

AS-B and AS-D

PSA Oxygen Generator Specifications



AirSep Model No.

SCFH



The AirSep Alpha Series Oxygen Generators produce oxygen at up to 95% concentration from 20 to 5,500 cubic feet hour. When electricity and a source of compressed air is supplied, these reliable machines can deliver oxygen on demand for practically any application.

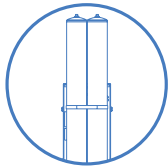
Features

- Produces oxygen from an independent compressed air source
- Microprocessor controlled
- Low operating cost
- Automatic and unattended operation
- Easy to install and maintain

Typical Applications

- Cutting/Brazing/Soldering
- Environmental Remediation
- Fish Farming
- Glass Work/Blowing
- Ozone (Generator) Feed Gas
- Thermal/Chemical Oxidation
- Waste/Water Treatment

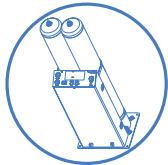
Specifications



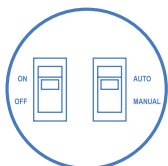
- A. The single oxygen generator shall utilize two-bed (adsorber) Pressure Swing Adsorption (PSA) technology and be designed to deliver 80 standard cubic feet per hour¹ (SCFH) [2.1 normal cubic meters per hour¹ (Nm³/hr)] of oxygen at a discharge pressure of 1–45 psig (5–310 kPa). The feed air requirement should not exceed 15 standard cubic feet per minute¹ (SCFM) [0.39 normal cubic meters per minute¹ (Nm³/min)] at 90 psig (620 kPa) and a maximum temperature of 122°F (50°C). Unit shall be capable of continuous duty and maintain a delivered oxygen concentration of no less than 90%.



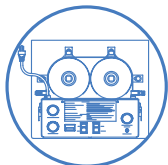
The two adsorbers (pressure vessels) shall be constructed of heavy-duty carbon steel to ASME code, Section VIII, Div. 1, 1998 Edition, Addenda A99, Code Case No 2046, and cleaned for oxygen service. An unpainted stainless steel data plate tack welded to each vessel shall be stamped with the UM symbol and indicate a manufacturer's serial number that cross references with a certificate of compliance to such code. The dimensions of the oxygen generator shall not exceed 17 x 15 x 58 in (43 x 38 x 147 cm) [W x D x H].



- B. The oxygen generator shall be a standard, existing design that is factory assembled, tested, and shipped complete on factory built-up skid. Unit shall be furnished completely plumbed and wired requiring only inlet, outlet, and electrical connections in the field. All process valves shall be of industrial grade manufactured by Automatic Switch Co. The valves as well as all other process hoses shall be contained within the generator's enclosure to protect them from damage. The generator shall also be CSA Approved to CAN/CSA-C22.2 No. 1010.1-92 and UL Standard No. 3101.1.

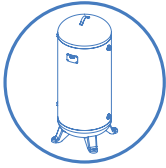


- C. The control package of the oxygen generator shall consist of a manual ON/OFF selector switch and an AUTO/MAN selector switch that allows the unit to cycle on and off according to pressure demand within the oxygen distribution system. Pressure switches and all control logic shall be included as part of the generator along with a 3-prong grounded plug. Control power requirements shall be 120 or 220 V \pm 10%, 50/60 Hz, single phase, 1.5 A (120 V) or 0.75 A (220 V), and 180 W.



The PSA process shall be controlled by a non-adjustable microprocessor that also controls the automatic electric drain incorporated into the feed air filtration assembly. The control panel shall include a Feed Air Pressure Gauge, Cycle Pressure Gauge, Oxygen Receiver Pressure Gauge, illuminated On/Off Switch, illuminated Auto/Man Switch, hour meter, and a Push Button Drain Switch.

¹ SCF (Standard cubic foot) gas measured at 1 atmosphere and 70°F (21°C) / Nm³ (Normal cubic meter) gas measured at 1 atmosphere and 32°F (0°C) / SLPM (Standard liters per minute) gas measured at 1 atmosphere and 70°F (21°C)
² Hose and applicable adapters included with optional Factory-supplied accessory kits.



- D. The oxygen generator shall be furnished with an individual 60 gallon oxygen-cleaned receiver (pressure vessel). The receiver shall be constructed of heavy-duty carbon steel to ASME code, Section VIII, Div. 1, 1998 Edition, Addenda A99, Code Case No 2046. An unpainted stainless steel data plate tack welded to the vessel shall indicate a manufacturer's serial number that cross references with a certificate of compliance to such code. The height the oxygen receiver shall not exceed 51.75 in. (132 cm). The width of the vessel itself shall measure 20 in. (approximately 51 cm) and have four support legs connected to its base, positioned at 90° angles from each other. Each leg shall have 23.75 in. (approximately 60.3 cm) bolt centers.



- E. The oxygen generator shall be supplied with an instruction manual, feed air hose with adapter, condensate tubing with fittings, two Teflon lined oxygen hoses complete with fittings, Harris pipeline oxygen regulator with fitting, pressure relief valve assembly specifically designed for oxygen service, and a dual ball valve assembly (mini manifold) to facilitate installation with back-up oxygen source.

Testing and Inspection



1. Parts must be inspected as part of a strict ISO 9001:2015 quality control program.



2. Each oxygen generator shall be run and tested for leaks, pressure, temperature, etc..

Standard Limited Warranty

AirSep Corporation ("AirSep") warrants to the party purchasing from AirSep (the "original purchaser") the PSA oxygen generator to be free from defect in parts and workmanship for one year from the date of start-up, not to exceed eighteen (18) months from the date of shipment to the original purchaser, under normal use, maintenance and operation*. TO THE EXTENT PERMITTED UNDER APPLICABLE LAW, ALL WARRANTIES WITH RESPECT TO SUCH UNIT SHALL ONLY EXTEND TO AND BE FOR THE BENEFIT OF THE ORIGINAL PURCHASER AND SHALL NOT BE ASSIGNABLE TO, EXTEND TO OR BE FOR THE BENEFIT OF ANY OTHER PARTY. AirSep's obligations under this warranty are limited, at AirSep's option, to the repair, replacement or refunding the purchase price of any such unit of equipment (or part thereof) found by AirSep to be defective in parts or workmanship; provided, however, that AirSep shall have no obligation hereunder with respect to a defective part unless it receives written notice of such defect prior to the expiration of the applicable warranty period as referenced above.



Each unit of equipment for which a warranty claim is asserted shall, at the request of AirSep, be returned on a prepaid basis with proof of purchase date to the AirSep factory specified by AirSep at the expense of the original purchaser. Replacement parts shall be warranted as stated above for the unexpired portion of the original warranty. This warranty does not extend to any unit or part subjected to misuse (at AirSep's sole determination), accident, improper maintenance or application, or which has been repaired or altered outside of the AirSep factory without the express prior written authorization of AirSep.

Notwithstanding anything to the contrary contained herein, during the applicable warranty period, as specified above, AirSep will pay the cost of return freight charges to the original purchaser, provided an authorized AirSep representative approved return of the unit or parts, for any equipment found by AirSep to be defective. For warranty repairs performed during the first 90 days from the date of invoice, AirSep will pay freight both ways. After the applicable parts warranty period has expired, the original purchaser is responsible for freight both ways.



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