



BGT Series

Low Pressure Filters



ENGINEERING YOUR SUCCESS.

BGT Series

Applications and Features

- Mobile Equipment
- Construction, Refuse
- Machine Tool
- Oil Field
- Flows to 640 GPM
- 3 Micron 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

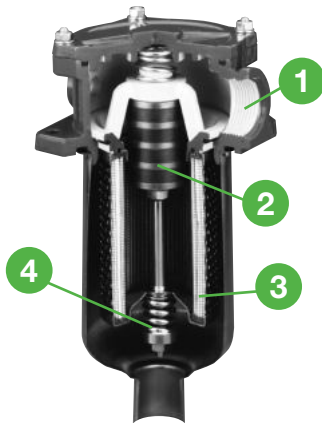
Pressure Rating:

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	600	Size Code 1000	2000
02QL	.082	.0493	.0246
05QL	.031	.0187	.0091
10QL	.022	.0129	.0066
20QL	.014	.0088	.0044

Example:

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

Formula:

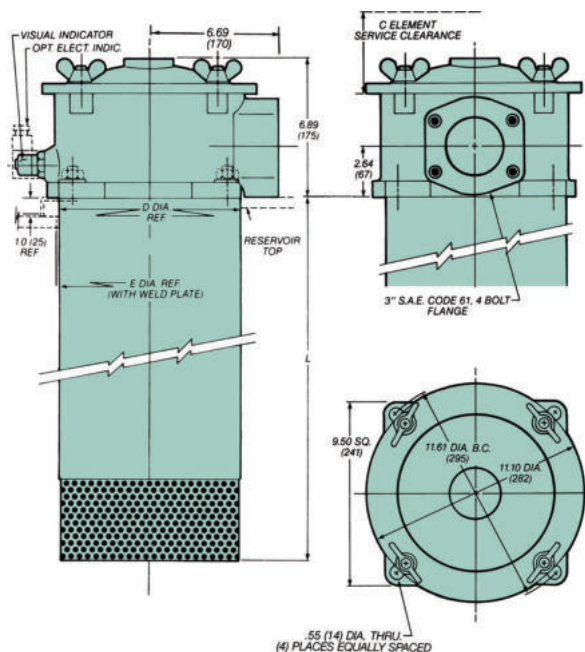
$160 \text{ GPM} \times .022 \times (160 \text{ SSU}/140 \text{ SSU}) = 4.0 \text{ PSID}$

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	3	≥100	800	2000	>5000	∞	∞	∞
Microglass	6	8	≥100	1000	2000	>5000	∞	∞
Microglass	10	6	22	≥100	≥200	>5000	∞	∞
Microglass	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

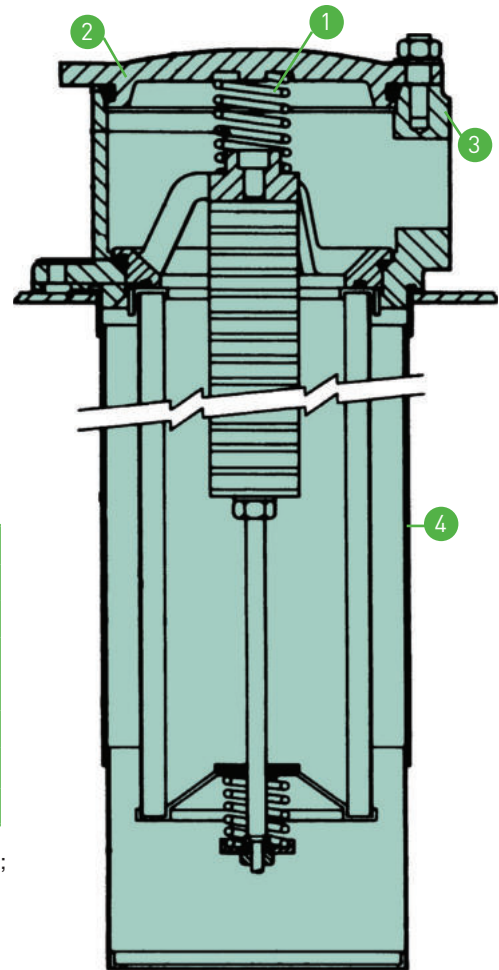
Parts List

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

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
R-8975	Tank Gasket
SOR-115	Element O-Ring
Nitrile or Fluorocarbon	Material*

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



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.
4. 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.
 - 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

Low pressure 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
BGT	13	10QL	B	V	E	F48	1

BOX 1: Filter Series	
Symbol	Description
BGT	Return Filter

BOX 2: Filter Series	
Symbol	Description
13	600 lpm (160 gpm)
15	1000 lpm (265 gpm)
17	2000 lpm (530 gpm)

BOX 3: Media Code	
Symbol	Description
BGT13/BGT15	
02QL	Leif® Microglass
05QL	Leif® Microglass
10QL	Leif® Microglass
20QL	Leif® Microglass
BGT17	
02QL	Microglass
05QL	Microglass
10QL	Microglass
20QL	Microglass

BOX 4: SEALS	
Symbol	Description
B	Nitrile

BOX 5: Indicator	
Symbol	Description
P	Plugged Port
V	Visual Differential Indicator
E	Electrical Differential Indicator

BOX 6: Bypass	
Symbol	Description
E	22 psid (1.5 bar)

BOX 7: Ports	
Symbol	Description
F48	3" SAE Flange, Code 61

Please note the bolded options reflect standard options with a reduced lead time.

Replacement Elements

BGT13 (old BGTS600)

Part Number	Description
937834Q	Element Leif® IN-13-02QL
937841Q	Element Leif® IN-13-05QL
937860Q	Element Leif® IN-13-10QL
937867Q	Element Leif® IN-13-20QL

BGT17 (old BGTS2000)

Part Number	Description
937736Q	Element IN-17-02Q-B
937769Q	Element IN-17-05Q-B
937772Q	Element IN-17-10Q-B
937805Q	Element IN-17-20Q-B

BGT15 (old BGTS1000)

Part Number	Description
937836Q	Element Leif® IN-15-02QL
937839Q	Element Leif® IN-15-05QL
937862Q	Element Leif® IN-15-10QL
937865Q	Element Leif® IN-15-20QL