

**CHAMPION**

2-30 HP | RECIPROCATING AIR COMPRESSORS

# R-Series





## Customized **Solutions** Unparalleled Performance

### **A Winning Combination**

Champion compressors are proven units, known for their reliability over decades of use. We know our products and understand how they operate in many different applications and environments. No matter the application, Champion gets the job done.

## The Solution to Your Application

Champion R-Series Compressors have a time-tested, proven design. Rugged standard features, a wide selection of configurations, and premium quality available options make the R-Series compressors the solution to your application. Delivering high performance, long life and tremendous value—Champion compressors are the proven choice!



## Units Shown with Optional Accessories

- Air-Cooled Aftercooler
- Electric Tank Drain
- Hour Meter
- Test/Off/Auto Switch
- High Temp Switch
- Dual Control
- Low Oil Stop Control

# Splash-Lubricated R-Series

## Multi-Finned Cylinders

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

## Integral Cylinder/Head

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

## Balanced Pistons

Aluminum alloy first-stage piston and cast iron second-stage piston ensure proper balance.

## Piston Rings

Two high efficient lap joint compression rings with bi-directional seal provide the most efficient air delivery.

## Lightweight Connecting Rods

High-density, die-cast aluminum alloy rods minimize reciprocating weight. An integral, precision-bored crankpin bearing and needle bearing for the wrist pin minimize friction and properly distribute loads for extremely long life.

## Pressure Relief Valves

Located in interstage and discharge.

## Large Capacity Crankcase

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

## Intercoolers

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

## Optimized Cooling Fan/Flywheel

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

## Reliable, High-Flow Disc Valves

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

## Oversized Main Bearings

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

## Balanced Crankshaft

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

## Loadless Starting

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

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

# It's All in the Details



Disc valves provide minimized blow-by and industry proven long life



Needle bearings minimize friction between wrist pin and connecting rod



R-15B



Aluminum body molded over a cast iron sleeve ensures maximum heat transfer and durability  
\*R-10, R-15, R-30 only



Domed pistons for greater compressor efficiency—"hemi" design



R-30D



Tapered roller bearings for long life and trouble-free operation



Automotive style double-throw (balanced and counterweighted) crankshaft provides optimum compressor performance



ASME inter-stage pressure relief valve for protection

# A Complete RANGE



SIMPLEX*	4.1-8.0	17.0-22.3	25.6-48.7	54.1	77.8-101.8
	CFM @ 175 PSI	CFM @ 175 PSI	CFM @ 175 PSI	CFM @ 175 PSI	CFM @ 175 PSI
	461-780	737-949	570-1034	776	664-907
	RPM	RPM	RPM	RPM	RPM

\*Double CFM values for Duplex Units.



R-40A



R-70A



R-15B



R-30D



R-10D

# Customized to Fit Your Application

With multiple unit configurations, tank sizes and variations—along with available options and accessories, Champion R-Series are built specifically to satisfy your demanding application.



## Standard Features

- Load-less starting (via centrifugal unloader) for lower energy costs and less wear on drive motor
- ASME inter-stage pressure relief valve for protection
- ODP NEMA 1760 RPM electric motor
- 10 Micron industrial grade intake filter
- ASME / NB certified receivers
- 0-300 PSIG air pressure gauge on tank
- Available voltages
  - Single phase—115/208-230
  - Three phase—208/230/460/575

## Available Options

- Multiple tank sizes and variations
- Electric or engine driven
- NEMA 4 full-voltage starter upgrade
- TEFC motor upgrades
- Control panel upgrades
  - Test/Off/Auto switch
  - Hour Meter
- Air-cooled aftercooler
- Low oil-stop control (NEMA 1/4)
- Dual control
- Vibration isolators
- Food grade lubricant
- High temperature switch (NEMA 1 or 4)
- Automatic electric tank drain

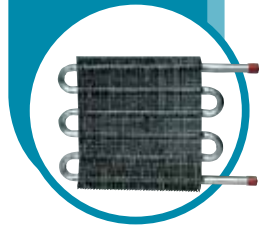
Features and options vary between product configurations as items that may be available on a duplex that are not available for a simplex.





### Control Panel

Provides thermal overload protection, and transformer provides reliable low voltage output to the auxiliary components. May be mounted or unmounted.



### Air-Cooled Aftercooler

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



### Automatic Tank Drain

An adjustable electric timed drain automatically discharges moisture from receiver.



### Vibration Isolators

Isolates the compressor unit from the foundation or floor. Reduces noise and protects the unit from vibrations that could cause damage.

## Other Options

- 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 electric motors

# Complete Your Package with **Quality Accessories**

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

### Low Oil-Stop Control

Low oil-stop control shuts down the unit when oil levels are below an adequate level. Prevents the unit from restarting until oil level has been restored.



### 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. Other refrigerated and desiccant dryer types are available.



### 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, synthetic or food-grade, and come in 55 gallon drums, 5 gallon pails, 1 gallon bottles and 1 quart bottles.



# Convenience & Peace of Mind

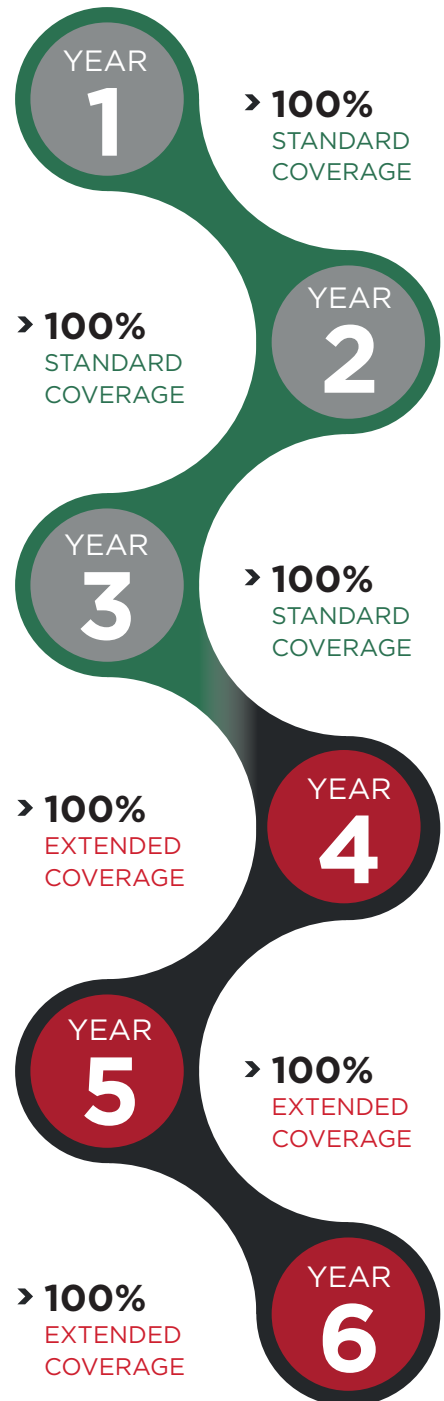
## Standard Warranty

The standard warranty covers parts and labor on the package components for one year and three years on the compressor pump.

The Champion philosophy ensures long-lasting, reliable equipment. Our warranty program demonstrates our confidence in our products.

Each new Champion assembled unit has a 3 year warranty on the compressor pump against defects in materials of workmanship under normal use and service.

\*See standard warranty form BU-32 for complete standard warranty details.



## Premium Extended Warranty

Purchase a Premium Warranty Kit at the same time as your new Champion compressor package to receive extended warranty protection. This offer will double the coverage with an additional 3 years of warranty on the compressor pump (parts & labor) providing 6 YEARS of worry free coverage. The Premium Extended Warranty also provides an extra 12 months coverage on the package for a total of 24 months. See Premium Warranty form BU-28 for complete extended warranty details.

- \* Premium Warranty kit has all necessary service items (oil & filters) for 6 years of annual maintenance.
- \* The use of approved Champion lubricants are required to maintain the extended warranty period.
- \* Duplex machines require two kits, one for each pump.



# Sales & Service **Distributors** Across America

## An Extensive Network

Your sales, service and technical support needs will be handled quickly and easily by our extensive network of Champion factory-trained, authorized local distributors. Maintaining and adequately servicing your compressor has never been easier.



Over **1,100** Champion distributors ready to provide solutions to all your compressed air needs

To find a distributor visit:  
[www.championpneumatic.com](http://www.championpneumatic.com)

# Pump Model R-10D

## R-SERIES | 2-3 HP RECIPROCATING COMPRESSORS

MOTOR HP	TANK CAPACITY GAL.	HORIZONTAL PACKAGES			VERTICAL PACKAGES			125 PSI RATING		175 PSI RATING	
		R-SERIES MODEL	DIMENSIONS L x W x H INCHES	APPROX. SHIP WEIGHT LBS.	R-SERIES R2-30A	DIMENSIONS L x W x H INCHES	APPROX. SHIP WEIGHT LBS.	RPM	CFM DEL'Y	RPM	CFM DEL'Y
2	-	BR2	38 x 25 x 30	220	-	-	-	546	5.5	461	4.1
2	30	HR2-3	43 x 32 x 44	406	-	-	-	546	5.5	461	4.1
2	60	HR2-6	52 x 32 x 49	499	VR2-6	35 x 33 x 77	499	546	5.5	461	4.1
2	80	HR2-8	67 x 32 x 49	564	VR2-8	35 x 27 x 75	564	546	5.5	461	4.1
2 (x2)	80	HR2D-8	75 x 32 x 50	715	-	-	-	546	11.0	461	8.2
2 (x2)	120	HR2D-12	75 x 33 x 54	940	-	-	-	546	11.0	461	8.2
3	-	BR3F	38 x 25 x 30	230	-	-	-	822	9.0	780	8.0
3	30	HR3F-3	43 x 32 x 44	416	-	-	-	822	9.0	780	8.0
3	60	HR3F-6	52 x 32 x 49	509	VR3F-6	35 x 33 x 77	509	822	9.0	780	8.0
3	80	HR3F-8	67 x 32 x 49	574	VR3F-8	35 x 27 x 75	574	822	9.0	780	8.0
3	120	HR3F-12	71 x 32 x 55	746	VR3F-12	43 x 31 x 79	746	822	9.0	780	8.0
3 (x2)	80	HR3DF-8	75 x 32 x 50	725	-	-	-	822	18.0	780	16.0
3 (x2)	120	HR3DF-12	75 x 33 x 54	950	-	-	-	822	18.0	780	16.0

# Pump Model R-15B

## R-SERIES | 5-7.5 HP RECIPROCATING COMPRESSORS

MOTOR HP	TANK CAPACITY GAL.	HORIZONTAL PACKAGES			VERTICAL PACKAGES			125 PSI RATING		175 PSI RATING	
		R-SERIES MODEL	DIMENSIONS L x W x H INCHES	APPROX. SHIP WEIGHT LBS.	R-SERIES R2-30A	DIMENSIONS L x W x H INCHES	APPROX. SHIP WEIGHT LBS.	RPM	CFM DEL'Y	RPM	CFM DEL'Y
5	-	BR5	38 x 25 x 30	280	-	-	-	780	21.0	737	17.0
5	30	HR5-3	43 x 32 x 44	432	-	-	-	780	21.0	737	17.0
5	60	HR5-6	52 x 32 x 49	525	VR5-6	35 x 33 x 77	525	780	21.0	737	17.0
5	80	HR5-8	67 x 32 x 49	590	VR5-8	35 x 27 x 75	590	780	21.0	737	17.0
5	120	HR5-12	71 x 32 x 55	762	VR5-12	43 x 31 x 79	762	780	21.0	737	17.0
5 (x2)	80	HR5D-8	75 x 32 x 50	755	-	-	-	780	42.0	737	34.0
5 (x2)	120	HR5D-12	75 x 33 x 54	980	-	-	-	780	42.0	737	34.0
7.5	-	BR7F	38 x 25 x 30	310	-	-	-	949	23.0	949	22.3
7.5	60	HR7F-6	52 x 32 x 49	565	VR7F-6	35 x 33 x 77	565	949	23.0	949	22.3
7.5	80	HR7F-8	67 x 32 x 49	630	VR7F-8	31 x 24 x 75	630	949	23.0	949	22.3
7.5	120	HR7F-12	71 x 32 x 55	802	VR7F-12	43 x 31 x 79	802	949	23.0	949	22.3
7.5 (x2)	120	HR7DF-12	75 x 33 x 54	1150	-	-	-	949	46.0	949	44.6
7.5 (x2)	240	HR7DF-24	88 x 38 x 61	1485	-	-	-	949	46.0	949	44.6

# Pump Model R-30D

## R-SERIES | 7.5-15 HP RECIPROCATING COMPRESSORS

MOTOR HP	TANK CAPACITY GAL.	HORIZONTAL PACKAGES			VERTICAL PACKAGES			125 PSI RATING		175 PSI RATING	
		R-SERIES MODEL	DIMENSIONS L x W x H INCHES	APPROX. SHIP WEIGHT LBS.	R-SERIES R2-30A	DIMENSIONS L x W x H INCHES	APPROX. SHIP WEIGHT LBS.	RPM	CFM DEL'Y	RPM	CFM DEL'Y
7.5	-	BR7	43 x 23 x 29	430	-	-	-	649	28.7	570	25.6
7.5	80	HR7-8	67 x 32 x 49	763	VR7-8	40 x 35 x 77	710	649	28.7	570	25.6
7.5	80S*	-	-	-	VR7-8S*	43 x 38 x 64	753	649	28.7	570	25.6
7.5	120	HR7-12	71 x 32 x 55	882	VR7-12	43 x 30 x 81	882	649	28.7	570	25.6
7.5	240	HR7-24	88 x 33 x 61	1236	-	-	-	649	28.7	570	25.6
7.5 (x2)	120	HR7D-12	83 x 34 x 54	1305	-	-	-	649	57.4	570	51.2
7.5 (x2)	240	HR7D-24	88 x 38 x 61	1675	-	-	-	649	57.4	570	51.2
10	-	BR10	43 x 23 x 29	540	-	-	-	774	34.7	718	33.8
10	80	HR10-8	67 x 32 x 49	776	VR10-8	40 x 35 x 77	723	774	34.7	718	33.8
10	80S*	-	-	-	VR10-8S*	43 x 38 x 64	766	774	34.7	718	33.8
10	120	HR10-12	71 x 32 x 55	895	VR10-12	43 x 30 x 81	895	774	34.7	718	33.8
10	240	HR10-24	88 x 33 x 61	1249	-	-	-	774	34.7	718	33.8
10 (x2)	120	HR10D-12	83 x 34 x 54	1725	-	-	-	774	69.4	718	67.6
10 (x2)	240	HR10D-24	88 x 38 x 61	2325	-	-	-	774	69.4	718	67.6
15	-	BR15F	43 x 23 x 29	550	-	-	-	1034	49.9	1034	48.7
15	80	HR15F-8	67 x 32 x 49	898	-	-	-	1034	49.9	1034	48.7
15	120	HR15F-12	71 x 32 x 55	1017	VR15F-12	43 x 30 x 81	1017	1034	49.9	1034	48.7
15	240	HR15F-24	88 x 33 x 61	1371	-	-	-	1034	49.9	1034	48.7
15 (x2)	120	HR15DF-12	82 x 34 x 54	1860	-	-	-	1034	99.8	1034	97.4
15 (x2)	240	HR15DF-24	88 x 38 x 61	2460	-	-	-	1034	99.8	1034	97.4

\* 80S is an 80 gallon squat version of a 120 gallon receiver.



# Pump Model R-40A

## R-SERIES | 15 HP RECIPROCATING COMPRESSORS

MOTOR HP	TANK CAPACITY GAL.	R-SERIES MODEL	DIMENSIONS L x W x H INCHES	APPROX. SHIP WEIGHT LBS.	125 PSI RATING		175 PSI RATING	
					RPM	CFM DEL'Y	RPM	CFM DEL'Y
15	-	BR15	50 x 28 x 38	730	903	59.9	776	54.1
15	120	HR15-12	73 x 36 x 62	1210	903	59.9	776	54.1
15	240	HR15-24	90 x 36 x 69	1564	903	59.9	776	54.1
15 (x2)	240	HR15D-24	90 x 54 x 73	2460	903	119.8	776	108.2

# Pump Model R-70A

## R-SERIES | 20-30 HP RECIPROCATING COMPRESSORS

MOTOR HP	TANK CAPACITY GAL.	R-SERIES MODEL	DIMENSIONS L x W x H INCHES	APPROX. SHIP WEIGHT LBS.	125 PSI RATING		175 PSI RATING	
					RPM	CFM DEL'Y	RPM	CFM DEL'Y
20	-	BR20	57 x 44 x 40	1000	712	84.9	664	77.8
20	120	HR20-12	74 x 36 x 65	1517	712	84.9	664	77.8
20	240	HR20-24	90 x 36 x 71	1871	712	84.9	664	77.8
20 (x2)	240	HR20D-24	90 x 67 x 76	2845	712	169.8	664	155.6
25	-	BR25	57 x 44 x 40	1020	907	102.9	776	90.7
25	120	HR25-12	74 x 36 x 65	1557	907	102.9	776	90.7
25	240	HR25-24	90 x 36 x 71	1911	907	102.9	776	90.7
25 (x2)	240	HR25D-24	90 x 67 x 76	2940	907	205.8	776	181.4
30	-	BR30	57 x 44 x 40	1060	907	102.9	907	101.8
30	120	HR30-12	74 x 36 x 65	1597	907	102.9	907	101.8
30	240	HR30-24	90 x 36 x 71	1951	907	102.9	907	101.8
30 (x2)	240	HR30D-24	90 x 67 x 76	3018	907	205.8	907	203.6

# Bare Pumps

## R-SERIES RECIPROCATING COMPRESSOR

MODEL	# OF CYLINDERS	BORE DIA. INCHES	STROKE INCHES	OIL CAPACITY QUARTS	UNIT DIMENSIONS L x W x H INCHES	APPROX. SHIP WEIGHT LBS.	MINIMUM RPM	MAXIMUM RPM
R-10D	2	4.63 & 2.5	2.5	2	20 x 17 x 24	135	400	1050
R-15B	2	4.63 & 2.5	3	2	20 x 17 x 24	135	400	1050
R-30D	4	4.63 & 2.5	3	4	22 x 24 x 24	240	400	1050
R-40A	2	6.25 & 3.25	4.5	4	26 x 26 x 32	460	425	1000
R-70A	4	6.25 & 3.25	4.5	6.5	27 x 33 x 34	590	425	1000

Champion is committed to  
delivering **superior products** built with  
the **exceptional standards** you expect.

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1301 North Euclid Avenue  
Princeton, Illinois 61356 USA  
866-276-4330  
[www.ChampionPneumatic.com](http://www.ChampionPneumatic.com)

