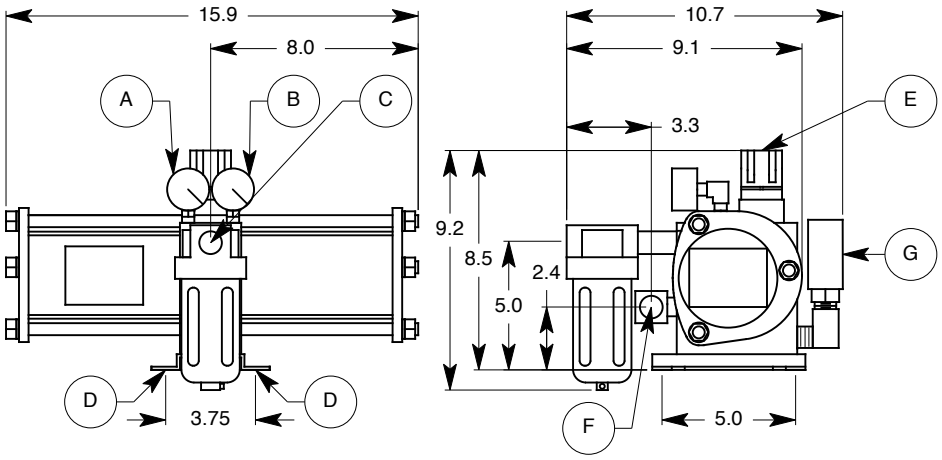
Model Number R00S

Bootstrap Compressor 2:1 Ratio Air Pressure Booster

The Bootstrap Compressor is an air-driven, air pressure booster. It requires no electricity, cooling water, or air-line lubricator and is explosionproof. Shop air is fed to the inlet port through a filter, and is split into two streams inside the booster. One stream flows to the compressor portion of the unit and is boosted to higher pressure. The other stream drives the compressor portion, and is consumed during booster operation. The drive air stream is regulated to maintain the discharge pressure set by the external regulator handle. Drive air consumption is approximately 1/2 to 1 times the amount of pressure-boosted air. For example, if 10 scfm of high pressure air is required, the Bootstrap Compressor will need 15-20 scfm of shop air, and 5-10 scfm of that air will be vented through an exhaust silencer. For a given shop air pressure, Model R00S can deliver high pressure air at any flowrate up to the maximum shown in the table. The pressure regulator enables the booster to adjust automatically to changes in high pressure air demand or shop air pressure. When there is no demand for high pressure air, the booster stalls at the discharge pressure set by the regulator and consumes no energy. When there is a need for high pressure air, the pressure drops which causes the booster to restart automatically.



Dimensions are in inches

MODEL R00S FEATURES

A. Inlet pressure gauge
B. Discharge pressure gauge
C. 1/2" FNPT inlet filter
D. Four 7/16” diameter mounting holes
E. Built-in pressure regulator
F. 1/2” FNPT discharge port
G. Exhaust Silencer

MODEL R00S SPECIFICATIONS

Maximum 2 to 1 boost ratio
Capable of 100% duty cycle
Inlet pressure range of 15-150 psig
Discharge pressure range of 15-230 psig
Temperature range of 40-130˚F
Approximate weight of 20 pounds
Integral regulator controls discharge pressure and is self-relieving

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MIDWEST PRESSURE SYSTEMS

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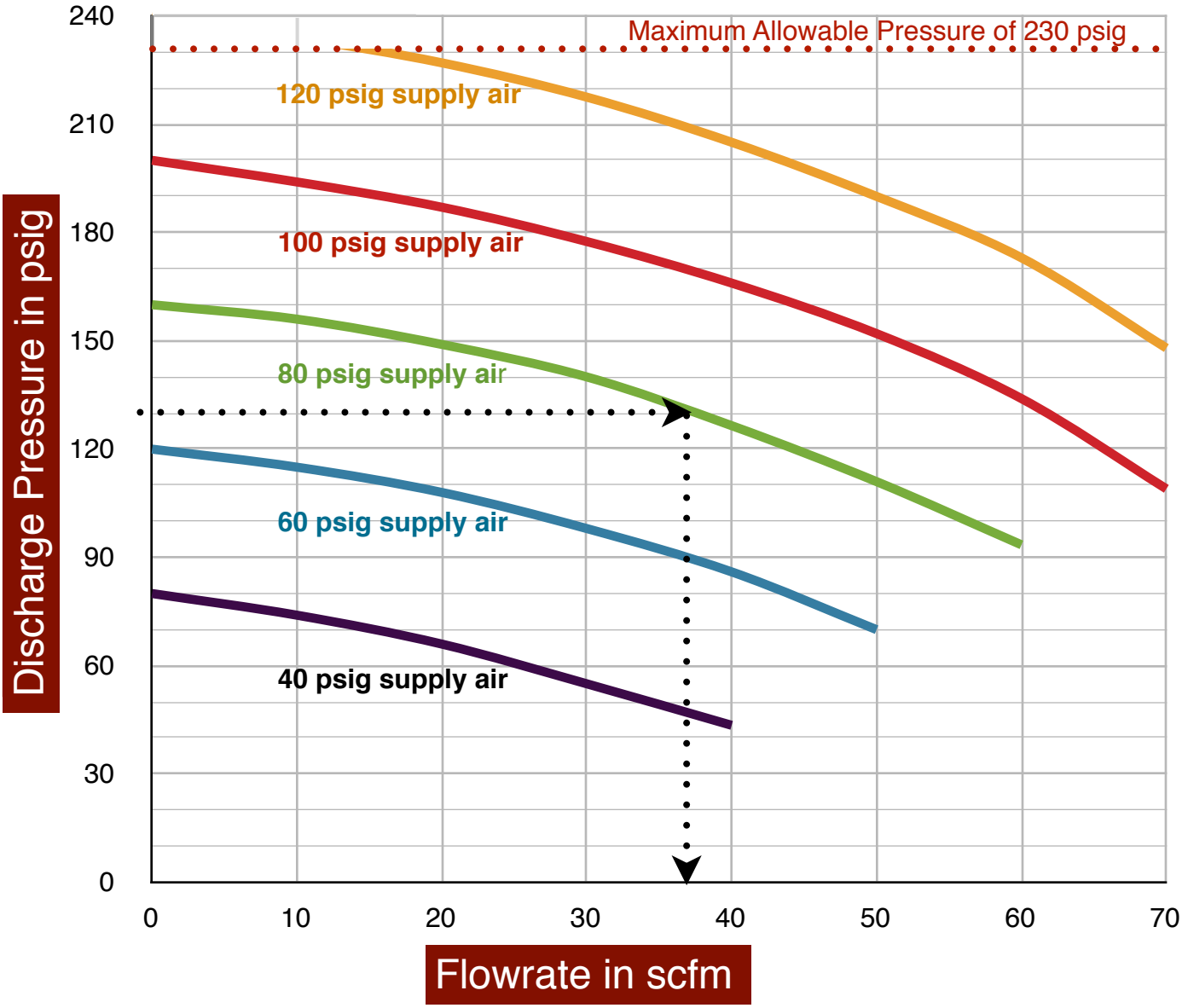
Model R00S Flowrate vs Supply and Discharge Pressure



Use the curves above to determine the Model R00S air pressure booster maximum discharge flowrate for a given set of operating conditions. In the example shown above, a maximum discharge pressure of 130 psig is desired and 80 psi supply air is available. Follow the 130 psi line until it intersects with the 80 psi supply air curve. Draw a vertical line from the intersection down to the bottom line to determine the maximum flowrate of 37 scfm. The booster can operate at any flowrate from 0 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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