

## Fig. 34 Carbon Steel Strainer - ASTM Material

### **Description**

The Fig 34 is an integrally flanged Y-type strainer designed to remove rust, scale and other debris from the pipeline. It is produced from carbon steel, ASTM material.

The standard stainless steel screen in the 1/2" to 3" is 1/32" (0.8 mm) perforations and in the 4" to 8" it is 1/16" (1.6 mm) perforations.

NB: A low temperature carbon steel strainer is available on request.

#### Standards

This product fully complies with the requirements of the European Pressure Equipment Directive 97/23/EC.

#### Certification

The product is available with material certification to EN 10204 2.2 as standard and EN 10204 3.1.B for body and cap by order.

Note: All certification/inspection requirements must be stated at the time of order placement.

#### **Optional extras**

#### Strainer screens

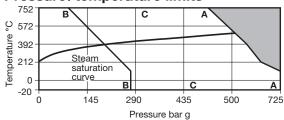
| Stainless steel screen | Perforations | <sup>1</sup> / <sub>16</sub> " (1.6 mm) ½" to 3"<br><sup>1</sup> / <sub>8</sub> " (3.0 mm) ½" to 8" |  |  |  |
|------------------------|--------------|---|--|--|--|
|                        | Mesh         | 40, 100 and 200   |  |  |  |
|                        |              | 1/ <sub>32</sub> "(0.8 mm) 1/2" to 3"   |  |  |  |
| Monel screen           | Perforations | <sup>1</sup> / <sub>16</sub> " (1.6 mm) 4" to 8"  |  |  |  |
|                        |              | 1/8" (3.0 mm) ½" to 8"  |  |  |  |
|                        | Mesh         | 100   |  |  |  |

#### Standard drain valve connections

The cap is drilled to the following sizes to enable a blowdown valve to be fitted.

| Strainer size   | Blowdown valve |  |
|-----------------|----------------|--|
| 1/2"            | 1/4"           |  |
| 3/4" and 1"     | 1/2"           |  |
| 11/4" and 11/2" | 1"             |  |
| 2" to 5"        | 11/4"          |  |
| 6" to 8"        | 2"             |  |

#### Pressure/temperature limits



This product **must not** be used in this region.

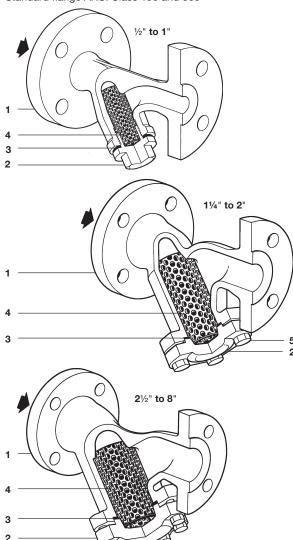
A-A Flanged ANSI 300 B-B Flanged ANSI 150

| Body des   | sign conditions               | ANSI 300           |  |  |  |
|--|-------------------------------|--------------------|--|--|--|
| PMA I  | Maximum allowable pressure    | 725 psig @ 99.8°F  |  |  |  |
|  | Maximum allowable temperature | 749.8°F @ 504 psig |  |  |  |
| Minimum  | allowable temperature         | -20°F              |  |  |  |
| PMO I  | Maximum operating pressure    | 725 psig @ 99.8°F  |  |  |  |
| _TMO_N   | Maximum operating temperature | 749.8°F @ 504 psig |  |  |  |
| Minimum operating temperature -20°F                          |                               |                    |  |  |  |
| Note: For lower operating temperatures consult Spirax Sarco. |                               |                    |  |  |  |

Designed for a maximum cold hydraulic test pressure of 78 bar g

### Sizes and pipe connections

Standard flange ANSI Class 150 and 300



#### **Materials**

| No. | Part   |            | Material        |                  |
|-----|--------|------------|-----------------|------------------|
| 1   | Body   |            | Carbon steel    | ASTM A216 WCB    |
| 2   | Cap    | ½" to 2"   | Forged steel    | A105N            |
| _   | Оар    | 2½" to 8"  | Carbon steel    | ASTM A216 WCB    |
| 3   | Cap o  | gasket     | Reinforced exfo | oliated graphite |
| 4   | Strain | ner screen | Stainless steel | ASTM A240 316L   |
| 5   | Bolts  |            | Carbon steel    | ASTM A193 B7     |
|     |        |            |                 |                  |

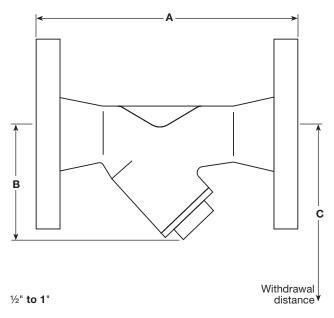
# Fig. 34 Carbon Steel Strainer - ASTM Material

### C<sub>v</sub> values

| Size   | 1/2" | 3/4" | 1" | <b>1</b> 1⁄4" | <b>1</b> ½" | 2" | <b>2</b> ½" | 3"  | 4"  | 5"  | 6"  | 8"  |
|--|------|------|----|---------------|-------------|----|-------------|-----|-----|-----|-----|-----|
| Perforations 1/32" (0.8 mm), 1/16" (1.6 mm), and 1/8" (3.0 mm) | 6    | 9    | 15 | 25            | 34          | 53 | 83          | 119 | 179 | 274 | 393 | 680 |
| Mesh 40 and 100  | 6    | 9    | 15 | 25            | 34          | 53 | 83          | 119 | 179 | 274 | 393 | 680 |
| Mesh 200   | 5    | 7    | 11 | 20            | 27          | 43 | 67          | 96  | 143 | 215 | 310 | 536 |

#### Dimensions / weights (approximate) in inches and lbs

| ANSI | ANSI   | Screening   |  |   |   |  |
|------|--|---|--|---|---|--|
| 150  | 300  |   |  | area  |   |  |
| Α    | Α  | В   | С  | cm <sup>2</sup>   | Weight  |  |
| 5    | 5  | 3   | 4  | 27  | 4.6   |  |
| 6    | 6  | 3   | 5  | 43  | 6.4   |  |
| 6    | 6  | 4   | 6  | 73  | 8.4   |  |
| 7    | 7  | 5   | 9  | 135   | 14.3  |  |
| 8    | 8  | 6   | 10   | 164   | 18.8  |  |
| 9    | 9  | 7   | 13   | 251   | 23.1  |  |
| 11   | 11   | 8   | 13   | 327   | 38.5  |  |
| 12   | 12   | 8   | 13   | 361   | 52.8  |  |
| 14   | 14   | 10  | 16   | 545   | 66.0  |  |
| 16   | 16   | 12  | 20   | 843   | 107.8   |  |
| 19   | 19   | 14  | 22   | 1 117   | 149.6   |  |
| 23   | 24   | 17  | 28   | 1 909   | 281.6   |  |
|      | 150<br>A<br>5<br>6<br>6<br>7<br>8<br>9<br>11<br>12<br>14<br>16<br>19 | 150 300<br>A A<br>5 5<br>6 6<br>6 6<br>7 7<br>8 8<br>9 9<br>11 11<br>12 12<br>14 14<br>16 16<br>19 19 | 150     300       A     A     B       5     5     3       6     6     3       6     6     4       7     7     5       8     8     6       9     9     7       11     11     8       12     12     8       14     14     10       16     16     12       19     19     14 | 150         300           A         A         B         C           5         5         3         4           6         6         3         5           6         6         4         6           7         7         5         9           8         8         6         10           9         9         7         13           11         11         8         13           12         12         8         13           14         14         10         16           16         16         12         20           19         19         14         22 | 150         300         area           A         A         B         C         cm²           5         5         3         4         27           6         6         3         5         43           6         6         4         6         73           7         7         5         9         135           8         8         6         10         164           9         9         7         13         251           11         11         8         13         327           12         12         8         13         361           14         14         10         16         545           16         16         12         20         843           19         19         14         22         117 |  |



## Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-S60-18) supplied with the product.

#### Installation note:

The strainer should be installed in the direction of flow, as indicated on the body. On applications involving steam or gases the pocket should be in the horizontal plane. On liquid systems the pocket should point downwards.

#### Warning:

The strainer cap gasket contains a thin stainless steel support ring, which may cause physical injury if not handled and disposed of carefully.

The product is recyclable. No ecological hazard is anticipated with disposal of this product, providing due care is taken.

#### How to order

Example: 1 off Spirax Sarco 11/2" Fig 34 strainer having flanged ANSI 300 connections with stainless steel screen having 1/32" (0.8 mm) perforations.

**Spare parts**The spare parts available are shown in solid outline. Parts drawn in broken line are not supplied as spares.

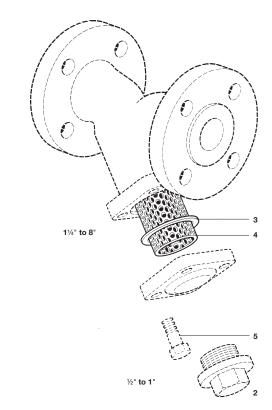
#### Available spares

| Strainer screen                       |                       | 4 |
|---------------------------------------|-----------------------|---|
| (state material, perforations or mesh | and size of strainer) |   |
| Cap gasket                            | (packet of 3)         | 3 |

#### How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the size and type of strainer and perforation or mesh required.

**Example:** 1 off Strainer screen, stainless steel having 1/32" (0.8 mm) perforations for a 1/2" Spirax Sarco Fig 34 strainer having ANSI 300 connections.



| neco | Recommended tightening torques               |                            |                                  |  |  |  |  |  |  |  |  |
|------|--|----------------------------|----------------------------------|--|--|--|--|--|--|--|--|
| Item | Size   | Qty                        |                                  | or 😝   | ft - lb  |  |  |  |  |  |  |
| 2    | ½"<br>34"<br>1"                              | 1<br>1<br>1                | 22<br>27<br>27                   |  | 37 - 40<br>44 - 48<br>74 - 81                                  |  |  |  |  |  |  |
| 5    | 11/4" to 21/2"<br>3"<br>4"<br>5"<br>6"<br>8" | 4<br>4<br>8<br>8<br>8<br>8 | 19<br>19<br>24<br>30<br>30<br>36 | M12 x 30<br>M12 x 35<br>M16 x 45<br>M20 x 50<br>M20 x 55<br>M24 x 65 | 15 - 18<br>22 - 26<br>37 - 41<br>51 - 58<br>59 - 65<br>89 - 96 |  |  |  |  |  |  |

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