

RotorChamp

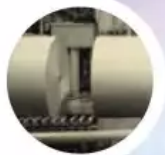
ROTARY SCREW AIR COMPRESSORS, 60-200 HP

▶ Convenient

▶ Efficient

▶ Available

▶ Flexible



CHAMPION[®]

A Gardner Denver Product

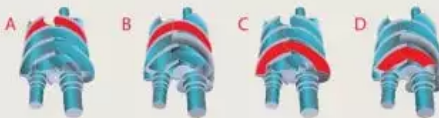
Always be one.

The Direct Drive, No Gears Compressor

RotorChamp 60 to 200 HP compressors are built around a simple design philosophy: build a direct drive, gearless compressor that customers can afford. Direct drive means the compressor turns at motor speed in a 1 to 1 ratio. No gears or belts are used. When we come up with a better approach than direct drive to designing and building compressors, we will follow it.

At Champion, we strive to give you more for your dollar. The RotorChamp 60 to 200 HP compressor has standard equipment that competitive models offer only as an option. These options may cost you an additional \$2,000 to \$4,000. Champion offers these at no additional cost to you! A simple, affordable, reliable, direct driven Champion compressor will help you maximize cash flow and profits.

Rotary Screw Compressor Principle



A – Air Inlet
B, C – Air Compression
D – Compressed Air Discharge

Today, everyone is talking direct drive compressors. To some, this means direct connected, but gear driven. Others will only give you direct drive if you pay for extras you don't need. At Champion, direct drive means NO GEARS in a simple, reliable, and affordable compressor. In short, direct drive done right!

Direct Drive Simplicity.

Until recently, most manufacturers spoke against direct drive as too costly to justify the improved reliability. Now, more than ever, direct drive is the chosen design philosophy. Champion has known all along that direct drive makes sense. If you want a company with direct drive experience, choose Champion.



Simple Capacity Control.

Part load operating efficiency is maximized by combining on/off line and modulation capacity control into a single microprocessor controller. Touch pad selection of the most efficient operating mode means fast and easy energy savings.

Direct Drive Affordability.

If done right, direct drive can also be affordable. This is where Champion stands alone. With the RotorChamp, you don't have to pay for complex controls and expensive options that don't meet your operational and return on investment requirements. Direct drive and affordable - a unique combination that is uniquely Champion. Comes with a 5-Year Motor Warranty-Standard!

Reliable Performance

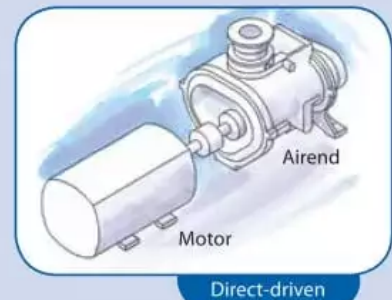
Gearless: A Subtle, but Critical Difference.

Gearless Direct Drive.

If you see the words direct drive, don't assume it means gearless. While the compressor unit may be direct coupled to the motor, gears are often hidden inside. All 60 to 200 HP RotorChamp units are gearless to maximize reliability and efficiency. Accept no substitutes.



Gear-driven



Direct-driven

Based on decades of experience, Champion provides you time-tested technology.

Efficient By Design.

High performance is the result of precision ground rotors manufactured in a state of the art facility. The patented rotor profile with tolerances to 0.0002" is the most efficient in the industry. High quality cylindrical and tapered roller bearings are used to provide maximum reliability and performance.

Heavy-duty Inlet Filtration.

The first line of defense for any compressor is the inlet air filter. Each RotorChamp features a heavy-duty inlet air filter to remove airborne particulate down to 5 microns to optimize performance, reduce noise level and extend lubricant life. A critical design feature that is an option for most competitive machines.

Oil Injection System.

Lubricant is injected into RotorChamp compressors through numerous ports rather than a single injection point to dramatically reduce viscous drag as the rotor slices through heat-reducing lubricant. Reduced drag increases compressor efficiency and minimizes the largest cost associated with running a compressor - electrical cost.

Quality RotorLub™ Direct Contact Oil.

Superior design extends beyond the package. The RotorLub family of lubricants are formulated specifically for use in a rotary screw compressor. Premium base stocks and proprietary additive packages yield maximum lubricant life and performance in the demanding environment within an open-air compressor.

Low Oil Carryover.

High performance means not skimping on design when it comes to air/oil separation. Featuring TWICE the surface area when compared to competitive separator element designs, the RotorChamp separation system limits oil carryover to less than 2PPM by weight measured upstream of the aftercooler - the lowest in the industry!

CAGI Membership.

As a member of the Compressed Air and Gas Institute (CAGI), Champion actively participates in the establishment of industry standards and energy awareness programs. CAGI develops and promotes performance testing standards, which have also been incorporated into the International Standards Organization. CAGI membership means your compressor performs as expected.

Simple Operation



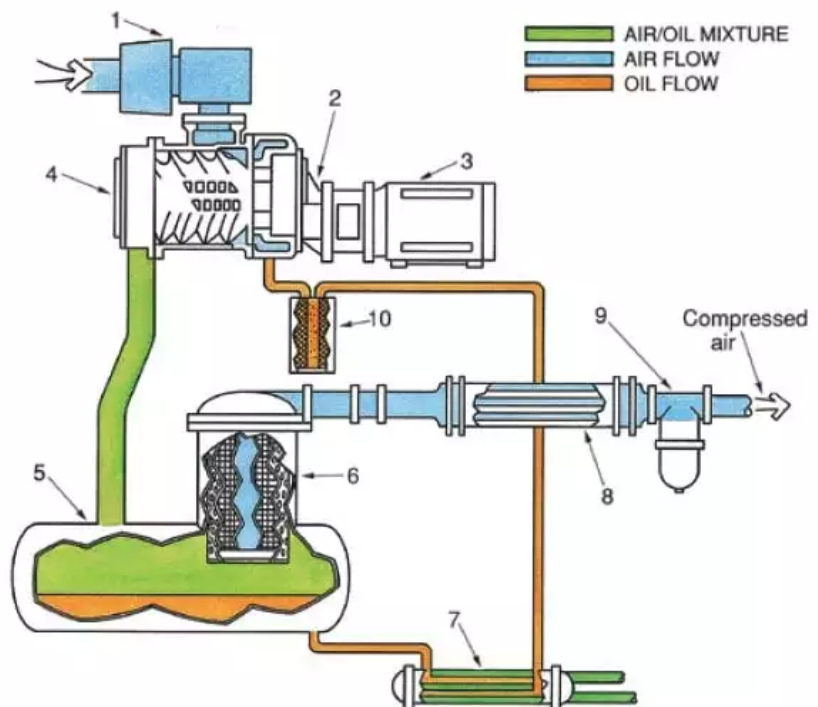
AirLogic Controller.

An option for most manufacturers, the standard solid state AirLogic controller makes the RotorChamp easy to use and maintain. Its self-diagnostic capabilities and energy saving features make it an industry leader. A digital, Full Vacuum Fluorescent Display and interactive compressor diagram makes

communication between the operator and compressor as easy as possible. The controller acts as a personal air compressor maintenance supervisor and indicates when maintenance is required. And to continuously protect your investment, the AirLogic has protective shutdown features. What could be more logical?

The Simple/Dependable Air System

1. Heavy-duty inlet air filter - cleaner incoming air means less maintenance and longer operating life of the oil and compressor.
2. Direct driven - maintenance free and energy efficient.
3. Motor - complies with EPact efficiency standards.
4. Compressor airend - innovative oil injection system and rotor profile increases compression efficiency and high quality bearings ensure dependability.
5. Air/oil separator tank (reservoir) - constructed of high strength steel and connected with steel piping; this system is worry free.
6. Separator element - easy to replace and minimizes oil carryover.
7. Oil cooler - provides the proper operating temperature for the oil by air or water cooling.
8. Oversized aftercooler - more surface area means less energy used by fans.
9. Moisture separator/trap - removes water vapor before it gets into downstream processes.
10. Oil filter - a 10-micron filter ensures clean oil in the airend.



Champion Offers More For Less...

Standard Equipment

- ▶ Direct drive, non-geared, flange mounted air end
 - ▶ Modulating, vertical inlet valve
 - ▶ Heavy duty, 5 micron, dry canister type inlet air filter mounted directly to the vertical inlet valve
 - ▶ 200/230/460/575 volt, 3 phase, 60 HZ, EPact "energy efficient", 1.15 SF, ODP drive motor where applicable
 - ▶ Air end and drive motor are coupled through a permanently aligned, resilient cushion type flexible coupling
 - ▶ Unitized airend/motor assembly mounted to the compressor base with all angle elastomer vibration isolators
 - ▶ ASME coded air/oil reservoir with exclusive separator element
 - ▶ Oil cooler/aftercooler:
 - Air cooled models - heavy duty radiator type with thermally controlled, totally enclosed fan cooled motor
 - Water cooled models - shell and tube heat exchanger
 - ▶ Thermostatic oil mixing valve
 - ▶ Package mounted moisture separator and trap
 - ▶ 10 micron full-flow oil filter
 - ▶ Rigid steel base with forklift slots
 - ▶ Pressure Relief Valve
 - ▶ Automatic blowdown valve with muffler
 - ▶ Minimum discharge pressure/check valve
 - ▶ Lube system includes all galvanized steel fittings and piping
 - ▶ Stainless steel control line tubing
 - ▶ Factory fill with RotorLub® 4000 Semi-Synthetic Lubricant
- ▶ NEMA 12 electrical control enclosure includes:
 - Mounted, full voltage drive motor starter
 - U.L. Listed and CSA certified electrics, control voltage transformer and AirLogic controller
 - ▶ AirLogic™ microprocessor based, fully programmable touch pad controller with the following functions:
 - Full text Vacuum Florescent Display (VFD) with interactive compressor diagram
 - Operating mode selection: constant run, low demand with reservoir blowdown, automatic stop/start with timed blowdown and sequence (up to 8 units), all with modulating inlet valve or load/no load control
 - Emergency stop button
 - Complete system diagnostics through VFD:
 - ▶ Displays for hourmeter, loaded hours, total runtime, discharge air temperature, system/reservoir pressure, separator differential pressure
 - ▶ Advisory lamps for air filter service, change separator, oil and oil filter change, low/high temperature, sequencing communication error and high motor amps



- ▶ Protective shutdown lamps for high temperature, low oil pressure, main/fan motor overload, high pressure, change separator, choice of one field-selectable message - high vibration, phase relay, motor protector, low voltage
 - Power interruption relay
 - High speed electronic modulation control
 - Thermally controlled fan motor on air cooled units
 - Contacts for remote start/stop plus remote monitoring



Champion Offers More For Less...



Optional Equipment

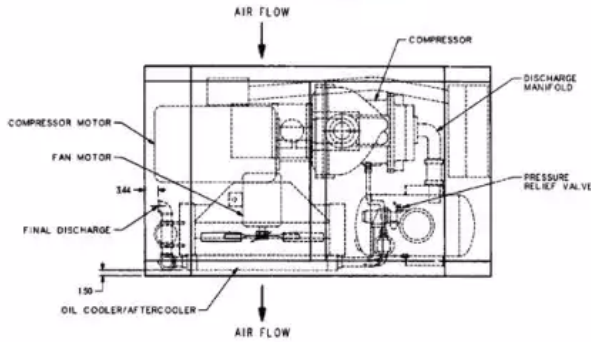
- ▶ Full enclosure with access doors
- ▶ Full acoustic enclosure with access doors
- ▶ NEMA 4 control enclosure
- ▶ Alternate voltages, TEFC or high efficiency motors
- ▶ Factory fill RotorLub® 4000 FG Food Grade synthetic lubricant
- ▶ Factory fill RotorLub® 8000 synthetic lubricant
- ▶ Seacoast (air-cooled) or salt water (water-cooled) oil cooler/ aftercooler
- ▶ Remote mounted air cooled oil cooler and aftercooler

RotorChamp Specifications

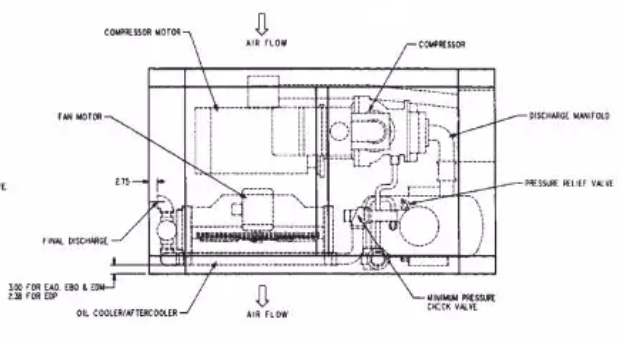
Style	Motor HP	Working Pressure PSIG	Air Delivery ICFM	Length IN	Width IN	Height IN	Approx. Weight LBS.
ERF99B RCS60	100 60	268 125	245	90	55	60	2633
ERF99B RCS75	100 75	360 125	325	90	55	60	2862
ERH99D RCS100	100 100	482 125	437	90	55	60	3292
ERM99B RCS125	125	100	620	114	68	69	4087
ERM99B RCS150	100 150	745 125	628	114	68	69	4660
ERP99B RCS200	100 200	990 125	845	114	68	69	5488

Reliable Design

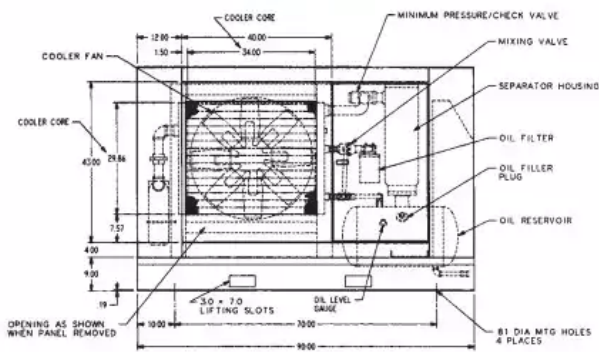
60-100 HP TOP VIEW



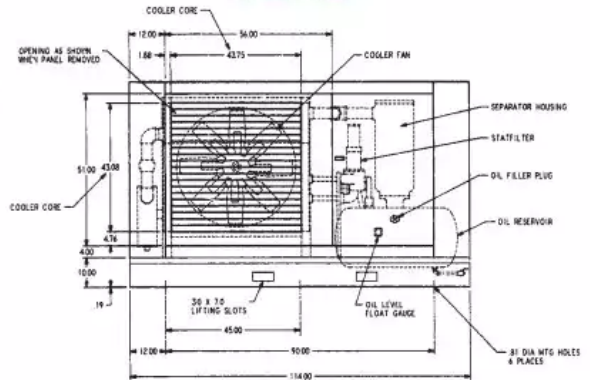
125-200 HP TOP VIEW



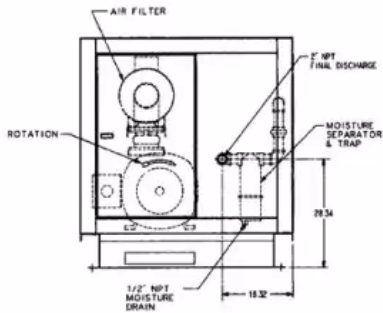
FRONT VIEW



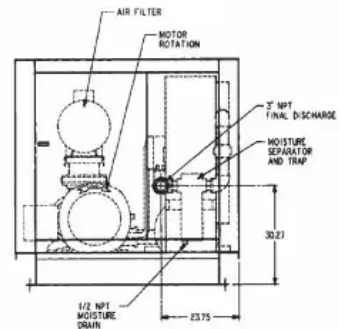
FRONT VIEW



SIDE VIEW



SIDE VIEW



Always expect more from Champion.

Your Champion distributor has the tools and expertise to serve you in every way. Whether you are looking for parts, service or advice, your Champion distributor will help assure the most return on your RotorChamp investment.

Champion is also your single source provider for your compressed air system. OEM replacement parts, lubricant, filters, dryers, drain valves, oil/water separators, all can be conveniently obtained from your Champion distributor. By working with Champion, you are drawing on decades of experience in the compressed air market.

The RotorChamp airend is covered by a standard full two-year warranty. Receive a five-year airend warranty by simply purchasing the appropriate maintenance kit each year. See your Champion distributor for program details.



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A Gardner Denver Product

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C13-8-230 1st Ed. 3/05

Due to Champion's continuing product development program, specifications and materials are subject to change without notice or obligation.

