

SENATOR

INDUSTRIAL AIR COMPRESSORS

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environ



GS, GS-B, GSV and GSV-B Series 4 to 15 kW

Rotary Screw Air Compressors

0.66 to 2.62 m³/min

7 to 10 bar



The **Senator GS and GSV Series** comprise a range of electric rotary screw air compressors that are integrated, tank-mounted packages supplied ready for use. They are ideally suited for small-to-medium industrial applications and are usually complemented by additional compressed air treatment equipment installed downstream.

For special purpose applications or restricted installation spaces, the **Senator GS-B and GSV-B Series** offer the option of ultra-compact base-mounted compressor sets. These need to be connected to a standalone air receiver downstream for correct operation and are typically supplemented by compressed air filtration and drying equipment.

Each model has been developed using innovative European design concepts to achieve a compact layout and then upgraded with heavy-duty components to satisfy the demands of Australia's harsh operating conditions. This proven formula is why thousands of Australian businesses rely upon their Senator air compressors to power them through each working day.

While the fixed speed GS and GS-B Series offer the most affordable initial capital cost, the variable speed GSV and GSV-B Series generally have a much lower whole-of-life cost when electricity consumption is included. The variable speed drive uses less energy by continuously adjusting the compressor's output to match the typically fluctuating air demand.

→ Features and Benefits

Compact turn-key compressor and air tank package offers a convenient plug-and-play solution with minimum installation cost and space requirements. (GS and GSV only.)

Soundproofed cabinet and anti-vibration mounting of rotating components enables the unit to be installed directly at the work site.

Precision technology rotary screw air-end with advanced rotor profile and slow rotor speed ensures 24/7 reliability, high flow rate, low energy consumption and long service life.

High efficiency, MEPS compliant electric motor 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-cooler condenses water carry-over in the discharge air and increases the efficiency of any downstream air treatment equipment.

Thermostat-controlled oil cooler allows operation in ambient temperatures of up to 45°C without shortening oil life or increasing oil carry-over.

Oversized 450 litre air receiver tank provides ample air storage capacity to prevent excessive system pressure fluctuations and facilitates more effective condensate removal. (GS and GSV only.)

Star-delta motor starter on GS and GS-B models reduces peak electrical demand and mechanical shock-loading during compressor start-up.

Microprocessor-based variable speed drive (VSD) on GSV and GSV-B models provides smooth acceleration upon start-up and then optimised motor speed and power control under all operating conditions.

Multi-function electronic controller with LCD display serves as a user-friendly interface for compressor operation, systems monitoring and protection, and maintenance scheduling. Sequential control and remote start/stop capable.

Lift-off cabinet panels are easily removable for maintenance access.

Spin-on oil filter and air/oil separator elements minimise service downtime.

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

→ Accessories

A full range of performance-matched air storage and treatment equipment including vertical air receivers, refrigerant dryers and in-line filters is available to complement these compressors. Please consult your local Senator dealer for application specific advice.

→ Energy Saving GSV and GSV-B

Energy consumption comprises about 75% of the total annual cost for an electric screw compressor in most industrial applications. A conventional fixed speed 15 kW unit, for example, uses around \$7,000 worth of electricity per year on average working just one 38-hour shift per week.

Senator GSV and GSV-B Series variable speed compressors can use up to 30% less electricity than comparable fixed speed models. In the above example, this could add up to a cost saving of around \$2,000 per year.

A Senator GSV or GSV-B Series compressor is the energy smart choice whether for a new installation or a replacement upgrade. It will pay for itself many times over in electricity cost savings.

→ Customer and Product Support

100-point pre-delivery inspection and full-load testing of each compressor is carried out in Australia before dispatch.

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

12-month parts and labour warranty.



Tank-Mounted GS and GSV Series

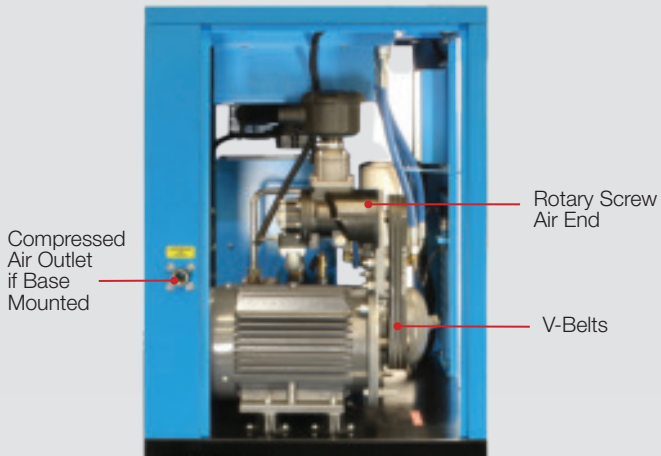


Base-Mounted GS-B and GSV-B Series

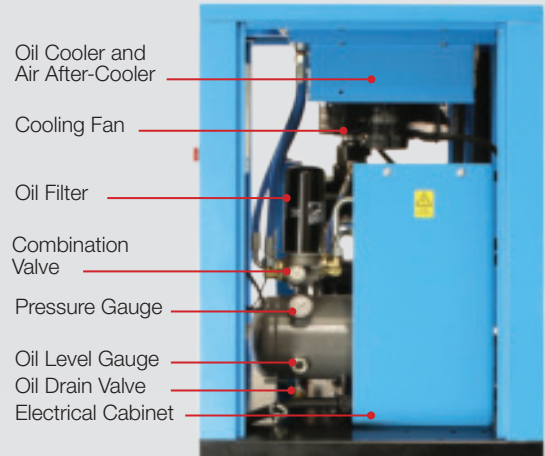


Two-Piece GS and GSV Series
(User re-configured. Not available for purchase separately.)

Equipment Design Details



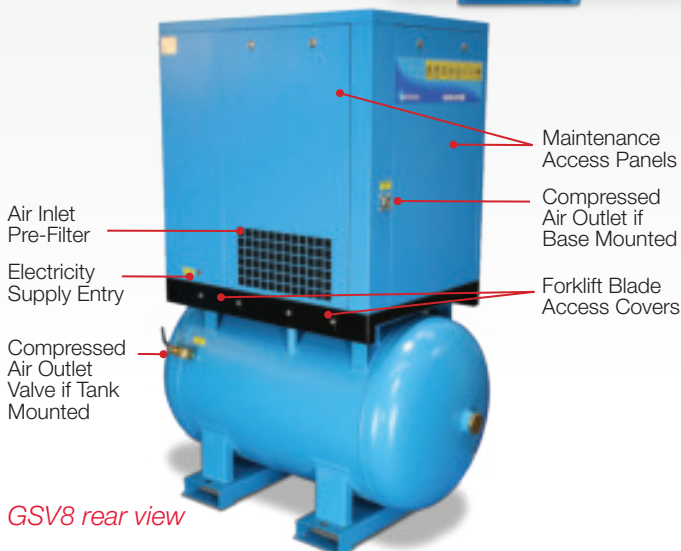
Left side view



Right side view



GSV8 shown with maintenance access panels and V-belt drive safety guard removed



GSV8 rear view

Multi-Function Electronic Controllers



GS and GS-B Series Controller



GSV and GSV-B Series Controller

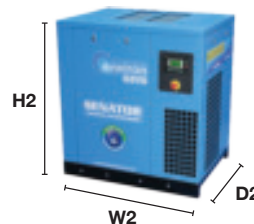
Specifications

Parameter		Unit	GS and GS-B Series					GSV and GSV-B Series		
			GS4 ◊	GS6 ◊	GS8 ◊	GS11 ◊	GS15 ◊	GSV8 ◊	GSV11 ◊	GSV15 ◊
Free Air Delivery * #	@ 7 bar	m ³ /min	0.66	0.89	1.20	1.88	2.62	0.48-1.20	0.75-1.88	1.05-2.62
	@ 102 psi	cfm	23	31	42	66	93	17-42	26-66	37-93
	@ 8 bar	m ³ /min	0.60	0.82	1.10	1.78	2.45	0.44-1.10	0.71-1.78	0.98-2.45
	@ 116 psi	cfm	21	29	39	63	87	16-39	25-63	35-87
	@ 10 bar	m ³ /min	0.50	0.70	0.99	1.57	2.17	0.40-0.99	0.63-1.57	0.87-2.17
	@ 145 psi	cfm	18	25	35	55	77	14-35	22-55	31-77
Motor Δ	Power	kW (hp)	4 (5.5)	5.5 (7.5)	7.5 (10)	11 (15)	15 (20)	7.5 (10)	11 (15)	15 (20)
Tank	Volume	Litre	450	450	450	450	450	450	450	450
Noise Level	@ 1 m	dB(A)	62	67	68	70	72	69	71	73
Air Outlet	Size	BSP	3/4" F	3/4" F	3/4" F	1" F	1" F	3/4" F	1" F	1" F
Dimensions - Complete Set GS and GSV	W1	cm	136	136	136	136	136	136	136	136
	D1	cm	78	78	78	78	78	78	78	78
	H1	cm	183	183	183	190	190	183	190	190
Dimensions - Air Compressor GS-B & GSV-B	W2	cm	95	95	95	112	112	95	112	112
	D2	cm	72	72	72	77	77	72	77	77
	H2	cm	104	104	104	114	114	104	114	114
Dimensions - Air Tank GS and GSV	W3	cm	136	136	136	136	136	136	136	136
	D3	cm	78	78	78	78	78	78	78	78
	H3	cm	89	89	89	89	89	89	89	89
Weight	Complete Set	kg	408	424	444	546	561	459	567	591
	Compressor	kg	232	248	268	370	385	283	391	415
	Air Tank	kg	176	176	176	176	176	176	176	176

* Per ISO 1217:2009 Annexes C and E.
 # 8 bar (116 psi) configuration is standard.
 Δ Electricity supply: 415 V, 3-Phase, 50 Hz.
 ◊ Add -B suffix to denote base-mounted.



Complete Set GS and GSV



Air Compressor GS-B and GSV-B



Air Tank Part of GS & GSV



AUTHORISED SENATOR DEALER:



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