

SENATOR

INDUSTRIAL AIR COMPRESSORS

www.senatorair.com.au



ES Series 4 to 15 kW

ROTARY SCREW AIR COMPRESSORS

0.66 to 2.62 m³/min

7 to 10 bar



The ES Series from Senator comprises a range of rotary screw air compressor sets that are integrated, tank-mounted packages supplied ready for use.

Each model has been developed using innovative European design concepts to achieve a compact layout and upgraded with heavy-duty components to satisfy the demands of Australian operating conditions.

Ideally suited for small-to-medium industrial applications with continuous air demand, the fully-featured Senator ES Series sets a new affordability benchmark for electric screw compressors without sacrificing performance, quality and reliability.

→ Features and Benefits

- **Compact turn-key compressor package** offers a simple plug-and-play 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.
- **Precision technology rotary screw air-end** with advanced rotor profile and slow rotor speed ensures 24/7 reliability, high airflow output, low energy consumption and long service life.
- **High efficiency, MEPS compliant electric motor** also directly reduces energy consumption and carbon footprint.
- **7, 8 and 10 bar (102, 116 and 145 psi) outlet pressure capability** that is suitable for a broad range of compressed air applications.
- **Fan-forced after-cooling** minimizes water carry-over in the discharge air and increases the efficiency of any downstream air treatment equipment such as dryers and filters.
- **Thermostat-controlled oil cooling** permits continuous operation in ambient temperatures of up to 45°C without shortening oil life or increasing oil vapour carry-over.
- **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.
- **Oversized twin receiver tanks** provide ample air storage capacity to prevent excessive system pressure fluctuations and facilitate more effective condensate removal.
- **Lift-off cabinet panels** are easily removable for maintenance access.
- **Spin-on oil filter and air/oil separator elements** minimize service downtime.
- **User configurable into separate compressor and air tank modules** for special purpose applications or restricted installation spaces.
- **Compliant with Australian Workplace Health and Safety Regulations** for industrial workplace use.

→ Customer and Product Support

- **100-point pre-delivery inspection and full-load testing** carried out in Australia before each compressor is dispatched to its owner.
- **Australia-wide dealer network** offering sales, installation, service and genuine spare parts backup.
- **12-months parts and labour factory-backed warranty.**

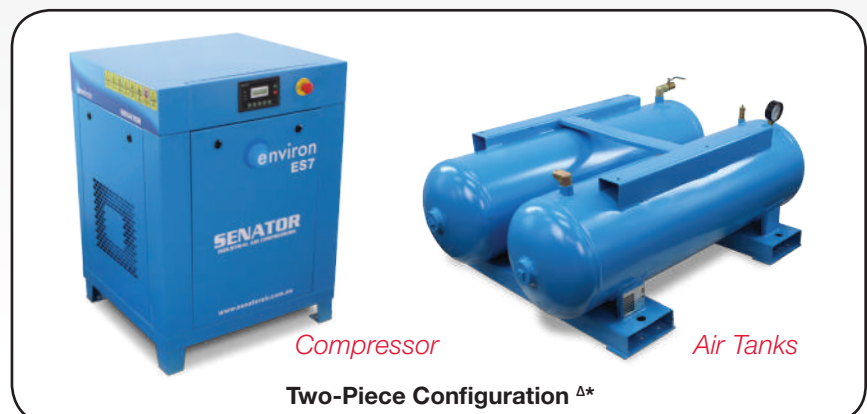
→ Accessories

A full range of matching refrigerant dryers, in-line filters and other compressed air system components is available for the Senator ES Series compressors. Please consult your local Senator dealer for application specific advice.



Unitary Tank-Mounted Configuration (as supplied)

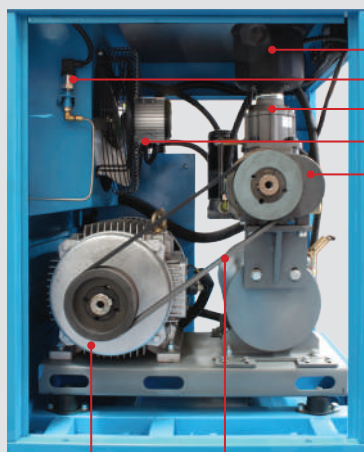
→ User Configured Option



^Δ Compressor shown with accessory bolt-on mounting feet (Product Code SE ESBMK).

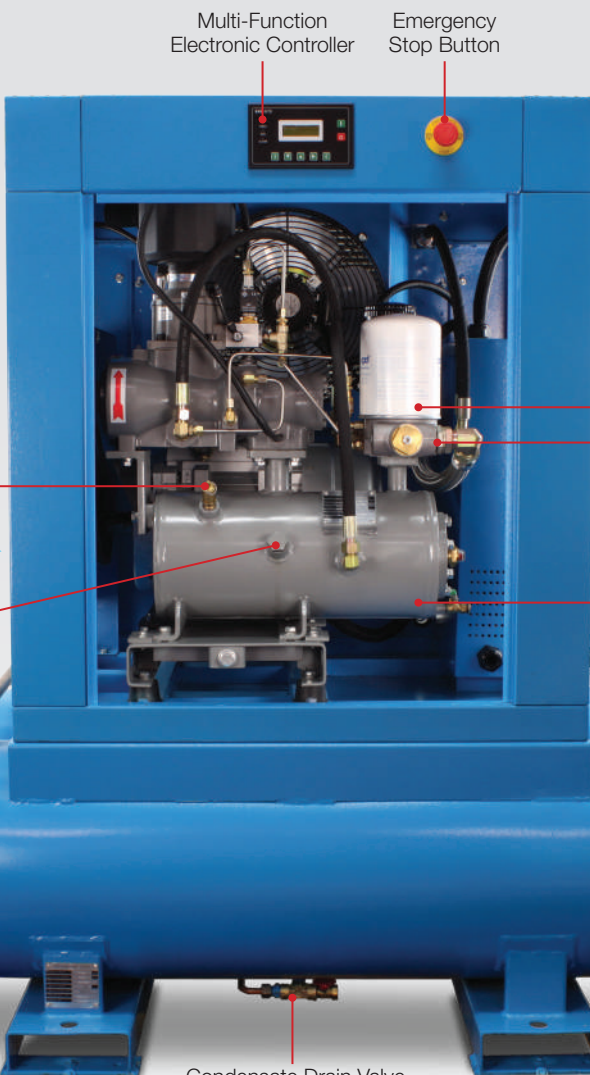
* Compressor and air tanks not available for purchase separately.

Equipment Design Details



High Efficiency Electric Motor V-Belt Drive

Left side view with V-belt drive safety guard removed



Pressure Safety Valve

Cooling and Suction Air Inlet Flow

Oil Fill Plug

Compressed Air Receiver Tanks

Condensate Drain Valve (for both tanks)



Oil Level Gauge

Oil Drain Valve

Electrical Cabinet

Right side view

Air / Oil Separator

Thermostatic and Minimum Pressure Valve Block

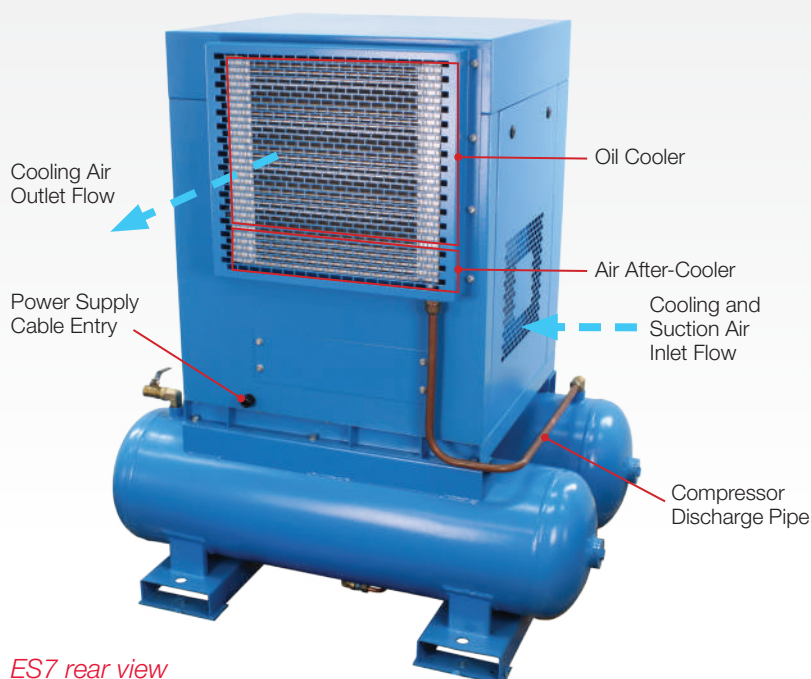
Cooling and Suction Air Inlet Flow

Air / Oil Receiver Tank

Air Outlet Valve

Pressure Gauge

ES15 shown with front and side panels removed



Cooling Air Outlet Flow

Power Supply Cable Entry

Oil Cooler

Air After-Cooler

Cooling and Suction Air Inlet Flow

Compressor Discharge Pipe

ES7 rear view

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.

Specifications

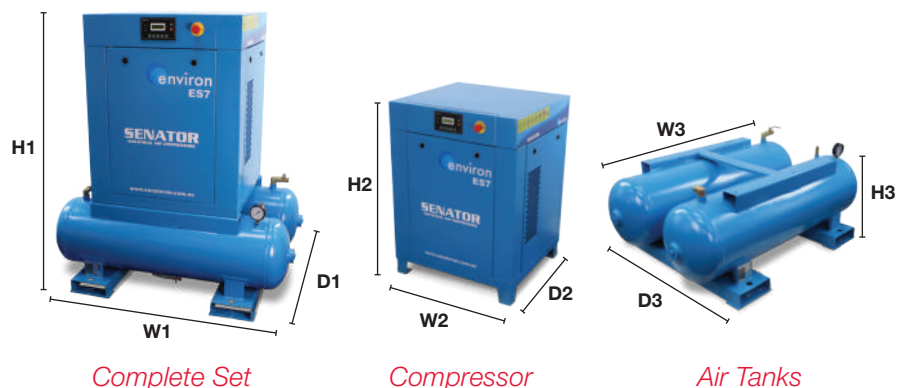
Parameter		Unit	Model				
			ES4	ES5	ES7	ES11	ES15
Free Air Delivery	@ 7 bar ¹	m ³ /min	0.66	0.89	1.20	1.88	2.62
	@ 102 psi ¹	cfm	23	31	42	66	93
	@ 8 bar ^{1,2}	m ³ /min	0.60	0.82	1.10	1.78	2.45
	@ 116 psi ^{1,2}	cfm	21	29	39	63	87
	@ 10 bar ¹	m ³ /min	0.50	0.70	0.99	1.57	2.17
	@ 145 psi ¹	cfm	18	25	35	55	77
Motor ^{3,4}	Power	kW	4	5.5	7.5	11	15
		hp	5.5	7.5	10	15	20
Tank	Volume	Litre	250	250	250	350	350
Noise Level	@ 1 m	dB(A)	62	67	68	70	72
Air Outlet	Size	BSP	3/4" F	3/4" F	3/4" F	1" F	1" F
Dimensions - Complete Set	W1	cm	133	133	133	151	151
	D1	cm	94	94	94	103	103
	H1	cm	143	143	143	155	155
Dimensions - Air Compressor	W2	cm	77	77	77	94	94
	D2	cm	81	81	81	91	91
	H2	cm	104	104	104	112	112
Dimensions - Air Tanks	W3	cm	133	133	133	151	151
	D3	cm	94	94	94	103	103
	H3	cm	48	48	48	52	52
Weight	Complete Set	kg	362	376	381	507	535
	Compressor	kg	221	235	240	330	358
	Air Tanks	kg	143	143	143	179	179

¹ Per ISO 1217:2009 Annex C

² 8 bar (116 psi) configuration is standard

³ Star-delta motor starter on all models

⁴ Electricity supply: 415 V, 3-Ph, 50 Hz



AUTHORIZED SENATOR DEALER:

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nessco
pressure systems

nesscopressure.com.au