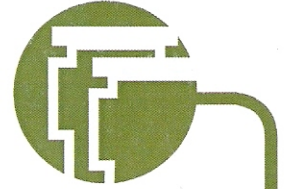


# FLUID ENGINEERING

AN EMPLOYEE-OWNED COMPANY A DIVISION OF TM INDUSTRIAL SUPPLY, INC.  
1432 Walnut Street \* Erie, PA 16502 USA \* TEL: 814.453.5014 \* FAX: 814.452.6573  
Website: <http://www.fluideng.com> \* E-mail: [sales@fluideng.com](mailto:sales@fluideng.com)

## 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.

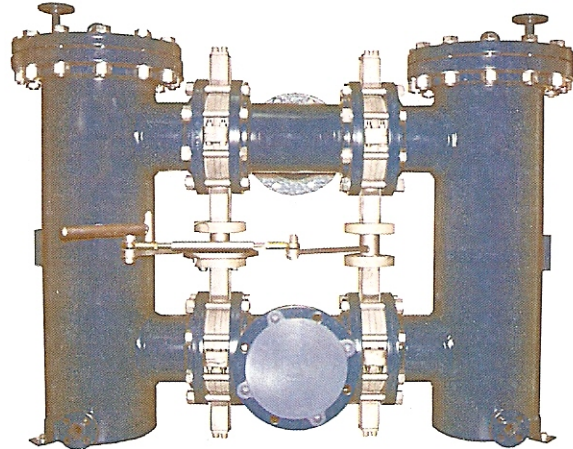
Built as a standard model unit, the Series 534/544 is also flexible to meet the individual needs of the customer, and varying application requirements. It is available in a variety of materials, and its fabricated design is superior for corrosive, hazardous, or low specific gravity fluid applications.

### 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

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

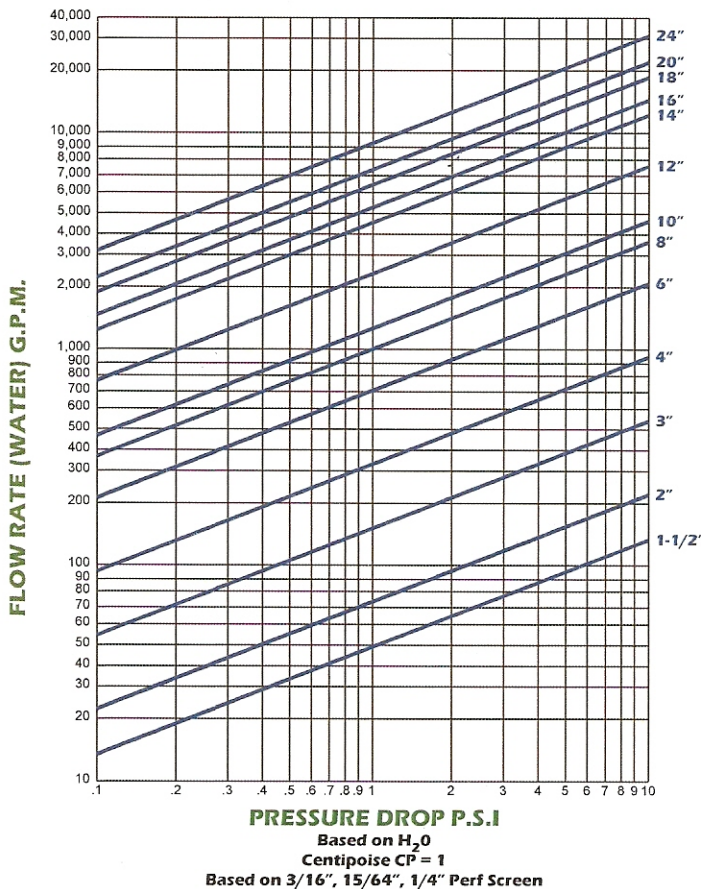
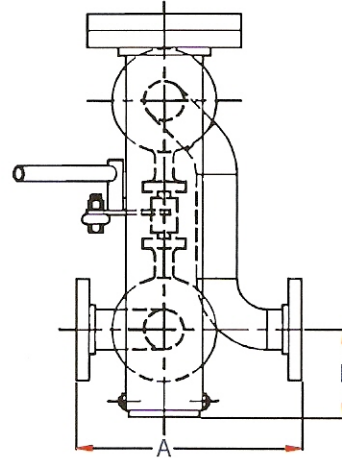
### Typical Order Specification

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.

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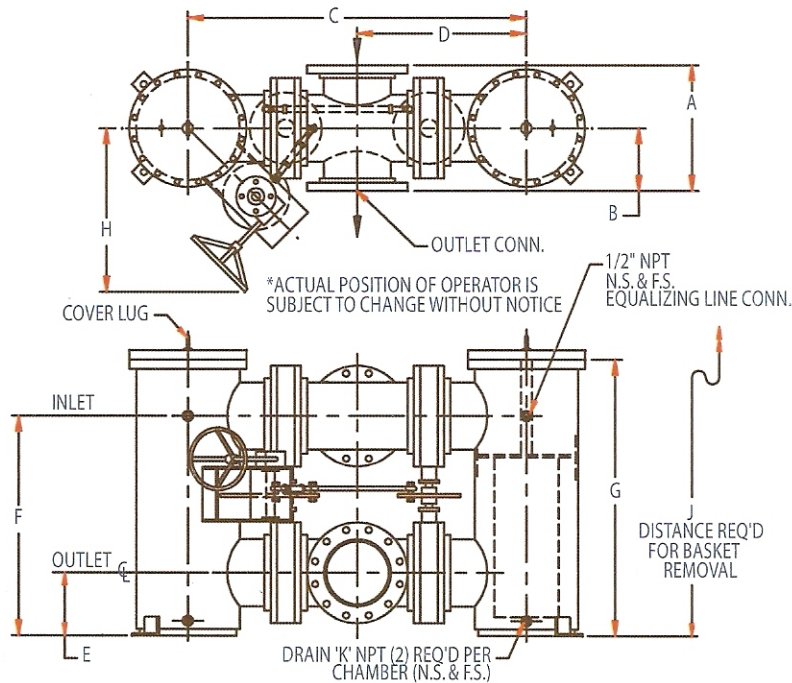
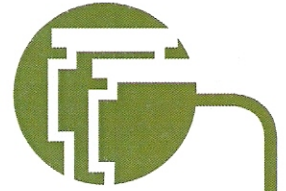
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## Series 534 Fabricated Duplex Strainer (10" through 24")



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.

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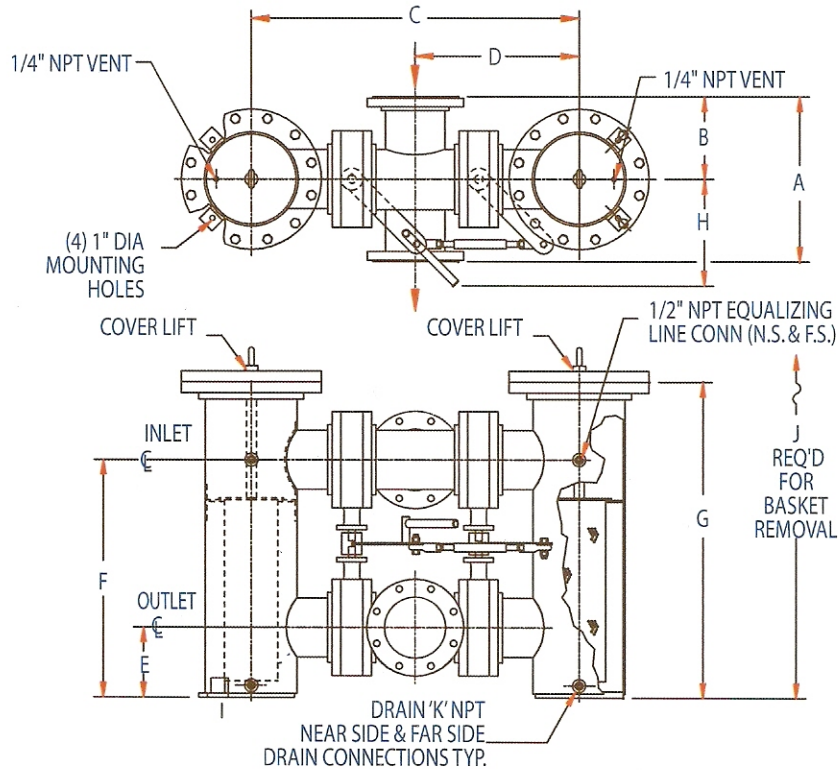
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## Series 534 Fabricated Duplex Strainer (1 1/2" through 8")



MODEL NO.	SIZE	A	B	C	D	E	F	G	H	J	K	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	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	1306 lbs. 592.4 kg.	1756 lbs. 796.5 kg.	102 lbs. 46.3 kg.

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