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# **Oxygen Concentrator Modules**



## **Key Features**

- 1. Skid mounted, self contained modules in a wide variety of capacities.
- 2. Full electronic controls displaying output and all control parameters and allowing control of each module.
- 3. Prepiped inlet and outlet.
- 4. Prepiped exhaust for venting outside the building including muffler for noise reduction.
- 5. Temperature independant output.





#### **Benefits**

- Modules are individually controlled and monitored for simplex or duplex PSA arrangements.
- Rigging and installation are simplified but each module is complete within itself to ensure correct operation.
- Modules can be operated at ideal pressure for oxygen production without affecting the delivery pressure.
- Noise is minimized and safety of workers can be protected from nitrogen exhaust.







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Medical oxygen is an irreplaceable essential for many basic medical procedures and treatments, and an invaluable adjuct to many other treatments. It is one of the drugs medical facilities cannot be without.

Cylinder Oxygen is bulky, difficult and dangerous to transport. Oxygen in liquid form is both bulky and has very limited storage life. As a result, many medical facilities have only limited access to oxygen or can only obtain it at high cost. Even facilities with good and economical supply must assure they have oxygen available to see them through natural or man made disasters.

A solution is to produce oxygen on site using BeaconMedæs' PSA oxygen separation modules. PSA modules separate the oxygen from ambient air and allow the facility to have stand alone oxygen production capability right on the facility site.

BeaconMedæs PSA modules are the key element necessary to assemble an oxygen production plant complying with the CSA Z10083 or ISO 10083 standard, which prescribes the required elements of a safe on-site central oxygen producing facility for medical facilities requiring pharmacopeial oxygen.

#### **BeaconMedæs**

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## **Oxygen Standards**

PSA oxygen modules are able to produce oxygen compliant with the United States Pharmacopeia (USP) monograph for Oxygen 93 or the European Pharmacopeia (EurPh)monograph for Oxygen 93. Both standards were created expressly to permit the use of PSA produced oxygen.

	Standard					
Component	EurPh Oxygen 93	USP Oxygen 93	Laboratory Assay from a BeaconMedæs PSA Module¹			
Oxygen v/v%	93 ±3%	> 90% < 96%	90- 95%			
Carbon Monoxide	5 ppm	5 ppm	0.11 ppm			
Carbon Dioxide	300 ppm	300 ppm	0.82 ppm			
Water	67 ppm	-	3.8 ppm			

<sup>1</sup>Note: Feed air quality ISO8573-1 Class 1-4-1

### **Technical Specifications**

	Oxygen Product		Feed Air Required		Width (m)	Length (m)	Height (m)
model	(lpm)	(cfm)	(lpm)	(cfm)	(111)	(111)	(111)
OGP2	24	0.8	360	12.7	.6	.6	1.55
OGP3	42	1.5	492	17.4	.6	.6	1.65
OGP4	54	1.9	588	20.8	.6	.6	1.65
OGP5	72	2.5	882	31.2	.7	.7	1.9
OGP6	90	3.2	1,098	38.8	.9	.8	1.75
OGP8	120	4.2	1,650	58.3	.9	.8	1.75
OGP10	144	5.1	1,692	59.8	1.2	.9	2.1
OGP14	222	7.8	2,400	84.8	1.2	.9	2.1
OGP18	300	10.6	3,102	109.6	1.3	.9	2.4
OGP20	318	11.2	3,498	123.6	1.3	1	2.4
OGP23	348	12.3	4,002	141.4	1.3	1	3.2
OGP29	450	15.9	5,238	185.1	2	1	2.5
OGP35	540	19.1	5,820	205.7	2	1	2.5
OGP45	702	24.8	8,400	296.8	2	1	3.4
OGP55	852	30.1	9,900	349.8	2	1	3.4
OGP65	1,050	37.1	12,780	451.6	2	1	3.4
OGP84	1,302	46.0	15,900	561.8	2.2	2.4	3.2

Note: Output at 93% Concentration, 20°C Ambient, 20°C Inlet, 7.5 bar (108 psig) inlet. Concentration varies with demand. Approximately 20% more output is possible with 90% oxygen concentration, higher concentration is possible with reduced throughput (to a maximum of 95%).

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