

# SENATOR

INDUSTRIAL AIR COMPRESSORS

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## LS Series 18.5 to 75 kW

Rotary Screw Air Compressors

3.28 to 13.05 m<sup>3</sup>/min

7 to 10 bar

The **Senator LS Series** comprises a range of electric rotary screw air compressors that are powerful, well equipped, base-mounted units supplied ready for use.

Each model has been developed using innovative European design concepts to realize an easy-to-use and maintain layout that includes upgraded heavy-duty components to satisfy the demands of Australia's harsh operating conditions.

Ideally suited for medium-to-large industrial applications with continuous compressed air demand, the fully-featured Senator LS Series establishes a new affordability benchmark for electric screw compressors without sacrificing performance, quality or reliability.

## → Features and Benefits

**Vertically stacked air end and air-oil receiver layout** yields a compact compressor solution with minimum installation cost and space requirements.

**Soundproofed cabinet** with anti-vibration mounting of rotating components enables the unit to be installed directly within the working environment.

**7, 8 & 10 bar (102, 116 & 145 psi) outlet pressure capability** that is suitable for a broad range of compressed air applications.

**Precision technology rotary screw air-end** with advanced rotor profile and slow rotor speed ensures 24/7 reliability, high airflow output and low energy consumption.

**High efficiency, MEPS compliant electric motor** directly reduces energy consumption and carbon footprint.

**Star-delta motor starter** reduces both peak energy demand and shock-loading of the compressor's mechanical and electrical systems.

**Multi-function electronic controller** with LED display serves as a user-friendly interface for compressor operation, system monitoring and protection, and maintenance scheduling.

**Continuous monitoring and shutdown protection** of air, oil and electrical systems prevents major component damage.

**Two-stage intake air filtration** prolongs the life of the air end, air-oil separator, and the air and oil filters.

**Modular air filter with integrated cyclonic pre-separation** characterised by high dust capacity and low pressure drop for long service life.

**Oversized air-oil receiver tank** designed for optimal air / oil separation and increased lubricating oil capacity.

**Fan-forced after-cooling** minimizes water carry-over in the discharge air and increases the efficiency of downstream air treatment equipment such as dryers and filters.

**Thermostat-controlled, fan-forced oil cooling** permits continuous operation in ambient temperatures of up to 45°C without shortening oil life or increasing oil vapour carry-over.

**Lift-off cabinet panels and ample internal machinery space** provide unhindered access for maintenance personnel.

**Spin-on oil filter and air-oil separator elements** enable quick and easy compressor servicing with the least possible downtime.

**Unique air-oil separator media** ensures lowest possible residual oil content and pressure loss for best discharge air quality and energy efficiency.

**Compliant with Australian Workplace Health and Safety Regulations** for industrial workplace use.

## → Accessories and Packages

**A full range of matching vertical air receivers, refrigerant dryers and in-line filters** is available to complement the Senator LS Series compressors. These key accessories are optimally procured together with the compressor in a pre-configured equipment package.

**Senator compressed air system packages** are suitable for most industrial applications and provide the best possible combination of performance, safety and value for money.

**Please consult your local Senator dealer** for application specific advice.

## → Customer and Product Support

**Every Senator LS Series compressor undergoes 100-point inspection and full-load testing** in Australia before dispatch to the customer (as pictured at left).

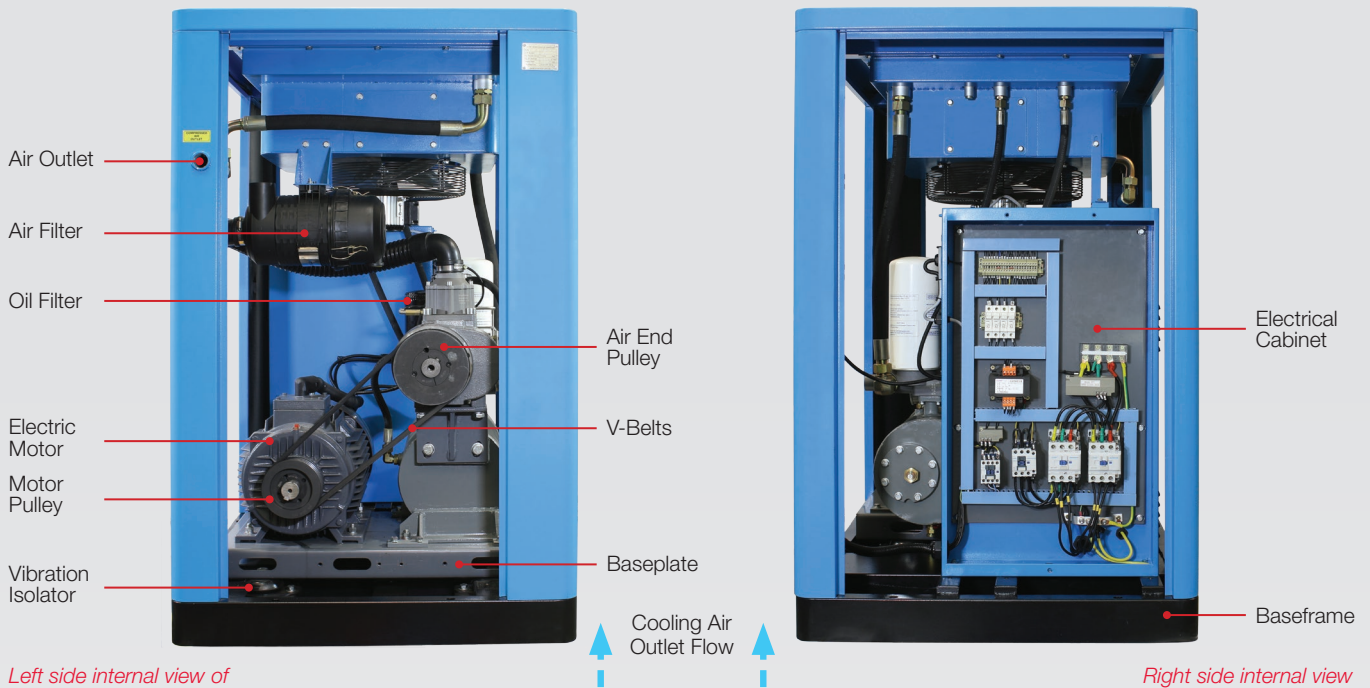
**Australia-wide dealer network** offering sales, installation, service and genuine spare parts backup.

**12-month parts and labour factory-backed warranty** to protect your investment.



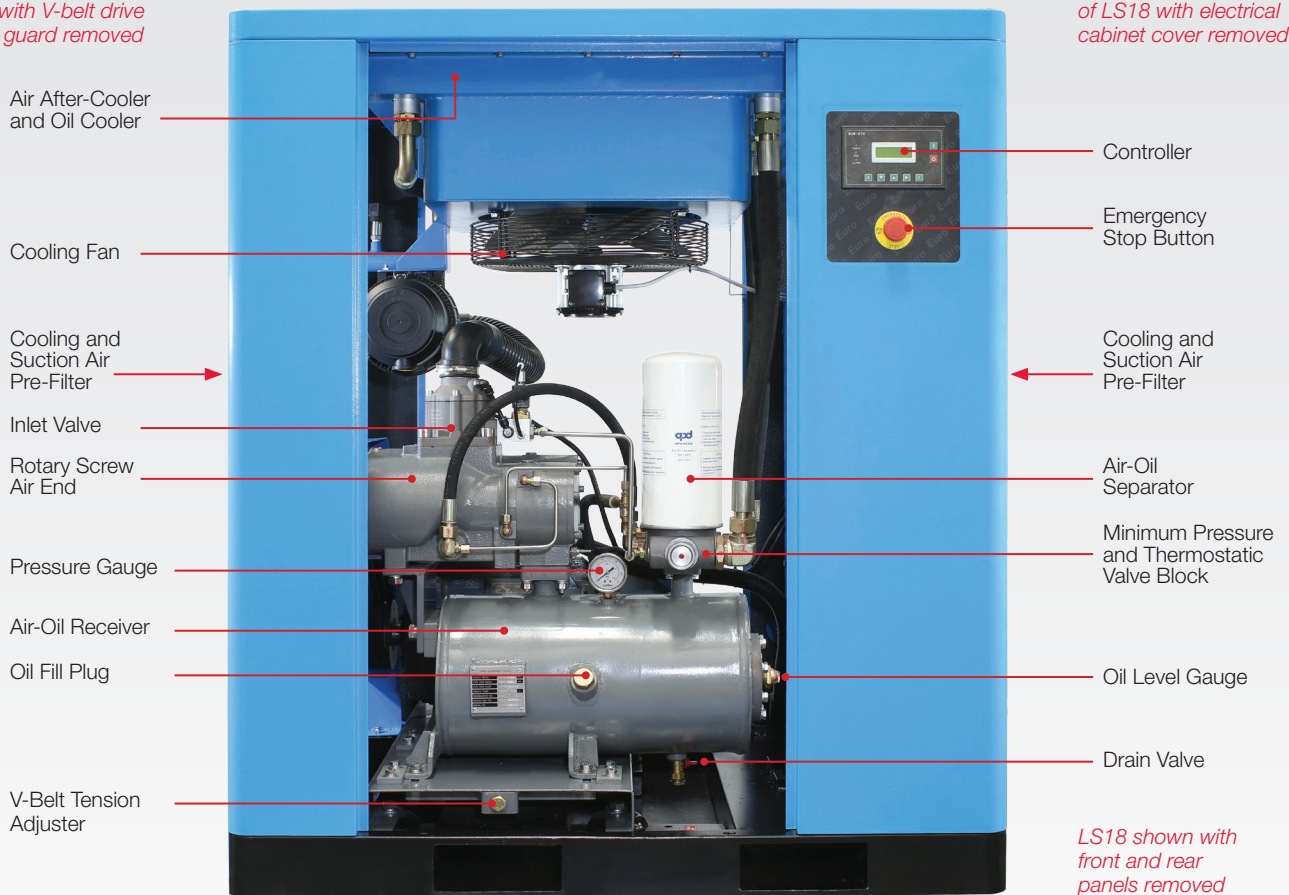


## → Equipment Design Details



*Left side internal view of LS18 with V-belt drive safety guard removed*

*Right side internal view of LS18 with electrical cabinet cover removed*



*LS18 shown with front and rear panels removed*

## → Multi-Function Electronic Controller

The electronic controller automatically monitors and controls the compressor's air, oil and electrical systems. It also tracks scheduled maintenance tasks for key components.

Sophisticated, yet with an intuitive and easy-to-use interface, the controller offers a full range of functions to optimize the compressor's efficiency, performance and reliability.



## → Rotary Screw Air End

Featuring a patented 5:6 asymmetrical rotor profile, the advanced technology rotary screw air end is amongst the most efficient and reliable in the world. Its inherent durability is further enhanced by operating at very slow rotational speeds.

Perfect quality is assured by precision computer-aided manufacture and verified by meticulous inspection and dynamic testing of every air end.



# → Specifications

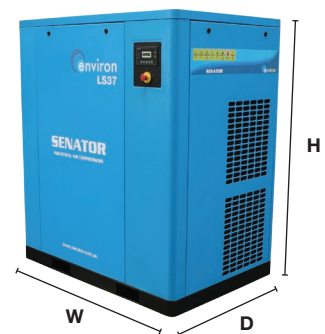
Parameter		Unit	Model						
			LS18	LS22	LS30	LS37	LS45	LS55	LS75
Free Air Delivery <sup>1, 2</sup>	@ 7 bar	m <sup>3</sup> /min	3.28	3.93	5.21	6.80	7.79	10.30	13.05
	@ 102 psi	cfm	116	139	184	240	275	364	461
	@ 8 bar	m <sup>3</sup> /min	3.08	3.58	4.96	6.38	7.18	9.58	12.33
	@ 116 psi	cfm	109	127	175	225	254	338	435
	@ 10 bar	m <sup>3</sup> /min	2.73	3.20	4.38	5.67	6.38	9.04	11.18
	@ 145 psi	cfm	96	113	155	200	225	319	395
Air End Speed	@ 8 bar	rpm	2,570	3,030	2,360	3,118	3,581	2,350	3,097
Motor <sup>3, 4</sup>	Power	kW	18.5	22	30	37	45	55	75
		hp	25	30	40	50	60	75	100
Noise Level	@ 1 m	dB(A)	70	71	71	72	73	73	74
Air Outlet	Size	BSP	1" F	1" F	1½" F	1½" F	1½" F	2" F	2" F
Dimensions	W	cm	125	125	146	146	146	179	179
	D	cm	90	90	102	102	102	125	125
	H	cm	142	142	169	169	169	190	190
Weight	Wet	kg	562	636	900	916	969	1,419	1,579

<sup>1</sup> Per ISO 1217:2009 Annex C.

<sup>2</sup> 8 bar (116 psi) configuration is standard.

<sup>3</sup> Star-delta motor starter on all models.

<sup>4</sup> Electricity supply: 415 V, 3-Ph, 50 Hz.



**AUTHORIZED SENATOR DEALER:**

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