

Technical Specifications: **H5450 & H5470**

Up to 350 bar g, 150 to 1658 m³/h
Up to 5075 lbf/in², 88 to 976 ft³/min

A range of boosters and compressors suitable for air and gases. The pressurised crankcase is suitable for inlet pressures up to 15 bar g and is particularly suitable for hazardous gas duties. For safe gas applications, inlet pressures can extend to a maximum of 100 bar g.

With over 100 years of experience CompAir compressors set high quality standards in world-wide markets. Typical applications include compressed natural gas, air blast switch-gear, nitrogen boosting, electrolyser gas compression, seismic surveying, fibreboard pulp compression and many other industrial duties. Certain configurations permit the use of a membrane dehydrator that removes unwanted gas or water molecules from the gas stream by selective permeation through a hollow fibre membrane bundle.



H5450 Motor Driven Set

Features and Benefits

Key Points:

- High pressure, multiple stage, air cooled compressor modules
- Low maintenance, no special tools
- Electric motor or engine drive
- Forced air interstage and final stage cooling for low discharge temperatures
- Comprehensive range of safety features
- World-wide installation and maintenance
- Both compressors are of an advanced design allowing cylinders and compression stages to be optimised around inlet capacity requirements. This leads to reductions in power consumption, wear, discharge temperatures and an extension of service intervals
- Extensive factory testing
- Well balanced compressor design, removing the need for special foundations and increasing component life
- Explosion proof and intrinsically safe installation to comply with national standards, where applicable
- Gas inlet filter and pressure regulator for boosters
- Gas tight crankcase
- Individual compression stage separation with automatic drainage and unloading
- Options for membrane drying and selective gas separation

H5450 - H5470

The H5450 and H5470 compressors have a range of configurable cylinders that enable performance to be very closely matched to the required duty. In this manner the machines can be arranged with 1 to 5 stages using 3 to 6 cylinders.

The crankcase may be pressurised up to 15 bar g which permits hazardous gas booster applications, where the crankcase is equalised to the suction pressure.

For inert gases the units may be used with a maximum suction pressure of 100 bar g, by use of a non-pressurised crankcase.



H5450 Motor Driven Set

Standard fittings

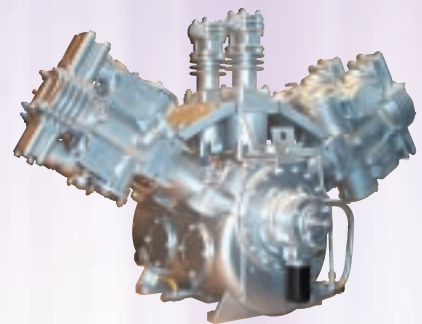
- Air Cooled intercoolers
- Air Cooled aftercooler
- Interstage separators
- Safety valves on all stages
- Pulsation damper (booster only)
- Forced lubrication with oil pump, filter and safety valve
- Oil level sight glass
- Cooling fan
- Flywheel
- Final stage separator
- Final delivery non-return valve
- Air cooled oil cooler
- Lubricator for double acting pistons (H5470)

Gauge Panel

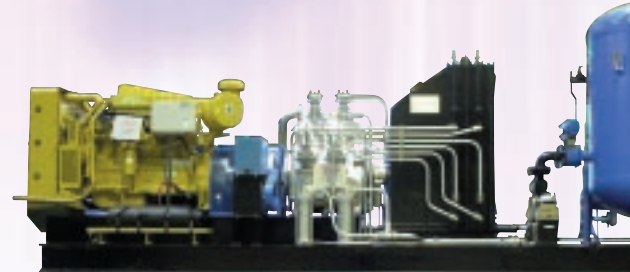
- Discharge pressure on all stages
- Oil pressure
- Inlet pressure (booster only)
- Discharge temperature on all stages
- Final delivery pressure

Protective Switches

- Low oil pressure cut out
- High discharge temperature on all stages
- High discharge pressure on all stages
- High and low inlet pressure (booster only)



H5470 Base Compressor



H5470 Engine Driven Set

Gas Applications

These machines can handle a wide variety of gases, depending on application.

Your salesman will be pleased to advise, but typical gases include: argon, bio-gas, carbon monoxide, carbon dioxide, ethane, ethylene, helium, hydrogen, methane, natural gas, neon, nitrogen, nitrous oxide, oxy-helium, sludge gas, sulphur hexafluoride and xenon.

Nitrogen Booster Technical Specifications

Model	H5450				H5470				
Motor Power kW	55	75	90	110	110	132	150	160	185
50 bar g Discharge Pressure with inlet of 7 bar g									
Flow Rate m ³ /h	472	673	848	945	1029	1227	1394	1488	1658
Speed rpm	1475	1475	1318	1475	1162	1396	1232	1318	1475
150 bar g Discharge Pressure with inlet of 7 bar g									
Flow Rate m ³ /h	320	425	474	-	634	779	874	921	1038
Speed rpm	983	1318	1475	-	1318	1093	1232	1301	1475
250 bar g Discharge Pressure with inlet of 7 bar g									
Flow Rate m ³ /h	280	371	416	438	559	631	722	770	856
Speed rpm	928	1239	1396	1475	1162	1318	1232	1318	1475
350 bar g Discharge Pressure with inlet of 7 bar g									
Flow Rate m ³ /h	224	351	394	465	478	618	694	732	825
Speed rpm	1475	1101	1239	1475	1318	1093	1232	1301	1475
50 bar g Discharge Pressure with inlet of 15 bar g									
Flow Rate m ³ /h	826	1092	1224	1290	1518	1797	2156	2278	2400
Speed rpm	929	1239	1396	1475	1396	1318	1318	1396	1475
150 bar g Discharge Pressure with inlet of 15 bar g									
Flow Rate m ³ /h	388	578	682	804	779	976	1096	1169	1301
Speed rpm	1318	1042	1239	1475	1318	1093	1232	1318	1475
250 bar g Discharge Pressure bar with inlet of 15 bar g									
Flow Rate m ³ /h	331	469	557	620	714	805	924	975	1026
Speed rpm	1101	1172	1318	1475	1162	1318	1318	1396	1475
350 bar g Discharge Pressure with inlet of 15 bar g									
Flow Rate m ³ /h	299	431	486	601	615	694	778	862	959
Speed rpm	1239	1042	1180	1475	1093	1239	1396	1318	1475

Notes:

- 1 Data is typical for dry Nitrogen
- 2 Performance is based on standard belt drive configurations. Higher capacities with absorbed power up to 250 kW are possible with direct drive
- 3 Speeds quoted are at the compressor shaft
- 4 Performance figures are based on inlet conditions of 20°C. Flow rate (FAD) measured in accordance with ISO1217:1996
- 5 Compressor configurations to meet suction pressures up to 16 bar a, other discharge pressures and other gases are available upon request



Intelligent Air Technology

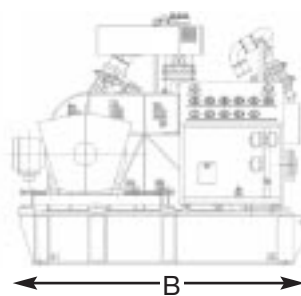
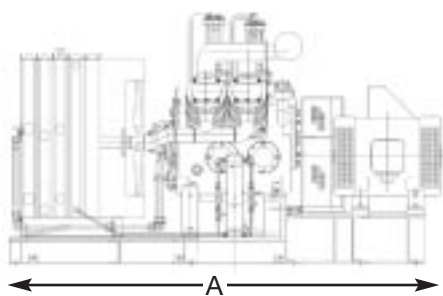
Air Compressor Technical Specifications

Model	H5450					H5470					
Motor Power kW	45	55	75	90	110	90	110	132	150	160	185
100 bar g Discharge Pressure											
Flow Rate m ³ /h	183	205	272	342	361	361	429	484	539	-	-
Speed rpm	928	1042	1396	1396	1475	972	1162	1318	1475	-	-
150 bar g Discharge Pressure											
Flow Rate m ³ /h	177	209	262	291	-	340	406	478	538	567	-
Speed rpm	881	1042	1318	1475	-	868	1041	1232	1396	1475	-
250 bar g Discharge Pressure											
Flow Rate m ³ /h	158	186	235	276	291	307	367	431	460	486	512
Speed rpm	787	928	1180	1396	1475	868	1041	1232	1318	1396	1475
350 bar g Discharge Pressure											
Flow Rate m ³ /h	-	167	220	261	291	271	319	380	-	-	-
Speed rpm	-	834	1101	1318	1475	1041	1232	1475	-	-	-

Model	Length (A)	Width (B)	Height (C)	Weight
H5450	2888 mm	1797 mm	1696 mm	4000 kg
H5470	3300 mm	1860 mm	1785 mm	7000 kg

Notes:

- 1 Data is typical at 1 bar a inlet pressure
- 2 Performance is based on standard belt drive configurations
- 3 Speeds quoted are at the compressor shaft
- 4 Performance figures are based on inlet conditions of 20°C. Flow rate (FAD) measured in accordance with ISO1217:1996
- 5 Compressor configurations to meet suction pressures up to 16 bar a, other discharge pressures and other gases are available upon request



C

Typical baseplate mounted set



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