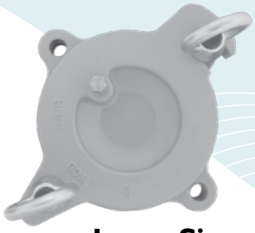
SIMPLEX BASKET STRAINER ❖ FLANGED ENDS (RF)

ASME CLASS 150 ❖ CARBON AND STAINLESS STEEL

MODELS: **BS 87F-CS** (CARBON STEEL)

BS 87F-SS (STAINLESS STEEL)

All Sizes Equipped:
Quick-Open Cover



Large Sizes in Stock
Ready to Ship!

FEATURES

SIZES: 1" ~ 16"

◇ **BETTER FLOW CHARACTERISTICS**
WITH ITS DUAL ANNULUS DESIGN, THE BS87 SERIES PROVIDES A STRAIGHTER FLOW PATH. DURING FLOW SIMULATION TESTING, THE BS87F ACHIEVED A 10 PERCENT REDUCTION IN PRESSURE LOSS WHEN COMPARED TO "OVER-THE-TOP" STYLE BASKET STRAINERS.

◇ **FINER FILTRATIONS**
THE BS87 SERIES IS DESIGNED WITH A MACHINED, FLAT SEAT FOR THE STRAINING ELEMENT. THIS ALLOWS AN O-RING TO BE INSTALLED UNDERNEATH THE LIP OF THE STRAINING ELEMENT, CREATING A TIGHT SEAL. THIS FEATURE PREVENTS DEBRIS FROM SLIPPING PAST THE STRAINING ELEMENT LIP- AS IS OFTEN THE CASE WITH 'SLANT-TYPE' BASKET STRAINERS THAT CANNOT UTILIZE AN O-RING.

◇ **LARGE STRAINING CAPACITY**
WITH ITS LARGE BODY AND SIZEABLE STRAINING ELEMENT, THE BS 87F CS/SS HAS THE ABILITY TO STORE LARGE QUANTITIES OF DEBRIS WITHOUT AFFECTING PRESSURE LOSS - THUS MAXIMIZING TIME BETWEEN SERVICING.

◇ **NUMEROUS STRAINING ELEMENT OPTIONS**
STRAINING ELEMENTS ARE AVAILABLE IN A VARIETY OF PERFORATIONS, MESHES, AND MATERIALS. SPECIAL DESIGNS ARE ALSO AVAILABLE INCLUDING MAGNETIC, WEDGEWIRE, DRILLED PERFORATIONS, AND PLEATED STRAINING ELEMENTS.

◇ **HIGH QUALITY CONSTRUCTION**
THE BS87 SERIES IS AVAILABLE IN CARBON AND STAINLESS STEEL WITH EITHER THREADED OR FLANGED (RF) END CONNECTIONS. CARBON STEEL PERFORMS EXCEPTIONALLY WELL IN HIGH TEMPERATURES, UP TO 800 °F IN CONTINUOUS SERVICE. IT PROVIDES HIGH RESISTANCE TO SHOCK, VIBRATION, PIPING STRAINS, AND FIRE AND FREEZING HAZARDS. STAINLESS STEEL IS HIGHLY CORROSION RESISTANT, EXTREMELY STRONG, AND IS COMMONLY SPECIFIED FOR HIGH TEMPERATURE SERVICE, UP TO 1000 °F IN CONTINUOUS SERVICE.

TECHNICAL

PRESSURE/ TEMPERATURE RATING CS - ASTM A216 GR. WCB - CLASS 150
WOG (Non-shock): 285 PSI @ 100 °F
PRESSURE/ TEMPERATURE RATING SS - ASTM A351 GR. CF8M - CLASS 150
WOG (Non-shock): 275 PSI @ 100 °F

- *Carbon Steel not recommended for prolonged use above 800 °F.*
- *Stainless Steel not recommended for prolonged use above 1000 °F.*

APPLICATIONS

MARKETS: WATER & WASTEWATER, PULP & PAPER, CHEMICAL & PETROCHEMICAL, PETROLEUM, OIL & GAS, TRANSPORTATION, MARINE INDUSTRY, AND FOOD INDUSTRY

GENERAL APPLICATION: SIMPLEX BASKET STRAINERS ARE INSTALLED INTO A PIPELINE SYSTEM TO REMOVE UNWANTED DEBRIS FROM THE PIPELINE FLOW. BASKET STRAINERS ARE COMMONLY USED IN HORIZONTAL PIPELINES WHERE DEBRIS LOADING IS HIGH AND THE COLLECTION OF SOLIDS IS REQUIRED. STRAINING IS ACCOMPLISHED VIA A PERFORATED OR MESH LINED STRAINING ELEMENT, INTERNAL TO THE BASKET STRAINER. IN GENERAL, THE SIZE OF THE PERFORATION OR MESH SHOULD BE SLIGHTLY SMALLER THAN THE SMALLEST DEBRIS PARTICLE TO BE REMOVED. IT IS IMPORTANT TO NOTE THAT THE CORRECT SIZE OF A BASKET STRAINER IS DETERMINED BY ITS JOB FUNCTION, NOT BY THE SIZE OF THE PIPELINE.

The above data represents common market and service applications. No representation or guarantee, expressed or implied, is given due to the numerous variations of concentrations, temperatures and flow conditions that may occur during actual service.

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SIMPLEX BASKET STRAINER

BS 87F-CS - (Carbon Steel)

BS 87F-SS - (Stainless Steel)

Flanged Ends • Raised Face • Carbon & Stainless Steel

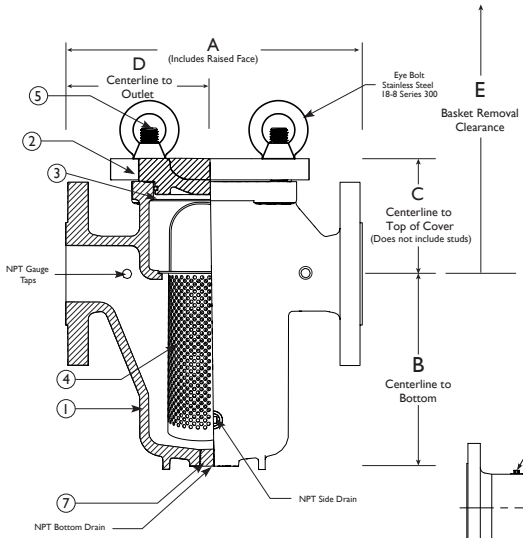
ASME Class 150

BILL OF MATERIALS [1]

No.	PART	BS87F-CS[2]	BS87F-SS
1	Body	Carbon Steel A216 Gr. WCB	Stainless Steel A351 Gr. CF8M
2	Cover	Carbon Steel A216 Gr. WCB	Stainless Steel A351 Gr. CF8M
3	Quick Open Bolted Cover [4][5]	Buna O-Ring Garlock Blue Guard 3000	Viton O-Ring
4	Straining[3] Element	Type 304 Stainless Steel (Other materials are available)	
5	Stud	Alloy Steel A193-B7	Stainless Steel A320-B8
6	Nut	Bolted: A194-2H Quick Open: CS A105	Bolted: A194-8 Quick Open: CS A105
7	Drain Plug	Carbon Steel	Stainless Steel

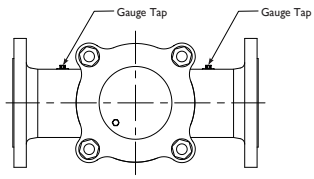
Body Material Application Notes:

1. Equivalent or better materials may be substituted at the manufacturer's discretion.
2. Carbon Steel bodies are epoxy painted.
3. Denotes recommended spare parts.
4. Carbon Fiber Compressed gasket may be substituted at the manufacturer's discretion.
5. Quick-Open Cover is standard. Bolted Cover is optional.



Quick Open Cover is STANDARD.

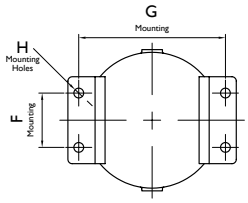
BS87F with Bolted Cover



DIMENSIONS AND PERFORMANCE DATA [1]

Size		1	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16
	in	1	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16
	mm	25	40	50	65	80	100	150	200	250	300	350	400
A DIMENSION FACE TO FACE	in	7.62	10.50	10.50	13.13	13.13	17.25	19.63	27.00	32.00	33.75	47	47
	mm	194	267	267	334	334	438	498	686	813	857	1194	1194
B DIMENSION CTR. LINE TO BOTTOM	in	4.88	6.93	6.93	9.81	9.81	11.25	15.38	22.91	26.38	33.50	28.37	28.37
	mm	124	176	176	249	249	285	390	582	670	850	720	720
C DIMENSION CTR. LINE TO TOP	in	3.94	5.00	5.00	6.50	6.50	6.93	7.68	10.25	13.91	14.75	14.84	14.84
	mm	100	128	128	164	164	176	195	260	353	374	377	377
D DIMENSION CTR. LINE TO OUTLET	in	3.81	5.25	5.25	6.56	6.56	8.62	9.81	13.50	16.00	16.87	23.5	23.5
	mm	97	133	133	166	166	219	249	343	406.5	428.5	597	597
E DIMENSION SCREEN REMOVAL	in	7.75	11.50	11.50	16.75	16.75	18.25	23.75	35.00	43.50	51.75	55.12	55.12
	mm	197	293	293	426	426	463	601	885	1103	1315	1400	1400
F DIMENSION MOUNTING	in	n/a	n/a	n/a	n/a	n/a	n/a	3.94	4.72	6.44	6.44	9.50	9.50
	mm	n/a	n/a	n/a	n/a	n/a	n/a	100	120	164	164	240	240
G DIMENSION MOUNTING	in	n/a	n/a	n/a	n/a	n/a	n/a	10.63	14.56	19.68	19.68	22.5	22.5
	mm	n/a	n/a	n/a	n/a	n/a	n/a	270	370	500	500	571	571
H DIMENSION MOUNTING HOLES	in	n/a	n/a	n/a	n/a	n/a	n/a	0.71	0.79	0.87	0.87	0.93	0.93
	mm	n/a	n/a	n/a	n/a	n/a	n/a	18	20	22	22	24	24
ASSEMBLED WEIGHT APPROXIMATE	lb	22.5	39.9	43	63.9	69.5	110.1	207	425.1	707	916.3	1763.7	1873.9
	kg	10.2	18.1	19.5	29	31.5	50	94	193	321	416	1150	1165
Flow Coefficient	C_V	24	50	78	140	210	360	780	1250	2400	3300	5100	6800

1. Dimensions, weights, and flow coefficients are provided for reference only. When required, always request certified drawings.
2. Face to face values have a tolerance of ±0.06 in (±2.0 mm) for sizes 10" and lower and a tolerance of ±0.12 in (±3.0 mm) for sizes 12" and larger.
3. Standard Vent and Gauge Plugs shall be Brass for Carbon Steel Units and Stainless Steel for Stainless Steel Units.

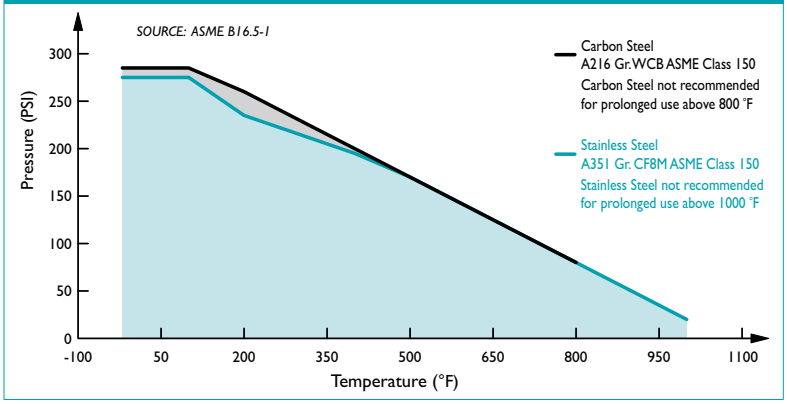


NPT FITTING SCHEDULE:

SIZE	Gauge Taps	Bottom Drain	Side Drain	Cover Vent
1"	1/8"	1/2"	NA	1/8"
1 1/2" ~ 2"	1/8"	3/4"	NA	1/8"
2 1/2" ~ 3"	1/8"	3/4"	1/2"	1/8"
4"	1/8"	1"	1/2"	1/8"
6"	1/4"	1"	1/2"	1/8"
8"	1/4"	1"	1/2"	1/8"
10"	1/4"	2"	1"[1]	1/8"
12"	1/4"	2"	1"[1]	1/8"
14"	1/4"	2"	1"[1]	1/8"
16"	1/4"	2"	1"[1]	1/8"

1. 10" and larger models have two side drains.

PRESSURE - TEMPERATURE RATING



REFERENCED STANDARDS & CODES

CODE	DESCRIPTION
ASME B16.5	Pipe Flanges and Flanged Fittings
ASME B16.34	Valves - Flanged, Threaded, and Welding End.
MSS SP-55	Quality Standard - Visual Inspection

PRESSURE - TEMPERATURE RATING

ASME CLASS 150	A216 Gr. WCB	A351 Gr. CF8M
WOG (Non-shock)	285 PSI @ 100 °F	275 PSI @ 100 °F

SCREEN SELECTION GUIDELINES

Size	Liquid	Open Area	Steam	Open Area
2" ~ 4"	1/16 (.0625)	41%	3/64 (.045)	36%
5" ~ 12"	1/8 (.125)	40%	30 Mesh Ln. [1]	44.8 %

1. For 10" and above, consult factory on screen selections for steam.

Titan FCI makes every effort to ensure the information presented on our literature accurately reflects exact product specifications. However, as product changes occur, there may be short-term differences between actual product specifications and the information contained within our literature. Titan FCI reserves the right to make design and specification changes to improve our products without prior notification. When required, request certified drawings.