

**Engineering the Future** 

WORLD CLASS, ENERGY-SAVING EFFICIENT RELIABLE & SILENT

# k|r|o|f

OIL-FREE ROTARY SCREW COMPRESSORS (AIR COOLED)

With a Kaishan Oil Free rotary, you have the peace of mind that only the highest purity of **90 - 160kW** 





#### **READY TO TAKE EFFICIENCY TO THE NEXT LEVEL?**

Oil-free air is used in all kinds of industries where air quality is paramount for the end product and production process.

These applications include food and beverage processing, pharmaceutical manufacturing and packaging, chemical and petrochemical processing, semiconductor and electronics manufacturing, the medical sector, automotive paint spraying, textile manufacturing and many more. In these critical environments, contamination by even the smallest quantities of oil can result in costly production downtime and product spoilage.















# ENERGY COSTS ENERGY COSTS SAVINGS CAPITAL INVESTMENT SERVICING COSTS

KRSP2 Series VSD Rotary Screw Compressor operating at 70% load compared

to a fixed speed model.

# The control panel contains a special programmed microprocessor that can safely and efficiently control all f unctions of the compressor. The controller monitors line

pressure. oil temperature and working conditions (running, idling and stop) Abnormal conditions will trigger a flashing LED and a message indicating the cause of the alarm.

#### TOTAL INTEGRATED SYSTEM CONTROL

KROF controller capabilities include the following:

Operating parameters
Warning stop alarms

· Maintenance schedules ·Compressor history



The presence of oil in a compressed air system can lead to product defects, spoilage, and even recalls.



Zero risk of contamination.

Zero risk of damaged or unsafe products.

Zero risk of losses from operational downtime.

Zero risk of damaging your company's hard-won professional reputation

#### 50 HZ DATA - TECHNICAL DATA

30 112 DATA - TEOTINICAE DATA												
MODEL	POWER kW	105 psi		// M3/mi 150 psi		SOUND dBA	WEIG lbs	GHT ks	DIMEN in	SIONS (LxWxH) mm	Connection Size	
KROF-22	22											
KROF-30	30											
KROF-37	37	In Development										
KROF-45	45											
KROF-55	55											
KROF-75	75											
KROF-90	90	569	16.11	523	14.81	84	9860	472	136x76x26	3452x1930x2260	DN 80	
KROF-110	110	690	19.54	641	18.14	84	9940	4509	136x76x26	3452x1930x2260	DN 80	
KROF-132	132	822	23.28	759	21.5	84	10105	4584	136x76x26	3452x1930x2260	DN 80	
KROF-160	160	954	27.01	911	25.79	84	10220	4636	136x76x26	3452x1930x2260	DN 80	
KROF-190	190											
KROF-225	225											
KROF-260	260	In Development										
KROF-315	315											

#### AIR QUALITY STANDARDS ISO 8573.1

#### **KROF SERIES SPECIFICATIONS**

CLASS	Concentration total oil (aerosol, liquid, vapor) mg/m³					
0	As specified by the equipment user or supplier and more stringent than class 1					
1	< 0.01					
2	< 0.1					
3	<1					
4	<5					

					INICTALL	ED MOTOR	WEIGHT	NOISE LEVEL	
MODEL	bar (g)	psig	m3/min	i/s	power	frequency	<b>WEIGHT</b> kg	dBA	
KROF-90-7 KROF-90-8	7 8	102 116	16.11 14.81	269 247	90kW	50Hz	4470	76+3	
KROF-110-7 KROF-110-8	7 8	102 116	19.54 18.14	326 302	110kW	50Hz	4500	76+3	
KROF-132-7 KRPF-132-8	7 8	102 116	23.28 21.50	388 358	132kW	50Hz	4580	76+3	
KROF-145-7 KROF-145-8	7 8	102 116	24.80 23.20	413 387	145kW	50Hz	4650	76+3	
KROF-160-7 KROF-160-8	,	102 116	27.01 25.79	450 430	160kW	50Hz	4650	76+3	

#### PRECOOLER / INTERCOOLER

- · Precooler reduces thermal stress load
- · Highly efficient robust 2 stage cooling
- Approach temperatures under 15 degrees



## HYDRAULICALLY CONTROLLED INLET VALVE

- Quicker response to system changes
- · Lower starting inrush current
- Control independent of operating pressure
- · Reliable, robust design



#### **COOLING FANS**

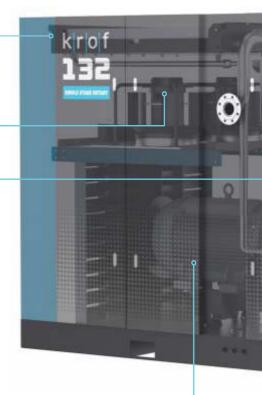
- · Aerospace grade Polycarbonate
- · Dynamically balanced
- · Extremely Efficient
- Modular designed integrated motor
- · High static pressure capability

#### **CONTROLS**

- Critical operating parameters monitored and controlled for safe operation
- · Networking capable of 16 machines
- · Multi-lingual capabilities
- · Rugged and robust UV protected
- · Alarms and maintenance reminders

#### **SERVICABILITY**

- · Minimal service parts
- · Minimal service time
- · All PMs parts on same corner
- · Spin on oil filter



#### **MOTOR**

- IEC TEFC IE3 Premium Efficiency IP55 protects against dust, chemicals and humidity
- · Flexible Direct coupled
- · Integral motor adapter for guaranteed alignment
- · MEPS 2 compliant

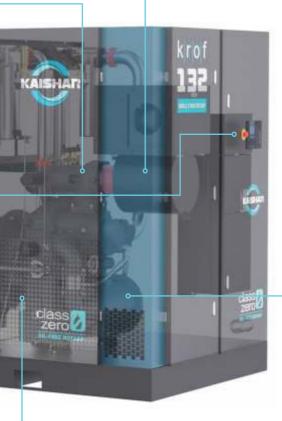
#### **UNIQUE PACKAGE LAYOUT**

- · Package is split into cold / hot side
- Cooling air efficiently distributed through packaged
- Each aspect of package designed for sound attenuation



#### **INLET FILTER / DUCTING**

- · High flow / low pressure drop
- · Clean fresh air
- · Noise reduction
- Minimise restriction





## INTEGRATED PULSATION DAMPENERS

- · Industry leading dBA
- Reduces pressure spikes
- · Laminar flow



- · Integrated oil distribution lines
- · Integrated motor adapter
- · Proprietary rotor profile
- PTFE coating on compression elements
- Seal design ensures zero oil in compressed air
- Pressure versatility
- Design life for expected for 5+ years (vs 2 years in the industry)
- · Integrated oil pump



### WORLD WIDE SUPPORT

#### ecognised 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 90,000

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 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

ensuring 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.



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 maximise energy efficiency and help to preserve precious energy resources. Single and twostage compressors that produce more compressed air per unit of power input as well as expanders that utilize waste energy 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 minimise the use of raw materials. This approach translates to lower initial costs and a smaller environmental footprint that helps us all. Kaishan's committment 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.

KAISHAN AUSTRALIA PTY LTD

24 HOUR AUSTRALIA WIDE SUPPORT

National Sales and Service: 1300 098 901 www kaishan com au