



### ● ***O<sub>2</sub> - PSA Process***

Air compressed by an air compressor is introduced into the bottom of the adsorber. Nitrogen, carbon dioxide and moisture are removed in the adsorber, and oxygen gas comes out of the top as the product gas. Nitrogen, carbon dioxide and moisture adsorbed by ZMS in the adsorber are desorbed at atmospheric pressure.

Oxygen gas is generated through pressurization-to-depressurization swing which is performed alternately by two adsorbers.



### ● ***O<sub>2</sub> - PSA Standard Specifications***

- Capacity : 1.0Nm<sup>3</sup>/h ~ 100Nm<sup>3</sup>/h
- Oxygen purity : 90% ~ 95.0%
- Moisture Dew Point : -70°C(atm)

### ● ***O<sub>2</sub> - PSA Application***

1. Supply of oxygen for various kinds of furnaces
  - Electric arc furnaces for steel making , smelting of non-ferrous metals (copper, zinc, aluminum, etc), glass making and various kinds of kilns.
2. Pulp and paper industry
  - Oxygen bleaching and ozone bleaching.
3. Waste water treatment facilities
  - Oxygen aeration and ozone generation.
4. Chemical industry
  - Various kinds of oxidation reactions.
5. Fermentation industry
6. Pisciculture
7. Air conditioning
8. Others

GOG XX-XXX														
Oxygen generation (Nm <sup>3</sup> /h)														
90%	1.7	2.9	4.3	6.8	9.9	12.1	14.9	18.1	26.2	41.1	54.2	73.7	86.3	116.6
93%	1.5	2.7	3.9	6.3	9.1	11.1	13.6	16.6	24.0	37.7	49.7	67.5	79.1	106.9
95%	1.4	2.5	3.6	5.8	8.4	10.3	12.6	15.3	22.2	34.8	46.0	62.4	73.2	98.9
Dimensions (mm)														
Length	2,100	2,400	2,650	2,850	3,300	3,400	3,550	3,650	4,000	4,700	5,100	5,800	6,000	6,200
Width	1,200	1,350	1,600	1,950	2,150	2,350	2,400	2,500	2,600	3,100	3,500	4,000	4,250	4,500
High	2000	2050	2100	2100	2100	2100	2,200	2,230	2,540	2,600	2,700	3,000	3,150	3,300
Air Compressor Consumption (Nm <sup>3</sup> /h)														
Capacity	19	33	48	77	112	137	168	204	296	464	612	831	974	1316
Power Consumption (Kw)														
Comp.	4	5.5	7.5	11	15	18	22	27	37	55	75	90	110	150
Dryer	0.46	0.62	0.68	0.72	1.3	1.3	1.6	1.6	2.1	2.3	3.0	4.6	5.1	8.5
L.C.P	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total	5.46	7.12	9.18	12.72	17.3	20.3	24.6	29.6	40.1	58.3	79.0	95.6	116.1	159.5

### DESIGN DATA

- Ambient temperature 20 °C
- Ambient pressure 1013 mbar
- Working pressure 8.0 bar.G
- Relative humidity 100%
- Inlet air quality ISO8573-1 class 1-4-1

### RANGE

- Inlet temperature 5 °C ~ 45 °C
- Inlet pressure 6 ~ 10 bar
- Purity oxygen 90% - 95%
- Unit performance ±5% [ 0°C , 1013 mbar ]

### POWER

- 220V / 380V / 440V - 3PH - 50/60HZ

### TYPE

- GOG  $\begin{matrix} \text{XX} & - & \text{XXX} \\ & \searrow & \nearrow \\ & \text{Product Flow Rate} & \\ & \text{Purity} & \end{matrix}$

### OPTION

- Upon request for customer
- Engineered products

## Oxygen Generator Basic System



COMPRESSOR



AIR DRYER



AIR FILTER



CARBON TOWER



RECEIVER TANK



O<sub>2</sub> PSA



O<sub>2</sub> GAS HOLDER

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