



# SIMPLEX BASKET STRAINER ♦ RF FLANGED & THREADED

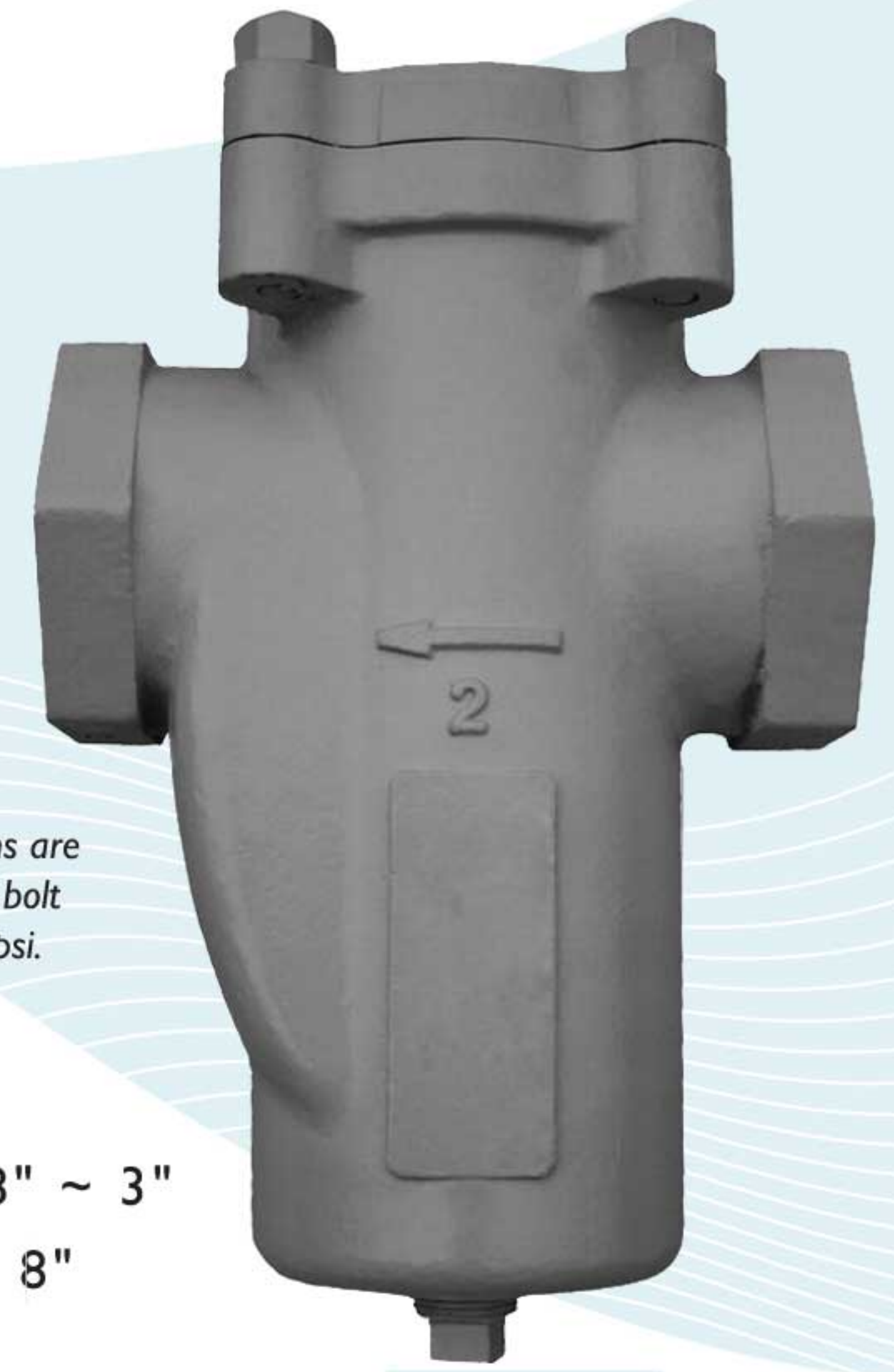
## ANSI CLASS 150/300 ♦ CARBON AND STAINLESS STEEL

### MODEL BCT1

(CARBON STEEL - THREADED - 150/300)

### MODEL BST1

(STAINLESS STEEL - THREADED - 150/300)



• Quick-opening cover designs are available. Quick-opening, two bolt cover option is rated at 150 psi.

SIZE RANGE:  
THREADED: 3/8" ~ 3"  
FLANGED: 1" ~ 8"

## FEATURES

- ◆ **HIGH QUALITY CONSTRUCTION**  
THE SERIES BCT1 BASKET STRAINER IS AVAILABLE IN CARBON OR STAINLESS STEEL WITH EITHER THREADED OR FLANGED (RF) END CONNECTIONS. IT FEATURES A MACHINED GROOVE THAT ENCAPSULATES THE COVER GASKET AND AIDS IN PREVENTING GASKET BLOW-OUTS.
- ◆ **MINIMAL PRESSURE LOSS**  
PRESSURE LOSS IS MINIMIZED BY PROVIDING AN OVER-THE-TOP FLOW PATH AND LARGE STRAINING AREA. THE STRAINING CAPACITY IS A MINIMUM OF SIX TIMES THAT OF THE CROSS SECTIONAL AREA OF THE CONNECTING PIPE.
- ◆ **LARGE STRAINING CAPACITY**  
WITH ITS LARGE BODY AND SIZEABLE STRAINING ELEMENT, THE SERIES BCT BASKET STRAINER CAN STORE LARGE AMOUNTS OF DEBRIS - THUS MAXIMIZING TIME BETWEEN SERVICING. IT ALSO FEATURES A MACHINED SEAT WITH O-RING THAT ENABLES FINE FILTRATIONS - DOWN TO 40 MICRONS.
- ◆ **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 STAYFLOW BALL VALVE TO ALLOW FOR THE AUTOMATIC CLEANING OR FLUSHING OF THE STRAINING ELEMENT WHILE KEEPING THE PIPELINE IN SERVICE.

## TECHNICAL

<b>PRESSURE/ TEMPERATURE RATING</b> CS - ASTM A216 GR. WCB - CLASS 150
WOG (Non-shock): 285 PSI @ 100 °F
<b>PRESSURE/ TEMPERATURE RATING</b> SS - ASTM A351 GR. CF8M - CLASS 150
WOG (Non-shock): 275 PSI @ 100 °F
<b>PRESSURE/ TEMPERATURE RATING</b> CS - ASTM A216 GR. WCB - CLASS 300
WOG (Non-shock): 740 PSI @ 100 °F
<b>PRESSURE/ TEMPERATURE RATING</b> SS - ASTM A351 GR. CF8M - CLASS 300
WOG (Non-shock): 720 PSI @ 100 °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

Threaded Ends (150/300 lb)

**MODEL BCT1** (Carbon Steel)

**MODEL BST1** (Stainless Steel)

ANSI

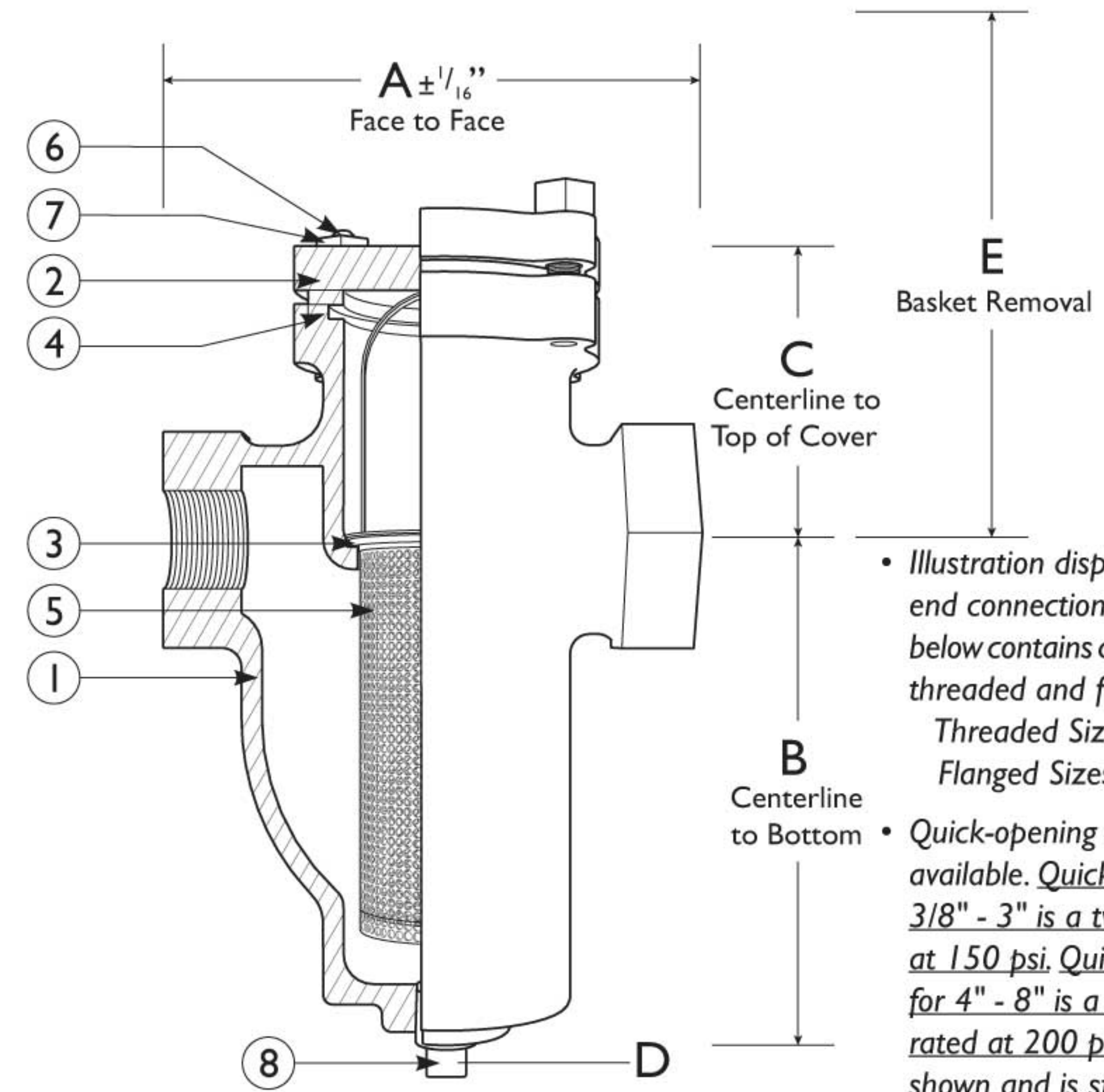
Class

150/300 lb

#### BILL OF MATERIALS <sup>(1)</sup>

No.	PART	BCT1 <sup>(2)</sup>	BST1
1	Body	Carbon Steel A216 Gr. WCB	Stainless Steel A351 Gr. CF8M Type 316
2	Cover	Carbon Steel A216 Gr. WCB	Stainless Steel A351 Gr. CF8M Type 316
3	O-Ring (Basket) <sup>(3)</sup>	Buna-N	Viton
4	Gasket (Cover) <sup>(3)(4)(6)</sup>	Spiral Wound Stainless Steel Non-Asbestos	
5	Straining Element <sup>(3)</sup>	Type 304 Stainless Steel (Other materials are available)	
6	Studs	Alloy Steel A193-B7	Stainless Steel 18-8 Series 300
7	Nuts	Carbon Steel A194-2H	Stainless Steel 18-8 Series 300
8	Bottom Drain Plug	Carbon Steel	Stainless Steel

- Equivalent or better materials may be substituted at the manufacturer's discretion.
- Carbon Steel bodies are epoxy painted.
- Denotes recommended spare parts.
- Gasket is for the 4 bolt cover option, which is standard. If quick open cover is specified, the O-ring material for the cover is Buna-N on BCT1 or Viton on BST1
- Bolted cover is standard (3/8" - 8"). Quick-open cover 3/8" - 3" is 2 bolt style. Quick-open cover 4" - 8" is clamp style.
- Carbon Fiber Compressed gasket may be substituted at the manufacturer's discretion.



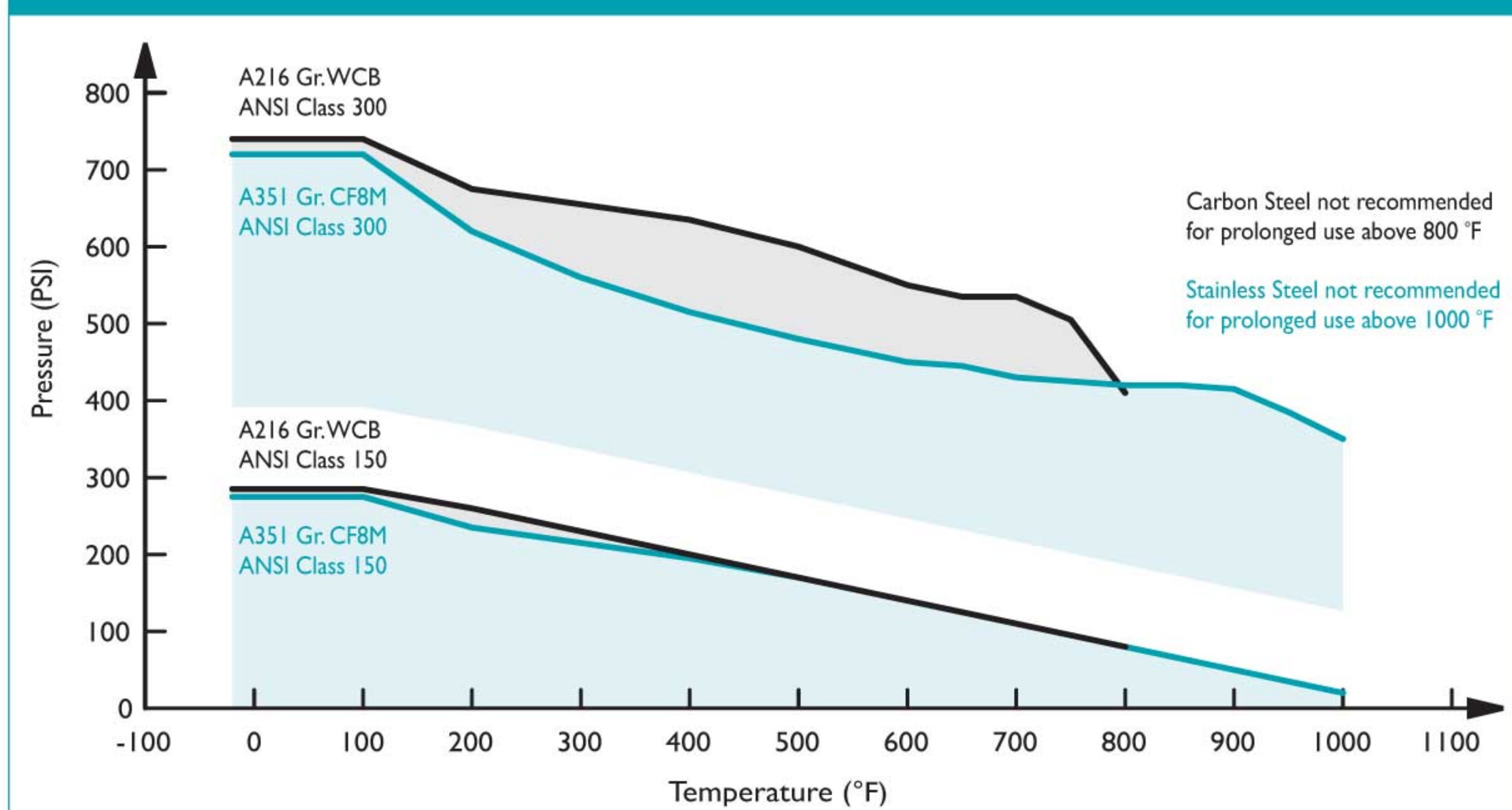
- Illustration displays threaded end connection unit only. Table below contains dimensions for both threaded and flanged type units. Threaded Sizes: 3/8" ~ 3" Flanged Sizes: 1" ~ 8"
- Quick-opening cover designs are available. Quick-opening cover for 3/8" - 3" is a two bolt cover rated at 150 psi. Quick-opening cover for 4" - 8" is a clamp style cover, rated at 200 psi. Four bolt cover is shown and is standard.
- Bottom drain is furnished with plug.

#### DIMENSIONS AND PERFORMANCE DATA <sup>(1)</sup>

Size	in	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8
	mm	10	15	20	25	32	40	50	65	80	100	150	200
<b>A<sub>1</sub> DIMENSION</b> FACE TO FACE (THREADED)	in	4.562	4.562	4.562	5.312	6.312	6.312	8.25	11.25	11.25	n/a	n/a	n/a
	mm	116	116	116	135	161	161	210	286	286	n/a	n/a	n/a
<b>A<sub>2</sub> DIMENSION</b> FACE TO FACE (FLANGED)	in	n/a	n/a	n/a	5.687	n/a	7.00	9.00	10.375	11.75	15.00	20.25	27.375
	mm	n/a	n/a	n/a	145	n/a	178	229	264	299	381	515	696
<b>B<sub>1</sub> DIMENSION</b> CTR. LINE TO BOTTOM (THREADED)	in	4.00	4.00	4.00	4.687	6.50	6.50	7.875	8.75	11.375	n/a	n/a	n/a
	mm	102	102	102	120	166	166	201	223	289	n/a	n/a	n/a
<b>B<sub>2</sub> DIMENSION</b> CTR. LINE TO BOTTOM (FLANGED)	in	n/a	n/a	n/a	4.687	n/a	6.50	8.00	8.75	11.50	13.75	20.00	24.24
	mm	n/a	n/a	n/a	120	n/a	166	204	223	293	350	508	616
<b>C<sub>1</sub> DIMENSION</b> CTR. LINE TO TOP (THREADED)	in	2.50	2.50	2.50	2.75	3.00	3.00	3.625	4.00	4.50	n/a	n/a	n/a
	mm	64	64	64	70	77	77	93	102	115	n/a	n/a	n/a
<b>C<sub>2</sub> DIMENSION</b> CTR. LINE TO TOP (FLANGED)	in	n/a	n/a	n/a	3.00	n/a	3.00	3.75	4.00	4.75	6.18	7.88	10.55
	mm	n/a	n/a	n/a	77	n/a	77	96	102	121	157	201	268
<b>D DIMENSION</b> NPT BLOW-OFF (BOTH)	in	3/8	3/8	3/8	3/8	1/2	1/2	3/4	1	1	2	2	2
	mm	10	10	10	10	15	15	20	25	25	50	50	50
<b>E DIMENSION</b> SCREEN REMOVAL (BOTH)	in	4.812	4.812	4.812	5.875	8.125	8.125	10.125	11.875	14.812	19.875	29.125	37.125
	mm	123	123	123	150	207	207	258	302	377	505	740	943
<b>ASSEMBLED WEIGHT</b> THREADED (APPROXIMATE)	lb	6.0	6.0	5.5	8.0	16.0	16.0	25.5	49.0	51.0	n/a	n/a	n/a
	kg	2.7	2.7	2.5	3.6	7.3	7.3	11.6	22.2	23.1	n/a	n/a	n/a
<b>ASSEMBLED WEIGHT</b> FLANGED (APPROXIMATE)	lb	n/a	n/a	n/a	11.0	n/a	19.5	31.5	44.5	65.5	142.0	266.0	518.0
	kg	n/a	n/a	n/a	5.0	n/a	8.8	14.3	20.2	29.7	64.4	120.5	234.7
<b>Flow Coefficient</b>	C <sub>v</sub>	14	14	14	23	42	42	70	90	140	290	780	1600

1. Dimensions, weights, and flow coefficients are provided for reference only. When required, always request certified drawings. • Threaded Sizes: 3/8" ~ 3" • Flanged Sizes: 1" ~ 8"

#### PRESSURE - TEMPERATURE RATINGS



#### PRESSURE - TEMPERATURE RATING <sup>(1)</sup>

ANSI CLASS 150	A216 Gr. WCB <sup>(2)</sup>	A351 Gr. CF8M <sup>(2)</sup>
WOG (Non-shock)	285 PSI @ 100 °F	275 PSI @ 100 °F
ANSI CLASS 300	A216 Gr. WCB <sup>(2)</sup>	A351 Gr. CF8M <sup>(2)</sup>
WOG (Non-shock)	740 PSI @ 100 °F	720 PSI @ 100 °F

- Threaded units are dual rated ANSI Class 150/300. Flanged units are rated at ANSI Class 150.
- Pressure and Temperature ratings are considerably lower for units installed with the optional quick-opening covers. Please consult factory for further information.

#### STANDARD STRAINING ELEMENTS

Size	Liquid	Open Area	Steam	Open Area
3/8" ~ 2"	1/16 (.0625)	41%	1/32 (.033)	28%
2 1/2" ~ 4"	1/16 (.0625)	41%	3/64 (.045)	36%
5" ~ 8"	1/8 (.125)	40%	3/64 (.045)	36%

#### REFERENCED STANDARDS & CODES

Code	Description	Code	Description
ASME/ANSI B16.5	Pipe Flanges and Flanged Fittings	ASME/ANSI B16.11	Forged Steel Fittings, Socket-Welding and Threaded