

Model 20BP Pneumatic Precision Back Pressure Booster



Model 20BP

Features

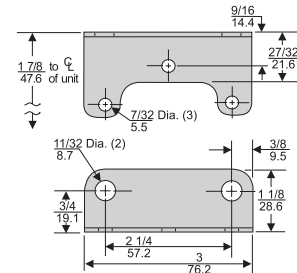
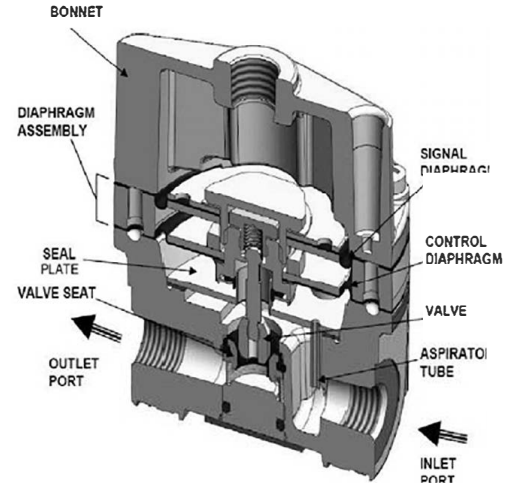
- The Model 20BP Pneumatic High Capacity Back Pressure Booster uses a pneumatic input signal to accurately control output pressure
- Aspirator Tube compensates pressure droop under flowing conditions
- A separate Control Chamber isolates the diaphragm from the main flow to eliminate hunting and buzzing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

Operating Principles

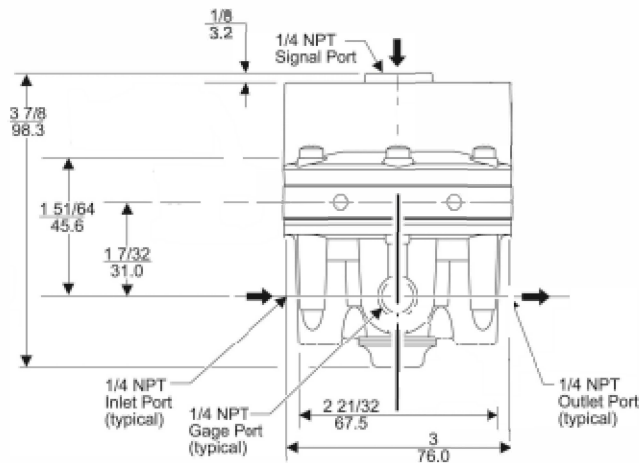
The Model 20BP Back Pressure Booster is a pneumatic device capable of high flow capacity. This device uses a force balance system to open the relief valve and vent system pressure when the set point is exceeded.

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.

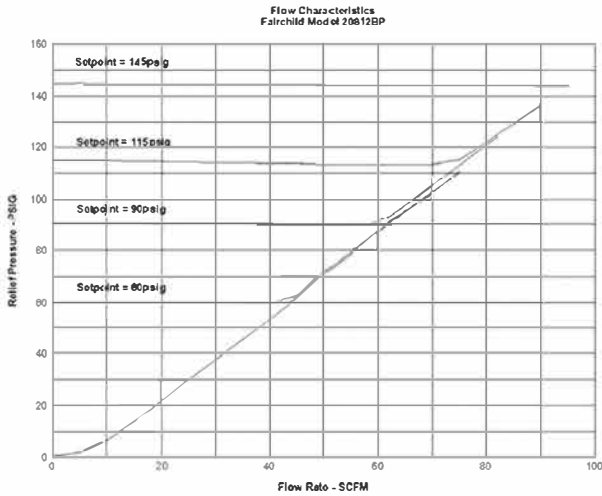
If system pressure decreases below the set point, the assembly moves downward closing the Relief Valve.



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



Technical Information



Specifications

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

Catalog Information

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

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

Installation

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