define
design
deliver
ABOUT HAYWARD® FLOW CONTROL

Hayward Flow Control, a division of Hayward Industries, Inc., and based in Clemmons, NC, USA, has been a leading manufacturer of industrial thermoplastic valves and process control products for more than 60 years. Thousands of customers worldwide have installed our products into aggressive and corrosive systems, as well as delicate life support systems where the strictest chemical balance is required. We understand the specific demands of industrial piping and are committed to offering advantageous products for your application that will keep your systems working.

Hayward Flow Control products carry an industry-leading, full two-year warranty. As an ISO 9001:2008 certified company, we strive for the highest quality product possible for use in a wide range of demanding applications.

THERMOPLASTIC VALVES, ACTUATION AND CONTROLS

Hayward manufactures flow control products in thermoplastic materials including PVC, CPVC, PP, GFPP and PVDF. These materials are non-conductors and are immune to electrolytic and galvanic corrosion. Equally important, they contain nothing to leach out and contaminate sensitive fluids or delicate ecosystems. In addition, Hayward offers one of the industry’s largest range of pneumatic and electric actuators and accessories, allowing you the ability to control your systems with one partner. Starting with simple actuated ball valves up to 24” butterfly valves with proportional control, Hayward continues to provide customers with an industry-leading choice of valve actuation packages to satisfy the most demanding application requirements.

HAYWARD’S STRainers AND FILTERS

Hayward’s industry leading Basket and Y-Strainers are designed to protect pipeline system components from dirt and debris while allowing process media to flow freely. Simplex and duplex Basket Strainers are manufactured in PVC, CPVC, GFPP and clear Eastar, and are available with thermoplastic, stainless steel or specialty alloy baskets in a variety of perfs and meshes. Y-Strainers are offered in PVC, clear PVC or CPVC materials with FPM or EPDM o-ring seals and a range of perforated thermoplastic or metal screens.

Unlike traditional metal and plastic filters, Hayward’s patent pending GFPP FLV Series Bag Filter features a one-piece injection molded thermoplastic glass filled polypropylene body with true union end connections, ergonomic cover design with liquid displacing dome, vent valve and drain plug. Available in simplex through quadtplex assembly, the FLV Series can also accommodate a single 7" cartridge or up to five 2-1/2" cartridges.

CORROSION RESISTANT THERMOPLASTIC PUMPS

To complete our product range of thermoplastic solutions, Hayward’s pumps perform reliably in systems pumping water, corrosive liquids and ultra-pure fluids. Choose from centrifugal, vertical, horizontal end suction, and immersible pumps or horizontal magnetic drive pumps.

Recently added to the Hayward Pump line are our A-Series Aquatic Pumps dedicated for the Aquariums and Aquaculture and the Z Series Solenoid Diaphragm Valve line.

NEW INNOVATIONS FROM HAYWARD

Hayward Flow Control now offers a full range of innovative and corrosion resistant Instrumentation, Chemical Feed and Metering solutions for your process and dosing system’s needs. These new categories of product solutions from Hayward include solenoid diaphragm pumps, flow meters, level sensors and thermoplastic pressure gauges, calibration columns and injection quills, all to measure and regulate your system’s performance. When packaged with our industry leading thermoplastic valves, actuations, filters, strainers and pumps, Hayward provides you with a complete package of flow control solutions to make your piping systems perform to your needs.
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## TB Series

### True Union Ball Valves

#### 1/4" TO 2" PVC / 1/2" TO 2" PVC, CPVC AND GFPP

**KEY FEATURES**
- PVC, CPVC and GFPP
- Full Port Design
- Reversible PTFE Seats
- Double O-Ring Stem Seals
- Easily Actuated
- NSF/ANSI 61 Listed (PVC and CPVC)

**OPTIONS**
- Lockouts Available
- 2" Square Operating Nut
- Stem Extensions
- Pneumatic and Electric Actuators
- Spring Return Handle

### SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE**</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot; – 3/8&quot; (DN8 – DN10)</td>
<td>PVC</td>
<td>Socket and Threaded</td>
<td>FPM or EPDM</td>
<td>250 PSI @ 70°F 17 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>1/2&quot; – 2&quot; (DN15 – DN50)</td>
<td>PVC or CPVC</td>
<td>Socket and Threaded or Flanged*</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>2-1/2&quot; – 4&quot; (DN65 – DN100)</td>
<td>PVC or CPVC</td>
<td>Threaded, Socket Fusion or Flanged</td>
<td>FPM or EPDM</td>
<td>235 PSI @ 70°F 16 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>6&quot; (DN150)</td>
<td>PVC or CPVC</td>
<td>Flanged</td>
<td>EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* All flanged valves are rated to 150 PSI @ 70°F Non-Shock (10 Bar @ 21°C).
** PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21. PP socket fusion ends per ASTM F2389 and threaded ends per BS21. Flanged ends available in DIN/EN PN10.

---

## TB Series

### True Union Ball Valves

#### 2-1/2" TO 6" PVC AND CPVC

**KEY FEATURES**
- PVC and CPVC
- Full Port Design Through 4"
- Reversible PTFE Seats
- Double O-Ring Stem Seals
- Easily Actuated
- NSF/ANSI 61 Listed (2-1/2"-4")
- Actuator-Ready Design

**OPTIONS**
- Pneumatic and Electric Actuators
- Lockouts Available
- Gear Operator
- 2" Square Operating Nut
- Stem Extensions
- Spring Return Handle

### SELECTION CHART

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<thead>
<tr>
<th>SIZE***</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
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<tbody>
<tr>
<td>2-1/2&quot; – 4&quot; (DN65 – DN100)</td>
<td>PVC or CPVC</td>
<td>Socket, Threaded or Flanged**</td>
<td>FPM or EPDM</td>
<td>235 PSI @ 70°F 16 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>6&quot; (DN150)</td>
<td>PVC or CPVC</td>
<td>Flanged</td>
<td>EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* 4" valve venturied to 6"
** All flanged valves are rated to 150 PSI @ 70°F Non-Shock (10 Bar @ 21°C)
*** PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21. Flanged ends available in DIN/EN PN10.
CV Series Profile2™
Proportional Control Ball Valves
1/2” TO 6” PVC AND CPVC

KEY FEATURES
• PVC and CPVC
• Reversible Seats
• True Union Design
• Manual or Actuated
• Precise Flow Control

OPTIONS
• Fill Station Lines
• Lateral Take-Off Line Flow Control
• Flow Reduction in Systems with Oversized Pumps
• Control Flow from Tanks

<table>
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<tr>
<th>SIZE***</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
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<tbody>
<tr>
<td>1/2”, 3/4”, 1”</td>
<td>PVC or CPVC</td>
<td>Socket and Threaded or Flanged**</td>
<td>FPM or EPDM</td>
<td>250 PSI @ 70°F 17 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>2-1/2” – 4”</td>
<td>PVC or CPVC</td>
<td>Socket, Threaded or Flanged**</td>
<td>Flanged</td>
<td>235 PSI @ 70°F 16 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>6”</td>
<td></td>
<td></td>
<td></td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* 4” valve venturied to 6” ** All flanged valves are rated to 150 PSI @ 70°F Non-Shock (10 Bar @ 21°C)
*** PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21. Flanged ends available in DIN/EN PN10.

TBZ Series “Z-Ball”
True Union Ball Valves
1/2” TO 6” PVC AND CPVC

KEY FEATURES
• PVC and CPVC
• Full Port Design
• Reversible PTFE Seats
• Double O-Ring Stem Seals
• For Sodium Hypochlorite Applications
• Adjustable Seat Retainer

OPTIONS
• Lockouts Available
• Stem Extensions
• Spring Return Handle
• Pneumatic and Electric Actuators
• 2” Square Operating Nut

<table>
<thead>
<tr>
<th>SIZE***</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2” – 2” (DN15 – DN50)</td>
<td>PVC or CPVC</td>
<td>Socket and Threaded or Flanged**</td>
<td>FPM</td>
<td>250 PSI @ 70°F 17 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>2-1/2” – 4” (DN63 – DN100)</td>
<td>PVC or CPVC</td>
<td>Socket, Threaded or Flanged**</td>
<td>Flanged</td>
<td>235 PSI @ 70°F 16 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>6” (DN150)</td>
<td></td>
<td></td>
<td></td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* 4” valve venturied to 6” ** All flanged valves are rated to 150 PSI @ 70°F Non-Shock (10 Bar @ 21°C)
*** PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21.
Flanged ends available in DIN/EN PN10.
LA Series Lateral Three-Way True Union Ball Valves
1/2" TO 6" PVC AND CPVC

KEY FEATURES
- PVC and CPVC
- PTFE Seats
- FPM or EPDM O-Rings
- Double O-Ring Stem Seal
- Simplifies Lateral Connections
- Replaces Valve/Tee Connection Combinations
- Quick, Easy to Install
- Replacement for Zero Dead-Leg Valves

OPTIONS
- Lockouts Available
- Pneumatic and Electric Actuators

OPTIONS
- Lockouts Available
- Pneumatic and Electric Actuators
- Cross-Flow Ball
- NT Ball
- TF Ball

SELECTION CHART

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<th>SIZE**</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
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<tbody>
<tr>
<td>1/2&quot; – 4&quot; (DN15 – DN100)</td>
<td>PVC or CPVC</td>
<td>Socket, Threaded or Flanged</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>6&quot;** (DN150)</td>
<td>PVC or CPVC</td>
<td>Flanged</td>
<td></td>
<td></td>
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</tbody>
</table>

* 4" valve venturied to 6"*

** PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21. Flanged ends available in DIN/EN PN10.
QV Series QIC2™ Compact Ball Valves
1/2” TO 2” PVC

KEY FEATURES
• Gray PVC
• Rugged, Compact and Lightweight Design
• Full Port Design
• PTFE Seats
• EPDM O-Ring Seals
• Low Torque, Easy 1/4-Turn Operation
• No Integral Parts to Replace
• Perfect for OEM Requirements

Valve-Safe Lockouts
FOR BALL VALVES UP TO 6*

KEY FEATURES (A)
• For Ball Valves up to 6”
• Latches and Lockable in Open/Close Position
• Simple Trigger Mechanical Design
• Can Use with Lockout/Tagout Hasp

KEY FEATURES (B)
• PP Housing Material
• For All Ball Valves up to 6”
• Use with up to 3 Padlocks

<table>
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<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
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<tbody>
<tr>
<td>1/2” – 2” (DN15 – DN50)</td>
<td>PVC</td>
<td>Socket and Threaded</td>
<td>EPDM</td>
<td>150 PSI @ 70°F</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10 Bar @ 21°C</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Non-Shock</td>
</tr>
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</table>
QTA Series Commercial
True Union Compact Ball Valves
1/2" TO 2" PVC

KEY FEATURES
• Gray and White PVC
• True Union End Connections
• Rated at a Full 150 PSI
• Santoprene® (TPV) Seats
• EPDM O-Ring Seals

TBB Series Commercial
True Union Ball Valves
1/2" TO 4" PVC, CPVC, PP AND PVDF

KEY FEATURES
• PVC, CPVC, PP and PVDF
• Full Port Design
• FPM or EPDM Seals
• PTFE Seats
• Double O-Ring Stem Seals
• Adjustable Seat Retainer

QVC Series Commercial
Compact Ball Valves
1/2" TO 4" PVC

KEY FEATURES
• Gray and White PVC
• Compact and Lightweight Design
• Low Torque Easy 1/4-Turn Operation
• Perfect for OEM Applications
• Socket and Threaded Connections

SELECTION CHART

**QTA Series Commercial**
True Union Compact Ball Valves
1/2" TO 2" PVC

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 2&quot;</td>
<td>PVC</td>
<td>Socket and Threaded</td>
<td>EPDM</td>
<td>150 PSI @ 70°F Non-Shock</td>
</tr>
</tbody>
</table>

*All flanged valves are rated to 150 PSI @ 70°F Non-Shock (10 Bar @ 21°C)*

**TBB Series Commercial**
True Union Ball Valves
1/2" TO 4" PVC, CPVC, PP AND PVDF

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 4&quot;</td>
<td>PVC, CPVC, PP or PVDF</td>
<td>Socket, Threaded or Flanged</td>
<td>FPM or EPDM</td>
<td>225 PSI @ 70°F 15 Bar @ 21°C Non-Shock</td>
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</table>

**QVC Series Commercial**
Compact Ball Valves
1/2" TO 4" PVC

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
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<tbody>
<tr>
<td>1/2&quot; – 4&quot;</td>
<td>PVC</td>
<td>Socket or Threaded</td>
<td>EPDM</td>
<td>150 PSI @ 70°F Non-Shock</td>
</tr>
</tbody>
</table>

*All flanged valves are rated to 150 PSI @ 70°F Non-Shock (10 Bar @ 21°C)*
### SW Series Swing Check Valves
3" TO 6" PVC, CPVC AND GFPP AND 8" PVC AND GFPP

**KEY FEATURES**
- Robust Full Pattern Body
- PVC and CPVC
- No Special Spacers or Flanges Required
- High Cv Rating Equal to Metal Check Valves, Saves on Energy and Pump Wear
- FPM or EPDM Gasket and Face Seal
- One-Piece Disc and Shaft Design
- Designed for ANSI150 and PN10 Flanges
- Patent No. 8,887,757

**OPTIONS**
- 316 Stainless Steel or Hastelloy® Disc Spring

### SELECTION CHART

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<tr>
<th>SIZE*</th>
<th>MATERIAL</th>
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<th>O-RING</th>
<th>PRESSURE RATING</th>
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<tbody>
<tr>
<td>2&quot; – 8&quot; (DN50 – DN200)</td>
<td>PVC and CPVC</td>
<td>Wafer</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* Consult factory on DN100 Size

### WCV Series Full Pattern Wafer Check Valves
2" TO 8" PVC AND CVPC

**KEY FEATURES**
- Robust Full Pattern Body
- PVC and CPVC
- No Special Spacers or Flanges Required
- High Cv Rating Equal to Metal Check Valves, Saves on Energy and Pump Wear
- FPM or EPDM Gasket and Face Seal
- One-Piece Disc and Shaft Design

**OPTIONS**
- 316 Stainless Steel or Hastelloy® Disc Spring

### SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE*</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>O-RING</th>
<th>PRESSURE RATING</th>
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<tbody>
<tr>
<td>3&quot; – 6&quot; (DN80 – DN150)</td>
<td>PVC, CPVC or GFPP</td>
<td>Flanged</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>8&quot; (DN200)</td>
<td>PVC or GFPP</td>
<td>Flanged</td>
<td>FPM or EPDM</td>
<td>100 PSI @ 70°F 7 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* Flanged ends available in DIN/EN PN10.

### WC Series Wafer Check Valves
2" TO 8" PVDF AND 10" TO 20" PVC, PP AND PVDF

**KEY FEATURES**
- PVC, PP and PVDF Body and Disc
- FPM, EPDM or PTFE O-Ring Seats
- Compact and Lightweight
- Easy Installation
- Vertical or Horizontal Operation

**OPTIONS**
- Spacers
- Stainless Steel or Hastelloy® Disc Springs*

### SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE*</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>O-RING</th>
<th>SPRING</th>
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<td>2&quot; – 6&quot; (DN50 – DN150)</td>
<td>PVDF</td>
<td>Wafer</td>
<td>FPM, EPDM or PTFE*</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
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</tr>
<tr>
<td>8&quot; (DN200)</td>
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<td>Wafer</td>
<td>FPM, EPDM or PTFE*</td>
<td>100 PSI @ 70°F 7 Bar @ 21°C Non-Shock</td>
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</tr>
<tr>
<td>10&quot; – 12&quot; (DN250 – DN300)</td>
<td>PVC, PP or PVDF</td>
<td>Wafer</td>
<td>FPM, EPDM or PTFE*</td>
<td>90 PSI @ 70°F 6 Bar @ 21°C Non-Shock</td>
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</tr>
<tr>
<td>14&quot; – 16&quot; (DN350 – DN400)</td>
<td></td>
<td>Wafer</td>
<td>FPM, EPDM or PTFE*</td>
<td>Consult with Factory</td>
<td></td>
</tr>
</tbody>
</table>

* Valve shown with spring option
TC Series True Union Ball Check Valves
1/4" TO 3/8" PVC, 1/2" TO 2" PVC, CPVC AND PP AND 2-1/2" TO 6" PVC AND CPVC

**KEY FEATURES**
- PVC, CPVC and PP
- For Horizontal or Vertical Installation
- 1/2" to 6" are Sure Block Design
- Square Cut Seat for Positive Sealing
- Seats with Minimum Back Pressure
- 1/4" and 3/8" are Trim Check Design

**OPTIONS**
- Foot Valve Screens

**SELECTION CHART**

<table>
<thead>
<tr>
<th>SIZE**</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot; – 3/8&quot; (DN8 – DN10)</td>
<td>PVC</td>
<td>Socket or Threaded</td>
<td>FPM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>1/2&quot; – 2&quot; (DN15 – DN50)</td>
<td>PVC or CPVC</td>
<td>Socket and Threaded or Flanged</td>
<td>FPM or EPDM</td>
<td>235 PSI @ 70°F 16 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>2-1/2&quot; – 4&quot; (DN63 – DN100)</td>
<td>PVC or CPVC</td>
<td>Socket, Threaded, Flanged</td>
<td>EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* Trim Checks ** 2" PP is rated to 100 PSI @ 70°F Non-Shock *** 4" valve venturied to 6" **** All flanged valves are rated to 150 PSI @ 70°F Non-Shock ****** PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21. PP socket fusion ends per ASTM F2389 and threaded ends per BS21. Flanged ends available in DIN/EN PN10.

YC Series Y-Check Valves
1/2" TO 4" PVC AND CPVC

**KEY FEATURES**
- PVC and CPVC
- Full Flow Design
- Minimum Pressure Drop
- PVC Coil to Guide Piston to a Positive Seat
- Minimal Back Pressure Required to Seat Piston

**OPTIONS**
- Drilled Cap for Easy Drainage
- True Union End Connections

**SELECTION CHART**

<table>
<thead>
<tr>
<th>SIZE*</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 4&quot; (DN15 – DN100)</td>
<td>PVC or CPVC</td>
<td>Socket, Threaded, Flanged or True Union</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21.

SLC Series Spring-Loaded Y-Check Valves
1/2" TO 4" PVC

**KEY FEATURES**
- PVC
- Full Flow Design
- Closes with No Back Pressure
- Adjustable – Opens From 2 to 15 PSI
- Easy Maintenance
- Opens in Any Position

**OPTIONS**
- True Union End Connections

**SELECTION CHART**

<table>
<thead>
<tr>
<th>SIZE*</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 4&quot; (DN15 – DN100)</td>
<td>PVC</td>
<td>Socket, Threaded or True Union</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21.
BYV Series Butterfly Valves
2" TO 12" PVC, CPVC AND GFPP

KEY FEATURES
• One-Piece Body and Disc in PVC, CPVC and GFPP Materials
• Revolutionary Hand Lever with 19 Lockable Stop Positions and 360° Interlock
• External Disc Position and Flow Indication
• Hydro-dynamic Centric Disc Design for Increased Flow Performance
• Over-Sized Liner Face Maximizes Surface Contact with Flanges
• EPDM, Viton® or Nitrile Liners

OPTIONS
• Over-Molded 316 Stainless Steel Lugs
• Gear Operators
• Complete Range of Pneumatic or Electric Actuators
• Stem Extensions
• 2" Square Operating Nut
• Chain Operator for Gear Box
• Titanium or Hastelloy Stems

BYB Series Large Diameter Butterfly Valves
14" TO 24" PVC, CPVC, PP AND PVDF

KEY FEATURES
• PVC, CPVC, PP and PVDF Bodies
• CPVC, PP and PVDF Discs
• Heavy Duty Gear Operator
• 410 Grade Stainless Steel Stem
• Choice of FPM, EPDM or Nitrile Liners

OPTIONS
• Pneumatic or Electric Actuators
• Stem Extensions

BYCN/BYCS Series Butterfly Valves
2" TO 8" PVC

KEY FEATURES
• Distinctive Ergonomic Handle with Lockout Feature
• Wafer Body Design
• Fits ANSI 150 or PN10 Flange Patterns
• PVC Body with PVC Disc

OPTIONS
• Gear Operators
• Pneumatic or Electric Actuators

---

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE</th>
<th>BODY MATERIAL</th>
<th>DISC MATERIAL</th>
<th>LINERS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot; – 12&quot;</td>
<td>PVC, CPVC or GFPP</td>
<td>PVC, CPVC or GFPP</td>
<td>Viton®, EPDM or Nitrile</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>14&quot; – 16&quot;</td>
<td>PVC, CPVC, PP or PVDF</td>
<td>PVC, CPVC, PP or PVDF</td>
<td>FPM, EPDM or Nitrile</td>
<td>86 PSI @ 70°F 6 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>18&quot;</td>
<td>PVC, CPVC, PP or PVDF</td>
<td>CPVC, PP or PVDF</td>
<td>FPM, EPDM or Nitrile</td>
<td>72 PSI @ 70°F 5 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>20&quot; – 24&quot;</td>
<td>PVC, CPVC, PP or PVDF</td>
<td>CPVC, PP or PVDF</td>
<td>FPM, EPDM or Nitrile</td>
<td>51 PSI @ 70°F 3 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

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SELECTION CHART

<table>
<thead>
<tr>
<th>SERIES</th>
<th>SIZE</th>
<th>BODY MATERIAL</th>
<th>DISC MATERIAL</th>
<th>STEM MATERIAL</th>
<th>LINERS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>BYCN</td>
<td>2&quot; – 8&quot;</td>
<td>PVC</td>
<td>PVC</td>
<td>316 Grade Stainless Steel</td>
<td>EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>BYCS</td>
<td></td>
<td></td>
<td></td>
<td>410 Grade Stainless Steel</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DAB Series True Union Diaphragm Valves
1/2" TO 2" PVC AND CPVC

KEY FEATURES
• PVC and CPVC
• Position Indicator
• Sure-Grip Handwheel
• Choice of FPM, EPDM or PTFE Diaphragms*

OPTIONS
• Electric or Pneumatic Actuation
• PVDF Vapor Barrier**
* All PTFE diaphragms are EPDM backed
** PVDF Vapor Barrier available with EPDM and PTFE diaphragm only

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>DIAPHRAGM</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; - 2&quot; (DN15 – DN50)</td>
<td>PVC or CPVC</td>
<td>Socket and Threaded</td>
<td>FPM, EPDM or PTFE*</td>
<td>FPM or PVDF</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* EPDM and PTFE diaphragms are available with a PVDF Vapor Barrier

DAB Series Flanged Diaphragm Valves
1/2" - 6" PVC AND 1/2" - 4" CPVC

KEY FEATURES
• PVC and CPVC
• Position Indicator
• Sure-Grip Handwheel
• Choice of FPM, EPDM or PTFE Diaphragms*

OPTIONS
• Pneumatic or Electric Actuation to 4"
• Over 4" Actuation, Consult Factory
• PVDF Vapor Barrier**
* All PTFE diaphragms are EPDM backed
** PVDF Vapor Barrier available with EPDM and PTFE diaphragm only

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>DIAPHRAGM</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; - 4&quot; (DN15 – DN50)</td>
<td>PVC</td>
<td>Flanged</td>
<td>FPM, EPDM or PTFE*</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>6&quot; (DN150)</td>
<td>PVC</td>
<td>Flanged</td>
<td>FPM, EPDM or PTFE*</td>
<td>75 PSI @ 70°F 5 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>1/2&quot; - 4&quot; (DN15 – DN50)</td>
<td>CPVC</td>
<td></td>
<td></td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* EPDM and PTFE diaphragms are available with a PVDF Vapor Barrier
LHB Series
Manual Limit Switch
FOR BALL VALVES UP TO 6” AND BUTTERFLY VALVES UP TO 8”

KEY FEATURES
• Now Available with “Dead-Man” Spring Return Handle or Handlever (LHB-SR)
• Remote Monitoring of Critical Services
• Retrofits to Existing Valves
• Robust GFPP Body, Cover and Plate
• 304 Stainless Steel Stem and FPM Seals
• Fits All Hayward® Ball Valves up to 6” and Butterfly Valves up to 8”
• Two Adjustable SPDT 10 Amp at 120 VAC Switches (Open/Close Position)
• 1/2” Conduit Port
• Terminal Blocks for Ease of Wiring
• Meets ISO5211, F05, F07 and F10 Patterns
• NEMA 4X
• Switches CSA Listed
• Patent No. 9,010,721 and 9,010,722

OPTIONS
• Additional Two Switches
• Potentiometer Available
• Optional Handles – Lever or T-Handle
• LED for Open/Close Indication

SV Series
True Union Solenoid Valves
1/4” TO 1” PVC AND CPVC

KEY FEATURES
• PVC and CPVC
• Corrosion-Resistant Polyester Coil
• No Pressure Differential Required for Operation
• Both 1/2” Conduit or SJ-Type Cord Electrical Connection
• 110 VAC Standard

OPTIONS
• 12 VAC, 24 VAC, 220 VAC, 12 VDC, 24 VDC

OPERATING PARAMETERS
For optimum valve performance, inlet pressure must not exceed 120 PSI. Flow velocity must not exceed 5 ft. per second.

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4”, 1/2”, 3/4”, 1” (DN8 – DN25)</td>
<td>PVC or CPVC</td>
<td>Socket and Threaded</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* PVC and CPVC socket ends available to ISO 727-1 and thread ends to BS21.
EA Series Automated True Union Ball Valves
1/2" TO 2" PVC AND CPVC

VALVE FEATURES
• PVC and CPVC
• EPDM Seals
• PTFE Seats
• Full Port Design
• Fully Serviceable
• Double O-Ring Stem Seals

ACTUATOR FEATURES
• UL/CSA Listed Motor
• Thermoplastic NEMA 4/4X Enclosure
• 2.5 Second, 90°Cycle Time
• Thermal Overload Protection
• Permanently Lubricated Gear Train

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE*</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>VALVE PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 2&quot; (DN15 – DN50)</td>
<td>PVC or CPVC</td>
<td>Socket and Threaded</td>
<td>EPDM</td>
<td>250 PSI @ 70°F 17 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* PVC and CPVC socket ends to ISO 727-1 and threaded ends to BS21.

EUA Series Automated True Union Ball Valves
1/2" TO 2" PVC AND CPVC

VALVE FEATURES
• PVC and CPVC
• FPM or EPDM Seals
• PTFE Seats
• Full Port Design
• Fully Serviceable
• Double O-Ring Stem Seals

ACTUATOR FEATURES
• UL/CSA Listed Motor
• Thermoplastic NEMA 4/4X Enclosure
• 2.5 Second, 90°Cycle Time
• Permanently Lubricated Gear Train
• Actuator Brake
• No Need for Manual Adjustments
• Blind Leads Connection
• Standard 120 VAC
• Unidirectional, Not Reversing

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE*</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>VALVE PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 2&quot; (DN15 – DN50)</td>
<td>PVC or CPVC</td>
<td>Socket and Threaded</td>
<td>EPDM</td>
<td>250 PSI @ 70°F 17 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21.

ECP Series Automated True Union Ball Valves
1/2" TO 6" PVC AND CPVC

VALVE FEATURES
• PVC and CPVC
• FPM or EPDM Seals
• PTFE Seats
• Full Port Design
• Fully Serviceable
• Double O-Ring Stem Seals

ACTUATOR FEATURES
• Ideal for Corrosive Atmosphere and Environments
• Corrosion-Resistant GFPP Housing
• LED Status Light
• Anti-Condensation Heater
• Manual Override
• Position Indicator
• 4 SPDT Micro Limit Switches
• Namur-Style Solenoid Mounting
• Stainless Steel Fasteners 303 SS
• 100% Factory Tested
• CE Mark

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE*</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>VALVE PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 6&quot; (DN15 – DN65)</td>
<td>PVC or CPVC</td>
<td>Socket and Threaded</td>
<td>FPM or EPDM</td>
<td>250 PSI @ 70°F 17 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21.
### PM Series Automated True Union Ball Valves

**1/2" TO 2" PVC AND CPVC**

**VALVE FEATURES**
- PVC and CPVC
- FPM or EPDM Seals
- PTFE Seats
- Full Port Design
- Fully Serviceable
- Double O-Ring Stem Seals

**ACTUATOR FEATURES**
- Corrosion-Resistant Thermoplastic Housing
- Permanently Lubricated Gear Train
- Two-Piston Rack and Pinion Design
- Namur-Style Mounting
- Position Indicator
- Lightweight
- Air-to-Air (Double Acting) or Spring Return

---

**SELECTION CHART**

<table>
<thead>
<tr>
<th>SIZE*</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>VALVE PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 2&quot; (DN15 – DN50)</td>
<td>PVC or CPVC</td>
<td>Socket and Threaded</td>
<td>FPM or EPDM</td>
<td>250 PSI @ 70°F 17 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21.

---

### PMD/PMS Series Pneumatic Actuators

**FOR BALL VALVES UP TO 4"**

**KEY FEATURES**
- Corrosion-Resistant Thermoplastic Housing
- Permanently Lubricated Gear Train
- Two-Piston Rack and Pinion Design
- Namur-Style Mounting
- Position Indicator
- Lightweight
- ISO 5211 Mounting Base

**OPTIONS**
- PMD Double Acting Air-to-Open and Close
- PMS Air-to-Spring Fail-Safe Operation
- Solenoid Valves with Optional Voltage
- Auxiliary Limit Switch
- Cycle Speed Controls

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>HOUSING:</th>
<th>Polyamide</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUTPUT SHAFT:</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>MINIMUM AIR PRESSURE:</td>
<td>80 PSI</td>
</tr>
<tr>
<td>MAXIMUM AIR PRESSURE:</td>
<td>120 PSI</td>
</tr>
<tr>
<td>SEALS:</td>
<td>Nitrile</td>
</tr>
<tr>
<td>CYCLE TIME:</td>
<td>Half Second, Typical</td>
</tr>
<tr>
<td>AIR PORT CONNECTIONS:</td>
<td>1/4&quot; NPT</td>
</tr>
</tbody>
</table>
GFPP PMD4/PMS4 Series Pneumatic Actuators
FOR BALL AND BUTTERFLY VALVES UP TO 4"

KEY FEATURES
• Ideal for Corrosive Atmosphere and Environments
• Available in Double Acting and Spring Return Designs (Butterfly Valves up to 3")
• Corrosion-Resistant GFPP Housing
• Anodized Aluminum Two-Piston Rack and Stainless Steel Pinion
• Position Indicator
• Permanent Lubrication
• Lightweight – Easy for Installation
• Namur-Style Solenoid Mounting
• ISO 5211 Mounting Base
• Stainless Steel Fasteners
• Alternative Operating Media for 40 PSI to 120 PSI
• All Units are Marked for Traceability
• 100% Factory Tested

OPTIONS
• Double Acting Air-to-Open and Close
• Solenoid Valves with Optional Voltages
• Auxiliary Limit Switch
• Cycle Speed Controls

SPECIFICATIONS

PCD/PCS Series Pneumatic Actuators
FOR BALL AND BUTTERFLY VALVES UP TO 24"

KEY FEATURES
• For All Sizes of Ball and Butterfly Valves
• Four-Piston Rack and Pinion Design
• Compact, Lightweight
• Position Indicator
• Namur-Style Solenoid Mounting
• Adjustable Travel Stops
• ISO 5211 Mounting Base

OPTIONS
• PCD Double Acting Air-to-Open and Close
• PCS Spring Return Fail-Safe Operation
• Solenoid Valves
• Positioners
• Auxiliary Limit Switches
• Cycle Speed Controls

SPECIFICATIONS
EAU Series Electric Actuators
FOR BALL VALVES UP TO 2”

**KEY FEATURES**
- UL/CSA Listed Motor
- Thermoplastic NEMA 4/4X Enclosure
- 2.5 Second, 90° Cycle Time
- Permanently Lubricated Gear Train
- Actuator Brake
- 90 or 180° Operation
- Unidirectional, Not Reversing
- Terminal Block Connections
- Standard 120 VAC
- End of Travel Dry Contact Limit Switch
- Thermal Overload Protection
- Lightweight, Compact and Inexpensive

**OPTIONS**
- Voltage Options of 12, 24 or 220 VAC and 12 or 24 VDC

**SPECIFICATIONS**
- HOUSING: GFPP (Glass Filled Polypropylene) per ASTM D4101 Cell Class 85580
- OPERATION: 1/4 Turn
- DUTY RATING: 75%
- ENCLOSURE: NEMA 4/4X
- PROTECTION: IP-67
- VOLTAGE: Single Phase 120/230V and 12/24V
- OUTPUT SHAFT: 303 Stainless Steel per ASTM A314

ECP Series
Glass Filled Polypropylene
Electric Actuators
FOR BALL VALVES 1/2” - 6”
AND BUTTERFLY VALVES 2” - 6”

**KEY FEATURES**
- Ideal for Corrosive Atmosphere and Environments
- Corrosion-Resistant GFPP Housing
- LED Status Light
- Anti-Condensation Heater
- Manual Override
- Position Indicator
- 4 SPDT Micro Limit Switches
- Lightweight - Easy for Installation
- Namur-Style Solenoid Mounting
- ISO 5211 Mounting Base
- Stainless Steel Fasteners 303 SS
- 100% Factory Tested
- CE Mark

**OPTIONS**
- Digital Positioner 0-20mA, 4-20mA or 0-10V

**SPECIFICATIONS**
- HOUSING: GFPP (Glass Filled Polypropylene) per ASTM D4101 Cell Class 85580
- OPERATION: 1/4 Turn
- DUTY RATING: 75%
- ENCLOSURE: NEMA 4/4X
- PROTECTION: IP-67
- VOLTAGE: Single Phase 120/230V and 12/24V
- OUTPUT SHAFT: 303 Stainless Steel per ASTM A314
HZSN1 Series On/Off/Proportional Electric Actuators
FOR BALL VALVES UP TO 6”

KEY FEATURES
- Equipped with Two (2) Volt-Free Form A Auxiliary Switches Rated at up to 1A 250VAC (on/off models only)
- Proportional Models have 4-20mA or 2-10vdc Feedback Output Standard
- ISO5211 Compliant with an 11mm Double Square Female Drive
- Furnished with a 39” (1m) Cable to Facilitate Field Connections Outside the Compact Enclosure
- Low Profile Visual Position Indicator and Three Flush Mounted LEDs Allow At-A-Glance Position Indication
- Manual Override Lever and 8mm Access Shaft at the Bottom of the Actuator Housing
- NEMA 4X/IP67 Compliant
- PG6 EMT Entry Port with Sealed Cable Gland

OPTIONS
- Power Supply Flexibility – 24 VAC / VDC, 120 VAC and 230 VAC

SPECIFICATIONS

OPERATION: Reversing
FIELD CONNECTION: 1M flying lead pre-wired though PG6 Polyamide gland
DUTY CYCLE: 75% on/off & proportional models, all voltages
CYCLE TIME: 11–13 seconds 90° @ rated torque
ENCLOSURE: NEMA 4X / IP67 Aluminum Alloy, w/ Electrostatic coating
VOLTAGES: 24vac/vdc, 120vac, 230vac
CONTROL: On/off & 4-20mA/2-10vdc in/out
THERMAL OVERLOAD PROTECTION: Current limited, BDC motor
MECHANICAL OVERRIDE: Declutchable lockout lever with socket drive
VISUAL INDICATORS: Low profile visual position, power and end of travel status LED’s

HRS Series On/Off/Proportional Electric Actuators
FOR BALL VALVES UP TO 6” AND BUTTERFLY VALVES UP TO 24”

KEY FEATURES
- Extended Product Range from 300 in-lb to 177,000 in-lb
- Powder Coated Aluminum Alloy Housing
- ISO5211 Compliant Mounting with Double Square Drive Socket
- On/Off or Proportional Control (2-10 vdc / 4-20mA Inputs & Outputs)
- NEMA 4X/IP67 Environmental Rating
- Multiple AC and DC Voltages
- Integrated Local Control Stations
- Visual Position Indicators
- CSA Certified to CSA 22.2 No. 139-10 UL 439 for Ordinary Location Applications

OPTIONS
- Interchangeable ISO5211 Mounting and Drive Shafts
- Positioners
- Extended Duty Motors
- 3 Position Control
- Passive Analog Feedback
- Torque Switches
- 3 Phase Motor Control Center
- IP68 Submersible Rating
- Low Profile Visual Position, and Three Flush Mounted LEDs Allow At-A-Glance Position Indication
- Manual Override Lever and 8mm Access Shaft at the Bottom of the Actuator Housing
- NEMA 4X/IP67 Compliant
- PG6 EMT Entry Port with Sealed Cable Gland

SPECIFICATIONS

OPERATION: Reversing
CONDUIT ENTRY: HRSN2 – (2) ½” NPT, furnished with Polyamide cable glands
HRSN3 and larger – (2) 3/4” NPT, furnished with Polyamide cable glands
DUTY CYCLE:
HRSN2~4, 75% on/off & proportional models, 24v
HRSN2~4, 25% on/off 120/1, 230/1, 3 phase
HRSN2~4, 75% proportional 120/1, 230/1, 3 phase
HRSN5~6, 25% on/off 120/1, 230/1, 3 phase
HRSN5~6, 75% on/off 120/1, 230/1, (extended duty)
HRSN5~6, 50% proportional 120/1, 230/1, 3 phase
HRSN7, 25% on/off 3 phase only
HRSN7, 50% proportional 3 phase only
CYCLE TIMES: 8~129 seconds 90° @ DC/60Hz depending on model
ENCLOSURE: NEMA 4X / IP67 Aluminum Alloy / Cast Iron w/ Electrostatic coating
VOLTAGES: 12vac/vdc, 24vac/vdc, 120vac, 230vac, 230/3~480/3, depending on model
CONTROL: On/off & 4-20mA/2-10vdc in/out
THERMAL OVERLOAD PROTECTION: Low voltage: Class B Thermal self-resetting
High voltage: Class F Thermal self-resetting
MECHANICAL OVERRIDE: HRSN2A, 2R manual override shaft, bottom mounted
HRSN2B, 2S Manual override Handwheel, push to engage
HRSN3 and larger, clutchless full time manual handwheel
VISUAL INDICATORS: Raised or Low profile visual position, depending on model
## PR Series Pressure Regulator Valves

**1/4" TO 1-1/2" PVC AND CPVC**

**KEY FEATURES**
- PVC and CPVC
- Hand Adjustable, No Tools Needed
- Integrally Molded Threaded Gauge Port
- Pressure Relief from 5 PSI to 75 PSI

**OPTIONS**
- 0 to 30 PSI Gauge
- 0 to 60 PSI Gauge
- 0 to 160 PSI Gauge
- Gauge Guards
- 2 to 20 PSI for 1-1/2" to 2" with Low Pressure Spring
- Flanged Ends

### SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE*</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot; – 1-1/2&quot; (DN8 – DN40)</td>
<td>PVC or CPVC</td>
<td>Threaded or Flanged</td>
<td>FPM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* Available with threaded ends to BS21.

## RV Series Pressure Relief Valves

**1/2" TO 2" PVC AND CPVC**

**KEY FEATURES**
- PVC and CPVC
- Hand Adjustable, No Tools Needed
- Integrally Molded Threaded Gauge Port
- Pressure Relief from 5 PSI to 75 PSI

**OPTIONS**
- 0 to 30 PSI Gauge
- 0 to 60 PSI Gauge
- 0 to 160 PSI Gauge
- Gauge Guards
- 2 to 20 PSI for 1-1/2" to 2" with Low Pressure Spring
- Flanged Ends

### SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE*</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 2&quot; (DN15 – DN50)</td>
<td>PVC or CPVC</td>
<td>Threaded or Flanged</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* Available with threaded ends to BS21.
PBV Series Back Pressure Valves
1/2” TO 2”

**KEY FEATURES**
- PVC, CPVC, PP or PVDF Body, and Noryl™ Molded Dome
- PTFE/EPDM Diaphragm
- Spring: 10 – 150 psi (Spring pre-set: 50 psi)
- 304 Stainless Steel Bolting
- FNPT Threads
- Anti-Siphon Function
- Adjustment Screw with Slot
- PVC, CPVC and PVDF rated to 250 psi @ 70°F/17.2. Bar at 21°C, PP rated to 150 psi @ 70°F/10 Bar at 21°C

**OPTIONS**
- ANSI or DIN/EN Threaded, Socket, True Union Socket or Flanged End Connections
- 0 - 50 psi and 10 - 250 psi Springs
- PTFE/FPM Diaphragm

**SELECTION CHART**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>DIAPHRAGM</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot;-2&quot;</td>
<td>PVC, CPVC, PP, PVDF</td>
<td>FNPT, Socket, Flange, TU Socket</td>
<td>PTFE/EPDM</td>
<td>10-150 psi, 0-50, 10-250</td>
</tr>
</tbody>
</table>

RPV Series Pressure Relief Valves
1/2” TO 2”

**KEY FEATURES**
- PVC, CPVC, PP or PVDF Body, and Noryl™ Molded Dome
- PTFE/EPDM Diaphragm
- Spring: 10 – 150 psi (Spring pre-set: 50 psi)
- 304 Stainless Steel Bolting
- FNPT Threads
- Adjustment Screw with Slot
- PVC, CPVC and PVDF rated to 250 psi @ 70°F/17.2. Bar at 21°C, PP rated to 150 psi @ 70°F/10 Bar at 21°C

**OPTIONS**
- 2-port/90°
- ANSI or DIN/EN Threaded, Socket, True Union Socket or Flanged End Connections
- 0 - 50 psi and 10 - 250 psi Springs
- PTFE/FPM Diaphragm

**SELECTION CHART**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>DIAPHRAGM</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot;-2&quot;</td>
<td>PVC, CPVC, PP, PVDF</td>
<td>FNPT, Socket, Flange, TU Socket</td>
<td>PTFE/EPDM, PTFE/FPM</td>
<td>10-150 psi, 0-50, 10-250</td>
</tr>
</tbody>
</table>
**CCS Series Calibration Cylinders/Columns**

**KEY FEATURES**
- NPT connections
- High Contrast Graduation Markings
- Direct GPH and mL readout
- Clear Easy-View Tube
- Sealed Top with Overflow Connection (Vent)
- Pressure rated to 15 psi @ 70°F/1.03 Bar at 21°C

**OPTIONS**
- Dust Cover or EZ Clean (glass cylinder only)
- BSPT, Socket, Flange, Flange with Ball Valve or True Union End Connections

**SELECTION CHART**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 - 20000ml</td>
<td>PVC, Borosilicate</td>
<td>1/2-1&quot; FNPT</td>
<td>15 psig</td>
</tr>
</tbody>
</table>

**IV Series Injection Valves/IQ Series Injection Quills**

**KEY FEATURES**
- Built-In Ball Check Valve with Hastelloy C Spring, with the IV Check being Rebuildable
- Threaded MNPT End Connections
- FPM O-Ring Seals
- 45° Bevel on Quill Tip
- Pressure Rated to 150 psi @ 70°F

**OPTIONS**
- Flat Tip
- BSPT or Socket End Connections
- EPDM O-Ring Seals

**SELECTION CHART**

| SIZE (1/2" - 1"

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>DIAPHRAGM</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC, CPVC, PVD</td>
<td>BSPT or Socket</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 Bar @ 21°C</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Non-Shock</td>
</tr>
</tbody>
</table>

**CS Series Corporation Stops**

**KEY FEATURES**
- True Union Thermoplastic Ball Valve with PTFE Seats
- All Thermoplastic Injection Quill with Beveled Tip
- 316SS Locking Chain and Hardware
- Variable and Customer Injector Lengths
- Standard MNPT and Threaded True Union End Connections
- Pressure Rated to 150 psi @ 70°F/10 Bar at 21°C

**OPTIONS**
- Flat Tip
- Socket True Union, Metric Socket or BSPT Thraeded End Connections
- EPDM O-Ring Seals
- Optional Ball Check Valve with FPM O-rings

**SELECTION CHART**

| SIZE (1/2" - 1"

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>DIAPHRAGM</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC or CPVC</td>
<td>Socket True Union, Metric Socket or BSPT Thraeded</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10 Bar @ 21°C</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Non-Shock</td>
</tr>
</tbody>
</table>
LC Series Universal Stopcock™
1/4" PVC

KEY FEATURES
- PVC
- Six End Connections in One Package
- EPDM Seat and Seals
- Hex Wrench Included for End Connection Installation
- NSF/ANSI 61 Listed

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot;</td>
<td>PVC</td>
<td>FPT x FPT</td>
<td>EPDM</td>
<td>150 PSI @ 70°F</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FPT x MPT</td>
<td></td>
<td>10 Bar @ 21°C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FPT x Hose</td>
<td></td>
<td>Non-Shock</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MPT x MPT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>MPT x Hose</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hose x Hose</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FPT = female pipe thread, MPT = male pipe thread
YS Series Y-Strainers
1/2" – 2" PVC, CPVC* AND CLEAR PVC, 2-1/2" – 4" PVC / 3"- 4" CPVC

KEY FEATURES
- PVC, CPVC and Clear PVC
- Threaded, Socket or True Union Connection
- Horizontal or Vertical Installation
- FPM O-Ring Seals
- 2:1 Open Area Ratio
- Hex Cap for Easy Access to Screen
- Standard Screen Has 1/32" Perforation

OPTIONS
- Stainless Steel Perf or Mesh Strainer Screens Available in Various Sizes

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE** MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 1&quot; (DN15 – DN25)</td>
<td>PVC, CPVC or Clear PVC</td>
<td>Socket, Threaded or True Union</td>
<td>FPM and EPDM</td>
</tr>
<tr>
<td>1-1/4&quot; (DN32)</td>
<td>PVC and Clear PVC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-1/2&quot; (DN40)</td>
<td>PVC, CPVC or Clear PVC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2&quot; (DN50)</td>
<td>PVC</td>
<td>Socket, Threaded, Flanged or True Union</td>
<td></td>
</tr>
<tr>
<td>2-1/2&quot; (DN65)</td>
<td>PVC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3&quot; – 4&quot; (DN80 – DN100)</td>
<td>PVC and CPVC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21. Flanged ends available in DIN/EN PN10.

SB Series Simplex Basket Strainers
1/2" TO 4" PVC, CPVC, GFPP AND EASTAR®

KEY FEATURES
- PVC, CPVC, GFPP and Eastar®
- True Union
- Ergonomic Hand Removable Cover
- In-Line or Loop Connections
- External Cover Threads
- Integral Flat Mounting Bases
- PVC or CPVC Baskets Standard
- NSF/ANSI 61 Listed

OPTIONS
- Stainless Steel, Monel®, Hastelloy® and Titanium Strainer Baskets
- Pressure Differential Gauge and Switch
- Baskets Available with Perforated or Mesh Liners

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE** MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 1&quot; (DN15 – DN25)</td>
<td>PVC or CPVC</td>
<td>Socket, Threaded or Flanged</td>
<td>FPM and EPDM</td>
</tr>
<tr>
<td>1&quot; (DN25)</td>
<td>Eastar®*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-1/4&quot; (DN32)</td>
<td>PVC, CPVC or Clear PVC</td>
<td>Socket Fusion, Threaded or Flanged</td>
<td></td>
</tr>
<tr>
<td>1-1/2&quot; (DN40)</td>
<td>PVC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2&quot; (DN50)</td>
<td>PVC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-1/2&quot; (DN65)</td>
<td>PVC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3&quot; – 4&quot; (DN80 – DN100)</td>
<td>PVC and CPVC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21. Flanged ends available in DIN/EN PN10.

** PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21. Flanged ends available in DIN/EN PN10.
DB Series Duplex Basket Strainers
1/2" TO 4" PVC, CPVC AND EASTAR®

KEY FEATURES
• PVC, CPVC and Eastar®
• Ergonomic Hand Removable Cover
• Uninterrupted Flow
• No System Shutdown for Basket Cleaning
• In-Line or Loop Piping
• Integral Flat Mounting Bases
• External Cover Threads
• Hand Removable Vents on Covers
• Hand Removable Drains on Bodies
• Liquid Displacing Covers

OPTIONS
• Stainless Steel, Monel®, Hastelloy® and Titanium Strainer Baskets
• Pressure Differential Gauge and Switch
• Pneumatic or Electric Valve Automation

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE**</th>
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<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 4&quot; (DN15 – DN100)</td>
<td>PVC or CPVC</td>
<td>Socket, Threaded or Flanged</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>Eastar®</td>
<td>Flanged</td>
<td>EPDM</td>
<td>100 PSI @ 70°F 7 Bar @ 21°C Non-Shock</td>
<td></td>
</tr>
</tbody>
</table>

* End Connections and assembly nuts are PVC
** PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21. Flanged ends available in DIN/EN PN10.

DB Series Duplex Basket Strainers
6" TO 8" PVC AND CPVC

KEY FEATURES
• PVC and CPVC
• Ergonomic Hand Removable Cover
• Uninterrupted Flow
• No System Shutdown for Basket Cleaning
• In-Line or Loop Piping
• Integral Flat Mounting Bases
• External Cover Threads
• Hand Removable Vents on Covers
• Hand Removable Drains on Bodies
• Liquid Displacing Covers

OPTIONS
• Stainless Steel, Monel®, Hastelloy® and Titanium Strainer Baskets
• Pressure Differential Gauge and Switch
• Pneumatic or Electric Valve Automation

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE*</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot; – 8&quot; (DN150 – DN200)</td>
<td>PVC or CPVC</td>
<td>Flanged</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* Flanged ends available in DIN/EN PN10.
FLV/CFLV Series
Simplex Bag and Cartridge Filters
SINGLE AND DOUBLE LENGTH

KEY FEATURES
• Platinum GFPP Material
• One-Piece Injection Molded Construction
• Hand Removable Ergonomic Cover with Liquid Displacing Dome
• Vent Valve on Cover
• In-Line or Loop Configuration
• Drain Port at Bottom
• Integral Mounting Base

OPTIONS
• Vent Gauge with Gauge Guard
• Pressure Differential Gauge and Switch
• EPDM Seals
• Cartridge Adapters - CFLV only

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE*</th>
<th>MATERIAL</th>
<th>END CONNECTIONS</th>
<th>PIPING SIZES</th>
<th>SEALS</th>
<th>FLOW RATE</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Length 7&quot; x 16&quot;</td>
<td>GFPP</td>
<td>GFPP (Threaded and Flanged), PVC/CPVC (Socket and PP Socket Fusion)</td>
<td>1-1/4&quot; – 2&quot; (DN32 – DN50)</td>
<td>FPM or EPDM</td>
<td>100 GPM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>Double Length 7&quot; x 32&quot;</td>
<td>GFPP</td>
<td>GFPP (Threaded and Flanged), PVC/CPVC (Socket and PP Socket Fusion)</td>
<td>2-1/2&quot; – 4&quot; (DN65 – DN100)</td>
<td>FPM or EPDM</td>
<td>150 GPM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21. PP socket fusion ends per ASTM F2389 and threaded ends per BS21. Flanged ends available in DIN/EN PN10.

FLV/CFLV Series Duplex Bag and Cartridge Filters
SINGLE AND DOUBLE LENGTH

KEY FEATURES
• Platinum GFPP Material
• One-Piece Injection Molded Construction
• Hand Removable, Ergonomic Cover with Liquid Displacing Dome
• Vent Valve Included on Cover
• True Union Socket, Threaded or Flanged End Connections
• In-Line or Loop Flow Configurations
• Drain Port at Bottom
• Integral Mounting Base

OPTIONS
• Vent Gauge with Gauge Guard
• Pressure Differential Gauge and Switch
• EPDM Seals
• Cartridge Adapters - CFLV only
• Triplex and Other Multiple Assemblies Available upon Request

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE*</th>
<th>MATERIAL</th>
<th>END CONNECTIONS</th>
<th>PIPING SIZES</th>
<th>SEALS</th>
<th>FLOW RATE</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Length 7&quot; x 16&quot;</td>
<td>CPVC</td>
<td>CPVC (Threaded or Flanged)</td>
<td>2&quot; (DN63)</td>
<td>FPM or EPDM</td>
<td>100 GPM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
<tr>
<td>Double Length 7&quot; x 32&quot;</td>
<td>CPVC</td>
<td>CPVC (Threaded or Flanged)</td>
<td>2-1/2&quot; – 4&quot; (DN65 – DN100)</td>
<td>FPM or EPDM</td>
<td>150 GPM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

* PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21. PP socket fusion ends per ASTM F2389 and threaded ends per BS21. Flanged ends available in DIN/EN PN10.
FLV Series PVC & CPVC Bag Filters

**PVC AND CPVC**

**KEY FEATURES**
- True Union End Connections - Socket, Threaded or Flanged
- Hand Removable, Ergonomic Cover with Liquid Displacing Dome
- Vent Valve Included On Cover
- Rated up to 100 GPM
- In-Line or Loop Flow Configurations
- Solid 1-Piece Basket
- Drain Port at Bottom
- Integral Mounting Base

**OPTIONS**
- Pressure Gauge with Gauge Guard
- Pressure Differential Gauge and Switch
- EPDM Seals
- Duplex Configurations

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**SELECTION CHART**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTIONS</th>
<th>PIPING SIZES</th>
<th>SEALS</th>
<th>FLOW RATE</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Length</td>
<td>PVC or CPVC</td>
<td>Socket, Threaded or Flanged</td>
<td>1-1/4&quot; - 2&quot;</td>
<td>FPM or EPDM</td>
<td>100 GPM</td>
<td>150 PSI @ 70°F Non-Shock</td>
</tr>
<tr>
<td>Double Length</td>
<td>7&quot; x 12&quot;</td>
<td>2-1/2&quot; - 4&quot;</td>
<td>(DN65 - DN100)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* PVC and CPVC socket ends available to ISO 727-1 and threaded ends to BS21.
PP socket fusion ends per ASTM F2389 and threaded ends per BS21.

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LS Series Aquatic Sand Filter

**KEY FEATURES**
- Ideal for Sensitive Aquatic Environments or Salt Water Systems
- All Wetted Hardware Manufactured from 316 Stainless Steel
- Corrosion Resistant Thermoplastic Housing and Base
- Durable Flanged Inspection Cover
- Integral Top Diffuser
- Efficient, Multilateral Underdrain Assembly
- Integral Molded Drain Plug

**OPTIONS**
- LS Aquatic 6-Way Multiport Valve

---

**SPECIFICATIONS**

**FILTER TYPE:** High-Rate Sand : No. 2 Silica Sand (0.45 mm - 0.55 mm)
**FILTER TANK:** Spherical, Molded High Density Polyethylene
**UNDERDRAIN:** 360° Self-Cleaning Slotted Laterals, Precision Installed in Ball-Joint Assembly
**CONTROL VALVE:** LS Aquatic 6-Way Multiport Valve
**SUPPORT BASE:** Injection Molded ABS
**PERFORMANCE RANGE:** 99 to 130 GPM (375 to 492 LPM)
**PORT SIZE:** 2" NPT
**PRESSURE RATING:** 50 PSI @ 70°F Non-Shock
**DIMENSIONS:**
- LS311SX - 31" W x 38 5/8" H (787 mm x 981 mm)
- LS360SX - 36" W x 46" H (914 mm x 1168 mm)
Heavy-Duty Filter Bags
PP NEEDLE FELT, POLYESTER NEEDLE FELT, PP MESH OR NYLON MESH 1 TO 800 MICRON RATINGS

KEY FEATURES
- Thermoplastic Ring Seal
- Thermoplastic Flange Seal
- Heavy Duty Sewn or Welded Construction
- Silicone-Free

OPTIONS
- Custom Filter Bags for Most Applications

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>CONSTRUCTION</th>
<th>SEAL MATERIAL/TYPE</th>
<th>MICRON RATINGS</th>
<th>TEMPERATURE RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7&quot; x 16&quot;</td>
<td>PP Needle Felt</td>
<td>Sewn</td>
<td>PP RING</td>
<td>1, 5, 10, 25, 50, 100, 200</td>
<td>200°F</td>
</tr>
<tr>
<td></td>
<td>7&quot; x 32&quot;</td>
<td>Welded</td>
<td>PP FLANGE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polyester</td>
<td>PP Needle Felt</td>
<td>Sewn</td>
<td>PP RING</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Welded</td>
<td>PP FLANGE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PP Mesh</td>
<td>Sewn</td>
<td>PP RING</td>
<td></td>
<td>150, 400, 600, 800</td>
<td>325°F</td>
</tr>
<tr>
<td>Nylon Mesh</td>
<td>Sewn</td>
<td>PP RING</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cartridge Filter Adapter Kits Option

KEY FEATURES
- Polypropylene Construction
- For Single or Multiple up to 5 Cartridges
- Accommodates Melt Blown, Spun or Pleated Cartridges
- Adapters for Single Length and Double Length CFLVs
- Adapters are designed to work with DOE and 222 End Connectors (where applicable)
- Simple Install of Adapter and Cartridges
- Access Top Plate Allows for Effortless Removal of Cartridges

Pleated Filter Cartridges
HIGH CAPACITY/EFFICIENCY

KEY FEATURES
- Multiple Micron Ratings for High Efficiency Filtration
- For use with Single (7" diameter) and Multiple (2-1/2" diameter) Cartridge CFLVs (Single and Double Length)
- High Surface Area Design Provides Excellent Flow Rates and Comprehensive Service Life
- Thermally Bonded DOE End-Caps, Core and Filter Media
- Low Pressure Drop
- Multiple Layered Media Construction Guarantees Dependable Performance
A Series LifeStar® VS Aquatic Pump
2 HP

**KEY FEATURES**
- Ideal for Sensitive Aquatic Environments or Salt Water Systems
- Multi-Position or Detachable / Wall Mount Digital Control Interface with Password Protection
- All Wetted Hardware Manufactured from 316 Stainless Steel
- Silicon Carbide/Silicon Carbide Shaft Seal Suitable for Fresh and Salt Water Use
- Corrosion Resistant Housing
- Self-Priming Pump
- Suitable For High Volume Pumping
- Clear High Capacity Basket Strainer Lid for Visual Inspection
- Elevated Base Ensures Better Ventilation and Protection from Flooding
- Perforated HDPE Basket

**SPECIFICATIONS**

**PUMP HOUSING:** Glass Filled Polypropylene  
**CONNECTIONS:** 2" True Union Socket  
**MOTOR SHAFT:** 303 SS (Non-Wetted)  
**SHAFT FACE SEAL:** Silicon Carbide/Silicon Carbide  
**SHAFT SECONDARY SEAL:** EPDM  
**ALL WETTED HARDWARE:** 316 SS (Impeller Insert, Impeller Screw and 2 Diffuser Screws)  
**MAIN HOUSING GASKET:** EPDM  
**MOTOR BOLTS:** 316 SS  
**HOUSING BOLTS:** 316 SS  
**MOTOR:** Single Phase - Totally Enclosed Fan Cooled (TEFC)  
**HP RATING:** 2  
**STRAINER BASKET:** HDPE, 1/8" Perf  
**SERVICE FACTOR:** 1.35  
**VOLTAGE SUPPLY:** 230V, 60 Hz

---

A Series LifeStar® Aquatic Pump
1/2, 3/4, 1, 1-1/2, 2, 3, 5 HP

**KEY FEATURES**
- Ideal for Sensitive Aquatic Environments or Salt Water Systems
- All Wetted Hardware Manufactured from 316 Stainless Steel
- Silicon Carbide/Silicon Carbide Shaft Seal Suitable for Fresh and Salt Water Use
- Corrosion Resistant Housing
- Self-Priming Pump
- Suitable For High Volume Pumping
- Clear High Capacity Basket Strainer Lid for Visual Inspection
- Elevated Base Ensures Better Ventilation and Protection from Flooding
- Perforated HDPE Basket

**SPECIFICATIONS**

**PUMP HOUSING:** Glass Filled Polypropylene  
**CONNECTIONS:** 2" True Union Socket  
**MOTOR SHAFT:** 303 SS (Non-Wetted)  
**SHAFT FACE SEAL:** Silicon Carbide/Silicon Carbide  
**SHAFT SECONDARY SEAL:** EPDM  
**ALL WETTED HARDWARE:** 316 SS (Impeller Insert, Impeller Screw and 2 Diffuser Screws)  
**MAIN HOUSING GASKET:** EPDM  
**MOTOR BOLTS:** 316 SS  
**HOUSING BOLTS:** 316 SS  
**MOTOR:** Single Phase/Three Phase - Open Drip Proof (ODP), Three Phase - Totally Enclosed Fan Cooled (TEFC)  
**HP RATING:** 1/2, 3/4, 1, 1-1/2, 2, 3 and 5 (ODP)  
**STRAINER BASKET:** HDPE, 1/8" Perf
### T Series Vertical Seal-Less Immersible Pumps

1/3, 1/2, 3/4, 1 AND 1-1/2 HP

<table>
<thead>
<tr>
<th>KEY FEATURES</th>
<th>OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPVC, GFPP and PVDF</td>
<td>Optional Inlet Screen</td>
</tr>
<tr>
<td>Single, Non-Coupled Motor Shaft 303 SS</td>
<td>In-Tank Filtration</td>
</tr>
<tr>
<td>Proprietary, Patent Pending PTFE Shaft Seal</td>
<td>Impeller Trim Variations</td>
</tr>
<tr>
<td>Extended Shaft Sleeve</td>
<td>Explosion-Proof Motors</td>
</tr>
<tr>
<td>Solid, Stable One-Piece Shaft</td>
<td>Wash-Down Motors</td>
</tr>
<tr>
<td>Seal Point Away from Weep Hole</td>
<td>575V Motors</td>
</tr>
<tr>
<td>Less Vibration</td>
<td></td>
</tr>
<tr>
<td>Runs True</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUMP: CPVC, GFPP or PVDF Construction</td>
</tr>
<tr>
<td>PIPE CONNECTIONS: Threaded NPT</td>
</tr>
<tr>
<td>MOTOR SHAFT: 303 SS</td>
</tr>
<tr>
<td>SHAFT SEAL: Patent Pending PTFE Shaft Seal</td>
</tr>
<tr>
<td>PERFORMANCE: Flow rates from 5 to 80 GPM with TDH’s up to 45 feet</td>
</tr>
<tr>
<td>MOTORS: Single or Three Phase Motors</td>
</tr>
<tr>
<td>MODELS WITH HP RATINGS: T2 1/3 HP, T4 1/2 HP, T5 3/4 HP, T6 1 HP, T7 1 HP and T8 1-1/2 HP</td>
</tr>
</tbody>
</table>

### S Series Vertical Seal-Less Immersible Pumps

1/15, 1/3, 1/2, 3/4, 1, 1-1/2, 3 AND 5 HP

<table>
<thead>
<tr>
<th>KEY FEATURES</th>
<th>OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy Duty Design for Continuous Duty Service</td>
<td>Optional Inlet Screen and Extended Shaft</td>
</tr>
<tr>
<td>Seal-Less Design</td>
<td>CPVC Inlet Screens</td>
</tr>
<tr>
<td>No Seals to Leak or Replace</td>
<td>Impeller Trim Variations</td>
</tr>
<tr>
<td>PTFE Fume Barrier</td>
<td>Explosion Proof Motors</td>
</tr>
<tr>
<td>FPM Seals</td>
<td>Washdown Motors</td>
</tr>
<tr>
<td>Optional Inlet Screens</td>
<td>575V Motors</td>
</tr>
<tr>
<td>575V Motors</td>
<td>EPDM Seals</td>
</tr>
<tr>
<td>S-J Type Electrical Cord</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUMP: CPVC, Natural PP or PVDF Construction</td>
</tr>
<tr>
<td>PIPE CONNECTIONS: Threaded NPT</td>
</tr>
<tr>
<td>FUME BARRIER: PTFE, Protects Motor and Bearings from Corrosion Damage</td>
</tr>
<tr>
<td>O-RINGS: FPM</td>
</tr>
<tr>
<td>PERFORMANCE: Flow Rates from 5 to 130 GPM with TDHs up to 115 Feet</td>
</tr>
<tr>
<td>MOTORS: Single or Three Phase Motors; HP Ratings of 1/15, 1/3, 1/2, 3/4, 1, 1-1/2, 3 and 5 HP</td>
</tr>
<tr>
<td>MODELS WITH HP RATINGS: S1 1/15, S2 1/3, S4 1/2, S5 3/4, SS6 3/4, SS7 1, S8 1-1/2, S12 3 and S16 5 HP</td>
</tr>
</tbody>
</table>

### D Series Vertical Seal-Less Immersible Pumps

1/8 HP

<table>
<thead>
<tr>
<th>KEY FEATURES</th>
<th>OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPVC, Natural PP and PVDF</td>
<td>Washdown Motors</td>
</tr>
<tr>
<td>No Seals to Leak or Replace</td>
<td>575V Motors</td>
</tr>
<tr>
<td>PTFE Fume Barrier</td>
<td>S-J Type Electrical Cord</td>
</tr>
<tr>
<td>FPM Seals</td>
<td></td>
</tr>
<tr>
<td>Optional Inlet Screens</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUMP: CPVC, PP or PVDF Construction</td>
</tr>
<tr>
<td>PIPE CONNECTIONS: Threaded</td>
</tr>
<tr>
<td>O-RINGS: FPM</td>
</tr>
<tr>
<td>FLOW RATES: From 2 to 17 GPM with TDHs up to 18 Feet</td>
</tr>
<tr>
<td>MOTORS: Single-Phase Motor; 1/8 HP; 115/230 VAC, 50/60 Hz</td>
</tr>
</tbody>
</table>
R Series Magnetic Drive Pumps
1/3, 1/2, 3/4, 1, 1-1/2, 2, 3 AND 5 HP

**KEY FEATURES**
- GFPP and Carbon Reinforced ETFE
- Low Friction Operation
- Easy Maintenance, No Special Tools
- Seal-Less Design

**OPTIONS**
- Carbon Bushings
- Ceramic Bushings
- EPDM Seals
- 575V Motors
- Washdown Motors

**SPECIFICATIONS**

| PUMP: | GFPP or ETFE Construction |
| PIPE CONNECTIONS: | Threaded NPT or Flanged ANSI 150# |
| SHAFT: | Large Diameter, Ceramic with PTFE, Impeller Bushing |
| PERFORMANCE: | Flow Rates from 5 to 140 GPM with TDHs of up to 141 Feet |
| MOTORS: | Single or Three Phase Motors; HP Ratings of 1/3, 1/2, 3/4, 1, 1-1/2, 2, 3 or 5 HP; 115/230 VAC or 208–230/460 VAC, 50/60 Hz |
| MODELS WITH HP RATINGS: | RC03 1/3, RX05 1/2, RX07 3/4, RX10 1, RX15 1-1/2, RX20 2, RX30 3 and RX50 5 HP |

C Series Centrifugal Pumps
1/3, 1 AND 1-1/2 HP

**KEY FEATURES**
- Rugged Design for Demanding Continuous Duty Service
- No Metal in Contact with Process Fluid
- Carbon/Ceramic Seals
- FPM Seals
- Impeller Trim Variations
- PTFE/Ceramic Seals
- PTFE/Carpenter 20 Seals
- EPDM Elastomers
- Waterflushed Seals
- 575V Motors
- Washdown Motors

**SPECIFICATIONS**

| PUMP: | CPVC, GFPP or PVDF Construction |
| PIPE CONNECTIONS: | Threaded |
| SHAFT: | Stainless Steel with Non-Metallic Sleeve |
| SEAL: | John Crane External Type 21 or Equal Carbon/Ceramic Seal Faces with Stainless Steel Hardware and FPM Elastomers |
| PERFORMANCE: | Flow rates from 5 to 83 GPM with TDHs up to 70 feet |
| MOTORS: | Single or Three Phase Motors; HP Ratings of 1/3, 1 and 1-1/2; 115/230 VAC or 208–230/460 VAC |
| MODELS WITH HP RATINGS: | C5 1/3, C7 1 and C8 1-1/2 HP |

In-Tank Filtration Systems
COMPATIBLE WITH D AND S SERIES IMMERSEBLE PUMPS

These highly efficient filtration systems are compatible with D and S Series Immersible Pumps.

**KEY FEATURES**
- CPVC Corrosion-Resistant Construction
- Compact and Easy to Install
- Seal-Less, Bearing-Free Pump
- Fast Filter Change
- 1/15 HP Model Features a Built-in Power Cord

**OPTIONS**
- Double Filter
Z Series Solenoid Diaphragm Metering Pumps

ANALOG INTERFACE

KEY FEATURES
- PVDF Wetted End, PTFE Diaphragm, Ceramic Double Ball Checks
- Multi-Voltage Motor
- Complete Kit Includes PVDF Foot Valve, PVDF Injection Valve and Required Tubing
- NEMA 4X Protection Class (IP 65)
- Three Sizes Available (100, 200 & 500)*
- Built-In Degassing Valve on 100 and 200 Sizes
- Optional Liquid Level Switch and Flow Switch
- Optional Multi-Function Valve for Over-Pressure and Back Pressure Control

*Refer to Page 40 for Specifications

ANALOG MODELS

<table>
<thead>
<tr>
<th>ZMA</th>
<th>ZPA</th>
<th>ZTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant Dosage</td>
<td>Proportional Dosage</td>
<td>Timed Dosage</td>
</tr>
<tr>
<td>Two Frequency Ranges</td>
<td>Analog Input (4-20mA)</td>
<td>Low Level Alarm</td>
</tr>
<tr>
<td>Low Level Alarm</td>
<td>Pulse Multiplier/Divider</td>
<td></td>
</tr>
</tbody>
</table>

Z Series Solenoid Diaphragm Metering Pumps

DIGITAL INTERFACE

KEY FEATURES
- PVDF Wetted End, PTFE Diaphragm, Ceramic Double Ball Checks
- Multi-Voltage Motor
- Complete Kit Includes PVDF Foot Valve, PVDF Injection Valve and Required Tubing
- NEMA 4X Protection Class (IP 65)
- Three Sizes Available (100, 200 & 500)*
- Built-In Degassing Valve on 100 and 200 Sizes
- Intuitive LCD Display Provides Pump and Set-Up Information
- Optional Liquid Level Switch and Flow Switch
- Optional Multi-Function Valve for Over-Pressure and Back Pressure Control

*Refer to Page 40 for Specifications

DIGITAL MODELS

<table>
<thead>
<tr>
<th>ZPD</th>
<th>ZRD</th>
<th>ZKD</th>
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</thead>
<tbody>
<tr>
<td>Proportional Dosage</td>
<td>Built-in pH/ORP Controller</td>
<td>Timed Dosage</td>
</tr>
<tr>
<td>Analog Input</td>
<td>pH/ORP Electrode Connection</td>
<td>Programmable Timed Relay</td>
</tr>
<tr>
<td>Pulse Input</td>
<td>Analog Output of Readings</td>
<td></td>
</tr>
</tbody>
</table>

WWW.HAYWARDFLOWCONTROL.COM
HLS Series
ADVANCED SUBMERSIBLE PRESSURE LEVEL TRANSMITTER

KEY FEATURES
• Unaffected by Surface Foaming, Waves or Headspace Vapors
• All CPVC Housing
• ALO (Alumina) Diaphragm
• Triple Sealed Cable Entry into Body
• Available with FPM or EPDM Seals
• Available with 0-15 ft or 0-33 ft of Level Range
• 30 and 50 ft FEP Coated Cable Standard (Lengths to 1000 Feet Available)
• 10-35 VDC Powered
• Direct Analog 4-20mA Output Signal
• 0.25% Accuracy Full Scale
• Laser Etched Sensor Details on Body
• Full Range of Accessories Available

SPECIFICATIONS
DIMENSIONS L x DIA.: .................. 5.8" Long x 1.25" Dia. (14.7 cm Long x 3.1 cm Dia.)
RANGE:.................................. 0-15 ft (6.5 psi) and 0-33 ft (14.3 psi) of Water Column
STANDARD CABLE LENGTH:....... 30 ft with the 0-15 ft Level Sensor; 50 ft with the 0-33 ft Level Sensor
CABLE:.................................. Vented, 4 Conductor, FEP Cover
TEMPERATURE:......................... 30°F (Non-Freezing) to 140°F
TEMPERATURE EFFECTS:........... +/- 1.5% TEB (Total Error Band = Linearity + Hysteresis + Repeatability + Zero and Span Settings + Temperature Effects)
POWER REQUIREMENT:.............. 10-35 VDC
OUTPUT SIGNAL:....................... 4-20 mA, Scaled for Full Sensor Range
BODY:.................................. CPVC per ASTM D1784, Cell Classification 23447

TLF Series
PRESSURE LEVEL JUNCTION BOX

KEY FEATURES
• Suitable for all HLS and TL Series Level Sensors
• Glass Reinforced Polypropylene Housing for High Impact Resistance
• NEMA 4X Enclosure
• Threaded Polyethylene 2" NPT Process Connection
• Two Cord Grips: Sensor In, Signal Out
• Built-in Breather with Nomex Membrane
• Weather Resistant
• Easy Installation with Hayward Bulkhead Fittings

SPECIFICATIONS
DIMENSIONS:.................. 92 x 92 x 57.3 mm
WEIGHT:.................. 0.9 lbs/0.4 kg
OPERATING TEMPERATURE:.... 4° to 122°F (-10° to 50°C)
PROTECTION:.................. Face IP65/NEMA 4X

HLST Series
INDICATING LEVEL TRANSMITTER

KEY FEATURES
• Highly Accurate and Remote Level Indication
• Level Reading in Feet, Inches & Meters
• 1/4 DIN cutout, IP65 Protection (front)
• PT100/1000 Temperature input on 2nd Channel
• Dual Analog Outputs
• Dual Programmmable 5A Relays
• Dual Programmmable Open Collectors
• Configurable, Large LCD Display
• Simple, Intuitive Set-Up
• Removable Terminals for Easy Wiring

SPECIFICATIONS
ACCURACY:............................ ±0.2%
INPUT 1:.................. 4-20mA, two or three wire, powered
INPUT 2:.................. PT100/PT1000 RTD
RELAYS:.......................... Two x 5A, 250V, Programmable
OPEN COLLECTORS:............. Two, Programmable
DISPLAY:.................. 128 x 128 Pixel LCD
POWER:.................. 100-240 VAC/50-60 Hz...12-32 VDC Available upon Request
DIMENSIONS:.................. 92 x 92 x 57.3 mm
WEIGHT:.................. 0.9 lbs/0.4 kg
OPERATING TEMPERATURE:... 4° to 122°F (-10° to 50°C)
PROTECTION:.................. Face IP65/NEMA 4X
TF Series
MULTI-FUNCTION TRUE UNION
PADDLEWHEEL FLOW METER

KEY FEATURES
- Available in PVC and PP Materials – PVC and Polypropylene
- True Union Design 1/2" - 2" (Flanged 3" & 4", PVC Only)
- High Accuracy – Less than ± 1.0% of Full Scale
- Easy Installation – No Insertion Fittings Required
- High Flow Range 0.33 ft/s – 32.8 ft/s (0.3 m/s – 10 m/s)
- Pulse on All Models, Totalizer and 4-20mA Available
- Easy to Configure, ‘K’ Factor Pre-set
- Large Bright LED Digital Display
- Horizontal or Vertical Installation
- NEMA 4X/IP65 Enclosure

SPECIFICATIONS
FLUID: Water or Chemicals Liquid – Viscosity Range: 5-20 centistokes
ACCURACY: (± 1.0% of F.S. @ 20°C (68°F) – Repeatability ± 0.5% of Full Scale
FLOW VELOCITY: Flow Range 0.33 to 32.8 FPS (8 FPS Max recommended)
PRESSURE RATING: 150 psi / 10 Bar at 70°F / 23°C Non-Shock
MATERIAL OF CONSTRUCTION: Tefzel / Body: PVC or PP
Shaft: Zirconium Ceramic Seals: EPDM/FPM
OPERATING TEMPERATURE: PVC: 32°F to 140°F (0°C to 60°C), PP 20°F to 176°F (6°C to 80°C)
PROTECTION CLASS: IP65 NEMA 4X
MIN FLOW: 1/2" = 0.2 GPM, 3/4" = 0.5 GPM, 1" = 1 GPM, 1-1/2" = 1.5 GPM, 2" = 5.5 GPM

TFT Series
INSERTION PADDLEWHEEL FLOW
METER WITH TRANSMITTER

KEY FEATURES
- Chemical-resistant Materials PP or PVDF Body, PFA Paddle and Ceramic Shaft and Bearing
- Pipe Size Range 1/2”- 24” / DN15 - DN600
- Measuring Flow Range (0.33 to 32.8 ft/s)*
- Excellent for Low or High Temperatures, -4°F to 194°F (-25°C to 90°C)
- NEMA 4X / IP65 or NEMA 6 / IP68 Rating
- Zirconium Dioxide Ceramic Shaft & Bearings
- Double O-ring Seal
- 26 Foot Cable or DIN Connector
- Fits into Industry-standard Insertion Tees
- Insertion Tees and Clamp-on Saddles Available

SPECIFICATIONS
MEASURING ACCURACY: ±0.75% of full scale
REPEATABILITY: ±0.5% of full scale
PIPE SIZE: 1/2” to 4” / DN15 to DN100 (-0) 6” to 24” / DN150 to DN600 (-1)
OUTPUT FREQUENCY: 60.5 Hz per m/s nominal, 18.45 Hz per ft/s nominal
OUTPUT SIGNAL: Proportional Pulse (STD), 0-5 VDC (OPT)
SENSOR BODY MATERIAL: Polypropylene or PVDF
ROTOR MATERIAL: PFA
SHAFT & BEARINGS MATERIAL: Zirconium Dioxide Ceramic (ZrO2)
O-RING MATERIAL: FKM
ELECTRICAL CONNECTION: DIN Mini-Connector 43650-A (IP65) Electrical Cable (IP68)
CABLE TYPE: 3 conductor + shield 0.26A WG.PVC

TLV Series
FLOW DISPLAY, TOTALIZER, BATCHER AND TRANSMITTER

KEY FEATURES
- Pulse or 4-20mA Input, Depending on Model
- 2 Relay, 4-20mA + 1 Relay Output Models Available
- 120 VAC Powered, Provides 24 VDC Output
- Display of Instantaneous Flow Rate and the Total Flow Values
- Batching and Counting of Doses
- Simple Installation

ACCESSORIES
- IR Remote Controller IRC-20

SPECIFICATIONS
POWER SUPPLY/POWER CONSUMPTION: 85 - 260 VAC
DISPLAY: LED, 6 x 13 mm high, 8 levels of adjustable brightness
INPUT: Pulse or Current: 0-20 mA or 4-20 mA
ACCURACY: 0.1% @ 70°C + One Digit, (for 0 - 20 mA range)
OUTPUT (OPTION): 2 Relays or 1 Relay + 4-20mA
POWER SUPPLY OUTPUT: 24 VDC, +5%, -10% / max. 100 mA, stabilized
OPERATING TEMPERATURE: 4°F - 158°F (-20°C - 70°C)
PROTECTION CLASS: NEMA 4X
**TLC Series**

**LEVEL PROCESS DISPLAY**

**KEY FEATURES**
- 4-20mA Input Indicating Transmitter in NEMA 4X Enclosure
- Input: 4-20 mA
- 2 Relay (1A or, 4-20mA + 1 Relay Models Available, 4 or 6 Digit Displays Available
- 120 VAC Powered, Provides 24 VDC Power to Level Sensors
- RS-485/Modbus RTU Standard
- Signal Peak Value Detection
- 3 Wire Cord Grips Included

**ACCESSORIES**
- IR Remote Controller*

---

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>POWER SUPPLY/</th>
<th>POWER CONSUMPTION: 85–260 VAC/VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISPLAY:</td>
<td>LED, 3/4″ 4-Digit, Red, Adjustable Brightness</td>
</tr>
<tr>
<td>INPUT:</td>
<td>0-20 mA or 4-20 mA</td>
</tr>
<tr>
<td>ACCURACY:</td>
<td>0.1% @ 25°C + One Digit</td>
</tr>
<tr>
<td>OUTPUT:</td>
<td>2 Relays or 1 Relay + 4-20mA</td>
</tr>
<tr>
<td>POWER SUPPLY OUTPUT:</td>
<td>24 VDC</td>
</tr>
<tr>
<td>COMMUNICATION INTERFACE:</td>
<td>RS-485</td>
</tr>
<tr>
<td>OPERATING TEMP:</td>
<td>-4°F – 158°F (-20°C - 70°C)</td>
</tr>
<tr>
<td>PROTECTION CLASS:</td>
<td>NEMA 4X (IP65)</td>
</tr>
</tbody>
</table>

---

**VSA Series**

**INDUSTRIAL VISUAL/AUDIBLE SENTRY ALARM SYSTEM**

**KEY FEATURES**
- High Intensity Red Alarm Light
- 90 dB Audible Alarm with External Test-Silence-Normal Positions
- Rugged NEMA 4X Industrial Design Enclosure
- Latching Lockable Cover (No Screws Required)
- External Mounting Feet Installs in Minutes
- High Impact All Thermoplastic Polycarbonate Shell
- Small Foot Print — Compact Design
- Excellent Chemical Resistance
- Includes 6 ft Power Cord + Seal-tight Cord Connector

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>DIMENSIONS:</th>
<th>7 x 5 x 4.5”</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENCLOSURE:</td>
<td>NEMA 4X</td>
</tr>
<tr>
<td>WEIGHT:</td>
<td>2.1 lbs.</td>
</tr>
<tr>
<td>VOLTAGE/FREQ/AMPS:</td>
<td>120v/60 Hz/1 Amp</td>
</tr>
<tr>
<td>INPUT POWER:</td>
<td>100v – 240v</td>
</tr>
</tbody>
</table>

---

**TLM Series**

**INDUSTRIAL PANEL MOUNT LEVEL TRANSMITTER**

**KEY FEATURES**
- Large Bright LED Display
- NEMA 4X Face
- Adjustable Display Brightness
- 4-20mA Output with Either 2 or 4 Relays Depending on Model
- Acoustic Signal (Beep)
- Input Signal 4-20 mA
- 4-digit LED Display
- 120 VAC Powered, Provides 24 VDC Output to Power Level Sensors
- Communication Interface RS-485 (Modbus RTU Optional)
- Configurable Relays (1 amp)
- Standard Dimensions for Retrofit Applications
- Optional NEMA 4X Enclosure Available

---

* Remote controller is not part of the device and is available as an option.
**GG Series Gauge Guards**

1/4" x 1/4" PVC, CPVC AND PP AND 1/4" x 1/2" PVC, CPVC AND PVDF

**KEY FEATURES**
- PVC, CPVC, PP and PVDF
- Threaded NPT Connections
- FPM Membrane
- All Thermoplastic, No Rust or Corrosion
- No Metal Fasteners
- Rugged, Low Profile, Compact Design
- Work in Any Position
- Large Volume Gauge Guard Available

**OPTIONS**
- 0 to 30 PSI Gauge
- 0 to 60 PSI Gauge
- 0 to 160 PSI Gauge
- 0 to 160 PSI SS Liquid Filled Gauge and Liquid Damped

**SELECTION CHART**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot; x 1/4&quot;</td>
<td>PVC, CPVC or PP</td>
<td>Threaded</td>
<td>FPM</td>
<td>150 PSI @ 70°F</td>
</tr>
<tr>
<td>(DN8 – DN8)</td>
<td></td>
<td></td>
<td></td>
<td>10 Bar @ 21°C</td>
</tr>
<tr>
<td>1/4&quot; x 1/2&quot;</td>
<td>PVC, CPVC or PVDF</td>
<td>Threaded</td>
<td>FPM</td>
<td>Non-Shock</td>
</tr>
<tr>
<td>(DN8 – DN15)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GA Series Pressure Gauge & Isolator**

ALL THERMOPLASTIC PRESSURE GAUGE AND ISOLATOR

**SPECIFICATIONS**

- DIAL DIAMETER: Large 2-1/2” (Big Numbers-Clear Markers)
- MOUNTING: Direct Mount, Bottom Connection FNPT 1/2”
- HOUSING: PVDF or Polypropylene with PTFE or FPM Diaphragm
- LENS: Safety Glass
- DIAL: Red/Black Scale White Background, dial arc 270°
- MEASURING PRINCIPLE: Bourdon Tube-316 SS (Non Wetted) Diaphragm (Wetted Part) – FPM (Standard)
- MOVEMENT: 316 SS (Non Wetted)
- GAUGE: Red, Yellow, Green Moveable Plastic Markers Pressure Range Pointers Fitted on the Bezel
- CONNECTION: 1/2” FNPT
- FILLING: Options: Glycerin or Silicone Filled
- ACCURACY: ±1.5% F.S.
- OPERATING TEMPERATURE: Max. Working Temp. PVDF-195°F, PP-170°F
- PRESSURE RANGE: Standard Range 0-60 / 0-100 / 0-160 psi

**GDS Series**

DOUBLE SIDED PRESSURE GAUGE AND ISOLATOR

**SPECIFICATIONS**

- DIAL DIAMETER: Large 2-1/2” (Big Numbers-Clear Markers)
- MOUNTING: Direct Mount, Bottom Connection FNPT 1/2”
- HOUSING: PVDF or Polypropylene with PTFE or FPM Diaphragm - One-piece Molded Design (No Assembly or Filling Required)
- LENS: Safety Glass
- DIAL: Red/Black Scale White Background, dial arc 270°
- MEASURING PRINCIPLE: Bourdon Tube-316 SS (Non Wetted) Diaphragm (Wetted Part) – FPM (Standard)
- MOVEMENT: 316 SS (Non Wetted)
- GAUGE: 3 Adjustable Plastic Markers-Pressure Range Pointers fitted on the Bezel (Green, Yellow, Red)
- FILLING: Glycerin Filled
- ACCURACY: ±1.5% F.S.
- OPERATING TEMPERATURE: Max. Working Temp. PVDF-195°F / 90°C, PP 170°F
- TEMPERATURE: Standard Range 0-60 / 0-100 / 0-160 psi
- PRESSURE RANGE: Standard Range (Second Scale: Bar)
  Other units available, e.g., MPa, etc.
GD Series Digital LED Pressure Alarm

IDEAL FOR BASKET STRAINERS & BAG FILTER MONITORING

KEY FEATURES

- LED Display Changes from Green to Red to Indicate Alarm Condition
- Highly Accurate ±0.25% of Full Scale
- Ceramic Diaphragm, T316SS 1/2” MNPT Process Connection
- Display Pressure Units psi, Bar, Kgf/cm², KPA, MPA, In Hg
- Two 3 Amp Relays
- 4-20 mA Analog Output
- Digital RS-485 Interface Function (optional)
- NEMA 4X Design, IP65
- Adjustable Range
- Lockable Software Security

SPECIFICATIONS

<table>
<thead>
<tr>
<th>SUPPLY VOLTAGE:</th>
<th>DC 14 to 30 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEASURING ACCURACY:</td>
<td>0.25% Full Scale</td>
</tr>
<tr>
<td>ANALOG OUTPUT:</td>
<td>4-20 mA</td>
</tr>
<tr>
<td>DISPLAY:</td>
<td>Bright Red/Green LED High (0.4”)</td>
</tr>
<tr>
<td>PARAMETER SETTING:</td>
<td>Push Button</td>
</tr>
<tr>
<td>DIAPHRAGM MATERIALS:</td>
<td>Ceramic Al₂O₃</td>
</tr>
<tr>
<td>PRESSURE PORT MATERIALS:</td>
<td>316 SS</td>
</tr>
<tr>
<td>DISPLAY MATERIALS:</td>
<td>Polyamide 66+ 15% Glass Filled</td>
</tr>
<tr>
<td>OPERATING TEMPERATURE RANGE:</td>
<td>-4°F to 176°F (-20°C to 80°C)</td>
</tr>
<tr>
<td>PRESSURE RANGE:</td>
<td>0 to 400 psi</td>
</tr>
</tbody>
</table>

GLD Series LED Pressure Gauge & Isolator

ALL THERMOPLASTIC PRESSURE INDICATOR WITH INTEGRAL ISOLATOR

KEY FEATURES

- All Thermoplastic Construction (Gauge + Isolator)
- Heavy Duty One-piece Molded Design (No Assembly Required)
- No Filling Required
- Corrosion Resistant
- Designed to Act as Visual Pressure Alert for Bag/Filter Change-Out
- Extra Large LED Display
- No Programming Required (LCD Version)
- PTFE Diaphragm Standard
- High Accuracy ±1.0%
- Suitable for Corrosive Media & Slurries
- 15 ft of Cable for LED Model
- Simple Installation
- Self-flushing Gauge Guard Design

SPECIFICATIONS

<table>
<thead>
<tr>
<th>DIAL DIAMETER:</th>
<th>2-1/2”</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOUNTING:</td>
<td>Direct Mount, Bottom Connection 1/2” FNPT</td>
</tr>
<tr>
<td>HOUSING:</td>
<td>PTFE or Polypropylene with PTFE Diaphragm</td>
</tr>
<tr>
<td>PROTECTION CLASS:</td>
<td>NEMA 4X</td>
</tr>
<tr>
<td>LENS:</td>
<td>Polycarbonate</td>
</tr>
<tr>
<td>DIAL:</td>
<td>LED</td>
</tr>
<tr>
<td>ACCURACY:</td>
<td>±1.0%</td>
</tr>
<tr>
<td>OPERATING TEMPERATURE:</td>
<td>Max. Working Temp. PVDF-195°F / 90°C, PP-170°F / 76°C</td>
</tr>
<tr>
<td>PRESSURE RANGE:</td>
<td>0-290 psi (Ambient Temp)</td>
</tr>
<tr>
<td>OUTPUT:</td>
<td>4-20mA + Two Open Collectors (NPN or PNP)</td>
</tr>
<tr>
<td>POWER REQUIREMENT:</td>
<td>10-30 VDC for LED</td>
</tr>
</tbody>
</table>
**BFAS Series Bulkhead Fittings – Standard Flange**
1/2" TO 4" PVC, CPVC AND PP

**KEY FEATURES**
- PVC, CPVC and PP
- FPM or EPDM Gasket Seal
- Left-Hand Threads
- Buttress Threads Protect Against Blowout
- Hex Body for One-Person Installation
- Rated at 150 PSI

**OPTIONS**
- Vacuum Breaker
- Ready Flanges (for Making Flanged Connections to Tanks)
- Tank-Tite™

---

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
<th>TEMP, Non-Shock</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 4&quot; (DN15 – DN100)</td>
<td>PVC</td>
<td>Socket x Thread</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F</td>
<td>10 Bar @ 21°C</td>
</tr>
<tr>
<td></td>
<td>CPVC</td>
<td>Socket x Thread</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PP</td>
<td>Thread x Thread</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**BFA Series Bulkhead Fittings – Standard Flange**
1/2" TO 6" PVC, CPVC AND PP – LONG PATTERN

**KEY FEATURES**
- PVC, CPVC and PP
- Oversized Flange Base
- Extra Long Design for Thick Tank Walls
- Left-Hand Threads
- Rated at 150 PSI
- FPM or EPDM Gasket Seal
- Hex Body for One-Person Installation
- Full Buttress Threads

**OPTIONS**
- Vacuum Breaker
- Ready Flanges (for Making Flanged Connections to Tanks)
- Tank-Tite™

---

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
<th>TEMP, Non-Shock</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 4&quot; (DN15 – DN100)</td>
<td>PVC</td>
<td>Socket x Thread</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F</td>
<td>10 Bar @ 21°C</td>
</tr>
<tr>
<td></td>
<td>CPVC</td>
<td>Socket x Thread</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PP</td>
<td>Thread x Thread</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**BFA Series Bulkhead Fittings – Oversized Flange**
1/2" TO 1" PVC, CPVC AND PP – LONG PATTERN

**KEY FEATURES**
- PVC, CPVC and PP
- Oversized Flange Base
- Extra Long Design for Thick Tank Walls
- Left-Hand Threads
- Rated at 150 PSI
- FPM or EPDM Gasket Seal
- Hex Body for One-Person Installation
- Full Buttress Threads

**OPTIONS**
- Ready Flanges (for Making Flanged Connections to Tanks)
- Tank-Tite™

---

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
<th>TEMP, Non-Shock</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2&quot; – 1&quot; (DN15 – DN25)</td>
<td>PVC</td>
<td>Socket x Thread</td>
<td>FPM or EPDM</td>
<td>150 PSI @ 70°F</td>
<td>10 Bar @ 21°C</td>
</tr>
<tr>
<td></td>
<td>CPVC</td>
<td>Socket x Thread</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PP</td>
<td>Thread x Thread</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Tank Adapter Fittings

**1/2” TO 4” GFPP - THREAD X THREAD**

**KEY FEATURES**
- Robust PVC Upper and Lower Body Construction
- All Glass Filled Polypropylene Construction
- EPDM Gasket Seal
- Rated to 150 PSI @ 70°F Non-Shock
- Excellent Temperature and Abrasive Properties
- Left Handed Threads
- Heavy Duty Buttress Threads to Help Prevent Leaks Under Pressure
- Hex Body for Easy Installation

**MATERIALS**
- PP per ASTM D4101
- Heavy-Duty EPDM Gasket Seal

**SELECTION CHART**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>GASKETS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2” – 4” (DN15 – DN100)</td>
<td>GFPP</td>
<td>Thread x Thread</td>
<td>EPDM</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

### CCP Series Tank-Tite™

**1/2” TO 3” PVC**

**KEY FEATURES**
- Robust PVC Upper and Lower Body Construction
- 17-7 PH Stainless Steel Wave Spring
- Rated to 150 PSI
- Fits with Hayward® BFAS/BFA Series Bulkhead Fittings
- Can be Used with All Bulkhead Fitting Materials

**MATERIALS**
- PVC Cell Class 12454 per ASTM D1784
- 17-7 PH Stainless Steel

**SELECTION CHART**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>SPRING</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2” – 3” (DN15 – DN80)</td>
<td>PVC</td>
<td>17-7 PH SSTL</td>
<td>150 PSI @ 70°F 10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>

### SF Series Self-Aligning Bulkhead Fittings

**1”, 2” AND 3” PVC**

**KEY FEATURES**
- PVC
- Enables Easy Piping Connections to Domed Tanks
- Swivel Ball Connection Corrects for Curved Tanks
- Enables Straight Pipe Connections up to 27° of Offset Angle
- PTFE Ball Seal
- FPM or EPDM Gasket Seal

**SELECTION CHART**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1”, 2” and 3” (DN25, DN50 and DN80)</td>
<td>PVC</td>
<td>Thread x Thread</td>
<td>FPM or EPDM</td>
<td>75 PSI @ 70°F 5 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>
AR Series Air Release Valves
3/4" PVC BODY WITH PP BALL

KEY FEATURES
• PVC Body with PP Ball
• Reliable Tank Air Venting
• Prevents Tank Overflow
• Hollow, Floating Ball Design
• Closes at 0 PSI
• FPM or EPDM Seals
• Standard Screen

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot;</td>
<td>PVC Body</td>
<td>Socket and Threaded</td>
<td>FPM</td>
<td>150 PSI @ 70°F Non-Shock</td>
</tr>
</tbody>
</table>

VB Series Vacuum Breakers
3/4" PVC

KEY FEATURES
• PVC Body
• Reliable Venting of Tanks and Piping Systems
• Advanced Design for Fast Draining
• Easy Installation
• Compact
• No Metal Parts to Stick or Jam
• FPM Membrane
• Use with BFAS/BFA Series Bulkhead Fitting to Vent Tanks (Fits 1-1/2" Only)

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>SEALS</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot;</td>
<td>PVC</td>
<td>FPM</td>
<td>150 PSI @ 70°F Non-Shock</td>
</tr>
</tbody>
</table>

BVX Series Ready Flanges
1" TO 4" PVC, CPVC AND GFPP

KEY FEATURES
• PVC, CPVC and GFPP
• One-Piece Construction
• Integral Molded Nipple
• Eliminates the Need for an Extra Fabricated Joint – Preventing a Possible Leak Path
• Easily Converts Socket Valves to Flanged
• ANSI Class 150 Bolt Pattern

OPTIONS
• Threaded to Flanged

SELECTION CHART

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot; – 4&quot;</td>
<td>PVC or CPVC</td>
<td>Spigot x Flanged</td>
<td>150 PSI @ 70°F Non-Shock</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MATERIAL</th>
<th>END CONNECTION</th>
<th>PRESSURE RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot; – 4&quot;</td>
<td>GFPP</td>
<td>Threaded x Flanged</td>
<td>10 Bar @ 21°C Non-Shock</td>
</tr>
</tbody>
</table>
Pressure Loss Calculation Using Cv Factor

The pressure loss across a valve or filter can be calculated using the system’s flow rate and the Cv factor for that valve or filter. For example, a 1" valve with a Cv factor of 8 will have a 4 PSI pressure loss in a system with a 16 GPM flow rate 

\[ \Delta P = \left( \frac{Q}{Cv} \right)^2 \]

\( \Delta P \) = Pressure Drop 
\( Q \) = Flow in GPM 
\( Cv \) = Flow Coefficient

Notes:
1. Working pressure (non-shock) figures are the maximum recommended for the indicated pressure.
2. It is recommended that the minimum process fluid temperature for the Hayward® product not fall below 34°F.
Basket Sizes for Hayward Simplex / Duplex Thermoplastic Strainers

<table>
<thead>
<tr>
<th>PRESSURE DROP CORRECTION FACTORS FOR VARIOUS SIZE BASKET SCREENS</th>
<th>COMPARATIVE PARTICLE SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLASTIC PERFORATION</td>
<td>CORRECTION FACTOR</td>
</tr>
<tr>
<td>1/32&quot;</td>
<td>1.05</td>
</tr>
<tr>
<td>1/16&quot;</td>
<td>1.00</td>
</tr>
<tr>
<td>1/8&quot;</td>
<td>0.58</td>
</tr>
<tr>
<td>3/16&quot;</td>
<td>0.46</td>
</tr>
</tbody>
</table>

Note: To calculate pressure drop through vessels using other than 1/16" perforated baskets, first calculate the pressure drop using the listed Cv, and then multiply the result by the correction factor in the Correction Factors chart above.

Operating Temperature/Pressure for Bag & Cartridge Filter Housings

Z Series Specifications

<table>
<thead>
<tr>
<th>PERFORMANCE SPECIFICATIONS BY PUMP SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUMP SIZE</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>100</td>
</tr>
<tr>
<td>200</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td>500</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Consult Hayward® for Available Cartridges.
**NSF/ANSI Standard 61** is a standard defining the requirements for products that are destined for use in drinking water systems. In summary, the standard requires immersion testing of all products that will come into contact with drinking water for any chemicals, compounds, elements, etc. that may leach into the water that passes through the product.

Hayward products that are NSF 61 certified can easily be found on the NSF website, www.NSF.org. Additionally, those products certified to NSF 61-G are also certified to NSF/ANSI 372 and conforms with the lead content requirements for "lead free" plumbing as defined by California, Vermont, Maryland and Louisiana state laws and the U.S. Safe Drinking Water Act.

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### THE FOLLOWING HAYWARD FLOW CONTROL PRODUCTS COMPLY WITH THIS DIRECTIVE

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>SIZE</th>
<th>WATER CONTACT TEMP</th>
<th>WATER CONTACT MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TB SERIES BALL VALVES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hayward True Union Ball Valve (PVC)</td>
<td>1/4&quot; - 4&quot;</td>
<td>CLD23</td>
<td>MLTPL</td>
</tr>
<tr>
<td>Hayward True Union Ball Valve (CPVC)</td>
<td>1/4&quot; - 4&quot;</td>
<td>CLD23</td>
<td>MLTPL</td>
</tr>
<tr>
<td><strong>TC SERIES CHECK VALVES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hayward True Union Ball Check Valve (PVC)</td>
<td>1/4&quot; - 4&quot;</td>
<td>CLD23</td>
<td>MLTPL</td>
</tr>
<tr>
<td>Hayward True Union Ball Check Valve (CPVC)</td>
<td>1/4&quot; - 4&quot;</td>
<td>CLD23</td>
<td>MLTPL</td>
</tr>
<tr>
<td><strong>BYV SERIES BUTTERFLY VALVES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hayward Butterfly Valve (PVC/EPDM)</td>
<td>2&quot; - 12&quot;</td>
<td>CLD23</td>
<td>MLTPL</td>
</tr>
<tr>
<td>Hayward Butterfly Valve (CPVC/EPDM)</td>
<td>4&quot; - 12&quot;</td>
<td>D. HOT</td>
<td>MLTPL</td>
</tr>
<tr>
<td><strong>BYCN SERIES BUTTERFLY VALVES (PVC/EPDM)</strong></td>
<td>3&quot; - 8&quot;</td>
<td>CLD23</td>
<td>MLTPL</td>
</tr>
<tr>
<td><strong>SIMPLEX SB SERIES STRAINERS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hayward Simplex Basket Strainer (PVC)</td>
<td>1/2&quot; - 8&quot;</td>
<td>CLD23</td>
<td>MLTPL</td>
</tr>
<tr>
<td>Hayward Simplex Basket Strainer (CPVC)</td>
<td>1/2&quot; - 8&quot;</td>
<td>D. HOT</td>
<td>MLTPL</td>
</tr>
<tr>
<td><strong>BFA SERIES (PVC/EPDM) BULKHEAD</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/2&quot; - 6&quot;</td>
<td>CLD23</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BFAS SERIES (PVC/EPDM) BULKHEAD</strong></td>
<td></td>
<td></td>
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<tr>
<td>1/2&quot; - 3&quot;</td>
<td>CLD23</td>
<td></td>
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<tr>
<td><strong>VALVE - OTHER</strong></td>
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<tr>
<td>Universal Stopcock™</td>
<td>1/4&quot;</td>
<td>CLD23</td>
<td>MLTPL</td>
</tr>
</tbody>
</table>

* Certified for use in distribution systems only.
** Certified for use in water treatment plant applications only with a minimum daily flow rate of 3,120 gallons.

**NOTE:** Unless otherwise indicated for Materials, Certification is only for the Water Contact Material shown in the Listing. Always consult NSF Listing online as changes and updates may occur.