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 interconnected 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.

“Engineered Products for Demanding Applications, Performance, and Service”
SERIES 530
CAST DUPLEX STRAINER

1/4" NPT INSTRUMENT CONNECTIONS
SERIES 105 CAST STRAINER
BUTTERFLY VALVES
CHECK VALVES
LEVER OPERATION
SIZE R.F. INLET
SIZE R.F. OUTLET

SIZE 1

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

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**

**Diagram Description:**
- OUTLET
- INLET
- 3 WAY DIVERTER VALVE
- 1/4” NPT INST CONN
- CHECK VALVE
- SERIES 115 CAST STRAINER
- ‘E’ REQUIRED FOR BASKET REMOVAL
- ‘F’ DRAIN
- FRONT VIEW

#### Specifications Table

<table>
<thead>
<tr>
<th>SIZE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>WEIGHT1</th>
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<tbody>
<tr>
<td>3/4”</td>
<td>22-1/2”</td>
<td>11-5/8”</td>
<td>5”</td>
<td>8-3/4”</td>
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<td>1”</td>
<td>45 lbs.</td>
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<td>20 mm</td>
<td>571.5 mm</td>
<td>295.3 mm</td>
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<td>222.3 mm</td>
<td>304.8 mm</td>
<td>1/4” NPT</td>
<td>20.4 kg.</td>
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<tr>
<td>1”</td>
<td>21-1/2”</td>
<td>12”</td>
<td>5”</td>
<td>8-3/4”</td>
<td>12”</td>
<td>25 mm</td>
<td>55 lbs.</td>
</tr>
<tr>
<td>25 mm</td>
<td>546.1 mm</td>
<td>304.8 mm</td>
<td>127.0 mm</td>
<td>222.3 mm</td>
<td>304.8 mm</td>
<td>1/4” NPT</td>
<td>24.9 kg.</td>
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<tr>
<td>1-1/4”</td>
<td>24-3/4”</td>
<td>15-3/4”</td>
<td>8”</td>
<td>12”</td>
<td>18-1/2”</td>
<td>32 mm</td>
<td>85 lbs.</td>
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<td>32 mm</td>
<td>628.7 mm</td>
<td>400.1 mm</td>
<td>203.2 mm</td>
<td>304.8 mm</td>
<td>469.9 mm</td>
<td>1/4” NPT</td>
<td>38.5 kg.</td>
</tr>
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<td>1-1/2”</td>
<td>26-3/4”</td>
<td>16-1/2”</td>
<td>8”</td>
<td>12”</td>
<td>18-1/2”</td>
<td>40 mm</td>
<td>95 lbs.</td>
</tr>
<tr>
<td>40 mm</td>
<td>679.5 mm</td>
<td>419.1 mm</td>
<td>203.2 mm</td>
<td>304.8 mm</td>
<td>469.9 mm</td>
<td>1/4” NPT</td>
<td>43.1 kg.</td>
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<td>2”</td>
<td>29-3/4”</td>
<td>18-1/4”</td>
<td>8”</td>
<td>12”</td>
<td>18-1/2”</td>
<td>50 mm</td>
<td>110 lbs.</td>
</tr>
<tr>
<td>50 mm</td>
<td>755.7 mm</td>
<td>463.6 mm</td>
<td>203.2 mm</td>
<td>304.8 mm</td>
<td>469.9 mm</td>
<td>1/4” NPT</td>
<td>49.9 kg.</td>
</tr>
</tbody>
</table>

**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"
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

<table>
<thead>
<tr>
<th>O-Ring Seal Materials</th>
<th>Buna-N</th>
<th>EPDM</th>
<th>Viton®</th>
<th>Silicon</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>-60° to 225° F (-51° to 107° C)</td>
<td>-40° to 300° F (-40 to 149° C)</td>
<td>-20° to 400° F (-28° to 204° C)</td>
<td>-100° to 500° F (-73 to 260° C)</td>
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</table>

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

<table>
<thead>
<tr>
<th>SIZE</th>
<th>'A'</th>
<th>'B'</th>
<th>'C'</th>
<th>'D'</th>
<th>'E'</th>
<th>'F'</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot;</td>
<td>60-1/2&quot;</td>
<td>38&quot;</td>
<td>10-1/4&quot;</td>
<td>19-1/2&quot;</td>
<td>32&quot;</td>
<td>3&quot; NPT SIDE</td>
<td>795 LBS [360.6 Kg]</td>
</tr>
<tr>
<td>8&quot;</td>
<td>75&quot;</td>
<td>47-1/2&quot;</td>
<td>13-1/4&quot;</td>
<td>24&quot;</td>
<td>41&quot;</td>
<td>3&quot; NPT SIDE</td>
<td>1290 LBS [585.1 Kg]</td>
</tr>
<tr>
<td>10&quot;</td>
<td>86-1/2&quot;</td>
<td>63-1/4&quot;</td>
<td>21&quot;</td>
<td>38&quot;</td>
<td>63&quot;</td>
<td>3&quot; NPT SIDE</td>
<td>2090 LBS [948.0 Kg]</td>
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<tr>
<td>12&quot;</td>
<td>90-1/2&quot;</td>
<td>68-1/4&quot;</td>
<td>30&quot;</td>
<td>52&quot;</td>
<td>78&quot;</td>
<td>3&quot; NPT SIDE</td>
<td>3250 LBS [1474.2 Kg]</td>
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</table>

'F' DRAIN
'N' DRAIN
**OPTIONAL EXTERNAL SOURCE BLOWDOWN
POSI-SEALOC II® QUICK OPENING CLOSURE

"Engineered Products for Demanding Applications, Performance, and Service"
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 changeover 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”)

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.

“Engineered Products for Demanding Applications, Performance, and Service”
**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 | 20” | 10” | 54” | 27” | 10” | 34-7/8” | 1108.1 | 650.9 | 2133.6 | 2328 lbs. | 3126 lbs. | 147 lbs. |
350 mm | | 254.0 | | 1371.6 | 685.8 | 254.0 | 858.5 | | | 25.4 | | |

120-534 | 12”-150 | 24” | 12” | 60-1/2” | 30-1/4” | 12” | 40” | 1016.0 | 1276.4 | 711.2 | 2979 lbs. | 4174 lbs. | 176 lbs. |
300 mm | | 304.8 | | 1536.7 | 768.4 | 304.8 | 1016.0 | | | 38.1 | | |

140-534 | 14”-150 | 26” | 13” | 65-1/2” | 32-3/4” | 14” | 45-1/4” | 1492.3 | 762.0 | 2870.2 | 3938 lbs. | 5637 lbs. | 213 lbs. |
350 mm | | 330.2 | | 1663.7 | 831.9 | 355.6 | 1149.4 | | | 38.1 | | |

160-534 | 16”-150 | 28” | 14” | 70-1/2” | 36-1/4” | 16” | 51-1/2” | 1308.1 | 672.0 | 3175.0 | 5240 lbs. | 7575 lbs. | 316 lbs. |
400 mm | | 355.6 | | 1790.7 | 895.4 | 406.4 | 1308.1 | | | 38.1 | | |

180-534 | 18”-150 | 32” | 16” | 77-1/2” | 38-3/4” | 18” | 56-1/2” | 1816.1 | 787.4 | 3454.4 | 5743 lbs. | 8806 lbs. | 306 lbs. |
450 mm | | 406.4 | | 1968.5 | 984.3 | 457.2 | 1435.1 | | | 50.8 | | |

200-534 | 20”-150 | 34” | 17” | 86-1/2” | 43-1/4” | 20” | 61-1/2” | 1968.5 | 787.4 | 3454.4 | 8030 lbs. | 12857 lbs. | 523 lbs. |
500 mm | | 431.8 | | 2197.1 | 1098.6 | 508.0 | 1562.1 | | | 50.8 | | |

240-534 | 24”-150 | 40” | 20” | 102-1/2” | 43-1/4” | 22” | 68-1/2” | 1739.9 | 2222.5 | 1193.8 | 11797 lbs. | 19851 lbs. | 888 lbs. |
600 mm | | 508.0 | | 2603.5 | 1301.8 | 558.8 | 1739.9 | | | 50.8 | | |

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.
Fluid Engineering
A Division of TM Industrial Supply, Inc.
An Employee-Owned Company

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.

FLOW RATE (WATER) G.P.M.

PRESSURE DROP P.S.I
Based on H₂O
Centipoise CP = 1
Based on 3/16", 15/64", 1/4" Perf Screen

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”
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**

**Optional Davit Cover Lift**

MODEL 548

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**INLET/OUTLET**

**J**

**REQ'D FOR BASKET REMOVAL**

**INLET**

**OUTLET**

(4) 'K' BUTTERFLY VALVES

LEVER OPERATED

M DIAM MOUNTING HOLES

QTY (4)

M DIAM MOUNTING HOLES

QTY (4)

P NPT DRAIN

QTY (2) PER SIDE

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<th>SIZE</th>
<th>RATING</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L*</th>
<th>M</th>
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<td>5/8&quot;</td>
<td>2-3/16&quot;</td>
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<td>7&quot;</td>
<td>8-1/4&quot;</td>
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<td>7-7/16&quot;</td>
<td>1-1/2&quot;</td>
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*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.
**Series 532 Duplex Strainer**
**with POSI-SEALOC II® Quick Opening Closure**

**Patent No. 7,332,010**

**Fluid Engineering**
A Division of TM Industrial Supply, Inc.
An Employee-Owned Company

1432 Walnut Street Erie, PA 16502-1746 USA
Phone (814) 453-5014 Fax (814) 452-6573
Email: sales@fluideng.com Web: www.fluideng.com

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**DUPLEX STRAINER • DUAL BALLTYPE • THREE PIECE BODY**

**ANSI CLASS 125 / 150 • FLANGED & THREADED ENDS**

NEW Three-Piece Design!

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

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**FEATURES**

- **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.

**SIZE RANGE:** 3/4" ~ 4"

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**TECHNICAL**

<table>
<thead>
<tr>
<th>PRESSURE/Temperature Rating</th>
<th>CAST IRON - A126 OR B • CLASS 125</th>
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<tbody>
<tr>
<td>WOG (Non-steady)</td>
<td>200 PSI @ 150 °F</td>
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<tr>
<td>Saturated Steam: Not Recommended</td>
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<tr>
<td>Max Liquid: 200 PSI @ 150 °F</td>
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<table>
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<th>PRESSURE/Temperature Rating</th>
<th>CARBON STEEL - A216 GR.WCB • CLASS 150</th>
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<td>WOG (Non-steady)</td>
<td>200 PSI @ 150 °F</td>
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<tr>
<td>Saturated Steam: Not Recommended</td>
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<tr>
<td>Max Liquid: 200 PSI @ 150 °F</td>
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<table>
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<tr>
<th>PRESSURE/Temperature Rating</th>
<th>STAINLESS STEEL - A304 GR.CF8M • CLASS 150</th>
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<td>Saturated Steam: Not Recommended</td>
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<tr>
<td>Max Liquid: 200 PSI @ 150 °F</td>
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**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-interruptable applications that cannot be shut down during routine maintenance and cleaning operations.

The above data expresses 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 (1)

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<thead>
<tr>
<th>No.</th>
<th>Part</th>
<th>CI</th>
<th>CS</th>
<th>SS</th>
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<tr>
<td>1</td>
<td>Main Body / Basket Housing</td>
<td>Cast Iron A126 Gr B</td>
<td>Carbon Steel A216 Gr.WCB</td>
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<td>2</td>
<td>Strainer Element (2)</td>
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<td>3</td>
<td>Cover</td>
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<td>O-Ring Straining Element</td>
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<td>Buna-N</td>
<td>Viton</td>
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<td>6</td>
<td>Seat Seal</td>
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<td>8</td>
<td>Handle</td>
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<td>Carbon Steel Zinc Coated</td>
<td>Carbon Steel Zinc Coated</td>
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1. Bill of Materials represents standard materials. Equivalent or better materials may be substituted at the manufacturer’s discretion.
2. Denotes recommended spare parts.

Dimensions and Performance Data Notes:
1. Dimensions, weights, and flow coefficients are provided for reference only. Always request certified drawings.
2. Larger sizes (5” – 8”) are available upon request. Please contact factory for pricing and delivery.
3. Flow Coefficients are based on clean, perforated screens.
4. Flanged units are not available in 3” x 4” sizes.
5. Threaded units are not available in 3” or 4” sizes.

STANDARD SCREEN SELECTIONS

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<tr>
<th>Size</th>
<th>Screen</th>
<th>Liquid</th>
<th>Open Area</th>
<th>Steam</th>
<th>Open Area</th>
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<td>3/4&quot; – 4&quot;</td>
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<td>1/16 (.0625)</td>
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MATERIAL TEMPERATURES

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<th>Seat/Seal/Valve</th>
<th>Temp Range</th>
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<td>Teflon (PTFE)</td>
<td>-100 – 400 °F</td>
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<td>Buna-N</td>
<td>-20 – 250 °F</td>
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<td>Viton</td>
<td>-40 – 400 °F</td>
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<tr>
<td>Stainless Steel Ball</td>
<td>Max 450 °F</td>
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PRESSURE - TEMPERATURE RATING

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<th>Class</th>
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<tr>
<td>WOG (Non-shock)</td>
<td>200 PSI @ 150 °F</td>
<td>200 PSI @ 150 °F</td>
<td>200 PSI @ 150 °F</td>
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<tr>
<td>Saturated Steam</td>
<td>Not Recommended</td>
<td>Not Recommended</td>
<td>Not Recommended</td>
</tr>
<tr>
<td>Max Liquid</td>
<td>200 PSI @ 150 °F</td>
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REFERENCED STANDARDS & CODES

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<td>ASME/ANSI B16.4</td>
<td>Cast Iron Pipe Threaded Fittings</td>
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<td>ASME/ANSI B16.5</td>
<td>Pipe Flanges and Flanged Fittings</td>
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<tr>
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<td>Forged Steel Fittings, Socket-Welding, and Threaded</td>
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