

CHAMPION

2-30 HP | RECIPROCATING AIR COMPRESSOR

R-Series



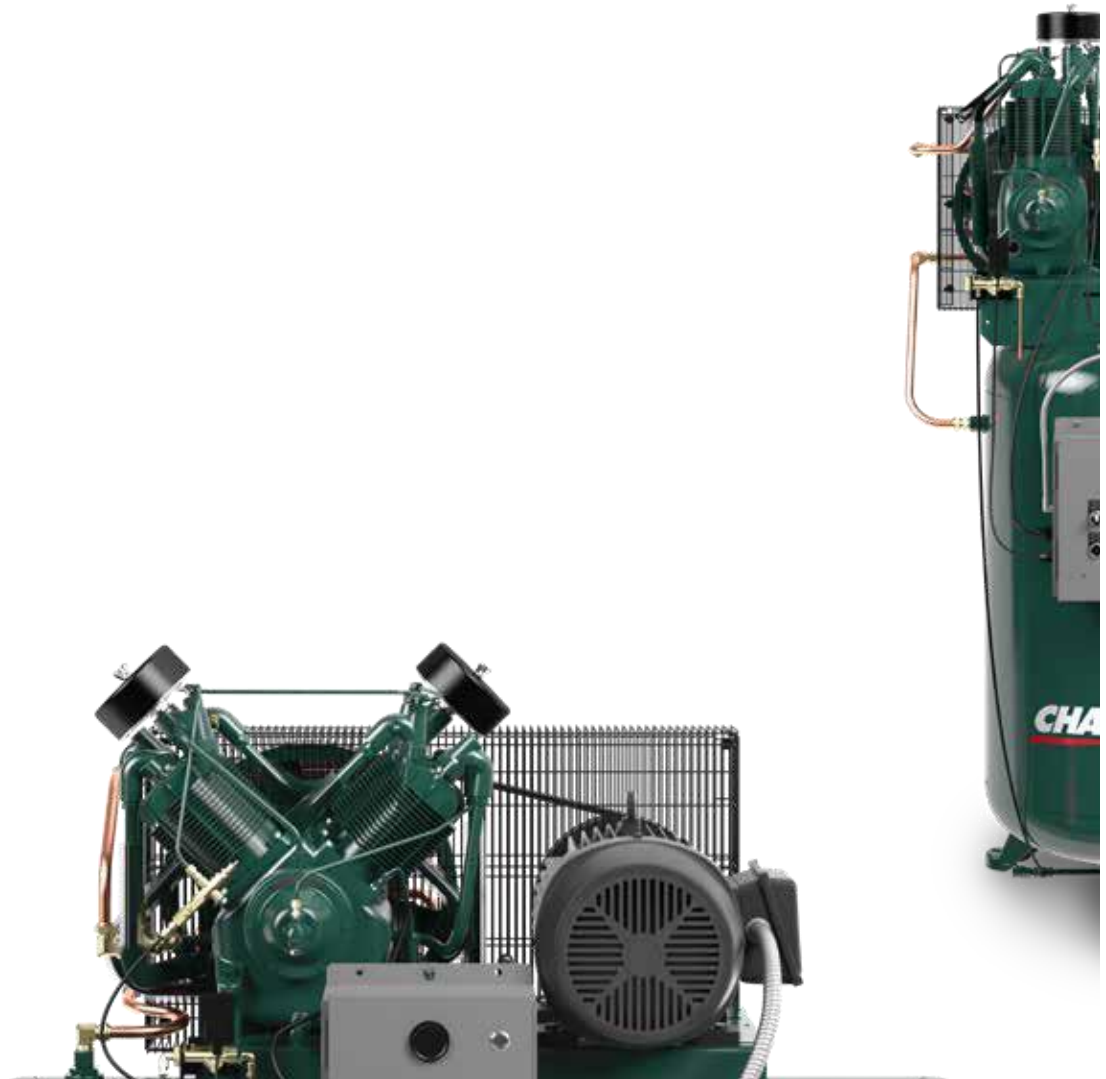


|
Customized **Solutions**
Unparalleled Performance

A Winning Combination

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

2





The Solution to Your Application

Champion R-Series Compressors have a time-tested, proven design. Rugged standard configurations, and premium quality available options make the R-Series compressor 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



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.

Overload

Tapere and su possibl

Balar

Constru diame' counte

Load

Mechc assures to start

every time.

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

4

It's All in the Details



Needle bearings minimize
friction between wrist pin and

Alumir
ensure
*R-10,

R-15B

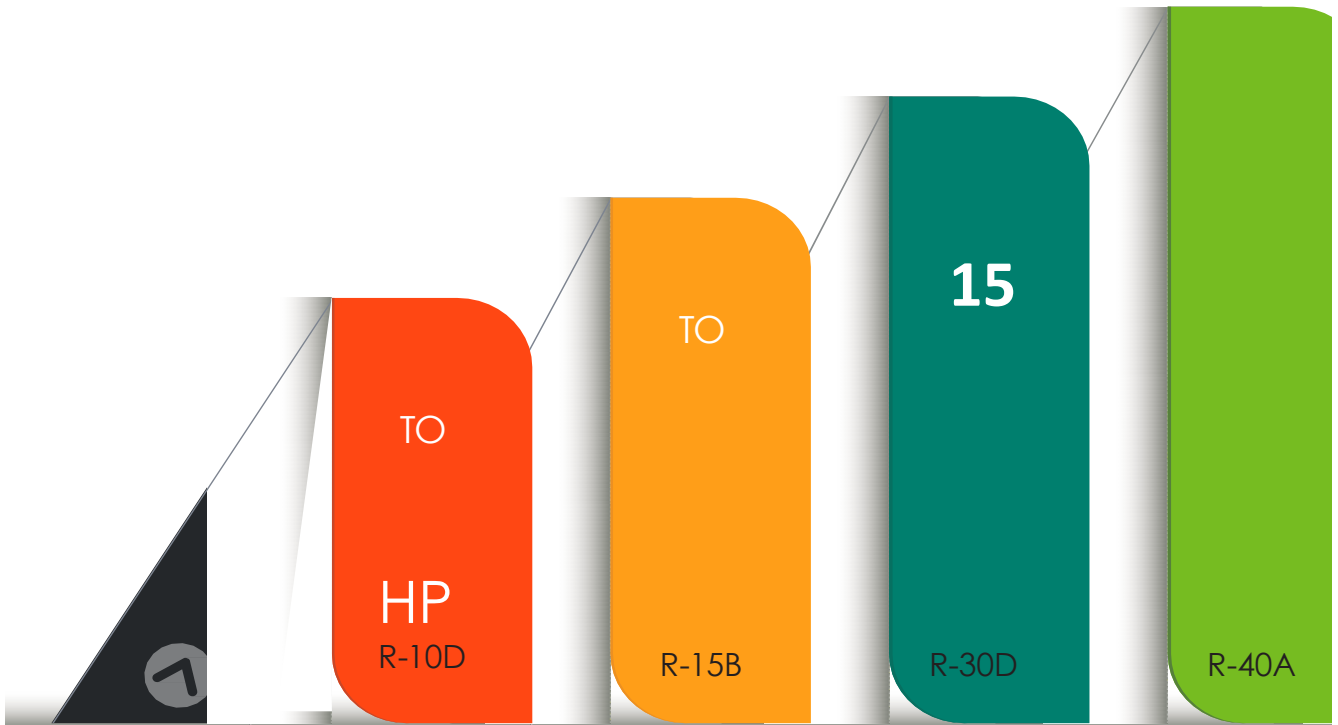
Tapered
operation

R-30D

Automotive style double
crankshaft

ASME inter-stage pressure relief
valve for protection

A Complete
RANGE



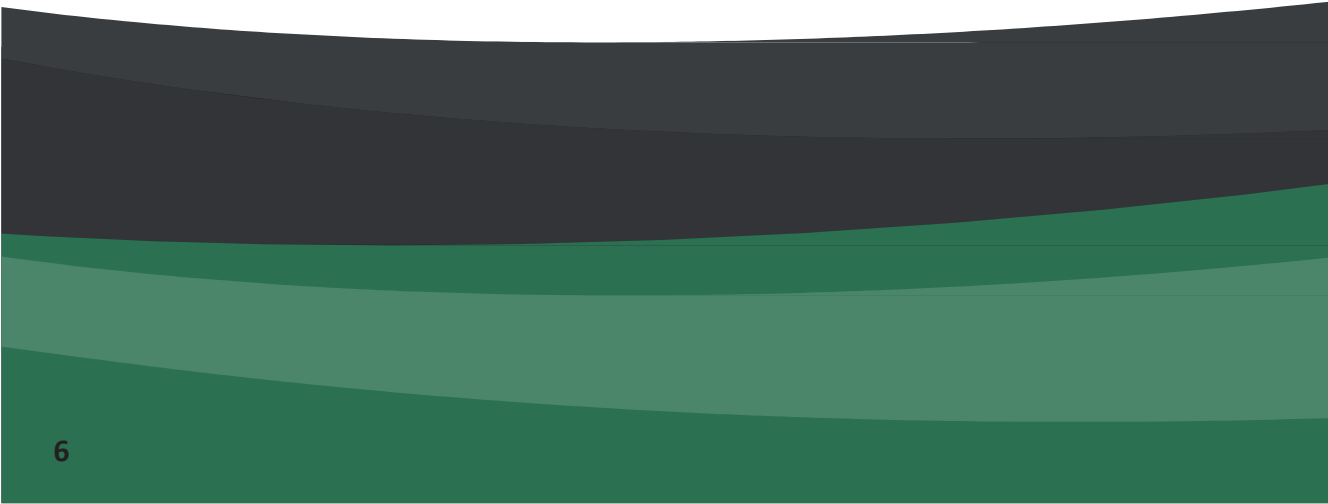
4.1–8.0
CFM @ 175 PSI
461–780
RPM

17.0–22.3
CFM @ 175 PSI
737–949
RPM

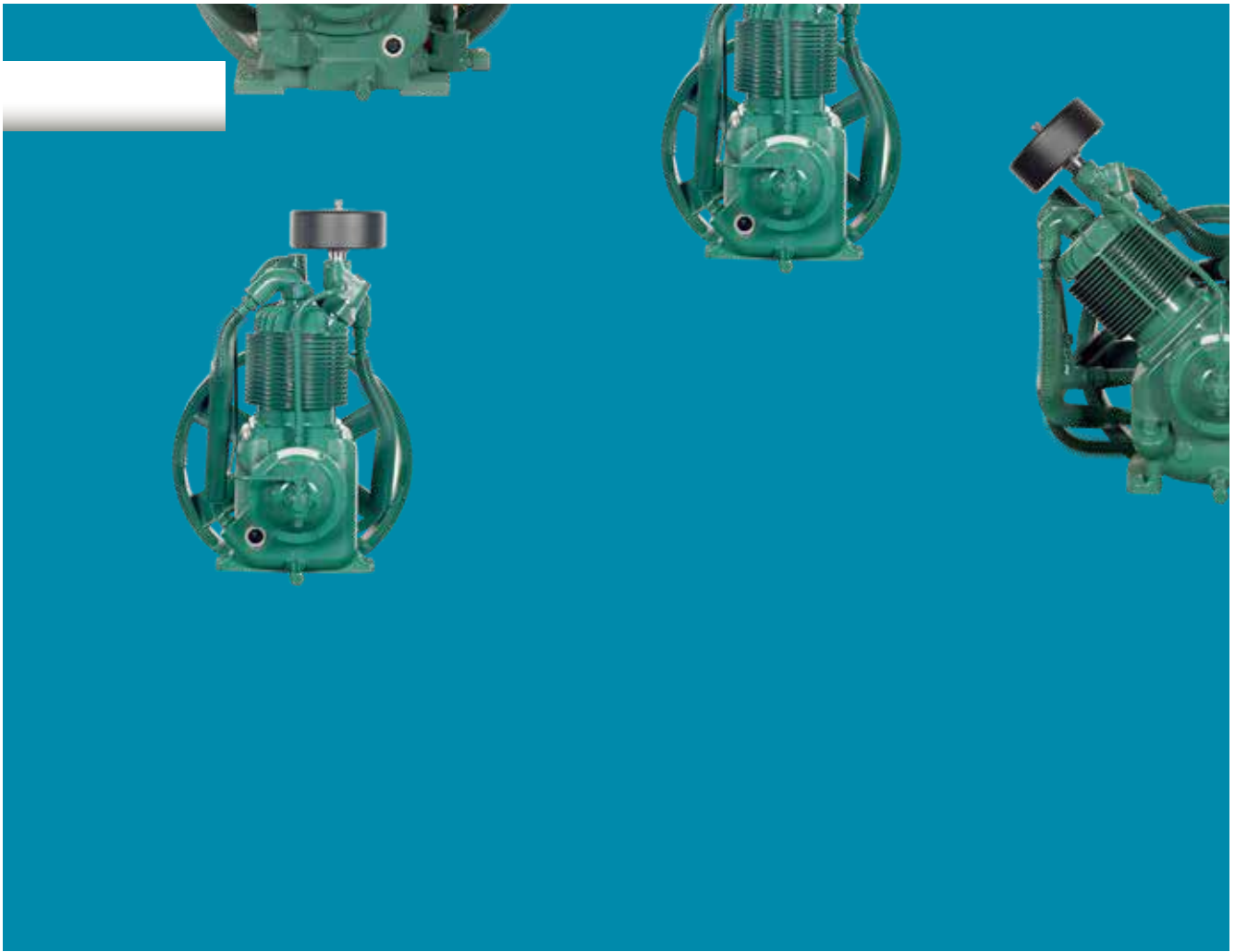
25.6–48.7
CFM @ 175 PSI
570–1034
RPM

CFM @ 10

*Double CFM values for Duplex Units.





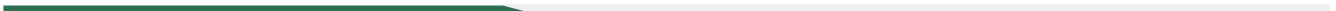


R-15B
A

R-70A

R-40

R-10D



Customized to Fit Your Application

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



BASE MOUNT



HORIZONTAL



VERTICAL



DUPLEX



ENGINE DRIVEN
PUMP

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

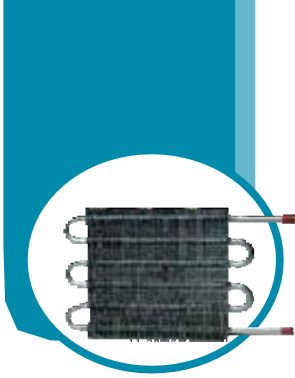
- Multiple tank sizes and variations
- Electric or engine driven
- NEMA 4 full-voltage starter upgrade
- TEFC motor upgrades
- Control panel upgrades
 - Test/Off/Auto switch
 - Hour Meter
- Air-cooled aftercooler
- Low oil-stop control (NEMA 1/4)

- Duplex
- Vibration
- Focus
- High
- Auto

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

8





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 timer drain automatically discharges moisture from receiver.

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

ChampLub lubricants are blended for harsh compressor environments, extend stock life and superior protection. Champ applications and are available in 55 gallon drums, 5 gallon pails,



Convenience & Peace of Mind

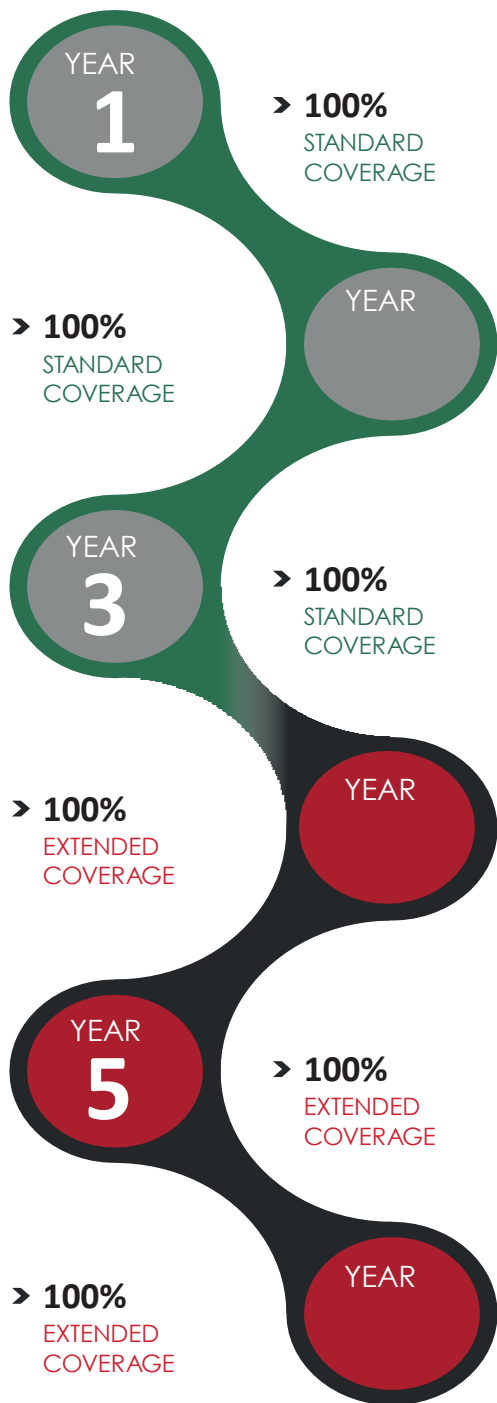
Standard Warranty

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

The Champion philosophy ensures long-lasting, reliable equipment. Our warranty program reflects this commitment. Each new Champion assembled unit has a 3 year warranty on the compressor pump and workmanship under normal use and service.

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

confidence in our products.







Premium Extended Warranty

Sales & Service **Distributors** Across Amer

An Extensive Network

Your sales, service and technical support needs will be handled quickly and easily by factory-trained, authorized local distributors. Maintaining and adequately servicing yo





Over **1,100** Champions
ready to provide
compressed
air needs

To find a distributor visit:
www.championpneumatic.com

12

Pump Model R-10D

R-SERIES | 2-3 HP RECIPROCATING COMPRESSORS

MOTOR HP	TANK CAPACITY GAL.	HORIZONTAL PACKAGES			VERTICAL PACKAGES			125 PSI RPM
		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.	
2	-	BR2	38 x 25 x 30	220	-	-	-	546
2	30	HR2-3	43 x 32 x 44	406	-	-	-	546
2	60	HR2-6	52 x 32 x 49	499	VR2-6	35 x 33 x 77	499	546
2 (x2)	80	HR2-8	67 x 32 x 49	564	VR2-8	35 x 27 x 75	564	546
3	80	HR2D-8	75 x 32 x 50	715	-	-	-	546
3	120	HR2D-12	75 x 33 x 54	940	-	-	-	546
3	-	BR3F	38 x 25 x 30	230	-	-	-	822
3 (x2)	30	HR3F-3	43 x 32 x 44	416	-	-	-	822
3 (x2)	60	HR3F-6	52 x 32 x 49	509	VR3F-6	35 x 33 x 77	509	822
	80	HR3F-8	67 x 32 x 49	574	VR3F-8	35 x 27 x 75	574	822
	120	HR3F-12	71 x 32 x 55	746	VR3F-12	43 x 31 x 79	746	822
	80	HR3DF-8	75 x 32 x 50	725	-	-	-	822
	120	HR3DF-12	75 x 33 x 54	950	-	-	-	822

Pump Model R-15B

R-SERIES | 5-7.5 HP RECIPROCATING COMPRESSORS

MOTOR HP	TANK CAPACITY GAL.	HORIZONTAL PACKAGES			VERTICAL PACKAGES			125 PSI R
		R-SERIES MODEL	DIMENSIONS L × W × H INCHES	APPROX. SHIP WEIGHT LBS.	R-SERIES R2-30A	DIMENSIONS L × W × H INCHES	APPROX. SHIP WEIGHT LBS.	
5	-	BR5	38 × 25 × 30	280	-	-	-	780
5	30	HR5-3	43 × 32 × 44	432	-	-	-	780
5	60	HR5-6	52 × 32 × 49	525	VR5-6	35 × 33 × 77	525	780
5	80	HR5-8	67 × 32 × 49	590	VR5-8	35 × 27 × 75	590	780
5	120	HR5-12	71 × 32 × 55	762	VR5-12	43 × 31 × 79	762	780
5 (×2)	80	HR5D-8	75 × 32 × 50	755	-	-	-	780
5 (×2)	120	HR5D-12	75 × 33 × 54	980	-	-	-	780
7.5	-	BR7F	38 × 25 × 30	310	-	-	-	949
7.5	60	HR7F-6	52 × 32 × 49	565	VR7F-6	35 × 33 × 77	565	949
7.5	80	HR7F-8	67 × 32 × 49	630	VR7F-8	31 × 24 × 75	630	949
7.5	120	HR7F-12	71 × 32 × 55	802	VR7F-12	43 × 31 × 79	802	949
7.5 (×2)	120	HR7DF-12	75 × 33 × 54	1150	-	-	-	949
7.5 (×2)	240	HR7DF-24	88 × 38 × 61	1485	-	-	-	949

Pump Model R-30D

R-SERIES | 7.5-15 HP RECIPROCATING COMPRESSORS

MOTOR HP	TANK CAPACITY GAL.	HORIZONTAL PACKAGES			VERTICAL PACKAGES			125 PSI R
		R-SERIES MODEL	DIMENSIONS L × W × H INCHES	APPROX. SHIP WEIGHT LBS.	R-SERIES R2-30A	DIMENSIONS L × W × H INCHES	APPROX. SHIP WEIGHT LBS.	
7.5	-	BR7	43 × 23 × 29	430	-	-	-	649
7.5	80	HR7-8	67 × 32 × 49	763	VR7-8	40 × 35 × 77	710	649
7.5	80S*	-	-	-	VR7-8S*	43 × 38 × 64	753	649
7.5	120	HR7-12	71 × 32 × 55	882	VR7-12	43 × 30 × 81	882	649
7.5	240	HR7-24	88 × 33 × 61	1236	-	-	-	649
7.5 (×2)	120	HR7D-12	83 × 34 × 54	1305	-	-	-	649
7.5 (×2)	240	HR7D-24	88 × 38 × 61	1675	-	-	-	649
10	-	BR10	43 × 23 × 29	540	-	-	-	774
10	80	HR10-8	67 × 32 × 49	776	VR10-8	40 × 35 × 77	723	774
10	80S*	-	-	-	VR10-8S*	43 × 38 × 64	766	774
10	120	HR10-12	71 × 32 × 55	895	VR10-12	43 × 30 × 81	895	774
10	240	HR10-24	88 × 33 × 61	1249	-	-	-	774
10 (×2)	120	HR10D-12	83 × 34 × 54	1725	-	-	-	774
10 (×2)	240	HR10D-24	88 × 38 × 61	2325	-	-	-	774
15	-	BR15F	43 × 23 × 29	550	-	-	-	1034
15	80	HR15F-8	67 × 32 × 49	898	-	-	-	1034
15	120	HR15F-12	71 × 32 × 55	1017	VR15F-12	43 × 30 × 81	1017	1034
15	240	HR15F-24	88 × 33 × 61	1371	-	-	-	1034
15 (×2)	120	HR15DF-12	82 × 34 × 54	1860	-	-	-	1034
15 (×2)	240	HR15DF-24	88 × 38 × 61	2460	-	-	-	1034



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

14

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 RPM	CFM DEL'Y	
15	-	BR15	50 x 28 x 38	730	903	59.9	
15	120	HR15-12	73 x 36 x 62	1210	903	59.9	
15	240	HR15-24	90 x 36 x 69	1564	903	59.9	
15 (x2)	240	HR15D-24	90 x 54 x 73	2460	903	119.8	

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 RPM	CFM DEL'Y	
20	-	BR20	57 x 44 x 40	1000	712	84.9	
20	120	HR20-12	74 x 36 x 65	1517	712	84.9	

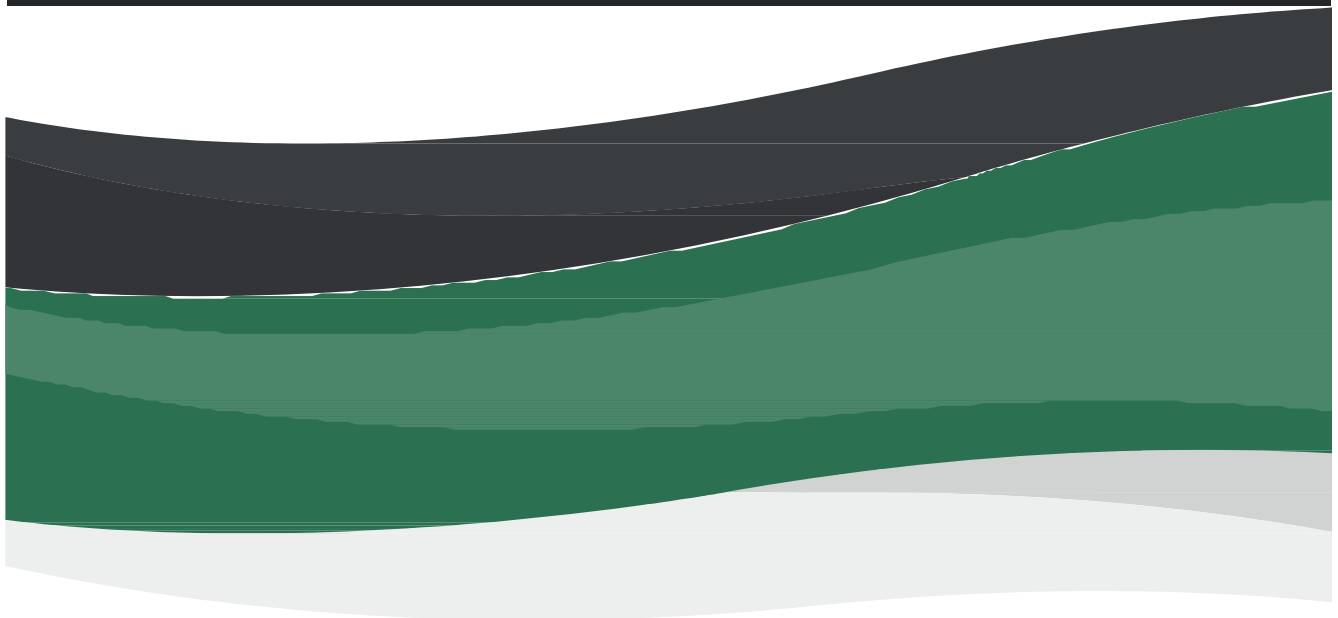
20	240	HR20-24	90 × 36 × 71	1871	712	84.9	
20 (×2)	240	HR20D-24	90 × 67 × 76	2845	712	169.8	
25	-	BR25	57 × 44 × 40	1020	907	102.9	
25	120	HR25-12	74 × 36 × 65	1557	907	102.9	
25	240	HR25-24	90 × 36 × 71	1911	907	102.9	
25 (×2)	240	HR25D-24	90 × 67 × 76	2940	907	205.8	
30	-	BR30	57 × 44 × 40	1060	907	102.9	
30	120	HR30-12	74 × 36 × 65	1597	907	102.9	
30	240	HR30-24	90 × 36 × 71	1951	907	102.9	
30 (×2)	240	HR30D-24	90 × 67 × 76	3018	907	205.8	

MODEL	# OF CYLINDERS	BORE DIA. INCHES	STROKE INCHES	OIL CAPACITY QUARTS	UNIT DIMENSIONS L × W × H INCHES	APPROX. SHIP WEIGHT LBS.	MINIMUM
R-10D	2	4.63 & 2.5	2.5	2	20 × 17 × 24	135	40
R-15B	2	4.63 & 2.5	3	2	20 × 17 × 24	135	40
R-30D	4	4.63 & 2.5	3	4	22 × 24 × 24	240	40
R-40A	2	6.25 & 3.25	4.5	4	26 × 26 × 32	460	42
R-70A	4	6.25 & 3.25	4.5	6.5	27 × 33 × 34	590	42

CHAMPION R-SERIES

Champion is committed to

delivering **superior products** built with the **exc**
standards you expect.



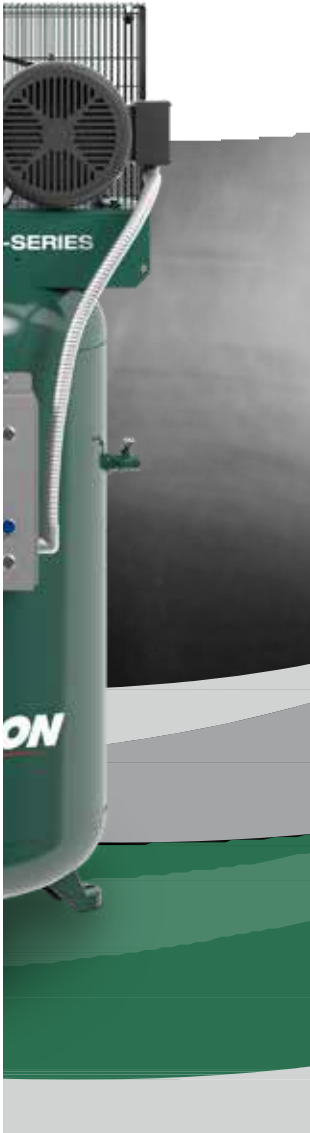
CHAMPION[®]



Product specifications and materials are subject to change without notice.

Please recycle after use.

SSORS



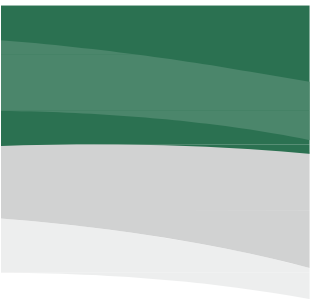


e. We know our products and
after the application, Champion gets



ard features, a wide selection of
ors the solution to your application.

op Control



3

sized Main Bearings

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

anced Crankshaft

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

less Starting

Mechanical governor-type centrifugal unloader provides longer motor life by allowing the compressor to unload during start-up.

and connecting rod

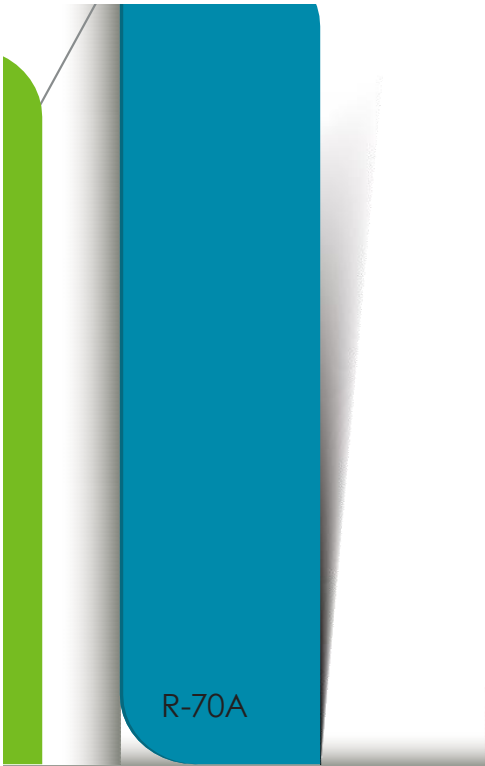
Aluminum body molded over a cast iron sleeve
ensures maximum heat transfer and durability
R-15, R-30 only

Sealed roller bearings for long life and trouble-free
operation

Variable-throw (balanced and counterweighted)
provides optimum compressor performance

5





54.1

75 PSI

776

RPM

77.8–101.8

CFM @ 175 PSI

664–907

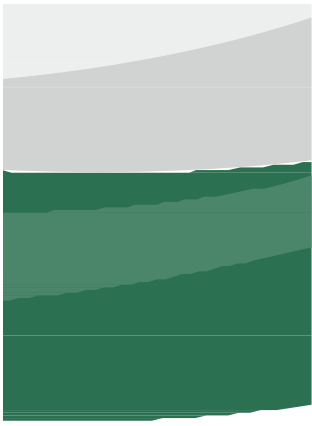
RPM







R-30D



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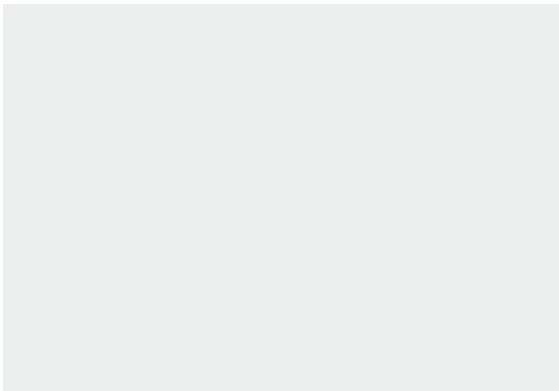
BARE COMPRESSOR

al control
ration isolators
od grade lubricant
gh temperature switch (NEMA 1 or 4)
tomatic electric tank drain

Vibration Isolators

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

red



r Lubricants

ded specifically for Champion compressors for use in
s. They are sourced from extremely stable base
efully selected additive packages to provide long
amplub lubricants are suitable for a variety of
as a mineral, synthetic or food-grade, and come in
1 gallon bottles and 1 quart bottles.

ear and three years on the compressor

ogram demonstrates our
against defects in materials of





ica

our extensive network of Champion
our compressor has never been easier.



Champion distributors
provide solutions to all your

[champion.com](#)

RATING	175 PSI RATING	
	CFM DEL'Y	RPM
.5	461	4.1
.5	461	4.1
.5	461	4.1
.5	461	4.1
1.0	461	8.2
1.0	461	8.2
.0	780	8.0
.0	780	8.0
.0	780	8.0
.0	780	8.0
.0	780	8.0
3.0	780	16.0
3.0	780	16.0

RATING	175 PSI RATING	
	RPM	CFM DEL'Y
21.0	737	17.0
21.0	737	17.0
21.0	737	17.0
21.0	737	17.0
21.0	737	17.0
42.0	737	34.0
42.0	737	34.0
23.0	949	22.3
23.0	949	22.3
23.0	949	22.3
23.0	949	22.3
46.0	949	44.6
46.0	949	44.6

RATING	175 PSI RATING	
	RPM	CFM DEL'Y
28.7	570	25.6
28.7	570	25.6
28.7	570	25.6
28.7	570	25.6
28.7	570	25.6
57.4	570	51.2
57.4	570	51.2
34.7	718	33.8
34.7	718	33.8
34.7	718	33.8
34.7	718	33.8
34.7	718	33.8
69.4	718	67.6
69.4	718	67.6
49.9	1034	48.7
49.9	1034	48.7
49.9	1034	48.7
49.9	1034	48.7
99.8	1034	97.4
99.8	1034	97.4



175 PSI RATING	
RPM	CFM DEL'Y
776	54.1
776	54.1
776	54.1
776	108.2

175 PSI RATING	
RPM	CFM DEL'Y
664	77.8
664	77.8

664	77.8
664	155.6
776	90.7
776	90.7
776	90.7
776	181.4
907	101.8
907	101.8
907	101.8
907	203.6

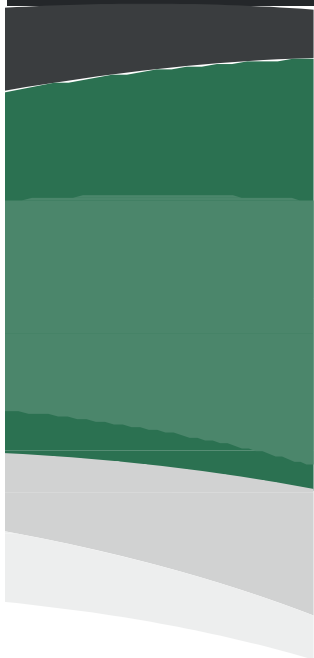
Bare Pumps

R-SERIES RECIPROCATING COMPRESSOR

15

UM RPM	MAXIMUM RPM
00	1050
00	1050
00	1050
25	1000
25	1000

ceptional



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