PSA Oxygen Concentrator System

Workhorse Profile







The Workhorse-23 Profile is a revolutionary oxygen concentrator system that provides 23 SCFH (0.60 Nm³/hr or 10.8 LPM) of oxygen (including an oil-less compressor on-board) in the same space as the previous generation conventional two-bed 12 SCFH (0.31 Nm³/hr or 5.7 LPM) or 15 SCFH (0.39 Nm³/hr or 7.1 LPM) systems.

The Workhorse-15 Profile oxygen system offers the same superior performance of the standard Workhorse model, but in less space. Workhorse-15 technology can be offered as a replacement for older, existing systems where space considerations are important. Workhorse utilizes Advanced Technology Fractionator® (ATF).

Features

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

Typical Applications

Manufacturing

Jewelry/Brazing/Soldering

Artistic

Glass Work/Blowing

Environmental

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

Additional

- Fish Farming
- Cosmetic

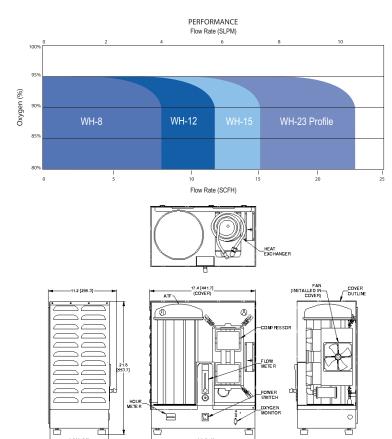
Specifications Specification Specif			
	Workhorse-15	Workhorse-23	
Performance Data Product Flow ¹ Oxygen Delivery Pressure	15 SCFH (0.39 Nm³/hr or 7.1 LPM) 7 psig (48 kPa or 0.48 barg)	23 SCFH (0.60 Nm³/hr or 10.8 LPM) 7 psig (48 kPa or 0.48 barg)	
Product Concentration	Up to 95%	Up to 95%	
Product Dew Point	-100°F (-73°C)	-100°F (-73°C)	
Dimensions (W x D x H) (nominal)	17 x 11 x 22 in (43 x 28 x 56 cm)	17 x 11 x 22 in (43 x 28 x 56 cm)	
Weight	67 lb (30 kg) 68 lb (31 kg) (with oxygen concentration monitor)	67 lb (30 kg) 68 lb (31 kg) (with oxygen concentration monitor)	
Physical Connections Product Gas Outlet	½" FNPT	½" FNPT	
Ambient Operating Conditions	Locate the oxygen concentrator system in a well-ventilated area that is protected from weather elements and remains between 40°F (4°C) and 130°F (54°C) inside room or operating enclosure; 0°F (-18°C) and 140°F (60°C) in storage		
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	Approximately 450 W	Approximately 600 W	

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.





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Ordering Information				
Model	Part Number	Description		
Workhorse-15 .	5769-SEQ	120 V ~ ±10%, 60 Hz		
	5785-SEQ	208 – 240 V ~ ±10%, 60 Hz		
	5777-SEQ	220 – 240 V ~ ±10%, 50 Hz		
	5769-1-SEQ	With oxygen concentration monitor (LED indicator), 120 V ~ ±10%, 60 Hz		
	5785-1-SEQ	With oxygen concentration monitor (LED indicator), 208 – 240 V ~ ±10%, 60 Hz		
	5777-1-SEQ	With oxygen concentration monitor (LED indicator), 208 – 240 V ~ ±10%, 50 Hz		
Workhorse-23 .	5755-SEQ	120 V ~ ±10%, 60 Hz		
	5759-SEQ	208 – 240 V ~ ±10%, 60 Hz		
	5763-SEQ	220 – 240 V ~ ±10%, 50 Hz		
	5755-1-SEQ	With oxygen concentration monitor (LED indicator), 120 V ~ ±10%, 60 Hz		
	5759-1-SEQ	With oxygen concentration monitor (LED indicator), 208 – 240 V ~ ±10%, 60 Hz		
	5763-1-SEQ	With oxygen concentration monitor (LED indicator), 208 – 240 V ~ ±10%, 50 Hz		
Shipping Information		Workhorse-15	Workhorse-23	
Class		92.5	92.5	
Commodity Classification Number		8421.39.8040	8421.39.8040	
Dimensions (W x D x H)		22 x 14 x 25 in (56 x 36 x 64 cm)	22 x 14 x 25 in (56 x 36 x 64 cm)	
Gross Weight		84 lb (38 kg)	84 lb (38 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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