



## WORLD CLASS

### Technology, engineering, product range and capabilities

Kaishan Australia is the Australian division of the Kaishan Group of Companies, one of the largest and most advanced designers and manufacturers of compressed air and gas products in the world.

Kaishan is committed to the continuous development of new compressor technologies and currently produces more than 43000 rotary and 25000 reciprocating air compressors annually for applications and installations in the Australian, European, SE Asian, USA, India and Latin American markets with growth globally through partnerships and acquisitions.

Mr Kevin Cao, President of the Kaishan Group of Companies stated that the organisation currently has plant and equipment valued at over USD\$2.1b based in multiple plants across the world employing more than 4500 personnel including over 2000 trained technicians.

Kaishan Australia supplies its extensive compressed air product range offering truly heavy duty, high quality and premium efficiency machinery for an enormously broad range of applications.

After almost 40 years of success in supporting the Australian compressed air market, Kaishan Australia utilises the world's best technologies with the ability to customise solutions that provide optimal benefits to its Australian customers.

KAISHAN AUSTRALIA PTY LTD

24 HOUR AUSTRALIA WIDE SUPPORT

National Sales and Service:

1300 098 901

[www.kaishan.com.au](http://www.kaishan.com.au)



Engineering the Future

# k|r|s|p AIR COMPRESSORS

SINGLE STAGE ROTARY ■ WORLD CLASS ■ EFFICIENCY ■ RELIABILITY

15 - 400kW



KAISHAN AUSTRALIA



Engineering the Future



# An advanced range of rotary screw air compressors with proven performance around the World



Kaishan krsp single stage Industrial Rotary Screw Air Compressors are the operating power behind major industries around the World with a trusted reputation for quality engineering, performance, efficiency and energy saving technologies.

As a global leader in the design and manufacture of rotary screw compressors, the company invests heavily in research and development to ensure the Kaishan brand is always at the forefront of compressed air innovation and cutting edge technology.

Kaishan Australia stocks the most advanced range of industrial rotary screw compressors specifically suited to local conditions.

With capacities from 18.5 to 400kW krsp industrial air compressors are designed and engineered to provide maximum air output, whilst saving on input energy bills.

Our total confidence in the reliability and performance of these robust machines is reflected in our offering of a unique LIFETIME WARRANTY\*on the airends in our complete range of krsp (Single and 2-Stage) machines.



## krsp compressors provide high efficiency with low capital cost and low operating cost

### Low cost of ownership throughout life cycle

Compressed air is often referred to as the ‘fourth utility’ and is critical to most manufacturing operations. Facility performance depends upon compressor reliability and efficiency.

Power consumption is a significant cost throughout the life of a compressor, therefore it is important to consider the life cycle cost of a compressed air system when evaluating productivity improvements. KRSP series advanced energy saving features reduce operational costs significantly.



KRSP series ‘best in class’ rotor assembly

# Kaishan Australia... the latest in global compressed air products plus a wealth of experience working with Australian industry

The combination of servicing the needs of Australian compressed air system operators for nearly 40 years as Southern Cross Compressors with the global resources and technology of the Kaishan Group offers our customers the very latest in energy saving efficiency.

Kaishan’s global strategy of combining highly skilled engineering with efficient manufacturing has provided the Australian market with performance proven, reliable machinery at significant cost savings.

The manufacturing processes are 85% vertically integrated to ensure full control of the supply chain delivering high quality components at lower cost.

### Practiced environmental sustainability

Kaishan’s fundamental belief in environmental sustainability is integral to the design and manufacture of products that maximise energy efficiency and help to preserve precious resources. Unused waste materials are recycled to maximise the use of raw materials.

Kaishan’s commitment to environmental responsibility ensures continued development of advanced technologies and manufacturing processes that provide industry with machinery of exceptional value, now and into the future.



## We fully support our products 24/7 with a fleet of highly trained and experienced mobile technicians.

All Kaishan Australia products are fully backed by nationwide customer focused service, support and spare parts.

### RAPID REPAIRS AND SPARES

We stock a full range of spare parts and system components to ensure a rapid return to full production should a problem occur.

### CUSTOM SERVICE PROGRAMS

We also offer flexible, customised service programs that maintain your compressed air system in peak condition day in, day out.



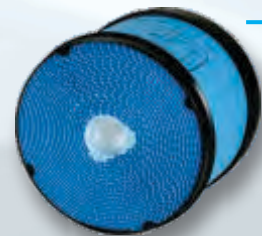




### DIGITAL CONTROL PANEL

#### Monitors & Controls Key Compressor Functions

- Protects compressor in the event of a fault
- Provides service required alert
- Sequencing of up to 16 compressors
- External monitoring via RS 485 interface
- Star Delta starter is standard on all models
- MODBUS interface



### 'ULTRAWE' AIR INTAKE FILTERS

#### Increased Filtration Efficiency

- Full airflow, low restriction, nanofiber technology
- Deep bed media ensures excellent dust capture
- Increased free air delivery for further savings in energy and running costs

### SAFETY AND THE ENVIRONMENT

#### Reduced OH&S Risk and Injury

- The entire Kaishan range of compressors includes full safety features such as guarded rotating components and shrouded electrical components to reduce the risk of injury.

### CENTRIFUGAL COOLING FANS

#### Increased Cooling Efficiency

- Higher static pressure allows for energy saving heat recovery
- Even air flow across the cooler face.
- VSD cooling fan (110kW and above) provides energy savings as cooling airflow is reduced during periods of light load or low temperatures.
- Cooling air bypasses main compressor compartment resulting in minimal internal dust build up

### 316 STAINLESS STEEL CONTROL TUBING

#### Long Tubing Life / Reduced Downtime

- Increased reliability due to corrosion free material
- Material such as nylon, copper or mild steel will fail in time causing downtime

### WEG HIGH EFFICIENCY ELECTRIC MOTORS

#### Long Operating Life / Lower Power Use

- Kaishan uses high efficiency motors, which comply with with all MEPS 2 requirements
- Motors are TEFC to protect from dust and moisture
- Class F insulation

### 'SKY' SERIES AIR END

#### Maximum Output with Less Energy Usage

- Asymmetric 5 / 6 rotor profile with 100% SKF bearings
- KAPP Ground rotor technology for tighter clearances and world class efficiency and performance
- Precision machined bell housing to maintain rigid alignment

### DIRECT DRIVE - 1:1 DRIVE RATIO. NO GEARBOX

#### Maximum Air Output/Reduced Energy Usage

- Large, slow running airend
- Eliminates transmission energy losses
- Increases bearing life
- Flexible coupling with easily removable coupling elements



### SINGLE PASS OIL & AFTER COOLERS

#### Long Life / Easily Accessible

- Minimize thermal stress
- Cooler running temperatures / correct running temperature @ 50°C ambient capable
- Low oil carryover
- Low cooling air velocity reduces dust build up
- Increases lubricant life

### 3 STAGE TANGENTIAL OIL SEPARATION

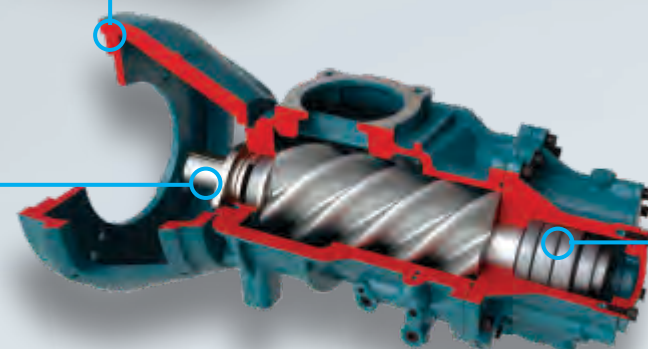
#### Lower Pressure Drop / Lower Absorbed Power

- Excellent oil mechanical pre-separation/reduced direct oil impingement onto separator element
- Lower dust contact resulting in lower pressure drop/longer element life/lower energy consumption
- Residual oil carryover limited to 3 ppm
- Increased lubricant life

### LAMINAR FLOW INLET VALVE

#### Minimum Pressure Drop / Increased Output

- Laminar flow inlet valve results in lower pressure drop through the intake, increasing output and saving energy



### TRIPLE DISCHARGE BEARINGS

#### Longer Bearing Life / Quieter Operation

- The "SKY" series direct drive airends use three discharge bearings to absorb radial and axial loads.
- Eight bearings per airend
- Longer bearing life under all operating conditions
- Increased load carrying capacity
- **Lifetime** airend warranty (conditions apply)

KRSP AIR COMPRESSORS PROVIDE ROBUST, TURN-KEY INDUSTRIAL SOLUTIONS

KRSP air compressors offer low life cycle cost by providing:

Low Capital Cost + Low Operating Cost + Exceptional Reliability & Efficiency

- All electrical wiring is high performance including cable and converters
- Optimum operating temperature to prevent moisture in the system
- Rugged and proven technology to ensure long operating life
- Heavy duty isolators to minimize operating vibration
- SAE fittings allow easy and low cost maintenance
- Spin-on fluid filter for quick maintenance
- VSD cooling fan on all units 110kW and up
- Premium, efficiency – WEG IE3 TEFC electrical motors. MEPS2 compliant
- Acoustic enclosure brings the sound level to industry leading level of 67 dB(A) to 80 dB(A)



VSD cooling fan provides energy savings by reducing airflow during periods of light load or low temperatures.



Lubricant filter assembly features a spin-on, full-flow, 12µ, high-efficiency components

KRSP SERIES CONTROL SYSTEM PROVIDES TOTAL MANAGEMENT OF ALL OPERATING PARAMETERS

KRSP controller capabilities include the following features:

- Operating parameters display
- Programmed maintenance schedules
- Warning stop alarms
- Recordings of compressor history

The control panel contains a special programmed microprocessor that can safely and efficiently control all the functions of the compressor. The touch screen display monitors line pressure, oil temperature and working conditions (running, idling and stop) Abnormal conditions will trigger a flashing LED and a flashing message indicating the cause of the alarm. Microprocessor functions are password protected, accessible only to the authorised personnel.



KRSP Series System Management Control Panel

KRSP SERIES VARIABLE SPEED DRIVE OPTION PROVIDES MAJOR ENERGY SAVINGS

KRSP VSD combines a robust power platform with a state-of-the-art control scheme

The drive provides a soft start and the ability to operate efficiently through the compressor’s capacity range by matching flow to demand while maintaining a high level of pressure control. By eliminating wasted energy, cost savings as high as 50% or more are possible. With this level of savings, the additional capital cost of the variable speed drive can be recovered in less than one years operation.



KRSP Series Variable Speed Drive

WORLD CLASS ENGINEERING

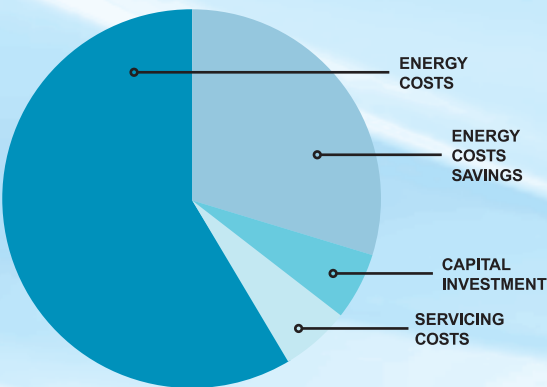
INTERNATIONALLY PATENTED ‘SKY’ AIREND DEVELOPED EXCLUSIVELY BY KAISHAN ENGINEERS

Continual trial and development has created an advanced airend that increases compressor efficiency by more than 20% over earlier models.



KRSP Series patented air end

- Direct drive (1:1 ratio) motor and airend** slow speed operation
- Low part load energy consumption**
- Steady system pressure** lowers system stress and overall air demand
- Slow speed rotors** maximise performance and increase reliability
- Decreased energy consumption** delivers environmentally friendly savings
- Quadruple SKF bearings on each rotor** 5/6 rotor profile creates optimal performance while reducing energy consumption
- Very tight tolerances** provide maximum efficiency
- Direct flow inlet valve** provides reliable capacity control



KRSP Series VSD Rotary Screw Compressor operating at 70% load compared to a fixed speed model.

**Schneider Variable Speed Drive**  
The variable speed drive used in KRSP compressors are renowned for:

- Efficient and reliable service
- Worldwide support



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KRSP SERIES SPECIFICATIONS

50Hz

MODEL KTA	CAPACITY m³/min	POWER kW	FULL LOAD		NOISE dBA Rating at 1 meter	DIMENSIONS (mm)			WEIGHT KG
			bar	bar		L	W	H	
KRSP-18-8	3.37	18.5	8	8.5	69	1780	975	1278	760
KRSP-18-10	2.53	18.5	10	10.5	69	1780	975	1278	760
KRSP-22-8	3.87	22	8	8.5	69	1780	975	1278	790
KRSP-22-10	3.4	22	10	10.5	69	1780	975	1278	790
KRSP-22-13	2.42	22	12.5	13	69	1780	975	1278	790
KRSP-30-8	5.7	30	8	8.5	70	1810	1160	1370	1030
KRSP-30-10	4.7	30	10	10.5	70	1810	1160	1370	1030
KRSP-30-13	3.67	30	12.5	13	70	1810	1160	1370	1030
KRSP-37-8	6.8	37	8	8.5	70	1810	1160	1370	1070
KRSP-37-10	5.5	37	10	10.5	70	1810	1160	1370	1070
KRSP-37-13	3.72	37	12.5	13	70	1810	1160	1370	1070
KRSP-45-8	8.5	45	8	8.5	71	2260	1410	1720	1600
KRSP-45-10	6.65	45	10	10.5	71	2260	1410	1720	1600
KRSP-45-13	5.32	45	12.5	13	71	2260	1410	1720	1600
KRSP-55-8	10.2	55	8	8.5	71	2260	1410	1720	1740
KRSP-55-10	8.47	55	10	10.5	71	2260	1410	1720	1740
KRSP-55-13	6.5	55	12.5	13	71	2260	1410	1720	1740
KRSP-75-8	14.2	75	8	8.5	72	2480	1520	1820	2300
KRSP-75-10	12.02	75	10	10.5	72	2480	1520	1820	2300
KRSP-75-13	9.7	75	12.5	13	72	2480	1520	1820	2300
KRSP-90-8	17.2	90	8	8.5	72	2480	1520	1820	2450
KRSP-90-10	13.5	90	10	10.5	72	2480	1520	1820	2450
KRSP-90-13	11.9	90	12.5	13	72	2480	1520	1820	2450
KRSP-110-8	21	110	8	8.5	74	3100	1690	2050	3380
KRSP-110-10	17.05	110	10	10.5	74	3100	1690	2050	3380
KRSP-110-13	13.4	110	12.5	13	74	3100	1690	2050	3380
KRSP-132-8	24.63	132	8	8.5	74	3100	1690	2050	3650
KRSP-132-10	20.2	132	10	10.5	74	3100	1690	2050	3650
KRSP-132-13	16.95	132	12.5	13	74	3100	1690	2050	3650
KRSP-160-8	29.35	160	8	8.5	75	3565	1915	2320	6000
KRSP-160-10	24.5	160	10	10.5	75	3565	1915	2320	6000
KRSP-160-13	20	160	12.5	13	75	3565	1915	2320	6000
KRSP-200-8	37.42	200	8	8.5	76	3565	1915	2320	6050
KRSP-200-10	33.28	200	10	10.5	76	3565	1915	2320	6050
KRSP-200-13	29.08	200	12.5	13	76	3565	1915	2320	6050
KRSP-250-8	45	250	8	8.5	78	3860	2160	2270	6450
KRSP-250-10	39.5	250	10	10.5	78	3860	2160	2270	6450
KRSP-250-13	33	250	12.5	13	78	3860	2160	2270	6450
KRSP-280-8	50	280	8	8.5	79	4060	2060	2250	7400
KRSP-280-10	45.8	280	10	10.5	79	4060	2060	2250	7400
KRSP-280-13	39.8	280	12.5	13	79	4060	2060	2250	7400
KRSP-315-8	56	315	8	8.5	79	4060	2060	2250	7500
KRSP-315-10	50.1	315	10	10.5	79	4060	2060	2250	7500
KRSP-315-13	45	315	12.5	13	79	4060	2060	2250	7500
KRSP-355-8	65.4	355	8	8.5	79	4060	2060	2250	7550
KRSP-355-10	55	355	10	10.5	79	4060	2060	2250	7550
KRSP-355-13	49.6	355	12.5	13	79	4060	2060	2250	7550
KRSP-400-8	74.3	400	8	8.5	79	4060	2060	2250	7600
KRSP-400-10	64.5	400	10	10.5	79	4060	2060	2250	7600
KRSP-400-13	58.1	400	12.5	13	79	4060	2060	2250	7600

3,5 and 6 bar models available

\*VSD models will be heavier than fixed speed model weight shown

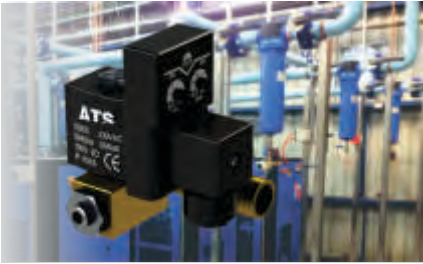
Unit performance measured in accordance with: ISO 1217, Ed3, Annex C-1996    Reference conditions: Absolute inlet pressure = 1bar; Ambient temperature = 20°C; Cooling temperature = 20°C; Sound pressure level measured in accordance with test code: ISO2151-2004 (E).    NOTE: Technical specifications of compressors are subject to change without notice.    All specifications are subject to change without notice



Engineering the Future

COMPRESSED AIR SYSTEM ACCESSORIES

Kaishan Australia offer a quality range of ancillary components to enhance the performance of every compressed air system. Our trained, mobile technicians can upgrade, repair and maintain your compressed air system... FAST!



AUTO DRAINS

Automatically drains unwanted condensate from your system.



AIR RECEIVERS

To increase efficiency and reduce maintenance in every system.



REFRIGERATED AIR DYERS

For applications where dry air is needed, even in the hottest conditions.



OIL WATER SEPARATORS

Separates lubricants from condensate for easy, responsible disposal.



AFTER COOLERS

Vital for protection from moisture contamination and damage.



CONDENSATE SEPARATORS

Centrifugal separators remove condensed moisture from the air.



DESSICANT AIR DRYERS

Achieves very low pressure dewpoint for moisture sensitive applications.



COALESCING AIR FILTERS

Remove traces of contaminants in the compressed air stream



QUALITY SPARE PARTS

Genuine parts and lubricants to ensure the integrity of your system.



### INCREASED ENERGY SAVING EFFICIENCY



**k|r|s|p 2-Stage Rotary Screw  
Air Compressors**  
75 - 400kW

The krsp range of 2-Stage, rotary screw compressors offer all the benefits of our standard single stage compressors with added efficiency gains and energy saving performance.

- Up to 20% higher energy savings  
(even more with Variable Speed Drive)
- Extended bearing life
- Low pressure 3 and 5 bar
- Multiple machine sequencing
- IP55 MEPS compliant WEG drive motor



### PERMANENT MAGNET, VARIABLE FREQUENCY



**p|m|v Rotary Screw Air Compressors**  
Single and 2-Stage  
15 - 250kW

The systemic optimisation of the compressor airend, advanced permanent magnet drive motor and variable speed drive technology provides a greater air output for far less energy input.

- Energy cost savings up to 50%\*
- Controlled air output to exactly meet demand
- No start up spikes and cost penalties
- Reduced part load energy consumption
- Significantly lower noise levels
- No gears, belts or couplings

*\*When compared to fixed speed, single stage equivalent*

### COMPACT, TANK MOUNTED AIR POWER



**k|r|s|t Compact Rotary Screw  
Air Compressors**

The krst Series receiver mounted, rotary screw compressors provide the ideal choice for industries requiring high performance in a compact compressed air package.

- Large, slow running air end for maximum efficiency
- Integrated after cooler
- Large capacity 500 litre receiver
- Integrated dryer and air filter
- Engineered from the highest quality components
- Minimal service and maintenance
- IP55 MEPS compliant WEG drive motor

### ADVANCED ORBITAL SCROLL TECHNOLOGY



**OX Series Compact  
Lubricated Scroll Air Compressors**  
4.5 - 15kW

Advanced, lubricated 'Scroll' technology delivers energy efficiency with minimal moving parts in an ultra quiet, compact package.

- Lubricated Scroll technology
- Maximum energy efficiency
- Super quiet, compact package
- 100% continuous duty rated
- Integrated aftercooler reduces condensate
- Low maintenance reliability
- IP55 MEPS compliant WEG drive motor

### Custom Designed Air Compressors & Systems

Our local and international design and engineering teams can work with you to build a customised air compressor to work in a variety of applications and environments. Examples of this are stainless steel clad units for operations in an extreme marine environment and skid mounted, heavy framed units for mining applications.



MOBILE MINING APPLICATION



MARINE APPLICATION

### Choosing the right compressor for your application

No matter what type or size of industry you are in, selecting the right air compressor to suit your specific application is vital in providing the highest efficiency with minimal running costs. Kaishan Australia offer a free, no obligation advisory service to help you make the right decision. Just call us on **1300 098 901** for free expert advice.

