

## Stages of Oxygen Generation

- ◆ Production of compressed air using compressor
- ◆ Air humidity, aerosol, and dust filtration
- ◆ Gas adsorption
- ◆ Gas purge
- ◆ Elimination of bacteria and contaminant particulars
- ◆ Product storage



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## Advantages of Containerized Oxygen Generator using PSA

- ◆ Cost effective and high efficient operation
- ◆ Easy operation of the system
- ◆ High safety and reliability
- ◆ Precise purity
- ◆ Easy to transport the generator to planned location



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# Containerized Oxygen Generator

# Introduction

Containerized oxygen generator utilizes one of the latest technologies worldwide to produce oxygen for industrial and medical purposes. The method used to generate oxygen is the separation of one specific gas from the mixture of several gases; the pressurized split based on molecular characteristics and different adsorptivity onto adsorbent arises with the technology of Pressure Swing Adsorption (PSA). PSA-based oxygen generator packages are being operated for generating a high purity product using compressed air. In this technology, air molecules are separated by porous adsorbents. After adsorbent saturation, the regeneration process occurs through depressurization.

## Bill of Materials datasheet (600 NL/min)

Equipment	Data
Container	20 ft
Electro Motor	75 KW
Electro Motor	2.2KW
Compressor	11.2 bar
Air End	EVO-15
Dryer	ACT 210
Pre Filter	FTM 160
Micro Filter	FTX 160
Carbon Filter	FTZ 160
Water Trap	FTC 160
Antibacterial Filter	SPF 070 (0730 VSF)
O2 Analyzer	EX-092
Instruments	PT & PI
Compressor Electrical Board	Q1
Compressor Valve	RH100 / G50 / VTFT37
HMI	DOP-107CV
Zeolite	JLOX 500
Safety Valve	1" & 1/2"
Solenoid Valve	VUVG-L14-T32C-MT-G181-P3
Pneumatic valve (On Off)	20006 & 20007 & 20008
Air Receiver	Capacity 2000 Lit
O2 Receiver	Capacity 2000 Lit
Generator Left Tower	Flow rate 708 Nm3/hr
Generator Right Tower	Flow rate 708 Nm3/hr

## Technical Datasheet of the Generator

Capacity	400 NL/Min	600 NL/Min
Oxygen Purity	93% ± 3%	93% ± 3%
Filtration	Water Trap/ Filters /Dryer / Antibacterial	Water Trap/ Filters /Dryer / Antibacterial
Generation Method	Pressure Swing Adsorption(PSA)	Pressure Swing Adsorption(PSA)
Compressor Capacity	7.8 m <sup>3</sup> /min	11.2 m <sup>3</sup> /min
Adsorbent	Zeolite 500X	Zeolite 500X
Electrical Data	3Phase Electricity - 55kw - 125A	3Phase Electricity - 75kw - 125A
Package Weight	~11,000 kg	~14,000 kg

## Dimension of the Generator (Container 20ft)

L x H x W	20 ft x 9.50 ft x 7.8 ft
L x H x W	6.1 m x 2.9 m x 2.4 m

