



Purple Engineering

SIMPLEX BASKET STRAINER ♦ FLANGED ENDS

ANSI CLASS 300 ♦ CARBON AND STAINLESS STEEL

MODELS: **BS 86-CS**
(CARBON STEEL)

BS 86-SS
(STAINLESS STEEL)

SIZES: 2" ~ 12"



FEATURES

- ♦ **RUGGED, HIGH QUALITY CONSTRUCTION**
THE MODEL BS 86-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 86-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 FLUSHING OF THE STRAINING ELEMENT WHILE KEEPING THE PIPELINE IN SERVICE.

TECHNICAL

PRESSURE/TEMPERATURE RATING CS - ASTM A216 GR. WCB - CLASS 300

WOG (Non-shock): 740 PSI @ 100 °F
Saturated Steam: 300 PSI @ 420 °F
Maximum Liquid: 400 PSI @ 800 °F

PRESSURE/TEMPERATURE RATING SS - ASTM A351 GR. CF8M - CLASS 300

WOG (Non-shock): 720 PSI @ 100 °F
Saturated Steam: 300 PSI @ 420 °F
Maximum Liquid: 350 PSI @ 1000 °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.



SIMPLEX BASKET STRAINER
BS 86-CS - (Carbon Steel)
BS 86-SS - (Stainless Steel)
Flanged Ends • Raised Face • Carbon & Stainless Steel

ANSI Class
300

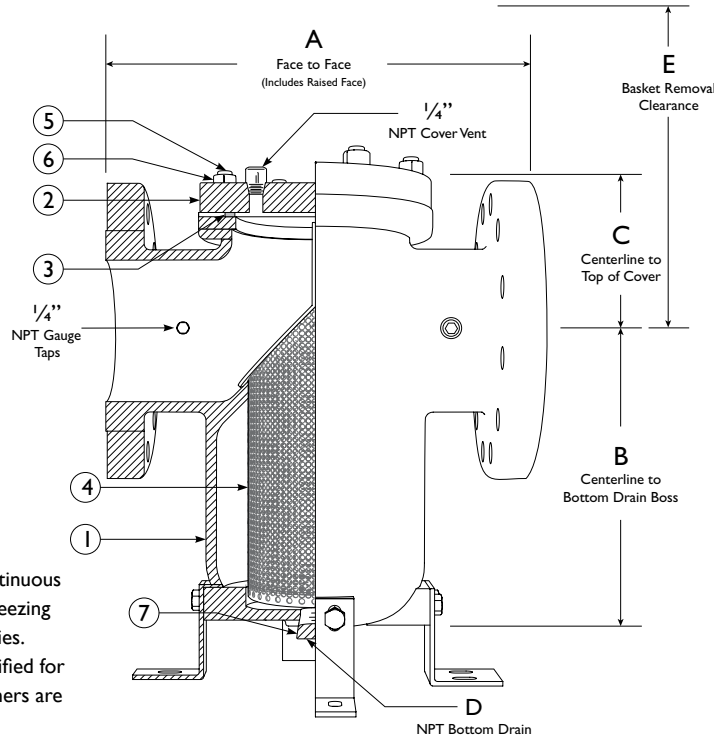
BILL OF MATERIALS (1)

No.	PART	BS 86-CS (2)	BS 86-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 18-8 Series 300
6	Nut	Carbon Steel A194-2H	Stainless Steel 18-8 Series 300
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. Gasket is for bolted cover. For special cover designs, different gasket may be used.

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.

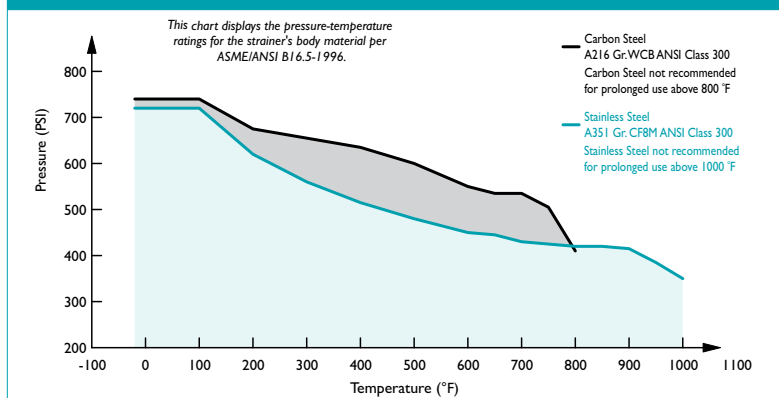


DIMENSIONS AND PERFORMANCE DATA (1)

SIZE	in	2	2 1/2	3	4	5	6	8	10	12
	mm	50	65	80	100	125	150	200	250	300
A DIMENSION FACE TO FACE (2)	in	8.50	8.687	9.562	11.875	C/F	14.75	18.125	22.875	25.375
	mm	216	221	243	302	C/F	375	461	582	645
B DIMENSION CTR. LINE TO BOTTOM	in	6.125	6.25	8.00	8.531	C/F	12.75	15.625	16.515	24.515
	mm	156	159	204	217	C/F	324	397	420	623
C DIMENSION CTR. LINE TO TOP	in	4.906	5.453	6.078	5.312	C/F	6.375	8.078	9.703	11.703
	mm	125	139	155	135	C/F	162	206	247	298
D DIMENSION NPT BLOW-OFF	in	.50	.75	.75	1.00	C/F	1.25	1.50	1.50	2.00
	mm	15	20	20	25	C/F	32	40	40	50
E DIMENSION SCREEN REMOVAL	in	9.00	10.00	10.00	10.00	C/F	20.00	20.00	26.00	35.00
	mm	229	254	254	254	C/F	508	508	661	889
ASSEMBLED WEIGHT APPROXIMATE	lb	40.0	63.0	63.0	108.0	200.0	200.0	342.0	542.0	946.0
	kg	18.1	28.5	28.5	48.9	90.6	90.6	155.0	245.6	429.1
Flow Coefficient	C _v	43	86	135	290	490	780	1600	3250	5200

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 RATINGS



Additional Design & Technical Notes:

- Cover vent provided on all sizes. Cover vent is 1/4" NPT on all sizes and is 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.
- 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/ANSI B16.5	Pipe Flanges and Flanged Fittings

PRESSURE - TEMPERATURE RATING

ANSI CLASS 300	A216 Gr.WCB	A351 Gr. CF8M
WOG (Non-shock)	740 PSI @ 100 °F	720 PSI @ 100 °F
Saturated Steam	300 PSI @ 420 °F	300 PSI @ 420 °F
Max Liquid	400 PSI @ 800 °F	350 PSI @ 1000 °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 (1)	44.8 %

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

We make 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. We reserve the right to make design and specification changes to improve our products without prior notification. When required, request certified drawings.