

# ALL PLASTIC BASKET STRAINER

Best for  
Corrosive Service

Sizes 1/2" to 8" • PVC, Corzan® CPVC or Eastar • Socket, Threaded or Flanged



#### Features:

- External cover threads
- Low pressure drop
- Wide choice of baskets
- In-Line or loop piping design
- True union connections
- Hand removable cover
- Integral, flat mounting base

#### Options:

- Stainless steel mesh baskets
- EPDM seals
- Clear, see through Eastar construction

The Eaton All-Plastic Simplex Strainer is the answer for straining applications in corrosive or ultra pure services.

There is no metal used in its construction to leach out and contaminate sensitive fluids. And because it's plastic this simplex strainer will never rust or corrode. Another benefit, often overlooked, is that because it is plastic, the strainer will never need painting or coating. It will stand up and function for years in applications where a metal strainer would have to be coated or painted just to survive.

Perforated plastic baskets, made of the same material as the strainer housing, are standard. For applications that require fine mesh straining, baskets can be fabricated from stainless steel, extending the application flexibility of this all-plastic basket strainer.

Basket changing or cleanout couldn't be easier. The cover spins off by hand, no tools are needed. And because of the light weight of the strainer, installation is simplified.

Plastic simplex strainers can be used in many applications, even

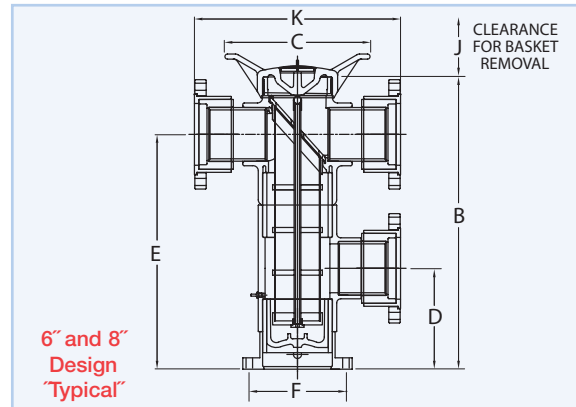
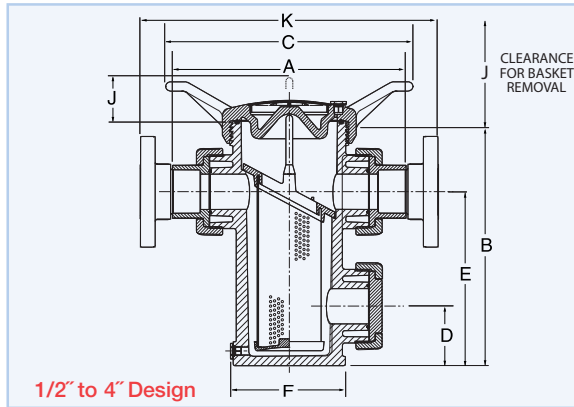
some that you may have thought would require metal strainers. Thinking of replacing a metal strainer with a plastic one to take advantage of lower costs and better corrosion resistance? First take a look at the temperature/non-shock pressure chart to see if your application falls within range of the plastic material you are considering. If it does, and chemical resistance is not a problem, then the other consideration is the actual installation itself. Contact us for specific recommendations for your system. These recommendations may include things such as proper alignment of the strainer in the piping system to eliminate stress, correct support for the strainer and installation of spool pieces of plastic pipe or expansion joints.

Eaton All-Plastic Simplex Basket Strainers are the answer to highly corrosive or ultra pure applications. They are available in PVC and CPVC in sizes up to 8" – with socket, threaded or flanged connections. They are rated at 150 psi at 70°F in most applications.

### Selection Chart

Size	Material	End Connection	Seal	Pressure Rating
1/2" - 4"	PVC or CPVC	Threaded, Socket or Flanged	Viton®	150 psi @ 70°F
1/2" to 2"	EASTAR™	Threaded, Socket or Flanged		100 psi @ 70°F
6" to 8"	PVC or CPVC	Flanged		150 psi @ 70°F

## Technical Details



### Dimensions (Inches / Millimeters)

Size	A	B	C	D	E	F	J	K	Weight (lb / kg)		Volume (gal / liters)
									Skt / Thd	Flg	
1/2"	8.64 / 219	9.63 / 245	11.0 / 279	2.25 / 57	6.75 / 171	4.31 / 109	8.00 / 203	10.77 / 274	8.0 / 3.4	9.0 / 4	0.20 / 0.8
3/4"	8.64 / 219	9.63 / 245	11.0 / 279	2.25 / 57	6.75 / 171	4.31 / 109	8.00 / 203	11.02 / 280	8.0 / 3.4	9.0 / 4	0.20 / 0.8
1"	8.64 / 219	9.63 / 245	11.0 / 279	2.25 / 57	6.75 / 171	4.31 / 109	8.00 / 203	11.64 / 296	8.0 / 3.4	9.0 / 4	0.20 / 0.8
1-1/4"	12.75 / 324	13.38 / 340	13.5 / 343	3.25 / 83	9.5 / 241	6.13 / 156	12.86 / 327	15.63 / 397	14.0 / 6.4	16.5 / 7.5	0.70 / 2.7
1-1/2"	12.69 / 322	13.38 / 340	13.5 / 343	3.25 / 83	9.5 / 241	6.13 / 156	12.86 / 327	15.89 / 404	14.0 / 6.4	16.5 / 7.5	0.70 / 2.7
2"	12.75 / 324	13.38 / 340	13.5 / 343	3.25 / 83	9.5 / 241	6.13 / 156	12.86 / 327	16.29 / 414	14.0 / 6.4	16.5 / 7.5	0.70 / 2.7
2-1/2"	16.52 / 384	19.83 / 504	16.0 / 406	4.83 / 123	14.83 / 377	7.25 / 184	17.25 / 438	21.02 / 534	28.0 / 13	33.0 / 15	2.80 / 10.6
3"	16.40 / 384	19.83 / 504	16.0 / 406	4.83 / 123	14.83 / 377	7.25 / 184	17.25 / 438	20.36 / 517	28.0 / 13	33.5 / 15	2.80 / 10.6
4"	17.27 / 384	19.83 / 504	16.0 / 406	4.83 / 123	14.83 / 377	7.25 / 184	17.25 / 438	22.13 / 562	28.0 / 13	37.0 / 17	2.80 / 10.6
6"	n/a	34.28 / 871	18.0 / 457	10.66 / 271	27.19 / 691	11.75 / 298	21.80 / 554	22.42 / 569	n/a	60.0 / 27	6.8 / 25.7
8"	n/a	34.28 / 871	18.0 / 457	10.66 / 271	27.19 / 691	11.75 / 298	28.75 / 730	25.19 / 640	n/a	80.0 / 36	9.0 / 34.1

Dimensions and weights are for reference only. Contact us for certified drawings.

### C<sub>v</sub> Factors\*

Size	Value	Size	Value
1/2"	15	2-1/2"	290
3/4"	18	3"	300
1"	20	4"	350
1-1/4"	55	6"	1000
1-1/2"	58	8"	750
2"	60		

\* For water with clean, perforated basket

The above C<sub>v</sub> Factors were determined using a 1/16" perforated plastic basket in 1/2" through 4" strainers and a 5/32" perforated stainless steel basket in 6" and 8" strainers. For other size basket perforations, multiply by the correction factor in the above Correction Factor charts.

### Pressure Drop Calculations

#### Basket Perforation Correction Factors

##### For 1/2" to 4" Strainers

Plastic Baskets	Stainless Steel Baskets	
1/32" 1.05	1/32" .82	3/8" .45
1/16" 1.00	3/64" .63	1/2" .48
1/8" .58	1/16" .74	20 Mesh .79
3/16" .46	5/64" .50	40 Mesh 1.01
	7/64" .51	60 Mesh 1.20
	1/8" .58	80 Mesh 1.16
	5/32" .37	100 Mesh 1.20
	3/16" .46	200 Mesh 1.09
	1/4" .58	325 Mesh 1.22

##### For 6" to 8" Strainers

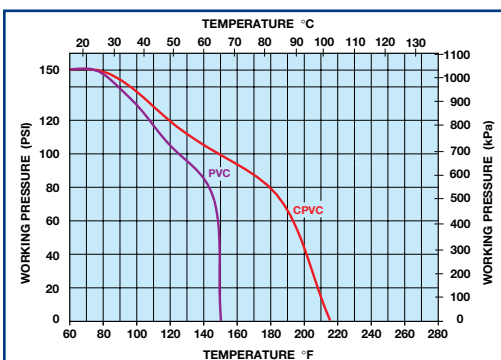
Plastic Baskets	Stainless Steel Baskets	
1/8" 2.00	1/32" 2.25	3/8" 1.24
3/16" 1.50	3/64" 1.73	1/2" 1.31
	1/16" 2.03	20 Mesh 2.16
	5/64" 1.37	40 Mesh 2.79
	7/64" 1.40	60 Mesh 3.28
	1/8" 1.58	80 Mesh 3.18
	5/32" 1.00	100 Mesh 3.30
	3/16" 1.26	200 Mesh 2.98
	1/4" 1.58	325 Mesh 3.33

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

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

Where  $\Delta P$  = Pressure Drop  
 $Q$  = Flow in GPM  
 $C_v$  = Flow Coefficient

### Operating Temperature/Pressure



### Pressure Drop Calculation Example

The pressure loss for a 2" simplex strainer in water service, with a clean 100 mesh basket at 40 gpm, would be:

$$(40 / 55)^2 = 0.5 \times \text{correction factor of 1.20} = 0.6 \text{ psi}$$

### Basket Selection

- The 1/2" to 1" strainers can be ordered with either a 1/32" or 1/16" perf plastic basket.
- The 1-1/2" and 2" with a 1/32", 1/16", 1/8", or 3/16" perf plastic basket.
- The 3" and 4" with a 1/16", 1/8" or 3/16" perf plastic basket.
- The 6" and 8" with a 1/8" or 3/16" perf plastic basket.
- Stainless steel baskets for all size strainers are available in these perms: 1/32", 3/64", 1/16", 5/64", 7/64", 1/8", 5/32", 3/16", 1/4", 3/8", 1/2"; and in mesh sizes: 20, 40, 60, 80, 100, 200, 325