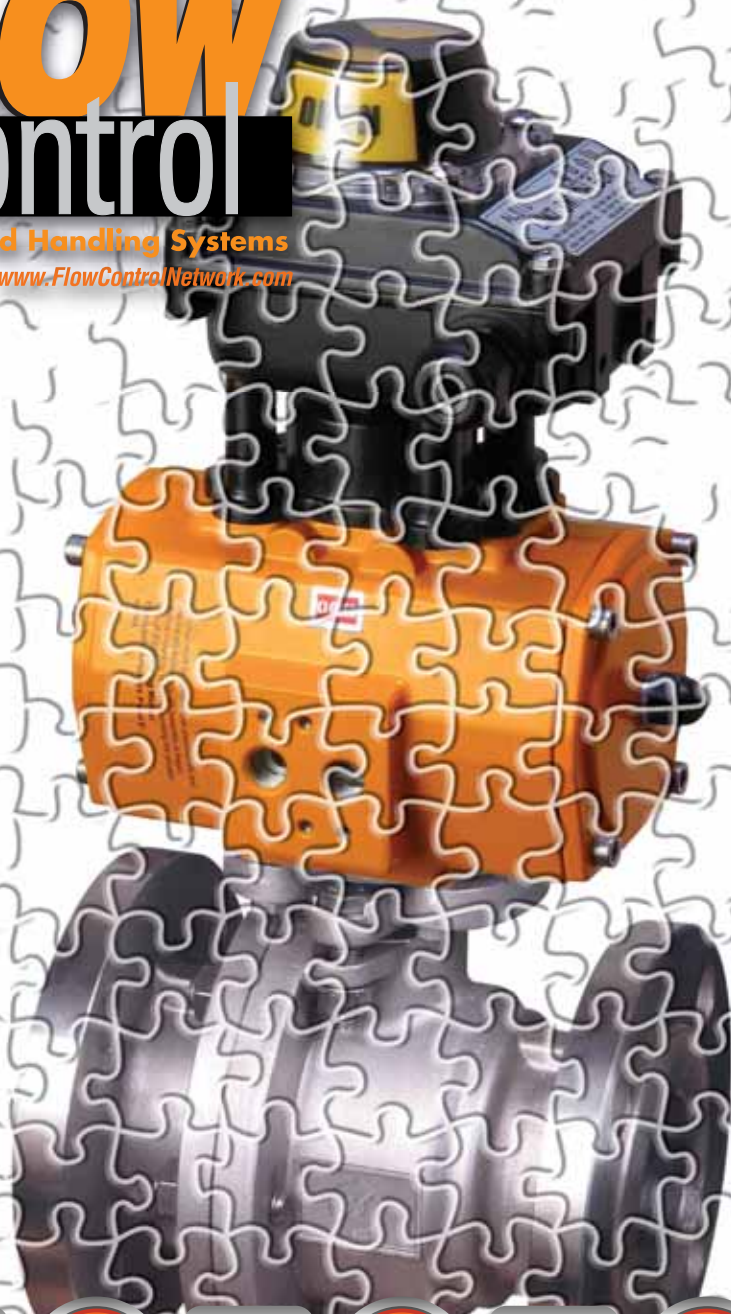


# FLOW<sup>®</sup> Control

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**C O N F I G U R E**

New Online Tools Help Specifying  
Engineers Put the Pieces Together



# Online Configurators Go Next Generation

*Engineers, Pressed for Time, Look to Automate Their Specification Process*

**B**uying complex products and services can be just that — complex.

Engineers, such as David Griffiths at New York Air Brake ([www.nyab.com](http://www.nyab.com)), need to design and assemble solutions that perform under great pressure, with no room for error or downtime. Griffiths' job is to find simple, yet elegant solutions to complex problems in the well-established rail industry, where New York Air Brake supplies air brake control systems, electronically controlled braking systems, and foundation brakes for freight railroad applications.

In order to perform his job effectively, Griffiths needs his supply chain partners to configure and price optimal solutions quickly. The demands of cost containment and rapid delivery means inefficient manual processes are not an option, as it is imperative to eliminate the order errors and long lead times these systems often result in.

The normal selection of an automated valve requires experience. Once an engineer selects the proper valve, they need to know the valve torque, the actuator type (pneumatic, electric) and output torque, and the accessories that will be required (limit switches, solenoid valves). All of these items must be evaluated so the sizing is correct and the accessories are compatible.

## How Time Is Saved

Increasingly, Griffith and his colleagues rely on suppliers such as Assured Automation ([assuredautomation.com](http://assuredautomation.com)) and A. R. Wilfley & Sons ([www.wilfley.com](http://www.wilfley.com)) to provide online configurators to automate the manual, disparate processes typically associated with configuration, pricing, and quoting.

Assured Automation's automated valve configurator uses a rules and constraint-based configuration and pricing management technology to deliver solutions quickly and accurately. The online configurator is designed to assist specifying engineers, stepping them through the selection process, guiding the engineer to compatible options for optimal pricing.

As the engineer selects the valve, actuator, and accessories, they can see the assembly on the screen, generate the part number,

and the price — all in real time. Once the valve assembly is selected, engineers can download 3D CAD models, installation and maintenance manuals, and full sets of data sheets; or, if they prefer, use the Assured Automation Web site as their electronic "file cabinet."

"In my experience, online configurators give me back the one thing that I have less of — time," says Griffiths. "The time I am saving is significant, as much as eight hours a week."

Before Griffiths had access to online configurators, he needed to reference several volumes of catalogs from multiple suppliers, as well as place numerous phone calls before locating the exact product number, price, and purchase order numbers. "The configurators are much better than lugging all of those big books around," he says. "And I find the animated views of the assemblies very helpful when explaining my designs to my colleagues."

"We know from surveys of engineers who specify, recommend, and/or purchase automated valves, they overwhelmingly prefer to have the actuator and accessories integrated with the valve in one assembly," says Bill Farrell, president of Assured Automation. "Our interactive Valve Configurator dynamically displays the correct product image as the valve components are added, generates the part number, and calculates total price so engineers can get instant estimates, confident in the accuracy of their design and costs," Farrell says.

## Hose & Pump Configurators

In addition to automated valves, process engineers increasingly use online configurators when designing hose, piping, and pump applications. Hose configurators, such as the one offered by Hosecraft USA ([www.hosecraftusa.com](http://www.hosecraftusa.com)), allow engineers to select hoses by material or application. Once the hose is selected, the tool's "Price and Purchase" button provides a form where engineers select the hose diameter, outer diameter, length, and fittings on each side. Fittings options can include NPT thread, garden hose, cam and groove, bridge clamps,

and suction threads, male, female, female swirl, and material selections, such as brass, stainless steel, 316 stainless steel, aluminum, and carbon steel. Hosecraft launched its first configuration in 2006 and this year is expanding it with a comprehensive shopping cart. According to Paul Berg, Hosecraft's general manager, the company's configurator has been a big hit with customers. "We see a definite change in the pattern of customer calls," says Berg. "We are getting fewer calls for quotes, and our orders and technical inquiries have increased."

As early as 2000, engineers needing slurry or chemical pumps could purchase a pump engineered to order through an online configurator provided by A. R. Wilfley & Sons ([www.wilfley.com](http://www.wilfley.com)). Relying on a worldwide network of distributors and manufacturer representatives, Greg Highfill, A. R. Wilfley & Sons's director of engineering and quality, was looking for a way to reduce the load on his internal engineering staff supporting his sales channels. "We believed there are better tools to assure quote and order accuracy than manual, spreadsheet-based quotes," he says. "Our pumps can vary from standard to highly engineered and require accurate engineering calculations to correctly select and size several components simultaneously. We manufacture the pumps according to customer-configured orders, which we need to get quickly, and without errors."

## Not All Configurators are Created Equal

Despite growing uptake for online configurators, it is estimated that half of all specifying engineers continue to rely on manual processes for configuration. Resistance comes from long established work habits, as well as inconsistencies across different vendors' configurators.

For example, some configurators include logic that prevent engineers from selecting incompatible components or accessories and actually recommend the best priced accessories given alternative requirements. However, there are still some configurators



that allow engineers to specify either incorrect components or provide numerous drop-down options that often result in no product results. Typically, these types of configurators use drop-down selectors to merely filter out products that do not include the selected features, rather than building the configuration design on the fly.

Also problematic are configurators that simply resemble catalog pages, with multiple columns of tiny print listing multiple dimensions and options across narrow rows of data. Reading complex tables is difficult enough in print and even more difficult on a screen.

By today's standards, many early-generation configurators seem clunky and are often tedious to use. To do better, Bill Farrell consulted his customers before designing the Assured Automation configurator. "During the initial development of our Valve Configurator, we interviewed customers and found that most value-added configurators were too time consuming or too cumbersome. In addition, earlier configurators were not able to generate images of the complete assemblies once accessories were added. We also found engineers want CAD drawings and product presentation cutaways of difficult-to-understand products (see our VA Series)," says Farrell. "To offer this type of easy-to-use and product-specific information, we had to maintain our own Web development process.

In an effort to constantly improve the customer experience, companies such as Assured Automation have planned upgrade roadmaps. "Another interesting feature we are improving on is the ability to print or save your cart with full prod-

*The Assured Automation Configurator includes logic to apply options including sizing, material selections, and accessory selections. As options are selected, an image of the assembled automated valve with accessories is generated. In this example, a six-inch lug butterfly valve with EPDM seat is assembled with a spring-return pneumatic "E" Series actuator (fail to CLOSE) at 80 PSI, assembled with a 120 VAC solenoid in weatherproof cord grip and weatherproof mechanical limit switch. The configurator also generates the correct model number and price. Full datasheets and Installation and Maintenance manuals are also available.*

uct details, including the part number, valve selections and the full set of accessories, and pictures of the complete assembly," says Farrell. "The cart can be either printed or saved electronically, making it easy for them to collaborate internally and process the order through their purchasing department.

"Our future plans call for delivery information and the ability to enter online purchase orders. We also hear from our resellers that they want to enter their order right away, and even rebrand our configurator to support their own sales efforts," says

Farrell. "The most important part of this process is getting good customer input."

Just as engineers transitioned from calculators to computer tools such as Microsoft Excel's formulas to generate complex calculations, engineers are increasingly relying on online configurators to do the heavy lifting of specifying complex assemblies. Companies pushing for greater productivity are finding these tools save as much as 20 percent of staff time. **FC**

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[www.assuredautomation.com](http://www.assuredautomation.com)

## 16 Features to Look for In an Online Configurator

| Feature  | Automated Valves<br><a href="http://assuredautomation.com">assuredautomation.com</a> | Hoses<br><a href="http://hosecraftusa.com/configurator.php">hosecraftusa.com/configurator.php</a> | Pumps<br><a href="http://wilfley.com">wilfley.com</a> |
|--|--|---|---|
| 1. Open access (pre-approved approved login and password not required) | ✓  | ✓   | N/A   |
| 2. Logic to prevent order errors                                       | ✓  | ✓   | ✓   |
| 3. Logic to select optimal priced configurations                       | ✓  | N/A   | N/A   |
| 4. Image of configured components                                      | ✓  | ✓   | ✓   |
| 5. Generates part number   | ✓  | Uniquely identified & described in shopping cart  | ✓   |
| 6. Generates price   | ✓  | ✓   | ✓   |
| 7. Generates shipping cost   | ✓  | In shopping cart. Provide choices for UPS Ground, UPS 2nd day or UPS next day.                    | ✓   |
| 8. Animated demonstrations   | ✓  | N/A   | Coming Soon   |
| 9. Online purchase   | ✓  | ✓   | ✓   |
| 10. Estimates ship date  | ✓  | ✓   | ✓   |
| 11. Estimates weight   | ✓  | ✓   | ✓   |
| 12. In-stock identifier  | ✓  | ✓   | ✓   |
| 13. Online datasheets  | ✓  | ✓   | ✓   |
| 14. Online installation & maintenance manuals                          | ✓  | N/A   | ✓   |
| 15. 3D CAD drawings  | ✓  | N/A   | Coming Soon   |
| 16. Re-branded configurators available for distributors                | ✓  |   |   |



# It's time to automate!

Configure your automated valves today & have them tomorrow.\*



**1 Pick Your Valve**

The first screenshot shows the 'Valve Product Selection Chart: All Valves' on the Assured Automation website. It lists various valve series including VA Series Automated Valves, VAX Series High Pressure Control Valves, Area/Zone Series Angle Seat Valves, JBI Series Brass Ball Valves, 3E Series Automated Ball Valves, 3D Series 3-way Ball Valves, 33D Series 3-way Ball Valves, 3BV Series Plastic Ball Valves, 4000 Series Flanged Ball Valves, and STL/STW Series Butterfly Valves. Each entry includes a product image, description, and specifications.

**2 Pick Your Actuator**

The second screenshot shows the 'ST Series - Specify a Butterfly Valve' configuration page. It features a 3D model of a blue butterfly valve actuator. The page includes dropdown menus for 'Valve Body' (Log, Water), 'Stem Extension' (Yes/No), 'Disc Material' (Stainless Steel, CPDM), 'Seal Material' (EPDM, PTFE), and 'Actuator' (Pneumatic, Electric). It also lists 'Accessories' like 'Installation Nuts & Bolts'.

**3 Pick Your Accessories**

The third screenshot shows the 'Accessories' section of the configuration page, detailing the selection of installation nuts and bolts for the valve.

**4 Check Out or Print Your Quote**

The fourth screenshot shows the bottom of the configuration page with fields for 'Model', 'Serial Size', 'Price', and 'Quantity', along with an 'Add to Cart' button.



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\* Not all configurations can be shipped same day.

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