

# Style SA-7

Y-Strainer

Carbon Steel (ASTM A 216, Grade WCB)  
150 lb. & 300 lb. Flanged



## Cast Carbon Steel Y-Strainer

### APPLICATIONS

Steam, water, oil or gas where protection from foreign matter in a pipeline is required.

### CONSTRUCTION

The Keckley Style SA-7 strainers are constructed from rugged carbon steel castings and are machined to exacting specifications. These bodies have raised faced and drilled flanges that are in accordance with ASME B16.5. All flanges come standard with back-faced bolt holes.

### FEATURES

The Keckley Style SA-7 strainer features a machined groove in both the body and cover for proper screen alignment and to ensure accurate reseating when servicing is required. The gasket is 304 stainless steel spiral wound and is compressed between the body and cover (for maximum strength and durability) and designed for high pressure and high temperature service. All Keckley Style SA-7 strainers have stainless steel studs and nuts and can be furnished with a steel blow-off plug upon request.

Blind covers are available upon request.

### SCREENS

Standard perforated 304 stainless steel screens are spot welded along the seam for maximum strength. Different size perforations and meshes are available in stainless steel, monel, and brass to meet specific media requirements. If the media is not indicated, screens for *steam* will be supplied.

### SELF CLEANING

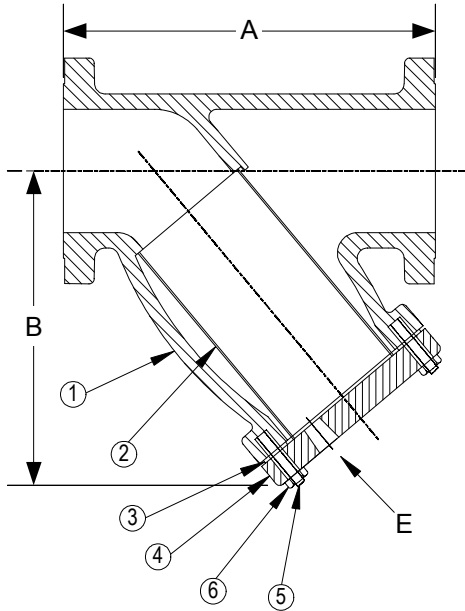
Self cleaning is accomplished by opening the valve or drain plug connected to the blow-off port. **Warning:** See Maintenance Instructions on page S6 of the Strainer Information Section for additional precautions and detailed information on servicing the strainer.

### WORKING PRESSURES – NON SHOCK

| NOM. RATING                | MEDIA  | 1/2" to 12"     | 15 mm to 300 mm  |
|----------------------------|--------|-----------------|------------------|
| 150# R.F. & D.<br>(FLANGE) | STEAM  | 150 PSI @ 565°F | 1035 KPa @ 296°C |
|                            | W.O.G. | 285 PSI @ 100°F | 1966 KPa @ 38°C  |
| NOM. RATING                | MEDIA  | 1/2" to 12"     | 15 mm to 300 mm  |
| 300# R.F. & D.<br>(FLANGE) | STEAM  | 300 PSI @ 838°F | 2069 KPa @ 448°C |
|                            | W.O.G. | 740 PSI @ 100°F | 5104 KPa @ 38°C  |

## Style SA-7

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**Cast Carbon Steel (ASTM A 216, Grade WCB)**


**PARTS LIST**

| ITEM | DESCRIPTION | MATERIAL                             |
|------|-------------|--------------------------------------|
| 1    | BODY        | CARBON STEEL (ASTM A 216, GRADE WCB) |
| 2    | SCREEN      | STAINLESS STEEL (304)                |
| 3    | GASKET      | SPIRAL WOUND STAINLESS STEEL (304)   |
| 4    | COVER       | CARBON STEEL (ASTM A 216, GRADE WCB) |
| 5    | STUDS       | CARBON STEEL (ASTM A 193, GRADE B7)  |
| 6    | NUTS        | CARBON STEEL (ASTM A 194, GRADE 2H)  |

Optional: Blow-off Plug, Carbon Steel (ASTM A 105)

**STANDARD SCREENS SUPPLIED**

| SIZE     |           | SCREEN GAGE | SCREEN PERFORATION |     |            |      |           |      |
|----------|-----------|-------------|--------------------|-----|------------|------|-----------|------|
| in       | mm        |             | FOR STEAM          |     | FOR LIQUID |      | OPEN AREA |      |
|          |           |             | in                 | mm  | AREA       | in   | mm        | AREA |
| 1/2 to 4 | 15 to 100 | 28          | 3/64               | 1.2 | 33%        | 1/16 | 1.6       | 30%  |
| 5 to 10  | 50 to 250 | 22          | 3/64               | 1.2 | 33%        | 1/8  | 3.2       | 43%  |
| 12       | 300       | 22          | 1/16               | 1.6 | 30%        | 1/8  | 3.2       | 43%  |

Standard screens supplied are for **steam service**, unless otherwise specified.  
 Options: Other perforations, meshes, and screen materials are available.

| SIZE  |     | DIMENSIONS |     |         |     |          |     |         |     |             |    | WEIGHTS |     |      |     |
|-------|-----|------------|-----|---------|-----|----------|-----|---------|-----|-------------|----|---------|-----|------|-----|
|       |     | A          |     |         |     | B        |     |         |     | E           |    | 150#    |     | 300# |     |
|       |     | 150#       |     | 300#    |     | 150#     |     | 300#    |     | 150# & 300# |    | 150#    |     | 300# |     |
| in    | mm  | in         | mm  | in      | mm  | in       | mm  | in      | mm  | in          | mm | lbs     | kgs | lbs  | kgs |
| 1/2   | 15  | 6-1/2      | 165 | 6-1/8   | 156 | 3-3/4    | 95  | 3-3/4   | 95  | 3/8         | 10 | 7       | 3   | 6    | 3   |
| 3/4   | 20  | 7-3/8      | 187 | 7-3/4   | 197 | 4-1/4    | 108 | 4-1/4   | 108 | 1/2         | 15 | 11      | 5   | 13   | 6   |
| 1     | 25  | 7-3/8      | 187 | 7-7/8   | 200 | 4-1/4    | 108 | 4-1/4   | 108 | 1/2         | 15 | 11      | 5   | 13   | 6   |
| 1-1/4 | 32  | 7          | 178 | 8-1/8   | 206 | 5-1/8    | 130 | 5-1/8   | 130 | 1/2         | 15 | 12      | 5   | 19   | 9   |
| 1-1/2 | 40  | 7-1/8      | 181 | 8-1/4   | 210 | 5-1/8    | 130 | 5-1/8   | 130 | 1/2         | 15 | 14      | 6   | 19   | 9   |
| 2     | 50  | 7-7/8      | 200 | 9-1/2   | 241 | 6-1/16   | 154 | 6-1/16  | 154 | 1/2         | 15 | 22      | 10  | 33   | 15  |
| 2-1/2 | 65  | 9-3/4      | 248 | 10-3/8  | 264 | 6-1/2    | 165 | 6-1/2   | 165 | 1           | 25 | 32      | 15  | 44   | 20  |
| 3     | 80  | 10-1/16    | 256 | 12      | 305 | 7-7/16   | 189 | 7-5/16  | 186 | 1           | 25 | 41      | 19  | 58   | 26  |
| 4     | 100 | 12-1/8     | 308 | 14-1/2  | 368 | 8-15/16  | 227 | 8-15/16 | 227 | 1-1/2       | 40 | 63      | 29  | 90   | 41  |
| 5     | 125 | 15-1/2     | 394 | 19-5/16 | 491 | 13-3/8   | 340 | 13-3/8  | 340 | 2           | 50 | 111     | 50  | 180  | 82  |
| 6     | 150 | 18-1/2     | 470 | 19-5/16 | 491 | 13-1/8   | 333 | 13-1/8  | 333 | 2           | 50 | 136     | 62  | 180  | 82  |
| 8     | 200 | 21-3/8     | 543 | 23-3/8  | 594 | 15-11/16 | 398 | 15-7/8  | 403 | 2           | 50 | 212     | 96  | 304  | 138 |
| 10    | 250 | 26         | 660 | 27-3/8  | 695 | 18-7/16  | 468 | 18-7/16 | 468 | 2           | 50 | 280     | 127 | 470  | 213 |
| 12    | 300 | 29-7/8     | 759 | 32      | 813 | 21-3/16  | 538 | 23-1/16 | 586 | 2           | 50 | 460     | 209 | 709  | 322 |

Larger sizes available upon request.

Certified dimensional drawings are available upon request.

†This table reflects only the nearest metric equivalents.

**TOTAL SCREEN AREA**

| Size   | (in <sup>2</sup> ) | Size | (in <sup>2</sup> ) | Size | (in <sup>2</sup> ) |
|--------|--------------------|------|--------------------|------|--------------------|
| 2"     | 30.28              | 4"   | 91.89              | 8"   | 342.86             |
| 2-1/2" | 46.91              | 5"   | 209.41             | 10"  | 532.80             |
| 3"     | 57.62              | 6"   | 241.18             | 12"  | 600.71             |

\*See DETERMINING RATIOS on page S5 of the Strainer Information Section for calculating NET FREE AREA of the screen to inside pipe area.

**PRESSURE vs. TEMPERATURE CHART**

150# & 300# Flanged Cast Carbon Steel (ASTM A 216, Grade WCB)

