Easy-Fill 300 bar Oxygen Booster & Gas Blender Model: 7000

Features

- The easiest method of filling rebreather cylinders on the planet! Just plug into any AC power socket, switch on, and in minutes four cylinders are full to 300 bar.
- Portable: on wheels, with lifting handles.
- Power input has 25m of cable, with soft-start variable speed inverter that enables booster to run from any standard power socket without blowing fuses.
- Gas inputs and outputs have 400bar precision digital gauges for accurate blending, in addition to two 125mm liquid damped analogue transfer gauges.
- Gas input is directly from a supply cylinder with 3m DIN whip, with adaptors for J-cylinders and SCUBA cylinders.
- Fills at the maximum safe rate for oxygen fills, typicaly between 5 and 14 minutes for 4 x 2L 300bar cylinders depending on on input gas pressure (minimum 25 bar).
- Automatic shut-off once target pressure is reached.
- Provides the maximum safety for oxygen filling: integral cooling fan, finned after-cooler for near-ambient outlet gas, oil-free booster with sealed bearings , progressive needle valves on gas whips, and electronic fill rate control from intelligent soft-start system.
- Hour meter to manage usage.
- Starter kit with all gas PPE and oxygen analyser available as an option.
- Low noise: <72dBA at 1m.
- Dimensions: 150 x 140 x 60 cm.
- Made in the UK from 6061-T6 aluminium alloy – no rust. Booster from USA. Whips made in Germany. CE compliant.
- Weight: 120kg: 3 man lift.
- A one year limited warranty is provided as standard.

Above: Booster is wheeled onto site, plugged into mains AC, the lid is opened and cylinders connected. The inlet is connected to a gas supply. Press the start sequence, and four cylinders are filled at the maximum safe rate for oxygen filling.

.

Below: Booster lid accommodates dry filling as shown below on silicone pad, or an 80L HDPE wet tank (supplied and seen in the image above). One to four cylinders are filled simultaneously..

Open Safety Equipment Ltd
Unit: 15 Fisherrow Industrial Estate,
Newhailes Rd, Musselburgh, EH21 6RU, Scotland
www.opensafety.eu sales@opensafety.eu

OPEN SAFETY

Description

The Open Safety Model 7000 gas booster is designed to enable safe replenishment of military rebreather and other diving cylinders in the field or in a forward operating base. The booster can be operated in the field with minutes, with the absolute minimum of setup.

The Model 7000 fills and blends 300 bar rebreather or open circuit oxygen, nitrox, trimix and heliox cylinders om low pressure supply cylinders rapidly and accurately. It also offers field scavenging of gas from other gas sources significantly reducing the cost of heliox diving. Minimim input pressure for 300 bar out, is just 25 bar.

Open Safety's Model 7000 offers an exceptional degree of safety for operations involving high pressure oxygen. These measures include an intelligent soft-start inverter, oil-free operation, needle valves on all inlets and outlets, integral cooling fan & finned after-cooler for cool output gas. The Model 7000 has an innovative seal and cooling method that enables the filling of cylinders with gas at near ambient temperature, with full rate control to significantly mitigate the fire risk from adiabatic compression. The Model 7000 is oxygen cleaned to MIL-STD-1330D(SH) before shipping.

The booster is completely oil-free and uses only two low friction dry seals. The seals can be replaced in less than 30 minutes using a technician toolkit. The piston guide is the only other part that requires regular maintenance; this is done by simply sliding it off the piston during routine maintenance servicing.

The gas booster is in an aluminium alloy 6061-T6 trolley for easy site relocation. It can also be supplied as a static system for permanent installation. The trolley has pneumatic wheels and two-man lifting handles to enable it to be pulled over uneven terrain or lifted onto dive vessels or from trucks manually.

High quality German DIN whip fittings are provided on all gas inputs and outlets, along with adaptors to suit cylinder valves in use in the country of destination.

A starter pack is offered as an option that includes all PPE (electronic hearing protectors, gloves, eye protection), adapters for all common supply cylinders, oxygen cleaning equipment and cylinder inspection tools. Four hours of 'Train the Trainer' instruction provided with the product on-site where other Open Safety training is being provided, or in the UK at the Open Safety factory, or remotely using Zoom.

Typical Flow Rates

Inlet Pressure	Outlet Pressure	Flow
138 bar / 2000 psi	300 bar / 4500 psi	142 lpm / 5.0 SCFM
138 bar / 2000 psi	207 bar / 3000 psi	283 lpm / 10.0 SCFM
100 bar / 1500 psi	207 bar / 3000 psi	198 lpm / 7.0 SCFM
70 bar / 1000 psi	207 bar / 3000 psi	127 lpm / 4.5 SCFM
35 bar / 500 psi	207 bar / 3000 psi	57 lpm / 2.0 SCFM
25 bar / 350 psi	207 bar / 3000 psi	30 lpm / 1.1 SCFM

Usage Example: Four 2L rebreather cylinders containing 50 bar after a dive mission requiring rapid turnaround, to top up to 300 bar, requires 2000 litres of gas. The Model 7000 achieves this in 14 minutes from a standard 50L J-cylinder at 100 bar: one bar every 3 seconds, the fastest safe fill rate in a wet tank.

Ordering Information

Model	Description
OSEL_Model7000_O2_Booster-Trolley:	Booster trolley with all features described above.
OSEL_Model7000_O2_Booster-Static:	As above, suitable for in-situ fixed site installation.
OSEL_Model7000-StarterPack:	Full PPE package, O2 cleaning and field cylinder inspection tools.

State colour: Army Green (Standard) option of blue. Other colours to special order.

Open Safety Equipment Ltd
Unit: 15 Fisherrow Industrial Estate,
Newhailes Rd, Musselburgh, EH21 6RU, Scotland
www.opensafety.eu sales@opensafety.eu