CONSTRUCTION

THE ROSS ELECTRONIC CHECK VALVE

Designed for the ultimate in pump control performance.

SIZES

2” - 4” (50mm – 100mm)

DESIGN

Based off our proven piston design, and modified for use with water and fluids, the Ross ECV valve is designed for accuracy, performance, and long life.

KEY FEATURES

1. Valve actuators and pumps are interlocked, assuring a safe smooth and efficient operation.
2. Stainless steel wetted parts resist wear.
3. Two-piece stem prevents back flow, ensures closure on power failure.
4. Heavy-duty shafts, multiple interlocked, assuring a safe, smooth and efficient operation.
5. Angle (90°) and globe (inline) style bodies available

FEATURES & BENEFITS

- Threading makes replacing the design available
- Independent adjustable control, for both opening and closing speeds
- Rugged piston style control and design provides dependable operation and peace of mind
- Horizontal or vertical valve and/or shutoff
- Every internal part is replaceable through the top cap, without removing the valve from the line.
- All engineering manufacturing and testing done in-house.
- Reliability that you can come to expect from Ross Valve.

MODEL ECV PUMP CONTROL VALVE

Model ECV Pump Control Valve

When George Ross founded our company in 1879 he made a product designed to last. The idea 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 and grown with technology and the times.

Now, much more than a century later, Ross automatic control valves are legendary throughout the world. Over the years, they have played a pivotal part in construction projects both large and small, serving systems as diverse in size and operating conditions as New York City, Los Angeles, Madrid, and Dubai.

Ross offers a complete line of standard valves including pump control, pressure reducing, flow control, altitude, back pressure sustaining, relief, surge control, electronic control valves, and float valves, as well as a complete line of strainers and diaphragm style valves. Complementing these product lines are high energy dissipation anti-cavitation valves — our “WaterMaster”. Roundout our product line as a full line of valves for wastewater. Of course, we also have a variety of customized valves and valve features that can be engineered to suit any application, as well as pre-packaged valve units for turn-key installation.

According Riggedly constructed. Versatile. Reliable. And backed by dedicated technical support and uncompromised field service. No wonder customers around the world always seem to rely on it.

There’s nothing like a Ross Valve.

When George Ross founded our company in 1879 he made a product designed to last. The idea 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 and grown with technology and the times.

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Ross offers a complete line of standard valves including pump control, pressure reducing, flow control, altitude, back pressure sustaining, relief, surge control, electronic control valves, and float valves, as well as a complete line of strainers and diaphragm style valves. Complementing these product lines are high energy dissipation anti-cavitation valves — our “WaterMaster”. Roundout our product line as a full line of valves for wastewater. Of course, we also have a variety of customized valves and valve features that can be engineered to suit any application, as well as pre-packaged valve units for turn-key installation.

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There’s nothing like a Ross Valve.
Reliable control where it's needed most.

For pump control applications, you need a solution that's reliable, predictable and won't leave your system open to compromise. Our experience since 1879 has shown us again and again that the most effective approach to managing pump activity is to start and stop a pump against a closed valve, to stop surges before they can start.

The Ross Model ECV pump control valve for water and wastewater achieves this by combining the features of an electrically controlled valve with those of a check valve. The electric controls allow the valve to be precisely synchronized with the pump operation, ensuring smooth pump starting and stopping procedures. The 2-piece piston, with a free-floating lower portion, prevents reverse flow in the event of a power outage or pump failure.

Combined with our rugged piston style design, these features allow the Model ECV to perform several key functions:

- Coordinates with the pump to bring water or other fluid online slowly, in a controlled manner
- Opens fully to minimize headloss and promote efficient pumping operation
- Closes in a controlled manner to avoid surges and water hammer
- Closes quickly in an emergency, to prevent reverse flow that can damage the pump
- Provides adjustments (opening and closing speeds) and system status feedback (via optional control panel) to optimize performance

The Ross ECV is the pro-active approach to take the stress off your system and stop surges before they start.

If you still have concerns about pump surges, demand some additional surge insurance with a Ross relief or surge anticipator valve (Model 70SWR or 70SWR-E). These surge valves are the reactive approach to the Ross ECV pump control valve. Used together, they can provide the ultimate in water and wastewater pump control packages.

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

THE ROSS ELECTRONIC CHECK VALVE

Designed for the ultimate in pump control performance.

SIZES

2" – 48" (50mm – 1200mm).

DESIGN

Based off our proven piston design and modified for use with wastewater fluids, the Ross ECV valve is designed for accuracy, performance, and long life.

KEY FEATURES

1. Valve cover and pump are interlocked, assuring a safe smooth and efficient operation.
2. Stainless steel wetted parts resists corrosion.
3. Two piece stem prevents back flow, ensures positive operation.
4. Heavy-duty shafts, multiple bearings and dual o-ring seals resist wear.
5. Angle (90°) and globe (inline) style bodies available

ADDITIONAL FEATURES & BENEFITS

• Interlocked valve design for fail safe operation.
• Independent adjustable speed control for both opening and closing speeds.
• Rugged piston style control valve provides dependable operation and piece of mind.
• Horizontal or vertical valve and/or drilling available.
• Every internal part is replaceable through the top cap, without removing the valve body from the line.
• All engineering manufacturing and testing done in-house.
• Reliability that you can count on from Ross Valve.

MODEL ECV VALVE

(Model ECV Shown)

ADDITIONAL FEATURES & BENEFITS

Thick walled seamless steel design available
Independent adjustable speed control for both opening and closing speeds
Rugged piston style control valve provides dependable operation and piece of mind
Horizontal or vertical valve and/or drilling available
Every internal part is replaceable through the top cap, without removing the valve body from the line
All engineering manufacturing and testing done in-house
Reliability that you can count on from Ross Valve

When George Ross founded our company in 1879 he made a product designed to last. The idea 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 our technology and the times.

Now, much more than a century later, Ross automatic control valves are legendary throughout the world. Over the years, they have played a pivotal part in construction projects both large and small saving systems as diverse in size and operating conditions as New York City, Los Angeles, Madrid, and Dubai.

Ross offers a complete line of standard valves including pump control reduction valves. Ross control, altitude back pressure sustaining, relief, surge control electronic control valves, and float valves, as well as a complete line of strainers and diaphragm style valves. Complementing these product lines are high energy dissipation anti-cavitation valves – our “WaterTamer.” Rounding out our product line is a full line of “WaterTamer.” Rounding out our product line is a full line of strainers and diaphragm style valves. Complementing these product lines are high energy dissipation anti-cavitation valves – our “WaterTamer.” Rounding out our product line is a full line of valves for wastewater. Of course, we also have a variety of customized valves and valve features that can be engineered to suit any application, as well as pre-packaged valve units for turn-key installation.

Accurate Ruggedly constructed. Versatile Reliable. And backed by dedicated technical support and uncompromised field service, you wonder customers around the world always seem to want more.

There’s nothing like a Ross Valve.

CONTROL PANEL INFORMATION

Our control panels are built on-site in our own panel shop, and offer the following advantages:

- Pre-programmed for each job, based on the valve specifications and pump operating parameters
- Pre-wired to eliminate field wiring errors
- 100% factory tested
- NEMA 4X fiberglass enclosure
- Can be mounted directly onto the valve before shipment

Our base model control panel is a mechanical relay style control panel that offers all the features listed above in an economical package. High visibility indicator lights signal whether pump and valve are running correctly, or if there is a malfunction.

The Ross Model MC2001 is a PLC-based control panel that provides exceptional accuracy in a highly versatile, and economic package. High visibility indicator lights signal whether pump and valve are running correctly, or if there is a malfunction. The Ross Model MCF2000 is a PLC-based control panel that provides exceptional accuracy in a highly versatile, modular design. It features a message display center that displays system status and alarms, and also serves as the user interface for operator fine-tuning and security verification. Other capabilities include a back-up memory module, battery backup system, adjustable pulse features, throttling options, and additional alarms and relay contacts.

Let us design a panel that meets your unique requirements and provides a seamless interface between your pump and your Ross Valve.

Ross Valves are known for their exceptional quality. And no wonder, because we control the process in-house from start to finish. When designing the line of controls we make, We start right with the latest technology and design trends.

All our panels are pre-wired to our New York “WaterTamer” valves. All parts are matched to the pump. Each valve is individually assembled, pilot valves and control are set, and tested to "water tight" under the designed operating conditions. When you receive your new Ross Valve, you can count on its ability to perform from the start.

Why choose Ross Valves?

You can count on its ability to perform from the start.

Ross Valves are known for their exceptional quality. And no wonder, because we control the process in-house from start to finish. When designing the line of controls we make, We start right with the latest technology and design trends.

All our panels are pre-wired to our New York “WaterTamer” valves. All parts are matched to the pump. Each valve is individually assembled, pilot valves and control are set, and tested to “water tight” under the designed operating conditions. When you receive your new Ross Valve, you can count on its ability to perform from the start.
Reliable control where it’s needed most.

For pump control applications, you need a solution that’s reliable, predictable and won’t leave your system open to compromise. Our experience since 1879 has shown us again and again that the most effective approach to managing pump activity is to start and stop a pump against a closed valve, to stop surges before they can start.

The Ross Model ECV pump control valve for water and wastewater achieves this by combining the features of an electrically controlled valve with those of a check valve. The electric controls allow the valve to be precisely synchronized with the pump operation, ensuring smooth pump starting and stopping procedures. The 2-piece piston, with a free-floating lower portion, prevents reverse flow in the event of a power outage or pump failure.

Combined with our rugged piston style design, these features allow the Model ECV to perform several key functions:

- Coordinates with the pump to bring water or other fluid online slowly, in a controlled manner
- Opens fully to minimize headloss and promote efficient pumping operation
- Closes in a controlled manner to avoid surges and water hammer
- Closes quickly in an emergency, to prevent reverse flow that can damage the pump
- Provides adjustments (opening and closing speeds) and system status feedback (via optional control panel) to optimize performance

The Ross ECV is the pro-active approach to take the stress off your system and stop surges before they start.

If you still have concerns about pump surges, demand some additional surge insurance with a Ross relief or surge anticipator valve (Model 70SWR or 70SWR-E). These surge valves are the reactive approach to the Ross ECV pump control valve. Used together, they can provide the ultimate in water and wastewater pump control packages.

**Potential Installations**

- Raw water & greywater pump stations
- Wastewater & sewage pump stations
- Potable water pump stations
- Cooling, mixing & recirculating systems
- High pressure/performance irrigation systems
- Slurry, mining and pulp applications

**INSTRUCTIONS**

1. Locate the desired headloss along the vertical axis, for the appropriate type valve.
2. Follow the line horizontally until the desired flow is reached (according to the horizontal axis).
3. Follow the line vertically down to the nearest angled line to determine the appropriate valve size.

**DIMENSIONS AND WEIGHTS**

**ANGLE STYLE**

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**ANGULAR COMPARISON**

- Flow Guage (all dimensions in inches)

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**HEADLOSS GUIDE**

**MODEL ECV**

**INSTRUCTIONS**

1. Locate the desired headloss along the vertical axis, for the appropriate type valve.
2. Follow the line horizontally until the desired flow is reached (according to the horizontal axis).
3. Follow the line vertically down to the nearest angled line to determine the appropriate valve size.
Reliable control where it’s needed most.

For pump control applications, you need a solution that’s reliable, predictable and won’t leave your system open to compromise. Our experience since 1879 has shown us again and again that the most effective approach to managing pump activity is to start and stop a pump against a closed valve, to stop surges before they can start.

The Ross Model ECV pump control valve for water and wastewater achieves this by combining the features of an electrically controlled valve with those of a check valve. The electric controls allow the valve to be precisely synchronized with the pump operation, ensuring smooth pump starting and stopping procedures. The 2-piece piston, with a free-floating lower portion, prevents reverse flow in the event of a power outage or pump failure.

Combined with our rugged piston style design, these features allow the Model ECV to perform several key functions:

- Coordinates with the pump to bring water or other fluid online slowly, in a controlled manner
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**HEADLOSS GUIDE**

**MODEL ECV**

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**DIMENSIONS AND WEIGHTS**

**MODEL ECV**

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**KEY FEATURES**

1. Valve counts and pumps are integrated, ensuring a safe and efficient system.
2. Stainless steel wetted parts resist wear.
3. Heavy-duty shafts provide smooth and efficient operation.
4. Interlocked, assuring a safe, fail-safe operation.
5. Stainless steel wetted parts resist wear.

**ADDITIONAL FEATURES & BENEFITS**

- Robust and reliable, featuring a modular design
- Independent adjustable speed controls for both opening and closing speeds
- Rugged piston style control panel provides dependable operation and peace of mind
- Horizontal or vertical valve and/or stuffing box
- Every internal part is replaceable through the top cap, without removing the valve from the line
- All engineering manufacturing and ordering done in-house
- Reliability that you can count on from Ross Valve

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**CONTROL PANEL INFORMATION**

Our control panels are built on-site in our own panel shop, and offer the following advantages:

- Pre-programmed for each job, based on the valve specifications and pump operating parameters
- Pre-wired to eliminate field wiring errors
- 100% factory tested
- NEMA 4X fiberglass enclosure
- Can be mounted directly on the valve before shipment

Our Ross model control panel is a mechanical relay style control panel that offers all the features listed above in an economical package. High visibility indicator lights signal whether pump and valve are running correctly, or if there is a problem.

The Ross Model MC2001 is a PLC-based control panel that provides exceptional accuracy in a highly versatile and rugged electronic control valves and components. Ross valves are known for their exceptional quality. Find it in stock. Because we control the process from start to finish, Ross delivers the highest quality products and services to our customers around the world.

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When George Ross founded our company in 1879, he made a product designed to last. The idea of a model building that endures for decades is a dream that holds true today. As we evolved with technology and the times, we remained focused on one constant: creating products that are durable, reliable, and efficient. Our百年历史见证了无数技术进步和行业变迁，但我们始终坚守着一个基本原则：打造质量卓越的产品。您无论身在何处，Ross Valve都能为您提供优质的解决方案。