



Purple Engineering

SIMPLEX BASKET STRAINER ♦ FLANGED ENDS

ASME CLASS 600 ♦ CARBON AND STAINLESS STEEL

MODELS: **BS 89-CS**
(CARBON STEEL)

BS 89-SS
(STAINLESS STEEL)

SIZES: 2" ~ 12"



FEATURES

- ♦ **RUGGED, HIGH QUALITY CONSTRUCTION**
THE MODEL BS 89-CS/SS IS A HEAVY DUTY BASKET STRAINER DESIGNED WITH EXCEPTIONAL WALL THICKNESS. IT IS AVAILABLE IN BOTH CARBON STEEL AND STAINLESS STEEL. IT IS A LOGICAL CHOICE FOR SERVICE APPLICATIONS THAT HAVE HIGHER TEMPERATURE AND PRESSURE REQUIREMENTS.
- ♦ **MINIMAL PRESSURE LOSS**
PRESSURE LOSS IS MINIMIZED BY PROVIDING A SLANTED STRAINING ELEMENT DESIGN AND STRAIGHT FLOW PATH. PLUGGED NPT TAPS ARE PROVIDED (NEAR THE INLET AND OUTLET ON BOTH SIDES) ALLOWING FOR THE QUICK MOUNTING OF PRESSURE GAUGES TO MONITOR PRESSURE LOSS.
- ♦ **LARGE STRAINING CAPACITY**
WITH ITS LARGE BODY AND SIZEABLE STRAINING ELEMENT, THE BS 89-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, WEDGE WIRE AND DRILLED PERFORATIONS. THE STANDARD MATERIAL FOR STRAINING ELEMENTS IS TYPE 304 STAINLESS STEEL.
- ♦ **CUSTOM-DESIGNED OPTION**
WHEN AN OFF-THE-SHELF UNIT WILL NOT WORK, TITAN[†] CAN FABRICATE A CUSTOM DESIGNED UNIT THAT WILL MEET YOUR EXACT PIPING REQUIREMENTS. THIS COULD INCLUDE A CUSTOM COVER OPTION FOR EASE OF MAINTENANCE OR A LARGER BODY FOR INCREASED DEBRIS LOADING CAPACITY.

TECHNICAL

PRESSURE/TEMPERATURE RATING
CS - ASTM A216 GR. WCB - CLASS 600

WOG (Non-shock): 1480 PSI @ 100 °F

PRESSURE/TEMPERATURE RATING
SS - ASTM A351 GR. CF8M - CLASS 600

WOG (Non-shock): 1440 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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Providing Equipment for:
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Marine Industry
Power Generation

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SIMPLEX BASKET STRAINER

BS 89-CS - (Carbon Steel)
BS 89-SS - (Stainless Steel)

ASME Class
600

Flanged Ends • Raised Face • Carbon & Stainless Steel

Illustrations are representative of a 10" BS89-CS.
 Please ask for certified drawings when required.

BILL OF MATERIALS (1)

No.	PART	BS 89-CS (2)	BS 89-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	Cover Gasket (3)(4)	Spiral Wound Stainless Steel Non-Asbestos	
4	Straining (3) Element	Type 304 Stainless Steel (Other materials are available)	
5	Stud	Alloy Steel A193-B7	Stainless Steel A-193-B8
6	Nut	Carbon Steel A194-2H	Stainless Steel A-193-8
7	Plug	Carbon Steel	Stainless Steel

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.

Body Material Application Notes:

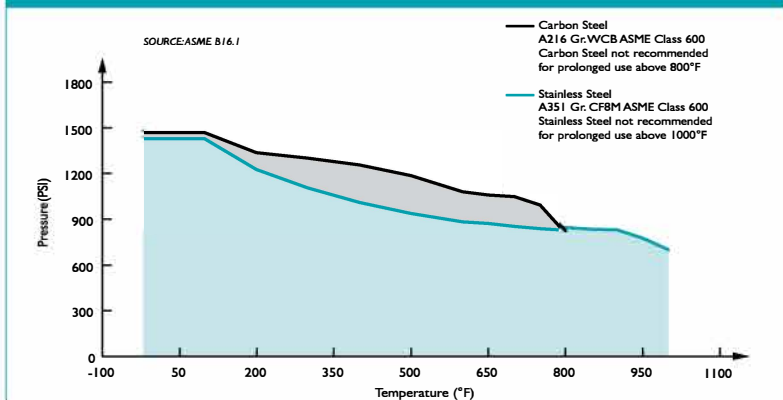
- **Carbon Steel** performs exceptionally well in high temperatures, up to 800 °F in continuous service. It provides high resistance to shock, vibration, piping strains, and fire and freezing hazards. Carbon Steel strainers are often used in the oil and petrochemical industries.
- **Stainless Steel** is highly corrosion resistant, extremely strong, and is commonly specified for high temperature service, up to 1000 °F in continuous service. Stainless Steel strainers are commonly found in the chemical, food, and pharmaceutical industries.

DIMENSIONS AND PERFORMANCE DATA (1)

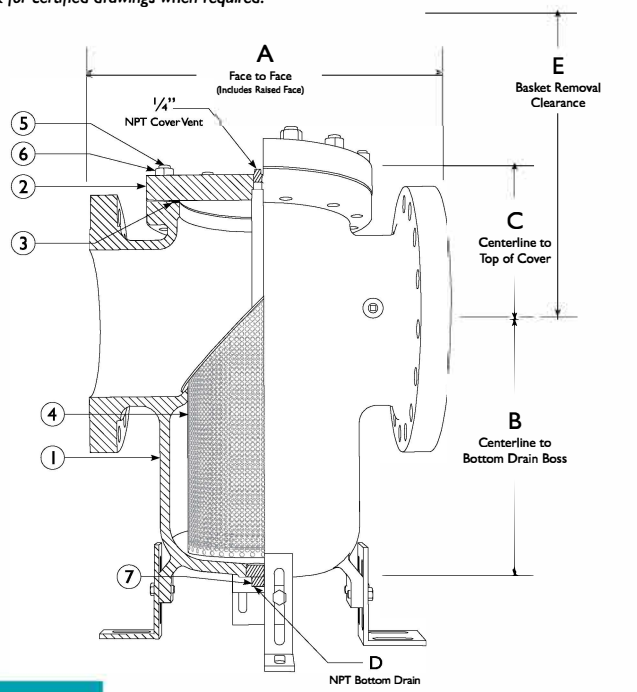
SIZE	in	2	2 ½	3	4	6	8	10	12
	mm	50	65	80	100	150	200	250	300
A DIMENSION FACE TO FACE (2)	in	11.25	12.25	12.60	14.56	18.31	21.56	26.53	30.56
	mm	286	312	320	370	465	548	674	776
B DIMENSION CTR. LINE TO BOTTOM	in	6.25	6.69	8.25	8.63	13.00	15.94	17.50	26.94
	mm	158	170	209	220	330	405	445	684
C DIMENSION CTR. LINE TO TOP	in	4.93	5.50	6.13	6.30	8.06	10.00	12.32	14.00
	mm	125	140	156	160	205	254	313	355
D DIMENSION NPT BOTTOM DRAIN	in	.50	.75	.75	1.00	1.25	1.50	1.50	2.00
	mm	15	20	20	25	32	40	40	50
E DIMENSION NPT SIDE DRAIN (2)	in	.50	.50	.50	.50	.75	.75	.75	1.00
	mm	15	15	15	15	20	20	20	25
F DIMENSION SCREEN REMOVAL	in	12.63	13.19	16.75	17.31	24.63	31.12	36.25	40.00
	mm	320	335	425	440	625	790	920	1020
ASSEMBLED WEIGHT APPROXIMATE	lb	51	80	90	160	330	530	950	1220
	kg	23	36	41	73	150	240	430	550
Flow Coefficient	C _v	45	90	140	290	800	1600	2800	3700

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 (±0.20 mm)

PRESSURE - TEMPERATURE RATINGS



As †Titan FCI 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. †TITAN is a registered trademark of Titan Flow Control Incorporated.



Additional Design & Technical Notes:

- Cover vent provided on all sizes. Cover vent is 1/8" NPT on 2" - 4" sizes and 1/4" on sizes 6" - 12" all are furnished with plug.
- Bottom drain is furnished with plug. See table to the left for sizes.
- 1/4" NPT gauge taps are provided on all sizes and are furnished with plugs.
- Adjustable/Removable Support legs are provided on sizes 4" and larger.
- Steam jacketed designs are available - C/F.
- Epoxy coating is available - C/F.
- Designed for horizontal pipelines only.
- Standard material for straining elements is Type 304 Stainless Steel. Other materials are available upon request.

REFERENCED STANDARDS & CODES

CODE	DESCRIPTION
ASME B16.5	Pipe Flanges and Flanged Fittings
ASME/MSS SP-55	Quality Standard - Visual Inspection

PRESSURE - TEMPERATURE RATING

ASME CLASS 600	A216 Gr.WCB	A351 Gr. CF8M
WOG (Non-shock)	1480 PSI @ 100 °F	1440 PSI @ 100 °F

SCREEN SELECTION GUIDELINES

Size	Liquid	Open Area	Steam	Open Area
2" ~ 4"	1/16 (.0625)	41%	3/64 (.045)	36%
6" ~ 12"	1/8 (.125)	40%	30 Mesh	44.8 %