

# Pressure booster system Model 77

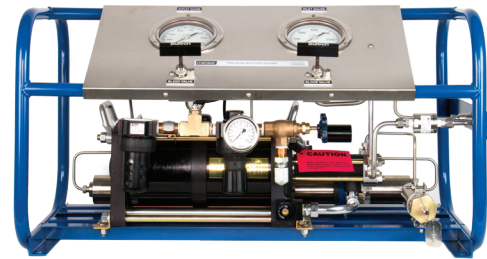
Data sheet Model 77

## Applications

- Supply pressure to high pressure controllers
- Pressure source to 10,000 psi
- System supply pressure

## Special features

- Boosts bottle nitrogen pressure to 10,000 psi
- 600 - 3000 psi input pressure
- Operator control panel
- Input and output gauges
- Built in 40 micron filter on drive supply port
- Built in 18 micron filter on supply port



Pressure booster system, model 77

## Description

### Design

The Model 77 Pressure Booster System is a single piston air driven gas compressor designed for boosting bottle nitrogen up to 10,000 psig. The unit is mounted in a roll-bar frame and includes an operator control panel, with gauges for supply pressure and output reference pressure, and an output vent valve. Safety features include internal stainless steel tubing rated to four times expected pressure, an auto shut-off valve and an output relief valve.

### Input and output

The Model 77 requires a drive pressure input from shop air and supply pressure input from bottled nitrogen or another inert gas. The output pressure is adjusted by a knob on the drive pressure regulator. A nitrogen pressure regulator is not required as the unit will function with any supply gas pressure from 600 to 3000 psig. The auto shut-off valve shuts down the system if bottle pressure is less than 600 psig.

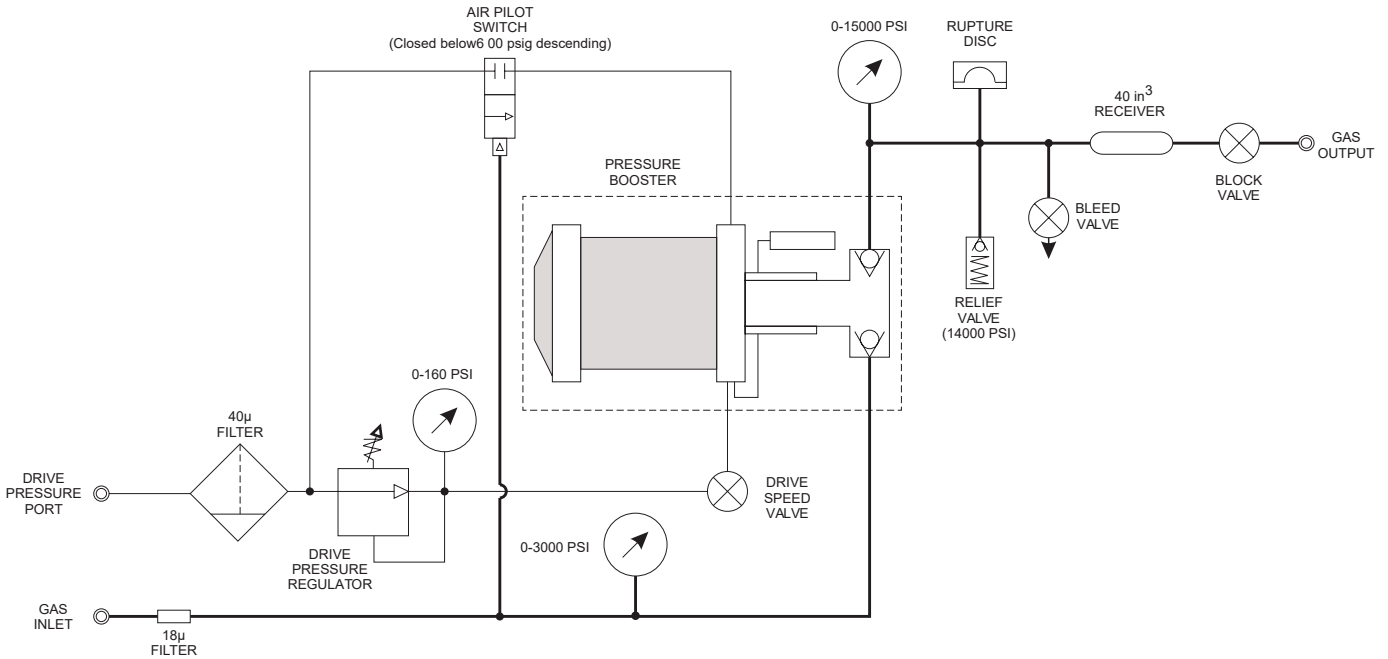
### Response time

The time for the output of the Model 77 to reach the desired pressure will vary with the volume to be filled and/or the available pressure at the nitrogen bottle connected to the supply input. Typical response with 2500 psig input is approximately 77 cycles per 40in<sup>3</sup> of volume on output at 1 minute, 15 seconds per cycle.

# Specifications

Model 77	
<b>Input Pressure</b>	600 to 3000 psi unregulated nitrogen
<b>Drive Pressure</b>	100 to 150 psi shop air, 1/2" female pipe thread
<b>Fittings</b>	Supply and output ports 1/4" FNPT female. Output port is 1/4" HPtube female.
<b>Filter</b>	40 micron filter mounted after drive pressure port. Removable for cleaning. 18 micron filter mounted after supply pressure port.
<b>Relief Valve</b>	Output relief valve mounted on frame of control panel. Cracking pressure is adjustable.
<b>Dimensions</b>	L 36" x W 18" x H 18"
<b>Weight</b>	113 lbs. (51.26 kg)

## Pneumatic Schematic



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