

WORLD CLASS · EFFICIENCY · RELIABILITY

k|r|s|d

SINGLE STAGE ROTARY



Kaishan Compressor USA



WE MANUFACTURE **85%**
OF THE COMPRESSOR COMPONENTS INTERNALLY,
ENSURING QUALITY AND CONTROLLING COSTS

60+
YEARS
IN BUSINESS

70,000
COMPRESSORS
PRODUCED
A YEAR

3RD LARGEST
COMPRESSOR MANUFACTURER
IN THE WORLD

LOCATED IN
LOXLEY, AL
USA

MADE IN
ALABAMA



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' AIREND DEVELOPED EXCLUSIVELY BY KAISHAN ENGINEERS

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

- **Direct drive (1:1 ratio) motor and airend** 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** assures optimal performance while reducing energy consumption
- **Very tight tolerances** provide maximum efficiency
- **Direct flow inlet valve** provides reliable capacity control



KRSD Series patented airend

DIGITAL CONTROL PANEL

Monitors & Controls Key Compressor Functions

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



INDUSTRIAL GRADE ELECTRICALS

Increased Reliability / Lower Servicing Cost

- Outstanding reliability
- Excellent component life
- Industry recognized brands, with local support
- UL (cUL) Approved



AXIAL COOLING FANS

Increased Cooling Efficiency

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

HIGH EFFICIENCY AIR INTAKE FILTERS

Increased Filtration Efficiency

- Full airflow, low restriction
- Deep bed media ensures excellent dust capture
- Increased free air delivery for further energy savings



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

- Optimized mechanical pre-separation / reduced direct oil impingement onto separator element
- Lower particle 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
- Coolers oversized to accommodate 122°F (50°C) ambient temperatures
- Low oil carryover increases bearing life
- Low cooling air velocity reduces dust build up

MODULATING INLET VALVE

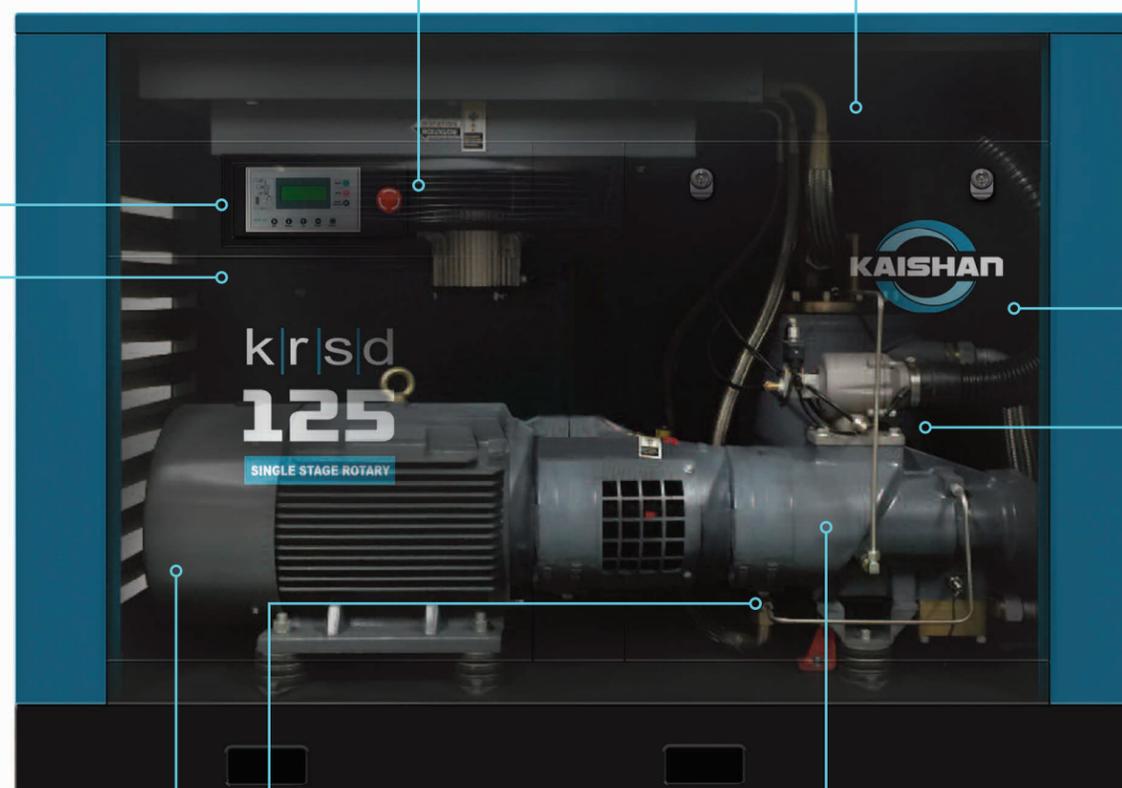
Minimum Pressure Drop / Increased Output

- 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



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 PIPING & TUBING

Long Life / Reduced Downtime

- No cheap rubber hoses
- Stainless lines increase reliability due to corrosion free material
- Reduces nuisance breakdowns

'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
- Flanged motor adapter ensures perfect 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 FIXED SPEED

MODEL	POWER		FLOW (CFM / M3/min)				SOUND dBA	WEIGHT		DIMENSIONS (LxWxH)	
	HP	kW	115 psi	8 bar	125 psi	8.6 bar		lbs	ks	in	mm
KRSD-15	15	11	68	1.93	66	1.87	72	981	445	51x31x43	1295x787x1092
KRSD-20	20	15	74	2.10	72	2.04	72	1013	460	51x31x43	1295x787x1092
KRSD-25	25	18.5	115	3.26	113	3.20	73	1211	550	56x34x44	1422x864x1118
KRSD-30	30	22	140	3.96	138	3.91	73	1389	631	56x34x44	1422x864x1118
KRSD-40	40	30	198	5.61	195	5.52	74	2116	961	70x40x52	1778x1016x1321
KRSD-50	50	37	237	6.71	233	6.60	74	2234	1014	70x40x52	1778x1016x1321
KRSD-60	60	45	285	8.07	281	7.96	75	2866	1301	77x46x62	1956x1168x1575
KRSD-75	75	55	357	10.11	352	9.97	75	3549	1611	77x46x62	1956x1168x1575
KRSD-100	100	75	444	12.57	439	12.43	76	4608	2092	95x46x78	2413x1168x1981
KRSD-125	125	90	604	17.10	597	16.91	77	4343	1972	93x52x65	2362x1321x1651
KRSD-150	150	110	721	20.42	714	20.22	78	6613	3002	99x53x67	2515x1346x1702
KRSD-200	200	150	878	24.86	873	24.72	79	6724	3053	99x53x67	2515x1346x1702

KRSD SERIES CONTROL SYSTEM PROVIDES TOTAL MANAGEMENT OF ALL OPERATING PARAMETERS

KRSD MAM-200 controller capabilities include the following features:

- Operating parameters display, including amps & volts
- Warning & shutdown alarms
- Programmed maintenance schedules



KRSD Fixed Speed Controller

The KRSD contains an intuitive HMI with microprocessor controller 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 message indicating the cause for the alarm. Key functions are password protected, accessible only to authorized personnel.

KRSD SERIES COMPRESSORS PROVIDE ROBUST, TURN-KEY INDUSTRIAL SOLUTIONS

KRSD HAS LOW LIFE CYCLE COST BY PROVIDING:

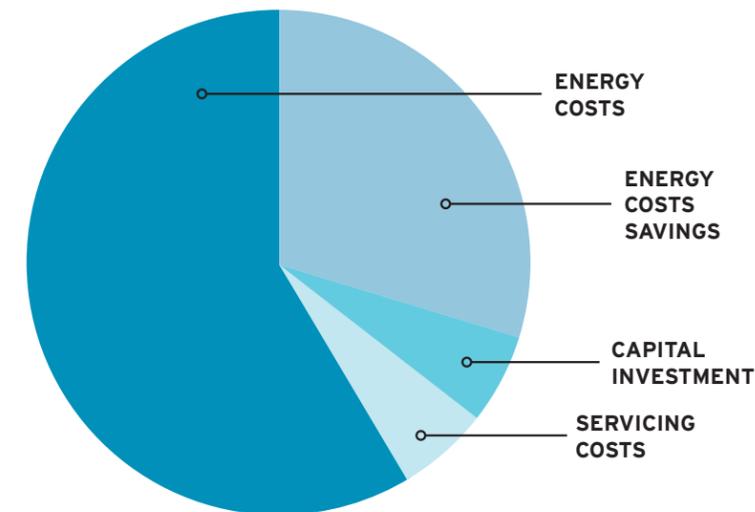
Low Capital Cost + Low Operating Cost + Exceptional Reliability & Efficiency

- Electrical components are designed to meet or exceed industrial standards
- 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 eliminates leaks, saving maintenance costs
- Spin-on fluid filter for quick maintenance
- Premium efficiency IE3 TEFC electrical motors
- Acoustical enclosure reduces noise to industry leading dB(A) levels

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 40% are possible. With this level of savings, the additional capital cost of the variable speed drive can be recovered in less than one year.



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



KRSD Variable Speed Controller



KRSD Variable Speed Drive

KRSD SERIES VARIABLE SPEED

MODEL	POWER		FLOW (CFM / M3/min)						SOUND dBA	WEIGHT		DIMENSIONS (LxWxH)	
	HP	kW	115 psi	8 bar	125 psi	8.6 bar	150 psi	10 bar		lbs	ks	in	mm
KRSD-15	15	11	65	1.84	62	1.76	53	1.50	72	1147	521	51x31x43	1295x787x1092
KRSD-20	20	15	72	2.04	68	1.93	59	1.67	72	1198	544	51x31x43	1295x787x1092
KRSD-25	25	18.5	112	3.17	107	3.03	94	2.66	73	1433	651	66x34x44	1676x864x1118
KRSD-30	30	22	149	4.22	142	4.09	121	3.43	73	1523	691	66x34x44	1676x864x1118
KRSD-40	40	30	198	5.61	191	5.41	165	4.67	74	2161	981	80x40x52	2032x1016x1321
KRSD-50	50	37	237	6.71	228	6.46	204	5.78	74	2497	1134	80x40x52	2032x1016x1321
KRSD-60	60	45	290	8.21	276	7.82	235	6.65	75	3792	1722	81x46x71	2057x1168x1803
KRSD-75	75	55	364	10.31	341	9.66	313	8.86	75	3867	1756	81x46x71	2057x1168x1803
KRSD-100	100	75	466	13.20	444	12.57	382	10.82	76	4692	2130	95x46x78	2413x1168x1981
KRSD-125	125	90	593	16.79	563	15.94	479	13.56	77	4498	2042	93x52x65	2362x1321x1651
KRSD-150	150	110	739	20.93	705	19.96	655	18.55	78	6702	3043	107x55x67	2718x1397x1702
KRSD-200	200	150	876	24.81	832	23.56	776	21.97	79	6845	3108	107x55x67	2718x1397x1702

Performance test based on ISO 1217.



MODEL	COMPRESSOR TYPE	FEATURES
KRSP2	30-500 HP Two Stage	Global leader in air compressor efficiency
KRSP	40-500 HP Single Stage	Patented 'SKY' air end, quadruple SKF bearings
KRSD	15-200 HP Single Stage	Direct drive, TEFC motor, low sound enclosure
KRSB	5-50 HP Single Stage	Belt drive optional tank & dryer packages
KRSL	Single Stage Low Pressure	Pressure as low as 45 PSI
KRSV	Rotary Screw Vacuum Pump	World class vacuum efficiency



info@KaishanUSA.com
 15445 Industrial Park Dr. · Loxley, AL 36551 USA
 251.257.0185
KaishanUSA.com