Velan: Celebrating 60 years

Perhaps it's natural when one speaks about a successful company — particularly one that has been around for over six decades as has Velan — to focus on the products and markets that have enabled that longevity. Too often though, such a focus neglects to recognize the huge, collective expertise and hard-won knowledge that lies behind the company's ability to navigate the uncertain and changeable waters of a global business market. Not true at Velan. Valve World travelled to Montreal, Canada, where the company's head office is located and spoke with Tom Velan, President, Ivan Velan, Executive Vice-President, North American Sales and Chairman, and Dan Velan, Marketing Director, about the current status of the company on their 60th anniversary, and how they are positioning themselves to ensure they achieve many more auspicious milestones in the future.

By Christian Borrmann

"A lot of things have changed over the last 60 years but many fundamentals are still the same as when my father started the company in 1950," says Tom Velan. "What started as one man's vision and hard work has grown to more than 1,700 people working together in a global company. We have made many technological advances in the workplace but it still takes a lot of hard work, attention to detail, integrity, and dedication to focus the company on designing and manufacturing high-quality products that provide long-term trouble-free performance."

A.K. Velan's grandson, Dan Velan, agrees. "As a third-generation Velan family member, I'm proud to be a part of this global team: We've got a lot of very smart and talented people here at Velan. These are the people who will help drive us forward for the next 60 years. I'm excited to be part of this company's evolution."

Steady growth

The company's growth over the years has been mainly organic, which has helped ensure it could keep its focus on its customers, distributors, and markets and wasn't distracted by the inevitable internal issues that come from large-scale mergers and acquisitions. This kind of slow but steady growth has also meant that Velan has a remarkably stable work

A Velan coker switch valve in service in a European refinery. Velan is a leading supplier of coker ball valves worldwide.

From left to right: Dan Velan, grandson of Founder and CEO A.K. Velan, as well as two of A.K.'s sons, Tom Velan and Ivan Velan, at head office in Montreal.

environment, where turnover is low and it's not uncommon to have people stay with the company for as long as 30 or 40 years.

Ivan Velan adds: "Just to give you a concrete example, take a look at two of our plant managers here in Canada: one's been with us for 45 years and the other for 42 years. Yet another of our Plant Managers, John Tsesmelis, first joined Velan in 1962 and worked his way up starting as a lathe operator and finally becoming plant manager in 1982. We have a lot of experienced people and I guess my father set a precedent for longevity: He is still working full time at 92."

Building long-term relationships externally

Cultivating long-term relationships with distributors, suppliers, and end users is likewise a proven strategy for business longevity. "In our business, we do a great deal of project work," says Tom Velan. "In fact, in the last year alone more than half of our global sales were for projects. Each project requires a lot of expertise in all departments involved – from the original

In it for the long run...

Velan believes in establishing and cultivating long-term relationships with employees, suppliers, and distributors. Here are a few examples:

Since the early 1990s, Velan has been the major supplier of valves to Japan-based **Mitsubishi** for their power plant projects worldwide. "We worked hard to gain the trust of this company, and our efforts have definitely paid off: We have a very strong relationship with the company and signed a global purchasing agreement with them in 1998," says Ralph Sargent, VP of International Marketing and a Velan team member for 44 years. "We've worked with them on projects all over the world and have also been invited to supply valves to their domestic power plants, which is no small feat given that the industry tends to be very conservative about working with foreign suppliers."

Hawkins Hamilton has had the longest uninterrupted sales relationship with Velan, a relationship that goes back to the 1950s. As the agent for Newport News Shipbuilding, Hawkins Hamilton originally worked with Velan for high capacity steam traps for fossil powered aircraft carriers. Today, the relationship continues as Velan works closely with David Williams III, the third generation of the Williams family, on shared projects such as orders for the new Ford-class aircraft carriers. As Ivan Velan explains, "There are a lot of new concepts the Navy wants to incorporate into their next generation fleet of aircraft carriers, such as titanium butterfly valves and Inconel ball valves. In a way, these projects are both a continuation of our proven legacy and a promise for our future."

Qualification testing of a 34" titanium triple-offset butterfly valve in Velan's R&D lab. The valve had no leakage over the 10,000 cycle test.

One of Velan's largest distributors in the United States is **Sunbelt Supply**. Founded in 1978, Sunbelt is a leader in the supply and distribution of manual and automated valve products and accessories serving the oil and gas, refining, petrochemical, power, industrial, pharmaceutical, process, marine and offshore industries. Velan's relationship with Sunbelt began in 1993. "The two gentlemen who started Sunbelt, Brent Scheps and Larry Feld, were friends from school who were tremendously entrepreneurial," says Charlie Pogue, Velan's VP of Sales out of Houston. "They're an excellent distribution channel for Velan since they stock more of our product lines and in larger quantities than anyone else. As a company, they are very similar in mentality to Velan: they believe in good people and large, diverse inventories. Perhaps that's why we work so well together."

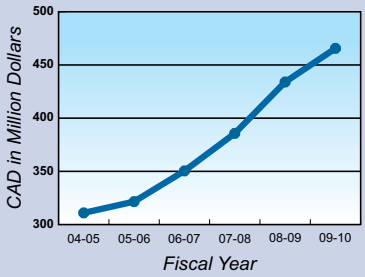
Velan's relationship with **MRC** actually started in 1980 when Velan partnered with **Vinson**. "MRC has grown aggressively over time and has a wealth of highly professional people," says Charlie Pogue. "We've been along for the ride in one way or another since the early days. Back in 1980, Vinson was one of our biggest distributors; they were then bought by Red Man in 1994. We later started a relationship with McJunkin when they embarked on their cast steel initiative around 2001, which was highly successful for all parties. Then in November of 2007 McJunkin and Red Man merged. And then, last September, MRC acquired **Transmark Fcx**, another large and very successful Velan distributor, making it the first truly global pipe, valve, and fittings distibutor. This global organization, **MRC Transmark**, should create interesting opportunities."

Victory Sourcing is a US-based representative that has had a long and rewarding relationship with Velan. Based in Greenwich, CT, Victory Sourcing has represented Velan for over 23 years and has since day one specialized in the power industry with an emphasis on project management. "We supply boiler projects with everything from small trim valves to main-steam isolation valves," explains President and founder Peter Gerster. "I work closely with Velan throughout the entire project — from the quoting stage right through to the coordination and streamlining of shipments on any particular project. Drawings. Change orders. Production schedules. Expediting. Testing and quality control. Bringing a project in on schedule and on budget is vital and I work closely with Velan to do our best to make that happen. Velan's quality and full breadth of the

Velan at a glance

History
- Founded in 1950

Sales
- Over $450 million



People
- Over 1,700 employees

Global network
- 13 production facilities
- 4 stocking distribution centers
- Hundreds of distributors' locations worldwide
- Service shops worldwide

Focus
- Entirely focused on industrial valves and steam traps

Product line
- A world-leading range of cast and forged steel gate, globe, check, ball, triple-offset butterfly, knife gate, highly engineered severe service valves, and steam traps offering superior performance across all major industrial applications.

Quality
- Approved by most major customers in above-listed industries
- ISO 9001 (since 1991)
- ASME N stamp for nuclear valves (since 1970)
- Total Process Improvement Program, including Lean Manufacturing and Six Sigma

Engineering
- Leader in valve design with many first-to-market innovations
- Extensive engineering, R&D, cycle test facilities, and stress analysis
- Proven ability to satisfy special project requirements
- Field Engineering Services

The Large Hadron Collider (LHC) at CERN (European Council for Nuclear Research), Geneva. The LHC is the world's largest, fastest, and coldest accelerator of nuclear particles. Currently, it has over 2,500 Velan bellows seal cryogenic valves installed and controlling the flow of over 700,000 litres of liquid helium.

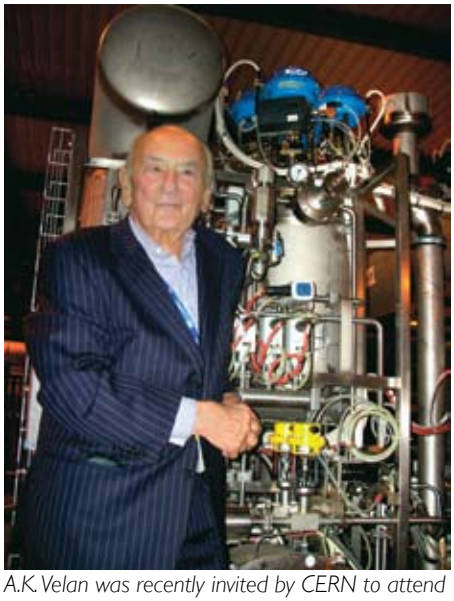
specification review and quote through to the final inspection prior to shipment. They're also getting more and more complex so it is important that we have a proven track record in performance as well as aftermarket support."

Ivan Velan explains further: "If you calculate the range of products we make and the many industries we cover, you can appreciate that there are literally thousands of possible permutations in terms of material selection or specification for an application. It takes experience and real skill to know what works best where, and we're also being constantly challenged as new processes appear — for mineral extraction or in the nuclear world for example."

"The reality is that every project has to be handled differently," Dan Velan continues. "There are different personalities involved, different geographic and logistical challenges to be met, and often very aggressive timelines — all of which means we have to stay nimble on our feet."

Opening the doors to ongoing innovation

Innovation and the opportunity for growth are definitely to be found in the current rebirth of the nuclear industry. As a recap: Velan has been involved in the nuclear industry since 1956 and has had the ASME 'N' stamp since 1970. When the industry went into a quiet phase following Three Mile Island, Velan grew in its other markets but stayed active in the nuclear valve replacement and maintenance business. With the current resurgence of the nuclear industry, opportunities abound. Developments are afoot in France, where Velan has had an active R&D group for decades. Since 1996, they've been focusing on European Pressurized Water Reactor (EPR) valves and are supplying a new generation of valves for EPRs currently



A.K. Velan was recently invited by CERN to attend the Large Hadron Collider (LHC) Inauguration Ceremony in Geneva, Switzerland.

under construction in Finland, Flamanville (France), and also into China. They recently received an order for nuclear control valves, and they've also done a lot of developmental work for the cryogenic market.

The nuclear industry has been growing constantly in China over the past years, even through the economic downturn. Currently, Velan has built a new manufacturing plant in China that is still in its infancy: The goal for the operation will be to help supply the booming local demand. "China has been our second largest market for a few years — only the US is currently bigger. Of course, we're quite globally focused and in fact sold to customers in almost 75 different countries last year. It's always been that way. Before the company was a decade old we already had a large portion of export sales and established overseas production," explains Dan Velan. Tom Velan adds: "We're constantly looking for good fits to expand globally. India is one of our largest export markets and we want to increase our local presence there."

The way forward

The valve industry, like most sectors of the economy, has been negatively affected by the global financial crisis. Today, however, the nuclear industry is growing and the world economic situation seems to be improving. "Some of the areas we're focusing on are expanding our presence in the nuclear sector and further developing our Torqseal™ triple-offset butterfly valves and our severe service ball valve product lines," explains Dan Velan. "Our goal is to design and manufacture consistently excellent products with superior long-term performance in service."

Tom Velan concludes, "Another important development within the company will be that the next generation is going to take a growing role within the company. This does not only refer to the family, although we do have a few next generation Velans working here. It's critical that we focus on the next generation of people working throughout our organization worldwide if we are to keep a healthy balance of youth and experience, of stability and innovation. After all, despite our great machinery, excellent designs, and $500 million of assets, it's our people who make it happen every day."

A day in the life of Velan R&D

Valve World took a sneak peak at just some of the many R&D projects currently underway in Velan plants.

Innovative bench test for 2-12" dual disc check valves

During testing, wafer check valves were cycled both vertically and, as seen here, horizontally.

Recently, one of Velan's customers asked that R&D design and set-up a bench test for cycling dual-disc check valves. This clever bench test system requires that the check valve be mounted between two pipes containing a plunger actuated by two large 24" pneumatic actuators, which allows the check valves to cycle using a continuous flow of renewable water at a maximum pressure of 320 psig (pounds per square inch gauge).

Fugitive emissions testing

Cycle testing for fugitive emissions today targets 600, 900, and 1500 class valves.

The R&D department at Velan also developed a research program to reduce fugitive emissions in its valves to a level that would have seemed almost unattainable only a few years ago.

According to Christian Beguian, Manager of Testing and Development at Velan, "Today it's not only 150 and 300 class pressure valves that we are targeting, but also 600, 900, and even 1500 class valves. To do this, Velan invested in measuring equipment and created bench testing systems. We now test rotating valves or linear moving ones in a vertical or horizontal position, combining different types of automation.

The challenge has been to have the least amount of emissions at ambient temperatures during thermal cycles. The results we've obtained so far are very encouraging," he concludes.

High-cycle trunnion testing

Currently underway is the high-cycle testing of a trunnion-mounted, top-entry metal-seated ball valve. "Our customer came to us to design a solution to high temperature, high speed, and high cycle applications," Brian Simmons, Velan's Manager of Severe Service Applications. "We have created a design and testing is in place to demonstrate the durability of the valve."

Technology aside, it's the creative interaction that goes on in these projects that is the most rewarding part of them, according to Brian Simmons. "Bringing people together to build and test these special valves is immensely satisfying. You sit in on the long hours discussing the merits of various ideas, watch the constant re-evaluation and refinement of them as team members think through all the possible pros and cons of a design. Then, you have the chance to watch the craftsmen in the plants turn the ideas from drawings on paper into fully functional metal valves."

Collaborative research at work

In addition to having a dedicated R&D department and sophisticated in-house testing facilities for cryogenics, high temperature, high pressure, and high cycles, Velan also routinely works with various academic and industrial institutions to further its research into such things as alternative coating materials and fugitive emissions control. A recent two-year joint initiative with researchers at the University of Montreal developed a new seat design that could relieve potential cavity over pressurization, reduce creep, and increase memory capacity.

According to Luc Vernhes, the lead design manager on the project, "Thanks to our new product development process, we were able to get budgets approved and clear objectives set very quickly. We now have three new designs to test and a comprehensive method in place for performing finite element analysis (FEA) on them." Velan is also collaborating with the University of Montreal and the National Research Council Canada research teams on a project for hard surface treatment.