

WORLD CLASS · EFFICIENCY · RELIABILITY

# k|r|s|p 2

TWO STAGE ROTARY



Kaishan Compressor USA

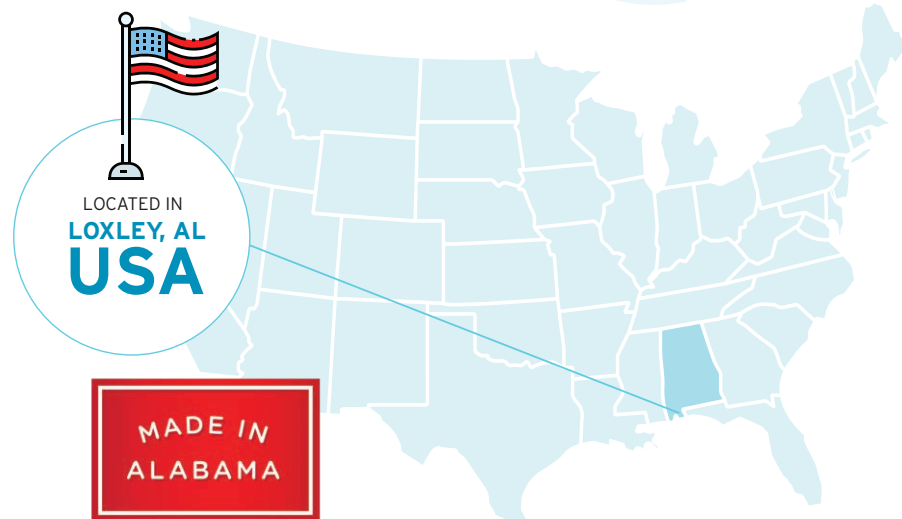




WE MANUFACTURE **85%**  
OF THE COMPRESSOR COMPONENTS INTERNALLY,  
ENSURING QUALITY AND CONTROLLING COSTS

**OVER  
70,000**  
COMPRESSORS  
PRODUCED  
**A YEAR**

**3RD LARGEST**  
COMPRESSOR MANUFACTURER  
IN THE WORLD



**60+**  
YEARS  
IN BUSINESS



## KRSP2 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. KRSP2 series advanced energy saving features reduce operation costs significantly.



*KRSP2 Series 'best in class'  
rotor assembly*

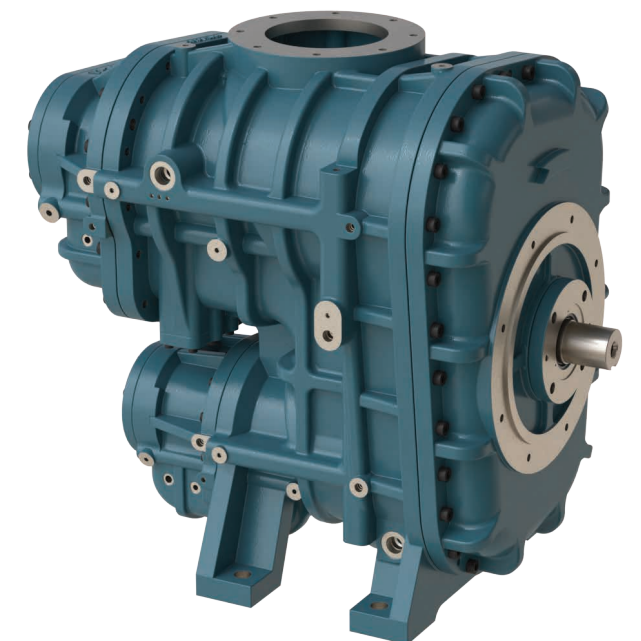
**LIFETIME  
AIREND  
WARRANTY**

## WORLD CLASS ENGINEERING

### PATENTED 'SKY' TWO-STAGE AIR END DEVELOPED EXCLUSIVELY BY KAISHAN ENGINEERS

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

- **Two-Stage air end design** for high flow rate and low power consumption
- **Direct coupled through gears motor and air end** operate at slow speed
- **Low part load energy consumption**
- **Steady system pressure** lowers system pressure fluctuation and overall air demand
- **Slow speed male rotors** maximize performance and increase reliability
- **Decreased energy consumption** reduces carbon footprint and delivers cost savings
- **5 / 6 rotor profile** creates optimal performance while reducing energy consumption
- **2 in 1 intake valve design** (with check valve) for increased efficiency
- **Direct flow inlet valve** provides reliable capacity control
- **Triplex SKF bearings** for durability and reliability
- **Very tight tolerances** provide maximum efficiency



*KRSP2 Series patented two stage air end*



**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



**'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

**CENTRIFUGAL COOLING FANS**

**Increased Cooling Efficiency**

- Higher static pressure allows for heat recovery ducting
- Even air flow across the cooler face.
- VSD cooling fan (150 HP 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

**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

**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

**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 is standard on all models
- MODBUS capability



**SAFETY AND THE ENVIRONMENT**

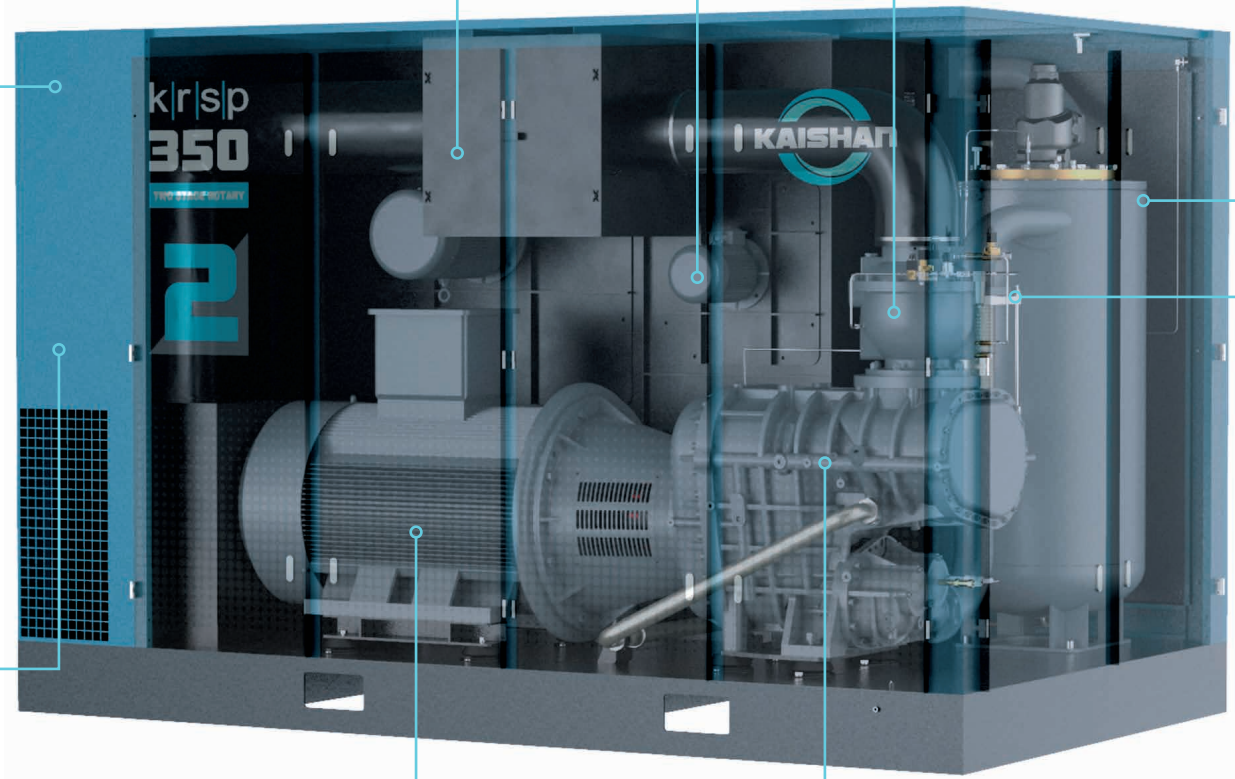
**Reduced OSHA Risk and Injury**

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

**INDUSTRIAL GRADE ELECTRICAL COMPONENTS**

**Increased Reliability / Lower Servicing Cost**

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



SKY2 125-600HP

**316 STAINLESS STEEL CONTROL TUBING**

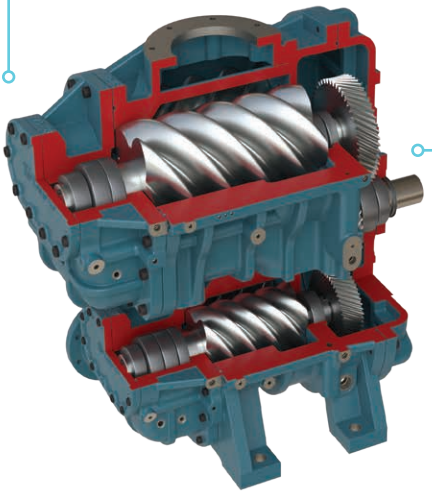
**Long Tubing Life / Reduced Downtime**

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

**TRIPLE DISCHARGE BEARINGS**

**Longer Bearing Life / Quieter Operation**

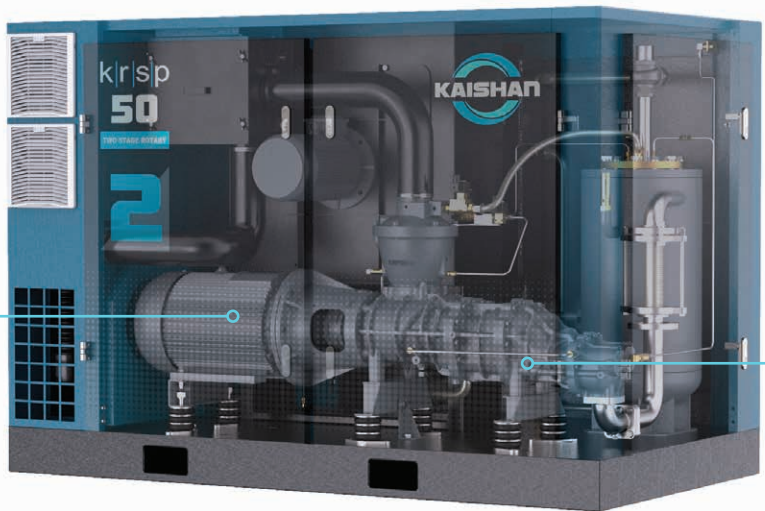
- The "SKY2" series air end uses three discharge bearings on the first stage and four bearings on the second stage
- Longest bearing life in the industry
- Warrantied for a "Lifetime" of use



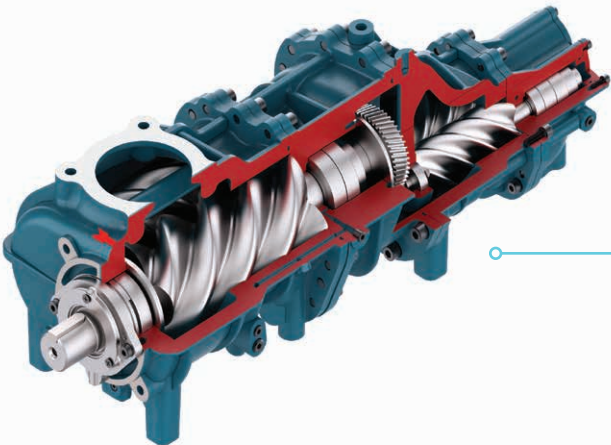
**HIGH EFFICIENCY ELECTRIC MOTORS**

**Long Operating Life / Lower Power Use**

- Kaishan uses high efficiency motors, which comply with all international standards
- Motors are standard TEFC to IP 54 protection from dust and moisture
- Class F insulation
- Cooling air bypasses main compressor compartment resulting in lower component operating temperatures and longer life



SKY2 Inline series 30-100HP



**'SKY' 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 world class efficiency and performance
- Precision machined bell housing to maintain rigid alignment



KRSP2 SERIES COMPRESSORS PROVIDE ROBUST, TURN-KEY INDUSTRIAL SOLUTIONS

KRSP2 has 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 greatly reduce oil leaks
- Spin-on fluid filter for quick maintenance
- VSD cooling fan on all units 150HP to 350HP
- Premium, efficient TEFC Electrical motors
- Acoustic enclosure brings the sound level to industry leading level of 67 dB(A) to 82 dB(A)

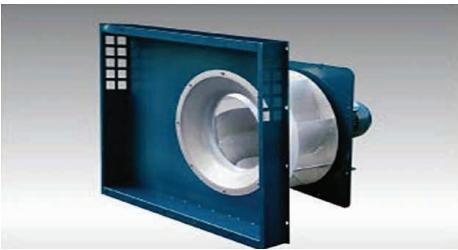
KRSP2 SERIES CONTROL SYSTEM PROVIDES TOTAL MANAGEMENT OF ALL OPERATING PARAMETERS

KRSP2 controller capabilities include the following features:

- Operating parameters display
  - Warning stop alarms
- Programmed maintenance schedules
  - 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 for the alarm. Microprocessor functions are password protected, accessible only to authorized personnel.



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



KRSP2 series System Management Control Panel

KRSP2 SERIES FIXED SPEED

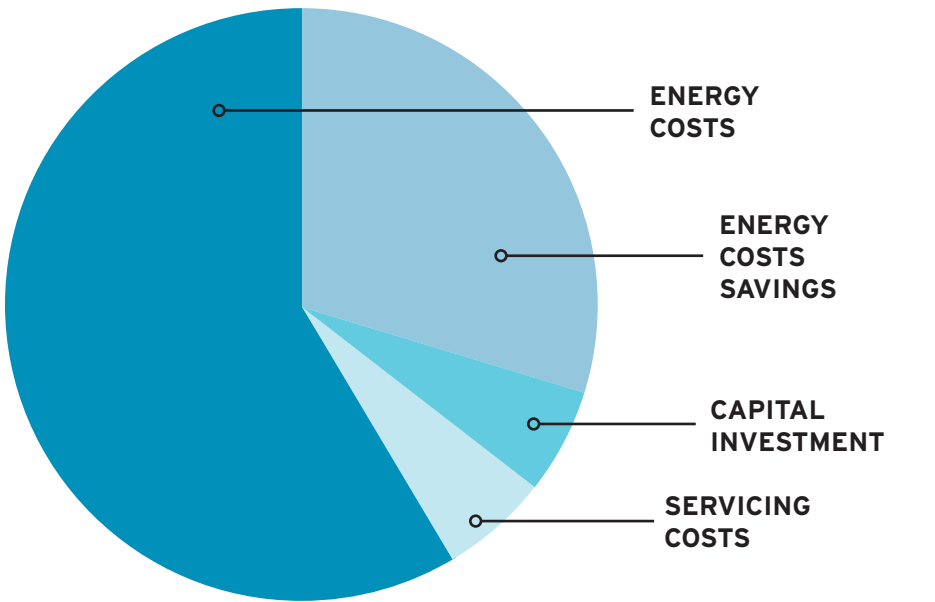
MODEL	POWER		FLOW (CFM / M3/min)								SOUND dBA	WEIGHT		DIMENSIONS (LxWxH)	
	HP	kW	100 psi	7 bar	125 psi	8.6 bar	150 psi	10 bar	175 psi	12 bar		lbs	kgs	in	mm
KRSP2-125	125	90	707	20.02	667	18.89	553	15.66	510	14.44	72	7920	3596	107x64x68	2718x1626x1727
KRSP2-150	150	110	864	24.47	772	21.86	705	19.96	665	18.83	73	10340	4694	127x77x82	3226x1956x2083
KRSP2-200	200	150	1178	33.36	1050	29.73	921	26.08	855	24.21	76	10384	4714	127x77x82	3226x1956x2083
KRSP2-250	250	190	1446	40.95	1339	37.92	1167	33.05	1098	31.09	77	13090	5943	140x77x92	3556x1956x2337
KRSP2-300	300	220	1738	49.22	1598	45.25	1490	42.19	1318	37.32	78	13156	5973	140x77x92	3556x1956x2337
KRSP2-350	350	250	2092	59.24	1964	55.62	1723	48.79	1579	44.71	80	18810	8540	148x90x94	3759x2286x2388
KRSP2-400	400	300	2432	68.87	2179	61.70	2039	57.74	1844	52.22	82	19470	8839	162x93x93	4115x2362x2362
KRSP2-450	450	335	2697	76.37	2457	69.58	2158	61.11	2051	58.08	82	19790	8985	162x93x93	4115x2362x2362
KRSP2-500	500	375	2916	82.57	2672	75.66	2564	72.61	2394	67.79	82	21054	9559	162x93x103	4115x2362x2616
KRSP2-600	600	450	3399	96.25	3200	90.62	2988	84.61	2757	78.07	84	21998	9987	162x93x103	4115x2362x2616

200 PSI models available. KRSP2-500/600 air-cooled models have remote cooling modules. Consult factory for additional information.

KRSP2 SERIES VARIABLE SPEED DRIVE OPTION PROVIDES A MAJOR ENERGY SAVINGS

KRSP2 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.



KRSP2 Series VSD Rotary Screw Compressor operating at 70% load compared to a fixed speed model.

KRSP2 SERIES VARIABLE SPEED

MODEL	POWER		FLOW (CFM / M3/min)						SOUND dBA	WEIGHT		DIMENSIONS (LxWxH)	
	HP	kW	100 psi	7 bar	125 psi	8.6 bar	150 psi	10 bar		lbs	ks	in	mm
KRSP2-30	30	22	162	4.59	151	4.28	131	3.71	70	1676	761	72x39x51	1829x991x1295
KRSP2-50	50	37	282	7.99	263	7.45	219	6.20	71	2337	1061	82x46x54	2083x1168x1372
KRSP2-75	75	55	411	11.64	391	11.07	347	9.83	72	4012	1821	90x56x68	2286x1422x1727
KRSP2-100	100	75	563	15.94	547	15.49	465	13.17	72	5880	2670	98x60x72	2489x1524x1829
KRSP2-125	125	90	675	19.11	620	17.56	553	15.66	72	7920	3596	107x67x75	2718x1702x1905
KRSP2-150	150	110	856	24.24	786	22.26	704	19.94	73	10340	4694	127x76x82	3226x1930x2083
KRSP2-200	200	150	1121	31.74	1028	29.11	921	26.08	76	10384	4714	127x76x82	3226x1930x2083
KRSP2-250	250	190	1450	41.06	1339	37.92	1182	33.47	77	13090	5943	140x77x92	3356x1956x2337
KRSP2-300	300	220	1790	50.69	1641	46.47	1490	42.19	78	13156	5973	140x77x92	3356x1956x2337
KRSP2-350	350	250	2068	58.56	1896	53.69	1723	48.79	80	18810	8540	148x90x94	3759x2286x2388
KRSP2-400	400	300	2360	66.83	2179	61.70	1998	56.58	82	19470	8839	162x93x93	4115x2362x2362
KRSP2-450	450	335	2652	75.10	2410	68.24	2158	61.11	82	19790	8985	162x93x93	4115x2362x2362
KRSP2-500	500	375	2947	83.45	2762	78.21	2588	73.29	82	21054	9559	162x93x103	4115x2362x2616
KRSP2-600	600	450	3434	97.24	3169	89.74	2987	84.58	84	21998	9987	162x93x103	4115x2362x2616

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KRSP2 Variable Speed Drive

Variable Speed Drive

The variable speed drive used in KRSP2 compressors are reknowned for:

- Efficient and reliable service
- Worldwide support



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 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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