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125 Years of Valve Excellence

The Valve Division of Emerson Process Management – Fisher celebrates its 125th birthday in 2005!

Commenting on the 125th anniversary, Fisher Division President, Terry Buzbee, stated, "Few companies today would be able to celebrate 125 years of continuous prosperity. The fact that we can is a tribute to the members of this worldwide organisation."

Humble Roots, Global Company

Founded by William Fisher in 1880 in Marshalltown, Iowa, USA, who developed a humble Type 1 pump governor to put out a fire in the small town, Fisher has come a long way, achieving great growth and brand recognition over the years.

Today, the company produces thousands of products for the Power, Metals & Mining, Chemical, Refining, Oil & Gas and Pulp-and-Paper industries.

Undoubtedly, Fisher's proud heritage and strong brand name form the foundation of its great success. It is the 'glue' and binding factor behind its operations, revealed in the employees' deep sense of belonging and motivation, and its vast sales network. The latter in turn accounts for the healthy, robust business results achieved yearly.

The Fisher Extended Family

The 90-year long history of selling through exclusive Local Business Partners (LBPs) has been instrumental to Fisher's success. Many of them have been with Fisher for two decades or more. Fisher's continual growth shows that its recipe for success has withstood the test of time - a mixture of developing good relationships with LBPs and customers; maintaining resilience and tenacity to pull through difficult times without compromising integrity; and most of all, the foresight and keen business acumen of Fisher's leaders.

Mr Buzbee further acknowledged the employees' contributions, saying, "This is an achievement that Emerson will celebrate around the world, since our employees are the ones who deserve the credit for making us a truly global company."

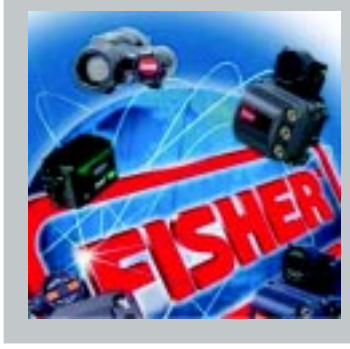
Today's Challenges

The challenge for Fisher today is to maintain its leadership in technology while remaining strongly rooted to its heritage. The blending of technology and heritage may seem contradictory to some, but it is an invaluable part of the process of forging ahead amidst changing business environments while remaining anchored in corporate presence, purpose and vision. Ron Martin, Director of Sales for Valves Asia-Pacific, once said in his address to employees and LBPs, "Remember, it isn't harder to succeed in today's business than it used to be. It's just harder if you are using yesterday's rules."

Fisher's Milestones

1880	William Fisher invented the Type 1 constant pressure pump governor, the world's first control valve
1928	Fisher built its first test laboratory and develops the first authoritative valve capacity and sizing data charts
1944	Fisher employees were awarded the US Army-Navy 'E' flag for outstanding production during World War II
1946	Fisher introduced Teflon™ packing to lower valve stem friction and improve performance of smaller actuators
1955	Fisher introduced Types 657 and 667 spring-and-diaphragm actuators
1958	Fisher introduced Level trol, the world's first torque tube displacer level with electronic liquid level transmitter
1960	Fisher began using computers to solve engineering problems, perform computer-aided drafting, and numerically-controlled machines
1963	Fisher introduced throttling V-Ball valves
1967	The Fisher Governor Road manufacturing plant began operations in Marshalltown, Iowa, USA. It was the most advanced machine shop of its kind in the world. Currently, daily shipments from this plant averages US$1m a day
1970	Fisher introduced easy-e® cage-guided sliding stem valves and Fishtail Disc butterfly valves Fisher developed valve noise prediction and abatement technology, including Whisper™ and Cavitrol® trim options
1972	Fisher opened the R. A. Engel Technical Centre in Marshalltown, the world's most advanced flow test laboratory for control valves
1980	Fisher introduced the PROVOX, micro-processor based distributed control system
1984	Fisher acquired Posi-Seal International, a manufacturer of high-performance ball valves
1990	Fisher launched FlowScanner™, the world first portable Control Valve Diagnostics and preventive maintenance tool
1992	Emerson acquired Fisher Controls and forms the Fisher-Rosemount family of companies Fisher introduced the world first 2-wire smart positioner, FIELDVUE® Digital Valve Controller and ValveLink® Diagnostics Software
1995	Fisher acquired Baumann valves
1998	The FIELDVUE® Digital Valve Controller became the first FOUNDATION™ Fieldbus positioner in the world with the PID function block
2004	Fisher introduced four new products: GX series sliding stem valves, DVC2000, DVC6000f and i2P-100
2005	Fisher celebrates its 125th anniversary

Over Half a Million Units of FIELDVUE® Sold!



The process industry was revolutionised when the FIELDVUE® Digital Valve Controller was introduced more than ten years ago. FIELDVUE® was the first instrument to incorporate valve diagnostics capabilities into a positioner.

Alfred Lee, the Director for Fisher Instrument Business Unit Asia-Pacific, recalled, "It was very difficult getting customers to use smart positioners during its introduction, as it was unheard of. Now, such technology is an essential component of the control valve specifications of customers."

To date, over 500,000 units of FIELDVUE® instruments have been sold worldwide, setting a milestone in the process industry. The sales have exceeded the total smart positioner sales of all Fisher's major competitors.

Fisher is always ahead of the game, expanding our market and technology leadership over the competition. We continuously enhance our products with new features, providing great benefits to our customers.

FISHER®

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This newsletter is produced by Emerson Process Management Asia-Pacific Pte Ltd, Valve Marketing. Visit us at http://www.emersonprocess.com/fisher
For inquiries, please fax to: (65) 6770 8071 or email: fisher.ap@ap.emersonprocess.com

VALVE INNOVATION

New Fisher FIELDVUE® DVC6000f Offers Continual Valve Health Diagnosis

Emerson Process Management has expanded its intelligent field device offering with the introduction of the FOUNDATION™ Fieldbus-based Fisher® FIELDVUE® DVC6000f digital valve controller. Carrying forward the industry benchmark performance of FIELDVUE® valve controllers, the DVC6000f provides fast, accurate responses with built-in valve diagnostics that help process manufacturers improve control and availability while reducing maintenance costs.

Continuous Performance Diagnostics, Alert By Exception

Improved availability and reduced maintenance costs result directly from the Performance Diagnostic (PD) capability built into the DVC6000f instrument. PD inside runs continuously, analysing valve and actuator data while the valve remains in service, controlling the process. Using the PD information, the DVC6000f can trigger PlantWeb® alerts that warn of valve performance problems, enabling corrective action before a degraded valve can impact process operations.

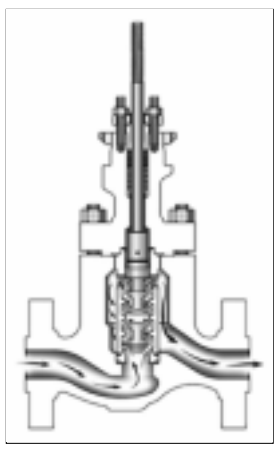
Embedded Diagnostic Specification Data

In addition to maintenance benefits, valve and actuator specification data for diagnostic use is embedded in the DVC6000f instrument during factory mounting of the DVC to the valve, ensuring that the user has the data anytime.

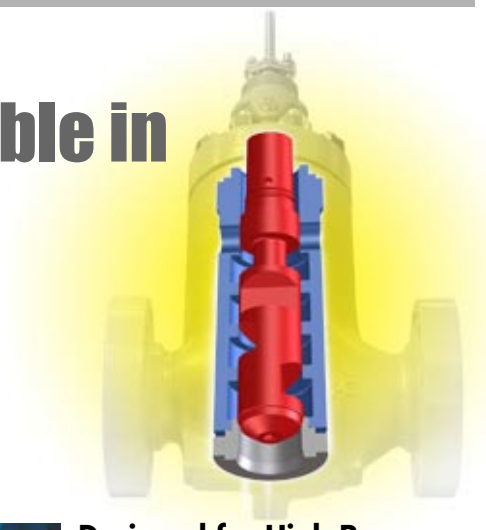
Enhanced Functionality and Durability

Hot cutover to Fieldbus protocol is possible without taking the process down because the DVC6000f instrument can function in two operating modes, Pressure and Travel. Improved support in the form of firmware upgrades enhance the functionality of the DVC6000f instrument. These upgrades can be easily downloaded over the Fieldbus segment wiring, without interruption to process operations. Reduced process variability through tighter closed loop control increases the bottom line for quality and profitability. This is thanks to the fast AO and PID block execution of the DVC6000f that supports an extremely fast (100 millisecond) loop macro-cycle. Harsh environments such as temperature extremes, corrosive atmospheres and hazardous areas are not a problem for the robust controller. Optional stainless steel construction and remote mounting are also available to provide added durability.

NotchFlo® DST Now Available in ANSI class 600



The popular NotchFlo® DST valve is now available in ANSI class 600 ratings! First launched in July 2002, it was available only in ANSI class 900 and 1500 ratings. The product has seen significant success since its launch and its range had to be widened to ANSI class 600 to meet application requirements. The class 600 valve has 3-stage trim that is good up to 1500 psi (103 bar) pressure drop, while class 900 and 1500 valves have 4-stage trim that is good up to 3250 psi (224 bar) pressure drop. The available body sizes are 1 through 4 inches in all three pressure classes. They are available in both globe and angle body styles.

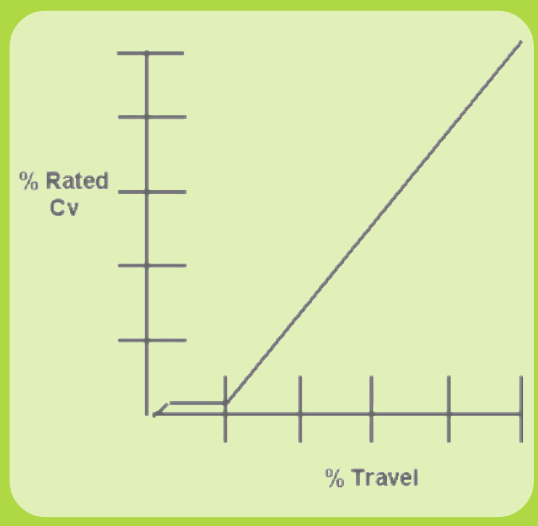


Designed for High Pressure Drop Liquid Applications

NotchFlo® DST is a high resistance, multi-stage, axial flow, anti-clogging, anti-cavitation product designed for use in high pressure drop liquid services where the fluid has entrained particulates that can plug the flow passages or cause severe erosion damage to conventional anti-cavitation trims.

NotchFlo® DST is frequently used in high pressure drop liquid applications in Oil & Gas Production, Petroleum Refining, Chemical, Petrochemical and Power industries.

Anti-cavitation Trims Require Attention to Minimum Operating Point



Most anti-cavitation trims are cage style and utilise either drilled holes in the cage wall or a series of flow passages with right angle turns. Both these technologies are designed to provide pressure staging.

Incidentally, they require a certain minimum number of holes or flow passages to be open in order to realize anti-cavitation benefits. If the valve is allowed to throttle below this minimum operating point, pressure staging will not take place. Instead, the entire pressure drop will be taken directly across the seating surfaces of the valve plug and seat ring. This is detrimental to the plug and seat ring as localised cavitation and erosion damage will occur.

At the same time, this affects the tight shut-off capability of the valve. All control valves have a minimum operating point, which is usually 10% opening (as a general rule of thumb). However, for valves with anti-cavitation trims, the minimum operating point varies with trim design and is specified exclusively for each cage design.

It is important for both control valve selection engineers and users to pay attention to this key aspect during valve configuration and operation. One of the ways is to use the Fisher FIELDVUE® Digital Valve Controller as the valve stem positioning device. When the 'Low Travel Cut-off' feature in the FIELDVUE® DVC is enabled, it prevents the valve from throttling below the recommended minimum operating point.

For inquiries, please fax to: (65) 6770 8071 or email: fisher.ap@ap.emersonprocess.com

SALES BELLRINGERS

Emerson Wins US$7.5M Formosa contract, thanks to Valve Designs and Predictive Diagnostics

Emerson Process Management has been awarded a contract by Formosa Petrochemical for the installation of Fisher® Digital Valves at their Olefin 3 plant in Taiwan.

Fisher Valves Meet Regulatory Demands

Emerson will supply 1150 Fisher® Digital Control Valves with AD and PD functionalities. The use of Fisher® Digital Valves in critical applications and in the maintenance of a plant will address Formosa's concerns in meeting both local governmental and international environmental regulations.

Operational Excellence

Effects of unscheduled shutdowns arising from outages, equipment wear and tear, and process variability can be pre-empted with Fisher's unique Performance Diagnostics technology, thereby delivering optimum operational efficiency and healthy profits for the user. Results have shown that Fisher® is superior in performance, hence reducing the overall cost of ownership.

Formosa's Growing Market Share

Formosa Chemical is a member of the Formosa Petrochemical Corporation (FPC), a US$2 billion company publicly listed on the Taiwan Stock Exchange. FPC controls about 30 percent of Taiwan's gasoline and diesel market, and generates about 65 percent of its sales from oil products.

In March 2005, the FPC group is reported to have plans to increase its production capacity by 11 percent to 540,000 BPD by end of next year, primarily to meet the growing demands coming from India and China (source: Bloomberg).

Emerson Awarded New US$1.4M Indorama Purified Terephthalic Acid (PTA) Project In Thailand

Emerson Process Management won an order for 220 units of Fisher® control valves which included the DVC6000 HC (HART® Communication), 30 units of DVC6000 AD (Advanced Diagnostics), 60 units of the new GX, and others such as Baumann, HP, Vee-Ball®, Special SS97 and Valve Automation.

PTA Project Crucial to Thailand's Growth

Indorama PTA, located in Thailand, is a US$385 million Joint Venture with a production capacity of 704,000 tons a year. This capacity is projected to grow to 805,000 tons a year, according to the Chairman of Indorama Petrochem Ltd. Thailand currently produces 1,380,000 tons of PTA annually. The three major partners in this investment are Dupont Ltd, Krung Thai Bank and Asia Industrial Estate Co Ltd. Under the Thai-Indian FTA agreement, Thailand's Industry Minister considers this project as crucial to the country's growth. The project is scheduled for completion in 2006.

Fisher was awarded the contract thanks to its established brand name, excellent user experience, technology, commitment to customer care, and in-depth knowledge of the PTA process and applications, all of which gave Fisher an edge over the competition.

Sweet GX Success in Down Under

Fisher Australia clinched two high-profile projects with the popular GX valve, totaling over 135 units!

Southern Controls had a great start to 2005 with an order from Shell for over 70 GX valves. Later, they also won another key project at Qenos, formerly known as Kemcor Australia. The contract consists of 65 GX valves ranging from 1"- 4", plus a number of 'E' bodies and V200 rotary valves, bringing the total number of control valves to more than 75 units. Each valve will also be supplied with a DVC6000 positioner.

Qenos is a joint venture between the Australian company Orica and Exxon Mobil, making this an important win for the GX.

Increased Market Share

The double wins are significantly important as they have increased Fisher's market share in Australia by displacing our key competitors. The valves will be delivered to Shell in Geelong, Victoria, which is a very pro Valtek site, and Qenos, which is a Masoneilan strong-hold, and in recent times, Samson.

QUANTIFIED BUSINESS RESULTS

Petronas Ammonia Syngas Doubled Uptime

Petronas Ammonia Syngas of Malaysia had adopted Fisher® Digital Valve technology to take advantage of its online diagnostics capabilities.

Previously, a 24-day shutdown period was necessary after every 18-month cycle of operations. The shutdown period is used to maintain, repair and replace plant equipment.

By using Fisher's online diagnostics, control valve performance was sustained, such that the plant operating period was extended from 18 months to 36 months between shutdowns.

This means that Petronas Ammonia Syngas gains 24 more days of operation every 36 months. It has been estimated that each day of shutdown would cost the company US$265,000. Thanks to Fisher® Digital Valves, the plant now enjoys 24 more days of production, which adds up to over US$6 million.

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AWARDS AND NEWS

Emerson Tops CONTROL Magazine Readers' Choice Awards for 12th Consecutive Year

Emerson Process Management has been voted the best supplier of process management technologies and services in CONTROL Magazine's Annual Readers' Choice Awards, held in February 2005.

For 12 years, Emerson has dominated the awards by consistently winning the most product and services categories, including the coveted 'Best Process Control Automation System' for four consecutive years.

Emerson's sweep of first place wins includes: Emerson DeltaV™ digital automation systems, Emerson AMS™ Suite software; Fisher® control valves, float/displacer level gauges and pneumatic valve actuators; Brooks positive displacement and variable area flowmeters; Daniel® turbine flowmeters; Micro Motion® Coriolis mass flowmeters and density/concentration analyzers; Rosemount®, pressure and temperature transmitters, flowmeters and level gauges; and Rosemount® Analytical ph/ORP/conductivity and stack gas analyzers.

"The CONTROL awards are special, because they're voted on by process automation users, and give clear, positive feedback that Emerson is meeting real needs with our products and services," said John Berra, President of Emerson Process Management. "We are never standing still. Rather, we're always listening to our customer needs, anticipating future requirements, introducing new product offerings and improving our service capabilities."

PlantWeb® Cruiser Gives Competitors a Bruiser

"If the mountain won't come to Mohammed, then Mohammed must come to the mountain," so goes the idiom. To let customers fully appreciate and experience the performance differentiation that is found in Emerson Process Management's products, the company has created the PlantWeb® Cruiser - a scaled-down and mobile version of the PlantWeb® Dynamic Performance Loops found in Singapore, Cernay (France) and Marshalltown (USA).

A cruisin' Performance Differentiation messenger.

This mobile demonstration unit includes Fisher®'s latest Digital Valve Controller DVC6000f, Rosemount's pressure, level, temperature, flow transmitters and conductivity analyzer. Customers will be able to see how the FOUNDATION™ Fieldbus-based DeltaV system and devices deliver the power of Diagnostics and PlantWeb® alerts. The cruiser measures about 2.2m long, 1m wide and 1.5m high. By September, there will be 4 units in Asia Pacific.

For more information on the cruiser, please contact Mona Shu at mona.shu@ap.emersonprocess.com

New Firmware Lab Creates History for Instrument Business Unit

From left: Alfred Lee (Director, AP Instrument Business Unit), Frank deJong (VP AP Valves) and Greg Jacobs (Lead Test Engineer, Marshalltown)

Opening of State-of-the-art Firmware Lab

21 February 2005 saw a new era in the history of the Instrument Business Unit's (IBU) Product Design and Engineering team. The Electronic firmware test lab was officially opened by Frank deJong, Alfred Lee and Greg Jacobs to boost the previously mechanical-only capability of the team. The newly opened lab is equipped with state-of-the-art test equipment and managed by a team of three Electronic Test Engineers who have undergone a year of intensive firmware testing/design training in Marshalltown.

The firmware test effort undertaken by the team will verify firmware codes developed for the FIELDVUE® products prior to production release. In addition, the lab is concurrently used for electronics manufacturing and product support. These activities will translate to faster product introduction and improved response for Fisher customers.

An open house of the R&D Lab and PlantWeb® Dynamic Performance Loop was also extended to all staff of the Valve division. Guided tours were conducted to give the participants a better understanding of the IBU team's design capabilities.

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Exchanging Tips for Better Process All 'Round

Led by users, for users, the Emerson Exchange is meant to be a global forum where users of Emerson Process Management technologies gather to share ideas and knowledge, thus improving the overall standard of process control expertise across the board.

This year, the 2005 Emerson Exchange will be held from 3 - 7 October, in Orlando, Florida, USA. A total of 380 papers have been selected for presentation, up from 250 last year.

The Exchange promises to impart certain skills, regardless of the customer's deployment of Emerson technology, be it from a full PlantWeb® architecture setup to only specific selected technologies.

The topics below are going to be presented at Orlando, USA:

- System Application
- Product Integration
- Instrumentation
- Valve Automation
- Safety
- Asset Optimisation and Reliability
- Process Optimisation

All Local Business Partners (LBPs) are encouraged to pass the relevant Emerson Exchange flyers to their customers. If they would like to consider further, a visit to the dedicated event website: www.emersonexchange.org to view downloadable files of short courses and workshops abstracts.

The following industries are encouraged to attend: Chemicals, Contractors, Food & Beverage, Metals & Mining, Oil & Gas, Pharmaceutical and Life Sciences, Power and Pulp-and-Paper.

Emerson acquires Tescom Corporation

On 31May 2005, Emerson Process Management announced the acquisition of Tescom Corporation. Tescom is a leading manufacturer of precision pressure control regulators, valves, and systems with manufacturing operations in Elk River, Minnesota and Selmsdorf, Germany. The company was founded in 1916 and has 350 employees.

Tescom serves a wide variety of global markets, including testing, instrumentation, and laboratory markets for pressure control and regulation; high purity and semiconductor markets; specialty gas, aerospace and defense, as well as medical device markets. Almost half of Tescom's sales come from outside of the United States.