HAYWARD®

FLOW CONTROL

Thermoplastic Strainer Product Guide

define
design
deliver

QUALITY | SERVICE | INTEGRITY

Why Thermoplastic Strainers?

For more than 60 years, Hayward Flow Control's leading thermoplastic fluid handling products and solutions have proven to excel in the harshest environments. 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 rigorous demands of industrial piping and are committed to offering advantageous products for your application that will keep your systems working.

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, CPVC and PVDF materials with FPM or EPDM o-ring seals and a range of perforated thermoplastic or metal screens.

Pipeline Strainers are the unsung heroes in a piping system. Their role in a piping system is simply protecting your investment by removing any potentially harmful solids from the process fluid that can damage inline sensors, pump impellers, valves, and other expensive equipment. Hayward Flow Control Thermoplastic Strainers come in three families of products:

Y-strainers function in a variety of liquid straining applications to protect downstream process system components from damage or clogging by sand, gravel, or other debris. Y-strainers remove unwanted solids from piping systems by means of a perforated or mesh screen. Y-strainers are cost effective when removing a small amount of material resulting in long intervals between screen cleanings. To clean the strainer screen, shut down the line and remove the strainer cap. For applications with heavier dirt loading, Y-strainers fitted with a "blow off" connection permits cleaning of the screen without removing it from the strainer body. Hayward Y-Strainers are offered in both "molded-in" and True-Union designs.

Simplex basket strainers are used when liquids require regular or frequent cleaning, and when the line can be shut down for short periods to clean or change the basket. Basket strainers hold substantially more material than Y strainers and offer a lower pressure drop. Installed upright, in a horizontal line, the basket strainer lifts out from the top. This makes it easier to use with high loads, high viscosity fluids, or with large pipeline sizes where the filled basket weight can be considerable. They are indispensable for prefiltration systems.

Duplex basket strainers operate continuously so the pipeline flow never has to be shut down for strainer basket cleaning. When one basket is full, the flow shifts to the other one, making it easy to remove, clean, and replace the first basket. Duplex or "double basket" strainers are valuable in locations in which it is impossible to shut off flow to stop the operation. Examples of these processes include cleaning water intake for Water Treatment plants, prefiltration for membrane systems, screening water in cooling towers, and straining fluids in continuously running chemical operations.

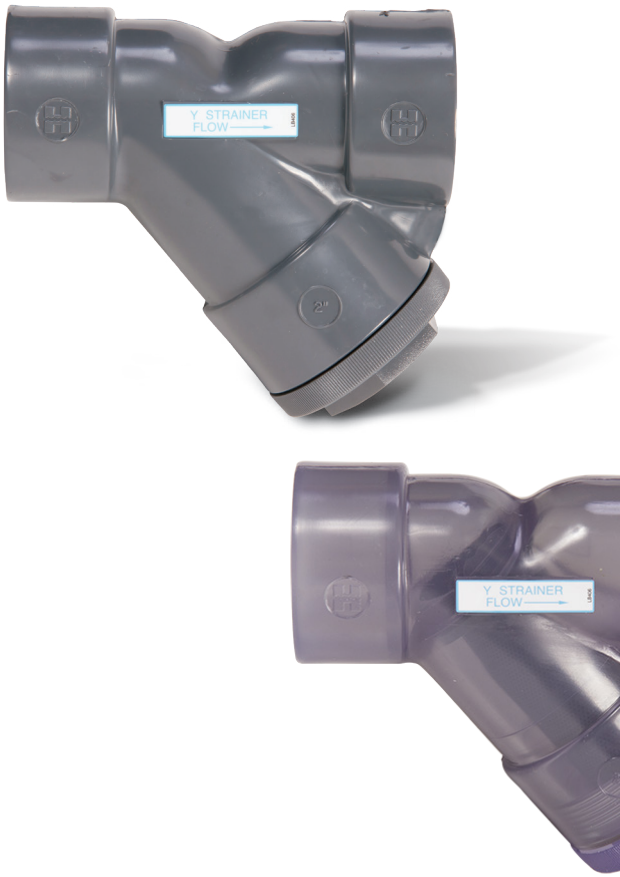
KEY APPLICATIONS FOR HAYWARD THERMOPLASTIC STRAINERS INCLUDE AND NOT LIMITED TO :

Water Treatment	Pump Seal Protection
Chilled Water	Plating & Surface Finishing
Chemical Processing	Sea Water
Scrubbers	Plant Intake Water
Semicon	Well Water
Parts Washing	Pre-Filtration
Mining	Remediation
Food Processing	Marine

Hayward Flow Control products carry an industry-leading, full three-year warranty. As an ISO 9001:2015 certified company, we strive for the highest quality product possible for use in a wide range of demanding applications.

CERTIFIED ISO 9001 · FOUNDED 1862 ABS · Buy American · 3 YEAR HAYWARD GLOBAL WARRANTY QUALITY ASSURED

*ABS applies to CPVC Items Only



YS Series Y-Strainers

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

KEY FEATURES

- Available in PVC, CPVC and Clear PVC Materials
- 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

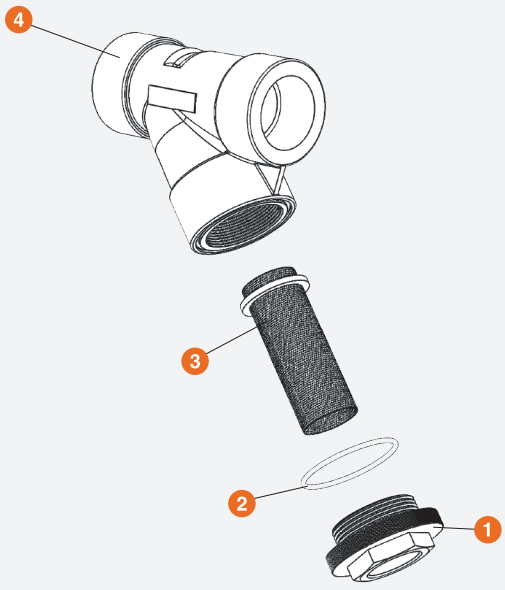
- Stainless Steel Perforated or Mesh Strainer Screens Available in Various Sizes and Alloy Materials

MATERIALS

- PVC Cell Class 12454 per ASTM D1784
- Clear PVC Cell Class 12454 per ASTM D1784
- CPVC Cell Class 23447 per ASTM D1784
- FPM and EPDM O-Ring Seals

TECHNICAL INFORMATION

EXPLODED VIEW



SELECTION CHART

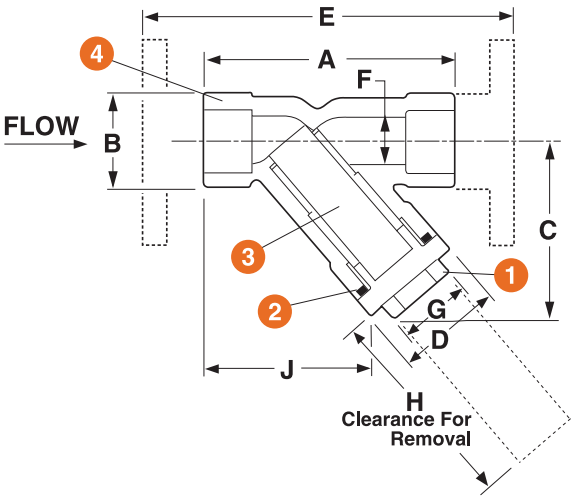
SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 1" (DN15 – DN25)	PVC, CPVC or Clear PVC	Socket or Threaded	FPM and EPDM	150 PSI @ 70°F 10 Bar @ 21°C Non-Shock
1–1/4" (DN32)	PVC and Clear PVC			
1–1/2" (DN40)	PVC, CPVC or Clear PVC			
2" (DN50)				
2–1/2" (DN65)	PVC	Socket, Threaded or Flanged		
3–4" (DN80-DN100)	PVC and CPVC			

* PVC and CPVC available with threaded ends to BS21.

TECHNICAL INFORMATION, *CONTINUED*

PARTS LIST

1. Cap
2. O-Ring Seal
3. Screen
4. Body



SCREEN OPTIONS

PERFORATION SIZES	MESH SIZES	SCREEN MATERIAL
1/32"	20	SSTL, Hastelloy, Monel and Titanium
1/16"	40	
1/8"	60	
5/32"	80	
3/16"	100	
1/4"	200	
3/8"		
1/32"	N/A	PVC, CPVC
1/16"		
1/8"		
3/16"		

DIMENSIONS

SIZE in / DN	A in / mm	B in / mm	C in / mm	D in / mm	E in / mm	F in / mm	G in / mm	H in / mm	J in / mm	WEIGHT lbs / kg SOC / THD	WEIGHT lbs / kg FLANGED
1/2 / 15	3.38 / 86	1.38 / 35	2.25 / 57	1.50 / 38	N/A	.56 / 14	1.00 / 25	2.13 / 54	2.50 / 64	.25 / .11	N/A
3/4 / 20	4.18 / 106	1.69 / 43	2.88 / 73	2.00 / 51	N/A	.81 / 21	1.25 / 32	2.75 / 70	3.00 / 76	.63 / .29	N/A
1 / 25	5.19 / 132	2.00 / 51	3.63 / 92	2.16 / 55	N/A	1.00 / 25	1.50 / 38	3.30 / 84	3.32 / 84	.88 / .40	N/A
1-1/4 / 32	6.63 / 168	2.63 / 67	4.50 / 114	2.94 / 75	N/A	1.25 / 32	2.00 / 51	4.50 / 114	4.45 / 113	1.75 / .79	N/A
1-1/2 / 40	6.63 / 168	2.63 / 67	4.50 / 114	2.94 / 75	N/A	1.56 / 40	2.00 / 51	4.50 / 114	4.45 / 113	1.63 / .74	N/A
2 / 50	7.63 / 194	3.38 / 86	5.38 / 137	3.75 / 95	11.00 / 279	2.00 / 51	2.38 / 60	5.06 / 129	4.88 / 124	3.00 / 1.36	5.00 / 2.27
2-1/2 / 65	10.31 / 262	4.69 / 119	7.25 / 184	5.25 / 133	N/A	2.90 / 74	3.50 / 89	6.60 / 168	6.54 / 166	7.75 / 3.52	N/A
3 / 80	10.31 / 262	4.69 / 119	7.25 / 184	5.50 / 140	14.37 / 365	2.90 / 74	3.50 / 89	6.60 / 168	6.54 / 166	7.50 / 3.40	12.25 / 5.56
4 / 100	12.81 / 325	5.75 / 146	8.88 / 226	6.18 / 157	17.73 / 450	3.78 / 96	4.25 / 108	8.00 / 203	8.58 / 218	9.50 / 4.30	17.50 / 7.94

Dimensions are subject to change without notice – consult factory for installation information

Cv VALUES*

SIZE in / DN	Cv VALUES	SIZE in / DN	Cv VALUES
1/2 / 15	4.0	2 / 50	28
3/4 / 20	6.8	2-1/2 / 65	40
1 / 25	9.0	3 / 80	65
1-1/4 / 32	12	4 / 100	100
1-1/2 / 40	28		

* With 1 / 32" plastic screen

PRESSURE LOSS CALCULATION FORMULA

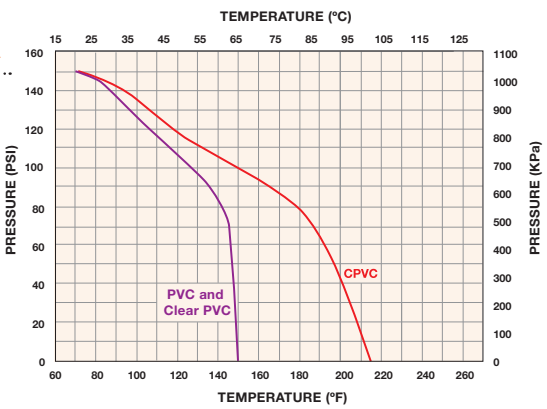
$$\Delta P = \left[\frac{Q}{Cv}\right]^2$$

ΔP = Pressure Drop

Q = Flow in GPM

Cv = Flow Coefficient

OPERATING TEMPERATURE/PRESSURE



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YS Series Y-Strainers

1/2", 3/4" AND 1" PVDF

KEY FEATURES

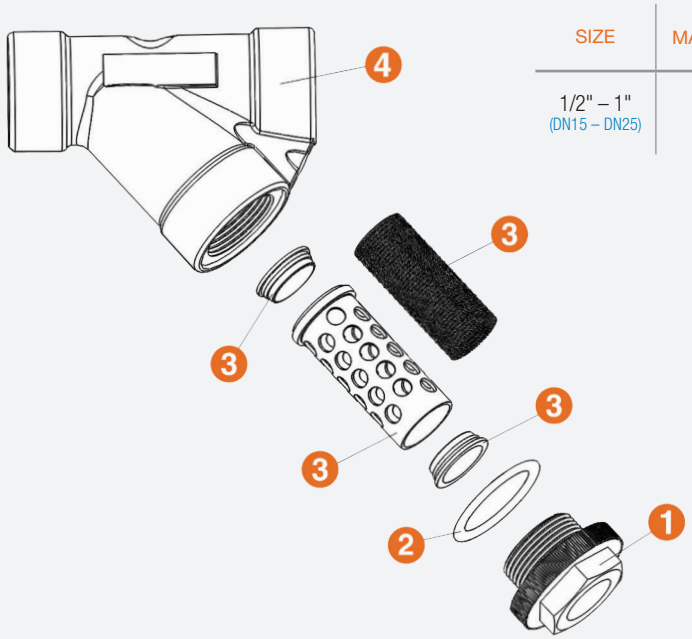
- PVDF 1-pc Molded Body
- NPT or BSP Threaded Ends
- Socket Fusion Ends for IPS Schedule 40 / 80, or for SDR21 / 33 Piping
- Horizontal or Vertical Installation
- FPM O-Ring Seals
- Hex Cap for Easy Access to Screen
- Standard Screen has 3/32" Perforation

MATERIALS

- Natural PVDF per ASTM D3222 Type 1
- FPM O-Ring Seals

TECHNICAL INFORMATION

EXPLODED VIEW



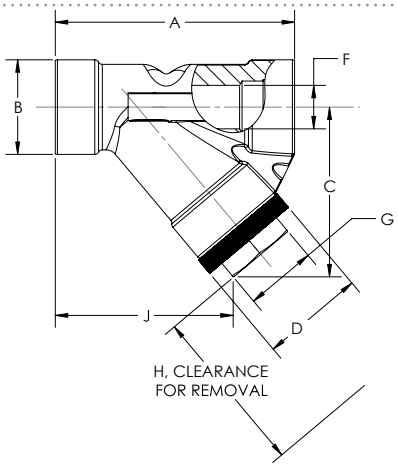
SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 1" (DN15 – DN25)	PVDF	Socket Fusion or Threaded	FPM	150 PSI @ 70°F Non-Shock

TECHNICAL INFORMATION, *CONTINUED*

PARTS LIST

1. Cap
2. O-Ring Seal
3. Cartridge
4. Body



SCREEN OPTIONS

PERFORATION SIZES	BASKET MATERIAL
1/16″	PTFE / PVDF
3/32″	

DIMENSIONS

SIZE in / DN	A in / mm	B in / mm	C in / mm	D in / mm	F in / mm	G in / mm	H in / mm	J in / mm	WEIGHT lbs / kg SOC / THD
1/2 / 15	3.30 / 84	1.50 / 38	2.30 / 58	1.40 / 36	0.50 / 13	1.00 / 25	2.20 / 56	2.80 / 71	0.33 / 0.15
3/4 / 20	4.1 / 104	1.90 / 48	3.00 / 76	1.90 / 49	0.75 / 19	1.25 / 32	2.70 / 69	3.20 / 81	0.82 / 0.37
1 / 25	5.0 / 127	2.00 / 51	3.60 / 91	2.10 / 53	1.00 / 25	1.50 / 38	3.50 / 89	3.90 / 99	1.14 / 0.52

Dimensions are subject to change without notice – consult factory for installation information

Cv VALUES*

SIZE in / DN	Cv VALUES
1/2 / 15	4.0
3/4 / 20	6.8
1 / 25	9.0

* With standard 3/32" perforation.

PRESSURE LOSS CALCULATION FORMULA

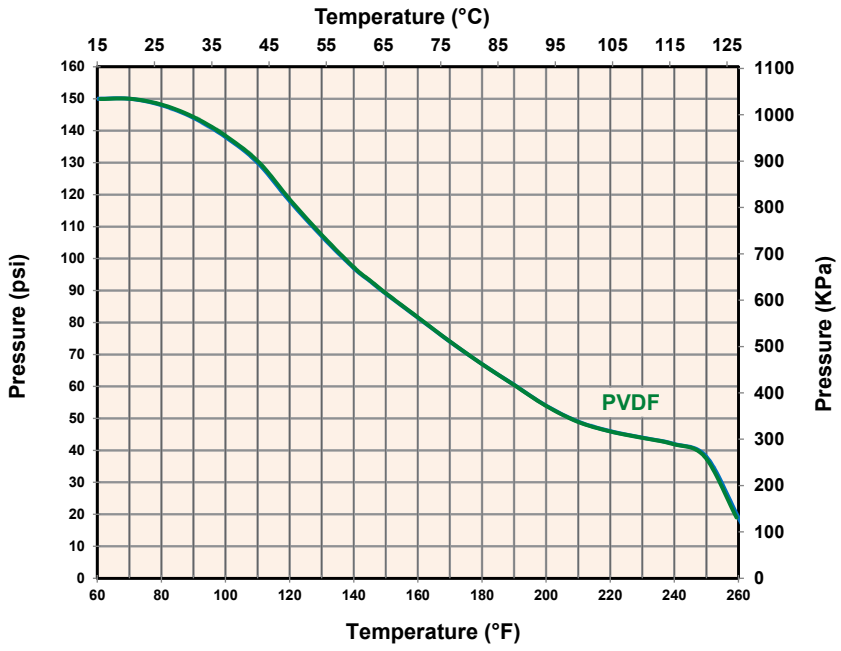
$$\Delta P = \left[\frac{Q}{Cv}\right]^2$$

ΔP = Pressure Drop

Q = Flow in GPM

Cv = Flow Coefficient

OPERATING TEMPERATURE/PRESSURE



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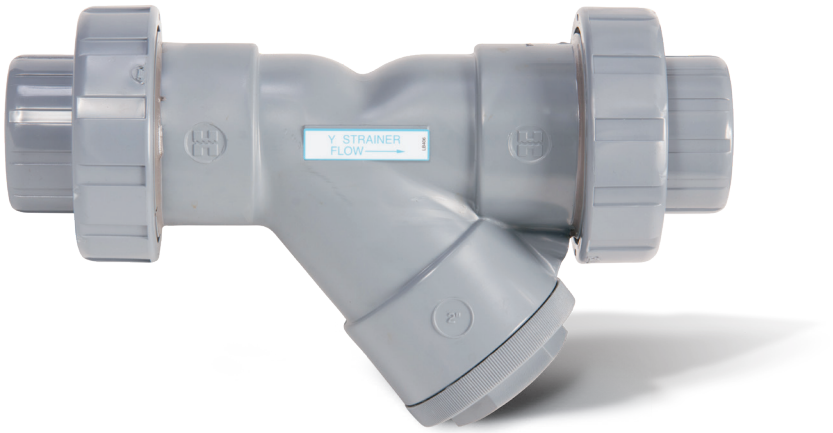


YS Series
True Union Y-Strainers

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

KEY FEATURES

- True Union Connection for Ease of Installation
- Available in PVC, CPVC and Clear PVC Materials
- 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

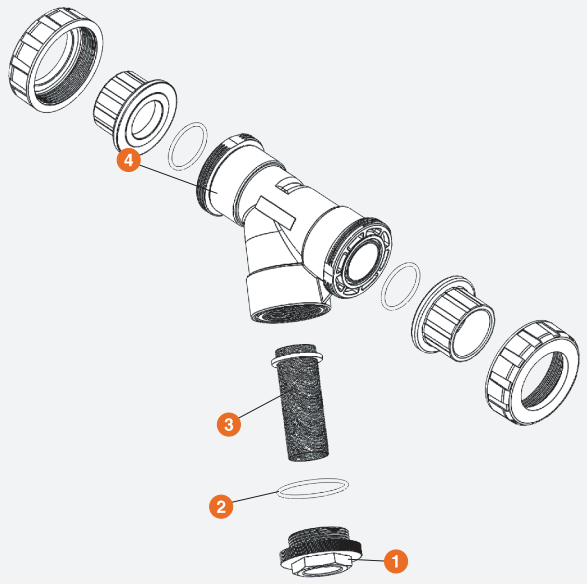
- Stainless Steel Perforated or Mesh Strainer Screens Available in Various Sizes and Alloys

MATERIALS

- PVC Cell Class 12454 per ASTM D1784
- Clear PVC Cell Class 12454 per ASTM D1784
- CPVC Cell Class 23447 per ASTM D1784
- FPM and EPDM O-Ring Seals

TECHNICAL INFORMATION

EXPLODED VIEW



SELECTION CHART

SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 1" (DN15 – DN25)	PVC, CPVC or Clear PVC	Socket, Threaded or Flanged	FPM and EPDM	150 PSI @ 70°F 10 Bar @ 21°C Non-Shock
1–1/4" (DN32)	PVC and Clear PVC			
1–1/2" (DN40)	PVC, CPVC or Clear PVC			
2" (DN50)				
2–1/2" (DN65)	PVC			
3–4" (DN80-DN100)	PVC and CPVC			

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

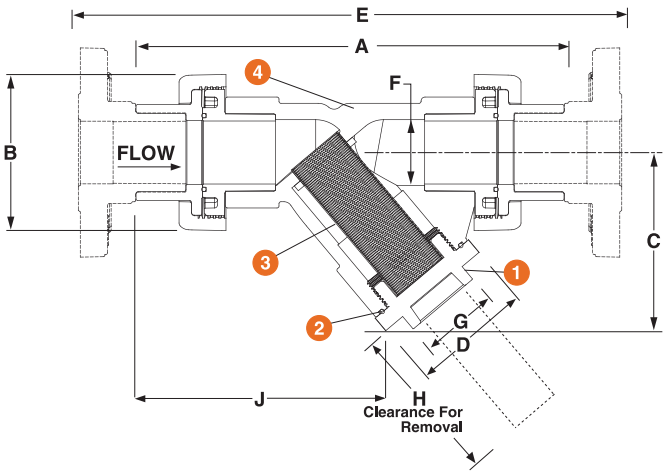
YS Series
True Union Y-Strainers

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

TECHNICAL INFORMATION, *CONTINUED*

PARTS LIST

1. Cap
2. O-Ring Seal
3. Screen
4. Body
5. Union Nuts
6. End Connectors



SCREEN OPTIONS

PERFORATION SIZES	MESH SIZES	SCREEN MATERIAL
1/32"	20	SSTL, Hastelloy, Monel and Titanium
1/16"	40	
1/8"	60	
5/32"	80	
3/16"	100	
1/4"	200	
3/8"	325	
1/32"	N/A	PVC, CPVC
1/16"		
1/8"		
3/16"		

DIMENSIONS

SIZE in / DN	A in / mm	B in / mm	C in / mm	D in / mm	E in / mm	F in / mm	G in / mm	H in / mm	J in / mm	WEIGHT lbs / kg SOC/THD	WEIGHT lbs / kg FLANGED
1/2 / 15	6.64 / 167	2.25 / 57	2.25 / 57	1.50 / 38	N/A	.56 / 14	1.00 / 25	2.13 / 54	4.13 / 105	.61 / .28	N/A
3/4 / 20	7.42 / 188	2.63 / 67	2.88 / 73	2.00 / 51	N/A	.81 / 21	1.25 / 32	2.75 / 70	4.62 / 118	1.17 / .53	N/A
1 / 25	8.97 / 228	3.00 / 76	3.63 / 92	2.16 / 55	11.65 / 296	1.00 / 25	1.50 / 38	3.30 / 84	5.21 / 133	1.6 / .73	2.3 / 1.1
1-1/4 / 32	13.01 / 330	4.75 / 121	4.50 / 114	2.94 / 75	N/A	1.25 / 32	2.00 / 51	4.50 / 114	7.64 / 195	4.5 / 2.0	N/A
1-1/2 / 40	12.07 / 307	4.75 / 121	4.50 / 114	2.94 / 75	15.25 / 387	1.56 / 40	2.00 / 51	4.50 / 114	7.17 / 183	3.7 / 1.7	4.5 / 2.1
2 / 50	13.05 / 331	4.75 / 121	5.38 / 137	3.75 / 95	16.56 / 421	2.00 / 51	2.38 / 60	5.06 / 129	7.59 / 193	5.3 / 2.4	7.5 / 3.4
2-1/2 / 65	16.77 / 426	6.40 / 163	7.25 / 184	5.25 / 133	N/A	2.90 / 74	3.50 / 89	6.60 / 168	9.77 / 249	13.1 / 5.9	N/A
3 / 80	16.77 / 426	6.40 / 163	7.25 / 184	5.50 / 140	21.25 / 540	2.90 / 74	3.50 / 89	6.60 / 168	9.77 / 249	13.2 / 6.0	16.4 / 7.4
4 / 100	21.23 / 539	8.56 / 217	8.88 / 226	6.18 / 157	26.18 / 665	3.78 / 96	4.25 / 108	8.00 / 203	12.79 / 325	17.7 / 8.0	23.3 / 10.6

Dimensions are subject to change without notice – consult factory for installation information

Cv VALUES*

SIZE in/DN	Cv VALUES	SIZE in/DN	Cv VALUES
1/2 / 15	4.0	2 / 50	28
3/4 / 20	6.8	2-1/2 / 65	40
1 / 25	9.0	3 / 80	65
1-1/4 / 32	12	4 / 100	100
1-1/2 / 40	28		

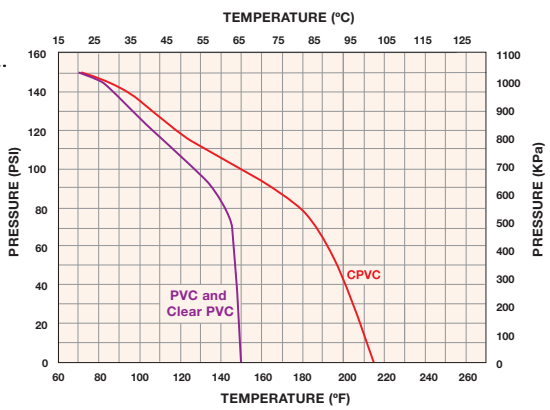
* With 1/32" plastic screen

PRESSURE LOSS CALCULATION FORMULA

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

ΔP = Pressure Drop
Q = Flow in GPM
Cv = Flow Coefficient

OPERATING TEMPERATURE/PRESSURE



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Visit us at: haywardflowcontrol.com

Certified to NSF/ANSI 61 & 372 PVC and CPVC

SB Series Simplex Basket Strainers

1/2" TO 4" PVC AND CPVC

KEY FEATURES

- Available in PVC and CPVC Materials
- True Union Design
- Ergonomic Hand-Removable Cover
- In-Line or Loop Connections
- External Cover Threads
- Integral Flat Mounting Bases
- PVC or CPVC Baskets Standard
- NSF / ANSI 61 and NSF / ANSI 372 Listed

OPTIONS

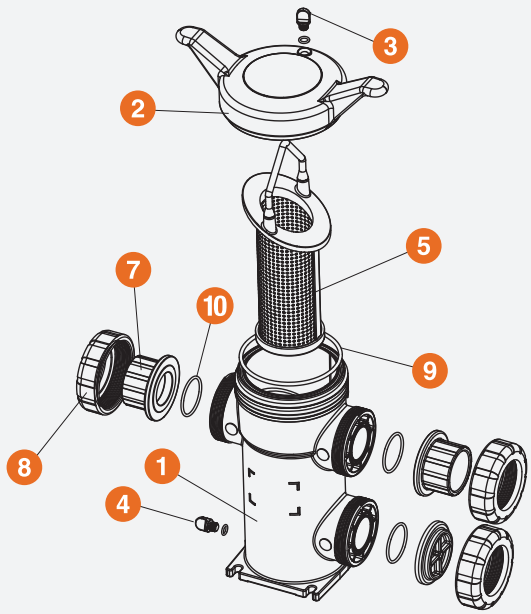
- Drain Kit with Lockout Ball Valve
- Baskets Available with Perforated or Mesh Liners
- Stainless Steel, Monel®, Hastelloy® and Titanium Strainer Baskets
- Pressure Differential Gauge and Switch

MATERIALS

- PVC Cell Class 12454 per ASTM D1784
- CPVC Cell Class 23447 per ASTM D1784
- FPM and EPDM O-Ring Seals

TECHNICAL INFORMATION

EXPLODED VIEW



SELECTION CHART

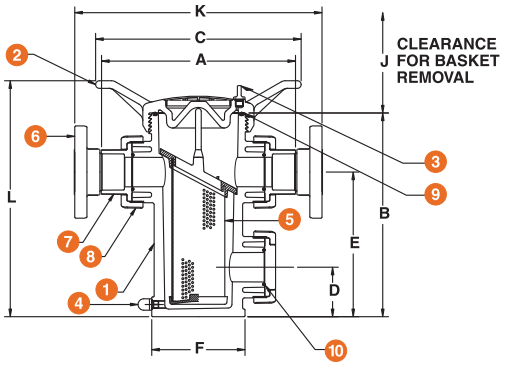
SIZE*	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	PVC or CPVC	Socket, Threaded or Flanged	FPM or EPDM	150 PSI @ 70°F 10 Bar @ 21°C Non-Shock

* 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.
*** See Page 21 for Available Perf or Mesh

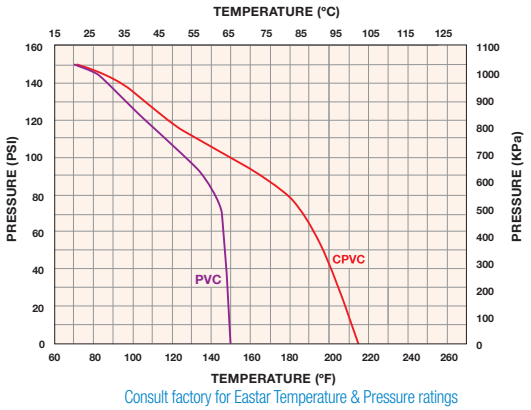
TECHNICAL INFORMATION, *CONTINUED*

PARTS LIST

1. Body
2. Cover
3. Vent Plug and O-Ring
4. Drain Plug and O-Ring
5. Basket
6. Flange (Optional)
7. End Connector
8. Nut
9. Cover O-Ring
10. End Connector O-Ring



OPERATING TEMPERATURE/PRESSURE



Consult factory for Eastar Temperature & Pressure ratings

DIMENSIONS

SIZE in / DN	A in / mm	B in / mm	C in / mm	D in / mm	E in / mm	F in / mm	J in / mm	K in / mm	L in / mm	WEIGHT lbs / kg SOC / THD	WEIGHT lbs / kg FLANGED	VOLUME gal / LT
1/2 / 15	8.64 / 219	9.63 / 245	11.00 / 279	2.25 / 57	6.75 / 171	4.31 / 109	8.00 / 203	10.77 / 274	11.70 / 297	8.00 / 3.63	9.00 / 4.08	.20 / .76
3/4 / 20	8.64 / 219	9.63 / 245	11.00 / 279	2.25 / 57	6.75 / 171	4.31 / 109	8.00 / 203	11.02 / 280	11.70 / 297	8.00 / 3.63	9.00 / 4.08	.20 / .76
1 / 25	8.64 / 219	9.63 / 245	11.00 / 279	2.25 / 57	6.75 / 171	4.31 / 109	8.00 / 203	11.64 / 296	11.70 / 297	8.00 / 3.63	9.00 / 4.08	.20 / .76
1-1/4 / 32	12.75 / 324	13.38 / 340	13.50 / 343	3.25 / 83	9.50 / 241	6.13 / 156	12.86 / 327	15.63 / 397	15.50 / 394	14.00 / 6.35	16.50 / 7.48	.70 / 2.65
1-1/2 / 40	12.69 / 322	13.38 / 340	13.50 / 343	3.25 / 83	9.50 / 241	6.13 / 156	12.86 / 327	15.89 / 403	15.50 / 394	14.00 / 6.35	16.50 / 7.48	.70 / 2.65
2 / 50	12.75 / 324	13.38 / 340	13.50 / 343	3.25 / 83	9.50 / 241	6.13 / 156	12.86 / 327	16.29 / 413	15.50 / 394	14.00 / 6.35	16.50 / 7.48	.70 / 2.65
2-1/2 / 65	16.52 / 420	19.83 / 504	16.00 / 406	4.83 / 123	14.83 / 377	7.25 / 184	17.25 / 438	21.02 / 534	22.30 / 566	28.00 / 12.70	33.00 / 14.97	2.80 / 10.60
3 / 80	16.40 / 417	19.83 / 504	16.00 / 406	4.83 / 123	14.83 / 377	7.25 / 184	17.25 / 438	20.36 / 517	22.30 / 566	28.00 / 12.70	33.50 / 15.20	2.80 / 10.60
4 / 100	17.27 / 439	19.83 / 504	16.00 / 406	4.83 / 123	14.83 / 377	7.25 / 184	17.25 / 438	22.13 / 562	22.30 / 566	28.00 / 12.70	37.00 / 16.78	2.80 / 10.60

Dimensions are subject to change without notice – consult factory for installation information

PRESSURE DROP CALCULATIONS

BASKET PERFORATION CORRECTION FACTORS

For 1/2" to 4" Strainers

Plastic		Stainless Steel			
1/32"	1.05	1/32"	.82	20 Mesh	.79
1/16"	1.00	1/16"	.74	40 Mesh	1.01
1/8"	.58	1/8"	.58	60 Mesh	1.20
3/16"	.46	5/32"	.37	80 Mesh	1.16
		3/16"	.46	100 Mesh	1.20
		1/4"	.58	200 Mesh	1.09
		3/8"	.45		

PRESSURE LOSS CALCULATION FORMULA

The pressure drop across the strainer, for water or fluids with a similar viscosity, can be calculated using the formula at the right:

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

ΔP = Pressure Drop

Q = Flow in GPM

Cv = Flow Coefficient

Cv VALUES

SIZE in / DN	Cv VALUES	SIZE in / DN	Cv VALUES
1/2 / 15	15	2 / 50	60
3/4 / 20	18	2-1/2 / 65	290
1 / 25	20	3 / 80	300
1-1/4 / 32	55	4 / 100	350
1-1/2 / 40	58		

The above Cv Values were determined using a 1 / 16" perforated plastic basket in 1/2" through 4" strainers.

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 to the left.

SB Series Simplex Basket Strainers

1/2" TO 4" EASTAR®

KEY FEATURES

- Available in Clear Eastar® Material
- True Union Design
- Ergonomic Hand-Removable Cover
- In-Line or Loop Connections
- External Cover Threads
- Integral Flat Mounting Bases
- PVC Basket Standard

OPTIONS

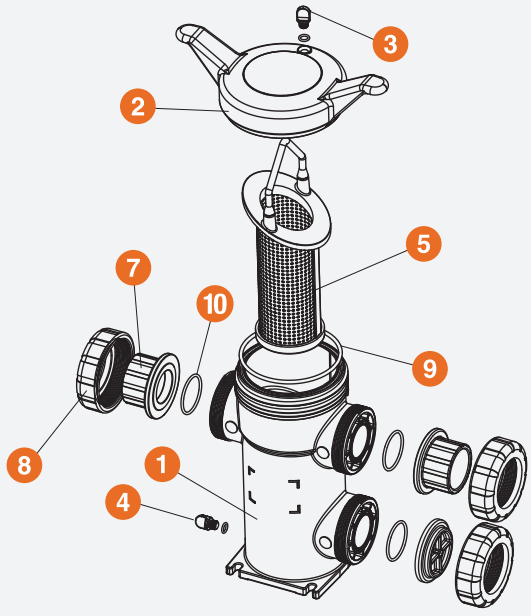
- Drain Kit with Lockout Ball Valve
- Baskets Available with Perforated or Mesh Liners
- Stainless Steel, Monel®, Hastelloy® and Titanium Strainer Baskets
- Pressure Differential Gauge and Switch

MATERIALS

- Eastar® Polyester
- PVC Cell Class 12454 per ASTM D1784
- FPM and EPDM O-Ring Seals

TECHNICAL INFORMATION

EXPLODED VIEW



SELECTION CHART

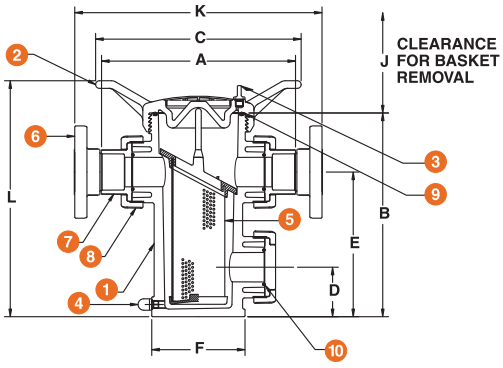
SIZE*	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	Eastar®	Socket, Threaded or Flanged	FPM or EPDM	100 PSI @ 70°F 7 Bar @ 21°C Non-Shock

* End connections and assembly nuts are PVC.
** PVC socket ends available to ISO 727-1 and threaded ends to BS21. Flanged ends available in DIN / EN PN10.
*** See Page 21 for Available Perf or Mesh

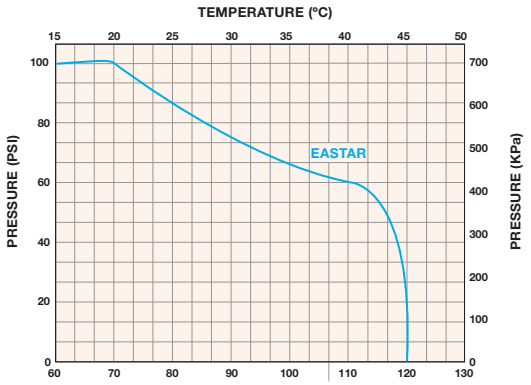
TECHNICAL INFORMATION, *CONTINUED*

PARTS LIST

1. Body
2. Cover
3. Vent Plug and O-Ring
4. Drain Plug and O-Ring
5. Basket
6. Flange (Optional)
7. End Connector
8. Nut
9. Cover O-Ring
10. End Connector O-Ring



OPERATING TEMPERATURE/PRESSURE



Consult factory for Eastar Temperature & Pressure ratings

DIMENSIONS

SIZE in / DN	A in / mm	B in / mm	C in / mm	D in / mm	E in / mm	F in / mm	J in / mm	K in / mm	L in / mm	WEIGHT lbs / kg SOC / THD	WEIGHT lbs / kg FLANGED	VOLUME gal / LT
1/2 / 15	8.64 / 219	9.63 / 245	11.00 / 279	2.25 / 57	6.75 / 171	4.31 / 109	8.00 / 203	10.77 / 274	11.70 / 297	8.00 / 3.63	9.00 / 4.08	.20 / .76
3/4 / 20	8.64 / 219	9.63 / 245	11.00 / 279	2.25 / 57	6.75 / 171	4.31 / 109	8.00 / 203	11.02 / 280	11.70 / 297	8.00 / 3.63	9.00 / 4.08	.20 / .76
1 / 25	8.64 / 219	9.63 / 245	11.00 / 279	2.25 / 57	6.75 / 171	4.31 / 109	8.00 / 203	11.64 / 296	11.70 / 297	8.00 / 3.63	9.00 / 4.08	.20 / .76
1-1/4 / 32	12.75 / 324	13.38 / 340	13.50 / 343	3.25 / 83	9.50 / 241	6.13 / 156	12.86 / 327	15.63 / 397	15.50 / 394	14.00 / 6.35	16.50 / 7.48	.70 / 2.65
1-1/2 / 40	12.69 / 322	13.38 / 340	13.50 / 343	3.25 / 83	9.50 / 241	6.13 / 156	12.86 / 327	15.89 / 403	15.50 / 394	14.00 / 6.35	16.50 / 7.48	.70 / 2.65
2 / 50	12.75 / 324	13.38 / 340	13.50 / 343	3.25 / 83	9.50 / 241	6.13 / 156	12.86 / 327	16.29 / 413	15.50 / 394	14.00 / 6.35	16.50 / 7.48	.70 / 2.65
2-1/2 / 65	16.52 / 420	19.83 / 504	16.00 / 406	4.83 / 123	14.83 / 377	7.25 / 184	17.25 / 438	21.02 / 534	22.30 / 566	28.00 / 12.70	33.00 / 14.97	2.80 / 10.60
3 / 80	16.40 / 417	19.83 / 504	16.00 / 406	4.83 / 123	14.83 / 377	7.25 / 184	17.25 / 438	20.36 / 517	22.30 / 566	28.00 / 12.70	33.50 / 15.20	2.80 / 10.60
4 / 100	17.27 / 439	19.83 / 504	16.00 / 406	4.83 / 123	14.83 / 377	7.25 / 184	17.25 / 438	22.13 / 562	22.30 / 566	28.00 / 12.70	37.00 / 16.78	2.80 / 10.60

Dimensions are subject to change without notice – consult factory for installation information

PRESSURE DROP CALCULATIONS

BASKET PERFORATION CORRECTION FACTORS

For 1/2" to 4" Strainers

Plastic		Stainless Steel			
1/32"	1.05	1/32"	.82	20 Mesh	.79
1/16"	1.00	1/16"	.74	40 Mesh	1.01
1/8"	.58	1/8"	.58	60 Mesh	1.20
3/16"	.46	5/32"	.37	80 Mesh	1.16
		3/16"	.46	100 Mesh	1.20
		1/4"	.58	200 Mesh	1.09
		3/8"	.45		

PRESSURE LOSS CALCULATION FORMULA

The pressure drop across the strainer, for water or fluids with a similar viscosity, can be calculated using the formula at the right:

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

ΔP = Pressure Drop

Q = Flow in GPM

Cv = Flow Coefficient

Cv VALUES

SIZE in / DN	Cv VALUES	SIZE in / DN	Cv VALUES
1/2 / 15	15	2 / 50	60
3/4 / 20	18	2-1/2 / 65	290
1 / 25	20	3 / 80	300
1-1/4 / 32	55	4 / 100	350
1-1/2 / 40	58		

The above Cv Values were determined using a 1 / 16" perforated plastic basket in 1/2" through 4" strainers.

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 to the left.

SB Series Simplex Basket Strainers

1/2" TO 4" GFPP BLACK AND GFPP PLATINUM

KEY FEATURES

- Available in Black or Platinum GFPP Materials
- True Union Design
- Ergonomic Hand-Removable Cover
- In-Line or Loop Connections
- External Cover Threads
- Integral Flat Mounting Bases
- PP Baskets Standard

OPTIONS

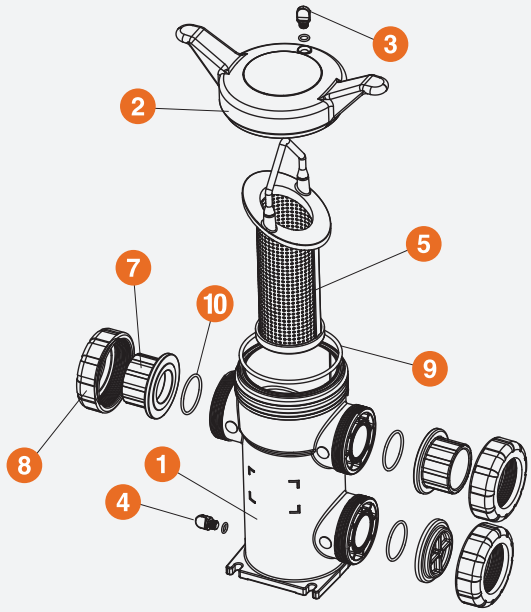
- Drain Kit with Lockout Ball Valve
- Baskets Available with Perforated or Mesh Liners
- Stainless Steel, Monel®, Hastelloy® and Titanium Strainer Baskets
- Pressure Differential Gauge and Switch

MATERIALS

- GFPP Cell Class 85580 per ASTM D4101
- FPM and EPDM O-Ring Seals

TECHNICAL INFORMATION

EXPLODED VIEW



SELECTION CHART

SIZE*	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	Black - GFPP	Threaded or Flanged	FPM or EPDM	150 PSI @ 70°F 10 Bar @ 21°C Non-Shock
	Platinum GFPP	Socket Fusion, Threaded or Flanged		

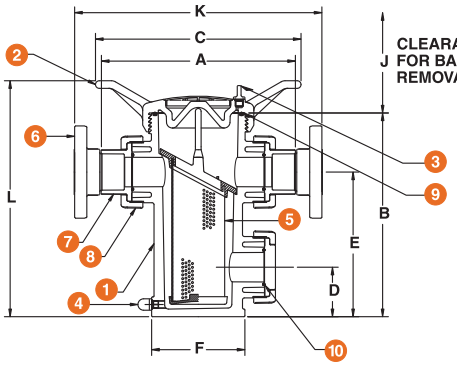
* PP socket fusion ends per ASTM F2389 and threaded ends per BS21. Socket Fusion ends available only with Platinum units. Flanged ends available in DIN / EN PN10.

** See Page 21 for Available Perf or Mesh

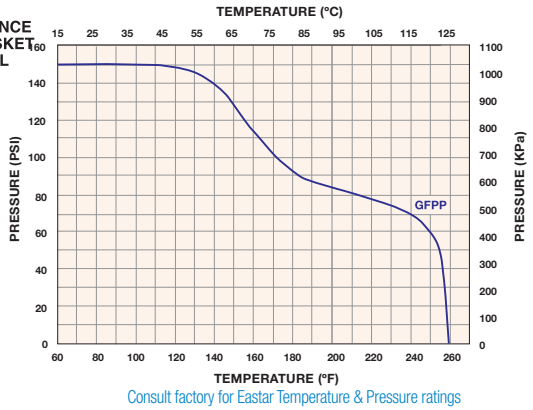
TECHNICAL INFORMATION, *CONTINUED*

PARTS LIST

1. Body - GFPP
2. Cover - GFPP
3. Vent Plug and O-Ring
4. Drain Plug and O-Ring
5. Basket - PP or Alloy
6. Flange (Optional) - GFPP
7. End Connector - GFPP or PP
8. Nut - GFPP
9. Cover O-Ring - EPDM or FPM
10. End Connector O-Ring - EPDM or FPM



OPERATING TEMPERATURE/PRESSURE



Consult factory for Eastar Temperature & Pressure ratings

DIMENSIONS

SIZE in / DN	A in / mm	B in / mm	C in / mm	D in / mm	E in / mm	F in / mm	J in / mm	K in / mm	L in / mm	WEIGHT lbs / kg SOC / THD	WEIGHT lbs / kg FLANGED	VOLUME gal / LT
1/2 / 15	8.64 / 219	9.63 / 245	11.00 / 279	2.25 / 57	6.75 / 171	4.31 / 109	8.00 / 203	10.77 / 274	11.70 / 297	8.00 / 3.63	9.00 / 4.08	.20 / .76
3/4 / 20	8.64 / 219	9.63 / 245	11.00 / 279	2.25 / 57	6.75 / 171	4.31 / 109	8.00 / 203	11.02 / 280	11.70 / 297	8.00 / 3.63	9.00 / 4.08	.20 / .76
1 / 25	8.64 / 219	9.63 / 245	11.00 / 279	2.25 / 57	6.75 / 171	4.31 / 109	8.00 / 203	11.64 / 296	11.70 / 297	8.00 / 3.63	9.00 / 4.08	.20 / .76
1-1/4 / 32	12.75 / 324	13.38 / 340	13.50 / 343	3.25 / 83	9.50 / 241	6.13 / 156	12.86 / 327	15.63 / 397	15.50 / 394	14.00 / 6.35	16.50 / 7.48	.70 / 2.65
1-1/2 / 40	12.69 / 322	13.38 / 340	13.50 / 343	3.25 / 83	9.50 / 241	6.13 / 156	12.86 / 327	15.89 / 403	15.50 / 394	14.00 / 6.35	16.50 / 7.48	.70 / 2.65
2 / 50	12.75 / 324	13.38 / 340	13.50 / 343	3.25 / 83	9.50 / 241	6.13 / 156	12.86 / 327	16.29 / 413	15.50 / 394	14.00 / 6.35	16.50 / 7.48	.70 / 2.65
2-1/2 / 65	16.52 / 420	19.83 / 504	16.00 / 406	4.83 / 123	14.83 / 377	7.25 / 184	17.25 / 438	21.02 / 534	22.30 / 566	28.00 / 12.70	33.00 / 14.97	2.80 / 10.60
3 / 80	16.40 / 417	19.83 / 504	16.00 / 406	4.83 / 123	14.83 / 377	7.25 / 184	17.25 / 438	20.36 / 517	22.30 / 566	28.00 / 12.70	33.50 / 15.20	2.80 / 10.60
4 / 100	17.27 / 439	19.83 / 504	16.00 / 406	4.83 / 123	14.83 / 377	7.25 / 184	17.25 / 438	22.13 / 562	22.30 / 566	28.00 / 12.70	37.00 / 16.78	2.80 / 10.60

Dimensions are subject to change without notice – consult factory for installation information

PRESSURE DROP CALCULATIONS

BASKET PERFORATION CORRECTION FACTORS

For 1/2" to 4" Strainers

Plastic		Stainless Steel			
1/32"	1.05	1/32"	.82	20 Mesh	.79
1/16"	1.00	1/16"	.74	40 Mesh	1.01
1/8"	.58	1/8"	.58	60 Mesh	1.20
3/16"	.46	5/32"	.37	80 Mesh	1.16
		3/16"	.46	100 Mesh	1.20
		1/4"	.58	200 Mesh	1.09
		3/8"	.45		

PRESSURE LOSS CALCULATION FORMULA

The pressure drop across the strainer, for water or fluids with a similar viscosity, can be calculated using the formula at the right:

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

ΔP = Pressure Drop

Q = Flow in GPM

Cv = Flow Coefficient

Cv VALUES

SIZE in / DN	CV VALUES	SIZE in / DN	Cv VALUES
1/2 / 15	15	2 / 50	60
3/4 / 20	18	2-1/2 / 65	290
1 / 25	20	3 / 80	300
1-1/4 / 32	55	4 / 100	350
1-1/2 / 40	58		

The above Cv Values were determined using a 1 / 16" perforated plastic basket in 1/2" through 4" strainers.

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 to the left.

Certified to NSF/ANSI 61 & 372 PVC and CPVC

SB Series Simplex Basket Strainers

6" TO 8" PVC AND CPVC

KEY FEATURES

- Available in PVC and CPVC Materials
- Ergonomic Hand-Removable Cover
- In-Line or Loop Connections
- External Cover Threads
- Integral Flat Mounting Bases
- PVC or CPVC Baskets Standard
- NSF / ANSI 61 and NSF / ANSI 372 Listed

OPTIONS

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

MATERIALS

- PVC Cell Class 12454 per ASTM D1784
- CPVC Cell Class 23447 per ASTM D1784
- FPM and EPDM O-Ring Seals

TECHNICAL INFORMATION

SELECTION CHART

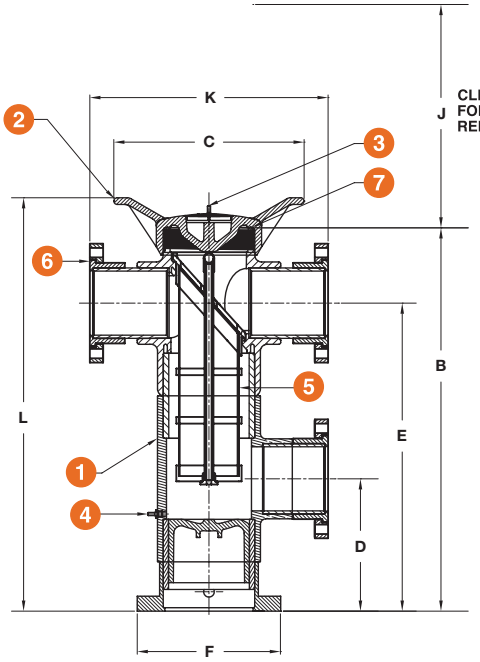
SIZE	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
6" – 8" (DN150 – DN200)	PVC or CPVC	Flanged*	FPM or EPDM	150 PSI @ 70°F 10 Bar @ 21°C Non-Shock

* Flanged Ends available in ANSI/ASME 150 or DIN/ EN PN10
** See Page 21 for Available Perf or Mesh

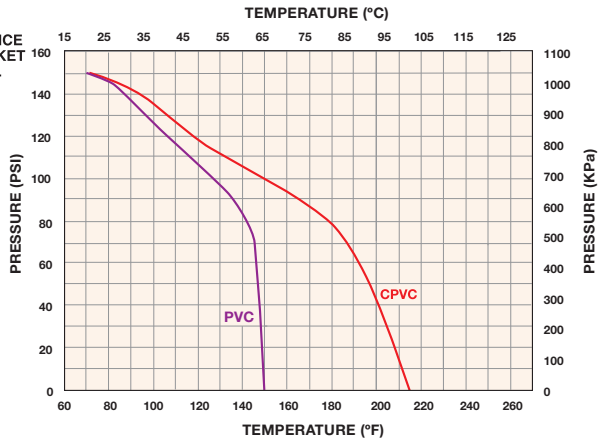
TECHNICAL INFORMATION, *CONTINUED*

PARTS LIST

1. Body
2. Cover
3. Vent Plug and O-Ring
4. Drain Plug and O-Ring
5. Basket
6. Flange (Optional)
7. Cover O-Ring



OPERATING TEMPERATURE/PRESSURE



DIMENSIONS

SIZE in / DN	A in / mm	B in / mm	C in / mm	D in / mm	E in / mm	F in / mm	J in / mm	K in / mm	L in / mm	WEIGHT lbs / kg SOC / THD	WEIGHT lbs / kg FLANGED	VOLUME gal / LT
6 / 150	N/A	36.07 / 871	18.00 / 457	12.46 / 316	28.99 / 736	13.50 / 298	21.80 / 554	22.42 / 569	39.90 / 1013	N/A	60.00 / 27.21	6.80 / 25.74
8 / 200	N/A	36.07 / 871	18.00 / 457	12.46 / 316	28.99 / 736	13.50 / 298	28.75 / 730	25.44 / 640	39.90 / 1013	N/A	80.00 / 36.28	9.00 / 34.07

Dimensions are subject to change without notice – consult factory for installation information

PRESSURE DROP CALCULATIONS

BASKET PERFORATION CORRECTION FACTORS

For 6" to 8" Strainers

Plastic		Stainless Steel			
1/8"	2.00	1/32"	2.25	20 Mesh	2.16
3/16"	1.50	1/16"	2.03	40 Mesh	2.79
		1/8"	1.58	60 Mesh	3.28
		5/32"	1.00	80 Mesh	3.18
		3/16"	1.26	100 Mesh	3.30
		1/4"	1.58	200 Mesh	2.98

PRESSURE LOSS CALCULATION FORMULA

The pressure drop across the strainer, for water or fluids with a similar viscosity, can be calculated using the formula at the right:

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

ΔP = Pressure Drop
Q = Flow in GPM
Cv = Flow Coefficient

Cv VALUES

SIZE in / DN	CV VALUES
6 / 150	1,000
8 / 200	750

The above Cv Values were determined using a 5 / 32" perforated plastic basket in 6" and 8" strainers.

To calculate pressure drop through vessels using other than 5 / 32" 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 to the left.

DB Series Duplex Basket Strainers

1/2" TO 4" PVC, CPVC AND EASTAR®

KEY FEATURES

- Available in PVC, CPVC and Eastar® Materials
- 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
- Baskets Available with Perforated or Mesh Liners

MATERIALS

- PVC Cell Class 12454 per ASTM D1784
- CPVC Cell Class 23447 per ASTM D1784
- Eastar®
- FPM and EPDM O-Ring Seals

TECHNICAL INFORMATION

SELECTION CHART

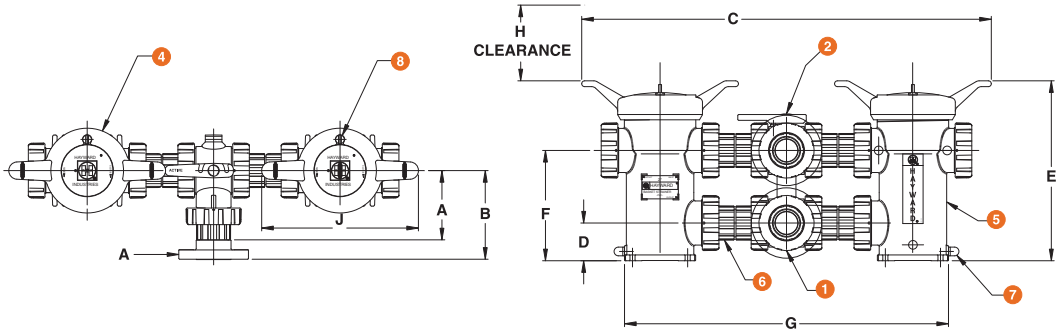
SIZE**	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
1/2" – 4" (DN15 – DN100)	PVC or CPVC	Socket, Threaded or Flanged	FPM or EPDM	150 PSI @ 70°F 10 Bar @ 21°C Non-Shock
	Eastar*			100 PSI @ 70°F 7 Bar @ 21°C Non-Shock

* 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.
**** See Page 21 for Available Perf or Mesh

TECHNICAL INFORMATION, *CONTINUED*

PARTS LIST

1. Single Stem Lateral
2. Double Stem Lateral
3. Inlet Flange
4. Cover
5. Strainer Body
6. Spool
7. Drain Plug and O-Ring
8. Vent Plug and O-Ring



DIMENSIONS

SIZE in / DN	A in / mm	B in / mm	C in / mm	D in / mm	E in / mm	F in / mm	G in / mm	H in / mm	J in / mm	WEIGHT lbs / kg SOC / THD	WEIGHT lbs / kg FLANGED
1/2 / 15	4.14 / 105	5.21 / 132	27.20 / 691	2.25 / 57	11.70 / 297	6.75 / 171	20.50 / 521	5.00 / 127	11.00 / 279	20.00 / 9.07	21.00 / 9.53
3/4 / 20	4.14 / 105	5.33 / 135	27.20 / 691	2.25 / 57	11.70 / 297	6.75 / 171	20.50 / 521	5.00 / 127	11.00 / 279	20.00 / 9.07	21.00 / 9.53
1 / 25	4.14 / 105	5.64 / 143	27.20 / 691	2.25 / 57	11.70 / 297	6.75 / 171	20.50 / 521	5.00 / 127	11.00 / 279	20.00 / 9.07	21.00 / 9.53
1-1/4 / 32	6.00 / 152	7.44 / 189	35.30 / 897	3.25 / 83	15.50 / 394	9.50 / 241	28.00 / 711	10.80 / 274	13.50 / 343	39.50 / 17.92	42.00 / 19.05
1-1/2 / 40	6.00 / 152	7.60 / 193	35.30 / 897	3.25 / 83	15.50 / 394	9.50 / 241	28.00 / 711	10.80 / 274	13.50 / 343	39.50 / 17.92	42.00 / 19.05
2 / 50	6.00 / 152	7.77 / 197	35.30 / 897	3.25 / 83	15.50 / 394	9.50 / 241	28.00 / 711	10.80 / 274	13.50 / 343	39.50 / 17.92	42.00 / 19.05
2-1/2 / 65	7.60 / 193	9.85 / 250	44.40 / 1128	4.83 / 123	22.30 / 566	14.83 / 377	35.60 / 904	14.80 / 376	16.00 / 406	83.00 / 37.65	88.00 / 39.92
3 / 80	7.60 / 193	9.85 / 250	44.40 / 1128	4.83 / 123	22.30 / 566	14.83 / 377	35.60 / 904	14.80 / 376	16.00 / 406	83.00 / 37.65	88.50 / 40.14
4 / 100	9.33 / 237	11.76 / 299	47.50 / 1207	4.83 / 123	22.30 / 566	14.83 / 377	38.70 / 983	14.80 / 376	16.00 / 406	100.00 / 45.36	105.00 / 47.63

Dimensions are subject to change without notice – consult factory for installation information

PRESSURE DROP CALCULATIONS

BASKET PERFORATION CORRECTION FACTORS

For 1/2" to 4" Strainers

Plastic		Stainless Steel			
1/32"	1.05	1/32"	.82	20 Mesh	.79
1/16"	1.00	1/16"	.74	40 Mesh	1.01
1/8"	.58	1/8"	.58	60 Mesh	1.20
3/16"	.46	5/32"	.37	80 Mesh	1.16
		3/16"	.46	100 Mesh	1.20
		1/4"	.58	200 Mesh	1.09
		3/8"	.45		

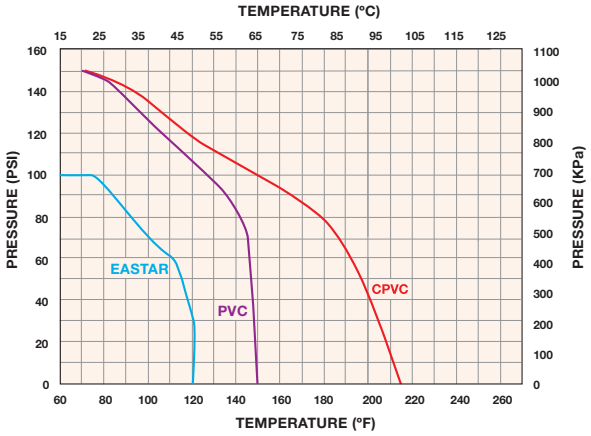
PRESSURE LOSS CALCULATION FORMULA

The pressure drop across the strainer, for water or fluids with a similar viscosity, can be calculated using the formula at the right:

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

ΔP = Pressure Drop
Q = Flow in GPM
Cv = Flow Coefficient

OPERATING TEMPERATURE/PRESSURE



Cv VALUES

SIZE in / DN	Cv VALUES	SIZE in / DN	Cv VALUES
1/2 / 15	12.5	1-1/2 / 40	45
3/4 / 20	13	2 / 50	48
1 / 25	14	3 / 80	200
1-1/4 / 32	40	4 / 100	280

The Cv Values were determined using a 1/16" perforated plastic basket in 1/2" through 4" strainers.

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 to the left.

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Visit us at: haywardflowcontrol.com

DB Series Duplex Basket Strainers

6" TO 8" PVC AND CPVC

KEY FEATURES

- Available in PVC and CPVC Materials
- 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
- Baskets Available with Perforated or Mesh Liners

MATERIALS

- PVC Cell Class 12454 per ASTM D1784
- CPVC Cell Class 23447 per ASTM D1784
- FPM and EPDM O-Ring Seals

TECHNICAL INFORMATION

SELECTION CHART

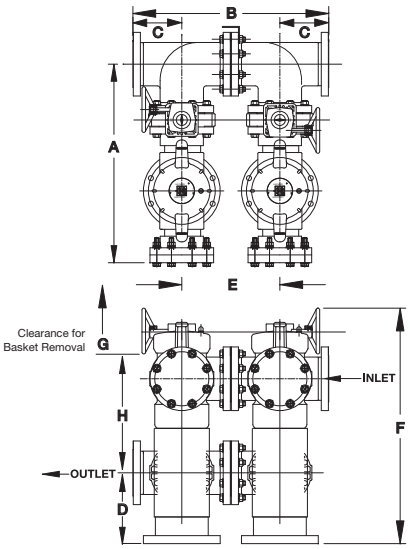
SIZE*	MATERIAL	END CONNECTION	SEALS	PRESSURE RATING
6" – 8" (DN150 – DN200)	PVC or CPVC	Flanged*	FPM or EPDM	150 PSI @ 70°F 10 Bar @ 21°C Non-Shock

* Flanged Ends available in ANSI/ASME 150 or DIN/ EN PN10

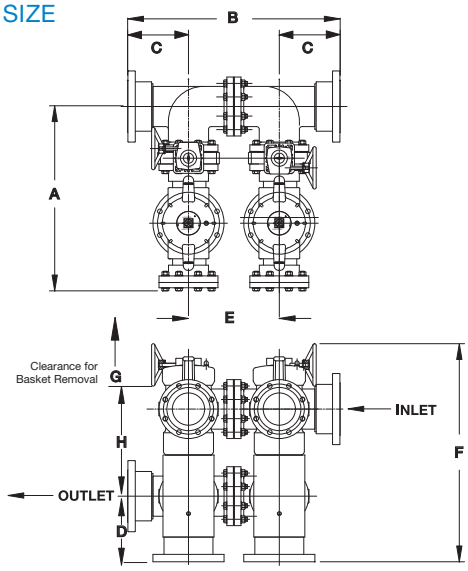
** See Page 21 for Available Perf or Mesh

TECHNICAL INFORMATION, *CONTINUED*

6" SIZE



8" SIZE



DIMENSIONS

SIZE in / DN	A in / mm	B in / mm	C in / mm	D in / mm	E in / mm	F in / mm	G in / mm	H in / mm	WEIGHT lbs / kg
6 / 150	34.91 / 887	34.42 / 874	8.59 / 218	12.45 / 316	17.24 / 438	41.40 / 1052	21.80 / 554	16.53 / 420	180.00 / 81.65
8 / 200	42.70 / 1085	53.15 / 1350	13.27 / 337	12.45 / 316	26.62 / 676	42.52 / 1080	28.75 / 730	16.53 / 420	250.00 / 113.40

Dimensions are subject to change without notice – consult factory for installation information

PRESSURE DROP CALCULATIONS

BASKET PERFORATION CORRECTION FACTORS

For 6" to 8" Strainers

Plastic		Stainless Steel			
1/8"	2.00	1/32"	2.25	20 Mesh	2.16
3/16"	1.50	1/16"	2.03	40 Mesh	2.79
		1/8"	1.58	60 Mesh	3.28
		5/32"	1.00	80 Mesh	3.18
		3/16"	1.26	100 Mesh	3.30
		1/4"	1.58	200 Mesh	2.98
		3/8"	1.24		

PRESSURE LOSS CALCULATION FORMULA

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

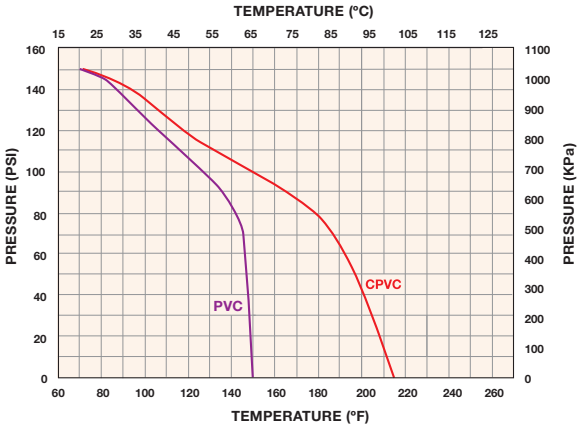
ΔP = Pressure Drop

Q = Flow in GPM

Cv = Flow Coefficient

The pressure drop across the strainer, for water or fluids with a similar viscosity, can be calculated using the formula at the right:

OPERATING TEMPERATURE/PRESSURE



Cv VALUES

SIZE in / DN	Cv VALUES GPM
6 / 150	1,000
8 / 200	750

The Cv Values were determined using a 5/32" perforated plastic basket in 6" and 8" strainers.

To calculate pressure drop through vessels using other than 5/32" 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 to the left.

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How to Select a Basket Strainer

SELECTION CRITERIA

The first consideration when selecting a Hayward basket strainer is the amount of free open area. This is the ratio of the open area through the strainer basket to the cross sectional area of the pipe. A well-designed basket strainer should have an open area ratio of at least 4 to 1. Anything less may cause excessive pressure drop. The area is calculated with a clean basket – and as the basket begins to clog, the ratio will drop. Unless there is a wide safety margin, the area through the basket may quickly become smaller than the pipe area. This will reduce flow through the strainer and necessitate very frequent cleaning. A small open area ratio also means the holding capacity of the basket is small (an important consideration if there is a lot of solid material to be removed.)

Second, is ease of basket removal. Since a basket strainer is used where cleaning may occur often, it stands to reason that the basket should be able to be removed and replaced as simply as possible. Hayward Simplex and Duplex strainers feature hand removable, threaded covers which can be quickly loosened or tightened by hand without the use of tools.

Another item to look for in selecting a strainer is compactness of design. Is the strainer unnecessarily bulky or tall? In many industrial areas, space is at a premium and the less room a strainer takes the better.

Lastly, a wide variety of basket perforation sizes should be available. This is necessary to cope with the great range of particle sizes which the strainer may be called upon to remove.

SELECTION AND SIZING

Selecting the proper size basket strainer for a particular application is extremely important for optimum performance of the strainer. Factors such as viscosity, specific gravity and mesh lining size all influence pressure drop of flow through the strainer. As a general rule of thumb, a pressure drop of greater than 2 PSI through a clean strainer usually indicates the strainer selected is too small for the intended application.

In some cases, the strainer size may not always be the same size as the pipe diameter. For example, the pressure drop of highly viscous liquids passing through a mesh basket can cut flow considerably making it necessary to use a strainer several times larger than pipeline to ensure adequate flow. Likewise, if an unusually large amount of material needs to be taken out of the process flows, a larger strainer or multiple strainer should be specified. By using two strainers in series, the first with large openings designed to catch larger particles and the second with a fine mesh lining to trap smaller material, the load is spread over two strainers and time between maintenance for cleaning is also extended.

PROPER BASKET SELECTION

The question of which perforation or mesh lining size to use comes up regularly. Here again, the basic rule is to use the coarsest size which will strain out the product to be removed. Using a finer mesh than needed will only result in premature clogging. When in doubt about which of two basket screens to use, it is best to choose the larger. As a rule of thumb, size the baskets for one half the particle size to be removed.

BASKET SIZES OFFERED FOR HAYWARD SIMPLEX AND DUPLEX PLASTIC BASKET STRAINERS

Comparative Particle Size

PERF	INCHES	MILLIMETERS	MICRONS	MESH	INCHES	MILLIMETERS	MICRONS
1/32	0.033	0.838	838	200	0.0027	0.0686	68
1/16	0.070	1.778	1776	100	0.0065	0.1651	165
3/32	0.094	2.387	2387	80	0.007	0.1778	177
1/8	0.125	3.175	3175	60	0.009	0.2286	228
5/32	0.150	3.810	3810	40	0.015	0.8636	380
3/16	0.1875	4.762	4762	20	0.034	0.8636	862
1/4	0.250	6.350	6350				
3/8	0.375	9.525	9525				

*Perforations available in PVC, CPVC, PP, Stainless Steel, Monel, Hastelloy and Titanium
**Mesh Baskets only in Stainless Steel, Monel, Hastelloy and Titanium
***Not all perf or mesh sizes may be available or suitable for all strainer, consult with factory

Flow of Water Through Schedule 80 Plastic Pipe

DISCHARGE			VELOCITY IN SCHEDULE 80 PLASTIC PIPE FOR WATER @ 60°F/16°C VELOCITY							
GALLONS / MINUTE	CUBIC METER/ HOUR	CUBIC FEET/ SECOND	FEET/SECOND	FEET/SECOND	FEET/SECOND	FEET/SECOND	FEET/SECOND	FEET/SECOND	FEET/SECOND	FEET/SECOND
				1/4"/DN8	3/8"/DN10	1/2"/DN15	3/4"/DN20	1"/DN25	1-1/4"/DN32	1-1/2"/DN40
0.2	0.05	0.000446	—	0.824	—	—	—	—	—	—
0.3	0.07	0.000668	—	1.237	0.651	0.392	—	—	—	—
0.4	0.09	0.000891	—	1.646	0.867	0.529	—	—	—	—
0.5	0.11	0.00111	—	2.061	1.083	0.653	0.359	—	—	—
0.6	0.14	0.00134	—	2.476	1.303	0.782	0.431	—	—	—
0.8	0.18	0.00178	—	3.295	1.728	1.043	0.574	—	—	—
1	0.23	0.00223	—	4.122	2.167	1.311	0.718	0.435	—	—
2	0.45	0.00446	—	8.245	4.335	2.609	1.432	0.871	0.525	—
3	0.68	0.00668	—	12.381	6.502	3.919	2.161	1.306	0.788	0.538
4	0.91	0.00891	2"	16.502	8.671	5.218	2.876	1.747	1.051	0.717
5	1.14	0.01114	—	—	10.837	6.528	3.592	2.181	1.313	0.896
6	1.36	0.01337	0.65	2-1/2"	13.005	7.827	4.308	2.614	1.579	1.076
8	1.82	0.01782	0.86	—	—	10.448	5.741	3.482	2.105	1.434
10	2.27	0.02228	1.08	0.752	3"	13.057	4.351	2.632	2.632	1.798
15	3.41	0.03342	1.61	1.134	—	—	10.778	6.531	3.941	2.697
20	4.54	0.04456	2.15	1.505	0.986	—	—	8.712	5.252	3.596
25	5.68	0.0557	2.69	1.886	1.238	—	4"	10.881	6.574	4.484
30	6.81	0.06684	3.23	2.256	1.476	—	—	13.062	7.884	5.383
35	7.95	0.07798	3.78	2.638	1.726	—	0.973	15.232	9.193	6.282
40	9.09	0.08912	4.32	3.009	1.976	—	1.114	17.413	10.515	7.171
45	10.22	0.1003	4.84	3.391	2.215	—	1.247	—	11.838	8.069
50	11.36	0.1114	5.39	3.761	2.465	—	1.391	—	13.147	8.969
60	13.63	0.1337	6.47	4.513	2.953	—	1.665	—	15.779	10.778
70	15.90	0.156	7.55	5.266	3.453	—	1.942	—	—	12.577
80	18.17	0.1782	8.62	6.018	3.942	—	2.228	—	6"/DN150	14.36
90	20.44	0.2005	9.69	6.771	4.442	—	2.504	—	—	16.162
100	22.71	0.2228	10.77	7.523	4.931	—	2.781	—	1.225	17.96
125	28.39	0.2785	13.48	9.409	6.168	—	3.475	—	1.534	22.445
150	34.07	0.3342	16.18	11.284	7.395	—	4.171	—	1.893	—
175	39.75	0.3899	18.87	13.171	8.633	—	4.865	—	2.141	8"/DN200
200	45.43	0.4456	21.56	15.068	9.861	—	5.561	—	2.451	—
225	51.10	0.5013	—	16.943	11.098	—	6.255	—	2.759	1.577
250	56.78	0.557	—	—	12.325	—	6.951	—	3.069	1.752
275	62.46	0.6127	—	—	13.563	—	7.645	—	3.367	1.927
300	68.14	0.6684	—	—	14.768	—	8.341	—	3.675	2.102
325	73.82	0.7241	—	—	16.041	—	9.035	—	3.985	2.277
350	79.49	0.7798	—	—	—	—	9.731	—	4.294	2.453
375	85.17	0.8355	—	—	—	—	10.425	—	4.592	2.628
400	90.85	0.8912	—	—	—	—	11.121	—	4.901	2.803
425	96.53	0.9469	10"/DN250	—	—	—	11.815	—	5.211	2.989
450	102.21	1.003	—	—	—	—	12.511	—	5.519	3.164
475	107.88	1.059	2.199	—	—	—	13.205	—	5.817	3.329
500	113.56	1.114	2.229	—	—	—	13.901	—	6.126	3.515
550	124.92	1.225	2.459	—	—	—	15.279	—	6.744	3.865
600	136.28	1.337	2.679	12"/DN300	—	—	16.681	—	7.352	4.215
650	147.63	1.225	2.899	—	—	—	—	—	7.971	4.566
700	158.99	1.56	3.129	2.205	—	—	—	—	8.588	4.916
750	170.34	1.671	3.349	2.359	—	—	—	—	9.195	5.267
800	181.70	1.56	3.569	2.513	—	—	—	—	9.802	5.617
850	193.06	1.782	3.799	2.677	—	—	—	—	10.421	5.968
900	204.41	2.005	4.019	2.831	—	—	—	—	11.028	6.318
950	215.77	2.117	4.239	2.984	—	—	—	—	11.646	6.668
1000	227.13	2.228	4.469	3.149	—	—	—	—	12.253	7.019
1100	249.84	2.451	4.919	3.458	—	—	—	—	13.489	7.719
1200	272.55	2.674	5.359	3.775	—	—	—	—	14.715	8.431
1300	295.26	2.896	5.809	4.093	—	—	—	—	15.929	9.121
1400	317.98	3.119	6.259	4.401	—	—	—	—	17.165	9.833
1500	340.69	3.342	6.698	4.718	—	—	—	—	18.391	10.534
1600	363.40	3.565	7.148	5.037	—	—	—	—	19.611	11.235
1800	408.83	4.01	8.038	5.662	—	—	—	—	22.067	12.636
2000	454.25	4.456	8.938	6.228	—	—	—	—	24.517	14.038
2500	567.81	5.57	11.168	7.868	—	—	—	—	—	17.552
3000	681.38	6.684	13.396	9.437	—	—	—	—	—	21.068
3500	794.94	7.798	15.637	11.006	—	—	—	—	—	24.572
4000	908.50	8.912	17.866	12.587	—	—	—	—	—	28.08
4500	1022.06	10.13	20.106	14.156	—	—	—	—	—	31.613
5000	1135.63	11.14								
6000	1362.75	13.37								
7000	1589.88	15.6								
8000	1817.00	17.82								
9000	2044.13	20.05								
10000	2271.25	22.28								
12000	2725.50	26.74								

The following wave surge constants may be used to quickly calculate pressure rise due to water hammer where: "C"= the wave surge constant from the table below multiplied by "V" the line velocity in feet per second. The resultant number is then added to the line pressure to determine the resulting wave surge (Water Hammer Effect).

Pipe Size	1/4"	1/2"	3/4"	1"	1-1/2"	2"	3"	4"	6"	8"	10"	12"
Constant	40	35	32	31	27	25	23	23	21	20	19	19

Maximum recommended fluid velocity is 8 feet per second (solenoid valves 5 feet per second)

Application Information Form for Y-Strainers, Simplex and Duplex Basket Strainers

LIQUID/CHEMICALS TO BE STRAINED

FLOW CONDITIONS

Flow (GPM) _____ Maximum _____ Minimum _____ Vel (ft/sec) _____

Steam or Gas Flow _____ STD CU FT/MIN (SCFM) _____ OR LBS/HR _____
(Give minimum working pressure for gas applications)

Operating Pressure (PSI) _____ Normal _____ Design _____ Minimum _____

Operating Temperature (°F) _____ Normal _____ Design _____ Minimum _____

Maximum Allowable Pressure Drop: Clean _____ PSI Dirty _____ PSI

Can flow be interrupted to clean strainer basket? ☐ Yes ☐ No

CONTAMINANT

Solids to be Removed _____ Are they? ☐ Hard ☐ Soft ☐ Sticky ☐ Fibrous

Solids Concentration _____ PPM _____ % WT _____ % Volume

Particle Size _____ Microns, or _____ Inches

Mesh or Perforation _____

STRAINER CONSTRUCTION

Body & Cover: ☐ PVC ☐ CPVC ☐ GFPP Black ☐ GFPP Platinum ☐ Eastar®

Pipe Size (inches) _____

End Connections: ☐ Threaded ☐ Socket Weld ☐ Socket Fusion ☐ Flanged ☐ ANSI ☐ EN/DIN PN10 ☐ JIS

O-Ring Seal Material: ☐ FPM ☐ EPDM

SPECIAL FEATURES REQUIRED

Differential Pressure: ☐ Gauge ☐ Switch ☐ Drain Valve ☐ Vent Valve

SUBMITTALS (CHECK IF REQUIRED)

☐ Certificate of Origin ☐ Certificate of Material Conformance ☐ Hydro Test Reports

Notes:

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GFPP FLV SERIES BAG & CARTRIDGE FILTERS

- Platinum Glass Filled Polypropylene Material
- One-Piece Injection Molded Construction with True Union Connections
- Hand Removable, Ergonomic Cover with Liquid Displacing Dome
- Vent Valve Included On Cover
- In-Line or Loop Configuration
- Integral Mounting Base
- Available for Bags or Cartridges
- Duplex and Triplex Assemblies

PVC & CPVC FLV SERIES BAG FILTERS

- Available in PVC or CPVC Materials
- 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 Flow Rates
- Solid 1-Piece Basket
- In-Line or Loop Flow Configurations
- Drain Port at Bottom
- Integral Mounting Base

INDUSTRIAL FILTER BAGS

- PP Needle Felt, Polyester Needle Felt, PP Mesh or Nylon Mesh
- 1 to 800 Micron Ratings
- Thermoplastic Ring Seal
- Thermoplastic Flange Seal
- Heavy Duty Welded Construction
- Silicone-Free

HIGH CAPACITY PLEATED CARTRIDGES

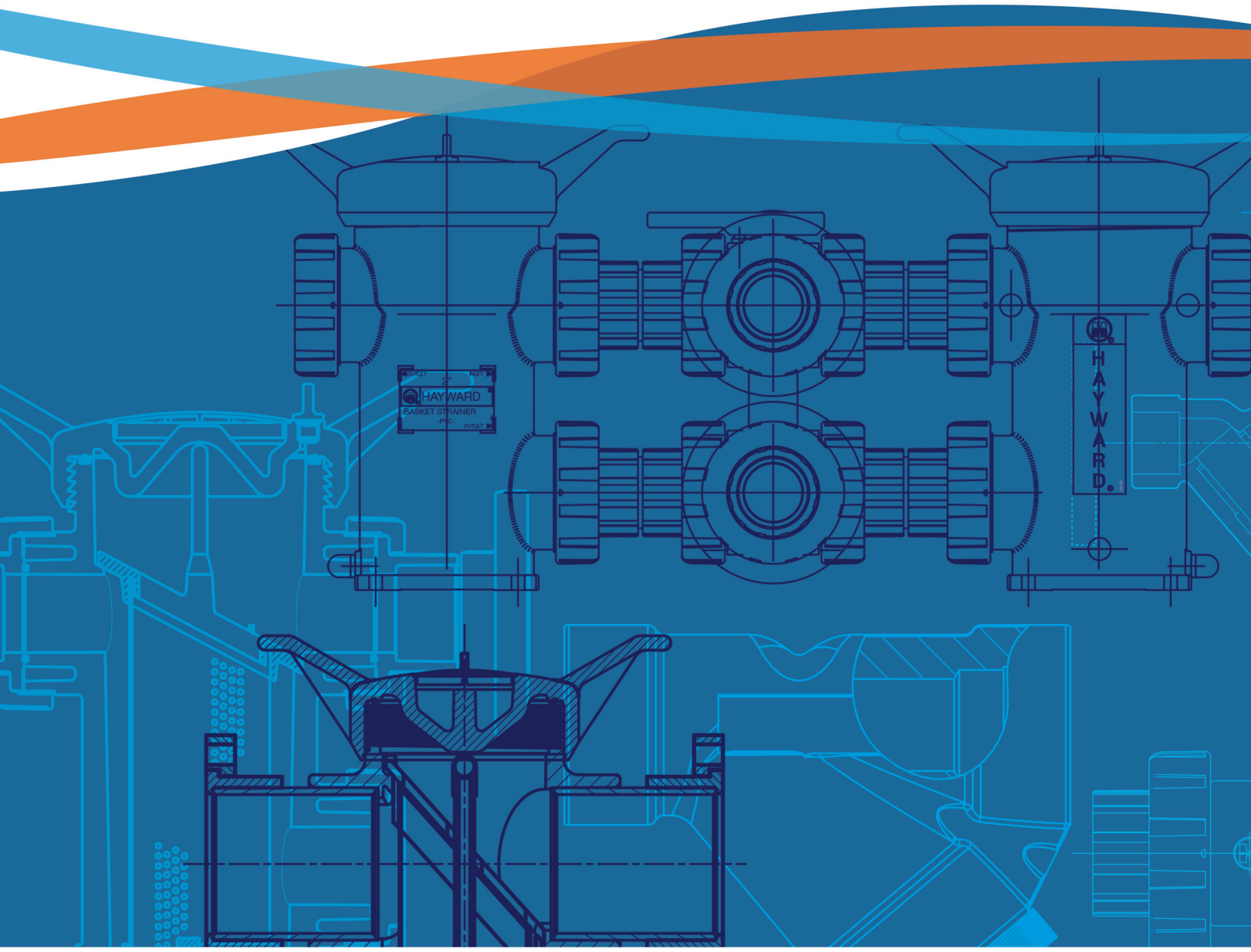
- Multiple Micron Ratings for High Efficiency Filtration
- Available in 7" and 2-1/2" Diameters, Single and Double Length
- High Surface Area Design Provides Excellent Flow Rates and Comprehensive Service Life
- Thermally Bonded DOE End-Caps, Core and Filter Media
- Low Pressure Drop
- Multiple Layered Media Construction Guarantees Dependable Performance

LS SERIES AQUATIC SAND FILTER

- 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
- Intergral Molded Drain Plug

HCF SERIES COMMERCIAL SAND FILTER

- Ideal for Fresh Water Systems
- UV-Protectant Gel Coat Protects Filter From Elements
- Transparent Manway Design Simplifies Operation and Improves Durability
- Commercial-grade PVC and ABS Injection Molded Internals With 360° Slotted Laterals
- Industrial Valve and Pressure Gauge
- Available in 30", 34" and 36" sizes
- Flow Rates up to 143GPM
- NSF/ANSI 50 Listed



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