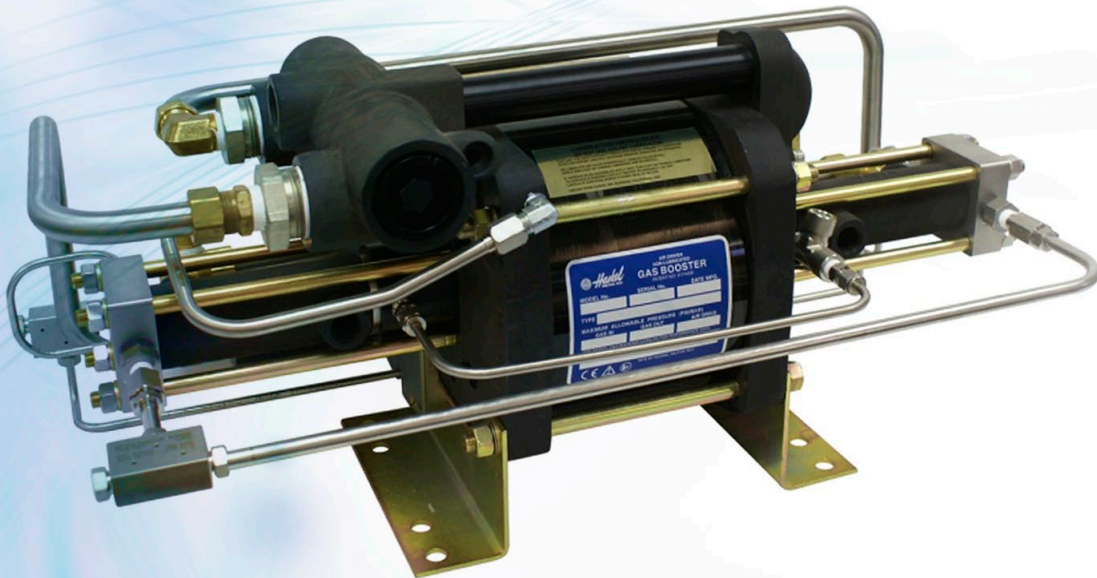




Hydrogen Transfer & Handling Equipment



PERFORMANCE · QUALITY · RELIABILITY

High-Pressure Hydrogen Handling Equipment & Expertise

Haskel manufactures a full range of Hydrogen handling equipment, including hydraulic and pneumatic-driven gas boosters, high-pressure valves and fittings, and system components.

We specialize in high-pressure technology and offer an extensive background of knowledge and experience with Hydrogen applications, backed with a solid reputation for providing a superior product, known for quality and reliability.

Markets and Applications

- Hydrogen Fueling & Filling Stations
- Hydrogen Compression, Storage and Transfer
- Hydrogen Generation
- Proof Test; Catalyst Optical Fiber
- R&D Lab Gas Distribution
- Semiconductor Manufacturing
- Vessel Proof Testing
- Fuel Cell: Mobile, Portable & Stationary

We use specific materials designed for Hydrogen use based on pressure and flow requirements to address embrittlement issues metals face when exposed to a hydrogen environment. Embrittlement can be aggravated by high-pressure and hydrogen purity, leading to loss of ductility, and component failure at much lower stress levels than would normally be expected.

H-Drive - Hydraulic Driven Gas Boosters

Superior Design and Integration

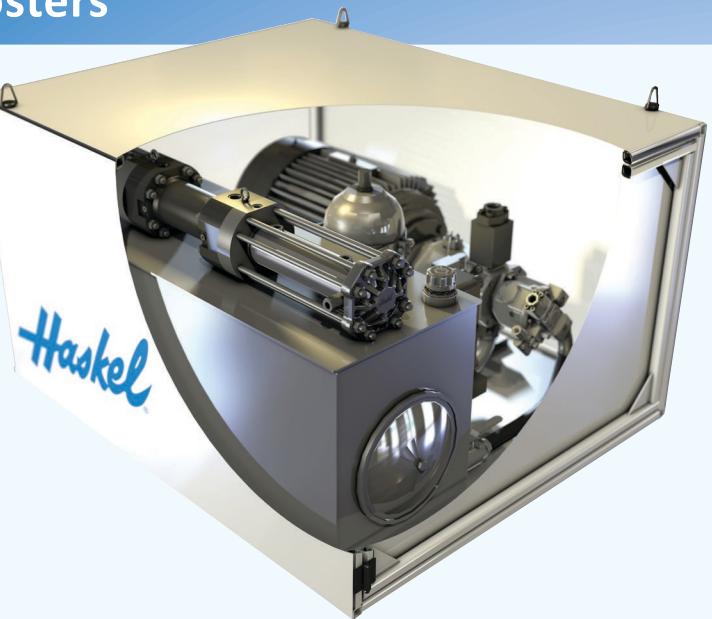
The H-Drive gas booster series sets the standard for functionality and reliability. The modular design is available in single booster units or integrated into a complete skid assembly.

Applications

Designed primarily for Hydrogen Gas Compression, the booster is ideal for hydrogen high-pressure gas storage and refueling, and delivers everything you have come to expect from the world's leader in high-pressure generation.

Features and Benefits

- Designed for hydrogen gas service
- Range of modular double acting single stage and two stage models allow compression up to 14,500 psi (1,000 bar)
- Reliable seal design for extended life
- CE Marked and ATEX certified for the European market
- Designed for simple and easy maintenance
- High efficiency design for minimal energy



Capacity Range – Hydrogen Refueling

Designed for flows from 25kg/day up to 1000 kg/day.
Flow capacity dependent upon application

Flow Rate

Flow rate is nominal, dependent on inlet and outlet pressures.

Pneumatic Driven Gas Boosters

Safe Operation with Optimal Performance

Designed with precipitation hardened stainless steel gas barrels, and high pressure gas seals for optimal seal performance at pressure ranges above 5,000 psi (345 bar).



Features and Benefits

- Vent ports combined into one outlet for safe operation with Hydrogen
- Gas barrels are dates stamped for recommended 7-year replacement
- Supplied with Test Certification
- Integrated systems available

5.75" Air Drive Models

Base Booster Model No.	Hydrogen Maximum		Supply Pressure	Flow SCFM @ psi*	Hydrogen Model No.
	PSI	BAR			
AG-30	4500	310	800	3.04 @ 2800	
AG-62	9000	620	1000	4.21 @ 4800	86979
AG-75	11250	775	1500	3.81 @ 6000	86980
AG-152	15000	1034	2000	3.02 @ 12000	86981
AGD-7	2500	172	150	6.85 @ 710	86982
AGD-15	4000	276	500	10.68 @ 1700	86983
AGD-30	9000	620	750	8.12 @ 3150	86984
AGD-32	4000	276	750	10.75 @ 3150	86985
AGD-62	9000	620	1000	6.97 @ 5800	86986
AGD-75	15000	1034	1500	6.18 @ 7500	86987
AGD-152	15000	1034	2000	5.07 @ 14000	86988
AGT-7/15	2500/4000	172/276	100	2.63 @ 1410	86989
AGT-7/30	2500/9000	172/620	100	2.30 @ 2820	86990
AGT-14/62	2500/9000	172/620	250	5.8 @ 4000	86991
AGT-15/30	4000/9000	276/620	500	5.88 @ 3400	86992
AGT-15/75	4000/12000	276/827	250	2.34 @ 7250	86993
AGT-30/75	9000/12000	620/827	500	2.70 @ 7250	86994
AGT-32/62	4000/9000	276/620	1000	8.08 @ 6800	86995
AGT-32/152	4000/15000	276/1034	350	1.93 @ 13750	86996
AGT-62/152	9000/15000	620/1034	1000	3.80 @ 14500	86997

Based on 100 psi Drive Pressure and 48 SCFM (Pa=100, Qa=48)

8" Air Drive Models

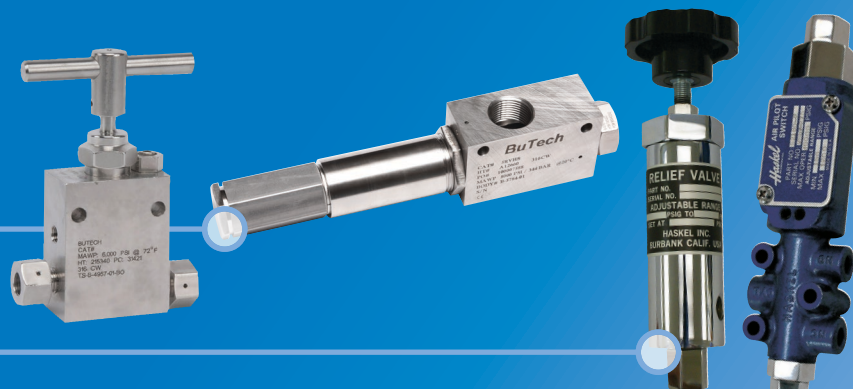
Base Booster Model No.	Hydrogen Maximum		Supply Pressure	Flow SCFM @ psi*	Hydrogen Model No.
	PSI	BAR			
8AGD-14	5000	345	150	9.20 @ 980	87219
8AGD-30	5000	345	750	14.26 @ 3150	87201
8AGD-60	5000	620	1000	9.47 @ 5800	87185
8AGT-14/30	5000	345	500	10.73 @ 3400	87226
8AGT-14/60	9000	620	250	3.87 @ 6000	87225
8AGT-30/60	9000	620	1000	10.4 @ 6800	87224

Based on 100 psi Drive Pressure and 95 SCFM (Pa=100, Qa=95)

Accessory Components

Valves and Fittings Hydrogen rated to 20,000 PSI (1380 bar) Available in annealed 316SS and A286

Components for System Control



**For more information on our high-pressure products,
visit Haskel.com or contact your local Haskel representative.**



Haskel is part of Ingersoll Rand. Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands— including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are committed to a world of sustainable progress and enduring results.

Haskel®