



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



BGT Series

Low Pressure Filters



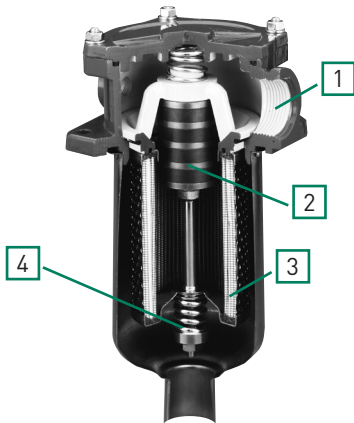
ENGINEERING YOUR SUCCESS.

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)

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 diffuser 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

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)

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	600	Size Code 1000	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:

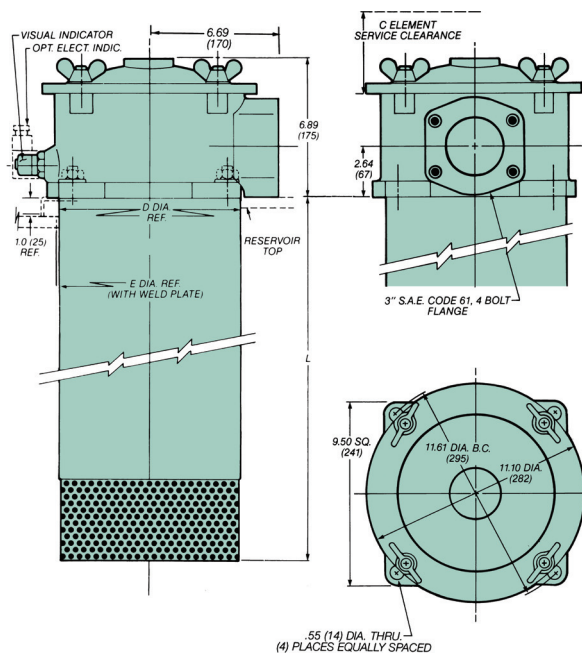
$$160 \text{ GPM} \times .022 \times (160 \text{ SSU}/140 \text{ SSU}) = 4.0 \text{ PSID}$$

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)		

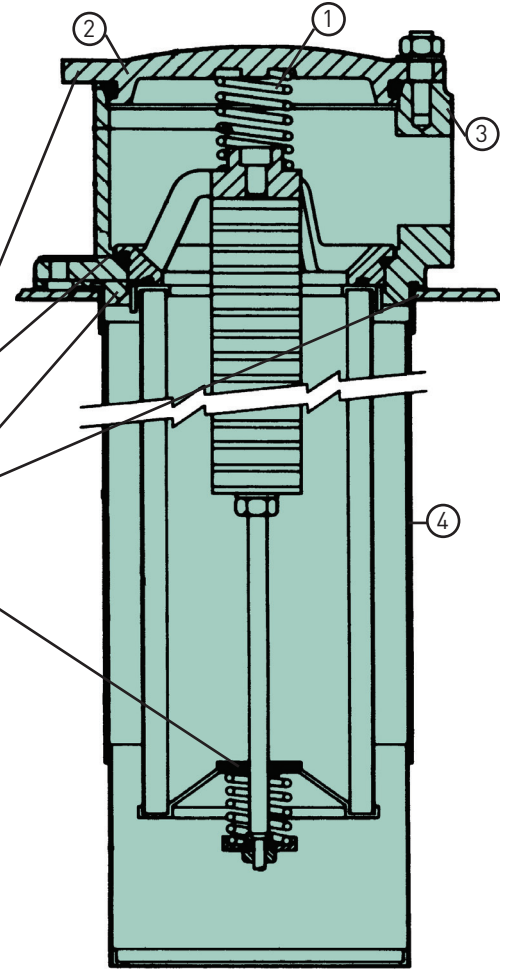
BGT Series

Parts List

Parts Breakdown BGT Series

Bypass Assembly		Seals	
13, 15 or 17	Pressure	BGT 13, 15 or 17	Description
6903184	Blocked	R-8875	Cover O-ring
4903020	4.5 PSID	SOR-90	Insert O-ring
4903004	12 PSID	SOR-85	Bypass Seals
4903008	22 PSID	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	2110086

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 Assembly	
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
	<u>BGT11, 3-390 L/min</u>
02QL	Leif® Microglass III Element
05QL	Leif® Microglass III Element
10QL	Leif® Microglass III Element
20QL	Leif® Microglass III Element
	<u>BGT12, 3-500 L/min</u>
02QL	Leif® Microglass III Element
05QL	Leif® Microglass III Element
10QL	Leif® Microglass III Element
20QL	Leif® Microglass III Element
	<u>BGT13, 4-600 L/min</u>
02QL	Leif® Microglass III Element
05QL	Leif® Microglass III Element
10QL	Leif® Microglass III Element
20QL	Leif® Microglass III Element
	<u>BGT15, 4-1000 L/min</u>
02QL	Leif® Microglass III Element
05QL	Leif® Microglass III Element
10QL	Leif® Microglass III Element
20QL	Leif® Microglass III Element
	<u>BGT17, 4-2000 L/min</u>
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.

