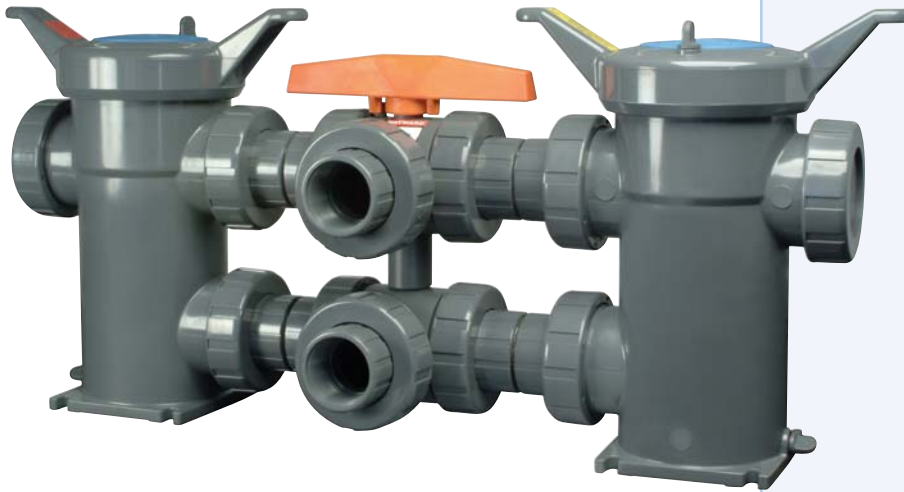


ALL PLASTIC DUPLEX BASKET STRAINER

Sizes 1/2" to 4" • PVC or CPVC • Threaded or Flanged

Best for
Corrosive Service



Features

- Uninterrupted flow
- External body threads
- Low pressure drop
- Wide choice of baskets
- In-line or loop piping design
- True union connections
- Hand removable covers
- Integral, flat mounting base

Options

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

In many corrosive or sensitive process media straining applications, plastic is the preferred material of construction for a duplex strainer. Eaton's All Plastic Duplex Basket Strainers are resistant to a wide variety of corrosive acids and other aggressive materials. They will work in applications that might require a much more expensive exotic alloy strainer – if one were even available. And because they are plastic they will not contaminate sensitive process media such as photographic chemicals and de-ionized water.

Flow is diverted from one strainer basket to the other by an all-plastic, three-way ball valve assembly. A quick turn of the handle diverts the flow. The handle points to the basket chamber in service, making it easy to determine which basket needs servicing. The strainer covers spin off for fast and easy access to the baskets for cleaning or change out.

Viton® seals are standard on all sizes of Eaton's All-Plastic Duplex Basket Strainers. The cover O-rings are a piston seal assuring a leak tight assembly with the covers only hand tight.

These duplex strainers come standard with two perforated all-plastic baskets made of the same material as the strainer itself. This makes determination of chemical compatibility for an application

much easier than if two different materials were involved. For finer straining applications, stainless steel baskets are available in mesh sizes from 20 to 325.

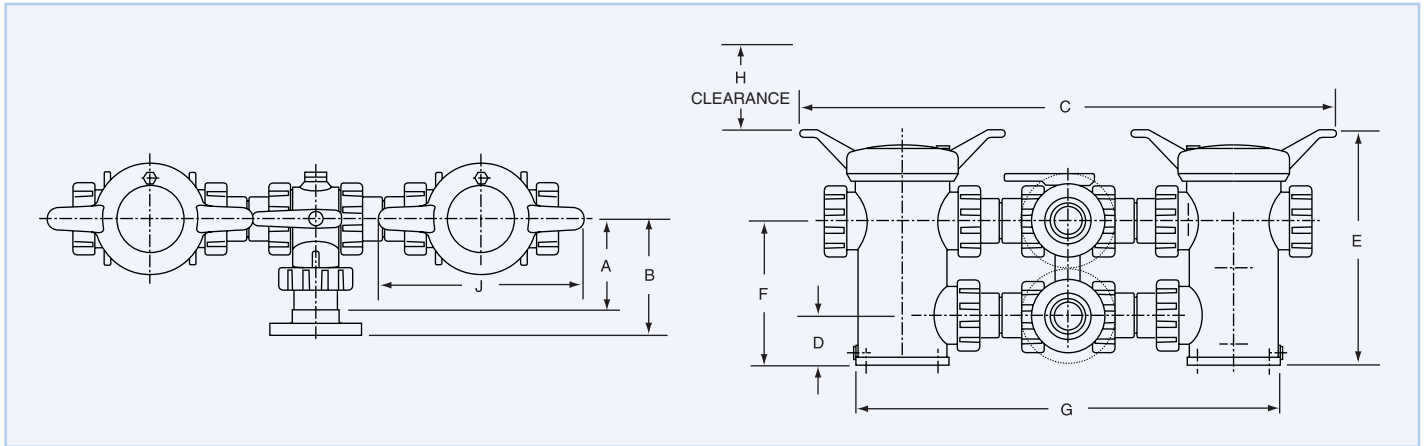
Plastic duplex strainers can be used in many applications, even some that you may have thought would require metal strainers. Thinking of replacing a metal strainer with a plastic one to take advantage of lower costs and better corrosion resistance? First take a look at the temperature/non-shock pressure 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 Duplex Basket Strainers are the answer to highly corrosive or ultra-pure applications. They are available in PVC (or CPVC for higher temperatures), in sizes up to 4" with socket, threaded or flanged connections. They are rated at 150 psi at 70°F in most applications.

Selection Chart

Size	Material	End Connections	Seals	Pressure Rating
1/2" to 4"	PVC or CPVC	Socket, Threaded or Flanged	Viton®	150 psi @ 70F
1/2" to 2"	EASTAR™	Socket, Threaded or Flanged	Viton®	100 psi @ 70F

Technical Details



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

Dimensions - (inches / mm)

Size	A	B	C	D	E	F	G	H	J	Weight (lb / kg)	
										Skt / Thd	Flg
1/2"	4.14 / 105	5.21 / 132	27.2 / 693	2.25 / 57	11.7 / 297	6.75 / 171	20.5 / 521	5.0 / 127	11.0 / 279	20.0 / 9	21.0 / 9.5
3/4"	4.14 / 105	5.33 / 135	27.2 / 693	2.25 / 57	11.7 / 297	6.75 / 171	20.5 / 521	5.0 / 127	11.0 / 279	20.0 / 9	21.0 / 9.5
1"	4.14 / 105	5.64 / 143	27.2 / 693	2.25 / 57	11.7 / 297	6.75 / 171	20.5 / 521	5.0 / 127	11.0 / 279	20.0 / 9	21.0 / 9.5
1-1/4"	6.0 / 152	7.44 / 189	35.3 / 897	3.25 / 83	15.5 / 394	9.5 / 241	28.0 / 711	10.8 / 274	13.5 / 343	39.5 / 18	42.0 / 20
1-1/2"	6.0 / 152	7.6 / 193	35.3 / 897	3.25 / 83	15.5 / 394	9.5 / 241	28.0 / 711	10.8 / 274	13.5 / 343	39.5 / 18	42.0 / 20
2"	6.0 / 152	7.77 / 197	35.3 / 897	3.25 / 83	15.5 / 394	9.5 / 241	28.0 / 711	10.8 / 274	13.5 / 343	39.5 / 18	42.0 / 20
2-1/2"	7.6 / 178	9.85 / 250	44.4 / 1128	4.83 / 123	22.3 / 566	14.83 / 377	35.6 / 904	14.8 / 376	16.0 / 406	83.0 / 38	88.0 / 40
3"	7.6 / 178	9.85 / 243	44.4 / 1128	4.83 / 123	22.3 / 566	14.83 / 377	35.6 / 904	14.8 / 376	16.0 / 406	83.0 / 38	88.5 / 40
4"	9.33 / 237	11.76 / 299	47.5 / 1207	4.83 / 123	22.3 / 566	14.83 / 377	38.7 / 983	14.8 / 376	16.0 / 406	100 / 45	105 / 48

C_v Factors*

Size	Value	Size	Value
1/2"	12.5	1-1/2"	45
3/4"	13	2"	48
1"	14	3"	200
1-1/4"	40	4"	230

* For water with clean, perforated basket
The above C_v Factors were determined using a 1/16" perforated plastic basket.

Basket Perforation Correction Factors

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

Pressure Drop Calculations

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

$$\Delta P = \left[\frac{Q}{C_v} \right]^2 \quad \text{Where } \Delta P = \text{Pressure Drop}$$

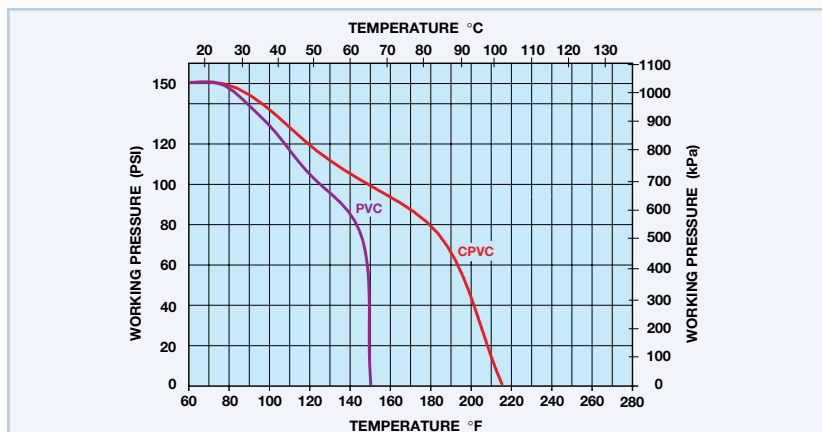
Q = Flow in GPM
C_v = Flow Coefficient

Pressure Drop Calculation Example

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

$$(40 / 38)^2 = 1.1 \times \text{correction factor of } 1.20 = 1.3 \text{ psi}$$

Operating Temperature/Pressure



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.
- Stainless steel baskets for all size strainers are available in these perfs: 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.