

Style SGFV

Basket Strainer

Carbon Steel (ASTMA 216, Grade WCB)

150 lb. & 300 lb. Flanged



Style SGFV-K

Basket Strainer

Carbon Steel (ASTMA 216, Grade WCB)

150 lb. Flanged



Cast Carbon Steel Basket Strainer

APPLICATIONS

Steam, water, oil or gas where protection from foreign matter in a pipeline is required.

CONSTRUCTION

The Keckley Style SGFV and SGFV-K strainers are constructed from rugged carbon steel castings and are machined to exacting specifications. These bodies have raised faced and drilled flanges that are in accordance with ASME B16.5. All flanges come standard with back-faced bolt holes.

FEATURES

The Keckley Style SGFV and SGFV-K strainers feature a basket with an angular cutaway design to allow straight through flow and extremely low pressure loss. The Style SGFV has a bolted top cover flange for ease in basket removal. The Style SGFV-K is furnished with studs and knobs for easy cleaning. The Style SGFV gasket is spiral wound 304 stainless steel and is compressed between the body and cover (for maximum strength and durability) and designed for high pressure and high temperature service. The Style SGFV-K is furnished with a Buna-N gasket suitable for temperatures up to 200°F. Keckley Style SGFV strainers have carbon steel hex head cap crews and are furnished standard with a tapped and plugged NPT drain connection.

BASKETS

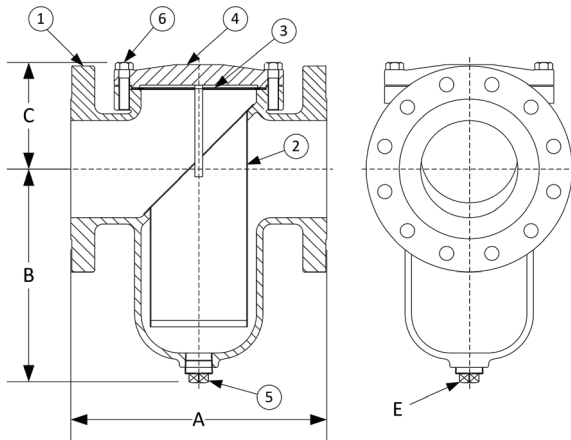
Standard baskets are 304 stainless steel and are spot welded for maximum strength. Different size perforations and meshes are available in stainless steel, monel, and brass to meet specific media requirements. If media is not indicated, screens for *water* will be supplied.

CLEANING

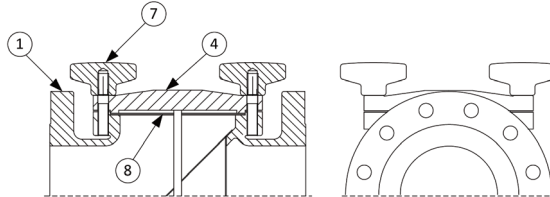
Cleaning of the Style SGFV and SGFV-K strainers are accomplished by removing the cover and pulling out the basket. **Warning:** See Maintenance Instructions on page S6 of the Strainer Information Section for additional precautions and detailed information on servicing the strainer.

WORKING PRESSURES - NON SHOCK

NOM. RATING		MEDIA	2" to 12"	50 mm to 300 mm
150# R.F. & D. (STANDARD FLANGE)	BOLTED COVER	STEAM	150 PSI @ 838°F	1035 KPa @ 296°C
	KNOB TYPE COVER	W.O.G.	285 PSI @ 100°F	1966 KPa @ 38°C
		W.O.G.	200 PSI @ 200°F	1379 KPa @ 93°C
NOM. RATING		MEDIA	2" to 12"	50 mm to 300 mm
300# R.F. & D. (EX. HEAVY FLANGE)	BOLTED COVER	STEAM	300 PSI @ 838°F	2069 KPa @ 448°C
		W.O.G.	740 PSI @ 100°F	5104 KPa @ 38°C



Style SGFV - Bolted Cover (Shown Above)
Available in 150 lb. and 300 lb. Class



Style SGFV-K - Knob Type Cover (Shown Above)
Only Available in 150 lb. Class

Style SGFV & SGFV-K

Basket Strainer, Flanged
Carbon Steel (ASTM A 216, Grade WCB)

PARTS LIST		
ITEM	DESCRIPTION	MATERIAL
1†	Body	Carbon Steel (ASTM A 216, Grade WCB)
2	Basket	Stainless Steel (304)
3	Gasket	Spiral Wound Stainless Steel (304)
4	Cover	Carbon Steel (ASTM A 216, Grade WCB)
5	Pipe Plug	Carbon Steel (ASTM A 105)
6	Hex Head Cap Screw	Carbon Steel (ASTM A 193, Grade B7)
7*	Knob	Steel
8*	Gasket	Buna-N (Max Temperature 200°F)

*Denotes parts for the Style SGFV-K 150 lb. class only.

†Optional Body Materials Available in LCB, WC6, and WC9.

SIZE		SCREEN GAGE	SCREEN PERFORMANCE					
in	mm		FOR STEAM		FOR LIQUID		OPEN AREA	
			in	mm	AREA	in	mm	AREA
1-1/2 to 3	40 to 80	22	3/64	1.2	33%	1/16	1.6	30%
4 to 14	100 to 350	22	1/16	1.6	30%	1/8	3.2	43%

Standard screens supplied are for **liquid service**, unless otherwise specified.
Options: Other meshes, perforations, and screen materials are available.

SIZE		DIMENSIONS															
		A				B				C				E			
		150#		300#		150#		300#		150#		300#		150#		300#	
in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1-1/2	40	6-1/2	165	7	178	4-1/2	114	4	102	4	102	3-3/4	95	1/2	15	1/2	15
2	50	8-1/2	216	8-13/16	224	5-7/8	149	4-3/4	121	4-3/4	121	3-3/4	95	1/2	15	1	25
2-1/2	65	8	203	9	229	5-7/16	138	5-5/8	143	4-1/4	108	4-5/8	117	3/4	20	1	25
3	80	8-3/4	222	10-1/16	256	5-11/16	144	5-11/16	144	5-5/8	143	5-5/8	143	3/4	20	3/4	20
4	100	11-3/16	284	12	305	8-1/4	210	8-1/4	210	6-1/16	154	6-1/16	154	1	25	1	25
5	125	12-1/4	311	13-1/8	333	10-1/4	260	10-1/4	260	5-5/8	143	5-5/8	143	1	25	1	25
6	150	13-7/8	352	15-9/16	395	12-13/64	310	12-13/64	310	6-5/16	149	6-5/16	160	1-1/4	32	1-1/4	32
8	200	17-3/8	441	18-7/8	479	15-9/16	395	15-9/16	395	8-3/16	208	8-3/16	208	1-1/2	40	1-1/4	40
10	250	22	559	21-5/16	541	16	406	14-3/8	365	10-3/8	264	9-7/8	251	1-1/2	40	2	50
12	300	25	635	25-3/8	645	23-3/4	603	23-3/4	603	12-3/8	314	12-3/8	314	2	50	2	50
14	350	34-5/16	871	34-5/16	871	28	711	34-3/8	873	16-1/2	419	20-3/16	513	2	50	2	50

Certified dimensional drawings are available upon request.

†This table reflects only the nearest metric equivalents.

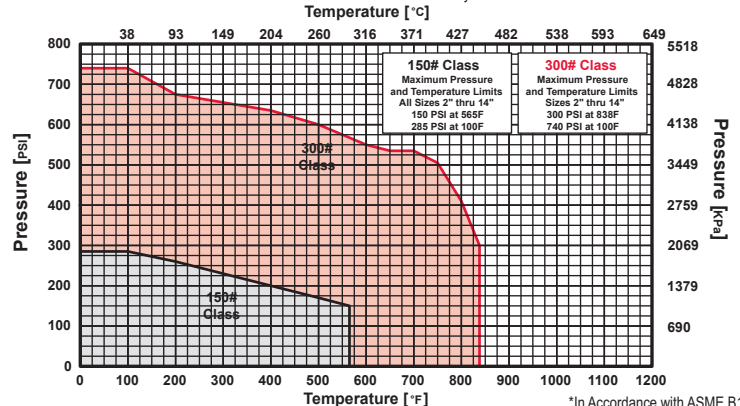
		WEIGHTS										
Size		1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"	14"
		150	lbs	22	30	35	39	69	110	125	270	360
	kgs	10	14	16	18	31	50	57	122	163	204	703
300	lbs	24	32	42	56	88	126	150	295	420	500	1650
	kgs	11	15	19	25	40	57	68	134	191	227	748

FLOW COEFFICIENTS							
Size	C _v	Size	C _v	Size	C _v	Size	C _v
1-1/2"	32	3"	120.2	6"	743.1	12"	4980.6
2"	42.7	4"	276.7	8"	1486.3	14"	7600.0
2-1/2"	84	5"	442.7	10"	3051.6		

TOTAL SCREEN AREA (150 LB.)					
Size	(in ²)	Size	(in ²)	Size	(in ²)
1-1/2"	20.10	3"	54.53	6"	215.65
2"	53.42	4"	117.94	8"	401.76
2-1/2"	45.72	5"	129.00	10"	591.73

*See DETERMINING RATIOS on page S5 of the Strainer Information Section for calculating NET FREE AREA of the screen to inside pipe area.

PRESSURE vs. TEMPERATURE CHART
150# & 300# Flanged Carbon Steel (ASTM A 216, Grade WCB)
For use with Bolted Cover Only



PRESSURE DROP CHART

Basket Strainers (Styles GFV, HLC, BGFV, SGFV, SGFV-K, SSGFV, and SSGFV-K)

This pressure drop chart is based on the flow of clean water through the Keckley strainer styles listed above with screen perforations ranging from 3/64" through 1/8".

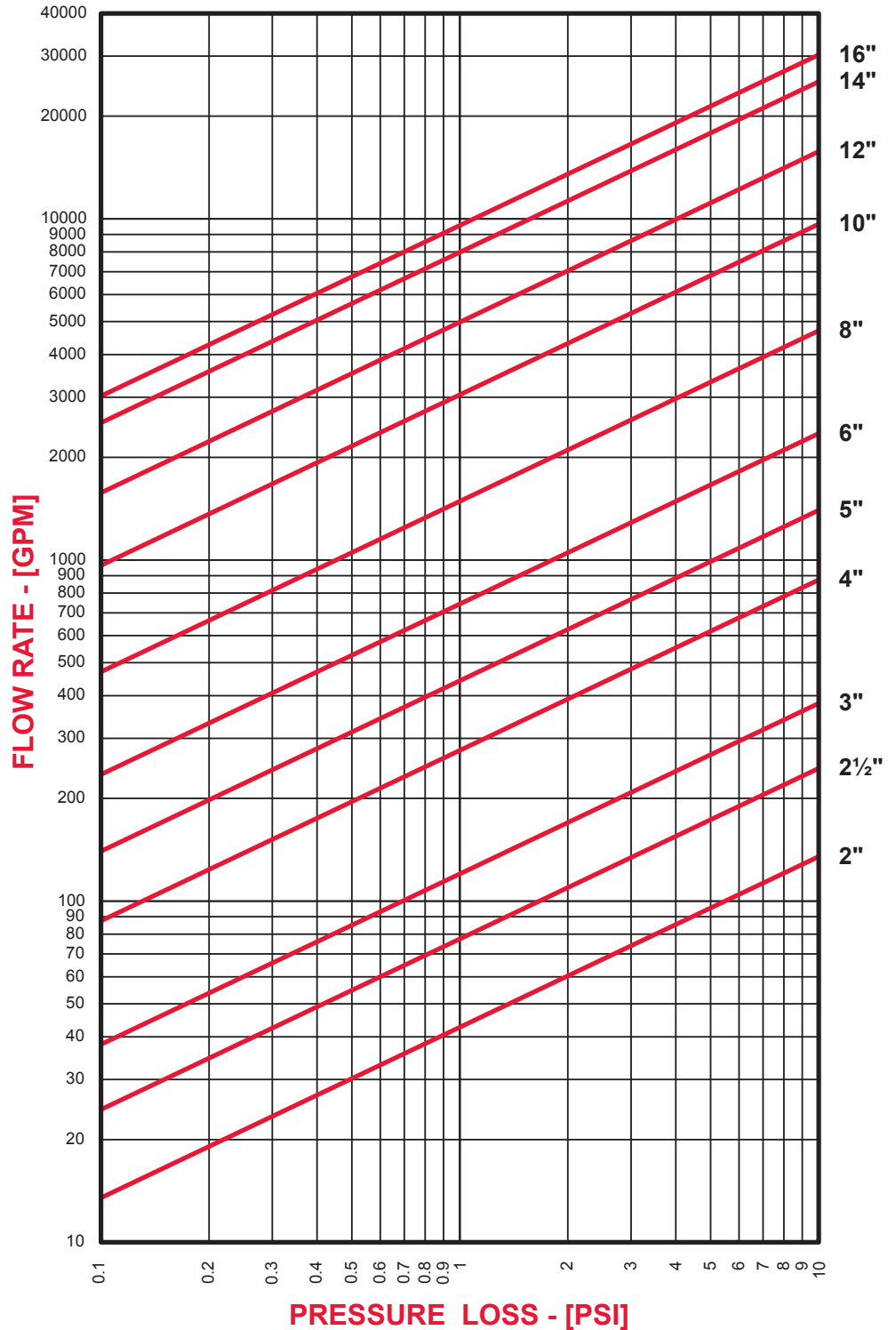
TO USE CHARTS:

Find your desired rate of flow (GPM) on the left hand side of the chart. Follow its corresponding horizontal line to the point where it intersects the diagonal line indicating the strainer pipe size. From this point of intersection, follow the vertical line down to the bottom of the chart to determine the approximate pressure drop.

CORRECTION FACTORS:

For finer mesh baskets that are backed with a perforated sheet, multiply the pressure drops shown at right by the following:

40 mesh	x 1.2
60 mesh	x 1.4
80 mesh	x 1.6
100 mesh	x 1.7



STYLE SGFV PRODUCT NUMBERS

Below Is An Example Of Building A Part Number For Ordering A Strainer

Size	Pressure Class	End Conn.	Strainer Type		Body Material	Perf Or Mesh	Screen Type	Screen Material		Gasket Type	Cover Conn.	Origin		Style
4	4	RF	S	-	CS	125	P	34	-	T	B	I	-	SGFV

Description: 4" 300 lb. Flanged Basket Strainer, Carbon Steel Body, 1/2" Perforated 304ss screen, Spiral Wound 304ss Gasket – Teflon Filler, Bolted Cover, Import, SGFV.

Size

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Pressure Class

Ordering Number	ASME Pressure Class
2	150 Lb.
4	300 Lb.

End Connection

Ordering Number	End Connection
RF	Raised Face Flange

Strainer Type

Ordering Number	Strainer Type
S	Simplex Basket Strainer

Body Material

Ordering Number	Body Material
CS	Carbon Steel (ASTM A 216, Grade WCB)

Perf or Mesh

Ordering Number	Perf. or Mesh
033	1/32"
045	3/64"
062	1/16"
094	3/32"
125	1/8"
156	5/32"
188	3/16"
250	1/4"
375	3/8"
500	1/2"
750	3/4"
M20	20 Mesh
M30	30 Mesh
M40	40 Mesh
M50	50 Mesh
M60	60 Mesh
M80	80 Mesh
M100	100 Mesh
M150	150 Mesh
M200	200 Mesh
M300	300 Mesh
X	Special

Screen Type

Ordering Number	Screen Type
P	Perforated
M	Mesh
L	Perforated with Mesh Lining
S	Perforated with Mesh Lined Start Up
X	Special

Screen Material

Ordering Number	Screen Material
34	Type 304 Stainless Steel
36	Type 316 Stainless Steel
BR	Brass
ML	Monel
TI	Titanium
HC	Hastelloy C276
DS	Duplex Stainless Steel
X	Special

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Gasket Type

Ordering Number	Gasket Type
G	Spiral Wound SS (304) – Graphite Filler
T	Spiral Wound SS (304) – Teflon Filler
S	Spiral Wound SS (316) – Graphite Filler
M	Spiral Wound Monel – Graphite Filler
X	Special

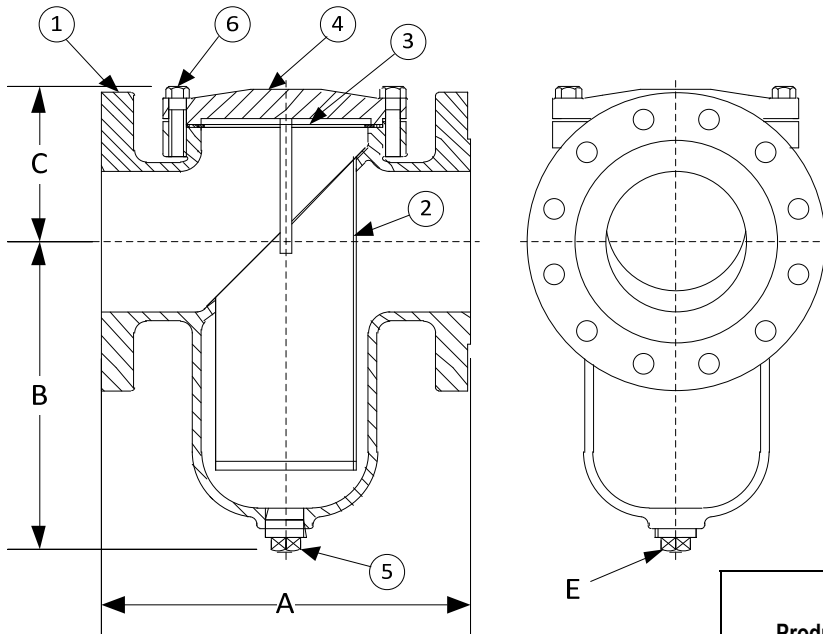
Cover Connection

Ordering Number	Cover Connection
B	Bolted

Origin

Country Code	Origin
B	Domestic (Buy American)
I	Import

DRAWING NO.
AL 91240



BODY PRESSURE & TEMPERATURE RATINGS – NON SHOCK		
NOM. RATING	MEDIA	1-1/2" to 14"
300# (EX. HEAVY FLANGE)	STEAM	300 PSI @ 838°F
	W.O.G.	740 PSI @ 100°F

PARTS LIST		
ITEM	DESCRIPTION	MATERIAL
1	BODY	CAST CARBON STEEL (ASTM A 216, GRADE WCB)
2	BASKET	STAINLESS STEEL (304)
3	GASKET	SPIRAL WOUND STAINLESS STEEL (304) – GRAPHITE FILLED
4	COVER	CAST CARBON STEEL (ASTM A 216, GRADE WCB)
5	PIPE PLUG	CARBON STEEL (A 105)
6	HEX HEAD CAP SCREW	CARBON STEEL (ASTM A 193, GRADE B7)

Product Number†	SIZE	DIMENSIONS (in)				COVER		WEIGHT (lbs)
		A	B	C	E	No. of Bolts	Size of Bolts	
11/24RFS-CS062P34-GB	1-1/2	7	4	3-3/4	1/2	4	5/8-11 x 1-1/2	24
24RFS-CS062P34-GB	2	8-13/16	4-3/4	3-3/4	1	6	1/2-13 x 1-3/4	32
21/24RFS-CS062P34-GB	2-1/2	9	5-5/8	4-5/8	1	4	3/4-10 x 2	42
34RFS-CS062P34-GB	3	10-1/16	5-11/16	5-5/8	3/4	4	3/4-10 x 2-1/4	56
44RFS-CS125P34-GB	4	12	8-1/4	6-1/16	1	4	7/8-9 x 2-1/4	88
54RFS-CS125P34-GB	5	13-1/18	10-1/4	5-5/8	1			126
64RFS-CS125P34-GB	6	15-9/16	12-13/64	6-5/16	1-1/4	8	5/8-11 x 2-1/4	150
84RFS-CS125P34-GB	8	18-7/8	15-9/16	8-3/16	1-1/2	10	5/8-11 x 3	295
104RFS-CS125P34-GB	10	21-5/16	14-3/8	9-7/8	2	16	5/8-11 x 2-3/4	420
124RFS-CS125P34-GB	12	25-3/8	23-3/4	12-3/8	2	16	5/8-11 x 3	500
144RFS-CS125P34-GB	14	34-5/16	34-3/8	20-3/16	2	20	7/8-9 x 4-1/2	1650

†See "Style SGFV Product Number Configuration" for additional options.

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STANDARD SCREENS SUPPLIED

SIZE in	SCREEN GAGE	SCREEN PERFORATION			
		FOR STEAM in	OPEN AREA	FOR LIQUID in	OPEN AREA
1-1/2 to 3	22	3/64	33%	1/16	30%
4 to 14	22	1/16	30%	1/8	43%

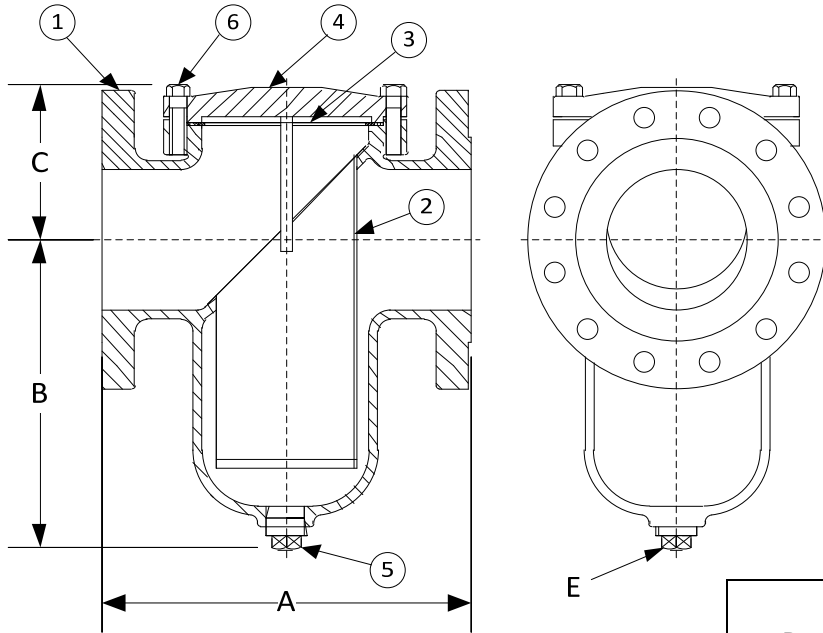
Standard screens supplied are for liquid service, unless otherwise specified.
Options: Other meshes, perforations, and screen materials are available.



DRAWING NO.
AL 91240

DIMENSIONAL ASSEMBLY		PART NO.
300# Flange Style SGFV Carbon Steel		SCALE: NTS
Basket Strainer w/ 304 ss screen		DATE: 07/01/2011
MAT'L:	REQ. ---	DR. BY DSF

DRAWING NO.
AL 91200



BODY PRESSURE & TEMPERATURE RATINGS – NON SHOCK		
NOM. RATING	MEDIA	1-1/2" to 14"
150# (STANDARD FLANGE)	STEAM	150 PSI @ 565°F
	W.O.G.	285 PSI @ 100°F

PARTS LIST		
ITEM	DESCRIPTION	MATERIAL
1	BODY	CAST CARBON STEEL (ASTM A 216, GRADE WCB)
2	BASKET	STAINLESS STEEL (304)
3	GASKET	SPIRAL WOUND STAINLESS STEEL (304) – GRAPHITE FILLED
4	COVER	CAST CARBON STEEL (ASTM A 216, GRADE WCB)
5	PIPE PLUG	CARBON STEEL (A 105)
6	HEX HEAD CAP SCREW	CARBON STEEL (ASTM A 193, GRADE B7)

Product Number ¹	SIZE	DIMENSIONS (in)				COVER		WEIGHT (lbs)
		A	B	C	E	No. of Bolts	Size of Bolts	
11/22RFS-CS062P34-GB	1-1/2	6-1/2	4-1/2	4	1/2	4	1/2-13 x 1-1/2	22
22RFS-CS062P34-GB	2	8-1/2	5-7/8	4-3/4	1/2	6	1/2-13 x 1-1/4	30
21/22RFS-CS062P34-GB	2-1/2	8	5-7/16	4-1/4	3/4	4	5/8-11 x 1-1/2	35
32RFS-CS062P34-GB	3	8-3/4	5-11/16	5-5/8	3/4	6	1/2-13 x 1-1/2	39
42RFS-CS125P34-GB	4	11-3/16	8-1/4	6-1/16	1	6	1/2-13 x 1-3/4	69
52RFS-CS125P34-GB	5	12-1/4	10-1/4	5-5/8	1	8	5/8-11 x 2	110
62RFS-CS125P34-GB	6	13-7/8	12-13/64	6-5/16	1-1/4	8	5/8-11 x 2	125
82RFS-CS125P34-GB	8	17-3/8	15-9/16	8-3/16	1-1/2	8	5/8-11 x 2-1/4	270
102RFS-CS125P34-GB	10	22	16	10-3/8	1-1/2	12	5/8-11 x 2-3/4	360
122RFS-CS125P34-GB	12	25	23-3/4	12-3/8	2	16	5/8-11 x 2-3/4	450
142RFS-CS125P34-GB	14	34-5/16	28	16-1/2	2	12	7/8-9 x 3-3/4	1550

¹See "Style SGFV Product Number Configuration" for additional options.

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STANDARD SCREENS SUPPLIED

SIZE in	SCREEN GAGE	SCREEN PERFORATION			
		FOR STEAM in	OPEN AREA	FOR LIQUID in	OPEN AREA
1-1/2 to 3	22	3/64	33%	1/16	30%
4 to 14	22	1/16	30%	1/8	43%

Standard screens supplied are for **liquid service**, unless otherwise specified.
Options: Other meshes, perforations, and screen materials are available.

KECKLEY

DRAWING NO.
AL 91200

DIMENSIONAL ASSEMBLY

PART NO.

150# Flange Style SGFV Carbon Steel

SCALE: NTS

Basket Strainer w/ 304 ss screen

DATE: 07/01/2011

MAT'L:

REQ. ---

DR. BY DSF