



Australian Agents for Hayward

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Thermoplastic Strainer Product Guide

FLOW CONTROL

define
design
deliver

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.



*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

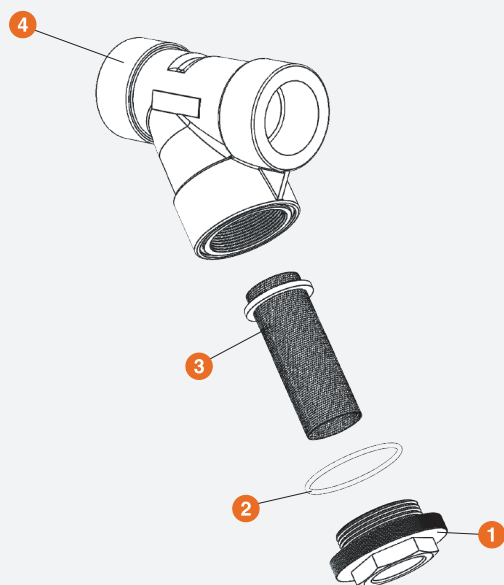
- Stainless Steel Perforated or Mesh Strainer Screens Available in Various Sizes and Alloy Materials

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		
3–4" (DN80–DN100)	PVC and CPVC	Socket, Threaded or Flanged		

* PVC and CPVC available with threaded ends to BS21.

YS Series Y-Strainers

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

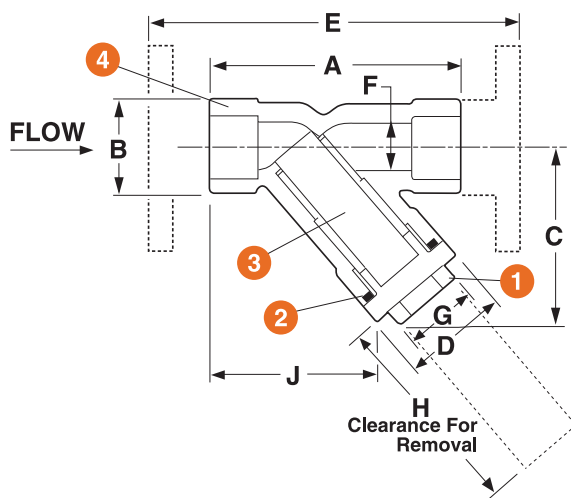
2-1/2" - 4" PVC AND CPVC



TECHNICAL INFORMATION, CONTINUED

PARTS LIST

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



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"		PVC, CPVC
1/32"		
1/16"	N/A	
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	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*

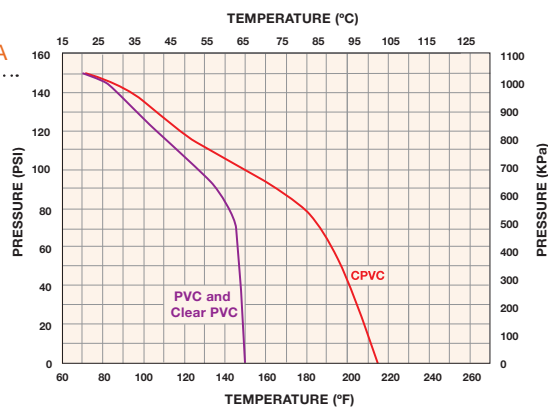
SIZE in / DN	Cv VALUES	SIZE in / DN	Cv VALUES	PRESSURE LOSS CALCULATION FORMULA
1/2 / 15	4.0	2 / 50	28	
3/4 / 20	6.8	2-1/2 / 65	40	$\Delta P = \left[\frac{Q}{C_v} \right]^2$
1 / 25	9.0	3 / 80	65	ΔP = Pressure Drop
1-1/4 / 32	12	4 / 100	100	Q = Flow in GPM
1-1/2 / 40	28			Cv = Flow Coefficient

* With 1 / 32" plastic screen



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OPERATING TEMPERATURE/PRESSURE



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YS Series Y-Strainers

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

KEY FEATURES

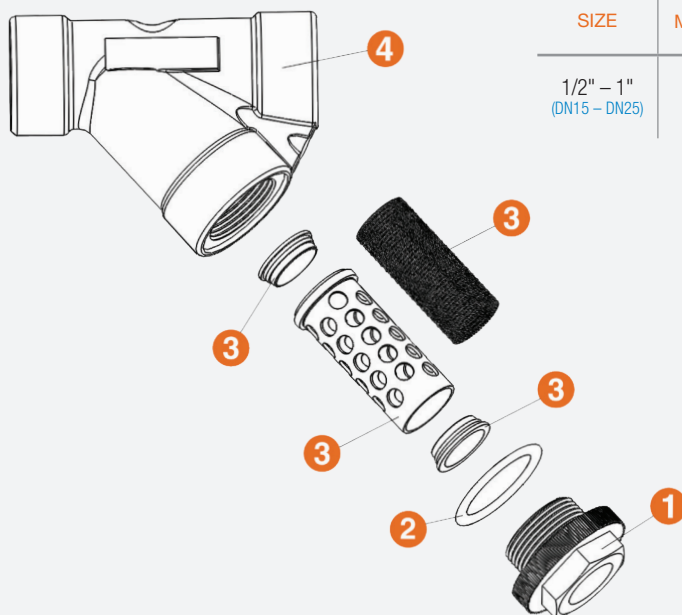
- PVDF 1-pc Molded Body
- NPT or BSP Threaded Ends
- Socket Fusion Ends for IPS Schedule 40 / 80, or for SDR21 / 33 Piping
- Horizontal or Vertical Installation
- FPM O-Ring Seals
- Hex Cap for Easy Access to Screen
- Standard Screen has 3/32" Perforation

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

YS Series Y-Strainers

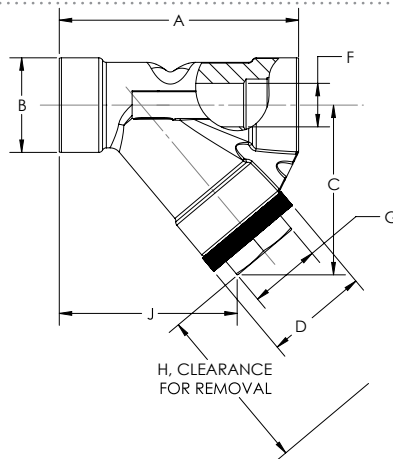
1/2", 3/4" AND 1" PVDF



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

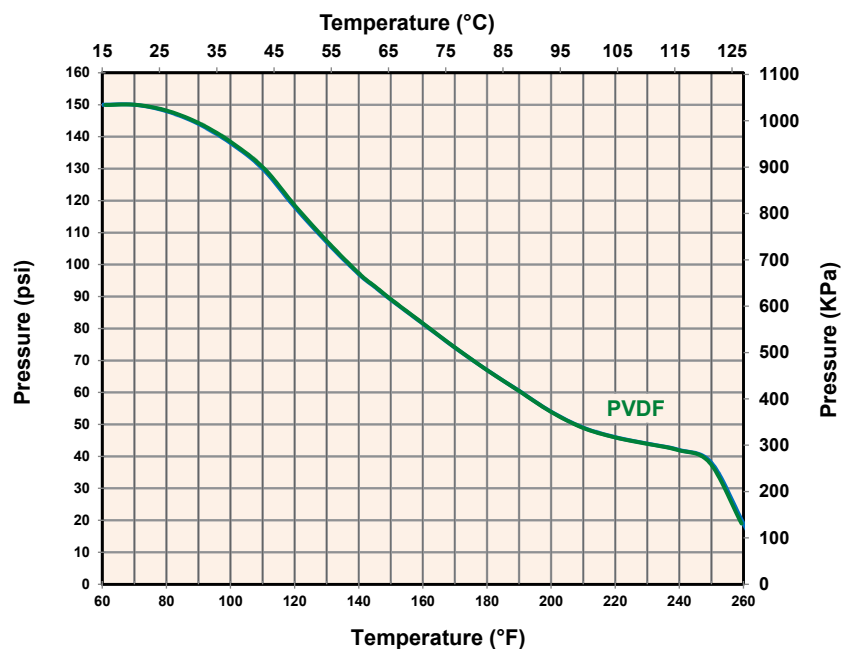
* With standard 3/32" perforation.

PRESSURE LOSS CALCULATION FORMULA

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

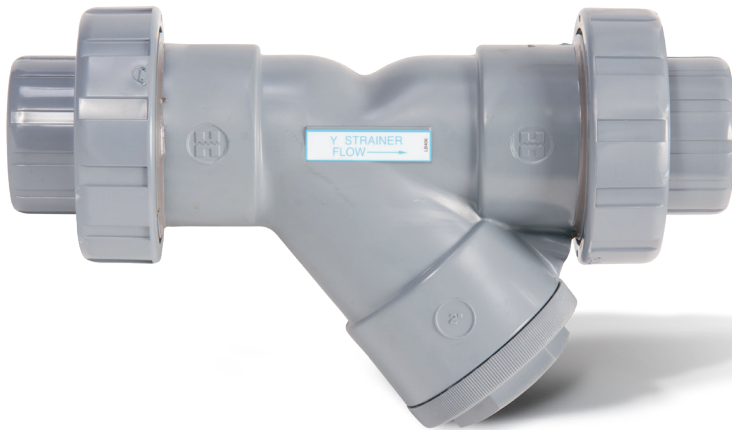
ΔP = Pressure Drop
 Q = Flow in GPM
 C_v = Flow Coefficient

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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

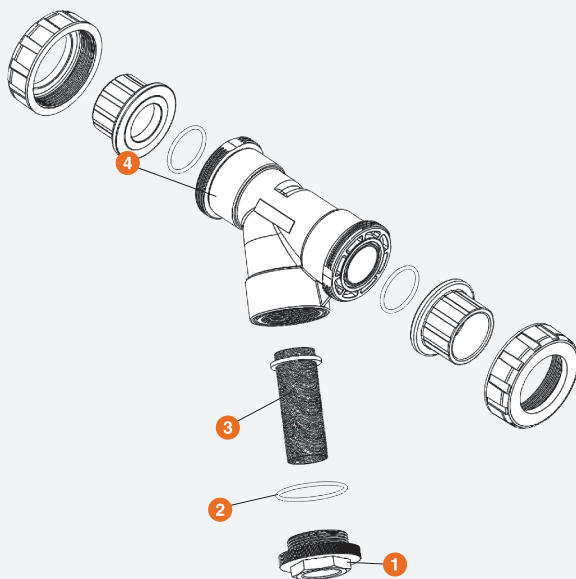
- Stainless Steel Perforated or Mesh Strainer Screens Available in Various Sizes and Alloys

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

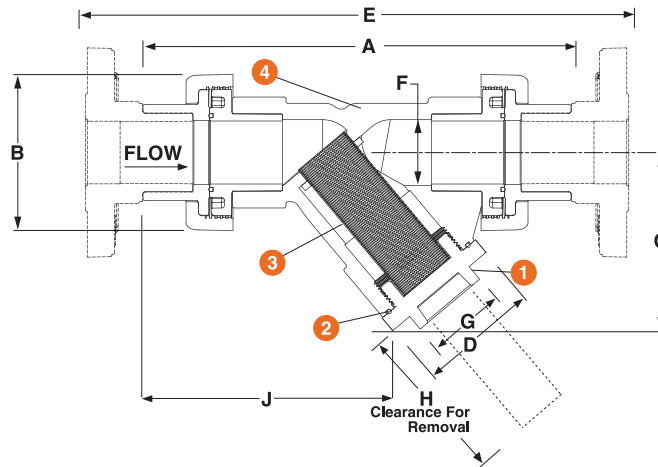
1/2" - 2" PVC, CLEAR PVC AND CPVC
2-1/2" - 4" PVC AND CPVC



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	PVC, CPVC
1/32"		
1/16"	N/A	
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	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		

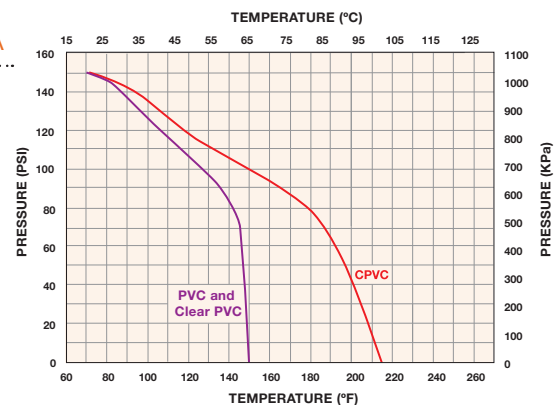
* With 1/32" plastic screen

PRESSURE LOSS CALCULATION FORMULA

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

ΔP = Pressure Drop
 Q = Flow in GPM
 C_v = 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

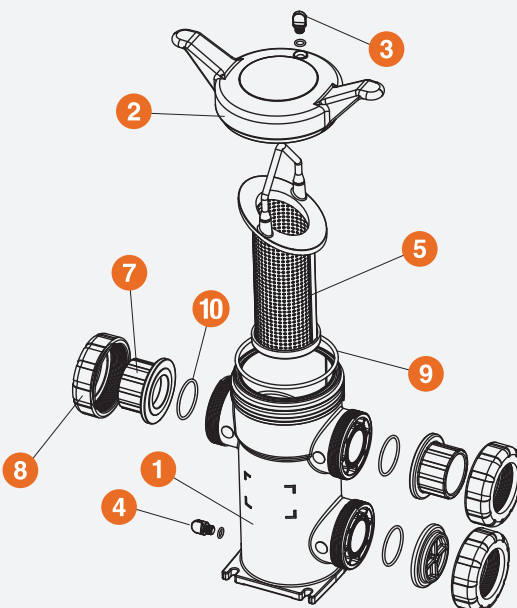
- Drain Kit with Lockout Ball Valve
- Baskets Available with Perforated or Mesh Liners
- Stainless Steel, Monel®, Hastelloy® and Titanium Strainer Baskets
- Pressure Differential Gauge and Switch

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

SB Series Simplex Basket Strainers

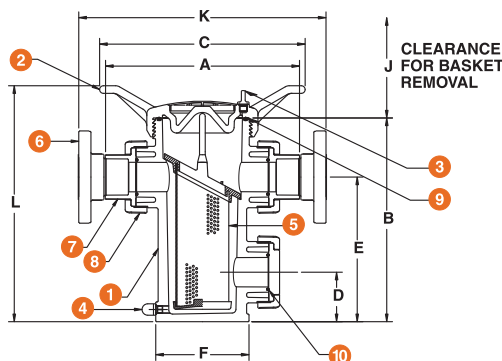
1/2" TO 4" PVC AND CPVC



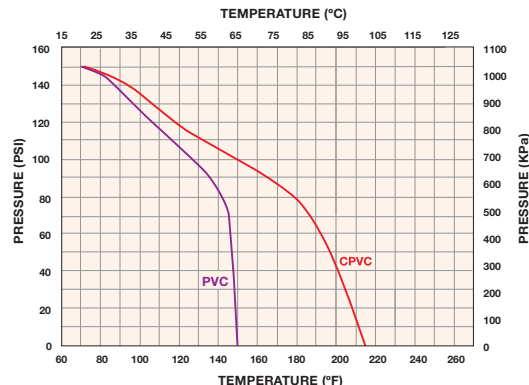
TECHNICAL INFORMATION, CONTINUED

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		VOLUME gal / LT
										SOC / THD	FLANGED	
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:

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

ΔP = Pressure Drop
 Q = Flow in GPM
 C_v = 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.



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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

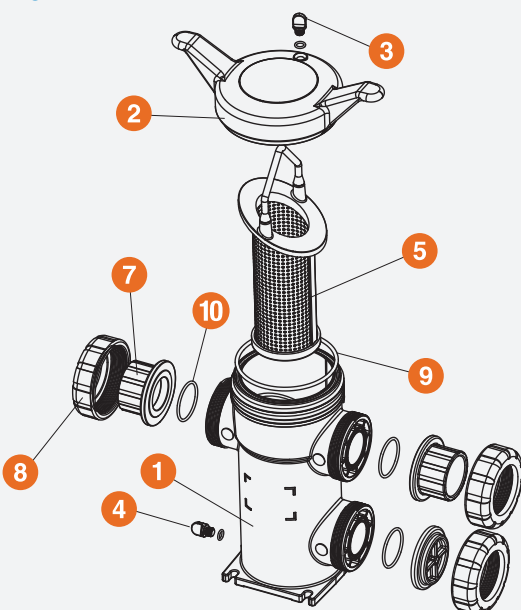
- Drain Kit with Lockout Ball Valve
- Baskets Available with Perforated or Mesh Liners
- Stainless Steel, Monel®, Hastelloy® and Titanium Strainer Baskets
- Pressure Differential Gauge and Switch

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

SB Series Simplex Basket Strainers

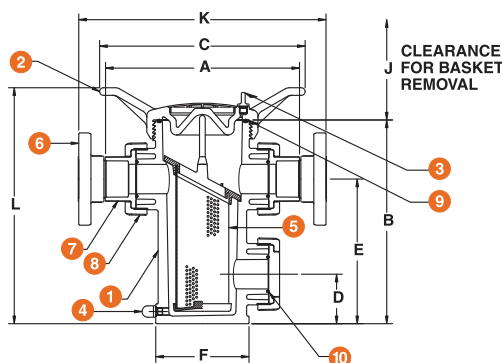
1/2" TO 4" CLEAR EASTAR®



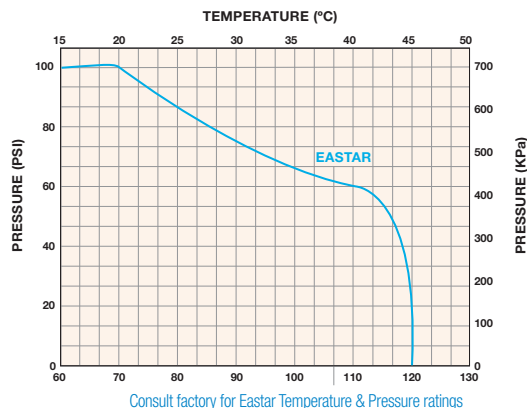
TECHNICAL INFORMATION, CONTINUED

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



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		VOLUME gal / LT
										SOC / THD	FLANGED	
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:

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

ΔP = Pressure Drop

Q = Flow in GPM

C_v = 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.



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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

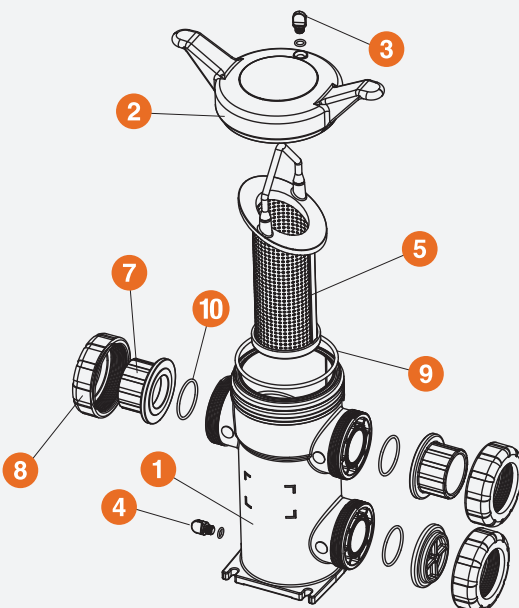
- Drain Kit with Lockout Ball Valve
- Baskets Available with Perforated or Mesh Liners
- Stainless Steel, Monel®, Hastelloy® and Titanium Strainer Baskets
- Pressure Differential Gauge and Switch

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

SB Series Simplex Basket Strainers

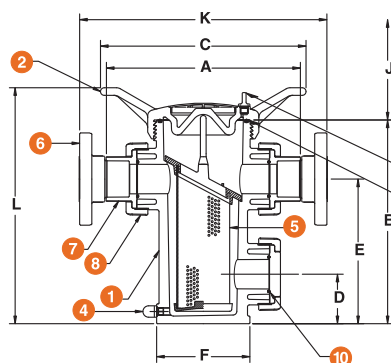
1/2" TO 4" BLACK & PLATINUM GFPP



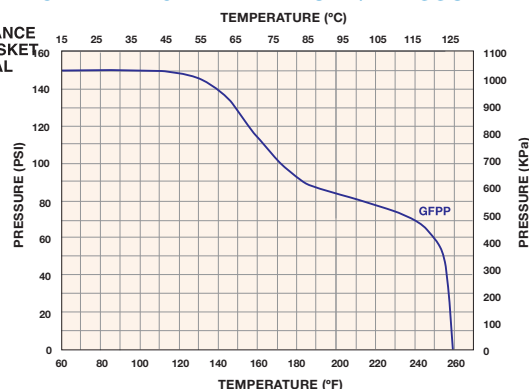
TECHNICAL INFORMATION, CONTINUED

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		VOLUME gal / LT
										SOC / THD	FLANGED	
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:

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

ΔP = Pressure Drop
 Q = Flow in GPM
 C_v = 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.



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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

SB Series Simplex Basket Strainers

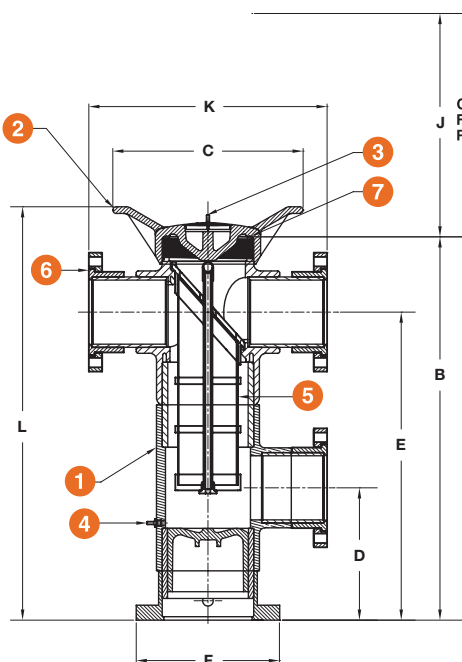
6" TO 8" PVC AND CPVC



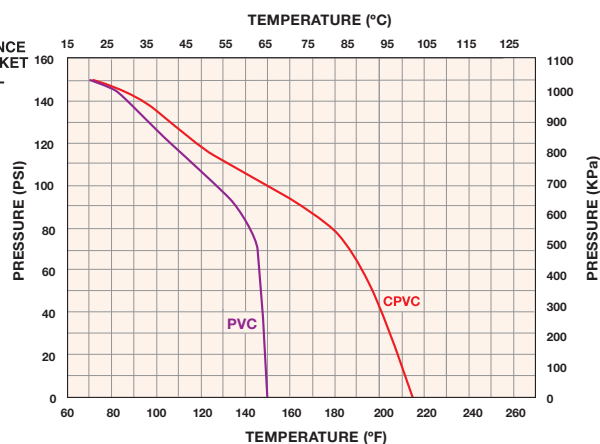
TECHNICAL INFORMATION, CONTINUED

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		VOLUME gal / LT
										SOC / THD	FLANGED	
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:

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

ΔP = Pressure Drop
 Q = Flow in GPM
 C_v = 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.



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 Visit us at: haywardflowcontrol.com



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

DB Series Duplex Basket Strainers

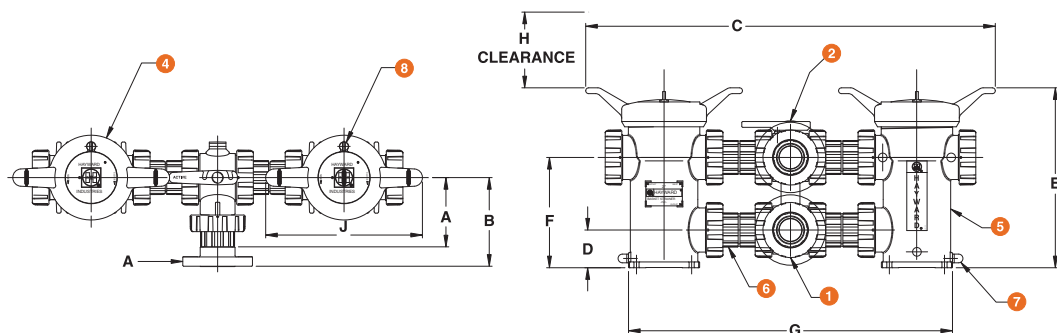
1/2" TO 4" PVC, CPVC AND EASTAR®



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	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
1/16"	1.00	1/16"	.74
1/8"	.58	1/8"	.58
3/16"	.46	5/32"	.37
		3/16"	.46
		1/4"	.58
		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:

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

ΔP = Pressure Drop

Q = Flow in GPM

C_v = Flow Coefficient

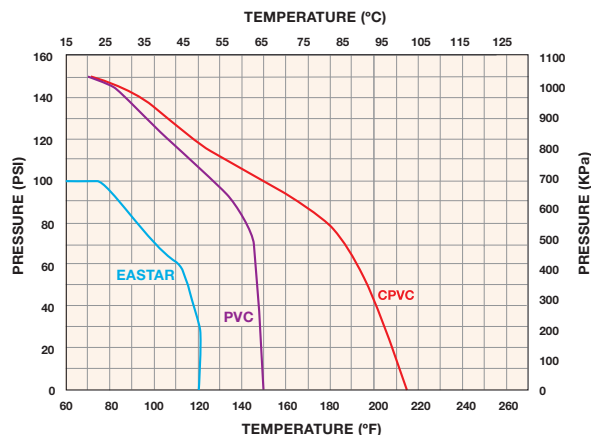
Cv VALUES

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.

OPERATING TEMPERATURE/PRESSURE



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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

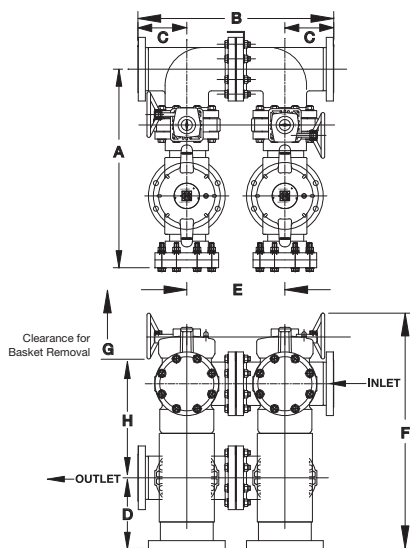
DB Series Duplex Basket Strainers

6" AND 8" PVC AND CPVC

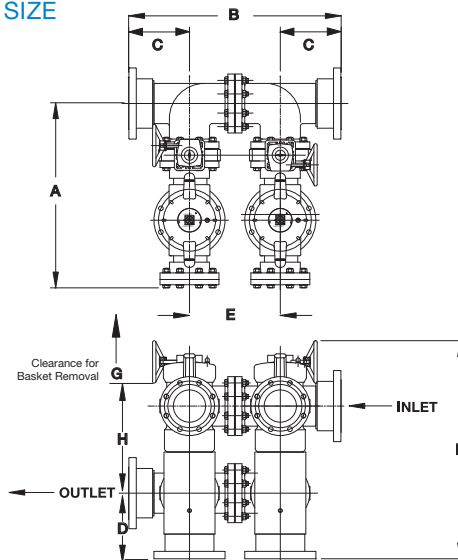


TECHNICAL INFORMATION, CONTINUED

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

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

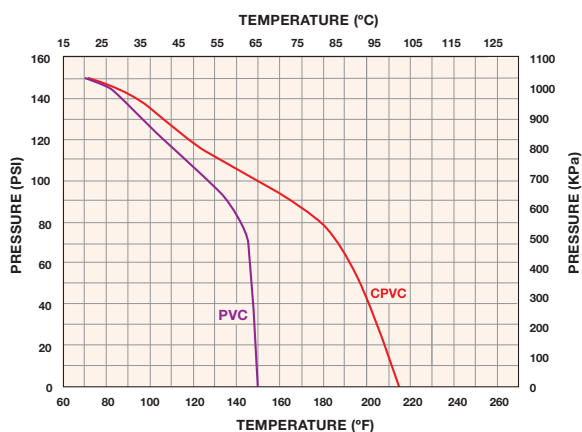
ΔP = Pressure Drop

Q = Flow in GPM

C_v = 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												
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	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).												
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	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
12000	2725.50	26.74	Maximum recommended fluid velocity is 8 feet per second (solenoid valves 5 feet per second)												