Global Research and Engineering

The world-class development and testing behind industry-leading Fisher™ products and technology.

EMERSON™

With more demands on your processes—and assets—you can't afford mediocre.

We all know those companies that strive for "We have that, too!" But let's face it, in today's processes that are dealing with bigger equipment, higher pressures and temperatures, and longer windows between outages you need "No one else can do this."

Just replacing a valve or instrument is rarely an option, but neither is using your limited manpower to constantly troubleshoot the same bad actors—you need reliable products that are as good as forgotten.

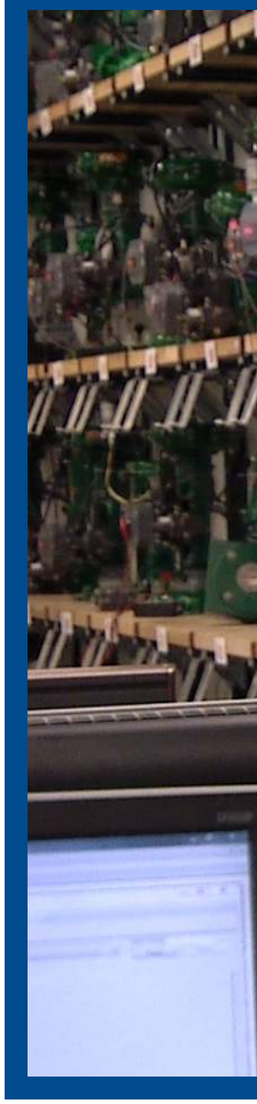
And, simply buying a product is rarely the end of the story. You need advice and training to help get the quickest return on your investment.

"The global process industries lose an estimated $20 billion–or 5% of annual production–as the result of unscheduled downtime."
–ARC Advisory Group

"The vast majority of our valve manufacturing competitors test their products to meet minimal industry standards; they simply cannot replicate extreme application conditions in a lab setting like we can."
–Nate McCormick, Product Evaluation Manager for Fisher products

With more advanced valve technologies also comes the potential for increased complexity, making the need for thorough asset documentation, diagnostics capabilities, and expert analysis even greater.
–Valve Magazine

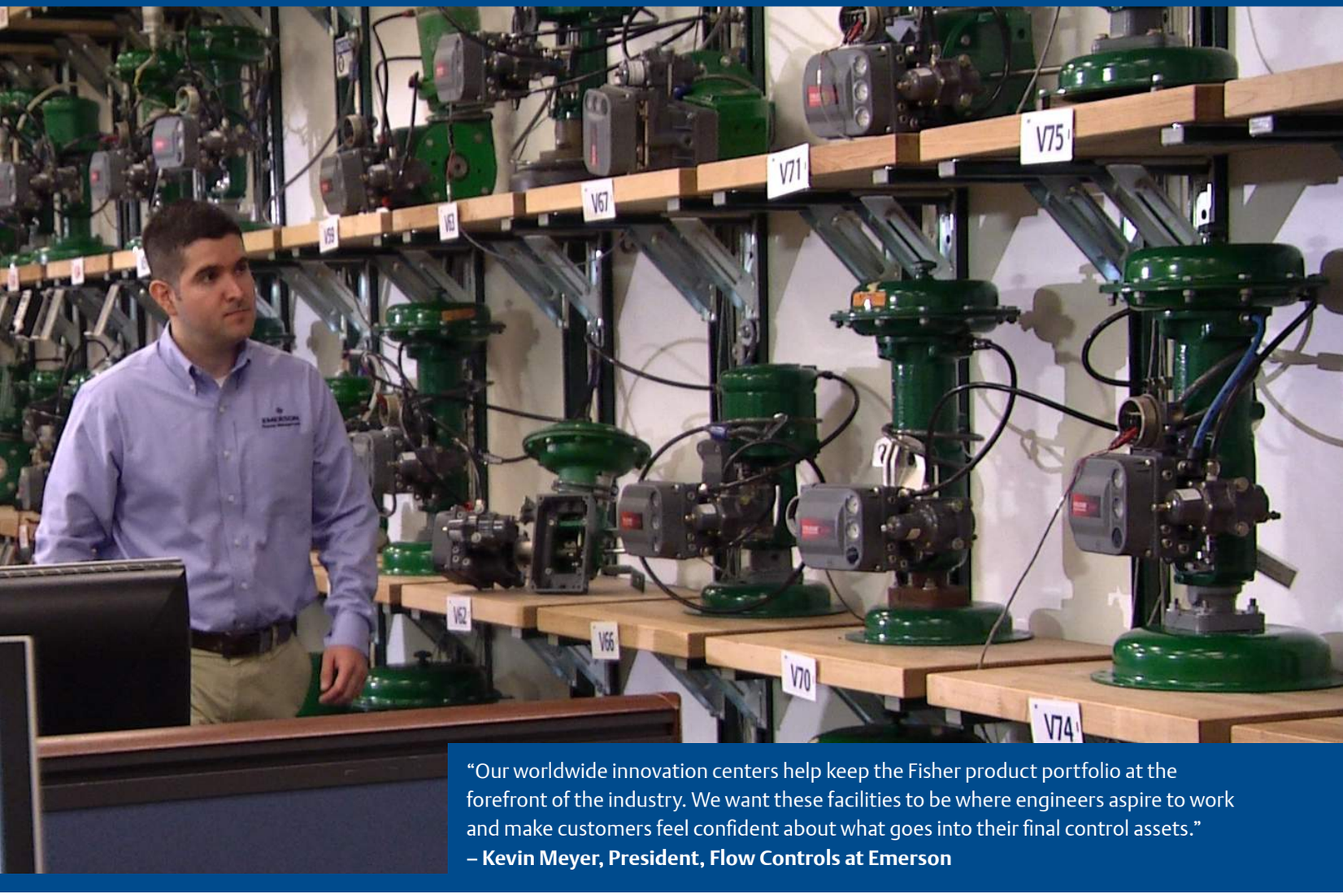
Your final control assets are critical to the efficiency of your process, but any extra time or attention required to troubleshoot valve issues can cost you money. Often, you simply don't have the resources to babysit these essential process elements.



Our facilities and expertise for engineering, testing, and support are unmatched.

When you buy Fisher products, you get the application expertise that comes from over 135 years of work in the process control industry. And, you benefit from millions of dollars invested in research to solve the issues most important to your business. Our attention to detail and evaluation of every facet of your process is a primary reason we're known for the highest reliability and performance on the market. From initial product design and verification of performance integrity, to post-installation support and demonstration, our global facilities offer a glimpse behind the scenes of our commitment to quality.

FISHER™



"Our worldwide innovation centers help keep the Fisher product portfolio at the forefront of the industry. We want these facilities to be where engineers aspire to work and make customers feel confident about what goes into their final control assets."
– Kevin Meyer, President, Flow Controls at Emerson

Developing innovative solutions to address more demanding processes.

We add ingenuity to our products and technology—well ahead of the industry—so your plants and processes run smoother for longer.

Product Design ▸ p5

Verifying as-designed performance integrity and longevity.

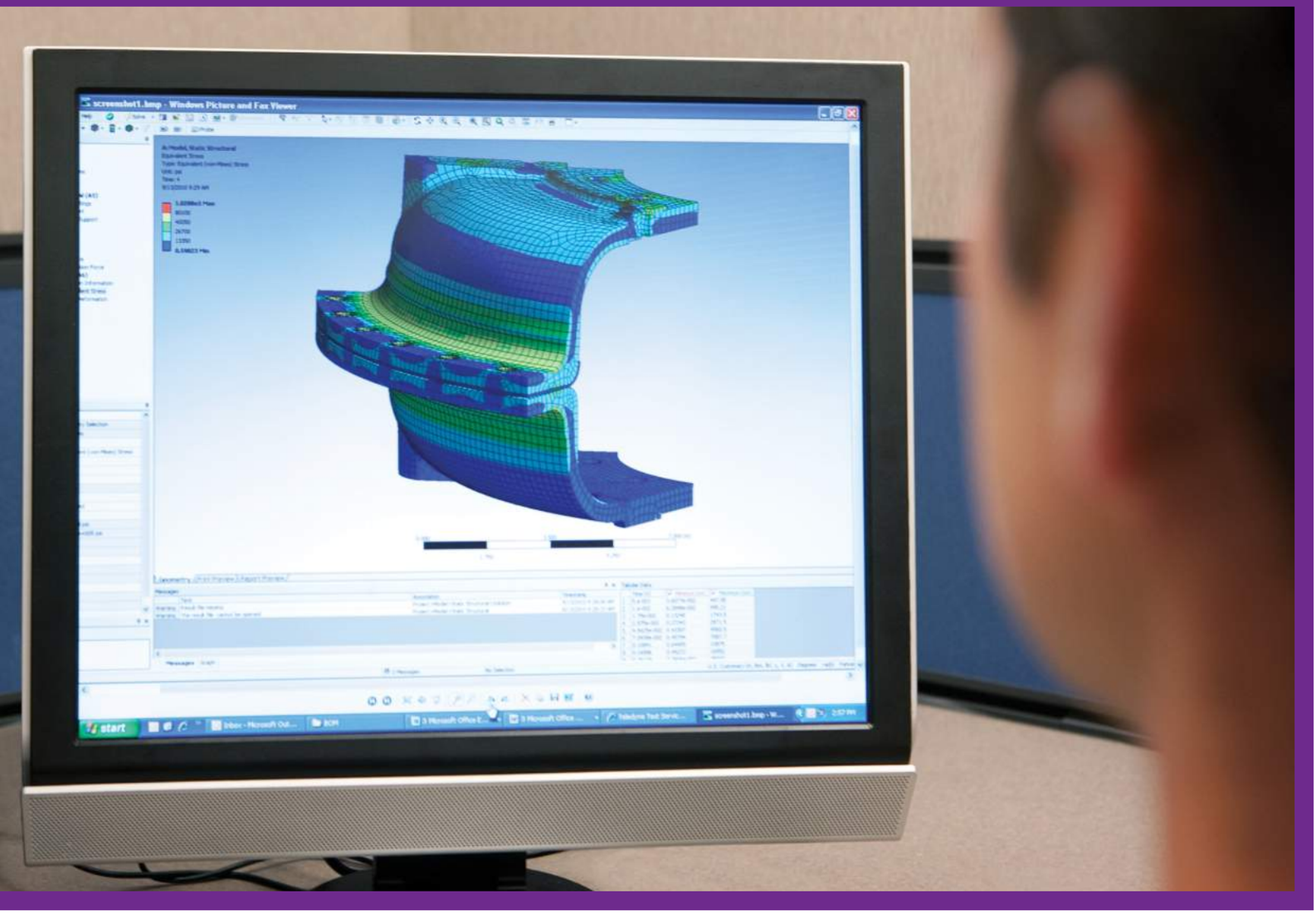
We test our products in extreme conditions exactly like yours, simulating things like severe vibration, temperatures, and pressures to ensure they provide steady control as expected.

Product Testing ▸ p7

Offering ongoing product expertise and application consultations.

From demonstrating functionality, to advising which options are available for your application, to troubleshooting issues, we have experts available to answer your questions at every step of the process.

Product Expertise ▸ p9



Developing INNOVATIVE solutions to address more demanding processes.

As facilities are getting bigger, with higher pressures and larger valves, you need to maximize your runtime between outages. Emerson engineers use the latest technology and techniques to design our valves, actuators, and instruments as complete assemblies with seamless integration and maximum performance in mind. We are industry-leaders when it comes to offering the best solutions for every application and ensuring you get the performance you're expecting from your final control elements. With the most highly-engineered valve solutions on the market, you can have more confidence about reliable flow control for your common or critical applications.

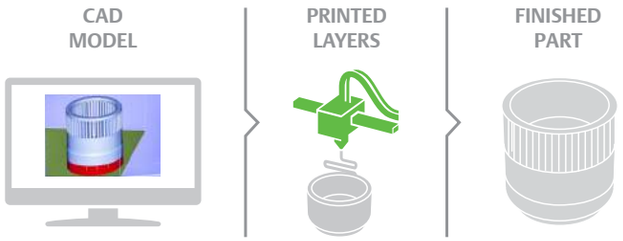
What's your challenge?

"The global process industries lose an estimated $20 billion–or 5 percent of annual production–as the result of unscheduled downtime."
–ARC Advisory Group

What's your opportunity?

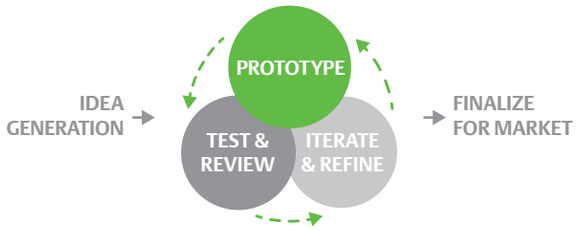
Fisher products are designed to help your process run better, for longer. We are constantly developing and incorporating newer, more advanced solutions to keep our valve assemblies at the top of their class.

Using additive manufacturing to accelerate new product development



Boundless Design Potential

With additive technologies, intricate geometries no longer mean complicated or more time-consuming build processes. By adding materials, layer by layer, the manufacturing process becomes simpler, faster, and results in less material waste. It also allows us to broaden our design potential in order to solve more complex problems in new ways. ▶ Watch a video



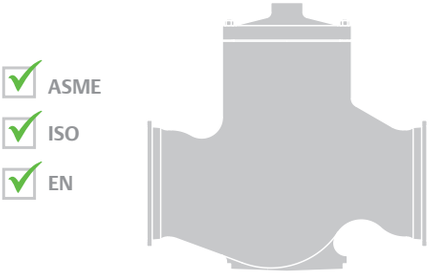
Rapid Prototyping

Using additive manufacturing, we're able to create parts in-house, so that design iterations can be tested, evaluated, and adjusted much faster and with less scrap than before. With the ability to get the most ideal version of the product to market quicker, we can address your process issues before they are compounded.

Qualifying materials and castings for extra quality assurance

Materials Analysis

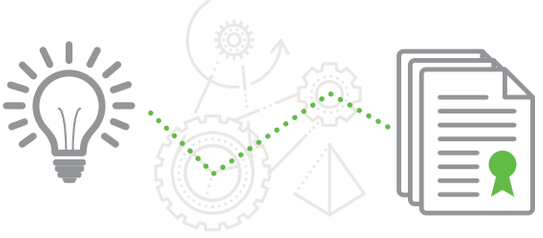
Emerson's materials engineers investigate the properties and application limits of metallics and non-metallics with a variety of contemporary tools and techniques to improve product reliability and help ensure optimum material options are available for your processes.



Casting Verification

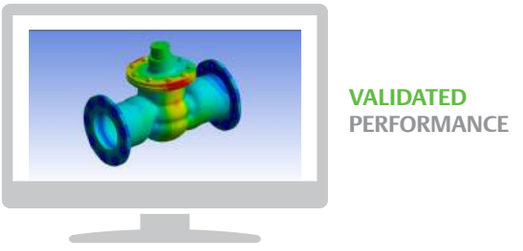
Emerson enforces a comprehensive quality specification for Fisher control valves that must be met by all suppliers of pressure-containing and structural metal castings. These requirements exceed those specified by ASME, ISO, and EN. ▶ Read the white paper

Creating new technologies to propel the process control industry



Unrivaled Engineering

Our engineers have been awarded more patents than any other valve manufacturer, often driving industry-wide shifts in how process challenges are addressed. These solutions are proven successful before and after field installation. ▶ Watch a video



Advanced Analysis Tools

Using an array of analysis tools, we are able to visualize the inner workings of our product designs, including flow phenomena and stress concentrations under extreme pressures. The designs are modified based on results to ensure expected performance is achieved and sustainable.

TESTING as-designed performance integrity to maximize longevity.

Replacing assets at the first hint of an issue is a luxury you can't often afford. We realize there's a good chance our valves will need to last you decades–even in harsh environments. We rigorously analyze and test every product with that in mind, using a broad range of capabilities to ensure the highest degree of lasting reliability is achieved.

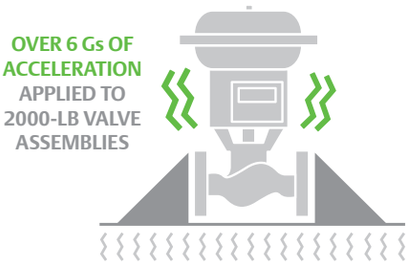
What's your challenge?

"The vast majority of our valve manufacturing competitors test their products to meet minimal industry standards; they simply cannot replicate extreme application conditions in a lab setting like we can."
–Nate McCormick, Product Evaluation Manager

What's your opportunity?

With Fisher products, you get peace of mind not only that industry standards are met–and often exceeded–but that valve assemblies have been tested to hold up in your process conditions, no matter how extreme.

Ensuring products can reliably withstand severe conditions



Vibration Testing

Using two electrodynamic vibration systems, we measure the ability of a product to withstand vibration extremes of up to 17,000 pounds (7,711 kilograms) of force.

Cryogenic Testing

Fisher cryogenic products are subjected to extremely cold temperatures in order to verify their reliable operation in the most frigid application conditions.

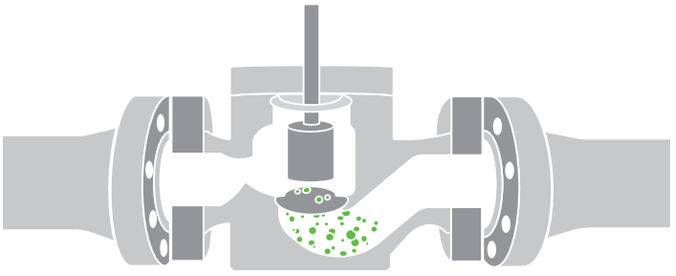
▶ Watch a video

Noise Abatement

Our engineers analyze acoustic sources–from valves and trim to diffusers and spargers–so you don't risk worker safety, costly fines, or operating restrictions. ▶ Watch an animation

Reducing Emissions

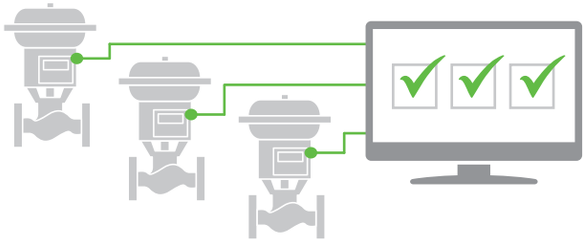
Emerson has several patented packing systems that comply with the strictest emissions standards, improve throughput, and contribute to safer plant and surrounding environments.



Cavitation Control

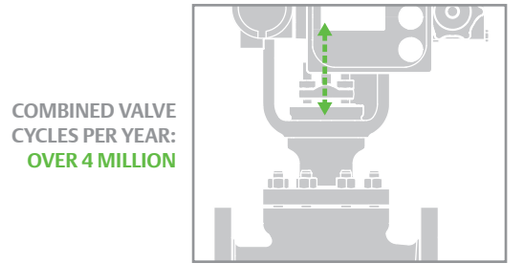
Ensuring tight tolerances, making suitable material options available, and correctly staging pressure drops are all ways our products can help you prevent cavitation issues. ▶ Watch an animation

Streamlining design iterations and enhancing reliability



Automated Test Systems

Our setups verify instrument hardware, firmware, and Windows-based software programs work seamlessly with valve assemblies throughout the Emerson portfolio. One small change is automatically replicated across all configurations, making it easier for us to test a variety of setups and ensure you have application flexibility.



High Cycle Testing

We test our valves at full pressures–including maximum pressure drops–at higher cycles that often far exceed expectations. You know it'll work when it's new and well beyond.

Visit **Fisher.com** to find additional resources or contact a local sales representative.

Offering ongoing product and application EXPERTISE.

You need support that doesn't end as soon as you've purchased a product. Collectively, our engineers have hundreds of PhDs, patents, and years of experience, and are actively involved in the development of national and industry standards. When combined with their product design and testing backgrounds, they are the perfect consultants for a host of application questions across all industries.

And, our facilities are designed to demonstrate how Emerson products are installed, function, and integrate with other critical components—all to make your operators more efficient for day-to-day processes.

What's your challenge?

With more advanced valve technologies also comes the potential for increased complexity, making the need for thorough asset documentation, diagnostics capabilities, and expert analysis even greater.
–Valve Magazine

What's your opportunity?

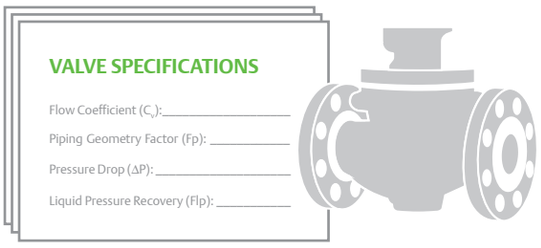
Our engineers field questions and analyze data from customers like you as a way to continuously learn and advance their skill sets. And, we have a great network of local sales representatives who can visit your site in person–often within hours.

Demonstrating product integration and performance

Solutions Centers with Plantweb™ digital ecosystems

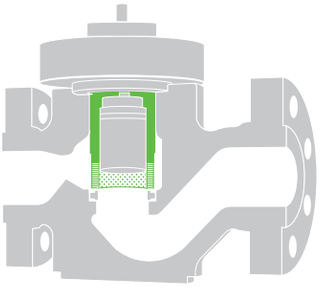
We demonstrate our diagnostic capabilities in a dynamic flow loop environment in person or remotely wherever you have internet access. You can participate in an online performance evaluation by causing a valve or instrument malfunction in the dynamic performance loop, then allowing FIELDVUE™ instrumentation to detect, diagnose, and recommend corrective action. We use open and closed loop dynamic analyses in determining how a control valve assembly will perform when in service. Our investment in five operating, dynamic performance loops around the world is unequaled.

Analyzing application requirements and advising available solutions



Valve Sizing and Selection

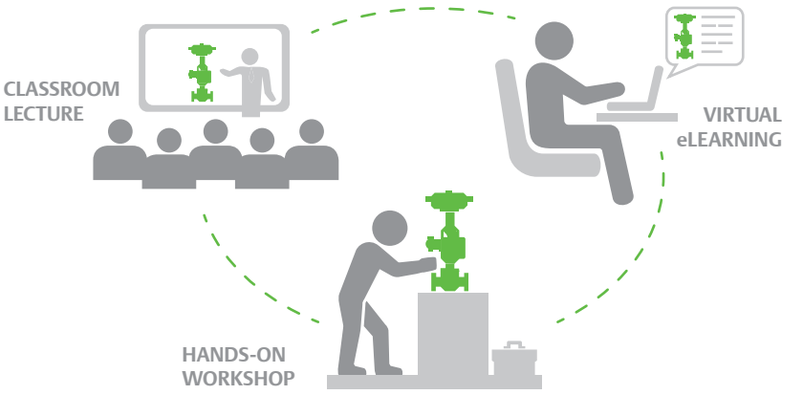
Consult with an expert when choosing the best valve and accessories for your application requirements to achieve precise control. Or, get started with our Specification Manager software to narrow down your options. ▶ Download Specification Manager software



Customized Solutions

Sites each have their own unique requirements and challenges. We can design, test, and deliver a valve assembly tailored specifically to your needs—and once it's installed, we can even remotely monitor its behavior and let you know if maintenance is recommended.

Providing extensive and flexible training opportunities



Educational Services

Whether you're a technician or plant manager for a process made up of valves and other critical equipment, we have the resources to help you or your team operate as safely and efficiently as possible. Flexible classes are offered through our regional training centers, locally or at your facility, via the web utilizing eLearning, virtual classroom, traditional classroom, or through a blended learning method combining any or all of these options.
▶ See our course list

Visit **Fisher.com** to find additional resources or contact a local sales representative.

Our commitment to quality and innovation is unparalleled in the process control industry. Come see for yourself.

Visit **Fisher.com** to contact a representative and schedule a tour of a facility near you.

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