ROTARY SCREW COMPRESSOR
CSA 5,5 - 7,5 - 10 - 15 - 20 HP
High performance, silent running, simple installation and maintenance, makes the CSA compressor belong to the top class models currently available in the market.

The use of highly reliable components and the high productive efficiency of our renewed assembly lines, result in an even more reliable product. A rationalised layout, a lower number of components subject to wear and their ergonomic positioning reduce operating costs.

**High-efficiency compression elements**

The two rotors with asymmetric profile, which have the same diameter, are mounted on high quality, low wear ball and roller bearings. The high degree of sealing and the fine tolerances used in the element also guarantees, even in small power ranges:
- GREATER YIELD
- HIGH EFFICIENCY
- LONG LIFE AND RELIABILITY
- LASTING PERFORMANCE

**Economical**

The direct-reading ES 3000 electronic regulator makes it possible to:
- manage all running operations,
- perform machine control and regulation,
- monitor irregularities,
- stop the compressor in the event of emergency,
- view the data on the machine's maintenance program.

- Reduced energy cost = INCREASED SAVINGS
- Reduced energy consumption = INCREASED ENVIRONMENTAL FRIENDLINESS

**Silent running**

Years of experience have been applied to the issue of noise levels particular in taking care of analysing the air flow inside the machine and the use of suitable panels with anti-noise devices. The assembly of the various components and the absence of transmitted vibrations. All have enabled us to achieve results which put even the standard version of our machine at the top of the market.

**Low noise levels**

Design experience, rigorous selection and careful assembly of components. Use of insulation foam, deflectors and anti-vibration pads are the key factors explaining our success in reducing noise levels of all our units to the lowest in the market. Compact and respectful of the environment, thanks to its low noise levels, the CSA range can easily be installed in working environments, even close to offices.
Rotary Screw Compressor CSA

The CSA range is a modern and aesthetically designed belt driven oil lubricated screw compressor offering a wide choice of variants, built with quality components in a state of the art assembly plant:

<table>
<thead>
<tr>
<th></th>
<th>FIX SPEED</th>
<th>IVR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power (HP)</td>
<td>5,5/7,5/10/15/20</td>
<td>10/15/20</td>
</tr>
<tr>
<td>Pressure (bar)</td>
<td>8/10/13 (10-20 HP)</td>
<td>8/10 (5,5-7,5 HP)</td>
</tr>
<tr>
<td>Control</td>
<td>Load/Unload</td>
<td>Variable speed</td>
</tr>
</tbody>
</table>

CSA range can fulfil industrial requirements up to 71 cfm with maximum **reliability** and **efficiency** whilst ensuring user friendliness, easy **serviceability** and **low noise levels**. Everything required from a compressor with technology you can trust.

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**Flow Diagram**

1 - Oil filter  
2 - Air/oil separator filter  
3 - Air/oil cooler  
4 - Safety valve  
5 - Thermostatic valve  
6 - Pressure Control  
7 - Display  
8 - Oil tank  
9 - Suction Electro-valve  
10 - Air Suction filter  
11 - Air End  
12 - Cooling fan  
13 - Electric motor EFF1  
14 - Temperature Control  
15 - Transmission Group

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**External PRE-FILTER** very easy to remove for cleaning  
**Steel PLATE BASE** handling from three sides  
**Elegant SOUNDPROOFED BODY** with polyester powder paint surface  
**Control and command MAIN PANEL** in a cabinet with a door locked with a triangular key  
**STAR-DELTA STARTER** for start up current reduction  
**Control and command INSTRUMENT PANEL** Main switch CONTROL PANEL command and regulation with electronic controller ES3000  
**SAFETY DEVICES:**  
Motor thermal protection  
High air/oil temperature  
Safety valve  
Minimum pressure valve

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Silenced dry air  
INTAKE FILTER  
COMPRESSOR with oil flooded asymmetric screws  
PREMIUM EFF1  
Three-phase IP55  
ELECTRIC MOTOR, euro-voltage, class F  
TRANSMISSION by means of V belts with automatically aligned belt tensioner  
OIL RESERVOIR with high efficiency air-oil separator filter 2-3 ppm  
OIL LEVEL visible via a sightglass  
Combined AIR-OIL COOLER in aluminium with fine fins  
OIL FILTER
CSA TANK and CSA DRY are two industrial options for compressed air production. They are compact, pre-assembled and ready for use. Designed for small and medium-scale industrial needs. Ideal where space is limited or close proximity to the work site is required.

**CSA Tank**

- two versions : 270 and 500 liters
- three pressures : 8 - 10 - 13 bars
- twenty-two models : from 7,5 to 20 HP

Atmospheric air compressed by the compressor is collected in the air receiver. The condensate produced can be drained through a valve at the bottom of the air receiver.

**Air Receiver**

Made of steel panels horizontally mounted on a fixed base, built and inspected according to current EEC regulations.

Sturdy structure allows all components to be assembled without affecting the tank's stability.

**CSA Dry**

A unit for the compression, drying and filtering of compressed air, assembled on a fixed, horizontal air receiver.

Available in:

- two versions : 270 and 500 liters
- three pressures : 8 - 10 - 13 bars
- twenty two models : from 7,5 to 20 HP

for delivery of dried and filtered compressed air in conformity with ISO 8573-1 Classes 1 - 4 - 1 (dust, water, oil).

Atmospheric air is compressed by the compressor and stored in the air receiver, then filtered and dried before entering the air network.

Condensates formed during the various compressed air treatment phases are automatically drained.

**Cleaner air results in:**

- Lower maintenance costs for distribution network, machinery and pneumatic tools.
- Energy savings through reduced in-line pressure drops.
- Improved productivity due to fewer breakdowns.
- Better final product quality.
**CSA DRY: A Complete System ...**

**CDX dryer**

For removing condensate in compressed air according to European environmental directives. Uses R134a ecological gas; with by-pass

A dryer featuring:
- low dewpoint,
- lower maintenance,
- high reliability.

**Filters and by-pass dryer**

1. Using the filters, it is possible to eliminate dust and oil particles up to a filtration degree of 0.01μ and to a degree of residual oil equal to 0.01 mg/m³.
2. There is also the possibility of by-passing the dryer, assuring in any case air filtration.
3. All condensate coming from the dryer, filters and tank, is centrally collected and drained in a single point through a timed drain device.

**A complete compression unit in a small space**

In the version with dryer, one has in a single solution: compressor, dryer, tank and filters in just 1.2 m² (500 l) with the following advantages:
- minimum space requirement and easy installation
- no installation costs for the dryer and the filters (all assembled at the manufacturing factory’s premises)
- elimination of air leaks in pipes
- the elimination of many pipes assures a minimum fall of pressure, increasing energy savings.
In designing this series of machines, special attention has been paid to the aspect of “SERVICEABILITY”. All the internal parts are easily accessible, and the oil level is visible from the outside, with no requirement to remove any panels.

**Easy maintenance**

**Air intake filter replacement**

This operation requires removing only the upper panel.

**Replacing and tensioning belts**

For the replacement and/or tensioning of the belts, just remove one fixed protection (side panel). The special transmission design ensures proper alignment of the pulleys.

**Orginal Part, Your quality assurance**

The ‘original part’ identification confirms that these components passed the specific strict test criteria. All parts are designed to match the compressor and are approved for use on the specified compressor only. They have been thoroughly tested to obtain the highest level of protection, extending the compressors' lifetime and keeping the cost of ownership to an absolute minimum. No compromises are made on reliability. The use of ‘original part’ certified quality components ensures reliable operation and will not impact your warranty, unlike other parts. Look for your quality assurance.
IVR Principles

Most of the time, air demand is not constant in a network. The purpose of an inverter is to reduce the speed of the main motor to follow precisely the profile of the compressed air requirement. This results in reduced power consumption, bringing energy savings and a quick return on the investment incurred.

IVR Benefits:

Safe and easy operation

- EMC compliant: no electromagnetic interference to or from the electrical network.
- ES3000 standard controller: comprehensive display and automatic control of the inverter.
- Standard Inlet baffle: protects the inverter against dust whilst allowing ventilation.
- Standard components: easy maintenance and availability.

Energy Savings:

- Soft start: protects the motor against stress at start up, and avoids current peaks.
- Efficiency 1 motor: from a reputed Premium Brand, high efficiency for lower HP consumption. Speed regulation of the motor between minimum and maximum frequency brings maximum savings.
- Constant pressure: no fluctuation between load and unload pressures. (1 bar = 7% energy). No unload cycles and energy wastage.
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<tr>
<th>Type</th>
<th>bar</th>
<th>psi</th>
<th>HP</th>
<th>kW</th>
<th>l/1'</th>
<th>m³/h</th>
<th>cfm</th>
<th>dB(A)</th>
<th>Kg</th>
<th>Kg</th>
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</tbody>
</table>

Note: n.a. = not available
Size and weights without packaging
First oil charge
Standard Voltage V/Hz/Ph 400/50/3

Version:
- CSA (Floor standing) and CSA IVR: gas 3/4”
- CSA TANK (Tank mounted); gas 1/2”
- CSA DRY (Tank mounted with dryer and filters); gas 3/4”

Dimension mm: LxWxH
- CSA (Floor standing): 995x655x1045-995x665x1045 (IVR)
- CSA TANK & DRY (270 liters: 1535x655x1550; 500 liters: 1935x655x1680)
- CSA IVR TANK & IVR DRY (270 liters: 1535x665x1550; 500 liters: 1935x665x1680)