ROTARY SCREW AIR COMPRESSORS

Fixed and Variable Speed

SINGLE AND 2-STAGE

SOUTHERN CROSS
COMPRESSORS (AUSTRALIA)

Air Power for Industry

KAISHAN
ENGINEERING THE FUTURE

Committed to Global Energy Conservation

SOUTHERN CROSS
COMPRESSORS (AUSTRALIA)
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***

World class technology, product range and capabilities

KAISHAN
ENGINEERING THE FUTURE

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

**Conditions apply*

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.

All Southern Cross Air Compressors are manufactured to exacting standards in accordance with ISO 9001:2008

Certified System
Quality
ISO 9001

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

- High efficiency, MEPS2 compliant (Minimum Energy Performance Standard).
- 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

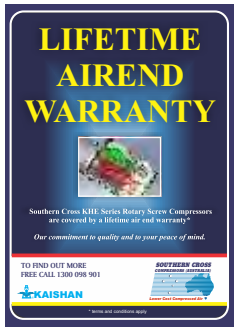
Unit performance measured in accordance with:

ISO 121, Ed3, Annex C - 1996.

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)



**CONDITIONS APPLY*

All information displayed in this publication is subject to change without prior notification.
'Dimensions and weights shown apply to fixed speed models only. Refer to Southern Cross Compressors for variable speed model data.

SPECIFICATIONS KHE Single Stage Rotary Screw Air Compressors

MODEL	DRIVE MOTOR POWER (kW)	MAXIMUM PRESSURE bar	MAXIMUM PRESSURE psi	FREE AIR DELIVERY m^3/min	FREE AIR DELIVERY CFM	WEIGHT kg	NOISE dB(A)	DIMENSIONS L x W x H (mm)
KHE15	15	8	116	2.5	88	650	67	1450 x 890 x 1073
		10	145	2.2	78			
KHE18	18.5	8	116	3.10	109	700	67	1550 x 930 x 1143
		10	145	2.79	99			
		13	188	2.25	79			
KHE22	22	8	116	3.58	126	800	67	1550 x 930 x 1143
		10	145	3.03	107			
		13	188	2.77	98			
KHE30	30	8	116	5.00	177	1150	68	1750 x 1010 x 1318
		10	145	4.50	159			
		13	188	3.52	124			
KHE37	37	8	116	6.30	222	1200	69	1750 x 1010 x 1318
		10	145	5.64	199			
		13	188	4.01	142			
KHE45	45	8	116	7.75	274	1600	70	2220 x 1410 x 1720
		10	145	6.41	226			
		13	188	5.43	192			
KHE55	55	8	116	10.00	353	1800	70	2220 x 1410 x 1720
		10	145	8.77	310			
		13	188	6.34	224			
KHE75	75	8	116	14.18	501	2400	72	2560 x 1520 x 1820
		10	145	12.02	424			
		13	188	9.80	346			
KHE90	90	8	116	16.80	593	2600	72	2560 x 1520 x 1820
		10	145	14.80	523			
		13	188	11.90	420			
KHE110	110	8	116	21.55	761	3600	73	3110 x 1690 x 2070
		10	145	18.66	659			
		13	188	16.47	582			
KHE132	132	8	116	24.63	870	3800	73	3110 x 1690 x 2070
		10	145	21.35	754			
		13	188	18.47	652			
KHE160	160	8	116	29.35	1037	4100	75	3410 x 1760 x 2140
		10	145	25.25	892			
		13	188	21.12	746			
KHE200	200	8	116	37.42	1321	4350	76	3410 x 1760 x 2140
		10	145	33.28	1175			
		13	188	29.08	1027			
KHE250	250	8	116	46.55	1644	6450	78	3860 x 2200 x 2270
		10	145	41.93	1481			
		13	188	36.80	1300			
KHE315	315	8	116	55.95	1976	7400	82	4060 x 2060 x 2250
		10	145	50.08	1768			
		13	188	45.62	1611			
KHE355	355	8	116	65.43	2311	7600	82	4060 x 2060 x 2250
		10	145	55.12	1946			
		13	188	49.58	1751			

2 STAGE TECHNOLOGY

Less energy usage with increased air output!

The Southern Cross 2-Stage range of rotary screw compressors offers all the attributes of the KHE single stage range with the advantage of significantly more air for less energy.

Talk to us about a cost neutral upgrade to 2 Stage technology

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.

**CONDITIONS APPLY*

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SPECIFICATIONS KHE 2-Stage Rotary Screw Air Compressors

MODEL	DRIVE MOTOR POWER (kW)	MAXIMUM PRESSURE bar	MAXIMUM PRESSURE psi	FREE AIR DELIVERY m^3/min	FREE AIR DELIVERY CFM	WEIGHT kg	NOISE dB(A)	DIMENSIONS L x W x H (mm)
KHE75고I	75	8	116	16	565	3300	72	2560 x 1620 x 1920
KHE90고I	90	8	116	20	706	3400	72	2560 x 1620 x 1920
		10	145	17.5	618			
		13	188	16	565			
KHE110고I	110	8	116	24	848	4650	73	3110 x 1790 x 2070
		10	145	20	706			
		13	188	19	670			
KHE132고I	132	8	116	28	989	4800	73	3110 x 1790 x 2070
		10	145	24	847			
		13	188	21	742			
KHE160고I	160	8	116	33	1165	6200	75	3460 x 1930 x 2260
		10	145	31	1094			
		13	188	27	954			
KHE185고I	185	8	116	38	1342	6300	75	3460 x 1930 x 2260
		10	145	34	1200			
		13	188	31	1094			
KHE200고I	200	8	116	41	1448	6400	76	3460 x 1930 x 2260
		10	145	40	1412			
		13	188	33	1166			
KHE220고I	220	8	116	47	1660	6850	77	3460 x 1930 x 2260
		10	145	43	1518			
		13	188	37.8	1336			
KHE250고I	250	8	116	54	1908	9100	78	3860 x 2160 x 2400
		10	145	47	1660			
		13	188	42	1483			
*KHE280고I	280	8	116	59.8	2113	8500	80	3530 x 2280 x 2270
		10	145	54	1908			
		13	188	46	1625			
*KHE315고I	315	8	116	70	2473	8600	80	3530 x 2280 x 2270
		10	145	62	2189			
		13	188	56	1978			
*KHE355고I	355	10	145	69.2	2445	8750	83	3530 x 2280 x 2270
		13	188	62	2190			

*Remote air/oil cooler.

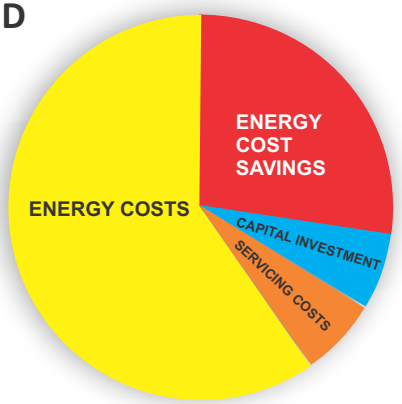
SOUTHERN CROSS
COMPRESSORS (AUSTRALIA)
AIR POWER FOR INDUSTRY

All Southern Cross, KHE Single and 2 Stage Compressors offer the optional advantages of Variable Speed Drive

VARIABLE SPEED DRIVE (VSD)

DRIVING DOWN YOUR ENERGY COSTS WITH COMPLETE CONTROL OVER YOUR VARYING COMPRESSED AIR DEMAND

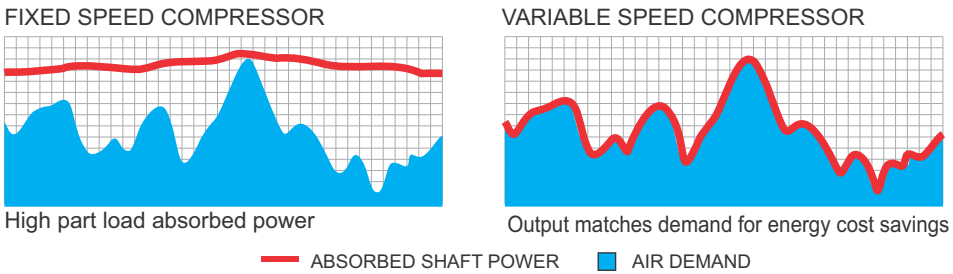
With the elimination of wasted energy, cost savings as high as 35% are possible, resulting in rapid investment payback.
Call Southern Cross for an assessment of how much you could save.



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.



BENEFITS

- Gradual increase in motor speed eliminates starting spikes and cost penalties
- Excessive part load energy consumption is significantly reduced
- A steady system pressure is maintained lowering system stress and overall air demand
- Reduced artificial demand due to lower operating pressures
- Significantly lower noise levels

SCHNEIDER ALTIVAR ATV900 VARIABLE SPEED DRIVE

- For demanding applications from 0.7kW to 800kW.
- Dedicated to maximum productivity with excellent motor control and connectivity capabilities.
- Efficient and reliable
- Worldwide support

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

Inefficiencies as high as 50% are typical in most compressed air systems.

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

Compressed Air delivered efficiently!

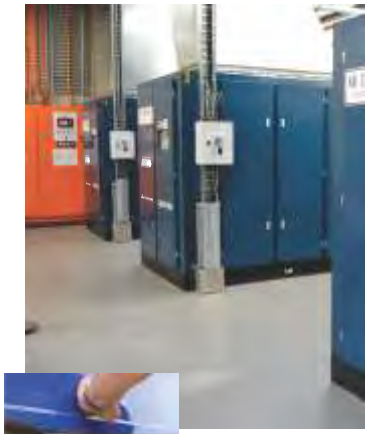
Designing the right compressed air system is fundamental to maximising efficiency and reliability.
This leads to higher performance and significant energy savings over the life of the system.
Southern Cross specialise in designing and engineering exactly the right system taking into consideration air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

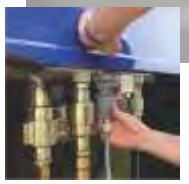
PRODUCTS

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





Compressed Air where you need it on time and on budget.

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. ie: 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.