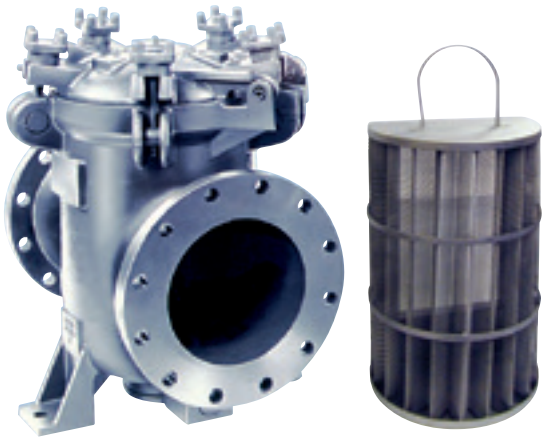
# Model 72 Straight Flow Basket Strainer

• Iron or Bronze • Sizes 10" to 18" • Flanged



## FEATURES

- Quick open cover
- Straight through flow design
- Low pressure loss
- Convoluted basket design
- Hand removable basket
- Threaded Drain
- Buna-N O-ring seal
- Standard perforated stainless steel basket
- Low profile
- No tools required for access

## OPTIONS

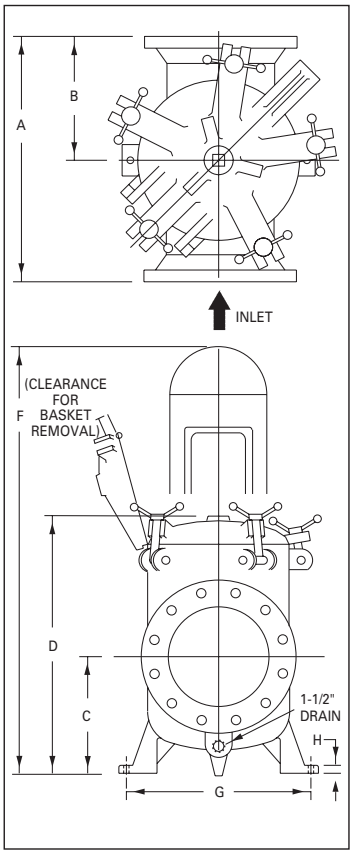
- Basket perforations from 1/32" to 1/2"
- Basket mesh of 20 or 40
- Monel baskets
- Vent valves
- Drain valves
- Gauge taps - 1/4" NPT
- Pressure differential gauge and switches

Large size pipelines with high flow rates require a unique type of basket strainer. The typical design for smaller size pipelines just won't perform efficiently—the pressure loss would be too high and the baskets too large to remove and clean easily.

These problems have been solved by the Eaton Straight Through Flow design simplex basket strainer. With this straight through flow, pressure loss is greatly reduced and, at the same time, results in a compact strainer that can fit in tight spaces.

The perforated or mesh straining screen in the basket is convoluted (pleated). This increases the amount of straining area available while at the same time reducing the overall basket size and weight. This makes it easy to remove the basket from the strainer housing. No lifting tackle is required. The quick opening cover provides fast and easy access to the basket—making it quick and easy to service. Over time, this can save you considerable time and money in labor.

When selecting a pipeline strainer for a large size piping system with high flow rates, be sure to consider all the factors, not just initial pressure loss. The amount of straining area in the basket is critical to reducing the amount of time between cleanings or change out. Also remember that if cleaning the basket is difficult, or requires two people to perform, operating costs will continue to be too high. The design of the Eaton Model 72 Straight Through Simplex Basket Strainer takes all these operating parameters into consideration and is the best simplex strainer for higher flow applications in large pipelines.




**Selection Chart**

| Size | Material | End Connection | Seals | Pressure Rating |
|---|---|---|---|---|
| 10" to 12" | Iron | Flanged 125# | Buna N | 200 psi @ 100°F |
| 10" to 12" | Bronze | Flanged 150# | Buna N | 200 psi @ 100°F |
| 14" to 18" | Iron | Flanged 125# | Buna N | 150 psi @ 100°F |
| 14" to 18" | Bronze | Flanged 150# | Buna N | 150 psi @ 100°F |

**$C_V$ Factors***

| Size | Value |
|---|---|
| 10" | 2300 |
| 12" | 3200 |
| 14" | 5000 |
| 16" | 6000 |
| 18" | 7000 |

* For water with clean, perforated basket

**Dimensions (in/mm) Model 72 Straight Flow**

| Pipe Size | A | B | C | D | F | G | H | Net Wt. (lb / kg) Iron | Bronze |
|---|---|---|---|---|---|---|---|---|---|
| 10 | 23.00 / 584 | 11.00 / 279 | 12.19 / 310 | 29.00 / 737 | 47.00 / 1194 | 19.00 / 483 | 15/16 | 420 / 191 | 500 / 227 |
| 12 | 27.00 / 686 | 13.00 / 330 | 16.75 / 425 | 38.00 / 965 | 67.00 / 1702 | 23.00 / 584 | 1 | 550 / 250 | 825 / 374 |
| 14 | 31.00 / 787 | 15.50 / 394 | 18.75 / 476 | 45.00 / 1143 | 77.00 / 1956 | 27.00 / 686 | 1 | 850 / 386 | 1150 / 522 |
| 16 | 31.00 / 787 | 15.50 / 394 | 18.75 / 476 | 45.00 / 1143 | 77.00 / 1956 | 27.00 / 686 | 1 | 975 / 443 | 1400 / 635 |
| 18 | 31.00 / 787 | 15.50 / 394 | 18.75 / 476 | 45.00 / 1143 | 77.00 / 1956 | 27.00 / 686 | 1 | 1000 / 454 | — |

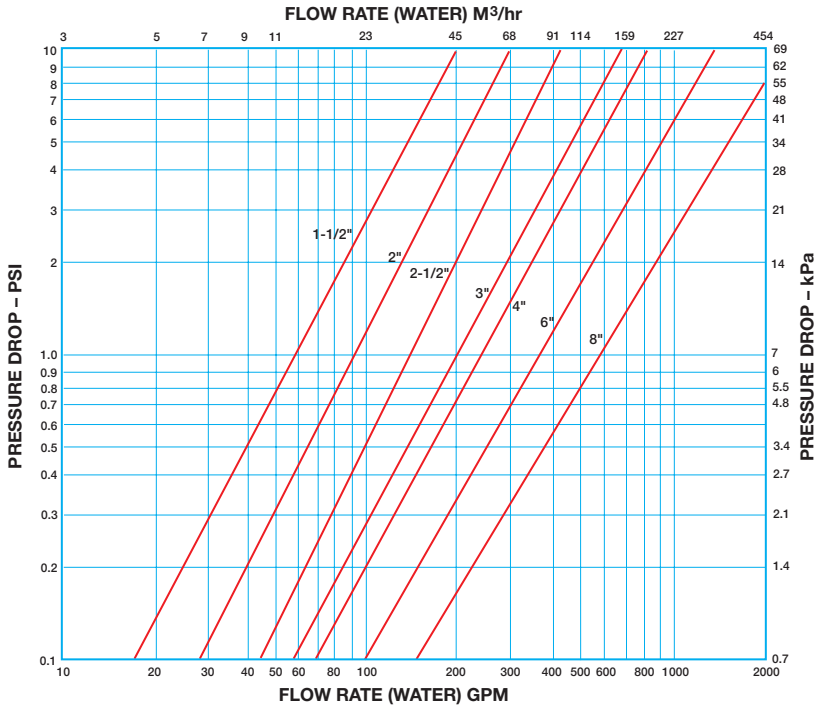
Dimensions and weights are for reference only. Contact us for certified drawings.

# Model 30 & 72 Pressure Drop Curves

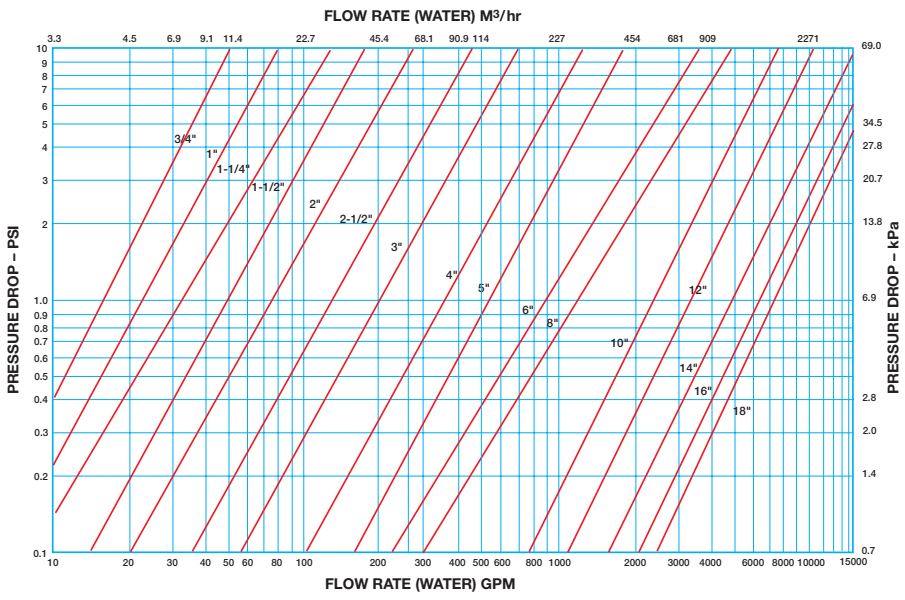
## Pressure Drop vs Flow Rate

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

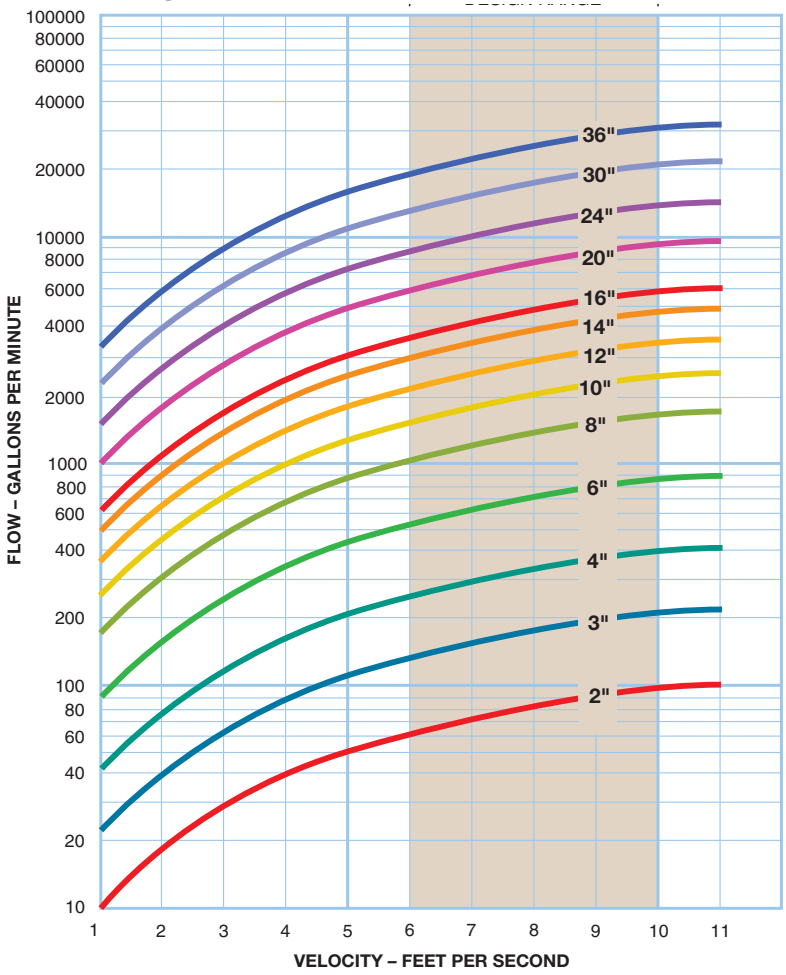
### Model 30R Simplex – 1-1/2" through 8"




### Model 72 Simplex – 3/4" through 18"




## Strainer Sizing Chart




## Strainer Basket Opening Equivalents

| Mesh | Inches | Millimeters | Microns |
|---|---|---|---|
| 400 | 0.0015 | 0.0381 | 38 |
| 300 | 0.0018 | 0.0457 | 45 |
| 250 | 0.0024 | 0.0609 | 60 |
| 200 | 0.0027 | 0.0686 | 68 |
| 150 | 0.0041 | 0.1041 | 104 |
| 100 | 0.0065 | 0.1651 | 165 |
| 80 | 0.007 | 0.1778 | 177 |
| 60 | 0.009 | 0.2286 | 228 |
| 40 | 0.015 | 0.8636 | 380 |
| 20 | 0.034 | 0.8636 | 862 |

| Perf | Inches | Millimeters | Microns |
|---|---|---|---|
| 1/32 | 0.033 | 0.838 | 838 |
| 3/64 | 0.045 | 1.143 | 1143 |
| 1/16 | 0.070 | 1.778 | 1776 |
| 3/32 | 0.094 | 2.387 | 2387 |
| 1/8 | 0.125 | 3.175 | 3175 |
| 5/32 | 0.150 | 3.810 | 3810 |
| 3/16 | 0.1875 | 4.762 | 4762 |
| 1/4 | 0.250 | 6.350 | 6350 |
| 3/8 | 0.375 | 9.525 | 9525 |
| 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 10 6 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.