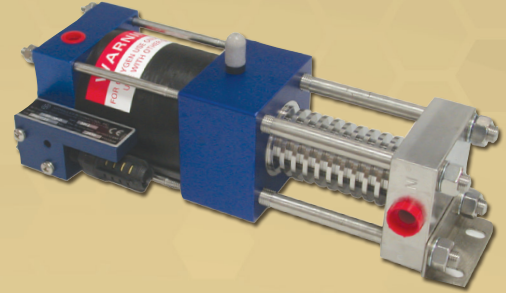




AIR DRIVEN GAS BOOSTER MODEL 3G-SS-20

Hydraulics International, Inc. (HII) gas booster is designed to boost gas directly from a cascade system, a gas generation system, a cryogenic system or a high pressure compressor to outlet pressures of 3450-psi (238-bar). The unit ensures full fills even if the supply storage pressure drops as low as 300-psi (20 bar). The unit may be Driven manually, by means of its integral hand pump assembly (optional); a low pressure conventional air compressor; or Regulated high-Pressure air storage supply (SCUBA, SCBA or NITROGEN bottles). Maximum 150psi (10 bar) air supply.



The high-pressure sections of the booster are cooled by the drive exhaust air and operate dry, non-lubricated. In the shop air drive mode, non-contaminated outlet gas is assured because of complete dual vented separation from the drive section.

**IDEAL FOR GENERAL AVIATION, MUNICIPAL FIRE, RESCUE,
RECREATIONAL & TECHNICAL DIVERS, DIVE SHOPS, YACHTS AND RESCUE SERVICES**

KEY BENEFITS:

- **Increase System Capacity:** Up to 50% more fills
- **Eliminate Cascading:** Allows you to fill or top-off from storage as low as 300 psi (20 bar)

KEY FEATURES:

- **Boost** gas pressure from 300 psi to 3450 psi
- **Hold Pressure.** Can be controlled to stop at any predetermined pressure and hold that pressure indefinitely without consuming power, and restart under full load
- **Intrinsically Safe.** Compressed air reduces risk of heat, flame, spark, or electrical shock
- **Contamination FREE.** Separation between drive and gas section uses three static seals with dual vents

OPTIONAL CONTROLS:

- **Manually Driven with Integral Hand Pump Assembly**
2000 psi (138 bar) MAX. outlet pressure
- **High Pressure Air Controls**
(HP regulator, relief valve and on/off valve)
- **Oxygen Fill Accessory Kit**
(inlet CGA connector, 60" inlet & outlet hoses, outlet filter, outlet on/off valve, gauge, and DIN connector with bleeder)
- **Watertight Protective Case with Wheels**
22"L x 14"W x 9"H (559 mm x 356 mm x 229 mm)
- **Safety Low & High Pressure Cutoff Valves**
(set to automatically stop & restart the booster)
- **Outlet Pressure Relief Valve**

PERFORMANCE:

Approximate fill-time* for a 19 cu-ft (0.54 cu- m³) O₂ Bottle to 2,400-psi (165 bar)

SYSTEM PRESSURE AFTER EQUALIZATION	APPROX. FILL-TIME	APPROX. FILL RATES
2000 psi (138 bar)	1.0 minutes	3.0 scfm (85 nl/min)
1500 psi (103 bar)	3.1 minutes	2.3 scfm (65 nl/min)
1000 psi (69 bar)	7.3 minutes	1.5 scfm (42 nl/min)
500 psi (34 bar)	20 minutes	0.8 scfm (23 nl/min)

*Based on 105-psi shop air and 60 cycles per minute. NOTE: DO NOT exceed 200 psi/min. transfer rate for pure oxygen and 50-70 psi/min. during mixing.



HYDRAULICS INTERNATIONAL, INC.

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www.hiigroup.com

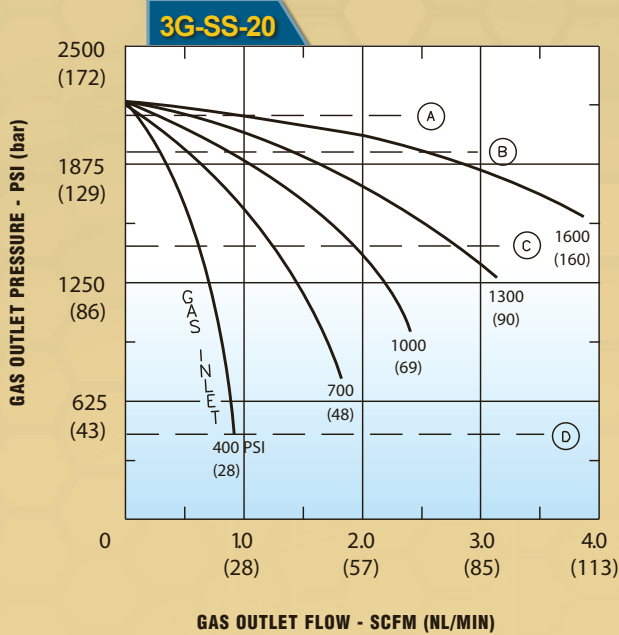
AIR DRIVEN GAS BOOSTER MODEL 3G-SS-20

SPECIFICATIONS:

- | | | | |
|--------------------------------------|----------------------------|------------------------|--|
| ▪ Dimensions: | 12.05" L x 4.9" D x 3.4" H | ▪ Air Drive: | 1/4" NPTF |
| ▪ Weight: | 11.6-pounds (5.2 Kg) | ▪ Gas Inlet: | 3/8" Female JIC. (9/16" x 18 straight threads) |
| ▪ Pressure Ratio: | 23:1 | ▪ Gas Outlet: | 3/8" Female JIC. (9/16" x 18 straight threads) |
| ▪ Maximum Outlet Pressure: | 3,450-psi (238 Bar) | ▪ Exhaust: | 1/4" NPTF |
| ▪ Max/Min Drive Air Pressure: | 150/12-psi (10/0.8 Bar) | ▪ Remote Pilot: | 1/8" NPTF |

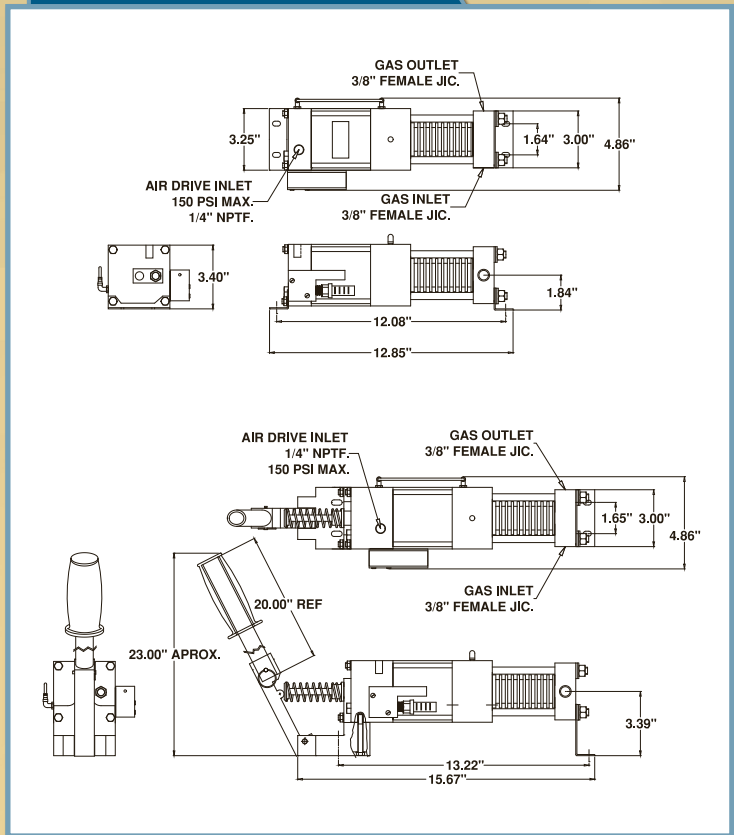
PERFORMANCE CURVE

(Assume an air drive source of approximately 100 psi from 1/4" I.D. piping)



Dashed lines represent approximate air consumption:
Ⓐ: 2 SCFM **Ⓑ: 4 SCFM** **Ⓒ: 6 SCFM** **Ⓓ: 9 SCFM**
 (57 NL/MIN) (113 NL/MIN) (170 NL/MIN) (255 NL/MIN)

DIMENSIONAL DATA



Other HII Quality Products: 100% USA Made



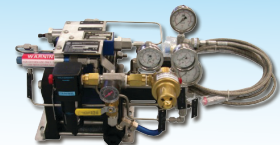
Booster mounted on a Watertight Protective Case



Electric Driven Booster Packages



2-Bottle Hand Truck with Booster



Portable Booster System with Safety Valves



HYDRAULICS INTERNATIONAL, INC.

9201 Independence Ave., Chatsworth, CA 91311, USA

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HYD-3238

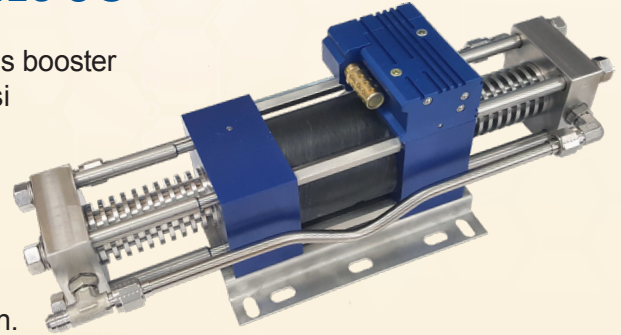


Hydraulics International, Inc.

AIR DRIVEN COMPACT GAS BOOSTER SERIES 3G

Hydraulics International, Inc. (HII) air driven gas booster is designed to boost gas from as low as 50 psi (3.4 bar) up to 6000 psi (414 bar). The unit may be driven with a low pressure conventional air compressor or regulated high-pressure air storage supply (SCUBA, SCBA or NITROGEN bottles).

The high-pressure sections of the booster operate dry, hydrocarbon-free with complete separation from drive section.



**IDEAL FOR GENERAL AVIATION, MUNICIPAL FIRE, RESCUE,
RECREATIONAL & TECHNICAL DIVERS, DIVE SHOPS, YACHTS AND RESCUE SERVICES**

KEY BENEFITS:

- **Increase Number of Fills:** Up to 50%
- **Eliminate Cascading:** Allows you to fill or top-off from storage as low as 50 psi (3.4 bar)

KEY FEATURES:

- **Boost** gas pressure from 50 psi to 6000 psi
- **Hold Pressure.** Can be controlled to stop at any predetermined pressure and hold that pressure indefinitely without consuming power, and restart under full load
- **Intrinsically Safe.** Compressed air reduces risk of heat, flame, spark, or electrical shock
- **Contamination FREE.** Separation between drive and gas section uses three static seals with dual vents

OPTIONAL CONTROLS:

- **Low Pressure Air Controls**
Filter and on/off valve
- **High Pressure Air Controls**
HP regulator, relief valve and on/off valve
- **Gas Fill Accessory Kit**
Includes inlet 5-foot hose assembly with CGA connector; outlet 5-foot hose assembly with high pressure filter, on/off valve, gauge, and DIN/CGA connector with bleeder
- **Watertight Protective Case with Wheels**
22”L x 14”W x 9”H (559 mm x 356 mm x 229 mm)
- **Safety Low & High Pressure Pilot Valves**
Set to automatically stop & restart the booster
- **Outlet Pressure Relief Valve**

PERFORMANCE:

Approximate fill-time* for a 19-ft³ (0.54-m³) O₂ Bottle to 3,000-psi (207 bar)

SYSTEM PRESSURE AFTER EQUALIZATION	APPROX. FILL-TIME	APPROX. FILL RATES
2000 psi (138 bar)	0.9 Minutes	7.1 scfm (201 nl/min)
1500 psi (103 bar)	1.8 Minutes	5.3 scfm (150 nl/min)
1000 psi (69 bar)	3.5 Minutes	3.6 scfm (102 nl/min)
500 psi (34 bar)	8.7 Minutes	1.8 scfm (51 nl/min)

*Based on 100-psi shop air and 80 cycles per minute. NOTE: DO NOT exceed 200 psi/min. transfer rate for pure oxygen and 50-70 psi/min. during mixing.



HYDRAULICS INTERNATIONAL, INC.® (HII)

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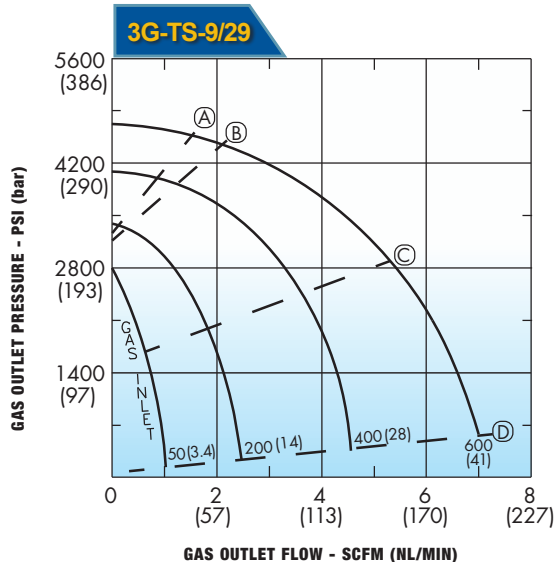
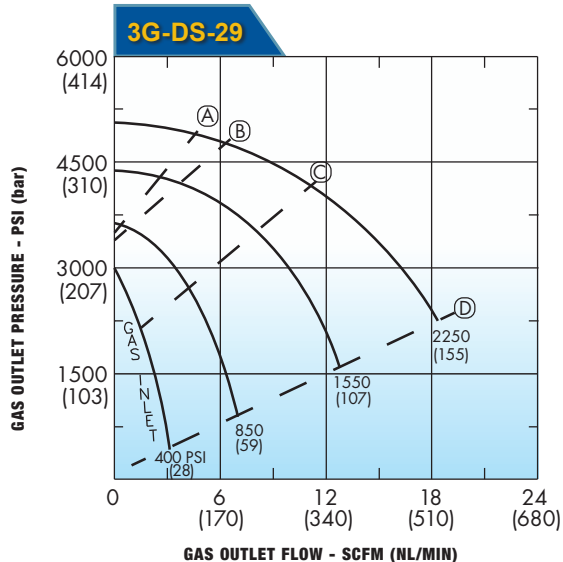
(Phone) 818.407.3400 | (Fax) 818.407.3428 www.hiigroup.com

SPECIFICATIONS:

Model	Weight		Boost Displacement Per Cycle		Maximum Pressure			
	LBS	KG	IN ³	CM ³	Drive Section		Boost Section	
					PSI	BAR	PSI	BAR
3G-DS-29	20	9	1.12	18.4	150	10.3	6000	414
3G-TS-9/29	22	10	1.77	29	150	10.3	6000	414

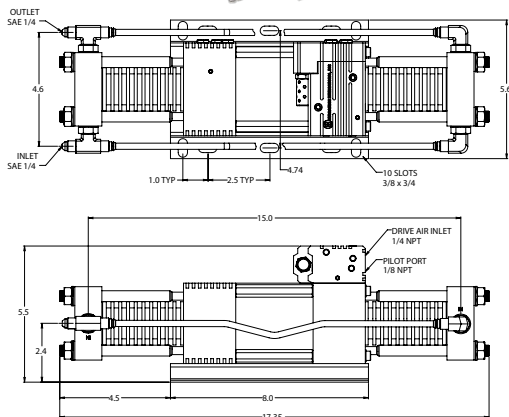
PERFORMANCE CURVE

(Assume an air drive source of approximately 100 psi from 1/4" I.D. piping operating at maximum speed)

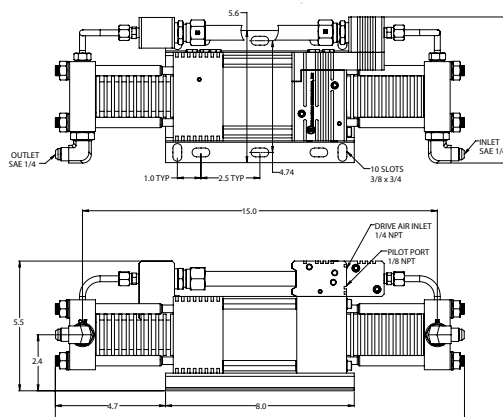
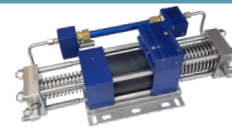


DIMENSIONAL DATA

3G-DS-29



3G-TS-9/29



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