

DUPLEX STRAINERS



*20" Carbon Steel Model 950
with Bolted Covers*

Eaton duplex strainers are used when the system flow cannot be shut down for basket cleaning or change out. A duplex type basket strainer can operate continuously and the pipeline never has to be shut down.

Both the Eaton Model 900 and 950 Fabricated Duplex Strainers feature two strainer basket housings with a valve flow diverter assembly connecting them. When the basket in one housing becomes full, flow is switched to the other using the butterfly valve assembly. The first basket is then removed, cleaned or replaced, and is ready for use again.

The Model 900 is available in carbon or stainless steel in sizes from 1" to 48" and comes with either 150# or 300# flanged connections. The inlet and outlet of the strainer are in the same plane.

The Model 950 is available in carbon or stainless steel in sizes from 1" to 48" with either 150# or 300# flanged connections. The Model 950 has an offset inlet and outlet, with the inlet located above the outlet.

Two different types of covers are available for both the Model 900 and 950. The simplest type is the bolted cover which is cost effective and works well in applications where basket changing is infrequent. A davit assembly can also be specified for larger strainers with heavy covers. This makes it possible for a single person to remove the cover of the strainer.

If the strainer will be opened frequently for basket cleaning, a bolted cover can be less effective because of the time needed to remove and then tighten the bolts. For these applications a special, hinged quick opening cover that is secured by swing bolts is available. This type of quick opening cover can even be adapted for higher pressure applications. For medium size strainers, 8" to 16", a bolted slide hinge cover is available. This permits a single operator to engage the hinge and open the cover.

There is a special, unique Eaton strainer basket for the Model 900 Fabricated Strainer. The basket has a slant top design which improves the flow through the strainer and results in significantly lower pressure drops than would otherwise be the case. The slant top design results in a more compact basket which weighs less than an ordinary basket and makes it possible for a single person to remove it from the strainer housing. This is a real labor saving feature when it becomes time to clean or change out the basket. The basket for the Model 950 has a traditional, flat top design.

Strainer baskets for the Model 900 and 950 are made of stainless steel, although almost any type of material can be specified. Basket perforations from 1/32" up to 1/2" are available and mesh linings in sizes from 20 to 400 mesh for fine straining applications can be specified.



*Model 950 Fabricated Duplex Strainer
designed for unique application
requirements.*

MODELS 900 & 950

Typical Basket & Screen Effective Area

Strainer Model	Pipe Size in.	Perforation Size - in.	Nominal Area of Pipe (sq in)	Gross Screen Area (sq in)	Free Area (sq in)	Ratio Free Area to Pipe Area
900/950	2	5/32	3.35	78	49	1460
900/950	3	5/32	7.39	94	59	8.00
900/950	4	5/32	12.73	151	95	7.46
900/950	5	5/32	20.00	204	128	6.40
900/950	6	5/32	28.90	283	178	6.16
900/950	8	5/32	50.02	478	301	6.02
900/950	10	5/32	78.85	691	435	5.52
900/950	12	5/32	111.93	942	593	5.30
900/950	14	5/32	135.28	1320	832	6.15
900/950	16	5/32	176.71	1659	1045	5.91
900/950	18	5/32	223.68	1979	1247	5.57
900/950	20	5/32	277.95	2513	1583	5.70
900/950	24*	5/32	402.00	4071	2565	6.38

*Contact Eaton for larger sizes

Eaton Model 900 and 950 Fabricated Duplex Strainers will meet the requirements of most duplex strainer applications. It is also easy to customize the strainers to meet special application requirements. Often it is thought that a custom designed duplex strainer is required for an application. Then on examination of the Model 900 or 950 it is found that a few simple modifications of the basic design results in a strainer that fits the application perfectly and at significant cost savings over a custom design.

Fabricated duplex strainers can also be designed with a backflush/backwash option. In these designs a piping connection, with an on/off backflush valve is fabricated at the strainer bottom and has a connection to the bottom of the strainer basket. When solids accumulate in the bottom of the basket the backflush valve is opened and the differential pressure between the operating pressure and the backflush system removes the solids without shutting the system down. Backflushing is often supplemented by a backwashing operation.

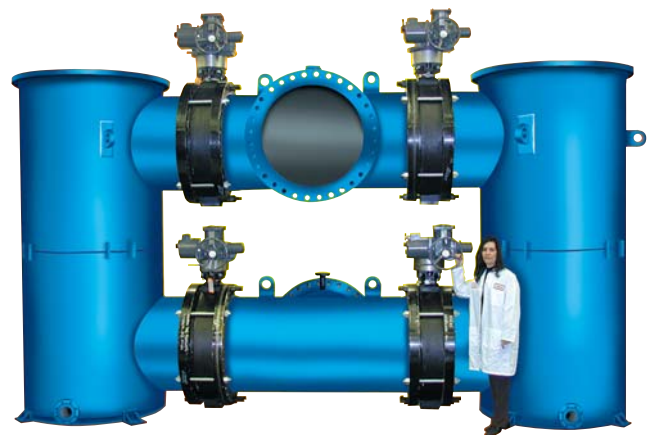
Backwashing is done by having fluid flow, under pressure, in the reverse direction into an empty strainer. This flow reversal back washes the basket and removes the residual dirt. Backwashing is often regarded as a second step, used to remove dirt not removed by backflushing.

Steam jacketing is another option available for fabricated strainers. Steam jacketing is used to maintain

critical fluid temperatures through the strainer. High temperatures are often required to process and transport highly viscous fluids. This modification is designed and effected without any impact on the function or normal maintenance of the strainer. Steam jacketing is available in carbon steel and type 316 stainless steel for service up to 450°F.

Eaton Model 900/950 strainers can be designed and fabricated to ASME section VIII and ANSI B31.1 codes.

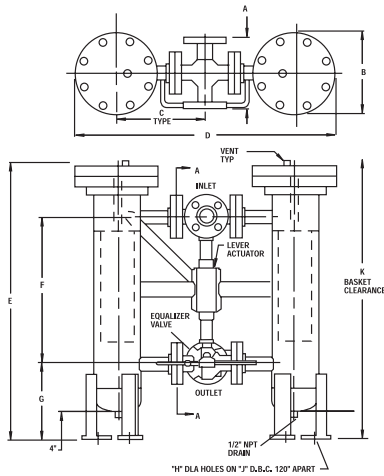
Contact us today to discuss your special fabricated duplex strainer requirements



36" Fabricated Carbon Steel Model 950

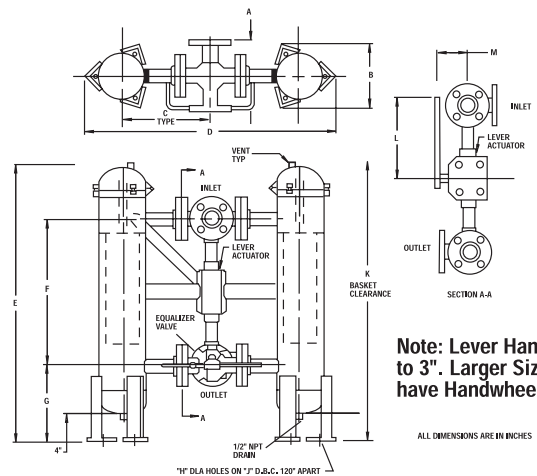
DUPLIX STRAINERS

MODEL 950 DUPLEX STRAINERS



Note: Lever Handle to 3". Larger Sizes have Handwheels.

ALL DIMENSIONS ARE IN INCHES



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MODEL 950 150# with Bolted Cover

Size	A	B	C	D	E	F	G	H	J	K	L	M
1½"	8¼	11	13	36	38	21	11	5/8	6 5/8	60	15	6¼
2"	8 11/16	11	13¼	36 3/8	39	22	11	5/8	6 5/8	61	18	6¼
3"	10¼	11	14	38	43½	26½	11	5/8	6 5/8	67	31	6¼
4"	13	13½	17½	48½	47 1/8	24½	12	5/8	8 5/8	75	12	7½
6"	16	16	22	60	57¼	32	13	5/8	10¾	92	12	8
8"	21¼	21	25 5/8	72¼	73½	44	15	5/8	14	128	15	8½

MODEL 950 300# with Bolted Cover

Size	A	B	C	D	E	F	G	H	J	K	L	M
1½"	8 5/8	12½	13¼	38	38½	21	11	5/8	6 5/8	60	15	6¼
2"	9 7/8	12½	13 5/8	38 5/8	39½	22	11	5/8	6 5/8	61	18	6¼
3"	11 7/8	12½	14 5/8	40¾	44	26½	11	5/8	6 5/8	67	31	6¼
4"	13 9/8	15	17 7/8	50¾	48	24½	12	5/8	8 5/8	76	12	7½
6"	18 1/8	17½	22 5/8	62¾	58	32	13	5/8	10¾	93	12	8
8"	22¼	23	26¼	75½	74¾	44	15	5/8	14	129	15	8½

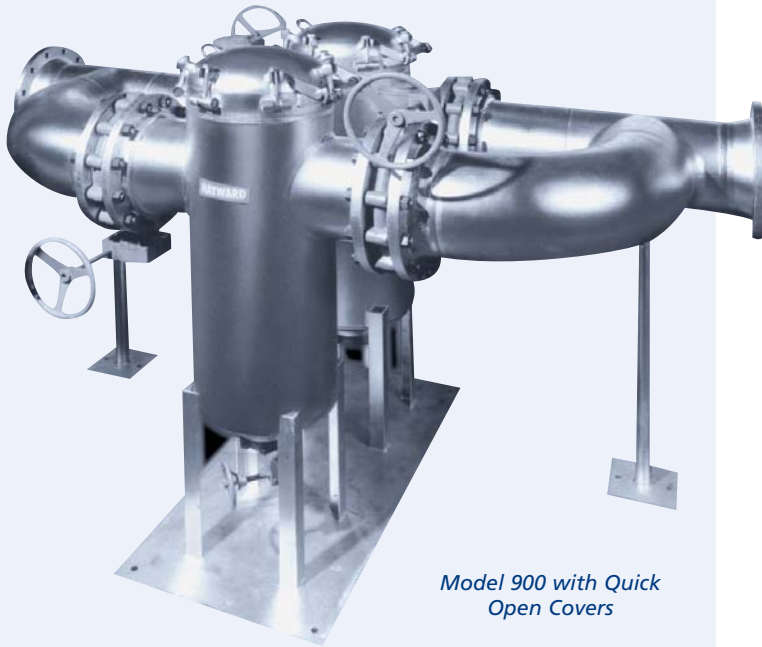
MODEL 950 150# with Quick Open Cover

Size	A	B	C	D	E	F	G	H	J	K	L	M
1½"	8¼	9½	13	36	39	21	11	5/8	6 5/8	61	15	6¼
2"	8 11/16	9½	13¼	36 3/8	40	22	11	5/8	6 5/8	62	18	6¼
3"	10¼	9½	14	38	44½	26½	11	5/8	6 5/8	68	31	6¼
4"	13	10½	17½	48	49	24½	12	5/8	8 5/8	76	12	7½
6"	16	13	22	57	60	32	13	5/8	10¾	95	12	8
8"	21¼	13½	25 5/8	70	77	44	15	5/8	14	132	15	8½

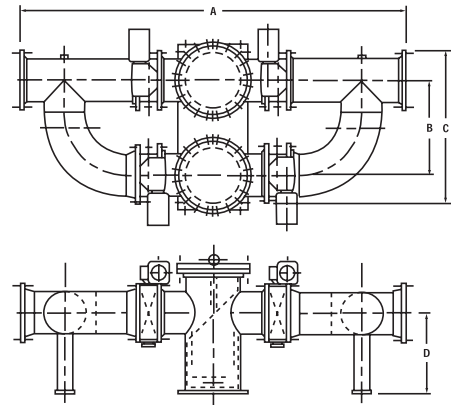
Consult Eaton for larger sizes. Dimensions are for reference only.

MODELS 900 & 950

MODEL 900 WITH BOLTED COVER



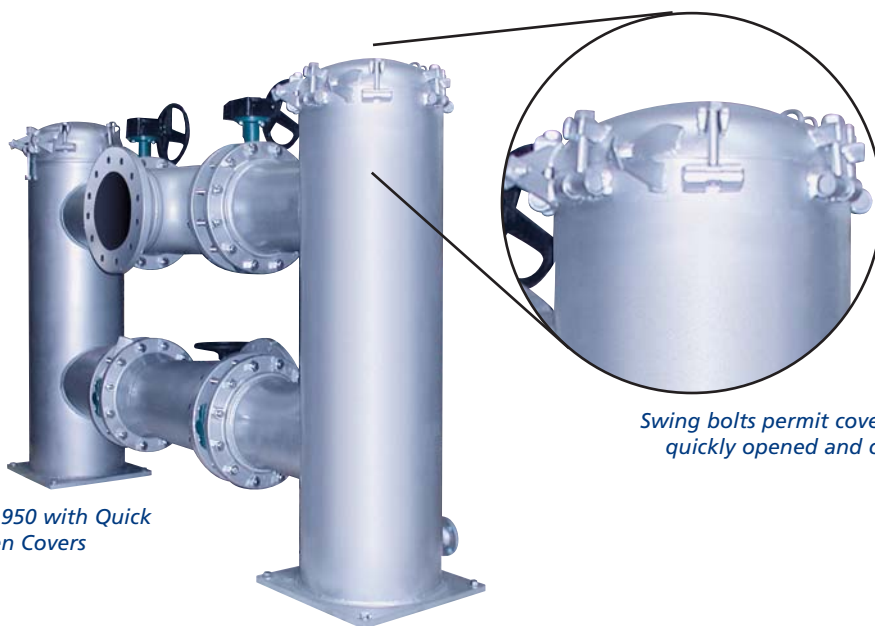
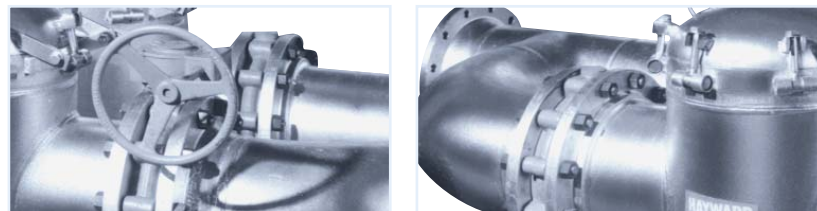
Model 900 with Quick Open Covers



MODEL 900 with Bolted Cover

Size	A	B	C	D
6"	63 $\frac{3}{8}$	22 $\frac{3}{4}$	35 $\frac{1}{2}$	23
8"	75 $\frac{3}{4}$	22 $\frac{3}{4}$	35 $\frac{1}{2}$	27
10"	91	24	40	31
12"	107 $\frac{1}{2}$	27	45	39
14"	118 $\frac{1}{8}$	29	49	39
16"	131 $\frac{1}{8}$	29	53	42
18"	139 $\frac{1}{4}$	30	54	42
20"	154 $\frac{1}{4}$	35	65	48
24"	169 $\frac{1}{4}$	35	65	53

Consult Eaton for larger sizes. Dimensions are for reference only.



12" Model 950 with Quick Open Covers

Swing bolts permit covers to be quickly opened and closed