

WORLD CLASS · EFFICIENCY · RELIABILITY

k|r|s|d

SINGLE STAGE ROTARY



Kaishan Compressor USA

WORLD WIDE SUPPORT

Globally recognized industrial presence

Over the last sixty years, Kaishan has steadily grown to become a significant, diversified engineering company developing high value machinery for industries worldwide. With modern, specialized manufacturing facilities positioned in seven strategic locations, Kaishan's group of thirty-two subsidiary companies produce over 60,000

rotary screw and 250,000 reciprocating compressors annually. Kaishan is the world's third largest manufacturer of compressed air, mining and drilling equipment and supports industries in more than 60 countries including: USA, Australia, Germany, Japan, Korea, Russia, Africa and throughout Latin America.

Vertically integrated global strategy

Kaishan's global strategy of combining highly skilled engineering with highly efficient manufacturing allows us to provide performance proven, reliable equipment at a significant cost savings to our customers. Additionally, Kaishan's manufacturing processes are 85% vertically

integrated insuring full control of the material supply chain. This vertical approach supplies high quality components at a lower cost, and affords Kaishan the ability to respond rapidly to changing market demands.



- 📍 Kaishan USA Headquarters & Manufacturing Facility - Mobile, AL
- 📍 Kaishan Subsidiary
- 📍 Kaishan Headquarters - Quzhou, China

Practiced environmental sustainability

Integral to the design and manufacture of our products is outstanding energy efficiency. Kaishan's fundamental belief in environmental sustainability drives us to produce products that maximize energy efficiency and help to preserve precious energy resources. Single and two-stage compressors that produce more compressed air per unit of power input as well as expanders that utilize waste heat to produce electricity are just two of the fundamental products in our sustainable approach.

Throughout our manufacturing processes, unused waste materials are recycled at every stage to maximize the use of raw materials. This approach translates to lower initial costs and lower operating costs for our customers and a smaller environmental footprint that helps us all. Kaishan's commitment to environmental responsibility ensures that we will continue to develop technologies and manufacturing solutions that provide industry with machinery of exceptional value - now and well into the future.

KRSD SERIES COMPRESSORS PROVIDE 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 cycle of a compressor. Therefore, it is important to consider the life cycle cost of a compressed air system when evaluating productivity improvements. KRSD series advanced energy saving features reduce operation costs significantly.



*KRSD Series 'best in class'
rotor assembly*

**10 YEAR
AIREND
WARRANTY**

WORLD CLASS ENGINEERING

INTERNATIONALLY PATENTED 'SKK' AIR END DEVELOPED EXCLUSIVELY BY KAISHAN ENGINEERS

Continued development has increased efficiency by more than 20% over earlier models

- **Direct drive (1:1 ratio) motor and air end** operate at slow speed
- **Slow speed male rotor** maximizes performance and increases efficiency
- **Steady system pressure** lowers system stress and overall air demand
- **Decreased energy consumption** delivers environmentally friendly savings
- **Duplex SKF bearings** for durability and reliability
- **Low part load energy consumption**
- **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



KRSD Series patented air end

DIGITAL CONTROL PANEL

Monitors & Controls Key Compressor Functions

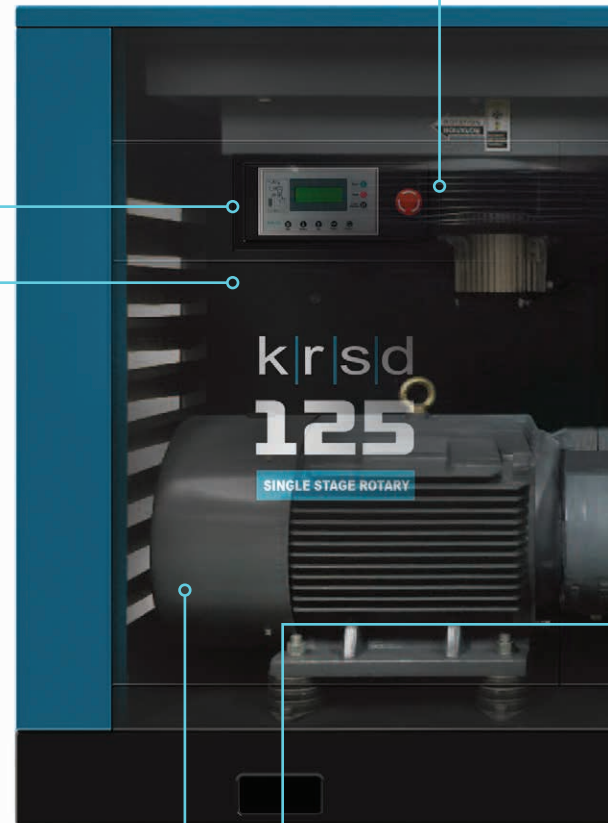
- Protects compressor in the event of a fault
- Provides service required alert
- Sequencing of up to 16 compressors
- External monitoring via RS 485 interface
- WYE Delta starter standard to reduce electrical in rush current



AXIAL COOLING FANS

Increased Cooling Efficiency

- Higher static pressure allows for heat recovery ducting
- Even air flow across the cooler face



INDUSTRIAL GRADE ELECTRICALS

Increased Reliability / Lower Servicing Cost

- Outstanding reliability
- Excellent component life
- Worldwide support
- Standard electrical parts available locally



HIGH EFFICIENCY ELECTRIC MOTORS

Long Operating Life / Lower Power Use

- Kaishan uses high efficiency motors, which comply with all international standards
- TEFC (IP 54) standard, IEC frame
- Class F insulation
- Premium efficiency motors

316 STAINLESS STEEL CONTROL TUBING

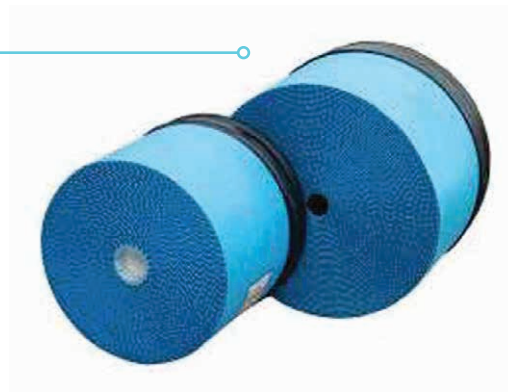
Long Tubing Life / Reduced Downtime

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

'ULTRAWEB' AIR INTAKE FILTERS

Increased Filtration Efficiency

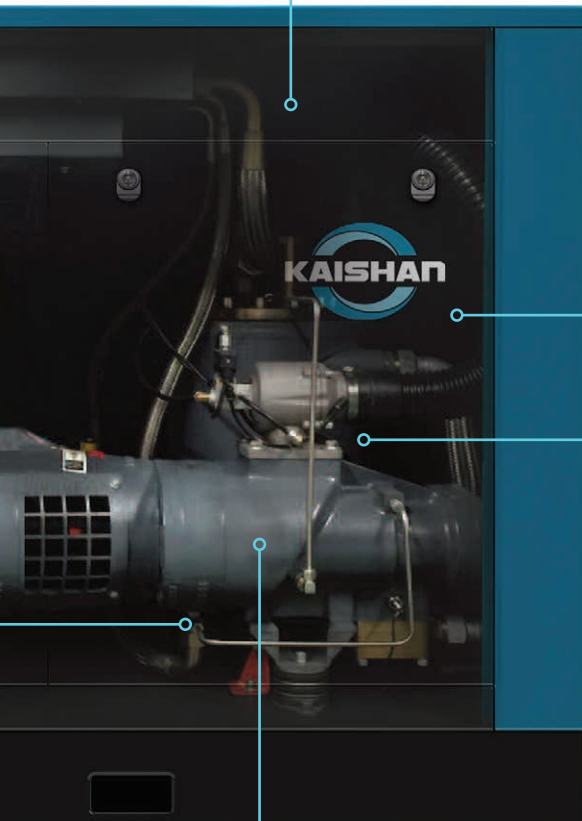
- Full airflow, low restriction, nanofiber technology
- Deep bed media ensures excellent dust capture
- Increased free air delivery for further savings in energy and running costs



SAFETY AND THE ENVIRONMENT

Reduced OSHA Risk and Injury

- The entire Kaishan range of compressors includes full safety features such as guarded rotating components and shrouded electrical components



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

SINGLE PASS OIL & AFTER COOLERS

Long Life / Easily Accessible

- Minimize thermal stress
- Cooler running temperatures / correct running temperature @ 122F° (50°C) ambient capable
- Low oil carryover increases bearing life
- Low cooling air velocity reduces dust build up

DIRECT FLOW INLET VALVE

Minimum Pressure Drop / Increased Output

- Lower pressure drop through the intake, increasing output and saving energy

PREMIUM DISCHARGE BEARINGS

Longer Bearing Life / Quieter Operation

- The "SKK" series direct drive air ends use two discharge bearings to absorb radial and axial loads
- Longer bearing life under all operating conditions
- Increased load carrying capacity

'SKK' SERIES AIR END

Maximum Output with Less Energy Usage

- Asymmetric 5 / 6 rotor profile with 100% SKF bearings
- KAPP Grinder rotor technology for tighter clearances and improved lubrication
- Precision machined bell housing to maintain coupling alignment

DIRECT DRIVE - 1:1 DRIVE RATIO NO GEARBOX

Maximum Air Output / Reduced Energy Usage

- Large, slow running air end
- Eliminates transmission energy losses
- Increases bearing life
- Flexible, easily removable coupling element



KRSD SERIES CONTROL SYSTEM PROVIDES TOTAL MANAGEMENT OF ALL OPERATING PARAMETERS

KRSD controller capabilities include the following features:

- Operating parameters display
- Warning stop alarms
- Programmed maintenance schedules

The control panel contains a special programmed microprocessor that can safely and efficiently control all the functions of the compressor.

The display monitors the 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 for the alarm. Microprocessor functions are password protected, accessible only to authorized personnel.



KRSD series System Management Control Panel

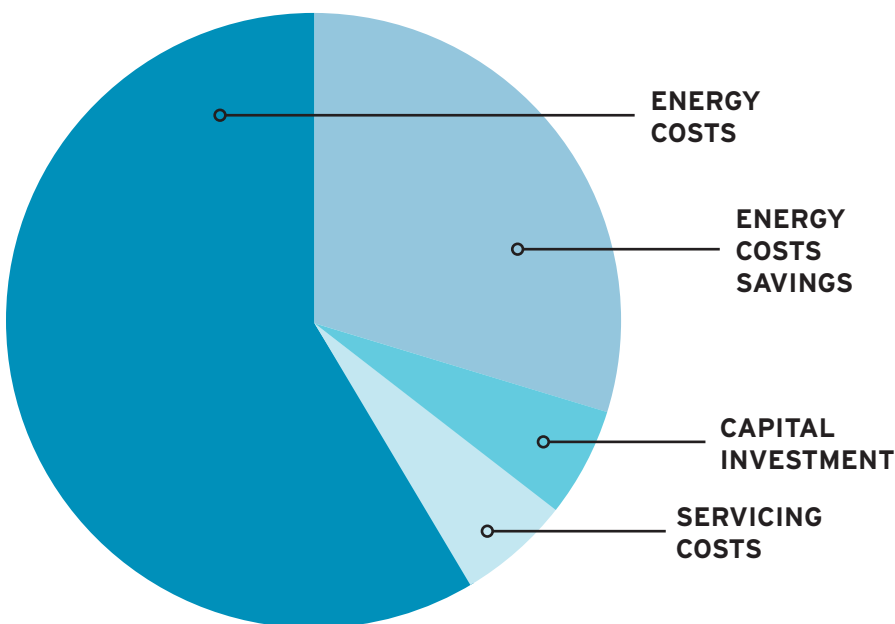
KRSD SERIES VARIABLE SPEED DRIVE OPTION PROVIDES A MAJOR ENERGY SAVINGS

KRSD 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 35% 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 year's operation.



KRSD Variable Speed Drive



Variable Speed Drive

The variable speed drive used in our KRSD compressors are renowned for:

- Efficient and reliable service
- Worldwide support

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

KRSD SERIES COMPRESSORS PROVIDE ROBUST, TURN-KEY INDUSTRIAL SOLUTIONS

KRSD HAS LOW LIFE CYCLE COST BY PROVIDING:

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

- Pre-piped with components required for complete installation
- All electrical wiring is high performance including cable and convertors
- 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
- Premium efficiency TEFC Electrical motors
- Acoustical enclosure brings the noise level to industry leading dB(A) levels



Cycling 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

KRSD SERIES SPECIFICATIONS

MODEL	CAPACITY ACFM	POWER HP	FULL LOAD PSI	MAXIMUM PSI	SOUND dB(A)	DIMENSIONS (IN.)			WEIGHT (LB.)
						L	W	H	
KRSD30-115	140	30	115	125	73	56	34	44	1389
KRSD30-125	138	30	125	135	73	56	34	44	1389
KRSD50-115	237	50	115	125	74	70	40	52	2116
KRSD50-115	233	50	125	135	74	70	40	52	2116
KRSD60-115	285	60	115	125	75	70	40	52	2447
KRSD60-125	281	60	125	135	75	70	40	52	2447
KRSD75-115	357	75	115	125	76	77	45	61	3549
KRSD75-125	352	75	125	135	76	77	45	61	3549
KRSD100-115	444	100	115	125	76	95	46	65	4608
KRSD100-125	439	100	125	135	76	95	46	65	4608
KRSD125-115	604	125	115	125	77	93	52	65	4630
KRSD125-125	597	125	125	135	77	93	52	65	4630
KRSD150-115	721	150	115	125	78	99	53	67	6613
KRSD150-125	714	150	125	135	78	99	53	67	6613
KRSD200-115	878	200	115	125	79	99	53	67	6724
KRSD200-125	873	200	125	135	79	99	53	67	6724

Performance test based on ISO 1217.



MODEL	COMPRESSOR TYPE	FEATURES
KRSP2	Two Stage	Global leader in air compressor efficiency
KRSP	Single Stage	Patented 'SKY' air end, triple SKF bearings
KRSD	Single Stage	Direct drive, TEFC motor, low sound enclosure
KRSB	Single Stage	Belt drive, economical to own and operate
KRST	Single Stage	Belt drive, tank mounted
KRSH	Two Stage High Pressure	Pressure up to 580 PSI
KRSL	Single Stage Low Pressure	Pressure as low as 45 PSI
KRSV	Rotary Screw Vacuum Pump	World class vacuum efficiency



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