

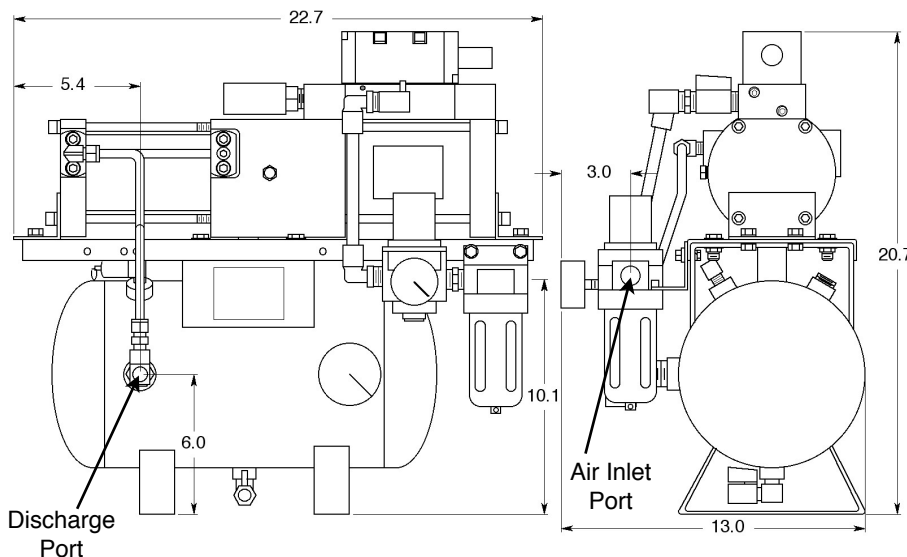
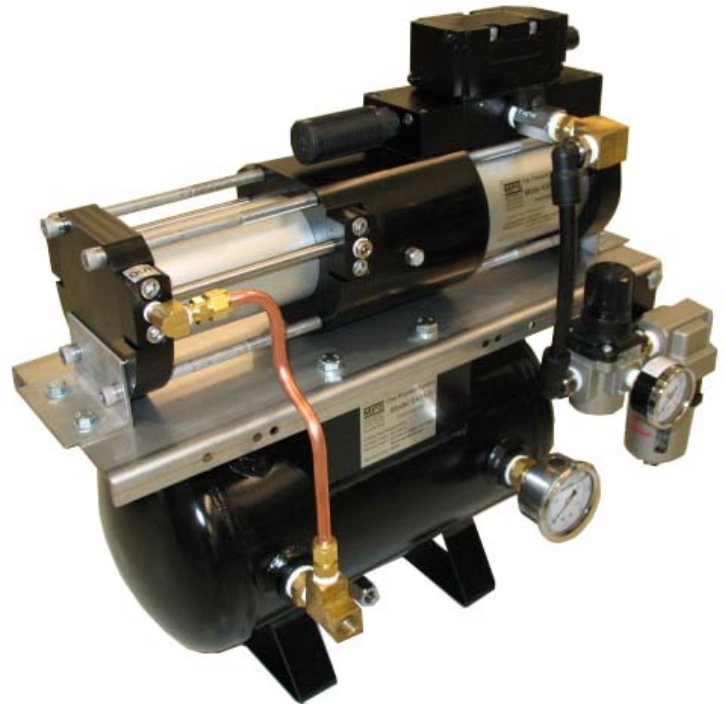
# Model Number S43A3

2.8/1 Ratio Air Pressure Booster System on a 3.5 Gallon Tank

This air pressure booster system uses shop air to boost the pressure of a shop air system. The drive air piston reciprocates automatically and drives the air compressor piston. The booster is unlubricated, and uses filled Teflon® piston seals and rod seals. It requires no electricity, cooling water, or air-line lubricator and is explosionproof.

**The maximum discharge pressure is equal to 2.8 times the regulated drive air pressure. The following graph shows the maximum flowrate capability for a range of shop air supply pressures and discharge pressures.**

The boosted air 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 air, the booster stalls when it reaches the maximum discharge pressure. When there is a need for high pressure air the pressure in the discharge line drops which causes the booster to restart automatically.



Dimensions are in inches

## MODEL S43A3 FEATURES

- 1/2" NPT female air inlet port
- 3/8" NPT female air discharge port
- 3.5 gallon, 350 psi ASME tank
- 350 psi safety relief valve
- 1/4" NPT drain valve
- 1/2" NPT shop air supply filter
- Shop air pressure regulator
- Regulated air pressure gauge
- Discharge air pressure gauge
- Exhaust muffler

## MODEL S43A3 SPECIFICATIONS

- Capable of 100% duty cycle
- Shop air pressure range of 30-150 psig
- Discharge pressure range of 30-340 psig
- Temperature range of 40-130°
- Approximate weight of 70 pounds

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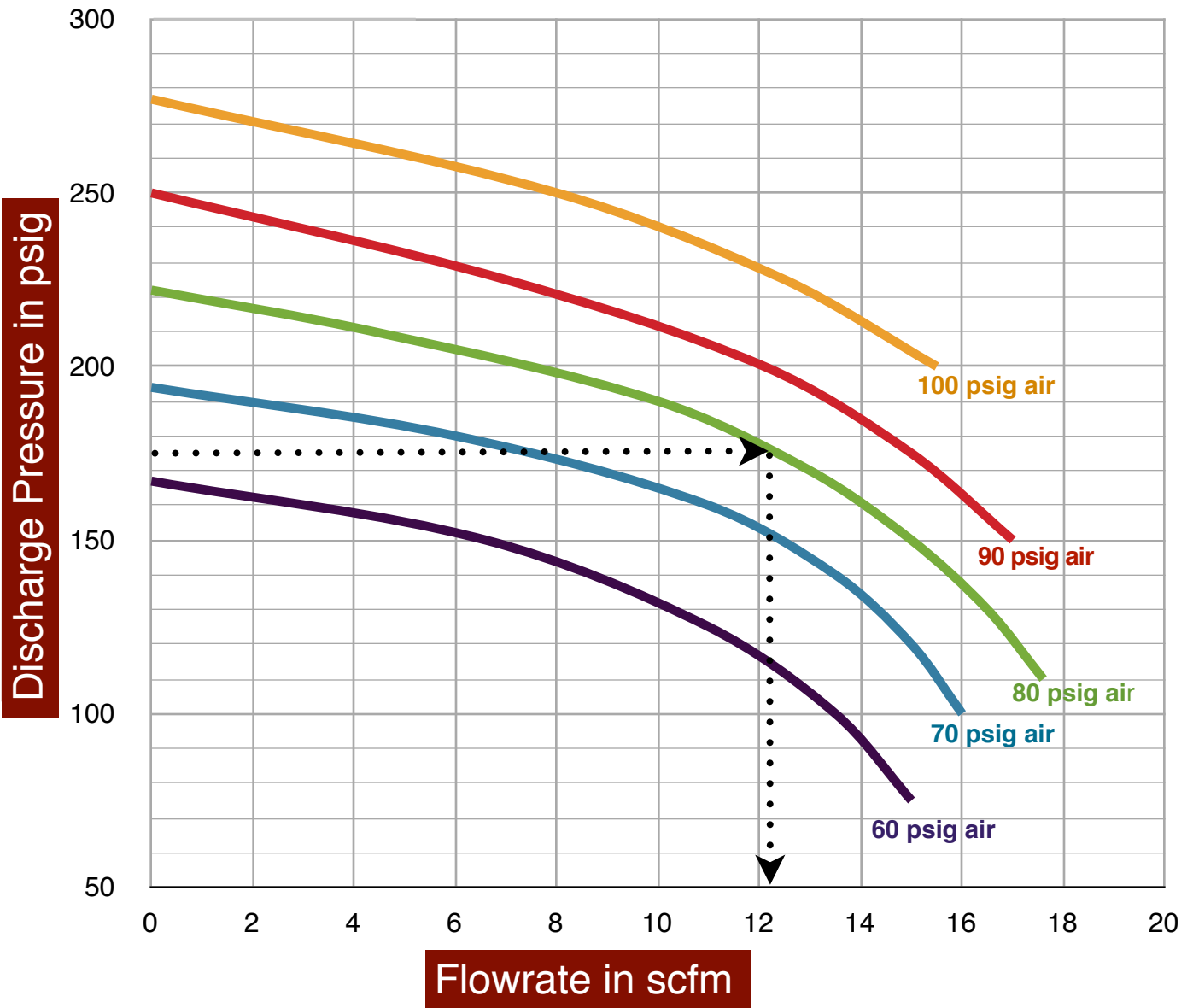
**Midwest Pressure Systems, Inc.**

1035 Entry Drive, Bensenville, IL 60106

Phone 630-766-6049 Fax 630-766-6236

[www.midwestpressuresystems.com](http://www.midwestpressuresystems.com)

# Model S43A3 Flowrate vs Supply and Discharge



Use the curves above to determine the Model S43A3 air pressure booster maximum discharge flowrate for a given set of operating conditions. In the example shown above, a maximum discharge pressure of 175 psig is desired and 80 psig supply air is available. Follow the 175 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 12.2 scfm. The booster can operate at any flowrate from zero to the maximum flowrate. It will automatically adjust its operating speed as long as the required flowrate is in this range.



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