

## Specifications

For other materials or modifications, please consult TESCO. M.

### OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

#### Maximum Inlet Pressure

6000 psig / 414 bar

#### Outlet Pressure Ranges

**Low Pressure:** 0-220 psig / 0-15.2 bar

**High Pressure:** 0-1800 psig / 0-124 bar

#### Design Proof Pressure

150% maximum rated

#### Leakage

Bubble-tight

#### Operating Temperature

Operating temperature depends on soft goods materials.  
See table below.

#### Flow Capacity

$C_v = 0.06$



### MEDIA CONTACT MATERIALS

#### Body

Aluminum 6061 (Nickel-plated)

#### Seat

PCTFE, PEEK, or Polyimide (Vespel®)

#### O-Rings

See Part Number Selector

#### Remaining Parts

300 Series Stainless Steel or Aluminum

### OTHER

#### Connections

1/4" NPTF or SAE

#### Cleaning

CGA 4.1 and ASTM G93

#### Weight (approximate)

0.5 lbs / 0.2 kg

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TESCOM BB-1 Series high pressure, low flow, miniature pressure reducing regulator provides six outlet pressure ranges available up to 1800 psig / 124 bar outlet. This non-venting regulator is small and compact, weighing approximately 0.5 lbs / 0.2 kg in the standard aluminum construction.

## Applications

- Portable equipment
- OEM equipment

## Features and Benefits

- Durable piston-sensed design
- Outlet pressure ranges are field adjustable
- Two and four 1/4" NPTF or SAE ports are standard
- Minimal soft goods
- Non-venting
- Two-stage and cartridge versions are available
- 316 Stainless Steel construction is available

#### O-RING SEAL

#### OPERATING TEMPERATURE

90 DURO BUNA	-30 °F TO +165 °F / -34 °C TO +74 °C
ETHYLENE PROPYLENE	-30 °F TO +300 °F / -34 °C TO +149 °C
BUNA-N	-30 °F TO +165 °F / -34 °C TO +74 °C
POLYURETHANE	-30 °F TO +250 °F / -34 °C TO +121 °C
FKM	-15 °F TO +400 °F / -26 °C TO +204 °C
KALREZ	+20 °F TO +400 °F / -7 °C TO +204 °C

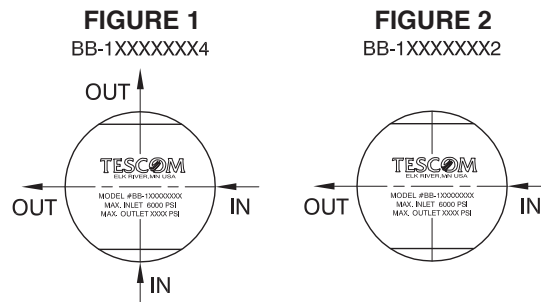
#### SEAT

#### OPERATING TEMPERATURE

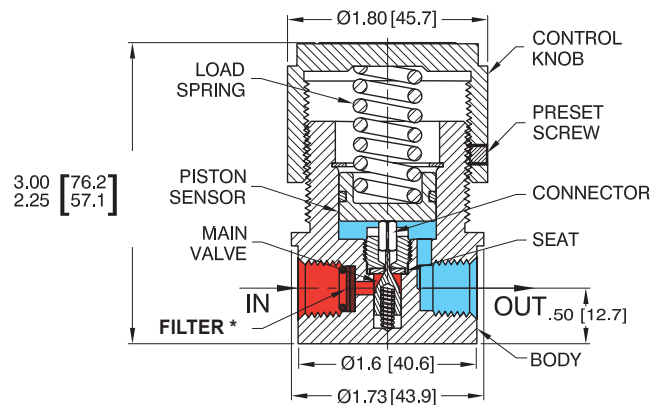
PCTFE	-30 °F TO +140 °F / -34 °C TO +60 °C
VESPEL	-30 °F TO +400 °F / -34 °C TO +204 °C
PEEK	-30 °F TO +350 °F / -34 °C TO +177 °C

# BB-1 SERIES

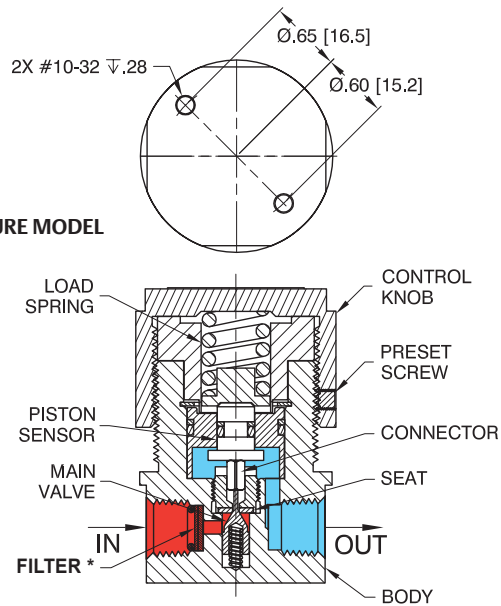
## BB-1 Series Regulator Drawings



**LOW PRESSURE MODEL**



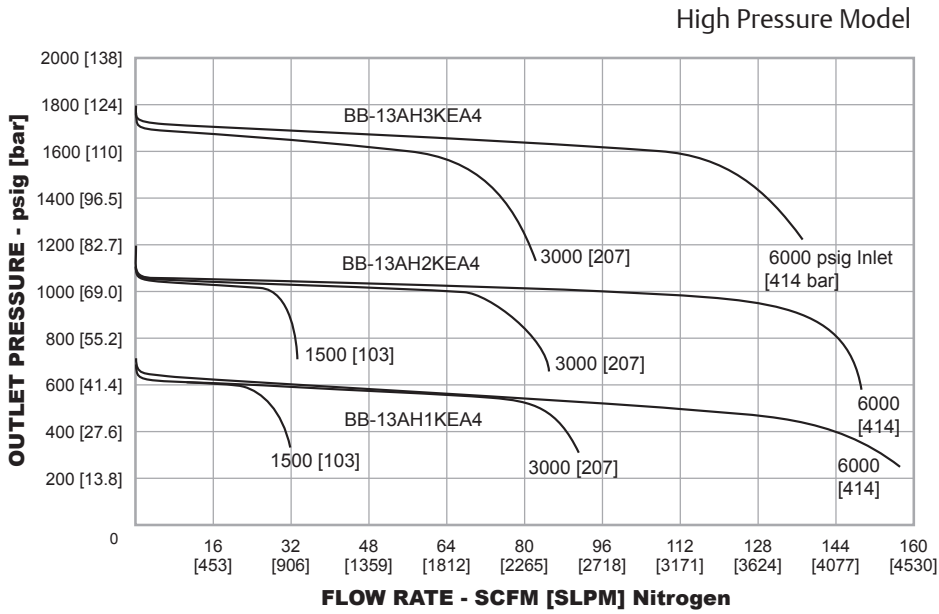
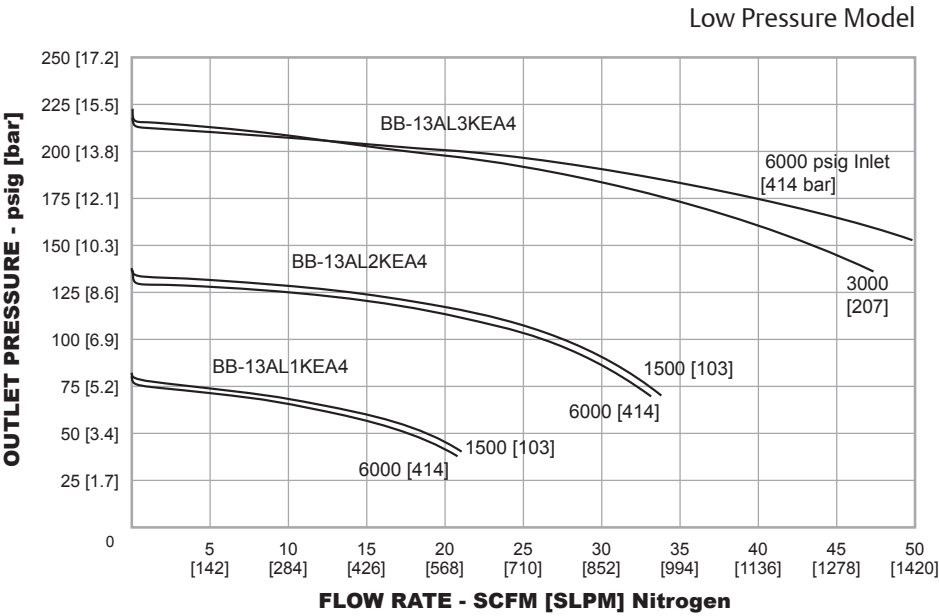
**HIGH PRESSURE MODEL**



\* Filter is only available for 1/4" NPTF

All dimensions are reference & nominal  
Metric [millimeter] equivalents are in brackets

BB-1 Series Regulator Flow Charts



## BB-1 SERIES

### BB-1 Series Regulator Part Number Selector



**Learn more about common options.**

For modifications, repair kits and accessories, contact factory.

Example for selecting a part number:

BB	1	3	A	L3		K	E	A4
-								
BASIC SERIES	FUNCTION	BODY MATERIAL	LOAD TYPE	OUTLET PRESSURE		SEAT	O-RING SEAL	PORTING CONFIGURATION NUMBER OF PORTS
				ADJUSTABLE	PRESET			
BB	1 - Pressure Reducing	3 - Aluminum 6061	A – Adjustable P – Preset	L1 – 0-80 psig 0-5.5 bar	0-80 psig 0-5.5 bar	K – PCTFE	B – Nitrile, Buna-N 90 Durometer	A4 – 1/4" NPTF 4 (Figure 1)
				L2 – 0-140 psig 0-9.7 bar	80-140 psig 5.5-9.7 bar	P – PEEK	E – Ethylene Propylene	B4 – 1/4" SAE 4 (Figure 1)
				L3 – 0-220 psig 0-15.2 bar	140-220 psig 9.7-15.2 bar	V – Polyimide (Vespel®)	K – FFKM, Perfluoroelastomer (Kalrez®)	A2 – 1/4" NPTF 2 (Figure 2)
				H1 – 0-700 psig 0-48.3 bar	220-700 psig 15.2-48.3 bar		N – Nitrile, Buna-N	B2 – 1/4" SAE 2 (Figure 2)
				H2 – 0-1200 psig 0-82.7 bar	700-1200 psig 48.3-82.7 bar		U – Polyurethane	
				H3 – 0-1800 psig 0-124 bar	1200-1800 psig 82.7-124 bar		V – FKM (Viton®-A)	