

## FluoroSeal Specialty Valves: Commitme

A leading provider of innovative solutions to the flow control industry, FluoroSeal specializes in the design, manufacturing, and servicing of a full range of standard and custom designed Sleeved and Lined industrial Plug Valves, Floating and Trunnion Mounted Ball Valves, Lined and High Performance Butterfly Valves, Cast Steel Valves, Exotic Alloy Specialty Valves and Pneumatic Actuators. A privately-owned company, FluoroSeal has been under the current ownership since 2000 and has been experiencing a steady growth since. Now with over 500 employees worldwide, FluoroSeal's operations span across the globe with international sales force and manufacturing.

Valve World Americas had the opportunity to visit FluoroSeal's Montreal, Quebec, Canada head office to meet with President, Ziad G. Homsy and Vice President, Robert Tian to discuss the company's growing product line, their work with speciality alloys and the importance of having control over product quality from start to finish.

By Sarah Bradley

For over 30 years, FluoroSeal has been manufacturing and customizing a wide range of valves, accessories and related parts for various industries including Oil & Gas, Chemical, Petrochemical, Power, Pharmaceutical and Mining, among many others.

"For the first part of the life of FluoroSeal, we invested into sales and manufacturing infrastructure. We built a manufacturing facility in China, we opened a fully-owned FluoroSeal foundry there in 2008, and we have a foundry here in Montreal. We have become much more vertically integrated, because we realized that relying on suppliers and outside foundries can cause problems. Especially when you start doing exotic alloys which has been our forte," explained Ziad. "We work with exotic alloys for the chemical industry, special applications and difficult applications that other companies do not want to do or are not able to do. We developed the expertise in metallurgy and we pour just about every alloy out there in house except for titanium and zirconium."

Having invested heavily in developing the manufacturing capabilities to work with special materials, as well as fostering the knowledge and expertise in metallurgy, FluoroSeal has become a forerunner in the design and manufacture of special service valves made from a variety of exotic alloys. Recognizing that their clients

were in need of a variety of different products constructed from exotic alloys, the company has been actively expanding their product lines to meet the ever-increasing needs of their customers.

"We have the know-how, we have the capability and the infrastructure. Our customers want exotic alloy ball valves and exotic alloy butterfly valves but they are not readily available because everyone is in the commodity business. We invested in developing designs for a number of applications because we understood that end users also need exotic alloy options. We realized that we can take our expertise and develop more options for our customers," Ziad said. "We have spent years developing our methods and techniques. The advantage is also that this know-how is internal; our product and its quality are not affected by external changes such as what could occur with a change in ownership at a third party foundry source."

The control afforded to FluoroSeal through having in-house capabilities is one of the company's greatest assets. While many companies rely on third-party foundries to assure their products meet quality standards, FluoroSeal can be confident in the high-quality products they provide by having full control over the manufacturing process from design to metallurgy, casting to assembly, testing to delivery. Stocking exotic alloys and their foundry capabilities



allows FluoroSeal to react quickly to customer requests and enables the company to provide a variety of sizes, styles and short-run requirements with immediacy.

"By making sure that you are controlling all the variables of every part of the product from the beginning of the cycle, at the end your casting is sound and when you send it to your manufacturing facility, they already have a good product to work with. If you are buying from somebody else, after machining, assembly and testing, then you may realize that you have a problem. You are more reactive than proactive," said Ziad.

With the importance placed on ensuring product of the highest quality, the ability to control the manufacturing process has been a great factor in FluoroSeal's success. As a privately-held company with the ability to react quickly and make decisions without the bureaucracy that often accompanies the processes in a public company, Ziad and Robert believe that technical knowledge and the expertise they have developed are imperative in helping meet customer needs.

"This is a private company – we are the owners and we are both engineers. Very few companies are in a position where the top management are actually technical people that understand valves and work with metallurgists and engineers. We both know how to make valves, what qualities make a design successful and how to sell those products. We run the company as well, from all financial and business aspects. We really understand the market needs and what is happening with our customers," said Ziad. "It gives us a different, more complete overview. We understand what will work for our customers."



### Controlling Quality Across the Globe

FluoroSeal's client-oriented culture allows the company to understand complex industry needs and meet the highest quality standards. FluoroSeal's manufacturing processes are ISO 9001:2008, PED 97/23/EC and API SPEC Q1 certified. The Quality Assurance and Quality Management staff ensure quality levels are maintained both in their own plants, as well as those of their suppliers.

"From the inception of our Chinese foundry, pattern design and foundry knowledge was from North America. It is set up like a North American foundry, only it is located in China. We trained staff to ensure that our procedures are very clear worldwide. Many EPC or end user companies don't want products or raw materials of Chinese origin, but knowing it is our own plant they are willing to make an exception. They can audit and see that we have full control of our process and that we are certified. They want to cut costs, but they don't want to compromise on quality," explained Robert.



## From Traditional to Innovative Flow Control Solutions



Their foundries and manufacturing plants in Canada and China enhance the company's capability to offer an extensive range of high quality valves at competitive prices in a wide range of exotic alloys on demand.

"The concept from the beginning was to build grassroots facilities and not just buy an existing plant with entrenched processes and habits and try to change people. We built it from scratch, bringing in machines and procedures from Montreal. We went a step further by putting our quality certification, ISO, PED, etc. for both the Chinese and Canadian facilities on the same certificate. That means we are very confident in the quality at all our facilities, because if one doesn't succeed in an audit, we lose certification at all plants. We set the bar higher and the pressure is on, forcing our people to be at the same level company wide," said Robert.

### Prime Products

FluroSeal Valves possess all of the best design features presently available on the market. They are inspected throughout the full manufacturing process from foundry to final assembly and packaging, to assure high quality and consistency in every unit. The company conducts intensive testing on all of its designs to achieve the highest standards in Fugitive Emissions and fire resistance.

"The money we have invested into polymers and testing the behavior of polymers in different temperatures, pressures and stress, allowed us to have some of the lowest fugitive emissions in the marketplace. Many of our standard design valves exceed our competitors' high-end, top of the line fugitive emissions design valves. I think customers are sensitive to this," said Ziad. "Innovation is the core of the company. We have been investing heavily in engineering and design work and we have been very aggressive about pushing new products in our portfolio. Since 2013 we have added two new product lines and this year we launched the Trunnion mounted ball valve product line for API 6D applications. We are much more diverse and we have added more products for the chemical, mining and many other industries."

"For instance we have invested heavily in the technology of our plug valves so far. We are the only one in the marketplace that can meet all of the pressure and temperature requirements and none of our valves are derated, whereas all of our competitors derate their plug valves," Ziad said.

FluroSeal® Non-Lubricated Sleeved and Lined Plug Valves incorporate state-of-the-

art PTFE fluorocarbon seat design. With little required maintenance and trouble-free operation, a high integrity bubble-tight seal is provided both in-line and to atmosphere. The specific design features contributing to the superiority of this product are described as a function of their individual purpose and engineering design features taken to ensure maximum service life.

"We received an order from a joint venture between China and United States. Our competitor also got part of the order, but they offered some derated products to the client. Only after order placement did the engineer discover that the competitor's valves were not fully rated," said Robert. "We could say from the very beginning that our valves are fully rated. We can tell them the reason is all relative to the R&D that we are putting behind the products that we are developing in-house. They cancelled the order with the competitor for those sizes and placed them with us, because they were confident in what we were offering."

FluroSeal's product offering is continuously evolving thanks to their team of highly skilled designers, engineers and metallurgists who ensure the application of the latest technologies in state-of-the-art design software, production methods and machinery to develop and customize existing and new product lines.

"In addition to exotic sleeved and lined plugs, we offer exotic alloys for the ball valve and high performance butterfly valves, lined butterfly and lined ball valves. I think it is refreshing for the industry because most companies went away from the exotics. We have had situations, where we delivered an exotic alloy valve to a customer before they even got a quote from a competitor. It may take them a month to provide a quote for an exotic and they just are not interested in the complexity of the business," revealed Ziad. "We are able to quote a customer for the commodity carbon and stainless steel products that they need, as well as take on the exotic alloy valves that they require. Most foundries that our competitors work with don't have the capacity for exotic alloys, they don't want to develop the technology because of the time and cost investment involved. Our ability to combine the commodity, exotic alloys and specialty products into one package is something that makes our customers' work much easier. It is something we are able to do that a lot of our competitors are not."

With its large network of warehouses, distributors, and representatives, FluroSeal is capable of delivering valve products, technical support and complementary services worldwide and is able to support its



customers with quick deliveries in case of emergencies and unscheduled shutdowns. FluroSeal continues to grow the company by investing heavily in their sales infrastructure, opening sales offices in the Middle East, strengthening their offices in Germany, growing their sales force in the United States, as well as expanding their footprint from a sales perspective in Mexico.

"It is very important to have a global presence, because most of our customers are global. We want to be able to provide the same product and service for them all over the world. Our clients are multinational and we need to follow that – we need to service them worldwide too," explained Ziad. "When quality and price are the biggest factors, you need to work hard to stay competitive. The markets overseas are learning how to match the quality in

North America and Europe, so price becomes a driving factor for the customers. We saw that happening, so we combined North America and China together to be fully integrated and create our own market position. This is our strength, because this can give us a long-term position in the valve world."

"We are definitely a growing company – we have been in consistent growth year after year. We are looking to continue to expand through organic growth and acquisition. We are financially very healthy, very solid and we are looking to make some strategic acquisitions to expand our product lines, but also for some specific markets as well. We are running the company with long-term vision and our strategy is to continue to become a major player in the valve industry," concluded Ziad.



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