Get a Price Quote on Your Eaton Model 85 YStrainer >

Pipeline Strainer | Cast Construction | Permanent Media

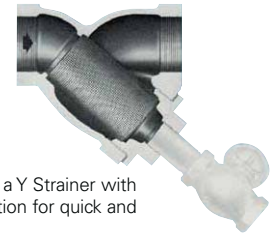
Y Strainer

Model 85

- 1/4" to 10"
- Carbon Steel and Stainless Steel
- Threaded, Flanged, or Socket Weld Connections

FEATURES

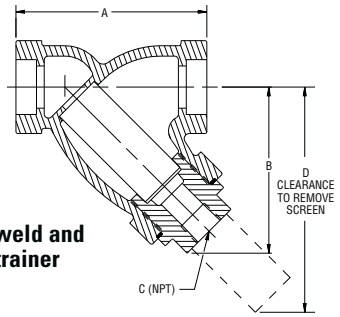
- Compact design
- Bolted or threaded covers
- Standard stainless steel screens
- Horizontal or vertical installation



Cross-section of a Y Strainer with blow off connection for quick and easy clean-out.

OPTIONS

- Basket perforations from 1/32" to 1/2"
- Basket mesh from 20 to 400
- Monel screens



Typical socket weld and threaded Y strainer

Eaton Model 85 Y strainers are engineered to withstand aggressive industrial and commercial applications. Y strainers protect downstream process system components by mechanically removing unwanted solids from liquid, gas, or steam lines by means of a perforated or wire mesh straining element.

To protect against any bypass, the Model 85 Y strainers are manufactured with a precision-machined screen seat on the body of the strainer and high-quality stainless steel screens fabricated to fit the strainer body perfectly. Model 85 Y strainers are available in carbon steel or stainless steel for pipeline sizes from 1/4" to 10" with threaded, flanged, or socket weld connections.

For cost-effective straining solutions, Y strainers work well in applications in which the amount of material to be removed from the flow is relatively small--resulting in long intervals between screen cleanings. The strainer screen is manually cleaned by shutting down the line and removing the strainer cap.

For applications with heavier dirt loading, Y strainers fitted with a "blow off" connection permit cleaning of the screen without removing it from the strainer body.

Eaton Model 85 Y Strainers 1/4" to 10"
Carbon and Stainless Steel-Threaded, Socket Weld & Flanged

Size	Material	End Connection	Cover	Rating (WOG) non-shock
1/4" to 2"	Carbon Steel	Threaded or Socket Weld 600#	Threaded	1480 psi @ 100 °F
1/4" to 2"	Stainless Steel	Threaded or Socket Weld 600#	Threaded	1440 psi @ 100 °F
1/2" to 10"	Carbon Steel	Flanged 150#	Bolted	285 psi @ 100 °F
1/2" to 10"	Carbon Steel	Flanged 300#	Bolted	740 psi @ 100 °F
1/2" to 10"	Stainless Steel	Flanged 150#	Bolted	275 psi @ 100 °F
1/2" to 10"	Stainless Steel	Flanged 300#	Bolted	720 psi @ 100 °F

Socket Weld, Threaded Carbon Steel & Stainless Steel – 600# (in/mm)

Size	A	B	C (Nom.)	D	Wt (lb / kg)
1/4	3.00 / 76	3.00 / 76	3/8	4.00 / 102	2 / 0.9
3/8	3.00 / 76	3.00 / 76	3/8	4.00 / 102	2 / 0.9
1/2	3.00 / 76	3.00 / 76	3/8	4.00 / 102	2 / 0.9
3/4	3.75 / 95	3.50 / 89	3/8	4.75 / 121	4 / 1.8
1	4.63 / 118	4.00 / 102	1/2	5.75 / 146	6 / 2.7
1-1/4	5.00 / 127	4.63 / 118	3/4	6.50 / 165	8 / 3.6
1-1/2	5.63 / 143	5.25 / 133	3/4	7.50 / 191	10 / 4.5
2	7.00 / 178	5.75 / 146	1	8.75 / 222	15 / 6.8

Consult Eaton for 12" and larger size dimensions. Dimensions and weights are for references only. Contact Eaton for certified drawings.

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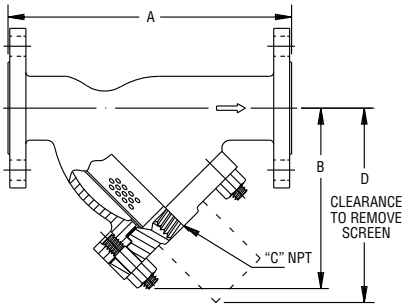
MODEL 85Y Strainer

Flanged Carbon Steel & Stainless Steel – 150# (in/mm)

Size	A	B	C (Nom.)	D	Wt (lb / kg)
½	5.00 / 127	2.75 / 70	⅜	3.50 / 89	5 / 2.3
¾	5.63 / 143	3.00 / 76	⅜	4.00 / 102	7 / 3.2
1	6.38 / 162	3.64 / 92	½	5.00 / 127	9 / 4.1
1-¼	7.25 / 184	4.25 / 108	¾	5.75 / 146	14 / 6.3
1-½	8.88 / 226	5.75 / 146	¾	6.50 /165	18 / 8.2
2	7.88 / 200	6.00 / 152	1	8.25 / 210	16 / 7.3
2-½	9.75 / 248	6.50 / 165	1	9.25 / 235	25 / 11.4
3	10.00 / 254	7.25 / 184	1-¼	10.50 / 267	35 / 16
4	12.13 / 308	9.75 / 248	1-½	14.75 / 375	70 / 32
6	18.50 / 470	14.25 / 362	2	21.00 / 533	130 / 59
8	21.63 / 549	18.00 / 457	2	26.75 / 679	240 / 109
10	26.00 / 660	22.50 / 565	2	33.75 / 857	300 / 136

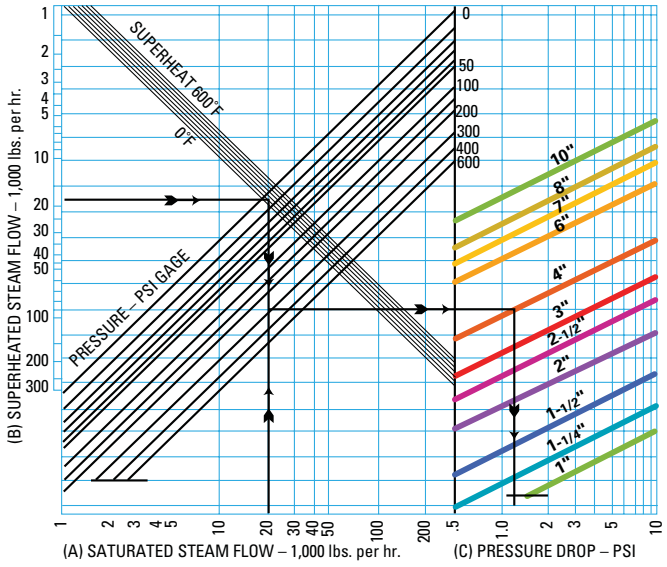
Typical Flanged Y Strainer



Flanged Carbon Steel & Stainless Steel – 300# (in/mm)

Size	A	B	C (Nom.)	D	Wt (lb / kg)
½	5.25 / 133	2.75 / 70	⅜	3.50 / 89	6 / 2.7
¾	6.00 / 152	3.00 / 76	⅜	4.00 /102	9 / 4.1
1	6.88 / 175	3.63 / 92	½	5.00 / 127	13 / 6.0
1-¼	7.75 / 197	4.25 / 108	¾	5.75 / 146	18 / 8.2
1-½	9.38 / 238	5.75 / 146	¾	6.50 / 165	24 / 11
2	8.63 / 219	6.25 / 159	1	8.25 / 210	30 / 13.6
2-½	10.63 / 270	7.00 / 178	1	9.25 / 235	40 / 18.2
3	12.00 / 305	7.75 / 197	1-¼	10.50 / 267	55 / 25
4	14.50 / 368	10.50 / 267	1-½	14.75 / 375	105 / 48
6	20.00 / 508	14.75 / 375	2	21.00 / 533	200 / 91
8	23.38 / 594	18.75 / 476	2	27.00 / 686	360 / 164
10	27.38 / 695	22.75 / 578	2	34.50 / 876	430 / 195

Steam Pressure Drops



Calculating Saturated Steam Pressure Drop

Example: Pressure = 300 psig, Flow Rate = 20,000 lb/hr, Strainer Size = 4 inches

1. Locate steam flow on Scale A.
2. Follow vertical line to required pressure.
3. Follow horizontal line to strainer size.
4. Follow vertical line downward and read pressure drop on Scale C.
5. Pressure drop equals 1.25 psi.

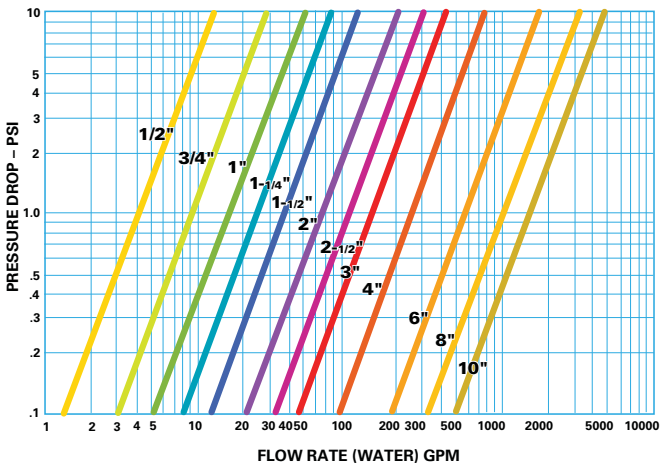
Calculating Superheated Steam Pressure Drop

Example: Pressure = 300 psig, Flow Rate = 18,000 lb/hr, Strainer Size = 4 inches

1. Locate steam flow on Scale B.
2. Follow horizontal line to superheat.
3. Follow vertical line to pressure.
4. Follow horizontal line to strainer size.
5. Follow vertical line and read pressure drop on Scale C.
6. Pressure drop equals 1.25 psi.

Note: Use the superheat temperature value above the saturated steam temperature to obtain the point on this graph.

Flow Rates



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