

# SIMPLEX BASKET STRAINER \* FLANGED ENDS (RF)

## ASME CLASS 150 \* CARBON AND STAINLESS STEEL



**MODELS: B** 

**BS 85-CS** 

(CARBON STEEL)

**BS 85-SS** 

(STAINLESS STEEL)

**FEATURES** 

SIZES: 2" ~ 12"

Quick-opening clamp cover option is also available. Quick-opening clamp cover rated at 200 PSI.

♦ HIGH QUALITY DESIGN

THE BS85 BASKET STRAINER BOASTS MANY UNIQUE DESIGN FEATURES INCLUDING: INLET/OUTLET BOSSES WITH GAUGE TAPS (2" AND UP), SPOT-FACED FLANGE BOLT HOLES, PLUGGED BOTTOM DRAIN AND COVER VENT, CAST-IN SUPPORT LEGS (6" AND UP), EPOXY PAINTED CARBON BODIES, ENCAPSULATED COVER GASKET, AND AN OPTIONAL QUICK-OPENING COVER DESIGN.

♦ 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 85-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, DRILLED PERFORATIONS, AND PLEATED STRAINING ELEMENTS.

THE STANDARD MATERIAL FOR STRAINING ELEMENTS IS TYPE 304 STAINLESS STEEL.

♦ SELF-CLEANING OPTION

UTILIZING A MODIFIED STRAINING ELEMENT, THE BOTTOM DRAIN CAN BE FITTED WITH A TITAN FCI BALL VALVE TO ALLOW FOR THE AUTOMATIC CLEANING OR

**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.

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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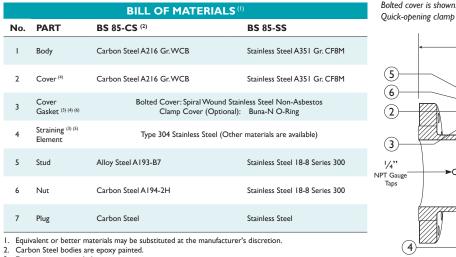
**APPLICATIONS** 

#### SIMPLEX BASKET STRAINER

BS 85-CS - (Carbon Steel)
BS 85-SS - (Stainless Steel)

Flanged Ends • Raised Face • Carbon & Stainless Steel

ASME Class 150



- 3. Denotes recommended spare parts.
- 4. Bolted cover is shown. For information on clamp cover, please contact factory.
- 5. Straining element on 2" BS 85 is a straight screen. It is not diagonal as illustrated on right.
- 6. Carbon Fiber Compressed gasket may be substituted at the manufacturer's discretion.

#### **Body Material Application Notes:**

- <u>Carbon Steel</u> 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.
- <u>Stainless Steel</u> 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.

Quick-opening clamp cover rated at 200	PSI is also available.	
(Includes Rai	1/4"	E Basket Removal Clearance
6 2 3 1/4" NPT Gauge Taps	NPT Cover Vent	Centerline to Top of Cover (Does not include studs)
4		B Centerline to Bottom
7	Dimension B: Centerline to botto  Dimension B: Centerline to Case	
NPT Bottom Drain		es 6" and larger

DIMENSIONS AND PERFORMANCE DATA (1)										
SIZE	in	2	2 1/2	3	4	5	6	8	10	12
	mm	50	65	80	100	125	150	200	250	300
A DIMENSION	in	8.50	8.00	8.75	11.187	C/F	13.875	17.375	22.00	25.00
FACE TO FACE	mm	216	204	223	285	C/F	353	442	559	635
<b>B</b> DIMENSION	in	5.875	5.437	5.25	7.875	C/F	13.125	16.375	18.25	18.75
CTR. LINE TO BOTTOM	mm	150	139	134	201	C/F	334	416	464	476
C DIMENSION CTR. LINE TO TOP	in	5.00	4.75	5.50	6.125	C/F	6.75	8.875	10.75	13.75
	mm	127	121	140	156	C/F	172	226	274	350
<b>D</b> DIMENSION	in	.50	.75	.75	1.00	C/F	1.25	1.50	1.50	2.00
NPT BLOW-OFF	mm	15	20	20	25	C/F	32	40	40	50
E DIMENSION	in	10.875	10.187	10.75	14.0	C/F	19.875	25.25	30.125	37.5
SCREEN REMOVAL	mm	276	259	273	356	C/F	505	641	765	953
ASSEMBLED WEIGHT APPROXIMATE	lb	27.0	33.0	38.0	64.0	89.0	128.0	227.0	362.0	487.0
	kg	12.2	15.0	17.2	29.0	40.4	58.0	102.9	164.0	220.7
Flow Coefficient	C <sub>v</sub>	45	90	140	290	500	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 (±2.0 mm) for sizes 10" and lower and a tolerance of ±0.12 in (±3.0 mm) for sizes 12" and larger.

#### PRESSURE - TEMPERATURE RATING SOURCE: ASME B16.5-1 Carbon Steel 300 A216 Gr.WCB ASME Class 150 Carbon Steel not recommended 250 (PSI) for prolonged use above 800 °F Stainless Steel 200 A351 Gr. CF8M ASME Class 150 Stainless Steel not recomm 150 for prolonged use above 1000 °F 100 50 -100 950 1100 50 200 350 500 800 Temperature (°F)

### Additional Design & Technical Notes:

- Cover vent is provided on all sizes.
   Cover vent is I/4" NPT on all sizes and is furnished with plug.
- Bottom drain is furnished with plug. See table to the left for sizes.
- Plugged I/4" NPT gauge taps (inlet and outlet) are provided on sizes 2" and larger.
- Cast-in support legs are provided on sizes 6" and larger.
- Optional cover designs are available C/F.
- 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		
MSS SP-55	Quality Standard - Visual Inspection		

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

STANDARD SCREEN SELECTIONS						
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.