

Style SGFV

Basket Strainer

Carbon Steel (ASTM A 216, Grade WCB)

Class 150 & 300 RF Flanged



Style SGFVK

Basket Strainer

Carbon Steel (ASTM A 216, Grade WCB)

Class 150 RF Flanged



Cast Carbon Steel Basket Strainer

APPLICATIONS

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

CONSTRUCTION

The Keckley Style SGFV and SGFVK 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 SGFV and SGFVK strainers feature a basket with an angular cutaway design to allow straight through flow and extremely low pressure loss. The Style SGFV has a bolted top cover flange for ease in basket removal. The Style SGFVK is furnished with studs and knobs for easy cleaning. The Style SGFV gasket is spiral wound 304 stainless steel and is compressed between the body and cover (for maximum strength and durability) and designed for high pressure and high temperature service. The Style SGFVK is furnished with a Buna-N gasket suitable for temperatures up to 200°F. Keckley Style SGFV strainers have carbon steel hex head cap crews and are furnished standard with a tapped and plugged NPT drain connection.

BASKETS

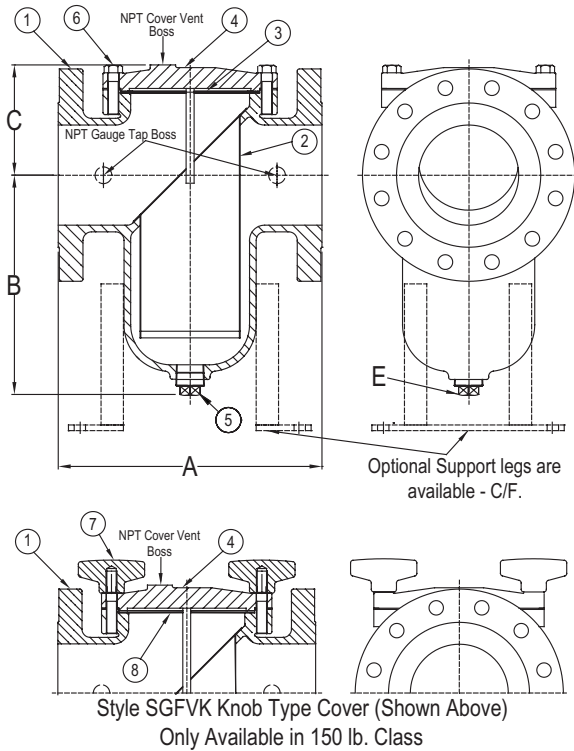
Standard baskets are 304 stainless steel and are spot welded for maximum strength. Different size perforations and meshes are available in stainless steel, monel, and brass to meet specific media requirements. If media is not indicated, screens for *water* will be supplied.

CLEANING

Cleaning of the Style SGFV and SGFVK strainers are accomplished by removing the cover and pulling out the basket. **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 | 2" to 12" | 50 mm to 300 mm |
|-------------|-----------------|--------|-----------------|------------------|
| CLASS 150 | BOLTED COVER | STEAM | 150 PSI @ 565°F | 1035 KPa @ 296°C |
| | | W.O.G. | 285 PSI @ 100°F | 1966 KPa @ 38°C |
| | KNOB TYPE COVER | W.O.G. | 200 PSI @ 200°F | 1379 KPa @ 93°C |
| NOM. RATING | | MEDIA | 2" to 12" | 50 mm to 300 mm |
| CLASS 300 | BOLTED COVER | STEAM | 300 PSI @ 838°F | 2069 KPa @ 448°C |
| | | W.O.G. | 740 PSI @ 100°F | 5104 KPa @ 38°C |



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PARTS LIST

| ITEM | DESCRIPTION | MATERIAL |
|------|--------------------|--------------------------------------|
| 1† | Body | Carbon Steel (ASTM A 216, Grade WCB) |
| 2 | Basket | Stainless Steel (304) |
| 3 | Gasket | Spiral Wound Stainless Steel (304) |
| 4 | Cover | Carbon Steel (ASTM A 216, Grade WCB) |
| 5 | Pipe Plug | Carbon Steel (ASTM A 105) |
| 6 | Hex Head Cap Screw | Carbon Steel (ASTM A 193, Grade B7) |
| 7* | Knob | Steel |
| 8* | Gasket | Buna-N (Max Temperature 200°F) |

*Denotes parts for the Style SGFVK 150 lb. class only.

†Optional Body Materials Available in LCB, WC6, and WC9.

STANDARD SCREENS SUPPLIED

| SIZE | | SCREEN PERFORATION | | | | | |
|------------|------------|--------------------|-----|-----------|-----------|-----|-----------|
| | | FOR LIQUID | | OPEN AREA | FOR STEAM | | OPEN AREA |
| in | mm | in | mm | | in | mm | |
| 1-1/2 to 4 | 40 to 100 | 1/16 | 1.6 | 30% | 3/64 | 1.2 | 33% |
| 5 to 14 | 125 to 350 | 1/8 | 3.2 | 43% | 1/16 | 1.6 | 30% |

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

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

| SIZE | | DIMENSIONS | | | | | | | | | | | | | | | |
|-------|-----|------------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|-----------|----|-----------|----|
| | | A | | | | B | | | | C | | | | E | | | |
| | | Class 150 | | Class 300 | | Class 150 | | Class 300 | | Class 150 | | Class 300 | | Class 150 | | Class 300 | |
| in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm |
| 1-1/2 | 40 | 6-1/2 | 165 | 7 | 178 | 4-1/2 | 114 | 4 | 102 | 4 | 102 | 3-3/4 | 95 | 1/2 | 15 | 1/2 | 15 |
| 2 | 50 | 8-1/2 | 216 | 8-13/16 | 224 | 5-7/8 | 149 | 4-3/4 | 121 | 4-3/4 | 121 | 3-3/4 | 95 | 1/2 | 15 | 1 | 25 |
| 2-1/2 | 65 | 8 | 203 | 9 | 229 | 5-7/16 | 138 | 5-5/8 | 143 | 4-1/4 | 108 | 4-5/8 | 117 | 3/4 | 20 | 1 | 25 |
| 3 | 80 | 8-3/4 | 222 | 10-1/16 | 256 | 5-11/16 | 144 | 5-11/16 | 144 | 5-5/8 | 143 | 5-5/8 | 143 | 3/4 | 20 | 3/4 | 20 |
| 4 | 100 | 11-3/16 | 284 | 12 | 305 | 8-1/4 | 210 | 8-1/4 | 210 | 6-1/16 | 154 | 6-1/16 | 154 | 1 | 25 | 1 | 25 |
| 5 | 125 | 12-1/4 | 311 | 13-1/8 | 333 | 10-1/4 | 260 | 10-1/4 | 260 | 5-5/8 | 143 | 5-5/8 | 143 | 1 | 25 | 1 | 25 |
| 6 | 150 | 13-7/8 | 352 | 15-9/16 | 395 | 12-13/64 | 310 | 12-13/64 | 310 | 6-5/16 | 149 | 6-5/16 | 160 | 1-1/4 | 32 | 1-1/4 | 32 |
| 8 | 200 | 17-3/8 | 441 | 18-7/8 | 479 | 15-9/16 | 395 | 15-9/16 | 395 | 8-3/16 | 208 | 8-3/16 | 208 | 1-1/2 | 40 | 1-1/2 | 40 |
| 10 | 250 | 22 | 559 | 21-5/16 | 541 | 16 | 406 | 14-3/8 | 365 | 10-3/8 | 264 | 9-7/8 | 251 | 1-1/2 | 40 | 2 | 50 |
| 12 | 300 | 25 | 635 | 25-3/8 | 645 | 23-3/4 | 603 | 23-3/4 | 603 | 12-3/8 | 314 | 12-3/8 | 314 | 2 | 50 | 2 | 50 |
| 14 | 350 | 34-5/16 | 871 | 34-5/16 | 871 | 28 | 711 | 34-3/8 | 873 | 16-1/2 | 419 | 20-3/16 | 513 | 2 | 50 | 2 | 50 |

†This table reflects only the nearest metric equivalents.

Dimensions and weights are for reference only. When required, request certified drawings.

Face to face values tolerance in compliance with ASME B16.5.

Additional Notes:

- Optional NPT Cover vent is available - C/F.
- Optional NPT Gauge taps are available - C/F.
- Optional Support legs are available - C/F.
- Steam jacketed designs are available - C/F.
- Epoxy coating is available - C/F.
- Designed for horizontal pipelines only.

WEIGHTS

| Size | | 1-1/2" | 2" | 2-1/2" | 3" | 4" | 5" | 6" | 8" | 10" | 12" | 14" |
|------|-----|--------|----|--------|----|----|-----|-----|-----|-----|-----|------|
| 150 | lbs | 21 | 26 | 29 | 39 | 69 | 79 | 116 | 194 | 324 | 717 | 1275 |
| | kgs | 10 | 12 | 13 | 18 | 31 | 36 | 53 | 88 | 147 | 325 | 578 |
| 300 | lbs | 23 | 32 | 40 | 54 | 99 | 195 | 195 | 333 | 530 | 903 | 1424 |
| | kgs | 10 | 15 | 18 | 24 | 45 | 88 | 88 | 151 | 240 | 410 | 646 |

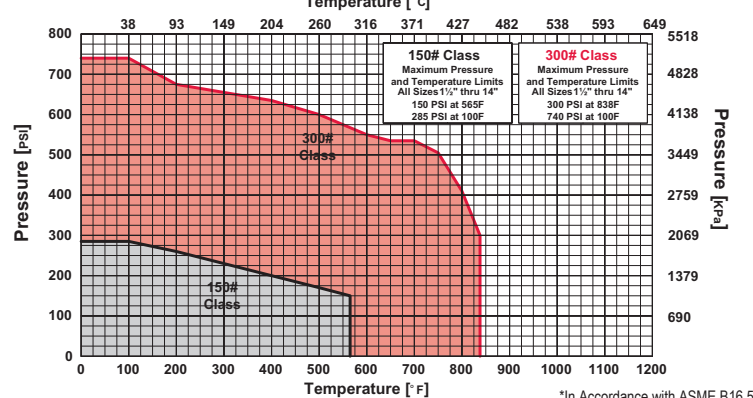
FLOW COEFFICIENTS

| Size | C _v | Size | C _v | Size | C _v |
|--------|----------------|------|----------------|------|----------------|
| 1-1/2" | 32 | 3" | 120.2 | 6" | 743.1 |
| 2" | 42.7 | 4" | 276.7 | 8" | 1486.3 |
| 2-1/2" | 84 | 5" | 442.7 | 10" | 3051.6 |
| | | | | 12" | 4980.6 |
| | | | | 14" | 7600.0 |

PRESSURE vs. TEMPERATURE CHART

Class 150 & 300 RF Flanged Carbon Steel (ASTM A 216, Grade WCB)

For use with Bolted Cover Only



*In Accordance with ASME B16.5



PRESSURE DROP CHART

Basket Strainers (Styles GFV, GFVK, GFVK7, BGFV, SGFV, SGFVK, SSGFV, and SSGFVK)

This pressure drop chart is based on the flow of clean water through the Keckley strainer styles listed above with screen perforations ranging from 3/64" through 1/8".

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 baskets 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 |

