

StirLOX

Reliable liquid oxygen supply

The stand-alone StirLOX plants are truly performance plus technology. Featuring high energy efficiency, high productivity, controlled operation, low maintenance and only a 10 minute start-up time, they are the only way to make your liquid oxygen production self sufficient and highly reliable.

The Stirling liquid oxygen plants produce at least 4.5 (StirLOX-1 Economy) up to 73 (StirLOX-8) usable liters per hour of liquid oxygen of high purity at nominal operating conditions. The pressure in the storage vessel can be set from 0.3 to 4 bar(g), increasing the liquid oxygen production to 7.2 l/h (StirLOX-1 Economy) up to 114 l/h (StirLOX-8) at a purity of 93% or better. The liquid oxygen is dispensed through a flexible hose by opening a valve. The power consumption is 13 kW (StirLOX-1 Economy including chiller) up to 120 kW (StirLOX-8) if no chiller is used. Operators only need to replace filters, compressor oil (if applicable) and perform routine checks between maintenance intervals which is 6000 operating hours. The StirLOX-1 and StirLOX-4 are also available in an Extendible version with a single cryogenerator. By adding a second cryogenerator, they become a StirLOX-2 and a StirLOX-8 respectively.



StirLOX-1 Economy



StirLOX-1



StirLOX-2



StirLOX-4



StirLOX-8

- Standard
- Optional

* Intergrated chiller

** Power supply can influence the design and construction of the plant

*** Depending on area / local service organisation

All specifications at nominal operating conditions. All data are subject to alteration without prior notice. Pictures are intended to present a general idea of the products.

	StirLOX-1 Economy	StirLOX-1	StirLOX-2	StirLOX-4	StirLOX-8					
Specifications										
• Liquid oxygen production (l/h · Nm ³ /h) at nominal operating conditions										
• 0 bar(g) (usable liters)	4.5	3.6	8.5	6.8	17.5	14.0	36.5	29.2	73	58.4
• 1 bar(g)	5.8	4.5	10.5	8.1	21	16.2	43.5	33.6	87	67.2
• 3 bar(g)	7.2	5.2	13.5	9.6	27.5	20	57	41.6	114	83.2
• Maximum continuous oxygen gas production from liquid (evaporator) (Nm ³ /h)	30	60	60	120	120					
• Oxygen purity 93% ± 3%	●	●	●	●	●					
• Other purities	○	○	○	○	○					
• Oxygen purity control	●	●	●	●	●					
• Power consumption (kW)	20*	35	64	120	250					
• Power supply (3 phase) 200 to 480 V / 50, 60 Hz**	●	●	●	●	●					
• Cooling water consumption (l/h at 15°C)	○	750	1500	3750	7500					
• Height (m)	2.50	2.50	2.50	3.00	4.20					
• Advised plant room (l x w x h in meters)	9.00 x 6.00 x 3.00	10.00 x 6.00 x 3.00	10.00 x 7.00 x 3.00	11.00 x 8.00 x 4.00	12.00 x 8.00 x 4.50					
• Weight (kg)	2500	5000	7000	12000	18000					
• Maximum floor weight (kg/m ²)	1500	1500	1500	1500	1500					
• Noise level (dBA)	72	72	76	79	82					

	StirLOX-1 Economy	StirLOX-1	StirLOX-2	StirLOX-4	StirLOX-8
Storage Vessel					
• Pressure (bar(g))	0.3 - 4	0.3 - 4	0.3 - 4	0.3 - 4	0.3 - 4
• Liquid oxygen storage capacity					
• 300 l	●				
• 1000 l		●	●	○	○
• 2000 l		○	○	●	●
• Other storage capacities	○	○	○	○	○
• Level indication and control	●	●	●	●	●
• Evaporator continuous operation (Nm ³ /hr)	30	60	60	120	120
Maintenance					
• Maintenance interval 6,000 hrs	●	●	●	●	●
• Consumable parts and tools 0 - 12,000 hrs	○	○	○	○	○
• Consumable parts every 12,000 hrs	○	○	○	○	○
• Additional consumable parts at 36,000 hrs	○	○	○	○	○
• Repair parts	○	○	○	○	○
• Additional tools for advanced maintenance	○	○	○	○	○
• User manual (2x)	●	●	●	●	●
• Operator attention limited to routine checks and filter/oil changes		●	●	●	●
Services					
• Help desk	●	●	●	●	●
• Installation, commissioning and operator training on site	●	●	●	●	●
• Maintenance engineer training at Stirling	○	○	○	○	○
• Post commissioning visit	○	○	○	○	○
• Maintenance contract	○	○	○	○	○
Optionals					
• Chiller for cooling water supply	●	○	○	○	○
• refrigeration capacity (kW at 12°C)		12	24	48	96
• rated power (kW)		6	12	23	45
• floor print (including service space) (m ²)		3	4	6	10
• noise level (dBA)		60	60	60	60
• weight (kg)		250	500	900	1.700
• outdoor placement possible		●	●	●	●
• Generator set for power supply	○	○	○	○	○
• Voltage stabilizer for utility power stabilization	○	○	○	○	○
• Liquid air handling package (gloves, protection glasses)	○	○	○	○	○
Standard Equipment					
• Helium gas cylinder + regulator, installation material **					
Nominal Operating Conditions					
• Plant room temperature 25°C, altitude 250m, relative humidity 95%, cooling water temperature 15°C					
Allowable Operating Conditions					
• Plant room temperature 5 - 45°C, altitude 0 - 2000m, relative humidity 20 - 95%, cooling water temperature 10 - 20°C, power supply: voltage ± 5%, frequency: ± 2% (other conditions on request)					
Standards					
• European CE safety standard, IP54, IEC 60204 (other standards on request)					
Features					
• Integrated system diagnostics, fully automatic start/stop and restart after power failures, no defrosting or purging required, 10 minutes start-up time to full production, single switch operation					