HL42 series booster

Gas Pressure Booster

1.5 HP, 115V AC Electric motor

70 SCFH flowrate, 24/7 operation

20 - 100 psi gas inlet pressure

2,500 psi max gas discharge pressure

10,000 hours of seal life

Air-cooled / Oil free

Touchscreen control panel

MPS MIDWEST PRESSURE SYSTEMS

Midwest Pressure Systems, Inc.
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Booster Specifications: HL42 series

Gas Connections & dimensions	
Gas supply connection	-6 ORB SAE
Gas discharge connection	-6 ORB SAE
Gas vent connection[1]	1/8 NPT
Stage 1 Bore diameter and stroke length	4” (102 mm) & 4” (102 mm)
Stage 2 Bore diameter and stroke length	2” (51 mm) & 4” (102 mm)
Operating speed[2]	6.7 cycles per minute (CPM)
Gas displacement per cycle	0.029 cubic feet (0.82 liters)
Overall dimensions (W x D x H)	16” x 27” x 50” (41 cm x 69 cm x 127 cm)
Overall weight[3]	180 (82)
Hydraulic Specifications	
Recommended fluid	Mobil DTE 24 (or equal)
Oil volume	3.5 Gallons
Electrical Specifications	
Rated voltage	115V ±10%, Single phase, 60 Hz
Power consumption	1.5 HP
Max current	12.4 Amps
Supply cable	3 wire x 12 AWG
Plug	NEMA 5-15
Pressure, Temperature & Noise Specifications	
Gas supply pressure range	20 psig to 100 psig (1.4 bar to 6.9 bar)
Gas discharge pressure range	500 psig to 2500 psig (35.5 bar to 172 bar)
Ambient temperature range - ºF (ºC)	38 to 122 (3 to 50)
Noise Emmission[4]	75 dB(A)
Duty cycle	100% (Can operate 24/7)

Note 1: Breather installed at the factory

Note 2: A cycle consists of a 1st stage and 2nd stage stroke

Note 3: The weight listed is the maximum weight of the system after hydraulic oil has been added

Note 4: Measurement distance: 1 meter, Uncertainty: ±3 dB(A)

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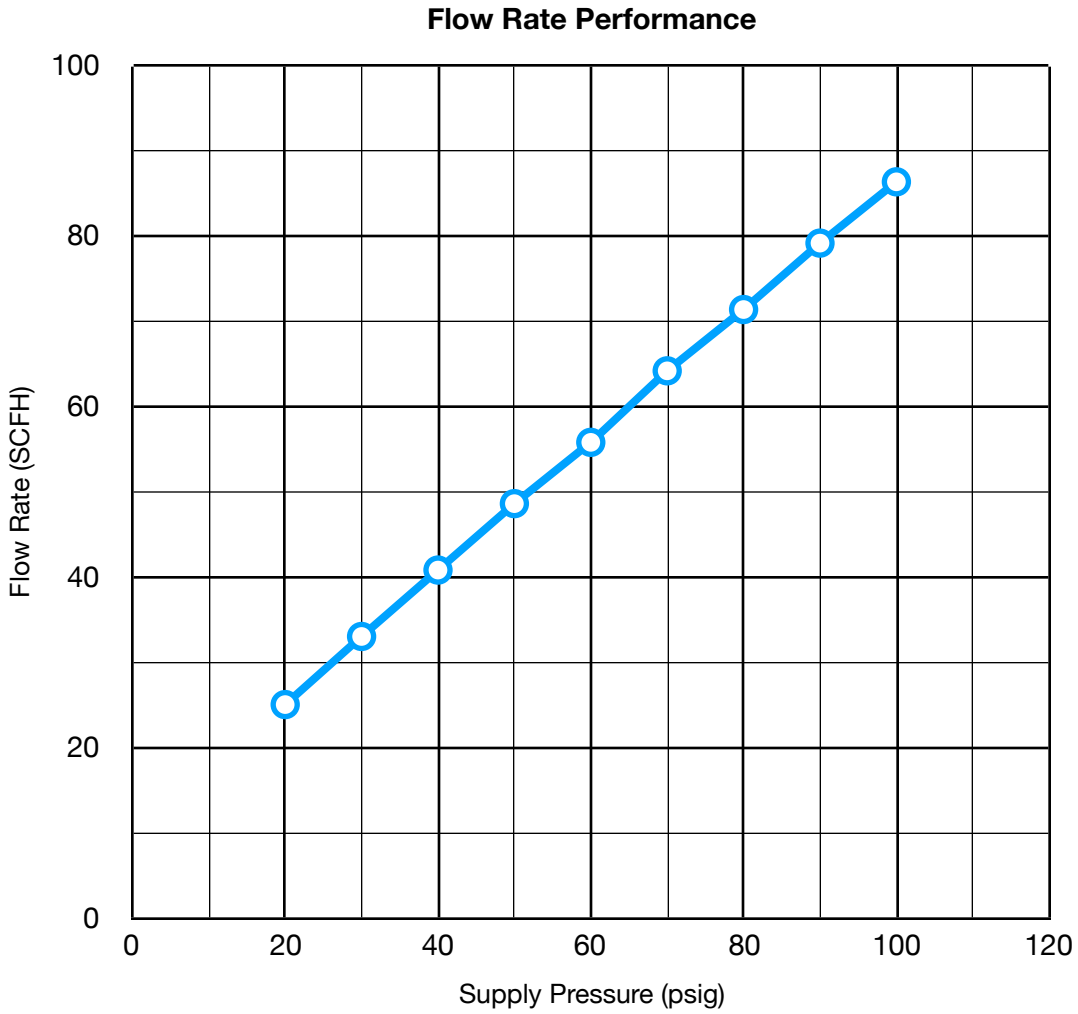
Performance Data: HL42

The HL42 gas pressure booster provides flow rates between 25 SCFH and 85 SCFH depending the gas supply pressure. Installing a regulator upstream of the booster allows the operator to set the desired flow rate.

Example: A nitrogen generator is capable of delivering 99% nitrogen at 60 SCFH and 80 psig. However with an 80 psig supply the booster will produce approximately 70 SCFH. 70 SCFH is more than the nitrogen generator is capable of providing so a loss in purity may occur as the nitrogen generator attempts to provide more flow. This can be remedied by regulating the 80 psig nitrogen to 65 psig. A 65 psig supply will produce a discharge flow rate of 60 SCFH matching the nitrogen generator's output.

The graph below shows the flow rate of the booster verses the supply pressure.



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Touchscreen Control Panel: HL42

The HL42 gas pressure booster uses a touchscreen control panel. The touchscreen allows the operator to turn ON and OFF the system, view & change various operating parameters and review error codes. An example of the Home Screen is shown below along with a list of the viewable/modifiable parameters.

Viewable Parameters:

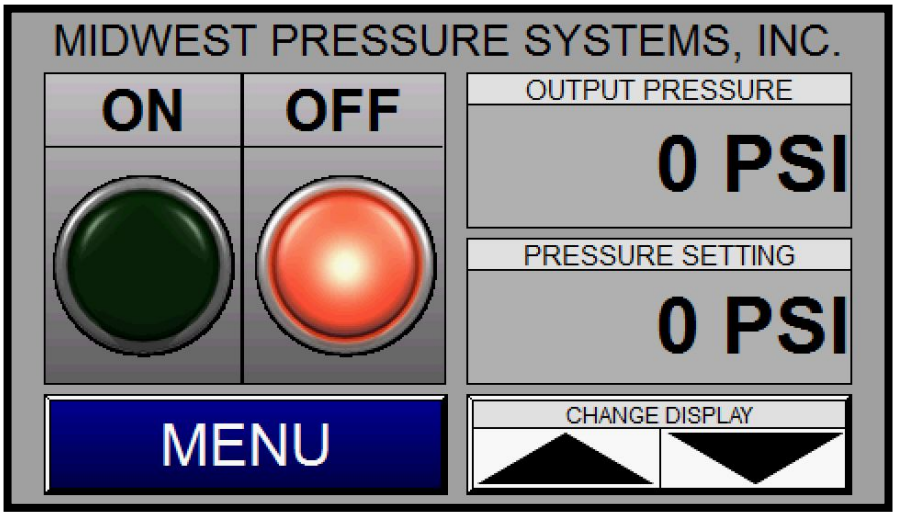
Output Pressure: The current discharge pressure of the system.

Pressure Setting: The pressure at which the system will automatically turn OFF (Modifiable by the operator)

Hours on Seals: The accumulated hours on the seals (Can be reset after rebuild)

Total Hours Run: The total hours the unit has operated over its life time

Estimated Cylinder Fill Time: Predicts the amount of time remaining to pressurize a cylinder.



Part Number: HL42

Booster Model Numbers

HL **42** - **2500**

Symbol	Drive
HL	Hydraulic

Symbol	Gas cylinder size
42	4” x 2”

Symbol	Max pressure
xxxx	Max pressure in psi

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