

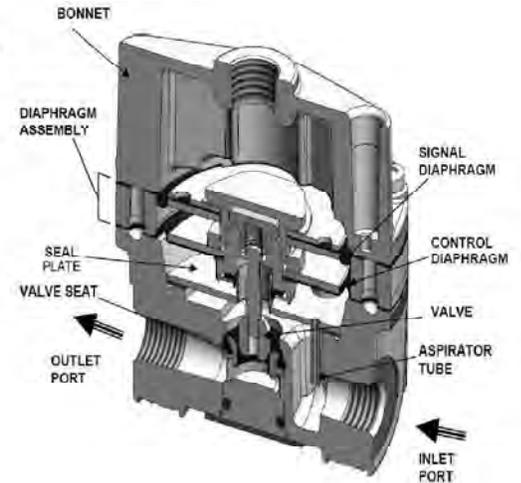
# Model 20BP Pneumatic Precision Back Pressure Booster



**C**  
Model  
20BP

## Features

- The Model 20BP Pneumatic High Capacity Back Pressure Booster uses a pneumatic input signal to accurately control output pressure
- Aspirator Tube compensates pressure droop under flowing conditions
- A separate Control Chamber isolates the diaphragm from the main flow to eliminate hunting and buzzing
- Unit construction allows servicing without removal
- Mounting Bracket available

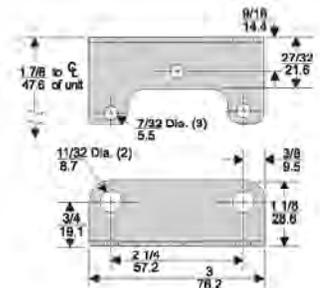


## Operating Principles

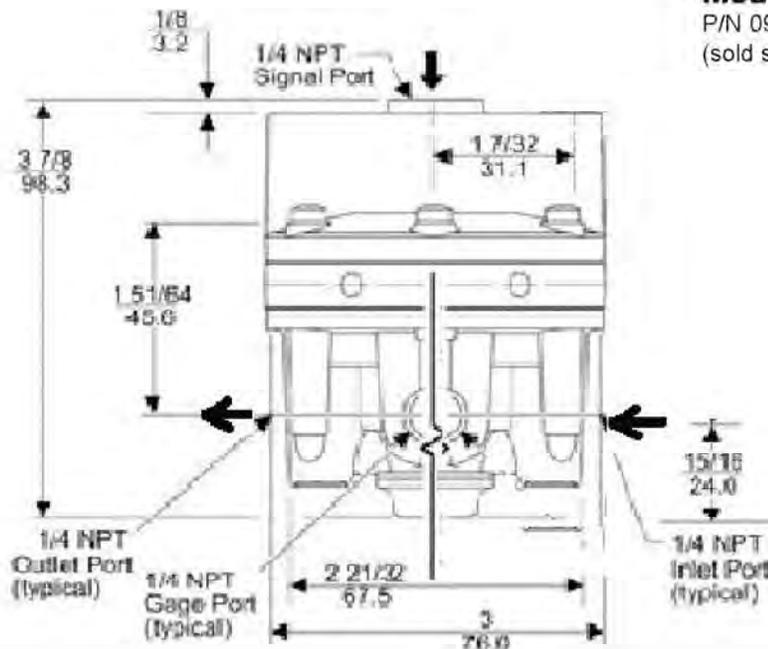
The Model 20BP Back Pressure Booster is a pneumatic device capable of high flow capacity. This device uses a force balance system to open the relief valve and vent system pressure when the set point is exceeded.

When system pressure increase, the force on the bottom of the Diaphragm Assembly increase until it reaches the set point. When system pressure increases beyond the set point, the assembly moves upward, lifting the Relief Valve from its seat and vents the system air.

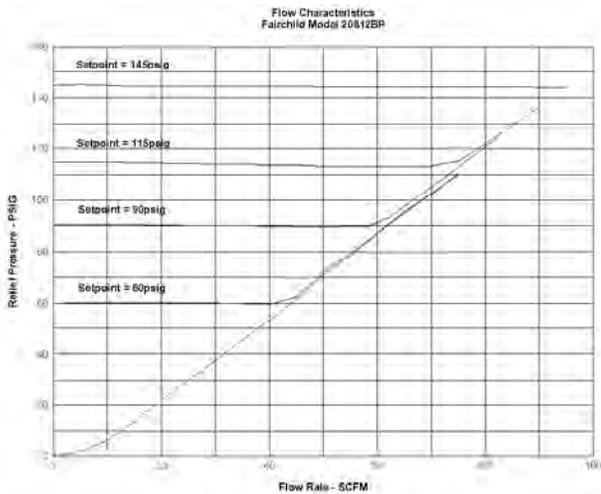
If system pressure decreases below the set point, the assembly moves downward closing the Relief Valve.



**Model 20 Mounting Bracket Kit**  
P/N 09921 (Zinc Plated Steel)  
(sold separately)



**Technical Information**



**Catalog Information**

<b>Catalog Number</b>	208		BP
<b>Ratio</b>	1:1	1	
<b>Pipe Size</b>	1/4" NPT		2
	3/8" NPT		3
	1/2" NPT		4
<b>Options</b>	Silicone Elastomers <sup>1</sup>		A
	BSPP (Parallel) <sup>2</sup>		H
	Viton Elastomers		J
	BSPT (Tapered)		U

<sup>1</sup> Maximum Pressure – 75 psig, [5.0 BAR], (500 kPa).  
<sup>2</sup> BSPP Threads in Inlet, Outlet, Bonnet & Exhaust Ports Only. Others BSPT.



**Specifications**

<b>SIGNAL:OUTPUT (1:1 Ratio)</b>	
<b>Maximum Signal Pressure</b>	150 psig [10.0 BAR] 1000kPa
<b>Maximum System Pressure</b>	250psig [17.0BAR] 1700kPa
<b>Flow Capacity SCFM,</b> @100 psig, [7.0 BAR], (700 kPa) System Pressure	60 SCFM (101.9 m <sup>3</sup> /HR)
<b>Sensitivity</b> (water column)	1/4" (.64 cm)
<b>Ratio Accuracy</b> % of 100 psig, [7.0 BAR], (700 kPa) Input span	1.0
<b>Ambient Temperature</b>	-40 °F to 200 °F, (-40 °C to 93.3°C)

**Hazardous Locations**

Acceptable for use in Zones 1 and 2 for gas atmosphere; Groups IIA and IIB and Zones 21 and 22 for dust atmospheres

**Materials of Construction**

Body & Housing	Aluminum
Trim	Zinc Plated Steel, Brass
Diaphragm	Nitrile on Dacron Fabric

**Installation**

For installation instructions, refer to the *Fairchild Installation, Operation and Maintenance Instructions*.