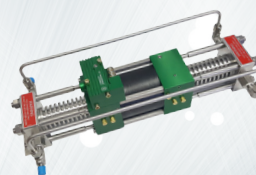
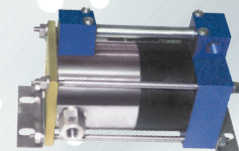
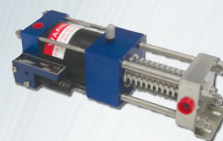
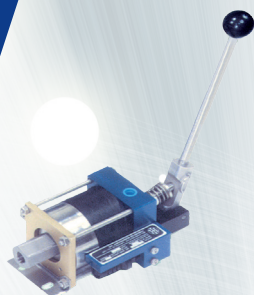




PBVF-100D

Hydraulics International, Inc.



**Air
Driven
Liquid
Pumps**

**Air
Driven Gas
Boosters**

**Air
Driven
Compact Gas
Boosters**

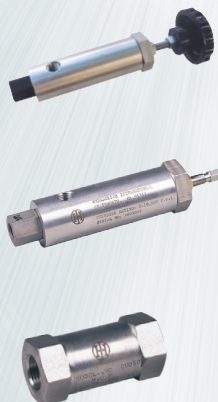
**Air
Pressure
Amplifiers**

PRODUCT LINE OVERVIEW

**Flow
Meters**



**High
Pressure
Valves**



**Electric
Driven Gas
Boosters**



**Package
Systems**





LIQUID PUMPS AIR OR GAS DRIVEN

Drive Piston(s) (Diameter)	Area Ratios, (Drive vs Boost Piston(s))	Basic Description and Benefits
3"	8:1, 14:1, 25:1, 41:1, 81:1, 125:1, 220:1 Optional hand pump kit available.	<p>The drive piston(s) is directly connected to the pump plunger or piston, separated by a high pressure seal. When shop air (or gas) is applied, the assembly reciprocates automatically, producing a positive displacement pumping action at the liquid end. This pumping action will stall and hold pressure whenever the system down stream is closed. The final pressure is estimated by multiplying drive air pressure x the area ratio of each model. Drive air or gas can range from 3 to 150 PSI.</p> <p><u>Benefits:</u></p> <ul style="list-style-type: none"> • Start/stop/restart under full load. Hold maximum pressure indefinitely. • No electrical hazard in explosive or damp environments. • Rated for water, oils, solvents, and most liquefied gases to high pressure. • Simple maintenance. • Simple control in fluid power circuits.
7 Models	Pressures to 22,500 PSI	
5-3/4"	4:1, 10:1, 15:1, *20:1, 30:1, *30:1, 45:1, 60:1, *60:1, *90:1, 115:1, *120:1, 150:1, 205:1, *230:1, 300:1, *300:1, *410:1, 450:1, *600:1, **900:1 *two drive pistons **Three drive pistons	
30 Models	Pressures to 80,000 PSI	
7"	7:1, *14:1, 35:1, 60:1, 100:1, *70:1, *120:1, *200:1 *two drive pistons	
8 Models	Pressures to 22,500 PSI	85 lbs (max)
<p>Typical Applications:</p> <ul style="list-style-type: none"> • Hydrostatic testing - Tanks, piping, instruments. • Hydraulic clamps, presses, safety brakes. • Valve actuators - Compact power source, pneumatically driven. • Portable Tools - Compact power source for high pressure hydraulics. 		

GAS BOOSTERS AIR OR GAS DRIVEN

Drive Piston(s) (Diameter)	Area Ratios, (Drive vs Boost Piston(s))	Basic Description and Benefits
3"	**9:1, *23:1, **29:1 **Available in 2-stage & double acting configurations *Optional hand pump kit.	<p>The drive piston(s) is directly connected to the booster piston(s), separated by a vented, triple seal system. The reciprocating action is the same as the liquid pumps. However, with most models final pressure is a function of drive pressure (air driven models only), gas inlet pressure and staging so commonly an external pressure control is recommend.</p> <p><u>Typical Applications:</u></p> <ul style="list-style-type: none"> • Bottled gas transfer. • High pressure gas testing. • Rebreather Fillings or topping off. • Gas injection - plastic forming or chemical process. <p><u>Benefits:</u></p> <ul style="list-style-type: none"> • Non lube dry gas pistons ensure hydrocarbon free gas output. • Safe with flammable gases or oxygen.
3 Model	Pressures to 3,450 PSI	
5-3/4"	4:1, 7:1, *14:1, *28:1, 30:1, 50:1, *60:1, 75:1, 92:1, *100:1, *150:1 *two drive pistons Note also that 17 different combinations of these ratios are available in standard 2 stage models	
38 Models	Pressures to 30,000 PSI (2069 BAR)	
7"	7:1 Available in 2-stage & double acting configurations	
2 Models	Pressures to 1,250 PSI	65 lbs (29.5 kg)

GAS BOOSTERS ELECTRIC DRIVEN

Horsepower	Pressure Ratio	
2	7:1, 14:1, 30:1, 50:1, 92:1 Available in 2-stage and double acting configurations	
14 Models	Pressures to 15,000 PSI (1034 BAR)	

Type of Gas:

Nitrogen (N₂), Breathing Air (N₂O₂), Helium (He), Nitrous Oxide (N₂O), Carbon Dioxide (CO₂), Neon (Ne), Argon (Ar), Sulphur Hexafluoride (SF₆), Oxygen (O₂), Carbon Monoxide (CO), Hydrogen (H₂), Methane (CH₄), Ethylene (C₂H₄), Natural Gas (CH₄)

AIR PRESSURE AMPLIFIERS AIR DRIVEN

Drive Piston(s) (Diameter)	Area Ratios, (Drive vs Boost Piston(s))		Basic Description and Benefits
3"	2.5:1, 4:1		<p>These units are simplified versions of Hill's gas booster design in that they are designed to boost (amplify) the pressure of the same gas (shop air) used for drive.</p> <p>Benefits:</p> <ul style="list-style-type: none"> Solve low air pressure problems at individual pneumatically actuated production machines. Provide higher test station air or nitrogen pressure economically.
2 Models	Pressures to 675 PSI	7 lbs (max)	
5-3/4"	2:1, 5:1		
2 Models	Pressures to 1,250 PSI	36 lbs (max)	
7"	8:1		
1 Model	Pressures to 1,250 PSI	45 lbs (max)	

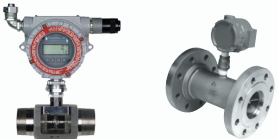



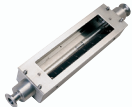



HIGH PRESSURE VALVES

Type	Relief 4 Models	Pilot Cutoff 11 Models	Release/Unloading 5 Models	Check 6 Models to 2" NPT	On/Off 2 Models
Pressures to	60,000 PSI	25,000 PSI	20,000 PSI	20,000 PSI	10,000 PSI
					Available in N.C. and N.O. configurations

GAS RECEIVERS

15 models	Pressures to 20,000 PSI. Volumes to 900cu. inches
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FLOWMETERS LIQUID OR GAS

Type		Turbine			Variable Area			
		Inline	Insertion	Tangential	Standard	Sanitary	Hydraulic 5000PSI	
Range	Liquid	.03 - 15,000 GPM		.001 - 2.0 GPM	.2 - 100 GPM		0 - 80 GPM	
	Gas	15,000 ACFM		2 ACFM	.2 - 400 SCFM			
								
Flow Computer				Totalizing, Rate Display, Batching Mass. Intrinsically safe, Explosion proof, Weather Proof. Battery operated, AC/DC.				

PACKAGED SYSTEMS LIQUID OR GAS

Hydraulic Test Unit	High Pressure O ₂ /N ₂ Dual Cylinder Hand Truck	High Pressure O ₂ /N ₂ Portable Unit	Air Amplifier with 200 PSI Receiver and Controls

Detailed Literature Available

Catalogs	Number	Includes	
	Air Amplifiers - Air Driven	AA500	Principle of operation, replacing dedicated air compressor in large plants, installation, controls, schematics, and packaged systems. 4 Pages
	Gas Boosters - Electric Driven	EGB-100	Principal of operation, features & benefits, applications, optional controls, dimensional data, performance curves and specifications. 4 Pages
	Flowmeters - Liquid or Gas	FM-100	Principle of operation, applications, design features, flow ranges and sizing guides with calculations. How to order. 58 Pages
	Gas Boosters - Air or Gas Driven	GB500	Principle of operation, benefits. Applications, typical schematics, selection tables, performance curves and modifications. 14 Pages
	Compact Gas Booster - Air or Manually Driven	GB504 GB505	Principal of operation, features & benefits, applications, optional controls, dimensional data, performance curves and specifications. 2 Pages each
	Liquid Pumps - Air or Gas Driven	LP500	Principle of operation, benefits. applications, installation detail, chart of rated pressures, port sizes, and weights, performance curves, standard modifications. 16 Pages
	Packaged Systems - Pumps, Boosters and Air Amplifiers	SP-100A	11 Packaged systems with ordering guides to fit each to specific applications 8 pages
	High Pressure Valves and Components	V-100	Relief, pilot cutoff, unloading, check, plus gas receivers and needle valves. 2 pages



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