

StirLIN-1 and StirLIN-2

Reliable on site LN₂ supply up to 500 l/day



The StirLIN-1 and the StirLIN-2 both make use of the SPC-1, Stirlings' famous and reliable one cylinder process cryogenerator. Like all StirLIN machines they have a long service life and are easy to operate and maintain. Operators only need to replace filters and compressor oil and perform routine checks between maintenance intervals, which is 6000 operating hours.

The StirLIN-1 produces at least ten usable liters per hour of 99% or better purity. The StirLIN-2 doubles that making use of two SPC-1s as liquefier. Both are based on the efficient Pressure Swing Adsorption (PSA) system for nitrogen gas. The StirLIN-1 includes a 500 l storage vessel and is also available in an Extendible version. By adding a second SPC-1 the plant becomes a StirLIN-2 including a 1000 l storage vessel.

	StirLIN-1	StirLIN-2
Specifications		
• Liquid nitrogen production (l/h) at nominal operating conditions		
• 0 bar(g) purity 99% nitrogen + inerts (usable liters) (Extendible 99.7%)	10	21
• 1 bar(g) purity 99% nitrogen + inerts (Extendible 99.7%)	11.5	23
• 3 bar(g) purity 98% nitrogen + inerts (Extendible 99.5%)	14	29
• 5 bar(g) purity 98% nitrogen + inerts (Extendible 99.5%)	16.5	33
• Other purities	○	○
• Power consumption (kW)	16	32
• Power supply (3 phase) 200 to 480 V, 50/60 Hz *		
• Cooling water consumption (l/h at 15°C)	1000	1900
• Height (m)	2.20	2.40
• Advised plant room (l x w x h in meters)	4.50 x 3.50 x 3.00	4.90 x 3.70 x 3.00
• Weight (kg)	1800	2650
• Maximum floor load (kg/m ²)	1500	1500
• Noise level (dBA)	70	70
Storage vessel		
• Pressure (bar(g))	0.3 - 5	0.3 - 5
• Liquid nitrogen storage capacity		
• 500 l	●	○
• 1000 l	○	●
• 2000 l	○	○
• Other storage capacities	○	○
• Level indication and control	●	●
Maintenance		
• User manual	●	●
• Operator attention limited to routine checks and filter/oil changes	●	●
• Maintenance interval 6,000 hrs	●	●
• Consumable parts set		
0 to 12000 hrs	○	○
12000 to 24000 hrs	○	○
24000 to 36000 hrs	○	○
36000 to 48000 hrs	○	○
• Repair parts set	○	○
• Tool set maintenance	○	○
• Tool set service & repair	○	○

	StirLIN-1	StirLIN-2
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
• power consumption (kW)	6	12
• floor print including service space (m ²)	3	4
• noise level (dBA)	60	60
• weight (kg)	250	450
• outdoor placement possible/split unit	●	●
• Generator set for power supply	○	○
• Voltage stabilizer for utility power stabilization	○	○
• Liquid nitrogen handling package (personal protection)	○	○
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.		
●	Standard	○ Optional
*	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.

STRONG BELOW ZERO

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