

North American Simplex Basket Strainers for Gas and Oil



Threaded With Bolted Cover

Natural gas and oil basket strainers are used in high pressure supply lines to prevent dirt and debris from damaging or jamming regulators, valves and other gas train accessories. In oil lines, strainers help to filter out foreign particles that otherwise could reach the burner oil atomizer.

Basket strainer bodies are available in cast iron, carbon steel (epoxy painted to help resist rust and corrosion) and stainless steel. Bodies are threaded ($\frac{3}{8}$ " to 3") or flanged (1" to 8" except $1\frac{1}{4}$ ").

Strainer screens are available in 304 (standard) or 316 (special order) stainless steel and monel (special order).

Cast Iron body screens are perforated with $\frac{1}{16}$ " hole size standard for connection sizes $\frac{3}{8}$ " to 4" and $\frac{1}{8}$ " hole size for connections sizes 5" to 8". Carbon Steel and stainless steel body screens are also perforated with $\frac{1}{16}$ " hole size for all connection sizes, $\frac{3}{8}$ " to 8".

A mesh lining (304 stainless standard or 316 stainless or monel special), either 20, 40 or 100 mesh, can be provided, depending on the flow media and the degree of filtration required.

Basket screens provide a large open area ratio for minimum pressured drop and can store large volumes of debris to minimize service requirements.

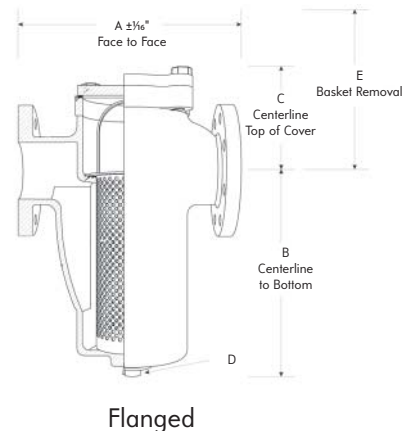
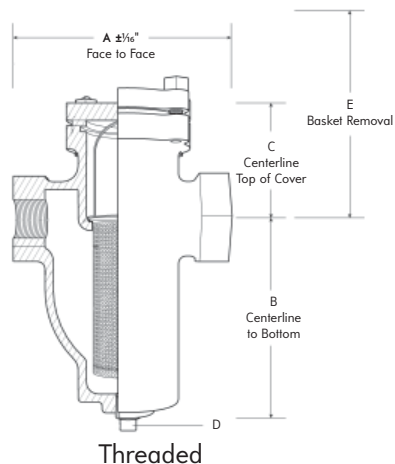
Basket strainer bodies are machined to accommodate an o-ring basket seal to permit fine filtration without concern regarding blow by. A plugged bottom drain is also provided for liquid removal prior to removing the basket for cleaning. Basket strainers are designed to be mounted in horizontal pipe runs.

Standard basket strainers are not suitable for steam service. Strainers for steam service are available as special order items.



Flanged With Bolted Cover

DIMENSIONS (inches)



Cast Iron Body

Dimensions and Performance Data ⁽¹⁾ ANSI Class 125

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
A _T Dimension Face to Face (Threaded)	in	4.562	4.562	4.562	5.312	6.312	6.312	8.25	9.625	11.25	n/a	n/a	n/a
	mm	116	116	116	135	161	161	210	245	286	n/a	n/a	n/a
A _F Dimension Face to Face (Flanged)	in	n/a	n/a	n/a	5.687	n/a	7.00	9.00	10.44	11.75	15.00	20.25	27.375
	mm	n/a	n/a	n/a	145	n/a	178	229	267	299	381	515	696
B _T Dimension 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 _F Dimension 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
C _T Dimension 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
C _F Dimension 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
D Dimension 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
E Dimension 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
Assembled Wt. Threaded (approximate)	lb	5.5	5.5	5.0	8.0	15.0	14.0	27.0	36.0	55.5	n/a	n/a	n/a
	kg	2.5	2.5	2.3	3.6	6.8	6.4	12.2	16.3	25.2	n/a	n/a	n/a
Assembled Wt. Flanged (approximate)	lb	n/a	n/a	n/a	11.5	n/a	21.0	34.0	48.5	64.0	118.0	266.0	518.0
	kg	n/a	n/a	n/a	5.2	n/a	9.5	15.4	22.0	29.0	53.5	120.7	235.0
Flow Coefficient	C _v	14	14	14	24	43	43	70	90	140	290	780	1600

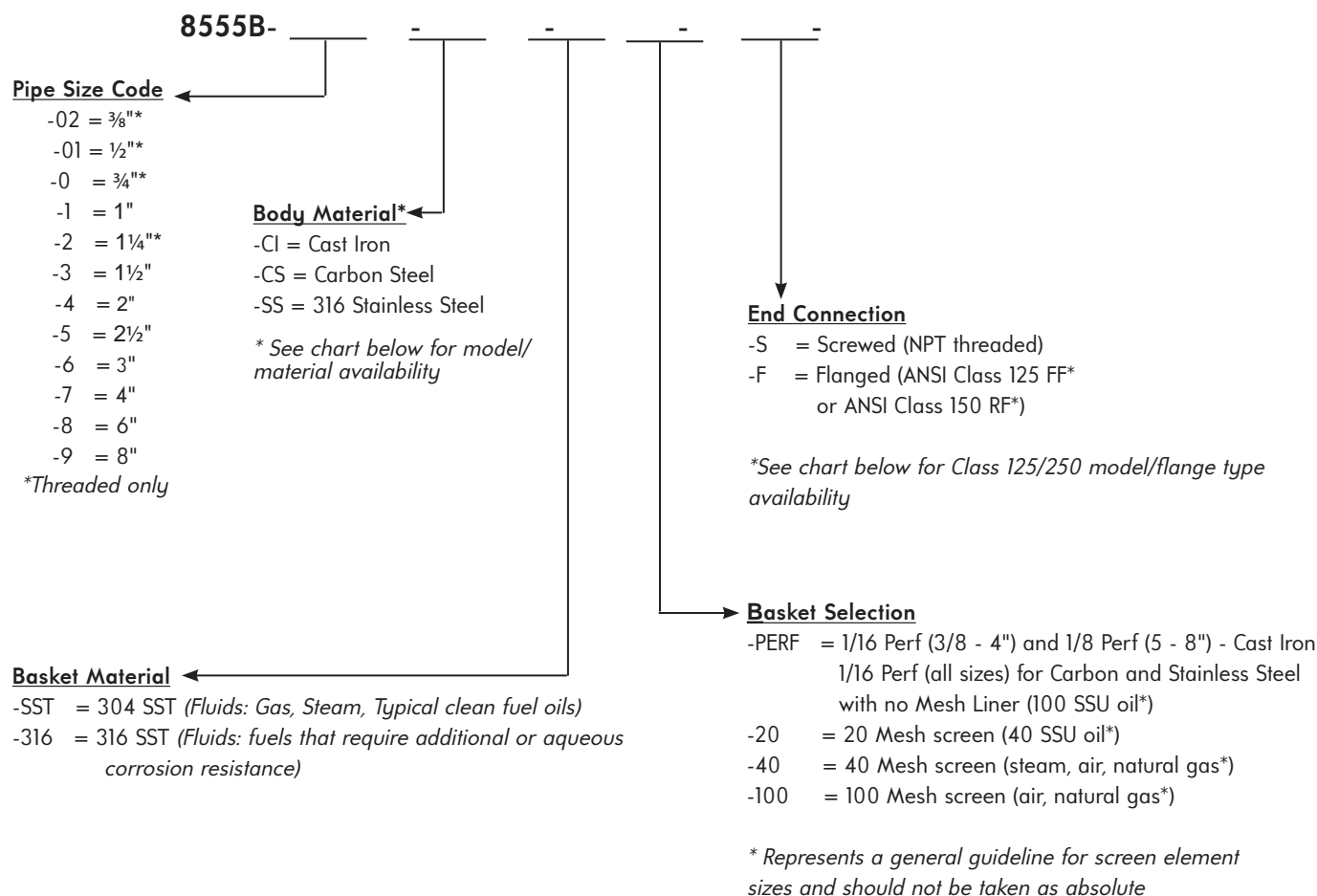
Carbon & Stainless Steel Body

Dimensions and Performance Data ⁽¹⁾ ANSI Class 150

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
A _T Dimension 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
A _F Dimension 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 _T Dimension 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 _F Dimension 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
C _T Dimension 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
C _F Dimension 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
D Dimension 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
E Dimension 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
Assembled Wt. 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
Assembled Wt. Flanged (approximate)	lb	n/a	n/a	n/a	11.0	n/a	19.5	31.5	44.5	65.5	118.0	266.0	518.0
	kg	n/a	n/a	n/a	5.0	n/a	8.8	14.3	20.2	29.7	53.5	120.5	234.7
Flow Coefficient	C _v	14	14	14	24	43	43	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"

ORDERING INFORMATION



8555B Simplex Strainer Threaded Body Material Selection Guide

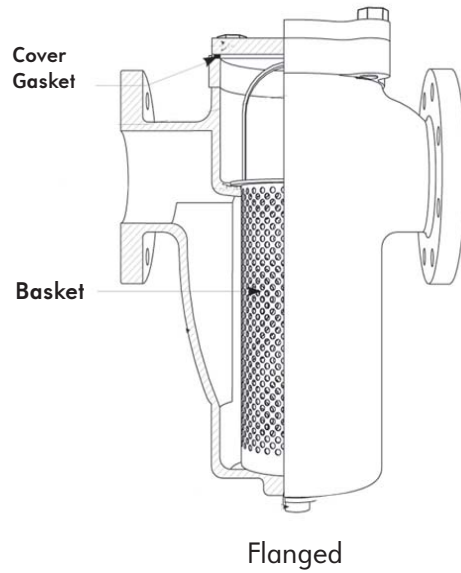
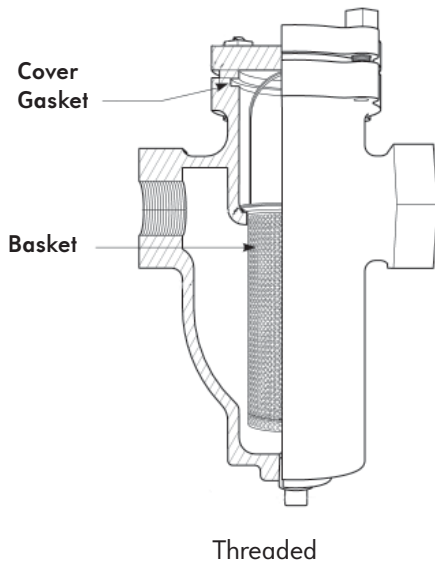
Material Selection Code	Material Options	Sizes Available with Bolted Cover	ANSI Class	Pressure/Temperature Rating (PSIG / °F) ⁽¹⁾
CI	Cast Iron	3/8" - 3"	125	165/300F
CS	Carbon Steel	3/8" - 3"	150	225/300F
SS	Stainless Steel	3/8" - 3"	150	200/300F

8555B Simplex Strainer Flanged Body Material Selection Guide

Material Selection Code	Material Options	Sizes Available with Bolted Cover	ANSI Class	Pressure/Temperature Rating (PSIG / °F) ⁽¹⁾
CI	Cast Iron	1" - 8" (FF)	125	165/300F
CS	Carbon Steel	1" - 8" (RF)	150	225/300F
SS	Stainless Steel	1" - 8" (RF)	150	200/300F

1. Contact engineering if higher temperature ratings are required.

RECOMMENDED SPARE PARTS



Ordering Replacement Baskets Only

8555B-BASKET - $\begin{array}{c} \text{---} \\ | \\ \text{---} \\ | \\ \text{---} \end{array}$
 Pipe Size ← Material* Mesh

8555B-BASKET - 4 - 304 - 40 Basket only for 2" Simplex Basket strainer, 304 stainless with 40 mesh liner

8555B-BASKET - 3 - 316 - 100 Basket only for 1½" Simplex Basket strainer, 316 stainless with 100 mesh liner

* See basket material selections on page 3.

Ordering Replacement Cover Gasket

8555B-GASKET - $\begin{array}{c} \text{---} \\ | \\ \text{---} \\ | \\ \text{---} \end{array}$
 Pipe Size ←

8555B-GASKET - 6 Gasket for 3" Simplex Basket strainer

WARNING: Situations dangerous to personnel and property may exist with the operation and maintenance of any combustion equipment. The presence of fuels, oxidants, hot and cold combustion products, hot surfaces, electrical power in control and ignition circuits, etc., is inherent with any combustion application. Parts of this product may exceed 160F in operation and present a contact hazard. Fives North American Combustion, Inc. urges compliance with National Safety Standards and Insurance Underwriters' recommendations, and care in operation.

BASKET STRAINER CAPACITY FOR GASES

Size	scfh (.6 SG) nat gas at 1" w.c. dp with 1 psi upstream, 60F, at sea level (1/8" PERF Screen)	scfh (.6 SG) nat gas at 1" w.c. dp with 1 psi upstream, 60F, at sea level (20 Mesh Lined)	scfh (.6 SG) nat gas at 1" w.c. dp with 1 psi upstream, 60F, at sea level (40 Mesh Lined)	scfh (.6 SG) nat gas at 1" w.c. dp with 1 psi upstream, 60F, at sea level (100 Mesh Lined)	C _v factor
3/8	813	793	742	623	14
1/2	813	793	742	623	14
3/4	813	793	742	623	14
1	1393	1360	1272	1069	24
1 1/4*	2496	2436	2279	1914	43
1 1/2	2496	2436	2279	1914	43
2	4064	3966	3710	3117	70
2 1/2	5225	5099	4769	4007	90
3	8127	7931	7419	6233	140
4	16 835	16 429	15 368	12 912	290
6	45 280	44 189	41 335	34 728	780
8	92 882	90 643	84 789	71 237	1600

BASKET STRAINER CAPACITY IN GPM FOR .845 SPECIFIC GRAVITY FUEL OIL AT 1 PSI DP, 60F

Size	GPM with PERF Screen (Unlined)	GPM with 20 Mesh Lined Screen	GPM with 40 Mesh Lined Screen	GPM with 100 Mesh Lined Screen	C _v factor
3/8	14.5	14.2	12.9	11.4	14
1/2	14.5	14.2	12.9	11.4	14
3/4	14.5	14.2	12.9	11.4	14
1	24.9	24.3	22.1	19.5	24
1 1/4*	44.6	43.6	39.5	34.9	43
1 1/2	44.6	43.6	39.5	34.9	43
2	72.6	71	64.4	56.8	70
2 1/2	93.4	91.3	82.7	73	90
3	145.2	142	128.7	113.5	140
4	300.8	294.2	266.6	235.1	290
6	809	791.3	717.1	632.5	780
8	1659.6	1623.1	1471.1	1297.3	1600

BASKET STRAINER CAPACITY IN GPM FOR .959 SPECIFIC GRAVITY FUEL OIL AT 1 PSI DP, 60F

Size	GPM with PERF Screen (Unlined)	GPM with 20 Mesh Lined Screen	GPM with 40 Mesh Lined Screen	GPM with 100 Mesh Lined Screen	C _v factor
3/8	13.1	12.8	11.7	9.9	14
1/2	13.1	12.8	11.7	9.9	14
3/4	13.1	12.8	11.7	9.9	14
1	22.4	21.9	20	16.9	24
1 1/4*	40.1	39.3	35.9	30.3	43
1 1/2	40.1	39.3	35.9	30.3	43
2	65.3	63.9	58.4	49.3	70
2 1/2	83.9	82.2	75	63.4	90
3	130.5	127.9	116.7	98.7	140
4	270.3	264.9	241.8	204.4	290
6	727.1	712.4	650.3	549.6	780
8	1491.5	1461.4	1334	1127.5	1600



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