Purple Engineering

SIMPLEX BASKET STRAINER ❖ FLANGED ENDS - FLAT FACE

ANSI CLASS 125 ❖ CAST IRON ❖ CLAMPED & BOLTED COVER

MODELS: BS 55-CI
(CLAMPED COVER)

BS 65-CI
(BOLTED COVER)

SIZES: 2" ~ 20"

BS 55-CI is shown with clamp cover and removable leg brackets

Side drain is standard, an optional bottom drain is available

FEATURES

◇ **VERSATILE - HIGH QUALITY DESIGN**
THIS BASKET STRAINER IS AVAILABLE WITH EITHER A FULL RATED BOLTED COVER (BS65) OR CLAMPED COVER (BS55). BOTH MODELS ARE EPOXY PAINTED AND COME STANDARD WITH A PLUGGED SIDE DRAIN CONNECTION. LARGER SIZES (8" ~ 20") ALSO FEATURE REMOVABLE/ ADJUSTABLE LEG BRACKETS.

◇ **MINIMAL PRESSURE LOSS**
PRESSURE LOSS IS MINIMIZED BY PROVIDING A SLANTED STRAINING ELEMENT DESIGN, A STRAIGHT-THROUGH FLOW PATH, AND A LARGE OPEN AREA RATIO. INLET AND OUTLET BOSSES ARE PROVIDED TO FACILITATE THE MOUNTING OF PRESSURE GAUGES TO MONITOR PRESSURE LOSS.

◇ **LARGE STRAINING CAPACITY**
WITH ITS LARGE BODY AND SIZEABLE STRAINING ELEMENT, THIS BASKET STRAINER 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 BALL VALVE TO ALLOW FOR THE AUTOMATIC CLEANING OR FLUSHING OF THE STRAINING ELEMENT WHILE KEEPING THE PIPELINE IN SERVICE.

◇ **POTABLE WATER/FDA APPROVED COATINGS AVAILABLE**

IN ADDITION TO ITS LEAD FREE, CAST IRON BODY, WE CAN PROVIDE NSF/ANSI AND FDA APPROVED EPOXY COATINGS WHICH MAKE THIS PRODUCT SUITABLE FOR POTABLE WATER AND FOOD CONTACT APPLICATIONS. NUMEROUS OPTIONS ARE AVAILABLE. PLEASE CONTACT US FOR MORE DETAILS.

TECHNICAL

PRESSURE/ TEMPERATURE RATING CAST IRON ASTM A126 GR. B - CLASS 125
BS 55-CI (Clamped Cover) (2" ~ 12") WOG (Non-shock): 200 PSI @ 100 °F Saturated Steam: Not Recommended Maximum Liquid: Not Recommended
BS 65-CI (Bolted Cover) (2" ~ 12") WOG (Non-shock): 200 PSI @ 150 °F Saturated Steam: 125 PSI @ 353 °F Maximum Liquid: 125 PSI @ 450 °F
BS 55-CI (Clamped Cover) (14" ~ 20") WOG (Non-shock): 100 PSI @ 100 °F Saturated Steam: Not Recommended Maximum Liquid: Not Recommended
BS 65-CI (Bolted Cover) (14" ~ 20") WOG (Non-shock): 150 PSI @ 150 °F Saturated Steam: 100 PSI @ 353 °F Maximum Liquid: 100 PSI @ 353 °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:
Oil & Gas Industry
Pipeline Industry
Marine Industry
Power Generation

SIMPLEX BASKET STRAINER

BS 55-CI - (Clamped Cover)

BS 65-CI - (Bolted Cover)

Flanged Ends • Flat Face • Cast Iron Body

ANSI Class 125

BILL OF MATERIALS (1)

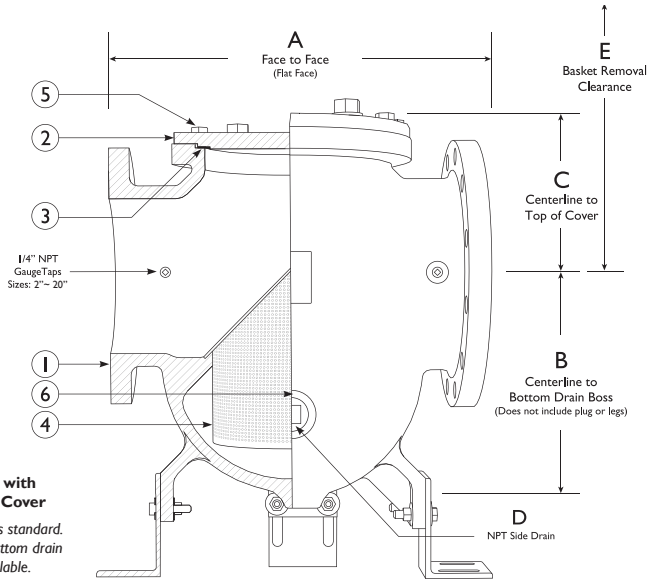
No.	PART	BS 65-CI	BS 55-CI
1	Body (2)	Cast Iron ASTM A126 Gr. B	
2	Cover	Cast Iron ASTM A126 Gr. B	
3	Cover Gasket (3)	Non-Asbestos - BS65	Buna-N O-Ring - BS55
4	Straining Element (3)	Type 304 Stainless Steel	
5	Cap Screws	Zinc Plated Carbon Steel	
6	Plugs (Boss/Drain)	Cast Iron	

1. Equivalent or better materials may be substituted at the manufacturer's discretion.
2. Cast Iron bodies are epoxy painted.
3. Denotes recommended spare parts.

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%	3/64 (.045) (1)	36%

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



BS 65 with Bolted Cover

Side drain is standard. Optional bottom drain is available.

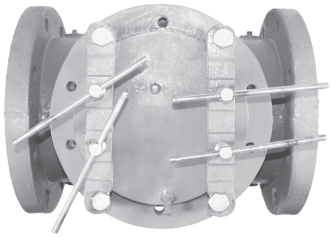
DIMENSIONS AND PERFORMANCE DATA (1)

SIZE		2	2 1/2	3	4	5	6	8	10	12	14	16	20
	mm	50	65	80	100	125	150	200	250	300	350	400	500
A DIMENSION (2) FACE TO FACE	in	8.625	7.562	8.75	11.25	12.25	14.00	17.125	22.00	25.25	29.00	31.875	36.49
	mm	220	193	223	286	311	356	435	559	642	737	810	927
B DIMENSION (3) CTR. LINE TO BOTTOM	in	4.88	5.12	4.63	7.00	7.88	8.00	11.38	14.12	20.25	30.00	36.66	38.44
	mm	124	130	118	178	200	204	289	359	515	762	931	976
C DIMENSION CTR. LINE TO TOP	in	3.83	3.75	5.125	5.375	4.75	7.00	8.00	8.82	10.32	15.00	16.00	15.75
	mm	97	96	131	137	121	178	203	224	262	381	406	400
D DIMENSION NPT BLOW-OFF	in	1/2	3/4	3/4	1	1	1 1/4	1 1/2	1 1/2	2	2	2	2
	mm	15	20	20	25	25	32	40	40	50	50	50	50
E DIMENSION SCREEN REMOVAL	in	10.875	10.875	11.25	15.50	15.50	18.25	23.375	27.50	35.00	45.00	55.00	65.00
	mm	277	277	286	394	394	464	594	699	889	1143	1397	1651
ASSEMBLED WEIGHT (BS65)	lb	27.0	30.0	40.0	64.0	84.0	142.0	244.0	416.0	732.0	992	1735	C/F
	kg	12.2	13.6	18.1	29.0	38.1	64.4	110.6	188.5	332.0	450.0	787.0	C/F
ASSEMBLED WEIGHT (BS55)	lb	31.0	34.0	42.0	81.0	84.0	150.0	275.0	436.8	768.0	1246	C/F	C/F
	kg	14.0	15.4	19.0	36.7	38.1	68.0	124.7	197.8	348.4	565.2	C/F	C/F
Flow Coefficient	C_V	43	86	135	290	490	780	1600	3250	5200	8000	10000	16500

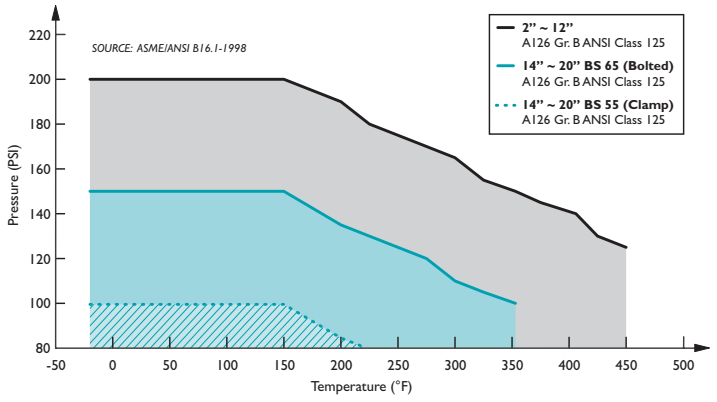
1. Dimensions, weights, and flow coefficients are provided for reference only. When required request certified drawings.
2. Face to face values have a tolerance of ±0.06 in (±2.0 mm) for sizes 10" and lower and a tolerance of ±0.12 in (±3.0 mm) for sizes 12" and larger.
3. Removable/adjustable leg brackets are standard on sizes 8" through 20". Centerline to bottom dimension does not include removable legs, which can extend approximately three to five inches beyond the bottom boss drain.

Additional Design & Technical Notes:

- Inlet and outlet bosses are standard on sizes 8" through 14".
- Inlet and outlet 1/4" NPT gauge taps with plugs are standard on sizes 8" through 14".
- 1/4" cover vent taps with plugs are standard on sizes 8" through 20".
- Straining element features a bow shaped handle that presses against the cover to help ensure the straining element remains securely seated during operation.
- Clamped cover design:
  Sizes 2" ~ 4" are designed with (1) Tee Bolt
  Size 6" is designed with (2) Tee Bolts
  Sizes 8" ~ 16" are designed with (4) Tee Bolts
  Size 20" is designed with (6) Tee Bolts



PRESSURE - TEMPERATURE RATINGS



PRESSURE - TEMPERATURE RATING

ANSI CLASS 125	BS 65-CI (2 ~ 12")	BS 55-CI (2 ~ 12")
WOG (Non-shock)	200 PSI @ 150 °F	200 PSI @ 100 °F
Saturated Steam	125 PSI @ 353 °F	Not Recommended
Max Liquid	125 PSI @ 450 °F	Not Recommended
ANSI CLASS 125	**BS 65-CI (14 ~ 20")**	**BS 55-CI (14 ~ 20")**
WOG (Non-shock)	150 PSI @ 150 °F	100 PSI @ 100 °F
Saturated Steam	100 PSI @ 353 °F	Not Recommended
Max Liquid	100 PSI @ 353 °F	Not Recommended

REFERENCED STANDARDS & CODES

CODE	DESCRIPTION
ASME/ANSI B16.1	Cast Iron Pipe Flanges and Flanged Fittings