

SATELLITE

Your knowledge warehouse for the compressed air industry

WINTER - 2010

INTRODUCING QUINCY QGD ROTARY SCREW AIR COMPRESSOR

By Ron Nordby, Vice President of Sales and Marketing

John Henry Foster is pleased to announce the addition of Quincy Compressor's (Quincy) newly released direct drive QGD series of industrial rotary screw air compressors.

The Quincy QGD series exemplifies Quincy's long standing tradition of developing state-of-the-art rugged and highly efficient air compressors for the industrial market. The QGD series incorporates numerous features that have been field tested for over 20 years within Quincy's highly successful QSI rotary screw series of air compressors.

Standard Features:

- Direct drive with flexible coupling eliminates inefficiency and maintenance of belts or gears
- Standard C – faced drive motor ensures proper alignment



- Triple lip shaft seals to eliminate oil leakage
- Spin on oil and separator elements reduces maintenance costs
- Industrial grade enclosure reduces sound levels to as low as 67 dBA
- Expandable PLC control with LCD display
- Small footprint
- Factory fill with Quincy Quin-Syn Plus® 8,000 hour lubricant
- Network capability with capacity of up to 6 air compressors
- Heavy duty intake filters

To complement the world class design of the QGD series of industrial rotary screw air compressors, Quincy has also extended their Royal Blue Warranty



Program to support the QGD series. The combination of world class design, along with the world's best warranty program, provides assurance that your investment is fully protected by John Henry Foster and Quincy Compressor.

To support your productivity and efficiency needs with this innovative product, please contact us at 651.452.8452 or visit www.jhfoster.com.



CASE STUDY | Air-Driven Adjustable Double-Finger Toggle Clamp



A window frame manufacturer needed a way to hold multiple boards, in a fastening application, without using multiple manual toggle clamps.

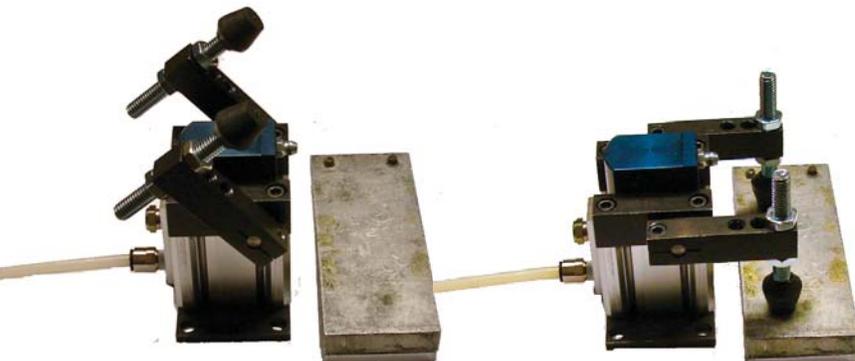
The solution was to utilize an air cylinder to provide “1-stop locking”. Upon actuation, the cylinder rotates the clamping fingers into position. When pressure is released, a spring returns the fingers to the home position. This design gave the customer the ability to vary the locking force by simply adjusting air pressure. And, by using a rack and pinion design from a traditional rotary actuator, the clamping fingers can rotate over 90 degrees. This allows it to fully release away from the assembled frame via a spring returning design.

Are you looking for your own custom solutions?

Contact Rodney Janovec our Fluid Power Supervisor for more information.

Direct 651.681.5732 or 888.681.5732

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CUSTOM SOLUTIONS TO FIT YOUR NEEDS

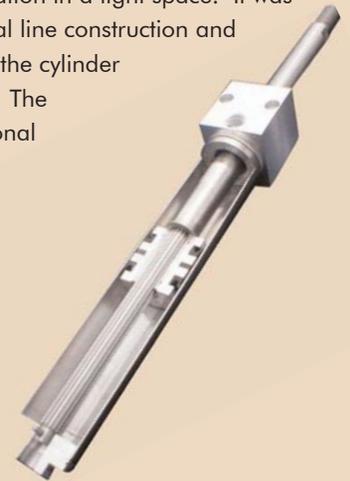
Success in today’s competitive environment largely depends on the ability to provide dependable, flexible and durable cutting-edge custom and semi-custom solutions to meet essentially any engineering challenge. The term “solutions” can run the gamut of improving machine performance, increasing throughput, adding value or decreasing cost, providing improved ergonomics or safety, and even improving eco-friendliness.

Custom solutions are designed to meet the demands of changing markets and are established for customers whose project requirements cannot be met by the off-the-shelf products of most manufacturers. Our goal is to match customer demand with sound solutions to improve their performance and efficiency needs.

REPRESENTATIVE APPLICATIONS

Spline Cylinder

For a labeling application, a printer needed to extend a part with very little rotation in a tight space. It was modified from its original line construction and included a spline within the cylinder to keep it from rotating. The cylinder achieved rotational tolerance of only $\pm 1/2^\circ$ and kept the customer from having to use a bulkier linear thruster.



Rate Control Actuator

A food service company needed a cylinder to provide rate control on a spring-loaded cover. A unique rate control actuator was developed to deliver smooth, consistent velocity control. This fluid-filled cylinder was designed to provide free flow in one direction and controlled flow in the opposite, or controlled flow in both directions.



Product photos provided by Bimba Manufacturing

Why consider an oil-sealed liquid ring vacuum pump system?

Get maximum reliability under the toughest conditions

By Rich Dean, Air Systems Product Manager

Oil-sealed liquid ring vacuum pump systems give maximum reliability under the toughest conditions. These highly efficient systems are known for their simplicity in design and low maintenance requirements due to the absence of wearing parts. Compared to other vacuum pump systems, these systems offer advantages of no metal-to-metal contact between the impeller and casing and also require no internal lubrication. By using specially formulated low vapor pressure sealing fluid, they can operate up to 10,000 hours or more without an oil change, while preventing corrosion and scale build-up. An additional advantage of oil-sealed systems is that the use of water – and the corrosion and waste associated with it – has been completely eliminated. The air/oil separator virtually eliminates oil carryover concerns and ensures the cleanest environment. Switching from water cooled to air cooled will also produce significant cost savings on water usage and reduce groundwater runoff contamination.

The oil-sealed vacuum pump is also very adaptable to the utilization of a Variable Frequency Drive (VFD). The VFD is applied in industries where ruggedness, reliability and cost-effective operation are of the utmost importance. When demand for vacuum decreases, the VFD will reduce the speed of the vacuum pump, which in turn significantly reduces power consumption. VFD's are affordable and easy to install and are one of the most cost-effective ways to maximize efficiency and reduce operating costs – frequently saving up to 50% in energy costs.

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ADVANTAGES:

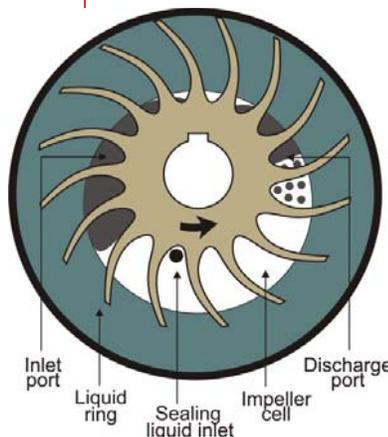
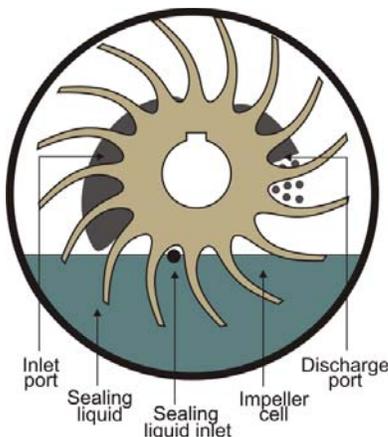
- Low maintenance
- Durable
- Extremely quiet with soundlevels in the 75-80 dBA range
- High capacity for contaminants
- Can operate at low vacuum without overheating
- Available in single or two-stage pumps
- Available in air-cooled or water-cooled
- Available explosion proof
- Eliminates the use of water

REPRESENTATIVE INDUSTRIES SERVED:

- Hospitals
- Laboratories
- Biodiesel plants
- Remediation projects
- Printing companies
- Food industry
- Plastics

John Henry Foster is able to assess and recommend the most efficient and cost effective equipment on the market today. Contact us to find the best application for your vacuum pump solutions.

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XCEL ENERGY INCREASES REBATE IN 2010

Energy Audits Bring Big Savings

Energy Efficiencies Begin With Compressed Air Systems

It's a fact: When businesses purchase equipment based on cost rather than efficiency, they will spend more on energy bills in the long run. And more specifically, electricity used to run compressed air systems could be more than 75% of their system's total lifetime costs. So, as businesses are searching for new ways to save money, it's prudent to conduct an energy audit to examine how efficiently a compressed air system operates year after year.

BENEFITS OF COMPRESSED AIR EFFICIENCY AUDITS

70% of facilities utilize compressed air in some aspect - a compelling reason to investigate the potential for energy savings, including:

- Maximize system performance
- Lower operational costs
- Increase system reliability and stability
- Increase productivity
- Reduce waste
- Offset equipment costs

BUSINESSES HAVE RECEIVED AN AVERAGE OF \$10,000 IN ENERGY REBATES

JHF partners with energy companies to identify savings initiatives. Federal and state programs are available to assist you in achieving significant energy and process efficiencies.

2010 NEW ENERGY REBATES FROM XCEL

- 50 hp to 74 hp - funding up to \$2,500
- 75 hp to 99 hp - funding up to \$3,000
- 100 hp to 249 hp - funding up to \$10,000
- 250 hp to 499 hp - funding up to \$15,000
- >500 hp - funding up to \$20,000



Xcel Energy provides 100% funding for customers using greater than 50 hp in 2010

START SAVING TODAY!

Contact Ryan Koepsell our Industrial System Specialist for more information.

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MODULAR FRAMES THAT ADJUST TO FIT VIRTUALLY ANY INDUSTRY AND APPLICATION

Aluminum profiles, fasteners and accessories

By Terry Flanagan, 80/20 Design Engineer

Modular aluminum framing systems have the capability to adjust to fit virtually any industry and application. These custom specific framing systems consist of aluminum profiles, fasteners and accessories and are fully equipped to handle projects ranging from light to heavy-duty. They provide secure and OSHA-approved guards, displays, workstations, or any other custom application needed. To help save time and money, services such as design assistance, custom machining, kit packaging and support to build your application are all available in addition to offering the necessary parts and pieces for your project.

NEW KEY PRODUCTS PROFILES

Currently, there are 88 profiles available. Options for these profiles include fractional and/or metric extrusions and weights ranging from light, ultralite or standard. Also added are three rounded profiles for the 40 series metric, along with four other additions to the 40 series line. These additions give a greater variety of options for designing.



Photo courtesy of MTS Systems Corporation

PANELING

80% of all framing projects need one or more panels. Our manufacturer has nearly 100 existing and in-stock options to choose from and has recently expanded to include several new options.

These options include: mill finish aluminum plates along with clear polycarbonate panels both available in five thicknesses, wire mesh in two additional powder coat colors, and PVC coated wire mesh panels with 2" x 2" openings.



STRUCTURAL ALUMINUM APPLICATIONS:

- Machine tool
- Automation
- Material handling
- Manufacturing
- Retail systems
- Furniture
- Fluid Power
- Robotics
- Displays/Exhibits
- Medical
- Scientific
- Packaging

STRUCTURAL ALUMINUM BENEFITS:

- No welding
- No priming or painting
- Lightweight and easy to machine
- Uses standard fractional or metric fasteners
- Less engineering time required
- Easy to fabricate – only simple hand tools required
- T-Slot technology is industry accepted
- Great aesthetic value
- No expensive fabricating equipment required
- Machine frames can be easily reconfigured for design changes

For more information on Aluminum Framing Systems, please contact one of our design specialists today.

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ADDRESS SERVICE REQUESTED

John Henry Foster (www.jhfoster.com) is dedicated to serving our clients with the most cutting-edge products available on the market today. With over 70 years of experience, we are one of the Midwest's leading compressed air systems distributors and service providers and are uniquely qualified to assist our clients from design to build. We provide both capital and pneumatic components consultatively, allowing us to partner with both the supply and demand sides of compressed air systems.

Our team of experts provides customized solutions that impact our clients' consistency, reliability and profitability, while continuing to demonstrate our knowledge of the latest industry trends and solutions. Headquartered in Eagan, Minn. with a facility in Fargo, N.D., John Henry Foster employs over 75 technical, service and professional staff.

John Henry Foster

Have you heard the latest technology in Pneumatics and Fluid Power?

We have! Coming to a location near you. Complimentary lunch provided.

John Henry Foster has gathered the best in Fluid Power to assist you with learning about the latest technology along with programs offered by John Henry Foster. They are designed to **maximize your efficiency and have a positive impact on your bottom line.**

Our Fluid Power Product Specialists partner with manufacturers, OEMs and end-users to optimize system implementation. We strive to create seamless integrations between design, testing, maintenance, training and other technical support to help our clients improve productivity and efficiency.

Sample display and demonstrations:

- Air Cylinders, Air Actuators, Grippers
- Air System Accessories
- Air Valves
- Electric Actuators
- Fittings, Couplers, Hose, Tubing
- Structural Framing Systems
- Gauges & Transmitters
- Modular Filters, Regulators, & Lubricators
- Shock Absorbers
- Vacuum Products

Find out when we'll be in your area, request a show to be held at your company or sign up today!

http://www.jhfoster.com/trainingandresources/product_display_luncheons.html



Providing innovative compressed air solutions since 1938