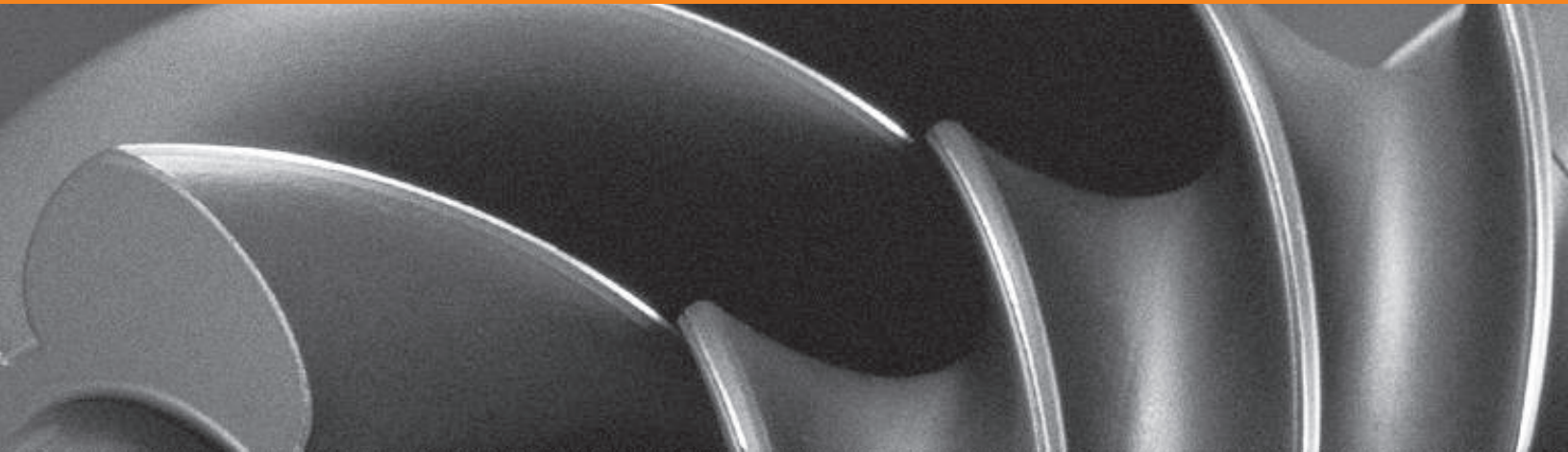


Oil-Free, Rotary Screw Air Compressors



# KNW Series

## Premium Efficient OIL-FREE Compressors

Two-Stage ■ Air-Cooled ■ Water-Cooled ■ Fixed Speed or VFD  
20 - 500 HP ■ 72 - 2400 SCFM ■ 40 - 150 PSIG



[knw-series.com](http://knw-series.com)  
Rogers Machinery Company, Inc.

# Longest Lasting and Energy Efficient

KOBELCO® KNW Series are designed, manufactured, assembled and tested to be the longest lasting and most energy efficient oil-free compressors in the world



KOBELCO, and Rogers Machinery Company, Inc. deliver an ecologically friendly and energy efficient compressor design.



## "Class Zero Oil-Free Air"

All models meet ISO 8573-1 Class 0 for oil aerosol, liquid, vapor and silicone.

### Proven History

Since the first compressor manufactured in 1955, KOBELCO® has stayed ahead of the competition with constant innovation and attention to quality, reliability and serviceability. Regardless of your industry, you can count on KOBELCO® KNW Series oil-free compressors to protect your products and process from contamination. The largest oil-free rotary screw compressor brand based in North America. Discover the difference!

**Oil-Free = Risk Free**



# Heavy Duty, Two-Stage Air End Design

40-500 Horsepower / 172 - 2400 ACFM

Heavy duty oil-free compression module, the heart of the compressor's reliability and performance



## Proven Technology

Over 65 years of field experience in all industries has proven that KOBELCO KNW Series rotary screw design is the preferred choice for reliability, energy efficiency and serviceability.

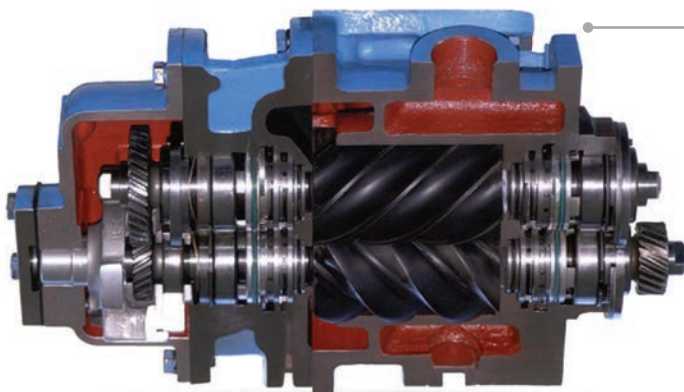
## Two-Stage Design

Heavy duty, two-stage compression module with thrust balancing for long bearing life in each stage. Designed, tested and manufactured in the USA. No other oil-free compressor manufacturer has made that commitment to the North American market.



## Coated Rotors

ASTM 1144 steel rotors with exclusive PTFE coating on rotors and shafts for maximum efficiency and corrosion protection. Gears and bearings are lubricated by a unique motor driven oil pump that provides positive lubrication prior to start-up, through operation and after shutdown. This is an especially important feature for VFD models and not available on competitive offerings.



## Unique Design Features\*

Key design features ensure long air end life. All features may not be available on competitive models.

### Features Include:

- Non contact maintenance free air and oil seals
- Thrust balance compensation
- Cooling jackets
- Dual vents to atmosphere ensure oil-free air
- Vacuum degassed thrust and radial bearings
- Premium AGMA rated gears
- All models meet the requirements of NFPA 99 for use as a medical air compressor

# Superior Monitoring Systems

The most advanced control and monitoring systems available

## Control Panel and HMI Display

The HMI display indicates real time operating conditions, pressures and temperatures. The color LCD graphic display and state-of-the-art touchscreen provides information directly to the operator including service indicators, alerts and shutdown alarms. Push buttons are provided for specific key control functions. Also, it features an external USB port for easy data extraction or program updates.



## Allen Bradley Programmable Logic Controller (PLC)

CompactLogix Series is used to control and monitor compressor operations and will maximize uptime. This includes controlled sequential starting and stopping, pressure control and protection from systems that could damage the compressor. Ethernet - IP communication is standard. Up to (8) expansion modules are available for off skid devices.



Automated with  
**Rockwell  
Automation**  
Allen Bradley - Rockwell Software

## Allen Bradley PowerFlex Series VFD

The PowerFlex Series provides precise capacity and pressure control. The VFD can be compressor mounted or shipped separately for remote mounting.



## Universal Communication

Available to handle virtually any Ethernet or serial driver for remote monitoring via your facility management system. Typical protocols include Modbus and BACNet.

## Smart Sensors

Compressor pressures and temperatures are monitored using smart sensor technology and IO-Link communication.



# Intelligent Flow and Pressure Control

Maximum efficiency = Minimum energy costs

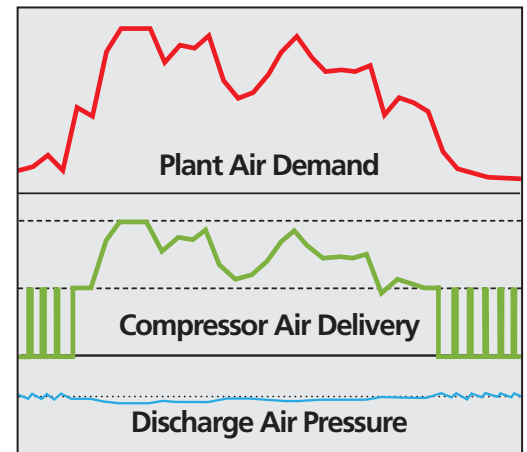


## You have choices

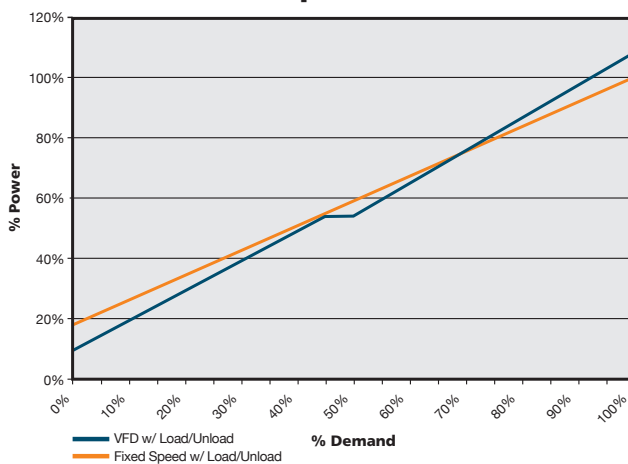
Choose the control type which best matches your system demand profile. Fixed speed or VFD both offer advantages and energy savings.

Automatic pressure setback feature saves considerable energy during reduced production periods by automatically lowering the discharge pressure.

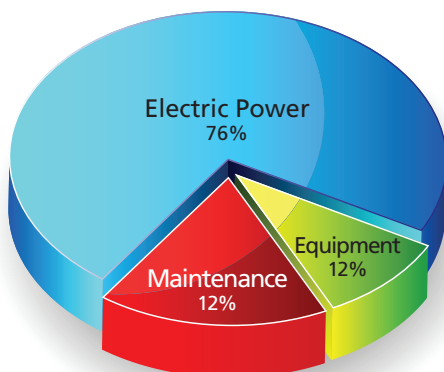
## VFD Flow and Pressure Profile



## Cost of operation Fixed Speed vs. VFD



## Typical Lifetime Air Compressor Cost\*



\* Assumptions in this example include a 100 HP compressor operated two shifts a day, five days a week at an electric rate of \$.05/kWh over 10 years of equipment life.

## Fixed Speed Power and Pressure Profile



# Good Things Come in Small Packages

## Simplicity leads to a good design

### 20 to 50 HP / 72 - 165 ACFM

Proven and reliable rotary screw design with the same advanced control and monitoring systems as our larger models. Ideal for labs, universities, hospitals, pilot plants and R&D facilities.

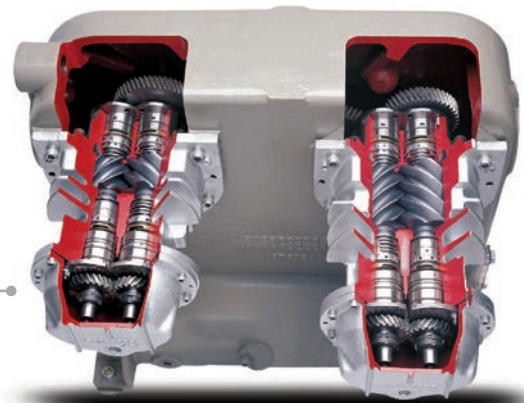
- Air and water-cooled designs
- 72 to 165 ACFM
- Load/unload or VFD capacity control
- Designed for 24/7 operation
- The only two-stage oil-free rotary screw available in small horsepower



### Healthcare Facility Package

The KOBELCO KNW Series compressor meets the requirements of NFPA99 for use as a medical air compressor. Healthcare facility option package includes the following:

- Inlet air adapter
- Auto restart after power failure
- Lag compressor in use alarm
- Non-fused disconnect switch
- Automatic lead / lag control
- Preferred by hospitals worldwide for reliability and reduced maintenance costs

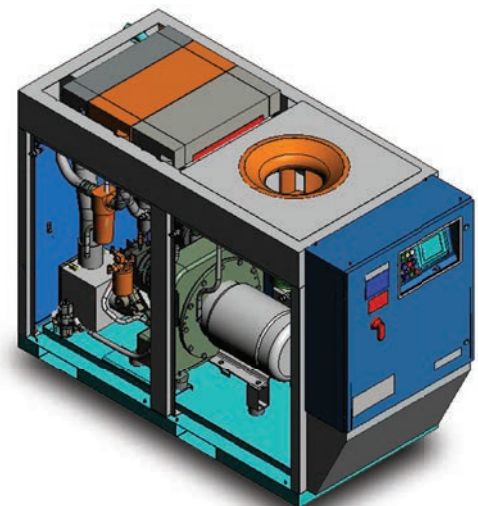


### Heavy Duty Rotary Screw Design

The proven design in small horsepower models. Competitors offer non-rotary screw designs that may not match the reliability of the rotary screw. Rotors are stainless steel with MoS2 coating. Air ends feature dual vents to atmosphere that ensure oil-free air delivery. No other oil-free compressor in this horsepower range offers this kind of value and service life.

### Maintenance Friendly Package Layout

All major components including heat exchangers, motors, air ends and control panel offer ease of access for maintenance. All access doors are easily removed. Air and water cooled models have the same narrow footprint.



# One Model Does Not Fit All

We design our compressors to meet your unique specifications



## Customer Preferred Options

Custom paint materials or special color finishes. We can meet any requirements. Select your brand of PLC, HMI, VFD, motors and instruments for your unique package.



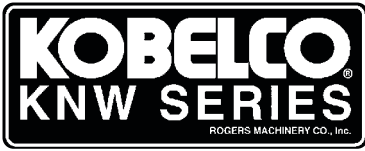
## Skid Mounted Clean Dry Air Systems

All CDA components on a common skid is ideal for offshore platforms and classified areas. Modified API 619 packages also available. Skid mounted systems save considerable time, labor and materials cost at job site.



## Application Driven Designs

Complete clean dry air system in portable enclosure. Containers can be lighted, insulated, cooled, heated and ventilated. Containers offer a convenient solution and rugged design.



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Rogers Machinery Company, Inc. Corporate Office - Portland, Oregon  
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Compressed air discharged from this compressor should not be used for breathing air unless properly purified and monitored. KOBELCO® and Rogers Machinery Company, Inc. assume no responsibility or liability for the purchaser's breathing equipment.



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KOBELCO® KNW Series compressors are designed, manufactured, assembled and tested by Rogers Machinery Company, Inc. and KOBELCO® Compressor Manufacturing Indiana.

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