RotorChamp
Rotary Screw Compressor
5 – 20 Horsepower

Reliability by design.
Unmatched endurance.

Champion
A Gardner Denver Product
Always be one.
**At Champion,**

air compressors are the only product we think about. We know and understand the application of this product in different markets. Our goal is to provide you with a product that fulfills—and exceeds—your expectations and requirements.

In today’s market, the reliability of an air compressor has a direct relationship to your bottom line. You also want a compressor that is user-friendly and can be installed right where it is needed.

The new RotorChamp™ 5–20 horsepower compressors give you all these things and more. Drawing from our experience in the automotive and industrial markets, our ultra-efficient compressor package has the design and compact footprint that enable it to be installed right where you want it, giving you the advantage of flexibility.

**At the Heart of RotorChamp Design**

Without an efficient, durable airend, a unique compressor design means nothing. That’s why Champion designs and manufactures this critical component in house to exacting standards. The Enduro airend uses a belt-driven design, giving you added flexibility for changing discharge pressures, when necessary.

Tens of thousands of Enduro airends are in operation worldwide, proving that the heart of a RotorChamp compressor can stand the test of time.

**The RotorChamp Airend—Proven the World Over**

- **Integral Housing**
  Fewer parts results in less opportunity for leaks to develop

- **Multi-Lip Shaft Seal**
  Keeps the lubricant in and the dirt out for maximum seal performance and life

- **Advanced Rotor Profile**
  Shortened sealing line and minimal air “slippage” yield maximum compressor efficiency

- **Minimized Blow Hole**
  High efficiency profile minimizes internal losses associated with blowback

- **O-Ring Seal**
  Highest quality positive sealing for leak free operation

- **Dedicated Thrust Bearings**
  Provide total support of gas loads to ensure optimum running clearances at every operating condition
EASY TO USE

The microprocessor controller will operate the compressor as a load/no load inlet valve with automatic timed stop. It will monitor and regulate the number of starts per hour as well as control the unloaded periods. The controller optimizes the use of the compressor, which helps to manage energy consumption. The Controller also provides a variety of machine warnings and conditions on an LED display. Some of these condition displays will include:

- Oil Temperature
- Total Operating hours
- Load Hours
  - High temperature shutdown
  - Motor overload shutdown
  - High system pressure shutdown
  - Incorrect rotation advisory and shutdown
  - Power interruption shutdown
- Pre-Alert at Machine Maintenance Intervals
  - Air filter
  - Oil separator
  - Oil filter
  - Oil Change

QUIET ENCLOSURE IS STANDARD

Each compact unit comes standard with a low sound enclosure. Operating in a range of 69 to 74 dBA, each compressor can be located anywhere in the work area. The air from the aftercooler exits vertically from the compressor, further reducing the overall dimensions of each compressor. As compact as they are, the ability to do regular maintenance is not sacrificed. The rear and side panels can quickly be removed so the oil filter, separator and belts can easily be replaced or maintained.
TECHNICAL DATA

RC 5–20 HP, 60 Hz

<table>
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<th>Model</th>
<th>Rated Pressure</th>
<th>Capacity at Rated Pressure</th>
<th>Motor power</th>
<th>Net weight</th>
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STANDARD EQUIPMENT

Advanced Air End design guarantees a longer life and greater endurance that results in lower power consumption.

Transmission between the motor and the Air End is provided through long life first class belts.

A thermal mixing valve optimizes the oil cycling temperature and prevents condensation inside the oil separator and hoses.

External oil separator cartridge in order to simplify maintenance. Less than 3 ppm.

Electrical Control Panel with Full Voltage Starting for 5 through 20 HP. Regulation CEI EN 60204-1 with main switch.

The TEFC Electric Motor has an IP 55 class F, tropical insulation classification.

The Combination Oil Cooler/Aftercooler is adequately sized to provide an air temperature out of the compressor of not greater than 18–20°F of the ambient temperature.

All Internal Flex Hoses are rated for temperatures of 300°F.

- Low dBA Acoustical Enclosures
- V-Belt Drive with a Totally Enclosed Belt Guard
- Inlet Filter
- Oil Filter with Bypass
- Air/Oil Separator
- Vertical Draft Air/Oil Cooler
- Minimum Pressure Check Valve
- Oil Level Sight Gauge
- Dual High Temperature Shutdown Sensors

- Hour Meters for Run Time and Loaded Time
- Factory Fill of RotorLub 4000
- Microprocessor Control System
- 24 Volt Control Circuit Protection
- Full Voltage Starting on 5–20 hp
- Start Delay Blow Down timer
- Emergency Shutdown Switch
- Phase Reversal Protection
- Motor Overload Protection
- Easy Adjusting Belt Tensioner
- Electrical Controller is UL/cUL Listed
- Electric Disconnect Safety Switch to the Motor

OPTIONAL EQUIPMENT

- 80 Gallon Horizontal Receiver (5–10 HP)
- 120 Gallon Horizontal Receiver (15 & 20 HP)
- Auto Tank Drain