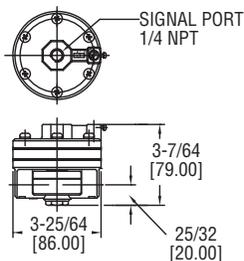


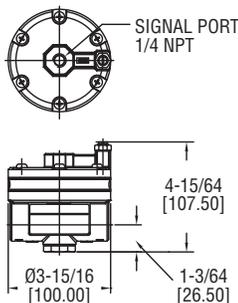


# Series VB Volume Booster

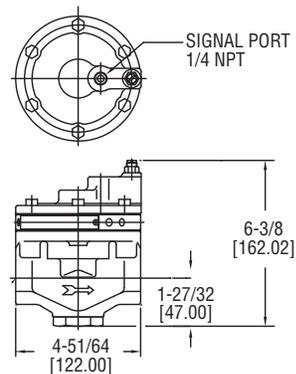
## Specifications - Installation and Operating Instructions



VB-01



VB-02



VB-03

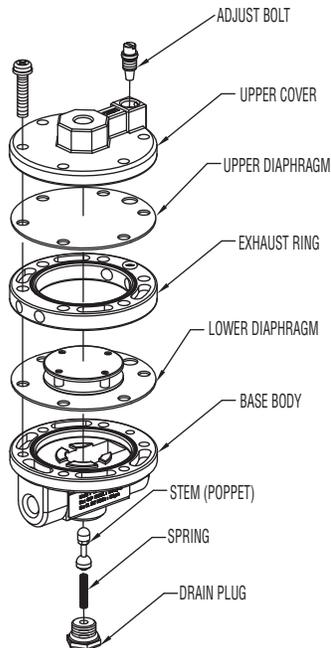
The Series VB Volume Booster is a one to one signal to output relay and an ideal solution to increasing valve stroke speed. A large input signal change to the booster delivers high volume for quick throttling control. Volume booster responds to the slightest changes in input signal, which in turn increases accuracy of the output of air pressure to the actuator. This booster receives the positioner's signal output and supplies the proper air pressure to the actuator to reduce response and adjustment time.

### Features

- Supplies constant air pressure at the rate of 1:1.
- By-pass control ensures safety of control valve.
- Responds to the slightest change in input signal, increasing accuracy of output air to the actuator.
- Built in mesh screen filters out unwanted dust and debris.
- Improves speed of valve movement.
- Boosts valve functions reaction speed.

### Structure

The structure of the Series VB is shown below.



### SPECIFICATIONS

- Max Supply Pressure:** 145 psi (10 bar).
- Max Signal/Output Pressure:** 101.5 psi (7 bar).
- Signal Connection:** 1/4" NPT.
- In/Output Pressure Ratio:** 1:1.
- Temperature Limits:** -4 to 158°F (-20 to 70°C).
- Linearity:** ±1% FS.
- Construction:** Aluminum; SS (SS models only).
- In/Output Connection:** See model chart.
- Weight:** See model chart.

Model	Cv	Weight	In/Out Connection
VB-01	1.02	1.1 lb (0.5 kg)	1/4" NPT
VB-01SS	1.02	2.9 lb (1.3 kg)	1/4" NPT
VB-02	2.32	1.7 lb (0.76 kg)	1/2" NPT
VB-02SS	2.32	4.2 lb (1.9 kg)	1/2" NPT
VB-03	4.98	5.1 lb (2.3 kg)	3/4" NPT
VB-03SS	4.98	11 lb (5 kg)	3/4" NPT

## Installation

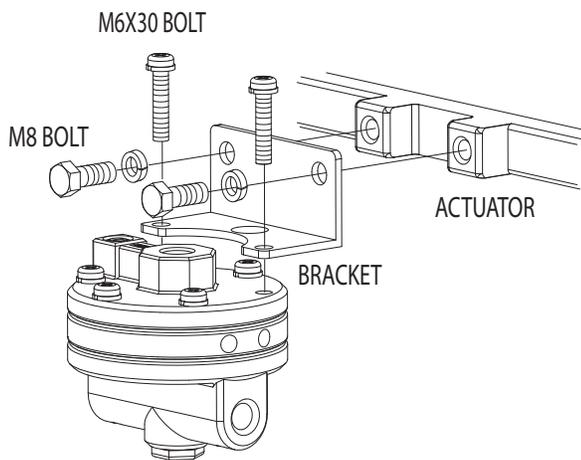
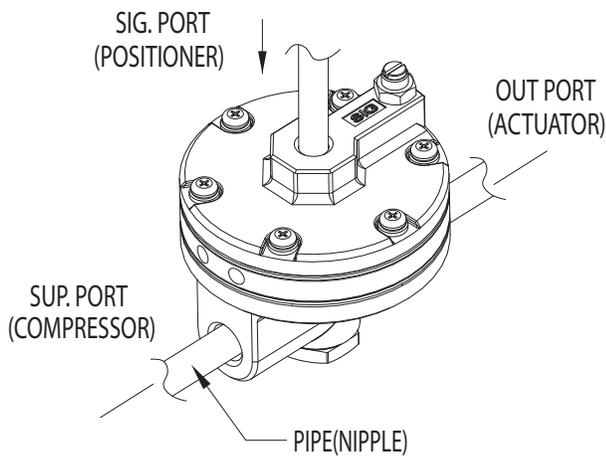
Note: When the volume booster is replaced or installed, make sure of the following:

1. Always wear safety equipment and follow safety procedures to prevent injury.
2. Check product's maximum specifications before installation to ensure they are not exceeded. In order to minimize the damage in case of an accident, be sure all compressed and pressurized input lines are bypassed.
3. Air must be clean and dry to ensure proper functioning.
4. Inflow air must be exhausted through the volume booster's side exhaust port.
5. Make sure to check exhaust port for blockage or foreign objects.

## Installing Series VB

When installing Series VB, be sure to check the following:

1. The VB should be installed between an actuator, positioner, and supply line.
2. Before connecting any pipes, make sure the inside of pipe is clear, and the size of the pipe is relevant to the capacity of the booster.
3. If the booster must be mounted on a bracket, be sure the bracket is made according to the outer diameter.



Installation Layout of Series VB

## Troubleshooting

### Valve is unresponsive to signal sent to positioner.

1. Check to see if air pressure supplied is constant and is held steady from regulator to positioner and/or volume booster.
2. Check to see if air pressure is being exhausted from positioner's exhaust port.
3. Check supply and exhaust ports for blockage. Be sure they are free of debris and foreign objects.

### Unstable valve operation when signal is sent to positioner.

1. Reduce valve packing and/ or valve friction level.
2. Increase the size of the actuator.

### Hunting occurs when the signal has been sent to the positioner.

1. Reduce valve packing and/or valve friction level.
2. Increase the size of the actuator.
3. Rotate control screw on top of booster counter-clockwise to reduce sensitivity.

### Slow valve operation after signal has been sent to positioner.

1. Check to see if regulator control pressure is too low.
2. Check supply line to actuator for blockage.
3. Check for leaks in the system.
4. Rotate control screw on top of booster counter-clockwise to enhance sensitivity.

## MAINTENANCE/REPAIR

Upon final installation of the Series VB, no routine maintenance is required. The Series VB is not field serviceable and should be returned if repair is needed. Field repair should not be attempted and may void warranty.

## WARRANTY/RETURN

Refer to "Terms and Conditions of Sales" in our catalog and on our website. Contact customer service to receive a Return Goods Authorization number before shipping the product back for repair. Be sure to include a brief description of the problem plus any additional application notes.