

# PSA Oxygen Concentrator Subsystems

## Quad Series



Each member of the Quad family utilizes patented Advanced Technology Fractionator® (ATF) modules connected together in a subsystem. When used with oil-less compressed air, Quads deliver high oxygen flows and concentration without high cost. Quads can be matched with dry, oil-less appropriate compressed air sources.

Quad oxygen concentrators offer the same design simplicity as the ATF and build upon it by connecting four modules together to produce four times as much oxygen. As with the ATF, the Quad is easy to install and requires virtually no maintenance. Simply plug in and connect the compressed air source.

Quad includes an oxygen concentration monitor, pressure gauges, and a flow meter. To operate, turn the flowmeter to the appropriate oxygen level and receive a smooth, steady supply of oxygen.

### Features

- Fully integrated controls to ensure reliable oxygen production
- Rugged, environmentally tolerant design
- Oxygen concentration monitor
- Compact and lightweight for maximum design flexibility
- Constant delivery pressure
- Low operating cost
- Eliminates the need for an external product tank

### Typical Applications

#### Manufacturing

- Cutting/Brazing/Soldering
- Thermal/Chemical Oxidation
- Glass Work/Blowing

#### Medical

- Hospital Systems

#### Environmental

- Ozone (Generator) Feed Gas
- Waste/Water Treatment

### Specifications

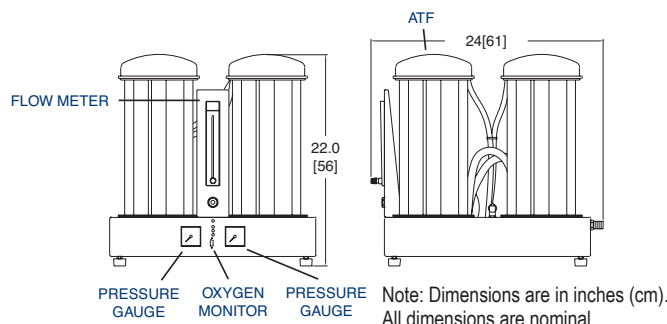
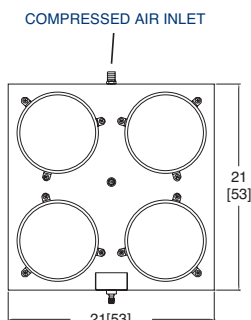
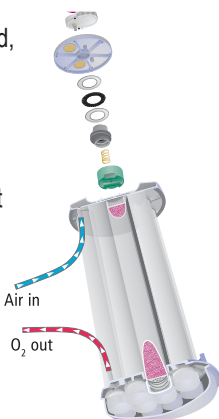
	Quad-60	Quad-100	Quad-130
Performance Data			
Product Flow <sup>1</sup>	60 SCFH (1.57 Nm <sup>3</sup> /hr or 28 LPM)	100 SCFH (2.62 Nm <sup>3</sup> /hr or 47 LPM )	130 SCFH (3.41 Nm <sup>3</sup> /hr or 60 LPM)
Oxygen Delivery Pressure	7 psig (48 kPa or 0.48 barg)	15 psig (103 kPa or 1.03 barg)	15 psig (103 kPa or 1.03 barg)
Product Concentration	Up to 95%	Up to 95%	Up to 95%
Product Dew Point	-100°F (-73°C)	-100°F (-73°C)	-100°F (-73°C)
Dimensions (W x D x H) (nominal)	24 x 21 x 22 in (61 x 53 x 56 cm)	24 x 21 x 22 in (61 x 53 x 56 cm)	24 x 21 x 22 in (61 x 53 x 56 cm)
Weight	95 lb (43 kg)	95 lb (43 kg)	95 lb (43 kg)
Physical Connections			
Compressed Air Inlet	¾" ID hose x 10'L	¾" ID hose x 10'L	¾" ID hose x 10'L
Product Gas Outlet	¼" FNPT x 10'L	¼" FNPT x 10'L	¼" FNPT x 10'L
Ambient Operating Conditions	Locate the oxygen concentrator subsystems in a well-ventilated area that is protected from weather elements and remains between 40°F (4°C) and 130°F (54°C); inside operating enclosure between 0°F (-18°C) and 140°F (60°C)		
Input Air Requirements			
Flow <sup>1</sup>	13 SCFM (22.0 Nm <sup>3</sup> /hr or 370 LPM )	25 SCFM (42.4 Nm <sup>3</sup> /hr or 710 LPM)	25 SCFM (42.4 Nm <sup>3</sup> /hr or 710 LPM)
Pressure	18 psig (124 kPa or 1.24 barg)	35 psig (241 kPa or 2.41 barg)	35 psig (241 kPa or 2.41 barg)
Feed Air Requirements	Clean, dry, oil-less compressed air (Class 5.6.1 per ISO 8573.1)		
Control Power Requirements (Single Phase)	120 V ~ ±10%, 60 Hz or 208 – 240 V ~ ±10%, 60 Hz or 220 – 240 V ~ ±10%, 50 Hz		
Typical Power Consumption	48 W (Oxygen monitor output for oxygen concentration and alarms is nine pin D-sub connector)		

<sup>1</sup> SCF (Standard cubic foot) gas measured at 1 atmosphere and 70°F / Nm<sup>3</sup> (Normal cubic meter) gas measured at 1 atmosphere and 0°C / LPM (Liters per minute) gas measured at 1 atmosphere and 21°C

## The ATF Advantage

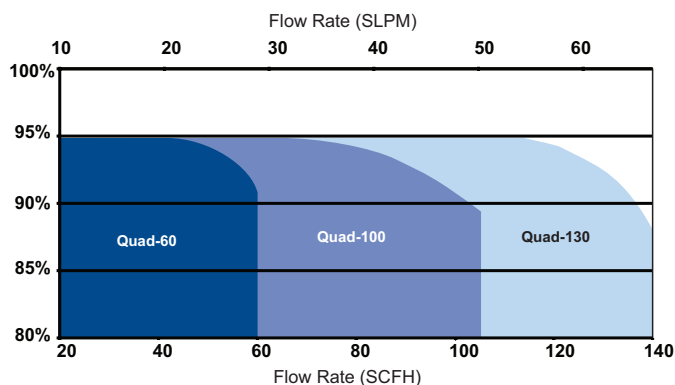
ATF oxygen modules incorporate proven pressure swing adsorption (PSA) principles into a unique patented design, which allows these systems to be compact, efficient, rugged, and lower in cost. The ATF module offers unparalleled design flexibility and enables applications where on-site/on-board oxygen generation was previously impractical.

A patented single rotary distribution valve built into the ATF module is continuously rotated at low speed by a small motor. The valve is maintenance free, self-cleaning, insensitive to contamination, and invulnerable to wear. It sequentially directs the flow of compressed air to a group of four sieve beds (adsorption), while at the same time another four beds are purged into the atmosphere through the valve (desorption). The remaining four of the twelve beds are interconnected through the valve to equalize pressure as the sieve beds sequentially transition between adsorption and desorption. The small amplitude pressure swings generated by the ATF's twelve sieve beds eliminate loud noise pulses, eliminate the need for a pressure regulator, and reduce compressor wear.



Note: Dimensions are in inches (cm). All dimensions are nominal.

## Performance



Performance is based upon nominal units tested under lab conditions. Please call for additional information.

## Ordering Information

Model	Part Number	Description
Quad-60	5060	120 V ~ ±10%, 60 Hz
	5062	208 – 240 V ~ ±10%, 60 Hz
	5064	220 – 240 V ~ ±10%, 50 Hz
Quad-100	5100	120 V ~ ±10%, 60 Hz
	5102	208 – 240 V ~ ±10%, 60 Hz
	5104	220 – 240 V ~ ±10%, 50 Hz
Quad-130	5130	120 V ~ ±10%, 60 Hz
	5132	220 – 240 V ~ ±10%, 60 Hz
	5134	220 – 240 V ~ ±10%, 50 Hz
Accessories (contact factory)	9157	Compressed Air Hose 3/4" x 10'L
	9160	Oxygen Product Hose 1/4" x 10'L

### Shipping Information

### Quad-60 / Quad-100 / Quad-130

Class	92.5
Commodity Classification Number	8421.39.8040
Dimensions (W x D x H)	25 x 25 x 24 in (64 x 64 x 61 cm)
Gross Weight	105 lb (48 kg)

### Warranty: 1 Year Parts and Factory Labor\*

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

All performance ratings based on an ambient temperature up to 100°F (38°C), up to 1,000 feet elevation, and 80% relative humidity.



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