

# Junior B series Filter Housings

## Small-scale Stainless Steel Housings for High-flow Gas or Liquid Filtration



Above: BLS7001G23J



To meet the increasing demand for small-scale filters for laboratory use and process development, Pall has developed the Junior B series housings. These are some of the smallest stainless steel housings on the market, yet they can achieve very high-flow rates using specially developed Pall SBF-style pleated cartridges. For small-scale filtration this Junior range is less cumbersome than larger housings or difficult-to-use disc holders. All styles are suitable for in situ steam-sterilization in sterile processes.

### Applications

- Small batches of biological and biochemical fluids
- Filtration of compressed gases
- A variety of processes requiring filtration of small flows of liquids or gases
- Sterile air for small and medium fermentation systems
- Sterile venting of small tanks and vessels

### Features and Benefits

- Minimal size and weight makes these filter housings ideal for bench-top use, or for installing into processing equipment, for both gas and liquid filtration up to 10 bar (145 psi) operating pressure
- The electropolished crevice-free surfaces give maximum cleanliness for sterile processes. In situ steam-sterilization and steam autoclaving up to 140 °C (284 °F) can be employed
- Housings are made of 316L stainless steel, and are therefore resistant to a wide variety of chemicals
- Maximizes product recovery, particularly important when filtering small-batch or high value products.
- Plug-in double O-ring cartridges in a selection of Pall filtration media are available to give maximum filtration quality, economy and performance for individual applications
- Available in T-flow or inline styles with butt weld or sanitary inlet and outlet connections

# Junior B series Filter Housings

## Technical Specifications

### Materials of Construction

<b>Housing</b>	316L stainless steel except the closure ring which is 431 stainless steel
<b>Seal Material</b>	Ethylene Propylene
<b>Vessel Closure</b>	Closure ring
<b>Surface Finish</b>	Electro-polishing
<b>Inlet and Outlet Connection Options</b>	a) 1 in. Sanitary flange b) 15 mm Butt weld
<b>Vent Connection</b>	<b>BTS Housing:</b> Male Stäubli*
<b>Drain Connection</b>	<b>BTS Housing:</b> Hose barb  <b>BLS Housing:</b> Hose barb
<b>Design Code</b>	Designed and manufactured to Pall industrial standards which includes: a) A minimum design capability of 5 x maximum operating pressure b) Hydrostatically testing each unit to at least 1.5 x maximum operating pressure

\* Stäubli is a registered trademark of Stäubli AG.

### Operating Conditions

<b>Maximum Operating Pressure</b>	-1 <sup>(1)</sup> to 10 barg (-14.5 <sup>(1)</sup> to 150 psig)
<b>Maximum Operating and Steaming Temperature</b>	140 °C (284 °F)

<sup>(1)</sup> Full vacuum.

**Use with Steam:** This housing may be steam-sterilized and used for steam filtration up to a temperature of 140 °C (284 °F). Operating limits for steam service may be influenced by filter cartridge specifications. Refer to appropriate literature for Pall filter cartridges.

### Pressure Drop

The water flow and pressure drop characteristics refer to the empty housing only for water flow at 20 °C (68 °F). For other liquids multiply pressure drop by the relative density. The air flow and pressure drop characteristics refer to the empty housing only for air flow at 20 °C (68 °F). Flow rates relate to air (in Nm<sup>3</sup>/hour/scfm) at 2 bar gauge (3 bar (43.5 psi) absolute). Pressure drops for other pressures may be obtained by multiplying the figure taken from the bar gauge graph with the factor shown in the following table:

<b>Working Pressure (Barg)<sup>(2)</sup></b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Factor to Apply</b>	1.50	1.00	0.75	0.60	0.50
<b>Working Pressure (Barg)</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>Factor to Apply</b>	0.42	0.37	0.33	0.30	0.2

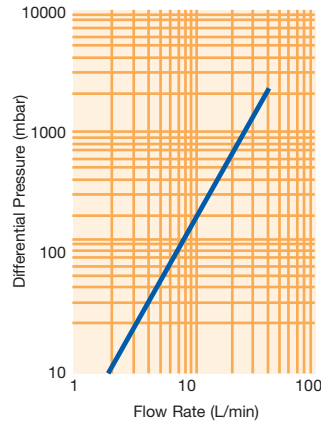
To obtain the total pressure drop of a complete filter assembly, the cartridge pressure drop must be added. Please refer to the relevant filter cartridge literature or contact Pall.  
<sup>(2)</sup> 1 bar = 14.5 psi.

### Ordering Information

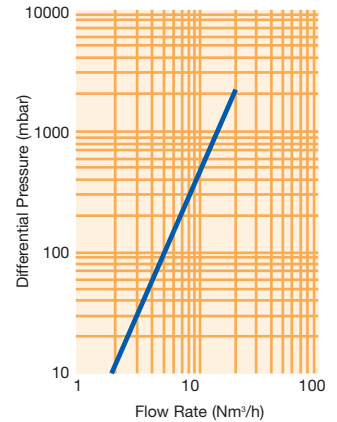
B		S7001G	J
<b>Code</b>	<b>Housing Type</b>	<b>Code</b>	<b>Inlet and Outlet</b>
L	In-Line	22	15 mm Butt weld
T	T-flow	23	1 in. sanitary flange

Housings use Pall SBF1 style filter cartridges, and are supplied without cartridges

### Typical Liquid Flow Rates for BLS/BTS 7001 Housing\*



### Typical Air Flow Rates for BLS/BTS 7001 Housings\*



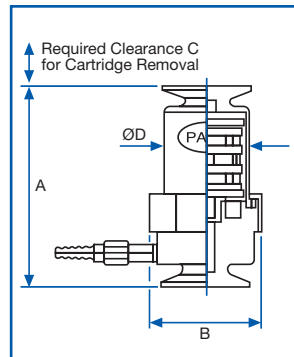
\* 1 bar = 14.5 psi, 1 Nm<sup>3</sup>/h = 0.59 scfm

### Nominal Dimensions

	BLS7001G23J	BLS7001G22J	BTS7001G23J
<b>Dimension A</b>	121 mm (4.76 in.)	218 mm (8.6 in.)	218 mm (8.6 in.)
<b>Dimension B</b>	64 mm (2.52 in.)	64 mm (2.52 in.)	64 mm (2.52 in.)
<b>Dimension C</b>	75 mm (2.95 in.)	75 mm (2.95 in.)	75 mm (2.95 in.)
<b>Dimension D</b>	49 mm (1.93 in.)	49 mm (1.93 in.)	49 mm (1.93 in.)
<b>Dimension E</b>	-	66 mm (2.60 in.)	66 mm (2.60 in.)
<b>Weight</b>	1.3 kg (2.87 lbs)	1.3 kg (2.87 lbs)	1.3 kg (2.87 lbs)
<b>Volume</b>	0.1 L	0.1 L	0.1 L

<sup>(2)</sup> Length across.

### BLS 7001 Housing



### BTS 7001 Housing

