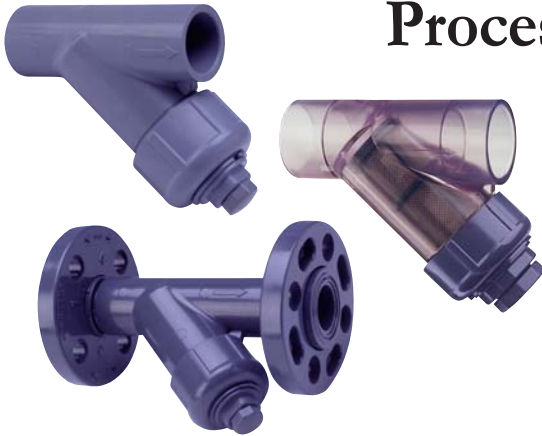




# PVC & CPVC Y-STRAINERS

YS-2-1201

## In-Line Protection of Process Equipment



### In-Line Horizontal or Vertical Installation

Line fluid flow is diverted through the interior of the strainer basket to fully entrap sediment, dirt and debris in either horizontal or vertical installation.

### Rugged PVC or CPVC Construction

Computer engineered design places strength where it's needed most. PVC or higher heat handling CPVC materials provide exceptional chemical and corrosion resistance.

### Special PVC Clear-Body Option

Allows visibility of internal flow and easy monitoring of sediment accumulation in the strainer. (socket style only)

### Convenient Removable Strainer Basket

Strainer basket easily unscrews from Y-body for quick cleaning of strainer screen.

### EPDM or Viton® O-ring Options

Choice of high grade EPDM or Viton® O-rings allows application specific selection for optimum chemical resistance.

### Full Service Pressure Rating

Sizes 1/2" - 2" Pressure Rated to 150 psi @ 73°F  
Sizes 3" - 4" to 90 psi @ 73°F

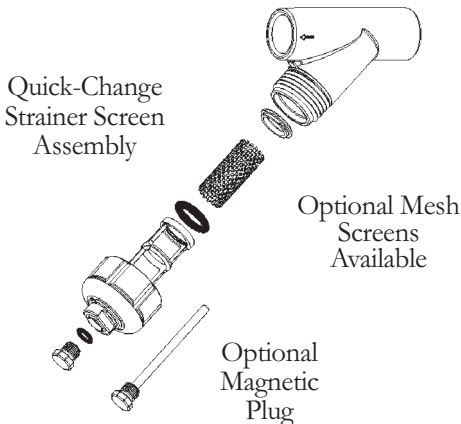
### PVC, CPVC and Stainless Steel Strainer Screen Assortment Options

Standard Y-STRAINERS are assembled with 1/32" perforation (20 Mesh) PVC screens for PVC Strainers and CPVC Screens for CPVC Strainers. Optional perforation sizes and 316 Stainless Steel Mesh Screens are available.

### Standard or Optional Magnetic Drain Plug for Quick Flushing

Standard plug easily removes for quick flushing of strainer or installation of a bleed-off valve. Optional magnetic plug traps ferrous metal particles inside strainer.

Spears Y-type sediment strainers are the perfect choice for in-line removal of suspended solids, sediment, dirt and debris. Convenient removable strainer basket allows quick cleaning with an assortment of screen mesh sizes to meet a variety of application needs. Spears Y-Strainers are produced from PVC Gray, PVC Clear for fluid visibility and CPVC Gray for higher temperatures. Available with socket or flanged end connectors in IPS sizes 1/2" through 4".



**Sample Engineering Specification**

All sediment strainers shall be Y-type constructed from PVC Type I, ASTM D 1784 Cell Classification 12454 or CPVC Type IV, or ASTM D 1784 Cell Classification 23447. All O-rings shall be EPDM or genuine Viton®. All Y-strainers shall have replaceable PVC, CPVC or Type 316 stainless steel screens and O-ring sealed drain plugs with magnetic drain plug option. All threaded Y-Strainers shall have Stainless Steel Reinforced (SR) threads. All Y-Strainers, sizes 1/2" - 2" shall be pressure rated to 150 psi, sizes 3" - 4" to 90 psi for water at 73°F, as manufactured by Spears Manufacturing Company.

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## Strainer Screen Mesh Options

Stock Y-Strainers are assembled with standard 1/32" (20 mesh) perforated PVC or CPVC Screens, PVC, CPVC and 316 stainless steel screens are available in the following standard mesh size designations. PVC and CPVC screens are perforated; stainless steel screens are wire mesh. Additional stainless steel mesh screen sizes can be custom ordered, down to 400 mesh.

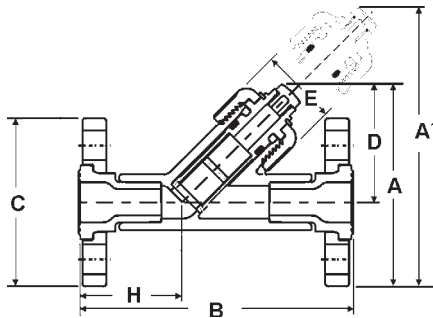
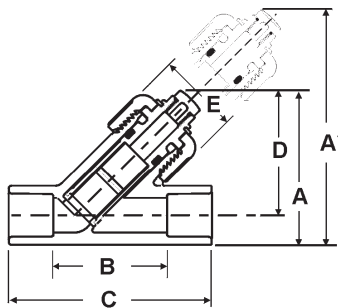
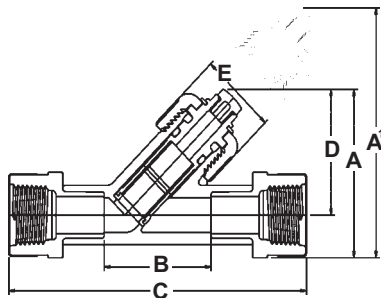
U.S. Standard Mesh Sieve No.	Sieve Opening Size (inch)	Perforation Designation (inch)
8	0.094	3/32
12	0.062	1/16
20	0.033	1/32
30	0.024	Use Mesh No.

### Cv Values

Nominal Size	Y-Strainers Cv			
	Plastic Strainer Mesh			
	8	12	20	30
1/2	5.5	5.4	5.3	5.2
3/4	8.2	7.8	7.5	7.2
1	14.3	13.9	13.6	13.3
1-1/4	33.6	32.9	29.4	25.4
1-1/2	43.8	41.6	33.0	32.1
2	50.6	50.0	49.6	48.8
3	75.2	74.6	74.0	73.4
4	169.5	169.0	168.8	168.0

### Drain Plug Tap Size for Bleed-Off Valve

Y-Strainer Size	Tap Size (NPT)
1/2	1/4 - 18
3/4	1/4 - 18
1	3/8 - 18
1-1/4	1/2 - 14
1-1/2	1 - 11-1/2
2	1 - 11-1/2
3	1 - 11-1/2
4	1 - 11-1/2



### Y-Strainer Threaded Dimensions

Nominal Size	Dimension Reference (inches, ±1/16)						Approx. Wt. (Lbs.)	
	A <sup>1</sup>	A	D	E	B	C	PVC	CPVC
1/2	4-7/8	3-1/16	2-1/2	1-5/8	3-5/8	5-1/16	.31	.33
3/4	5-15/16	3-11/16	3	2	4-3/8	5-13/16	.50	.53
1	7-1/16	4-7/16	3-5/8	2-1/4	5-3/16	7	.85	.90
1-1/4	8-3/8	5-5/16	4-1/4	2-13/16	6	7-15/16	1.21	1.28
1-1/2	9-3/8	6	4-7/8	3-3/16	6-15/16	8-13/16	1.66	1.76
2	12	7-5/8	6-3/16	3-1/2	8-1/8	10-1/8	2.96	3.10
3	15-5/16	9-11/16	7-5/8	5-1/8	11	14-1/4	5.34	5.64
4	19-13/16	12-1/2	9-7/8	6-9/16	14	14-3/8	9.97	10.45

### Y-Strainer Socket Dimensions

Nominal Size	Dimension Reference (inches, ±1/16)						Approx. Wt. (Lbs.)	
	A <sup>1</sup>	A	D	E	B	C	PVC	CPVC
1/2	4-5/8	3-1/16	2-1/2	1-5/8	1-5/8	3-3/8	.31	.33
3/4	5-3/4	3-11/16	3	2	2	4	.50	.53
1	6-7/8	4-7/16	3-5/8	2-1/4	2-1/2	4-3/4	.85	.90
1-1/4	8-5/32	5-5/16	4-1/4	2-13/16	3-1/16	5-9/16	1.21	1.28
1-1/2	9-1/8	6	4-7/8	3-3/16	3-9/16	6-5/16	1.66	1.76
2	11-3/4	7-5/8	6-3/16	3-1/2	4-1/2	7-1/2	2.96	3.10
3	15	9-11/16	7-5/8	5-1/8	6-9/16	10-5/16	5.34	5.64
4	19-11/16	12-1/2	9-7/8	6-9/16	8-5/8	13-1/8	9.97	10.45

### Y-Strainer Flanged Dimensions

Nominal Size	Dimension Reference (inches, ±1/16)						Approx. Wt. (Lbs.)	
	A <sup>1</sup>	A	D	E	B	C	PVC	CPVC
1/2	5-13/16	4-3/16	2-1/2	1-5/8	5-11/16	3-1/2	.82	.85
3/4	7-1/8	5	3-1/8	2	6-7/16	3-7/8	1.23	1.28
1	8-3/16	5-3/4	3-5/8	2-1/4	7-1/4	4-1/4	1.70	1.81
1-1/4	9-7/16	6-9/16	4-9/32	2-13/16	8-1/8	4-15/16	2.40	2.52
1-1/2	10-7/16	7-3/8	4-7/8	3-3/16	9-3/16	8-13/16	3.07	3.25
2	13-1/4	9-1/8	6-3/16	3-1/2	10-3/8	10-1/8	5.20	5.42
3	16-21/32	11-3/8	7-5/8	5-1/8	12-1/32	7-1/2	9.44	10.07
4	21-19/32	14-5/16	9-7/8	6-9/16	14-9/16	9-1/16	14.87	16.15

Note: 4" flanged Y-strainer uses split flange ring

**NOT FOR USE WITH COMPRESSED AIR OR GASES**



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