

Nitrogen Gas Booster System

Model J24366

Haskel Nitrogen Gas Booster Compressor System. Unit comprises an electrically driven 5,000 psi Nitrogen Booster Compressor model H5417B which in turn feeds two Haskel air driven gas boosters model AGD-152 in parallel all mounted on a carbon steel base frame. The compressor is covered in noise reduction panelling.

The system will compress nitrogen gas from a boil off supply (100 to 145 psig) to give a final outlet working pressure of upto 15,000 psi.

At 11,000 psi the outlet flow-rate produced is 40 scfm based on an air drive pressure of 90 psig and volume up to 140 scfm.

At 15,000 psi the outlet flow rate will be reduced to 28 scfm with 90 psig air drive.

High pressure nitrogen from the electrically driven 5,000 psi Nitrogen Booster Compressor model H5417B feeds the test outlet via a bypass circuit and at the same time pre-charges the Haskel air driven booster circuit. When the outlet pressure reaches 4,800 psi the AGD-152 gas boosters are switched on automatically and the pressure increased up to the final test pressure controlled by the outlet air pilot switch setting.



Compressor Performance

Available gas pressure	Up to 145 psig
Regulated pressure at booster inlet	72 psig
Booster delivery pressure	5,000 psig
Booster speed	1,460 rpm (approx)
Booster capacity	40 scfm (nominal)
Booster shaft power	19 kW
Motor power	22 kW

2 x AGD-152 Performance

Available gas pressure (from above unit)	Up to 5,000 psig
Maximum delivery pressure	15,000 psig
Booster speed	Variable cycle rate up to 100 cycles/min.
Booster capacity	40 scfm at 11,000 psig from 5,000 psig inlet
Air consumption	140 scfm at 90 psig at above conditions

Typical Charge Times to Pressurise 6.5 cubic feet Volume

Final Charge Pressure (PSI)	Time Taken from Atmospheric Pressure To the nearest minute
1,000	11
2,000	22
3,000	33
4,000	44
5,000	55
6,000	62
7,000	69
8,000	76
9,000	82
10,000	89
11,000	96
12,000	102
13,000	109
14,000	116
15,000	124

Electric Booster Cooling

The machine is offered as a water cooled arrangement, and includes an air blast radiator, axial cooling fan, compressor mounted water pump and interconnecting piping, supplied as an integral part of the compressor package. With the set configuration offered, the radiator cooling fan is driven from an extension shaft that is bolted to the compressor main flywheel.

Services required:

- Nitrogen gas supply 40 scfm at 100 to 145 psig
- Compressed air supply 140 scfm at 90 psig
- Electrical supply 415V 3 Phase & Neutral 50 Hz mains supply.