# SENATOR

INDUSTRIAL AIR COMPRESSORS

www.senatorair.com.au

environ




## CM Series
## 7.5 to 22 kW

Rotary Screw Air Compressor
4-in-1 Air Stations
0.44 to 3.68 $m^3$/min
8 or 10 bar

Energy Saving
Variable Speed Drive

The Senator CM Series 4-in-1 compressed air stations comprise a rotary screw compressor, air receiver tank, refrigerant dryer and both pre- and post-filters in a single integrated package. Save on floor space and installation cost by choosing one of these ready-to-run units that will dependably provide your business with clean and dry compressed air.

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.

Industrial applications typically have fluctuating compressed air usage that can be most efficiently fulfilled by the variable speed drive CM Series, which saves energy by continuously adjusting the compressor's output to match air demand.

## Features and Benefits

**Compact turn-key compressed air station** offers a convenient plug-and-play solution with the lowest installation cost and space requirements.

**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.

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

**Largest-in-class 450/560 litre air receiver tank** provides ample air storage capacity to prevent excessive system pressure fluctuations and facilitates more effective condensate removal.

**Microprocessor-based variable speed drive (VSD)** provides optimised motor speed and power control under all operating conditions.

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

**Refrigerant dryer** in its own thermally segregated compartment continuously removes moisture from the compressed air stream.

**Two compressed air filters with element condition gauges** remove particulates down to 0.01 micron and limit oil carry-over to 0.01 ppm.

**Timer drain valves** plumbed to a single connection point facilitate automatic, clean and safe disposal of water condensate from the air receiver tank, dryer and filters.

**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.

## High-Efficiency Permanent Magnet Variable Speed Motor

**Senator CM Series is equipped with the latest permanent magnet variable speed motor** technology for superior energy efficiency and performance. Compared with conventional induction motors, the permanent magnet motor delivers higher efficiency across a wider operating range.

**The direct-drive design** eliminates transmission losses associated with belt-driven systems, while the variable speed control automatically adjusts motor speed to match compressed air demand. This reduces power consumption, lowers operating costs and minimises unnecessary load/unload cycling.

**Flexible Pressure Configuration.** The CM Series direct-drive design allows pressure settings such as 8 bar or 10 bar to be adjusted electronically through the controller and VSD without mechanical modification.

**Quieter operation, reduced vibration, improved reliability and lower maintenance requirements,** make the CM Series an ideal solution for modern industrial compressed air applications.

## Customer and Product Support

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

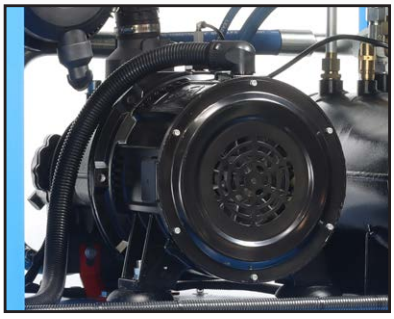
**Australia-wide dealer network** offering sales, installation, service and genuine spare parts backup.

**12-month parts and labour factory-backed warranty.**



CM Series Controller

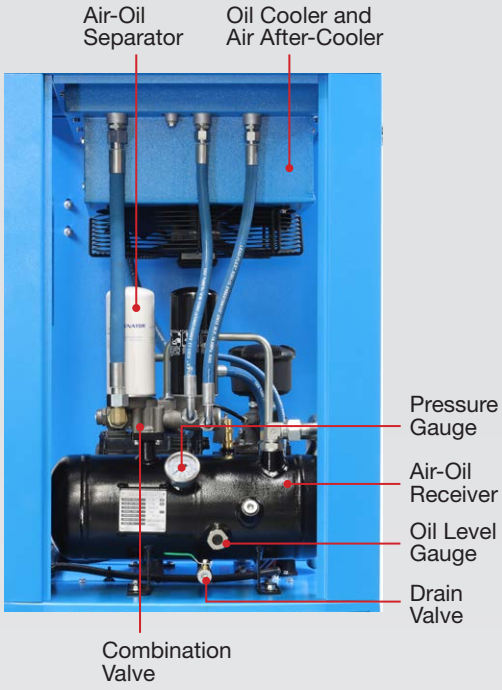

Variable Speed Drive


Permanent Magnet Motor

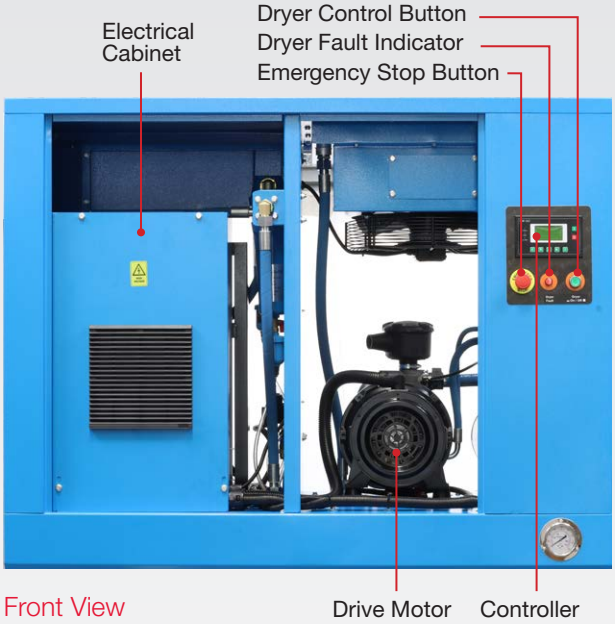
# Equipment Design Details



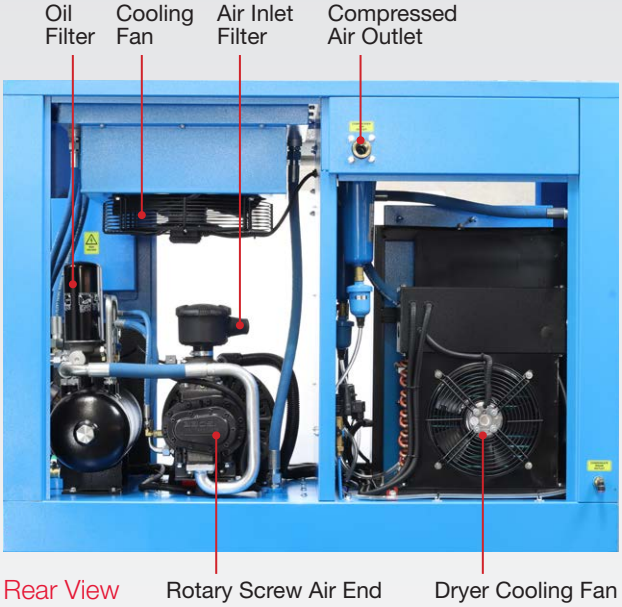

Front RHS View



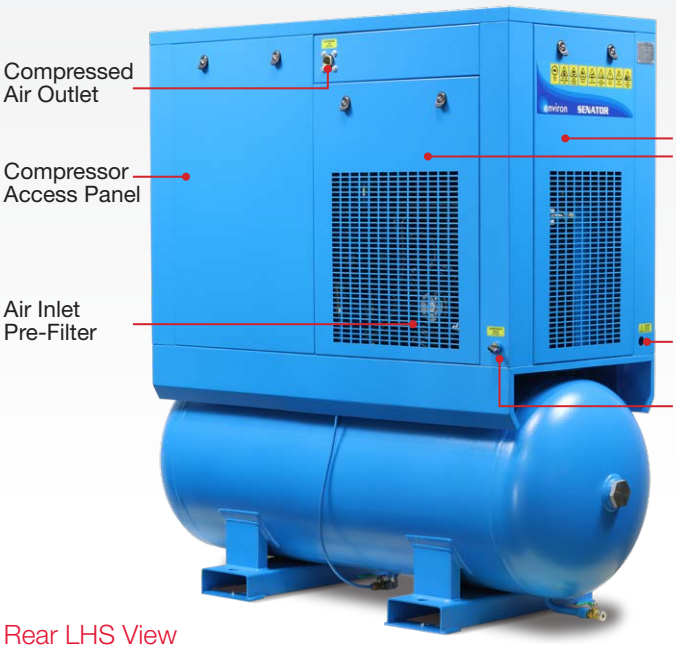

LHS View



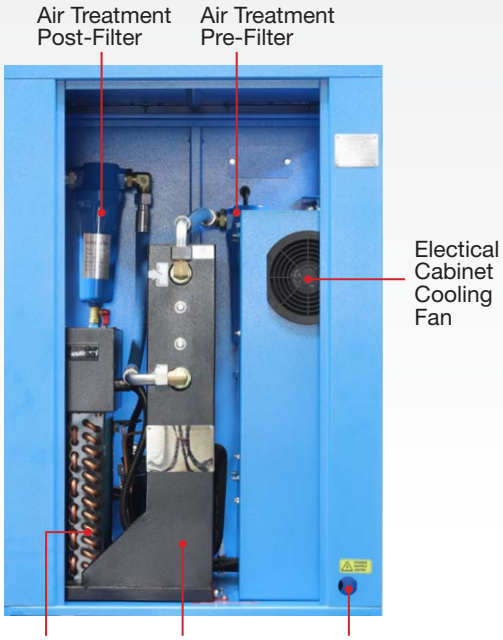

Front View




Rear View




Rear LHS View

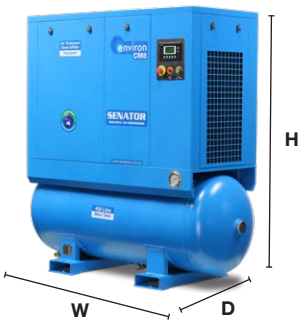



RHS View

# Specifications

| Parameter | | Unit | CM Series | | | | |
|---|---|---|---|---|---|---|---|
| | | | CM8 | CM11 | CM15 | CM18 | CM22 |
| Free Air Delivery * # | @ 8 bar | $m^3$/min | 0.47-1.10 | 0.95-1.78 | 1.29-2.45 | 1.51-2.85 | 1.95-3.68 |
| | @ 116 psi | cfm | 16-39 | 33-63 | 45-87 | 53-101 | 69-130 |
| | @ 10 bar | $m^3$/min | 0.44-0.88 | 0.92-1.53 | 1.28-2.14 | 1.45-2.42 | 1.92-3.20 |
| | @ 145 psi | cfm | 15-31 | 32-54 | 45-76 | 51-85 | 68-113 |
| Motor ^ | Power | kW | 7.5 | 11 | 15 | 18.5 | 22 |
| | | hp | 10 | 15 | 20 | 25 | 30 |
| Tank | Volume | Litre | 450 | 450 | 450 | 560 | 560 |
| Noise Level | @ 1 m | dB(A) | 69 | 71 | 71 | 71 | 71 |
| Air Outlet | Size | BSP | 3/4" F | 1" F | 1" F | 1" F | 1" F |
| Dimensions | W | cm | 167 | 167 | 167 | 186 | 186 |
| | D | cm | 67 | 71 | 71 | 77 | 77 |
| | H | cm | 167 | 175 | 175 | 178 | 178 |
| Weight | Wet | kg | 407 | 458 | 478 | 615 | 635 |

* Per ISO 1217:2009 Annexes C and E.
# 8 bar (116 psi) configuration is standard.
^ Electricity supply: 400 V, 3-Phase, 50 Hz.




CAAA
COMPRESSED AIR ASSOCIATION OF AUSTRALASIA
The smarter energy source

WORKPLACE APPROVED HEALTH & SAFETY

Energy Saving Variable Speed Drive

AUTHORISED SENATOR DEALER:

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Specifications are subject to change without notice. 2026-06