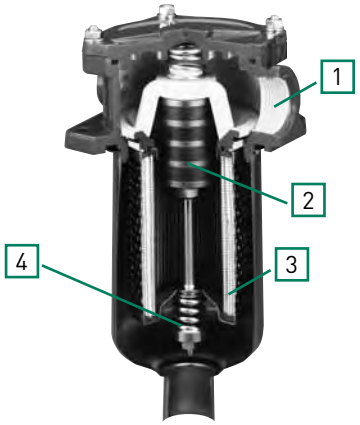
Pressure Rating:

Static – 150 psi (10.3 bar)

Temperature Range:

Operating -40°F to +250°F (-40°C to +120°C)

BGT Tank Mounted Return Flow Filters



BGT Filters feature Parker's exclusive Magnetic Prefiltration core which collects ferromagnetic particles from fluid upstream of the filter element. This feature alone could save hundreds of dollars a year by protecting costly equipment from increased wear and malfunction by assuring that the fluid is as pure as possible when it leaves the filter. Even during bypass due to cold start up, ferris contaminant is collected by the magnetic core, a feature of importance on any fluid power system.

Take a close look and compare Parker features with any other filter.

1. Fluid flows through the inlet port into an enlarged area which reduces fluid velocity. Inlet flow does not impinge on the element.

2. Filtration begins with magnetic prefiltration of ferromagnetic particles in the full fluid flow upstream of the element, not downstream or in the reservoir. Built-in or system generated ferromagnetic wear debris (even particles smaller than the element rating) are collected by the high strength (3.0K Gauss) magnetic column. This results in extended element and oil life and reduced maintenance and downtime, which reduces overall operating cost.

3. Fluid passes through the element in an inside-to-outside direction, collecting particles inside the filter cartridge. This eliminates reinjection of contaminant during element change. Clean fluid then returns to the reservoir through the diffusor which prevents fluid aeration.

Normal return line filters, that flow outside-to-inside, allow contaminated fluid to drain back into the reservoir when the element is serviced.

4. Simplified bypass design and location prevents flushing previously collected contaminant back into the system. Since the element serves as the valve there is no troublesome separate valve to remove when changing elements. Magnetic filtration occurs even during bypass. All potential leakage paths are o-ring sealed to eliminate bypass leakage that occurs in loose fitting valve assemblies.

BGT Filters are available with disposable elements of several contamination class levels for use in all common fluids.

Optional accessories include visual and electric warning indicators that assure proper element service.

BGT Series

How To Size Tank Top Filters

Element Pressure Drop Factor:
Multiply the actual flow rate times the applicable ΔP factor to determine the pressure drop with a fluid viscosity of 140 SSU. Correct for other viscosities by applying the following formula: Flow rate (GPM) x filter factor x (new viscosity in SSU/140 SSU).

Flow/Pressure Drop Data

Fluid Conditions: Viscosity-140 SSU Sp. Gr. - 0.88

Media Code	Size Code 600	Size Code 1000	Size Code 2000
02Q (L)	.082	.0493	.0246
05Q (L)	.031	.0187	.0091
10Q (L)	.022	.0129	.0066
20Q (L)	.014	.0088	.0044

Example:
Element Size Code = 600
Element Media Code = 10
Filter Factor = .022 (From chart)
Flow = 160 GPM
Viscosity = 160 SSU

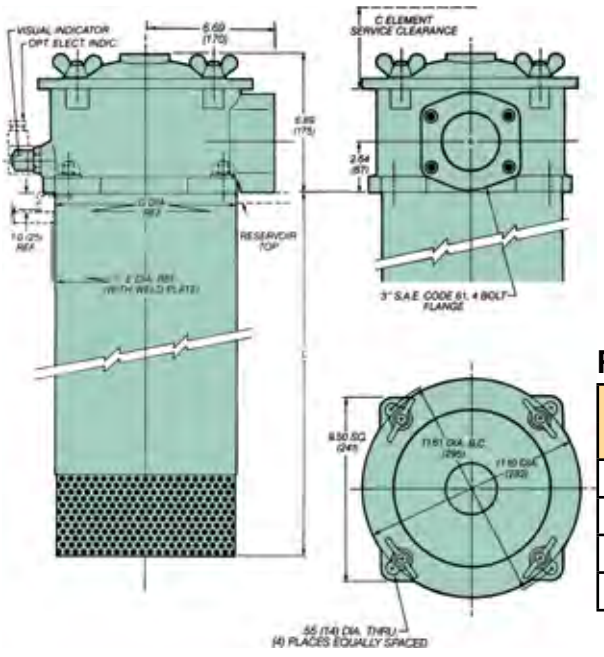
Formula:
160 GPM x .022 x (160 SSU/140 SSU) = 4.0 PSID

Element Data

Media Type	Absolute Rating	Multipass Test Results To ISO 4572 (Time Weighted Averages)						
		B_3	B_6	B_{10}	B_{12}	B_{20}	B_{25}	B_{36}
Microglass III	3	≥100	800	2000	>5000	∞	∞	∞
Microglass III	6	8	≥100	1000	2000	>5000	∞	∞
Microglass III	10	6	22	≥100	≥200	>5000	∞	∞
Microglass III	20	–	2	8	20	≥100	≥200	>5000

Dimensions

BGT-13, BGT-15, BGT-17



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

Return Line Filter - Series 4

Dimensions inches (mm)	BGT Filter Model		
	13	15	17
C	18.0 (457)	27.0 (686)	48.0 (1219)
L	16.75 (425)	25.20 (640)	47.25 (1200)
D	9.49/9.47 (241/240.5)		
E	10.25/9.70 (260/246)		

BGT Series

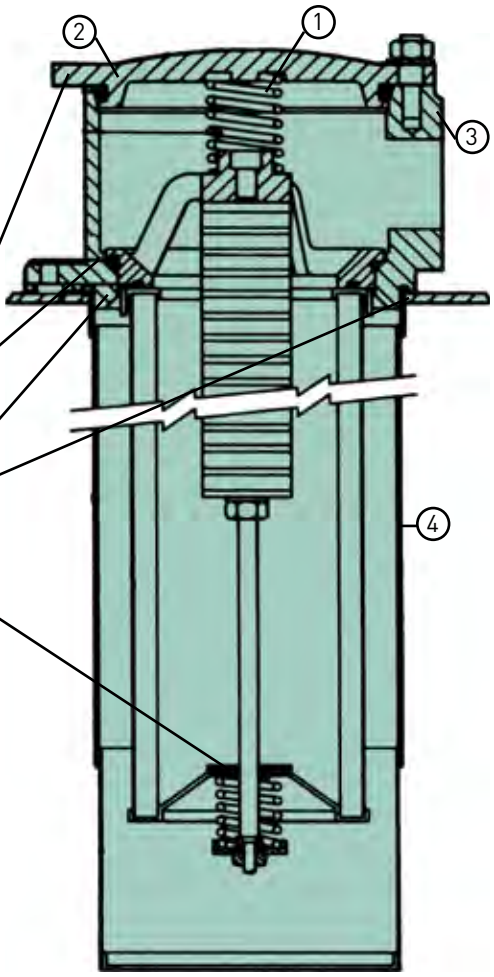
Parts List

Parts Breakdown BGT Series

Bypass Assembly	
13, 15 or 17	Pressure
6903184	Blocked
4903020	4.5 PSID
4903004	12 PSID
4903008	22 PSID

Seals	
BGT 13, 15 or 17	Description
R-8875	Cover O-ring
SOR-90	Insert O-ring
SOR-85	Bypass Seals
R9875	Tank Gasket
SOR-115	Element O-Ring
Nitrile or Fluorocarbon	Material*

*Please specify seal material suffix when ordering; Fluorocarbon seals: "-V"



Item	Description	Material	BGT-13	BGT-15	BGT-17
1	Top Spring	Steel	48371205		
2	Cover	Die Cast Aluminum	84.22.064.06 (5842206)		
3	Head	Die Cast Aluminum	5841032		
4	Diffusor	Steel	2110084	2110085	21100086

BGT11 (old BGTS390) Replacement Elements

Part Number	Description	Price
937832Q	Element Leif® IN-11-02QL	194.00
937843Q	Element Leif® IN-11-05QL	189.20
937858Q	Element Leif® IN-11-10QL	153.40
937869Q	Element Leif® IN-11-20QL	148.40

BGT12 (old BGTS500) Replacement Elements

Part Number	Description	Price
937833Q	Element Leif® IN-12-02QL	212.20
937842Q	Element Leif® IN-12-05QL	206.80
937859Q	Element Leif® IN-12-10QL	179.10
937868Q	Element Leif® IN-12-20QL	178.30

BGT15 (old BGTS1000) Replacement Elements

Part Number	Description	Price
937836Q	Element Leif® IN-15-02QL	570.70
937839Q	Element Leif® IN-15-05QL	557.50
937862Q	Element Leif® IN-15-10QL	475.80
937865Q	Element Leif® IN-15-20QL	439.70

BGT13 (old BGTS600) Replacement Elements

Part Number	Description	Price
937834Q	Element Leif® IN-13-02QL	407.30
937841Q	Element Leif® IN-13-05QL	397.80
937860Q	Element Leif® IN-13-10QL	329.90
937867Q	Element Leif® IN-13-20QL	302.30

BGT17 (old BGTS2000) Replacement Elements

Part Number	Description	Price
937736Q	Element IN-17-02Q-B	1263.80
937769Q	Element IN-17-05Q-B	1203.30
937772Q	Element IN-17-10Q-B	986.10
937805Q	Element IN-17-20Q-B	888.00

BGT Series

Operating And Maintenance Instructions Parker Model BGT Tank Top Filters

A. Mounting

1. Standard mounting.
   a. Cut proper size hole in the top of the reservoir.
   b. Drill holes for studs within the proper bolt circle.
   c. Set the filter into the cutout hole and secure with proper size bolts, nuts and lock washers.
2. Utilize proper fittings.

B. Start-Up

1. Check for and eliminate leaks upon system start-up.
2. Check differential pressure indicator, if installed, to monitor element condition.

C. Service

1. An element must be serviced when the indicator indicates service is required.

NOTE: If the filter is not equipped with an indicator, the element should be serviced according to machine manufacturer's instructions.

D. Servicing Dirty Elements

1. Shut system down to assure that there is NO PRESSURE OR FLOW into the filter housing.
2. Remove the filter cover.
3. Remove the filter insert (bridge which holds the element in place).
4. Remove the bypass spring assembly or non-bypass plate from the stud.
5. Remove the contaminated cartridge with a twisting motion.
6. a. Discard the disposable element cartridge.

   b. Wash cleanable or mesh elements in a non-caustic solvent. Compressed air can be used to facilitate cleaning. Use care to prevent damage to the element during cleaning.

NOTE: Elements finer than 150 microns (100 mesh) may require special ultrasonic cleaning. Consult factory for recommendations.

E. Before Installing A New Element Cartridge

1. Clean the magnetic core with a lint-free cloth.
2. Check all seals and replace if necessary.

F. To Install A New Or Cleaned Element Cartridge

1. Lubricate all seals.
2. Mount new or cleaned Parker filter cartridge.

NOTE: For ease of mounting, hold the cartridge away from the magnetic core until the stud is through the hole in the bottom of the element. Then slide it up to securely seat it to the top of the bridge.

3. Install the bypass spring assembly or non-bypass plate, and tighten until snug.

NOTE: Older versions may have a cotter pin/castellated nut retained bypass spring. In these cases, the nut should be turned down the shaft until the cross drilled hole is visible in the base of a castellation and the cotter pin inserted and ends flared to lock the bypass assembly in place.

4. Re-install the insert into the filter housing, making sure that the top- spring is secure.
5. Re-install the cover. Torque the cover nuts to 22 ft./lbs.

Follow procedures B.1 and B.2.

BGT Series

How to Order

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
BGT	13	10QL	B	V	E	F48	1

BOX 1: Basic Asembly Symbol	Description
BGT	**Return Filter**

BOX 2: Housing Length Symbol	Description
11	**3-390 Return Filter (105 gpm)**
12	**3-500 Return Filter (135 gpm)**
13	**4-600 Return Filter (160 gpm)**
15	**4-1000 Return Filter (265 gpm)**
17	**4-2000 Return Filter (530 gpm)**

BOX 3: Element Media Symbol	Description
	BGT11, 3-390 L/min
02QL	Leif® Microglass III Element
05QL	Leif® Microglass III Element
10QL	Leif® Microglass III Element
20QL	Leif® Microglass III Element
	BGT12, 3-500 L/min
02QL	Leif® Microglass III Element
05QL	Leif® Microglass III Element
10QL	Leif® Microglass III Element
20QL	Leif® Microglass III Element
	BGT13, 4-600 L/min
02QL	Leif® Microglass III Element
05QL	Leif® Microglass III Element
10QL	Leif® Microglass III Element
20QL	Leif® Microglass III Element
	BGT15, 4-1000 L/min
02QL	Leif® Microglass III Element
05QL	Leif® Microglass III Element
10QL	Leif® Microglass III Element
20QL	Leif® Microglass III Element
	BGT17, 4-2000 L/min
02Q	Microglass III Element
05Q	Microglass III Element
10Q	Microglass III Element
20Q	Microglass III Element

BOX 4: Seals Symbol	Description
B	**Nitrile**

BOX 5: Indicator Symbol	Description
P	**Plugged Indicator Port**
G	Pressure Gauge (BGT 11/12 only)
S	Pressure Switch (BGT 11/12 only)
V	Visual Differential Indicator (BGT 13/15 only)
E	Electrical Differential Indicator (BGT 13/15 only)

BOX 6: Bypass Symbol	Description
E	**22 PSID Bypass (1,5 bar)**

BOX 7: Ports Symbol	Description
F32	**2" SAE Flange, Code 61** (BGT 11/12 only)
F48	**3" SAE Flange, Code 61** (BGT 13/15 only)

BOX 8: Options Symbol	Description
1	**No Options**
TP	**Weld Plate** (BGT 11/12 only)

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

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

Oil Conditioning Unit

ENGINEERING YOUR SUCCESS.

Oil Conditioning Unit

Applications

The Parker Oil Conditioning Units (OCU) are a family of off-line filtration packages designed to effectively remove water or particulate contamination from hydraulic and lube system fluids. The high performance, high capacity design enables the efficient removal of the very fine contaminants that cause premature wear in expensive hydraulic components. In addition, the precursors to varnish are also reduced or eliminated completely.

The compact, user-friendly OCUs are a cost effective method to reduce system contamination while helping to insure the reliability of your hydraulic or lube system.

- **Aviation**
  - ground support equipment
  - simulators
- **Power Generation**
  - steam and gas turbine hydraulic and lubrication
- **Automotive**
  - presses
  - stamping equipment
- **Steel Mills**
  - rolling mills
  - continuous casters
  - sheet mills
- **Injection Molding**
  - hydraulic circuits
- **Railway**
  - car assembly
  - wheel presses
- **Pulp & Paper**
  - machine lubrication
- **Construction**
  - timber harvesting
  - aerial lifts
  - excavators
- **Wind Power**
  - turbine generators
  - gear boxes
- **Oil & Gas**
  - hydraulic equipment

Plastic used in injection molding process

Oil Conditioning Unit

Technology

A card sleeve compresses the lower part of the element to increase the density and a non-woven cloth protects the base and stops particle migration.

The filter design allows the oil to flow under pressure through 114mm of engineered media with three distinct stages of filtration and water absorption.

The largest particles are retained in the top of the element (1), making for an excellent diagnostic tool. Smaller particles are trapped in the mid stage (2), and the smallest particles are trapped in the lower and most compressed part of the element (3).

The cellulose media allows water absorption of up to 200 milliliters within the filter, reducing the water concentration in oil to less than 100 parts per million.

Equally noteworthy is the efficiency of the media in removing resins, metals and oxidation products, all of which are extremely damaging to close-tolerance components.

Manufactured from a specifically engineered cellulose material wound onto a central core, the OCU combines filtration principles to achieve effective filtration – low flow, low pressure and depth loading axial filtration – flow direction from the top to the bottom.

Oil Conditioning Unit

Features and Benefits

- Solid Particle Filtration
- Water Absorption
- Sludge, Resin, and Oxidation Absorption

The Parker OCU Benefit

- Removing up to 99% of all Solid Contaminates
- Reducing the Water Concentration to Less than 100 ppm
- Eliminating Resins and Oxidation Products
- Longer Life for Hydraulic Components
- Significant Reduction of Oil Consumption and Oil Disposal Cost
- Low Cost Full Flow Filter Cartridges
- Reduce Equipment Downtime
- Reduce Operating Cost
- Increase Profit

Oil Conditioning Unit

Features and Benefits

Tool-less access and easy service via the T-handle.

The combination of chemically treated cellulose and synthetic layers of media presents a massive surface area to remove solid contamination and emulsified water. The result is both exceptional dirt holding capacity and removal of water concentration to less than 100 ppm.

The engineered base design at the bottom of the housing supports the element under high pressure and provides a channeled migration path for clean fluid to flow back into the primary stream.

The Oil Conditioning Unit is designed as a top load filter, but can be mounted at any angle using the heavy-duty mounting bracket.

The intricately channeled base provides a large footprint to fully support the element under pressure, ensuring uniform loading of the element. Ultra-clean oil flows through the channels into the clean oil stream.

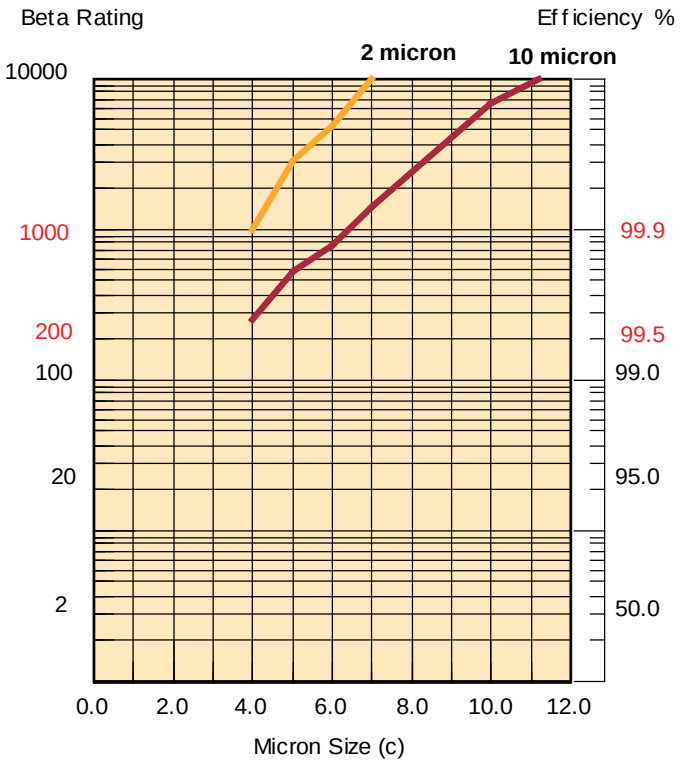
OC1 and OC2

Element Performance

Model OC1			
Media Grade	**Part Number**		
		Capacity @ 25 PSID (1.7 Bar)	Capacity @ 50 PSID (3.5 Bar)
2 Micron	942650	16.2 grams	23.3 grams
10 Micron	942652	28 grams	44.3 grams

Model OC2			
Media Grade	**Part Number**		
		Capacity @ 25 PSID (1.7 Bar)	Capacity @ 50 PSID (3.5 Bar)
2 Micron	942654	22 grams	45.8 grams
10 Micron	942656	36.5 grams	61.6 grams

Efficiency



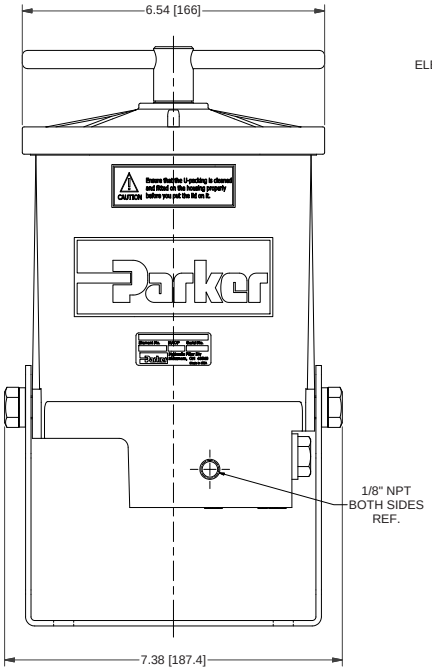
Results typical from Multi-pass tests run per modified test standard ISO 16889 to 50 psid terminal - 100 mg/L BUGL ISO Medium Test Dust was used per the standard - User results will vary based on system particle distribution.

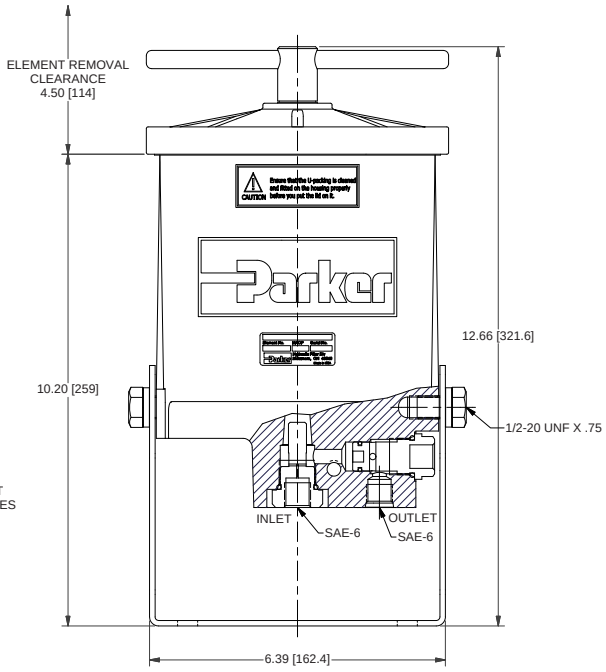
Dirt Holding Capacity results will typically improve with soft or submicron size particles due to reduced surface caking.

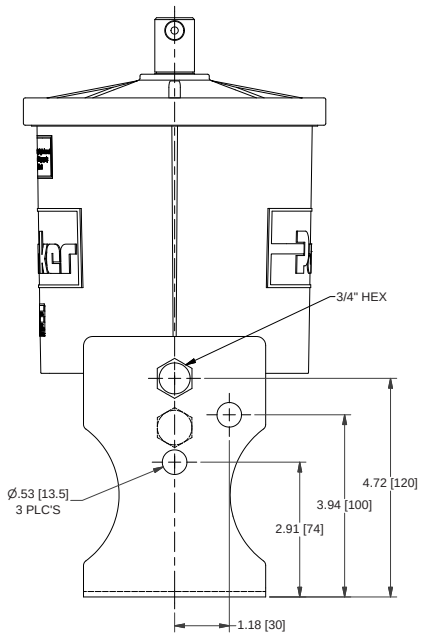
OC1 without Pump/Motor

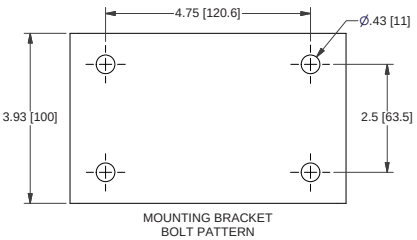
Specifications

Specifications	OC1
Maximum Pressure	116 PSI (8 bar)
Port Size (inlet/outlet)	SAE 6/SAE 6
Dimensions	W6.38 x D6.54 x H12.48 in. (W162 x D166 x H317 mm)
Weight	10 lbs (4.5 kg)
Flow Rate	0.4 GPM (1.5 L/min.)







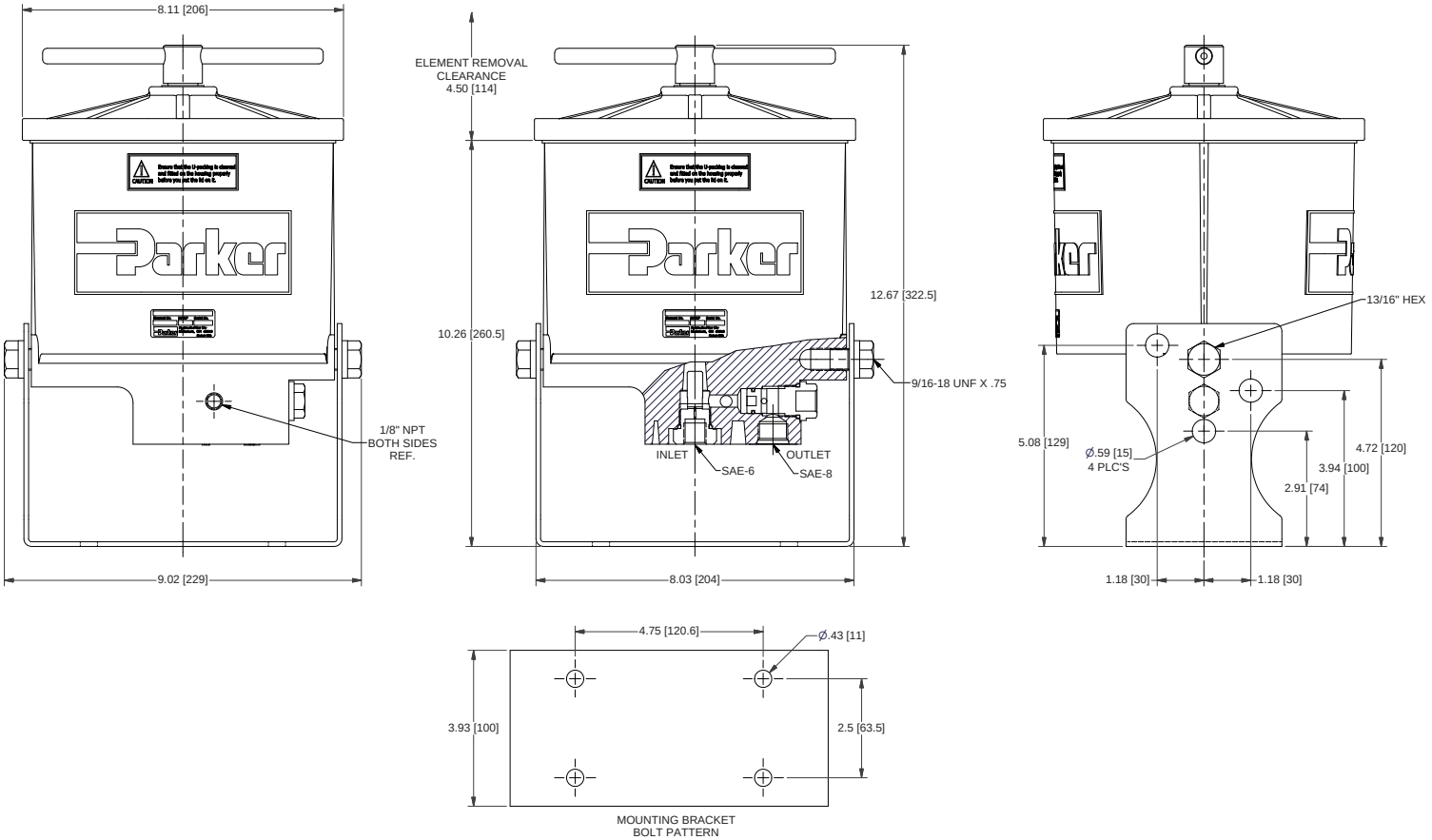


Drawings are for reference only.
Contact factory for current version.

OC2 without Pump/Motor

Specifications

Specifications	OC2
Maximum Pressure	116 PSI (8 bar)
Port Size (inlet/outlet)	SAE 6/SAE 8
Dimensions	W8.03 x D8.11 x H12.64 in. (W204 x D206 x H321 mm)
Weight	15 lbs (6.8 kg)
Flow Rate	0.5 GPM (2 L/min.)

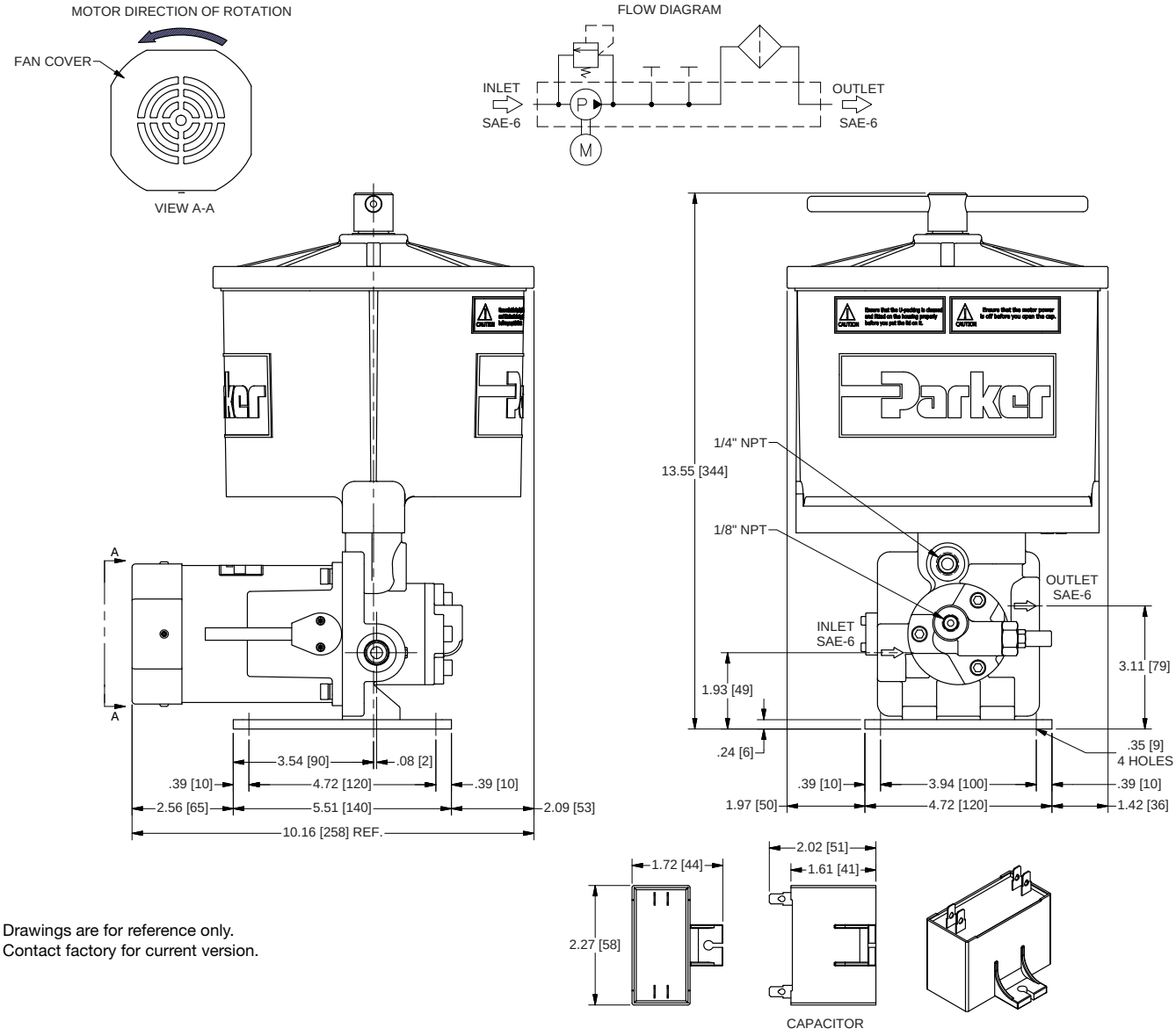


Drawings are for reference only.
Contact factory for current version.

OC2 with Pump/Motor

Specifications

Specifications	OC2
Maximum Pressure	116 PSI (8 bar)
Port Size (inlet/outlet)	SAE 6/SAE 6
Dimensions	W8.03 x D8.11 x H12.64 in. (W204 x D206 x H321 mm)
Weight	15 lbs (6.8 kg)
Flow Rate	0.5 GPM (2 L/min.)
Voltage	110VAC or 220VAC



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

Oil Conditioning Unit

Parts List

Replacement Parts List	
942673	Seal Service Kit (for OC1)
942683	Seal Service Kit (for OC2)

Replacement Elements	
OC1	
942650	2 micron (green)
942652	10 micron (orange)
OC2	
942654	2 micron filter (green)
942656	10 micron filter (orange)
942682	Water Removal

Oil Conditioning Unit

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
OC2	110	10	V	P	L	S06	1

BOX 1: Filter Series[1]

Symbol	Description
OC1	0.4 GPM (1.5 L/min.)
OC2	0.5 GPM (2.0 L/min.)[1]

BOX 2: Filter Model[1,2]

Symbol	Description
110	110VAC/1Ph/60Hz Pump/Motor[2]
220	220VAC/1Ph/50/60Hz Pump/Motor[2]
X	No Pump/Motor[1]

BOX 3: Media Code[3]

Symbol	Description
2	2 micron
10	10 micron
WR	Water Removal[3]

BOX 4: Seals

Symbol	Description
V	Fluorocarbon (FKM)

BOX 5: Indicator

Symbol	Description
P	Indicator Port Plugged
G	Pressure Gauge
S	Pressure Switch

BOX 6: Bypass

Symbol	Pressure Setting
L	65 psid (4.5 bar) relief

BOX 7: Ports[4]

Symbol	Description
S06	SAE-6 Inlet/Outlet Ports
S08	SAE-6 Inlet Port/SAE-8 Outlet Port[4]

BOX 8: Options

Symbol	Description
1	**None**

Notes:

1. When selection from Box 1 is “OC2”, and selection from Box 2 is “X”, “S08” ***must*** be selected for Box 7.
2. “110” and “220” are available ***only*** when “OC2” is selected in Box 1.
3. “WR” available for OC2 ***only***.
4. “S08” is ***only*** used when “OC2” is selected in Box 1 and “X” is selected in Box 2.