



## Simplex Strainers (Series 105, 105F, 107, and 115)



Cast simplex strainers are used in applications where the flow can be interrupted for basket cleaning. These strainers are an excellent choice for protection of pumps, meters, valves, traps, spray nozzles, and many more applications.

### High Quality Construction

- Flanges designed and built to ANSI, British and JIS specifications
- Material specifications in accordance to ASME and ASTM
- Each strainer is proof pressure tested per ASME standards before shipment

### Material Construction for a Variety of Applications

- Available in cast iron, cast and fabricated carbon steel, and 316 stainless steel to meet the demands of a wider range of applications
- ASME Section VIII Division I "U" stamp available for cast steel and cast stainless steel

### Low Maintenance Costs

- Quick opening swing bolt reduces the maintenance time
- Few replacement parts are required

### Low Installation Costs

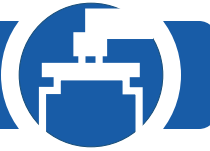
- Inline connections

### Low Capital Investments

- Competitively priced
- Heavy-duty, large capacity baskets are designed for long life

### Large Capacity Baskets

- Provides for a low pressure drop
- Provides for a larger basket open area

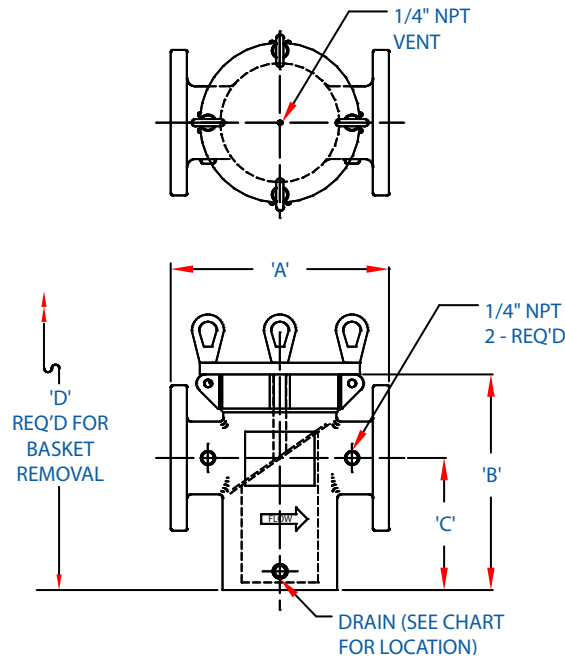
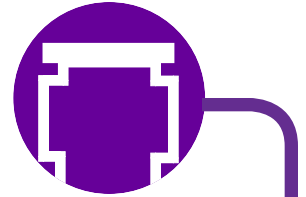


## Series 105 Simplex Strainer

### Cast Iron

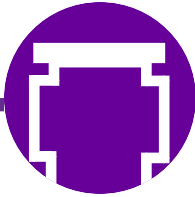
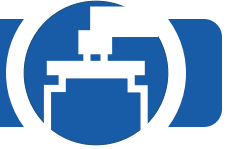
### Swing Bolt O-Ring Closure, Flanged Connection

### Class 125 ANSI Flat Face Flange Rating



Size Connection	A	B	C	D	Drain Size and Location	Weight	Cv
2"-125# FF 50 mm	11-3/4" 298.5 mm	9-3/4" 247.7 mm	8" 203.2 mm	18-3/4" 476.3 mm	1/4" NPT Bottom	47 lbs. 21.3 kg.	85 GPM 323 LPM
2-1/2"-125# FF 65 mm	13" 330.2 mm	13-7/8" 352.4 mm	8-1/2" 215.9 mm	27" 685.8 mm	1/2" NPT Bottom	71 lbs. 32.2 kg.	125 GPM 475 LPM
3"-125# FF 80 mm	13" 330.2 mm	13-7/8" 352.4 mm	8-1/2" 215.9 mm	27" 685.8 mm	1/2" NPT Bottom	85 lbs. 38.5 kg.	200 GPM 760 LPM
4"-125# FF 100 mm	13-1/2" 342.9 mm	13-7/8" 352.4 mm	8-1/2" 215.9 mm	27" 685.8 mm	1/2" NPT Bottom	97 lbs. 44 kg.	350 GPM 1330 LPM
5"-125# FF 125 mm	15" 381.0 mm	15-1/4" 387.4 mm	9-3/8" 238.1 mm	30" 762.0 mm	1/2" NPT Body	132 lbs. 59.9 kg.	560 GPM 2128 LPM
6"-125# FF 150 mm	17-1/4" 438.2 mm	16-5/8" 422.3 mm	10-1/4" 260.4 mm	32" 812.8 mm	1/2" NPT Body	183 lbs. 83 kg.	810 GPM 3078 LPM
8"-125# FF 200 mm	22" 558.8 mm	20-7/8" 530.2 mm	13-1/4" 336.6 mm	41" 1041.4 mm	3/4" NPT Body	350 lbs. 158.8 kg.	1360 GPM 5168 LPM
10"-125# FF 250 mm	26" 660.4 mm	25-3/4" 654.1 mm	17" 431.8 mm	50" 1270.0 mm	3/4" NPT Body	570 lbs. 258.5 kg.	2085 GPM 7923 LPM
12"-125# FF 300 mm	30" 762.0 mm	29-7/8" 758.8 mm	19-3/4" 501.7 mm	58" 1473.2 mm	3/4" NPT Body	868 lbs. 393.7 kg.	3025 GPM 11495 LPM

**Notes:** Other drain sizes and vents are available for special applications.  
 Dimensions subject to change without notice. Apply for certified drawings.



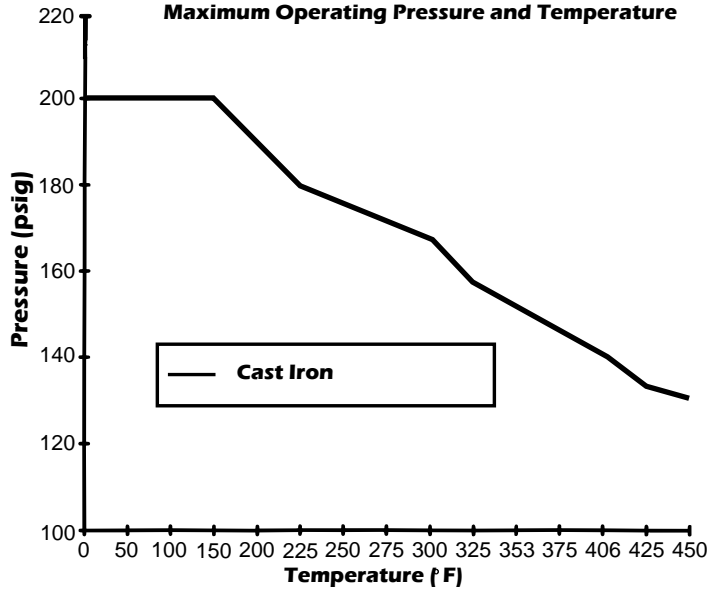
## Series 105 Simplex Strainer

### Cast Iron

#### Swing Bolt O-Ring Closure, Flanged Connection

#### Class 125 ANSI Flat Face Flange Rating

Pressure vs. Temperature (ANSI)  
 Maximum Operating Pressure and Temperature



Standard Construction	
Cast Steel	
<b>Body</b>	Class 30 ASTM A126-B
<b>Cover</b>	Class 30 ASTM A126-B
<b>O-ring</b>	Viton
<b>Basket</b>	Available in 1/32", 1/16", or 1/8" perforations and 40 mesh and 80 mesh - 316 Stainless Steel

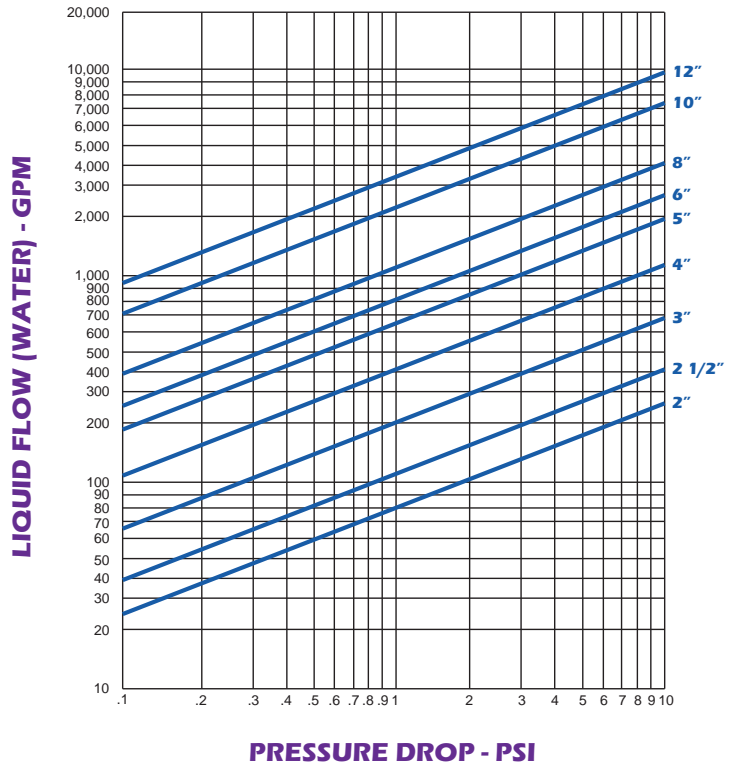
Operating Limits on Seal Gaskets		
Elastomer	°F	°C
Buna-N	257	125
EPMD	302	150
Viton <sup>1</sup>	437	225
Silicone <sup>2</sup>	482	250

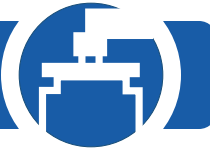
<sup>1</sup>Supplied as standard

<sup>2</sup>Do not use for paint applications

### Options

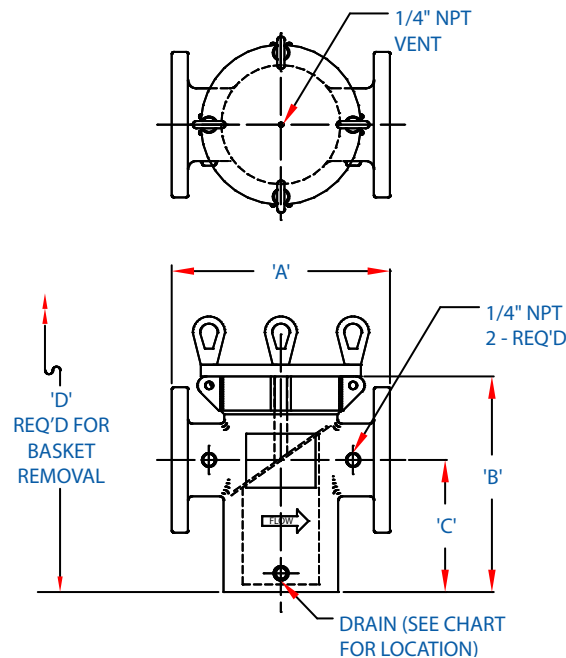
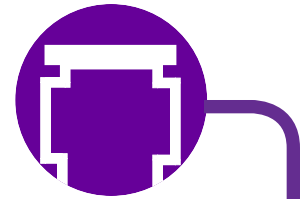
- Baskets are available in other materials, perforations, and meshes. Please consult the factory
- Drilling is available, upon request, to meet BS4504 PN10 and PN16 and JIS flange sizes.





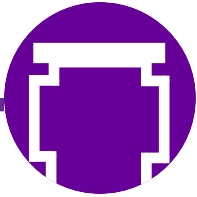
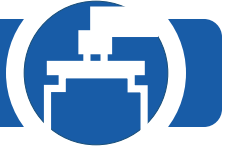
## Series 105 Simplex Strainer

Cast Steel and Cast 316 Stainless Steel  
 Swing Bolt O-Ring Closure, Flanged Connection  
 Class 150 ANSI Raised Face Flange Rating



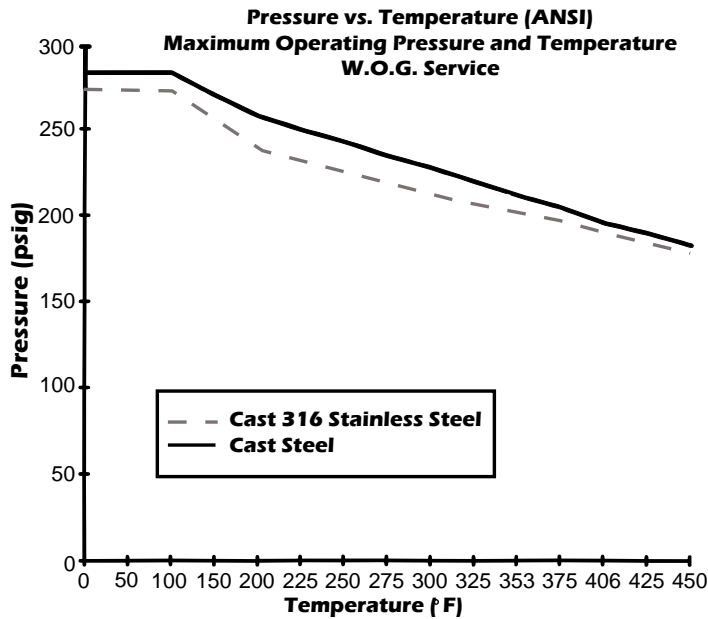
Size	A	B	C	D	Drain Size and Location	Weight	Cv
2"-150# RF 50 mm	11-3/4" 298.5 mm	9-3/4" 247.7 mm	8" 203.2 mm	18-3/4" 476.3 mm	1/4" NPT Bottom	48 lbs. 21.8 kg.	85 GPM 323 LPM
2-1/2"-150# RF 65 mm	13" 330.2 mm	13-7/8" 352.4 mm	8-1/2" 215.9 mm	27" 685.8 mm	1/2" NPT Bottom	75 lbs. 34 kg.	125 GPM 475 LPM
3"-150# RF 80 mm	13" 330.2 mm	13-7/8" 352.4 mm	8-1/2" 215.9 mm	27" 685.8 mm	1/2" NPT Bottom	90 lbs. 40.8 kg.	200 GPM 760 LPM
4"-150# RF 100 mm	13-1/2" 342.9 mm	13-7/8" 352.4 mm	8-1/2" 215.9 mm	27" 685.8 mm	1/2" NPT Bottom	103 lbs. 46.7 kg.	350 GPM 1330 LPM
5"-150# RF 125 mm	15" 381.0 mm	15-1/4" 387.4 mm	9-3/8" 238.1 mm	30" 762.0 mm	1/2" NPT Body	141 lbs. 64 kg.	560 GPM 2128 LPM
6"-150# RF 150 mm	17-1/4" 438.2 mm	16-5/8" 422.3 mm	10-1/4" 260.4 mm	32" 812.8 mm	1/2" NPT Body	194 lbs. 88 kg.	810 GPM 3078 LPM
8"-150# RF 200 mm	22" 558.8 mm	20-7/8" 530.2 mm	13-1/4" 336.6 mm	41" 1041.4 mm	3/4" NPT Body	373 lbs. 169.1 kg.	1360 GPM 5168 LPM
10"-150# RF 250 mm	26" 660.4 mm	25-3/4" 654.1 mm	17" 431.8 mm	50" 1270.0 mm	3/4" NPT Body	608 lbs. 275.8 kg.	2085 GPM 7923 LPM
12"-150# RF 300 mm	30" 762.0 mm	29-7/8" 758.8 mm	19-3/4" 501.7 mm	58" 1473.2 mm	3/4" NPT Body	926 lbs. 420 kg.	3025 GPM 11495 LPM

**Notes:** Other drain sizes and vents are available for special applications.  
 Dimensions subject to change without notice. Apply for certified drawings.



## Series 105 Simplex Strainer

**Cast Steel and Cast 316 Stainless Steel**  
**Swing Bolt O-Ring Closure, Flanged Connection**  
**Class 150 ANSI Raised Face Flange Rating**



Standard Construction		
	Cast Steel	Cast 316 Stainless Steel
<b>Body</b>	A216 Grade WCB	A351 Grade CF8M
<b>Cover</b>	A216 Grade WCB	A351 Grade CF8M
<b>O-ring</b>	Viton	Viton
<b>Basket</b>	Available in 1/32", 1/16", or 1/8" perforations and 40 mesh and 80 mesh - 316 Stainless Steel	

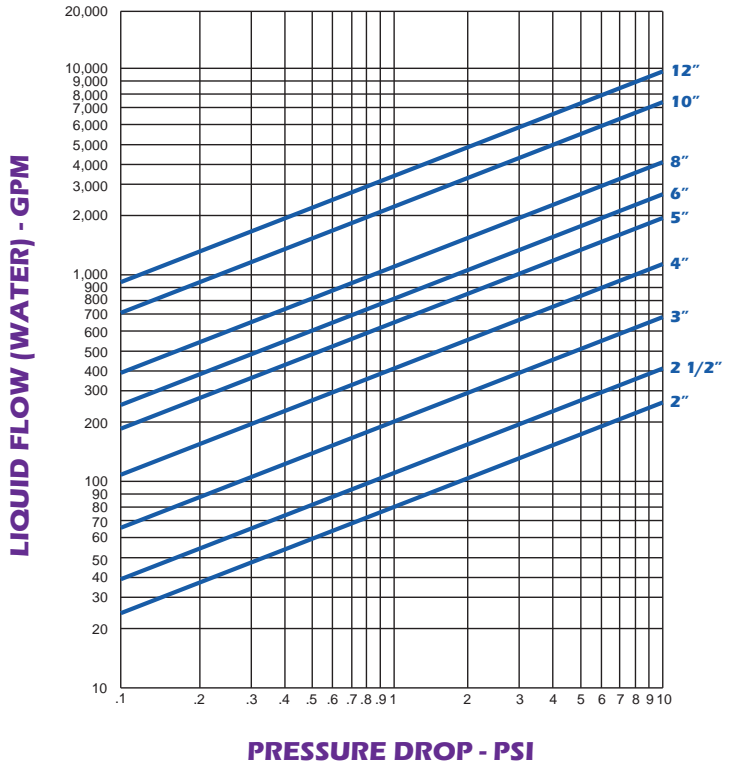
Operating Limits on Seal Gaskets		
Elastomer	°F	°C
Buna-N	257	125
EPMD	302	150
Viton <sup>1</sup>	437	225
Silicone <sup>2</sup>	482	250

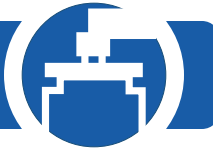
<sup>1</sup>Supplied as standard

<sup>2</sup>Do not use for paint applications

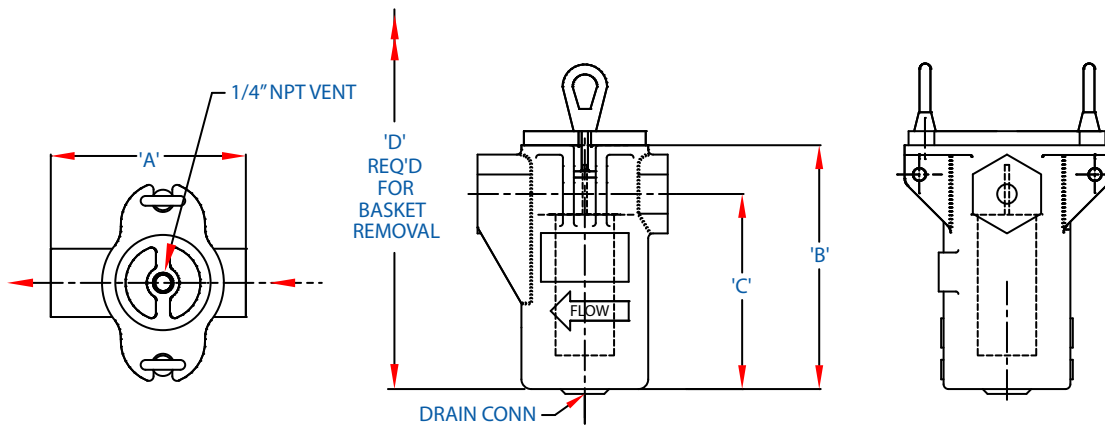
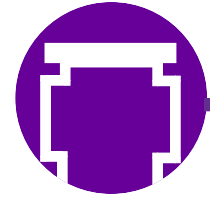
### Options

- Baskets are available in other materials, perforations, and meshes. Please consult the factory
- Drilling is available, upon request, to meet BS4504 PN10 and PN16 and JIS flange sizes.





## Series 115 NPT Basket Strainer Cast Iron, Cast Steel, and Cast 316 Stainless Steel Swing Bolt O-Ring Closure



Size Connection	A	B	C	D	Drain NPT	Weight	Cv
3/4" NPT 20 mm	5" 127.0 mm	6-1/4" 158.8 mm	5" 127.0 mm	6" 152.4 mm	1/4" NPT	11 lbs. 5 kg.	15 GPM 57 LPM
1" NPT 25 mm	5" 127.0 mm	6-1/4" 158.8 mm	5" 127.0 mm	6" 152.4 mm	1/4" NPT	11 lbs. 5 kg.	25 GPM 95 LPM
1-1/4" NPT 32 mm	7-5/8" 193.7 mm	9-3/4" 247.7 mm	8" 203.2 mm	9" 228.6 mm	1/4" NPT	33 lbs. 15 kg.	32 GPM 121.6 LPM
1-1/2" NPT 38 mm	7-5/8" 193.7 mm	9-3/4" 247.7 mm	8" 203.2 mm	9" 228.6 mm	1/4" NPT	33 lbs. 15 kg.	53 GPM 201.4 LPM
2" NPT 50 mm	7-5/8" 193.7 mm	9-3/4" 247.7 mm	8" 203.2 mm	9" 228.6 mm	1/4" NPT	33 lbs. 15 kg.	85 GPM 323 LPM

**Notes:** Other drain sizes and vents are available for special applications.  
 Dimensions subject to change without notice. Apply for certified drawings.

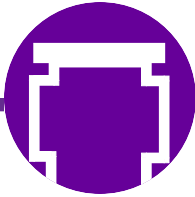
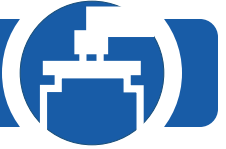
Standard Construction			
	Cast Iron	Cast Steel	Cast 316 Stainless Steel
<b>Body</b>	Class 30 ASTM A126B	A216 Grade WCB	A351 Grade CF8M
<b>Cover</b>	Class 30 ASTM A126B	A216 Grade WCB	A351 Grade CF8M
<b>O-ring</b>	Viton	Viton	Viton
<b>Basket</b>	Available in 1/32", 1/16", or 1/8" perforations and 40 mesh and 80 mesh - 316 Stainless Steel		

Operating Limits on Seal Gaskets		
Elastomer	°F	°C
Buna-N	257	125
EPDM	302	150
Viton <sup>1</sup>	437	225
Silicone <sup>2</sup>	482	250

<sup>1</sup>Supplied as standard  
<sup>2</sup>Do not use for paint applications

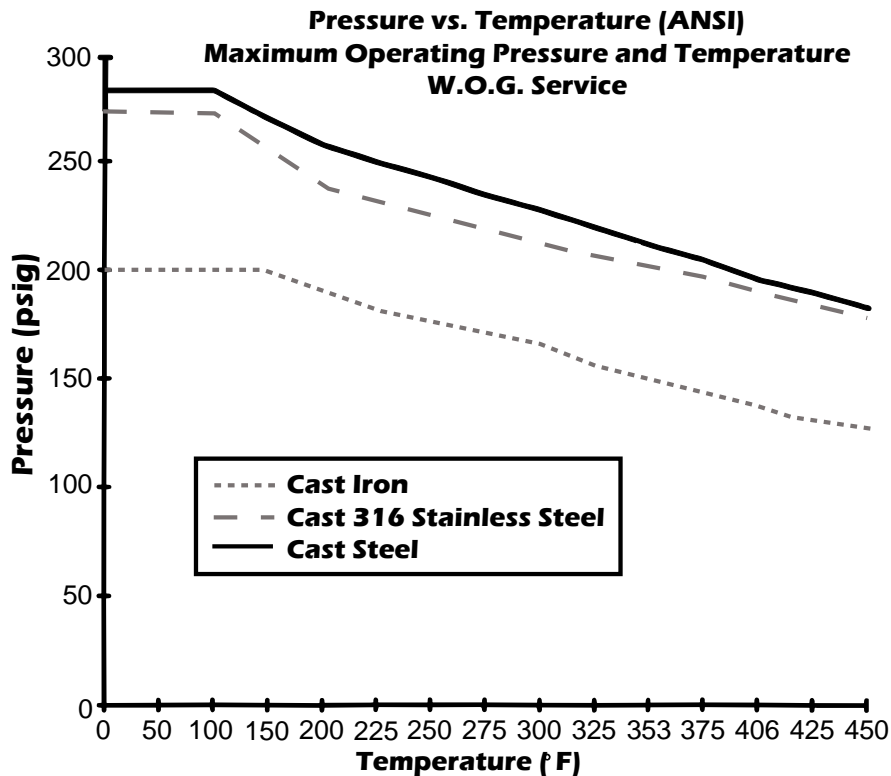
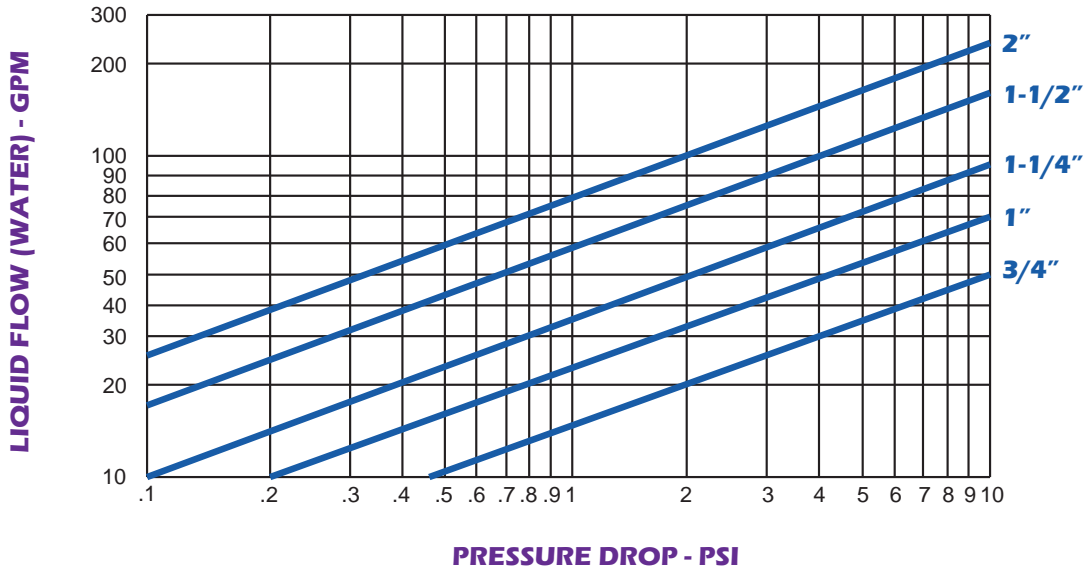
### Options

- Baskets are available in other materials, perforations, and meshes. Please consult the factory
- British thread sizes (BSP) available upon request.

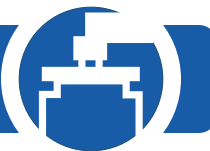


## Series 115 NPT Basket Strainer

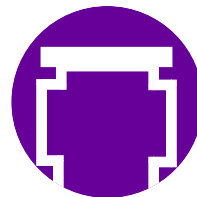
Cast Iron, Cast Steel, and Cast 316 Stainless Steel  
 Swing Bolt O-Ring Closure



**"Engineered Products for Demanding Applications, Performance, and Service"**



## Series 107 & 108 Simplex Strainers



Cast simplex strainers are used in applications where the flow can be interrupted for basket cleaning. These strainers are an excellent choice for protection of pumps, meters, valves, traps, spray nozzles, and many more applications.

### High Quality Construction

- Flanges designed and built to ANSI, British, or JIS specifications
- Material specifications in accordance to ASME and ASTM
- Each strainer is proof pressure tested per ASME standards before shipment

### Material of Construction for a Variety of Applications

- Available in cast steel, and cast stainless steel to meet the demands of a wider range of applications
- ASME Section VIII Division I "U" stamp available for cast steel and cast stainless steel

### 107 Simplex Strainer with Hinged Cover



### 108 Simplex Strainer with Davit Arm

#### Low Maintenance Costs

- Quick opening swing bolt reduces the maintenance time
- Few replacement parts are required

#### Low Installation Costs

- In-line connections

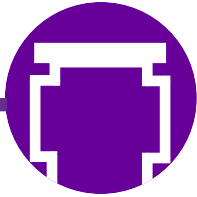
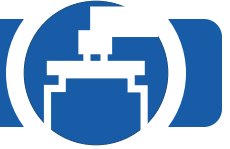
#### Low Capital Investments

- Competitively priced
- Heavy-duty, large capacity baskets are designed for long life

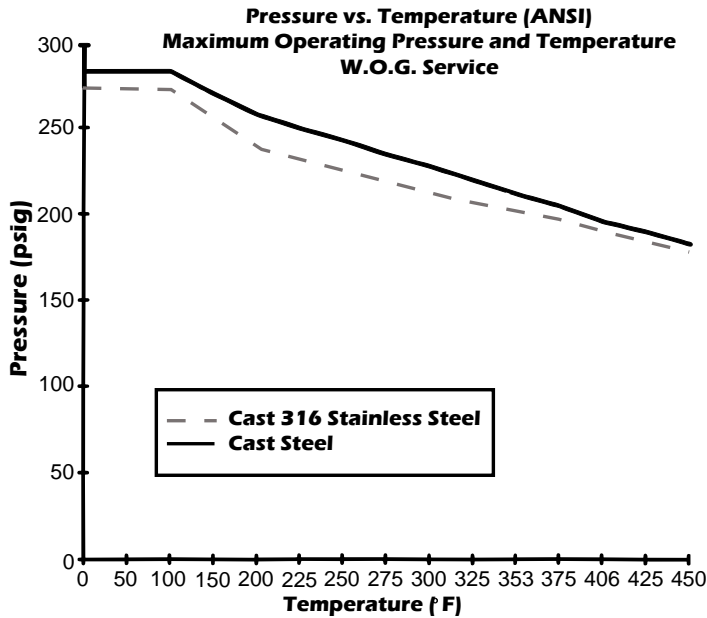
#### Large Capacity Baskets

- Provides for a low pressure drop and a larger basket open area

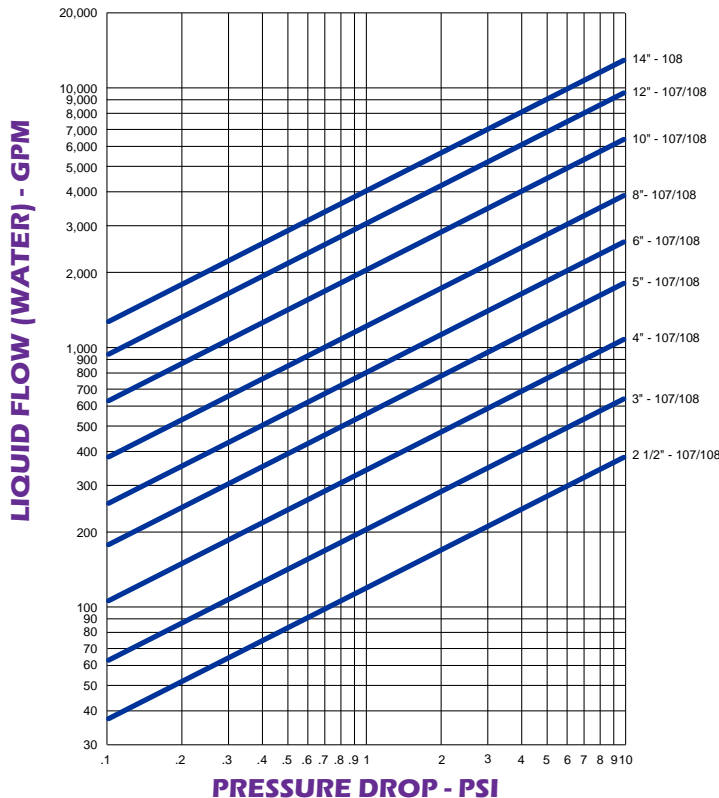




## Series 107 & 108 Simplex Strainers



Standard Construction		
	Cast Steel	Cast 316 Stainless Steel
<b>Body</b>	A216 Grade WCB	A351 Grade CF8M
<b>Cover</b>	A216 Grade WCB	Cast Steel with 316 Overlay
<b>O-ring</b>	Viton	Viton
<b>Basket</b>	Available in 1/32", 1/16", or 1/8" perforations and 40 mesh and 80 mesh - 316 Stainless Steel	



Operating Limits on Seal Gaskets		
Elastomer	°F	°C
Buna-N	257	125
EPDM	302	150
Viton <sup>1</sup>	437	225
Silicone <sup>2</sup>	482	250

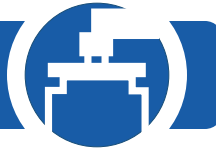
<sup>1</sup>Supplied as standard

<sup>2</sup>Do not use for paint applications

### Options

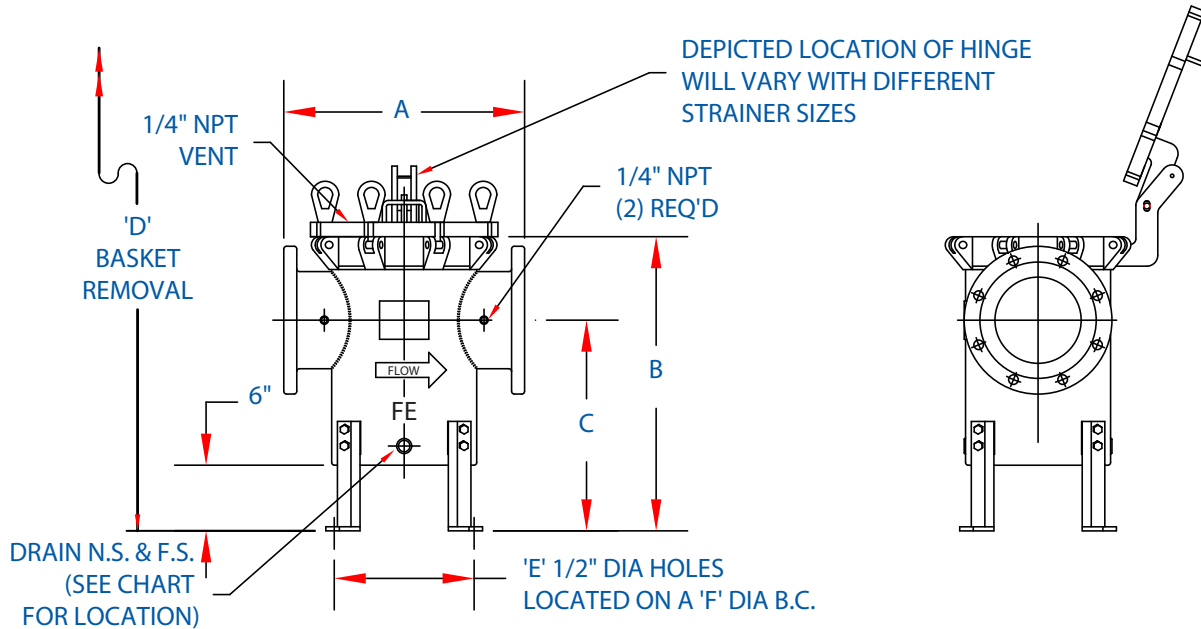
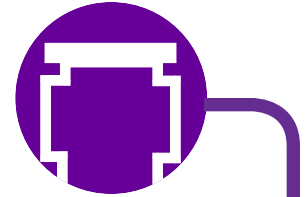
- Baskets are available in other materials, perforations, and meshes. Please consult the factory
- Special flanges are available, upon request, to meet BS4504 PN10 and PN16 and JIS flange sizes

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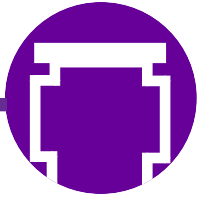
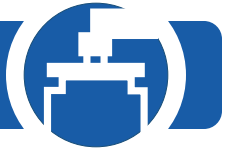
## Series 107 Simplex Strainers

**Cast Steel and Cast 316 Stainless Steel**  
**Swing Bolt O-Ring Closure, Flanged Connection**  
**Class 150 ANSI Raised Face Flange Rating**  
**Hinged Cover Lift**



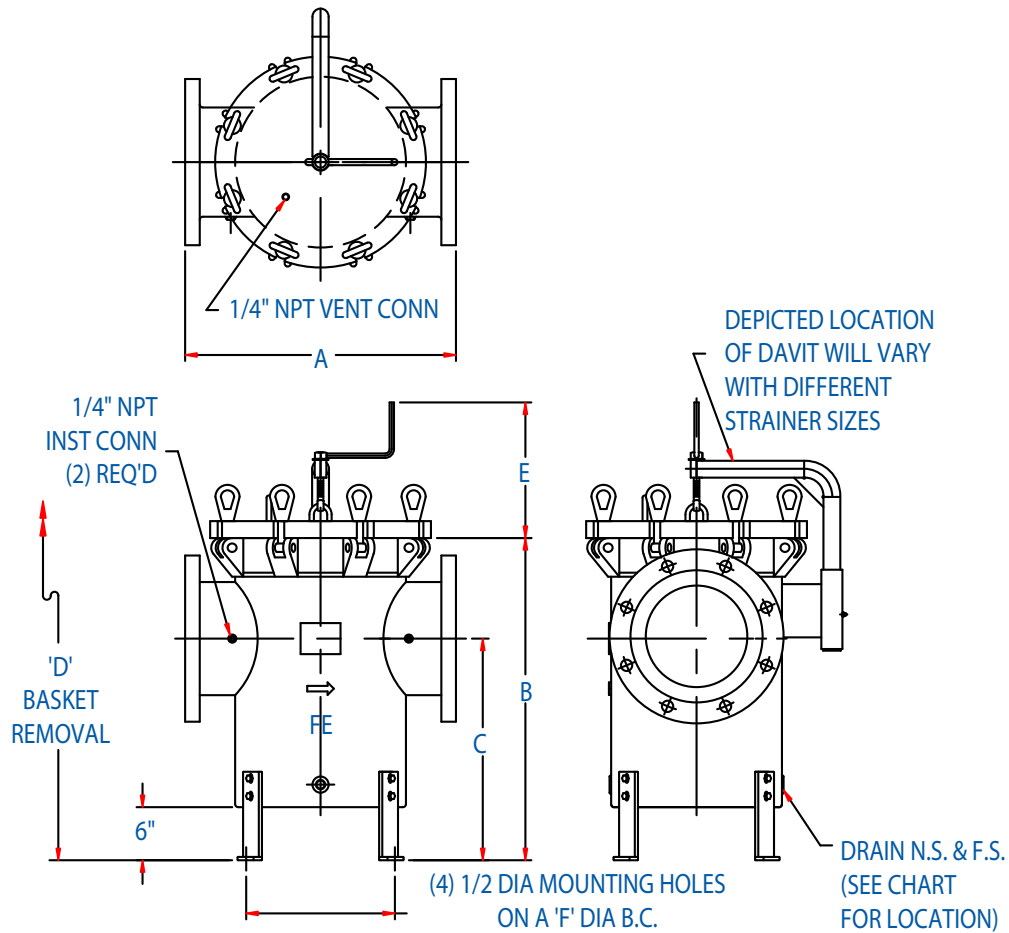
Size Connection	A	B	C	D	Number of Holes E	F	Drain Size <sup>1</sup> and Location	Weight	Cv
2 1/2"-150# RF 65 mm	13" 330.2 mm	19 7/8" 504.8 mm	14 1/2" 368.3 mm	33" 838.2 mm	3	10 7/8" 276.2 mm	1/2" NPT Bottom	90 lbs. 40.8 kg.	125 GPM 475 LPM
3"-150# RF 80 mm	13" 330.2 mm	19 7/8" 504.8 mm	14 1/2" 368.3 mm	33" 838.2 mm	3	10 7/8" 276.2 mm	1/2" NPT Bottom	100 lbs. 45.3 kg.	200 GPM 760 LPM
4"-150# RF 100 mm	13 1/2" 342.9 mm	19 7/8" 504.8 mm	14 1/2" 368.3 mm	33" 838.2 mm	3	10 7/8" 276.2 mm	1/2" NPT Bottom	120 lbs. 54.3 kg.	350 GPM 1330 LPM
5"-150# RF 125 mm	15" 381.0 mm	21 1/4" 539.6 mm	15 3/8" 390.5 mm	36" 914.4 mm	4	11 7/8" 301.6 mm	1/2" NPT Body	158 lbs. 71.6 kg.	560 GPM 2128 LPM
6"-150# RF 150 mm	17 1/4" 438.2 mm	22 5/8" 574.7 mm	16 1/4" 412.8 mm	38" 965.2 mm	4	13 5/8" 346.1 mm	1/2" NPT Body	225 lbs. 102.1 kg.	810 GPM 3078 LPM
8"-150# RF 200 mm	22" 558.8 mm	26 7/8" 682.6 mm	19 1/4" 489.0 mm	47" 1193.8 mm	4	16 1/2" 419.1 mm	3/4" NPT Body	400 lbs. 181.4 kg.	1360 GPM 5168 LPM
10"-150# RF 250 mm	26" 660.4 mm	31 3/4" 806.5 mm	23" 584.2 mm	56" 1422.4 mm	4	19 3/8" 492.1 mm	3/4" NPT Body	635 lbs. 288 kg.	2085 GPM 7923 LPM
12"-150# RF 300 mm	30" 762.0 mm	35 7/8" 911.2 mm	25 3/4" 654.1 mm	64" 1625.6 mm	4	22 1/2" 571.5 mm	3/4" NPT Body	965 lbs. 437.7 kg.	3025 GPM 11495 LPM

**Notes:** <sup>1</sup>Other drain sizes and vents are available for special applications. Dimensions subject to change without notice. Apply for certified drawings.



## Series 108 Simplex Strainers

**Cast Steel and Cast 316 Stainless Steel**  
**Swing Bolt O-Ring Closure, Flanged Connection**  
**Class 150 ANSI Raised Face Flange Rating**  
**Davit Cover Lift**



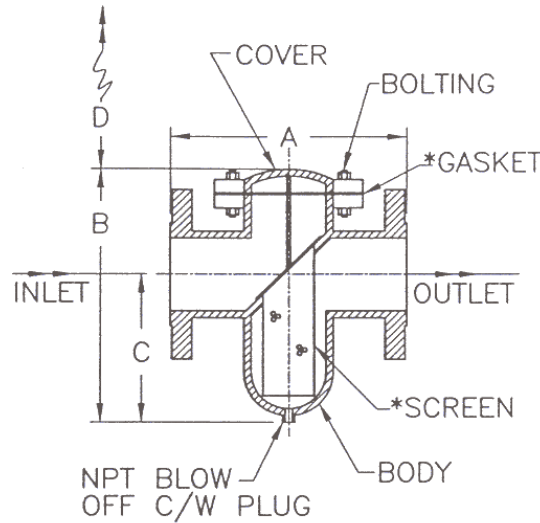
Size	A	B	C	D	E	F	DRAIN <sup>1</sup>	WT APPROX	Cv
6"-150 RF 150 mm	17 1/4" 438.2 mm	22 5/8" 574.7 mm	16 1/4" 412.8 mm	38" 965.2 mm	11 1/8" 282.6 mm	13 5/8" 346.1 mm	1/2" NPT	225 lbs 102.1 kg	810 GPM 3078 LPM
8"-150 RF 200 mm	22" 558.8 mm	26 7/8" 682.6 mm	19 1/4" 489.0 mm	47" 1193.8 mm	11 3/8" 288.9 mm	16 1/2" 419.1 mm	3/4" NPT	395 lbs 179.2 kg	1360 GPM 5168 LPM
10"-150 RF 250 mm	26" 660.4 mm	31 3/4" 806.5 mm	23" 584.2 mm	56" 1422.4 mm	14 5/8" 371.5 mm	19 3/8" 492.1 mm	3/4" NPT	640 lbs 290.3 kg	2085 GPM 7923 LPM
12"-150 RF 300 mm	30" 762.0 mm	35 7/8" 911.2 mm	25 3/4" 654.1 mm	64" 1125.6 mm	14 7/8" 377.9	22 1/2" 571.5 mm	3/4" NPT	975 lbs 442.3 kg	3025 GPM 11495 LPM
14"-150 RF 356 mm	32" 812.8 mm	42" 1066.8 mm	27" 685.8 mm	73" 1854.2 mm	15" 381.0	22 3/4" 577.9 mm	1 1/2" NPT	1250 lbs 567.0 kg	4025 GPM 15236 LPM

**Notes:** <sup>1</sup>Other drain sizes and vents are available for special applications.  
 Dimensions subject to change without notice. Apply for certified drawings.

**"Engineered Products for Demanding Applications, Performance, and Service"**



## SERIES 124 FLAT FACE CAST IRON BASKET STRAINER 125 LB. ANSI FLANGE RATING, BOLTED COVER



\*Denotes Recommended Spare Parts

SIZE	A	B	C	D BASKET REMOVAL	BLOW OFF	WEIGHT
2" 50 mm	8-1/8" 206.4 mm	8-3/8" 212.7 mm	5" 127.0 mm	5-3/8" 136.5 mm	3/4" NPT 20 mm	26 lbs. 11.8 kg.
2-1/2" 65 mm	8-3/4" 222.3 mm	9-5/8" 244.5 mm	5-5/16" 134.9 mm	6-5/16" 160.3 mm	3/4" NPT 20 mm	35 lbs. 15.9 kg.
3" 80 mm	9-7/8" 250.8 mm	11-1/4" 285.8 mm	6-1/2" 165.1 mm	8" 203.2 mm	3/4" NPT 20 mm	47 lbs. 21.3 kg.
4" 100 mm	11-1/2" 292.1 mm	13-1/2" 342.9 mm	8" 203.2 mm	9-5/16" 236.5 mm	1" NPT 25 mm	78 lbs. 35.4 kg.
5" 125 mm	13-1/8" 333.4 mm	14-5/8" 371.5 mm	8" 203.2 mm	10-1/4" 260.4 mm	1" NPT 25 mm	100 lbs. 45.4 kg.
6" 150 mm	14-7/8" 377.8 mm	15-5/8" 396.9 mm	8-5/8" 219.1 mm	11-1/8" 282.6 mm	1" NPT 25 mm	137 lbs. 62.1 kg.
8" 200 mm	18-11/16" 474.7 mm	21" 533.4 mm	11-3/4" 298.5 mm	15-9/16" 395.3 mm	1" NPT 25 mm	300 lbs. 136.1 kg.
10" 250 mm	20-1/8" 511.2 mm	24-1/2" 622.3 mm	13-3/4" 349.3 mm	18" 457.2 mm	1" NPT 25 mm	430 lbs. 195.0 kg.
12" 300 mm	26-1/4" 666.8 mm	29-3/4" 755.7 mm	16-3/8" 415.9 mm	23-1/4" 590.6 mm	1" NPT 25 mm	738 lbs. 334.8 kg.

**Dimensions subject to change without notice, apply for certified drawings.**

## STANDARD CONSTRUCTION

	<b>CAST IRON</b>
Body and Cover	ASTM A126 Class B
Gasket	Non-Asbestos
Screen	Stainless Steel

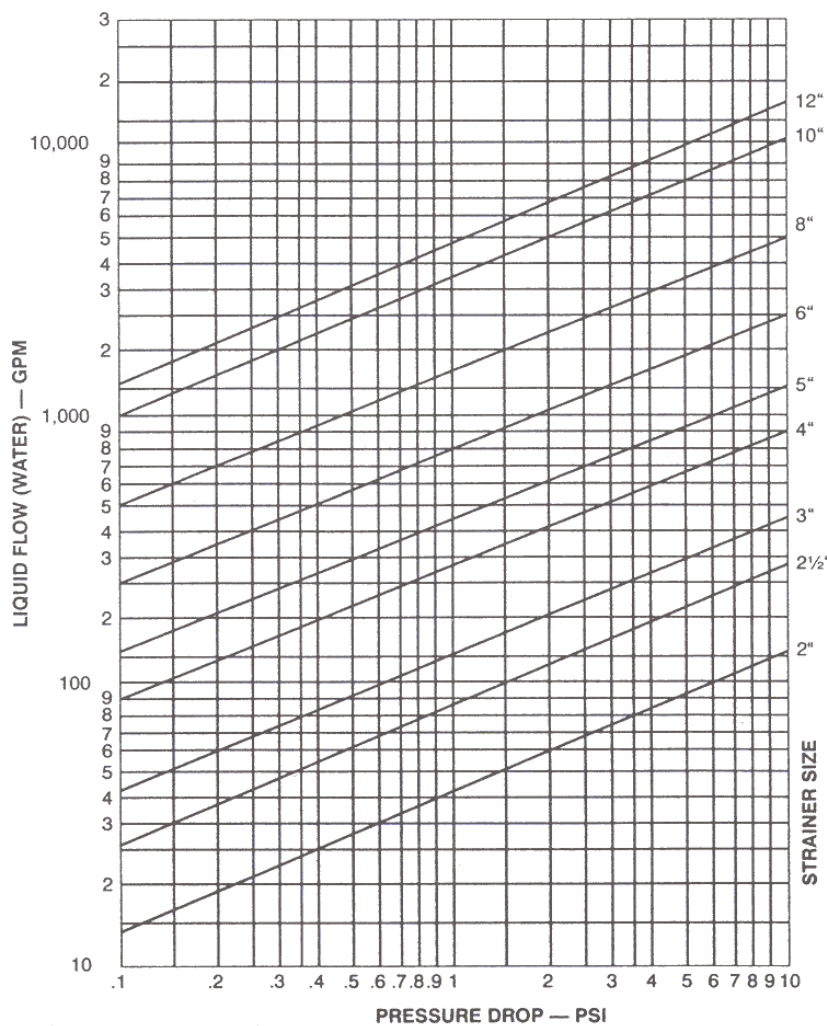
## MAXIMUM OPERATING PRESSURES AND TEMPERATURES

	<b>CAST IRON</b>
Steam	2" through 12" - 125 psi @ 350°F
W.O.G.	2" through 12" - 200 psi @ 150°F

## STANDARD SCREENS

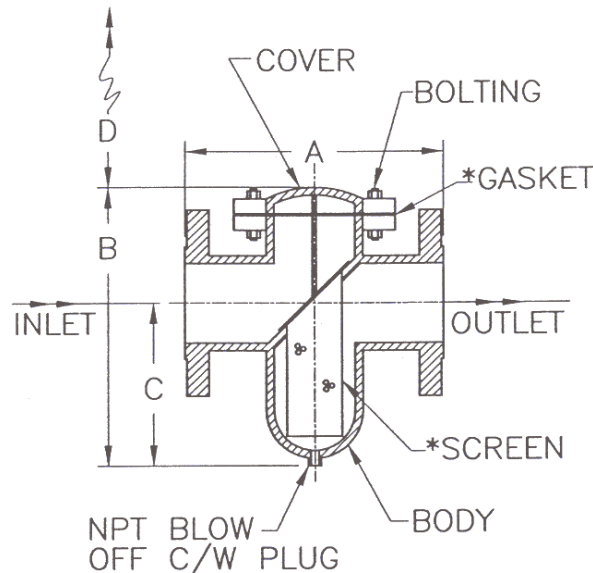
SIZE	SCREEN OPENING
2" through 3"	0.045" perforations
4" through 12"	0.125" perforations

Other screen openings are available, please consult the factory or your local sales representative.





## SERIES 124 RAISED FACE CAST STEEL & CAST 316 STAINLESS BASKET STRAINERS 150 LB. ANSI FLANGE RATING, BOLTED COVER



\*Denotes Recommended Spare Parts

SIZE	A	B	C	D BASKET REMOVAL	BLOW OFF	WEIGHT
2" 50 mm	8-1/8" 206.4 mm	8-3/8" 212.7 mm	5" 127.0 mm	5-3/8" 136.5 mm	1" NPT 25 mm	26 lbs. 11.8 kg.
2-1/2" 65 mm	8-3/4" 222.3 mm	9-5/8" 244.5 mm	5-5/16" 134.9 mm	6-5/16" 160.3 mm	1" NPT 25 mm	35 lbs. 15.9 kg.
3" 80 mm	9-7/8" 250.8 mm	11-1/4" 285.8 mm	6-1/2" 165.1 mm	8" 203.2 mm	1" NPT 25 mm	47 lbs. 21.3 kg.
4" 100 mm	11-1/2" 292.1 mm	13-1/2" 342.9 mm	8" 203.2 mm	9-5/16" 236.5 mm	1" NPT 25 mm	78 lbs. 35.4 kg.
5" 125 mm	13-1/8" 333.4 mm	14-5/8" 371.5 mm	8" 203.2 mm	10-1/4" 260.4 mm	1" NPT 25 mm	100 lbs. 45.4 kg.
6" 150 mm	14-7/8" 377.8 mm	15-5/8" 396.9 mm	8-5/8" 219.1 mm	11-1/8" 282.6 mm	1" NPT 25 mm	137 lbs. 62.1 kg.

**Dimensions subject to change without notice, apply for certified drawings.  
 Larger sizes are available, please consult the factory or your local sales representative.**

## STANDARD CONSTRUCTION

	<b>CAST STEEL</b>	<b>CAST 316 STAINLESS STEEL</b>
Body and Cover	ASTM A216 Grade WCB	ASTM A351 Grade CF8M
Gasket	Non-Asbestos	Teflon
Screen	Stainless Steel	Stainless Steel

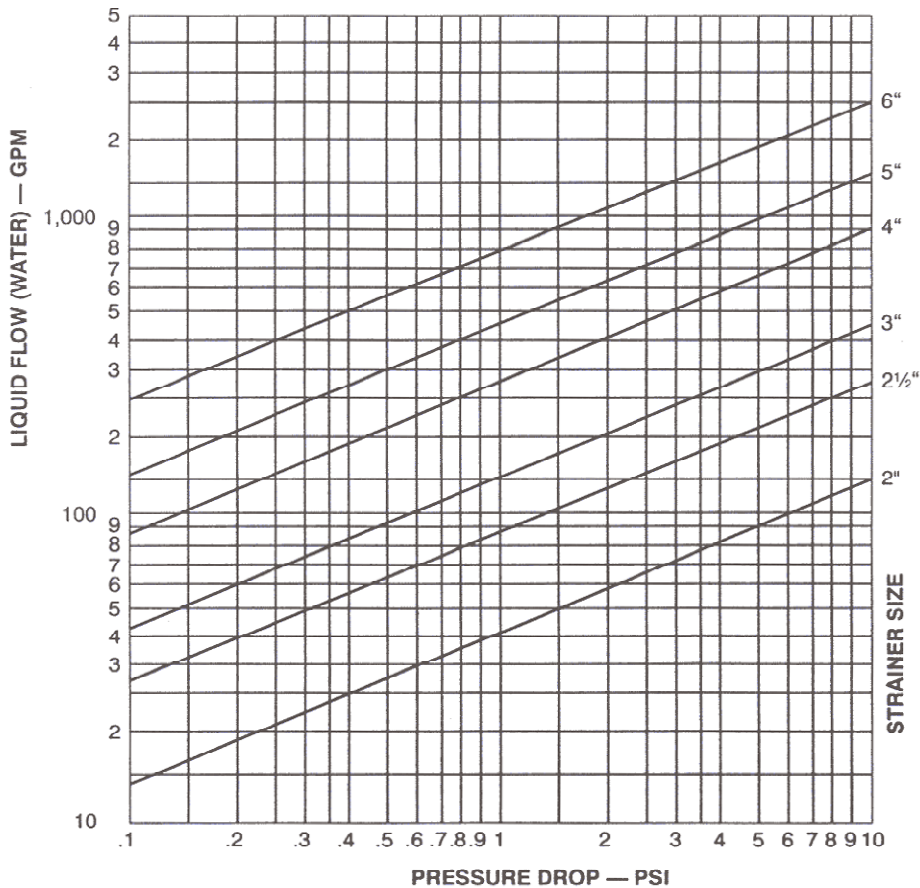
## MAXIMUM OPERATING PRESSURES AND TEMPERATURES W.O.G. SERVICE ONLY

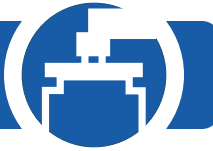
<b>CAST STEEL</b>	<b>CAST 316 STAINLESS STEEL</b>
2" through 16" - 285 psi @ 100°F	2" through 16" - 235 psi @ 100°F

## STANDARD SCREENS

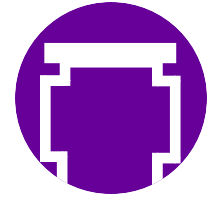
<b>SIZE</b>	<b>SCREEN OPENING</b>
2" through 3"	0.045" perforations
4" through 16"	0.125" perforations

Other screen openings are available, please consult the factory or your local sales representative.





## Series 124 Fabricated Simplex Basket Strainer



Strainers are used in nearly every industry to protect equipment (valves, pumps, meters, and spray nozzles) and to ensure product purity (gas, petroleum, paper, and food processing). This type of strainer is an inexpensive design that is used in applications where the flow can be interrupted for basket cleaning. This type of strainer is installed in a pipeline to remove unwanted solids from fluids or gases. Straining is accomplished by directing the fluid through a basket where debris is trapped on the inside of a screen element and clean fluid flows through the outlet.

Fluid Engineering simplex basket strainers are available in standard or custom designs. Fabricated designs are not limited to existing patterns or foundry capabilities and are especially superior for corrosive, hazardous, or low specific gravity fluid applications. The Series 124 can be custom designed in many configurations and materials for unusual conditions or critical applications.



### Standard Design:

- Fabricated carbon steel body with bolted style cover
- Available in 1/16" or 1/8" perforations and 40 or 80 mesh - 316 stainless steel
- All vessels are manufactured and tested generally in accordance with ASME Code, Section VIII, Division 1, using welders certified to Section IX.
- All strainers are hydrostatically tested to 1.3 times design pressure.

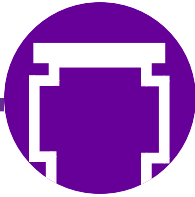
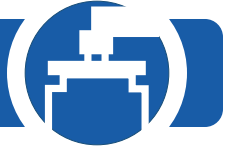
### Standard Design Features:

- In line connections
- Compact, light weight fabricated vessels
- Angle basket design with a low pressure drop
- Large capacity basket
- Heavy duty basket design for a long life

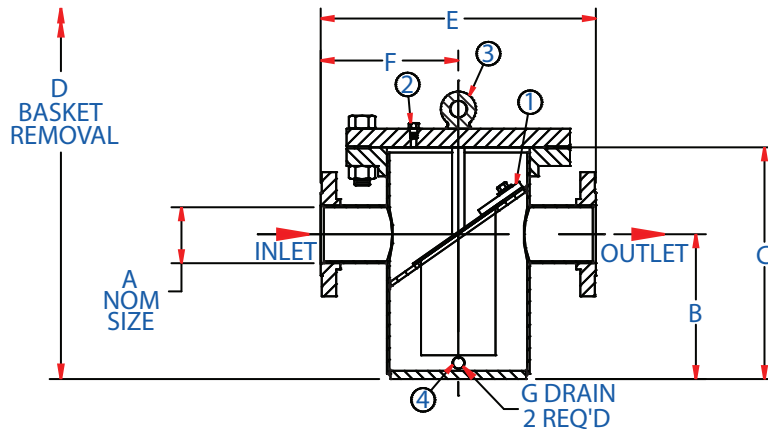
### Options Available:

- Basket materials of brass, monel, and others
- Mesh lined baskets - 10 x 10 to 500 x 500 mesh
- Numerous materials of construction such as stainless steel, copper nickel, monel, aluminum bronze, and others for corrosive environment
- ASME Section VIII, Code Stamp supplied with complete pressure vessel material traceability
- Vessel design for high pressure and temperature
- Inlet / outlet connections at right angles or offset configuration reduces piping cost.
- Pressure gauge taps - convenient indication of dirty baskets
- Cover lift assembly (davit) facilitates basket removal.
- Special internal and external coatings





## Series 124 Fabricated Simplex Basket Strainer 150 Psig Design

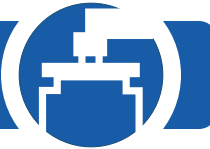


1. Basket hold down is available on 10" and larger sizes only.
2. Vent is available on 6" and larger sizes only.
3. Closure, lifting eye is available on 6" and larger sizes only.
4. Drain plug is located on the side for 6" and larger, otherwise it is on the bottom.

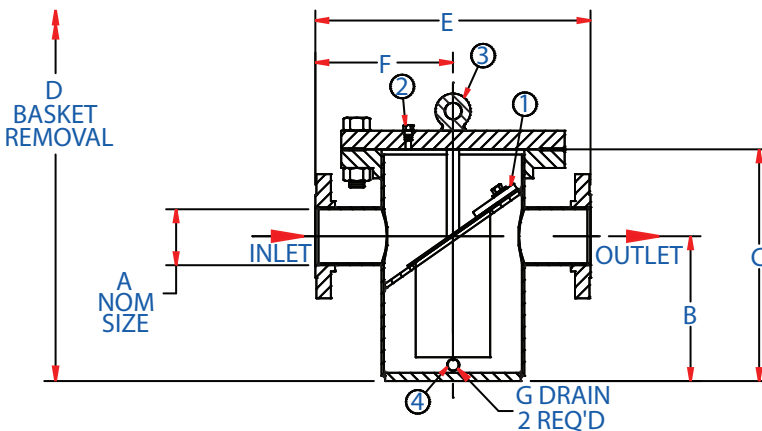
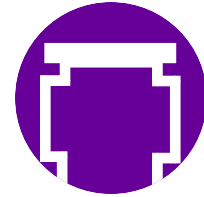
MODEL NO.	DESIGN PRESSURE	SIZE						DRAIN	APPROX WEIGHT LBS.			
		A	B	C	D	E	F		G	DRY	WET	COVER
010-114	150 Psig @ 150°F	1" NPT	6-5/8"	10-1/4"	17"	7-1/8"	3-9/16"	1/2" NPT	54	59	17	1
015-114	150 Psig @ 150°F	1-1/2" NPT	6-5/8"	10-1/4"	17"	7-1/4"	3-5/8"	1/2" NPT	55	60	17	1
020-114	150 Psig @ 150°F	2" NPT	6-5/8"	10-1/4"	17"	7-1/2"	3-3/4"	1/2" NPT	57	63	17	1
025-114	150 Psig @ 150°F	2-1/2" NPT	8-3/4"	14"	27"	12-1/4"	6-1/8"	1/2" NPT	113	136	45	2
030-114	150 Psig @ 150°F	3" NPT	8-3/4"	14"	27"	12-5/8"	6-5/16"	1/2" NPT	115	140	45	2
040-114	150 Psig @ 150°F	4" NPT	8-3/4"	14"	27"	12-7/8"	6-7/16"	1/2" NPT	117	143	45	2
010-124	150 Psig @ 150°F	1-150# RF	6-5/8"	10-1/4"	17"	14-5/8"	7-5/16"	1/2" NPT	85	91	17	1
015-124	150 Psig @ 150°F	1-1/2" -150# RF	6-5/8"	10-1/4"	17"	14-5/8"	7-5/16"	1/2" NPT	87	93	17	1
020-124	150 Psig @ 150°F	2" -150# RF	6-5/8"	10-1/4"	17"	14-5/8"	7-5/16"	1/2" NPT	91	98	17	1
025-124	150 Psig @ 150°F	2-1/2" -150# RF	8-3/4"	14"	27"	15-5/8"	7-13/16"	1/2" NPT	166	195	45	2
030-124	150 Psig @ 150°F	3" -150# RF	8-3/4"	14"	27"	16-5/8"	8-5/16"	1/2" NPT	169	198	45	2
040-124	150 Psig @ 150°F	4" -150# RF	8-3/4"	14"	27"	16-5/8"	8-5/16"	1/2" NPT	176	206	45	2
060-124	150 Psig @ 150°F	6" -150# RF	10-1/2"	16-3/4"	31"	21"	10-1/2"	1" NPT	255	315	70	3
080-124	150 Psig @ 150°F	8" -150# RF	13-1/4"	20-3/4"	39"	24"	12"	1" NPT	380	490	105	5
100-124	150 Psig @ 150°F	10" -150# RF	17-1/4"	26"	47-1/2"	28"	14"	1" NPT	605	825	175	7
120-124	150 Psig @ 150°F	12" -150# RF	19-3/4"	30"	55-1/2"	30"	15"	1-1/2" NPT	795	1110	215	9
140-124	150 Psig @ 150°F	14" -150# RF	21"	33"	59"	32"	16"	1-1/2" NPT	1030	1455	275	11
160-124	150 Psig @ 150°F	16" -150# RF	23"	35-1/4"	65"	34"	17"	1-1/2" NPT	1280	1840	375	13
180-124	150 Psig @ 150°F	18" -150# RF	26"	39-5/8"	73"	36"	18"	2" NPT	1565	2315	425	16
200-124	150 Psig @ 150°F	20" -150# RF	30"	44-7/8"	84"	42"	21"	2" NPT	2345	3610	600	20
240-124	150 Psig @ 150°F	24" -150# RF	34-1/2"	49-5/8"	97"	50"	25"	2" NPT	3150	5175	980	28

Note: Dimensions subject to change without notice, apply for certified drawings.  
 Custom designs are available, please consult the FE Sales Department or your local sales representative.

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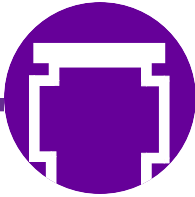
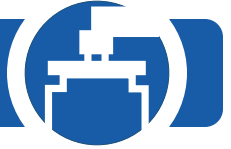
## Series 124 Fabricated Simplex Basket Strainer 300 Psig Design



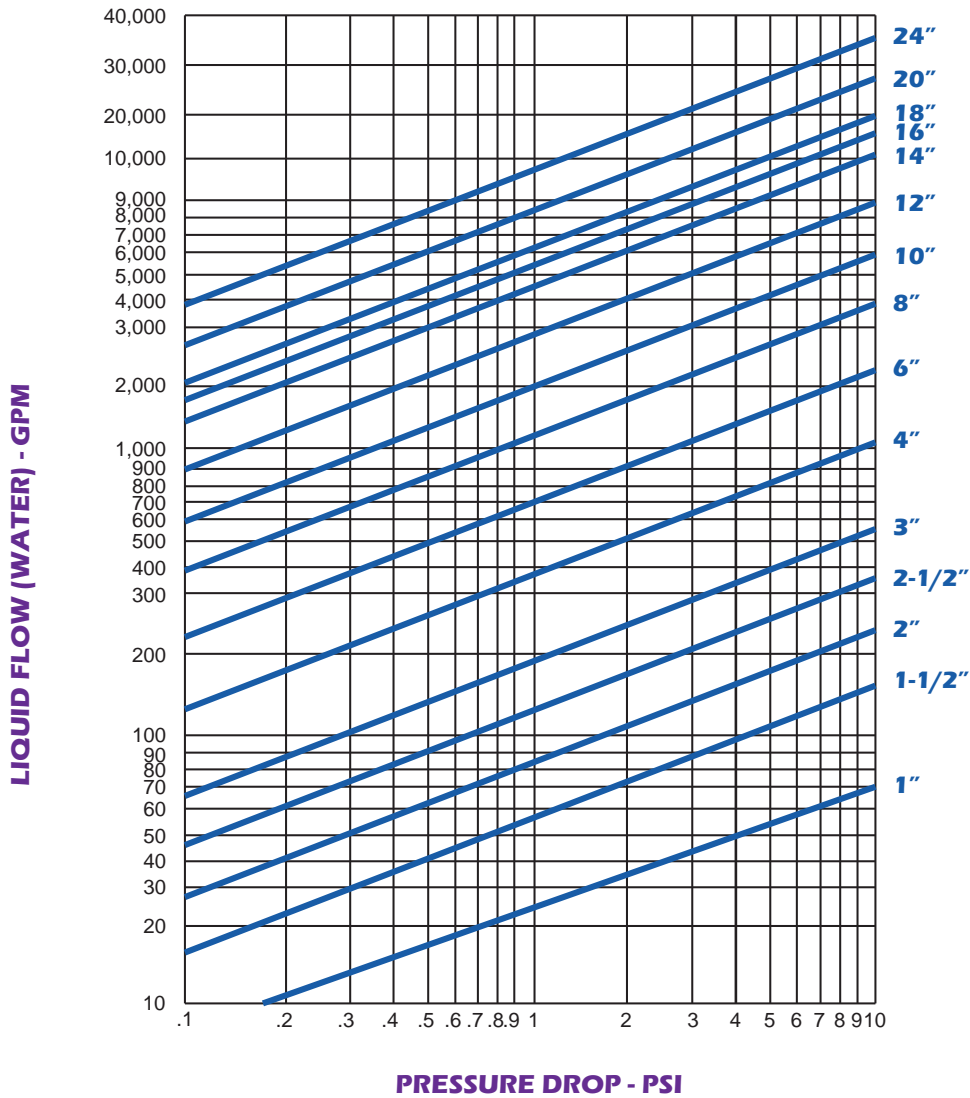
1. Basket hold down is available on 10" and larger sizes only.
2. Vent is available on 6" and larger sizes only.
3. Closure, lifting eye is available on 6" and larger sizes only.
4. Drain plug is located on the side for 6" and larger, otherwise it is on the bottom.

MODEL NO.	DESIGN PRESSURE	SIZE						DRAIN	APPROX WEIGHT LBS.			
		A	B	C	D	E	F		G	DRY	WET	COVER
010-114	300 Psig @ 150°F	1" NPT	6-5/8"	11"	18"	7-1/8"	3-9/16"	1/2" NPT	69	75	27	1
015-114	300 Psig @ 150°F	1-1/2" NPT	6-5/8"	11"	18"	7-1/4"	3-5/8"	1/2" NPT	71	77	27	1
020-114	300 Psig @ 150°F	2" NPT	6-5/8"	11"	18"	7-1/2"	3-3/4"	1/2" NPT	73	79	27	1
025-114	300 Psig @ 150°F	2-1/2" NPT	8-3/4"	15"	28"	12-1/4"	6-1/8"	1/2" NPT	208	231	81	2
030-114	300 Psig @ 150°F	3" NPT	8-3/4"	15"	28"	12-5/8"	6-5/16"	1/2" NPT	214	239	81	2
040-114	300 Psig @ 150°F	4" NPT	8-3/4"	15"	28"	12-7/8"	6-7/16"	1/2" NPT	220	246	81	2
010-124	300 Psig @ 150°F	1" -300# RF	6-5/8"	11"	18"	14-5/8"	7-5/16"	1/2" NPT	87	93	27	1
015-124	300 Psig @ 150°F	1-1/2" -300# RF	6-5/8"	11"	18"	14-5/8"	7-5/16"	1/2" NPT	93	99	27	1
020-124	300 Psig @ 150°F	2" -300# RF	6-5/8"	11"	18"	14-5/8"	7-5/16"	1/2" NPT	95	102	27	1
025-124	300 Psig @ 150°F	2-1/2" -300# RF	8-3/4"	15"	28"	19"	9-1/2"	1/2" NPT	225	254	81	2
030-124	300 Psig @ 150°F	3" -300# RF	8-3/4"	15"	28"	19"	10"	1/2" NPT	233	262	81	2
040-124	300 Psig @ 150°F	4" -300# RF	8-3/4"	15"	28"	20"	10"	1/2" NPT	252	282	81	2
060-124	300 Psig @ 150°F	6" -300# RF	10-1/2"	17"	32"	24"	12"	1" NPT	408	468	127	3
080-124	300 Psig @ 150°F	8" -300# RF	13-1/4"	22"	41"	28"	14"	1" NPT	610	720	184	5
100-124	300 Psig @ 150°F	10" -300# RF	17-1/2"	27"	49"	32"	16"	1" NPT	884	1104	224	7
120-124	300 Psig @ 150°F	12" -300# RF	19-1/4"	31"	57"	34"	17"	1-1/2" NPT	1085	1400	263	9
140-124	300 Psig @ 150°F	14" -300# RF	20-3/4"	33"	61"	38"	19"	1-1/2" NPT	1307	1732	305	11
160-124	300 Psig @ 150°F	16" -300# RF	23"	38"	67"	42"	21"	1-1/2" NPT	1715	2275	400	13
180-124	300 Psig @ 150°F	18" -300# RF	26"	41"	75"	46"	23"	2" NPT	2060	2810	456	16
200-124	300 Psig @ 150°F	20" -300# RF	30"	46"	86"	48"	24"	2" NPT	2550	2815	614	20
240-124	300 Psig @ 150°F	24" -300# RF	33-3/4"	50-3/8"	100"	54"	27"	2" NPT	3960	5985	1068	28

Note: Dimensions subject to change without notice, apply for certified drawings.  
 Custom designs are available, please consult the FE Sales Department or your local sales representative.



## Series 124 Fabricated Simplex Basket Strainer



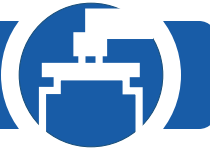
**EXAMPLE OF A TYPICAL ORDER SPECIFICATION:**

Simplex Strainer shall be size \_\_\_\_\_ Series 124 with flanged connections as manufactured by Fluid Engineering; Erie, PA.

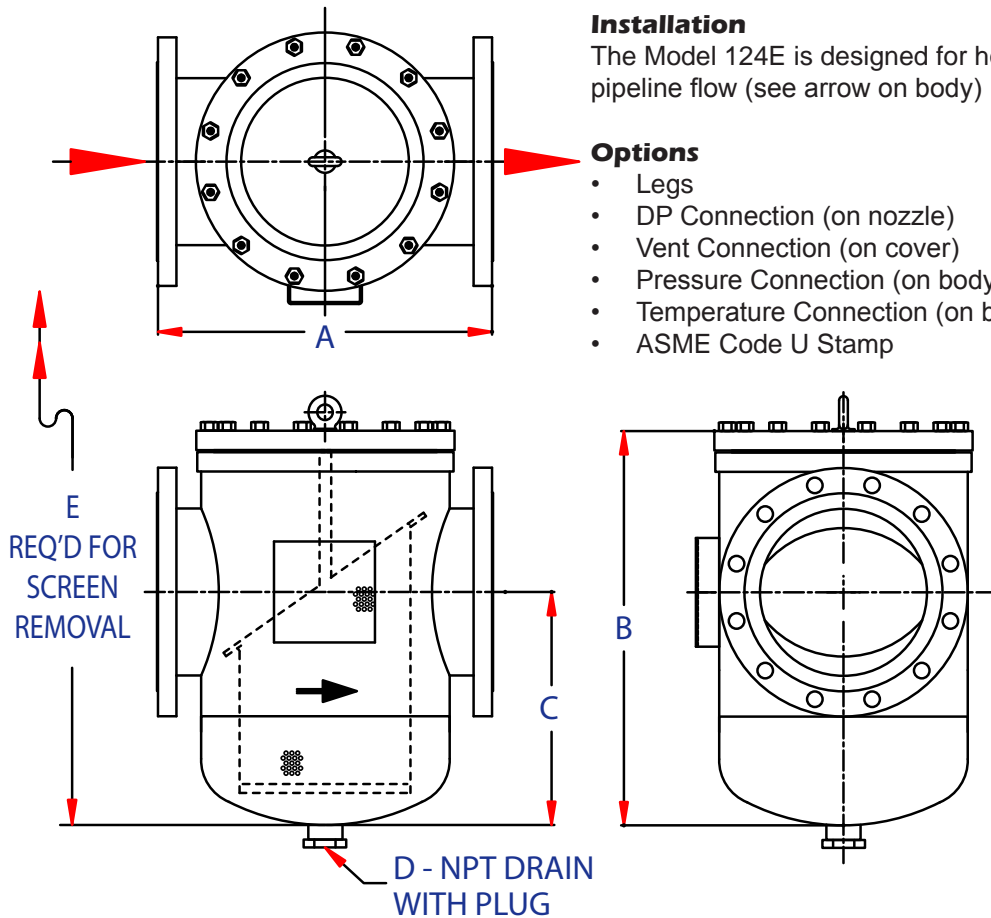
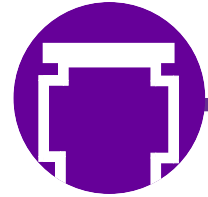
Strainer body shall be (Fabricated Carbon Steel) with bolted style cover closure. Strainer will be suitable for design pressures of (150) psig at (150°F). Baskets shall be (316 Stainless Steel) with 1/16" or 1/8" perforated openings.

Operating Capacity shall be \_\_\_\_\_ GPM at \_\_\_\_\_ psig pressure loss with clean baskets.

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## Model 124E Bolted Closure Simplex Strainer



### Installation

The Model 124E is designed for horizontal pipeline flow (see arrow on body)

### Options

- Legs
- DP Connection (on nozzle)
- Vent Connection (on cover)
- Pressure Connection (on body)
- Temperature Connection (on body)
- ASME Code U Stamp

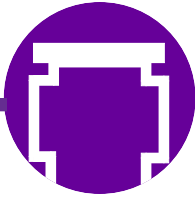
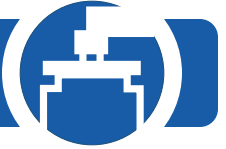
Size Connection	A	B	C	D	E	Weight
8" 203 mm	17 7/8" 441 mm	22 7/16" 570 mm	15 1/8" 384 mm	1 1/2" 38 mm	48" 1219 mm	234 lbs 106 kg
10" 254 mm	21 5/8" 549 mm	26 3/8" 670 mm	16" 406 mm	1 1/2" 38 mm	51" 1295 mm	400 lbs 181 kg
12" 305 mm	25" 635 mm	36 1/6" 918 mm	25" 635 mm	2" 51 mm	62" 1575 mm	692 lbs 314 kg
14" 356 mm	47 1/8" 1196 mm	54 5/8" 1386 mm	34 3/5" 874 mm	2" 51 mm	74" 1880 mm	1550 lbs 703 kg
16" 406 mm	47 1/8" 1196 mm	54 5/8" 1386 mm	34 3/5" 874 mm	2" 51 mm	74" 1880 mm	1600 lbs 726 kg

### Straining Element

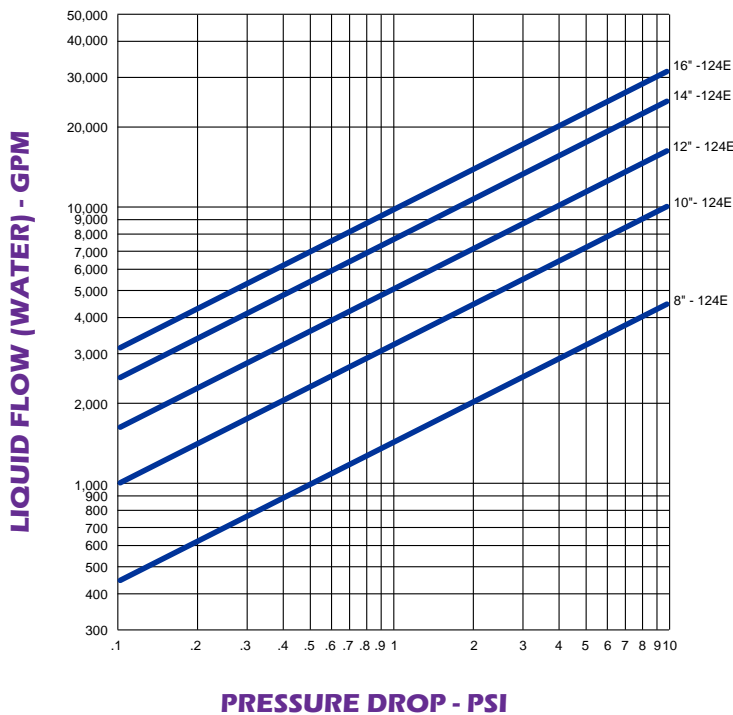
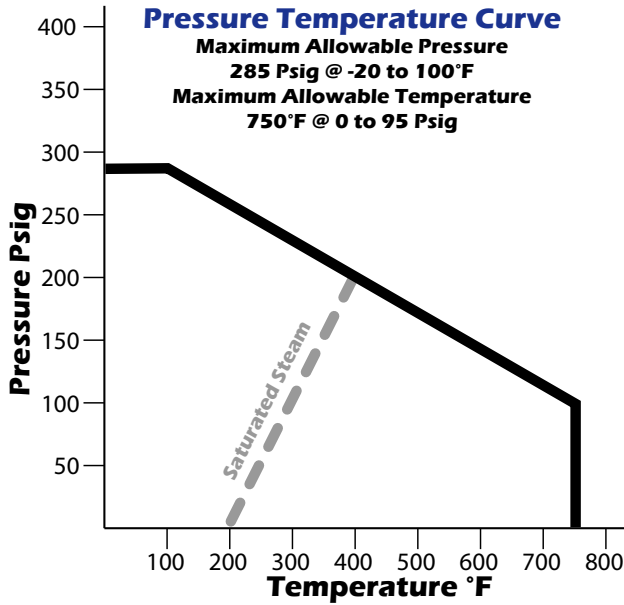
- Standard = 0.045" Perf
- Other perf and mesh on application

All units are designed in accordance per ASME Code Section VIII Div I with all welding in accordance with the requirements of ASME Code Section IX and certified.

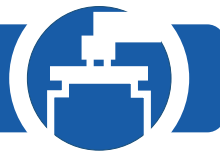
Note: Dimensions subject to change without notice, apply for certified drawings. Custom designs are available, please consult the FE Sales Department or your local sales representative.



## Model 124E Bolted Closure Simplex Strainer



**"Engineered Products for Demanding Applications, Performance, and Service"**



## SIMPLEX STRAINER WITH BACKWASH CONNECTIONS FABRICATED 224 SERIES

### Standard Design:

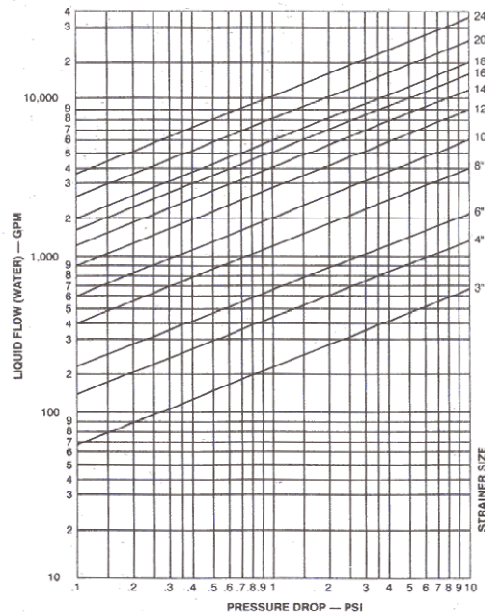
- Fabricated carbon steel body with bolted style cover
- Available in 1/16" or 1/8" perforations and 40 or 80 mesh – 316 stainless steel
- All vessels are manufactured and tested generally in accordance with ASME Code, Section VIII, Division 1, using welders certified to Section IX.
- All strainers are hydrostatically tested to 1 ½ times design pressure.
- 3" through 24" sizes

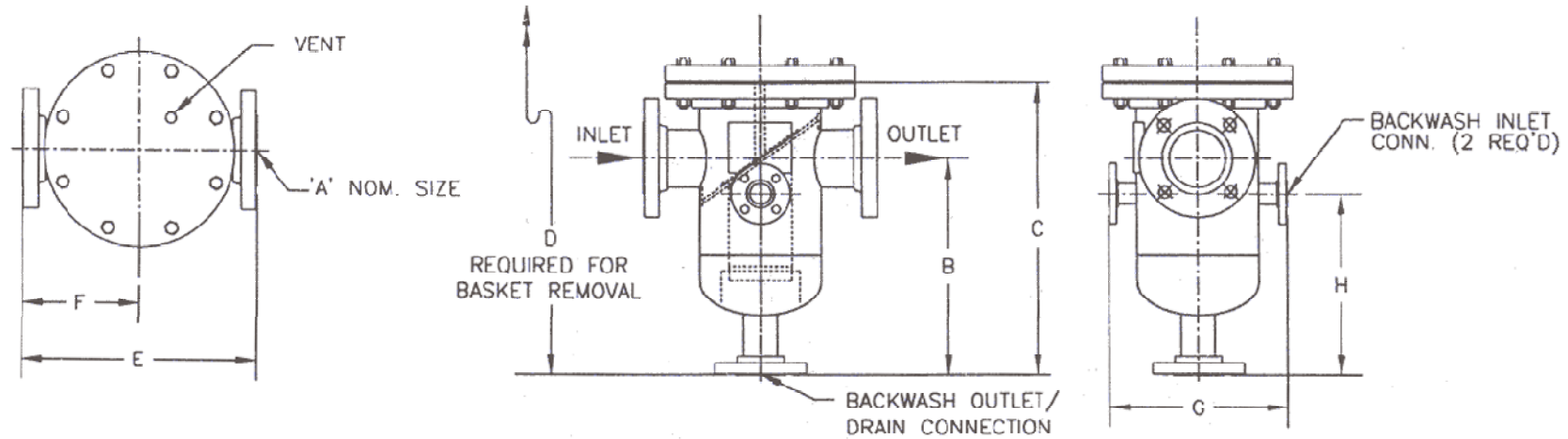
### Standard Design Features:

- In line connections
- Compact, light weight fabricated vessels
- Angle basket design with a low pressure drop
- Large capacity basket
- Heavy duty basket design for a long life

### Options Available:

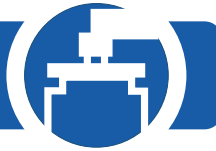
- Basket materials of brass, monel, and others
- Mesh lined baskets – 20 x 20 to 400 x 400 mesh
- Numerous materials of construction such as stainless steel, copper nickel, monel, aluminum bronze, and others for corrosive environment
- ASME Section VIII, Code Stamp supplied with complete pressure vessel material traceability
- Vessel design for high pressure and temperature
- Inlet/outlet connections at right angles or offset configuration reduces piping cost.
- Pressure gauge taps – convenient indication of dirty baskets
- Cover lift assembly (davit) facilitates basket removal.
- Special internal and external coatings
- Legs, foot ring, or base available upon request.





MODEL NO.	A NOMINAL	B	C	D	E	F	G	H	BACKWASH OUTLET CONNECTIONS	BACKWASH INLET
030-224	3" 80 mm	11-3/4" 11.8 mm	17" 431.8 mm	30" 762.0 mm	16.6" 421.6 mm	8.3" 210.8 mm	11" 279.4 mm	9-3/4" 247.7 mm	1 1/2" NPT 40 mm	1" NPT 25 mm
040-224	4" 100 mm	11-3/4" 11.8 mm	17" 431.8 mm	30" 762.0 mm	16.6" 421.6 mm	8.3" 210.8 mm	11" 279.4 mm	9-3/4" 247.7 mm	1 1/2" NPT 40 mm	1" NPT 25 mm
060-224	6" 150 mm	14" 355.6 mm	20-1/4" 514.4 mm	35" 889.0 mm	21" 533.4 mm	10.5" 266.7 mm	14" 355.6 mm	11" 279.4 mm	2" NPT 50 mm	1 1/2" NPT 40 mm
080-224	8" 200 mm	17" 431.8 mm	24-1/2" 622.3 mm	43" 1092.2 mm	24" 609.6 mm	12" 304.8 mm	16" 406.4 mm	13" 330.2 mm	2" NPT 50 mm	1 1/2" NPT 40 mm
100-224	10" 250 mm	23-1/2" 596.9 mm	32-1/2" 825.5 mm	54" 1371.6 mm	28" 711.2 mm	14" 355.6 mm	19-1/2" 495.3 mm	18-1/2" 469.9 mm	3"-150# RF 50 mm	2" NPT 50 mm
120-224	12" 300 mm	26-1/2" 673.1 mm	36-3/4" 933.5 mm	63" 1600.2 mm	30" 762.0 mm	15" 381.0 mm	21-1/2" 546.1 mm	20-1/2" 520.7 mm	3"-150# RF 80 mm	2" NPT 50 mm
140-224	14" 350 mm	28" 711.2 mm	40" 1016.0 mm	68" 1727.2 mm	32" 812.8 mm	16" 406.4 mm	23-1/2" 596.9 mm	21-3/4" 552.5 mm	3"-150# RF 80 mm	2" NPT 50 mm
160-224	16" 400 mm	29" 736.6 mm	41-1/4" 1047.8 mm	71" 1803.4 mm	34" 863.6 mm	17" 431.8 mm	30" 762.0 mm	22-1/2" 571.5 mm	4"-150# RF 80 mm	2-1/2"-150# RF 65 mm
180-224	18" 450 mm	32" 812.8 mm	45-1/2" 1155.7 mm	80" 2032.0 mm	36" 914.4 mm	18" 457.2 mm	32" 812.8 mm	24-1/2" 622.3 mm	4"-150# RF 100 mm	2-1/2"-150# RF 65 mm
200-224	20" 500 mm	36" 914.4 mm	51" 1295.4 mm	90" 2286.0 mm	42" 1066.8 mm	21" 533.4 mm	42" 1066.8 mm	27" 685.8 mm	6"-150# RF 100 mm	3"-150# RF 80 mm
240-224	24" 600 mm	42-1/2" 1079.5 mm	57-1/2" 1460.5 mm	106" 2692.4 mm	50" 1270.0 mm	25" 635.0 mm	48" 1219.2 mm	32" 812.8 mm	6"-150# RF 150 mm	3"-150# RF 80 mm

**Dimensions subject to change without notice, apply for certified drawings.  
Other sizes are available, please consult the factory or your local sales representative.**



## **SERIES 134 FABRICATED SIMPLEX BASKET STRAINER OFF-SET DESIGN BOLTED COVER**

### **MAXIMUM OPERATING PRESSURE AND TEMPERATURE**

2" through 24" - 150 psi @ 150°F  
(Available in full ANSI Ratings)

### **STANDARD DESIGN**

- Fabricated carbon steel with bolted style cover
- 304 stainless steel basket with perforated (1/32", 1/16", 1/8", or 5/32") openings
- All vessels are manufactured and tested generally in accordance with ASME Code, Section VIII, Division 1, using welders certified to Section IX.
- All strainers are hydrostatically tested to 1 ½ times design pressure.

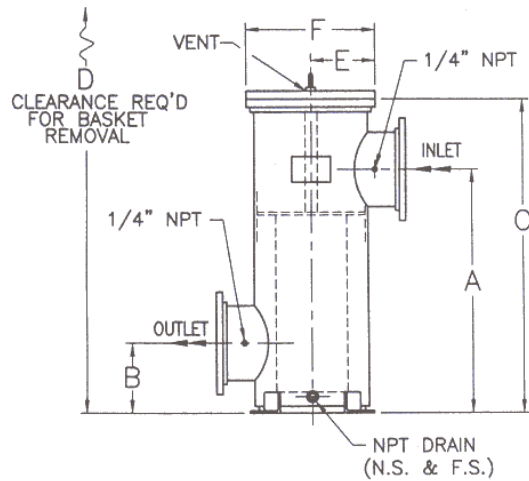
### **STANDARD DESIGN FEATURES**

- Compact, light weight fabricated vessels
- Flat basket design with a low pressure drop
- Extra-large capacity basket
- Heavy duty basket design for a long life

### **OPTIONS AVAILABLE**

- Basket materials of 316 stainless steel, brass, monel, and others
- Mesh lined baskets - 20 x 20 mesh to 200 x 200 mesh
- Numerous materials of construction such as stainless steel, bronze, copper nickel, monel, and others for corrosive environments.
- ASME Section VIII, Code Stamp supplied with complete pressure vessel material traceability.
- Vessel design for high pressure and temperature
- Pressure gauge taps - convenient indication for dirty basket. Differential Pressure accessories also available.
- Cover lift assembly (davit) facilitates basket removal. Swing closure and swing bolt closure designs also available.
- Special internal and external coatings

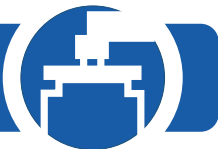




1. Basket hold down is available on 10" and larger sizes only.
2. Vent is available on 6" and larger sizes only.
3. Closure, lifting eye is available on 6" and larger sizes only.

SIZE	A	B	C	D	E	F	VENT	DRAIN	C <sub>v</sub>	WEIGHT
2" 50 mm	18-3/8" 466.7 mm	10-3/4" 273.1 mm	22-1/2" 571.5 mm	17" 431.8 mm	6" 152.4 mm	12" 304.8 mm	1/4" NPT 6 mm	1/2" NPT 15 mm	45 GPM 171 LPM	76 lbs. 34.5 kg.
3" 80 mm	21-3/8" 542.9 mm	10-3/4" 273.1 mm	27" 685.8 mm	26" 660.4 mm	8-1/4" 209.6 mm	16-1/2" 419.1 mm	1/4" NPT 6 mm	1/2" NPT 15 mm	175 GPM 665 LPM	168 lbs. 76.2 kg.
4" 100 mm	24-3/8" 619.1 mm	13" 330.2 mm	31-1/2" 800.1 mm	30" 762.0 mm	8-1/4" 209.6 mm	16-1/2" 419.1 mm	1/4" NPT 6 mm	1/2" NPT 15 mm	275 GPM 1045 LPM	185 lbs. 83.9 kg.
6" 150 mm	27" 685.8 mm	14" 355.6 mm	34" 863.6 mm	33" 838.2 mm	10-1/2" 266.7 mm	21" 533.4 mm	1/4" NPT 6 mm	1/2" NPT 15 mm	600 GPM 2280 LPM	270 lbs. 122.5 kg.
8" 200 mm	31-3/8" 796.9 mm	16" 406.4 mm	39-1/2" 1003.3 mm	38" 965.2 mm	12" 304.8 mm	24" 609.6 mm	1/4" NPT 6 mm	1/2" NPT 15 mm	1300 GPM 4940 LPM	400 lbs. 181.4 kg.
10" 250 mm	34-7/8" 885.8 mm	18" 457.2 mm	45-1/4" 1149.4 mm	38" 965.2 mm	14" 355.6 mm	28" 711.2 mm	1/4" NPT 6 mm	1-1/2" NPT 40 mm	1900 GPM 7220 LPM	725 lbs. 328.9 kg.
12" 300 mm	40" 1016.0 mm	24" 609.6 mm	50-1/4" 1276.4 mm	38" 965.2 mm	15" 381.0 mm	30" 762.0 mm	1/4" NPT 6 mm	1-1/2" NPT 40 mm	2900 GPM 11020 LPM	935 lbs. 424.1 kg.
14" 350 mm	45-1/4" 1149.4 mm	26" 660.4 mm	57-1/4" 1454.2 mm	39" 990.6 mm	16" 406.4 mm	32" 812.8 mm	1/4" NPT 6 mm	1-1/2" NPT 40 mm	3500 GPM 13300 LPM	1150 lbs. 521.6 kg.
16" 400 mm	51-1/2" 1308.1 mm	32" 812.8 mm	65-1/2" 1663.7 mm	43" 1092.2 mm	17" 431.8 mm	34" 863.6 mm	1/4" NPT 6 mm	1-1/2" NPT 40 mm	4800 GPM 18240 LPM	1500 lbs. 680.4 kg.
18" 450 mm	56-1/2" 1435.1 mm	34" 863.6 mm	71-1/2" 1816.1 mm	47" 1193.8 mm	18" 457.2 mm	36" 914.4 mm	1/4" NPT 6 mm	1-1/2" NPT 40 mm	6200 GPM 23560 LPM	1850 lbs. 839.2 kg.
20" 500 mm	61-1/2" 1562.1 mm	38" 965.2 mm	77-1/2" 1968.5 mm	51" 1295.4 mm	21" 533.4 mm	42" 1066.8 mm	1/4" NPT 6 mm	2" NPT 50 mm	7600 GPM 28880 LPM	2210 lbs. 1002.5 kg.
24" 600 mm	68-1/2" 1739.9 mm	40" 1016.0 mm	87-1/2" 2222.5 mm	57" 1447.8 mm	25" 635.0 mm	50" 1270.0 mm	1/4" NPT 6 mm	2" NPT 50 mm	11000 GPM 41800 LPM	3535 lbs. 1603.5 kg.

Dimensions are subject to change without notice, apply for certified drawings.



## *Model 300 Simplex Strainer*

Start-up strainers, like tee and cone strainers, are typically designed with very little debris holding capacity. They will have a higher differential pressure than a basket strainer. Cleaning these are also a major issue. Cone strainers have a pipe spool to remove. When removing the basket in a tee strainer, the debris has a tendency to fall out of the basket into the bottom of the strainer housing. Sometimes the debris passes downstream and causes damage to the device that is being protected. FE has a research project to redesign a basket that will hold the debris.



The main application for a “Y” strainer is gas and steam where cleaning is infrequent. “Y” strainers must be installed with a basket hanging so that the blow-off valve is near the ground. The screen in a “Y” strainer is removed from the bottom of the strainer. This is not a major problem with small “Y” strainers (under 6”, (152.4 mm)). However, on larger strainers the cover can weigh over 100 pounds (45 kg) and are not easily removed. Lastly, the open area ratio on most “Y” strainers is less than 2 to 1, therefore there is no debris holding capacity.

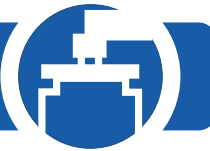
The major problem with a simplex strainer is that the system needs to be shut down in order to clean the basket. Therefore, simplex strainers piped in a duplex arrangement have become a preferred style. Simplex and duplex strainers are more attractive because they are installed in an upright position and the basket is lifted from the top. When the basket is filled with debris, it may be heavy and can only be removed in the vertical position. Simplex and duplex strainers can only be installed in a horizontal pipeline.

None of the designs mentioned above can be used in a vertical pipe run. Over the last six months, Fluid Engineering has been reviewing the problems found in vertical piping. Vertical piping arrangements are mostly found in petrochemical and chemical processing systems. As of April 2003, Fluid Engineering started offering a new type of simplex strainer with a tubular type basket design. The 300 series strainer (Models 300, 301, 302, and 303) are designed for various installation positions such as: vertical-up, vertical-down, or as an elbow. See the above photo showing the easy cleaning of the 300 series.

The Model 300VD through 303 VD (designed for vertical-down) is a design where the flow is from outside the of the perforated basket with a manual blow down. The flow, as it washes over the basket, will force the debris to the bottom of the strainer housing, which has a built in sump. This flow patten has been designed to act as a self-washing (self-cleaning) simplex strainer.

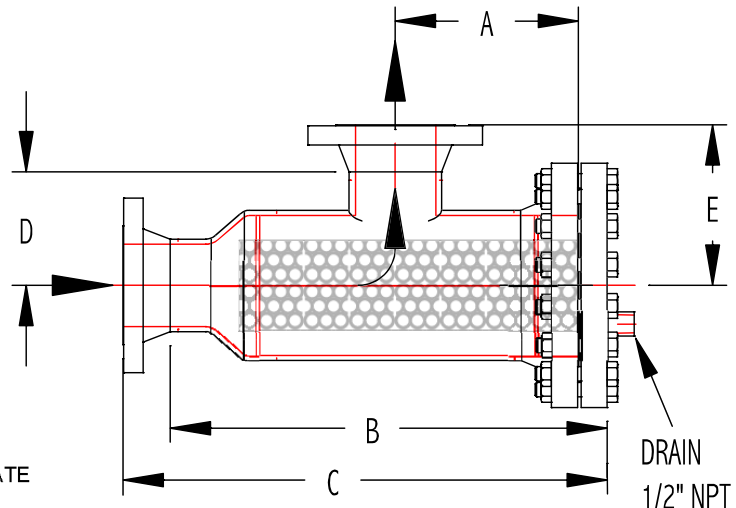


Adding straightening vanes (SV) to any of the Models 300VD (also Models 301-303) creates a flow diffuser. This diffuser can eliminate up to 95 percent of the normal turbulence found after any elbow in a piping system. The turbulence will shorten the normal operating life of valves (mainly check valves), pumps, and flow measuring equipment. Using a Model 300 strainer in place of an elbow will eliminate 100 percent of elbow erosion. Erosion is the cause of most pipeline failures. This lessons downtime and repair costs

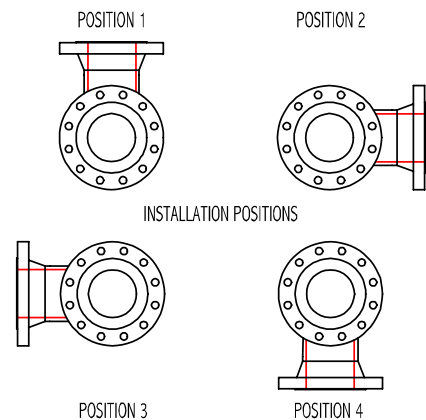
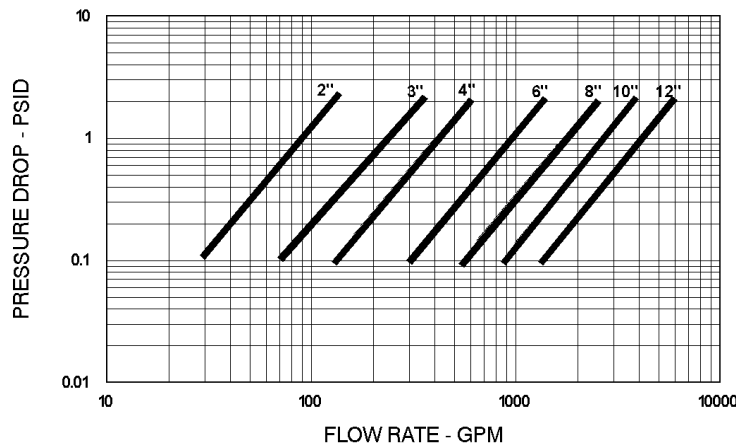


**Model 300**  
**90° Elbow Simplex**

- **300** Inlet & Outlet  
Buttweld
- **301** Inlet Buttweld  
& Outlet Flanged
- **302** Inlet Flanged  
& Outlet Buttweld
- **303** Inlet & Outlet  
Flanged

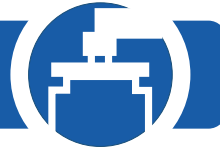


PRESSURE DROP vs. FLOWRATE



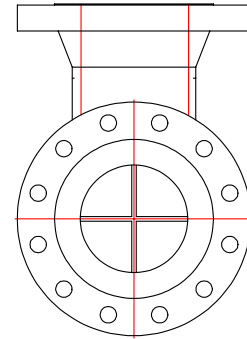
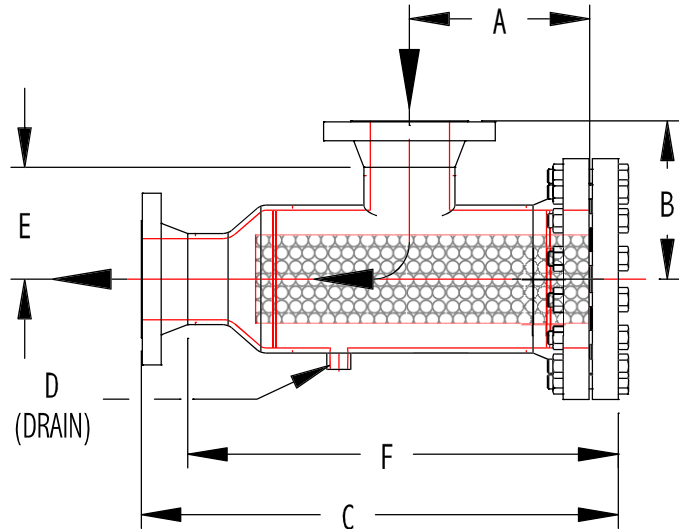
Size	Inlet /Outlet	ANSI 150#					ANSI 300#				
		A	B	C	D	E	A	B	C	D	E
2"	2"	5"	7 1/2"	10"	2 1/2"	5"	5 1/4"	7 3/4"	10 1/2"	2 1/2"	5 1/4"
50.8 mm	50.8 mm	127 mm	190.5 mm	254.0 mm	63.5 mm	127 mm	133.4 mm	196.9 mm	266.7 mm	63.5 mm	133.4 mm
3"	3"	6 1/8"	9 1/2"	12.3"	3 3/8"	6 5/8"	6 1/2"	9 7/8"	13"	3 3/8"	6 1/8"
76.2 mm	76.2 mm	155.6 mm	241.3 mm	311.2 mm	85.7 mm	168.3 mm	165.1 mm	250.8 mm	330.2 mm	85.7 mm	155.6 mm
4"	4"	7 1/8"	11 1/8"	14 1/4"	4 1/8"	7 1/8"	7 1/2"	11 5/8"	15"	4 1/8"	7 1/2"
101.6 mm	101.6 mm	181.0 mm	282.6 mm	360.0 mm	104.8 mm	181.0 mm	190.5 mm	295.3 mm	381.0 mm	104.8 mm	190.5 mm
6"	6"	9 1/8"	14 3/4"	18 1/4"	5 5/8"	9 1/8"	9 1/2"	15 1/8"	19"	5 5/8"	9 1/2"
152.4 mm	152.4 mm	231.8 mm	374.7 mm	463.6 mm	142.9 mm	231.8 mm	241.3 mm	384.2 mm	482.6 mm	142.9 mm	241.3 mm
8"	8"	11"	18"	22"	7"	11"	11 3/8"	18 1/8"	22 3/4"	7"	11 3/8"
203.2 mm	203.2 mm	279.4 mm	457.2 mm	558.8 mm	177.8 mm	279.4 mm	288.9 mm	466.7 mm	577.9 mm	177.8 mm	288.9 mm
10"	10"	12 1/2"	21"	25"	8 1/2"	12 1/2"	13 1/8"	21 5/8"	26 1/4"	8 1/2"	13 1/8"
254.0 mm	254.0 mm	317.5 mm	533.4 mm	635 mm	215.9 mm	317.5 mm	333.4 mm	549.3 mm	666.8 mm	215.9 mm	333.4 mm
12"	12"	14 1/2"	24 1/2"	29"	10"	14 1/8"	15 1/8"	25 1/8"	30 1/4"	10"	15 1/8"
304.8 mm	304.8 mm	368.3 mm	622.3 mm	736.6 mm	254.0 mm	368.3 mm	384.2 mm	638.2 mm	768.4 mm	254.0 mm	384.2 mm

- Larger sizes, higher pressures, and temperatures are available on application
- Models 6" and greater will be supplied with pipe support (Contractor to add ground support)
- Models 8" and greater will be supplied with cover davit swing
- Dimensions subject to change without notice, apply for certified drawings

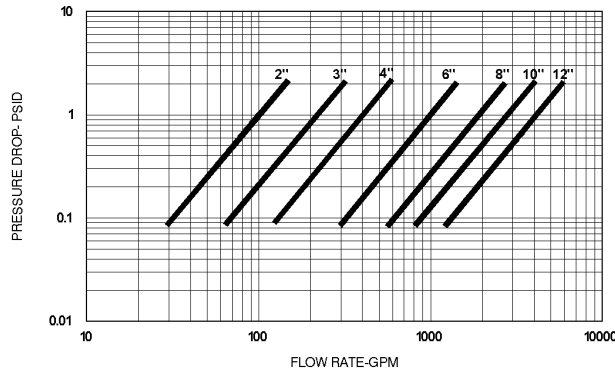


## Model 300 Vertical Down Self-Cleaning Simplex with Straightening Vanes Option

- 300VD/VDSV Inlet & Outlet Butt weld
- 301VD/VDSV Inlet Butt weld & Outlet Flanged
- 302VD/VDSV Inlet Flanged & Outlet Butt weld
- 303VD/VDSV Inlet & Outlet Flange



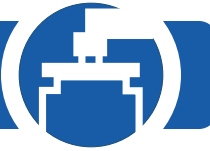
PRERESSURE DROP vs. FLOW RATE



Size	Inlet /Outlet	ANSI 150#						ANSI 300#					
		A	B	C	D	E	F	A	B	C	D	E	F
2"	2"	6 1/8"	5 3/4"	15 1/2"	1/2"	3 1/4"	13"	6 1/2"	6"	15 3/4"	1/2"	3 1/4"	13 3/8"
50.8 mm	50.8 mm	155.6 mm	146.1 mm	393.7 mm	12.7 mm	82.6 mm	330.2 mm	165.1 mm	152.4 mm	400.1 mm	12.7 mm	82.6 mm	339.7 mm
3"	3"	6 1/4"	6 5/8"	17 5/8"	1/2"	3 7/8"	14 7/8"	7 1/8"	6 1/8"	18"	1/4"	3 7/8"	15 1/4"
76.2 mm	76.2 mm	171.5 mm	168.3 mm	447.7 mm	12.7 mm	98.4 mm	377.8 mm	181.0 mm	168.3 mm	457.2 mm	6.4 mm	98.4 mm	387.4 mm
4"	4"	9 1/8"	8 1/8"	23 1/4"	3/4"	5 1/8"	20 1/4"	9 3/4"	8 1/2"	23 5/8"	3/4"	5 1/8"	20 5/8"
101.6 mm	101.6 mm	231.8 mm	206.4 mm	590.6 mm	19.1 mm	130.2 mm	514.4 mm	247.7 mm	215.9 mm	600.1 mm	19.05 mm	130.2 mm	523.9 mm
6"	6"	12 1/2"	11 1/8"	31 1/2"	1"	7 5/8"	28"	13 1/8"	11 1/2"	31 7/8"	1"	7 5/8"	28 5/8"
152.4 mm	152.4 mm	317.5 mm	282.6 mm	800.1 mm	25.4 mm	193.7 mm	711.2 mm	333.4 mm	292.1 mm	809.6 mm	25.4 mm	193.7 mm	727.1 mm
8"	8"	14 1/2"	13"	36 1/2"	1 1/2"	9"	32 1/4"	15 7/8"	13 3/8"	36 5/8"	1 1/2"	9"	32 7/8"
203.2 mm	203.2 mm	368.3 mm	330.2 mm	927.1 mm	38.1 mm	228.6 mm	819.2 mm	403.2 mm	339.7 mm	930.3 mm	38.1 mm	228.6 mm	835.1 mm
10"	10"	16"	14 1/8"	44"	1 1/2"	10 1/8"	40"	16 5/8"	14 3/4"	44 5/8"	1 1/2"	10 1/8"	40 5/8"
254 mm	254 mm	406.4 mm	358.8 mm	1118 mm	38.1 mm	257.2 mm	1016 mm	422.3 mm	374.7 mm	1133 mm	38.1 mm	257.2 mm	1032 mm
12"	12"	17"	16 1/8"	47 1/2"	2"	11 5/8"	43"	17 3/4"	16 2/4"	48 1/8"	2"	11 5/8"	43 3/4"
304.8 mm	304.8 mm	431.8 mm	409.6 mm	1207 mm	50.8 mm	295.3 mm	1092 mm	450.9 mm	425.5 mm	1222 mm	50.8 mm	295.3 mm	1111 mm

- Larger sizes, higher pressures, and temperatures are available on application
- Models 6" and greater will be supplied with pipe support (Contractor to add ground support)
- Models 8" and greater will be supplied with cover davit swing
- Dimensions subject to change without notice, apply for certified drawings

**"ENGINEERED PRODUCTS FOR DEMANDING APPLICATIONS, PERFORMANCE, AND SERVICE"**



## Series 600 "S" Basket Strainers

The Series 600 "S" are simplex strainers. They are pressure vessels installed in a pipeline to remove unwanted solids from fluids. The Series 600 "S" are used in applications where flow can be interrupted for basket cleaning (duplex arrangements are available upon request).

The Series 600 "S" are designed with **.4 to .5 cu. ft. debris holding capacity** that allows for a longer run time. Along with a large holding capacity, they can also be used for very fine filtration by including a mesh liner. The incorporation of the swing bolt closure eliminates the use of any tools and also eliminates the need for nuts and bolts as in other designs in the market place.

Series Designations	
<b>602S</b>	8" - 30, Offset Nozzles, Outlet Near Top
<b>603S</b>	6" - 30, Offset Nozzles, Outlet Near Top
<b>603SM</b>	Miniature 6" - 30, Offset Nozzles, Outlet Near Top
<b>604S</b>	8" - 30, 2 pc/4 Leg Assembly, Outlet Near Middle
<b>605S</b>	8" - 30, 2 pc/4 Leg Assembly, Outlet Near Bottom

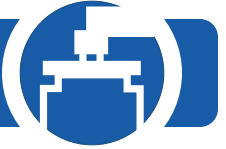


### STANDARD FEATURES:

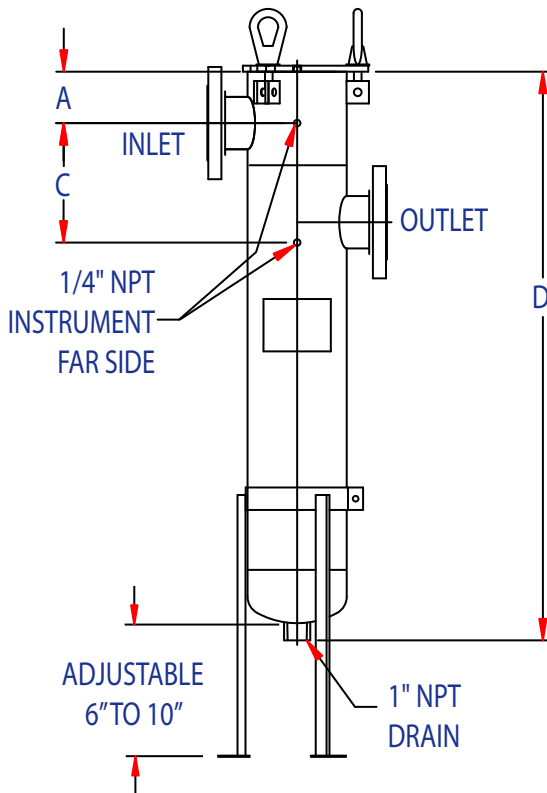
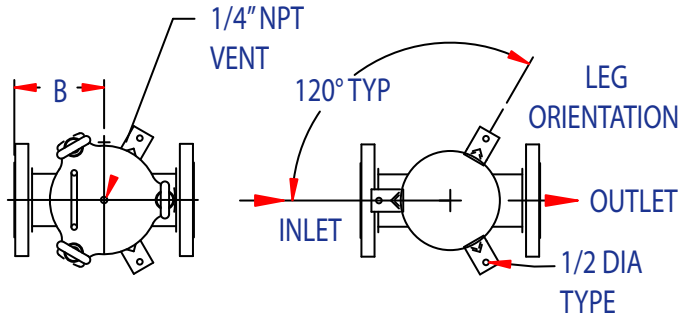
- Offset Connections
- Swing Bolt Closure
- Standard Housing Materials are carbon steel, 304 stainless steel, or 316 stainless steel
- Inlet/Outlet Connections are ANSI Flanges or NPT
- Vent and Drain Connections are NPT
- Two 1/4" NPT Instrument Connections
- Viton Seals
- Straining Basket: 3/32", 3/16", & 1/8" perforations, 304 or 316 stainless steel (Other perforations available upon request)
- Design Working Pressure: 150 psig
- Design Working Temperature: 250°F
- Designed, manufactured, and tested generally in accordance with ASME Section VIII, Division 1 with welders qualified to Section IX

### OPTIONS:

- ANSI flanges for vent and drain connections
- Baskets are available in other materials, perforations, and meshes
- Other design pressures and temperatures are available upon request
- U-Stamp



## Series 600 "S" Basket Strainers

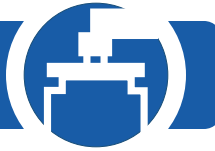


**Note:** Dimensions subject to change without notice. Apply for certified drawings.

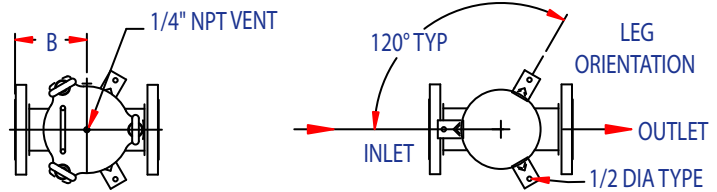
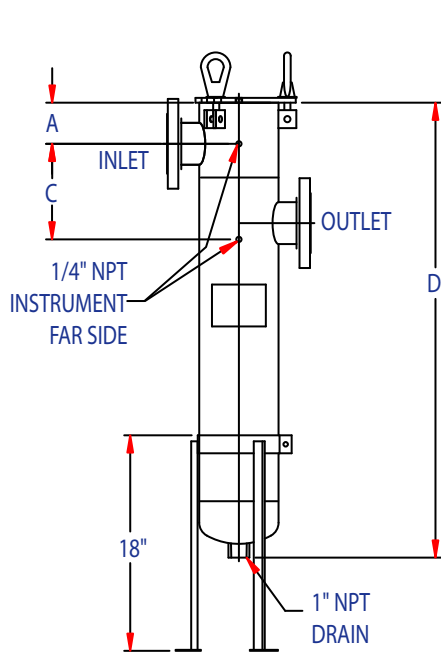


**602S with Insulation Retainer**

Series 602S (8-30)					
Size	A	B	C	D	WT APPROX
1 1/2" 25.4 mm	7 1/2" 190.5 mm	7 1/2" 190.5 mm	6" 152.4 mm	35 1/2" 901.7 mm	105 lbs 48 kg
2" 50.8 mm	7 1/2" 190.5 mm	7 1/2" 190.5 mm	6" 152.4 mm	35 1/2" 901.7 mm	110 lbs 50 kg
2 1/2" 63.5 mm	7 1/2" 190.5 mm	7 1/2" 190.5 mm	6 5/8" 167.6 mm	35 1/2" 901.7 mm	115 lbs 52 kg
3" 72.6 mm	7 1/2" 190.5 mm	7 1/2" 190.5 mm	8" 203.2 mm	35 1/2" 901.7 mm	120 lbs 54 kg
4" 101.6 mm	7 1/2" 190.5 mm	8 5/8" 218.4 mm	8 3/8" 213.4 mm	35 1/2" 901.7 mm	135 lbs 61 kg
6" 152.4 mm	9.0" 228.6 mm	8 5/8" 218.4 mm	9" 228.6 mm	37" 939.8 mm	150 lbs 68 kg

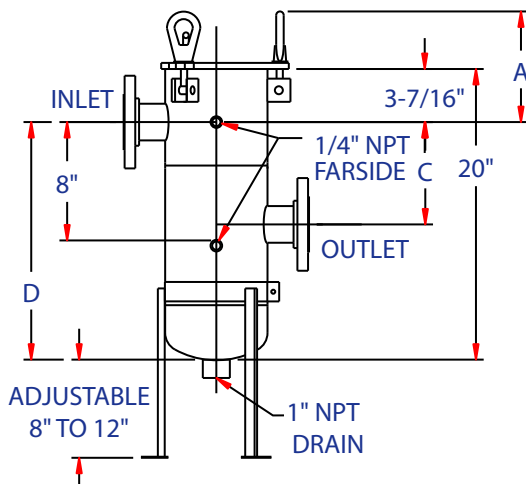
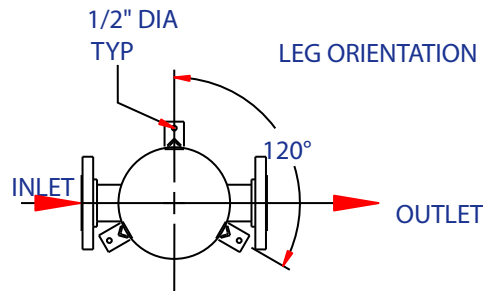
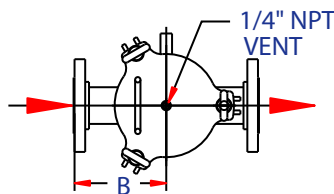


## Series 603S & Series 603SM Basket Strainers



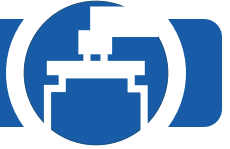
Series 603S (6-30)					
Size	A	B	C	D	WT APPROX
1"	6 5/16"	6"	4 3/8"	34 1/2"	84 lbs 38 kg
1 1/4"	6 5/16"	6"	4 3/4"	34 1/2"	84 lbs 38 kg
1 1/2"	6 5/16"	6"	4 3/4"	34 1/2"	84 lbs 38 kg
2"	7 1/8"	6"	6 5/8"	34 1/2"	89 lbs 40 kg
3"	7 1/8"	6"	6 5/8"	34 1/2"	99 lbs 45 kg

**Note:** Dimensions subject to change without notice. Apply for certified drawings.

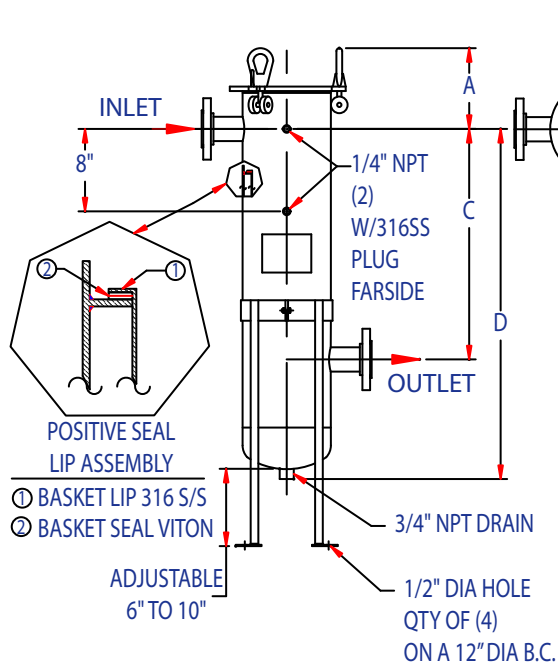


Series 603SM					
Size	A	B	C	D	WT APPROX
1"	6 1/2"	6"	6 5/8"	17 3/4"	78 lbs 35.4 kg
1 1/2"	6 1/2"	6"	6 5/8"	17 3/4"	80 lbs 36.3 kg
2"	6 1/2"	6"	6 5/8"	17 3/4"	85 lbs 38.5 kg

**Note:** Dimensions subject to change without notice. Apply for certified drawings.

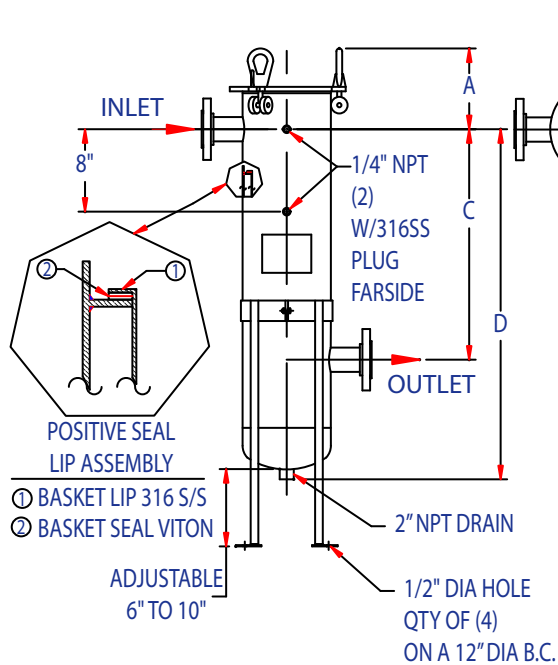


## Series 604S & Series 605S Basket Strainers



Series 604S					
Size	A	B	C	D	WT APPROX
2"	7 1/2"	8 5/16"	22 1/2"	35 1/2"	90 lbs 40.8 kg
3"	7 1/2"	8 5/16"	22 1/2"	35 1/2"	100 lbs 45.4 kg
4"	7 1/2"	9"	22 1/2"	35 1/2"	110 lbs 49.9 kg

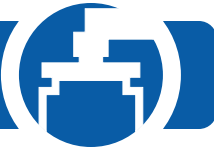
**Note:** Dimensions subject to change without notice. Apply for certified drawings.



Series 605S					
Size	A	B	C	D	WT APPROX
2"	7 1/2"	8 1/4"	28 3/4"	38 3/8"	95 lbs 43.1 kg
3"	7 1/2"	8 1/4"	28 3/4"	38 3/8"	105 lbs 47.6 kg
4"	7 1/2"	9"	28 3/4"	38 3/8"	115 lbs 52.2 kg

**Note:** Dimensions subject to change without notice. Apply for certified drawings.





## SIMPLEX BASKET STRAINER ♦ RF FLANGED & THREADED

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

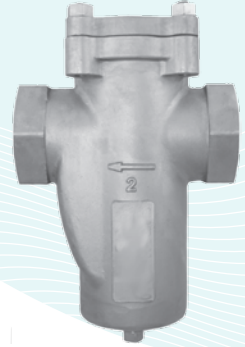
**MODELS:** 114 CS  
 (CARBON STEEL - THREADED - 150/300)

124 CS  
 (CARBON STEEL - RF FLANGED - 150)

114 SS  
 (STAINLESS STEEL - THREADED - 150/300)

124 SS  
 (STAINLESS STEEL - RF FLANGED - 150)

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

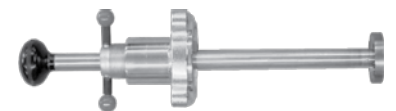


## FEATURES

- ♦ **HIGH QUALITY CONSTRUCTION**  
 THE SERIES 114/124 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 114/124 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 TITAN FCI 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 Saturated Steam: 150 PSI @ 366 °F Maximum Liquid: 80 PSI @ 800 °F
<b>PRESSURE/TEMPERATURE RATING</b> SS - ASTM A351 GR. CF8M - CLASS 150
WOG (Non-shock): 275 PSI @ 100 °F Saturated Steam: 150 PSI @ 366 °F Maximum Liquid: 20 PSI @ 1000 °F
<b>PRESSURE/TEMPERATURE RATING</b> 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
<b>PRESSURE/TEMPERATURE RATING</b> 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



Ask FE about making your 114/124 basket strainer a PUSH-CLEAN STRAINER!

FLUID ENGINEERING CAN FURNISH CAST MODELS 114/124 WITH A SPECIAL COVER, HANDLE, SCRAPER, AND BASKET DESIGNED FOR EASY CLEANING CAPABILITIES WITHOUT BASKET REMOVAL.



**MINI  
 PUSH-CLEAN  
 STRAINER**

Patent-Pending Design

## 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.*



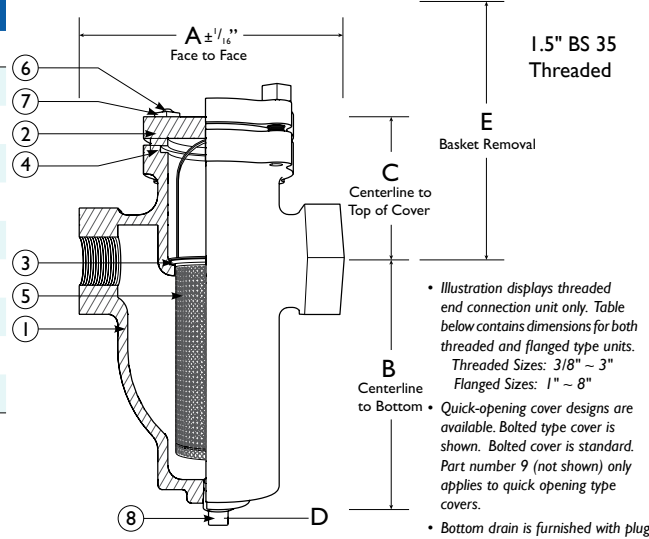
## SIMPLEX BASKET STRAINER

Threaded Ends (150/300 lb) Raised Face Flanged Ends (150 lb)  
 114 CS (Carbon Steel) 124 CS (Carbon Steel)  
 114 SS (Stainless Steel) 124 SS (Stainless Steel)

ANSI Class 150/300 lb

### BILL OF MATERIALS (1)

No.	PART	114 CS & 124 CS (2)	114 SS & 124 SS
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) (3)	Buna-N	Viton
4	Gasket (Cover) (3)(4)	Spiral Wound Stainless Steel Non-Asbestos	
5	Straining Element (3)	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
9	Cover Knobs (5)	Ductile Iron	Ductile Iron



- 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 bolted cover, which is standard. If quick open cover is specified, the O-ring material for the cover is Buna-N on 114 CS & 124 CS or Viton on 114 SS & 124 SS.
- Bolted cover is standard. Part Number 9 (Cover Knobs) only applies to quick opening covers.

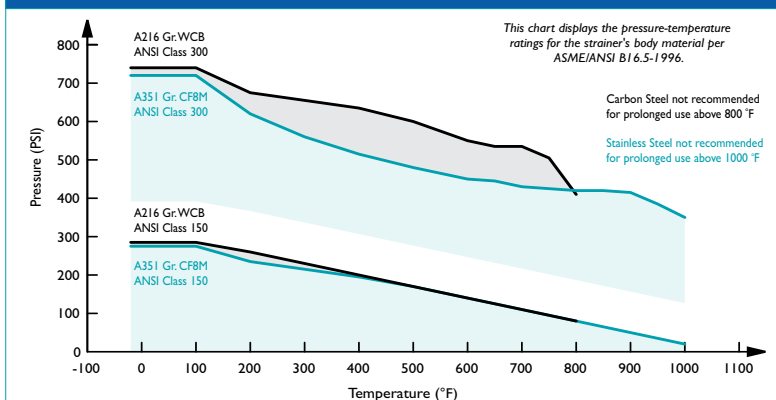
• Illustration displays threaded end connection unit only. Table below contains dimensions for both threaded and flanged type units.  
 Threaded Sizes: 3/8" ~ 3"  
 Flanged Sizes: 1" ~ 8"  
 • Quick-opening cover designs are available. Bolted type cover is shown. Bolted cover is standard. Part number 9 (not shown) only applies to quick opening type covers.  
 • Bottom drain is furnished with plug

### DIMENSIONS AND PERFORMANCE DATA (1)

Size	in	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6	8
<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	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
<b>Flow Coefficient</b>	C <sub>v</sub>	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"

### PRESSURE - TEMPERATURE RATINGS



### PRESSURE - TEMPERATURE RATING (1)

ANSI CLASS 150	A216 Gr. WCB (2)	A351 Gr. CF8M (2)
WOG (Non-shock)	285 PSI @ 100 °F	275 PSI @ 100 °F
Saturated Steam	150 PSI @ 366 °F	150 PSI @ 366 °F
Max Liquid	80 PSI @ 800 °F	20 PSI @ 1000 °F
ANSI CLASS 300	A216 Gr. WCB (2)	A351 Gr. CF8M (2)
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

- 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.

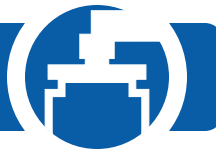
### REFERENCED STANDARDS & CODES

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

Fluid Engineering makes 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. FE reserves the right to make design and specification changes to improve our products without prior notification. When required, request certified drawings.

### STANDARD STRAINING ELEMENTS

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



## SIMPLEX BASKET STRAINER ♦ FLANGED ENDS

### ANSI CLASS 300 ♦ CARBON AND STAINLESS STEEL

MODELS: 124 CS  
 (CARBON STEEL)

124 SS  
 (STAINLESS STEEL)

SIZES: 2" ~ 12"



## FEATURES

- ♦ **RUGGED, HIGH QUALITY CONSTRUCTION**  
 THE MODEL 124 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 124 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 FLUID ENGINEERING 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. WC6 - 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

124 CS - (Carbon Steel)

124 SS - (Stainless Steel)

Flanged Ends • Raised Face • Carbon & Stainless Steel

ANSI Class  
300

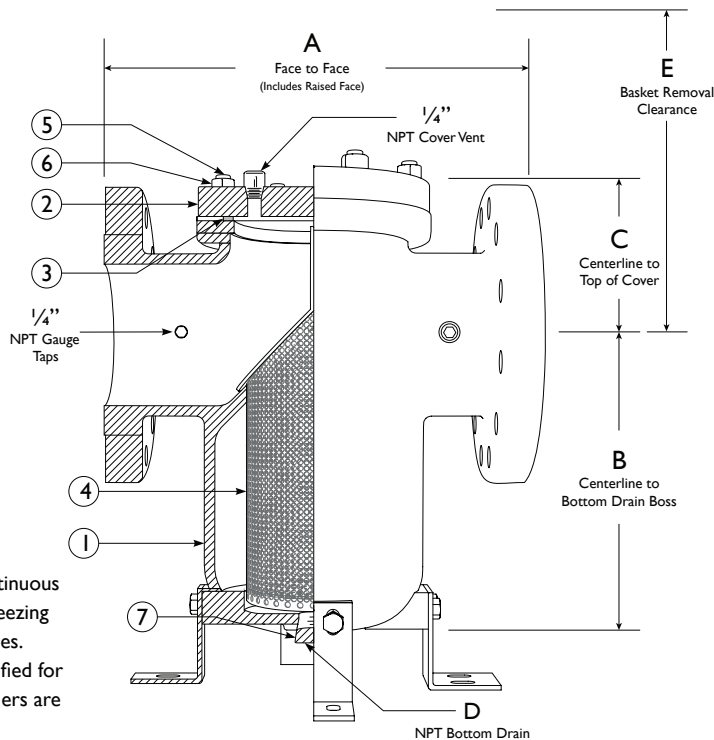
### BILL OF MATERIALS (1)

No.	PART	124 CS (2)	124 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.

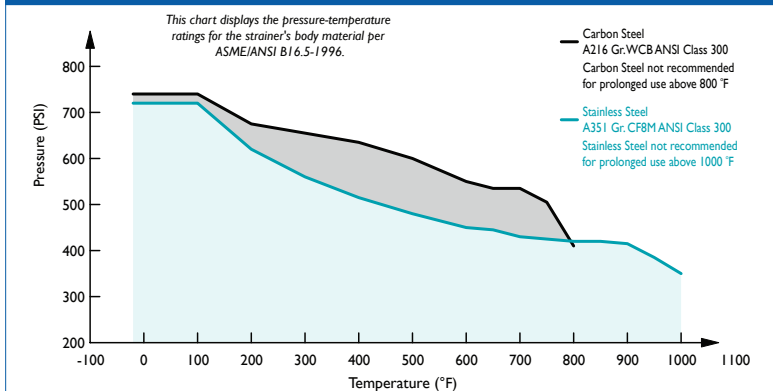


### DIMENSIONS AND PERFORMANCE DATA (1)

SIZE	in	2	2 1/2	3	4	5	6	8	10	12
	mm	50	65	80	100	125	150	200	250	300
<b>A DIMENSION</b> 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>B DIMENSION</b> 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
<b>C DIMENSION</b> 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
<b>D DIMENSION</b> 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
<b>E DIMENSION</b> 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
<b>ASSEMBLED WEIGHT</b> APPROXIMATE	lb	40.0	63.0	63.0	108.0	200.0	200.0	342.0	542.0	C/F
	kg	18.1	28.5	28.5	48.9	90.6	90.6	155.0	245.6	C/F
<b>Flow Coefficient</b>	C <sub>v</sub>	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 (±0.2 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
<b>ANSI CLASS 300</b>	<b>A216 Gr.WCB</b>	<b>A351 Gr. CF8M</b>	
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	
<b>Size</b>	<b>Liquid</b>	<b>Open Area</b>	<b>Steam</b>	<b>Open Area</b>
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.