AIR-DRIVEN OXYGEN BOOSTER MODEL 26968

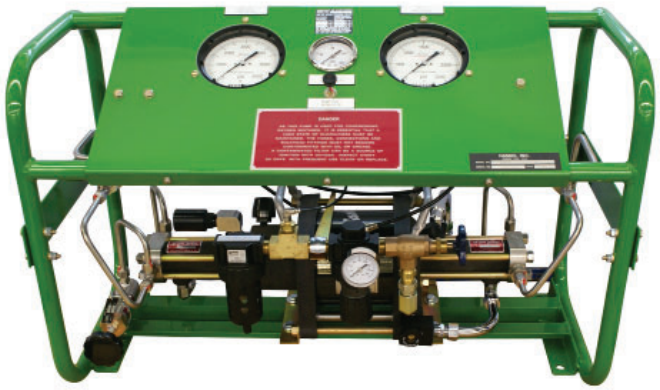
FOR LIFE SUPPORT DEPEND ON HASKEL OXYGEN BOOSTERS

Filling aircraft on-board O_2 cylinders for commercial, military and private fleets. Transferring O_2 into various high-pressure receivers for deep ocean diving support, commercial or military. There are just two examples of the uses for Model 26968 oxygen boosters that have provided cost savings and increased safety for many years.

This model will pump from high- or medium-pressure sources and will also function effectively to collect and transfer the gas from partially depleted supply cylinders to “top off” other cylinders to maximum pressure. Conventional industrial, shipboard or contractor-type compressed air sources are normally used for power. All motive power and controls are completely pneumatic with no electrical connections required.

The basic booster is two-stage, rated for continuous-duty compression ratios of over 15:1, intermittent to 40:1.

A pneumatic control package continually monitors both inlet cylinder pressure and outlet receiver pressure, stopping the booster automatically when desired outlet or minimum inlet pressure is reached, permitting unattended operation.



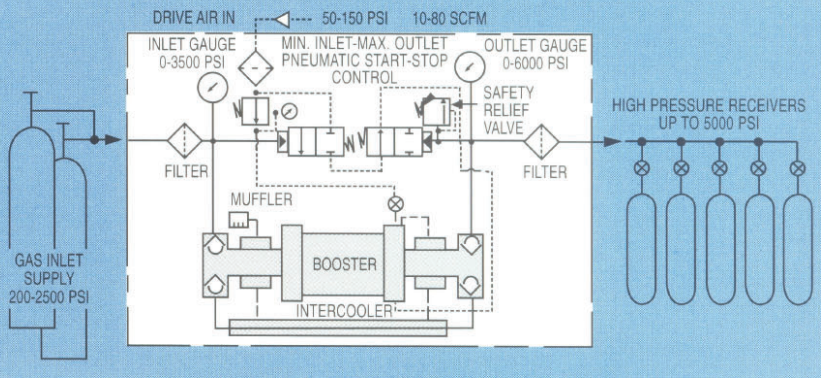
32” long x 14” wide x 24” high
Approx weight: 115 lbs

KEY FEATURES

- Drive is a low-friction, slow-speed-cycling air cylinder, designed for continuous duty without airline lubrication. Vented distance pieces insure hydrocarbon-free gas section operation. High-pressure oxygen seals are wear compensating, immune to sudden failure and operate completely non-lube, oil free.
- Very cold air (as low as -20° F) is a natural by-product from the air-powered drive exhaust. This frigid exhaust air is channeled through a system of cooling jackets and an interstage cooler, resulting in high-pressure cylinder temperatures well below the limits needed for the long life of critical parts.
- Inlet gas supply pressure acts directly through the opposed-piston construction to assist the air drive during the compression stroke, conserving power required by the drive directly in proportion to the gas supply pressure.

TYPICAL APPLICATION

BASIC SCHEMATIC HASKEL OXYGEN BOOSTER UNIT MODEL 26968



SPECIFICATIONS

- **Booster:** Air-driven, balanced-opposed piston-type, two stage
- **High-pressure oxygen chambers:** Non-lube hydrocarbon-free, triple sealed and vented from the drive air chest
- **High-pressure tubing & fittings:** Stainless steel, 5,000 psi maximum oxygen working pressure
- **Air drive section:** No oil required; corrosion resistant, factory lubed at assembly; 150 psi max. drive pressure
- **Particle filters:** Inlet and outlet gas: 10 Microns. All stainless steel
- **Gauges:** Stainless steel tube, solid front 4-½" dial size
- **Port sizes:** Inlet and outlet gas: "_NPT female; Air Drive; _NPT female"
- **Control range adjustment:**
  Inlet minimum: 150 to 850 psi cutout
  Outlet maximum: 800 to 5,000 psi cutout
  Safety relief (outlet): 800 to 5,000 psi
- **Cooling:** With air exhaust to both stages and intercooler
- **Noise:** 80 dB range pulses, depending on working pressure (measured at 30 inches from booster)
- **Maintenance:** Simple seal kit replacement
- **Installation:** No special foundation, no tie-down required and no electrical connections

Examples of Performance With Air Drive Power of 50 SCFM (air flow at air drive pressure indicated)				
Oxygen Gas Pressure — PSI		Oxygen Outlet Gas Flow — SCFM		
Inlet	Outlet (B)	Air Drive PSI		
		60	80	100
250	1500	3.5	4.0	4.0
250	2000	2.1	3.6	3.6
250	3000	(A)	(A)	2.5
1000	1500	8.7	14.7	15.0
1000	2500	(B)	9.7	13.7
1000	3500	(B)	9.6	13.6
1500	2000	(B)	14.7	20.7
1500	2500	(B)	(B)	16.1
1500	3000	(B)	(B)	(B)
2000	2500	(B)	(B)	21.6

A. Outlet stall (maximum gas outlet pressure is: air drive psi x 30 plus 2 x gas inlet psi)

B. Interstage stall (maximum gas inlet pressure is: air drive psi x 15 if outlet pressure exceeds air drive psi x 30. If it does not, maximum gas pressure inlet pressure is air drive psi x 30)

C. If less air flow is available, outlet gas rates will decrease approximately in proportion