



Engineering the Future

kr|sp

INDUSTRIAL ROTARY SCREW AIR COMPRESSORS

WORLD CLASS, ENERGY-SAVING EFFICIENCY & RELIABILITY

- Advanced airend engineering
- Direct drive motor & airend
- Greatly reduced energy consumption
- Steady system pressure
- Slow speed rotors
- SKF discharge bearings
- Very tight tolerances



15 - 400kW



Even more efficient with
VARIABLE SPEED DRIVE

24 HOUR SUPPORT
1300 098 901



KAISHAN COMPRESSORS
www.kaishan.com.au 1300 098 901



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.



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.



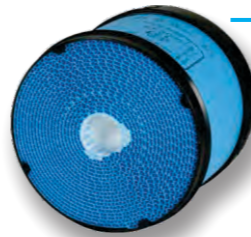
KRSP series 'best in class'



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



'ULTRAWEB' 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 all MEPS 2 requirements
- Motors are TEFC to protect from dust and moisture
- Class F insulation

'SKY' SERIES AIR END

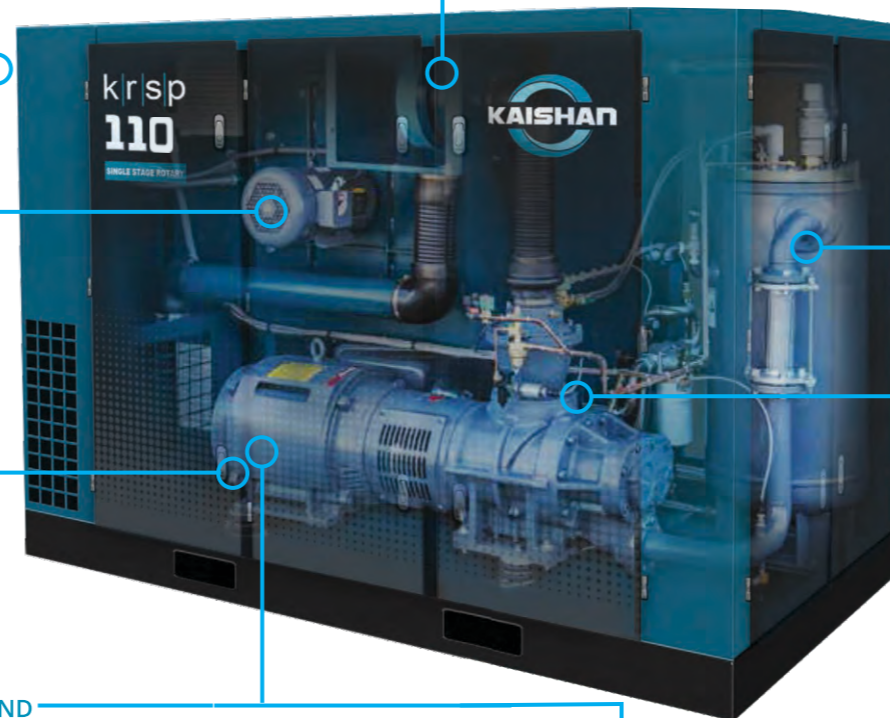
Maximum Output with Less Energy Usage

- 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 increasing output and saving energy through the intake,



TRIPLE DISCHARGE BEARINGS

Longer Bearing Life / Quieter Operation

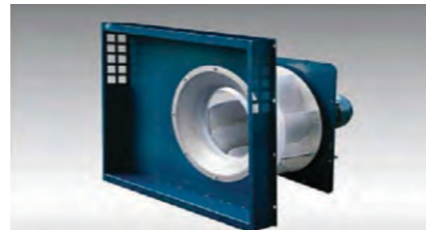
- The "SKY" series direct drive airends use three discharge bearings to absorb radial and axial loads.
- Eight bearings per airend
- Longer bearing life under all operating conditions
- Increased load carrying capacity
- Lifetime Airend Warranty (conditions apply)



**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 and Efficiency

- All electrical wiring is high performance including cables and converters
- Optimum operating temperature to prevent moisture in the system
- Rugged and proven technology to ensure long operating life
- Heavy duty isolators to minimise operating vibration
- SAE fittings allow easy and low cost maintenance
- VSD cooling fan on all units 110kW and up
- Premium efficiency WEG Ie3 TEFC electrical motors. MEP S2 compliant
- Acoustic enclosure brings the sound level to industry leading level of 67 dB(A) to 80dB(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,

**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

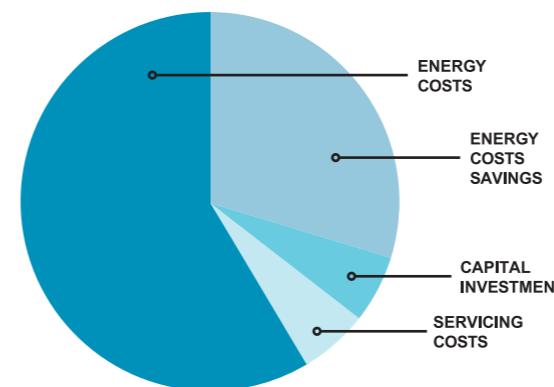
INTERNATIONALLY PATENTED 'SKY' AIREND DEVELOPED EXCLUSIVELY BY KAISHAN ENGINEERS

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

- 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 patented air end



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



Engineering the Future

KRSP SERIES SPECIFICATIONS

50Hz

MODEL KTA	CAPACITY m ³ /min	POWER kW	FULL LOAD MAXIMUM		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

COMPRESSED AIR SYSTEM ACCESSORIES

Kaishan Australia offer a quality range of ancillary components to enhance the performance of every compressed air system.



AUTO DRAINS

Automatically drains unwanted condensate from your system.



AIR RECEIVERS

To increase efficiency and reduce maintenance in every system.



REFRIGERATED AIR DRYERS

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.



DESICCANT 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.

WORLD'S BEST TECHNOLOGY AND ENGINEERING



THE RIGHT AIR COMPRESSOR TO MATCH DEMANDS FROM HEAVY INDUSTRIAL TO WORKSHOP AND SPECIALISED APPLICATIONS



krsp 2-Stage Rotary Screw Air Compressors

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.

- Compression ratio divided between 2 stages
- Reduced internal losses
- Substantial efficiency and energy cost gains
- Extended bearing life due to reduced applied loads
- Smaller drive motor produces equivalent flow rate
- Optimised oil injection
- Enhanced air end geometry.



pmv Rotary Screw Air Compressors

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

- Single or 2-Stage
- 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*



OX Series Compact Lubricated Scroll Air Compressors

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

TANK MOUNTED, INTEGRATED OR FREE STANDING

- 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



krst 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 highest 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



VSD

Optional Variable Speed Drive: Schneider Altivar ATV900

VSD is optional with our entire krsp range of single and 2-stage air compressors. With the elimination of wasted energy, additional cost savings as high as 50% are possible.

In many instances such savings mean the additional capital cost of the variable speed drive option can be recovered in less than one years operation.

Custom Designed Air Compressors



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.

WORLD CLASS, ENERGY-SAVING EFFICIENCY & RELIABILITY





Engineering the Future

**WORLD CLASS
COMPRESSED AIR
PRODUCTS
& SUPPORT**

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 80,000 rotary and 25,000 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 4,500 personnel including over 2,000 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 more than 38 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.



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