

Core International delivers unique value through coordinated global operations

The Core International Group is a privately owned holding company based in Nicosia, Cyprus. Its engineering, logistics, and finance operations are headquartered in Houston, Texas, USA, and it manufactures rubber valve seals and a variety of other products from its production facilities in India and Malaysia. The company has implemented a strong investment strategy over the past year and is gearing up to increase its capabilities to produce seals for valves with an outer diameter of up to 180 inches.

By Joanne McIntyre

The Core International Group manufactures a wide variety of molded rubber products in its state of the art ISO 9001:2008 registered Indian and Malaysian factories. Valve World Americas spoke to the company's CEO Mr. Cody W. Johnson from his Houston office about the company's activities.

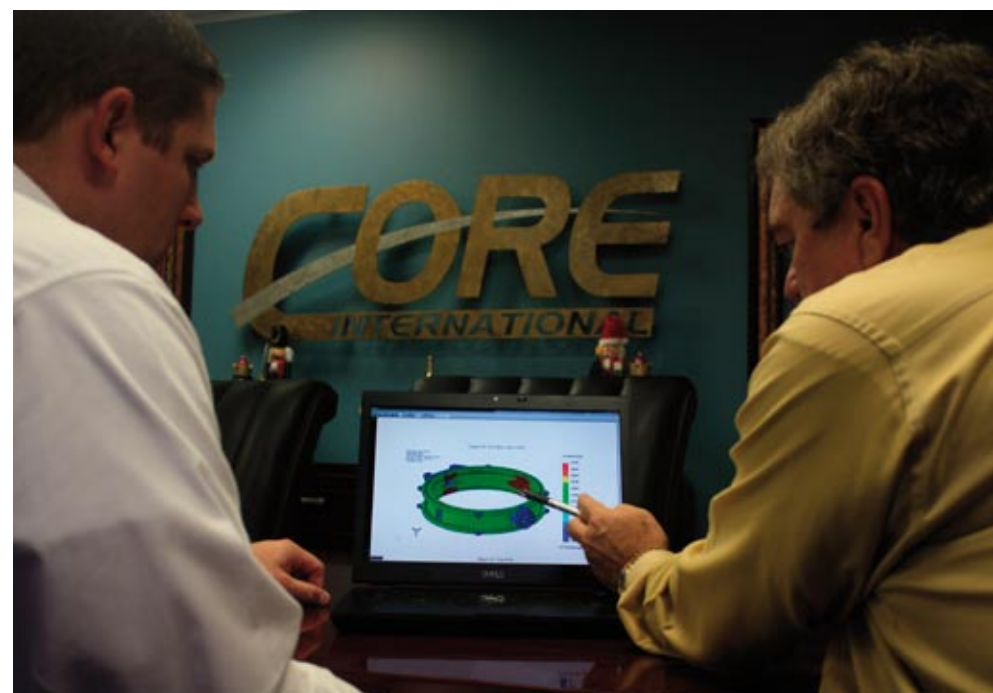
"Core has a long history of manufacturing rubber components for valves and other flow control equipment for USA based companies such as Bray International Inc., Sure Seal Inc., Bulk Tank Inc., and Ultraflo Inc. Over the years we have expanded our customer base globally by expanding our capability and capacity to make high performance rubber parts, regardless of whether they are for butterfly-, gate- or any type of valve. Furthermore, we are the world's best at rubber-to-metal bonded components and exotic rubber components," explains Mr. Johnson.

108 inch, 120 inch and 126 inch products right now. That's a very exciting development for the company."

The company's engineering headquarters is in Houston, Texas, where it has historically been a leader in providing rubber products to the oil and gas industry such as blow out preventer packing elements. Today all of its valve seat and sealing products are produced at its Indian and Malaysian plants.

Ultra large rubber and rubber-to-metal bonded components

The company's Indian production facility and American specialty projects design and project management business unit have invested heavily in the past two years in the design, production, and handling of ultra large



Use of FEA software in our Design and Development procedure is critical to achieve successful outcomes for our complex, ultra-large projects.

equipment in the world that are designing and manufacturing ultra large rubber and rubber-to-metal bonded parts. Our team commonly works with customers from design through production of parts using hun-

components. For example, we're currently carrying out product and process development for the castings and rubber linings of several products with outer dimensions in the 120-inch to 126-inch range. In terms of testing, the highest pressure and greatest stress that those castings will ever have to endure is during the process when we bond the rubber seal to the casting itself. The highest degree of strain the casting body will ever be subjected to is during the manufacturing process so we have to be part of the design process from the beginning."

Additionally, the production costs in India are substantially lower than in other markets making some projects of this size economically viable where in alternate manufacturing sites they would be economically unviable. "Our clients get the best the world can offer with regards to value," says Mr. Johnson.

Self-lubricating compound

Core International Group's facility in Malaysia specializes in producing a wide range of small to medium size rubber liners for butterfly valves and other types of valves for customers. A significant proportion of the production capacity is also taken up with producing colored compounds. "However the most interesting product to come out of our Malaysian plant is a family of extremely high quality self lubricating rubber compounds for a variety of applications," explains Mr Johnson. "These compounds have been definitively proven to decrease the torque required on butterfly valves by as much as

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40%, and to increase the life of the valve by over 100%. In terms of economic savings it reduces the investment cost of the actuator - the most expensive part of a valve package - because the 40% reduction in torque required means a smaller actuator will be able to achieve the same seal. In addition, the reduction in torque required means that the disc and the seal do not induce wear so quickly so the valve lasts for much longer. So the compound really offers two substantial returns on your investment; firstly that you can choose to specify a smaller, cheaper actuator, and secondly the valve simply lasts for much longer."

The compounds are suitable for a wide range of applications. "We've seen a lot of these types of seals on valves used in dry bulk train wagons, such as those used for carrying ground wheat or corn, or even aspirin," says Mr Johnson.

Core has been accredited with or is currently working on all the relevant certifications including FDA, NSF and WRAS approvals for the use of its valve seats in water, food and drug applications. The company produces a wide range of seals in a variety of materials including Viton, Nitrile, SBR (Styrene-Butadiene-Rubber), and CSM / CSPE (Chlorosulfonated-Polyethylene Material); however, EPDM (Ethylene-Propylene-Diene-Monomer (M-class)-Rubber), which is suitable for high temperature food and water applications, is the most popular by volume.



Our manufacturing presses are located near our compounding and metal insert prep departments which reduce raw material transport and maximize the final quality of the part.

Value added services

In addition to manufacturing resilient valve seats, Core offers a wide range of value-added services to its customers around the globe. "We provide the international organizational structure, financing, quality assurance, production scheduling, and logistics support that competitive industries require. It's our aim to ensure our customers always feel like they are getting local service with international value simultaneously," explains Mr. Johnson. For example, Core consolidates the weekly production requirements for several North American clients into container load shipments from its Asiatic factories to Core's Corsicana, Texas, USA distribution center, where Core then manages each clients inventory according to that clients' exact needs. "This saves our customers lots of money, and it allows some smaller companies to tap into offshore production that otherwise would be left out," says Mr. Johnson.



With over 500 cubic feet of working volume, it is no problem for ultra-large parts to fit into our post-curing oven that will reach temperatures up to 300° Celsius.

The Core International Group's globally coordinated Quality Management System sets it apart from other rubber manufacturers. "Several years back, when we were forming The Core International Group, I realized how much I missed competing against Japan. Back in the 80's global manufacturers were struggling to compete based on higher quality materials, workmanship, and management systems. Japan was pushing us all to be better. Currently, global manufacturers are too often in a race to the bottom to see who can sell their product for the cheapest price, everything else be damned. Competitors in a number of emerging markets are now pushing us all to be cheaper regardless of quality and service. The Core International Group rejects that approach and operates under the presumption that total value, not price, should drive global manufacturing decisions," says Mr. Johnson.

"We believe we have created a company that offers the highest value and cheapest total vendor operating cost of any rubber molder in the world. Few companies offer prices cheaper than us, and none of those offer the quality in product and service that our clients get from The Core International Group."

Mr. Johnson believes the key to the group's success has been a focus on coordinating the Quality Management Systems of the various business units in the United States, Malaysia, and India through its corporate level management at the holding company. "Our holding company focuses on the operations side on ensuring all Business Units have coordinated and complementary certified quality management systems as well as unified quality management forms, databases, and cloud computing systems. Managers across the cloud talk to each other

"The company is making a large sales and marketing push in Europe and the WRAS certification is an essential part of that."

everyday regardless of in which country they are sitting. In this way our engineering managers in the North America and our manufacturing managers in Asia operate seamlessly to realize the customers' expectations in the most cost and time efficient way possible," says Mr. Johnson.



Our factories are equipped with advanced material handling equipment that aids in loading and unloading to reduce cycle times and increase manufacturing efficiency.

"New customers constantly tell us that their previous cost savings projections for outsourcing the manufacture of components to Asia have not been realized due to quality and delivery problems. Furthermore, they tell us that suppliers become truculent when asked to fix the problems and pay the liquidated damages created by a gaff. Our customers just don't have those integrity and professionalism related problems," says Mr. Johnson.



Our Indian Engineering team discusses the next steps for post-curing and inspection of the large valve seat recently molded.

Strong investment focus

With a strong focus on quality, Core International has actively pursued accreditation from standards authorities across the globe. "For many years we have held the American National Standard Institute's National Safety Foundation's NSF-61 approval for several of our compounds, and now we also are successfully seeking the European WRAS standard as well. For water projects it's very important to have these certifications

and we are very proud to have them," continues Mr. Johnson. "The company is making a large sales and marketing push in Europe and the WRAS certification is an essential part of that."

Despite the economic turbulence of the past two years Core has been in a strong position to continue its investment strategy during this time. "Both our capacity is increasing and our capability for producing larger and more complex items.

We're investing in machinery to make increasingly larger rubber products and our plans are to be able to manufacture parts with an outer dimension of 180 inches by 2012. These large products would be suitable for essentially any type of flow control application whether that be power generation, the oil and gas industry, or water handling."

"In 2010 we opened new sales and service offices in Penang, Malaysia and in Cochin, India. In addition we're marketing our products more in these 'local' production markets. We're also increasing our marketing activities in Asia, Africa, and the Middle East, setting up sales offices with local staff and customer service people to provide strong local sales and service."

"We already export our products to many countries around the globe. Now we will be able to offer improved customer care and after sales service as well," concludes Mr. Johnson.

Facts & Figures

Name:	Core International Group
Subsidiary Business Units:	Core International LLC (Houston, TX), Core Marine & Specialty Projects LLC (Corsicana, TX), Vajra Rubber Products Limited (Cochin, India); PG Bume Technologies Sdn Bhd (Penang, Malaysia)
Founded:	1996
Headquarters:	Nicosia, Cyprus & Houston, Texas
Employees:	450 worldwide
Products:	Butterfly Valve Seats, Seals, Packing Elements, Gaskets, Grommets, & Bushings
Key markets:	Original Equipment Manufacturers of Valves Worldwide, Offshore Platform Defender Systems, Blow Out Preventer Replacement Packing Elements, Commercial Axle Manufacturers.
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Vajra headquarters located in one of the highest natural rubber producing regions of India.