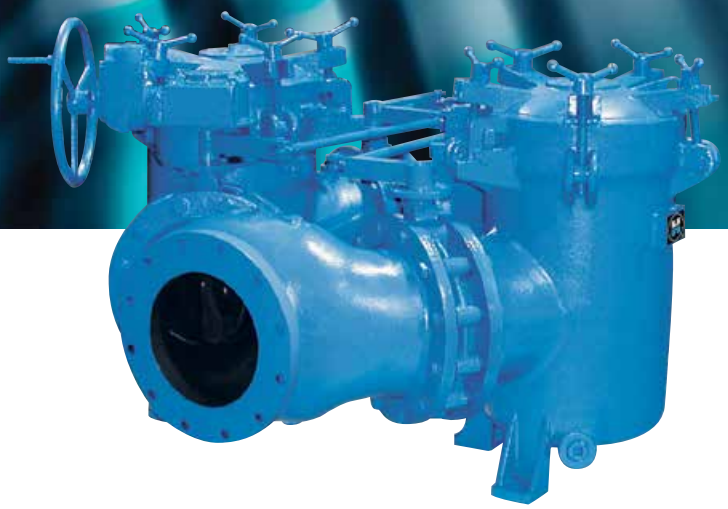
Large Duplex Basket Strainer

Pipeline Strainer

Cast Construction

Permanent Media

# Model 52



- Sizes 10" to 18"
- Iron and bronze
- Flanged

## Features

- Continuous flow, no shutdown for basket cleaning
- Compact butterfly valve design
- Quick opening covers
- Convoluted design baskets
- Threaded drain
- Perforated or mesh stainless steel baskets
- Vent
- Positive shutoff

## Options

- Ductile iron construction
- Basket perforations from 1/32" to 1/2"
- Basket mesh of 20, 40 or 60
- MONEL® baskets
- Vent valves
- Drain valves
- Gauge taps 1/4" NPT
- Pressure differential gauge and switch connections
- Magnetic basket inserts

MONEL® is a registered trademark of Special Metals Corporation group of Companies.

### The butterfly valve advantage

The Eaton Model 52 duplex strainer's design large size with high flow rates benefit from a set of synchronized, high-quality, butterfly valves that minimize the effort to switch the flow from one basket chamber to the other.

The valve replaces the diverter plug used on smaller size strainers and gives a straight flow pattern with no sudden changes in flow direction. The result is a very low pressure loss. A 10" strainer of this type can handle 2,000 gpm (454 $m^3/h$) of water with a pressure drop of only 2 psi (0.14 bar). This is the strainer to choose for high flow rate applications when a low-pressure loss is critical.

### Unique basket design

The Model 52 incorporates a larger screening area by convoluting (pleating) the perforated sheet in the strainer basket, thus increasing the available screening area while reducing the total basket size.

The flow enters the basket from the side, not the top, resulting in a straight through flow pattern. This means a lower pressure drop and greater time between basket cleanings than would be possible with standard design baskets—-a substantial savings in time and operating costs.

### Compact design

Lighter weight and a smaller profile make this strainer ideal for situations when space requirements are tight.

### Easy to operate

- A single hand wheel operator can be on either side of the strainer if accessibility is a problem.
- An arrow on the top of the gear housing indicates which basket chamber is in service and which is ready for cleaning.
- Quick opening covers make strainer basket changing or cleaning quick and easy with no tools or lifting gear.

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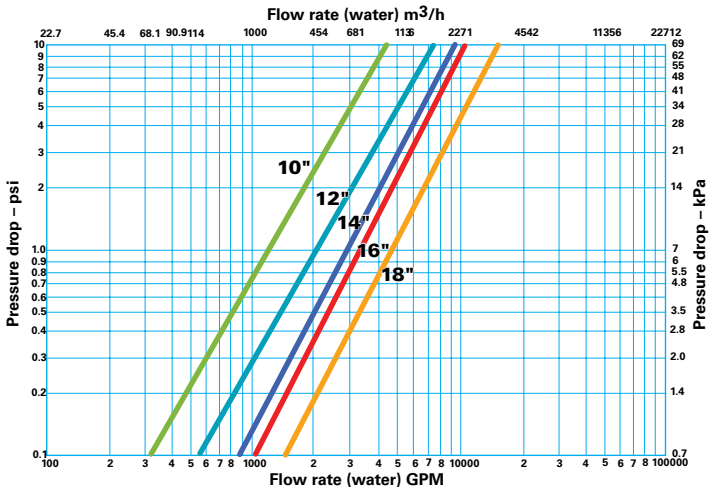
# Model 52 Large Duplex Basket Strainer

## Selection chart

| Size | Material | End connection | Seals | Pressure rating* |
|---|---|---|---|---|
| 10" to 12" | Iron | Flanged 125# | Buna-N® | 200 psi (13.8 bar) |
| 10" to 12" | Bronze | Flanged 150# | Buna-N | 200 psi (13.8 bar) |
| 14" to 18" | Iron | Flanged 125# | Buna-N | 150 psi (10.3 bar) |
| 14" to 18" | Bronze | Flanged 150# | Buna-N | 150 psi (10.3 bar) |

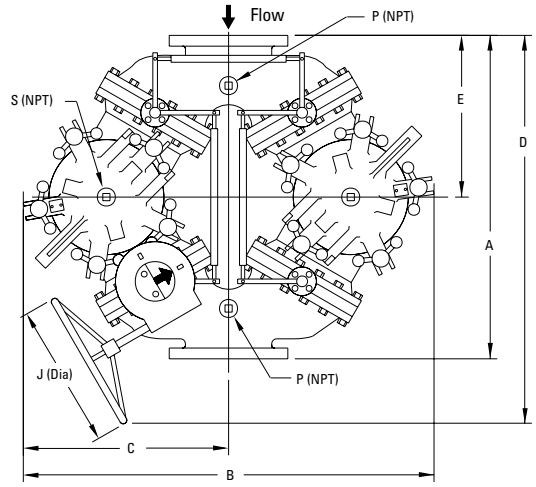
* @ 100 °F (38 °C)

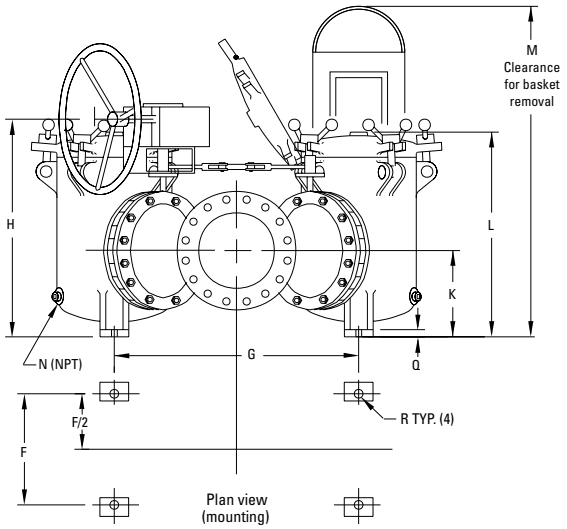



## $C_V$ factors*

| Size | Value | Size | Value |
|---|---|---|---|
| 10" | 1300 | 16" | 3400 |
| 12" | 2000 | 18" | 4900 |
| 14" | 2900 | | |

* For water with clean, perforated basket




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

## Dimensions (in/mm)

| Pipe size | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | R | S | Wt (lb / kg) Iron | Wt (lb / kg) Bronze |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 45 | 51 | 26 | 52 | 22-1/2 | 19 | 32 | 30-1/4 | 18 | 12-3/16 | 29 | 49 | 1-1/2 | 1/2 | 1 | 1 | 1/4 | 1600 | 2003 |
| | 1143 | 1295 | 660 | 1321 | 572 | 483 | 813 | 768 | 457 | 310 | 737 | 1245 | – | | 32 | 32 | – | 727 | 910 |
| 12 | 62 | 64 | 32 | 66 | 31 | 23 | 41 | 36-5/8 | 16 | 16-3/4 | 38 | 66 | 1-1/2 | 1/2 | 1 | 1 | 1/4 | 2650 | 3318 |
| | 1574 | 1626 | 813 | 1676 | 787 | 584 | 1041 | 924 | 406 | 425 | 965 | 1676 | – | | 32 | 32 | – | 1205 | 1508 |
| 14 | 72 | 76 | 38 | 79 | 35-1/2 | 27 | 48 | 44-3/4 | 24 | 18-3/4 | 44-1/2 | 77 | 1-1/2 | 1/2 | 1 | 1 | 1/4 | 4300 | 5384 |
| | 1829 | 1930 | 965 | 2007 | 902 | 686 | 1219 | 1137 | 610 | 476 | 1130 | 196 | – | | 32 | 32 | – | 1955 | 2447 |
| 16 | 72 | 76 | 38 | 79 | 35-1/2 | 27 | 48 | 44-3/4 | 24 | 18-3/4 | 44-1/2 | 77 | 1-1/2 | 1/2 | 1 | 1 | 1/4 | 4400 | 5509 |
| | 1829 | 1930 | 965 | 2007 | 902 | 686 | 1219 | 1137 | 610 | 476 | 1130 | 196 | – | | 32 | 32 | – | 2000 | 2504 |
| 18 | 72 | 76 | 38 | 79 | 35-1/2 | 27 | 48 | 44-3/4 | 24 | 18-3/4 | 44-1/2 | 77 | 1-1/2 | 1/2 | 1 | 1 | 1/4 | 4600 | – |
| | 1829 | 1930 | 965 | 2007 | 902 | 686 | 1219 | 1137 | 610 | 476 | 1130 | 196 | – | | 32 | 32 | – | 2087 | – |

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# Basket and screen data

### Wire mesh specifications

Eaton strainers are available with woven wire mesh screens. Wire mesh provides smaller openings for very fine straining applications down to 40 microns. Eaton baskets and screens use monofilament mesh possessing equal wire size and wire count in both directions to produce square openings. Other types of mesh such as Dutch (or Hollander) are also available. Dutch weave has a greater quantity of wires in one direction and fewer wires of a larger diameter in the other direction. This creates a rectangular opening. As with perforated sheet, the best wire mesh selection is a balance of open area, wire diameter and type of weave.

### Openings

Standard wire mesh liners for Eaton baskets and screens are available from 20 to 400 mesh. For any size mesh, there are different open area selections based on the diameter of the wires used. Twenty mesh means 20 wires per inch in both a vertical and horizontal direction. Therefore, as the wire size increases, the hole size decreases. Eaton baskets offer wire mesh with openings from 0.034" to 0.0015" (20 mesh to 400 mesh).

### Open area

The open area of wire mesh is a function of both the weave and the wire diameter. Eaton uses a plain square weave in most cases because its straight-through flow path creates the least pressure drop. The mesh is reinforced with a perforated metal backing possessing greater than a 60% open area. This combination affords the greatest degree of strength, yet offers a lower pressure drop than other types of wire mesh. In certain instances, such as Y strainer in steam applications, the increased pressure drop resulting from the use of a Dutch weave is not as critical as the retention of small particles. Therefore, in applications that involve steam, Eaton suggests the use of weave such as the 30 x 160 size that can withstand a much higher differential pressure without bursting. Eaton can supply baskets and screens with open areas from 14% to 46%

### Plain square weave

Woven in an over and under pattern of wire having the same diameter, this weave produces a square opening with excellent flow characteristics.

### Plain dutch weave

Woven in an over and under pattern in one direction in which the horizontal wires are larger in diameter than the vertical wires, which are driven close and crimped at each pass. This weave produces greater strength, but lower flow rates, than a square weave. Most often used in steam applications.

### Mesh liners available

The number of openings per linear inch determines the size of mesh liners. The standard sizes Eaton can furnish are 20, 40, 60, 80, 100, 200, 325 and 400.

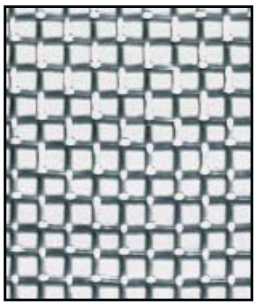
Perforated basket sheet specifications

| Perforation size inches | Sheet thickness uss gauge # | Hole pattern | % Open area |
|---|---|---|---|
| 0.020 | 26 (0.018 mm) | Straight | 16.0 |
| 1/32 | 26 (0.018 mm) | Straight | 28.0 |
| 3/64 | 26 (0.018 mm) | Straight | 30.2 |
| 0.045 | 26 (0.018 mm) | Straight | 37.0 |
| 1/16 | 26 (0.018 mm) | Straight | 31.0 |
| 1/8 | 26 (0.018 mm) | Staggered | 40.0 |
| 5/32 | 26 (0.018 mm) | Staggered | 63.0 |
| 1/4 | 26 (0.018 mm) | Staggered | 42.0 |
| 3/8 | 26 (0.018 mm) | Staggered | 52.0 |
| 1/2 | 26 (0.018 mm) | Staggered | 47.9 |

Mesh basket sheet specifications

| Mesh size | Wire diameter inches | Mesh opening inches | Mesh opening microns | % Open area |
|---|---|---|---|---|
| 20 | 0.016 | 0.0340 | 864 | 46.2 |
| 40 | 0.010 | 0.0150 | 381 | 36.0 |
| 60 | 0.0075 | 0.0092 | 234 | 30.5 |
| 80 | 0.0060 | 0.0065 | 165 | 27.0 |
| 100 | 0.0045 | 0.0055 | 140 | 30.3 |
| 200 | 0.0021 | 0.0029 | 74 | 33.6 |
| 325 | 0.0014 | 0.0017 | 43 | 30.0 |
| 400 | 0.0010 | 0.0015 | 38 | 36.0 |

Wire mesh weaves



Plain square weave

Plain dutch weave

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# Basket Effective Area

| Strainer Model | Pipe Size | Perforation Size | Nominal Area of Pipe (sq in) | Gross Screen Area (sq in) | Free Area (sq in) | Ratio Free Area to Pipe Area |
|---|---|---|---|---|---|---|
| 85 | 1/4 | .045 | .10 | 5.0 | 1.8 | 18.0 |
| 85 | 3/8 | .045 | .19 | 5.0 | 1.8 | 9.5 |
| 85 | 1/2 | .045 | .30 | 5.0 | 1.8 | 6.0 |
| 85 | 3/4 | .045 | .53 | 7.1 | 2.6 | 4.9 |
| 85 | 1 | .045 | .86 | 10.4 | 3.7 | 4.3 |
| 85 | 1-1/4 | .045 | 1.49 | 15.1 | 5.5 | 3.7 |
| 85 | 1-1/2 | .045 | 2.03 | 21.7 | 7.8 | 3.8 |
| 85 | 2 | .045 | 3.35 | 30.4 | 10.9 | 3.3 |
| 85 | 2-1/2 | .045 | 4.78 | 43.2 | 15.5 | 3.2 |
| 85 | 3 | .045 | 7.39 | 70.7 | 25.5 | 3.4 |
| 85 | 4 | .045 | 12.73 | 106.8 | 38.4 | 3.0 |
| 85 | 6 | .045 | 28.70 | 241.7 | 87.0 | 3.0 |
| 85 | 8 | .045 | 50.02 | 414.6 | 149.2 | 3.0 |
| 85 | 10 | .045 | 71.80 | 652.2 | 234.8 | 3.3 |
| 30R | 1-1/2 | 5/32 | 2.03 | 35.4 | 22.3 | 11.0 |
| 30R | 2 | 5/32 | 3.35 | 50.9 | 32.1 | 9.6 |
| 30R | 2-1/2 | 5/32 | 4.78 | 84.7 | 53.4 | 11.2 |
| 30R | 3 | 5/32 | 7.39 | 84.7 | 53.4 | 7.2 |
| 30R | 4 | 5/32 | 12.73 | 114.5 | 72.1 | 5.6 |
| 30R | 5 | 5/32 | 20.0 | 158.1 | 99.6 | 5.0 |
| 30R | 6 | 5/32 | 28.9 | 180.9 | 113.9 | 4.0 |
| 30R | 8 | 5/32 | 50.03 | 275.6 | 171.8 | 3.4 |
| 50 | 5 | 3/16 | 20.0 | 216.1 | 106.0 | 5.4 |
| 50 | 6 | 3/16 | 28.9 | 265.4 | 132.7 | 4.6 |
| 50 | 8 | 3/16 | 50.02 | 506.7 | 253.4 | 5.1 |
| 52 | 10 | 3/16 | 78.8 | 800 | 400 | 5.1 |
| 52 | 12 | 3.16 | 113,1 | 1200 | 600 | 5.3 |
| 52 | 14 | 3/16 | 137.9 | 2000 | 1000 | 7.3 |
| 52 | 16 | 3/16 | 182.6 | 2000 | 1000 | 5.5 |
| 52 | 18 | 3/16 | 182.6 | 2000 | 1000 | 5.5 |
| 53BTX | 3/4 | 1/32 | 0.53 | 19.8 | 5.5 | 10.4 |
| 53BTX | 1 | 1/32 | 0.86 | 19.8 | 5.5 | 6.4 |
| 53BTX | 1-1/4 | 1/8 | 1.49 | 45.0 | 22.0 | 14.4 |
| 53BTX | 1-1/2 | 1/8 | 2.03 | 45.0 | 22.0 | 10.6 |
| 53BTX | 2 | 1/8 | 3.35 | 65.0 | 31.0 | 9.3 |
| 53BTX | 2 -1/2 | 1/8 | 4.78 | 65.0 | 31.0 | 6.5 |
| 53BTX | 3 | 3/16 | 7.39 | 110.3 | 55.1 | 7.4 |
| 53BTX | 4 | 3/16 | 12.73 | 152.0 | 76.0 | 5.9 |

| Strainer Model | Pipe Size | Perforation Size | Nominal Area of Pipe (sq in) | Gross Screen Area (sq in) | Free Area (sq in) | Ratio Free Area to Pipe Area |
|---|---|---|---|---|---|---|
| 72 | 3/8 | 1/32 | 0.19 | 12.7 | 3.4 | 18.0 |
| 72 | 1/2 | 1/32 | 0.30 | 12.7 | 3.4 | 11.3 |
| 72 | 3/4 | 1/32 | 0.53 | 19.5 | 5.2 | 9.9 |
| 72 | 1 | 1/32 | 0.86 | 19.5 | 5.2 | 6.1 |
| 72 | 1-1/4 | 1/8 | 1.49 | 30.1 | 14.4 | 9.7 |
| 72 | 1-1/2 | 1/8 | 2.03 | 49.7 | 19.0 | 9.4 |
| 72 | 2 | 1/8 | 3.35 | 50.9 | 24.4 | 7.3 |
| 72 | 2-1/2 | 1/8 | 4.78 | 80.2 | 38.4 | 8.0 |
| 72 | 3 | 3/16 | 7.39 | 114.5 | 57.2 | 7.8 |
| 72 | 4 | 3/16 | 12.73 | 168.3 | 84.1 | 6.6 |
| 72 | 5 | 3.16 | 20.0 | 265.4 | 132.7 | 6.6 |
| 72 | 6 | 3/16 | 28.9 | 324.2 | 162.1 | 5.6 |
| 72 | 8 | 3/16 | 50.02 | 555.3 | 277.7 | 5.6 |
| 73 | 10 | 3/16 | 78.8 | 800 | 400 | 5.1 |
| 73 | 12 | 3/16 | 113.1 | 1200 | 600 | 5.3 |
| 73 | 14 | 3/16 | 137.9 | 2000 | 1000 | 7.3 |
| 73 | 16 | 3/16 | 182.6 | 2000 | 1000 | 5.5 |
| 73 | 18 | 3/16 | 182.6 | 2000 | 1000 | 5.5 |

# Alloy Data

## 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.

# Pressure Drop Calculations

Pressure drops for Eaton strainers are shown on each product page. The curves are based on the flow of water through clean, perforated baskets or screens. For mesh-lined baskets or screens and/or for fluids other than water, use the correction factors listed on this page. To accurately calculate the pressure loss for filters and strainers in a pipeline, proceed as follows:

1. First calculate pressure loss using $C_V$ factor formula at right.
2. Take the pressure loss figure obtained in (1) and recalculate it using the appropriate correction factor from the following table.

## Correction Factors for Mesh-lined Baskets

**First** – Multiply the pressure drop for water shown in charts by the specific gravity of the liquid.

**Second** – Multiply the corrected pressure drop figure by the following correction factors for more viscous liquids. (Water has a viscosity of 30 SSU.)

| Viscosity (SSU) | Unlined Perforated Basket | 40 Mesh Lined Basket | 60 Mesh Lined Basket | 80 Mesh Lined Basket | 100 Mesh Lined Basket | 200 Mesh Lined Basket | 325 Mesh Lined Basket |
|---|---|---|---|---|---|---|---|
| 30 (water) | 1 | 1.2 | 1.4 | 1.6 | 1.7 | 2.0 | 2.5 |
| 500 | 1.6 | 1.9 | 2.1 | 2.4 | 2.6 | 3.1 | 3.6 |
| 1000 | 1.7 | 2.2 | 2.4 | 2.6 | 2.8 | 3.3 | 3.8 |
| 2000 | 1.9 | 2.4 | 2.7 | 2.9 | 3.2 | 3.8 | 4.0 |
| 3000 | 2.0 | 2.6 | 2.9 | 3.2 | 3.5 | 4.1 | 4.3 |
| 5000 | 2.2 | 3.0 | 3.5 | 4.0 | 4.5 | 5.3 | 6.3 |
| 10000 | 2.5 | 3.5 | 4.2 | 5.0 | 6.0 | 7.1 | 8.5 |

## 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 |

## Pressure Loss Calculation Using $C_V$ Factor

### Metric Units

$$\Delta P = \left[\frac{Q}{C_V}\right]^2 (133.6)$$

$\Delta P$ = Pressure Drop in kPa
$Q$ = Flow in $M^3/hr$
$C_V$ = Flow Coefficient

### Standard Units

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

$\Delta P$ = Pressure Drop in psi
$Q$ = Flow in gpm
$C_V$ = Flow Coefficient

The pressure loss across a strainer can be calculated using the system's flow rate and the $C_V$ factor for that strainer.

For example, a 1" Model 72 simplex strainer with a perforated basket has a $C_V$ factor of 22.5. In water service with a 30 gpm flow rate, it will have a 1.7 psi pressure drop $(30 \div 22.5)^2 = 1.7$. For mesh-lined baskets and/or fluids with a viscosity greater than water, multiply the pressure drop by the correction factors in the chart "Correction Factors for Mesh-lined Baskets."

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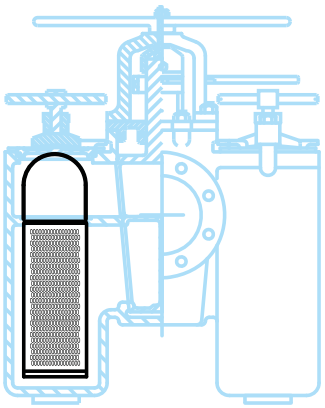
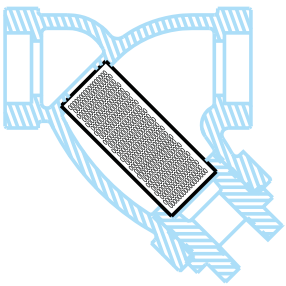
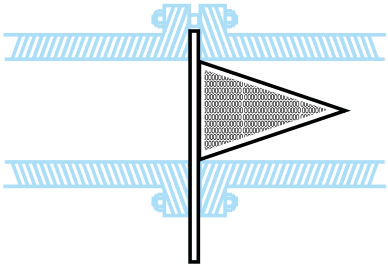


Partial cutaway of plug type duplex strainer showing basket in position



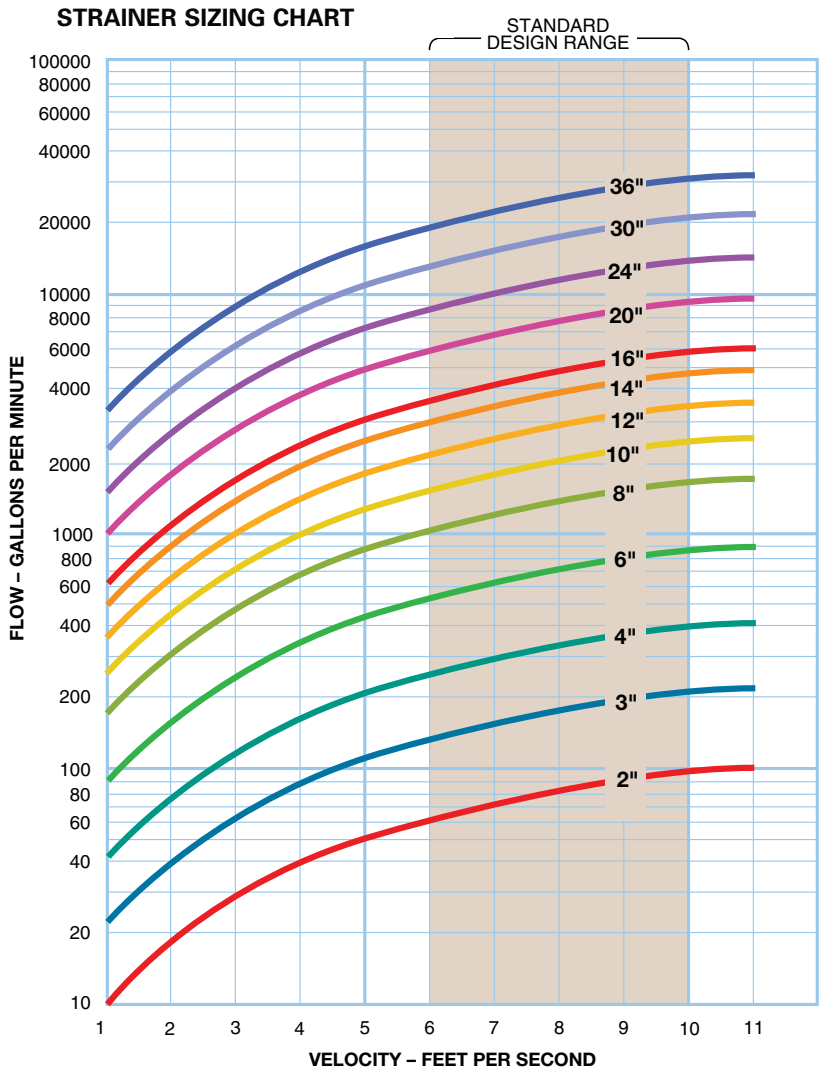
Cutaway of Y strainer shows strainer screen in position



Cone type temporary strainer is shown bolted between two pipe flanges

## Basic Sizing Guidelines

1. Ensure that the pipeline flow velocity falls within the standard design range of the strainer.
2. Select the correct screen and opening size, do not make smaller than necessary.
3. The quantity, type, and nature of debris to be removed are considered.
4. The strainer meets the design pressure and temperature requirements of the pipeline.

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# Options
## And Temporary Strainers

Typical pressure differential gauge with switch.

### Magnetic Inserts

In some applications, particularly where fluids are involved in machining processes, microscopic iron or steel particles may be present. These could pass through even the finest mesh screen. Magnetic inserts in the strainer basket catch these particles before they can pass through the mesh lining. Guaranteed to retain their magnetism indefinitely, the powerful Alnico magnets, completely encased and sealed in a 1/8" thick, type 316 stainless steel shell, prevent contamination or corrosion. Each magnet's capacity is 1300 gauss.

### Taps

Optimal 1/4" NPT cover vent taps and inlet/outlet nozzle taps are available for most strainers.

### Heavy-Duty Strainer Baskets

For very demanding applications, heavy-duty construction baskets are extremely rugged and stand up to the most abusive conditions. Heavy-duty strainer baskets have a metal banding spot welded at top and middle to provide extra support for difficult applications.

### Differential Pressure Gauge

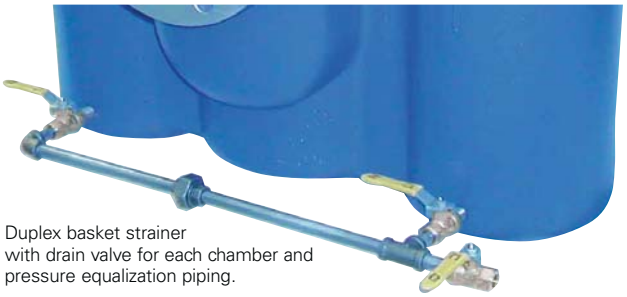
This gauge shows the pressure differential across the strainer and helps determine when to change out the strainer basket. It has a 0 - 30 psid pressure range and features a 3-1/2" gauge face. Rated at 3000 psi, it comes with a 1/4" NPT connection in either brass or stainless steel.

### Differential Pressure Gauge with Switch

This standard Eaton differential pressure gauge, shown above, includes a double pole, double throw, relay contact to permit actuation of a remote electrical signaling device—such as a light on a control panel—when it reaches a predetermined differential pressure. Contact rating is 10 A/115 V/60 Hz.

### Cover Vent Valves

Available in brass or stainless steel, needle type valves, rated for 200 psi at 100 °F, mount on the cover of the strainer with a 1/4" NPT tap.



Duplex basket strainer with drain valve for each chamber and pressure equalization piping.

### Drain Valves

These ball type valves, used to drain the strainer housing, are available in brass or stainless steel, rated at 600 psi at 100 °F with either 1/4" or 1/2" NPT connections.

### Elastomer Seals

If the standard seals on a pipeline strainer are not suitable for a specific application, Eaton offers a variety of special seals that include EPDM, Viton®, Buna-N, and TFE-encapsulated.

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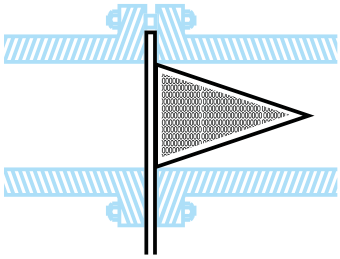
# Temporary Strainers

- 2" to 24"
- Flanged
- Stainless Steel or Monel



Cone type temporary strainer is shown bolted between two pipe flanges

## FEATURES

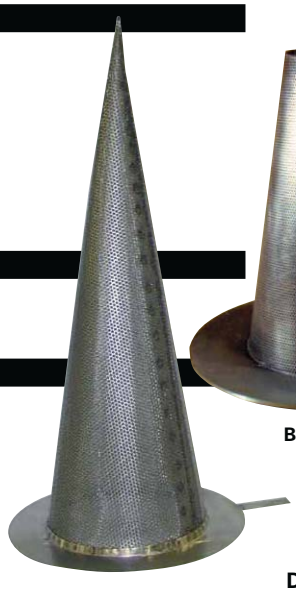
- ANSI Classes 150, 300, and 600
- Perforations from 1/32" to 1/2" diameter
- Mesh Liners of 20, 40, 60, 80, and 100 (best with basket type strainers)
- Stainless steel or Monel construction

## OPTIONS

- Alloy construction, RTJ-style connections

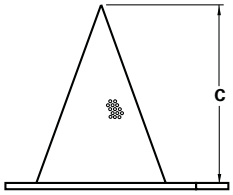
## DESIGNED FOR USE IN

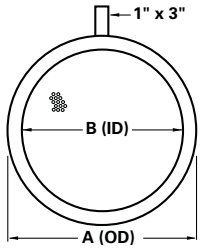
- New pipeline start-up service
- Line flushing after any modification work

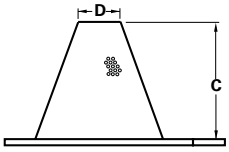


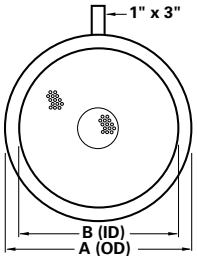
**Cone Type**

**Basket Type**




**Dimensions (in) Model 92 Cone Type**

| Pipe Size | A Class 150 | A Class 300 | A Class 600 | B | C |
|---|---|---|---|---|---|
| 2 | 3.88 | 3.88 | 4.13 | 1.75 | 6.0 |
| 2-1/2 | 4.63 | 4.63 | 4.88 | 2.25 | 7.0 |
| 3 | 5.13 | 5.13 | 5.63 | 2.75 | 9.0 |
| 4 | 6.63 | 6.63 | 6.88 | 3.50 | 12.0 |
| 5 | 7.50 | 7.50 | 9.25 | 4.63 | 14.0 |
| 6 | 8.50 | 8.50 | 10.25 | 5.50 | 17.0 |
| 8 | 10.75 | 10.75 | 12.38 | 7.13 | 23.0 |
| 10 | 12.13 | 13.13 | 15.50 | 9.00 | 27.0 |
| 12 | 15.88 | 15.88 | 17.38 | 10.88 | 32.0 |
| 14 | 17.50 | 17.50 | 19.13 | 12.63 | 33.0 |
| 16 | 20.00 | 20.00 | 22.00 | 14.50 | 39.0 |
| 18 | 21.38 | 21.38 | 23.88 | 16.38 | 44.0 |
| 20 | 23.63 | 23.63 | 26.63 | 18.38 | 49.0 |
| 24 | 28.00 | 28.00 | 30.88 | 20.38 | 58.0 |

**Dimensions (in) Model 92 Basket Type**

| Pipe Size | A Class 150 | A Class 300 | A Class 600 | B | C | D |
|---|---|---|---|---|---|---|
| 2 | 3.88 | 3.88 | 4.13 | 1.75 | 3.5 | 1.0 |
| 2-1/2 | 4.63 | 4.63 | 4.88 | 2.25 | 4.0 | 1.0 |
| 3 | 5.13 | 5.13 | 5.63 | 2.75 | 4.5 | 1.0 |
| 4 | 6.63 | 6.63 | 6.88 | 3.50 | 6.0 | 2.0 |
| 5 | 7.50 | 7.50 | 9.25 | 4.63 | 7.5 | 2.0 |
| 6 | 8.50 | 8.50 | 10.25 | 5.50 | 9.0 | 2.0 |
| 8 | 10.75 | 10.75 | 12.38 | 7.13 | 12.0 | 2.0 |
| 10 | 13.13 | 13.13 | 15.50 | 9.00 | 14.0 | 3.0 |
| 12 | 15.88 | 15.88 | 17.38 | 10.88 | 16.5 | 3.0 |
| 14 | 17.50 | 17.50 | 19.13 | 12.63 | 17.0 | 4.0 |
| 16 | 20.00 | 20.00 | 22.00 | 14.50 | 19.0 | 4.0 |
| 18 | 21.38 | 21.38 | 23.88 | 16.38 | 21.0 | 6.0 |
| 20 | 23.63 | 23.63 | 26.63 | 18.38 | 24.0 | 6.0 |
| 24 | 28.00 | 28.00 | 30.88 | 22.38 | 28.0 | 10.0 |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