

# FISHER IN CONTROL

## CORPORATE NEWS

### Emerson wins major automation contract for biopharmaceutical plant - Lonza - in Singapore

AUSTIN, TEXAS (May 2009) – Emerson Process Management, a global process control and automation leader and a business of Emerson (NYSE: EMR), has been selected by Switzerland-based Lonza Group Ltd. to provide engineering and design services and digital automation architecture and control technologies for a new Lonza biopharmaceutical plant in Singapore.

The win is part of Emerson's growing portfolio of life sciences companies that rely on digital automation with predictive intelligence to reduce overall costs, improve reliability, ensure product quality, meet regulatory requirements, and optimize operations.

"Emerson has an excellent track record in managing and controlling the highly complex processes involved in the biopharmaceutical industry," said Steve Sonnenberg, president, Emerson Process Management. "This win is yet another example of how companies like Lonza can leverage our global resources and expertise to meet their objectives for safe, reliable, and on-time start-up of new manufacturing facilities." In the Asia-Pacific region, Emerson also has been awarded automation contracts by Shanghai CP Guojian Pharmaceutical Co. Ltd. in China; Reliance Life Sciences, DSM Anti-Infectives India Ltd., and Biocon in India; and Lonza for a prior facility in Singapore.

Having installed the automation architecture in Lonza's first biopharmaceutical plant in Singapore, Emerson was chosen to implement its innovative PlantWeb® technologies in the new plant that is expected to be completed in 2010 at a cost of US\$350 million. By following the original project models, employing best practices, and applying the experience gained during design and construction of the original facility, Emerson is expected to reduce Lonza's overall costs for the new plant.

Lonza will employ an array of Emerson products and services, including: PlantWeb digital automation architecture; DeltaV™ digital automation system; and intelligent digital devices, including Fisher® and Baumann™ control valves with FIELDVUE® digital valve controllers, Rosemount® flowmeters and analyzers, Micro Motion® Coriolis flowmeters, and Fisher pressure regulators.

#### About Lonza

Lonza is the world's leading contract manufacturer of monoclonal antibodies and recombinant proteins. Lonza Group Ltd. is headquartered in Basel, Switzerland, and is listed on the SWX Swiss Stock Exchange.



## Emerson among top 100 in Fortune 2009 “World’s Most Admired Companies”



Results of Fortune 2009 Most Admired Companies are out and Emerson is among the top 100 America’s largest corporations assessed for corporate reputation, revenue, innovation, social responsibility and quality of management etc. Check out the Emerson home site for more information: [www.emerson.com](http://www.emerson.com).

CNNMoney.com News Markets Technology Personal Finance Small Business CBS.com

**FORTUNE**

Home Fortune 500 Technology Investing Management **Rankings**

**WORLD'S MOST ADMIRED COMPANIES** 2009

Full List By Location Best & Worst No. 1s Industries

**Emerson Electric**

**MOST ADMIRED**  
 Top 50 rank: N.A.  
 Rank in Electronics: 2 (Previous rank: 4\*)  
 Overall score: 7.12

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Address: 5000 W. Florissant Ave.  
 St. Louis, MO 63135  
 Phone: 314-553-2000  
 Website: www.emerson.com

Emerson is a powerful force for change and innovation!

EMERSON IS A POWERFUL FORCE FOR  
**INNOVATION**

“The beginning of innovation is really to collect and capture the dreams of customers.”

“It’s about everybody driving that innovation.”

To find out how Emerson continually re-invents itself to be relevant to customers’ needs, click here to view the corporate video: <http://www.emerson.com/enUS/Pages/Home.aspx>

“One person can be innovative. But people working together across all divisions, across industries, across platforms, that’s what makes Emerson a power force for innovation.”

“ We innovate not just for innovation sake. We innovate with purpose, a purpose that ensures our solutions are original, unique and most of all, relevant for our customers. ”

“You never stop.”  
 “That’s Emerson!”

## EMERSON STRIKES WORK BALANCE WITH CORPORATE SOCIAL RESPONSIBILITY



Life in Emerson is definitely not just work, projects, commissioning and no play. Despite the hectic schedules, there is balance, if recent activities in the company are anything to go by. Corporate Social Responsibility or CSR for short is active and alive in Emerson. Essentially, CSR is the deliberate inclusion of public interest into corporate decision-making, and the honoring of a triple bottom line: People, Planet, Profit. Several divisions within Emerson have organised yearly or regular outings to local charity organisations and made overseas trips to orphanages in Cambodia and neighbouring countries.



## New addition to the Fisher® family – the DLC3020f

Emerson welcomes the latest member to the Fisher Fieldbus instrumentation family - the DLC3020f, bringing Fieldbus communications to the DLC3000 displacement level transmitter.



In addition to the many advanced features of the current HART® version, the new DLC3020f offers unparalleled advantage in:

- FOUNDATION™ Fieldbus with Emerson PID Auto-Tune
- New Emerson “Ease of Use” Interface
- Active Temperature Compensation of Density Changes
- Ease of Use, improved Set-up and Commissioning
- Enhanced Calibration Methods
- Dynamic Level and Interface Display
- Historical Set-up/ Calibration Log
- Alerts advisory
- 3<sup>rd</sup> party host integration

Expected to be released in 2009, the DLC3020f is set to redefine new standards in Fieldbus instrumentation in ease-of-use.



## Emerson introduces new Fisher® volume booster

Emerson is proud to introduce the new Fisher VBL® volume booster featuring:

- Improved Performance
- 1.1 and 2.0 CV output options
- Bubble tight valve plug to seat
- Double-acting superiority
- Fine bypass adjustment
- Reduced weight & size compared to 2625



**VBL**

**2625**

The VBL volume booster is used in conjunction with a positioner on a throttling control valve to increase stroking speed. The new VBL is well-suited for general service applications while the Fisher 2625 volume booster is suitable for larger CV applications.

A field trial unit has since been successfully installed at a large ethylene plant in China. Site users were pleasantly surprised with the ease of installation, adjustment and the **VBL's** responsiveness to small input step changes.

The VBL broadens performance options that are available, enabling greater control effectiveness. The Fisher reliability expected by customers is built into the VBL product.

## Emerson up close and personal with customers on Jurong Island

As part of Emerson's continuous commitment to customer excellence, a team of Emerson technology, people and equipment were organized and brought to the door step of **over 80 participants from 20 key customers** on the Singapore Jurong Island.

The half day seminar on **"Managing Control Valve Performance"** specifically emphasized plant asset efficiency, reliability and productivity.



Many of the participants were Plant Managers, Instrument Manager, Engineers or Supervisors, Maintenance Managers, Project Managers or Engineering Process Managers. Among the several topics covered included performance differentiation, predictive maintenance, innovation solutions from the new Fisher® **Control-Disk™**, GX, Inside Seat and the new service centre. A question-and-answer session followed after that.



**The next nuclear control valve package you  
receive might surprise you.**

**What? You don't like surprises?**



We didn't think so. That's why we design and build Fisher® control valves to perform to your specifications. Just like you want them to, without surprises. With over 40 years in the nuclear industry and installed units in over 90% of the world's nuclear facilities, you can rest assured that Fisher valves will give you the reliable performance you require. Day after day, for the life of your plant—no surprises. Learn more by visiting [www.Fisher.com/nucPE](http://www.Fisher.com/nucPE)



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**EMERSON. CONSIDER IT SOLVED.**

## Fisher Optimized Antisurge Control Valves for high reliability, fine control, fast stroking, and easy tuning of your most critical applications

Finally a robust, high-performance antisurge valve that can be easily implemented and serviced in the field. This is one valve engineered from the ground up to meet the specific needs of compressor antisurge applications requiring the ultimate in control valve reliability.

The Fisher® optimized antisurge valve from Emerson makes short work of valve tuning, saving you money during commissioning, and paying back your original investment many times over during the life of the equipment with superior dynamic performance.

Backed by more than 125 years of process control experience, the valve is designed with all the antisurge control valve features and components — the valve, actuator, antisurge FIELDVUE® digital valve controller, and associated instruments — integrated in one package, providing users with the best-in-class reliability, control, and commissioning.

### High Reliability

Components within the Fisher optimized antisurge valve were selected with high reliability in mind. The antisurge FIELDVUE digital valve controller (DVC) features a rugged I/P converter, a robust pneumatic relay, and potted electronics to protect it from harsh plant environments.

Dual certified as intrinsically safe and explosion proof, the antisurge FIELDVUE DVC also satisfies the requirements of the European ATEX directive. Its enclosure meets NEMA 4X and IEC 60529 IP66 criteria. You can feel confident that FIELDVUE hardware and software are proven. FIELDVUE instruments are used in critical applications in which reliability is paramount, such as safety instrumented systems.

### Sophisticated Testing

The compressor antisurge application is no place for uncertainty. With Fisher optimized antisurge valves and the Fisher FGS 4L11 test, you have proof of performance. FGS 4L11 tests and validates the **valve's** static performance, dynamic performance, and servo robustness.

### Cushioned Actuator

Mechanical air cushions within the high-speed actuator cylinder provide controlled deceleration to help protect actuator and valve components. A check valve provides full speed performance when the valve is moving away from the travel stop.

### Robust Instrument Mounting

Designed to withstand vibration associated with compressor piping systems, the antisurge FIELDVUE DVC mounting bracket features an integral antirotator and heavy duty gussets. All mounting parts are stainless steel, easily accessible, and facilitate remote mounting of the instrument.

### Ready For Any Climate

Elastomers within our instruments are designed to withstand temperatures as low as -40°C (-40°F) or as high as 93°C (200°F) while providing excellent resistance to common impurities within plant air. Fisher engineers rely on decades of non-metallic test experience to accurately select elastomers for long-term reliability.





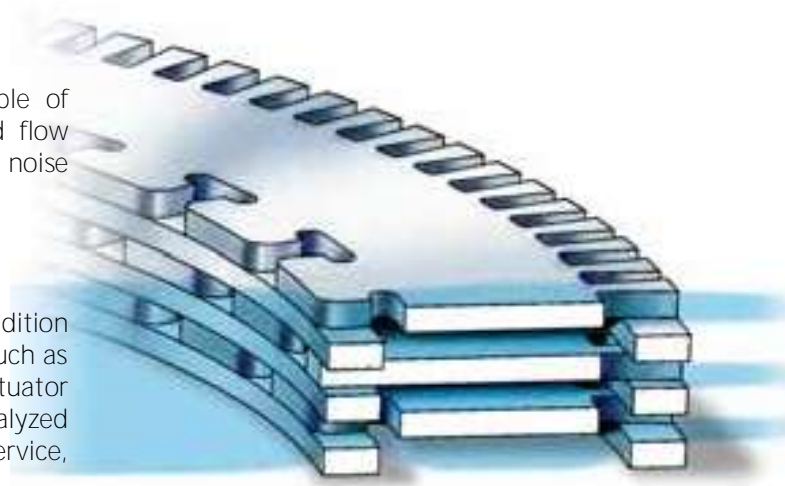
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**Reduced Noise and Vibration**

WhisperFlo® is a multipath, multistage valve trim capable of reducing noise levels by as much as 40 dBA. Patented flow patterns formed by laser cut discs help ensure repeatable noise attenuation and reduced pipe vibration.

**Partial-Stroke Testing and On-Seat Diagnostics**

The antisurge FIELDVUE DVC automatically checks the condition of the valve during each partial-stroke test. Diagnostics such as valve packing friction, air path leakage, valve sticking, actuator spring rate, and bench set can be collected, viewed, and analyzed using AMS ValveLink® software while the valve remains in service, without impacting the process.



**Peak Efficiency Lowers Operating Costs**

Moving the compressor's operating point closer to the surge limit line enables the valve system to operate more efficiently. This means significant reductions in operating costs — as much as US\$250,000 USD annually for a relatively small 4,500-horsepower compressor. Larger compressors that are common to liquefied natural gas facilities could see much larger savings. The faster and more accurately an antisurge valve moves, the more the savings. The Fisher optimized antisurge valve is designed to deliver high performance actuation and improved control. The Fisher optimized antisurge valve achieves higher gains, responds better, and has remarkable stability thanks in part to patented minor loop feedback and other proprietary techniques. Easily customized for critical application requirements, these techniques marry seamlessly with volume boosters to handle nearly any actuator requirements.

**Fast Stroke and Controlled Deceleration**

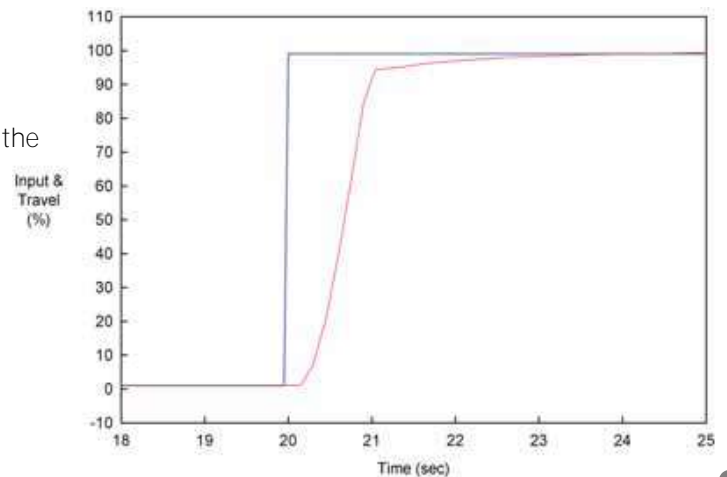
In one second, the Fisher optimized antisurge valve reaches the capacity required to protect the compressor. It safely decelerates, thanks to a cushioned actuator.

**Exclusively On Fisher Valves**

The antisurge FIELDVUE DVC with its patented minor loop feedback technology is available exclusively on Fisher valves.

**Fully Balanced Trim**

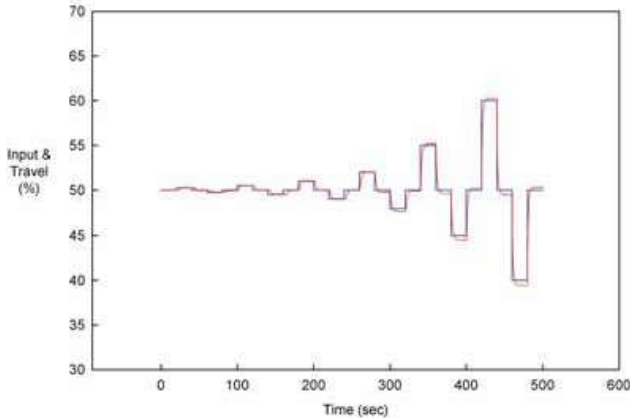
The huge balance area of the unique Fisher spoked plug helps the control valve resist pressure pulsations.



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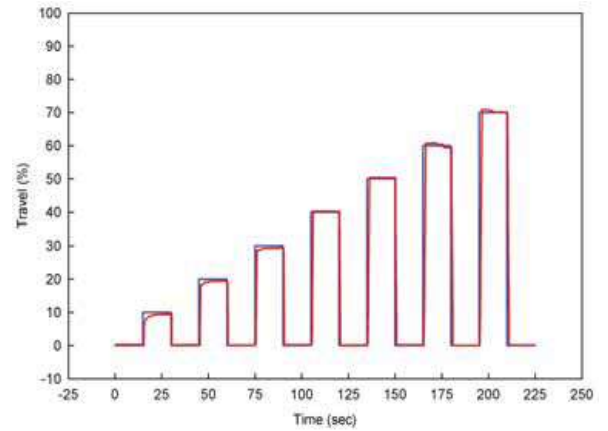
**High Resolution**

This Fisher optimized antisurge valve responds to bidirectional step sizes of 0.25% through 10% accurately and quickly.



**Negligible Overshoot**

Overshoot is negligible for small and large steps.



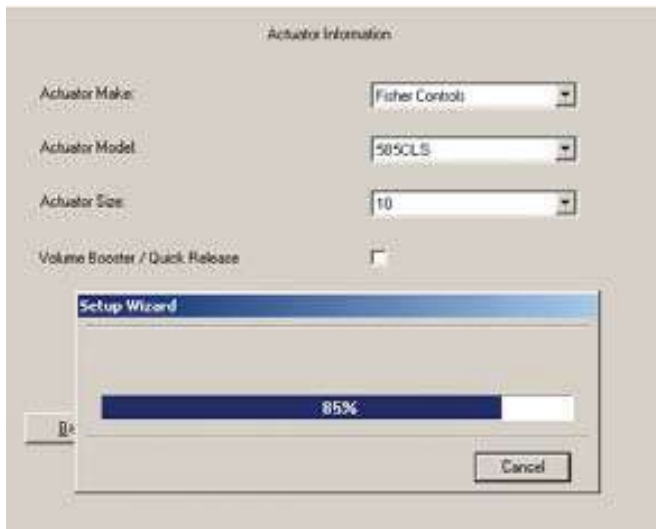
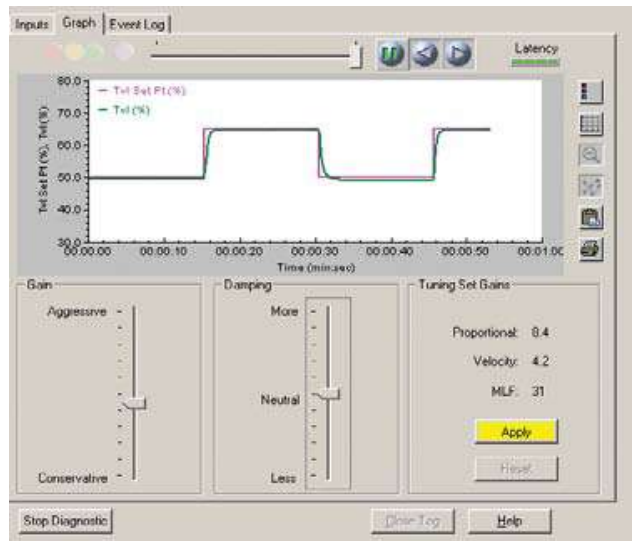
**Reduce Commissioning Time and Lower Costs**

Factory expertise is not required to tune the Fisher optimized antisurge valve. A technician may simply use AMS ValveLink® software's performance tuner or the Stabilize/Optimize feature with real-time graphics (shown below). Configuration and tuning can also be performed remotely by operators as process requirements change.

The high cost of running separate power and signal wiring can be avoided with the Fisher optimized antisurge valve. The antisurge FIELDVUE DVC uses two-wire 4 to 20 mA loop power.

**Remote Tuning**

Tune your Fisher optimized antisurge valve remotely using AMS ValveLink software. You can monitor the valve response and quickly adjust gains to optimize performance. (Stabilize/Optimize feature shown in AMS ValveLink software).



**Simple Setup**

The setup wizard within AMS ValveLink software guides the technician through three simple dialog screens for the Fisher optimized antisurge valve. (Setup wizard shown in AMS ValveLink software).

For more information on the Fisher optimized antisurge valve or any severe service requirement, contact the nearest Fisher sales office for more information or to make a purchase, visit us at [www.FisherSevereService.com](http://www.FisherSevereService.com).

**If you've paid for automatic control valves,  
none of your loops should have to be in manual mode.**

**There must be a better way.**

Loops in manual mode due to poor-performing rotary valves require constant operator attention. And they cost you process efficiency. You can expect better control from the new Fisher® Control-Disk™ valve from Emerson. The Control-Disk valve has double the control range of traditional butterfly valves to allow control closer to the target set point, regardless of process disturbances. You can keep your loop in automatic mode. With low maintenance requirements and availability to ship in two weeks, it's time to put a Control-Disk valve in your loop. Visit [www.Fisher.com/bettercontrol](http://www.Fisher.com/bettercontrol) to watch an animation video or download a brochure.



**EMERSON**  
Process Management

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