# Reliant

# **PSA Oxygen Concentrator**





### **Ordering Information**

Product Par	rt Numbe
Reliant Oxygen Concentrator (120V ~)	
With Oxygen Purity Alarm	AS072-4
Reliant Oxygen Concentrator (220V ~)	
With Oxygen Purity Alarm	AS072-3
Pricing for above includes:	
Compressor Assembly	
Accessory Kit—Includes the following:	KI046-1
<ul> <li>Instruction Manual</li> </ul>	
<ul> <li>4 ft Oxygen Hose</li> </ul>	
<ul> <li>Primary/Secondary Oxygen Ball Valve As</li> </ul>	ssembly
<ul> <li>Adapter "B" Swivel x 1/4 in. MPT</li> </ul>	•

Separate Sales Items:

Auxiliary 60 Gallon Oxygen-Cleaned Receiver....TA019-1 Auxiliary Accessory Kit-includes the following:..KI048-1

- 7 ft Hose
- · Oxygen Isolation Ball Valve Assembly
- · Oxygen Purge Ball Valve

Spare Part Kit—Includes the following:.....KI049-1

- 3 amp fuse (2)
- Microalescer Filter Element (2)
- Air Intake Gross Particle Filter (2)
- Compressor Intake Filter (2)

### **Features**

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

### **Typical Applications**

- Oxygen Therapy
- Veterinary Medicine
- Ozone (Generator) Feed Gas
- Environmental Remediation

- Fish Farming
- Brazing/Solding
- Anesthesia
- Glass Work/Blowing

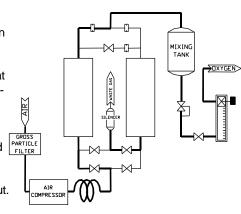
### **The Pressure Swing Adsorption** (PSA) Oxygen Generating Process

Air contains 21% oxygen, 78% nitrogen, 0.9% argon, and 0.1% other gases. AirSep Oxygen Generating Systems separate oxygen from compressed air through a unique Pressure Swing Adsorption (PSA) process. The PSA process uses molecular sieve (a synthetic zeolite), which attracts (adsorbs) nitrogen from air at high pressure and releases (desorbs) it at low pressure.

AirSep Oxygen Generators use vessels filled with molecular sieve as adsorbers. As compressed feed air flows through one of the vessels, the molecular sieve adsorbs nitrogen. The remaining oxygen passes through the vessel and exits as the product gas. Before the adsorber

becomes saturated with nitrogen, the feed air is diverted to another vessel. At that point, the sieve in the first vessel regenerates by desorbing the nitrogen through depressurization and purging it with oxygen from the other vessel. This process is then repeated to allow the oxygen generator to deliver a constant flow of product oxygen at 90% minimum purity. Under normal operating conditions, the molecular sieve is completely regenerative and will last indefinitely.

AirSep offers a wide variety of standard PSA oxygen systems to supply virtually any oxygen application from 12-5,000 SCF/hr (0.32-131 Nm<sup>3</sup>/hr) of product oxygen output. AirSep also designs and constructs larger engineered systems.



MK095-1 Rev. B 1 of 2

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## **PSA Oxygen Concentrator**



1-800-320-0303

## **Specifications**

### **Product Characteristics**

Standard Product Flow: 15 SCF/hr<sup>1</sup> (0.39 Nm<sup>3</sup>/hr<sup>2</sup>) Standard Product Pressure: 0–50 psig (5–345 kPa)

Minimum Product Purity: 90% Product Dew Point: -100°F (-73°C)

### **Ambient Operating Conditions**

Locate the oxygen generator in a climate-controlled area that remains between 40°F (4°C) and 100°F (27°C)

#### **Control Power Requirements**

120 V  $\sim$  ±10%, 50/60 Hz, Single Phase, 6.0 A 220 V  $\sim$  ±10%, 50/60 Hz, Single Phase, 3.0 A Typical Power Consumption (at 90% purity): 680 W

### **Physical Characteristics**

Dimensions (W x D x H): 22.5 x 24.5 x 36.25 in.

(57 x 62 x 92 cm)

Weight: 175 lb. (113.4 kg)

### **Physical Connections**

Product Gas Outlet: 1/4" NPT/B size oxygen

demand valve

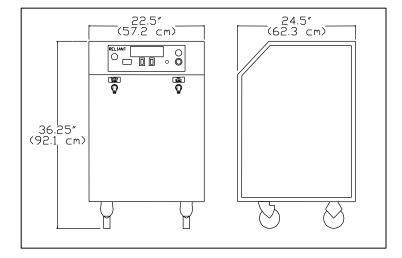
Sound Level: 58 db(A) @ 1 meter, open field

conditions

Warranty: 1 Year Parts and Factory Labor\*

\*An unprotected or inadequately ventilated environment or improper control power may cause damage to the oxygen concentrator not covered under warranty.

AirSep Corporation continually improves its products and reserves the right to change specifications or design without notice.



Commercial Products Division 260 Creekside Drive Buffalo, NY 14228-2075 U.S.A.

Tel: (716) 691-0202 Fax: (716) 691-1255

URL: http://www.airsepcpd.com

E-mail: cpd@airsep.com

 $<sup>^1</sup>$  SCF (Standard cubic foot) gas measured at 1 atmosphere and 70°F  $^2$  Nm³ (Normal cubic meter) gas measured at 1 atmosphere and 0°C

