

Style F7

Y-Strainer

Cast Bronze (ASTM B 584, C87850)

Class 125 NPT



*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

Style E7

Y-Strainer

Cast Bronze (ASTM B 584, C87850)

Class 125 Solder Joint



*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

Bronze Y-Strainer (Lead Free*)

APPLICATIONS

Where protection from foreign matter in a pipeline is required.

CONSTRUCTION

The Keckley Style F7 & E7 strainers are constructed from the finest bronze castings and are machined to exacting specifications.

Solder Joint Ends are in compliance with ASME B16.18 unless otherwise specified.

FEATURES

The Keckley Style F7 & E7 strainers feature a machined seat in the body and cap for proper alignment and to ensure accurate reseating when servicing is required. These strainers have a straight threaded cap and are furnished standard with a NPT blow-off connection. The gasket is a flat PTFE gasket that is compressed between the body and cap for maximum strength and durability. Keckley Style F7 & E7 strainers are furnished with a bronze blow-off plug unless otherwise specified.

SCREENS

Standard screens are 20 mesh 304 stainless steel through size 2". Sizes 2-1/2" and 3" are furnished with 3/64" perforated 304 stainless steel screens. All screens are spot welded for maximum strength. Different size perforations and meshes are available in stainless steel, monel, and brass to meet specific media requirements.

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

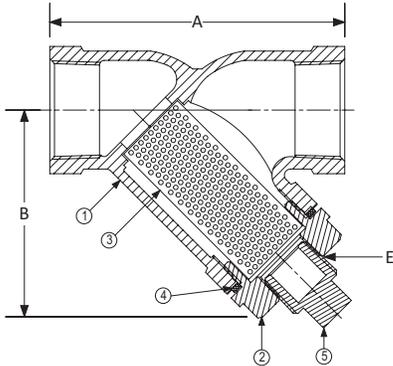
| NOM. RATING | 1/4" to 3" | 8 mm to 80 mm |
|-------------|-----------------|-----------------|
| CLASS 125 | 200 PSI @ 150°F | 1379 KPa @ 66°C |
| | 125 PSI @ 400°F | 862 KPa @ 204°C |

Values listed represent typical market and service applications. Due to numerous variables (concentrations, temperatures, and flow) present in any application, no representation or guarantee, expressed or implied, is given.

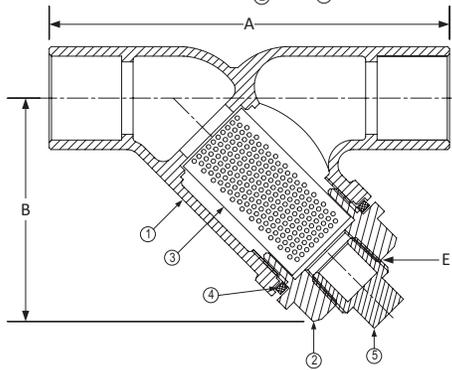
Style F7 & E7

Y-Strainer, Class 125 NPT & Solder Joint Bronze (ASTM B 584, C87850) Lead Free*

Style F7
(Threaded)



Style E7
(Solder Joint)



PARTS LIST

| ITEM | DESCRIPTION | MATERIAL |
|------|-------------|-----------------------------|
| 1 | Body | Bronze (ASTM B 584, C87850) |
| 2 | Cap | Bronze (ASTM B 584, C87850) |
| 3 | Screen | Stainless Steel (304) |
| 4 | Gasket | PTFE |
| 5 | Plug | Bronze (ASTM B 584, C87850) |

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

STANDARD SCREENS SUPPLIED

| SIZE | | SCREEN PERFORATION | | | | |
|------------|----------|-------------------------|-----|-----------|--------------|-----|
| | | FOR LIQUID | | FOR STEAM | | |
| in | mm | in | mm | AREA | AREA | |
| 1/4 to 2 | 8 to 50 | 20 MESH STAINLESS STEEL | | | | 49% |
| 2-1/2 to 3 | 65 to 80 | 3/64 | 1.2 | 33% | 3/64 1.2 33% | |

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

| SIZE | | DIMENSIONS | | | | | | | | | | WEIGHTS | | | | | |
|-------|----|------------|-----|---------|-------|--------|-----|---------|-----|-------|----|---------|----|-------|------|-------|------|
| | | A | | | | B | | | | E | | F7 | | E7 | | | |
| | | F7 | E7 | F7 | E7 | F7 | E7 | F7 | E7 | F7 | E7 | F7 | E7 | | | | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lbs | kgs | lbs | kgs |
| 1/4 | 8 | 2-9/16 | 65 | 2-1/16 | 53 | 1-7/8 | 48 | 1-3/8 | 35 | 1/4 | 8 | 1/8 | 6 | 0.63 | 0.29 | 0.20 | 0.09 |
| 3/8 | 10 | 2-9/16 | 65 | 3-1/8 | 80 | 1-7/8 | 48 | 1-13/16 | 46 | 1/4 | 8 | 1/4 | 8 | 0.58 | 0.26 | 0.46 | 0.21 |
| 1/2 | 15 | 2-9/16 | 65 | 3-1/8 | 80 | 1-7/8 | 48 | 1-15/16 | 49 | 1/4 | 8 | 1/4 | 8 | 0.55 | 0.25 | 0.48 | 0.22 |
| 3/4 | 20 | 3 | 77 | 4-1/8 | 105 | 2-1/4 | 57 | 2-5/16 | 59 | 3/8 | 10 | 3/8 | 10 | 0.87 | 0.39 | 0.86 | 0.39 |
| 1 | 25 | 3-3/4 | 95 | 4-15/16 | 125 | 2-7/16 | 62 | 2-5/8 | 67 | 1/2 | 15 | 1/2 | 15 | 1.38 | 0.63 | 1.25 | 0.57 |
| 1-1/4 | 32 | 4-7/16 | 113 | 5-11/16 | 145 | 3-3/8 | 86 | 3-1/4 | 83 | 1/2 | 15 | 1/2 | 15 | 2.90 | 1.32 | 2.06 | 0.93 |
| 1-1/2 | 40 | 4-7/8 | 123 | 6-5/8 | 170 | 3-9/16 | 91 | 3-11/16 | 94 | 3/4 | 20 | 3/4 | 20 | 3.27 | 1.48 | 2.93 | 1.33 |
| 2 | 50 | 5-1/4 | 133 | 8-1/4 | 210 | 4-5/16 | 110 | 4-1/2 | 114 | 1 | 25 | 1 | 25 | 4.99 | 2.26 | 5.48 | 2.49 |
| 2-1/2 | 65 | 6-15/16 | 175 | 9-3/4 | 247.5 | 5 | 127 | 5-3/8 | 137 | 1-1/4 | 32 | 1-1/4 | 32 | 9.88 | 4.48 | 10.16 | 4.61 |
| 3 | 80 | 7-7/8 | 200 | 11-3/8 | 289 | 5-5/8 | 143 | 6-1/8 | 156 | 1-1/2 | 40 | 1-1/2 | 40 | 14.20 | 6.44 | 14.30 | 6.49 |

†This table reflects only the nearest metric equivalents.

Dimensions and weights are for reference only. When required, request certified drawings.
Face to face values for threaded strainers have a tolerance in compliance with ASME B16.15 and solder joint strainers have a tolerance in compliance with ASME B16.18.

FLOW COEFFICIENTS

| Size | C _v | Size | C _v | Size | C _v |
|------|----------------|--------|----------------|--------|----------------|
| 1/4" | 9.5 | 1" | 30 | 2-1/2" | 129.7 |
| 3/8" | 9.5 | 1-1/4" | 44.9 | 3" | 161.3 |
| 1/2" | 9.5 | 1-1/2" | 61 | | |
| 3/4" | 18.7 | 2" | 98 | | |

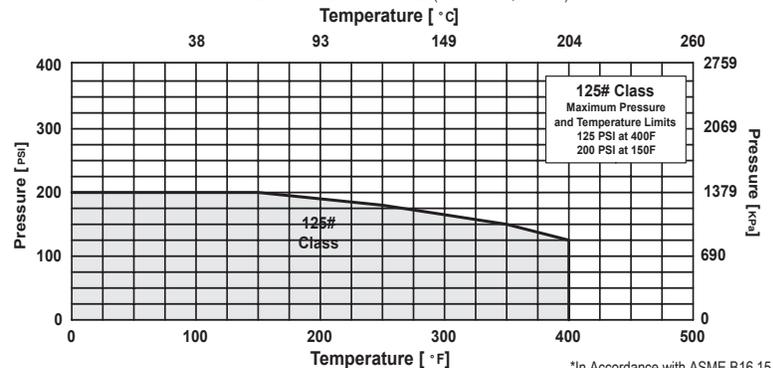
TOTAL SCREEN AREA

| Size | (in ²) | Size | (in ²) | Size | (in ²) |
|------|--------------------|--------|--------------------|--------|--------------------|
| 1/4" | 2.92 | 1" | 6.70 | 2-1/2" | 34.06 |
| 3/8" | 2.92 | 1-1/4" | 12.25 | 3" | 47.01 |
| 1/2" | 2.92 | 1-1/2" | 14.58 | | |
| 3/4" | 4.34 | 2" | 22.88 | | |

(Total screen area listed are for Style F7)

*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
Class 125 NPT & Solder Joint Bronze (ASTM B 584, C87850)



PRESSURE DROP CHART

“Y” Pattern Strainers

(Styles B, BDI, E150, F150, E300, F300, E7, F7, SB7, SB7BC, SBF, SSB7, SSB7BC and SSBF)

This pressure drop chart is based on the flow of clean water through the Keckley “Y” strainers listed above with screen perforations ranging from 3/64” through 1/8” and is additionally for use with those units equipped with a 20 mesh screen as standard.

TO USE CHARTS:

Find your desired rate of flow (GPM) on the left hand side of the chart. Follow its corresponding horizontal line to the point where it intersects the diagonal line indicating the strainer pipe size. From this point of intersection, follow the vertical line down to the bottom of the chart to determine the approximate pressure drop.

CORRECTION FACTORS:

For finer mesh screens that are backed with a perforated sheet, multiply the pressure drops shown at right by the following:

| | |
|----------|-------|
| 40 mesh | x 1.2 |
| 60 mesh | x 1.4 |
| 80 mesh | x 1.6 |
| 100 mesh | x 1.7 |
| 150 mesh | x 1.8 |
| 200 mesh | x 2.0 |

