MODULAR FRAMES THAT ADJUST TO FIT VIRTUALLY ANY INDUSTRY AND APPLICATION
Aluminum profiles, fasteners and accessories

John Henry Foster
3103 Mike Collins Drive
Eagan, MN 55121
800.582.5162

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 experience, we are one of the leading compressed air industry suppliers. We offer the most reliable, maximum performance and lightweight metal components consultatively, allowing us to partner with both the supply and demand sides of compressed air systems.

Your knowledge warehouse for the compressed air industry

WINTER - 2010

Modular aluminum framing systems have the capability to adjust to virtually any industry and application. 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 OEM-approved guards, displays, ventilation, or any other custom application needed. To help save time and money, services such as design assistance, custom machining, air-packing and support to build your application are all available in addition to offering the necessary parts and jaws for your project.

NEW KEY PRODUCTS

PRODUCTS
Currently there are 88 profiles available. Options for these profiles include both aluminized and carbon steel extrusions and weights ranging from light, which is standard, also available are profile cross-referenced profiles for the 40 series metric, along with four other additions to the 60 series line. These additions give a greater variety of options for designing.

STRUCTURAL ALUMINUM BENEFITS:
• No welding
• No fencing or painting
• Lightweight and easy to machine
• Uses standard fastener or metric fasteners
• Less engineering time required
• Easy to fabricate – only simple hand tools required
• T-Slot technology is industry accepted
• Great aesthetic value
• High performance value
• No expensive machining equipment required
• Maximum frames can be fully reconfigurable for design changes

For more information on Aluminum Framing Systems:
Ron Nordby, Vice President of Sales and Marketing
651.681.5750
r nordby@jhfoster.com

Sample display and demonstrations:
• Air Cylinders, Air Actuators, Grippers
• Air System Accessories
• Air Stations
• Electric Actuators
• Fittings, Couplers, Hose, Tubing
• Structural Framing Systems
• Geared & Transmitters
• Modular Frames, Regulators, & Lubricators
• Bush, Amortizers
• Vacuum Products

Find out when we’ll be in your area, request a show to be held at your company or sign up today! New products, technology and the world’s best warranty program to support the QGD series. The combination of world-class design, along with the world’s best warranty program, provides assurance that with the QGD series, proven by John Henry Foster and Quincy Compressor.

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

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

The Quincy QGD series exemplifies Quincy’s long standing tradition of developing state of the art rugged and highly efficient air compressors of 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. Standards Features:
• Direct drive with flexible coupling eliminates inefficiency and maintenance of belts or gears
• High C.F. based drive motor ensures proper alignment
• Triple leaf shaft seals to eliminate oil leakage
• Spin on oil and air/oil separator elements reduces maintenance costs
• Industrial grade enclosure reduces sound levels to as low as 87 dB
• Expandable PLC control with LCD display
• Expandable controller with airisto display panel
• 8,000 hour lubricant

Your local Quincy Installer:
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. To find out when we’ll be in your area, request a show to be held at your company or sign up today! To support your productivity and efficiency needs with this innovative product, please contact us at 866.452.8452 or visit www.jhfoster.com.

We have made a commitment to continually advance the world of compressed air systems and expand your knowledge with the latest technologies. We are here to help you adapt to the changing needs of your company.

To learn more about this innovative product, please contact us at 651.452.8452 or visit www.jhfoster.com.

For more information about our design specialists:
Terry Flanagan
651.681.5750
terry@jhfoster.com

John Henry Foster
651.681.5751
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providing innovative compressed air solutions since 1938

John Henry Foster
By Roger Hurley, Vice President of Sales and Marketing

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Contact one of our design specialists today.
**Why consider an oil-sealed liquid ring vacuum pump system?**

Get maximum reliability under the toughest conditions.

Oil-sealed liquid ring vacuum pump systems give maximum reliability under the toughest conditions. These highly efficient systems are based on their simplicity in design and low maintenance requirements due to the elimination 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 cooling fluid, they can operate up to 10,000 hours or more without an oil change, preventing corrosion and scale build up. An additional advantage of oil-sealed systems is the use of water – the corrosion and waste associated with on-site water cooling is completely eliminated. The actual separator virtually eliminates oil carryover concerns and the dry environment, resulting in a water-cooled system that will also produce significant cost savings on water usage and reduce groundwater runoff contamination.

The oil-sealed vacuum pump is also very adaptable to air cooled will also produce significant cost savings on water usage and reduce groundwater runoff contamination.

**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 achieved rotational tolerance of only +/- 1/2° and kept the customer from having to use a bulkier linear thruster.

**BENEFITS OF COMPRESSED AIR EFFICIENCY AUDITS**

- Lower operational costs
- Reduce waste
- Offset equipment costs
- Increase system reliability and stability
- Reduce emissions
- Reduce water use
- Eliminate the need for water

**REPRESENTATIVE INDUSTRIES SERVED:**

- Hospitals
- Laboratories
- Biomedical plants
- Remediation projects
- Printing companies
- Food industry
- Pandemic

With 50% 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
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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 abrasion of moving parts. Compared to other vacuum pump systems, these systems often achieve better performance and longer life. The design is based on a single-stage design, which means that no metal-to-metal contact is made, allowing for a long service life.

REPRESENTATIVE APPLICATIONS

Spline Cylinder
A spline cylinder is a piston that needs to extend support with a little rotation in a tight space. It is modified from its original design and includes a spline within the cylinder to keep it from rotating. The cylinder achieves controlled tolerance of only ±0.125 to keep it from moving while the actuator remains static.

Rate Control Actuator
A fluidic actuator is a device used to control rate on a spring-loaded cover. A unique rate control actuator was developed to deliver a consistent fluid flow. 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.

CUSTOM SOLUTIONS TO FIT YOUR NEEDS

A window frame manufacturer needed a way to build multiple header bars in varying applications, without affecting reflector, using multiple manual toggle clamps.

The solution was to use an actuator that provides reliable and consistent performance. When pressure is released, a spring returns the frame to the home position. This design gives the frame the ability to hold the tolerance by using simply adjusting air pressure. And, by using the same part pitch design and from a traditional rotary actuator, the clamping force can rotate over 90 degrees. This allows for a fully reusable assembly as it can return to a spring return design.

Are you looking for your own custom solutions?

Contact Rodney Janovec our Fluid Power Supervisor for more information.

Direct: 651.681.5752 or 844.461.5752
rodney.janovec@jhfoster.com

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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 becoming the standard in design and low maintenance requirements due to the vibration of working parts. Compared to other vacuum pump systems, these systems offer advantages of cost-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 oil change, while generating corrosion and scale build-up. An additional advantage of oil-sealed systems is the use of water – the corrosion and waste associated with oil is completely eliminated. The oil separator virtually eliminates air carryover concerns and ensures the cleanest environment. Sticking clean water cooled to an oil cooled will also produce significant cost savings on water usage and reduce groundwater run off contamination.

The oil-sealed vacuum pump is also very adaptable 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 achieved rotational tolerance of only +/- 1/2° and kept the customer from having to use a bulkier linear thruster. 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 clamping fingers back to home position. This design gives the customer the ability to vary the locking force by simply adjusting air pressure. And, by using a stack and pack design from a traditional rotary actuator, the clamping fingers can rotate over 90 degrees. This allows for fully reversible return from the assembled orientation or a spring return design.

CASE STUDY

Air-Driven Adjustable Double-Finger Toggle Clamp

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.

John Henry Foster
Air Systems Product Manager
651.681.5749
jhfoster@jhfoster.com
www.jhfoster.com

A window frame manufacturer needed a way to hold multiple boards, in a rotating application, without using multiple manual labor changes. The solution was to utilize an air cylinder to provide 12 stop locking. Upon activation, the cylinder rotates the lifting fingers into position. When pressure is released, a spring returns the lifting fingers to the home position. This design gives the customer the ability to vary the locking force by simply adjusting air pressure. And, by using a stack and pack design from a traditional rotary actuator, the lifting fingers can rotate over 90 degrees. This allows for fully reversible return from the assembled orientation or a spring return design.

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
- Increase energy efficiency
- Increase system reliability and stability
- Decrease noise
- Reduce waste
- Offshore equipment costs

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

JHF partners with energy companies to identify savings, including:

- Rate Control
- Laboratories
- Biomedical plants
- Manufacturing projects
- Printing companies
- Food industry
- Pharmacies

These systems offer advantages of no metal-to-metal contact between the impeller and casing and also require no internal lubrication.
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By Terry Flanagan, 80/20 Design Engineer

Your knowledge warehouse for the compressed air industry

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By Ron Nordby, Vice President of Sales and Marketing

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Our Fluid Power Product Specialist partner with manufacturers, distributors and users to optimize systems implementation. We drive to create win-win situations between design, testing, manufacturing, training and after technical support to help our clients improve productivity and efficiency.

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- Air Cylinders, Air Actuators, Grippers
- Air System Accessories
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