

**ROSS**  
1879 VALVE



**AUTOMATIC CONTROL VALVES & PRE-PACKAGED  
VAULTS FOR WATER & WASTEWATER INDUSTRIES**

# Company History

When George Ross founded our company in 1879, he made Automatic Control Valves that were designed to last. He also created a company built on enduring values: integrity of design and engineering, quality of materials, craftsmanship in manufacturing, a high level of customer service, and flexible business systems that have evolved with changes in technology and the industries we serve.

Still located in Troy, NY, Ross Valve has grown to become an internationally renowned manufacturer, and expanded to a second facility in 2004 to better serve our customers. As a 5th generation family-owned and operated business, there is an intense commitment to assure that all of our equipment is top quality and meets the high expectations of our customers.

With its rugged piston-style design, a Ross Valve offers **unparalleled long-term value** and customizability for any application. This has earned us the reputation as a manufacturer of the industry's most durable and accurate Automatic Control Valves.

## Ross Valves Last Longer

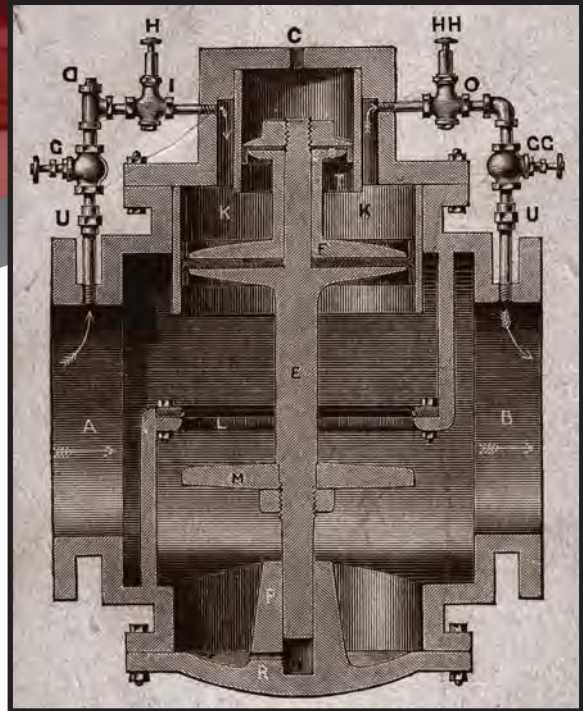
Our hand-crafted valves are designed with features that differentiate us from all other control valves, and our quality standards ensure that a properly maintained Ross Valve is often an investment that will last a lifetime. To provide assistance through the decades of use, the following services are a standard part of every Ross Valve purchase:

- We will maintain a detailed record of the individual valve's construction, settings, and service history
- Dedicated, factory-trained service technicians available for on-site start-ups and service
- Live, personal assistance for remote troubleshooting and maintenance questions
- Customizable Operation & Maintenance manuals are available online anytime
- A preventative maintenance schedule tailored to your valve can be provided

## Our Customers

Ross continues to grow its comprehensive product line to serve the following industries throughout the world:

- Municipal Water
- Wastewater
- Industrial
- Hydro-Power
- Fire Fighting



Original piston-style Ross Valve, circa 1900. While our product has evolved, the rugged design remains largely unchanged, even today.

## Dedication to Quality

Based in Troy, NY since 1879, Ross Valve continues to do all manufacturing in-house so that we may provide our customers with the following:

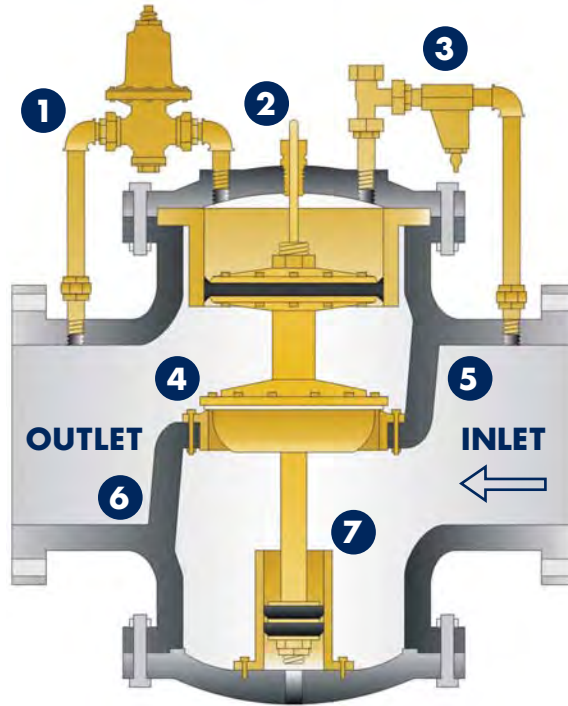
- 100% quality control, from product design through final testing
- Performance-tuned valves, with at least 10 independent criteria specified for optimal performance in each application
- Durable and flexible designs, for a lifetime of service - even if operating conditions should change
- Lead time management and manufacturing flexibility for both standard and custom valves
- 100% hydraulic testing of all valves (completely assembled), for trouble-free installations and start-ups
- Continued commitment to meeting the strict requirements of ISO, NSF, AWWA, and ANSI

# VALVE CONSTRUCTION

## ROSS PISTON STYLE VALVE

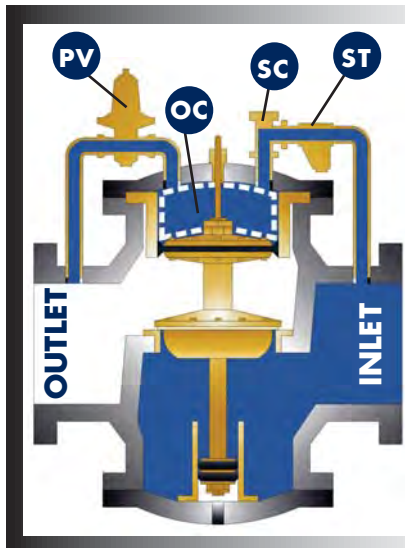
### ROSS STANDARD FEATURES:

- 1 Rigid ½" Piping & Fittings
- 2 Position Indicator
- 3 Strainer with 7 in<sup>2</sup> Stainless Steel Filter
- 4 Application-Specific Seat Contour
- 5 ANSI Class 250 Body & Caps
- 6 NSF 61 Certified Epoxy Coating Inside & Out
- 7 Fully Guided Piston Above & Below Seat



### ROSS ADVANTAGES:

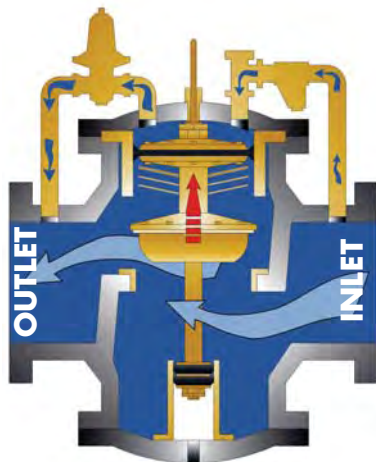
- Piston Style Design is not vulnerable to sudden failures
- All manufacturing done in-house (Troy, NY) for quality control
- 100% Hydraulic testing on every valve before shipment
- Extra-heavy construction, for decades of reliable service
- Over 10 criteria specified for every valve to ensure optimal performance
- Low maintenance, easily customizable



### OPERATION:

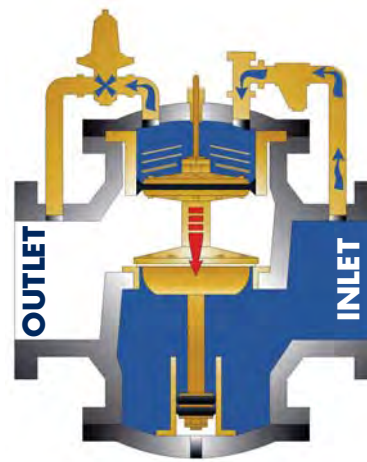
The Ross Valve piston-style design provides extremely accurate flow control and is not subject to sudden failure. Each valve is comprised of the following standard components:

- OC** The Operating Chamber is created by the top seals of the piston. The pressure in this chamber, as determined by the control components, determines the movement of the piston.
- ST** Our standard Strainer utilizes a stainless steel screen with over 7 square inches of surface area to filter out contaminants going into the valve controls.
- SC** The adjustable Speed Control Valve regulates the flow into the Operating Chamber and determines the main valve's opening and closing speeds.
- PV** The Pilot Valve, whether hydraulic or electric, acts like the brain of the valve to determine when the valve will open or close.



### OPENING

When the Pilot Valve opens, fluid exits the Operating Chamber faster than it can enter through the Speed Control Valve. The low pressure created in the Operating Chamber allows line pressure in the main valve to force the Piston up, opening the valve.



### CLOSING

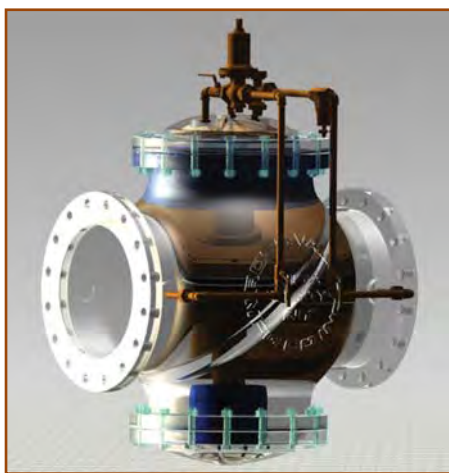
When the Pilot Valve closes, fluid continues to enter the Operating Chamber through the Strainer and Speed Control Valve. The high pressure created in the Operating Chamber overcomes the line pressure in the main valve and forces the Piston down, closing the valve.

Note: Renderings shown are for reference only and are subject to change at any time. Engineering drawings are provided during the submittal process.



## Technical Resources:

At Ross Valve, we pride ourselves in providing a truly engineered product. There is no "off the shelf" valve that will perform optimally in every application, so we specify at least 10 separate criteria to ensure the best performance possible for each valve. With nearly 130 years of industry experience, Ross Valve offers a variety of in-house resources to ensure all your product requests are met:



- Dynamic Fluid Modeling
- Pattern Shop & 2 Foundries
- Machine Shops & CNC Centers
- Hydro Test Facilities
- Pre-Packaged Vault Design/Build Center
- Online Tools
  - Animated Valve Operation Schematic
  - Valve Sizing / Capacity Tool
  - Valve Configuration Tool  
*(For customized Specifications, Submittals, Operation & Maintenance Manuals)*



# ROSS

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Ross Valve Mfg. Co., Inc.  
P.O. Box 595, Troy, NY 12180-0595, USA  
Tel: 518-274-0961 • Fax: 518-274-0210  
Email: sales@rossvalve.com • www.rossvalve.com



All Ross Valves meet or exceed all current AWWA standards for construction and pressure ratings.



Ross Valve manufactures all its products at the corporate headquarters or the Ross Tech Park, both conveniently located in Troy, NY.