

## Condensed Product Guide

define  
design

deliver

## HAYWARD® FLOW CONTROL – REVOLUTIONIZING THE FLOW...

For over 50 years, we at Hayward Flow Control are proud of the confidence instilled in us from our customers in the markets and applications we serve. By using, recommending, and specifying our products, you stand parallel to our ideals and our commitment to quality and dedication in producing the best thermoplastic flow control products available today. With countless installations worldwide, from fish hatcheries to water parks, water treatment facilities to chemical processing plants, our products provide process control assurance, and the peace of mind of having the right support when you need it.

Hayward Flow Control products carry an industry-leading, full two-year warranty. When we build our products, we strive for the highest quality possible for use in a wide range of demanding applications.

### HAYWARD THERMOPLASTIC VALVES, ACTUATION AND CONTROLS

Hayward manufactures a complete line of flow control valves and tank accessories in thermoplastic materials such as 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, local control station technology, and battery backups, Hayward continues to provide customers with an industry leading choice of valve actuation packages to satisfy the most demanding application requirements.

### HAYWARD PIPELINE STRAINERS & FILTERS

Hayward's industry leading basket and Y-Strainers are designed to protect pipeline system components and life maintenance facilities from dirt and debris while allowing process media to flow freely. Simplex and duplex strainers are manufactured in PVC, CPVC, GFPP, and clear Eastar, and are available with thermoplastic, stainless steel or alloy, perf and mesh lined baskets in a wide range of sizes. Y-Strainers are offered in PVC, clear PVC or CPVC, are compact, and lightweight, and have FPM or EPDM o-ring seals and perforated thermoplastic screens. For the most demanding filtration systems, where metal filters will eventually corrode and contaminate the media, Hayward provides a full range of single bag and cartridge filters in GF-PP, PVC and CPVC materials. Available in both single and double length, as well as in duplex models.

### HAYWARD CORROSION RESISTANT PLASTIC 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, immersible, and magnetic drive pumps with motors rated from 1/15 to 5 HP, and flow rates from 5 to over 140 GPM and TDHs of up to 141 feet.

## TABLE OF CONTENTS

### VALVES AND ACCESSORIES

TB Series True Union Ball Valves .....	3
TBZ Series "Z-Ball" True Union Ball Valves .....	4
CV Series Profile2™ Proportional Control Ball Valves .....	4
TW Series Three-Way True Union Ball Valves .....	5
LA Series Lateral Three-Way True Union Ball Valves .....	5
QV Series QIC2™ Compact Ball Valves .....	6
Valve-Safe Lockouts .....	6
TBB Series True Union Commercial Ball Valves .....	7
QTA Series True Union Compact Ball Valves .....	7
QVC Series Compact Ball Valves .....	7
SW Series Swing Check Valves .....	8
WC Series Wafer Check Valves .....	8
TC Series True Union Ball Check Valves .....	9
YC Series Y-Check Valves .....	9
SLC Series Spring-Loaded Y-Check Valves .....	9
BY Series Butterfly Valves .....	10
BYB Series Large Diameter Butterfly Valves .....	10
BYC Series Butterfly Valves .....	10

### FLOW CONTROL VALVES

DAB Series Diaphragm Valves .....	11
SV Series True Union Solenoid Valves .....	11
RV Series Pressure Relief Valves .....	12
PR Series Pressure Regulator Valves .....	12
AV Series Angle Globe Valves .....	12
NVA Series Needle Valves .....	13
LC Series Universal Stopcock™ .....	13

### ACTUATION AND CONTROLS

EA Series Automated True Union Ball Valves .....	14
EAU Series Automated True Union Ball Valves .....	14
PM Series Automated True Union Ball Valves .....	14
PMD/PMS Series Pneumatic Actuators .....	15
PCD/PCS Series Pneumatic Actuators .....	15
EAU Series Electric Actuators .....	15
EPM Series On/Off and Proportional Control Actuators .....	16
EPS Series On/Off and Proportional Control Actuators .....	16
EPL Series Linear Drive, Non-Spring Return Actuators .....	17
EPD Series Spring Return On/Off and Proportional Control Actuators .....	17
Local Control Station .....	18
EBU Battery Backup .....	18
LHB Series Manual Limit Switch .....	18

### BULKHEAD FITTINGS AND TANK ACCESSORIES

BFAS Series Bulkhead Fittings .....	19
BFA Series Bulkhead Fittings .....	19
CCP Series Tank-Tite™ .....	20
SF Series Self-Aligning Bulkhead Fittings .....	20
AR Series Air Release Valves .....	20
VB Series Vacuum Breakers .....	21
BVX Series Ready Flanges .....	21
GG Series Gauge Guards .....	21

### STRAINERS AND FILTERS

SB Series Simplex Basket Strainers .....	22
DB Series Duplex Basket Strainers .....	23
YS Series Y-Strainers .....	24
FLT Series Bag Filters .....	24-25
CFLT Series Cartridge Filters .....	25
Heavy-Duty Filter Bags .....	26
FLT Series Cartridge Filters .....	26

### CORROSION RESISTANT PUMPS

Webster C Series Centrifugal Pumps .....	27
Webster D Series Vertical Seal-Less Immersible Pumps .....	27
Webster R Series Magnetic Drive Pumps .....	28
Webster S Series Vertical Seal-Less Immersible Pumps .....	28
Webster In-Tank Filtration Systems .....	29



BACKED BY HAYWARD FLOW  
CONTROL'S EXCLUSIVE  
TWO YEAR WARRANTY



Sizes 1/4" - 2"

## TB Series True Union Ball Valves

1/4" TO 2" PVC AND CPVC

### KEY FEATURES

- PVC and CPVC
- Full Port Design
- Reversible PTFE Seats
- Double O-Ring Stem Seals
- Easily Actuated
- NSF / ANSI 61 Listed

### OPTIONS

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

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/4" - 3/8" (DN8 - DN10)	PVC	Socket and Threaded	FPM or EPDM	250 PSI @ 70°F Non-Shock
1/2" - 2" (DN15 - DN50)	PVC or CPVC	Socket and Threaded or Flanged*		

\* All flanged valves are rated to 150 PSI @ 70°F Non-Shock

## 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
- Actuator-Ready Design

### OPTIONS

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

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
2-1/2" - 4" (DN63 - DN100)	PVC or CPVC	Socket, Threaded or Flanged**	FPM or EPDM	235 PSI @ 70°F Non-Shock
6" * (DN150)		Flanged		150 PSI @ 70°F Non-Shock

\* 4" valve venturied to 6"

\*\* All flanged valves are rated to 150 PSI @ 70°F Non-Shock



Sizes 2-1/2" - 4"





## 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

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 2" (DN15 – DN50)	PVC or CPVC	Socket and Threaded or Flanged**	FPM	250 PSI @ 70°F Non-Shock
2-1/2" – 4" (DN63 – DN100)		Socket, Threaded or Flanged**		235 PSI @ 70°F Non-Shock
6" * (DN150)		Flanged		150 PSI @ 70°F Non-Shock

\* 4" valve venturied to 6"

\*\* All flanged valves are rated to 150 PSI @ 70°F Non-Shock

## 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

### APPLICATIONS

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

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 2" (DN15 – DN50)	PVC or CPVC	Socket and Threaded or Flanged**	FPM or EPDM	250 PSI @ 70°F Non-Shock
2-1/2" – 4" (DN63 – DN100)		Socket, Threaded or Flanged**		235 PSI @ 70°F Non-Shock
6" * (DN150)		Flanged		150 PSI @ 70°F Non-Shock

\* 4" valve venturied to 6"

\*\* All flanged valves are rated to 150 PSI @ 70°F Non-Shock





## TW Series Three-Way True Union Ball Valves

1/2" TO 6" PVC AND CPVC

### KEY FEATURES

- PVC and CPVC
- Position Indicator
- Easily Actuated
- PTFE Seats
- FPM or EPDM O-Rings
- Double O-Ring Stem Seal

### OPTIONS

- Lockouts Available
- Pneumatic and Electric Actuators
- Cross-Flow Ball
- NT Ball
- TP Ball

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	PVC or CPVC	Socket, Threaded or Flanged	FPM or EPDM	150 PSI @ 70°F Non-Shock
6" * (DN150)		Flanged		

\* 4" valve venturied to 6"

## 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

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	PVC or CPVC	Socket and Threaded or Flanged	FPM or EPDM	150 PSI @ 70°F Non-Shock
6" * (DN150)		Flanged		

\* 4" valve venturied to 6"





## 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

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 2" (DN15 – DN50)	PVC	Socket and Threaded	EPDM	150 PSI @ 70°F Non-Shock

## 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





## TBB Series True Union Commercial 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

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	PVC or CPVC	Socket, Threaded or Flanged*	FPM or EPDM	225 PSI @ 70°F Non-Shock
1/2" – 4" (DN15 – DN100)	PP	Threaded or Flanged	FPM	150 PSI @ 70°F Non-Shock
1/2" – 4" (DN15 – DN100)	PVDF	Threaded or Flanged	FPM	150 PSI @ 70°F Non-Shock

\* All flanged valves are rated to 150 PSI @ 70°F Non-Shock

## QTA Series 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
- No Internal Parts to Replace
- Low Torque Easy 1/4-Turn Operation
- Perfect For OEM Applications
- Socket or Threaded Connections

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 2" (DN15 – DN50)	PVC (Gray or White)	Socket and Threaded	EPDM	150 PSI @ 70°F Non-Shock



## QVC Series 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
- Santoprene (TPV) Seats
- EPDM O-Ring Seals
- No Internal Parts to Replace

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	PVC (Gray or White)	Socket or Threaded	EPDM	150 PSI @ 70°F Non-Shock





## SW Series Swing Check Valves

3" TO 8" PVC, CPVC AND GFPP

### KEY FEATURES

- PVC, CPVC and GFPP
- High Temperature / Pressure Ratings
- Two-In-One Seal Design
- Built-In Flange Seals
- Two Drain Ports
- Self-Aligning Clapper Seals

### OPTIONS

- Counterweight for Closing Assistance

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
3" – 4" (DN80 – DN100)	PVC, CPVC* or GFPP	Flanged	FPM or EPDM	150 PSI @ 70°F Non-Shock
6" – 8" (DN150 – DN200)				

\* 8" not available in CPVC

## WC Series Wafer Check Valves

2" TO 20" PVC, PP AND PVDF

### KEY FEATURES

- PVC, PP and PVDF
- 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

SIZE	MATERIAL	END CONNECTION	O-RING	SPRING	PRESSURE RATING
2" – 6" * (DN50 – DN150)	PVC, PP or PVDF	Flanged	FPM, EPDM or PTFE***	316 SS, Hastelloy	150 PSI @ 70°F Non-Shock
8" * (DN200)					100 PSI @ 70°F Non-Shock
10" – 12" (DN250 – DN300)					90 PSI @ 70°F Non-Shock
14" – 20" ** (DN350 – DN500)					Consult with Factory

\* Spacers standard for PVC, PP up to 8"

\*\* Up to 40" special order

\*\*\* PTFE encapsulated FPM



\* Valve shown with spring option



## TC Series True Union Ball Check Valves

1/4" TO 6" PVC, CPVC AND PP



### 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

NSF

Sizes 1/4" - 4"  
PVC and CPVC

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/4" – 3/8" * (DN8 – DN10)	PVC	Socket or Threaded	FPM	150 PSI @ 70°F Non-Shock
1/2" – 2" (DN15 – DN50)	PVC or CPVC	Socket and Threaded or Flanged***	FPM or EPDM	235 PSI @ 70°F Non-Shock
2-1/2" – 4" (DN63 – DN100)	PP**	Threaded		150 PSI @ 70°F Non-Shock
6" *** (DN150)	PVC or CPVC	Socket, Threaded or Flanged		
* 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				

## 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

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" - 4" (DN15 - DN100)	PVC or CPVC	Socket, Threaded, Flanged or True Union	FPM or EPDM	150 PSI @ 70°F Non-Shock

## 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

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" - 4" (DN15 - DN100)	PVC or CPVC	Socket, Threaded, Flanged or True Union	FPM or EPDM	150 PSI @ 70°F Non-Shock

## BY Series Butterfly Valves

1-1/2" TO 12" PVC, CPVC AND GFPP



EPDM Only

### KEY FEATURES

- PVC, CPVC and GFPP Bodies and Discs
- FPM, EPDM and Nitrile Seat Materials
- Fully Supported Flange Bolt Holes
- V-Notch Seal of Liner to Body
- Seven-Position Lever Handle or Gear Box Operator\*
- 316 Grade Stainless Steel Shaft
- Meets ANSI B16.10 Face-to-Face Dimensions\*\*

### OPTIONS

- Stem Extensions
- Gear Operators
- Pneumatic or Electric Actuators
- Stainless Steel Lugs
- 2" Square Operating Nut
- Titanium or Hastelloy® Shaft
- Chain Operator for Gear Box

\* Typical operation: Lever up to 6"; Lever or gear at 8"; Gear only 10" and up  
\*\* Except 10"

### SELECTION CHART

SIZE	BODY MATERIAL	DISC MATERIAL	LINERS	PRESSURE RATING
1-1/2" – 8" (DN40 – DN200)	PVC, CPVC or GFPP	PVC, GFPP or CPVC	FPM, EPDM or Nitrile	150 PSI @ 70°F Non-Shock
10" – 12" (DN250 – DN300)	GFPP	PVC or GFPP		

## BYB Series Large Diameter Butterfly Valves

10" 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

### SELECTION CHART

SIZE	BODY MATERIAL	DISC MATERIAL	LINERS	PRESSURE RATING
10" (DN250)	PVC, CPVC, PP or PVDF	CPVC, PP or PVDF	FPM, EPDM or Nitrile	150 PSI @ 70°F Non-Shock
12" (DN300)				100 PSI @ 70°F Non-Shock
14" – 16" (DN350 – DN400)				86 PSI @ 70°F Non-Shock
18" (DN450)				72 PSI @ 70°F Non-Shock
20" – 24" (DN500 – DN600)				51 PSI @ 70°F Non-Shock

## BYC Series Butterfly Valves

2" TO 8" PVC



### KEY FEATURES

- Wafer Body Design
- PVC Body with PVC Disc
- 316 Grade Stainless Steel Stem
- ISO 5211 Mounting Pad
- Standard Lockout

### OPTIONS

- Gear Operators
- Pneumatic or Electric Actuators

### SELECTION CHART

SIZE	BODY MATERIAL	DISC MATERIAL	LINERS	PRESSURE RATING
2" – 6" (DN50 – DN150)	PVC	PVC	EPDM	150 PSI @ 73°F Non-Shock
8" (DN200)				100 PSI @ 73°F Non-Shock

## DAB Series True Union Diaphragm Valves

1/2" TO 2" PVC, CPVC, PP AND PVDF



### KEY FEATURES

- PVC, CPVC, PP and PVDF
- 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

SIZE	MATERIAL	END CONNECTION	DIAPHRAGM	SEALS	PRESSURE RATING
1/2" – 2" (DN15 – DN50)	PVC or CPVC	Socket and Threaded	FPM, EPDM, PTFE or PVDF Vapor Barrier	FPM or EPDM	150 PSI @ 70°F Non-Shock
	PP or PVDF	Threaded			

## DAB Series Flanged Diaphragm Valves

1/2" TO 6" PVC, 1/2" TO 4" CPVC, 1/2" TO 10" PP AND 1/2" TO 8" PVDF



### KEY FEATURES

- 1/2" to 6" PVC, 1/2" to 4" CPVC, 1/2" to 10" PP and 1/2" to 8" PVDF
- 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

SIZE	MATERIAL	END CONNECTION	DIAPHRAGM	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	PVC	Flanged	FPM, EPDM, PTFE or PVDF Vapor Barrier	150 PSI @ 70°F Non-Shock
6" (DN150)				75 PSI @ 70°F Non-Shock
1/2" – 4" (DN15 – DN100)	CPVC			150 PSI @ 70°F Non-Shock
1/2" – 4" (DN15 – DN100)	PP			150 PSI @ 70°F Non-Shock
6" – 10" (DN150 – DN250)				75 PSI @ 70°F Non-Shock
1/2" – 4" (DN15 – DN100)	PVDF		PTFE	150 PSI @ 70°F Non-Shock
6" – 8" (DN150 – DN250)				75 PSI @ 70°F Non-Shock

## SV Series True Union Solenoid Valves

1/4" TO 1" PVC AND CPVC



### KEY FEATURES

- PVC and CPVC
- Continuous or 100% Duty Applications
- 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.

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/4" 1/2" 3/4" 1" (DN8 – DN25)	PVC or CPVC	Socket and Threaded	FPM or EPDM	150 PSI @ 70°F Non-Shock

## 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

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 2" (DN15 – DN50)	PVC or CPVC	Threaded or Flanged	FPM or EPDM	150 PSI @ 70°F Non-Shock

## 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
- Regulates from 5 to 75 PSI
- Prevents Downstream Pressure from Exceeding the Set Pressure

### OPTIONS

- 0 to 30 PSI Gauge
- 0 to 60 PSI Gauge
- 0 to 160 PSI Gauge
- Gauge Guards
- Flanged Ends

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE SETTING	PRESSURE RATING
1/4" – 1-1/2" (DN8 – DN40)	PVC or CPVC	Threaded or Flanged	FPM	5 to 75 PSI	150 PSI @ 70°F Non-Shock

## AV Series Angle Globe Valves

1/4" TO 2" PVC



### KEY FEATURES

- PVC
- Space Saving 90° Body
- Panel Mount Lugs on 1/4" Size
- Fine Pitch Stem Threads for Precision Adjustment
- Reliable Globe Valve Design
- Perfect for Throttling and Changing Flow Direction

### OPTIONS

- Flanged Ends

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/4" – 2" (DN8 – DN50)	PVC	Threaded or Flanged	FPM	150 PSI @ 70°F Non-Shock





## NVA Series Needle Valves

1/4" TO 1/2" PVC AND GFPP

### KEY FEATURES

- Available in PVC and GFPP
- Integrated Stem / PTFE Seat Design
- Flanges for Panel Mounting
- NPT Threaded Ends
- Accurate Flow Control
- Fine Pitch Stem Threads for Precise Adjustment
- Adjust Flow Rates Down to Drops per Minute
- Ideal for Metering Flow
- Patent Pending

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/4" – 1/2" (DN8 – DN15)	PVC or GFPP	Threaded	FPM	150 PSI @ 70°F Non-Shock

## 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

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/4" (DN8)	PVC	FPT x FPT FPT x MPT FPT x Hose MPT x MPT MPT x Hose Hose x Hose	EPDM	150 PSI @ 70°F Non-Shock

FPT = female pipe thread, MPT = male pipe thread

## 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
- Actuator Brake
- No Need for Manual Adjustments
- Blind Leads Connection
- Standard 120 VAC

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	VALVE PRESSURE RATING
1/2" – 2" (DN15 – DN50)	CPVC	Socket and Threaded	EPDM	250 PSI @ 70°F Non-Shock

## EAU 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
- 90 or 180° Operation
- Unidirectional, Not Reversing
- Terminal Block Connections
- Standard 120 VAC

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	VALVE PRESSURE RATING
1/2" – 2" (DN15 – DN50)	PVC or CPVC	Socket and Threaded	FPM or EPDM	250 PSI @ 70°F Non-Shock

## 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
- Manual Override
- Two-Piston Rack and Pinion Design
- Namur-Style Mounting
- Position Indicator
- Air-to-Air (Double Acting) or Spring Return

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	VALVE PRESSURE RATING
1/2" – 2" (DN15 – DN50)	PVC or CPVC	Socket and Threaded	FPM or EPDM	250 PSI @ 70°F Non-Shock

## PMD/PMS Series Pneumatic Actuators

FOR BALL VALVES UP TO 2"



### KEY FEATURES

- Corrosion-Resistant Thermoplastic Housing
- Two-Piston Rack and Pinion Design
- Manual Override
- Position Indicator
- Permanent Lubrication
- Lightweight
- Namur-Style Mounting
- 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

HOUSING:	Polyamide
OUTPUT SHAFT:	Stainless Steel
MINIMUM AIR PRESSURE:	80 PSI
MAXIMUM AIR PRESSURE:	120 PSI
SEALS:	Nitrile
CYCLE TIME:	Half Second, Typical
AIR PORT CONNECTIONS:	1/4" NPT

## 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
- Manual Override
- 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

HOUSING:	Epoxy-Coated Aluminum
OUTPUT SHAFT:	Plated Steel
MINIMUM AIR PRESSURE:	80 PSI
MAXIMUM AIR PRESSURE:	120 PSI
CYCLE TIME:	Less Than One Second, Typical
AIR PORT CONNECTIONS:	1/4" NPT

## EAU Series Electric Actuators

FOR BALL VALVES UP TO 2"



### KEY FEATURES

- Thermoplastic NEMA 4/4X Enclosure
- 90 or 180 Degree Operation
- Lightweight, Compact and Inexpensive
- On/Off Service Applications, Unidirectional
- UL / CSA Listed Motor Permanently Lubricated

### OPTIONS

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

### SPECIFICATIONS

HOUSING:	GFPP
OPERATION:	Unidirectional
CONDUIT SIZE:	1/2"
DUTY CYCLE:	25%
CYCLE TIMES:	2-1/2 Seconds, 90° Rotation; 5 Seconds, 180° Rotation
ENCLOSURE:	NEMA 4/4X
VOLTAGE:	120 VAC
THERMAL OVERLOAD PROTECTION MECHANICAL BRAKE MOTOR:	UL Listed
AUXILIARY LIMIT SWITCHES:	One

# EPM Series On/Off and Proportional Control Actuators

FOR BALL AND BUTTERFLY VALVES UP TO 24"



\* Manual Override Option (EPM8 and up) – Handwheel Shown

## KEY FEATURES

- Modular Design
- Superior Gear Design
- Thermal Management (Proportional Control Only)
- Data Logging and Diagnostics (Proportional Control Only)
- 4 Limit Switches (2 Auxiliary)
- Internal Low Power Heater
- NEMA 4/4X Enclosure
- Position Indicator
- Clutchless Manual Override
- Self-Locking Drive
- Permanently Lubricated
- Thermal Overload
- CE Listed and CSA Certified
- ISO 5211 Mounting Base

## OPTIONS\*

- Positioners
- Power Supply Flexibility – 3 Phase 2/230 VAC, 380 VAC or 460 VAC
- Extended Duty Motors
- Feedback Potentiometer
- Local Control Station

\* Not available on all models

## SPECIFICATIONS

OPERATION:	Reversing
CONDUIT SIZE:	1/2"
DUTY CYCLE:	(EPM2) 25-50% On/Off Only (EPM3) 25-50% On/Off, 75% Proportional Control (EPM8, 13, 35 and 130) 25-50% On/Off, 100% Managed Proportional Control
CYCLE TIMES:	8-46 Seconds, Depending On Model
ENCLOSURE:	NEMA 4/4X
VOLTAGES:	(EPM2) 12 VDC, 24 VDC, 120 VAC, 230 VAC (EPM3, 8 and 13) 12 VAC/DC, 24 VAC/DC, 120 VAC, 230 VAC (EPM35) 12 VAC, 24 VAC, 120 VAC, 230 VAC (EPM130) 120 VAC, 230 VAC
THERMAL OVERLOAD PROTECTION MECHANICAL	
BRAKE OVERRIDE:	Clutchless Manual
HOUSING:	Aluminum Alloy Dry Powder Coated

# EPS Series On/Off and Proportional Control Actuators

FOR BALL AND BUTTERFLY VALVES UP TO 8"



## KEY FEATURES

- Clockwise or Counter-Clockwise Spring Return
- 4 Limit Switches (2 Auxiliary)
- Internal Low Power Heater
- NEMA 4/4X Enclosure
- Position Indicator
- Rack and Pinion Drive
- Permanently Lubricated
- Thermal Overload
- CSA Certified
- ISO 5211 Mounting Base

## OPTIONS\*

- Positioners
- Two Additional Auxiliary Switches
- Clutchless Manual Override Shown
- Local Control Station

\* Not available on all models

## SPECIFICATIONS

OPERATION:	Reversing
CONDUIT SIZE:	3/4"
DUTY CYCLE:	(EPS5, 12 and 18) 75% - 24V On/Off (EPS5, 12 and 18) 50% - 120V and 230V On/Off (EPS5, 12 and 18) 75% Proportional Control
CYCLE TIMES:	7-11 Seconds, 24V/120-230V 3 Seconds, Spring 24V/120-230V
ENCLOSURE:	NEMA 4/4X
VOLTAGES:	(EPS5, 12 and 18) 24 VAC/DC, 120 VAC, 230 VAC
THERMAL OVERLOAD PROTECTION MECHANICAL	
BRAKE OVERRIDE:	Clutchless Manual (Optional)
HOUSING:	Aluminum Alloy Dry Powder Coated



# EPL Series Linear Drive, Non-Spring Return Actuators

FOR MOST RISING STEM DIAPHRAGM VALVES UP TO 10"



## KEY FEATURES

- Modular Design
- 4 Different Output Forces
- Internal Low Power Heater
- NEMA 4/4X Enclosure
- Position Indicator
- Manual Override
- Self-Locking Drive
- Permanently Lubricated
- Thermal Overload
- CSA Certified
- Universal Bonnet Mounting
- Choice of Voltages: 24 VAC/DC, 120 VAC and 230 VAC

## SPECIFICATIONS

OPERATION:	Down and Up
STROKE LENGTH:	0.79" – 3.94", Depending Upon Model
FULL TRAVEL TIME:	78-416 Seconds, 24 VAC/DC, Depending Upon Model
	85-430 Seconds, 120/1/60 VAC, Depending Upon Model
	87-424 Seconds, 230/1/60 VAC, Depending Upon Model
ENCLOSURE:	NEMA 4/4X
VOLTAGE:	24 VAC/DC, 120 VAC, 230 VAC (EPL550-20 and 38, EPL550-1100-38 and 50, EPL2200-38, 50, 75 and 100, EPL 4400-50, 75 and 100)
THERMAL OVERLOAD PROTECTION OVERRIDE:	Manual
HOUSING:	Aluminum Alloy Dry Powder Coated

# EPD Series Spring Return On/Off and Proportional Control Actuators

FOR BALL AND BUTTERFLY VALVES UP TO 6"



## KEY FEATURES

- Maintenance Free
- Field Adjustable Speed Control
- Field Adjustable Spring Return Control\*
- Auto-Switching Power Supplies
- Hex Key Override and Mounting Screws
- Internal Low Power Heater
- NEMA 4 Enclosure
- Mechanical 12mm Double-Square Drive Shaft Connection
- Manual Override
- Thermal Overload
- ATEX Rated NEMA 4/IP66
- Choice of Voltages: Units Can Operate on Any Voltage from 24 VAC/VDC to 230 VAC/VDC

## OPTIONS\*

- Two Internal End-of-Travel Nonadjustable Switches
  - Externally Mounted Switch Pack with 2 Additional Adjustable Switches
  - EMT Enclosure
  - Manual Override Handwheel
- \* Not available on all models

## SPECIFICATIONS

OPERATION:	Drive Open or Closed/Spring Opposite (EPD 2/3 and EPD 4/5 On/Off Control) Drive Open/Closed: Spring Engaged Upon Loss of Electric Supply (EPD 2/3 and EPD 4/5 On/Off Control) Proportional Control (EPD 2/3 and EPD 4/5)
DUTY CYCLE:	100% - 14 Sec. Mode, 10% - 3 Sec. Mode; One Power/Spring Cycle Per Minute Max. (EPD 2/3) 100% - All Models (EPD 4/5)
RUN TIME (POWER):	3/15/30/60/120 @ 90°; Field Selectable (EPD 2/3) 40/60/90/120/150 @ 90°; Field Selectable (EPD 4/5)
RUN TIME (SPRING):	3 or 10 Seconds @ 90°; Field Selectable EPD 2/3) 20 Seconds @ 90°; Fixed (EPD 4/5)
3 SEC. MODE (SPRING):	3-4 Seconds @ 90°; Load Dependant (EPD 2/3) N/A (EPD 4/5)
ENCLOSURE:	NEMA 4/IP66
THERMAL OVERLOAD PROTECTION OVERRIDE:	Manual
HOUSING:	Aluminum Die Casting



## Local Control Station

Local Control Stations can be used with Series EPM, EPS and EPL Actuators, connect through the EMT entry, and are available in four different models to meet specific application requirements. Custom configurations available (consult factory).

### KEY FEATURES

- Full Access Backplate
- Door with 1/4 Turn Latch
- NEMA 4 Enclosure
- Multiple Mounting Capabilities
- Remote Status Outputs
- Switches and Indicator Lamps Rated NEMA 4X/IP66
- Interfaces with 12 VAC/DC, 24 VAC/DC, 24 VAC Single Phase and Three Phase Applications

### OPTIONS

- LA – Basic Version: No Indicator Lamps, No Remote Status Outputs, No Auxiliary Switch Pass-Through
- LB – Mid-Level Version: 2 Status Indicator Lamps, 2 Status Hot Outputs, No Auxiliary Switch Pass-Through
- LC – Full Version: 3 Status Indicator Lamps, Remote Status Monitoring, Auxiliary Switch Termination Block
- LD – 3 Phase with Motor Control Option: Full "LC" Type Controls, Interfaces to Existing MCC-Auxiliary Switch Termination Block

## EBU Battery Backup

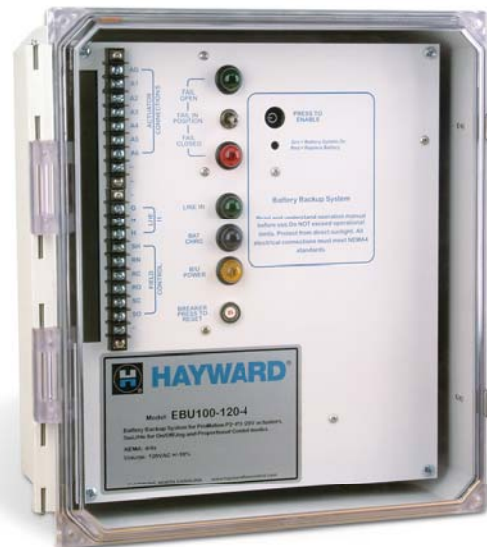
### FOR USE WITH EP SERIES ELECTRIC ACTUATORS

EBU Battery Backup Systems provide fail-safe operation for Series EPM, EPS and EPL Actuators using 2, 3 or 4 wire connections\*, and support both on/off and proportional control.

\* Additional field wiring may be required between the EBU and the actuator (consult factory).

### KEY FEATURES

- Clear Polycarbonate Cover
- NEMA 4/4X Enclosure
- Field Selectable Fail Direction
- Provides 500% of Power Requirements for a Full Load Cycle
- Interfaces with 2, 3 or 4 Wire Control Systems
- Automatic Battery Charging and Charge Status Indicator
- Sealed Battery Packs
- Remote Alarm Outputs
- UV Stabilized Housing for Outdoor Applications



## LHB Series Manual Limit Switch

### FOR BALL VALVES UP TO 6" AND BUTTERFLY VALVES UP TO 8"



### KEY FEATURES

- GFPP Body, Cover and Plate
- 304 Stainless Steel Stem and FPM Seals
- Fits All Hayward® Ball and Butterfly Valves up to 8"
- Temperature Range 20°F (-7°C) to 200°F (93°C)
- Two Adjustable SPDT 10 Amp at 120 VAC Switches (Open/Close Position)
- Integral Lockout
- 1/2" Conduit Port
- Terminal Blocks for Ease of Wiring
- Meets ISO 5211
- NEMA 4X
- Switches CSA Listed
- Patent Pending

### OPTIONS

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

### SELECTION CHART

MANUAL LIMIT SWITCH MODEL	VALVE SIZE/SERIES
LHB-1	1/2" – 2" TB • 1-1/2" – 4" BY
LHB-2	2-1/2" – 6" TB • 6" – 8" BY

## 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™

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	PVC	Socket x Thread Thread x Thread	FPM or EPDM	150 PSI @ 70°F Non-Shock
	CPVC	Socket x Thread		
	PP	Thread x Thread		

## BFA Series Bulkhead Fittings – Standard Flange

1/2" TO 6" PVC, CPVC AND PP – LONG PATTERN



### KEY FEATURES

- PVC, CPVC and PP
- 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

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 6" (DN15 – DN150)	PVC	Socket x Socket Socket x Thread	FPM or EPDM	150 PSI @ 70°F Non-Shock
	CPVC	Thread x Thread		
	PP	Thread x Thread		

## 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

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 1" (DN15 – DN25)	PVC	Socket x Socket Socket x Thread	FPM or EPDM	150 PSI @ 70°F Non-Shock
	CPVC	Thread x Thread		
	PP	Thread x Thread		

## CCP Series Tank-Tite™

1/2" TO 4" PVC



### KEY FEATURES

- Robust PVC Upper and Lower Body Construction
- 17.4 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
- 17.4 PH Stainless Steel

**TANK TITE™**

A revolutionary and patent pending designed PVC compression fitting that provides a constant load on the gasket of the bulkhead fitting to overcome, and compensate for, tank wall expansion/contraction in thickness due to changes in temperature and/or pressure within the tank. The Tank-Tite also imparts at the same time a constant load on the bulkhead fitting nut that reduces the possibility of loosening of the nut due to vibration within the system.

### SELECTION CHART

SIZE	MATERIAL	SPRING	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	PVC	17.4 PH SSTL	150 PSI @ 70°F Non-Shock

## 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

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1", 2" and 3" (DN25, DN50 and DN80)	PVC	Thread x Thread	FPM or EPDM	75 PSI @ 70°F Non-Shock

## 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

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
3/4" (DN20)	PVC Body PP Ball	Socket and Threaded	FPM	150 PSI @ 70°F Non-Shock



## 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

SIZE	MATERIAL	SEALS	PRESSURE RATING
3/4" * (DN20)	PVC	FPM	150 PSI @ 70°F Non-Shock

\* NPT Connection

## 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

SIZE	MATERIAL	END CONNECTION	PRESSURE RATING
1" – 4" (DN25 – DN100)	PVC and CPVC	Spigot x Flanged	150 PSI @ 70°F Non-Shock
	GFPP	Threaded x Flanged	

## GG Series Gauge Guards

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

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/4" x 1/4" (DN8 – DN8)	PVC, CPVC or PP	Threaded	FPM	150 PSI @ 70°F Non-Shock
1/4" x 1/2" (DN8 – DN15)	PVC, CPVC or PVDF			



## 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

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	PVC, CPVC and GFPP Eastar*	Socket, Threaded or Flanged	FPM or EPDM	150 PSI @ 70°F Non-Shock 100 PSI @ 70°F Non-Shock

\* End Connections and assembly nuts are PVC

## SB Series Simplex Basket Strainers

6" TO 8" PVC AND CPVC

### KEY FEATURES

- PVC and CPVC
- Ergonomic Hand-Removable Cover
- In-Line or Loop Connections
- External Cover Threads
- Integral Flat Mounting Bases
- PVC or CPVC Baskets Standard

### OPTIONS

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

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
6" – 8" (DN150 – DN200)	PVC or CPVC	Flanged	FPM or EPDM	150 PSI @ 70°F Non-Shock





## 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

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	PVC, CPVC and GFPP	Socket, Threaded or Flanged	FPM or EPDM	150 PSI @ 70°F Non-Shock
	Eastar*			100 PSI @ 70°F Non-Shock

\* End Connections and assembly nuts are PVC

## 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

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
6" – 8" (DN150 – DN200)	PVC or CPVC	Flanged	FPM or EPDM	150 PSI @ 70°F Non-Shock



## YS Series Y-Strainers

1/2" TO 4" PVC, CLEAR PVC AND CPVC

### KEY FEATURES

- PVC, Clear PVC and CPVC
- 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
- True Union Connection
- EPDM O-Rings

### SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	PVC or CPVC	Socket, Threaded, Flanged or True Union	FPM and EPDM	150 PSI @ 70°F Non-Shock
1/2" – 2" (DN15 – DN50)	Clear PVC			

## FLT Series Simplex Bag Filters

SINGLE AND DOUBLE LENGTH

### KEY FEATURES

- PVC, CPVC, PP or PVDF
- Hand-Removable Cover
- Integral Mounting Base
- In-Line or Loop Flow
- Vent Valve on Cover
- Single and Double Length

### OPTIONS

- Vent Gauge with Gauge Guard
- Pressure Differential Gauge
- Pressure Differential Switch
- Flanged Connections

### SELECTION CHART

SIZE	MATERIAL	PIPING CONNECTION	SEALS	FLOW RATE	PRESSURE RATING
Single Length 7" x 16" 2.5 sq ft	PVC	2" True Union	FPM or EPDM	50 GPM (clean bag)	150 PSI @ 70°F Non-Shock
	CPVC	2" Threaded or Flanged			
	PP	2" Threaded or Flanged			
Double Length 7" x 32" 4.4 sq ft	PVC	2" True Union	FPM or EPDM	100 GPM (clean bag)	150 PSI @ 70°F Non-Shock
	CPVC	2" True Union			
	PP	2" Threaded or Flanged			100 PSI @ 70°F Non-Shock
	PVDF	2" Threaded or Flanged			







## FLT Series Duplex Bag Filters

### SINGLE AND DOUBLE LENGTH

#### KEY FEATURES

- PVC, CPVC or PP Housing with PVC or CPVC Valve Assembly
- Two Simplex Bag Filters Linked with a Custom Valve Assembly
- No Line Shutdown for Bag Changeout
- Built-In Mounting Platform
- In-Line or Loop Flow
- Stainless Steel Hardware

#### OPTIONS

- Vent Gauge with Gauge Guard
- Pressure Differential Gauges
- Pressure Differential Switches
- Pneumatic or Electric Automated Valve Operation

#### SELECTION CHART

SIZE	MATERIAL	PIPING CONNECTION	SEALS	FLOW RATE	PRESSURE RATING
Single Length 7" x 16" 2.5 sq ft	PVC	2" True Union	FPM or EPDM	50 GPM (clean bag)	150 PSI @ 70°F Non-Shock
	CPVC				
	PP	2" Threaded or Flanged			
Double Length 7" x 32" 4.4 sq ft	PVC	2" True Union		100 GPM (clean bag)	150 PSI @ 70°F Non-Shock
	CPVC				
	PP				
	PVDF	2" Threaded or Flanged			

## CFLT Series 4200 Simplex Cartridge Filters

PP OR PVDF (SERIES 5200)

#### KEY FEATURES

- PP or PVDF Housing
- No Rust, Corrosion or Contamination
- Rated to 150 PSI
- In-Line or Loop Flow
- Hand-Removable Cover
- Simplex or Duplex Designs

#### CARTRIDGE TYPES

- HC 16" cellulose nominally rated 5 and 25 microns
- PF 20" and 30" PP absolutely rated at 1, 5 or 10 microns

#### SELECTION CHART

HOUSING	HC CARTRIDGE	MAX FLOW RATE	PF CARTRIDGE	MAX FLOW RATE
CFLT4201	One 16"	50 GPM	N/A	N/A
CFLT4202	Two 16"	100 GPM	Five 30"	100 GPM
CFLT4203	N/A	N/A	Five 20"	50 GPM





## Heavy-Duty Filter Bags

PP FELT OR MESH  
1 TO 800 MICRON RATINGS

Your filtration process is only as effective as your filter bag. Don't compromise it with anything less than a Hayward® precision quality filter bag that's guaranteed to fit your Hayward filter vessel.

### KEY FEATURES

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

### OPTIONS

- Custom Filter Bags for Most Any Application

### SELECTION CHART

MATERIAL	CONSTRUCTION	SEAL MATERIAL/TYPE	MICRON RATINGS
PP Needle Felt	Welded	PP SENTINEL®	1, 5, 10, 25, 50, 100, 200
PP Needle Felt	Sewn	PP SNAP-RING™	1, 5, 10, 25, 50, 100, 200
PP Mesh	Sewn	PP SNAP-RING	400, 600, 800

## FLT Series Cartridge Filters

PVC OR CPVC

### KEY FEATURES

- PVC or CPVC Construction
- FPM O-Ring Cover Seals
- Hand-Removable Cover
- Choice of Pleated or Wound Filter Cartridges
- Integral, Plugged Tap on Cover for Easy Bleeding of the Filter
- Optional Base for Mounting to Floor or Work Surface

### OPTIONS

For 1 to 100 Micron Filtration in the Following Industries:

- Water Treatment
- Plating
- Electronics
- Photo Processing
- Pollution Control
- Chemical Processing





## Webster 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 Elastomers

### OPTIONS

- Impeller Trim Variations
- PTFE / Ceramic Seals
- PTFE / Carpenter 20 Seals
- EPDM Elastomers
- Waterflushed Seals
- 575V Motors
- Washdown Motors

### SPECIFICATIONS

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

## Webster D Series Vertical Seal-Less Immersible Pumps

1/8 HP

### KEY FEATURES

- CPVC, Natural PP and PVDF
- No Seals to Leak or Replace
- PTFE Fume Barrier
- FPM Elastomer
- Optional Inlet Screens

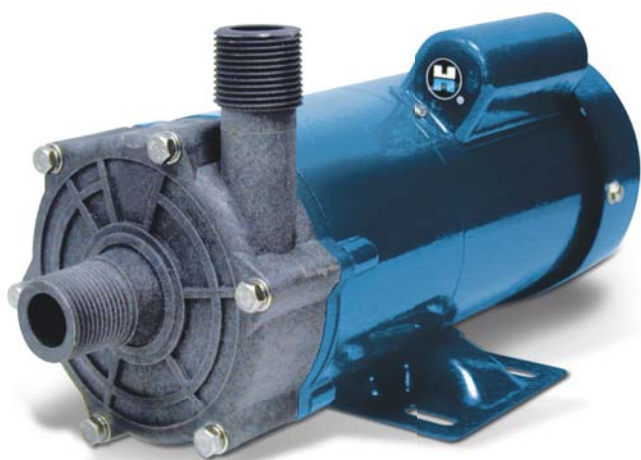
### OPTIONS

- In-Tank Filtration
- Inlet Screens
- EPDM Elastomer
- Impeller Trim Variations
- Explosion Proof Motors
- Washdown Motors
- 575V Motors
- S-J Type Electrical Cord

### SPECIFICATIONS

<b>PUMP:</b>	CPVC, PP or PVDF Construction
<b>PIPE CONNECTIONS:</b>	Threaded
<b>O-RINGS:</b>	FPM
<b>FLOW RATES:</b>	From 2 to 17 GPM with TDHs up to 18 Feet
<b>MOTORS:</b>	Single-Phase Motor; 1/8 HP; 115/230 VAC, 50/60 Hz





## Webster 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 O-Rings
- 575V Motors
- Explosion Proof Motors
- Washdown Motors

### SPECIFICATIONS

<b>PUMP:</b>	GFPP or ETFE Construction
<b>PIPE CONNECTIONS:</b>	Threaded NPT or Flanged ANSI 150#
<b>SHAFT:</b>	Large Diameter, Ceramic with PTFE, Impeller Bushing
<b>PERFORMANCE:</b>	Flow Rates from 5 to 140 GPM with TDHs of up to 141 Feet
<b>MOTORS:</b>	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
<b>MODELS WITH HP RATINGS:</b>	RC03 1/3, RX05 1/2, RX07 3/4, RX10 1, RX15 1-1/2, RX20 2, RX30 3, RX50 5

## Webster S Series Vertical Seal-Less Immersible Pumps

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

### KEY FEATURES

- Heavy Duty Design for Continuous Duty Service
- Seal-Less Design

### OPTIONS

- Optional Inlet Screen and Extended Shaft
- In-Tank Filtration
- CPVC Inlet Screens
- Extended Shafts
- Impeller Trim Variations
- Explosion Proof Motors
- Washdown Motors
- 575V Motors
- EPDM O-Rings
- S-J Type Electrical Cord

### SPECIFICATIONS

<b>PUMP:</b>	CPVC (1/8 – 5 HP), Nat. PP (1/8 HP Only), GFPP (1/3 – 1-1/2 HP), PVDF (1/8 – 1-1/2 HP)
<b>PIPE CONNECTIONS:</b>	Threaded NPT
<b>FUME BARRIER:</b>	PTFE, Protects Motor and Bearings from Corrosion Damage
<b>O-RINGS:</b>	FPM
<b>PERFORMANCE:</b>	Flow Rates from 5 to 130 GPM with TDHs up to 115 Feet
<b>MOTORS:</b>	Single or Three Phase Motors; HP Ratings of 1/15, 1/3, 1/2, 3/4, 1, 1-1/2, 3 and 5HP
<b>MODELS WITH HP RATINGS:</b>	S1 1/15, S2 1/3, S4 1/2, S5 3/4, S6 3/4, SS7 1, S8 1-1/2, S12 3, S16 5 HP







## Webster In-Tank Filtration Systems

COMPATIBLE WITH D AND S SERIES IMMERSIBLE PUMPS

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

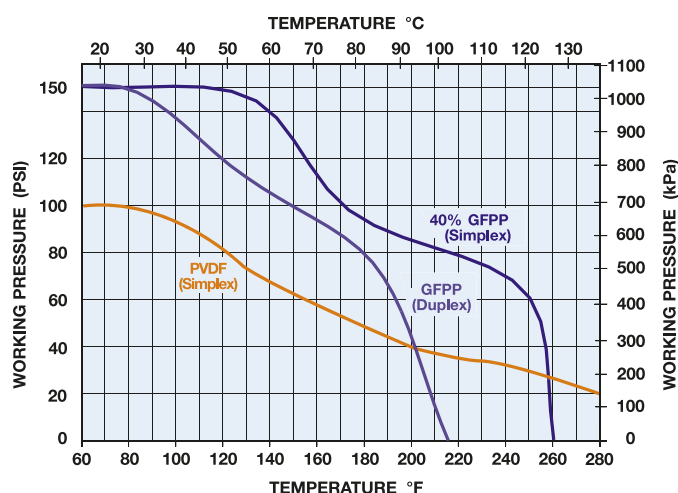
### KEY FEATURES

- 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

## Operating Temperature/Pressure for Bag and Cartridge Filter Housings



## Pressure Loss Calculation Using Cv Factor

### PRESSURE LOSS CALCULATION FORMULA

$$\Delta P = \left[ \frac{Q}{C_v} \right]^2$$

$\Delta P$  = Pressure Drop

$Q$  = Flow in GPM

$C_v$  = Flow Coefficient

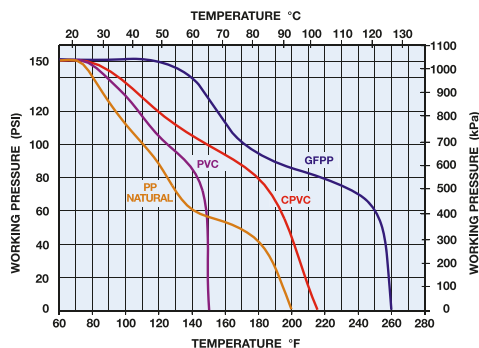
The pressure loss across a valve or filter can be calculated using the system's flow rate and the Cv factor for that valve or filter. For example, a 1" valve with a Cv factor of 8 will have a 4 PSI pressure loss in a system with a 16 GPM flow rate  $(16 \div 8)^2 = 4$

#### Notes:

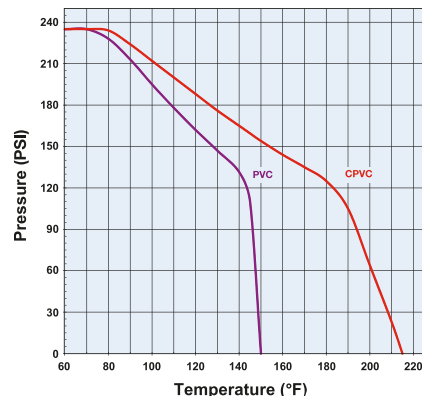
1. Working pressure (non-shock) figures are the maximum recommended for the indicated pressure.
2. It is recommended that the minimum process fluid temperature for the Hayward® product not fall below 34°F.

## Operating Temperature/Pressure for 150 PSI Rated Products

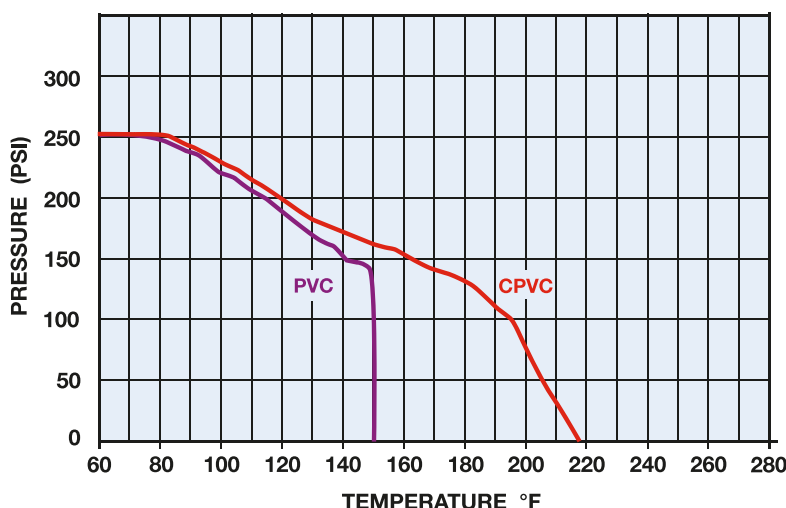
(EXCEPT FILTER HOUSINGS)



## Operating Temperature/Pressure for 235 PSI Rated Products



## Operating Temperature/Pressure for 250 PSI Rated Products



**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 elements (i.e., lead, mercury, cadmium, etc.) that may leach into the water

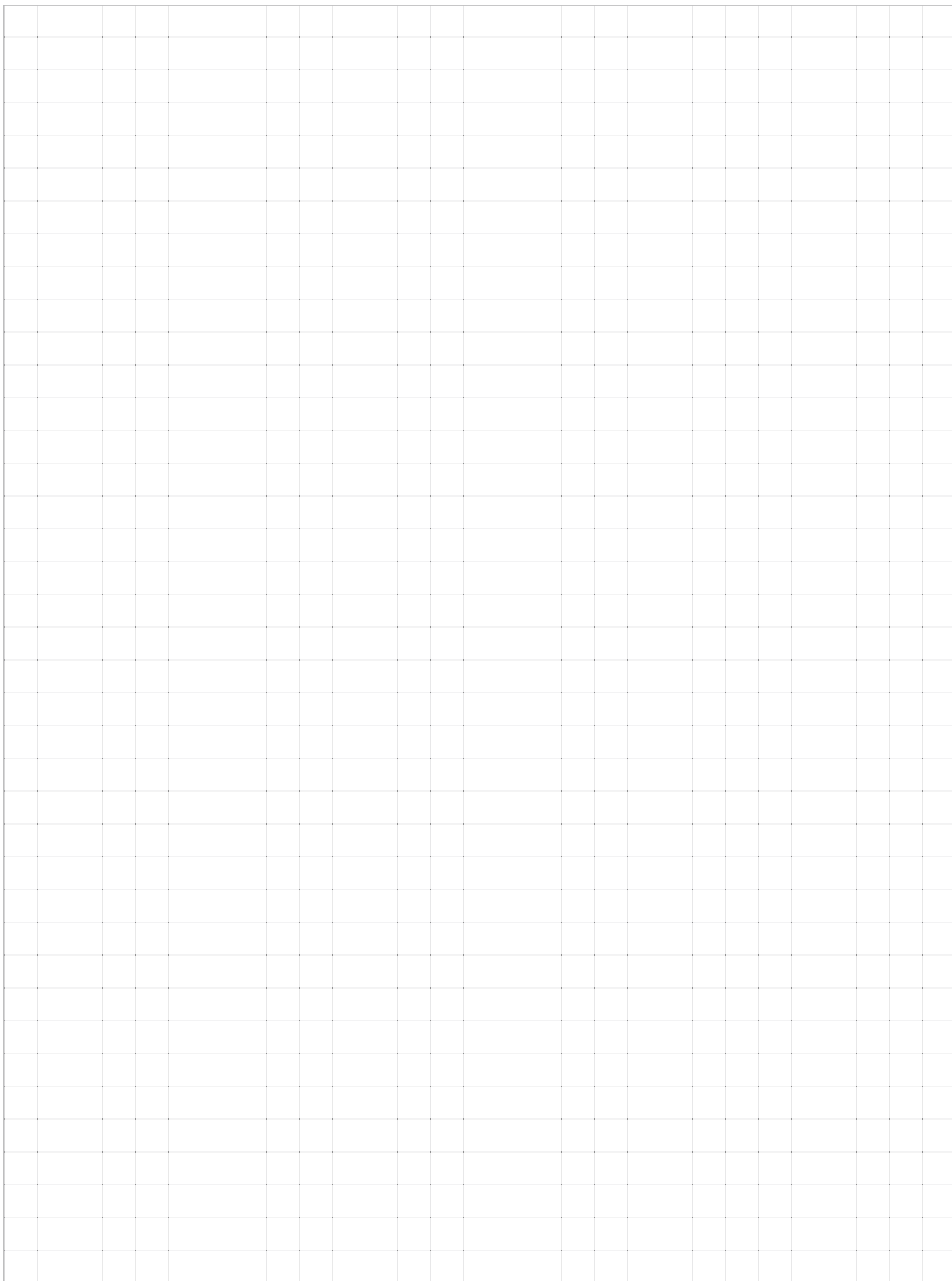
that passes through the product. Many of Hayward's standard products underwent testing to this standard in 2007, and are now NSF listed products.

**NSF / ANSI Standard 50** provides a comprehensive product evaluation for health effects safety, performance validation, and safety for factors such as burst, sustained pressure, cyclic pressure, head loss, UV resistance, tensile strength, impact and load testing, turbidity reduction, filtration efficacy, bacterial disinfection efficacy, cyst inactivation, durability or life testing, chemical resistance, corrosion resistance, and electrical safety. This applies to various filter media diatomite and other pre-coat media filters, granular media filters, cartridge filters, skimmers, pumps, valves, suction fittings or other equipment that may be used in pools, spas and other recreational water facilities.

Hayward's products that are NSF 61 and NSF 50 listed can easily be found on the NSF website, [www.NSF.org](http://www.NSF.org).

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