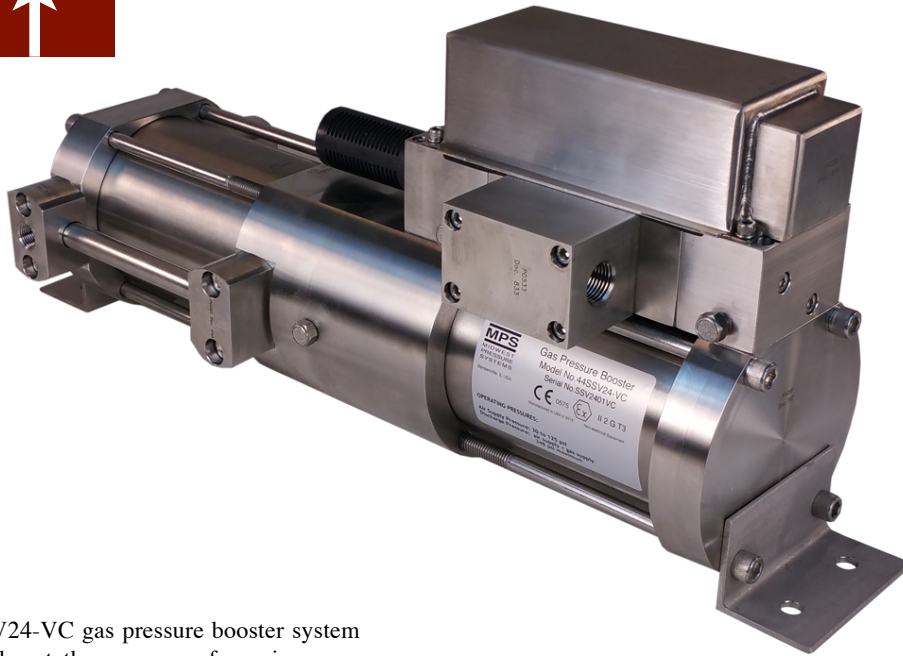


Model Number 44SSV24-VC

Gas Pressure Booster



The Model 44SSV24-VC gas pressure booster system uses shop air to boost the pressure of an air or gas stream. The drive air piston reciprocates automatically and drives the gas compressor piston. The booster is non-lubricated and uses filled Teflon® piston seals and rod seals. It requires no electricity, cooling water, or air-line lubricator and is explosionproof.

For air pressure boosting the maximum discharge pressure is equal to 2 times the shop air pressure.

For gas pressure boosting, the maximum discharge pressure is equal to the gas supply pressure plus the drive air pressure.

The graphs which follow show the maximum flowrate capability for a range of air and gas supply pressures and discharge pressures.

The boosted gas flowrate and discharge pressure can be controlled by throttling the drive air flowrate and/or regulating the drive air pressure. When there is no demand for high pressure gas, the booster stalls when it reaches the maximum discharge pressure. When there is a need for high pressure gas the pressure in the discharge line drops which causes the booster to restart automatically.

2/1 Maximum boost ratio

Shop air driven

No electricity is required

Explosionproof

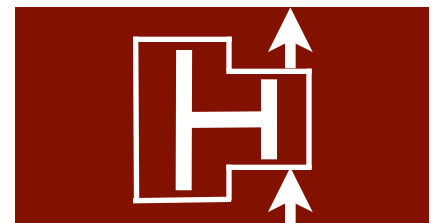
Stainless Steel Construction

Stainless Steel Fasteners

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850 Transport Drive, Valparaiso IN 46383
Phone 219-462-0070

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| Gas Boost Cylinder Specifications | Model Number 44SSV24-VC |
|---|-------------------------|
| Bore diameter & stroke - in (mm) | 4 (102) & 4.8 (122) |
| Maximum gas discharge pressure - psi (bar) | 348 (24) |
| Gas temperature range - °F (°C) | -15 to 250 (-26 to 121) |
| Maximum recommended cycle rate - cpm (Note 1) | 100 |
| Gas displacement per cycle - cf (l) | 0.069 (1.95) |
| Maximum gas displacement - cfm (lpm) | 6.9 (195) |
| Pressure boost (multiple of drive air pressure) | 1.0 |
| Gas inlet and discharge connection FNPT | 3/8 |
| Seal vent connection FNPT | 1/8 |
| Air Drive Cylinder Specifications | |
| Bore diameter & stroke - in (mm) | 4 (102) & 4.8 (122) |
| Maximum drive pressure - psi (bar) (Note 2) | 125 (8.6) |
| Air temperature range - °F (°C) | 32 to 167 (0 to 75) |
| Air displacement per cycle - cf (l) | 0.069 (1.95) |
| Maximum air displacement - cfm (lpm) | 6.9 (195) |
| Drive air inlet connections FNPT | 1/2 |
| Drive air exhaust connections FNPT | 1/2 |

Note 1:

A cycle consists of a forward and reverse stroke.

Note 2:

Nitrogen or clean inert gas may also be used for the drive gas.

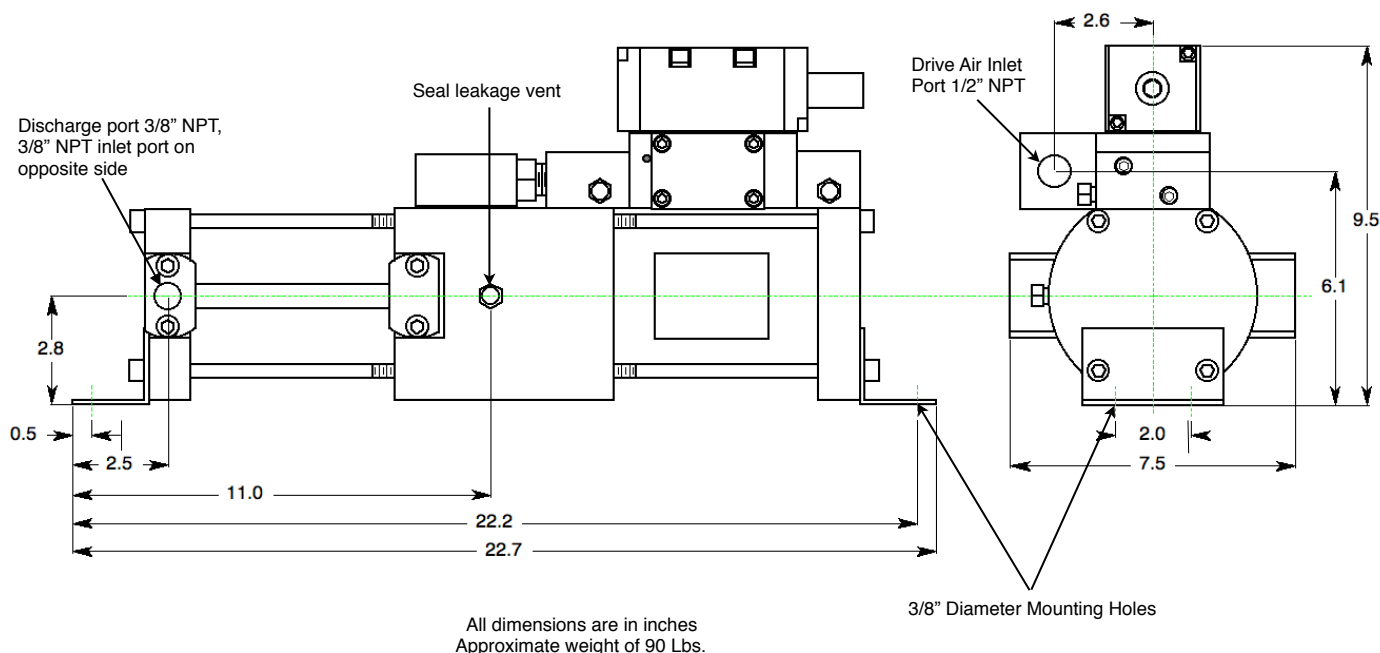
OPTIONS

-AC

Air controls for air pressure booster consisting of filter, pressure regulator, drive pressure gauge, shutoff valve and boost air connection.

-ACG

Air controls for gas pressure booster consisting of filter, pressure regulator, drive pressure gauge and shutoff valve.

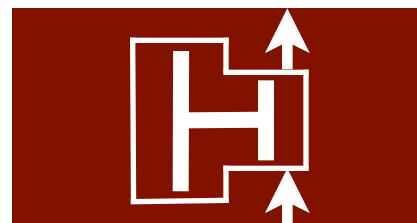


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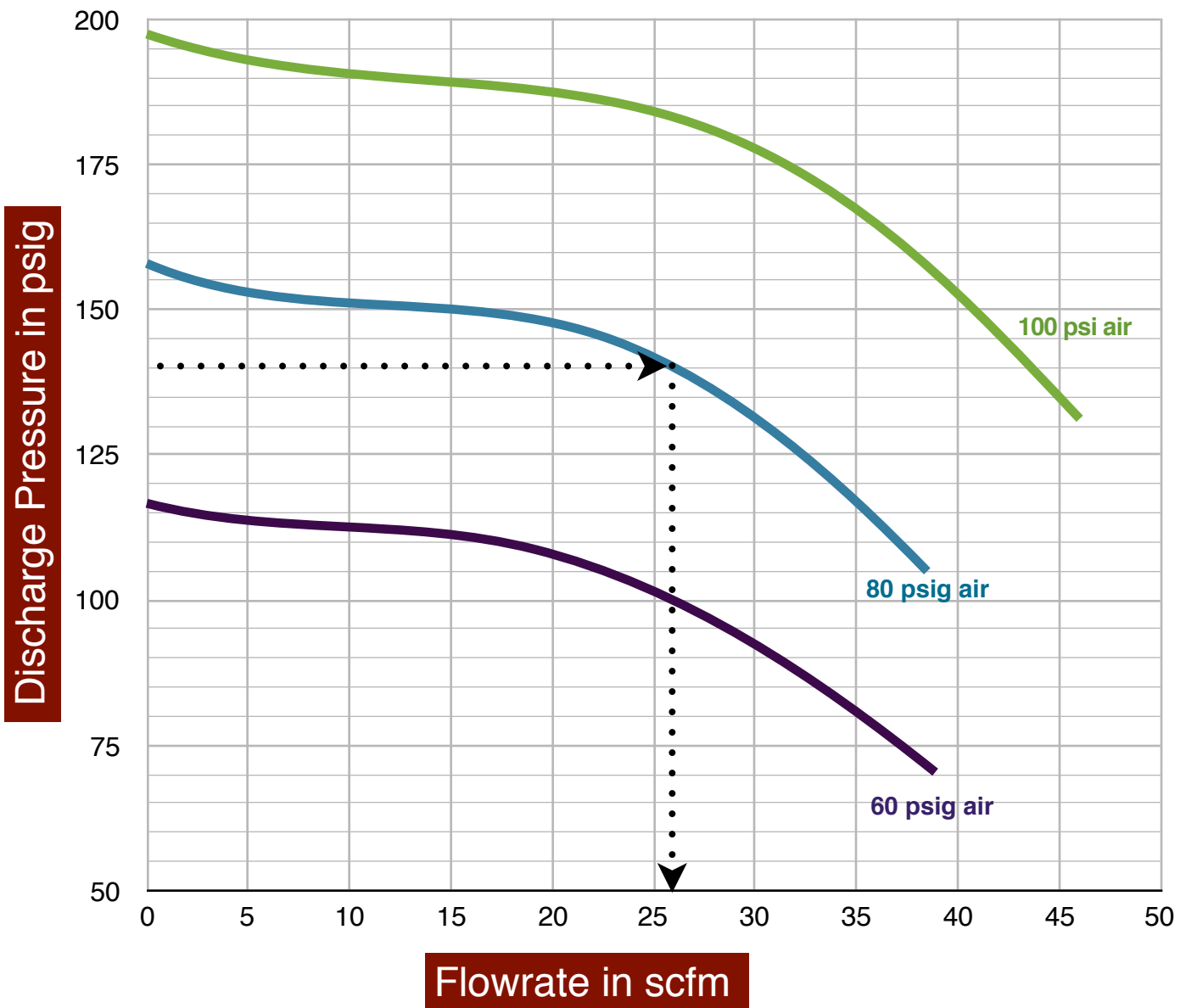
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Shop Air Pressure Boosting

Drive air pressure and supply pressure are the same



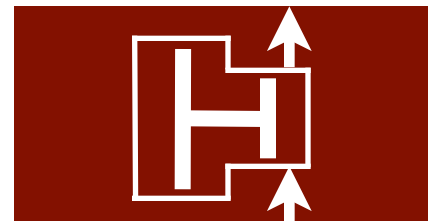
Use the curves to determine the Model 44SSV24-VC air pressure booster's maximum discharge flowrate for a given set of operating conditions. In the example shown above, a maximum discharge pressure of 140 psig is desired and a drive air pressure is 80 psig is available. Follow the 140 psig line until it intersects with the

80 psig supply air curve. Draw a vertical line from the intersection down to the bottom line to determine the maximum flowrate of 26 SCFM. The booster can operate at any flowrate from zero to the maximum flowrate. The booster will automatically adjust its operating speed as long as the required flowrate is in this range.



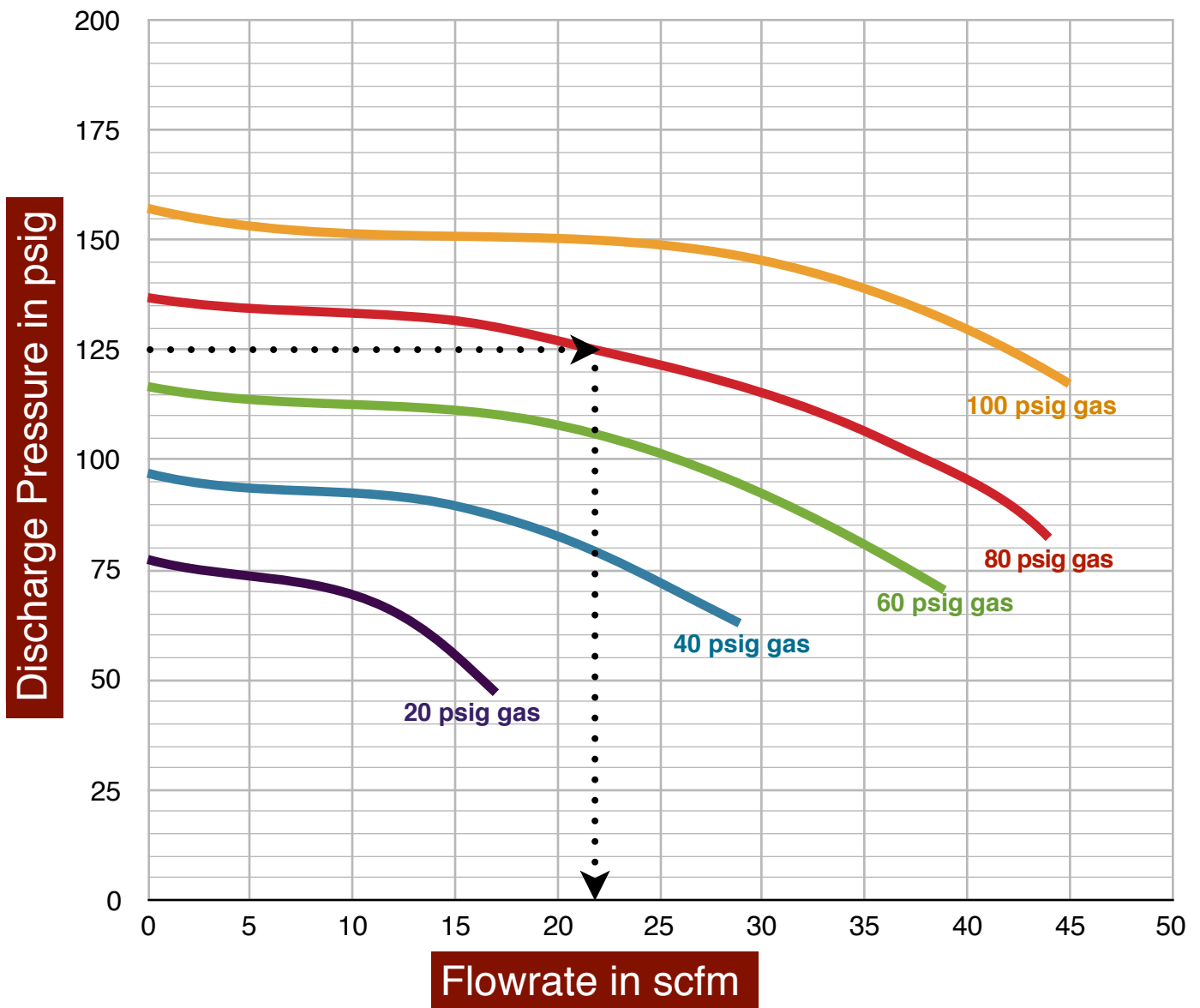
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Gas Pressure Boosting

Drive air pressure is 60 psig - Gas supply pressure range from 20 to 100 psig



Use the curves to determine the Model 44SSV24-VC air pressure booster's maximum discharge flowrate for a given set of operating conditions. In the example shown above, a maximum discharge pressure of 125 psig is desired, the drive air pressure is 60 psig and the gas supply pressure is 80 psig. Follow the 125 psig line until it intersects with the 80 psig supply gas curve. Draw a

vertical line from the intersection down to the bottom line to determine the maximum flowrate of 22 SCFM. The booster can operate at any flowrate from zero to the maximum flowrate. The booster will automatically adjust its operating speed as long as the required flowrate is in this range.



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