

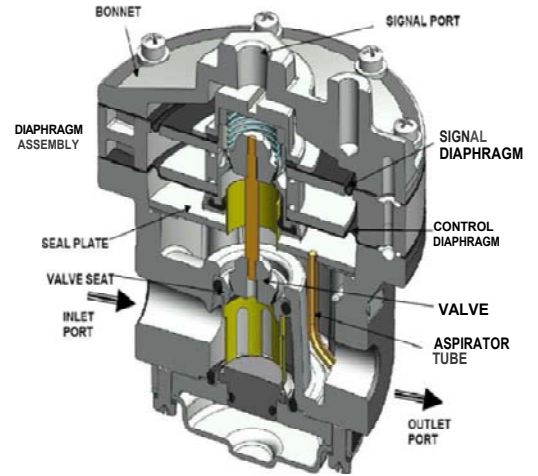
# Model 4500ABP Pneumatic Back Pressure Booster

## Features

- Control sensitivity of 1" water column allows use in precision applications.
- Large Exhaust Valve provides high exhaust flows
- An Aspirator Tube compensates pressure droop under flow conditions.
- A separate Control Chamber isolates the diaphragm from the main flow to eliminate hunting and buzzing.
- Unit construction lets you service the Model 4500ABP without removing it from the line.



Model 4500ABP



## Operating Principles

The Model 4500ABP 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 set point is exceeded. When system pressure increases, the force on the bottom of the Diaphragm Assembly 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.

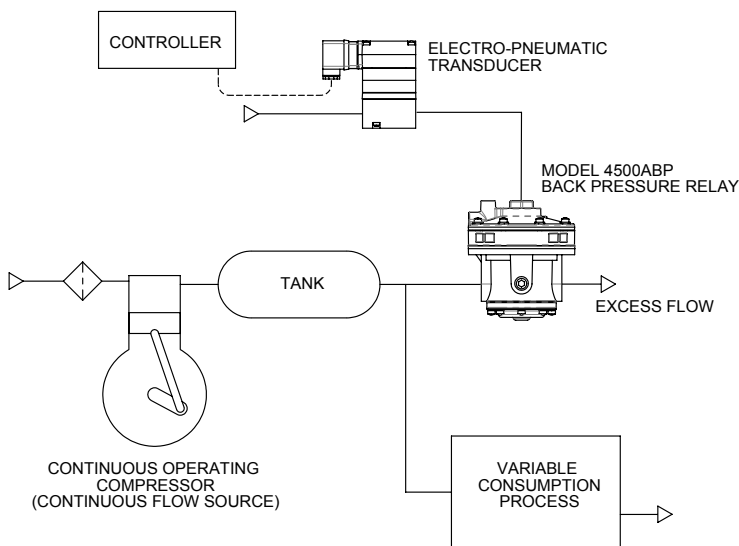
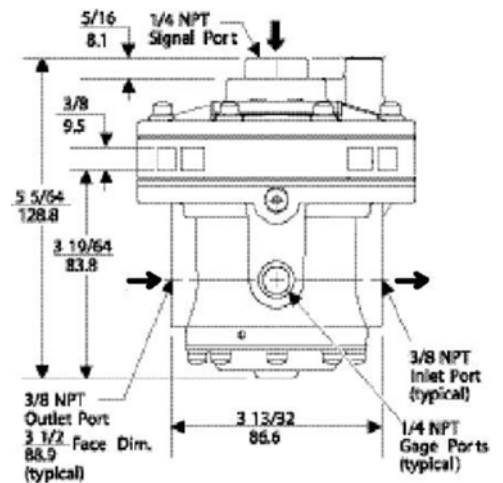
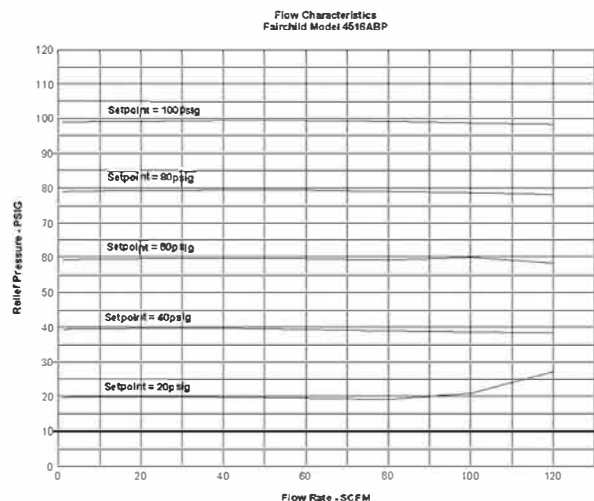


Figure 1 VARIABLE PRESSURE CONTINUOUS FLOW SYSTEM



## Technical Information



## Specifications

	RATIO	1:1
Maximum Signal Pressure	psig [BAR] (kPa)	150 [10.0] (1000)
Maximum System Pressure	psig [BAR] (kPa)	250 [17.0] (1700)
Flow Capacity AT 100 psig, [7.0 BAR], 700 kPa) System Pressure,	SCFM m <sup>3</sup> /HR	150 (255)
Setpoint Water Column	(cm)	1" (254)
Ratio Accuracy % of 100 psig, [7.0 BAR], (700 kPa) input span.		3.0

### 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

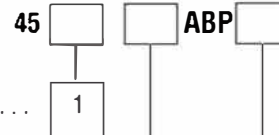
Body and Housing ..... Aluminum  
Trim ..... Zinc Plated Steel, Brass  
Diaphragm ..... Nitrile on Dacron

## Catalog Information

### Catalog Number

#### Ratio

1:1.....



### Pipe Size

3/8" NPT.....

1/2" NPT.....

3/4" NPT.....

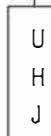


### Options

BSPT (Tapered) .....

BSPP (Parallel) <sup>1</sup> .....

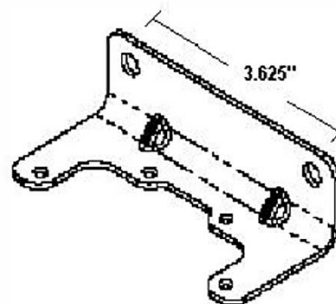
Viton Elastomers .....



<sup>1</sup> BSPP Threads in Inlet, Outlet, Exhaust & Bonnet Ports Only. Others BSPT

## Installation

For installations instructions, refer to the corresponding *Fairchild Model 4500ABP Pneumatic Volume Booster Instruction, Operation and Maintenance Instructions.*



**Model 4500ABP Mounting Bracket**  
Kit P/N 20555-1 zinc plated (sold separately)