

Style F300

Y-Strainer

Cast Bronze (ASTM B 62, C83600)

Class 250 NPT



Style E300

Y-Strainer

Cast Bronze (ASTM B 62, C83600)

Class 250 Solder Joint



Cast Bronze Y-Strainer

APPLICATIONS

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

CONSTRUCTION

The Keckley Style F300 & E300 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 F300 & E300 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 copper gasket that is compressed between the body and cap for a maximum strength and durability. Keckley Style F300 & E300 strainers can be furnished with a bronze blow-off plug 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 media is not indicated, screens for *water* 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.

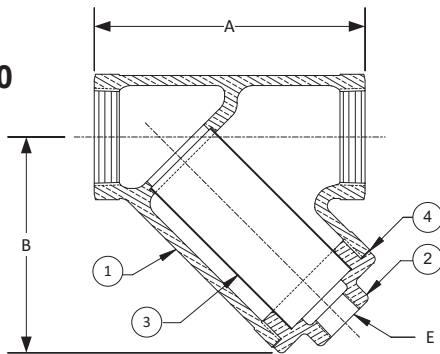
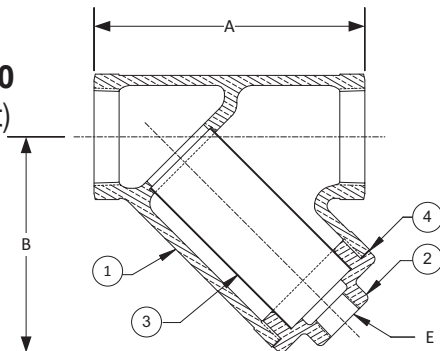
WORKING PRESSURES - NON SHOCK

| NOM. RATING | MEDIA | 1/4" to 3" | 8 mm to 80 mm |
|-------------|--------|------------------------------------|-------------------------------------|
| CLASS 250 | STEAM | 235 PSI @ 400°F | 1621 KPa @ 204°C |
| | W.O.G. | 400 PSI @ 150°F 250 PSI @ 400°F | 2759 KPa @ 66°C 1724 KPa @ 204°C |

GOVERNMENT/MILITARY SPECIFICATIONS

Specification: NAVSHIPS 810-841499.

Consult Factory for additional requirements.

Style F300
 (Threaded)

Style E300
 (Solder Joint)


Style F300 & E300

Y-Strainer, Class 250 NPT & Solder Joint
 Cast Bronze (ASTM B 62, C83600)

PARTS LIST

| ITEM | DESCRIPTION | MATERIAL |
|------|-------------|----------------------------|
| 1 | Body | Bronze (ASTM B 62, C83600) |
| 2 | Cap | Bronze (ASTM B 62, C83600) |
| 3 | Screen | Stainless Steel (304) |
| 4 | Gasket | Copper |

Optional: Blow-off Plug, Brass.

STANDARD SCREENS SUPPLIED

| SIZE | | SCREEN PERFORATION | | | | | |
|----------|---------|--------------------|-----|-----------|-----------|-----|-----------|
| | | FOR LIQUID | | OPEN AREA | FOR STEAM | | OPEN AREA |
| in | mm | in | mm | | in | mm | |
| 1/4 to 3 | 8 to 80 | 3/64 | 1.2 | 33% | 1/32 | 0.8 | 29% |

 Standard screens supplied are for **liquid service**, unless otherwise specified.

Options: Other perforations, meshes, and screen materials are available.

| SIZE | | DIMENSIONS | | | | | | | | | | | | WEIGHTS | | | |
|-------|----|------------|-----|---------|-----|---------|-----|---------|-----|-------|----|-------|----|---------|------|-------|-----|
| | | A | | | | B | | | | E | | | | | | | |
| | | F300 | | E300 | | F300 | | E300 | | F300 | | E300 | | F300 | | E300 | |
| 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 | 2-9/16 | 65 | 2 | 51 | 2 | 51 | 1/8 | 6 | 1/8 | 6 | 0.75 | 0.3 | 0.75 | 0.3 |
| 3/8 | 10 | 2-9/16 | 65 | 2-9/16 | 65 | 2 | 51 | 2 | 51 | 1/8 | 6 | 1/8 | 6 | 0.75 | 0.3 | 0.75 | 0.3 |
| 1/2 | 15 | 2-15/16 | 75 | 2-9/16 | 65 | 2-1/8 | 54 | 2 | 51 | 1/8 | 6 | 1/8 | 6 | 1.00 | 0.5 | 0.75 | 0.3 |
| 3/4 | 20 | 3-3/8 | 86 | 2-15/16 | 75 | 2-11/16 | 68 | 2-1/8 | 54 | 1/4 | 8 | 1/8 | 6 | 1.50 | 0.7 | 1.00 | 0.5 |
| 1 | 25 | 4-1/8 | 105 | 3-3/8 | 86 | 3 | 76 | 2-11/16 | 68 | 1/4 | 8 | 1/4 | 8 | 2.50 | 1.1 | 1.50 | 0.7 |
| 1-1/4 | 32 | 4-13/16 | 122 | 4-1/8 | 105 | 3-3/4 | 95 | 3 | 76 | 3/8 | 10 | 1/4 | 8 | 4.25 | 1.9 | 2.50 | 1.1 |
| 1-1/2 | 40 | 5-3/8 | 137 | 4-13/16 | 122 | 4-3/8 | 111 | 3-3/4 | 95 | 1/2 | 15 | 3/8 | 10 | 6.25 | 2.8 | 4.25 | 1.9 |
| 2 | 50 | 6-5/8 | 168 | 5-3/8 | 137 | 5-1/2 | 140 | 4-3/8 | 111 | 3/4 | 20 | 1/2 | 15 | 11.00 | 5.0 | 6.25 | 2.8 |
| 2-1/2 | 65 | 8-1/4 | 210 | 6-5/8 | 168 | 6-3/4 | 171 | 5-1/2 | 140 | 1-1/4 | 32 | 3/4 | 20 | 17.75 | 8.1 | 11.00 | 5.0 |
| 3 | 80 | 9-5/8 | 244 | 8-1/4 | 210 | 7-1/8 | 181 | 6-3/4 | 171 | 1-1/2 | 40 | 1-1/4 | 32 | 25.75 | 11.7 | 17.75 | 8.1 |

*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 | (The flow coefficients listed are for Style F300) | |
| 3/4" | 18.7 | 2" | 98 | | |

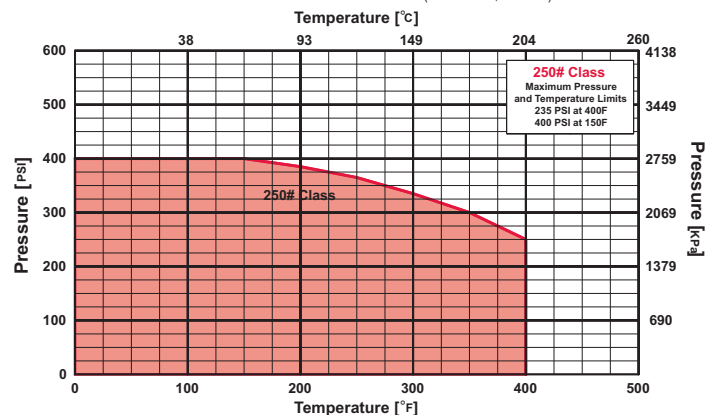
TOTAL SCREEN AREA

| Size | (in ²) | Size | (in ²) | Size | (in ²) |
|------|--------------------|--------|--------------------|---|--------------------|
| 1/4" | 2.36 | 1" | 9.54 | 2-1/2" | 45.09 |
| 3/8" | 2.36 | 1-1/4" | 14.11 | 3" | 56.56 |
| 1/2" | 3.44 | 1-1/2" | 19.88 | (Total screen area listed are for Style F300) | |
| 3/4" | 5.67 | 2" | 32.97 | | |

*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 250 NPT & Solder Joint Cast Bronze (ASTM B 62, C83600)



*In Accordance with ASME B16.15

PRESSURE DROP CHART

NPT “Y” Pattern Strainers (Styles B, BDI, E150, F150, F300, SB, SB7, SSB and SSB7)

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 |

