

RECIPROCATING | ROTARY | AIR TREATMENT

# Compressed Air Solutions



### Decades of Proven Excellence

Champion has a long, rich history in the compressed air market. For nearly a century, Champion has supplied high quality, reliable compressed air products that keep industries such as automotive, industrial, woodworking and agriculture up and running.





With over **95 YEARS OF EXPERIENCE**, Champion compressors are the product of decades of design and development.

Our goal is to provide you with compressors that fulfill and **EXCEED YOUR EXPECTATIONS** and requirements.

Champion knows and **UNDERSTANDS THE APPLICATION** of our products in many different operating environments.

Since 1919, Champion has been **SETTING NEW STANDARDS** in reciprocating and rotary air compressor systems, parts and service.

Known for their **RELIABILITY FROM DECADES** of use, Champion compressors are a proven product.

## The Right Product for Your Application

With the compressed air market's widest breadth of compressed air products—reciprocating, rotary vane and rotary screw—choosing the right product for the application is key to continuing the success that was started in 1919.

#### Reciprocating

Lubricated and oil-less reciprocating compressors from Champion are known world-wide for trouble-free operation, long life and built-in efficiencies you can count on. An ideal solution in intermittent duty applications, the reciprocating product lines offered through Champion are a great solution to your compressed air needs.



### **RV-SERIES**

Reciprocating

Intermittent Duty

**Cost Effective** 

Low Maintenance Costs

### Rotary Vane

Lubricated rotary vane compressors from Champion feature an integrated sliding vane airend that is directly driven at a slow, 1800 RPM speed. Found in applications such as carwashes, autobody shops, trains, distilleries, breweries, and industrial manufacturing facilities, these robust compressors are an excellent low noise alternative to a reciprocating compressor or in areas that require an extremely small footprint.

#### Rotary Screw

Champion offers two highly competitive, expertly-designed lubricated rotary screw compressor lines. Using the latest design techniques, these compressors give you industry-leading reliability, performance and value. When used in 100% duty cycle applications, rotary screw compressors from Champion are a great, quiet alternative to a reciprocating compressor.



### **R-SERIES**

Reciprocating

Unenclosed/Quiet Enclosed

Intermittent Duty

Cost Effective

Configuration Flexibility

Low Maintenance Costs



### **LV-SERIES**

Rotary Vane

Unenclosed/Enclosed

Continuous Duty

1800 RPM Direct Drive

Quiet

**Small Footprint** 

Ideal for Harsh Environments

### Rotary Scroll

The CA-Series Rotary Scroll compressors provide the reliable, high quality compressed air that you've come to expect from Champion. Designed specifically for industrial and laboratory applications that require 100% oil-less air. CA-Series compressors offer a wide selection of configurations and top-quality available options.



### **D-SERIES**

**Rotary Screw** 

**Quiet Enclosed** 

Continuous Duty

3600 RPM Belt and Direct Drive

Fixed/Variable Speed

UA to 200 HP

Extremely Low Noise



### **L-SERIES**

Rotary Screw

Quiet Enclosed

Continuous Duty

3600 RPM Belt and Direct Drive

Fixed/Variable Speed

Integrated Airends Ensure Superior Serviceability



### **CA-SERIES**

Rotary Scroll

Oil-Less

Unenclosed/Enclosed

**Continuous Duty** 

3600 RPM Belt Drive

NEMA 4 Electrical Enclosure

Advanced Microprocessor Controller Option

Low Sound Levels & Vibration



## **Evaluating Your Operation**

### **Duty Cycle**

Duty cycle can be defined as, "How much will the compressor be on/off in a given time period?" For instance, if a compressor would be turned on/off multiple times in an hour, the application would be considered an intermittent duty cycle application. Whereas, if a compressor were to be running the entire hour, it would be considered a continuous duty cycle (or 100% duty cycle) application.

Depending on your application, there could be a mix of continuous and intermittent duty cycle. Take a carwash for example. Throughout the work week, the duty cycle may be quite intermittent because of slower, sporadic traffic, but on the weekend, when the carwash is very busy, the duty cycle could change to continuous. Fully evaluating the duty cycle is key to selecting the product technology and machine configuration that best meets your needs.

With the amount of products offered by Champion, it's important to narrow your selection to the product that best fits the application where it will be used. By selecting the right product, you can be confident that you'll experience trouble-free operation and a continuous supply of clean, dry air.

### Demand Profile & Flow Requirements

Understanding your demand profile (duty cycle and fluctuations in plant demand) and flow requirements will enable you to select the compressor product that is the best fit to meet their compressed air needs.

### INTERMITTENT

#### RECIPROCATING

### TYPICAL APPLICATIONS

- Small Body Shops
- Tire Shops
- Carwash Facilities

RECIPROCATING

**ROTARY VANE** 

ROTARY SCROLL

ROTARY SCREW

#### TYPICAL APPLICATION

Carwash (Weekday vs. Weekend)

### **CONTINUOUS**

ROTARY VANE

ROTARY SCROLL

ROTARY SCREW

#### TYPICAL APPLICATIONS

- Industrial Manufacturing (Light to Heavy)
- Large Body Shops



### **Accommodating Applications**

The environment that the compressor will be installed should be a key area of review when evaluating the Champion compressor offerings. An application that is in a very dirty, rugged environment would lean itself towards our robust, rotary vane compressors or our rugged A-, PL-, or R-Series reciprocating machines.

If low dBA is required because the compressor will sit close to a work area or in a residential area, our rotary vane, rotary screw or quiet enclosed reciprocating compressors would be the products of choice.

Understanding the application's environment will also allow you to choose the right configuration and series of machine. Regardless of technology, Champion has a compressor to accommodate all application requirements.

### Types of Environments

- Low dBA:
   Evolution reciprocating
   compressor, LV-Series, CA-Series,
   hydrovane, L-Series & D-Series
- Rugged, dirty environments:
   A-Series, hydrovane, LV-Series,
   R-Series & PL-Series
- Environments where NFPA requirements must be met: CA-Series, MTO II, V & W Series

# Understanding the **Environment**



# Considering the Overall Picture

### **Customer Objectives**

In today's competitive market, it is crucial that we not only look at the environment and duty cycles when selecting a Champion compressor, but also look at our customer's profile.



# PERI

# SPECIFIC APPLICATION NEEDS

Climate Control V & W Series, MTO II CA-Series

### RUGGED PERFORMANCE

A-Series R-Series PL-Series

### ENERGY EFFICIENCY

DRS-Series LRS-Series HVRS-Series HRRS-Series

### COST EFFICIENCY

Commandair VP-Series RV-Series

### **SOLUTIONS FOR**

# **EVERY**APPLICATION

### QUICK DELIVERY

Advantage

### QUIET

D-Series Evolution L-Series HR, HRRS-Series HV, HVRS-Series CA-Series

### **OPTIONS**

R-Series PL-Series

### **CONTINUOUS DUTY**

D-Series, L-Series, CA-Series LV-Series, LVR-Series V & W Series, MTO II







# Product Portfolio

Whether a reciprocating, rotary vane or rotary screw compressor is the right choice for your application, you can feel confident that Champion has a product to meet your needs. With industry-leading extended warranty programs, quick delivery on all products, and over 1,100 authorized distributors, Champion can get and keep you up and running.





### TECHNOLOGY OVERVIEW

				o .c.			
Technology				Specific	ations		
Reciprocating Unenclosed	CHAMPION	JP TO 30 205 250	HP* CFM* PSIG				
Reciprocating Quiet Enclosed	1	JP TO 15 46.6 175	HP CFM PSIG		<u> </u>	-	
Rotary Vane Unenclosed Direct Drive 1800 RPM	CALLEDON	JP TO 20 72.8 150	HP* CFM* PSIG			_	
Rotary Vane Quiet Enclosed Direct Drive 1800 RPM	3	JP TO 30 132 150	HP CFM PSIG				
Rotary Screw Quiet Enclosed Belt/Direct Drive 3600 RPM		JP TO 40 193 190	HP CFM PSIG				
Rotary Scroll Quiet Enclosed Belt Drive 3600 RPM	1	JP TO 40 126.4 140	HP* CFM* PSIG			•	

<sup>\*</sup>HP/CFM rating is the combined total power of a multiplex unit.

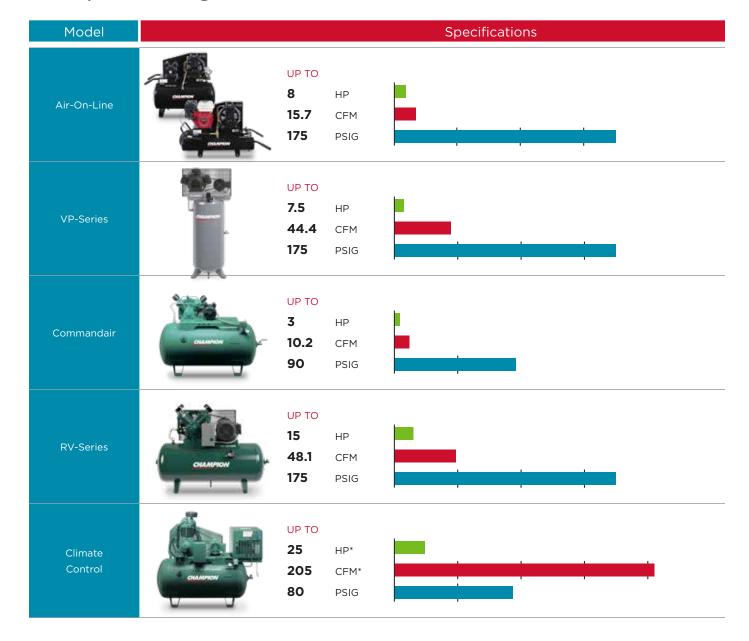
## Reciprocating



<sup>\*</sup>HP/CFM rating is the combined total power of a multiplex unit.



# Reciprocating



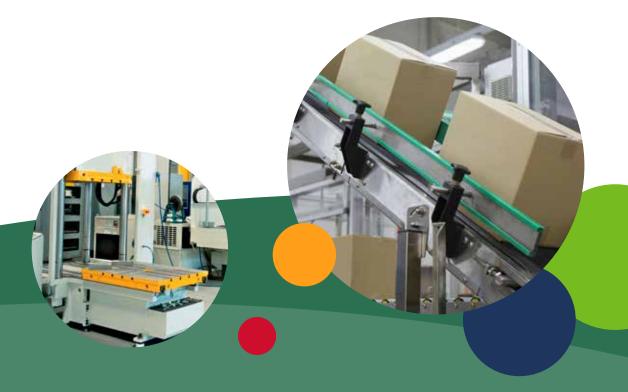
# Rotary—Fixed Speed



<sup>\*</sup>HP/CFM rating is the combined total power of a multiplex unit.

# Rotary—Variable Speed

Model					Specifi	cations	
DRS-Series	CHAPTON	UP TO 200 923 145	HP CFM PSIG				4
LRS-Series		UP TO 40 192 190	HP CFM PSIG				•
HRRS-Series	The American	UP TO 10 47 150	HP CFM PSIG	=		-	
HVRS-Series		UP TO 30 125 150	HP CFM PSIG				





## Oil-Less



<sup>\*</sup>HP/CFM rating is the combined total power of a multiplex unit.

# Compressed Air Solutions to Fit Any Industry



### Air Treatment & Aftermarket

Product	Model
Air Dryers	CRPC - Energy Saving CRN - Non-Cycling Refrigerated CHT - High Inlet Temperature CDT - Heatless Desiccant CDS - Single Tower CDHM - Dual Tower
Compressor Filters	CFL - Air Filters CFE - Mist Eliminators CFG - Spin-On Air Filter FRL - Filter-Regulator Lubricator
Condensate Management	CSP - EnviroChamp2 Oil & Water Separator CHWS - Oil & Water Separator IntelliPAK - Oil & Water Separator CDV1 & 2 - Electronic & Pneumatic Drains
Controllers	Guardian CHX - Flow Controller
Tubing	QUICK-LOCK & BIG-LOCK TUBING  Solid Metal Tubing and Fittings  Easy Installation  Lightweight Design
Lubricants & Maintenance Kits	RECIPROCATING - ChampLub, ChampLub Synthetic, ChampLub Food Grade  ROTARY - RotorLub, RotorLub Synthetic, RotorLub Food Grade  MAINTENANCE KITS for Routine Maintenance

### Features & Specifications

### UP TO

180 INLET TEMP (°F)

5400 SCFM250 PSI



### UP TO

150 INLET TEMP (°F)

21250 SCFM300 PSI



- Removal of solid contaminants down to 5 micron Separate bulk liquids
- Prevent oil and water aerosol from damaging components



## Sales & Service Distributors Across America

### An Extensive Network

By leveraging the extensive network of Champion factorytrained authorized local distributors, your sales, service and technical support needs can be handled quickly and easily. Keeping your compressors maintained and adequately serviced has never been simpler.



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

To find a distributor visit: www.championpneumatic.com



We're Where You Need Us

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



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