



GAS BOOSTER CATALOG

OUR PRODUCTS ARE BACKED BY OUTSTANDING TECHNICAL SUPPORT, AN
EXCELLENT REPUTATION FOR RELIABILITY AND WORLDWIDE DISTRIBUTION



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Haskel International, Inc.
Burbank, California, USA



Haskel Energy Systems, Ltd.
Sunderland, England, U.K.

Haskel International, Inc. has almost 50 years of hydraulic and pneumatic engineering experience in the design and manufacture of their wide range of air driven gas boosters.

Located in Burbank, California, U.S.A., with an additional manufacturing plant in Sunderland, United Kingdom, the company is supported by a worldwide network of offices and distributors.

Haskel air driven gas boosters now offer the most complete range of models in this industry, whether measured by ultimate pressure, flow or output horsepower capability; or by variety of gases with which they are compatible.

Continuous investment in the most modern machinery and technology ensures that Haskel will remain the leader in this field.

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GENERAL DESCRIPTION

Haskel Gas Boosters consist of a large area reciprocating air drive piston directly coupled by a connecting rod to a small area gas piston. The gas piston operates in a high-pressure gas barrel section. Each gas barrel end cap contains high-pressure inlet and outlet check valves. The air drive section includes a cycling spool and pilot valves that provide continuous reciprocating action when air is supplied to the air drive inlet.

Isolation of the gas compression chambers from the air drive section is provided by three sets of dynamic seals. The intervening two chambers are vented to atmosphere. This design prevents air drive contamination from entering the gas stream.

Cooling is provided by routing the cold exhausted drive air through an individual jacket surrounding the gas barrel and also through an intercooler on the interstage line (two-stage models only).

- **Air Driven – No Electrical Requirement**
- **No Airline Lubricator Required**
- **Hydrocarbon Free – Separation Between Air and Gas Sections**
- **Pressures to 39,000 psi (2690 bar)**
- **Wide Range of Models**
- **Built in Cooling (most models)**
- **Standard & Custom Systems Available**
- **Suitable for Most Gases**



Acceptable operating temperatures for Haskel Gas Booster Compressors

There are two distinct sections: the air drive section and the gas barrel section.

Air Drive Section

The ambient air condition is normally all that need be considered since this will usually determine the temperature of the air or gas drive seals and other static components. Standard air drive sections should cycle reliably within an ambient range of -4°C to $+65^{\circ}\text{C}$ (25° to 150°F). Lower temperatures will cause excessive air/gas leakage; higher temperatures reduce seal life.

Drive air directly from a compressor should ideally be warm before entering the air gas drive.

Gas Barrel Section

Low temperatures normally have little effect on the operation of standard parts and seals. The heat from the compressing gas helps to balance out an acceptable temperature. Maximum average acceptable temperature 115°C (240°F).

HASKEL AIR OR GAS DRIVEN GAS BOOSTER COMPRESSORS ARE SUITABLE FOR TRANSFER AND PRESSURIZATION OF:

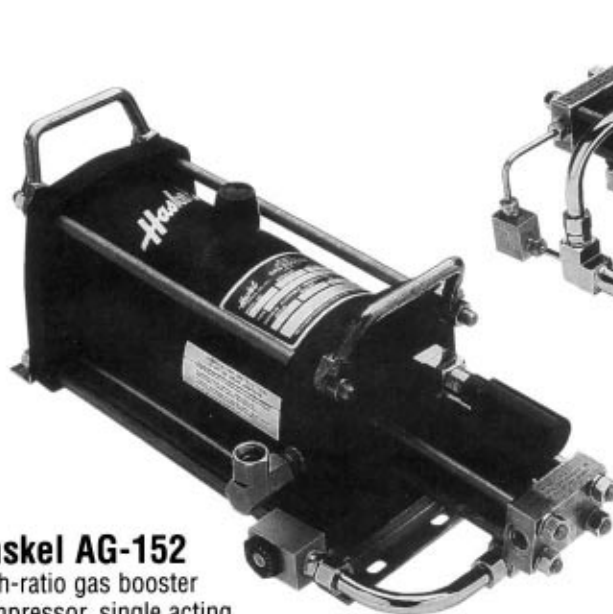
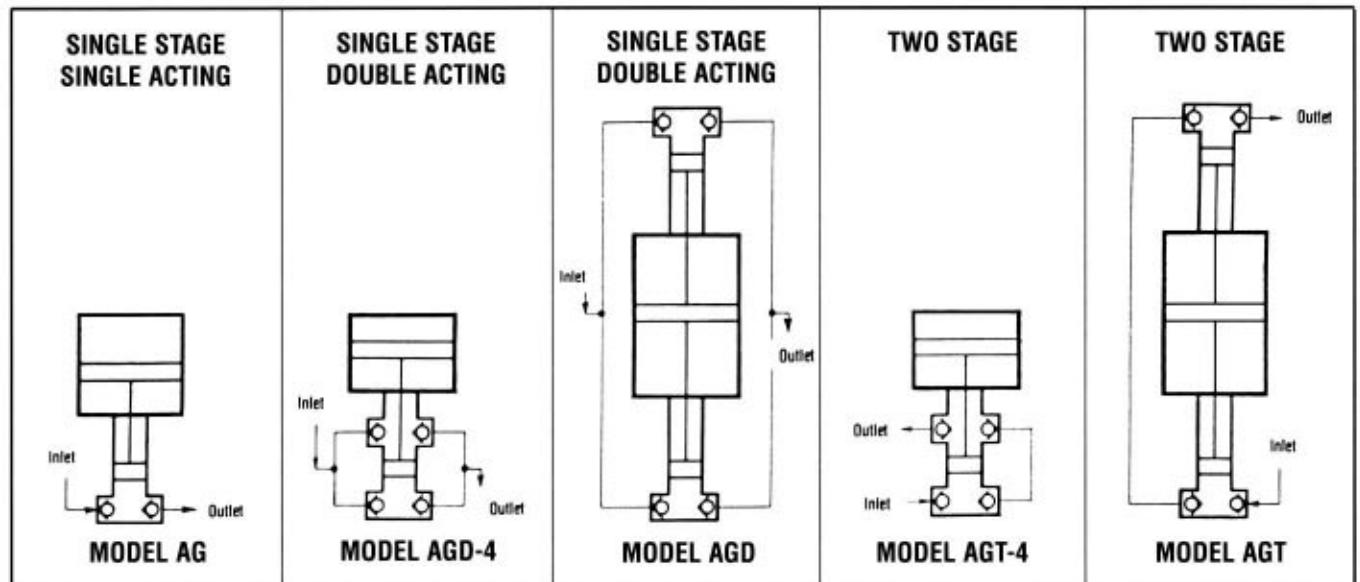
- | | |
|---|--|
| 1. Nitrogen (N_2) | 9. Oxygen (O_2) – maximum safe working pressure 345 bar (5000 psi) |
| 2. Helium (He) | 10. Carbon Monoxide (CO) * |
| 3. Breathing Air (N_2O_2) | 11. Hydrogen (H_2) * |
| 4. Nitrous Oxide (N_2O) | 12. Methane (CH_4) * |
| 5. Carbon Dioxide (CO_2) | 13. Ethylene (C_2H_4) * |
| 6. Neon (Ne) | 14. Deuterium (D_2) * |
| 7. Argon (Ar) | 15. Natural Gas (CH_4) – often contains a high proportion of CO_2 & N_2 * |
| 8. Sulphur Hexafluoride (SF_6) | |

* For these gases (10 – 15), the gas booster must be operated in a safe and well-ventilated area and vent(s) piped to controlled environment.

Liquefied type gases (propane, CO_2 , nitrous oxide, halons, etc.) can be boosted as a liquid or gas in controlled applications. Consult your Haskel distributor or the factory for precise recommendations.

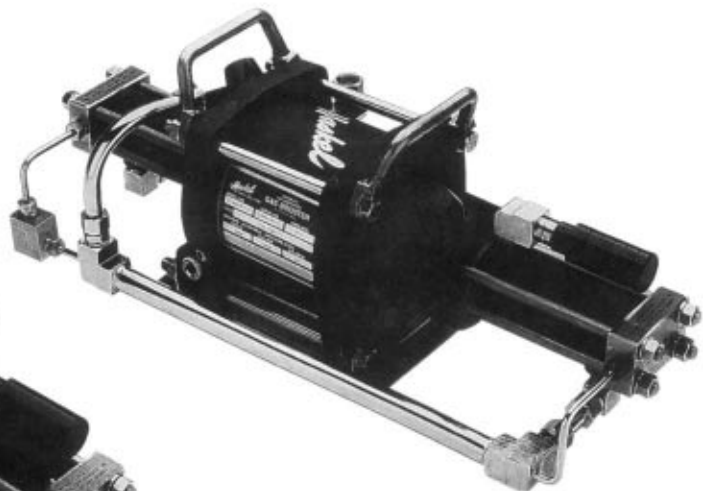
Haskel boosters are noted for their cleanliness and can handle pure gases such as oxygen without risk of any contamination. (Special cleaning required – advise factory.)

BASIC TYPES OF GAS BOOSTERS



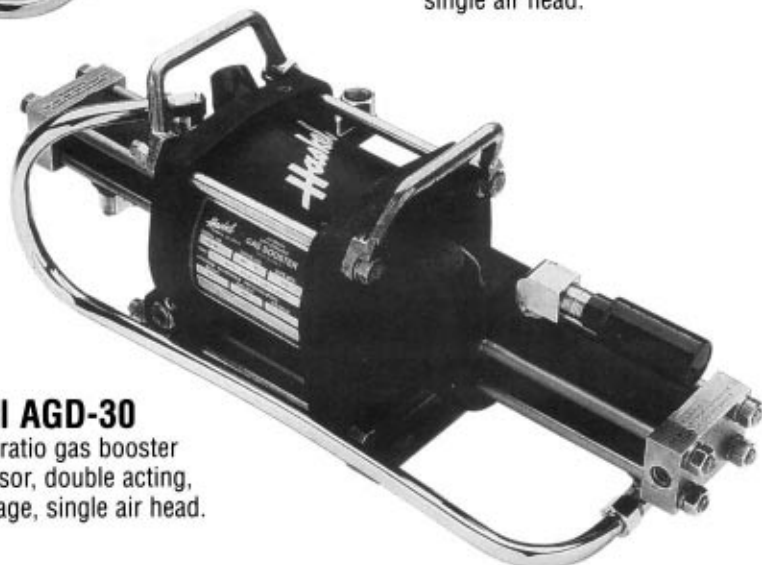
Haskel AG-152

High-ratio gas booster compressor, single acting, single stage, double air head.



Haskel AGT-30/75

Two stage gas booster compressor, single air head.



Haskel AGD-30

Medium ratio gas booster compressor, double acting, single stage, single air head.

MODEL SELECTION CHART

Model No.	Curve On Page	Maximum Rated Gas Supply (Psig)	Maximum Rated Gas Outlet (Psig)	Static Outlet (Stall) Pressure Formula	Piston Displ. Cu. In. Per Cycle	Min. Inlet Gas Pressure: Max. Outlet Gas Pressure: Max Compression Ratio:
AG-15	9	2250	2250	15 Pa	6.2	3.5 bar (50 psi) 155 bar(2250 psi) 20:1
AG-30	9	4500	4500	30 Pa	3.1	7 bar (100 psi) 310 bar(4000 psi) 25:1
AG-62	9	9000	9000	60 Pa	3.1	14 bar (200 psi) 620 bar(9000 psi) 25:1
AG-75	9	11250	11250	75 Pa	1.2	17 bar (250 psi) 775 bar(11,250 psi) 25:1
AG-152	9	20000	20000	150 Pa	1.2	17 bar (250 psi) 1380 bar(20,000 psi) 25:1
AG-233	9	22500	22500	225 Pa	1.2	17 bar (250 psi) 1380 bar(22,500 psi) 25:1
AG-303	10	39000	39000	300 Pa	0.89	34 bar (500 psi) 2690 bar(39,000 psi) 20:1
AGD-1.5	10	300	300	1.5 Pa + Ps	60	ATM 20.7 bar(300 psi) 10:1
AGD-4	10	1250	1250	4 Pa + Ps	19.3	ATM (1/4 ATM AGT-4) 86.2 bar(1250 psi) 10:1 (100:1 AGT-4)
AGD-7	10	2500	2500	7 Pa + Ps	26.4	1.7 bar (25 psi) 172 bar(2500 psi) 20:1
AGD-15	10	5000	5000	15 Pa + Ps	12.4	3.5 bar (50 psi) 345 bar(5000 psi) 20:1
AGD-30	10	9000	9000	30 Pa + Ps	6.2	7 bar (100 psi) 620 bar(9000 psi) 25:1
AGD-32	11	5000	5000	30 Pa + Ps	12.4	3.5 bar (50 psi) 310 bar(4500 psi) 20:1
AGD-62	11	9000	9000	60 Pa + Ps	6.2	14 bar (200 psi) 620 bar(9000 psi) 25:1
AGD-75	11	20000	20000	75 Pa + Ps	2.4	17 bar (250 psi) 1380 bar(20,000 psi) 25:1
AGD-152H	11	25000	25000	150 Pa + Ps	2.4	17 bar (250 psi) 1724 bar(25,000 psi) 25:1
AGT-4	11	1250	1250	4 Pa + Ps	10	1/4 ATM 86.2 bar(1250 psi) 100:1
AGT-7/15	11	(1) 6 Pa to 2500 (3) 5000	5000	15 Pa + 2 Ps	13.2	1.7 bar (25 psi) 276 bar(4000 psi) 50:1
AGT-7/30	12	(1) 2 Pa to 2500 (3) 5000	9000	30 Pa + 4 Ps	13.2	1.7 bar (25 psi) 379 bar(5500 psi) 100:1
AGT-15/30	12	(1) 15 Pa to 2500	9000	30 Pa + 2 Ps	6.2	3.5 bar (50 psi) 586 bar(8500 psi) 50:1
AGT-32/62	12	(1) 30 Pa to 2500	9000	60 Pa + 2 Ps	6.2	7 bar (100 psi) 621 bar(9,000 psi) 50:1
AGT-15/75	12	(1) 3.5 Pa to 5000	20000	75 Pa + 5 Ps	6.2	3.5 bar (50 psi) 897 bar(13,000 psi) 100:1

LEGEND: Ps = Gas Supply Pressure Pa = Drive Pressure Po + Gas Outlet Pressure

MODEL SELECTION CHART

Model No.	Curve On Page	Maximum Rated Gas Supply (Psig)	Maximum Rated Gas Outlet (Psig)	Static Outlet (Stall) Pressure Formula	Piston Displ. Cu. In. Per Cycle	Min. Inlet Gas Pressure: Max. Outlet Gas Pressure: Max Compression Ratio:
AGT-30/75	12	(1) 20 Pa to 9000	20000	75 Pa + 2.5 Ps	3.1	7 bar (100 psi) 1103 bar(16,000 psi) 60:1
AGT-32/152H	12	(1) 7 Pa to 5000	25000	150 Pa + 5 Ps	6.2	7 bar (100 psi) 1724 bar(25,000 psi) 100:1
AGT-62/152H	13	(1) 40Pa to 3600 (3) 9000	25000	150 Pa + 2.5 Ps	3.1	7 bar (100 psi) 1724 bar(25,000 psi) 60:1
8AGD-1	13	300	300	1 Pa + Ps	400	3.5 bar (50 psi) 20.7 bar(300 psi) 25:1
8AGD-2	13	300	300	2 Pa + Ps	200	3.5 bar (50 psi) 20.7 bar(300 psi) 25:1
8AGD-2.8	13	800	800	2.8 Pa + Ps	125	7 bar (100 psi) 55 bar (800 psi) 25:1
8AGD-5	13	2500	2500	5 Pa + Ps	71.4	3.5 bar (50 psi) 172 bar(2500 psi) 20:1
8AGD-14	13	5000	5000	14 Pa + Ps	26.7	7 bar (100 psi) 172 bar(2500 psi) 20:1
8AGD-30	14	5000	5000	30 Pa + Ps	12.4	17 bar (250 psi) 345 bar(5,000 psi) 23:1
8AGD-60	14	9000	9000	60 Pa + Ps	6.2	21 bar (300 psi) 620 bar(9,000 psi) 28:1
8AGD-150	14	20000	20000	150 Pa + Ps	2.4	17 bar (250 psi) 1380 bar(20,000 psi) 25:1
8AGT-5/14	14	(1) 2.8 Pa to 2500	2500	14 Pa + 2.8 Ps	35.7	2.7 bar (25 psi) 172 bar(2500 psi) 50:1
8AGT-5/30	14	(1) 1 Pa to 2500	5000	30 Pa + 6 Ps	35.7	2.7 bar (25 psi) 345 bar(5000 psi) 50:1
8AGT-14/30	14	(1) 12Pa to 1190 (3) 2500	5000	30 Pa + 2.1 Ps	13.2	7 bar (100 psi) 345 bar(5000 psi) 50:1
8AGT-14/60	15	(1) 4.3Pa to 2500	9000	60 Pa + 4.3 Ps	13.2	7 bar (100 psi) 620 bar(9,000 psi) 50:1
8AGT-30/60	15	(1) 30 Pa to 2500 (3) 5000	9000	60 Pa + 2 Ps	6.2	17 bar (250 psi) 620 bar(9,000 psi) 100:1
8AGT-30/150	15	(1) 7Pa to 5000	20000	150 Pa + 5 Ps	6.2	17 bar (250 psi) 1380 bar(20,000 psi) 50:1
8AGT-60/150	15	(1) 40Pa to 3600 (3) 9000	20000	150 Pa + 2.5 Ps	3.1	34 bar (500 psi) 1380 bar(20,000 psi) 100:1
14AGD-125	15	15000	15000	125 Pa + Ps	8.87	69 bar (1000 psi) 1035 bar(15,000 psi) 10:1
14AGD-315	15	35000	35000	315 Pa + Ps	3.53	69 bar (1000 psi) 2415 bar(35,000 psi) 10:1
14AGT-125/315	16	(1) 82 Pa to 6000 (3) 15000	35000	315 Pa + 2.5 Ps	4.44	6.9 bar (100 psi) 2415 bar(35,000 psi) 40:1

- 1) Two-stage model: Supply pressure also limited by factor x air drive (Pa) to avoid interstage stall
- 2) Maximum 1st stage pressure. If outlet pressure will exceed this, install interstage relief valve set at this pressure if at the same time, supply pressure will exceed pressure limit above the line
- 3) Maximum air drive is 150 psig all models except AG-233, AG-303, AGD-1.5(130 psig)
- 4) 130 psig maximum drive pressure for all 8" + 14" models

SELECTING A HASKEL GAS BOOSTER

Air driven gas boosters have seven significant operating parameters that determine their selection for any application. These are as follows:

1. Maximum discharge pressure?
2. Flowrate
 - a. Is it constant?
What is flowrate required?
 - b. Is it filling a vessel?
What is vessel size (water volume)?
What is fill time required?
3. Supply
 - a. Is it at constant pressure?
 - b. Is it decreasing?
What is initial pressure?
What is the minimum pressure?
4. Air drive pressure available?
5. Air drive volume available?
6. What is the gas?
7. What is the application?

The selection of the proper booster for any application starts with determining which booster "series" will provide the amount of flow required. This can be determined from the flow vs. pressure curves provided. The possible ratios for the application are determined by examination of the performance data for the boosters using the air pressure and air flow available. The ability of the booster to generate pressure is a function of the drive pressure, the nominal ratio, and the maximum compression ratio. The ability to generate flow is a function of the quantity of air available to drive it, the displacement per cycle of the pump, and the volumetric efficiency. Within each booster series, there are standard

materials of construction available. For applications involving aggressive gases, some material substitutions may be possible.

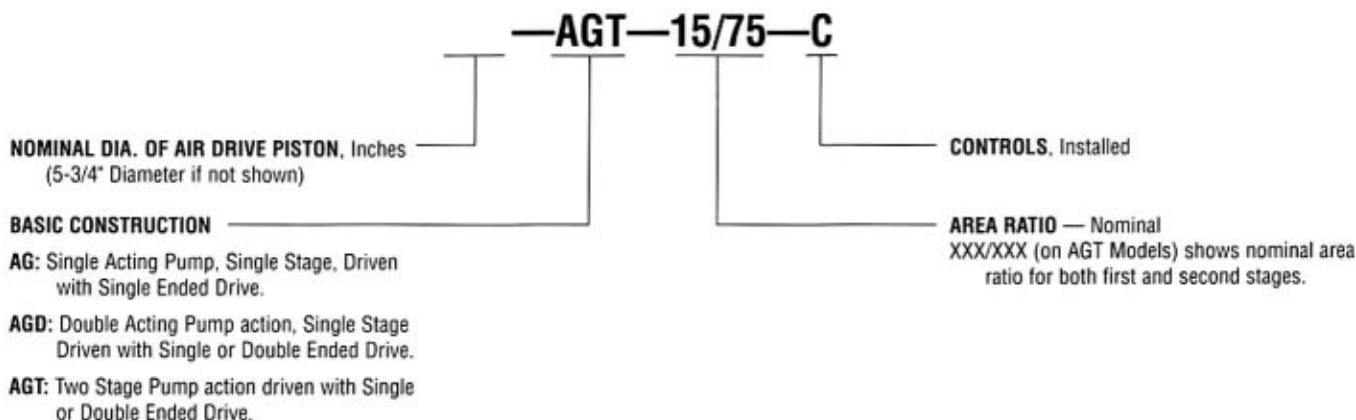
Single Acting Single Stage model "AG" boosters provide economical means of boosting pressure for testing of small components and similar applications where volume is small and efficiency is not important. They also permit control of maximum pressure by means of an inexpensive air drive pressure regulator. Maximum outlet pressure is drive area ratio times air pressure.

Double Acting Single Stage model "AGD" boosters not only pump twice the volume of the above per cycle, but also require less air drive since the inlet gas pressure itself provides a substantial portion of the required driving force. These models provide efficient means of boosting large volumes of gas at low to medium compression ratios*. Maximum outlet pressure is drive area ratio times air pressure PLUS supply pressure.

Two-Stage model "AGT" boosters provide efficient means of boosting to a high compression ratio since the ratio per stage is low. Maximum outlet pressure with these models is drive area ratio times air pressure PLUS supply pressure times area ratio of the two gas pistons.

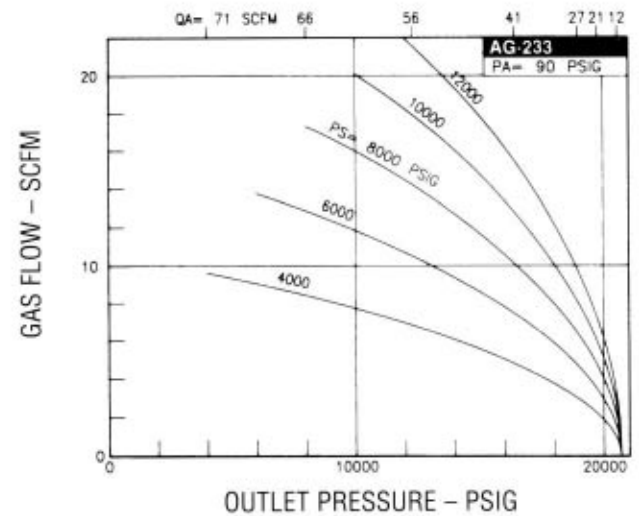
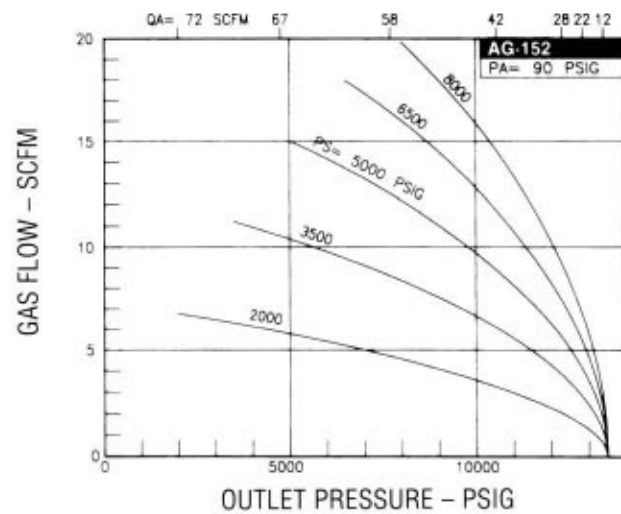
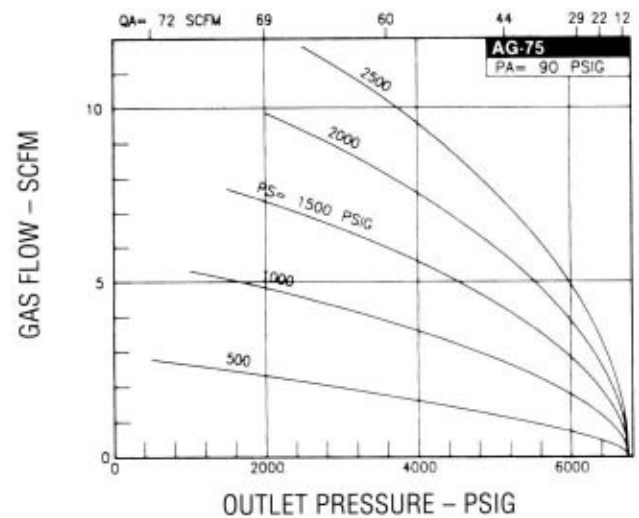
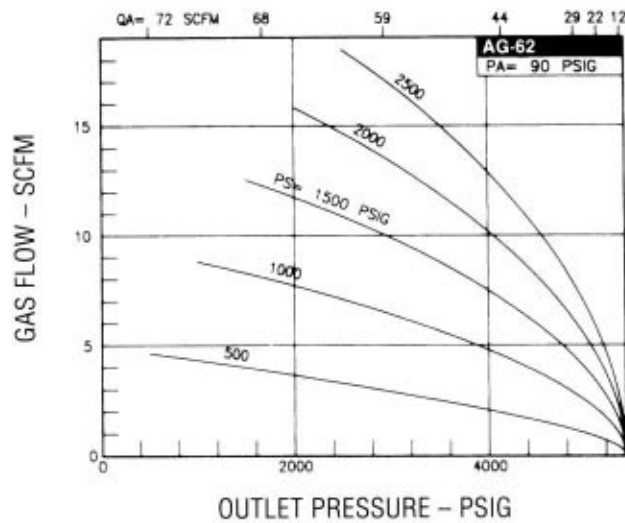
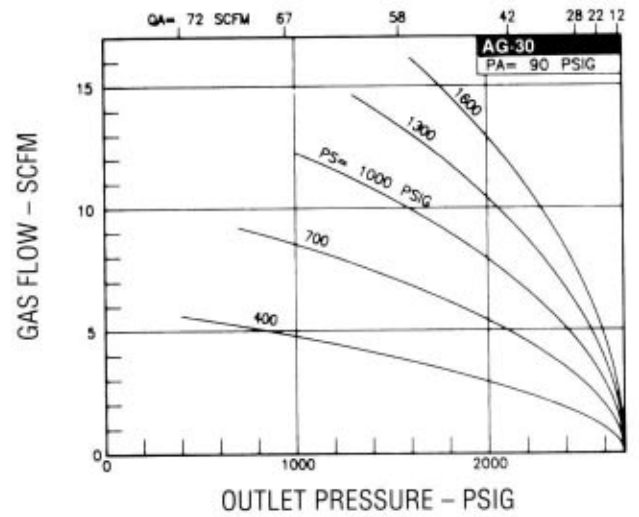
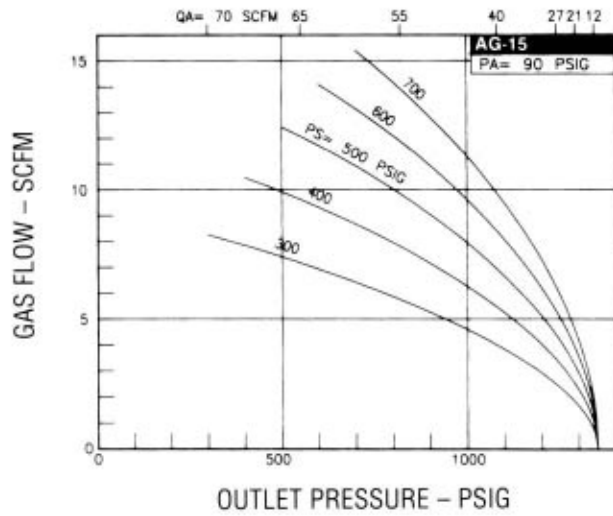
Since these models have interconnected gas pistons, they multiply supply pressure during the "interstage" stroke by the area ratio of the two gas pistons. If supply pressure is too high, the booster may have "interstage stall" at an outlet pressure substantially less than that obtainable on the "output" stroke. The selection that shows the maximum supply pressure as a factor times air drive pressure. This limitation does not apply if outlet pressure is less than the "maximum supply" times the area ratio of the two gas pistons.

MODEL LETTER/NUMBERING CODE — EXAMPLE



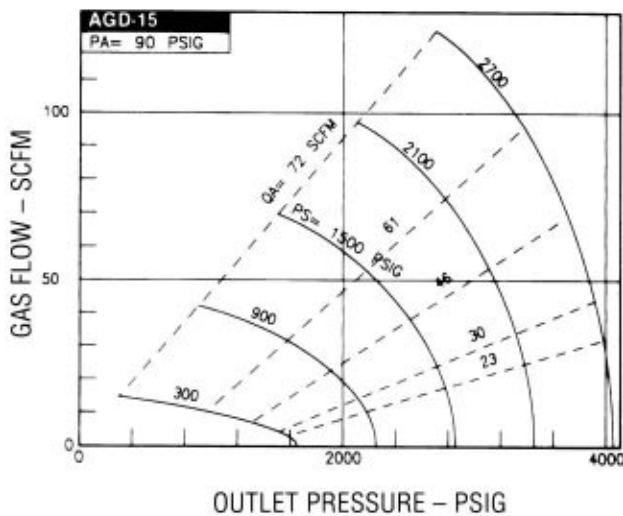
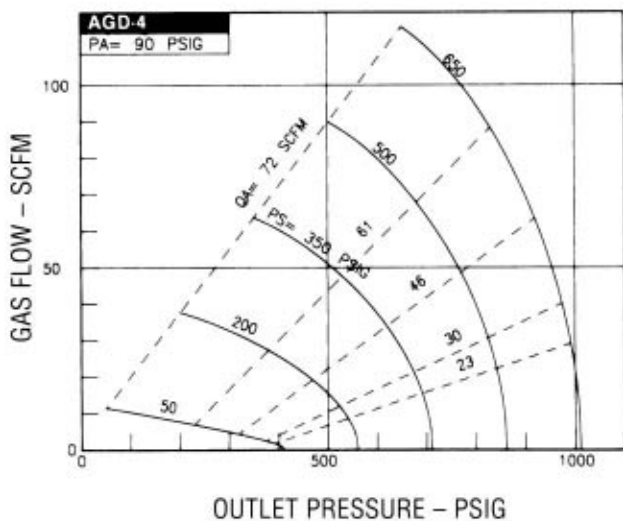
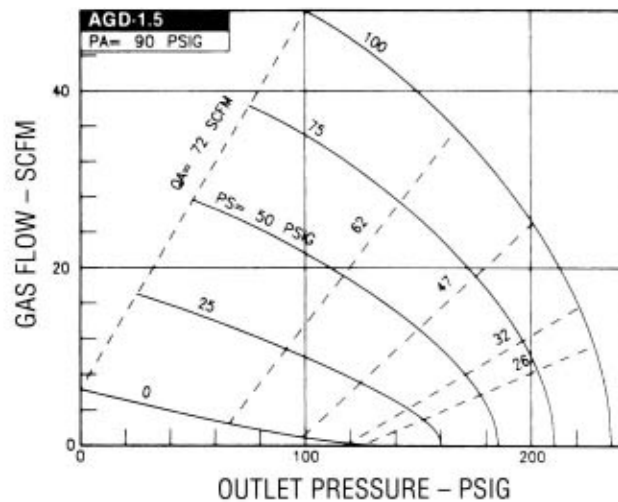
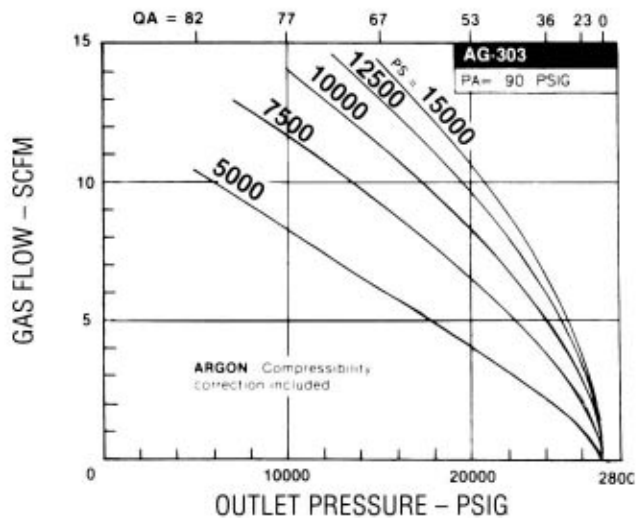
* NOTE: COMPRESSION ratio is ratio of outlet gas pressure to inlet gas pressure. Do not confuse this with area ratio which is ratio of air drive piston area to gas piston area.

PERFORMANCE CURVES — AG SERIES

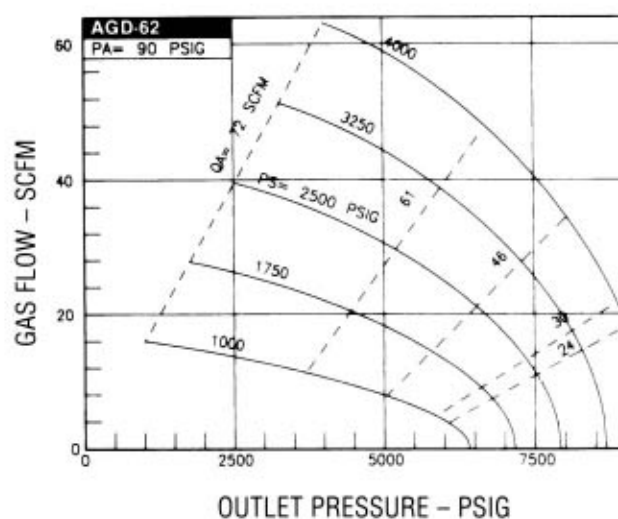


PERFORMANCE CURVES — AG SERIES / AGD SERIES

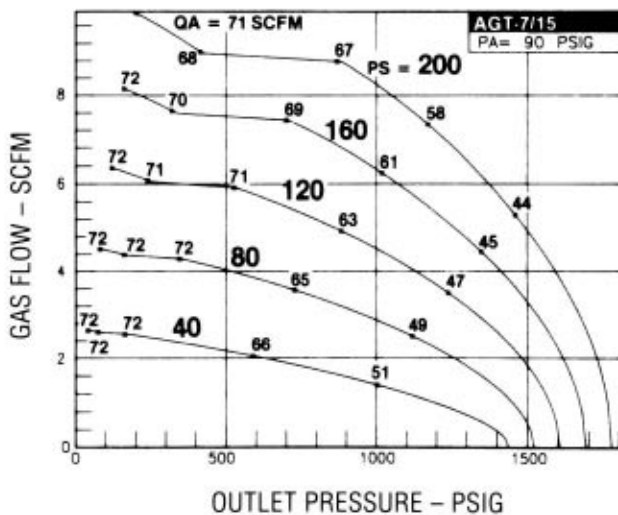
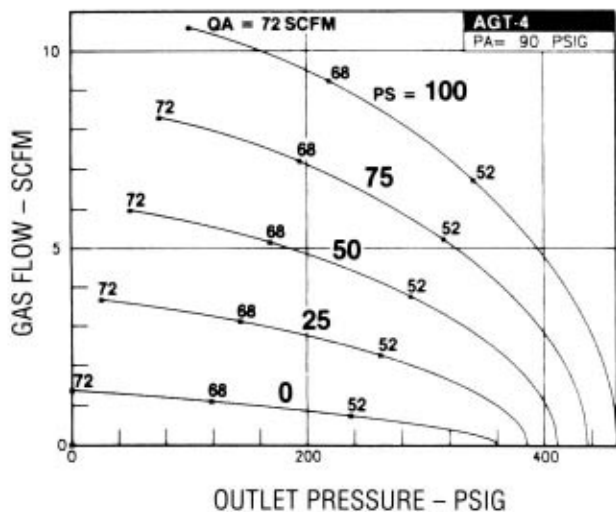
AGD — SERIES



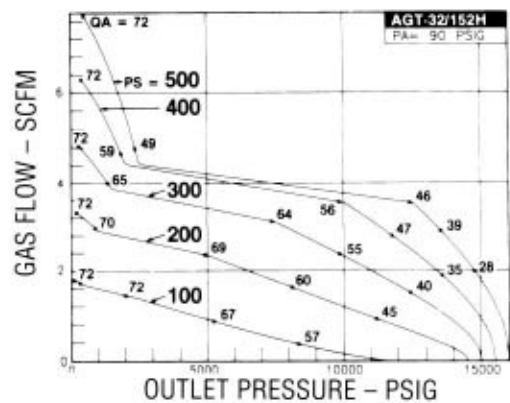
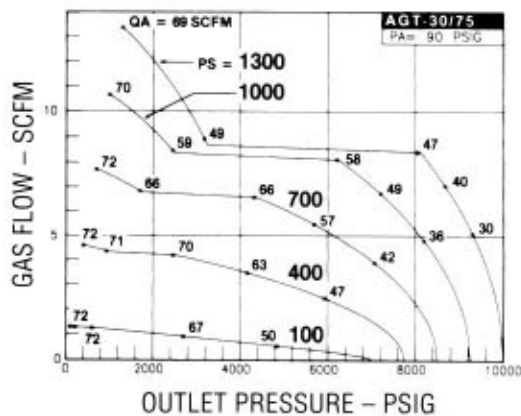
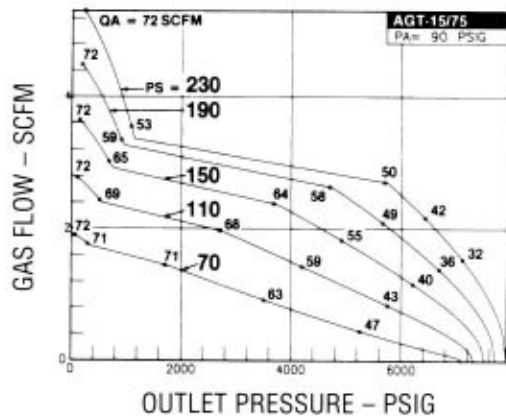
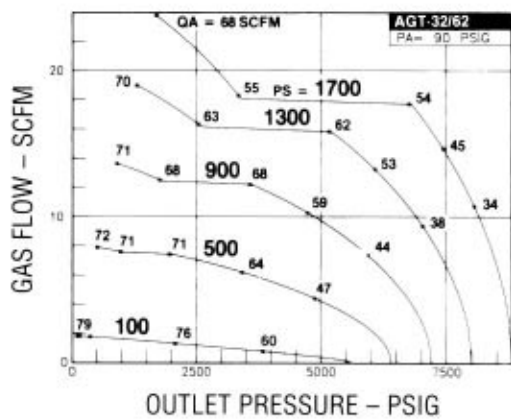
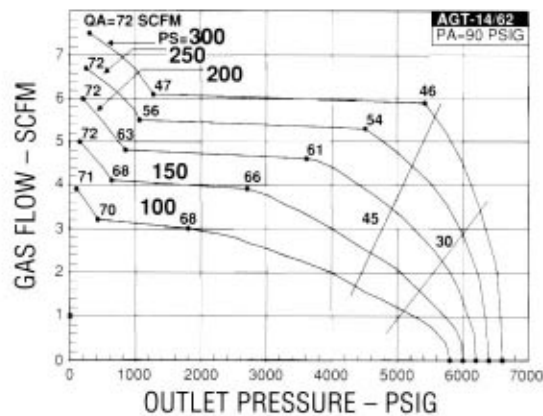
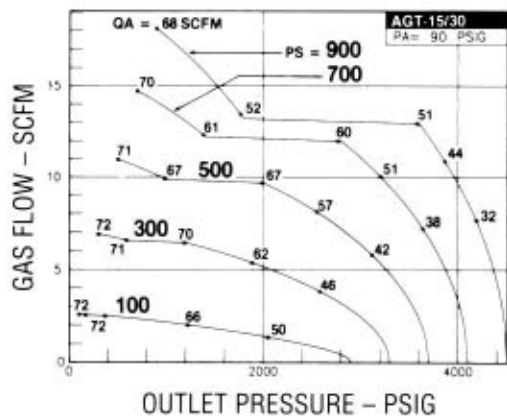
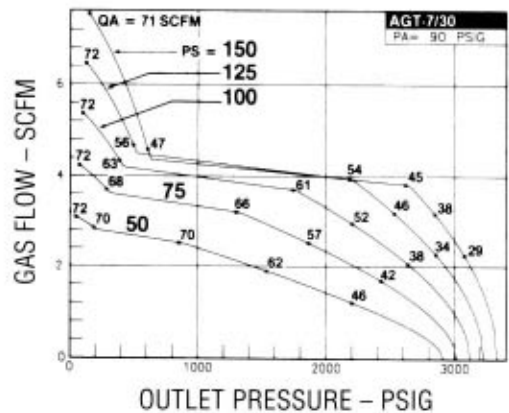
PERFORMANCE CURVES — AGD SERIES / AGT SERIES



AGT — SERIES

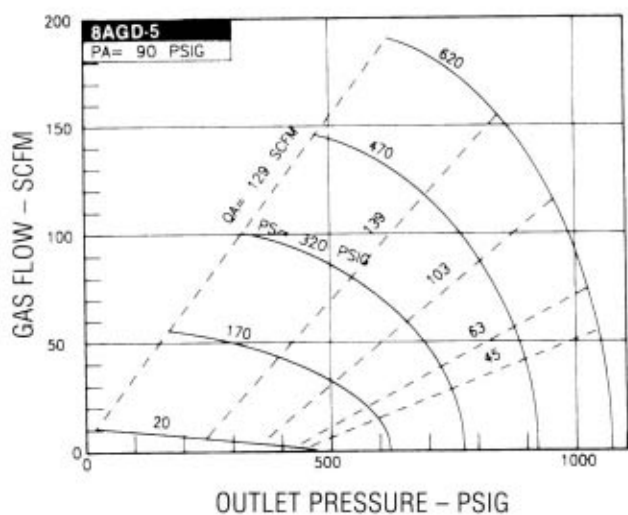
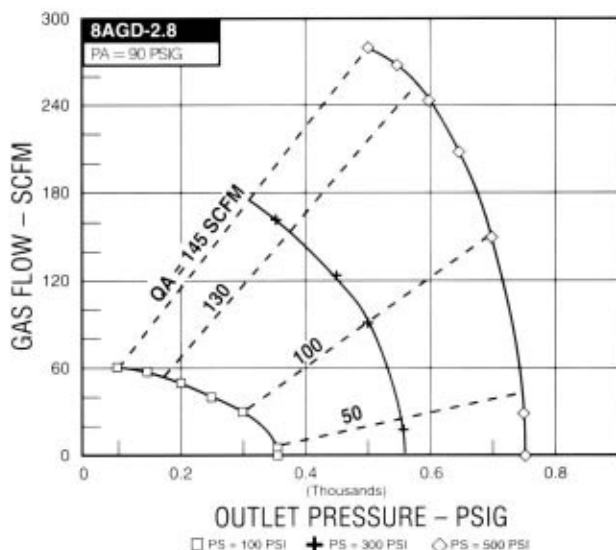
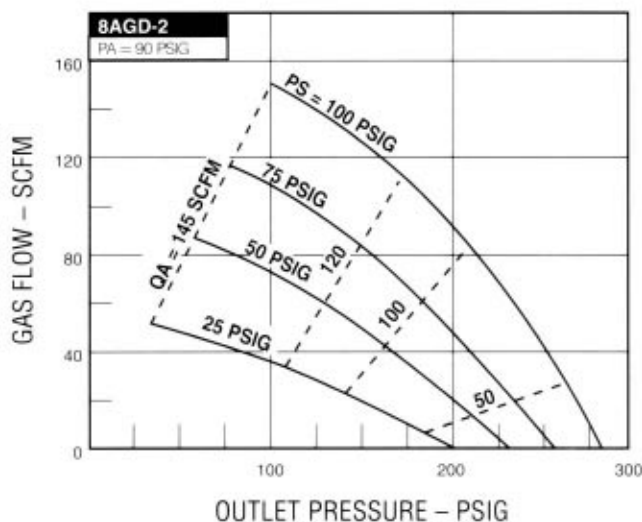
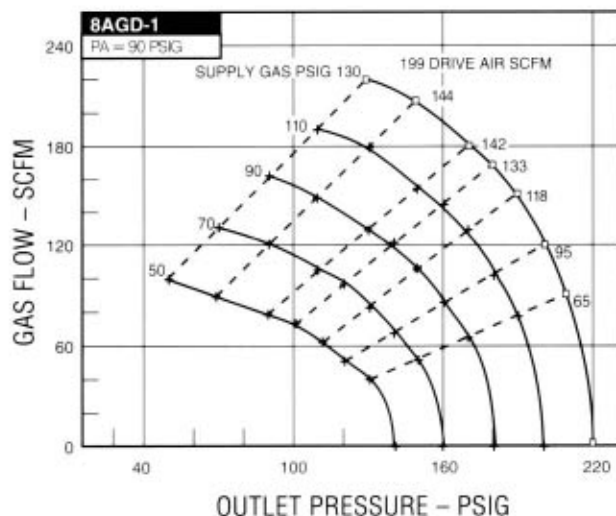
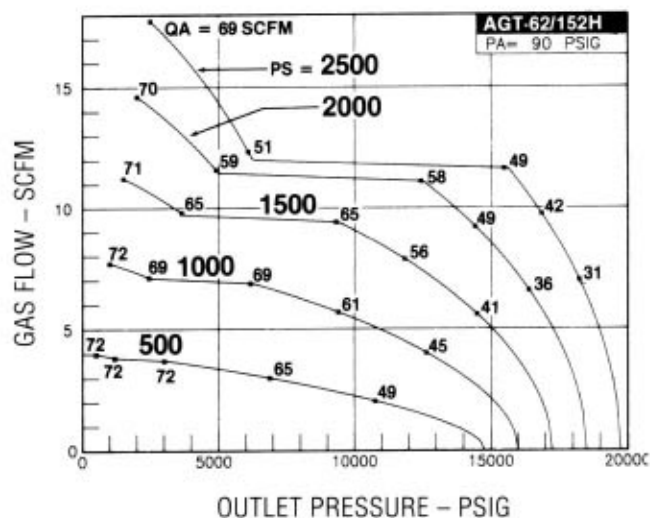


PERFORMANCE CURVES — AGT SERIES



PERFORMANCE CURVES — AGT SERIES / 8" AGD SERIES

8" SERIES — AGD BOOSTER



PERFORMANCE CURVES — 8" AGD SERIES / 8" AGT SERIES



OUTLET PRESSURE - PSIG

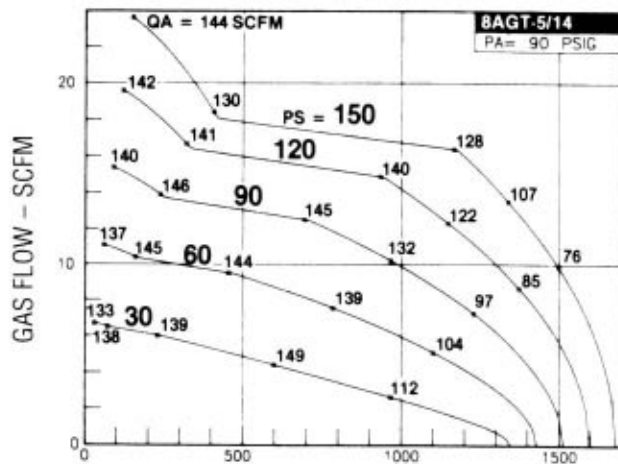


OUTLET PRESSURE - PSIG

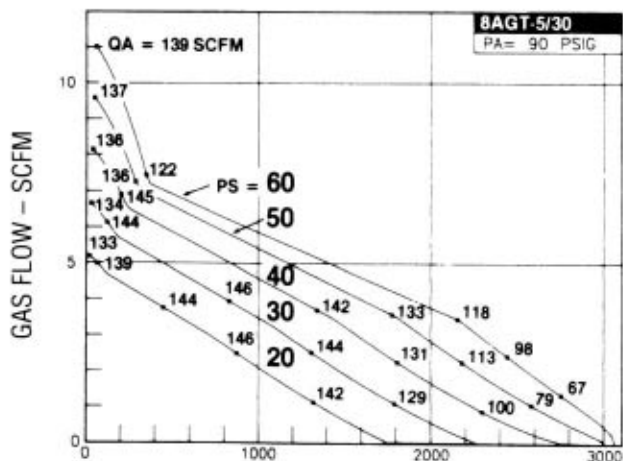


OUTLET PRESSURE - PSIG

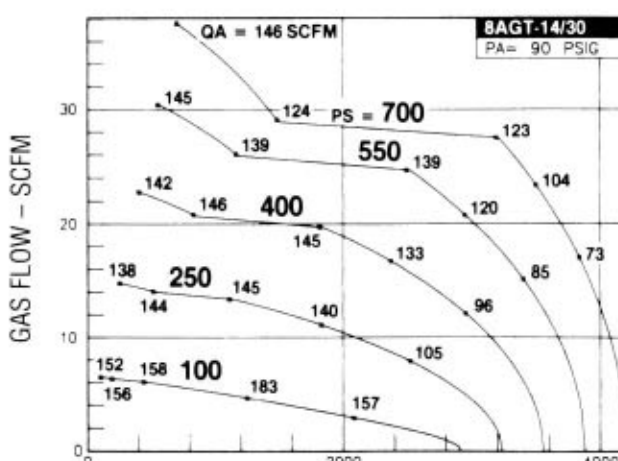
8" — AGT SERIES



OUTLET PRESSURE - PSIG

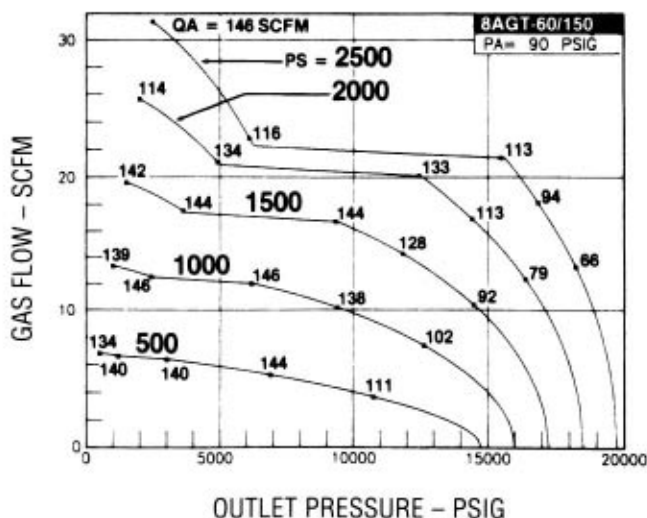
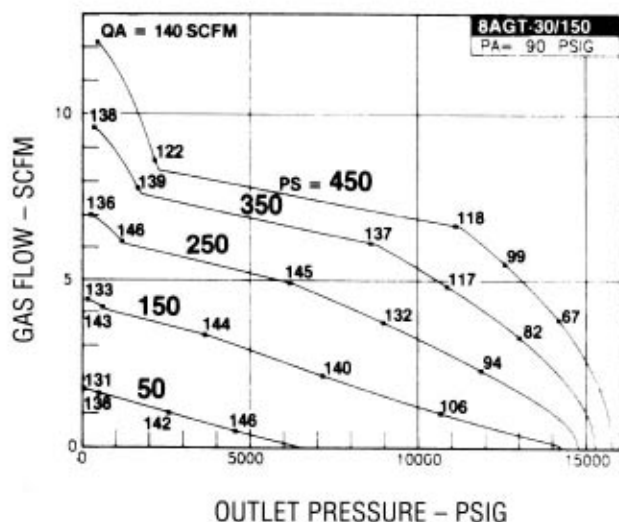
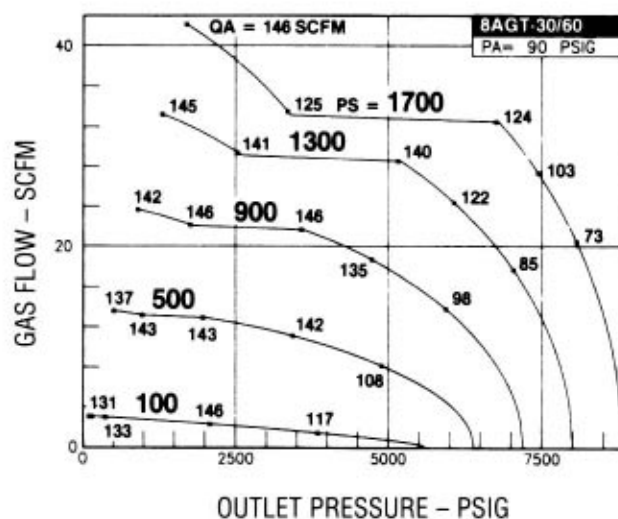
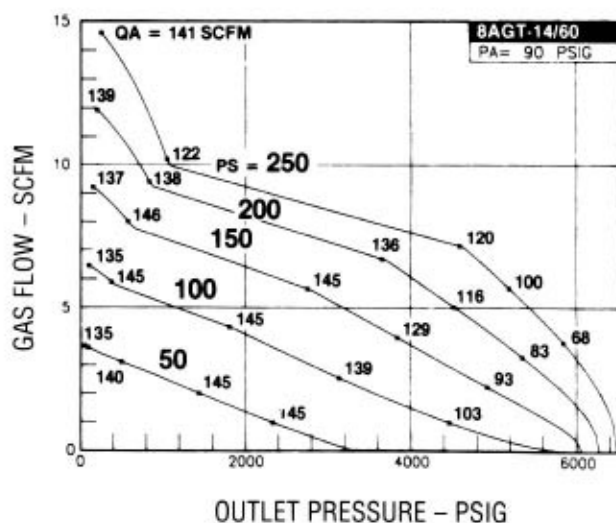


OUTLET PRESSURE - PSIG

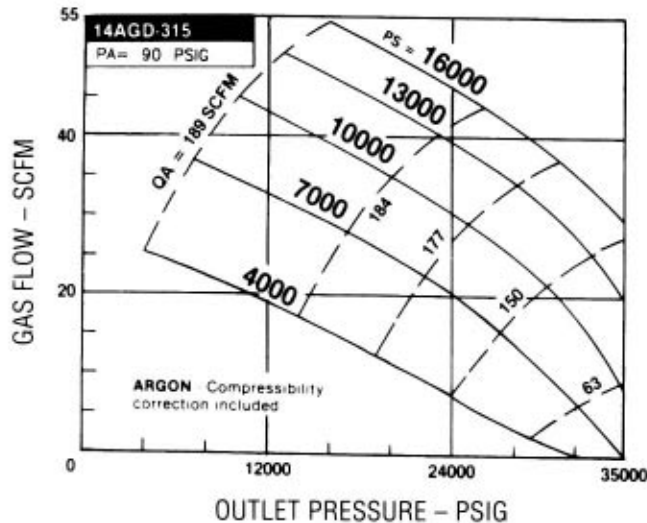
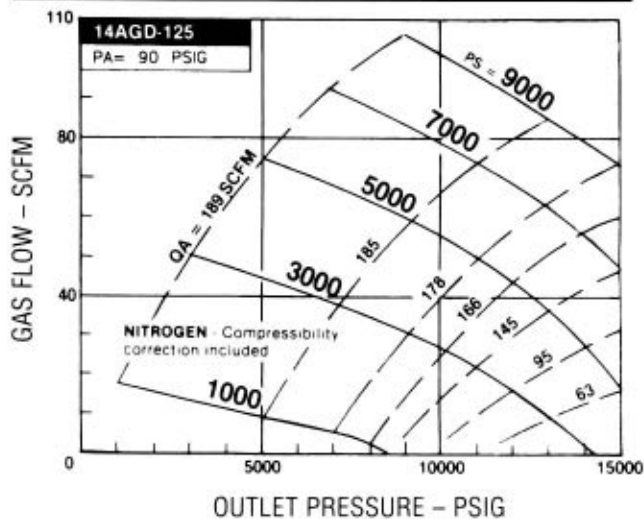


OUTLET PRESSURE - PSIG

PERFORMANCE CURVES — 8" AGT SERIES / 14" AGD SERIES

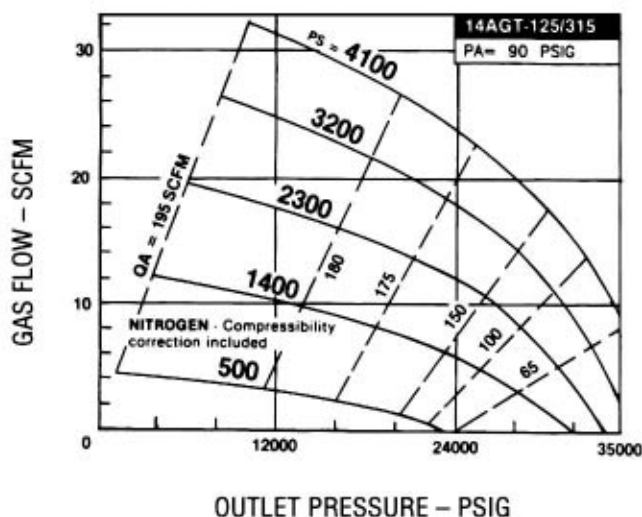


14" — AGD SERIES



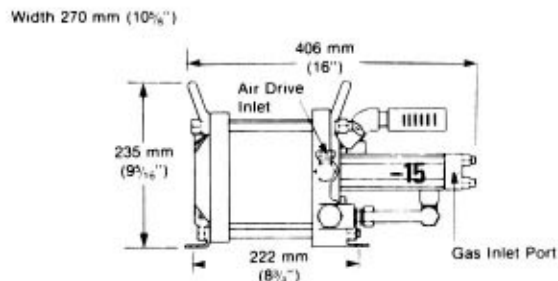
PERFORMANCE CURVES / WEIGHT and DIMENSIONAL INFORMATION

14" — AGT SERIES



**Single acting, single stage,
single air head AG-15**

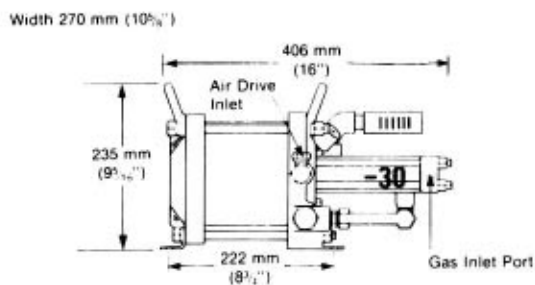
Net weight 11 Kg
Boxed weight 13 Kg
Box dimensions 51 x 39 x 39 cm



Inlet/Outlet Gas Ports: Interchangeable 3/8" SAE or 1/4" Superpressure

**Single acting, single stage,
single air head AG-30**

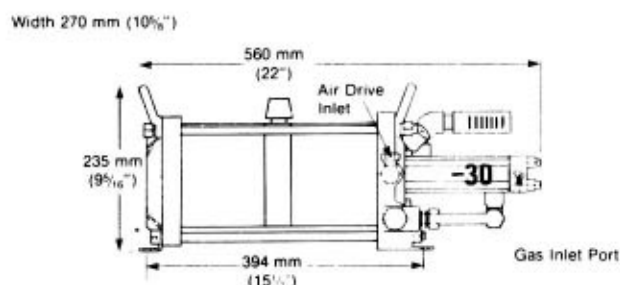
Net weight 12 Kg
Boxed weight 13 Kg
Box dimensions 44 x 37 x 33 cm



Inlet/Outlet Gas Ports: Interchangeable 3/8" SAE or 1/4" Superpressure

**Single acting, single stage,
double air head AG-62**

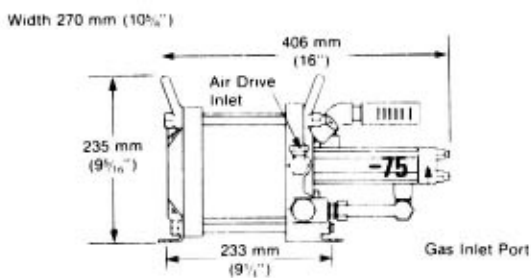
Net weight 15 Kg
Boxed weight 18 Kg
Box dimensions 67 x 42 x 49 cm



Inlet/Outlet Gas Ports: Interchangeable 3/8" SAE or 1/4" Superpressure

**Single acting, single stage,
single air head AG-75**

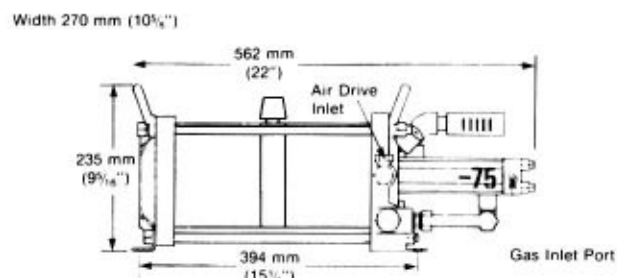
Net weight 12 Kg
Boxed weight 14 Kg
Box dimensions 51 x 39 x 40 cm



Inlet/Outlet Gas Ports: Interchangeable 3/8" SAE or 1/4" Superpressure

**Single acting, single stage,
double air head AG-152**

Net weight 15 Kg
Boxed weight 18 Kg
Box dimensions 66 x 41 x 50 cm

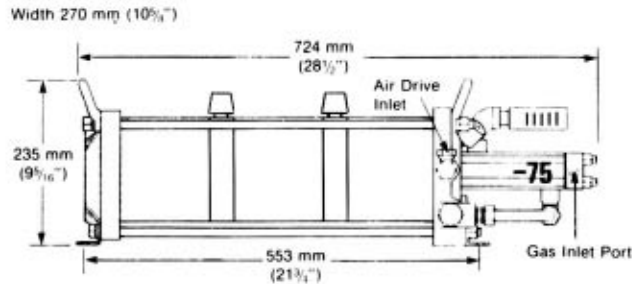


Inlet Gas Port: Interchangeable 3/8" SAE or 1/4" Superpressure
Outlet Gas Port: 1/4" Superpressure

WEIGHT and DIMENSIONAL INFORMATION

Single acting, single stage, triple air head AG-233

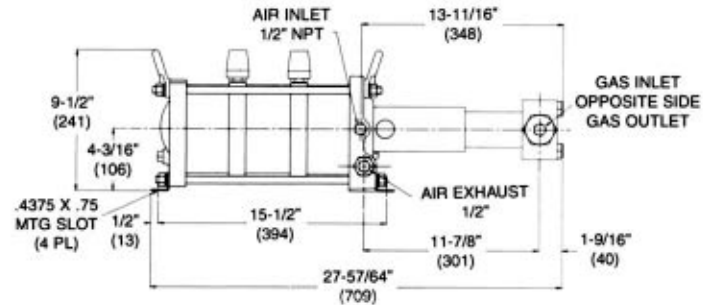
Net weight 18 Kg
Boxed weight 22 Kg
Box dimensions 80 x 42 x 49 cm



Inlet Gas Port: Interchangeable 3/8" SAE or 1/4" Superpressure
Outlet Gas Port: 1/4" Superpressure

Single acting, single stage, triple air head AG-303

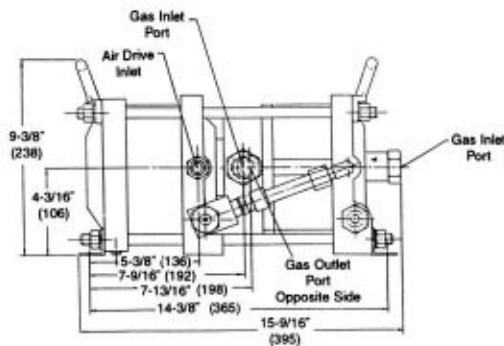
Net weight 20 Kg
Boxed weight 24 Kg
Box dimensions 80 x 42 x 49 cm



Inlet/Outlet Gas Ports 1/4" Superpressure

Double acting, single stage, single air head AGD-1.5

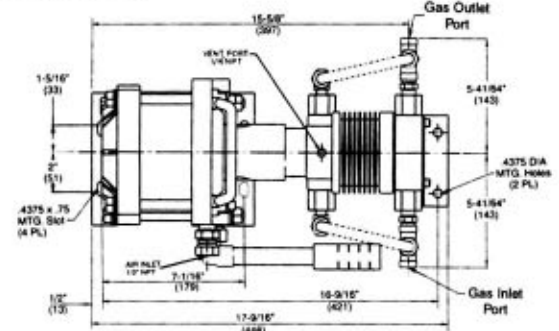
Net weight 14 Kg
Boxed weight 18 Kg
Box dimensions 67 x 41 x 50 cm



Inlet Gas Port: 1" NPT
Outlet Gas Port: 3/4" NPT

Double acting, single stage, single air head AGD-4 (Typ. AGT-4 also)

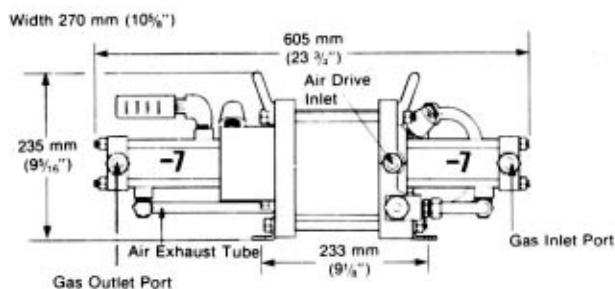
Net weight 14 Kg
Boxed weight 18 Kg
Box dimensions 67 x 41 x 50 cm



Inlet Gas Port: 3/8" NPT
Outlet Gas Port: 3/8" NPT

Double acting, single stage, single air head AGD-7

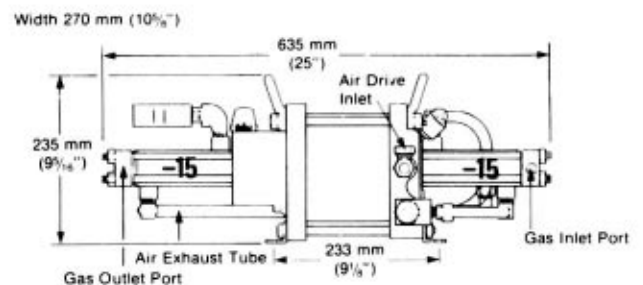
Net weight 16 Kg
Boxed weight 19 Kg
Box dimensions 66 x 42 x 49 cm



Inlet Gas Port: 3/8" NPT (2 ea.)
Outlet Gas Port: 3/8" NPT (2 ea.)

Double acting, single stage, single air head AGD-15

Net weight 16 Kg
Boxed weight 18 Kg
Box dimensions 67 x 41 x 50 cm

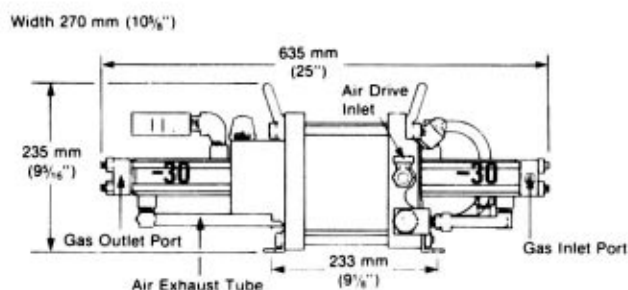


Inlet/Outlet Gas Ports: Interchangeable 3/8" SAE or 1/4" Superpressure
(2 ea. Inlet and Outlet)

WEIGHT and DIMENSIONAL INFORMATION

Double acting, single stage, single air head AGD-30

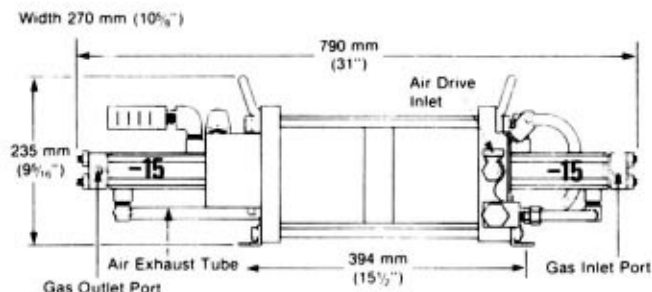
Net weight 17 Kg
Boxed weight 20 Kg
Box dimensions 66 x 41 x 50 cm



Inlet/Outlet Gas Ports: Interchangeable 3/8" SAE or 1/4" Superpressure
(2 ea. Inlet and Outlet)

Double acting, single stage, double air head AGD-32

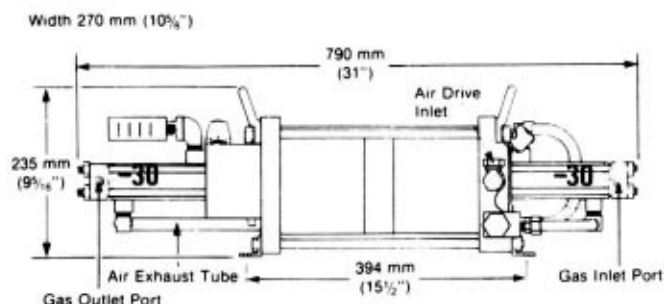
Net weight 23 Kg
Boxed weight 27 Kg
Box dimensions 91 x 52 x 39 cm



Inlet/Outlet Gas Ports: Interchangeable 3/8" SAE or 1/4" Superpressure
(2 ea. Inlet and Outlet)

Double acting, single stage, double air head AGD-62

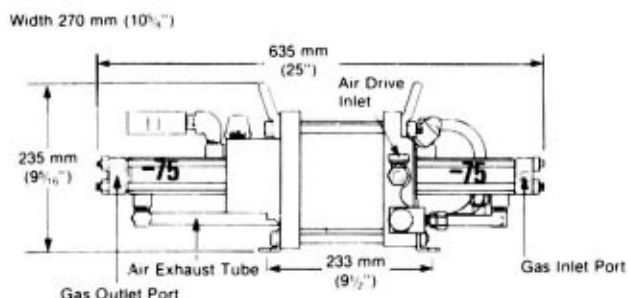
Net weight 23 Kg
Boxed weight 27 Kg
Box dimensions 91 x 52 x 39 cm



Inlet/Outlet Gas Ports: Interchangeable 3/8" SAE or 1/4" Superpressure
(2 ea. Inlet and Outlet)

Double acting, single stage, single air head AGD-75

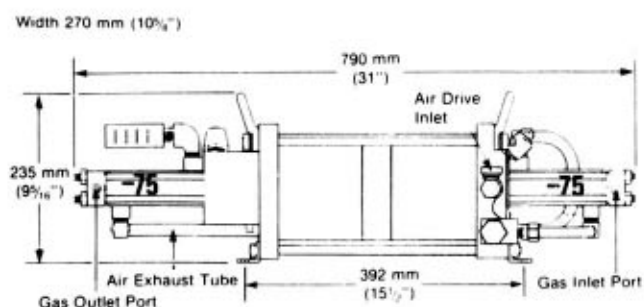
Net weight 17 Kg
Boxed weight 20 Kg
Box dimensions 66 x 41 x 50 cm



Inlet/Outlet Gas Ports: Interchangeable 3/8" SAE or 1/4" Superpressure
(2 ea. Inlet and Outlet)

Double acting, single stage, double air head AGD-152(H)

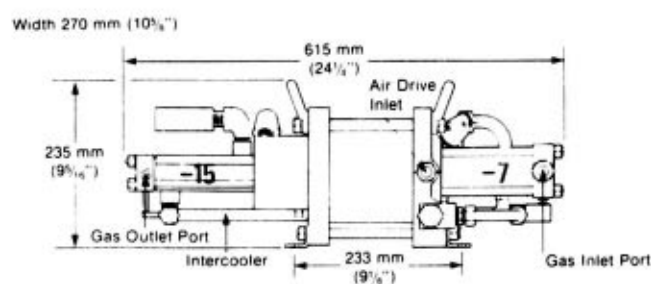
Net weight 23 Kg
Boxed weight 26 Kg
Box dimensions 91 x 60 x 40 cm



Inlet Gas Port: Interchangeable 3/8" SAE or 1/4" Superpressure (2 ea.)
Outlet Gas Port: 1/4" Superpressure (2 ea.)

Double acting, two stage, single air head AGT-7/15

Net weight 17-1/2 Kg
Boxed weight 19-1/2 Kg
Box dimensions 66 x 41 x 50 cm



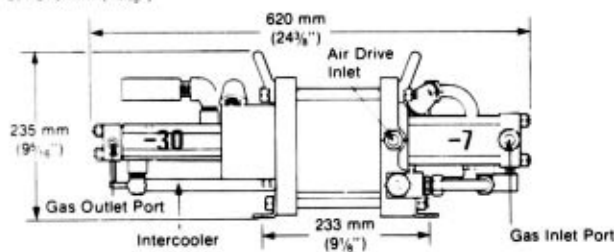
Inlet Gas Port: 3/8" NPT
Outlet Gas Port: Interchangeable 3/8" SAE or 1/4" Superpressure

WEIGHT and DIMENSIONAL INFORMATION

Double acting, two stage, single air head AGT-7/30

Net weight 18-1/2 Kg
Boxed weight 20-1/2 Kg
Box dimensions 66 x 41 x 50 cm

Width 270 mm (10⁵/₈"")



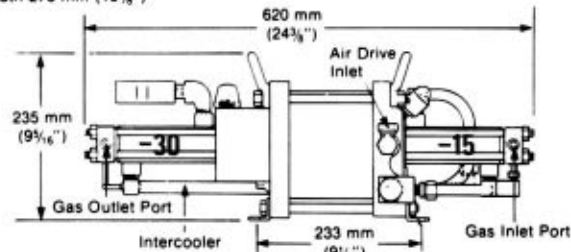
Inlet Gas Port: 3/8" NPT

Outlet Gas Port: Interchangeable 3/8" SAE or 1/4" Superpressure

Double acting, two stage, single air head AGT-15/30

Net weight 17 Kg
Boxed weight 19 Kg
Box dimensions 66 x 41 x 50 cm

Width 270 mm (10⁵/₈"")

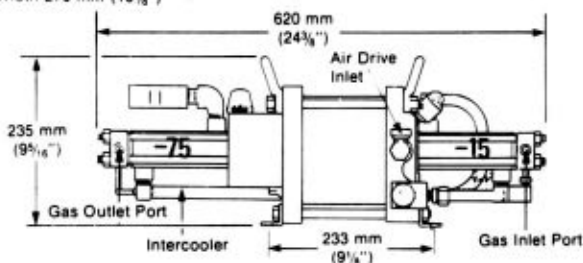


Inlet/Outlet Gas Ports: Interchangeable 3/8" SAE or 1/4" Superpressure

Double acting, two stage, single air head AGT-15/75

Net weight 17 Kg
Boxed weight 19 Kg
Box dimensions 66 x 41 x 50 cm

Width 270 mm (10⁵/₈"")

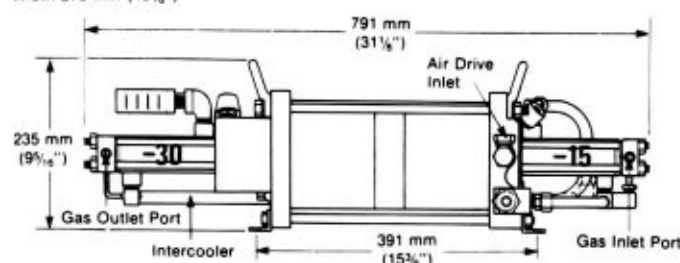


Inlet/Outlet Gas Ports: Interchangeable 3/8" SAE or 1/4" Superpressure

Double acting, two stage, double air head AGT-32/62

Net weight 22 Kg
Boxed weight 25 Kg
Box dimensions 91 x 51 x 40 cm

Width 270 mm (10⁵/₈"")

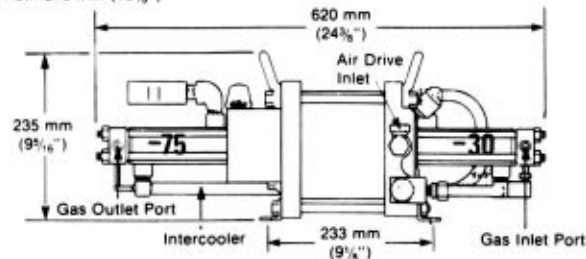


Inlet/Outlet Gas Ports: Interchangeable 3/8" SAE or 1/4" Superpressure

Double acting, two stage, single air head AGT-30/75

Net weight 17 Kg
Boxed weight 19 Kg
Box dimensions 66 x 41 x 50 cm

Width 270 mm (10⁵/₈"")

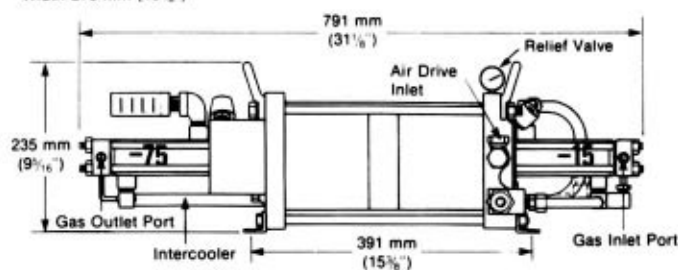


Inlet/Outlet Gas Ports: Interchangeable 3/8" SAE or 1/4" Superpressure

Double acting, two stage, double air head AGT-32/152(H) AGT-62/152(H)

Net weight 23 Kg
Boxed weight 26 Kg
Box dimensions 91 x 51 x 40 cm

Width 270 mm (10⁵/₈"")



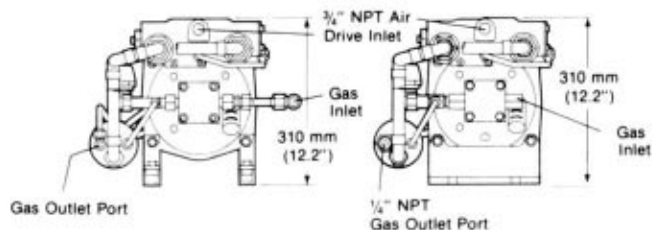
Inlet Gas Port: Interchangeable 3/8" SAE or 1/4" Superpressure
Outlet Gas Port: 1/4" Superpressure

WEIGHT and DIMENSIONAL INFORMATION

8" SERIES GAS BOOSTERS

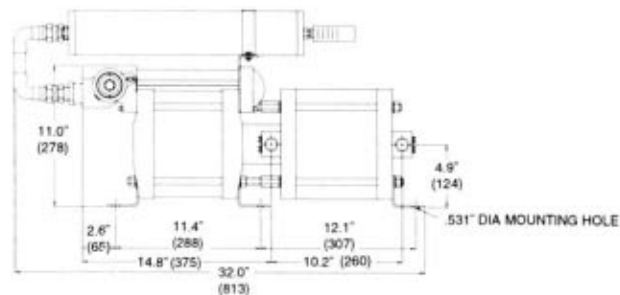
MAXIMUM AIR/GAS DRIVE PRESSURE FOR ALL 8" HASKEL GAS BOOSTER COMPRESSORS IS 8.96 bar (130 psi).

Typical End Elevations



Double acting, single stage, single air head 8AGD-1

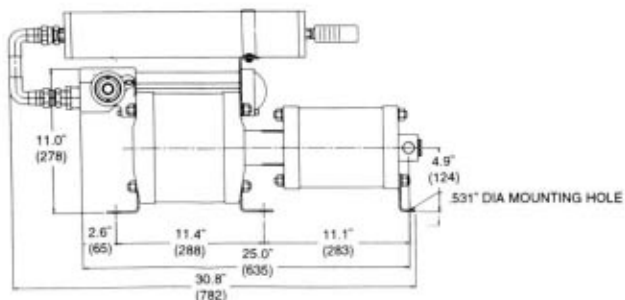
Net weight 55 Kg
Boxed weight 60 Kg
Box dimensions 100 x 60 x 40 cm



Inlet Gas Port: 3/4" NPT (2 ea.)
Outlet Gas Port: 3/4" NPT (2 ea.)

Double acting, single stage, single air head 8AGD-2

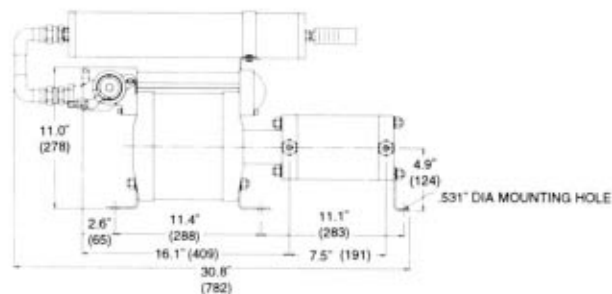
Net weight 55 Kg
Boxed weight 60 Kg
Box dimensions 100 x 60 x 40 cm



Inlet Gas Port: 3/4" NPT (2 ea.)
Outlet Gas Port: 3/4" NPT (2 ea.)

Double acting, single stage, single air head 8AGD-2.8

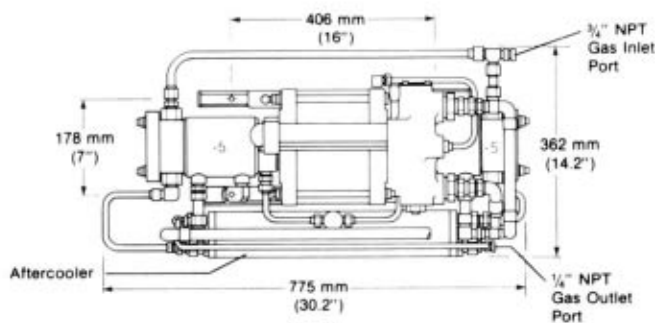
Net weight 55 Kg
Boxed weight 60 Kg
Box dimensions 100 x 60 x 40 cm



Inlet Gas Port: 1/2" NPT (2 ea.)
Outlet Gas Port: 1/2" NPT (2 ea.)

Double acting, single stage, single air head 8AGD-5

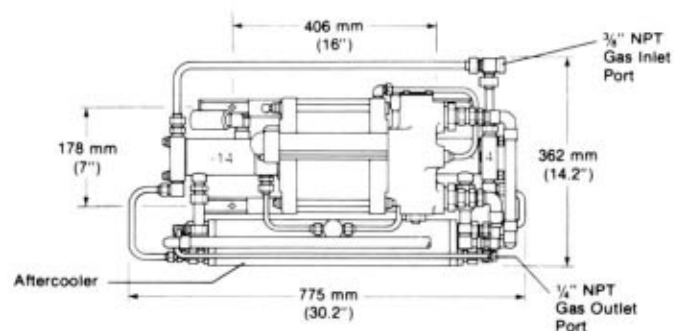
Net weight 54.5 Kg
Boxed weight 61.5 Kg
Box dimensions 91.5 x 51 x 40 cm



Inlet Gas Port: 3/4" NPT
Outlet Gas Port: 1/4" NPT

Double acting, single stage, single air head 8AGD-14

Net weight 54.5 Kg
Boxed weight 61.5 Kg
Box dimensions 91.5 x 51 x 40 cm

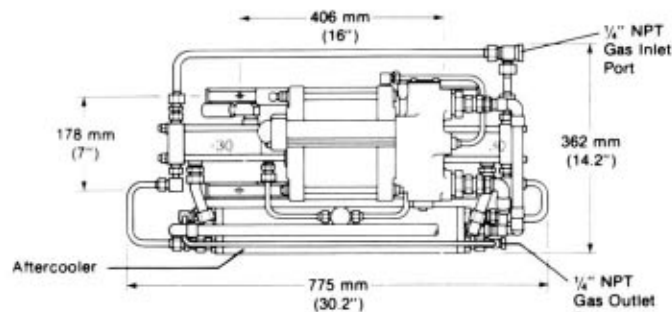


Inlet Gas Port: 3/8" NPT
Outlet Gas Port: 1/4" NPT

WEIGHT and DIMENSIONAL INFORMATION

Double acting, single stage, single air head 8AGD-30

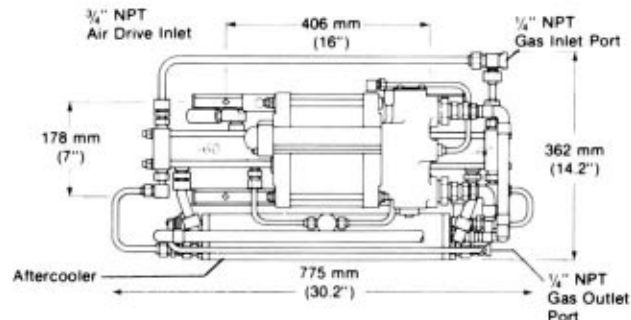
Net weight 54.5 Kg
Boxed weight 61.5 Kg
Box dimensions 91.5 x 51 x 40 cm



Inlet Gas Port: 1/4" NPT
Outlet Gas Port: 1/4" NPT

Double acting, single stage, single air head 8AGD-60

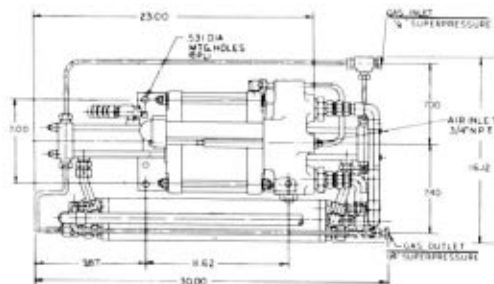
Net weight 54.5 Kg
Boxed weight 61.5 Kg
Box dimensions 91.5 x 51 x 40 cm



Inlet Gas Port: 1/4" NPT
Outlet Gas Port: 1/4" Superpressure

Double acting, single stage, single air head 8AGD-150

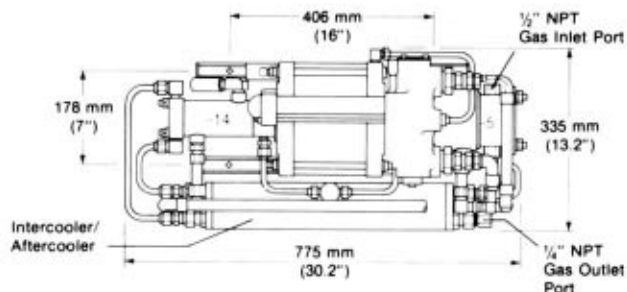
Net weight 54.5 Kg
Boxed weight 61.5 Kg
Box dimensions 91.5 x 51 x 40 cm



Inlet/Outlet Gas Ports: 1/4" Superpressure

Double acting, two stage, single air head 8AGT-5/14

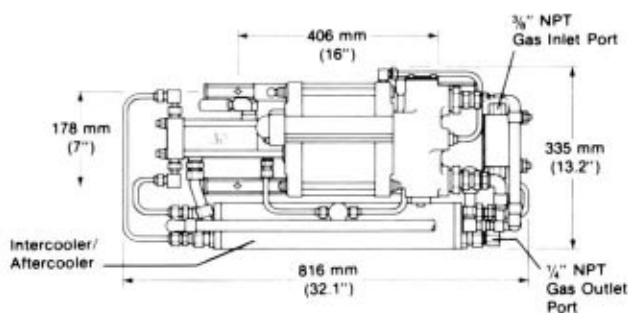
Net weight 54.5 Kg
Boxed weight 61.5 Kg
Box dimensions 91.5 x 51 x 40 cm



Inlet Gas Port: 1/2" NPT
Outlet Gas Port: 1/4" NPT

Double acting, two stage, single air head 8AGT-5/30

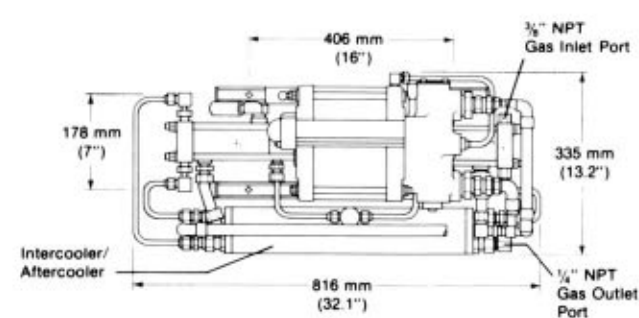
Net weight 54.5 Kg
Boxed weight 61.5 Kg
Box dimensions 91.5 x 51 x 40 cm



Inlet Gas Port: 3/8" NPT
Outlet Gas Port: 1/4" NPT

Double acting, two stage, single air head 8AGT-14/30

Net weight 54.5 Kg
Boxed weight 61.5 Kg
Box dimensions 91.5 x 51 x 40 cm

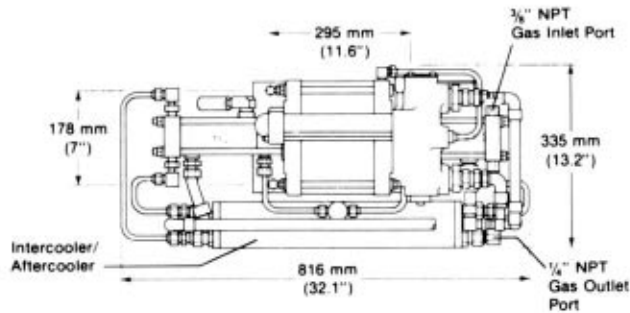


Inlet Gas Port: 3/8" NPT
Outlet Gas Port: 1/4" NPT

WEIGHT and DIMENSIONAL INFORMATION

Double acting, two stage, single air head 8AGT-14/60

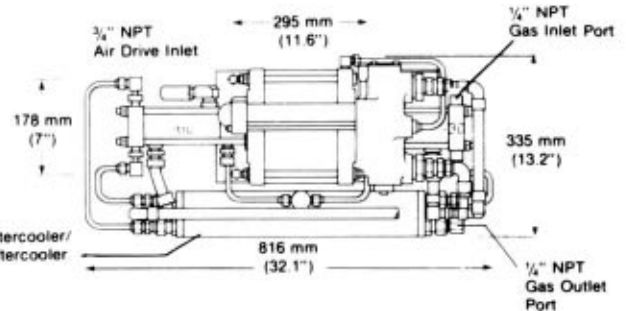
Net weight 54.5 Kg
Boxed weight 61.5 Kg
Box dimensions 91.5 x 51 x 40 cm



Inlet Gas Port: 3/8" NPT
Outlet Gas Port: 1/4" Superpressure

Double acting, two stage, single air head 8AGT-30/60

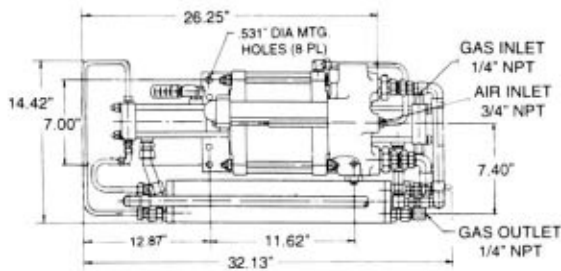
Net weight 54.5 Kg
Boxed weight 61.5 Kg
Box dimensions 91.5 x 51 x 40 cm



Inlet Gas Port: 1/4" NPT
Outlet Gas Port: 1/4" Superpressure

Double acting, two stage, single air head 8AGT-30/150

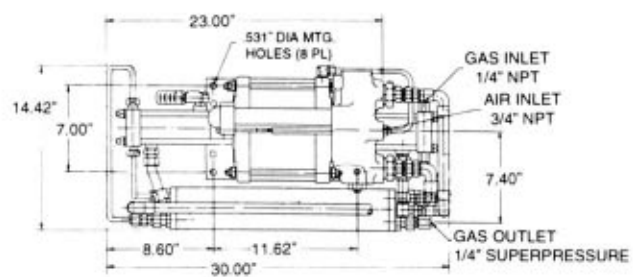
Net weight 54.5 Kg
Boxed weight 61.5 Kg
Box dimensions 91.5 x 51 x 40 cm



Inlet Gas Port: 1/4" NPT
Outlet Gas Port: 1/4" Superpressure

Double acting, two stage, single air head 8AGT-60/150

Net weight 54.5 Kg
Boxed weight 61.5 Kg
Box dimensions 91.5 x 51 x 40 cm

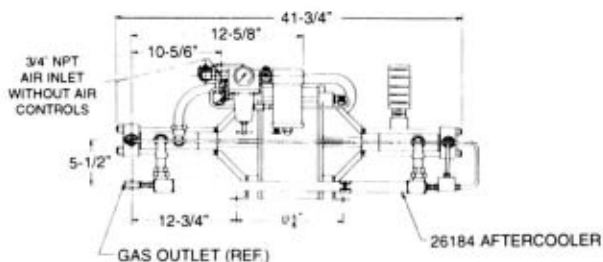


Inlet Gas Port: 1/4" NPT
Outlet Gas Port: 1/4" Superpressure

14" SERIES GAS BOOSTERS

Double acting, single stage, single air head 14AGD-125/315

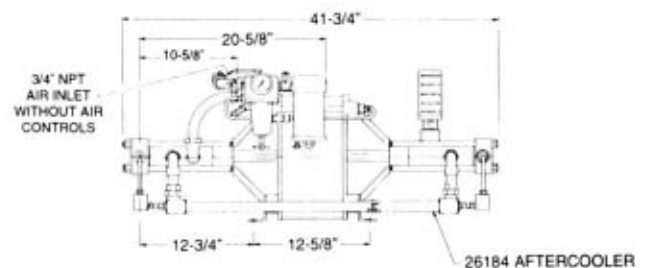
Net weight 70 Kg
Boxed weight 90 Kg
Box dimensions 120 x 86 x 70 cm



Inlet/Outlet Gas Ports: 3/8" Superpressure

Double acting, two stage, single air head 14AGT-125/315

Net weight 70 Kg
Boxed weight 90 Kg
Box dimensions 120 x 86 x 70 cm



Inlet/Outlet Gas Ports: 3/8" Superpressure

OXYGEN HAND BOOSTER

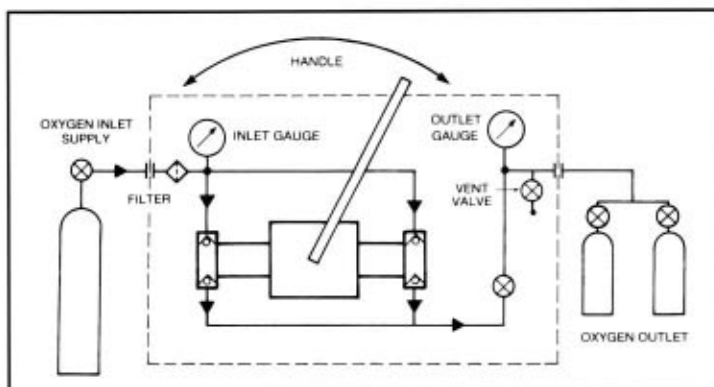
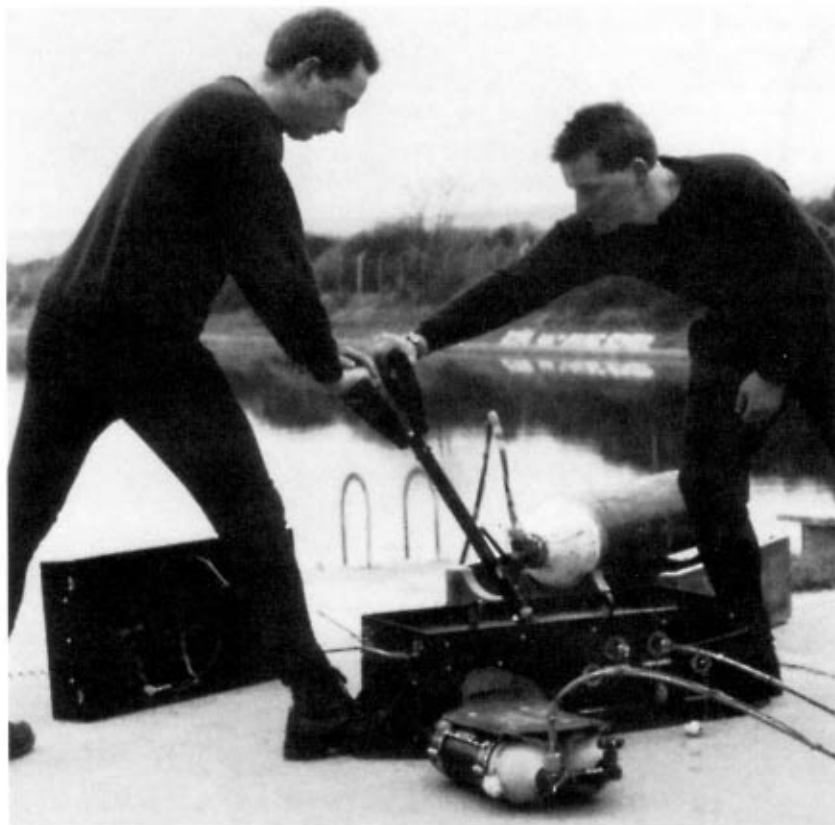
The Haskel oxygen hand booster includes the key features incorporated in the standard Haskel air driven oxygen boosters, but instead of being driven with compressed air, it is driven by a hand pump.

To complement their range of air driven oxygen boosters, Haskel has developed a hand-operated booster for the charging of life support and resuscitation bottles in areas where there is no power (electrical or air) available. The new Haskel hand booster includes many of the key features incorporated in the standard Haskel air driven oxygen booster but is operated by a hand pump attachment instead of compressed air. There are two basic models available:

- A standard lightweight unit in an open frame.
- A special (non-magnetic) totally enclosed unit as illustrated.

FEATURES

1. Double action for effective operation.
2. Double handle pumping arrangement for one or two man operation.
3. No risk of contamination into the oxygen side and no lubrication.
4. Patented Haskel sealing arrangement in high pressure gas sections for long working life.
5. Will take oxygen from 360 psi and boost it to 5000 psi.
6. Self contained unit which requires two simple connections — one to gas input — one to gas output.
7. Portable and lightweight.
8. Reliable, easy to maintain, compact and durable.



INLET		OUTLET		FLOW	
BAR	PSI	BAR	PSI	LITERS/MIN	SCFM
100	1450	110	1600	72	2.54
75	1087	150	2200	51	1.8
50	725	205	3000	22	0.8
25	360	205	3000	7	0.26

The above examples of performance are based upon a stroke ratio of 40 per minute and are subject to operator speed.

Dimensions: 750mm long x 330mm wide x 330mm high.
Weight: Standard unit 20 kilos approx. Special unit (non-magnetic) 30 kilos approx.
Displacement/Stroke: 0.02 litre (1.1 cu. in.).
Max. Pressure for Oxygen Service: 340 bar (5000 psi).
Min. Supply Pressure: 17 bar (250 psi).
Max. Compression Ratio: 25:1
Connections: Inlet 5/8" BSP x 60 Male Cone. Outlet 5/8" BSP x 60 Male Cone.

APPLICATIONS FOR HASKEL GAS BOOSTERS & GAS BOOSTER SYSTEMS

Applications for Haskel Gas Boosters are wide and varied. Charging nitrogen and oxygen bottles for airlines, military, medical, fire and safety, diving and processing industries represent just a few of the many uses.

Users of gases above normal cylinder pressures, or those requiring continuous high pressure and wanting to utilize most of the cylinder supply, have a requirement for a Haskel Booster.

Haskel specializes in standard and custom-built systems, specifically designed to meet the customers' needs. A full range of high-pressure regulators, valves, switches and ancillary equipment is available to suit all our gas boosters.

EXAMPLES:

Haskel charging units provide a fast, efficient and economical method of charging, or "topping up" gas pressures in devices such as:

- Hydraulic accumulators
- Hydrogas suspension system: aircraft, trucks and off-road equipment
- Gas spring systems
- Automotive air bag gas storage systems
- Helicopter emergency "Pop Float" gas storage systems
- Charging escape chute inflation bottles
- Charging oxygen life support bottles

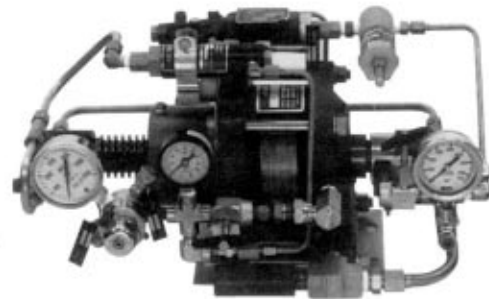
The units ensure that the optimum use is made of commercially bottled gases down to as low as 150 psi or vaporized liquid (cryogenic) supplies while producing pressures as high as 39,000 psi depending on gas type.

Units are standard or custom-built in a variety of configurations, samples of which are illustrated here.

Please consult our factory or local distributor for further information or advice on your application.



Two-wheel mobile N₂ charging unit

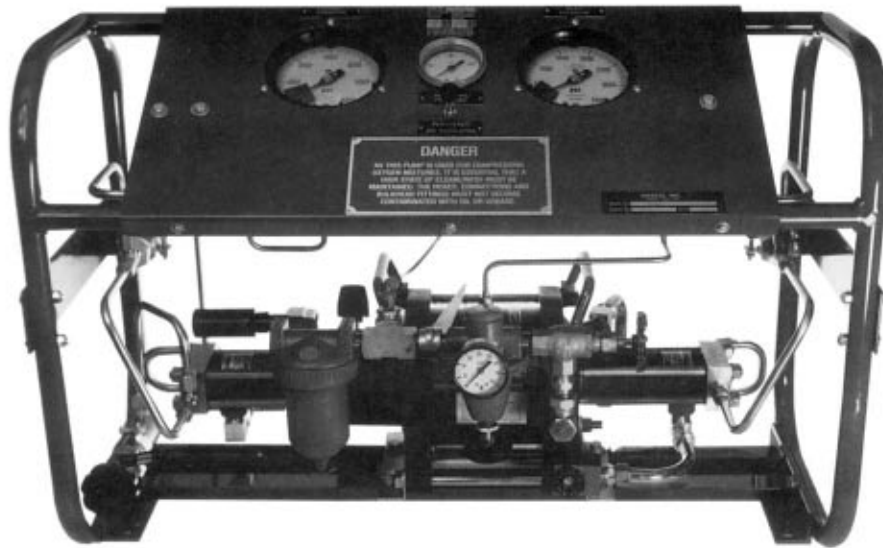


**Helicopter N₂ servicing unit (also suitable for helium to 5000 psig)
Model 55390**



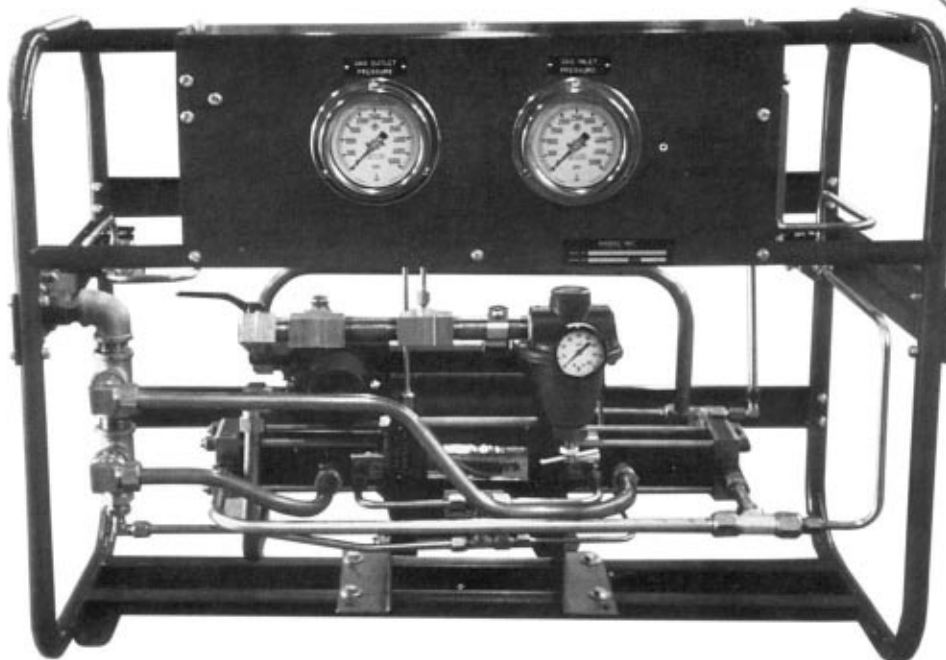
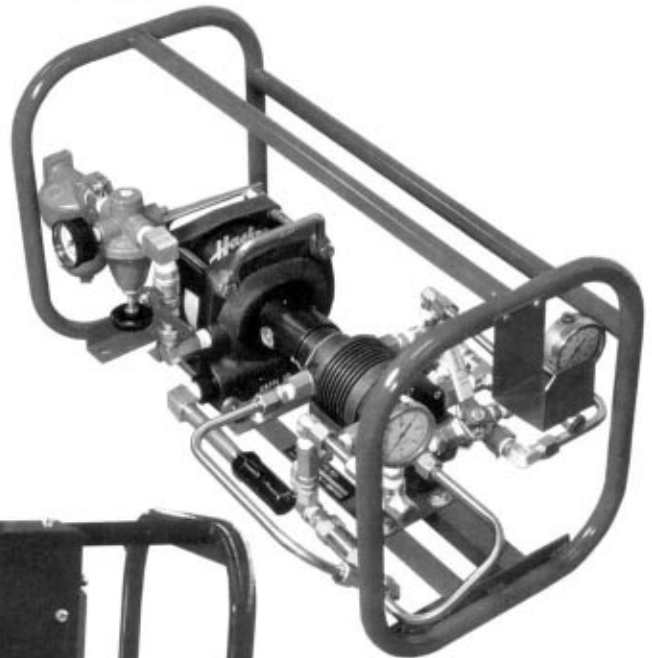
Four-wheel mobile N₂ charging unit

APPLICATIONS FOR HASKEL GAS BOOSTERS & GAS BOOSTER SYSTEMS



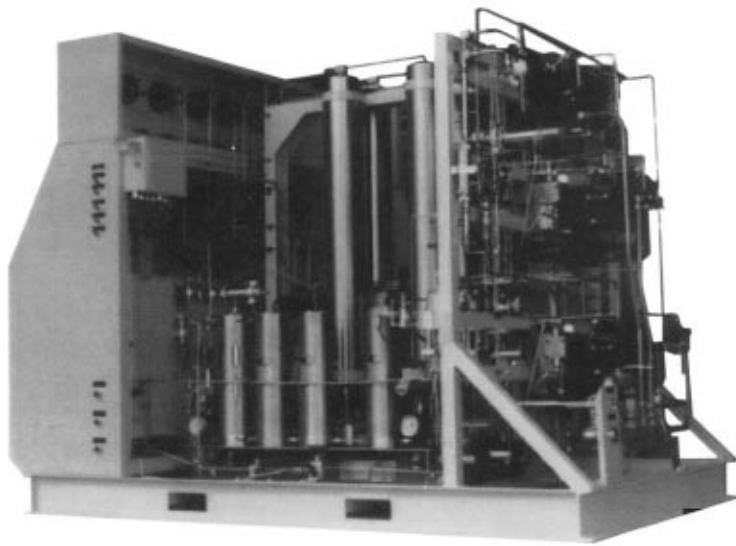
Haskel 26968 Oxygen Booster System is used by almost every airline in the world, for filling on board emergency cylinders. Also used by major diving contractors, emergency medical service companies & mine rescue centers.

Model 52059 Transfer Unit capable of handling liquefied gases such as **SF₆**, **CO₂**, **Freon**, etc. The system illustrated is used by utility companies to transfer SF₆ (arc suppressant) from cylinder to circuit breaker & circuit breaker to cylinder. Benefits include ability to transfer liquid, gas & draw vacuum in one compact unit.



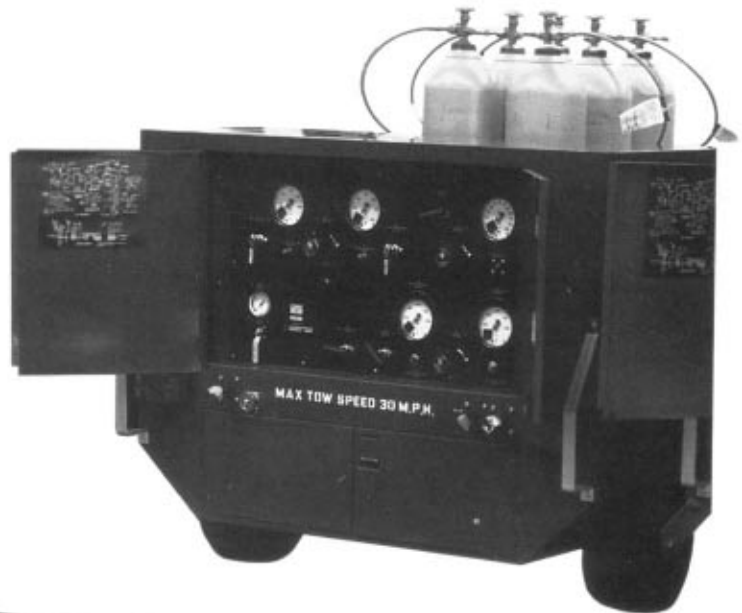
Model 80324 8HP natural gas rollbar frame transfer unit for gas storage transfer to vehicles.

APPLICATIONS FOR HASKEL GAS BOOSTERS & GAS BOOSTER SYSTEMS



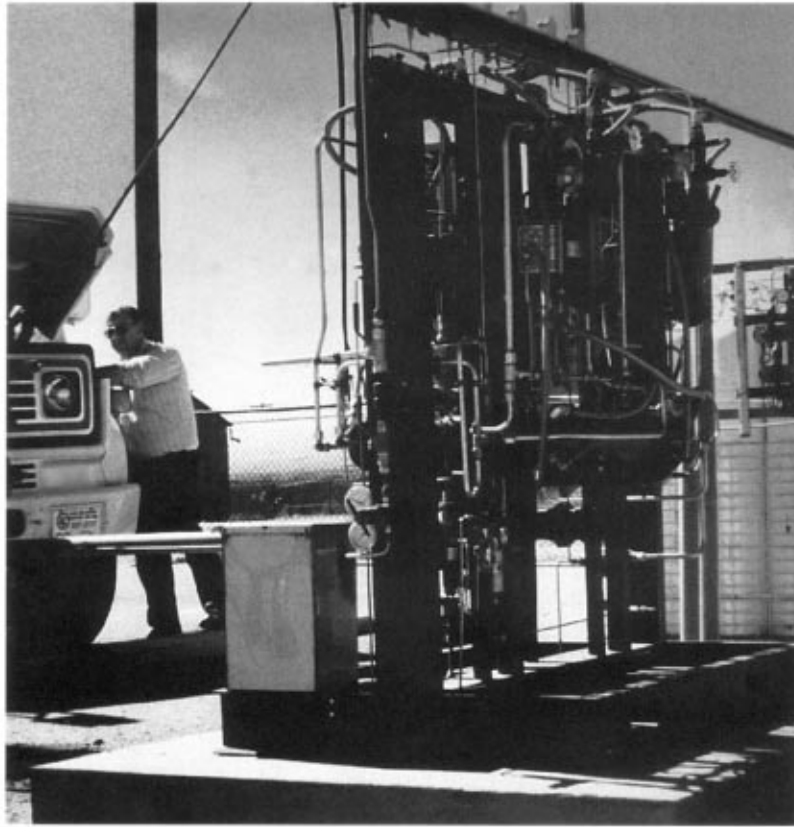
High purity 12,000 psi nitrogen system for pressure testing, purging and cryostat charging at a missile manufacturing facility.

Mobile nitrogen charging cart for aircraft ground support is fully self contained to charge accumulators, struts & tires on both commercial & military aircraft.

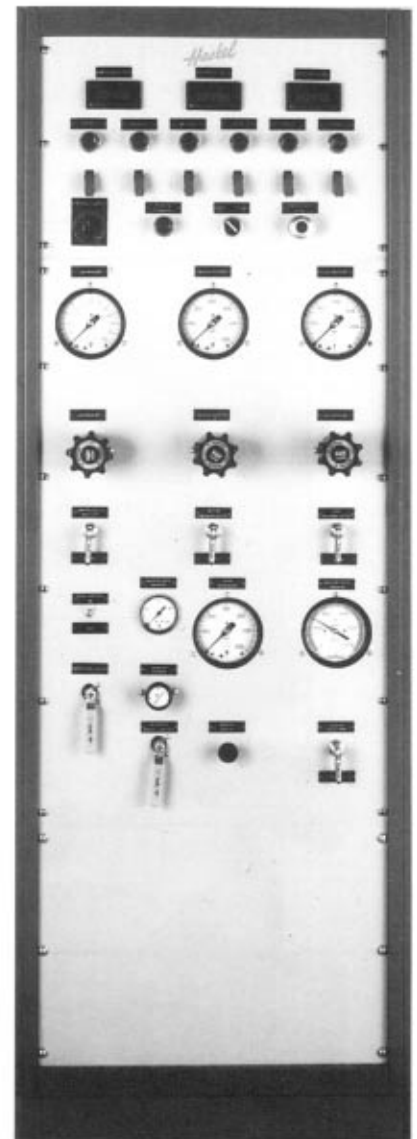


High flow high pressure hydraulic driven helium gas booster system used at many military facilities. Haskel has also introduced a standard line of hydraulic driven gas boosters for industrial applications. (Further details on request).

APPLICATIONS FOR HASKEL GAS BOOSTERS & GAS BOOSTER SYSTEMS



Natural gas driven natural gas amplifier system consumes no energy while providing direct fills to vehicle storage cylinders for natural gas powered vehicles.



Haskel's ability to incorporate & interface electronic controls provides precise compression & control of gases for **gas assisted injection molding, foam production, automotive air bag vessel filling, cryostat charging and other critical applications.**

Major oil companies use Haskel's **combination gas booster and liquid pump test control system** for relief valve, isolation valve, etc. testing. System includes bar code & serialization capability for pressure test requirements & traceability.

ACCESSORIES FOR USE WITH HASKEL GAS BOOSTERS

These are brief descriptions of some of the accessories offered by Haskel.
See individual brochures or consult factory for additional information.



High pressure valves, fittings and tubing
in a variety of materials and pressure
ratings to 150,000.

Specific series utilize the same pressure
connections as our gas boosters.



ACCESSORIES FOR USE WITH HASKEL GAS BOOSTERS



REGULATING RELIEF AND BACK PRESSURE CONTROL VALVES

Provide over pressure protection on any high pressure low flow gas or liquid system.
(See system accessory catalog.)



AIR PILOT SWITCHES

These units are designed to sense pressure like a pressure switch but produce an air signal up to 150 psi.
(See system accessory catalog.)



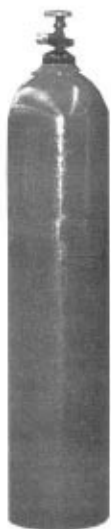
GAS RECEIVERS

Gas receivers in 10,000 and 20,000 psi series.
Eleven models from 20 to 897 cu. in. displacements.
(See system accessory catalog.)



FILTERS

- 5 Microns
- 6000 psi, 30,000 psi 2 models
1/4" NPT and 1/4" S.P. tube
- S.S. or paper elements



STORAGE CYLINDER

- Manufactured and certified to DOT-E-9909-6000 specifications for 6000 psi gas at 70°F
- Actual volume: 2640 ACI (1.53 ACF)



CHECK VALVES 1/4" – 2" NPT

- 316 Stainless steel. All parts, inside and outside.
- Designed and tested for extremely high shock loads.
- PTFE for positive bubble tight sealing (with gas) from cryogenic to 375°F temperatures.
- 1-4 psi cracking pressure.
- Soft seat seals also available for radioactive environments, or up to 500°F steam. Can be furnished without soft seat for higher temperature steam service. Consult factory.
- Normally off the shelf delivery for reasonable quantities with PTFE seat material and female NPT ports. Other port configurations available.

**Consult factory for information
on additional Haskell products**

AIR DRIVEN LIQUID PUMPS

AIR DRIVEN AIR PRESSURE AMPLIFIERS

HIGH PRESSURE VALVES, FITTINGS, TUBING & SYSTEMS COMPONENTS

SPECIAL SYSTEMS

CHEMICAL INJECTION PUMPS

HIGH PRESSURE GAS REGULATORS



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website at: **www.haskel.com**

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