

FluoroSeal SPECIALTY VALVES:

A leading provider of quality solutions to the flow control industry, FluoroSeal, Inc. specializes in the design, manufacturing and servicing of a full range of standard and custom-designed high performance valves. With their wholly-owned foundries in Canada and China, FluoroSeal is able to provide metallurgical solutions, expertise and quality assurance on orders requiring high grade metals such as stainless steel, alloy 20 and duplex, as well as more exotic alloys. Their product line, which includes 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, makes them ideally suited to severe service applications in the chemical, petrochemical, pharmaceutical, power, oil & gas and mining industries, to name a few.

Fugitive Emissions Journal had the pleasure of speaking with Alain Roquet, EMEA Product Manager; Jerry D'Avanzo, Standards Specialist; and Rob Enneking, Product Manager, out of their Canadian and U.S. offices. We discussed the company's recent product growth and significant expansion into the oil & gas arena, their foundry capabilities and custom offering of high-performance metals, as well as their ongoing commitment to premium sealing capabilities, ensuring quality from start to finish.

By Sarah Bradley and Melanie Gogan

Montreal, Canada-based FluoroSeal Inc., led by company President, Ziad Homsy, has experienced steady growth and success as a privately-owned company since its establishment in 2000. For over 30 years however, the FluoroSeal brand has been synonymous with top-quality sleeved plug valves. Recognizing their clients' need in recent years for a more diverse range of products constructed of high grade and exotic metals, the company has been actively expanding their product lines to meet the ever-increasing needs of their customers.

Rob highlights FluoroSeal's recent product expansion: "Up until a few years ago, FluoroSeal was a one-product line company - the sleeved plug valve. Within the last year-and-a-half to two years we have come out with a PFA-lined plug valve, a lined butterfly valve, a high performance butterfly, a pneumatic actuator, a floating design ball valve and the trunnion ball valve. That's six additional products in less than two years. This has greatly expanded the company portfolio."

Expansion into the O&G sector

FluoroSeal's team of highly skilled designers, engineers and metallurgists maintain an active pulse on current and growing market trends, while ensuring the application of the latest technologies using state-of-the-art design software, production methods and machinery. The company's 2014 inauguration of FluoroSeal's O&G division, devoted to the machining, as-

sembly, testing and storage of valves specifically intended for the oil & gas industry, combined with their recent product growth, reflects FluoroSeal's commitment to addressing the ever-increasing needs of the oil & gas industry.

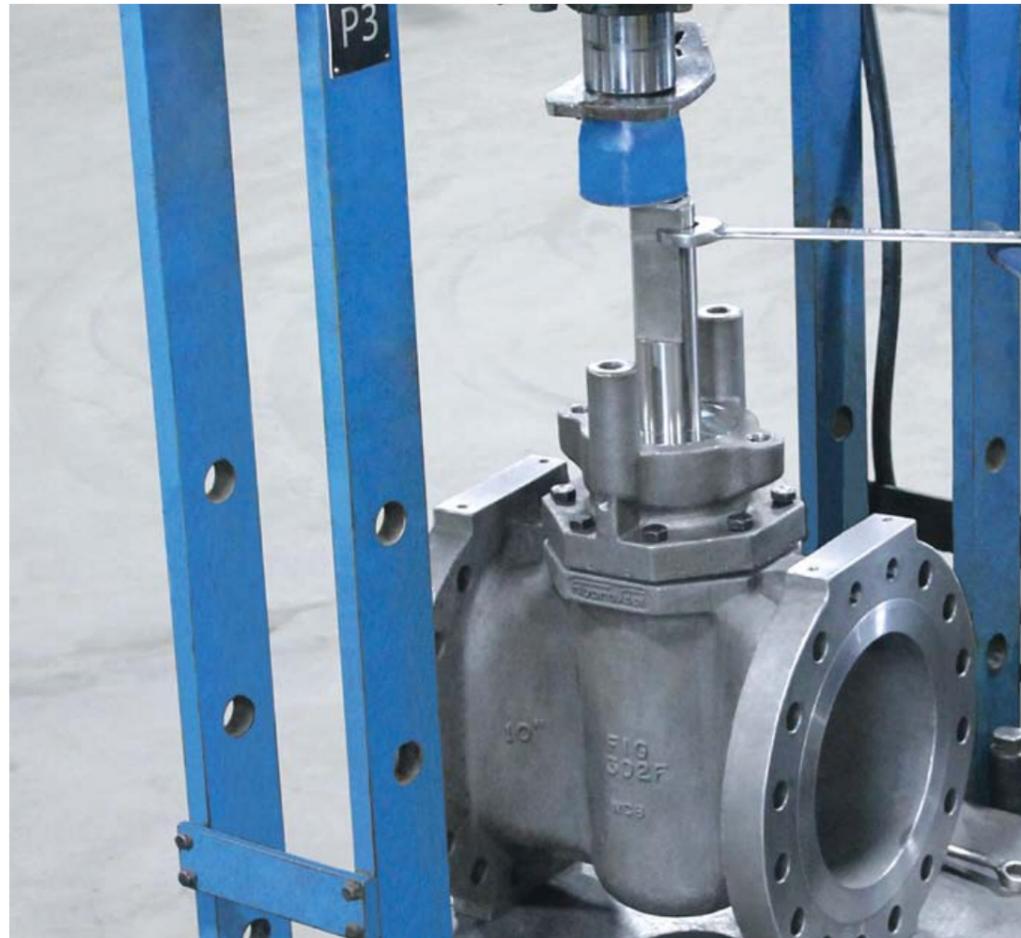
Alain comments, "With the introduction of floating and trunnion-mounted ball valves and the butterfly valves, we're gearing more towards the oil and gas industry. Historically we have been mostly involved in mining, chemicals and petrochemicals, but now we are also moving into the O&G sector in a significant way." Focused largely on bringing these new lines of products to the production mainstream, Alain explains that the company is focused on connecting with the markets to promote these new product lines. He adds, "We're a pretty new company and we are fortunate to be able to adjust to a changing market."

Foundry capabilities and specialty alloys

A forerunner in the design and manufacture of special service valves made from a variety of exotic alloys, FluoroSeal's foundry

"...The advantage that FluoroSeal brings to the client: FluoroSeal actually owns and operates the foundry."

Jerry D'Avanzo



capabilities enhance the company's ability to offer an extensive range of high quality valves at competitive prices. With a full stock of exotic alloys always on hand, FluoroSeal is able to react quickly to customer requests, which also enables the company to provide a variety of sizes, styles and short-run requirements with immediacy.

"We offer our valves in a number of high grade metals, including stainless steel, alloy 20 and duplex. Anything that requires higher end casting, such as hastelloys, inconels or nickels, are all cast in our Montreal foundry. As well, we do have access to some European and American foundries for materials such as titanium and zirconium," says Alain.

The control afforded to FluoroSeal through their in-house capabilities is one of the company's greatest assets. While many companies rely on third-party foundries, FluoroSeal can be confident in the high-quality of their products from design to metallurgy; casting to assembly; testing to delivery.

A former employee of DuPont, Jerry knows first-hand what customers look for in a supplier. Remarking on FluoroSeal's foundry capabilities, he says, "With regards to our foundry in China, what's different is that our facility is wholly owned by FluoroSeal. For many other companies, that's not the case. They may have a manufacturing facility, but they contract out the valve castings to various foundries in China. As a result, they don't necessarily have the quality control that a customer would like to see. The advantage that FluoroSeal brings to the client: FluoroSeal actually owns and operates the foundry."

Combating fugitive emissions

Providing their clients with reliable test results and performance sheets are two ways FluoroSeal is helping customers negotiate consent decrees in the U.S. and perform overall plant emissions calculations to ulti-

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Rob Enneking

mately meet current EPA regulations. They also offer factory re-manufacturing and rebuilds of their fugitive emissions products; ensuring the highest quality results in accordance with industry quality standards. The real value to customers, however, are the results of product performance. Rob asserts, "Really it's the products that we supply that help our customers keep their fugitive emissions in check."

He continues, "Our standard plug valve has the lowest fugitive emissions of the competition. We also offer what we call our severe service option, which is an extended bonnet with triple-redundant sealing, that further reduces the fugitive emissions recorded during testing."

Live-loading sealing advantage

Automatically compensating for expansion and contraction during temperature swings, FluoroSeal's live-loading sealing has the added advantage of alleviating packing wear and preventing operators from having to make physical packing adjustments - the valve does it for itself. FluoroSeal has a severe service version of their standard sleeve plug valve, which includes a live-loaded stem shield, ideal for chemical reactions and processes associated with drastic temperature variances.



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standards writing committees in the industry. I am a voting member on ASME B16 and ASME B31.3. Rob is a voting member on the API Piping and Valve sub-committee. He is a member of the task group currently working on the next edition of API 599 on Plug Valves. We also have a membership on MSS, which is the Manufacturers Standardization Society of the Valve & Fitting Industry. Regarding ISO standards, I am planning on attending the next ISO meeting in Berlin this year. So we are very active and cognizant of the latest industry standards as they pertain to FluoroSeal products." Alain adds, "As far as metallurgy is concerned, FluoroSeal goes beyond the standard ASME requirements for materials. Because we own our foundries, we are able to ensure complete quality control, even on special requests for special metallurgies."

Responding to the latest requirements of the new ISO 15848 for thermal cycling during the qualification test, FluoroSeal is currently in the process of obtaining the necessary third-party lab results to demonstrate that they comply with the requirements of API 641 and ISO 15848. Taking that one step further, the company is currently looking at expanding their in-house testing capabilities, with the aim of helping customers with their fugitive emissions standards testing.

Alain explains, "More customers are coming up with requirements for productions testing of fugitive emissions and we are currently looking at purchasing those capabilities in-house so that we can provide a production test, either on a sampling basis or as required by the customer. Normally the production type testing does not include temperature requirement; but we see that requirement as becoming more and more frequent."

The importance of a global presence

With a network that spans all five continents, FluoroSeal is committed to local distributors throughout the world; occasionally selling

directly to EPCs and end users. Rob stresses the importance of keeping a pulse on growing and emerging markets: "A lot of the growth taking place over the last ten years is coming from non-traditional areas, such as China, Southeast Asia and parts of the Middle East. 10-15 years ago, there wasn't a lot going on there. But with changes in the world economy these areas have become a big market, beyond refining and oil and gas."

With its large network of warehouses, distributors and representatives, FluoroSeal is capable of delivering valve products, technical support and complementary services worldwide, supporting its customers with quick deliveries in case of emergencies and unscheduled shutdowns. The company continues to invest 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 presence in Mexico.

Staying ahead of the curve

With an expanded product line suited to tackle the high demands of the O&G industry and existing capabilities firmly established in the chemical, petrochemical and mining sectors, FluoroSeal is ideally positioned to address the needs of a changing industrial landscape. Jerry comments, "The EPA, at least in the U.S., has in some ways shifted from oil and petroleum. They are now moving into the chemical area in recent years. I think that's where FluoroSeal products are in greater use. So we're going to be seeing more and more growth in that sector, I believe."

The company is currently exploring new sealing materials that could be used in combination with fluoropolymers to provide better performance for thermal sealing. In addition, their planned addition of new product lines, including the expansion of their full port plug valve range, combined with the company's foundry capabilities, will continue to ensure



that their growing customer base has access to a wide range of products for numerous applications, available in a wide range of specialty and exotic alloys.

"We're committed to satisfying customers by providing them with industrial valves that meet or exceed the required quality with on-time delivery of what was contractually agreed upon."

Alain Roquet

Rob explains, "In terms of combating fugitive emissions, we have a special design sleeved plug valve and we have live-loading as a standard or optional offering for the majority of our other products." Currently in the planning stages, the company will soon be introducing live-loading standard options on their floating ball valve, trunnion ball valve and butterfly valves, to further improve stem seal tightness with the chevron packing.

Leading the industry in quality standards

FluoroSeal valves meet the highest quality standards. The company'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. Not to mention, their valves are inspected and tested throughout the full manufacturing process from foundry to final assembly and packaging, to assure high quality and consistency in every unit.

Commenting on the company's contribution to industry standards, Jerry says, "FluoroSeal has been an active participant in most of the



FluoroSeal AT A GLANCE:

2000

Ownership change and creation of FluoroSeal Inc. in Montreal, Quebec, Canada

2008

Inaugurated fully owned foundry and manufacturing facility in China

2010

Opened warehouse and sales office in Germany

2011

Opened FluoroSeal USA with a warehouse and sales office in Missouri, Texas

2013

Inauguration of foundry in Montreal, Quebec

2014

Inaugurated FluoroSeal O&G Division where the company performs machining, testing, assembly and storage of valves specifically for the oil and gas industry.

2016

Introduction of new lines: floating ball valves, trunnion mounted ball valves, butterfly valves and lined butterfly valves. - Opened an office in Beirut, Lebanon, to increase company's presence and service in European, Middle Eastern and African markets.