KAISHAN COMPRESSORS

Engineering the Future

k|r|s|a

SINGLE STAGE ROTARY LOW PRESSURE

- Patented SKY Single Stage Airend
- Reduced internal losses
- High efficiency and performance
- Substantially lower energy costs
- Extended bearing life
- High efficiency TEFC LV, drive motor
- Longer bearing life, quieter operation
- Integrated micro-processor

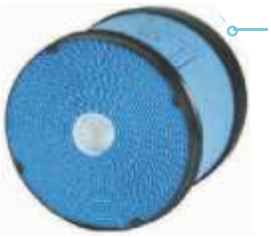
WORLD CLASS, ENERGY-SAVING EFFICIENCY & RELIABILITY

55 - 250kW

KAISHAN COMPRESSORS

www.kaishan.com.au 1300 098 901

WORLD CLASS TECHNO

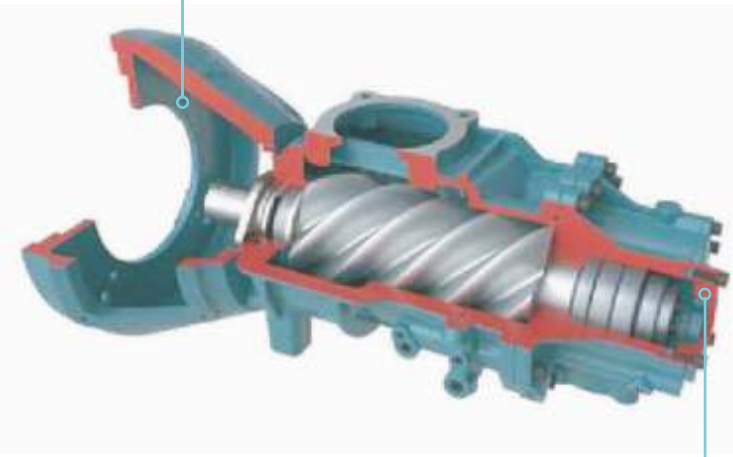


CYCLONIC AIR INTAKE FILTERS
Increased Filtration efficiency.
- Full airflow, low restriction.
- Deep bed media ensures excellent dust capture
- Increases free air delivery for further energy and running cost savings

SINGLE PASS OIL & AFTER COOLERS
Long life/ easily accessible.
- Minimises thermal stress.
- Cooler designed for 50°C ambient temperature.
- Low oil carryover.
- Low cooling air velocity reduces dust buildup.

3 STAGE AIR/OIL SEPARATION
Lower pressure drop / lower absorbed power.
- Excellent 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 1-3 ppm.

TRIPLE DISCHARGE BEARINGS
Longer bearing life / Quieter operation.



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.

'SKY' SERIES AIREND
Maximum output with less energy usage.
- Asymmetric 5/6 rotor profile with SKF bearings.
- KAPP grinder rotor technology for tighter clearances with world class efficiency and performance.
- Precision machined bell housing to maintain rigid alignment.

LUBRICANT KTL8000
- Does not cause varnishing during operation.
- High viscosity and high flashpoint.
- Very low carryover.
- Typical 8000 hour service life.

DLOGY & ENGINEERING

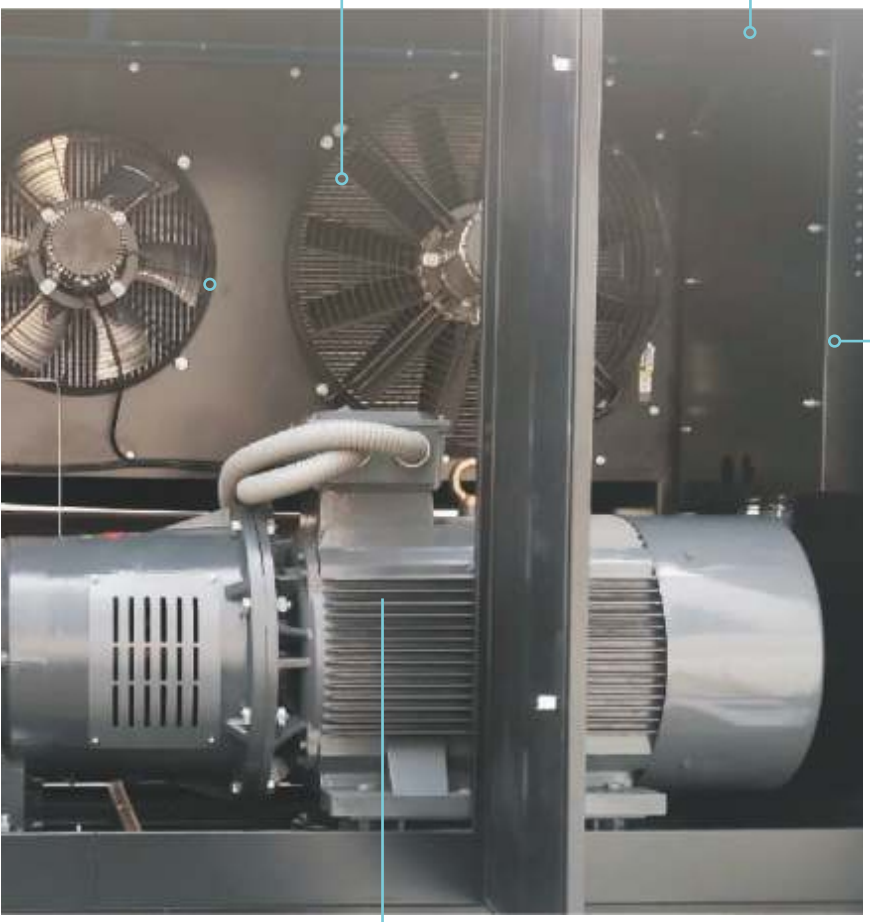
INDUCED FLOW COOLING FANS

Increased cooling efficiency

- Even air flow across the cooler face.
- Cooling air bypasses main compressor compartment resulting in minimal internal dust buildup.

ELECTRICAL CONTROL PANEL

- Monitors and controls key compressor functions.
- Protection against phase sequence.
- Provides service schedule alarm.
  External monitoring via RS 485 interface.



INTEGRATED MICROPROCESSOR CONTROL FOR INDUSTRY 4.0

- Ease of use due to mimic diagram and temperature readout.
- Selective readout of operation and maintenance parameters provided.
- Safety shutdown feature included.
- Automatic Start/Stop operation over 24 hour period with Lead/Lag sequencing of multiple compressors.
- **Auto Dual Control:** If there is no air demand during the pre-set time delay, the compressor shuts down the drive motor. The controller will restart the motor only when pressure falls below the pre-selected pressure levels. Integrated with IoT technology which allows remote monitoring and control over local or web networks.

HIGH EFFICIENCY MOTORS

Lower pressure drop / lower absorbed power.

- High efficiency, TEFC, LV induction drive motors,
- Ip55 rating and IE3/IE4 premium efficiency rating.
  F class insulation.
- Direct coupling ensures longer bearing life.
  Ease of maintenance is assured with grease refill port.
  'No Load Start' protection is provided.

SAFETY AND THE ENVIRONMENT

Reduced OH&S Risk and Injury

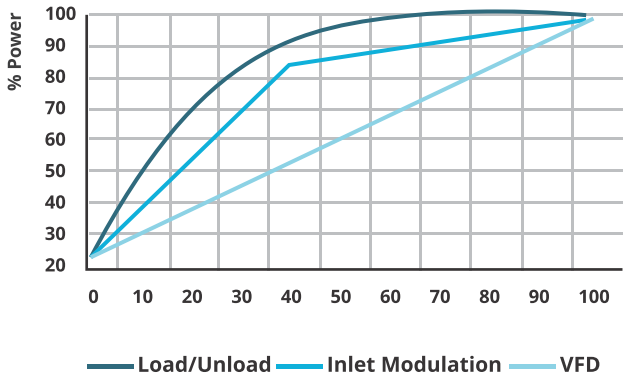
- The entire Kaishan range of compressors includes full safety features such as guarded rotating components and shrouded electrical components to reduce the risk of injury.

KRSA SERIES LOW PRESSURE COMPRESSOR WITH VFD

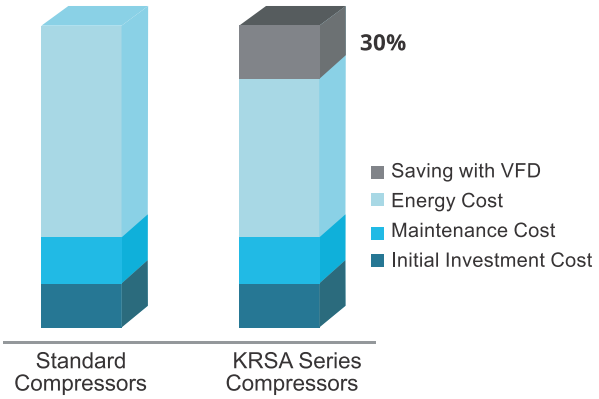
Kaishan KRSA compressors are built to be compatible with the optional VFD feature. KRSA Variable Speed Air Compressors provide maximum efficiency with consistent operation. Unlike conventional 'Auto-dual' and 'Load/No load' control modes, KRSA VFD modulates the speed of the drive motor in response to system demand. This results in greater energy saving compared to a fixed speed compressor. The VFD feature greatly reduces the starting power surge of the motor. A constant pressure delivery extends the life of valves.

- Industry renowned VFD units are used in KRSA series compressor packages.
- Compact VFD design allows a smaller footprint.
- Accurately measures key functions of the unit.
- Maintenance free operation.
- Minimises starting current peak loads.
- Performs at extremely low sound level.

PART LOAD PERFORMANCE ASSESSMENT



ENERGY COST COMPARISON



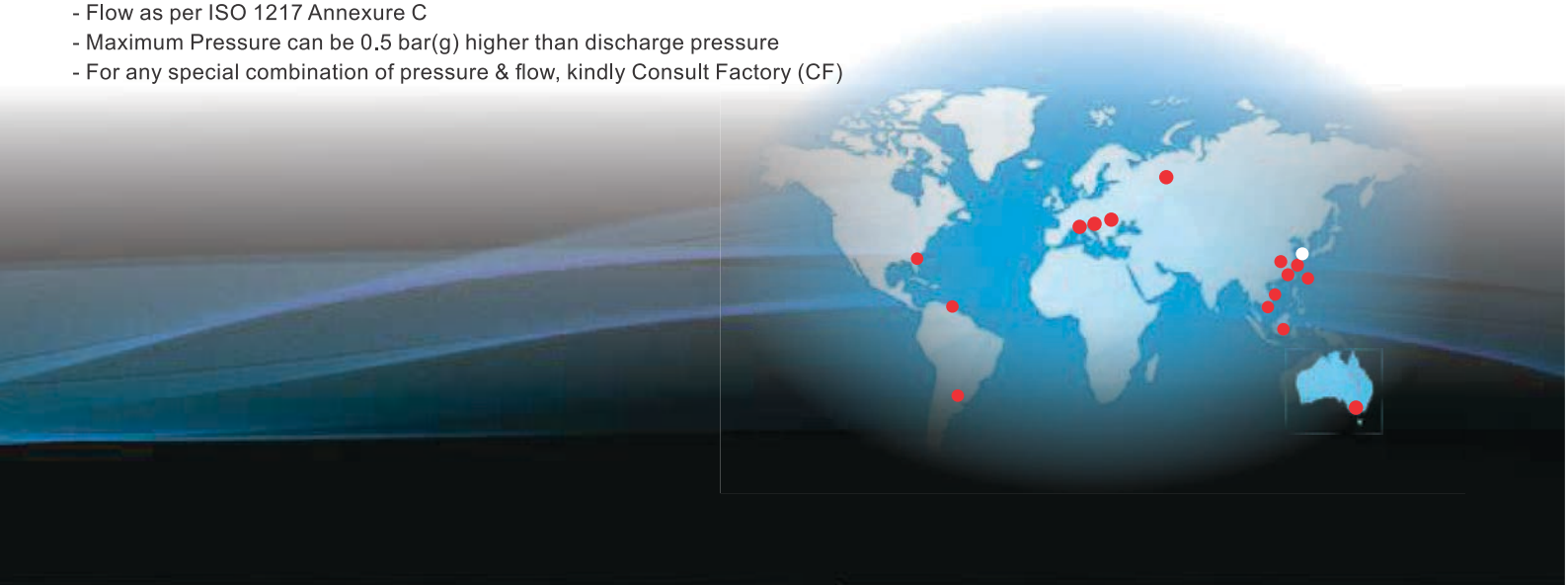
KRSA series up to 250kW are also available with Permanent Magnet Variable frequency (PMV) drive option for best in class part load efficiency,

KAISHAN COMPRESSORS

KRSA SERIES SPECIFICATIONS

Model No	Pressure Bar	Flow cfm	Power kW	Connection	Dimension mm	Weight Kg
KRSP55-1.5	1.5	960	55	DN100	2960 X 2060 X 2260	4300
KRSP110-1.5	1.5	1629	110	DN150	4100 X 2140 X 2370	6100
KRSP75-2	2	960	75	DN100	2960 X 2060 X 2260	4300
KRSP90-2	2	1123	90	DN125	2960 X 2060 X 2260	4300
KRSP132-2	2	1629	132	DN150	4100 X 2140 X 2370	6100
KRSP160-2	2	2042	160	DN150	4100 X 2140 X 2370	6100
KRSA22-3	3	231	22	G2	1980 X 1260 X 1370	1260
KRSA37-3	3	378	37	DN65	2310 X 1360 X 1610	1770
KRSA55-3	3	620	55	DN100	2510 X 1560 X 1860	2050
KRSA55-3A	3	700	55	DN100	2510 X 1560 X 1860	2070
KRSA90-3	3	920	90	DN100	3160 X 1810 X 2080	3800
KRSA90-3A	3	1000	90	DN125	2960 X 1960 X 2210	4200
KRSA132-3	3	1410	132	DN125	3460 X 2060 X 2130	4200
KRSA132-3A	3	1547	132	DN125	3560 X 2060 X 2180	6100
KRSA160-3	3	1612	160	DN150	4200 X 2300 X 2350	4400
KRSA200-3	3	1990	200	DN150	4160 X 2260 X 2310	6800
KRSA30-5	5	231	30	G1 ½	1980 X 1050 X 1460	1400
KRSA45-5	5	378	45	G2	2780 X 1320 X 1750	1800
KRSA55-5	5	442	55	DN65	2990 X 1520 X 1850	2400
KRSA75-5	5	618	75			2650
KRSA90-5	5	810	90	DN80	3260 X 1620 X 2100	3800
KRSA110-5	5	920	110			3900
KRSA132-5	5	1080	132	DN100	3660 X 2060 X 2280	4400
KRSA160-5	5	1407	160			5400
KRSA250-5	5	1990	250	DN125	4160 X 2260 X 2350	7150

Note:
- Technical Specifications of compressor are subject to change without notice
- Flow as per ISO 1217 Annexure C
- Maximum Pressure can be 0.5 bar(g) higher than discharge pressure
- For any special combination of pressure & flow, kindly Consult Factory (CF)



KAISHAN COMPRESSORS AUSTRALIA PTY LTD

krsa

SINGLE STAGE
ROTARY SCREW
LOW PRESSURE

UP TO 50% LESS POWER USAGE THAN STANDARD COMPRESSORS

Kaishan 3 bar, low pressure rotary screw air compressors are specifically designed for textile, cement, glass, flue gas, desulfurisation and pneumatic conveyance applications.

When a 7 bar standard air compressor is run for a 2-5 bar pressure requirement it uses far more power than a Kaishan KRSA low pressure unit.

With its patented low compression ratio, the Kaishan KRSA series can achieve the same output flow (cfm) while using between 20-50% less power.

The capacity of a rotary screw air compressor with a 132kW motor at 7 bar will be 24m^3/min.

The capacity of a rotary screw air compressor with a 132kW motor at 7 bar will be 24m^3/min. A Kaishan low pressure compressor with a 132kW motor at 3 bar achieves a flow rate of 43m^3/min.

The power saving achieved enables recovery of investment in a relatively short operating time.

PATENTED 'SKY' SINGLE STAGE AIREND

Larger Rotor Size

To increase the rotor throughput, the airends in our compressors are larger than usual. Our air compressors are built with 5/6 lobes and a larger rotor size which greatly reduces the specific power consumption whilst running at lower speed.

Lower Inter-Lobe Leakage Losses

Pressure differences between the two working chambers is smaller due to a greater number of lobes. This reduces inter-lobe leakage losses, hence leakage to delivery ratio is decreased as the number of rotor lobes increases.

Larger Wrap Angle and Discharge Port

A greater number of lobes combined with a larger wrap angle ensures multiple lobe contact. This reduces vibration and noise. Larger discharge ports decrease the discharge velocity thereby reducing the discharge pressure losses and increasing the compressors overall efficiency.