

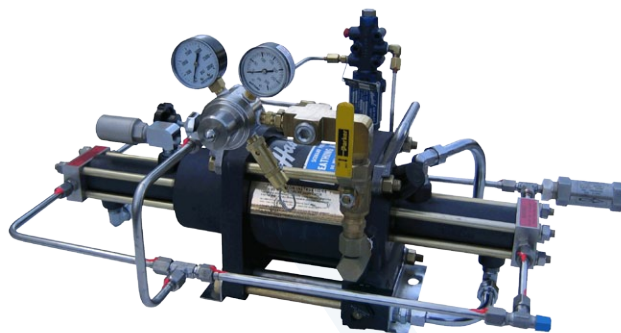
# BOOSTER PUMPS

ScubAmp Breathing Air Amplifier

28153

The Model 28153 ScubAmp provides 2,500 PSI up to 4,400 PSI scuba tank fills. The ScubAmp boosts medium pressure storage air straight into dive tanks to requested higher pressures rapidly. With the ScubAmp, existing air compressor systems can stay within their 2,000 PSI to 2,500 PSI. New systems can be set back to medium pressure.

Benefits include cooler operation on medium pressure compressors which extends time between overhauls by thousands of hours regardless of compressor rating. Cooler operation lowers the cost of storage cylinders, purifier units, compressors, motors and piping.



| Specifications        |                                                                                                                                        |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Booster               | Air Driven, Balanced Opposed Double Acting Piston Type                                                                                 |
| High Pressure Section | Non-Lube, Contaminant Free, Triple Sealed and Vented from Air Dive Section - Materials are Stainless Steel                             |
| Drive Section         | Silicone Lubed at Assembly, Corrosion Resistant, Exhaust Muffler                                                                       |
| Standard Controls     | All Pneumatic<br>Automatic Stop at adjusted Maximum Pressure<br>Independent Manual Stop<br>Valve and High Pressure Safety Relief Valve |
| Gauges                | Input Pressure (from Storage): 0-3000 PSI<br>Drive Pressure: 0-3000 PSI                                                                |
| Air Power Consumption | From approximately 1/3 cu.ft. at 2,200 PSI Boost for Each cu.ft. of Air Boosted                                                        |
| Maximum Output Flow   | 70 SCFM (nominal at 2,500 PSI Input, 3,000 Output)                                                                                     |
| Cooling               | With Air Exhaust, Integral, Fully Jacketed                                                                                             |
| Noise                 | 80 dB Range Pulses, depending on Working Pressure (measured at 30 in. from Booster)                                                    |
| Maintenance           | Simple Seal Kit Replacement (Rarely Required)                                                                                          |
| Dimensions            | 15 in. H x 15 in. W x 20 in. L                                                                                                         |
| Weight (approximate)  | 50 lbs                                                                                                                                 |

| ScubAmp 28153 - Typical Fill Times                       |                                   |                          |                          |                        |
|----------------------------------------------------------|-----------------------------------|--------------------------|--------------------------|------------------------|
| From Pressure in Storage (after Equalizing in Dive Tank) | To Nominal Tank Size and Pressure |                          |                          |                        |
|                                                          | 83 cu.ft. to 3,000 PSI            | 71.2 cu.ft. to 2,475 PSI | 71.2 cu.ft. to 2,250 PSI | 80 cu.ft. to 4,400 PSI |
| 2,500 PSI                                                | 12 sec.                           | -                        | -                        | 60 sec.                |
| 2,250 PSI                                                | 28 sec.                           | 14 sec.                  | -                        | 90 sec.                |
| 2,000 PSI                                                | 39 sec.                           | 22 sec.                  | 12 sec.                  | -                      |
| 1,500 PSI                                                | 75 sec.                           | 50 sec.                  | 35 sec.                  | -                      |

## Gas Booster Pumps

SEE BELOW

The selection of the proper Gas Booster for any application starts with determining which booster "series" will provide the amount of flow required. This can be determined by the chart information provided on page 159. The possible ratios for the application are determined by examination of the performance data for the booster 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"

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.

