







# BIG ON QUALITY. CHAMPION ON PRICE.



**Champion Air Tech offers a wide range of Compressed Air solutions including Lubricated and Oil-Free Rotary Screw, Piston, Scroll and Vane, Air Compressors, plus a complete Air treatment range for the industrial needs of small and medium sized businesses.**

Our fixed and variable speed **Air Compressor** technology offer Energy Efficient Solutions perfect for the industrial needs of small and medium sized businesses.

The comprehensive range of Compressed Air solutions is designed for continuous use under the most severe conditions, paying particular attention to reliability, performance, energy efficiency, low operating and maintenance costs, plus ease of supply, installation and use.

Compressed Air is critical to most modern manufacturing and production environments, and Champion Air Tech delivers consistent, high quality, low cost air solutions.

Champion, Compair and Hydrovane form part of the Gardner Denver Group, a world-wide quality manufacturer of Pressure and Vacuum equipment.



## Why J & J Air Systems?

- Our experienced Sales and Service engineers are fully trained and accredited
- Full technical support for new and existing Compressed Air Systems
- I-Conn Remote Monitoring of Efficiency, Faults, Warnings and Alarms
- We provide Data logging and Energy Saving Audits
- On-site Data monitoring and Leak Detection to ISO50001
- PSSR2000 Pipework Examinations and Audits
- Breathing Air Purity Tests to BS4275
- Environment Agency Registered No: CBDU209861

## Customer focused, Value driven

- **24 hour** Dedicated local Customer Service and Technical Support
- Advanced range of Lubricated and Oil-Free Air Compressors
- Class leading range of Piston, Vane, Scroll and Screw Air Compressors
- Energy Efficient and Cost effective Compressed Air solutions
- Serving all Industrial, Utility, Scientific, Medical and Dental sectors
- We have a fleet of Diesel and Electric Hire Air Compressors
- We manufacture in the UK, Germany, Finland, Italy and USA
- Class leading 1,2, and 5 Year Warranties
- Low Cost 0% Finance Options Available



Service to Industry  
1963-2018

For assistance please call our Technical Support team on ☎ 0800 027 8442



# PARTS

**CHAMPION**  **CompAir**  **hydrovane** **Reavell** **BroomWade**

Our Champion Service Kits provide all the parts you need in a single box. These low-cost maintenance kits allow you to plan compressor maintenance in advance – avoiding nasty surprises or missing vital parts for a specific service or breakdown. No more wasting time searching for and ordering separate spare parts when you need them, the specific kits contain all the genuine Champion parts you require.



## Service Kits

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## Quality Spare Parts

*We stock parts for Champion, Compair and Hydrovane equipment and other manufacturers*

We supply Genuine Spare Parts which have been specifically designed to provide customers with the benefit of reliable, energy efficient and cost-effective solutions. Champion spare parts have passed strict endurance tests and are proven to provide the best protection for your investment and offer the best value, guaranteed.



**Same Day Service**



**Overnight Parts Delivery**



## Oil

Our range of Champion approved lubricants are formulated with carefully selected base oils and additives, which enables it to achieve longer compressor running hours. These high performance lubricants last remarkably long compared to other rotary Compressors whilst maintaining their lubricating properties for extended protection..

## 24 / 7 Service

Our Service Engineering Team have a wealth of technical knowledge and practical experience on all types of Compressed Air Systems.

We provide a full repair and preventive maintenance service on mechanical and electronic control systems within the Compressed Air and Controls environment, and on most industrial piston, vane, scroll and screw compressors and vacuum pumps.

## 365 Days a Year

## Technical Support

Our Service Engineers are factory Qualified and undergo on-going Product and Service Training in the UK and Germany, on current and new equipment.

All engineers are issued with factory authorised passports to show their Experience and Knowledge on Champion, Compair and Hydrovane equipment. The engineers are fully trained in Health & Safety at work procedures and will understand and comply with local H&S laws.

## Service Engineers

*Technical Support you can depend on....*

J&J Air Systems Engineers undertake rebuilding of piston; rotary vane; scroll and rotary screw air compressors and air ends. We provide a rewind service on electric motors, repair on air and oil coolers and faulty PCB and electronic control boards. And our work is guaranteed.

Our engineering facility and service team are externally audited to ISO9001-2015 quality standards, and we are authorised by Compair, Hydrovane, Bambi, Reitschle, and Champion to undertake Energy Efficiency Audits, Engineering Sales, Service Maintenance and Warranty work.

## Costs

For over 55 years we have provided cost effective solutions on a wide range of Compressed Air Systems and Projects; We like to keep things simple; All On-site consultation work is Non chargeable; Service and travel charges start from;

- Service Engineer costs from £40 per hour.
- Refrigeration Engineer from £75 per hour.

We work for organisations of all sizes and therefore Our Public Liability insurance cover is £10 million.



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# PISTON COMPRESSORS 2 - 30 HP

## Overview

- Coaxial version, single phase
- Belt driven, with canopy version
- Belt driven, three phase
- Pressure range 8 - 15 bar
- Electric motor 1.5kW - 22kW
- Voltage 230v / 50Hz & 400v / 50Hz
- Alternative frequency of 60Hz available

## Benefits

- Durable high quality pistons
- Wide range to suit all applications
  - Oil-free models available
  - Silenced models available

## Piston compressors: reliable, strong, suitable for professional use

Our company has always been associated with long-lasting, high-quality products.

- Single-cylinder, single-stage with direct transmission for small power outputs suitable for semi-professional uses
- Two-cylinder, single-stage with belt transmission for use in workshops
- Two-cylinder, two-stage with belt transmission for industrial use



from £1,986

### CB Series

- Oil-free
- 4.2 CPM
- 116 PSI

from £182



### Base Series

from £146

This range of lubricated direct drive compressors are ideal for hobby and semi-professional applications. Choose from a power range of 1.5 to 3 HP with receiver capacities ranging from 3 to 100 litres and working pressures up to 9 Bar.



from £236

from £470



### C Line Series

from £329

This range of belt driven lubricated compressors for semi-professional, professional and light industrial use. The series is entirely manufactured in the EU and is available in power range 2 to 20 HP with tank capacity ranging from 25 to 900 litres and pressures up to 11 Bar.

### C Pro Series

from £390



### Silenced Series

from £3,837

This series of silenced belt driven lubricated compressors are designed to meet the needs of professional and industrial applications where low noise levels are critical. Available in a power range of 5.5 to 15 HP and working pressures up to 11 Bar with or without a refrigerated dryer.



### Engine Series

from £1,276

A comprehensive range of Honda petrol engine driven lubricated compressors incorporating the cast iron pump unit. Made in the EU with power ranges from 4 to 9 HP and tank capacities of 22 to 270 litres and pressures up to 10 Bar.



### Advanced Series

from £480

This range offers the best in class option to satisfy the demand of professional and industrial applications. The series represents the best in range and stands out in terms of strong assembly, innovative technical solutions and excellence in detail and design. Power range from 2 to 30 HP with tank capacity ranging from 22 to 900 litres and pressures up to 15 Bar.



from £370

### Pro Series

from £390

This range is a comprehensive range of belt driven lubricated compressors for professional and industrial use. The series is manufactured in the EU and is defined by superior longevity and high construction quality. Available in power range of 2 to 30 HP with tank capacity ranging from 25 to 900 litres and pressures up to 11 Bar.

## Choose the RIGHT solution

### Direct Drive Aluminium Pump

- Simple utilisation
- Oil flutter lubrication
- Cast iron cylinders
- Aluminium piston with 3 rings
- Special inox steel valves
- High efficient ventilation



from £166

### Belt Driven Cast Aluminium Pump

- Superior volumetric efficiency
- Aluminium finned cylinders with cast iron liners
- Fast dissipation of heat through the use after coolers
- High air flow flywheels
- Oil sight glass



from £329

### Belt Driven Cast Iron Cylinder Pump

- Superior volumetric efficiency
- Cast iron cylinders for longer life
- Fast dissipation of heat through the use after coolers
- High air flow flywheels
- Oil sight glass



from £390



# ROTARY VANE AIR COMPRESSORS 1.1 - 4kW

## Benefits

- Small and compact
- High quality clean dry air
- No gears or belt
- Low noise levels
- Pro electronic controller (4kW)
- Tripod or receiver mounted

## Reliable air supply, day after day

The open, fixed speed CMPV01 - CMPV04 models are small and compact and with noise levels as low as 62 dB(A). They are ideally suited to light industrial and workshop applications where the compressed air outlet needs to be situated close to the point of use.

Designed and built with the highest levels of efficiency and energy savings in mind, our engineers have developed rotary vane compressors for the twenty first century, whilst retaining features that have helped build Champion's reputation for quality and reliability around the world.

### Tripod or Receiver mounted:

- 50 / 60Hz
- 1.1 - 4kW
- 10 bar
- 0.1 - 0.6 m³/min
- 4 - 20 cfm

### Designed for you... built to last

Providing up to 100,000+ operating hours due to their simple and integral direct drive design, these rotary vane compressors deliver clean, dry and pulse free, quality air straight from the outlet – requiring less downstream equipment. Operating at low speeds (1,450 - 1,760rpm) results in low noise, low stresses and long life.



from £2,029

from £1,826

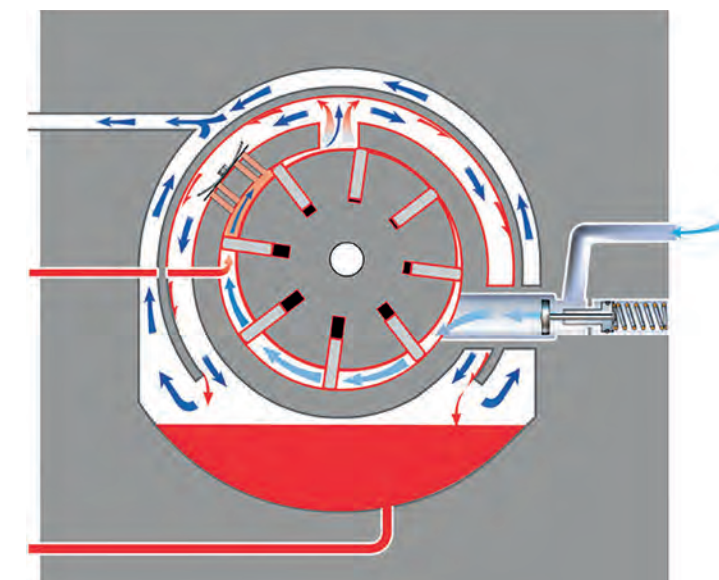


## The Rotary Vane Principle

- Air is drawn in through the intake valve
- Air is contained between the rotor and the stator wall
- Air is compressed by decreasing volume, oil is continually injected to cool, seal and lubricate
- High pressure air passes into the primary oil separator
- Remaining traces of oil are removed in a final separator element, providing high quality air
- System air passes through the aftercooler, removing most of the condensate
- Oil is circulated by differential internal air pressure – it passes through an air-blast
- Oil cooler and filter before being returned into the compressor
- Air flow is regulated by an inbuilt modulation system

## Lowest noise levels

There's quiet and then there's rotary vane quiet. Our rotary vane's noise levels are as low as 62 dB(A), even in an unclosed unit. Our compressors are often **located at the point of use** with little impact on the working environment.



**MADE IN  
BRITAIN**



# ROTARY SCREW COMPRESSORS

## 2.2 - 75kW

### Overview

- Oil flooded
- Single stage rotary screw compressor
- Belt drive
- Star-Delta starting
- Pressure range 5 - 13 bar
- Electric motor 2.2kW to 75kW - IE3
- User-friendly C-PRO 1.0, C-PRO 2.0 and C-MASTER controllers
- Energy efficient airend design
- From 2 - 5 year extended warranties available

### KA Series

from £2,527



### KA Series (2.2 - 5.5kW)

The decision to buy a screw compressor has just become much easier thanks to the introduction of this range. With the KA Series from screw compressor specialist Champion, even customers who require less air pressure can now enjoy the benefits of a screw compressor.

- Stand alone unit
- With attached refrigeration dryer
- Horizontal air receiver
- Horizontal air receiver with attached refrigeration dryer
- Optional filter pack with by-pass available

### Benefits

- Reliable
- Energy efficient
- Easy to install
- Easy to maintain
- Durable

### FM Series

from £3,829



### FM RS Series

from £5,508

### FM & FM RS Series (7.5 - 22kW)

The generously sized ventilation system ensures optimum cooling, low outlet air temperatures best performance and reliability under harshest conditions. The FM series feature high quality airends manufactured in Germany and Finland using state of the art manufacturing techniques. The airends are designed with focus on reliability and efficiency.

- Compressor base mounted
- Tank mounted compressor
- Complete package including compressor, dryer and tank
- Optional filter pack with by-pass available



## FM RS & KSV



The **correct** response to changing air demand

### Variable speed compressor: One smart solution

Variable speed compressors can efficiently and reliably handle the varying air demand found in most plant air systems. These compressors speed up and slow down to match air supply to air demand as it fluctuates.

The right variable speed compressor in the right application delivers significant energy savings and a stable, consistent air supply.

### Compressor energy cost example

NOMINAL kW	OPERATING COST PER YEAR (5000 HOURS) AT COST PER kWh (€)					
	0.06	0.08	0.10	0.12	0.14	0.16
55	€16.500	€22.000	€27.500	€33.000	€38.500	€44.000
75	€22.500	€30.000	€37.500	€45.000	€52.500	€60.000

### Reduced Maintenance Costs

The design of these compressors provides easy access to components requiring maintenance. The limited number of moving parts also reduces overall service costs.

Our approved service network ensures the smooth running of your compressor and the swift supply of original and genuine parts to save you time and money over the life of the compressor.



### KSA / KSV Series, now FM Series (30 - 45kW)

KSA / KSV compressors are compact, easy to install, and deliver high performance with low maintenance. Accessibility of all components makes service and cleaning very easy. This series is the best choice for low-maintenance, economical compressed air in your workplace.



### KSA / KSV Series, now FM Series (55 - 75kW)

These rotary screw compressors with direct drive transmission provide high performance for all demanding applications. Moreover the Champion ranges deliver low maintenance combined with energy efficiency which result in substantial savings up to 30%.



PREMIUM OIL-FREE

**CHAMPION**  **CompAir**

# ROTARY SCROLL AIR COMPRESSORS 4 - 15kW

## Benefits

- 100% oil-free design
- High reliability
- Continuous operation, 100% duty cycle
- Energy efficient
- Low vibration and sound levels
- Compact design
- Low maintenance due to less moving parts

## Cutting edge technology development from £7,282 - £13,393

Setting new standards for air purity, these oil-free scroll compressors are ISO 8573-1 CLASS 0 compliant. Offering not only 100% oil-free air, but also improved energy efficiency, these compressors deliver extremely quiet operation and contain less moving parts which means lower maintenance and higher reliability.

## Superior compressor package

Designed to meet the strict requirements for contaminant free, oil-free, clean air applications, the scroll compressor range is made up of Simplex units at 4, 6 and 8kW, and Duplex units at 7, 11 and 15kW – all featuring a very clean, simple and serviceable layout.

- Oil & contaminant free air
- Motor power from 4 to 15kW
- Volume flow from 21.2 to 106.0 m<sup>3</sup>/hr
- 8 or 10 bar options

## Scroll compression explained

- An orbiting (rotating) scroll and fixed scroll housing are mated to create the compression chambers
- The continual movement of the orbiting scroll moves atmospheric air from the intake toward the centre, compressing the air into progressively smaller areas
- The compressed air is directed to the centre discharge port of the compressor
- Discharge pressure is accomplished during multiple stages of compression, resulting in a continuous intake suction and discharge

**OIL**   
**FREE**  
**CLASS: ZERO**

## Everything under control

Different controller options are available for the scroll compressors. A basic relay panel is fitted as standard to Simplex models, or the optional deluxe HMI electronic controller can be installed, with easy-to-use navigation and friendly graphics, delivering interactive and intuitive information to your fingertips.

With integral web server built in, via ModBus TCP ethernet connection, the HMI controller provides visibility to the compressor system from any computer or mobile device with internet connection.

## Simplex basic relay panel

- NEMA 1, UL508A Labelled Panel
- Magnetic Contactor with Overload Protection
- 115V Control Circuit Transformer with Fusing
- Door Mounted TOA Switch
- Green Power On Light
- Emergency Stop
- Reset Button
- Run Time Meter
- Pressure Gauge



## Deluxe HMI

- 3.5" Full Colour Touch Screen
- PLC Controlled
- Lead/Lag Control with Forced Alternation
- System Capacity and Operation Trending
- 26 Language Options
- 24VDC Power Supply with Fusing
- System Run Time Meter
- Alarm/Fault Log
- System Discharge Pressure
- Pump Discharge Temperature
- System Maintenance Timers
- Integral Webserver
- Modbus TCP Interface over Ethernet





# OIL-FREE DENTAL COMPRESSORS

Reliability. Simplicity. Performance.

## Benefits

- 100% oil-free
- Many variants including open frame, silenced cabinet and membrane dryer
- High reliability
- Low noise levels
- High air quality



## Dental Oil Free Compressors

**When compressed air is used in the dental, health, cosmetics sectors or to operate machinery which cannot be contaminated by impurities, an oil-free Champion compressor is required.**

Champion oil free compressors are available as open frame, silenced with or without on-board membrane dryer. Due to the high quality filtration and drying system Champion oil free compressors are compliant with HTM2022.

C-PRIME compressors benefit from heavy duty cycle use, silent running, superior design, high reliability, and articulated connecting rod system and

brass internal cylinder surface. The entire PRIME range is equipped with hour-counter, thermic protection and amperometric protection. Versions equipped with membrane dryer (M) have a filtration system offering filtration to 0.01 micron, achieving a dew point value of -20°C, producing oil free hygienic air. In addition, the silenced cabinet versions (CS) are among the lowest noise level for this technology.

## The comprehensive and innovative range of oil free piston compressors feature:

- Power range from 0.8 to 10 kW
- Suitable for 1-20 dental chairs
- Silenced operation on cabinet versions
- Noise level of 53-78 dB(A)
- Receiver sizes from 24-270 litres
- Efficient and improved duty cycles
- Operating pressure up to 10 Bar
- Double filtration system to 0.01 microns
- Maintenance free membrane dryers to -20°C dew point

In addition, the special internal surface treatment prevents rust generation and air tank corrosion. The installation of a simple automatic drain system reduces the need of periodical ordinary maintenance.

The choice of dental compressor is critical for the correct operating standards of surgeries and laboratories. Actual and future compressed air demand are important questions when making the correct dental compressor choice. The Champion dental compressor range satisfies every need, both from the performance and the investment point of view.



**CHAMPION**



# BREATHING AIR COMPRESSORS

Versatile. Reliable.  
Flexible.

## Benefits

- Quick charging times
- Safe operation
- Various drive motors
- Easy to use
- High reliability
- Including range of accessories



## The Range of Breathing Air Compressors from £2,756

Champion offer a range of breathing air and technical gas compressors from the small portable CBA6 series with a flow rate of 100 l/min and a pressure of 300 bars to the more powerful models for large refilling centres such as the CBA36 with a flow rate of 600 l/min and a maximum pressure of 330 bar.

Compressors such as the CBA36 meet the needs of large refilling centres as it charges a 10 litre single-cylinder at 200 atmospheres in 3.3 minutes with noise levels as low as 75 dB(A). The range is compliant to EN 12021 CGA E.

Champion compressors are available with single and 3-phase electric motors as well as petrol or diesel engines. Additionally, Champion offer a series of important accessories, such as filling panels, transfer hoses, oxygen carbon dioxide and helium analysers, pressure reducers with safety valves and other useful accessories.

<b>POWER RANGE:</b>	2.2 to 11 kW
<b>CAPACITY:</b>	80 to 600 l/min
<b>CHARGE TIME:</b>	3 to 25 mins (based on charging a 10 litre cylinder)
<b>PRESSURE:</b>	232 to 330 bar
<b>NOISE LEVEL:</b>	70 to 96 dB(A)
<b>VOLTAGE:</b>	230 / 1 / 50 / 60, 400 / 3 / 50, 440 / 3 / 60



# AIR TREATMENT PRODUCTS

## Complete range of compressed air treatment products

- Filters
- Condensate separators
- Differential pressure indicators & accessories
- Refrigeration dryers
- Adsorption dryers
- Condensate drains
- Activated carbon towers
- Nitrogen Generators
- Aftercoolers
- Oil/water separators
- Membrane Dryers
- Heat Recovery System

## Why is compressed air treated?

Compressed air is known as “the fourth utility” – just like electricity or water, it is an essential input across all fields of industrial manufacturing, necessary to keep production lines moving.

When air is initially pulled into a compressor, it often contains pollutants, dirt particles and water vapour, which condenses into liquid water when the air is compressed. These impurities can cause disruptions in your operations, leading to substantial but avoidable

costs. To avoid expensive production breakdowns, compressed air must be oil-free, clean and dry. An efficient and smart air solution is more than a line of high-quality compressors. It is a combination of air generation, filtering, drying, condensation and purification expertise and products. Champion's complete compressed air systems provide not only compression packages, but a full range of air treatment systems.



### Refrigeration Dryers from £632

The use of clean, dry compressed air, ensures high levels of reliability, guarantees that quality standards are met and can reduce production costs. Champion compressors offer a range of drying solutions, utilising state of the art cooling technology.



### Compressed Air Filters / Separators from £137

Installed to reduce or remove contaminants from compressed air, water separators and filters are essential to the health and performance of a compressed air network. The primary function of any filter is to improve air quality, although modern demands mean this performance should not be at the expense of energy efficiency. from £68



### Adsorption Dryers from £1,155

Champion has a broad range of adsorption dryer technologies, each of which are designed to match the specific needs of the user. At the heart of any smart air solution is the dryer, used to remove water vapour, stop condensation and prevent corrosion. Adsorption dryers additionally inhibit the growth of micro-organisms. LHB-DRY from £4,389



### Condensate Drains EMA Series from £128

Removing liquid condensate from the system can be a highly energy inefficient process if not managed correctly. Most drains allow valuable compressed air to escape, forcing the compressor to produce more compressed air and waste more electrical energy. Champion condensate drains allow for substantial energy savings. **IED Series** from £90



## Latest Additions to the Range

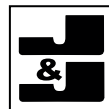
	From
• Manual Drains	£16
• Air Receivers	£250
• Carbon Towers	£359
• Paint Systems	£427
• After-Coolers	£540
• Membrane Dryers	£998
• Nitrogen Generators	£2,499
• Heat Recovery Systems	£3,361
• Breathing Air Filter Pack	£5,014





# COMPRESSED AIR SOLUTIONS

## J&J Air Systems



# YOUR COMPRESSED AIR PARTNER



Champion's piston compressor range is designed to cover all the possible professional uses of compressed air. Our piston compressors come in various forms and sizes, providing a truly complete range of choices.



Champion stationary rotary screw compressors, both fixed and variable speed drive, are the answer to the needs of small and medium-sized companies.

**Call our technical support team on 0800 027 8442**



- Trade Counter (8am-5pm Mon-Fri)
- On Site Technical Assistance
- Supply & Installation
- Service Team on Call 24/7
- Support 365 days a year
- Local Free Delivery\*



## J&J Air Systems



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