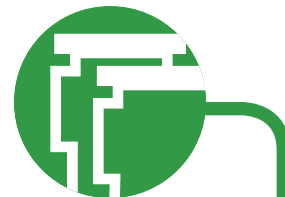




## SERIES 530/531 CAST DUPLEX STRAINER



The Series 530/531 Cast Duplex Strainer provides continued and dependable removal of unwanted solids from fluids. This strainer serves to protect valves, pumps, meters, spray nozzles, and various other equipment. It is often used to ensure product purity in such industries as gas, petroleum, paper, biofuels, and power plants. A duplex strainer is used in applications where fluid flow cannot be interrupted when the basket is removed for cleaning. It maintains a continuous flow by utilizing two separate basket chambers with integral valves to direct flow into one of the basket chambers.



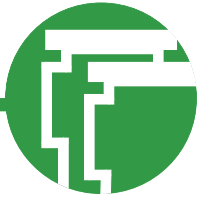
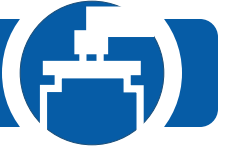
The Series 530/531 is a compact unit, in-line inlet/outlet connections, which enables easy piping and variable strainer placement. Chamber change over is accomplished quickly and easily. A single lever controls the positive sealing butterfly valves, changing the fluid flow.

Built as a standard model unit, the Series 530/531 is also flexible to meet the individual needs of the customer, and varying application requirements. It is available in a cast iron, cast steel, and cast stainless steel and its design is superior for corrosive, hazardous, or low specific gravity fluid applications.

### STANDARD DESIGN

- Cast strainer body with quick opening style cover
- 316 stainless steel basket with perforated (1/32", 1/16", 1/8", 5/32" openings)
- Butterfly valve with cast iron body Buna-N seats, ductile iron disc, and stainless steel stem (Series 530 only)
- Check valves (Series 530 only)
- Lever operated valves with inter-connected linkage (Series 530 only)
- 3-way Diverter valves (Series 531 only)
- Lever operated valves (Series 531 only)
- Design pressure 150 psig @ 150°F
- Complete package is hydrostatically tested
- Viton O-ring cover seal





## SERIES 530/531 CAST DUPLEX STRAINER

### STANDARD DESIGN FEATURES

- Compact design allows for low installation cost.
- Efficient design requiring few moving parts and low maintenance costs.
- Simple, easy, and effective switching of flow with positive shut-off.

### OPTIONS AVAILABLE

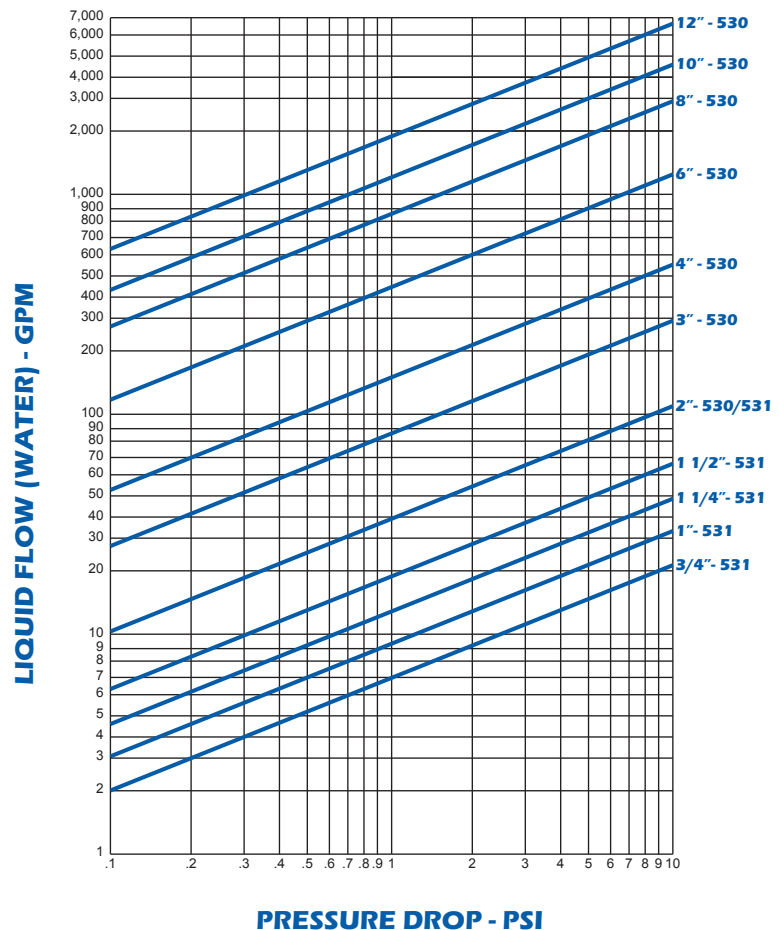
- Variation in flange connection alignment
- ASME Section VIII, Division 1, Code Stamp supplied with complete material traceability
- Special internal and external coating
- Cover lift (davit) assembly (Series 530 only)
- Quick opening hinged covers (Series 530 only)
- Basket material of monel, and others
- Mesh lined baskets
- Vent and drain valves
- Support legs

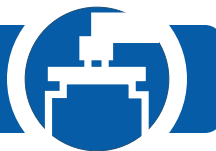
### Typical Order Specification

Cast Duplex Strainer Package shall be size \_\_\_\_\_ Series 530 with 150# flanged connections or size \_\_\_\_\_ Series 531 with threaded connections as manufactured by Fluid Engineering: Erie, PA.

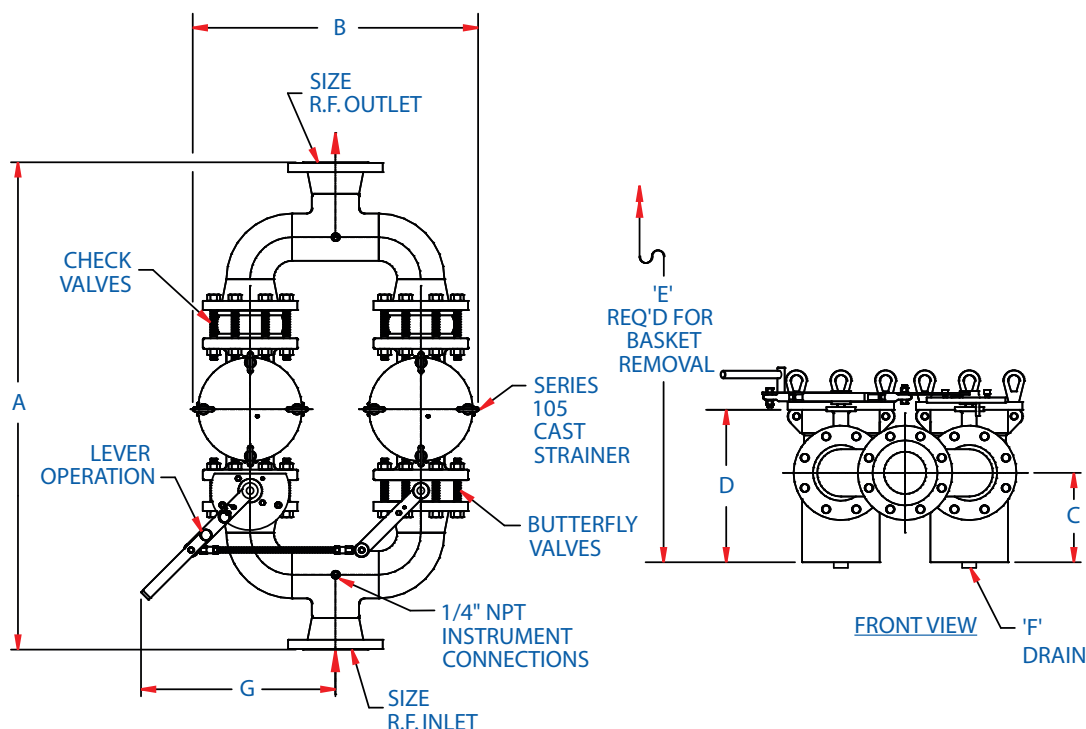
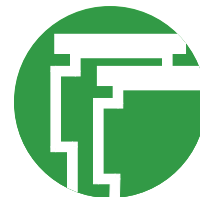
Strainer body shall be cast with quick opening style cover closure. Complete vessel will be suitable for a design pressure of (150 psig) at (100°F). Baskets shall be (304 stainless steel) with (1/32", 1/16", 1/8", or 5/32") perforated openings.

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



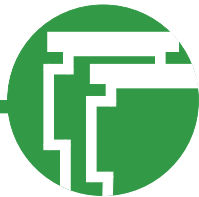
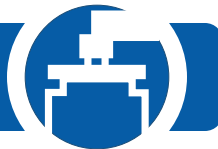


## SERIES 530 CAST DUPLEX STRAINER

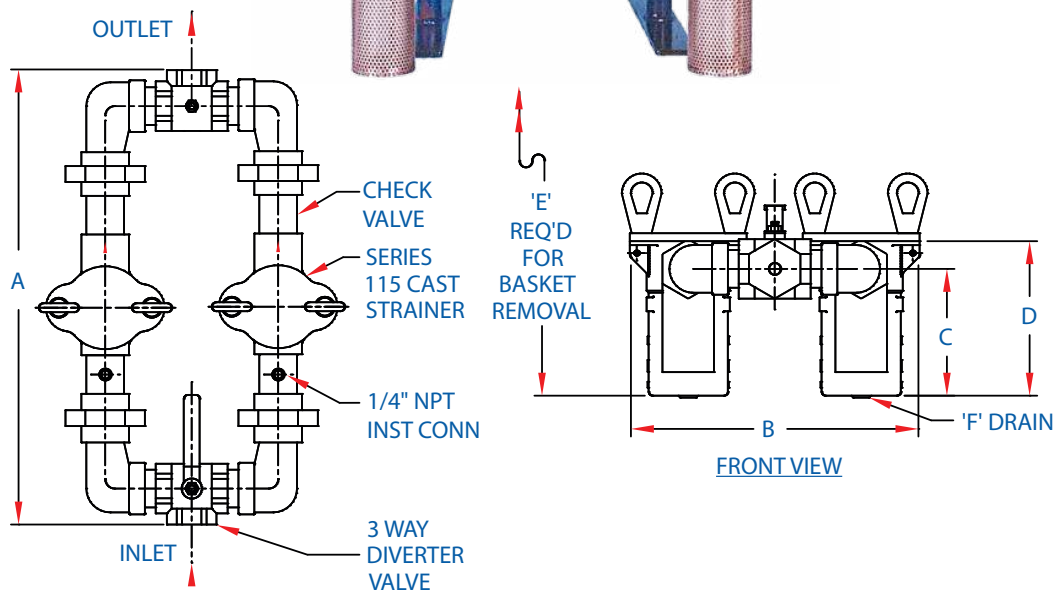
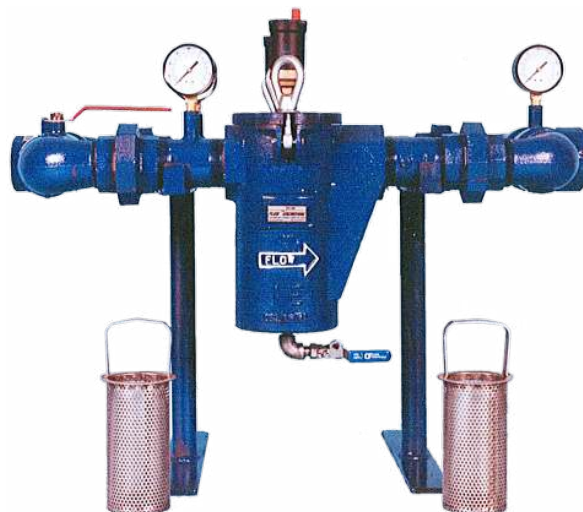


SIZE <sup>1</sup>	A	B	C	D	E	F	G	WEIGHT <sup>2</sup>
2"	36-1/2"	19"	8"	12"	18-3/4"	1/4" NPT	17-1/2"	190 lbs.
50 mm	927.1 mm	482.6 mm	203.2 mm	304.8 mm	476.3 mm	Bottom	444.5 mm	86.1 kg.
2-1/2"	42-1/2"	24"	8-1/2"	16-1/2"	27"	1/2" NPT	19"	310 lbs.
65 mm	1079.5 mm	609.6 mm	215.9 mm	419.1 mm	685.8 mm	Bottom	482.6 mm	140.5 kg.
3"	44-1/2"	26-1/2"	8-1/2"	16-1/2"	27"	1/2" NPT	18-1/2"	360 lbs.
80 mm	1130.3 mm	673.1 mm	215.9 mm	419.1 mm	685.8 mm	Bottom	469.9 mm	163.2 kg.
4"	47"	27-1/2"	8-1/2"	16-1/2"	27"	1/2" NPT	20-1/4"	450 lbs.
100 mm	1193.8 mm	698.5 mm	215.9 mm	419.1 mm	685.8 mm	Bottom	514.4 mm	203.9 kg.
5"	55"	34-1/2"	9-3/8"	18-1/4"	30"	1/2" NPT	22"	615 lbs.
125 mm	1397.0 mm	876.3 mm	238.1 mm	463.6 mm	762.0 mm	Side	558.8 mm	278.7 kg.
6"	60-1/2"	38"	10-1/4"	19-1/2"	32"	1/2" NPT	23-1/2"	795 lbs.
150 mm	1536.7 mm	965.2 mm	260.4 mm	495.3 mm	812.8 mm	Side	596.9 mm	360.3 kg.
8"	75"	47-1/2"	13-1/4"	24"	41"	1/2" NPT	27"	1290 lbs.
200 mm	1905.0 mm	1206.5 mm	336.6 mm	609.6 mm	1041.4 mm	Side	685.8 mm	584.6 kg.
10"	86-1/2"	57-3/4"	17"	29"	50"	1/2" NPT	30-1/2"	2090 lbs.
250 mm	2197.1 mm	1466.9 mm	431.8 mm	736.6 mm	1270.0 mm	Side	774.7 mm	947.2 kg.
12"	90-1/2"	68-1/4"	19-3/4"	33"	58"	1/2" NPT	34"	3250 lbs.
300 mm	2298.7 mm	1733.6 mm	501.7 mm	838.2 mm	1473.2 mm	Side	863.6 mm	1472.9 kg.

Note: (1) Larger models use handwheel in place of lever arm. (2) Weights are approximate. Dimensions subject to change without notice, apply for certified drawings. Please consult the FE Sales Department or your local sales representative.



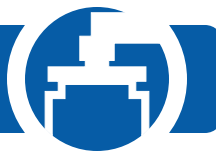
## SERIES 531 CAST DUPLEX STRAINER



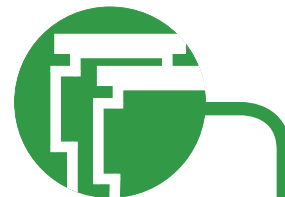
SIZE	A	B	C	D	E	F	WEIGHT <sup>1</sup>
3/4"	22-1/2"	11-5/8"	5"	8-3/4"	12"	1/4" NPT	45 lbs.
20 mm	571.5 mm	295.3 mm	127.0 mm	222.3 mm	304.8 mm	1/4" NPT	20.4 kg.
1"	21-1/2"	12"	5"	8-3/4"	12"	1/4" NPT	55 lbs.
25 mm	546.1 mm	304.8 mm	127.0 mm	222.3 mm	304.8 mm	1/4" NPT	24.9 kg.
1-1/4"	24-3/4"	15-3/4"	8"	12"	18-1/2"	1/4" NPT	85 lbs.
32 mm	628.7 mm	400.1 mm	203.2 mm	304.8 mm	469.9 mm	1/4" NPT	38.5 kg.
1-1/2"	26-3/4"	16-1/2"	8"	12"	18-1/2"	1/4" NPT	95 lbs.
40 mm	679.5 mm	419.1 mm	203.2 mm	304.8 mm	469.9 mm	1/4" NPT	43.1 kg.
2"	29-3/4"	18-1/4"	8"	12"	18-1/2"	1/4" NPT	110 lbs.
50 mm	755.7 mm	463.6 mm	203.2 mm	304.8 mm	469.9 mm	1/4" NPT	49.9 kg.

Note: (1) Weights are approximate. Dimensions subject to change without notice, apply for certified drawings. Please consult the FE Sales Department or your local sales representative.

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



## Series 532 Duplex Strainer with POSI-SEALOC II® Quick Opening Closure Patent No. 7,332,010



The Series 532 Duplex Strainer provides continued and dependable removal of unwanted solids from fluids. This strainer serves to protect valves, pumps, meters, spray nozzles, and various other equipment. It is often used to ensure product purity in such industries as gas, petroleum, biofuels, and power plants. A duplex strainer is used in applications where fluid flow cannot be interrupted when the basket is removed for cleaning. It maintains a continuous flow by utilizing two separate basket chambers with integral valves to direct flow into one of the basket chambers.

The Series 532 is a compact unit, with off-set inlet/outlet connections, which enables easy piping and variable strainer placement. Chamber change over is accomplished quickly and easily. A single lever controls the positive sealing butterfly valves, changing the fluid flow.

Built as a standard model unit, the Series 532 is also flexible to meet the individual needs of the customer, and varying application requirements. It is available in a variety of materials, and its fabricated design is superior for corrosive, hazardous, or low specific gravity fluid applications.

### STANDARD DESIGN

- Fabricated carbon steel strainer body with bolted style cover
- 304 stainless steel basket with perforated (1/32", 1/16", 1/8", 5/32" openings)
- Butterfly valve with cast iron body Buna-'N' seats, ductile iron disc, and stainless steel stem
- Lever operated valves with inter-connected linkage
- Positive seal valving
- Design pressure 150 psig @ 150°F
- Welded to ASME Section IX, certified welders
- Complete package is hydrostatically tested

### STANDARD DESIGN FEATURES

- Compact design allows for low installation cost.
- Large capacity, heavy duty basket design for a long life.
- Low pressure drop that provides for high flow capacity.
- Efficient design requiring few moving parts and low maintenance costs.
- Simple, easy, and effective switching of flow with positive shut-off.

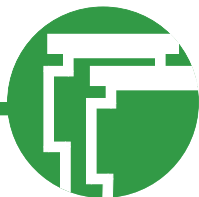
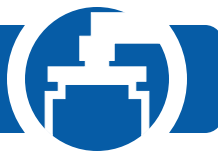
### OPTIONS AVAILABLE

- Numerous vessel materials of construction such as stainless steel, copper nickel, monel, and others for corrosive environment
- Variation in flange connection alignment
- ASME Section VIII, Division 1, Code Stamp – supplied with complete material traceability
- Vessels designed for high pressure/temperature applications.
- Special internal and external coatings
- Basket material of 316 stainless steel, brass, monel, and others
- Mesh lined basket – 20 x 20 to 500 x 500 mesh

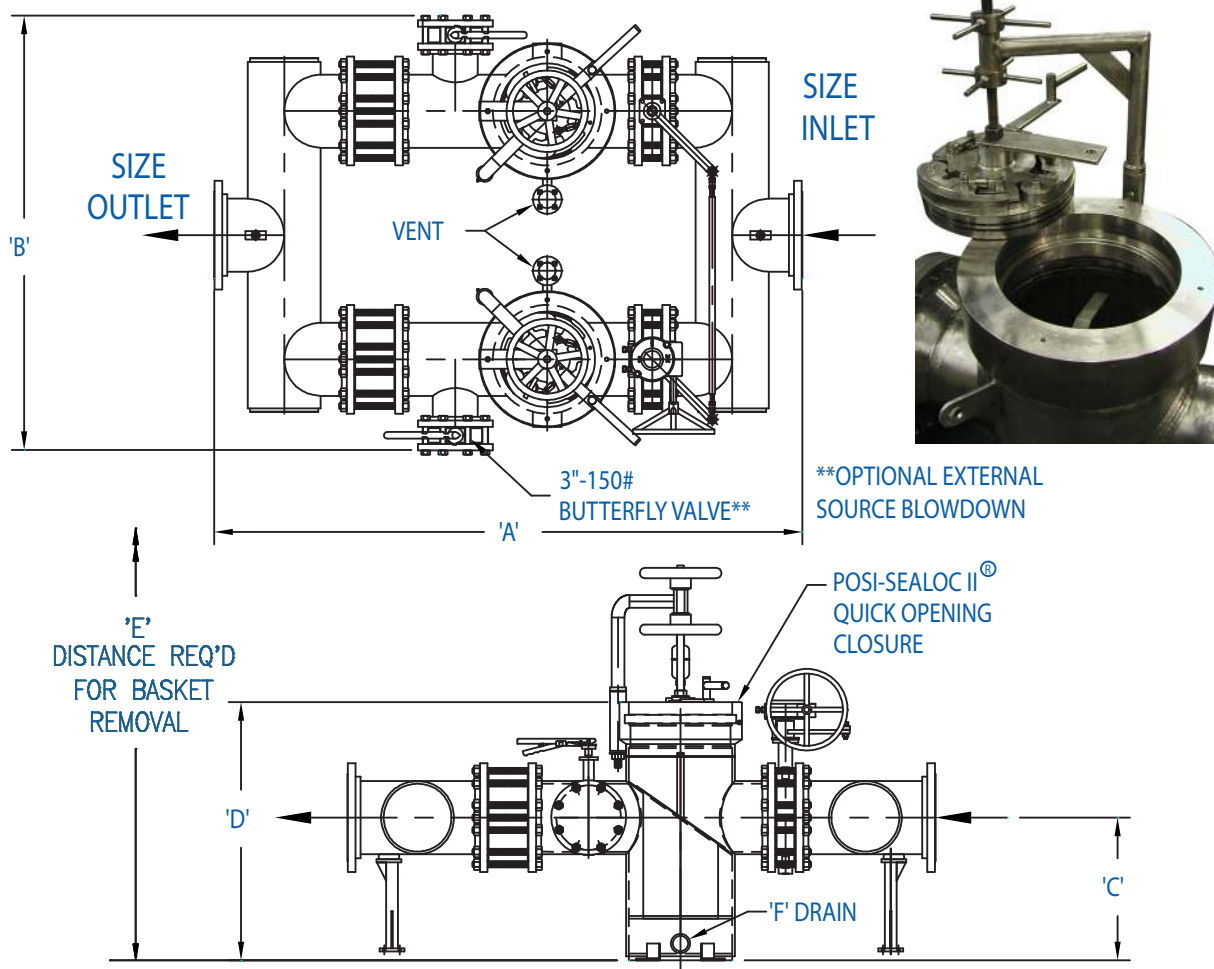
### Posi-Sealoc II® Quick Opening Closure

- Standard closure supplied with dual O-ring seals (BUNA-N), other O-ring material available (see chart)
- All units supplied with pressure warning device (lock and depressurization safety bolt)
- Designed to take external load
- No locking arms to bend or break
- No chance of O-ring extrusion
- Locking clamps have no effect on seal

O-Ring Seal Materials	
Buna-N	-60° to 225° F (-51° to 107° C)
EPDM	-40° to 300° F (-40 to 149° C)
Viton®	-20° to 400° F ( -28° to 204° C)
Silicon	-100° to 500° F (-73 to 260° C)



## Series 532 Duplex Strainer with POSI-SEALOC II® Quick Opening Closure Patent No. 7,332,010

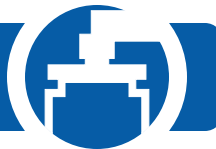


Dimensions subject to change without notice; apply for certified drawings

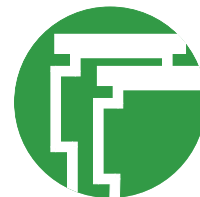
SIZE	'A'	'B'	'C'	'D'	'E'	'F'	WEIGHT
6" [150mm]	60-1/2" [1536.7mm]	38" [965.2mm]	10-1/4" [260.4mm]	19-1/2" [495.3mm]	32" [812.8mm]	3" NPT SIDE	795 LBS [360.6 Kg]
8" [200mm]	75" [1905mm]	47-1/2" [1206.5mm]	13-1/4" [336.6mm]	24" [609.6mm]	41" [1041.4mm]	3" NPT SIDE	1290 LBS [585.1 Kg]
10" [250mm]	86-1/2" [2197.1mm]	63-1/4" [1606.6mm]	21" [533.4mm]	38" [965.2mm]	63" [1600.2mm]	3" NPT SIDE	2090 LBS [948.0 Kg]
12" [300mm]	90-1/2" [2298.7mm]	68-1/4" [1737.4mm]	30" [762mm]	52" [1320.8mm]	78" [1981.2mm]	3" NPT SIDE	3250 LBS [1474.2 Kg]

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## Series 534/544 Fabricated Duplex Strainer (1 1/2" through 24")



The Series 534/544 Duplex Strainer provides continued and dependable removal of unwanted solids from fluids. This strainer serves to protect valves, pumps, meters, spray nozzles, and various other equipment. It is often used to ensure product purity in such industries as gas, petroleum, biofuels, and power plants. A duplex strainer is used in applications where fluid flow cannot be interrupted when the basket is removed for cleaning. It maintains a continuous flow by utilizing two separate basket chambers with integral valves to direct flow into one of the basket chambers.

The Series 534/544 is a compact unit, with off-set inlet/outlet connections, which enables easy piping and variable strainer placement. Chamber change over is accomplished quickly and easily. A single lever controls the positive sealing butterfly valves, changing the fluid flow.

Built as a standard model unit, the Series 534/544 is also flexible to meet the individual needs of the customer, and varying application requirements. It is available in a variety of materials, and its fabricated design is superior for corrosive, hazardous, or low specific gravity fluid applications.

### STANDARD DESIGN

- Fabricated carbon steel strainer body with bolted style cover
- 304 stainless steel basket with perforated (1/32", 1/16", 1/8", 5/32" openings)
- Butterfly valve with cast iron body Buna-'N' seats, ductile iron disc, and stainless steel stem
- Lever operated valves with inter-connected linkage
- Positive seal valving
- Design pressure 150 psig @ 150°F
- Welded to ASME Section IX, certified welders
- Complete package is hydrostatically tested

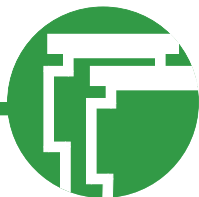
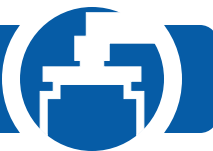
### STANDARD DESIGN FEATURES

- Compact design allows for low installation cost.
- Large capacity, heavy duty basket design for a long life.
- Low pressure drop that provides for high flow capacity.
- Efficient design requiring few moving parts and low maintenance costs.
- Simple, easy, and effective switching of flow with positive shut-off.

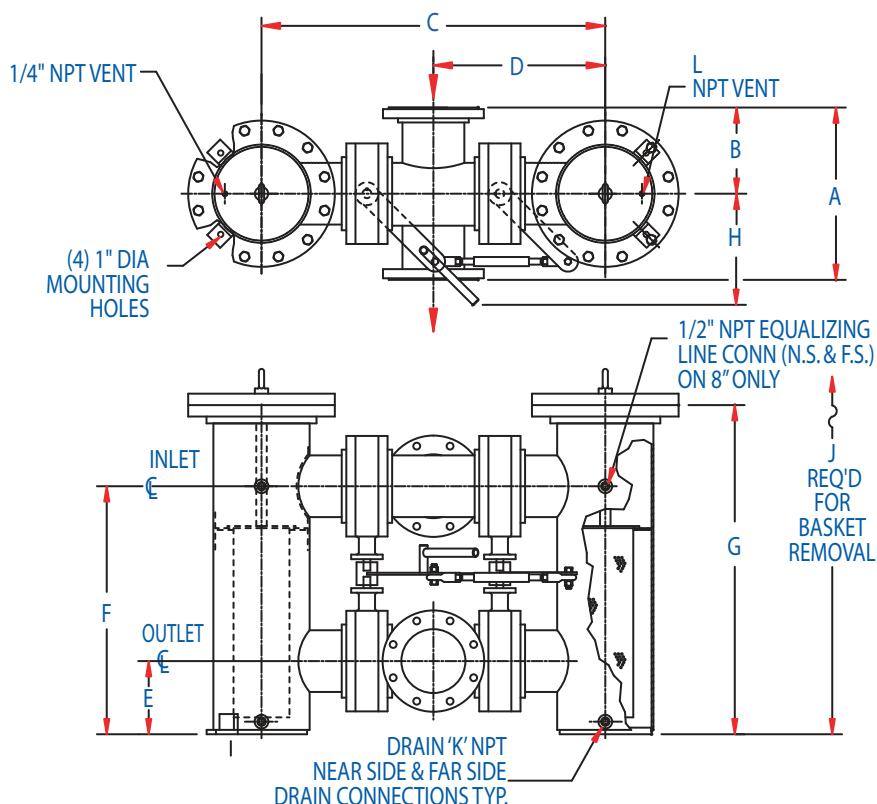


### OPTIONS AVAILABLE

- Numerous vessel materials of construction such as stainless steel, copper nickel, monel, and others for corrosive environment
- Variation in flange connection alignment
- ASME Section VIII, Division 1, Code Stamp – supplied with complete material traceability
- Vessels designed for high pressure/temperature applications.
- Special internal and external coatings
- Cover lift (davit) assembly
- Quick opening hinged covers
- Latch bolt closures
- Basket material of 316 stainless steel, brass, monel, and others
- Mesh lined basket – 20 x 20 to 500 x 500 mesh
- In-line connection arrangement – Model 544



## Model 514/534 Fabricated Duplex Strainer (1 1/2" through 8")

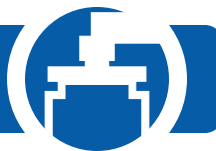


MODEL NO.	SIZE	A	B	C	D	E	F	G	H	J	K	L	DRY	WET	COVER
015-514	1-1/2" NPT 40 mm	--	--	21-3/8" 542.9 mm	10-11/16" 271.5 mm	5" 127.0 mm	18-3/8" 466.7 mm	22-1/2" 571.5 mm	12" 304.8 mm	32" 812.8 mm	1/2" 12.7 mm	--	245 lbs. 111.1 kg.	270 lbs. 122.5 kg.	17 lbs. 7.7 kg.
020-514	2" NPT 50 mm	--	--	21-3/8" 542.9 mm	10-11/16" 271.5 mm	5" 127.0 mm	18-3/8" 466.7 mm	22-1/2" 571.5 mm	12" 304.8 mm	32" 812.8 mm	1/2" 12.7 mm	--	245 lbs. 111.1 kg.	270 lbs. 122.5 kg.	17 lbs. 7.7 kg.
020-534	2"-150 65 mm	10-1/4" 260.4 mm	5-1/8" 130.2 mm	21-3/8" 542.9 mm	10-11/16" 271.5 mm	5" 127.0 mm	18-3/8" 466.7 mm	22-1/2" 571.5 mm	12" 304.8 mm	32" 812.8 mm	1/2" 12.7 mm	--	232 lbs. 105.2 kg.	256 lbs. 116.1 kg.	17 lbs. 7.7 kg.
030-534	3"-150 80 mm	12-1/2" 317.5 mm	6-1/4" 158.8 mm	28" 711.2 mm	14" 355.6 mm	6-7/8" 174.6 mm	21-3/8" 542.9 mm	27" 685.8 mm	13" 330.2 mm	44" 1117.6 mm	1/2" 12.7 mm	--	462 lbs. 209.6 kg.	574 lbs. 260.4 kg.	47 lbs. 21.3 kg.
040-534	4"-150 100 mm	14-1/2" 368.3 mm	7-1/4" 184.2 mm	30" 762.0 mm	15" 381.0 mm	6-7/8" 174.6 mm	24-3/8" 619.1 mm	31-1/2" 800.1 mm	13" 330.2 mm	51" 1295.4 mm	1/2" 12.7 mm	--	570 lbs. 258.6 kg.	708 lbs. 321.1 kg.	47 lbs. 21.3 kg.
060-534	6"-150 150 mm	18-1/2" 469.9 mm	9-1/4" 235.0 mm	38" 965.2 mm	19" 482.6 mm	8" 203.2 mm	27-1/8" 689.0 mm	34" 863.6 mm	17" 431.8 mm	55" 1397.0 mm	1/2" 12.7 mm	1/4" 6.4 mm	832 lbs. 377.4 kg.	1085 lbs. 492.2 kg.	69 lbs. 31.3 kg.
080-534	8"-150 200 mm	22-1/4" 565.2 mm	11-1/8" 282.6 mm	44-1/2" 1130.3 mm	22-1/4" 565.2 mm	9" 228.6 mm	31-3/8" 98.4 mm	39-1/2" 1003.3 mm	34" 863.6 mm	63" 1600.2 mm	1/2" 12.7 mm	1/2" 6.4 mm	1306 lbs. 592.4 kg.	1756 lbs. 796.5 kg.	102 lbs. 46.3 kg.

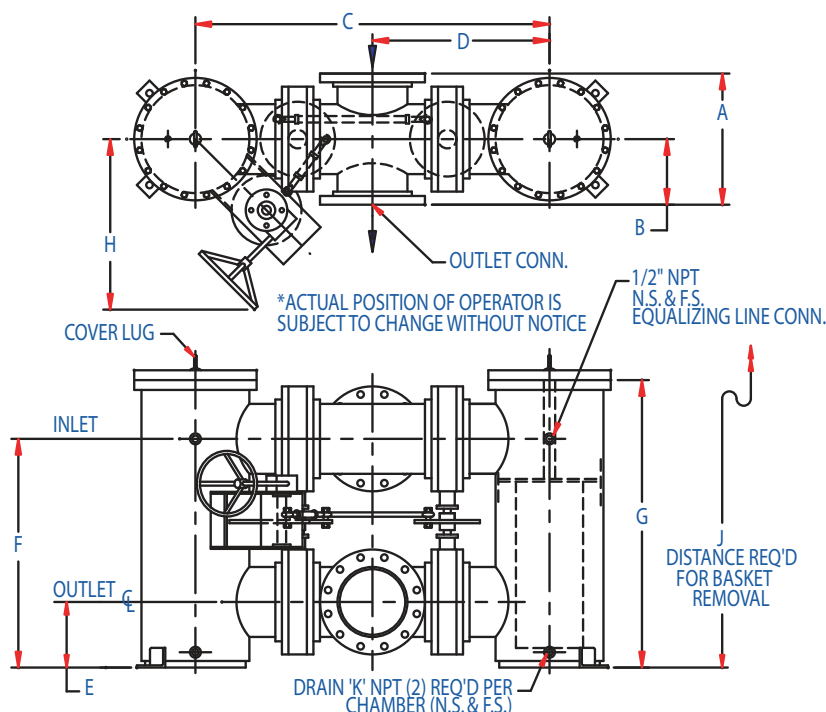
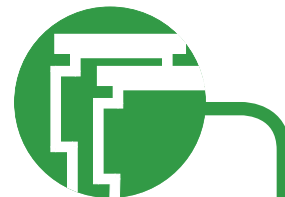
Note: Weights are approximate. Dimensions subject to change without notice, apply for certified drawings. Custom designs are available, please consult the FE Sales Department or your local sales representative.

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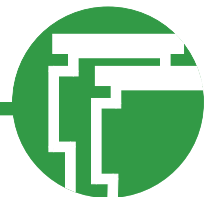
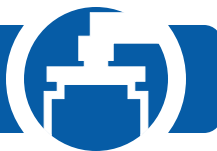


## Model 534 Fabricated Duplex Strainer (10" through 24")



MODEL NO.	SIZE	A	B	C	D	E	F	G	H	J	K	DRY	WET	COVER
100-534	10"-150 250 mm	20" 508.0 mm	10" 254.0 mm	54" 1371.6 mm	27" 685.8 mm	10" 254.0 mm	34-7/8" 885.8 mm	43-5/8" 1108.1 mm	28-5/8" 650.9 mm	84" 2133.6 mm	1" 25.4 mm	2328 lbs. 1056.0 kg.	3126 lbs. 1418.0 kg.	147 lbs. 66.7 kg.
120-534	12"-150 300 mm	24" 609.6 mm	12" 304.8 mm	60-1/2" 1536.7 mm	30-1/4" 768.4 mm	12" 304.8 mm	40" 1016.0 mm	50-1/4" 1276.4 mm	28" 711.2 mm	95" 2413.0 mm	1-1/2" 38.1 mm	2979 lbs. 1351.3 kg.	4174 lbs. 1893.3 kg.	176 lbs. 79.8 kg.
140-534	14"-150 350 mm	26" 660.4 mm	13" 330.2 mm	65-1/2" 1663.7 mm	32-3/4" 831.9 mm	14" 355.6 mm	45-1/4" 1149.4 mm	58-3/4" 1492.3 mm	30" 762.0 mm	113" 2870.2 mm	1-1/2" 38.1 mm	3938 lbs. 1786.3 kg.	5637 lbs. 2556.9 kg.	213 lbs. 96.6 kg.
160-534	16"-150 400 mm	28" 711.2 mm	14" 355.6 mm	70-1/2" 1790.7 mm	35-1/4" 895.4 mm	16" 406.4 mm	51-1/2" 1308.1 mm	65-1/2" 1663.7 mm	30" 762.0 mm	125" 3175.0 mm	1-1/2" 38.1 mm	5240 lbs. 2376.9 kg.	7575 lbs. 3436.0 kg.	316 lbs. 143.3 kg.
180-534	18"-150 450 mm	32" 812.8 mm	16" 406.4 mm	77-1/2" 1968.5 mm	38-3/4" 984.3 mm	18" 457.2 mm	56-1/2" 1435.1 mm	71-1/2" 1816.1 mm	31" 787.4 mm	136" 3454.4 mm	2" 50.8 mm	5743 lbs. 2605.0 kg.	8806 lbs. 3994.4 kg.	306 lbs. 138.8 kg.
200-534	20"-150 500 mm	34" 863.6 mm	17" 431.8 mm	86-1/2" 2197.1 mm	43-1/4" 1098.6 mm	20" 508.0 mm	61-1/2" 1562.1 mm	77-1/2" 1968.5 mm	34" 863.6 mm	163" 4140.2 mm	2" 50.8 mm	8030 lbs. 3642.4 kg.	12857 lbs. 5831.9 kg.	523 lbs. 237.2 kg.
240-534	24"-150 600 mm	40" 1016.0 mm	20" 508.0 mm	102-1/2" 2603.5 mm	51-1/4" 1301.8 mm	22" 558.8 mm	68-1/2" 1739.9 mm	87-1/2" 2222.5 mm	47" 1193.8 mm	154-1/2" 3924.3 mm	2" 50.8 mm	11797 lbs. 5351.1 kg.	19851 lbs. 9004.4 kg.	888 lbs. 402.8 kg.

Note: Weights are approximate. 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 544 Fabricated Duplex Strainer (1 1/2" through 24")

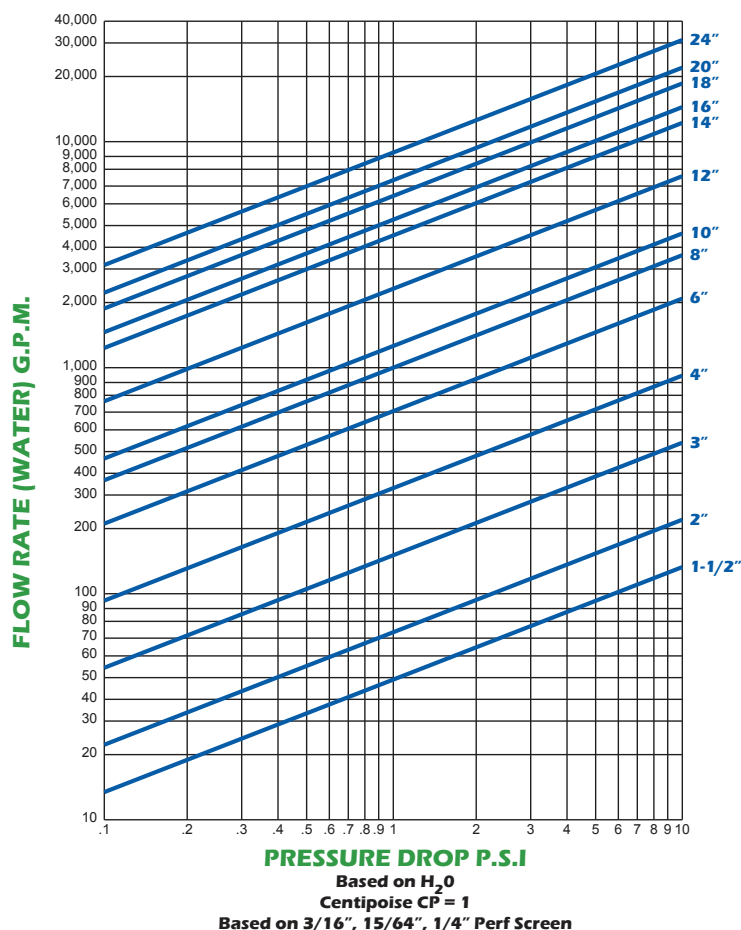
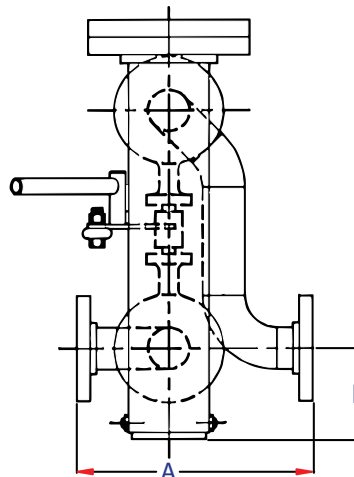
### Typical Order Specification

Duplex Strainer Package shall be size \_\_\_\_\_  
 Series 534/544 with (150#) flanged connection as  
 manufactured by Fluid Engineering: Erie, PA.

Strainer body shall be fabricated (carbon steel) with bolted  
 style cover closure. Strainer package to be complete with  
 inlet and outlet headers, butterfly valves with lever operation.  
 Complete vessel will be suitable for a design pressure of  
 (150 psig) at (100°F). Baskets shall be (304 stainless steel)  
 with (1/32", 1/16", 1/8", or 5/32") perforated openings.

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

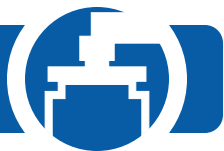
**All other dimensions same as 534**



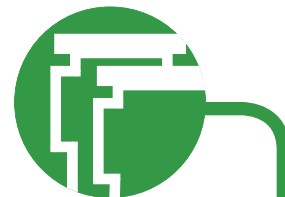
SIZE	A	F
1-1/2"	12"	5"
40 mm	304.8 mm	127.0 mm
2"	12"	5"
50 mm	304.8 mm	127.0 mm
3"	18"	6-7/8"
80 mm	457.2 mm	174.6 mm
4"	18"	6-7/8"
100 mm	457.2 mm	174.6 mm
6"	24"	8"
150 mm	609.6 mm	203.2 mm
8"	30"	9"
200 mm	762.0 mm	228.6 mm
10"	40"	10"
250 mm	1016.0 mm	254.0 mm
12"	48"	12"
300 mm	1219.2 mm	304.8 mm
14"	52"	14"
350 mm	1320.8 mm	355.6 mm
16"	56"	16"
400 mm	1422.4 mm	406.4 mm
18"	64"	18"
450 mm	1625.6 mm	457.2 mm
20"	68"	20"
500 mm	1727.2 mm	508.0 mm
24"	80"	22"
600 mm	2032.0 mm	558.8 mm

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.

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



## Model 545/548 Inline Duplex Strainer Patent Pending



The Series 545/548 Duplex Strainer provides continued and dependable removal of unwanted solids from fluids. This strainer serves to protect valves, pumps, meters, spray nozzles, and various other equipment. It is often used to ensure product purity in such industries as gas, petroleum, biofuels, and power plants. A duplex strainer is used in applications where fluid flow cannot be interrupted when the basket is removed for cleaning. It maintains a continuous flow by utilizing two separate basket chambers with integral valves to direct flow into one of the basket chambers.

The Series 545/548 is a compact unit, with inline inlet/outlet connections, which enables easy piping and variable strainer placement. Chamber change over is accomplished quickly and easily. Levers control the positive sealing butterfly valves, changing the fluid flow.

Built as a standard model unit, the Series 545/548 is also flexible to meet the individual needs of the customer, and varying application requirements. It is available in a variety of materials, and its fabricated design is superior for corrosive, hazardous, or low specific gravity fluid applications.

### STANDARD DESIGN

- Fabricated carbon steel strainer body with bolted style cover
- 316 stainless steel basket with perforated (1/32", 1/16", 1/8", 5/32" openings)
- Butterfly valve with cast iron body Buna-N seats, ductile iron disc, and stainless steel stem
- Lever operated valves with inter-connected linkage
- Positive seal valving
- Design pressure 150 psig
- Design temp 150°F
- Welded to ASME Section IX, certified welders
- Complete package is hydrostatically tested

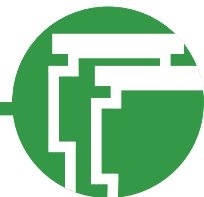
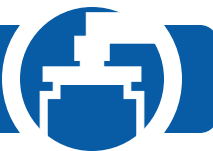
### STANDARD DESIGN FEATURES

- Compact design allows for low installation cost.
- Large capacity, heavy duty basket design for a long life.
- Low pressure drop that provides for high flow capacity.
- Efficient design requiring few moving parts and low maintenance costs.
- Simple, easy, and effective switching of flow with positive shut-off.

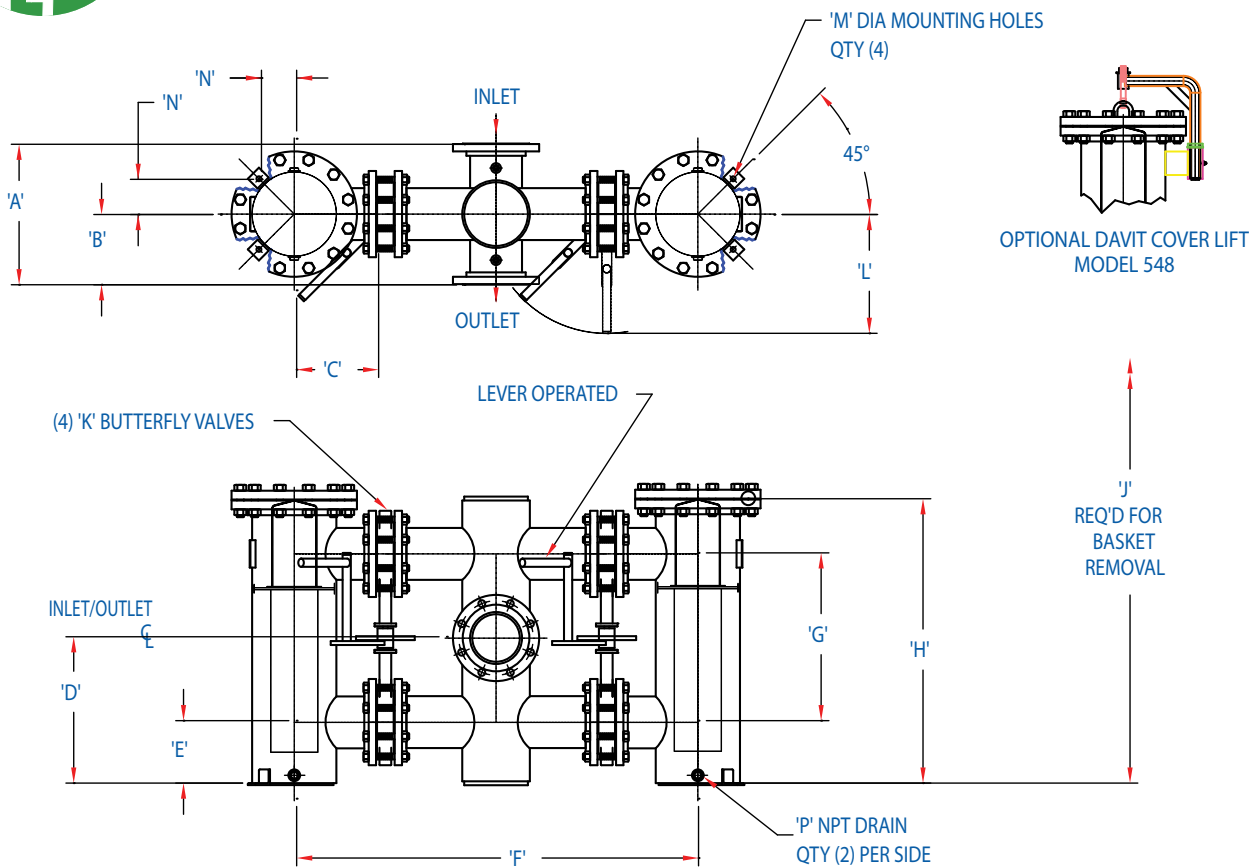


### OPTIONS AVAILABLE

- Numerous vessel materials of construction such as stainless steel, copper nickel, monel, and others for corrosive environment
- Variation in flange connection alignment
- ASME Section VIII, Division 1, Code Stamp – supplied with complete material traceability
- Vessels designed for high pressure/temperature applications.
- Special internal and external coatings
- Cover lift (davit) assembly
- Quick opening hinged covers
- Swing bolt closures
- Basket material of 316 stainless steel, brass, monel, and others
- Mesh lined basket – 20 x 20 to 500 x 500 mesh
- **Model 548** Duplex includes davit cover lift



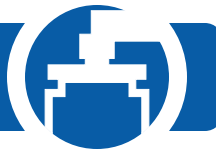
## Model 545/548 Inline Duplex Strainer Patent Pending



SIZE	RATING	A	B	C	D	E	F	G	H	J	K	L*	M	N	P
2"	150#	10-1/4"	5-1/8"	6"	11-11/16"	5"	35"	13-3/8"	22-1/2"	40"	2"-150# WAFER	14"	5/8"	2-3/16"	1/2"
3"	150#	14"	7"	8-1/4"	14-1/8"	6-7/8"	40-1/4"	14-1/2"	27"	51"	3"-150# WAFER	14"	5/8"	3-3/4"	1/2"
4"	150#	14-1/2"	7-1/4"	8-1/4"	15-5/8"	6-7/8"	40-3/4"	17-1/2"	31-1/2"	61"	4"-150# WAFER	14"	5/8"	3-3/4"	1/2"
6"	150#	18"	9"	10-1/2"	17-9/16"	8"	51-1/2"	19-1/8"	34"	66"	6"-150# WAFER	15"	5/8"	4-1/2"	1/2"
8"	150#	20"	10"	12"	20-3/16"	9"	57"	22-3/8"	39-1/2"	77"	8"-150# WAFER	17"	1"	5-9/16"	1/2"
10"	150#	24"	12"	14"	23-1/2"	10"	60-3/8"	24-7/8"	43-3/4"	76"	10"-150# WAFER	N/A	1"	7"	1-1/2"
12"	150#	28"	14"	15"	26"	12"	64"	28"	50-1/4"	84"	12"-150# WAFER	N/A	1"	7-7/16"	1-1/2"

\*Note: 10" and 12" will have individual gear operator with handwheel. 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.

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



## **DUPLEX STRAINER ♦ DUAL BALL TYPE ♦ THREE PIECE BODY** **ANSI CLASS 125 / 150 ♦ FLANGED & THREADED ENDS**

**MODELS: 560 Flanged**  
**561 Threaded**  
**Available in**  
**Cast Iron**  
**Carbon Steel**  
**Stainless Steel**

**NEW**  
**Three-Piece**  
**Design!**



## FEATURES

SIZE RANGE: 3/4" ~ 4"

### ♦ DUAL-BALL DIVERTER DESIGN

THIS DUPLEX IS DESIGNED WITH TWO STAINLESS STEEL BALLS THAT EFFICIENTLY DIVERT THE PIPELINE FLOW FROM ONE BASKET CHAMBER TO THE OTHER. TEFLON SEATS ENSURE A POSITIVE SEAL AND HELP TO PREVENT SEEPAGE INTO THE CHAMBER THAT IS BEING SERVICED FOR CLEANING.

### ♦ EASY TO OPERATE

FE'S DUPLEX STRAINER FEATURES A LOW TORQUE, EASY TO OPERATE HANDLE THAT DOES NOT REQUIRE A GEARBOX. ADDITIONALLY, THE HANDLE'S POSITION CLEARLY INDICATES WHICH BASKET IS IN SERVICE AND WHICH BASKET CAN SAFELY BE REMOVED FOR CLEANING.

### ♦ REDUCED "IN-LINE" MAINTENANCE

FE'S DUPLEX HAS NUMEROUS ATTRIBUTES THAT HELP REDUCE MAINTENANCE DURING CLEANING OPERATIONS. FIRST, THE DUAL BALL DESIGN ISOLATES EACH CHAMBER AND KEEPS THE SERVICING CHAMBER DRY DURING CLEANING. NEXT, THERE ARE NO SPECIAL TOOLS REQUIRED TO ACCESS AND REMOVE THE STRAINING ELEMENT FROM THE CHAMBER. FINALLY, THE DUPLEX PROVIDES COVER VENTS, DRAIN PLUGS, AND FOOT PADS ON EACH CHAMBER.

### ♦ ENDLESS SCREEN OPTIONS

THIS STRAINER CAN BE FITTED WITH VIRTUALLY ANY CONFIGURATION OF PERFORATION OR MESH LINED STRAINING ELEMENTS. STRAINING ELEMENTS CAN ALSO BE CONSTRUCTED FROM SPECIAL MATERIALS SUCH AS ALLOY 20.

## TECHNICAL

**PRESSURE/TEMPERATURE RATING <sup>(1)</sup>**  
CAST IRON - A126 GR. B - CLASS 125

**WOG (Non-shock): 200 PSI @ 150 °F**  
**Saturated Steam: Not Recommended**  
**Max Liquid: 200 PSI @ 150 °F**

**PRESSURE/TEMPERATURE RATING <sup>(1)</sup>**  
CARBON STEEL - A216 GR. WCB - CLASS 150

**WOG (Non-shock): 200 PSI @ 150 °F**  
**Saturated Steam: Not Recommended**  
**Max Liquid: 200 PSI @ 150 °F**

**PRESSURE/TEMPERATURE RATING <sup>(1)</sup>**  
STAINLESS STEEL - A351 GR. CF8M - CLASS 150

**WOG (Non-shock): 200 PSI @ 150 °F**  
**Saturated Steam: Not Recommended**  
**Max Liquid: 200 PSI @ 150 °F**

*1. The above listed temperatures are theoretical and may vary during actual operating conditions.*

## APPLICATIONS

**GENERAL APPLICATION:** THE DUPLEX STRAINER IS A UNIQUE PRODUCT WITHIN THE PIPELINE INDUSTRY. LIKE OTHER BASKET STRAINERS, THE DUPLEX STRAINER PROTECTS EXPENSIVE DOWNSTREAM EQUIPMENT BY MECHANICALLY REMOVING SOLIDS FROM FLOWING FLUIDS VIA A PERFORATED, MESH, OR WEDGE WIRE STRAINING ELEMENT. HOWEVER, THE DUPLEX STRAINER IS DESIGNED WITH TWO BASKET CHAMBERS AND A FLOW DIVERTER SYSTEM THAT ALLOWS THE PIPELINE FLOW TO BE SWITCHED FROM ONE CHAMBER TO THE OTHER, COMPLETELY ISOLATING THE FLOW TO A SINGLE CHAMBER. THIS MAKES THE DUPLEX STRAINER IDEAL FOR NON-INTERUPTABLE APPLICATIONS THAT CANNOT BE SHUT DOWN DURING ROUTINE MAINTENANCE AND CLEANING OPERATIONS.

*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.*



# DUPLEX BASKET STRAINER

ANSI

Class

125/150

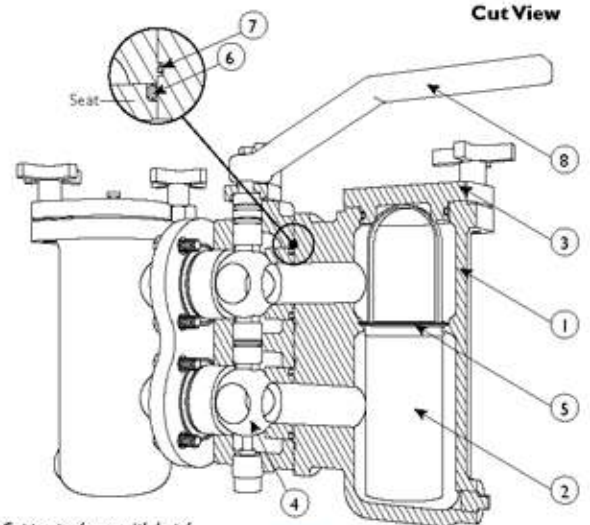
Dual Ball Type • 3-Piece Body • Threaded and Flanged Ends

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

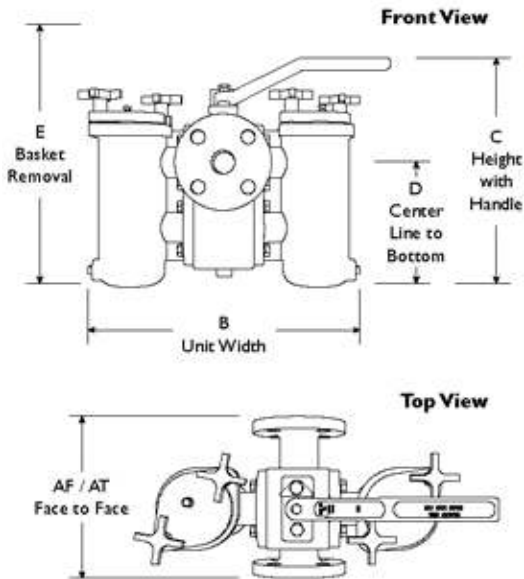
No.	Part	CI	CS	SS
1	Main Body / Basket Housing	Cast Iron A126 Gr. B	Carbon Steel A216 Gr. WCB	Stainless Steel A351 Gr. CF8M
2	Straining Element <sup>(2)</sup>	Stainless Steel	Stainless Steel	Stainless Steel
3	Cover	Cast Iron A126 Gr. B	Carbon Steel A216 Gr. WCB	Stainless Steel A351 Gr. CF8M
4	Ball	Stainless Steel	Stainless Steel	Stainless Steel
5	O-Ring Straining Element	Buna-N	Buna-N	Viton
6	Seat Seal	Teflon (PTFE)	Teflon (PTFE)	Teflon (PTFE)
7	Seals	Buna-N	Buna-N	Viton
8	Handle	Carbon Steel Zinc Coated	Carbon Steel Zinc Coated	Carbon Steel Zinc Coated

1. Bill of Materials represents standard materials. Equivalent or better materials may be substituted at the manufacturer's discretion.

2. Denotes recommended spare parts.



Cut parts shown with hatch.  
Illustrations are representative of a 1" 560 CS (Flanged model). Please ask for certified drawings when required.



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

SIZE <sup>(2)</sup>	in	3/4 <sup>(4)</sup>	1	1 1/4	1 1/2	2	2 1/2	3 <sup>(5)</sup>	4 <sup>(5)</sup>
	mm	20	25	32	40	50	65	80	100
AF DIMENSION	in	---	7.0	9.37	9.37	10.6	13.5	13.5	16.0
FLANGED FACE TO FACE	mm	---	178	238	238	270	343	343	406
AT DIMENSION	in	5.59	5.59	7.5	7.5	10.0	11.5	---	---
THREADED FACE TO FACE	mm	142	142	191	191	254	292	---	---
B DIMENSION	in	12.95	12.95	15.12	15.12	18.43	22.05	22.0	26.85
UNIT WIDTH (EXCLUDING FLANGE)	mm	329	329	384	384	468	560	560	682
C DIMENSION	in	11.0	11.0	14.2	14.2	17.7	22.0	22.0	25.2
HEIGHT WITH HANDLE	mm	280	280	360	360	450	560	560	640
D DIMENSION	in	5.83	5.83	8.3	8.3	10.7	13.7	13.7	15.9
CENTER LINE TO BOTTOM	mm	148	148	211	211	271	347	347	403
E DIMENSION	in	15.4	15.4	21.3	21.3	26.4	35.0	35.0	41.0
BASKET REMOVAL	mm	390	390	541	541	670	885	885	1040
APPROXIMATE WEIGHT	lb	---	46.3	73.9	73.9	121.3	237.0	238.1	373.7
CAST IRON, FLANGED	kg	---	21	33.5	33.5	55	107.5	108	169.5
APPROXIMATE WEIGHT	lb	43.7	43.0	69.9	69.5	119.0	227.0	---	---
CAST IRON, THREADED	kg	19.8	19.5	31.7	31.5	54	103	---	---
APPROXIMATE WEIGHT	lb	---	47.4	77.2	78.3	133.4	250.2	253.5	384.7
CS / SS STEEL, FLANGED	kg	---	21.5	35	35.5	60.5	113.5	115	174.5
APPROXIMATE WEIGHT	lb	45.2	44.8	75.0	73.9	125.7	231.5	---	---
CS / SS STEEL, THREADED	kg	20.5	20.3	34	33.5	57	105	---	---
Flow Coefficient <sup>(3)</sup>	C <sub>v</sub>	13	14	19	24	42	68	105	180

## Dimensions and Performance Data Notes:

- Dimensions, weights, and flow coefficients are provided for reference only. Always request certified drawings.
- Larger sizes (5" - 8") are available upon request. Please contact factory for pricing and delivery.
- Flow Coefficients are based on clean, perforated screens.
- Flanged units are not available in 3/4" size.
- Threaded units are not available in 3" or 4" sizes.

## STANDARD SCREEN SELECTIONS

Size	Liquid	Open Area	Steam	Open Area
3/4" - 4"	1/16 (.0625)	41%	Not Recommended	

## MATERIAL TEMPERATURES

Seat/Seal/Ball	Temp Range
Teflon (PTFE)	-100 - 400 °F
Buna-N	-20 - 250 °F
Viton	-40 - 400 °F
Stainless Steel Ball	Max 450 °F

## REFERENCED STANDARDS & CODES

Code	Description
ASME/ANSI B16.1	Cast Iron Pipe Flanges and Flanged Fittings
ASME/ANSI B16.4	Cast Iron Pipe Threaded Fittings
ASME/ANSI B16.5	Pipe Flanges and Flanged Fittings
ASME/ANSI B16.11	Forged Steel Fittings, Socket-Welding, and Threaded

## PRESSURE - TEMPERATURE RATING

Class 125/150	CI	CS	SS
WOG (Non-shock)	200 PSI @ 150 °F	200 PSI @ 150 °F	200 PSI @ 150 °F
Saturated Steam	Not Recommended	Not Recommended	Not Recommended
Max Liquid	200 PSI @ 150 °F	200 PSI @ 150 °F	200 PSI @ 150 °F