OXYGEN FILLING STATIONS

Oxygen generators can be easily upgraded to oxygen filling stations if you need to fill oxygen cylinders. This will give you the ability to fill your own cylinders for fraction of the cost as you can get from the gas companies.

Oxygen purity:	90% - 95%
End pressure:	150 – 200 barG
Oxygen dew point:	-60°C
Operating conditions:	5°C - 45°C

Make your choice from the extensive selection of standard solutions or ask us to design a custom-made solution to match your needs. The prices are very feasible.

The range

Model	*Capacity at 93% O_2 [Nm^3/h]	End pressure [barG]	Operating cost [kW/m^3]	Filling capacity/24hours [40L($6m^3$) cylinder]
FS MINI	0.4	150	3.90	1.6
O2FS	1.6	150	1.90	6.4
O4FS	3.2	150	1.40	12.8
O8FS	6.4	150	1.75	25.6
O18FS	16.o	170 (200)	1.45	64
O29FS	26.0	200	1.60	104
O35FS	32.0	200	1.50	128
O70FS	70.0	200	1.41	280

Each filling station model can be equipped with required type of filing ramp. One ramp is used as a standard but if you need large backup more ramps can be incorporated easily.

Filling ramp

Model	Nr. of filling outlets	Connector standard
FR4	4	G ¾“
FR6	6	G ¾“
FR10	10	G ¾“

OXYGEN FILLING STATIONS

A full installation comprises an air compressor, refrigeration dryer, filters, air tank, generator, oxygen buffer tank, oxygen compressor and filling ramp.

Scope of supply:

1. Air compressor
2. Cyclone filter with automatic drain
3. Refrigeration dryer
4. Prefilter & particle filter
5. Air tank
6. Oxygen generator
7. Buffer tank
8. Pressure regulator with dust filter
9. Medical sterile filter
10. Oxygen high pressure compressor
11. Filling ramp

The process

Oxygen Generator consist of two columns filled with molecular sieve (Zeolite). Pre-treated compressed air enters the active column and follows up through the Zeolite. Nitrogen and the other gases are being adsorbed while the oxygen passes through. The active column is pressurized. When pressure is released, column becomes inactive and completely regenerate. In order to secure steady flow two columns are used, one is active while the other is inactive. At the end of cycle they switch roles.

Oxygen from oxygen generator enters oxygen buffer. From there regulated oxygen is fed into the RIX high pressure oxygen compressor where the oxygen is boosted and fed the filling ramp where oxygen cylinders are filled.

Models **O2FS**, **O4FS** and **O8FS** can be delivered as compact version. Comapct version is built on the skid or frame with one central electric socket enabling quick start up. All components are already connected in the factory, so no extensive installation is required.

OXYGEN FILLING STATIONS

Medical application

The generator can be set up to fill the hospital pipeline directly and use the filling ramp as a backup system. Oxygen cylinders can be filled simultaneously or during hours with low consumption.

Weights and Dimensions

Model	Min. space for installation with full air supply [m]	Total weight [kg]
FS MINI	1.00 W x 2.00 L x 1.55 H	200
O2FS	1.00 W x 3.00 L x 1.55 H	300
O4FS	1.00 W x 5.00 L x 1.90 H	600
O8FS	1.50 W x 7.50 L x 2.10 H	2200
O18FS	1.50 W x 7.50 L x 2.40 H	2600
O29FS	1.50 W x 9.00 L x 2.50 H	4500
O35FS	2.00 W x 10.50 L x 2.50 H	6000
O70FS	2.50 W x 10.50 L x 2.50 H	8000

Technical Data

Ambient temperature range:		5°C - 50°C
Oxygen generator outlet pressure:		4barG
Oxygen dew point:		-60°C
Air inlet pressure:		7.5barG
Oxygen compressor suction pressure:		0.3 - 4barG
Oxygen compressor discharge pressure:		150-200barG
Inlet air quality:	**Dew point:**	3°C
	ISO:	8573.1:2001.2.4.1
	Filtration grade:	0.01 micron
Power supply:	**Generator:**	240-110 V / 50-60 Hz
	Compressor:	400-440 V / 50-60 Hz