

Strainers In-Line and Angle

Description

Strainers are installed in pipe lines ahead of meters, pumps, valves, etc., to protect such equipment against intrusion of pipe scale, welding spatter and other foreign material. The use of the proper size strainer together with a basket of suitable mesh pays dividends in reduced maintenance on mechanisms which are in contact with flowing liquids.

When it is known that comparatively large amounts of lint or iron oxide are present in a stream, a large strainer should be used as these materials clog up basket screens rapidly- especially if resins, gums or varnishes are also present.

Larger size foreign matter such as pebbles, welding beads, etc., should be removed at frequent intervals to prevent their abrasive action from damaging the basket screen.

Strainers are available in sizes 3" to 6" for maximum working pressures to 300 psi (2068 kPa). There is a Strainer of the proper size and pressure rating to accommodate the full line of Flow Meters. For large capacity and high pressure strainers, refer to DSBVBS.



In-Line Strainer

3", 4", 6"

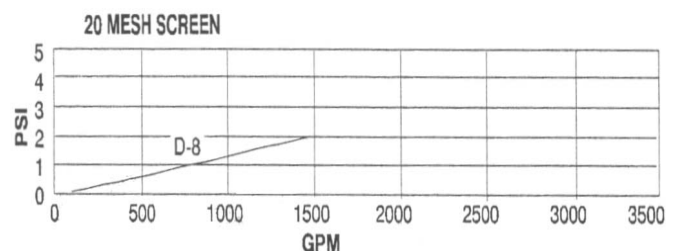
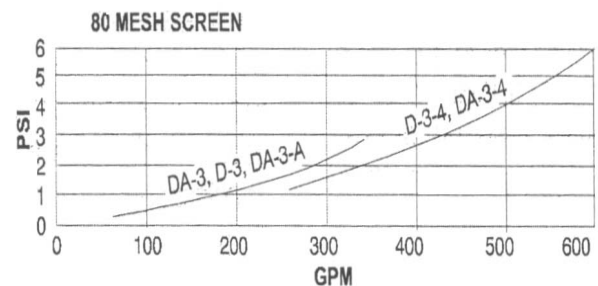
DA-3-150

Angle Strainer

3", 4", 6"

DA-3-4-150A

Pressure Loss Handling Gasoline



WARNING

Do NOT operate this instrument in excess of the specifications listed. Failure to heed this warning could result in serious injury and/or damage to the equipment.

Specifications

Model Strainer	Maximum Working Pressure		ANSI Flanges Std. (Except D-2B)	Drain Size	Housing Material	Approximate Shipping Weight		Approximate Shipping Cube	
	psi	kPa				Pounds	Kilos	Cubic Feet	Cubic Meters
DA-3-150	150	1,034	3"-150 lb.	3/4" Std. Pipe Thd.	Drawn Steel	45	20.41	1.72	0.049
DA-3-4-150	150	1,034	4"-150 lb.	3/4" Std. Pipe Thd.	Drawn Steel	55	24.95	1.72	0.049
D-6-4-150	150	1,034	4"-150 lb.	1" Std. Pipe Thd.	Drawn Steel	135	61.23	6.89	0.195
D-6-150	150	1,034	6"-150 lb.	1"Std. Pipe Thd.	Drawn Steel	145	65.77	6.89	0.195

Strainer Screen Data

Strainer screen material for all strainers is stainless steel.

Model Strainer	Screen				Pipe Line		Ratio	
	Mesh of Screen *	Total Screen Area Sq. In.	Per Cent Open Area **	Open Area Sq. In.	Size	Area Sq. In.	Total Area to Pipe Area	Open Area to Pipe Area
D-3	20		46.2	52.2				7.1:1
DA-3	40	113	38.4	43.4	3"	7.393	15.3:1	5.9:1
DA-3A	60		30.5	34.5				4.7:1
D-3-4	20		46.2	52.2				4.1:1
DA-3-4	40	113	38.4	43.4	4"	12.73	8.9:1	3.4:1
DA-3-4-A	60		30.5	34.5				2.7:1
D-6-4	20		46.2	145.1				11.4:1
D-6-4-A	40	314	38.4	120.6	4"	12.73	24.7:1	9.5:1
	60		30.5	95.8				7.5:1
D-6	20		46.2	145.1				5.0:1
D-6-A	40	314	38.4	120.6	6"	28.89	10.9:1	4.2:1
	60		30.5	95.8				3.3:1

Notes:

* Mesh of screen as shown in chart above is standard. Special mesh is available at extra cost when required.

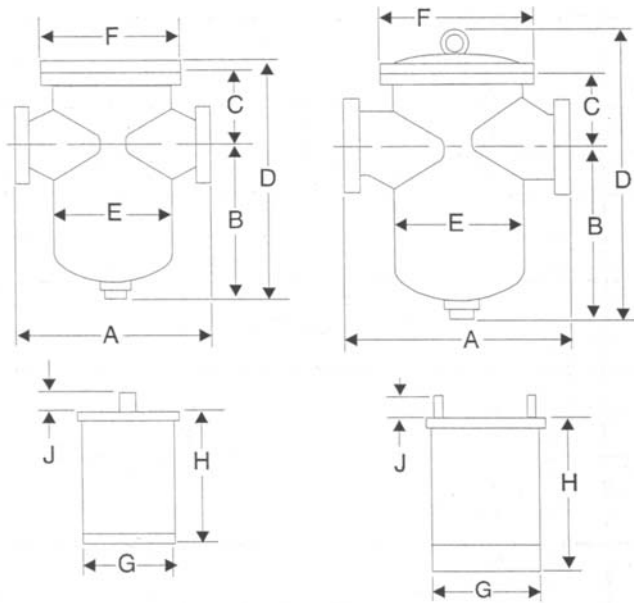
** Percent open area for some special screens is as follows:

10 Mesh - 46.2 Percent

100 Mesh - 30.3 Percent

Percent open area depends on wire size and may vary slightly.

Dimensions (For Certified Dimensional Prints - Consult Factory)

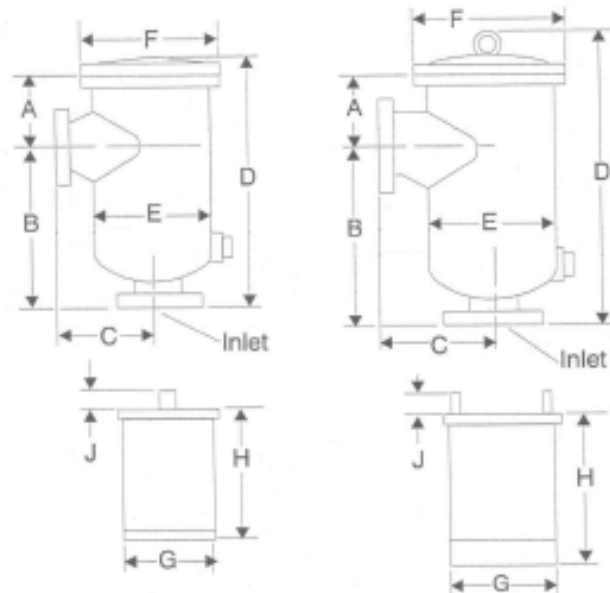


Basket Dimensions

Model	Dimensions					
	G		H		J	
	Inches	mm	Inches	mm	Inches	mm
DA -3, DA-3-4	51/4	133.35	83/4	222.25	37/8	98.42
D-6-4, D-6	91/2	241.3	13	330.2	2	50.8

Strainer Model	A		B		C		D		E		F	
	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
DA-3-150	13	330.2	10 1/4	260.35	41/2	114.3	15 3/4	400.05	73/8	187.32	83/8	212.72
DA-3-4-150	13	330.2	10 1/4	260.35	41/2	114.3	15 3/4	400.05	73/8	187.32	83/8	212.72
D-6-4-150	22 5/8	574.67	16 3/8	415.92	61/4	158.75	25 15/26	658.81	12 3/8	314.32	15	381
D-6-150	22 5/8	574.67	16 3/8	415.92	61/4	158.75	25 15/16	658.81	12 3/8	314.32	15	381

Dimensions - Angle Strainers (For Certified Dimensional Prints - Consult Factory)



Model	Connector Size	Dimensions									
		A		B		C		D		E	
		Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
DA-3-A DA-3-4-A	3" and 4" 150 lb.	4 7/16	112.71	11	279.4	6 1/2	165.1	16 4/7	420.68	7 1/4	184.15
D-6-4-A D-6-A	4" and 6" 150 lb.	6 5/16	160.33	17	431.8	11 5/16	287.33	27 5/32	689.77	12 3/8	314.32

Model	Connector Size	Dimensions							
		F		G		H		J	
		Inches	mm	Inches	mm	Inches	mm	Inches	mm
DA-3-A DA-3-4-A	3" and 4" 150 lb.	8 3/8	212.72	5 1/2	139.7	8 11/16	220.66	2 3/4	69.85
D-6-4-A D-6-A	4" and 6" 150 lb.	15	381	7 1/4	184.15	12 3/4	323.85	15/16	23.81

Strainer Baskets

To be efficient, strainer baskets must be kept clean. A buildup of sediment increases pressure drop and decreases flow. If a basket is allowed to become completely clogged, damage will result. Pressure gauges on each side of the strainer - or a differential pressure gauge - give an indication of basket condition at a glance.

A regular procedure should be set up for cleaning strainer baskets-the frequency depending on amount and character of foreign material in the stream. It is advisable to keep a spare basket (or inner screen) on hand.

Recommended Mesh Of Screens For Various Liquids:

Gasoline and similar liquids, 60 Mesh for 3", 4", and 6" strainers.

Diesel Oil, No. 2 Oil, etc. - 40 Mesh No. 5 or No. 6 Heating Oils, etc. - 20 Mesh



Type of Strainer Basket used on DA-3, DA-4, D-3, D-3-4.

Three piece strainer basket is quickly disassembled to provide replaceable inner screen.

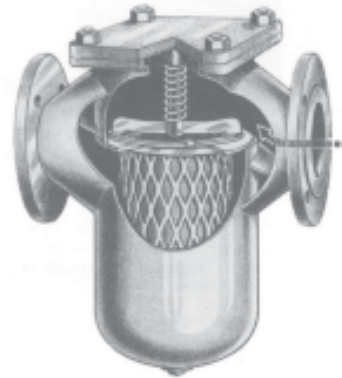


Type of Strainer, Basket used on D-6, D-6-4. Inner screen is soldered to basket frame; may be replaced when required.



D-6-150

The D-6-150 below illustrates construction of the D-4-150, Strainer. Strainer baskets are held securely in place by means of wing nuts.



DA-3-150

The DA-3-150 above illustrates construction of the DA-3-4-150. These strainers have a four bolt cover and use an O-ring as the cover gasket.

D-3-300 and D-3-4-300 Strainers are of similar construction, but use a flat cover gasket instead of the O-ring. The cover also holds the strainer basket in place by means of spring tension.

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