

R & PL Series

1.5-35 HP OIL-LUBRICATED RECIPROCATING AIR COMPRESSORS

- ▶ Automotive
- ▶ Dry Cleaning
- ▶ Service Fleets
- ▶ Industrial
- ▶ Refineries



CHAMPION[®]

CHAMPION RECIPROCATING COMPRESSORS...

The Value Leaders

At Champion, air compressor systems are our only products. We know and understand the application of our products in many different operating environments. Our goal is to provide you with the compressors that fulfill — and exceed — your expectations and requirements.

Because compressed air is an essential utility, dependability is an essential compressor quality. If your compressor goes down, it can hurt your reputation — and your bottom line. Champion reciprocating compressors are proven units, known for their reliability over decades of use. In addition to dependability, you want a compressor that is user-friendly. Champion comes through again, with a wide selection of configurations and options designed for trouble-free operation.

You can't beat a Champion!



Proven Design.

Today's Champion Reciprocating Compressors are the product of decades of design and development.

Proven Dependability.

You rely on compressed air to perform many tasks efficiently. Champion knows that reliability is one of the main reasons for a purchase. Our slow speed, built-in efficiency through design and the longest compressor warranty in the industry make Champion compressors the proven choice!

High Performance.

R- and PL-Series compressors are loaded with features designed for day-in, day-out performance. For example, Champion's unique automotive-type domed piston design allows the use of large diameter, low lift valves, while minimizing clearance volume for maximum air delivery.

Long Life.

Features such as slow speed operation, rugged cast iron crankcase construction, corrosion resistant steel valves and tapered roller-type main bearings all contribute to long life.

User-friendly Design.

A wide selection of configurations and available options, coupled with serviceability features make it easy to operate and maintain a Champion compressor. Compare all the features on the pages that follow. You'll discover why Champion is the value leader in reciprocating compressors for a broad range of automotive and industrial applications.

The Solution to Your Application



Select the configuration that matches your application.

With many models from which to choose in both single-stage and two-stage, we can match your needs exactly. These configurations, combined with a wide choice of options, provide all the components for a customized installation. They are available in both R-Series splash-lubricated and PL-Series pressure-lubricated models.

Tank-mounted Air Compressors

Available with horizontal or space-saving vertical tanks, two-stage air compressors compress air to a higher pressure than single stage compressors.

Base-mounted Air Compressors

Designed for installations where air tanks are remotely located.

Duplex Air Compressors

For extra air delivery when you need it without wasted space. Plus the flexibility of single operation, alternating between compressors, or duplex operation to meet high air demand.

Gasoline or Diesel Engine Powered Air Compressors

Truck and utility bed mounting design makes these compressors ideal for fleet and field service. Ideal for applications where electricity is not available.

Bare Compressor Pumps

Provide dependable service for industrial applications, pump replacement or OEM applications. The rugged pump design assures reliability and long maintenance intervals.

Receivers

Receivers are ASME approved and include a pressure gauge, pressure relief valve, drain valve and service valve.



Splash-Lubricated R-Series

Loaded with rugged features, the R-Series splash-lubricated compressors deliver high performance, long life and tremendous value.

1 Multi-finned cylinders

Cooler operating temperatures result in longer life and consistent performance over time.

2 Integral cylinder/head

Gasketless design eliminates the possibility of blown head gaskets for trouble-free operation.

3 Balanced pistons

Aluminum alloy first-stage piston is weight-matched to the cast iron second-stage piston, ensuring proper balance.

4 Piston rings

Two compression rings and one oil control ring provide excellent oil control, and high efficiency air delivery.

5 Lightweight connecting rods

High-density, die-cast aluminum alloy rods minimize reciprocating weight. An integral, precision-bored crankpin bearing and a needle bearing for the piston pin properly distribute bearing loads for longer bearing life than bushings.

6 Pressure relief valves

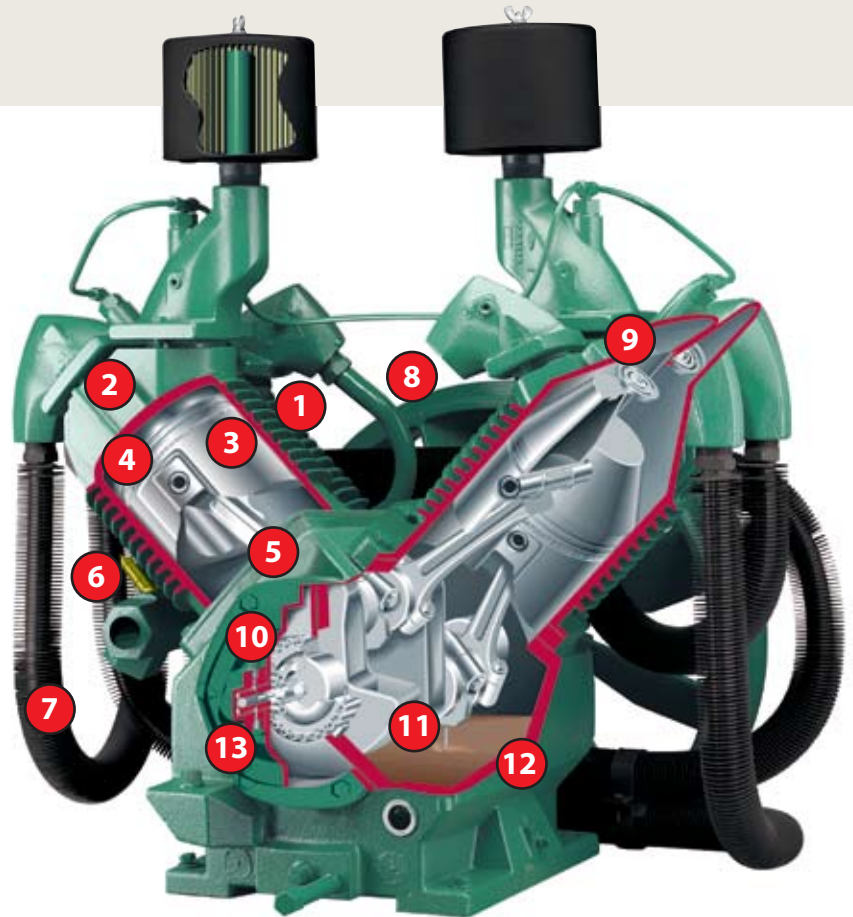
Located in interstage and discharge.

7 Intercoolers

Large-diameter finned tubing is positioned to obtain the greatest cooling effect between stages for maximum compressor efficiency.

8 Optimized cooling fan/flywheel

Precision balanced flywheel has fan blades for optimum compressor cooling and life.



9 Reliable, high-flow valves

Single-unit, disc-type valves provide low lift and long life. Discs are made of corrosion resistant Swedish steel. Valves are easily serviced by removing the manifolds only.

10 Oversized main bearings

Tapered roller-type main bearings provide full contact and support of the crankshaft plus delivers the longest possible life.

11 Balanced crankshaft

Constructed of rugged ductile iron with large diameter throws for minimum bearing loads and counterweights to minimize vibration.

12 Large capacity crankcase

Rugged cast iron oil reservoir has convenient sight gauge glass, corner oil fill boss and large oil drain.

13 Loadless starting

Positive acting, governor-type centrifugal unloader assures longer motor life by allowing the compressor to start unloaded every time.

Quality Accessories

Many options are available to help you develop a Champion compressor package that exactly matches your specific operating requirements.



1 Magnetic starter

(included as standard on most models)

For thermal overload protection, a starter is required for units 3 HP and up. May be mounted or unmounted.

2 Air-cooled or water-cooled aftercooler

The factory mounted, heavy duty, air-cooled aftercooler effectively reduces up to 65% of the moisture from discharged compressed air.



3 Automatic tank drain

Pneumatic drain operates from a centrifugal unloader.

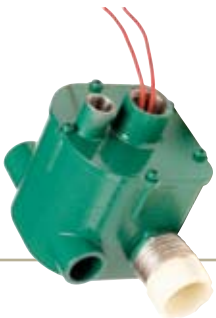
4 Vibration isolators

Isolates the compressor unit from the foundation or floor. Reduces noise and protects the unit from any out-of-level floor situation that could cause vibration and damage.



5 Low oil level monitor

Low Oil Level Monitor shuts down the unit when oil levels are below an adequate level. Prevents the unit from restarting if oil levels are not at an adequate level.





6 Refrigerated air dryer

Cools compressed air to a 33°–39° dew point, eliminating additional downstream condensation in the air line. Normally, a dryer should be used in conjunction with an aftercooler. Refrigerated and desiccant dryer types are available.



7 DPR Control Panel

The Microprocessed Duplex Relay Panel was created for controlling a duplex air compressor package. The controller includes visual maintenance and shut down alarms.

8 Champion Compressor Lubricants

ChampLub lubricants are blended specifically for Champion compressors for use in harsh compressor environments. They are sourced from extremely stable base stocks and enhanced with carefully selected additive packages to provide long life and superior protection. ChampLub lubricants are suitable for a variety of applications and are available as a mineral oil, synthetic or food-grade synthetic.

Available in 55-gallon drums, five-gallon pails, one-gallon bottles and one-quart bottles.



Other Options

- ▶ Power Monitor that shuts down unit in the event of single phasing, low voltage or phase reversal
- ▶ Constant Speed Control which prevents excessive motor start/stop cycles while saving energy
- ▶ Dual Control will allow the compressor to run either in start/stop or constant speed mode
- ▶ NEMA 4 rated parts available
- ▶ Alternate voltages and TEFC, ODPHE, TEFCHE Electric Motors

The Champion Assembled Unit Warranties

Compressor Pump Warranty

Each new Champion Assembled Unit has a five (5) year warranty on the compressor pump only, against defects in materials or workmanship under normal use and service, from the date of installation or sixty-six (66) months from the date of shipment by Champion or a Champion distributor, whichever may occur first.

The five-year extended warranty covers parts and labor and is prorated over the five years as follows:

- Year One — 100% coverage
- Year Two — 90% coverage
- Year Three — 80% coverage
- Year Four — 70% coverage
- Year Five — 60% coverage

Head valves are warranted for Year One only. Champion makes no warranty on components and/or accessories furnished to Champion by third parties, such as electric motors, gasoline engines and controls. These are warranted only to the extent of the original manufacturer's warranty to Champion. Electric motors must be equipped with thermal overload protection to have warranty consideration.

The extended five-year warranty will apply to ASME air receivers if they are installed on rubber vibro isolator pads or approved equivalent.

Limited Warranty

Warranty shall not apply to any equipment which has been subjected to misuse, neglect or accident, nor shall it apply to any equipment that has been repaired or altered by any person(s) not authorized by Champion. Failure caused by lack of proper maintenance is not covered by warranty.

In no event shall Champion be liable for consequential damages or contingent liabilities arising out of failure of any compressor or part to operate properly. When a compressor pump or component is changed or replaced during the warranty period, the new/replaced item(s) is warranted for only the remainder of the original warranty period. Complete warranty details are included in compressor operating manual.

5 Year Electric Motor

Electric motor is warranted for 60 months from start-up or 63 months from shipment. Other manufacturer's motors furnished due to customer request or special requirements carry the motor manufacturer's warranty.

Package Warranty

Champion warrants each new air compressor package to be free from defects in material and workmanship under normal use and service for a period of one year (12 months) from the date of installation or 15 months from the date of shipment by Champion.



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Member

