



PVC and CPVC only

## SB Series Simplex Basket Strainers

1/2" TO 4" PVC, CPVC, GFPP AND EASTAR®

### KEY FEATURES

- PVC, CPVC, GFPP and Eastar
- Ergonomic Hand-Removable Cover
- In-Line or Loop Connections
- External Cover Threads
- Integral Flat Mounting Bases
- NSF / ANSI 61 Listed

### OPTIONS

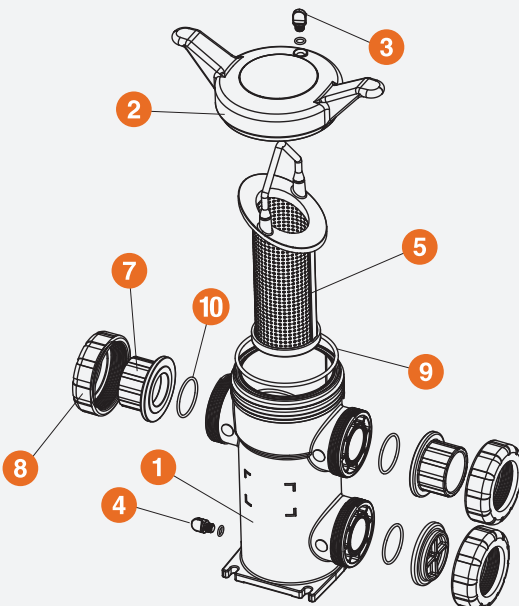
- Stainless Steel, Monel®, Hastelloy®, and Titanium Strainer Baskets
- Pressure Differential Gauge and Switch
- Baskets Available with Perforated or Mesh Liners

### MATERIALS

- PVC Cell Class 12454 per ASTM D1784
- CPVC Cell Class 23447 per ASTM D1784
- GFPP Cell Class 85580 per ASTM D4101
- Eastar
- FPM and EPDM O-Ring Seals

## TECHNICAL INFORMATION

### EXPLODED VIEW



### SELECTION CHART

| SIZE                        | MATERIAL              | END CONNECTION                 | SEALS          | PRESSURE RATING             |
|-----------------------------|-----------------------|--------------------------------|----------------|-----------------------------|
| 1/2" – 4"<br>(DN15 – DN100) | PVC, CPVC<br>and GFPP | Socket, Threaded<br>or Flanged | FPM or<br>EPDM | 150 PSI @ 70°F<br>Non-Shock |
|                             | Eastar*               |                                |                | 100 PSI @ 70°F<br>Non-Shock |

\* End connections and assembly nuts are PVC

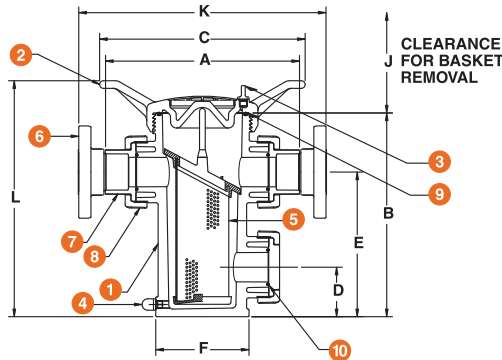
# SB Series Simplex Basket Strainers

1/2" TO 4" PVC, CPVC, GFPP AND EASTAR®

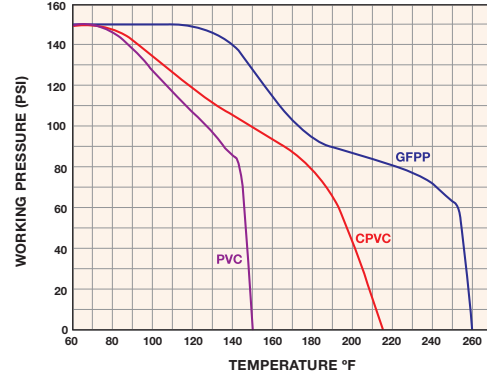
## TECHNICAL INFORMATION, CONTINUED

### PARTS LIST

1. Body
2. Cover
3. Vent Plug and O-Ring
4. Drain Plug and O-Ring
5. Basket
6. Flange (Optional)
7. End Connector
8. Nut
9. Cover O-Ring
10. End Connector O-Ring



### OPERATING TEMPERATURE / PRESSURE



### DIMENSIONS – INCHES / MILLIMETERS

| SIZE<br>in / DN | A<br>in / mm | B<br>in / mm | C<br>in / mm | D<br>in / mm | E<br>in / mm | F<br>in / mm | J<br>in / mm | K<br>in / mm | L<br>in / mm | WEIGHT<br>lbs / kg |               | VOLUME<br>gal / LT |
|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------------|---------------|--------------------|
|                 |              |              |              |              |              |              |              |              |              | SOC / THD          | FLANGED       |                    |
| 1/2 / 15        | 8.64 / 219   | 9.63 / 245   | 11.00 / 279  | 2.25 / 57    | 6.75 / 171   | 4.31 / 109   | 8.00 / 203   | 10.77 / 274  | 11.70 / 297  | 8.00 / 3.63        | 9.00 / 4.08   | .20 / .76          |
| 3/4 / 20        | 8.64 / 219   | 9.63 / 245   | 11.00 / 279  | 2.25 / 57    | 6.75 / 171   | 4.31 / 109   | 8.00 / 203   | 11.02 / 280  | 11.70 / 297  | 8.00 / 3.63        | 9.00 / 4.08   | .20 / .76          |
| 1 / 25          | 8.64 / 219   | 9.63 / 245   | 11.00 / 279  | 2.25 / 57    | 6.75 / 171   | 4.31 / 109   | 8.00 / 203   | 11.64 / 296  | 11.70 / 297  | 8.00 / 3.63        | 9.00 / 4.08   | .20 / .76          |
| 1-1/4 / 32      | 12.75 / 324  | 13.38 / 340  | 13.50 / 343  | 3.25 / 83    | 9.50 / 241   | 6.13 / 156   | 12.86 / 327  | 15.63 / 397  | 15.50 / 394  | 14.00 / 6.35       | 16.50 / 7.48  | .70 / 2.65         |
| 1-1/2 / 40      | 12.69 / 322  | 13.38 / 340  | 13.50 / 343  | 3.25 / 83    | 9.50 / 241   | 6.13 / 156   | 12.86 / 327  | 15.89 / 403  | 15.50 / 394  | 14.00 / 6.35       | 16.50 / 7.48  | .70 / 2.65         |
| 2 / 50          | 12.75 / 324  | 13.38 / 340  | 13.50 / 343  | 3.25 / 83    | 9.50 / 241   | 6.13 / 156   | 12.86 / 327  | 16.29 / 413  | 15.50 / 394  | 14.00 / 6.35       | 16.50 / 7.48  | .70 / 2.65         |
| 2-1/2 / 63      | 16.52 / 420  | 19.83 / 504  | 16.00 / 406  | 4.83 / 123   | 14.83 / 377  | 7.25 / 184   | 17.25 / 438  | 21.02 / 534  | 22.30 / 566  | 28.00 / 12.70      | 33.00 / 14.97 | 2.80 / 10.60       |
| 3 / 80          | 16.40 / 417  | 19.83 / 504  | 16.00 / 406  | 4.83 / 123   | 14.83 / 377  | 7.25 / 184   | 17.25 / 438  | 20.36 / 517  | 22.30 / 566  | 28.00 / 12.70      | 33.50 / 15.20 | 2.80 / 10.60       |
| 4 / 100         | 17.27 / 439  | 19.83 / 504  | 16.00 / 406  | 4.83 / 123   | 14.83 / 377  | 7.25 / 184   | 17.25 / 438  | 22.13 / 562  | 22.30 / 566  | 28.00 / 12.70      | 37.00 / 16.78 | 2.80 / 10.60       |

Dimensions are subject to change without notice – consult factory for installation information

### PRESSURE DROP CALCULATIONS

#### BASKET PERFORATION CORRECTION FACTORS

For 1/2" to 4" Strainers

| Plastic |      | Stainless Steel |      |
|---------|------|-----------------|------|
| 1/32"   | 1.05 | 1/32"           | .82  |
| 1/16"   | 1.00 | 20 Mesh         | .79  |
| 1/8"    | .58  | 40 Mesh         | 1.01 |
| 3/16"   | .46  | 60 Mesh         | 1.20 |
|         |      | 80 Mesh         | 1.16 |
|         |      | 100 Mesh        | 1.20 |
|         |      | 200 Mesh        | 1.09 |
|         |      | 325 Mesh        | 1.22 |

#### PRESSURE LOSS CALCULATION FORMULA

The pressure drop across the strainer, for water or fluids with a similar viscosity, can be calculated using the formula at the right:

$$\Delta P = \left[ \frac{Q}{C_v} \right]^2$$

$\Delta P$  = Pressure Drop  
 $Q$  = Flow in GPM  
 $C_v$  = Flow Coefficient

### Cv VALUES

| SIZE<br>in / DN | Cv VALUES<br>GPM | SIZE<br>in / DN | Cv VALUES<br>GPM |
|-----------------|------------------|-----------------|------------------|
| 1/2 / 15        | 15               | 2 / 50          | 60               |
| 3/4 / 20        | 18               | 2-1/2 / 63      | 290              |
| 1 / 25          | 20               | 3 / 80          | 300              |
| 1-1/4 / 32      | 55               | 4 / 100         | 350              |
| 1-1/2 / 40      | 58               |                 |                  |

The above Cv Values were determined using a 1/16" perforated plastic basket in 1/2" through 4" strainers.

To calculate pressure drop through vessels using other than 1/16" perforated baskets, first calculate the pressure drop using the listed Cv, and then multiply the result by the correction factor in the Correction Factors chart to the left.