



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.

CHAMPION

R-70, two stage, automatic, ball bearing compressor. 32 gal. tank, 2000 working pressure. 1 1/2 H.P.

OE-41, two stage, automatic, ball bearing, 2 cylinder, vertical compressor. 60 gal. tank, 200 lbs. working pressure. 3 H.P.

In this type of compressor, vertical—2 cylinder, Champion again is the pioneer in offering a two stage, service equipment especially adapted for the larger service stations, repair shops, garages, etc. where high pressure, large volume air is required for the operation of— in addition to tire inflation—high pressure braking systems—air lifts—gasoline pumps—air tools, etc. May be used for paint spraying, etc. Installation of a reducing valve in the paint line. Equipment includes—ball bearing compressor with wheel, air gauge, automatic electric controller, motor valve, unloader, belt, motor with adjustable sliding to permit easy belt adjustment, all mounted on a single ready to run when wired to electric current with 2 or 3 phase motors have automatic acceleration.

Champion also builds Car Washers and Paint Spray Units.

If you will analyze and compare Champion compressors with other makes, you will readily see their greater durability, better material, better construction and better lines of correct engineering.

No matter what your air requirements are, until you have seen the Champion Pneumatic Machinery Co. 8168 So. Chicago Ave. Chicago, Ill.

May 9, 1928

THE HOME OF THE CHAMPION PRODUCTS

PMC

MACHINE SHOP VIEW

FACTORY

HOT AIR AND NEWS FROM CHAMPION

THE NEW CHAMPION LINE

All New Unimated Aluminum Cylinders

THE GREATEST ADVANCE IN COMPRESSOR DESIGN IN OVER TWENTY YEARS!

Champion's creative engineering and product research have produced a new cylinder design that utilizes the highly desirable, inherent quality features of aluminum by combination with a special cast iron liner.

The pre-cast, iron liner used in the new cylinder is made by a centrifugal molding process which produces a unit 30% harder, more symmetrical, perfectly interior wall surface and an encrusted exterior with spine-like protrusions. The aluminum cylinder is premolded around the liner by a high pressure die-casting process, and a permanent interlocking bond is effected.

The Champion Line for 1966 is something to be excited about! The Commandair series and the Champion "domed" cylinder two stage air compressors now in production offer important, new design changes never before available . . . and promise to be the talk of the industry for years to come.

IT'S COOLER RUNNING!

The new Champion compressors are cooler running for improved operating efficiency and longer service life. The surface cooling area has been increased 375% by design over the older cast iron models, and aluminum provides a 4.1 times faster rate of conduction to rapidly disperse the heat from the head to the body of the cylinder. The bladed flywheel helps to keep the crankcase for smoother running.

OTHER IMPORTANT FEATURES

The new Champion line uses an impact oiling system to lubricate all moving parts by means of forced feeding into connecting rod and by high velocity splash feeding with centrifugal force to other areas . . . the most efficient for an air-proof method ever devised for an air compressor. New, counter-balanced crankshaft puts rhythm in the crankcase for smoother running.

Vol. 7 No. 1 Champion Pneumatic Machinery Co., Inc., Princeton, Ill., Bob Camery—Editor March 1966

Experience

With over **100 YEARS OF EXPERIENCE**, Champion compressors are the product of decades of design and development.

Quality

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

Knowledge

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

Reputation

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

Dependability

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 airtend that is directly driven at a slow, 1800 RPM speed. Found in applications such as car washes, 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.



R-SERIES

Reciprocating
Unenclosed/Quiet Enclosed
Intermittent Duty
Cost Effective
Configuration Flexibility
Low Maintenance Costs

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.



LV-SERIES

Rotary Vane
Unenclosed
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, Gear & Direct Drive
- Fixed/Variable Speed
- 5 to 200 HP
- Extremely Low Noise



L-SERIES

- Rotary Screw
- Quiet Enclosed
- Continuous Duty
- 3600 RPM Belt & 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 car wash for example. Throughout the work week, the duty cycle may be quite intermittent because of slower, sporadic traffic, but on the weekend, when the car wash 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
- Car wash Facilities

RECIPROCATING

ROTARY VANE

ROTARY SCROLL

ROTARY SCREW

TYPICAL APPLICATION

- Car wash
(Weekday vs. Weekend)

CONTINUOUS

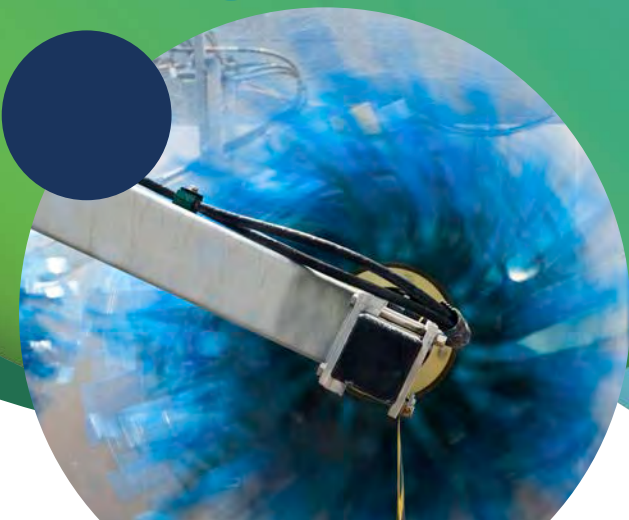
ROTARY VANE

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

Understanding the Environment



At Champion,
we have a product to fit
all types of **environments**



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.



RUGGED PERFORMANCE

A-Series
R-Series
PL-Series

ENERGY EFFICIENCY

DRS-Series
LRS-Series

SPECIFIC APPLICATION NEEDS

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

COST EFFICIENCY

Commandair
VP-Series
RV-Series

SOLUTIONS FOR **EVERY** APPLICATION

QUICK DELIVERY

Advantage

QUIET

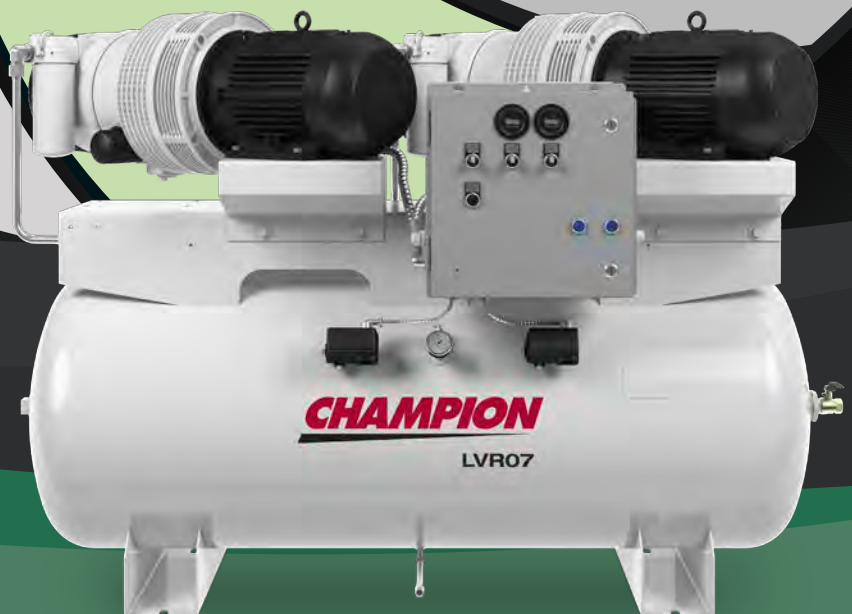
D-Series
Revolution
L-Series
CA-Series

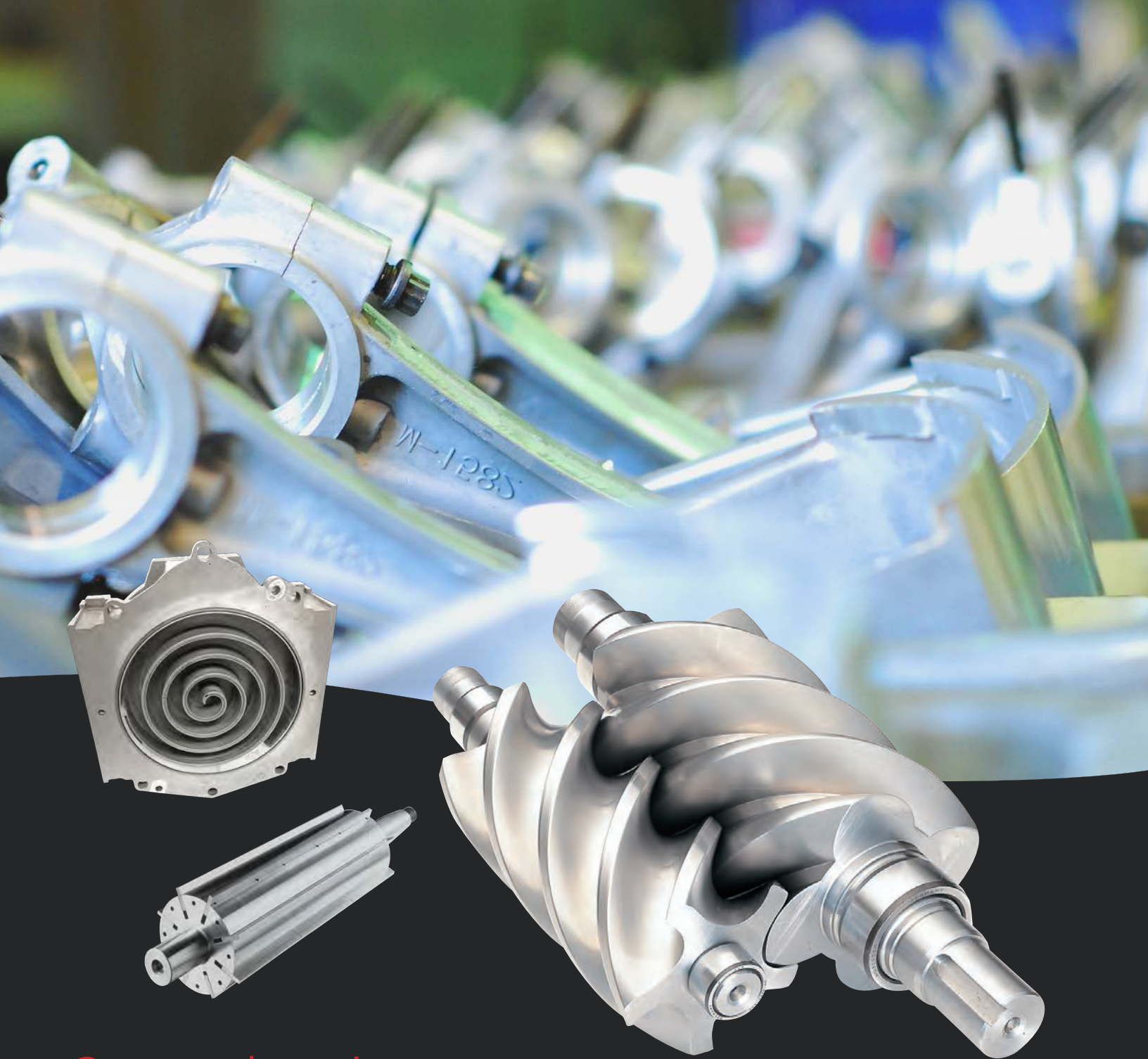
OPTIONS

R-Series
PL-Series

CONTINUOUS DUTY

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





Comprehensive 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

Technology	Specifications			
Reciprocating Unenclosed		UP TO 60 205 250	HP* CFM* PSIG	
Reciprocating Quiet Enclosed		UP TO 15 46.6 175	HP CFM PSIG	
Rotary Vane Unenclosed Direct Drive 1800 RPM		UP TO 20 72.8 150	HP* CFM* PSIG	
Rotary Screw Quiet Enclosed Belt/Direct Drive 3600 RPM		UP TO 40 193 190	HP CFM PSIG	
Rotary Scroll Quiet Enclosed Belt Drive 3600 RPM		UP TO 40 126.4 140	HP* CFM* PSIG	

*HP/CFM rating is the combined total power of a multiplex unit.

Reciprocating

Model	Specifications			
R-Series		UP TO 60 HP* 205 CFM* 175 PSIG		
PL-Series		UP TO 60 HP* 205 CFM* 250 PSIG		
Engine Driven		UP TO 23.9 HP 44 CFM 250 PSIG		
Revolution		UP TO 15 HP 46.6 CFM 175 PSIG		

*HP/CFM rating is the combined total power of a multiplex unit.



Reciprocating

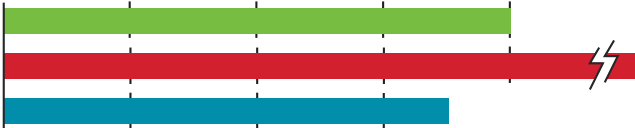
Model	Specifications			
A-Series		UP TO 30 60	HP PSIG	
VP-Series		UP TO 7.5 44.4 175	HP CFM PSIG	
Commandair		UP TO 3 10.2 90	HP CFM PSIG	
RV-Series		UP TO 15 48.1 175	HP CFM PSIG	
Climate Control		UP TO 1.5 11.4 80	HP* CFM* PSIG	

Rotary—Fixed Speed

Model	Specifications			
D-Series		UP TO 175 HP 762 CFM 175 PSIG		
L-Series		UP TO 40 HP 193 CFM 190 PSIG		
LV/LVR-Series		UP TO 20 HP* 72.8 CFM* 150 PSIG		

*HP/CFM rating is the combined total power of a multiplex unit.

Rotary—Variable Speed

Model	Specifications		
DRS-Series		UP TO 200 HP 923 CFM 175 PSIG	
LRS-Series		UP TO 40 HP 192 CFM 190 PSIG	





Oil-Less

Model	Specifications			
MTO II		UP TO 10 HP* 34.8 CFM* 100 PSIG		
V & W Series		UP TO 60 HP* 207 CFM* 175 PSIG		
CA-Series		UP TO 40 HP* 126.4 CFM* 140 PSIG		

*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	XCNC-Non-Cycling Refrigerated
	XCCY-Cycling Refrigerated
	XCHL-Heatless Desiccant
	XCML-Modular Desiccant
	XCHB-Heated Blower Desiccant
	XCHP-Heated Purge Desiccant
	CRPC - Energy Saving
	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
	XC Filtration Series
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 Plus, ChampLub Food Grade
	ROTARY - RotorLub, RotorLub Synthetic, RotorLub Food Grade
	MAINTENANCE KITS for Routine Maintenance

Features & Specifications

UP TO

180 INLET TEMP (°F)

5400 SCFM

250 PSI



- Packaged Filtration (optional)
- Automatic Zero-Loss Drain

UP TO

150 INLET TEMP (°F)

21250 SCFM

300 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 factory-trained 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



The Champion philosophy ensures long-lasting, reliable equipment. Our warranties and programs demonstrate our belief in the quality found in Champion products.



We're Where You Need Us

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

CHAMPION®

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