

Model 72 Simplex Basket Strainer

- Sizes 3/8" to 8"
- Iron, Bronze, Carbon Steel or Stainless Steel
- Threaded or Flanged

FEATURES

- Quick open cover—no tools needed
- Heavy wall construction
- Large capacity baskets
- Machined basket seat
- Threaded drain
- Perforated stainless basket
- Mounting feet for stable installation

OPTIONS

- Basket perforations from 1/32" to 1/2"
- Basket mesh from 20 to 400
- Monel baskets
- Viton, PTFE-encapsulated, or EPDM seals
- Vent valves
- Gauge taps - 1/4" NPT
- Magnetic basket inserts
- Pressure differential gauge and switch



Introduction to Basket Strainers

Basket strainers are generally used with liquids and where regular or frequent cleaning is needed. Basket strainers hold considerably more material than Y strainers and they offer a lower pressure drop.

A basket strainer is installed upright and the basket is lifted out from the top. This makes it easier to use with gummy or sticky fluids or with large pipeline sizes where the filled basket weight can be considerable. However, unlike a Y strainer, it also means that a basket strainer has to be installed in a horizontal line.

A simplex basket strainer is used where the line can be shut down for short periods to clean or change the basket. It becomes an integral part of the pipeline and all flow passes through it.

The Eaton Model 72 has been the industry standard simplex basket strainer for over 50 years. It's perfect for industrial and commercial applications where the line can be temporarily shut down for strainer basket cleaning or changeout.

A reason for its popularity is the unusually large basket capacity. The free straining area with a perforated basket is about six times the cross sectional pipe area (even more in many sizes). No tools are needed to open the cover. The quick opening, swinging yoke can be disassembled and the basket removed in seconds. On sizes 4" and larger, a special cover clamp is provided

to distribute the seating pressure and to ensure positive seating of the cover.

Another feature is a threaded drain on every size strainer (fitted with a plug). Sizes 2" and larger are provided with legs that bolt to the floor for rock solid installation.

Wall thicknesses are exceptionally heavy. The basket seats are precision machined to give a tight seal and prevent any material from by-passing the basket. The Eaton Model 72 Simplex Basket Strainer is a top quality, heavy duty unit designed to stand up to the most demanding of applications. There is simply no better simplex basket strainer made.

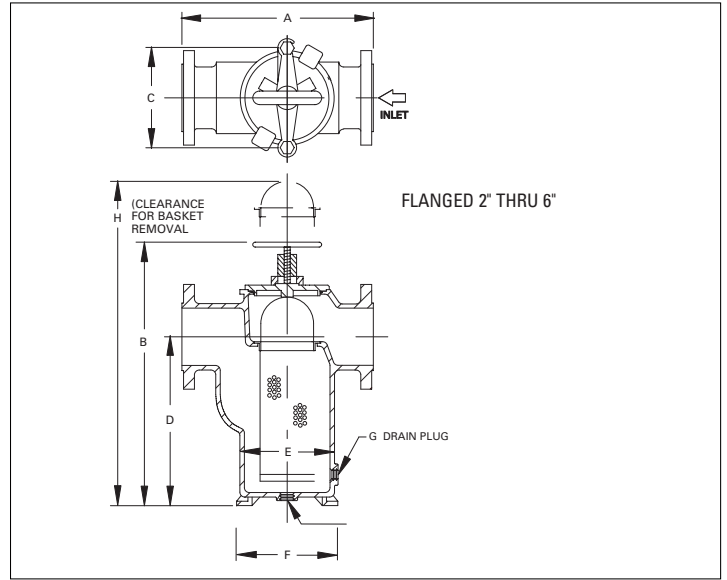
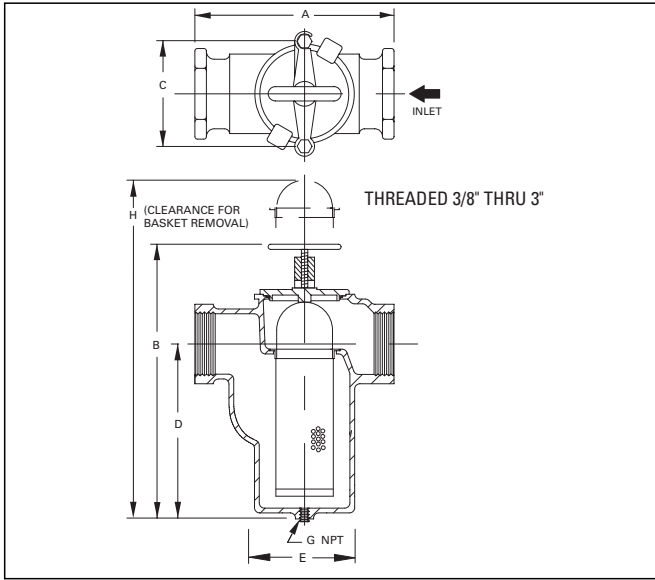
Model 72 Simplex

| Size | Material | End Connection | Seals | Pressure Rating |
|------------|-----------------|----------------|--------|-----------------|
| 3/8" to 3" | Iron and Bronze | Threaded | Buna N | 200 psi @ 100°F |
| 1" to 3" | Carbon Steel | Threaded | Buna N | 200 psi @ 100°F |
| 1" to 3" | Stainless Steel | Threaded | Viton® | 200 psi @ 100°F |
| 1" to 8" | Iron | Flanged 125# | Buna N | 200 psi @ 100°F |
| 1" to 8" | Bronze | Flanged 150# | Buna N | 200 psi @ 100°F |
| 1" to 8" | Carbon Steel | Flanged 150# | Buna N | 200 psi @ 100°F |
| 1" to 8" | Stainless Steel | Flanged 150# | Viton® | 200 psi @ 100°F |

Mod. 72Cv Factors*

| Size | Value | Size | Value |
|--------|-------|--------|-------|
| 3/8" | 15.0 | 2" | 73 |
| 1/2" | 15.0 | 2-1/2" | 125 |
| 3/4" | 15.0 | 3" | 180 |
| 1" | 22.5 | 4" | 350 |
| 1-1/4" | 31.5 | 6" | 900 |
| 1-1/2" | 46.0 | 8" | 1400 |

* For water with clean, perforated basket



Threaded Model 72 Dimensions (in/mm)

Dimensions and weights are for reference only. Contact us for certified drawings.

| Stainless Size | A | B | C | D | E | F | G | H | Kg | | | |
|----------------|-------------|-------------|------------|-------------|------------|---|------------|----------|---------|---------|---------|----------|
| | | | | | | | | | Bronze | Steel | Iron | Steel |
| 3/8 | 4.00 / 102 | 6.63 / 168 | 2.88 / 73 | 4.00 / 102 | 2.38 / 60 | - | 3/8 / 10 | 11 / 279 | 4 / 1.8 | - | 4 / 1.8 | - |
| 1/2 | 4.00 / 102 | 6.63 / 168 | 2.88 / 73 | 4.00 / 102 | 2.38 / 60 | - | 3/8 / 10 | 11 / 279 | 4 / 1.8 | - | 4 / 1.8 | - |
| 3/4 | 5.38 / 137 | 8.38 / 213 | 4.00 / 102 | 5.00 / 127 | 3.06 / 78 | - | 1/2 / 15 | 13 / 330 | 8 / 3.6 | - | 7 / 3.2 | - |
| 1 | 5.38 / 137 | 8.38 / 213 | 4.00 / 102 | 5.00 / 127 | 3.06 / 78 | - | 1/2 / 15 | 13 / 330 | 8 / 3.6 | 7 / 3.2 | 7 / 3.2 | 7 / 3.2 |
| 1-1/4 | 6.75 / 172 | 9.88 / 251 | 4.88 / 124 | 5.88 / 149 | 3.88 / 99 | - | 1/2 / 15 | 14 / 356 | 13 / 6 | - | 12 / 6 | - |
| 1-1/2 | 7.25 / 184 | 11.00 / 279 | 4.88 / 124 | 7.00 / 178 | 4.00 / 102 | - | 3/4 / 20 | 16 / 406 | 16 / 7 | 15 / 7 | 15 / 7 | 16 / 7.3 |
| 2 | 8.75 / 222 | 13.38 / 340 | 6.75 / 172 | 7.63 / 194 | 5.13 / 130 | - | 1-1/4 / 32 | 21 / 533 | 32 / 15 | 36 / 16 | 28 / 13 | 31 / 14 |
| 2-1/2 | 10.38 / 264 | 14.88 / 378 | 8.00 / 203 | 8.63 / 219 | 6.38 / 162 | - | 1-1/2 / 40 | 26 / 660 | 49 / 22 | 52 / 24 | 42 / 19 | 51 / 23 |
| 3 | 11.50 / 292 | 17.75 / 468 | 8.00 / 203 | 11.38 / 298 | 6.63 / 168 | - | 1-1/2 / 40 | 28 / 711 | 60 / 27 | 60 / 27 | 52 / 23 | 60 / 27 |

Flanged Model 72 Dimensions (in/mm)

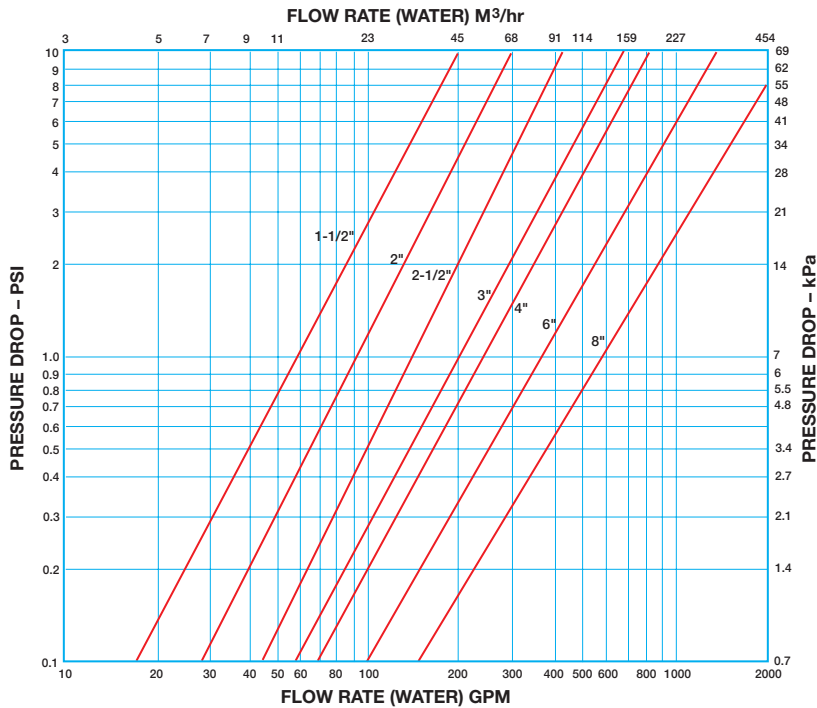
| Stainless Size | A | B | C | D | E | F | G | H | Kg | | | |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|----------|--------------|-------------|-----------|-----------|-----------|
| | | | | | | | | | Bronze | Steel | Iron | Steel |
| 1 | 7.63 / 194 | 8.38 / 213 | 4.00 / 102 | 5.00 / 127 | 8.38 / 213 | - | 1/2 / 15 | 13.00 / 330 | 16 / 7 | 9 / 4 | 9 / 4 | 9 / 4 |
| 1-1/2 | 10.25 / 260 | 11.00 / 279 | 4.88 / 124 | 7.00 / 178 | 11.00 / 279 | - | 3/4 / 20 | 16.00 / 406 | 30 / 14 | 17 / 7.7 | 17 / 7.7 | 17 / 7.7 |
| 2 | 10.50 / 268 | 13.75 / 349 | 6.75 / 172 | 7.63 / 194 | 5.13 / 130 | 6.25 / 159 | 3/8 / 10 | 20.00 / 508 | 49 / 22.3 | 36 / 16 | 36.5 / 17 | 36 / 16 |
| 2-1/2 | 11.63 / 295 | 15.63 / 397 | 8.00 / 203 | 8.88 / 226 | 6.38 / 162 | 7.63 / 194 | 3/8 / 10 | 23.00 / 584 | 64 / 29.1 | 63 / 27 | 54 / 25 | 63 / 29 |
| 3 | 13.13 / 334 | 18.00 / 457 | 8.00 / 203 | 10.63 / 270 | 6.50 / 165 | 8.00 / 203 | 3/8 / 10 | 27.00 / 686 | 85 / 38.6 | - | 76 / 35 | - |
| 3 | 13.13 / 334 | 18.75 / 476 | 7.94 / 202 | 12.00 / 305 | 6.50 / 165 | 8.00 / 203 | 1/2 / 15 | 27.00 / 686 | - | 86 / 39 | - | 86 / 39 |
| 4 | 16.75 / 425 | 19.88 / 505 | 10.75 / 273 | 10.75 / 273 | 9.63 / 245 | 11.38 / 289 | 1/2 / 15 | 30.00 / 762 | 140 / 63.6 | - | 125 / 55 | - |
| 4 | 17.25 / 438 | 19.88 / 505 | 10.69 / 272 | 10.69 / 272 | 9.25 / 235 | 11.38 / 289 | 1/2 / 15 | 30.00 / 762 | - | 130 / 59 | - | 130 / 59 |
| 5 | 18.13 / 461 | 25.13 / 638 | 10.75 / 273 | 15.25 / 387 | 10.00 / 254 | 11.38 / 289 | 1/2 / 15 | 41.00 / 1041 | 182 / 82.7 | - | 170 / 775 | - |
| 6 | 19.63 / 499 | 28.50 / 724 | 10.69 / 272 | 18.38 / 467 | 10.00 / 254 | 11.38 / 289 | 1/2 / 15 | 46.00 / 1168 | 270 / 122.7 | 235 / 107 | 200 / 91 | 235 / 107 |

Model 30 & 72 Pressure Drop Curves

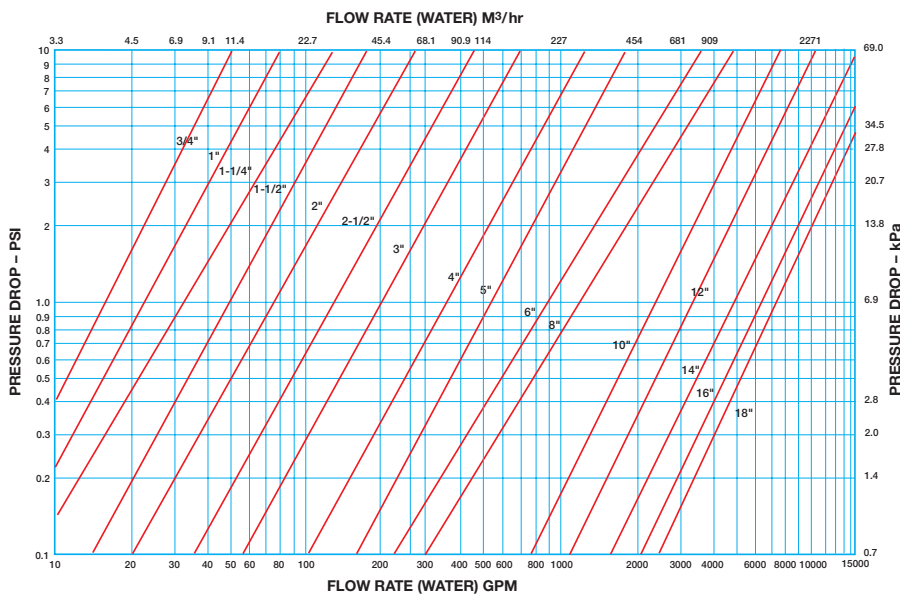
Pressure Drop vs Flow Rate

These curves are for clean baskets, without mesh liners—and with water flowing through the strainer. For mesh-lined baskets and/or other fluids, you must first compute a correction factor. See Page 29 for full details.

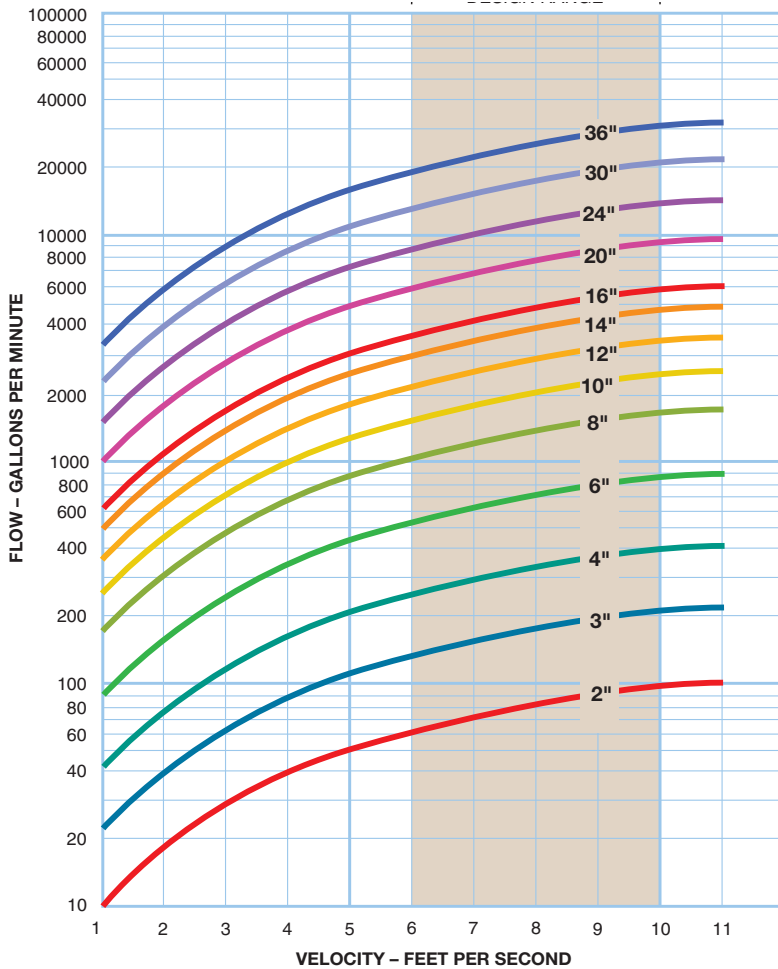
Model 30R Simplex – 1-1/2" through 8"



Model 72 Simplex – 3/4" through 18"



Strainer Sizing Chart



Strainer Basket Opening Equivalents

| Mesh | Inches | Millimeters | Microns | Perf | Inches | Millimeters | Microns |
|------|--------|-------------|---------|------|--------|-------------|---------|
| 400 | 0.0015 | 0.0381 | 38 | 1/32 | 0.033 | 0.838 | 838 |
| 300 | 0.0018 | 0.0457 | 45 | 3/64 | 0.045 | 1.143 | 1143 |
| 250 | 0.0024 | 0.0609 | 60 | 1/16 | 0.070 | 1.778 | 1776 |
| 200 | 0.0027 | 0.0686 | 68 | 3/32 | 0.094 | 2.387 | 2387 |
| 150 | 0.0041 | 0.1041 | 104 | 1/8 | 0.125 | 3.175 | 3175 |
| 100 | 0.0065 | 0.1651 | 165 | 5/32 | 0.150 | 3.810 | 3810 |
| 80 | 0.007 | 0.1778 | 177 | 3/16 | 0.1875 | 4.762 | 4762 |
| 60 | 0.009 | 0.2286 | 228 | 1/4 | 0.250 | 6.350 | 6350 |
| 40 | 0.015 | 0.8636 | 380 | 3/8 | 0.375 | 9.525 | 9525 |
| 20 | 0.034 | 0.8636 | 862 | 1/2 | 0.500 | 12.700 | 12700 |

Metal Alloys used in Eaton Strainers

Carbon Steel – ASTM A-216 Grade WCB

Tensile Strength: 70,000 lb/sq in
 Yield: 36,000 lb/sq in
 Elongation: 22%

Chemical Composition:

C (Carbon) 0.30%
 Si (Silicon) 0.60%
 P (Phosphorus) 0.04%
 S (Sulfur) 0.045%
 Mn (Manganese) 1.00%
 Residual Elements 1.00% max

Aluminum Bronze – ASTM B-148 Grade C95400

Tensile Strength: 75,000 lb/sq in
 Yield: 30,000 lb/sq in
 Elongation: 12%

Chemical Composition:

Cu (Copper) 85%
 Fe (Iron) 4%
 Al (Aluminum) 11%

Stainless Steel – ASTM A-351 Grade CF8M

Tensile Strength: 70,000 lb/sq in
 Yield: 30,000 lb/sq in
 Elongation: 30%

Chemical Composition

C (Carbon) 0.08% max
 Si (Silicon) 1.5%
 P (Phosphorus) 0.040%
 Cr (Chromium) 18.0-21.0%
 Ni (Nickel) 9.0-12.0%
 Mn (Manganese) 1.50%
 S (Sulfur) 0.04%
 Mo (Molybdenum) 2.0-3.0%

Cast Iron – ASTM A-126 Class B

Tensile Strength: 31,000 lb/sq in
 Compressive Strength: 109,000 lbs/sq in
 Tensile Modulus: 15 x 10⁶ lb/sq in

Chemical Composition:

C (Carbon) 3.20-3.40 %
 Si (Silicon) 2.10-2.30%
 P (Phosphorus) 0.15-0.30%
 S (Sulfur) 0.08-0.12%
 Mn (Manganese) 0.50-0.80%

Ductile Iron - ASTM A-395 Grade 60 -40 -18

Tensile Strength: 60,000 lb/sq in
 Yield: 40,000 lb/sq in
 Elongation: 18%

Chemical Composition:

C (Carbon) 3.20-4.0%
 Si (Silicon) 1.80-2.80%
 P (Phosphorus) 0.08% max.
 S (Sulfur) 0.03% max.
 Mn (Manganese) 0.03% max.

Bronze - ASTM B-62

Tensile Strength: 30,000 lb/sq in
 Yield: 14,000 lbs/sq in
 Elongation: 20%

Chemical Composition:

Cu (Copper) 85.0%
 Sn (Tin) 5.0%
 Pb (Lead) 5.0%
 Zn (Zinc) 5.0%
 Ni (Nickel) 1.0% max.
 Fe (Iron) 0.3% max.
 P (Phosphorus) 0.05% max.