Spiling 2015 COUCINITIAN FORMING SYSTEMS

Quantum Wins Pittsburgh Business Times Manufacturer of the Year Award

In my 16 years at Quantum, one principle has been made clear to me, as well as to the rest of the employees. "Support our customers."

This award is a testament to the values and work ethic that our Owner and CEO, Joseph Kozora, has instilled in all of us. Receiving the Manufacturer of the Year Award brings to reality what we already knew; we are and have been working in the right direction.

It is exciting to see glass manufacturers, not only adopting, but requesting a higher level of technology to be used to aide them in the future. Our devotion to continued innovation comes, not only from inside the walls of the Design Department, but all departments have a hand in developing the best products and solutions for an

ever evolving industry.





I would like to take this opportunity to personally thank everyone who made receiving this award possible. First and foremost, we want to thank our customers because without them none of this would be possible. I would like to congratulate our international sales team for their hard work and perseverance, also the whole team at Quantum and last but certainly not least, Joseph Kozora for giving us all the drive and knowledge to keep pushing ahead.

Mike Albert Vice President, Technology





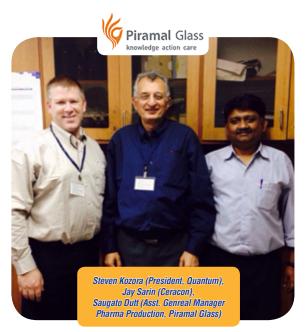
Glasspex India

In March, Quantum exhibited at the Glasspex Exhibition in Mumbai, India. The event was held at the Bombay Convention and Exhibition Centre and for us it was a great opportunity to promote our newest innovations, demonstrate our support for the glass manufacturers of India, and of course to get together with old friends.

Overall, Quantum feels Glasspex was a wonderful success. We met with the established manufacturers of India as well as some of the newest market entrants. We unveiled our recent product developments including the advancements made to our miniature cylinders, NNPB Forming Systems, and the latest version of Quantum's Total Forming Analysis (TFATM). The attendance of the exhibition was high and our booth traffic was even better than expected.

In the years to come the hollow glass manufacturing scene in India is set to undergo many changes. Quantum Engineered Products, Inc. is committed to supporting our customers and demonstrating our capabilities to our prospective customers. Through streamlining and improving the blankside forming process we can help the glassmakers of India keep glass as the best packaging choice.





Quantum and Piramal Glass

Recently Quantum spent time visiting our long time customer **Piramal Glass**. During the visit to the Jambusar production facility, Quantum conducted a maintenance training seminar to help Piramal develop a comprehensive preventative maintenance program. **Piramal Glass** is a global leader in delivering world class packaging solutions for the pharmaceutical and perfumery businesses. Quantum is proud to be partners with one of the leaders in the industry.



Quantum in Mexico

Once again, Quantum was in Mexico for another machine installation project. With the help of the Ontal team we installed a complete NNPB Forming System that included Quantum's Process Control System the TFATM. Mexico is a vital part in the growth of the global hollow glass industry and the countries manufacturers are continually advancing their production techniques to remain pioneers of technology. There

are many longtime supporters of the Quantum Forming System within our neighbors to the south. In September, Glassman Latin America will be held in Guadalajara, Mexico. Quantum will be there to show our support for our customers and the industry.



Vitro Envases (Mexico) was presented with Glass Packaging Institute's Clear Choice award for its excellence in manufacturing the Jim Beam Signature Craft bottle. Since 1989, GPI has been presenting the Clear Choice Awards and honoring consumer product goods manufacturers who excel in the design and production of innovative glass packaging.

Quantum has been partners with **Vitro Envases** for many years and we would like to congratulate them on receiving this prestigious award. The Vitro group continues to use Quantum Plunger Mechanisms and forming system components as a standard throughout their Latin American locations.



Product: Jim Beam Signature Craft
Brand Owner: James B. Beam Distilling Co.
Glass Manufacturer: Vitro Packaging, LLC
Description: Jim Beam released a brand new
design for its 12 Years Kentucky Straight Bourbon
Whiskey. The glass bottle shows a modern and
laid-back concept. The body has a squared finish
with a small neck to pour out a drink.
Spirit: Base bourbon finished with a variety of fine
quarter cask bourbons, all aged at least four years
in smaller barrels. Boasting notes of vanilla, oak,
and a hint of caramel, this spirit should be enjoyed
neat or on the rocks.

Product Spotlight

Quantum's 85mm TG Mechanism



Quantum has had great success with our line of 85mm TG mechanisms. The Universal Individual TWT[®] Cylinders provide the user with flexibility, standardization concepts, and all the features and benefits that are provided by our full size TWT[®] Cylinders.

The 85mm mechanism is ideal for the production of pharmaceuticals, perfumery, cosmetics, and smaller size beverage containers.

The Flat Bottom designed Cylinders allow for fast and easy convertibility between center distances. The 85mm TG mechanism can quickly convert to 5" or 5 ¹/₂" configurations with no piping changes, no shut off of any operational air or lubrication lines, and no realignment. Each QMF9000 Cylinder has a dual upward exhaust system that allows the hot process air to quickly escape. Overheated plungers and speed restrictions can be problems of the past. This forming system can be used to produce ware with finish diameters less than 53mm in the NNPB Process and any commonly produced finish diameter in the Blow and Blow Process. The smaller piston area of Quantum's QMF9000 Cylinder provides rapid pressing and reduced volumes of compressed air for both the up and down functions. The cooling tube passage way is identical to the thousands of dual thread TWT[®] cylinders used worldwide, so our customers are enjoying the same cooling capacity available in our full size cylinders.

The miniature process equipment also has the standard features of our full size process equipment including:

- An internally lubricated Positioner and Cap that provides smooth trouble free operation all while eliminating dirt from entering the forming system.
- The spring does not contact the Positioner wall, eliminating the chance for any wear or particulate from entering the Parison during forming.
- Lightweight and tapered cartridge self-aligns and reduces impact on cartridge bolts.
- The dust cover keeps the positioner mounting bolts free of dirt and debris.
- The plunger/cooling assembly can be dynamically loaded, which creates a rigid forming setup

Each Cylinder has dual upward exhaust

Get to Know...



Jason Murawski

Q: Before joining Quantum what are some other jobs you've had? A: I did a quick run in the plastic bottle industry. I also designed and built electrical control systems for use in the steel industry. I've worked in the textile industry as well.

Q: What are some things you enjoy about working at Quantum?A: I enjoy not only being able to design new products, but to have the ability to see them come to life out of the machine shop. Testing the products is also something I enjoy.

Q: What are some of your hobbies or things that you like to do in your free time? A: I like to fish and spend time with my family, also ride my motorcycle in the summer.





Quantum has started an employee book exchange. All employees were invited to bring in their old books to donate towards the exchange program.

It is important for us as a company to encourage reading and the continued growth of our employees!

Take Our Daughters And Sons To Work Day



Quantum was proud to participate in the 22nd annual Take Our Daughters and Sons To Work[®] Day program. Take Our Daughters And Sons To Work[®] encourages girls and boys across the

country to dream and to think imaginatively about their family, work, and community lives. This national public education program connects what children learn at school with the actual working world.



Quantum Events



Upcoming Trade Show Apperances



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