ROTARY SCREW AIR COMPRESSORS
Fixed and Variable Speed

SINGLE AND 2-STAGE

SOUTHERN CROSS COMPRESSORS (AUSTRALIA)

Committed to Global Energy Conservation

Air Power for Industry
Why you’ll make the right choice when you choose a Southern Cross Compressor

One of the most effective ways to maximise business performance is to lower operational costs. The KHE series air compressor has been designed to achieve significant energy savings whilst providing the highest quality compressed air, even in the most arduous operating environments.

When you invest in any Southern Cross compressor, you can be assured of performance, reliability and prompt support.

- Maximised production protection
- Reduced energy bills
- Outstanding air quality
- Lifetime airend warranty*

Always the best in nationwide support

With a fleet of mobile technicians and service partners across the country, Southern Cross Compressors offer flexible support programs to ensure your compressor and system is maintained in optimum running order. You can be confident of interruption free production at the lowest possible energy cost.

World class technology, product range and capabilities

As a division of the global Kaishan Corporation, one of the world’s largest and most advanced compressor designers and manufacturers, Southern Cross has direct access to the worlds best technologies.

*Conditions apply
All Southern Cross Rotary Screw Compressors are built to perform!
We build in the highest quality components delivering the best possible performance and outstanding reliability.

**Built in quality features include:**

**‘SKY’ SERIES AIREND**
- Maximum output using less energy
- Asymmetric 5/6 rotor profile.
- KAPP ground rotor technology for tighter clearances and improved lubrication.
- SKF Explorer bearings.
- Precision machined bell housing to maintain coupling alignment.
- Flexible coupling with easily removable element.

**TRIPLE DISCHARGE BEARINGS** *(45kW and above)*
- Extended bearing life
- Longer bearing life under all operating conditions.
- Increased load carrying capacity.

**SCHNEIDER SWITCHGEAR**
- Increased reliability / Lower servicing costs
- Outstanding reliability.
- Excellent component life.

**WEG HIGH EFFICIENCY ELECTRIC MOTORS**
- Long operating life / Lower power use
- TEFC to IP 55, protected from dust and moisture.
- Class F insulation.
- Insulated bearings (VSD Models).
- Enhanced cooling across wide frequency range.

**SINGLE PASS OIL AND AFTER COOLERS**
- Easily accessible / Cooler running temperatures
- Minimised thermal stress.
- Selected for 50°C ambient.
- Lower oil carryover.
- Low cooling air velocity / lower dust build up.

**CENTRIFUGAL COOLING FANS**
- Increased cooling efficiency
- Higher static pressure for superior cooling performance.
- Lower noise level.
- Even air flow across entire cooler face.
- VSD fan control (110kW & above) - energy savings during light load or low ambient temperatures.

**‘ULTRA WEB’ AIR INTAKE FILTERS**
- Increased airend protection
- Full air flow, low restriction, nanofibre technology.
- Deep bed media ensures excellent dust capture.
- Increased output and lower power costs.
- Reduced maintenance costs.

**THREE STAGE TANGENTIAL OIL SEPARATION**
- Lower pressure drop / Lower absorbed power
- Excellent mechanical pre-separation/reduced direct oil impingement / lower dust contact / longer element life.
- Residual oil carryover limited to 2mg/m³ (Liquid phase).

**316 STAINLESS STEEL CONTROL TUBING**
- Eliminates failures / Reduced downtime
- Increased reliability due to indefinite, corrosion free life.
- (Material such as nylon, copper or mild steel will fail over time, causing downtime).

**ADVANCED MONITORING CONTROL PANEL**
- Integrated smart panel to monitor and control key functions
- Protection and alarms.
- Maintenance status.
- Intelligent sequencing of up to 16 compressors.
- External monitoring via RS485 interface.
- Remote monitoring and control.
- High resolution display.

**KERRY SYNTHETIC FLUID**
- Extended lubricant life / Low carryover
- Oil change intervals as high as 10,000 hours.
- No varnish formulation.
- Extended bearing life.
- Wide operating temperature range.
- Stable viscosity.

**SAFETY AND THE ENVIRONMENT**
- Reduced OHS risk and injury
- The entire Southern Cross range of compressors include safety features such as guarded rotating components, shrouded electrical components and internal spillage containment.
KHE Series

**ROTARY SCREW**

Engineered to perform...
Built to last!

The KHE range of single stage, rotary screw compressors are designed for maximum energy efficiency and reliability in the toughest operating conditions.

**FROM 15-355 kW**

Available with a wide range of options to suit your specific requirements including:
- Fixed and Variable Speed Drive
- Remote Start/Stop
- Low Pressure 3 and 5 bar
- Water Cooled

Unit performance measured in accordance with:
Reference conditions:
- Absolute inlet pressure = 1bar
- Ambient temperature = 20°C
- Cooling temperature = 20°C
- Sound pressure level measured in accordance with test code:
  ISO 2151:2004 (E)

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**SPECIFICATIONS  KHE Single Stage Rotary Screw Air Compressors**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DRIVE MOTOR POWER (kW)</th>
<th>MAXIMUM PRESSURE psi</th>
<th>FREE AIR DELIVERY m³/min</th>
<th>WEIGHT kg</th>
<th>NOISE dB(A)</th>
<th>DIMENSIONS L x W x H (mm)</th>
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*CONDITIONS APPLY

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*Dimensions and weights shown apply to fixed speed models only. Refer to Southern Cross Compressors for variable speed model data.
Due to the overall efficiency of 2-Stage technology where less energy is required to generate higher outputs, the drive motor can be one or two sizes smaller than required for equivalent single stage models. Energy cost savings driving a rapid investment payback.

**FROM 75-355 kW**

**UP TO 20% ENERGY SAVINGS**

**EXTENDED BEARING LIFE**

Due to the overall efficiency of 2-Stage technology where less energy is required to generate higher outputs, the drive motor can be one or two sizes smaller than required for equivalent single stage models. Energy cost savings driving a rapid investment payback.

### SPECIFICATIONS  KHE 2-Stage Rotary Screw Air Compressors

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DRIVE MOTOR POWER (kW)</th>
<th>MAXIMUM PRESSURE bar</th>
<th>FREE AIR DELIVERY m³/min</th>
<th>POWER (hp) psi</th>
<th>WEIGHT kg</th>
<th>NOISE dBA</th>
<th>DIMENSIONS L x W x H (mm)</th>
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</tr>
</tbody>
</table>

*Remote air/oil cooler.

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Imagine an intelligent air compressor that can accurately and rapidly vary its output to match your changing demands with corresponding reduction in absorbed power. More than 70% of the long term cost of owning an air compressor can be attributed to energy usage. Over the life of the compressor, this adds up to many times the original investment, yet in many cases, much of this energy is wasted through poor part load control.

A variable speed controller enables the compressor output to exactly match demand eliminating the high part load energy usage experienced with fixed speed compressors.

**ADVANCED COMPRESSOR CONTROL SYSTEM**

The advanced touch panel control module delivers total management of all compressor operating parameters including:

- System function
- Fault and alarm outputs
- Maintenance status
- Compressor operational history

**Smart Network Control**

Intelligent sequencing of up to 16 compressors offering maximum energy savings. Operating information such as temperature, air pressure and motor power can be accessed through the controller display and interface.
TOTAL COMPRESSED AIR SUPPORT

In today’s competitive business environment, keeping production running and energy expenses under control is critical to success. No matter what industry you are in, if compressed air drives your production or maintenance, you need a partner who understands that when air stops, so do you. Every customer is different but share one thing in common... compressed air is a vital energy source.

Our service approach begins with a thorough understanding of your system to enable us to consider any unique requirements and to be able to structure our servicing program accordingly. With well over 35 years servicing the needs of many Australian industries, Southern Cross is in a very unique position to meet each customer’s servicing requirements, no matter what system, brand or configuration. Combining this local experience with Kaishan’s global technology and excellent product quality means the best possible outcome for all our customers.

AIR AUDITS

Using the latest ultrasonic flow meters and leak detection technology, an air usage profile can be created and matched to the ideal operating system for each customer’s application. This ‘Air Audit’ can lead to remarkable improvements in efficiencies and savings in energy costs.

SYSTEM DESIGN

Designing the right compressed air system is fundamental to maximising efficiency and reliability. This leads to higher performance and significant energy savings over the life of the system. Southern Cross specialise in designing and engineering exactly the right system taking into consideration air demand, maintenance access, ventilation, pressure drop, environment and future needs.

PRODUCTS

Southern Cross stock a wide range of products and parts to suit most compressed air systems.

- Single and 2 Stage, fixed and variable speed rotary screw compressors from 15 - 400kW
- Compact tank mounted rotary screw compressors from 5.5 - 15kW
- Piston compressors from 3 - 15kW
- Scroll Compressors from 4 - 15kW
- Air dryers
- Coalescing filters
- After coolers
- Pressure vessels
- Oil-water separators
- Auto drains

INSTALLATION

A flexible compressed air reticulation system is critical to ensure costs are minimised. Stringent installation procedures ensure pipe work, connections and system components are engineered to exacting standards. I.e: leak free, minimal pressure drop and possible future expansion are fundamental considerations. Materials used include: Stainless Steel, Mild Steel, Copper, Aluminium and PE (plastic).

SUPPORT

Consistently meeting customer needs underpins our success.

Highly trained, experienced and professional service technicians fully understand the importance of minimising downtime and maximising reliability. 24 hour support ensures a quick resolution to any problem that may occur. An extensive range of flexible service plans allow customers to budget and control the annual cost of preventative maintenance.