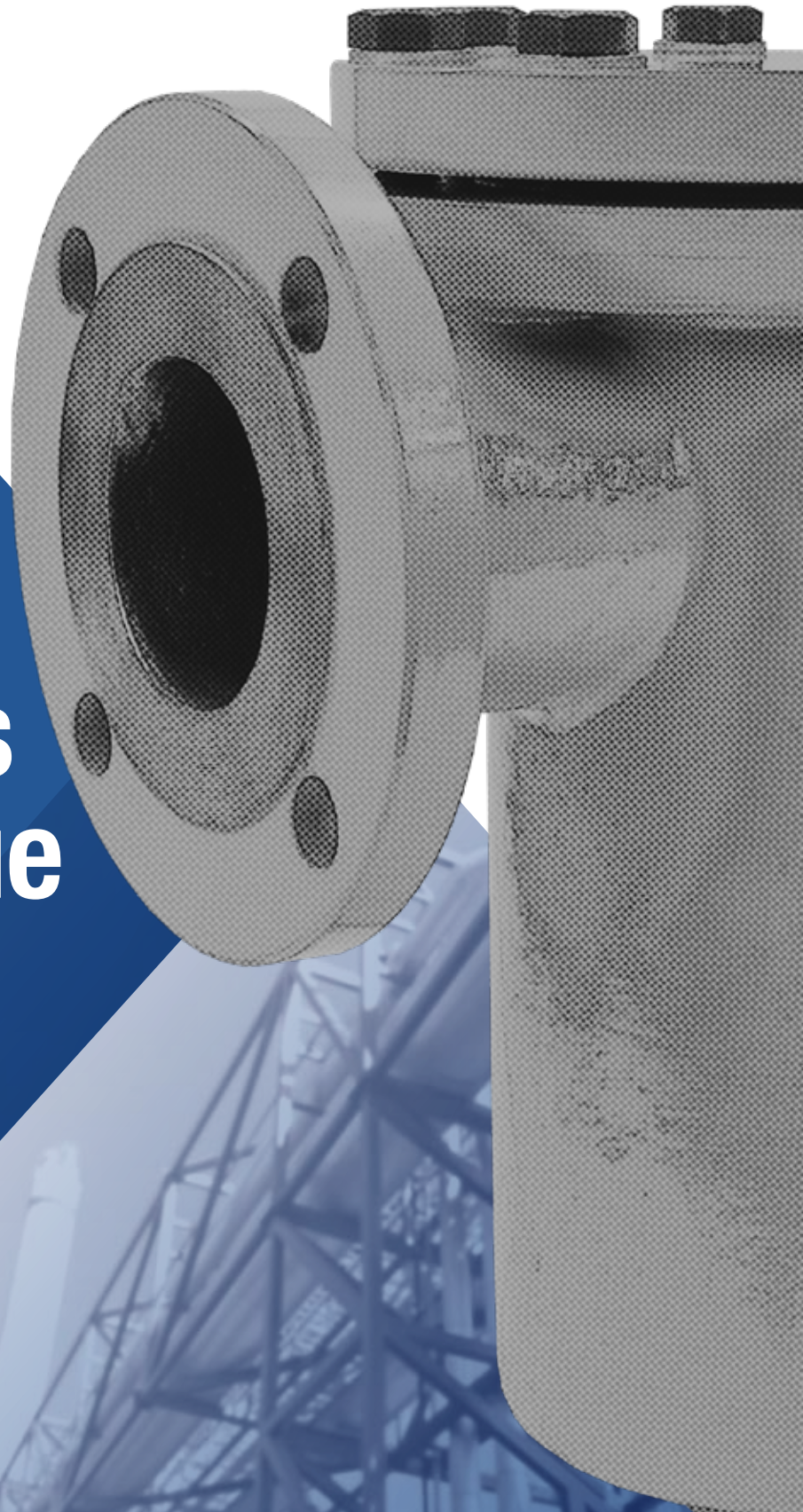




Products Catalogue

Strainers | Suction Diffusers
Valves | Expansion Joints



ISO
9001

CRN

3 YEAR VIEW TERMS & CONDITIONS
WARRANTY



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Expansion Joints

- 130** Expansion Joints



Sizes
1/4" to 16"



Pressure
up to 3705 PSIG



Temperature
up to 800°F



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- Low pressure drop streamlined design
- Large strainer screens
- Compact end to end dimension
- Cast or Fabricated Construction

End Connections

- Flat Faced
- Raised Face
- RTJ Flanged
- Butt weld
- Threaded (NPT)
- Socketweld
- Sweat

Materials

- Cast Iron
- Ductile Iron
- Bronze
- Carbon Steel
- Low Temp Steel
- Stainless Steel

ASME Ratings

- Class 125
- Class 150
- Class 300
- Class 600
- Class 900
- Class 1500
- Class 2500

Body-Cover Flange Joints

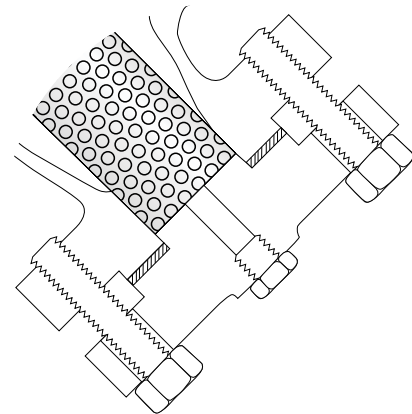
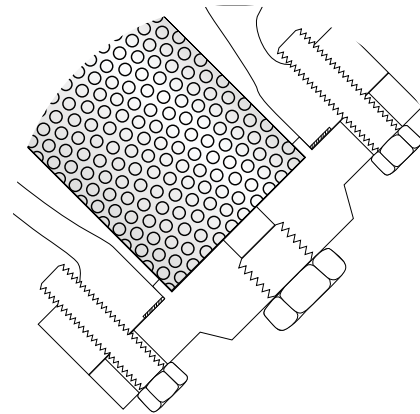
Flanged body-cover joints are designed to meet the requirements of ASME Section VIII, Div. 1 and / or ASME B16.5.

Series 150Y2 & 300Y2

For Series 150Y2 and 300Y2 strainers, the body-cover joint is designed using the equations found in Appendix II of the ASME Pressure Vessel Code. Calculations are performed using standard gaskets and with the existence of an edge moment. The gasket cavity is fully enclosed ensuring proper gasket alignment while preventing unwinding of spiral wound gaskets if used.

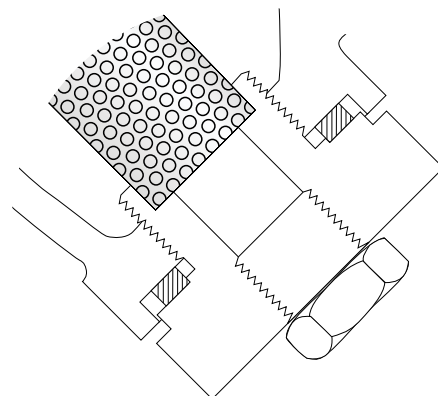
Series 600Y2, 900Y2 & 1500Y2

Series 600Y2, 900Y2 and 1500Y2 strainers incorporate a body-cover joint that is in dimensional accordance with the flange dimensions specified in ASME B16.5. Among the advantages of this strong leak-proof design is the convenience of using gaskets that are in accordance with ASME B16.20 and ASME B16.21. This feature eliminates the need for dimensionally special gaskets when maintenance is performed.



Body-Cover Threaded Joints

The design of a strong threaded body-cover joint is dependent on many factors. When designing these joints for strainers, calculations are performed taking into account thread shear (ASME B16.34), cover thickness and operating / gasket seating loads (ASME Sect. VIII, Div. 1). Basic dimensions such as wall thickness and band diameters are in accordance with ASME codes.

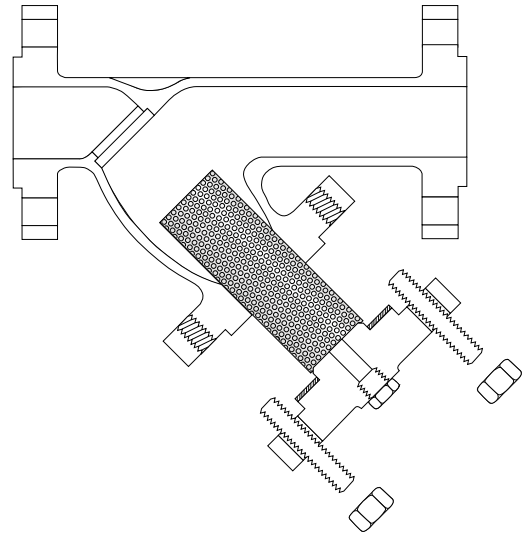


Screen Seating

All SSI Y-Strainers are manufactured with both upper and lower machined seats. This feature eliminates debris by-pass while also acts to securely hold the screen in position when in service.

For assembly and disassembly purposes, SSI Y-Strainers are designed so that the screen is securely slid over or into a machined lip on the cover bonnet. This allows the screen to be easily guided into the upper machined seat during assembly.

In particular, for Series 600Y2, 900Y2 and 1500Y2 strainers, where the cover flange tends to be heavy and difficult to manoeuvre, the screen is also guided around its circumference by the strainer body. This feature eliminates the possibility of misaligning the strainer screen during assembly while providing additional support to the screen when in service. This circumferential support reduces maintenance time and costs since the strainer can be assembled quicker and safer than with other designs.



Strainer Screens

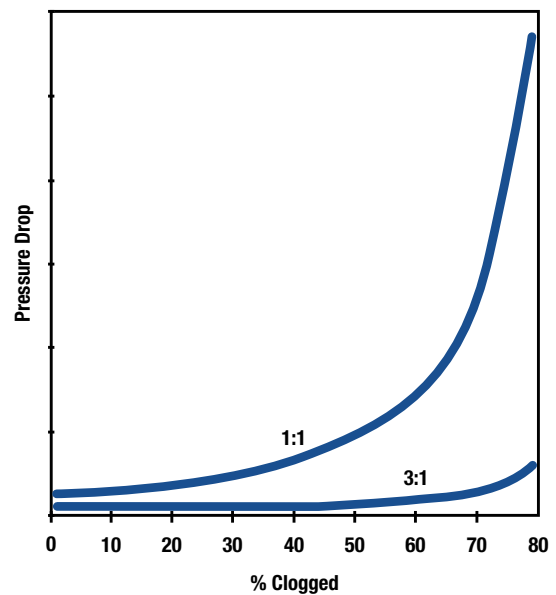
All SSI Y-Strainers are equipped with screens that have an open flow area many times greater than the pipe nominal cross-sectional area. This is important in order to reduce initial pressure drop and decrease the rate in which the pressure drop increases as the strainer screen becomes clogged. As shown in the figure the larger the screen area the lower the rate of increase in pressure drop. A Y-Strainer screen must be strong enough to handle the resulting differential pressure that occurs when in service. In general, all SSI strainer screens are designed to handle a minimum burst pressure of 50 psid. SSI calculates the burst pressure of screens using the formula:

$$P = \frac{St}{R-0.4t}$$

- P** = Burst Pressure
- S** = Reduced allowable stress
- t** = Thickness of screen material
- R** = Outside radius of screen

Using the above formula, SSI can design and manufacture any strainer screen to suit your specific strength requirements.

Effect of Screen Area on Pressure Drop



Note: Curves are for different ratios of free area to pipe area.



Sizes
3/8" to 12"



Pressure
up to 200 PSIG
(13.8 BARG)



Temperature
up to 450°F
(232°C)



Applications
Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 125 rated strainers
- NPT, SE and FF connections designed in accordance with ASME B16.15, B16.18 and B16.1
- One piece cast body
- Upper and lower machined seats
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings.

Applicable Codes (designed in accordance with)

- ASME B16.1
- ASME B16.15
- ASME B16.18

Models

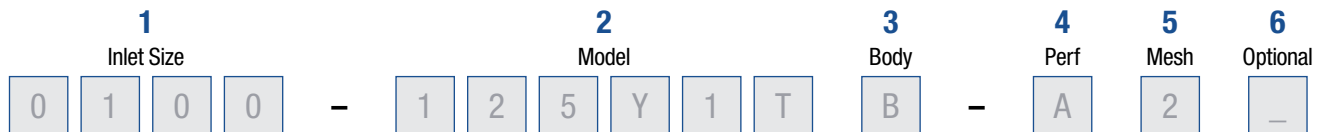
- 125Y1T - Bronze, NPT, Threaded Cover
- 125Y1E - Bronze, Sweat Ends, Threaded Cover
- 125Y2F - Carbon, Flanged, Bolted Cover

Options

- Other perforated screens and mesh liners
- Other drain connections and gasket materials
- Oxygen cleaning
- Special internal/external coatings and linings
- Contact factory for other options

Canadian Registration - See appropriate Model pages

125Y Series Ordering Code



| 1 | | Inlet Size | | | |
|------|------|------------|-----|------|-----|
| 0038 | 3/8" | 0200 | 2" | 0800 | 8" |
| 0050 | 1/2" | 0250 | 2½" | 1000 | 10" |
| 0075 | 3/4" | 0300 | 3" | 1200 | 12" |
| 0100 | 1" | 0400 | 4" | 1400 | 14" |
| 0125 | 1¼" | 0500 | 5" | 1600 | 16" |
| 0150 | 1½" | 0600 | 6" | | |

| 2 | | Model | |
|--------|------------------------------------|--------|-------------------------------|
| 125Y1T | BR, NPT with Threaded Cover | 125Y2F | CI, Flanged with Bolted Cover |
| 125Y1E | BR, Sweat Ends with Threaded Cover | | |

| 3 | | Body Material | |
|---|-----------|---------------|--------|
| I | Cast Iron | B | Bronze |

| 4 | | Perf ¹ (304SS Material ²) | | | |
|---|---------|--|-------|---|-------|
| A | No Perf | 2 | 1/16" | 7 | 7/32" |
| 1 | 1/32" | 3 | 3/32" | 8 | 1/4" |
| B | 3/64 | 5 | 5/32" | 9 | 3/8" |
| 4 | 1/8" | 6 | 3/16" | | |

| 5 | | Mesh ^{1,2} (Leave Blank if not required) | | | |
|---|----|---|----|---|-----|
| 1 | 10 | 4 | 40 | 7 | 80 |
| 2 | 20 | 5 | 50 | 8 | 100 |
| 3 | 30 | 6 | 60 | 9 | 120 |

| 6 | | Optional (Leave Blank if not required) | |
|---|--------------------|--|---------------------------|
| D | Special Drain Size | T | Special Testing |
| F | Silicon Free | X | Oxygen Cleaning |
| G | Special Gaskets | Y | Other / Multiple Specials |

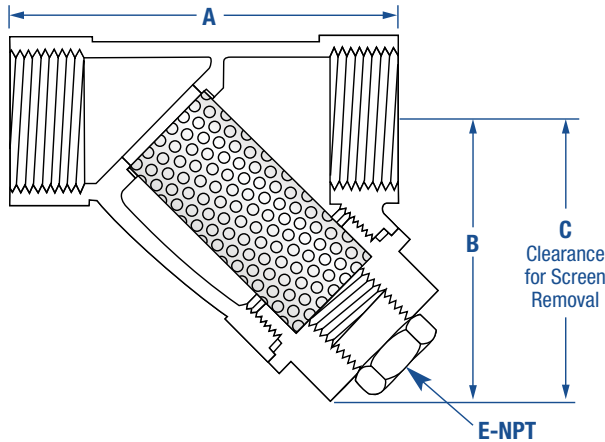
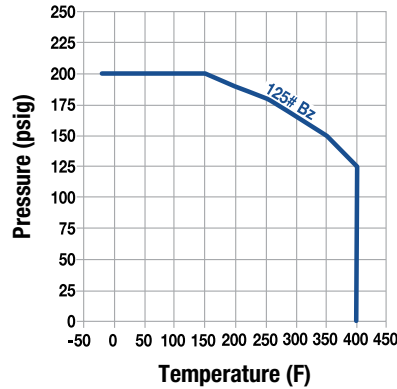
125Y1 Series

Y-Strainers

Bronze Body | NPT & Sweat Ends



Pressure / Temperature Chart
ASME B16.15



Description

SSI manufactures bronze y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI bronze y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

3/8" to 3"

Pressure Rating

200 PSIG (13.8 BARG)

Temperature Rating

450° F

End Connections

Threaded (NPT)
Sweat Ends

Screen Openings

20 Mesh | 304 SS

Features

- One piece cast body
- ASME Class 125 rated strainers
- Upper and lower machined seats
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

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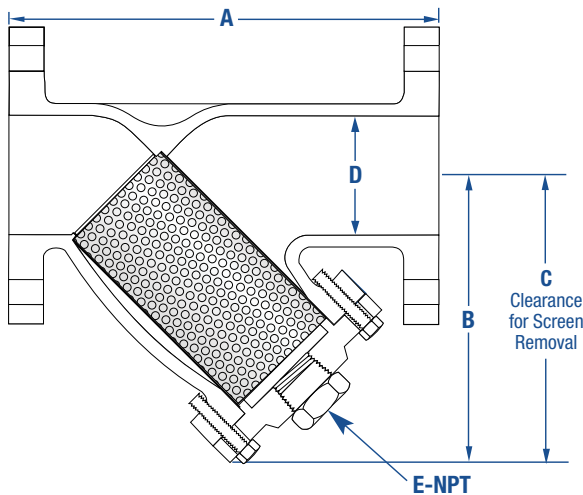
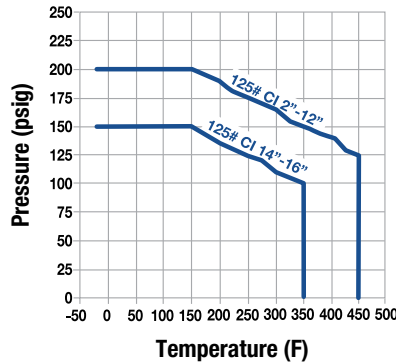
| Size | | Dimensions | | | | | | | | | |
|--------|----|------------|-----|------|-----|-------|-----|------|----|--------|------|
| | | A | | B | | C | | E | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| 3/8" | 10 | 3.25 | 82 | 2.13 | 55 | 3.50 | 89 | 0.38 | 10 | 0.8 | 0.36 |
| 1/2" | 15 | 3.25 | 82 | 2.13 | 55 | 3.50 | 89 | 0.38 | 10 | 1.0 | 0.25 |
| 3/4" | 20 | 4.00 | 100 | 2.75 | 70 | 4.50 | 114 | 0.38 | 10 | 1.2 | 0.60 |
| 1" | 25 | 4.50 | 115 | 3.00 | 75 | 5.00 | 127 | 0.50 | 15 | 1.6 | 0.73 |
| 1 1/4" | 32 | 5.38 | 136 | 3.56 | 90 | 5.75 | 146 | 0.50 | 15 | 2.5 | 1.1 |
| 1 1/2" | 40 | 6.31 | 160 | 3.88 | 98 | 6.38 | 162 | 0.50 | 15 | 3.4 | 1.6 |
| 2" | 50 | 7.50 | 191 | 5.44 | 138 | 9.06 | 230 | 0.50 | 15 | 5.8 | 2.6 |
| 2 1/2" | 65 | 9.06 | 230 | 5.94 | 151 | 10.00 | 254 | 0.50 | 15 | 10.2 | 4.6 |
| 3" | 76 | 10.19 | 259 | 6.31 | 160 | 10.38 | 264 | 0.50 | 15 | 13.7 | 6.2 |

| Materials | |
|---------------------|--------------|
| Part | Material |
| Body | Bronze B584 |
| Cover | Bronze B584 |
| Screen ¹ | 304 SS Mesh |
| Plug | Bronze B584 |
| Gasket ¹ | Garlock 2900 |

Dimensions applicable only to Y-Strainers with NPT Ends | Contact VSA for dimensions of Y-Strainers with Sweat Ends | Dimensions shown are subject to change. Consult factory for certified drawings when required.
For Butt weld sizes please indicate pipe schedule on the order. | ¹ Recommended Spare Parts



Pressure / Temperature Chart
ASME B16.1



Description

SSI manufactures bronze y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI bronze y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 16"

Pressure Rating

200 PSIG (13.8 BARG)

Temperature Rating

450° F

End Connections

Flanged

Screen Openings

2"-3" | 3/64" Perf | 304 SS
4"-16" | 1/8" Perf | 304 SS

Features

- One piece cast body
- ASME Class 125 rated strainers
- Upper and lower machined seats
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

CRN

| Dimensions | | | | | | | | | | | | | |
|------------|-----|-------|------|-------|-----|-------|------|------|-----|------|----|--------|-----|
| Size | | A | | B | | C | | D | | E | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| 2" | 50 | 8.88 | 226 | 6.13 | 156 | 8.50 | 216 | 2 | 51 | 0.5 | 15 | 22 | 10 |
| 2½" | 65 | 10.75 | 273 | 8.06 | 205 | 11.25 | 286 | 2.5 | 64 | 1 | 25 | 35 | 16 |
| 3" | 80 | 11.63 | 295 | 8.50 | 216 | 12.25 | 311 | 3 | 76 | 1 | 25 | 43 | 20 |
| 4" | 100 | 13.88 | 353 | 9.63 | 245 | 13.38 | 340 | 4 | 102 | 1 | 25 | 75 | 34 |
| 5" | 125 | 16.38 | 416 | 11.63 | 295 | 16.13 | 410 | 5 | 127 | 1.25 | 32 | 115 | 52 |
| 6" | 150 | 18.50 | 470 | 12.63 | 321 | 17.69 | 449 | 6 | 152 | 1.5 | 40 | 154 | 70 |
| 8" | 200 | 21.38 | 543 | 16.38 | 416 | 23.00 | 584 | 8 | 203 | 1.5 | 40 | 243 | 110 |
| 10" | 250 | 26.00 | 660 | 19.13 | 486 | 26.69 | 678 | 10 | 254 | 2 | 50 | 390 | 117 |
| 12" | 300 | 30.00 | 762 | 22.06 | 559 | 31.00 | 787 | 12 | 305 | 2 | 50 | 650 | 295 |
| 14" | 350 | 37.38 | 949 | 30.69 | 780 | 41.00 | 1041 | 14 | 356 | 2 | 50 | 815 | 370 |
| 16" | 400 | 42.50 | 1080 | 33.06 | 840 | 46.00 | 1168 | 16 | 406 | 2 | 50 | 1224 | 555 |

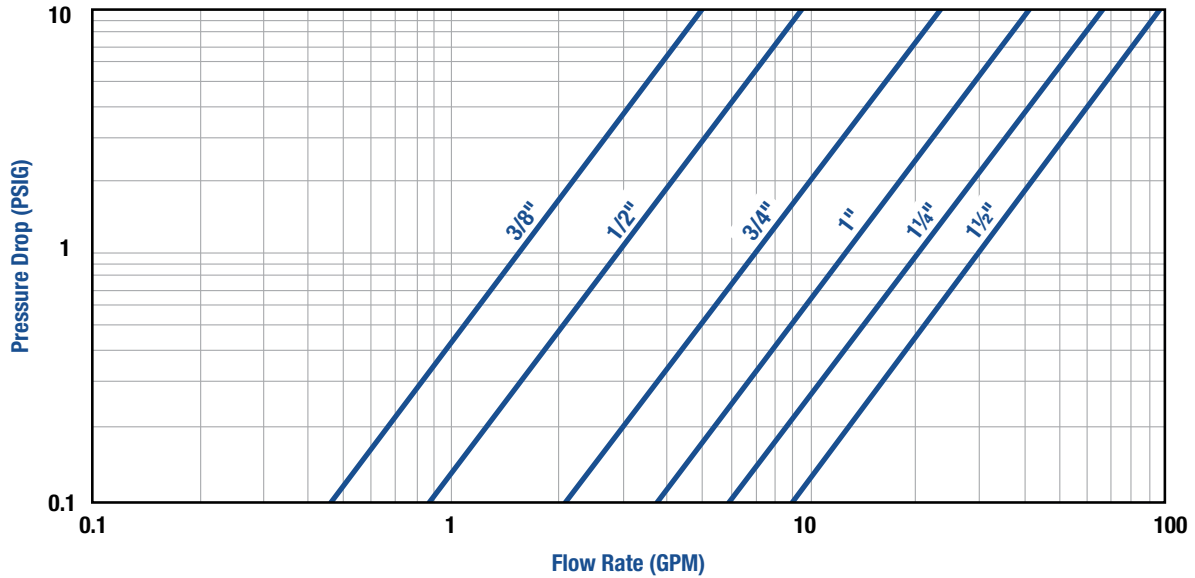
| Materials | |
|------------------------|------------------|
| Part | Material |
| Body | Cast Iron A126-B |
| Cover | Cast Iron A126-B |
| Screen ¹ | 304 SS |
| Plug | Cast Iron A126-B |
| Gasket ¹ | Graphite |
| Bolt/Stud ² | A307-B |
| Nut ² | A563 |

Dimensions shown are subject to change. Consult factory for certified drawings when required. | ¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted

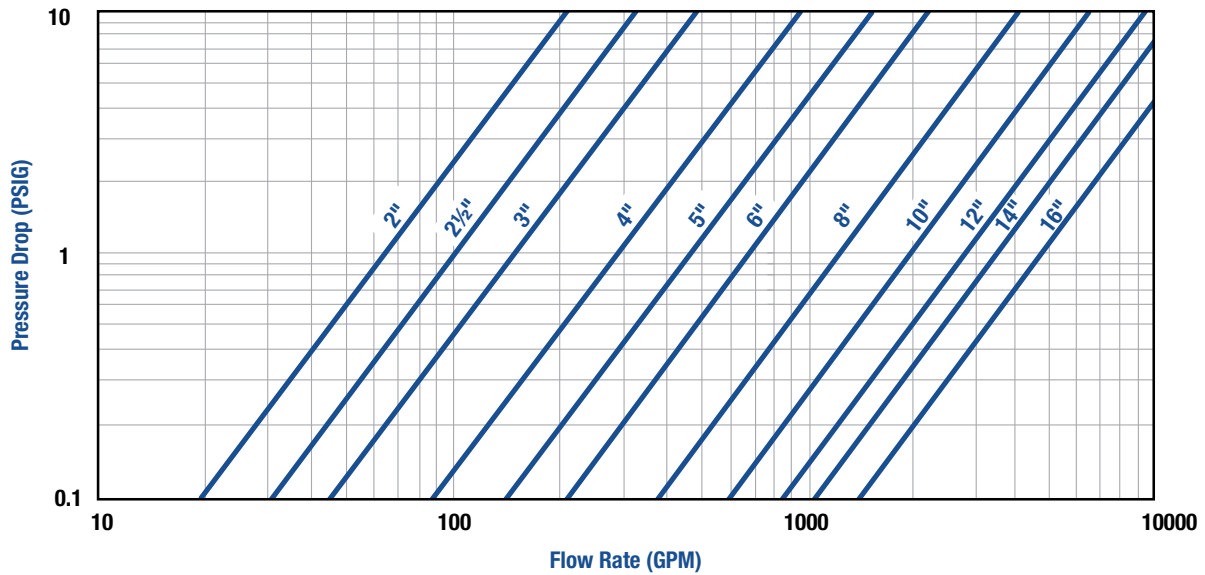
Pressure Drop VS. Flow Rate

Water Service, Clean Basket, 1/32" to 1/4" Perforated Screen*

(Sizes 3/8" to 1 1/2")



(Sizes 2" to 16")



* For Gas, Steam or Air service, consult factory.

Open Area Ratios

Standard Perforated Screen*

| Bronze 125Y1 Series Y-Strainer | | | | | | |
|------------------------------------|------|-----------|--|--------------------------------------|-------------------------------------|-----------------------|
| Size | Mesh | Opening % | Std Pipe Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| 3/8" | 20 | 49 | 0.19 | 3.8 | 1.88 | 9.9 |
| 1/2" | 20 | 49 | 0.30 | 3.8 | 1.88 | 6.2 |
| 3/4" | 20 | 49 | 0.53 | 5.5 | 2.71 | 5.1 |
| 1" | 20 | 49 | 0.86 | 7.0 | 3.45 | 4.0 |
| 1 1/4" | 20 | 49 | 1.50 | 11.1 | 5.42 | 3.6 |
| 1 1/2" | 20 | 49 | 2.04 | 15.2 | 7.46 | 3.7 |
| 2" | 20 | 49 | 3.36 | 26.1 | 12.81 | 3.8 |
| 2 1/2" | 20 | 49 | 4.79 | 36.6 | 17.95 | 3.7 |
| 3" | 20 | 49 | 7.39 | 49.0 | 24.00 | 3.2 |

| Cast Iron 125Y2 Series Y-Strainer | | | | | | |
|---------------------------------------|------|-----------|--|--------------------------------------|-------------------------------------|-----------------------|
| Size | Mesh | Opening % | Std Pipe Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| 3/8" | 20 | 49 | 0.19 | 3.8 | 1.88 | 9.9 |
| 1/2" | 20 | 49 | 0.30 | 3.8 | 1.88 | 6.2 |
| 3/4" | 20 | 49 | 0.53 | 5.5 | 2.71 | 5.1 |
| 1" | 20 | 49 | 0.86 | 7.0 | 3.45 | 4.0 |
| 1 1/4" | 20 | 49 | 1.50 | 11.1 | 5.42 | 3.6 |
| 1 1/2" | 20 | 49 | 2.04 | 15.2 | 7.46 | 3.7 |
| 2" | 20 | 49 | 3.36 | 26.1 | 12.81 | 3.8 |
| 2 1/2" | 20 | 49 | 4.79 | 36.6 | 17.95 | 3.7 |
| 3" | 20 | 49 | 7.39 | 49.0 | 24.00 | 3.2 |

OAR = Free Screen Area / Inlet Area | Free Screen Area = Opening % x Gross Screen Area | Values shown are approximate. Consult factory for exact ratios.

* Consult factory.

150Y Series

Y-Strainers

Bronze, Carbon & Stainless Steel Body | Flanged Ends



Sizes
½" to 12"



Pressure
up to 285 PSIG
(19.7 BARG)



Temperature
up to 750°F
(390°C)



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 150 rated strainers
- RF, FF (Bronze only) and Butt weld connections designed in accordance with ASME B16.5, B16.24, B16.25 and B16.34
- All sizes complete with Bolted Cover
- Cover flange (CS, SS) in accordance with ASME Section VIII, Div 1 Appendix II and/or ANSI 16.5.
- One piece cast body
- Upper and lower machined seats
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings
- Drain/Blow-off connection furnished with plug

Applicable Codes (designed in accordance with)

- ASME B16.5
- ASME B16.25
- ASME B16.24
- ASME B16.34

Models

- 150Y2F – Carbon, Stainless or Bronze Flanged with Bolted Cover
- 150Y2B – Carbon or Stainless Butt weld with Bolted Cover

Options

- Other perforated screens and mesh liners
- Other drain connections and gasket materials
- Oxygen cleaning
- Special internal/external coatings and linings
- Contact factory for other options

150Y Series Ordering Code

| | | | | | | | | | | | | | | | |
|------------------------|---|---|---|-------------------|---|---|---|------------------|---|------------------|------------------|----------------------|---|---|---|
| 1 Inlet Size | | | | 2 Model | | | | 3 Body | | 4 Perf | 5 Mesh | 6 Optional | | | |
| 0 | 2 | 0 | 0 | - | 1 | 5 | 0 | Y | 2 | F | T | - | B | - | - |

| 1 | Inlet Size | |
|------|------------|----------|
| 0050 | ½" | 0200 2" |
| 0075 | ¾" | 0250 2½" |
| 0100 | 1" | 0300 3" |
| 0125 | 1¼" | 0400 4" |
| 0150 | 1½" | 0500 5" |

| 2 | Model |
|--------|---|
| 150Y2F | CS, SS or BR, Flanged with Bolted Cover |

| 3 | Body Material | |
|---|-----------------|----------|
| C | Carbon Steel | B Bronze |
| T | Stainless Steel | |

| 4 | Perf ¹ (304SS Material [®]) | |
|---|--|---------|
| A | No Perf | 2 1/16" |
| 1 | 1/32" | 3 3/32" |
| B | 3/64 | 5 5/32" |
| 4 | 1/8" | 6 3/16" |

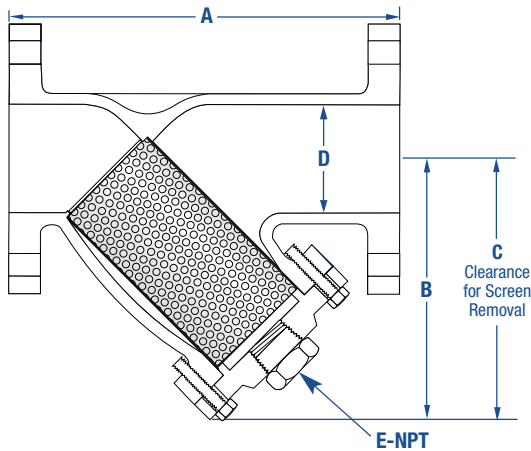
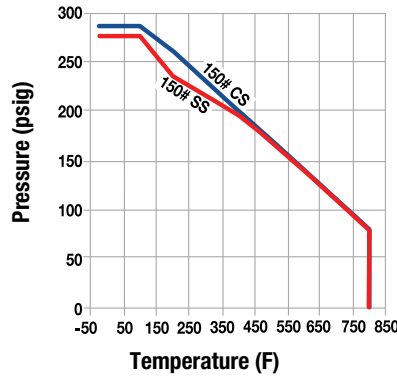
| 5 | Mesh ² (Leave Blank if not required) | |
|---|---|------|
| 1 | 10 | 4 40 |
| 2 | 20 | 5 50 |
| 3 | 30 | 6 60 |

| 6 | Optional (Leave Blank if not required) | |
|---|--|-----------------------------|
| D | Special Drain Size | N Nace MR01-75 |
| F | Silicon Free | X Oxygen Cleaning |
| G | Special Gaskets | Y Other / Multiple Specials |
| T | Special Testing | |

1. Standard Screens: ALL 1/2"-11/2"—1/32" perf, ALL 2"-3"—3/64" per, ALL >3"—1/8" perf.
2. For other screen material, contact factory.



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

½" to 12"

Pressure

285 PSIG (19.7 BARG)

Temperature

750° F (390° C)

End Connections

RF Flanged

Screen Openings

½"-1½" | 1/32" Perf | 304 SS
2"-3" | 3/64" Perf | 304 SS
4"-12" | 1/8" Perf | 304 SS

Features

- One piece cast body
- ASME Class 150 rated strainers
- Upper and lower machined seats
- All sizes complete with Bolted Cover
- Drain / Blow-off connection furnished with plug
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

CRN

| Dimensions | | | | | | | | | | | | | |
|------------|-----|-------|-----|-------|-----|-------|-----|------|-----|------|----|--------|-------|
| Size | | A | | B | | C | | D | | E | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| ½" | 15 | 6.00 | 152 | 3.88 | 99 | — | — | 0.50 | 13 | 0.25 | 8 | 5.5 | 2.5 |
| ¾" | 20 | 7.00 | 178 | 4.25 | 108 | — | — | 0.75 | 19 | 0.38 | 10 | 8 | 3.7 |
| 1" | 25 | 7.50 | 191 | 4.75 | 121 | 5.91 | 150 | 1 | 25 | 0.5 | 15 | 10 | 4.6 |
| 1¼" | 32 | 8.75 | 222 | 5.56 | 141 | 5.91 | 150 | 1.25 | 32 | 0.5 | 15 | 16 | 7.3 |
| 1½" | 40 | 9.00 | 229 | 5.63 | 143 | 6.00 | 152 | 1.5 | 38 | 0.5 | 15 | 18 | 8.2 |
| 2" | 50 | 8.63 | 219 | 5.90 | 150 | 7.40 | 188 | 2 | 51 | 0.5 | 15 | 20 | 9.1 |
| 2½" | 65 | 10.25 | 260 | 7.50 | 191 | 10.00 | 253 | 2.5 | 64 | 0.75 | 20 | 27 | 12.3 |
| 3" | 76 | 11.63 | 295 | 7.69 | 195 | 11.00 | 279 | 3 | 76 | 1 | 25 | 41 | 18.6 |
| 4" | 100 | 14.38 | 365 | 9.13 | 232 | 13.28 | 337 | 4 | 102 | 1.5 | 40 | 63 | 28.6 |
| 5" | 125 | 17.63 | 448 | 11.00 | 279 | 15.50 | 394 | 5 | 127 | 2 | 50 | 99 | 45 |
| 6" | 150 | 18.63 | 473 | 13.00 | 330 | 19.09 | 485 | 6 | 152 | 2 | 50 | 133 | 60.5 |
| 8" | 200 | 24.38 | 619 | 15.31 | 389 | 22.16 | 563 | 8 | 203 | 2 | 50 | 222 | 100.9 |
| 10" | 250 | 26.06 | 662 | 19.13 | 486 | 27.44 | 697 | 10 | 254 | 2 | 50 | 409 | 185.9 |
| 12" | 300 | 30.38 | 772 | 22.00 | 559 | 32.38 | 822 | 12 | 305 | 2 | 50 | 605 | 275 |

| Materials | | |
|---------------------|---|---|
| Part | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Cover | A216-WCB | A351-CF8M |
| Screen ¹ | 304 SS | 304 SS |
| Plug ² | A105 | A182-316 |
| Gasket ¹ | Teflon / Spiral Wound 304 / GR ³ | Teflon / Spiral Wound 304 / GR ³ |
| Stud | A193-B7 | A193-B8-1 |
| Nut ² | A194-2H | A194-8 |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted | ³ Teflon gasket for sizes 4" and below only

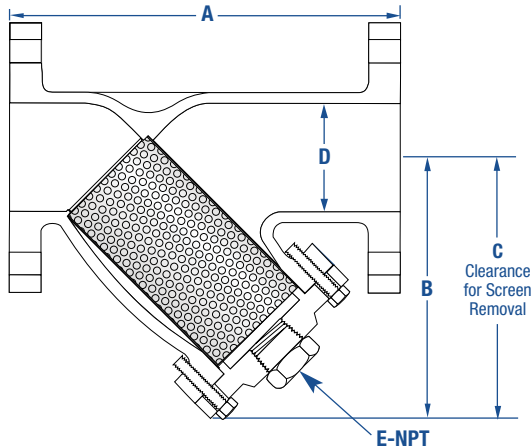
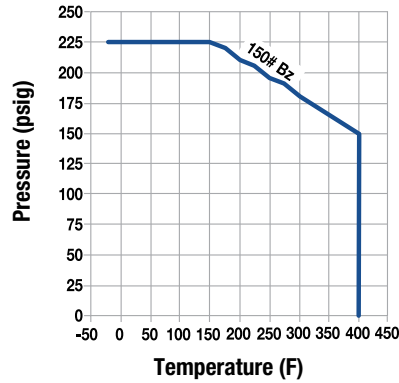
150Y2 Series

Y-Strainers

Bronze | Flanged Ends



Pressure / Temperature Chart
ASME B16.24



Description

SSI manufactures bronze y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI bronze y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 8"

Pressure

285 PSIG (19.7 BARG)

Temperature

750° F (390° C)

End Connections

RF Flanged

Screen Openings

2"–3" | 3/64" Perf | 304 SS

4"–8" | 1/8" Perf | 304 SS

Features

- One piece cast body
- ASME Class 150 rated strainers
- Upper and lower machined seats
- All sizes complete with Bolted Cover
- Drain / Blow-off connection furnished with plug
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

| Dimensions | | | | | | | | | | | | | |
|------------|-----|-------|-----|-------|-----|-------|-----|------|-----|------|----|--------|----|
| Size | | A | | B | | C | | D | | E | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| 2" | 50 | 8.63 | 219 | 4.88 | 124 | 7.50 | 191 | 2 | 51 | 0.5 | 15 | 20 | 9 |
| 2½" | 65 | 10.25 | 260 | 7.50 | 191 | 10.50 | 267 | 2.5 | 64 | 1 | 25 | 32 | 15 |
| 3" | 80 | 11.63 | 295 | 7.75 | 197 | 10.88 | 276 | 3 | 76 | 1 | 25 | 36 | 16 |
| 4" | 100 | 14.38 | 365 | 9.13 | 232 | 13.00 | 330 | 4 | 102 | 1 | 25 | 61 | 28 |
| 5" | 125 | 17.63 | 448 | 11.00 | 279 | 17.00 | 432 | 5 | 127 | 1.25 | 32 | 110 | 50 |
| 6" | 150 | 18.63 | 473 | 13.38 | 340 | 18.38 | 467 | 6 | 152 | 1.5 | 40 | 160 | 73 |
| 8" | 200 | 24.38 | 619 | 14.63 | 389 | 21.63 | 549 | 8 | 203 | 1.5 | 40 | 210 | 95 |

| Materials | |
|------------------------|----------|
| Part | Material |
| Body | B62 |
| Cover | B62 |
| Screen ¹ | 304 SS |
| Plug ² | A105 |
| Gasket ¹ | Teflon |
| Bolt/Stud ² | B16 |
| Nut ² | B16 |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

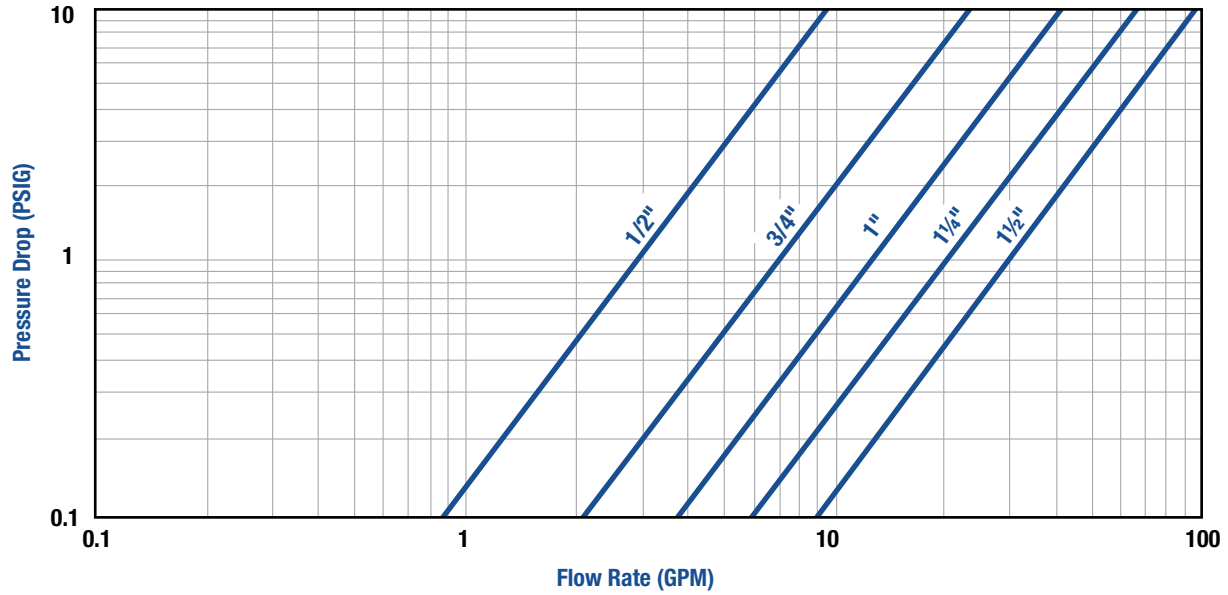
¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted

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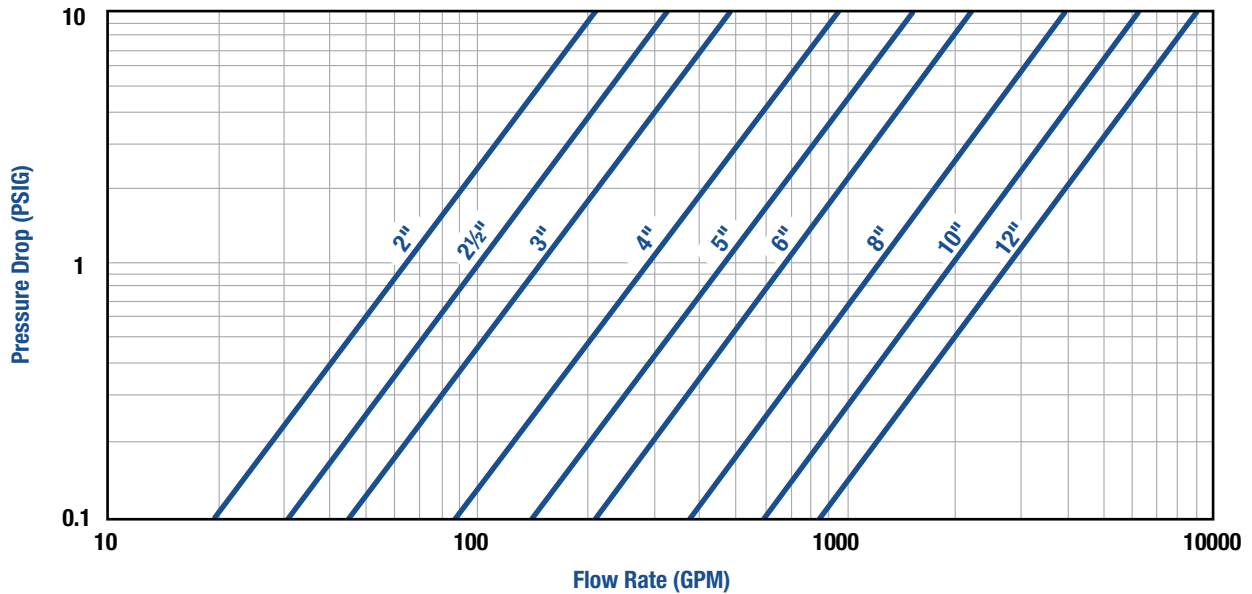
Pressure Drop VS. Flow Rate

Water Service, Clean Basket, 1/32" to 1/4" Perforated Screen*

(Sizes 1/2" to 1 1/2")



(Sizes 2" to 12")



* For Gas, Steam or Air service, consult factory.

Open Area Ratios

Standard Perforated Screen*

| Bronze 150Y2 Series Y-Strainer | | | | | | |
|------------------------------------|----------------|-----------|--|--------------------------------------|-------------------------------------|-----------------------|
| Size | Perf. Diameter | Opening % | Std Pipe Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| 2" | 3/64 | 36 | 3.14 | 21.1 | 21.1 | 2.4 |
| 2½" | 3/64 | 36 | 4.91 | 52.3 | 52.3 | 3.8 |
| 3" | 3/64 | 36 | 7.07 | 56.2 | 56.2 | 2.9 |
| 4" | 1/8 | 40 | 12.57 | 100.1 | 100.1 | 3.2 |
| 5" | 1/8 | 40 | 19.63 | * | * | * |
| 6" | 1/8 | 40 | 28.27 | 199.6 | 199.6 | 2.8 |
| 8" | 1/8 | 40 | 50.27 | 306.4 | 306.4 | 2.4 |

| Carbon & Stainless Steel 150Y2 Series Y-Strainer | | | | | | |
|--|----------------|-----------|--|--------------------------------------|-------------------------------------|-----------------------|
| Size | Perf. Diameter | Opening % | Std Pipe Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| ½" | 1/32 | 28 | 0.20 | 5.4 | 1.52 | 7.7 |
| ¾" | 1/32 | 28 | 0.44 | 8.5 | 2.37 | 5.4 |
| 1" | 1/32 | 28 | 0.79 | 12.4 | 3.47 | 4.4 |
| 1¼" | 1/32 | 28 | 1.23 | 22.8 | 6.39 | 5.2 |
| 1½" | 1/32 | 28 | 1.77 | 22.8 | 6.39 | 3.6 |
| 2" | 3/64 | 36 | 3.14 | 27.1 | 9.75 | 3.1 |
| 2½" | 3/64 | 36 | 4.91 | 50.5 | 18.17 | 3.7 |
| 3" | 3/64 | 36 | 7.07 | 65.9 | 23.71 | 3.4 |
| 4" | 1/8 | 40 | 12.57 | 86.9 | 34.74 | 2.8 |
| 5" | 1/8 | 40 | 19.63 | 148.7 | 59.47 | 3.0 |
| 6" | 1/8 | 40 | 28.27 | 214.4 | 85.74 | 3.0 |
| 8" | 1/8 | 40 | 50.27 | 329.3 | 131.71 | 2.6 |
| 10" | 1/8 | 40 | 78.54 | 489.9 | 195.96 | 2.5 |
| 12" | 1/8 | 40 | 113.10 | 710.9 | 284.36 | 2.5 |

OAR = Free Screen Area / Nominal Inlet Area | Free Screen Area = Opening % x Gross Screen Area | Values shown are approximate. Consult factory for exact ratios.

* Consult factory.



Sizes
1/4" to 12"



Pressure
up to 500 PSIG
(34.5 BARG)



Temperature
up to 450°F
(232°C)



Applications
Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 250 rated strainers
- NPT and FF connections designed in accordance with ASME B16.1, B16.15 and B16.4
- One piece cast body
- Upper and lower machined seats
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings.
- Drain/Blow-off connection furnished with plug

Applicable Codes (designed in accordance with)

- ASME B16.1
- ASME B16.4
- ASME B16.15

Models

- 250Y1T - Bronze or Cast Iron, NPT, Threaded Cover
- 250Y1P - Bronze or Cast Iron, BSPT, Threaded cover
- 250Y2F - Ductile Iron, Flanged, Bolted Cover

Options

- Other perforated screens and mesh liners
- Other drain connections and gasket materials
- Oxygen cleaning
- Special internal/external coatings and linings
- Contact factory for other options

250Y Series Ordering Code

| | | | | | | | | | | | | | | | |
|------------------------|---|---|---|-------------------|---|---|---|------------------|---|------------------|---|------------------|---|----------------------|---|
| 1 Inlet Size | | | | 2 Model | | | | 3 Body | | 4 Perf | | 5 Mesh | | 6 Optional | |
| 0 | 4 | 0 | 0 | - | 2 | 5 | 0 | Y | 2 | F | D | - | 4 | - | - |

| 1 | Inlet Size | |
|------|------------|-------------|
| 0038 | 3/8" | 0200 2" |
| 0050 | 1/2" | 0250 2 1/2" |
| 0075 | 3/4" | 0300 3" |
| 0100 | 1" | 0400 4" |
| 0125 | 1 1/4" | 0500 5" |
| 0150 | 1 1/2" | 0600 6" |

| 2 | Model | |
|--------|-----------------------------------|--------------------------------------|
| 250Y1T | BR or CI, NPT with Threaded Cover | 250Y2F DI, Flanged with Bolted Cover |

| 3 | Body Material | |
|---|---------------|----------------|
| I | Cast Iron | D Ductile Iron |
| B | Bronze | |

| 4 | Perf ¹ (304SS Material [®]) | |
|---|--|---------|
| A | No Perf | 2 1/16" |
| 1 | 1/32" | 3 3/32" |
| B | 3/64 | 5 5/32" |
| 4 | 1/8" | 6 3/16" |

| 5 | Mesh ^{1,2} (Leave Blank if not required) | |
|---|---|------|
| 1 | 10 | 4 40 |
| 2 | 20 | 5 50 |
| 3 | 30 | 6 60 |

| 6 | Optional (Leave Blank if not required) | |
|---|--|-----------------------------|
| D | Special Drain Size | T Special Testing |
| F | Silicon Free | X Oxygen Cleaning |
| G | Special Gaskets | Y Other / Multiple Specials |

1. Standard Screens: Y1 Cast Iron 1/4"-2"—20 mesh, Y1 Cast Iron 2-1/2"-3"—3/64" perf, Y1 Bronze 1/2"-1"—30 mesh, Y1 Bronze 1-1/4"-3"—20 mesh, Y2 Ductile Iron 2"-3"—3/64" perf, Y2 Ductile Iron 4"-12"—1/8" perf.3.
2. For other screen material, contact factory.

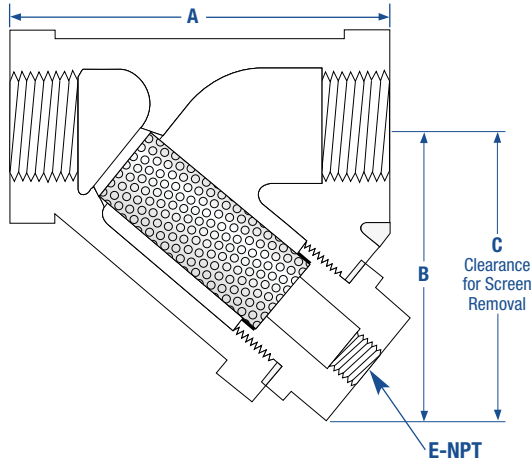
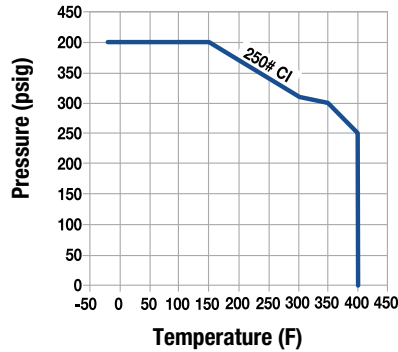
250Y1 Series

Y-Strainers

Cast Iron Body | NPT Ends



Pressure / Temperature Chart
ASME B16.4



Description

SSI manufactures ductile iron y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI ductile iron y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

¼" to 3"

Pressure

500 PSIG (34.5 BARG)

Temperature

450° F (232° C)

End Connections

Threaded (NPT)

Screen Openings

¼"–2" | 20 Mesh | 304 SS

2½"–3" | 3/64" Perf | 304 SS

Features

- One piece cast body
- ASME Class 250 rated strainers
- Upper and lower machined seats
- All sizes complete with Bolted Cover
- Drain / Blow-off connection furnished with plug
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

CRN

| Size | | Dimensions | | | | Weight | | | | | |
|------|----|------------|-----|------|-----|--------|-----|------|----|------|------|
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| ¼" | 8 | 3.19 | 81 | 2.00 | 50 | 3.13 | 80 | 0.25 | 8 | 1.5 | 0.7 |
| ⅜" | 10 | 3.19 | 81 | 2.00 | 50 | 3.13 | 80 | 0.25 | 8 | 1.5 | 0.7 |
| ½" | 15 | 3.19 | 81 | 2.00 | 50 | 3.13 | 80 | 0.25 | 8 | 1.5 | 0.7 |
| ¾" | 20 | 3.75 | 95 | 2.69 | 68 | 3.69 | 94 | 0.38 | 10 | 2.5 | 0.5 |
| 1" | 25 | 4.00 | 102 | 3.00 | 62 | 3.69 | 94 | 0.38 | 10 | 3.0 | 1.4 |
| 1¼" | 32 | 5.00 | 127 | 3.44 | 87 | 5.06 | 129 | 0.75 | 20 | 6.0 | 1.4 |
| 1½" | 40 | 5.75 | 146 | 3.78 | 96 | 5.75 | 146 | 0.75 | 20 | 8.0 | 3.6 |
| 2" | 50 | 7.00 | 178 | 4.34 | 110 | 7.25 | 184 | 1.00 | 25 | 14.0 | 3.6 |
| 2½" | 65 | 9.25 | 235 | 6.09 | 155 | 8.75 | 222 | 1.50 | 40 | 29.0 | 10.0 |
| 3" | 80 | 10.00 | 254 | 7.41 | 188 | 9.00 | 229 | 1.50 | 40 | 38.0 | 13.6 |

| Materials | |
|---------------------|----------|
| Part | Material |
| Body | A126-B |
| Cap/Cover | A126-B |
| Screen ¹ | 304 SS |
| Plug ² | A126-B |
| Gasket ¹ | Graphite |

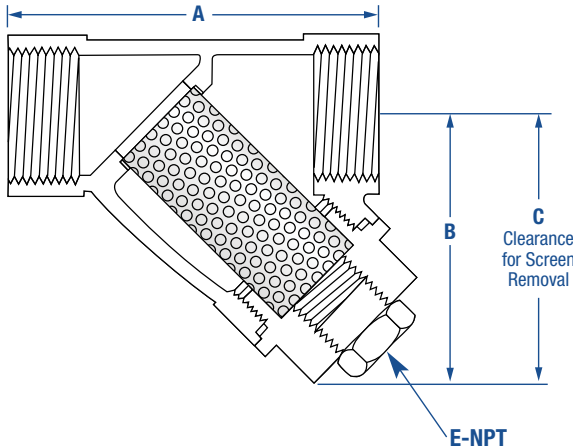
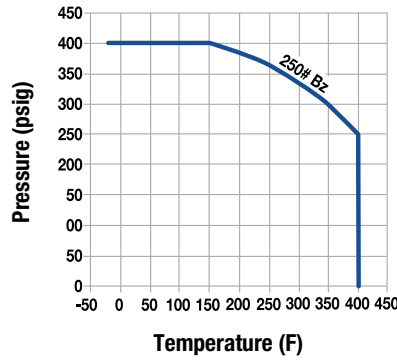
Dimensions shown are subject to change. Consult factory for certified drawings when required.

¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted

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Pressure / Temperature Chart
ASME B16.15



Description

SSI manufactures bronze y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI bronze y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

½" to 3"

Pressure

500 PSIG (34.5 BARG)

Temperature

450° F (232° C)

End Connections

Threaded (NPT)

Screen Openings

½"-1" | 30 Mesh | 304 SS
1¼"-3" | 20 Mesh | 304 SS

Features

- One piece cast body
- ASME Class 250 rated strainers
- Upper and lower machined seats
- All sizes complete with Bolted Cover
- Drain / Blow-off connection furnished with plug
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

| Dimensions | | | | | | | | | | | |
|------------|----|------|-----|------|-----|-------|-----|------|----|--------|-----|
| Size | | A | | B | | C | | E | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| ½" | 15 | 2.94 | 75 | 2.13 | 54 | 3.50 | 89 | 0.38 | 10 | 0.9 | 0.4 |
| ¾" | 20 | 3.38 | 86 | 2.38 | 60 | 4.50 | 114 | 0.38 | 10 | 1.3 | 0.6 |
| 1" | 25 | 4.06 | 103 | 3.00 | 76 | 5.00 | 127 | 0.75 | 20 | 2.1 | 1.0 |
| 1¼" | 32 | 4.94 | 125 | 3.44 | 87 | 5.75 | 146 | 0.75 | 20 | 3.0 | 1.4 |
| 1½" | 40 | 5.75 | 146 | 3.81 | 97 | 6.38 | 162 | 0.75 | 20 | 4.0 | 1.8 |
| 2" | 50 | 6.69 | 170 | 4.56 | 116 | 9.06 | 230 | 0.75 | 20 | 7.1 | 3.2 |
| 2½" | 64 | 7.50 | 191 | 4.88 | 124 | 10.00 | 254 | 1.25 | 32 | 10.1 | 4.6 |
| 3" | 76 | 8.50 | 216 | 5.50 | 140 | 10.38 | 264 | 1.25 | 32 | 13.3 | 6.1 |

| Materials | |
|---------------------|----------|
| Part | Material |
| Body | B584 |
| Cover | B584 |
| Screen ¹ | 304 SS |
| Plug | B584 |
| Gasket ¹ | Silicone |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted

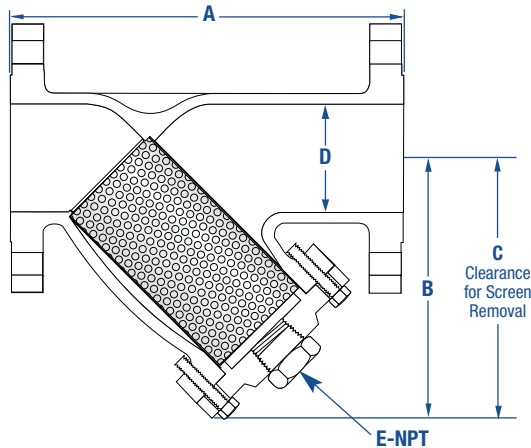
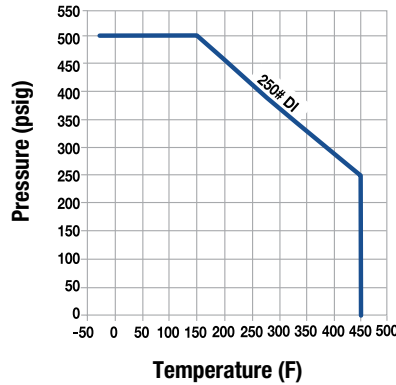
250Y2 Series

Y-Strainers

Ductile Iron | Flanged Ends



Pressure / Temperature Chart
ASME B16.1



Description

SSI manufactures ductile iron y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI ductile iron y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 12"

Pressure

500 PSIG (34.5 BARG)

Temperature

450° F (232° C)

End Connections

RF Flanged

Screen Openings

2"–3" | 3/64" Perf | 304 SS
4"–12" | 1/8" Perf | 304 SS

Features

- One piece cast body
- ASME Class 250 rated strainers
- Upper and lower machined seats
- All sizes complete with Bolted Cover
- Drain / Blow-off connection furnished with plug
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

| Size | | Dimensions | | | | | | | | | | Weight | |
|------|-----|------------|-----|-------|-----|-------|-----|------|-----|------|----|--------|-----|
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| 2" | 50 | 8.88 | 226 | 5.75 | 146 | 9.13 | 232 | 2 | 50 | 0.5 | 15 | 28 | 13 |
| 2½" | 65 | 11.31 | 287 | 6.88 | 175 | 9.88 | 251 | 2.5 | 65 | 1 | 25 | 38 | 17 |
| 3" | 76 | 12.00 | 305 | 7.81 | 198 | 11.25 | 286 | 3 | 76 | 1 | 25 | 54 | 24 |
| 4" | 100 | 14.50 | 368 | 9.13 | 232 | 15.00 | 381 | 4 | 100 | 1 | 25 | 110 | 50 |
| 5" | 125 | 17.38 | 441 | 11.25 | 286 | 19.00 | 483 | 5 | 125 | 1.25 | 32 | 160 | 73 |
| 6" | 150 | 19.50 | 495 | 12.00 | 305 | 22.75 | 578 | 6 | 150 | 1.5 | 40 | 224 | 102 |
| 8" | 200 | 21.94 | 557 | 15.81 | 402 | 27.75 | 705 | 8 | 200 | 1.5 | 40 | 468 | 212 |
| 10" | 250 | 27.25 | 692 | 18.63 | 473 | 29.75 | 756 | 10 | 250 | 2 | 50 | 590 | 268 |
| 12" | 300 | 31.44 | 799 | 21.81 | 554 | 35.00 | 889 | 12 | 300 | 2 | 50 | 890 | 404 |

| Materials | |
|------------------------|----------|
| Part | Material |
| Body | A536 |
| Cap | A536 |
| Screen ¹ | 304 SS |
| Plug | A126-B |
| Gasket ¹ | Graphite |
| Bolt/Stud ² | A307-B |
| Nut ² | A563 |

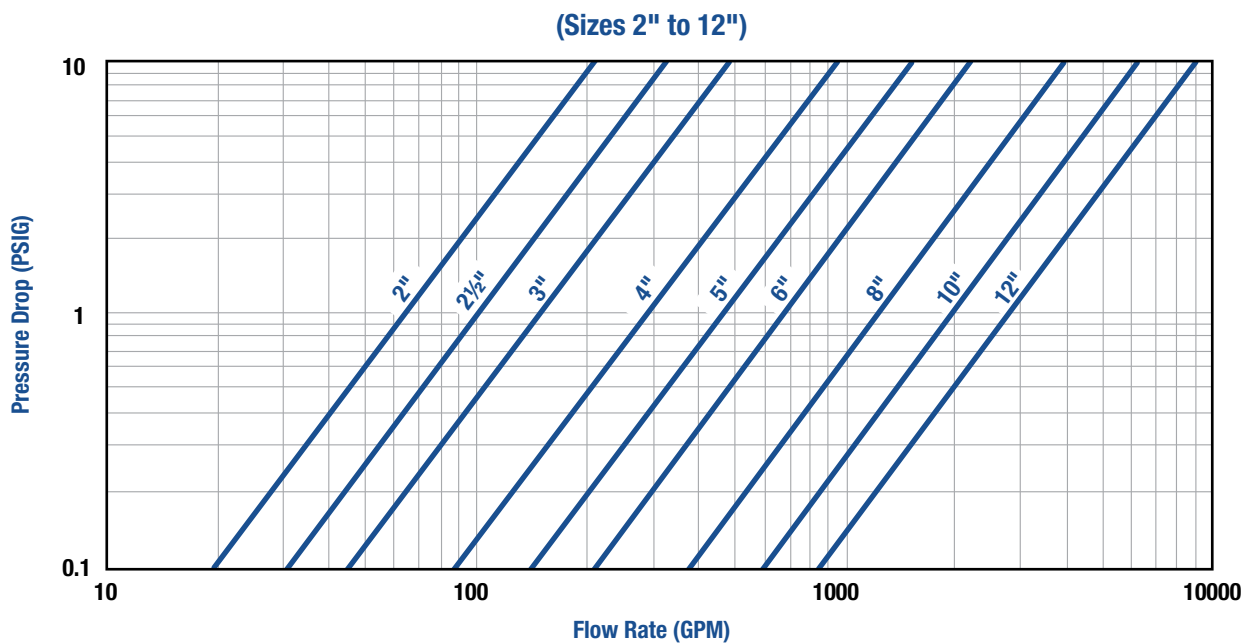
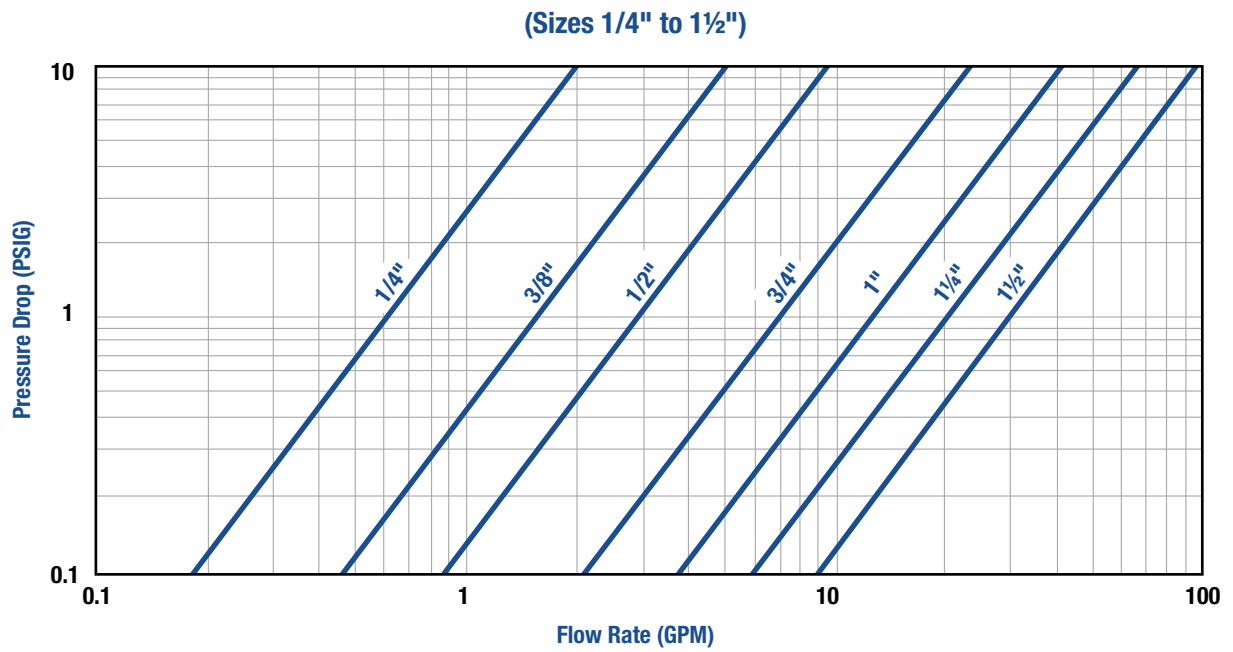
Dimensions shown are subject to change. Consult factory for certified drawings when required.

¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted

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Pressure Drop VS. Flow Rate

Water Service, Clean Basket, 1/32" to 1/4" Perforated Screen*



* For Gas, Steam or Air service, consult factory.

Open Area Ratios

Standard Perforated Screen*

| Bronze 250Y1 Series Y-Strainer | | | | | | |
|------------------------------------|------|-----------|--|--------------------------------------|-------------------------------------|-----------------------|
| Size | Mesh | Opening % | Std Pipe Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| ½" | 30 | 45 | 0.30 | 2.9 | 1.28 | 4.2 |
| ¾" | 30 | 45 | 0.53 | 5.6 | 2.52 | 4.7 |
| 1" | 30 | 45 | 0.86 | 9.0 | 4.03 | 4.7 |
| 1¼" | 20 | 49 | 1.50 | 15.1 | 7.38 | 4.9 |
| 1½" | 20 | 49 | 2.04 | 21.7 | 10.64 | 5.2 |
| 2" | 20 | 49 | 3.36 | 29.2 | 14.31 | 4.3 |
| 2½" | 20 | 49 | 4.79 | 35.9 | 17.61 | 3.7 |
| 3" | 20 | 49 | 7.39 | 49.9 | 24.45 | 3.3 |

| Cast Iron 250Y1 Series Y-Strainer | | | | | | |
|---------------------------------------|------|-----------|--|--------------------------------------|-------------------------------------|-----------------------|
| Size | Mesh | Opening % | Std Pipe Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| ¼" | 20 | 49 | 0.30 | 3.7 | 1.80 | 5.9 |
| ⅜" | 20 | 49 | 0.30 | 3.7 | 1.80 | 5.9 |
| ½" | 20 | 49 | 0.30 | 3.6 | 1.74 | 5.7 |
| ¾" | 20 | 49 | 0.53 | 6.3 | 3.11 | 5.8 |
| 1" | 20 | 49 | 0.86 | 7.9 | 3.85 | 4.5 |
| 1¼" | 20 | 49 | 1.50 | 13.0 | 6.35 | 4.2 |
| 1½" | 20 | 49 | 2.04 | 16.6 | 8.13 | 4.0 |
| 2" | 20 | 49 | 3.36 | 28.3 | 13.85 | 4.1 |
| 2½" | 3/64 | 36 | 4.79 | 44.7 | 16.08 | 3.4 |
| 3" | 3/64 | 36 | 7.39 | 43.2 | 15.55 | 2.1 |

| Ductile Iron 250Y2 Series Y-Strainer | | | | | | |
|--|------|-----------|--|--------------------------------------|-------------------------------------|-----------------------|
| Size | Mesh | Opening % | Std Pipe Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| 2" | 3/64 | 36 | 3.14 | 29.4 | 10.58 | 3.4 |
| 2½" | 3/64 | 36 | 4.91 | 46.0 | 16.56 | 3.4 |
| 3" | 3/64 | 36 | 7.07 | 57.0 | 20.51 | 2.9 |
| 4" | 1/8 | 40 | 12.57 | 99.0 | 39.59 | 3.2 |
| 5" | 1/8 | 40 | 19.63 | 146.5 | 58.58 | 3.0 |
| 6" | 1/8 | 40 | 28.27 | 174.0 | 69.60 | 2.5 |
| 8" | 1/8 | 40 | 50.27 | 327.3 | 130.91 | 2.6 |
| 10" | 1/8 | 40 | 78.54 | 495.2 | 198.08 | 2.5 |
| 12" | 1/8 | 40 | 113.10 | 645.0 | 257.99 | 2.3 |

OAR = Free Screen Area / Nominal Inlet Area | Free Screen Area = Opening % x Gross Screen Area | Values shown are approximate. Consult factory for exact ratios.

* Consult factory.



Sizes
1/2" to 12"



Pressure
up to 740 PSIG
(51 BARG)



Temperature
up to 800°F
(427°C)



Applications
Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 300 rated strainers
- NPT, RF, Socketweld and Buttweild connections designed in accordance with ASME B16.5, B16.25, B16.11 and B16.34
- All Flanged connections complete with Bolted Cover
- Cover flange (CS, SS) in accordance with ASME Section VIII, Div 1 Appendix II and/or ANSI 16.5
- One piece cast body - Investment cast on NPT and socketweld versions
- Upper and lower machined seats
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings
- Drain/Blow-off connection furnished with plug

Applicable Codes (designed in accordance with)

- ASME B16.11
- ASME B16.5
- ASME B16.25
- ASME B16.34

Models

- 300Y1T – Carbon or Stainless Steel, NPT with Threaded Cover
- 300Y1W – Carbon or Stainless Steel, Socketweld with Threaded Cover
- 300Y2F – Carbon or Stainless Steel, Flanged with Bolted Cover
- 300Y2B – Carbon or Stainless Steel, Buttweild with Bolted Cover

Options

- Other perforated screens and mesh liners
- Other drain connections and gasket materials
- Oxygen cleaning
- Special internal/external coatings and linings
- Contact factory for other options

Canadian Registration - See appropriate Model pages

300Y Series Ordering Code

| 1 Inlet Size | | | | 2 Model | | | | 3 Body | | 4 Perf | | 5 Mesh | | 6 Optional | |
|-----------------|---|---|---|------------|---|---|---|-----------|---|-----------|---|-----------|---|---------------|---|
| 0 | 2 | 0 | 0 | - | 3 | 0 | 0 | Y | 1 | W | C | - | 6 | - | - |

| 1 | Inlet Size | | | | | |
|------|------------|------|--------|------|-----|--|
| 0050 | 1/2" | 0200 | 2" | 0800 | 8" | |
| 0075 | 3/4" | 0250 | 2 1/2" | 1000 | 10" | |
| 0100 | 1" | 0300 | 3" | 1200 | 12" | |
| 0125 | 1 1/4" | 0400 | 4" | | | |
| 0150 | 1 1/2" | 0600 | 6" | | | |

| 2 | Model | | | |
|--------|--|--|---------------------|---------------------------------------|
| 300Y1T | CS or SS, NPT with Threaded Cover | | 300Y2F | CS or SS, Flanged with Bolted Cover |
| 300Y1W | CS or SS, Socketweld with Threaded Cover | | 300Y2B ¹ | CS or SS, Buttweild with Bolted Cover |

| 3 | Body Material | | | |
|---|---------------|--|---|-----------------|
| C | Carbon Steel | | T | Stainless Steel |

1. For Buttweild connections please specify mating pipe schedule.
2. Standard Screens: Y1 < 2" — 1/32" perf, Y1 > 2" — 3/64" perf, Y2 < 1 1/2" — 1/32" perf, Y2 2" - 3" — 3/64" perf, Y2 > 3" — 1/8" perf.
3. For other screen material, contact factory.

| 4 | Perf ² (304SS Material ³) | | | | | |
|---|--|---|-------|---|-------|--|
| A | No Perf | 2 | 1/16" | 7 | 7/32" | |
| 1 | 1/32" | 3 | 3/32" | 8 | 1/4" | |
| B | 3/64 | 5 | 5/32" | 9 | 3/8" | |
| 4 | 1/8" | 6 | 3/16" | | | |

| 5 | Mesh ³ (Leave Blank if not required) | | | | | |
|---|---|---|----|---|-----|--|
| 1 | 10 | 4 | 40 | 7 | 80 | |
| 2 | 20 | 5 | 50 | 8 | 100 | |
| 3 | 30 | 6 | 60 | 9 | 120 | |

| 6 | Optional (Leave Blank if not required) | | | |
|---|--|--|---|---------------------------|
| D | Special Drain Size | | N | Nace MR01-75 |
| F | Silicon Free | | X | Oxygen Cleaning |
| G | Special Gaskets | | Y | Other / Multiple Specials |
| T | Special Testing | | | |

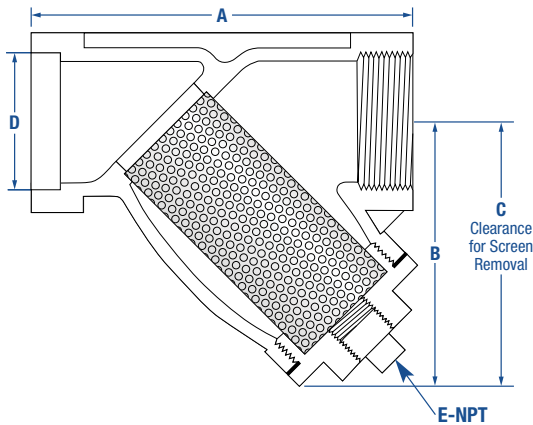
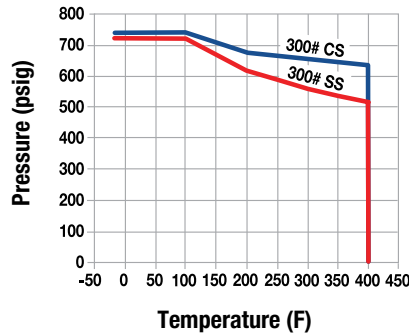
300Y1 Series

Y-Strainers

Carbon & Stainless Steel Body | NPT & Socketweld Ends



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

½" to 3"

Pressure

740 PSIG (51 BARG)

Temperature

800° F (427° C)

End Connections

Threaded (NPT)
Socketweld

Screen Openings

½"-2" | 1/32" Perf | 304 SS
2½"-3" | 3/64" Perf | 304 SS

Features

- One piece cast body
- Investment cast on NPT and socketweld versions
- ASME Class 300 rated strainers
- Upper and lower machined seats
- All Flanged connections complete with Bolted Cover
- Drain / Blow-off connection furnished with plug
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

| Dimensions | | | | | | | | | | | | | |
|------------|----|------|-----|------|-----|------|-----|-------|-------|------|----|--------|------|
| Size | | A | | B | | C | | D | | E | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| ½" | 15 | 2.53 | 65 | 1.63 | 41 | 2.38 | 60 | 0.855 | 21.72 | 0.25 | 6 | 0.50 | 0.22 |
| ¾" | 20 | 3.19 | 80 | 2.00 | 51 | 3.19 | 81 | 1.065 | 27.05 | 0.25 | 6 | 0.82 | 0.37 |
| 1" | 25 | 3.56 | 90 | 2.38 | 66 | 4.00 | 102 | 1.330 | 33.78 | 0.5 | 15 | 1.50 | 0.68 |
| 1¼" | 32 | 4.13 | 105 | 2.88 | 73 | 4.50 | 114 | 1.675 | 42.55 | 0.5 | 15 | 2.0 | 0.90 |
| 1½" | 40 | 4.75 | 119 | 3.25 | 83 | 4.75 | 121 | 1.915 | 48.64 | 0.5 | 15 | 2.8 | 1.27 |
| 2" | 50 | 5.44 | 138 | 3.81 | 96 | 5.75 | 146 | 2.406 | 61.11 | 0.5 | 15 | 4.3 | 1.95 |
| 2½" | 65 | 7.25 | 184 | 4.81 | 124 | 7.25 | 184 | 2.906 | 73.81 | 0.5 | 15 | 10 | 4.54 |
| 3" | 76 | 8.06 | 205 | 5.44 | 138 | 7.50 | 191 | 3.535 | 89.79 | 0.5 | 15 | 14 | 6.35 |

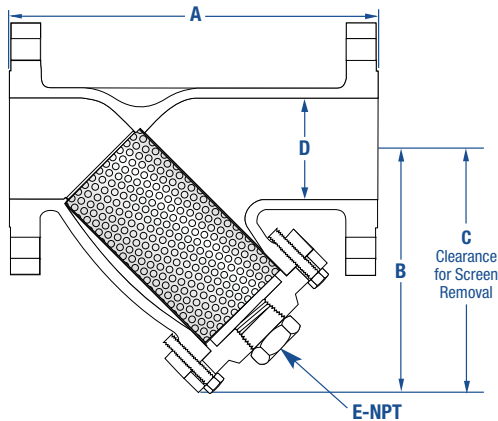
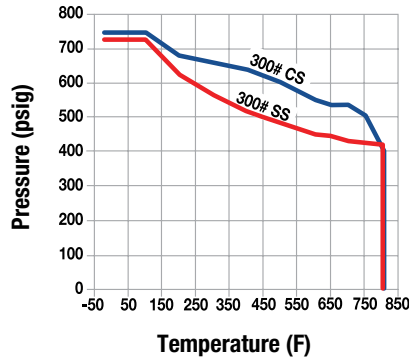
| Materials | | |
|---------------------|--------------|-----------------|
| Part | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Cap | A216-WCB | A351-CF8M |
| Screen ¹ | 304 SS | 304 SS |
| Plug | A105 | A182-316 |
| Gasket ¹ | Teflon | Teflon |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

¹ Recommended Spare Parts



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

½" to 12"

Pressure

740 PSIG (51 BARG)

Temperature

800° F (427° C)

End Connections

Flanged
Buttweld³

Screen Openings

½"-1½" | 1/32" Perf | 304 SS
2"-3" | 3/64" Perf | 304 SS
4"-12" | 1/8" Perf | 304 SS

Features

- One piece cast body
- Investment cast on NPT and socketweld versions
- ASME Class 300 rated strainers
- Upper and lower machined seats
- All Flanged connections complete with Bolted Cover
- Drain / Blow-off connection furnished with plug
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

CRN

| Dimensions | | | | | | | | | | | | | |
|------------|-----|-------|-----|-------|-----|-------|-----|------|-----|------|----|--------|-------|
| Size | | A | | B | | C | | D | | E | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| ½" | 15 | 6.50 | 165 | 3.88 | 99 | 5.75 | 146 | 0.5 | 13 | 0.25 | 6 | 8 | 3.6 |
| ¾" | 20 | 7.75 | 197 | 4.25 | 108 | 6.75 | 171 | 0.75 | 19 | 0.38 | 10 | 14 | 6.4 |
| 1" | 25 | 7.88 | 200 | 4.75 | 121 | 8.13 | 206 | 1 | 25 | 0.5 | 13 | 15 | 6.8 |
| 1½" | 40 | 10.50 | 267 | 5.63 | 143 | 10.25 | 260 | 1.5 | 38 | 0.5 | 13 | 32 | 15.0 |
| 2" | 50 | 9.31 | 237 | 5.91 | 150 | 8.00 | 203 | 2 | 51 | 0.5 | 13 | 25 | 11.4 |
| 2½" | 65 | 11.18 | 284 | 7.50 | 191 | 10.25 | 260 | 2.5 | 64 | 1.0 | 25 | 38 | 17.3 |
| 3" | 76 | 12.63 | 320 | 7.68 | 195 | 11.50 | 292 | 3 | 76 | 1.0 | 25 | 56 | 25.5 |
| 4" | 100 | 14.63 | 372 | 9.13 | 232 | 13.63 | 346 | 4 | 102 | 1.5 | 38 | 90 | 40.9 |
| 5" | 125 | 18.50 | 470 | 11.00 | 279 | 21.50 | 546 | 5 | 127 | 2.0 | 50 | 180 | 82 |
| 6" | 150 | 19.75 | 502 | 13.00 | 330 | 21.20 | 546 | 6 | 152 | 2.0 | 50 | 203 | 92.3 |
| 8" | 200 | 25.00 | 635 | 15.31 | 389 | 22.00 | 559 | 8 | 203 | 2.0 | 50 | 323 | 146.8 |
| 10" | 250 | 27.63 | 702 | 19.13 | 486 | 30.00 | 762 | 10 | 254 | 2.0 | 50 | 571 | 259.6 |
| 12" | 300 | 32.88 | 835 | 22.00 | 559 | 34.38 | 873 | 12 | 305 | 2.0 | 50 | 893 | 405.9 |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

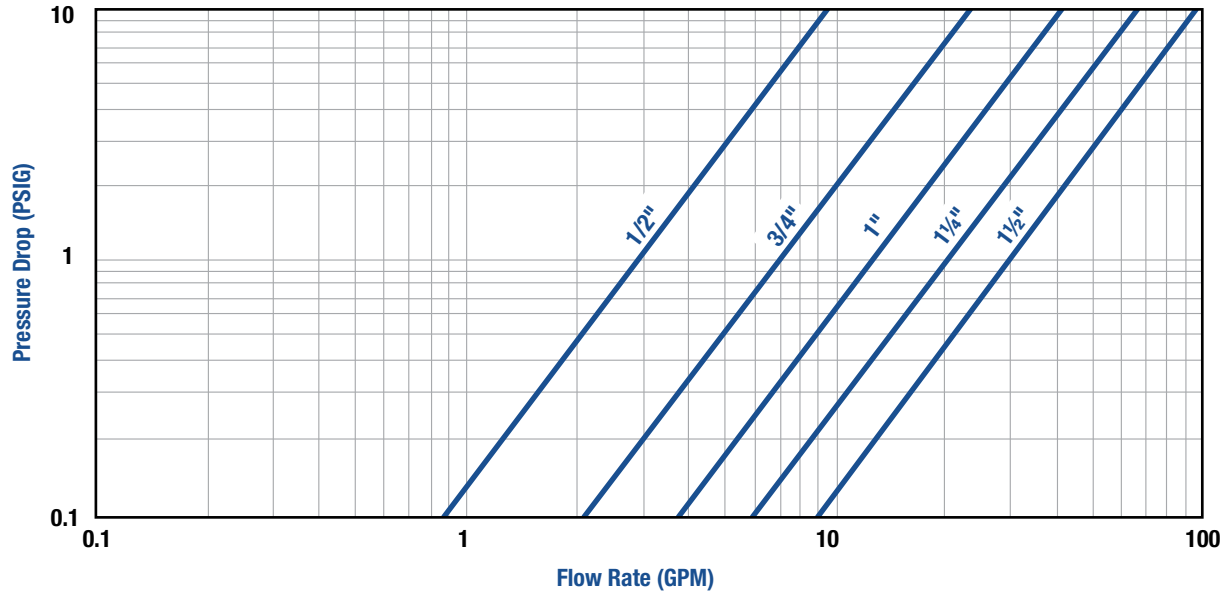
¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted | ³ For Butt-weld connections please specify mating pipe schedule

| Materials | | |
|---------------------|---------------------|---------------------|
| Part | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Cover | A216-WCB | A351-CF8M |
| Screen ¹ | 304 SS | 304 SS |
| Plug ² | A105 | A182-316 |
| Gasket ¹ | 304 SS Spiral Wound | 304 SS Spiral Wound |
| Stud | A193-B7 | A193-B8-1 |
| Nut ² | A194-2H | A194-8 |

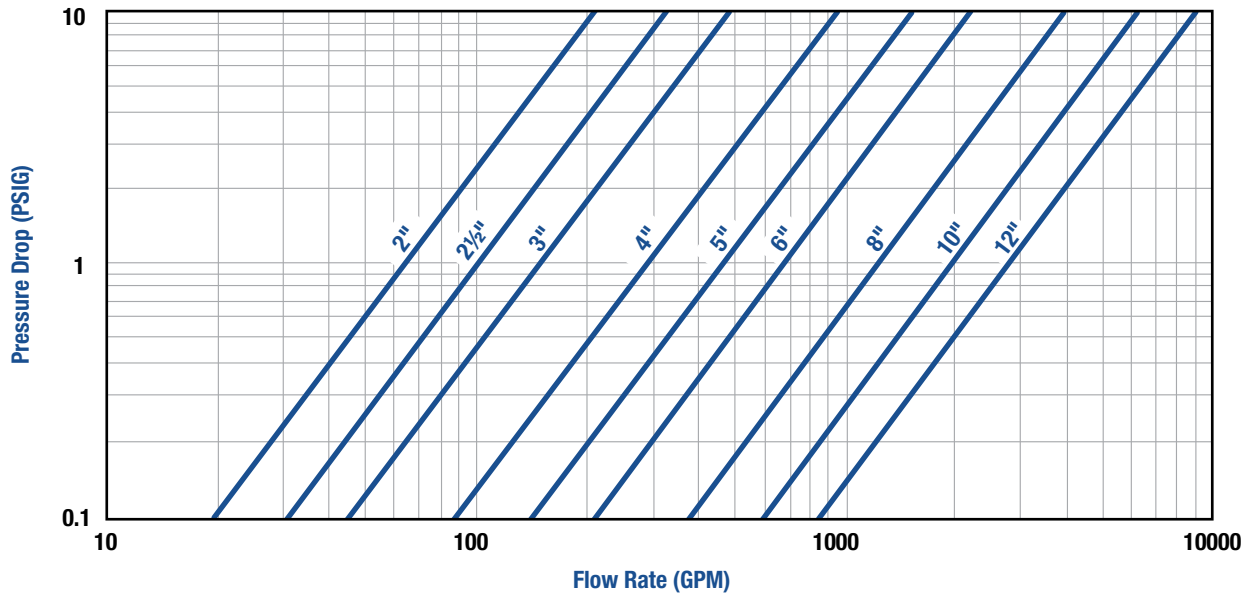
Pressure Drop VS. Flow Rate

Water Service, Clean Basket, 1/32" to 1/4" Perforated Screen*

(Sizes 1/2" to 1 1/2")



(Sizes 2" to 12")



* For Gas, Steam or Air service, consult factory.

Open Area Ratios

Standard Perforated Screen*

| Carbon & Stainless Steel 250Y1 Series Y-Strainer | | | | | | |
|--|-----------------------------------|-----------|--|--------------------------------------|-------------------------------------|-----------------------|
| Size | Perf. Diameter (mm ²) | Opening % | Std Pipe Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| ½" | 1/32 | 28 | 0.30 | 3.2 | 1.13 | 3.7 |
| ¾" | 1/32 | 28 | 0.53 | 5.1 | 1.80 | 3.4 |
| 1" | 1/32 | 28 | 0.86 | 8.1 | 2.82 | 3.3 |
| 1¼" | 1/32 | 28 | 1.50 | 10.2 | 3.56 | 2.4 |
| 1½" | 1/32 | 28 | 2.04 | 14.6 | 5.10 | 2.5 |
| 2" | 1/32 | 28 | 3.36 | 21.2 | 7.41 | 2.2 |
| 2½" | 3/64 | 36 | 4.79 | 37.0 | 12.94 | 2.7 |
| 3" | 3/64 | 36 | 7.39 | 47.6 | 16.66 | 2.3 |

| Carbon & Stainless Steel 250Y2 Series Y-Strainer | | | | | | |
|--|-----------------------------------|-----------|--|--------------------------------------|-------------------------------------|-----------------------|
| Size | Perf. Diameter (mm ²) | Opening % | Std Pipe Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| ½" | 1/32 | 28 | 0.20 | 6.8 | 1.91 | 9.7 |
| ¾" | 1/32 | 28 | 0.44 | 10.4 | 2.92 | 6.6 |
| 1" | 1/32 | 28 | 0.79 | 15.3 | 4.27 | 5.4 |
| 1½" | 1/32 | 28 | 1.77 | 32.5 | 9.11 | 5.2 |
| 2" | 3/64 | 36 | 3.14 | 28.7 | 10.35 | 3.3 |
| 2½" | 3/64 | 36 | 4.91 | 48.1 | 17.32 | 3.5 |
| 3" | 3/64 | 36 | 7.07 | 71.2 | 25.62 | 3.6 |
| 4" | 1/8 | 40 | 12.57 | 106.3 | 42.54 | 3.4 |
| 6" | 1/8 | 40 | 28.27 | 233.2 | 93.29 | 3.3 |
| 8" | 1/8 | 40 | 50.27 | 340.3 | 136.14 | 2.7 |
| 10" | 1/8 | 40 | 78.54 | 489.9 | 195.96 | 2.5 |
| 12" | 1/8 | 40 | 113.10 | 710.9 | 284.36 | 2.5 |

OAR = Free Screen Area / Nominal Inlet Area | Free Screen Area = Opening % x Gross Screen Area | Values shown are approximate. Consult factory for exact ratios.

* Consult factory.

600Y Series

Y-Strainers

Carbon & Stainless Steel Body | NPT, Flanged, Socketweld, Ring Joint & Butt weld Ends



Sizes
½" to 12"



Pressure
up to 1480 PSIG
(102 BARG)



Temperature
up to 800°F
(427°C)



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 600 rated strainers
- NPT, RF or RTJ, Socketweld and Butt weld connections designed in accordance with ASME B16.11, B16.25, B16.34 and B16.5
- SSI Exclusive -Body blow down flange and cover flange dimensions are in dimensional accordance with ASME B16.5
- All Flanged connections complete with Bolted Cover
- One piece cast body
- Upper and lower machined seats
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings.
- Drain/Blow-off connection furnished with plug

Applicable Codes (designed in accordance with)

- ASME B16.1
- ASME B16.4
- ASME B16.15

Models

- 600Y1T* – NPT with Threaded Cover
 - 600Y1W* – Socketweld with Threaded Cover
 - 600Y2F – Flanged with Bolted Cover
 - 600Y2J – Ring Joint with Bolted Cover
 - 600Y2B – Butt weld with Bolted Cover
- *Carbon Steel, Stainless Steel, Low Carbon Steel or Alloy 20

Options

- Low Carbon Steel and Alloy 20 bodies available on Y1T and Y1W models
- Other perforated screens and mesh liners
- Other drain connections and gasket materials
- Oxygen cleaning
- Special internal / external coatings and linings
- Contact Factory for other Options

600Y Series Ordering Code

| 1 | Inlet Size | 2 | Model | 3 | Body | 4 | Perf | 5 | Mesh | 6 | Optional | | | | |
|---|------------|---|-------|---|------|---|------|---|------|---|----------|---|---|---|---|
| 0 | 3 | 0 | 0 | - | 6 | 0 | 0 | Y | 1 | W | C | - | B | - | - |

| 1 | Inlet Size | | | | |
|------|------------|------|-----|------|-----|
| 0050 | ½" | 0200 | 2" | 0800 | 8" |
| 0075 | ¾" | 0250 | 2½" | 1000 | 10" |
| 0100 | 1" | 0300 | 3" | 1200 | 12" |
| 0125 | 1¼" | 0400 | 4" | | |
| 0150 | 1½" | 0600 | 6" | | |

| 2 | Model | | | | |
|---------------------|--|-----------------------|--|--|--|
| 600Y1T | CS or SS, NPT with Threaded Cover | 600Y2J ¹ | CS or SS, Ring Joint with Bolted Cover | | |
| 600Y1W | CS or SS, Socketweld with Threaded Cover | 600Y2B ^{1,2} | CS or SS, Butt weld with Bolted Cover | | |
| 600Y2F ¹ | CS or SS, Flanged with Bolted Cover | | | | |

| 3 | Body Material | | | | |
|---|---------------|---|-----------------|--|--|
| C | Carbon Steel | T | Stainless Steel | | |

| 4 | Perf ³ (304SS Material ³) | | | | |
|---|--|---|-------|---|-------|
| A | No Perf | 2 | 1/16" | 7 | 7/32" |
| 1 | 1/32" | 3 | 3/32" | 8 | 1/4" |
| B | 3/64 | 5 | 5/32" | 9 | 3/8" |
| 4 | 1/8" | 6 | 3/16" | | |

| 5 | Mesh ⁴ (Leave Blank if not required) | | | | |
|---|---|---|----|---|-----|
| 1 | 10 | 4 | 40 | 7 | 80 |
| 2 | 20 | 5 | 50 | 8 | 100 |
| 3 | 30 | 6 | 60 | 9 | 120 |

| 6 | Optional (Leave Blank if not required) | | | |
|---|--|---|---------------------------|--|
| D | Special Drain Size | N | Nace MR01-75 | |
| F | Silicon Free | X | Oxygen Cleaning | |
| G | Special Gaskets | Y | Other / Multiple Specials | |
| T | Special Testing | | | |

1. Stainless Steel available in sizes 2" to 6".

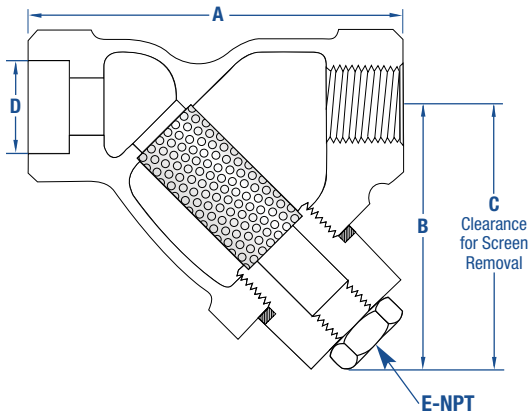
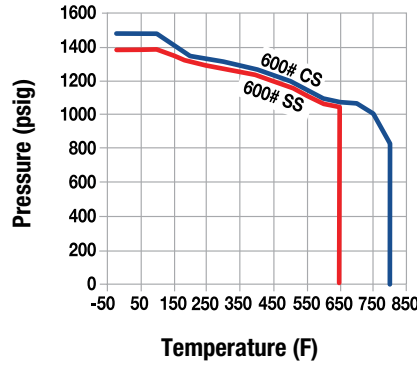
2. For Butt weld connections please specify mating pipe schedule.

3. Standard Screens: All 1/2"-11/2"—1/32" perf, All 2"-3"—3/64" perf, All >3"—1/8" perf.

4. For other screen material, contact factory.



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

½" to 2"

Pressure

1480 PSIG (102 BARG)

Temperature

800° F (427° C)

End Connections

Threaded (NPT)
Socketweld

Screen Openings

½"–1½" | 1/32" Perf | 304 SS
2" | 3/64" Perf | 304 SS

Features

- One piece cast body
- Investment cast on NPT and socketweld versions
- ASME Class 600 rated strainers
- Upper and lower machined seats
- All Flanged connections complete with Bolted Cover
- Drain / Blow-off connection furnished with plug
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

CRN

| Dimensions | | | | | | | | | | | | | |
|------------|----|------|-----|------|-----|------|-----|-------|-------|------|----|--------|-----|
| Size | | A | | B | | C | | D | | E | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| ½" | 15 | 3.00 | 76 | 2.44 | 62 | 3.13 | 80 | 0.855 | 21.72 | 0.25 | 8 | 1.4 | 0.6 |
| ¾" | 20 | 3.75 | 95 | 2.94 | 75 | 3.56 | 90 | 1.065 | 27.05 | 0.38 | 10 | 2.2 | 1.0 |
| 1" | 25 | 4.63 | 118 | 3.75 | 95 | 3.94 | 100 | 1.330 | 33.78 | 0.38 | 10 | 4.1 | 1.9 |
| 1¼" | 32 | 5.00 | 127 | 4.00 | 102 | 4.25 | 108 | 1.675 | 42.55 | 0.75 | 20 | 5.3 | 2.4 |
| 1½" | 40 | 5.63 | 143 | 4.81 | 122 | 4.63 | 118 | 1.915 | 48.64 | 0.75 | 20 | 8.4 | 3.8 |
| 2" | 50 | 7.00 | 178 | 6.13 | 156 | 6.75 | 171 | 2.406 | 61.11 | 1.00 | 25 | 12.6 | 5.7 |

| Materials | | |
|---------------------|---------------------|---------------------|
| Part | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Cap ² | A216-WCB | A351-CF8M |
| Screen ¹ | 304 SS | 304 SS |
| Plug ² | A105 | 304 SS |
| Gasket ¹ | 304 SS Spiral Wound | 304 SS Spiral Wound |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted

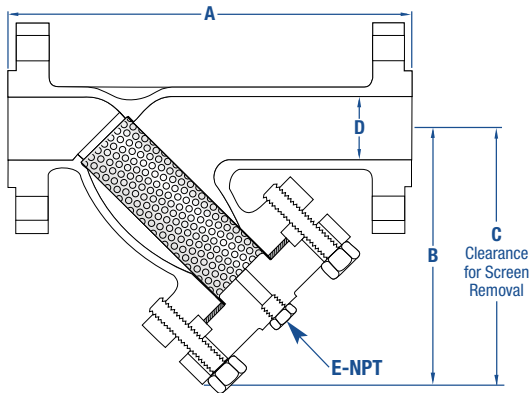
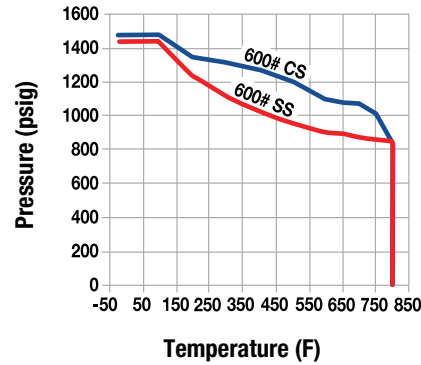
600Y2 Series

Y-Strainers

Carbon & Stainless Steel Body | Flanged, Ring Joint & Buttwell Ends



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 12"

Pressure

1480 PSIG (102 BARG)

Temperature

800° F (427° C)

End Connections

Flanged
Ring Joint
Buttweld

Screen Openings

2"–3" | 3/64" Perf | 304 SS
4"–12" | 1/8" Perf | 304 SS

Features

- One piece cast body
- Investment cast on NPT and socketweld versions
- ASME Class 600 rated strainers
- Upper and lower machined seats
- All Flanged connections complete with Bolted Cover
- Drain / Blow-off connection furnished with plug
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

| Dimensions | | | | | | | | | | | | | |
|------------|-----|-------|------|-------|-----|-------|-----|------|-----|------|----|--------|-------|
| Size | | A | | B | | C | | D | | E | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| 2" | 50 | 12.50 | 318 | 8.00 | 203 | 9.50 | 235 | 2 | 51 | 0.5 | 15 | 46 | 20.9 |
| 3" | 80 | 15.63 | 397 | 10.13 | 257 | 11.38 | 289 | 3 | 76 | 1.25 | 32 | 93 | 42.2 |
| 4" | 100 | 20.00 | 508 | 13.00 | 330 | 14.25 | 362 | 4 | 102 | 1.5 | 40 | 187 | 85.0 |
| 6" | 150 | 25.50 | 648 | 17.00 | 432 | 18.25 | 463 | 6 | 152 | 2 | 2 | 403 | 183.2 |
| 8" | 200 | 30.00 | 762 | 21.38 | 543 | 22.69 | 576 | 8 | 203 | 2 | 2 | 660 | 300.0 |
| 10" | 250 | 37.63 | 959 | 24.75 | 629 | 26.00 | 660 | 10 | 254 | 2 | 2 | 1428 | 649.1 |
| 12" | 300 | 42.00 | 1067 | 30.00 | 762 | 31.25 | 794 | 12 | 305 | 2 | 2 | 1608 | 730.9 |

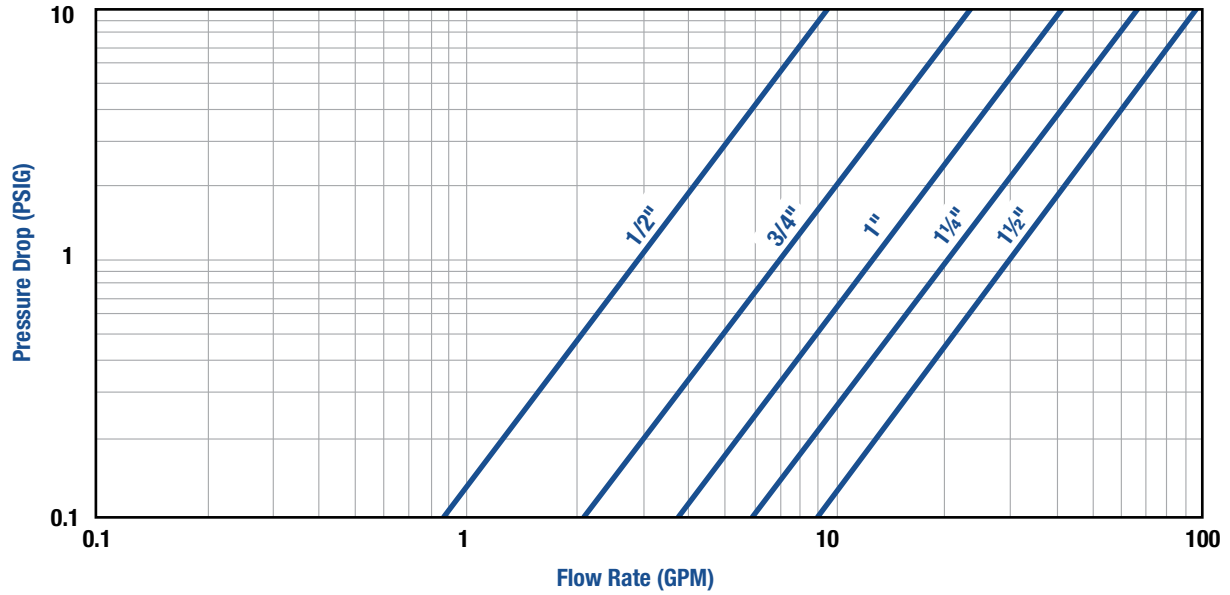
| Materials | | |
|---------------------|------------------------|------------------------|
| Part | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Cover | A216-WCB | A351-CF8M |
| Screen ¹ | 304 SS | 304 SS |
| Plug ² | A105 | 304 SS |
| Gasket ¹ | 304 SS Spiral Wound | 304 SS Spiral Wound |
| Stud | A193-B7 | A320-B8 |
| Nut ² | A194-2H | A194-8 |

Dimensions applicable only to Y-Strainers with Flanged and Buttwell Connections | Contact VSA for dimensions of Y-Strainers with Ring Joint Connections | Dimensions shown are subject to change.
Consult factory for certified drawings when required | ¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted | ³ For Buttwell connections please specify mating pipe schedule

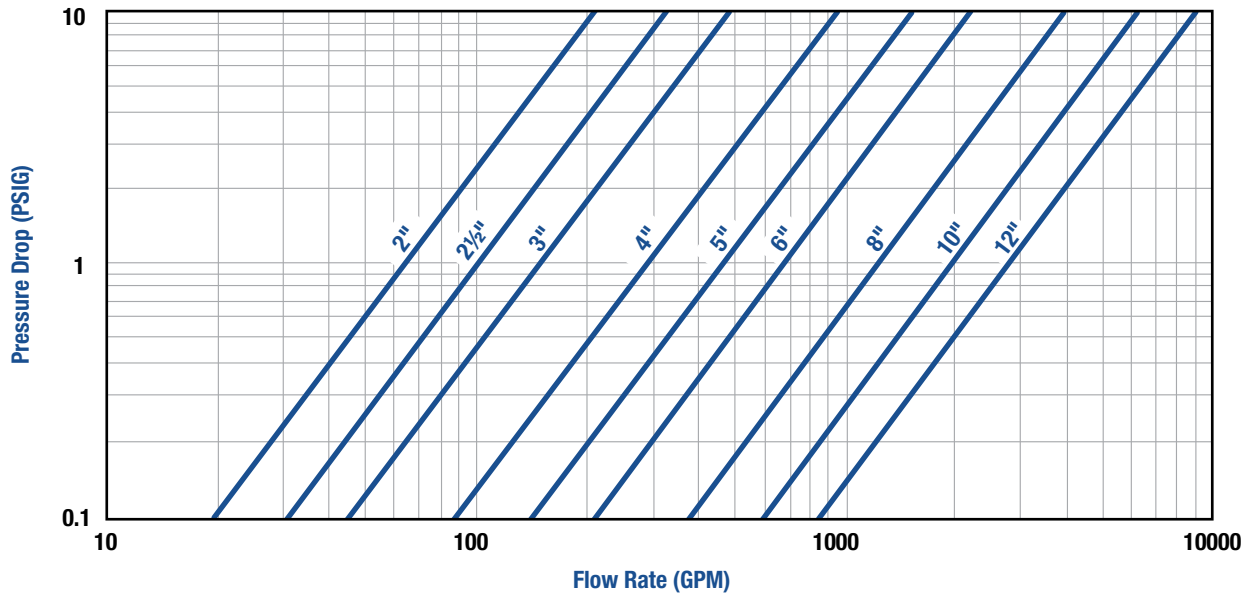
Pressure Drop VS. Flow Rate

Water Service, Clean Basket, 1/32" to 1/4" Perforated Screen*

(Sizes 1/2" to 1 1/2")



(Sizes 2" to 12")



* For Gas, Steam or Air service, consult factory.

Open Area Ratios

Standard Perforated Screen*

| Carbon & Stainless Steel 600Y1 Series Y-Strainer | | | | | | |
|--|------|-----------|--|--------------------------------------|-------------------------------------|-----------------------|
| Size | Mesh | Opening % | Std Pipe Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| ½" | 1/32 | 28 | 0.23 | 2.7 | 0.76 | 3.3 |
| ¾" | 1/32 | 28 | 0.43 | 4.6 | 1.28 | 3.0 |
| 1" | 1/32 | 28 | 0.72 | 8.5 | 2.38 | 3.3 |
| 1¼" | 1/32 | 28 | 1.28 | 12.8 | 3.58 | 2.8 |
| 1½" | 1/32 | 28 | 1.77 | 16.5 | 4.61 | 2.6 |
| 2" | 3/64 | 36 | 2.95 | 27.8 | 19 | 3.4 |

| Carbon & Stainless Steel 600Y2 Series Y-Strainer | | | | | | |
|--|------|-----------|--|--------------------------------------|-------------------------------------|-----------------------|
| Size | Mesh | Opening % | Std Pipe Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| 2" | 3/64 | 36 | 3.14 | 38.4 | 13.82 | 4.4 |
| 3" | 3/64 | 36 | 7.07 | 74.2 | 26.72 | 3.8 |
| 4" | 1/8 | 40 | 12.57 | 127.6 | 51.06 | 4.1 |
| 6" | 1/8 | 40 | 28.27 | 261.2 | 104.49 | 3.7 |
| 8" | 1/8 | 40 | 50.27 | 408.5 | 163.42 | 3.3 |
| 10" | 1/8 | 40 | 78.54 | 598.9 | 239.57 | 3.1 |
| 12" | 1/8 | 40 | 113.10 | 817.7 | 327.08 | 2.9 |

OAR = Free Screen Area / Nominal Inlet Area | Free Screen Area = Opening % x Gross Screen Area | Values shown are approximate. Consult factory for exact ratios.

* Consult factory.



Sizes
2" to 8"



Pressure
up to 2200 PSIG
(153 BARG)



Temperature
up to 800°F
(427°C)



Applications
Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 900 rated strainers
- RF or RTJ, and Butt weld connections designed in accordance with ASME B16.34, B16.5 and B16.25
- SSI Exclusive - Body blow down flange and cover flange dimensions are in dimensional accordance with ASME B16.5
- All Flanged connections complete with Bolted Cover
- One piece cast body
- Upper and lower machined seats
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings.
- Drain/Blow-off connection furnished with plug

Applicable Codes (designed in accordance with)

- ASME B16.5
- ASME B16.34
- ASME B16.25

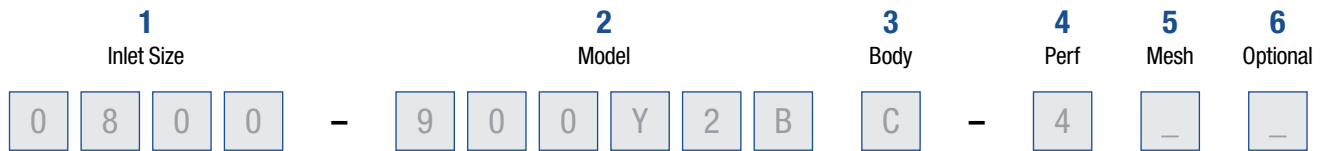
Models

- 900Y2F – Carbon or Stainless Steel Flanged with Bolted Cover
 - 900Y2J – Carbon or Stainless Steel Ring Joint with Bolted Cover
 - 250Y2F - Ductile Iron, Flanged, Bolted Cover
- Note: 900# flanges are the same as 1500# flanges in sizes 1/2" - 2"

Options

- Other perforated screens and mesh liners
- Drain connections and other gasket materials
- Oxygen cleaning
- Special internal/external coatings and linings
- Contact factory for other options

900Y Series Ordering Code



| 1 | Inlet Size | | | | | |
|------|------------|------|----|------|----|--|
| 0200 | 2" | 0300 | 3" | 0600 | 6" | |
| 0250 | 2½" | 0400 | 4" | 0800 | 8" | |

| 2 | Model | | | |
|--------|-------------------------------------|--|--------|--|
| 900Y2F | CS or SS, Flanged with Bolted Cover | | 900Y2J | CS or SS, Ring Joint with Bolted Cover |

| 3 | Body Material | | | |
|---|---------------|--|---|-----------------|
| C | Carbon Steel | | T | Stainless Steel |

1. Standard Screens: All <3"—3/64" perf, All >3"—1/8" perf.

2. For other screen material, contact factory.

| 4 | Perf ¹ (304SS Material ²) | | | | | |
|---|--|---|-------|---|-------|--|
| A | No Perf | 2 | 1/16" | 7 | 7/32" | |
| 1 | 1/32" | 3 | 3/32" | 8 | 1/4" | |
| B | 3/64 | 5 | 5/32" | 9 | 3/8" | |
| 4 | 1/8" | 6 | 3/16" | | | |

| 5 | Mesh ² (Leave Blank if not required) | | | | | |
|---|---|---|----|---|-----|--|
| 1 | 10 | 4 | 40 | 7 | 80 | |
| 2 | 20 | 5 | 50 | 8 | 100 | |
| 3 | 30 | 6 | 60 | 9 | 120 | |

| 6 | Optional (Leave Blank if not required) | | | |
|---|--|---|---------------------------|--|
| D | Special Drain Size | N | Nace MR01-75 | |
| F | Silicon Free | X | Oxygen Cleaning | |
| G | Special Gaskets | Y | Other / Multiple Specials | |
| T | Special Testing | | | |

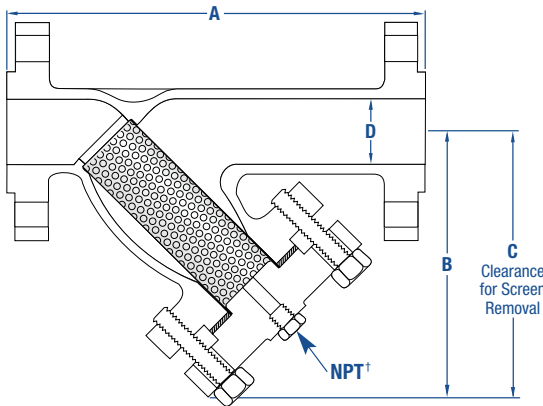
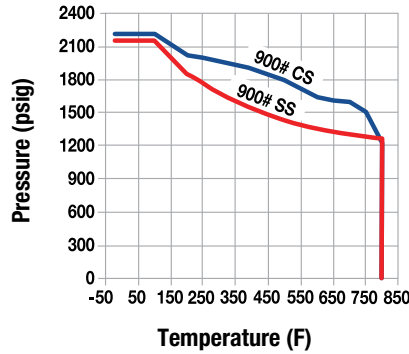
900Y2 Series

Y-Strainers

Carbon & Stainless Steel Body | Flanged & Ring Joint Ends



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 8"

Pressure

2220 PSIG (153 BARG)

Temperature

800° F (427° C)

End Connections

Flanged
Ring Joint

Screen Openings

2"-3" | 3/64" Perf | 304 SS
4"-8" | 1/8" Perf | 304 SS

Features

- One piece cast body
- ASME Class 900 rated strainers
- Upper and lower machined seats
- All Flanged connections complete with Bolted Cover
- Drain / Blow-off connection furnished with plug
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

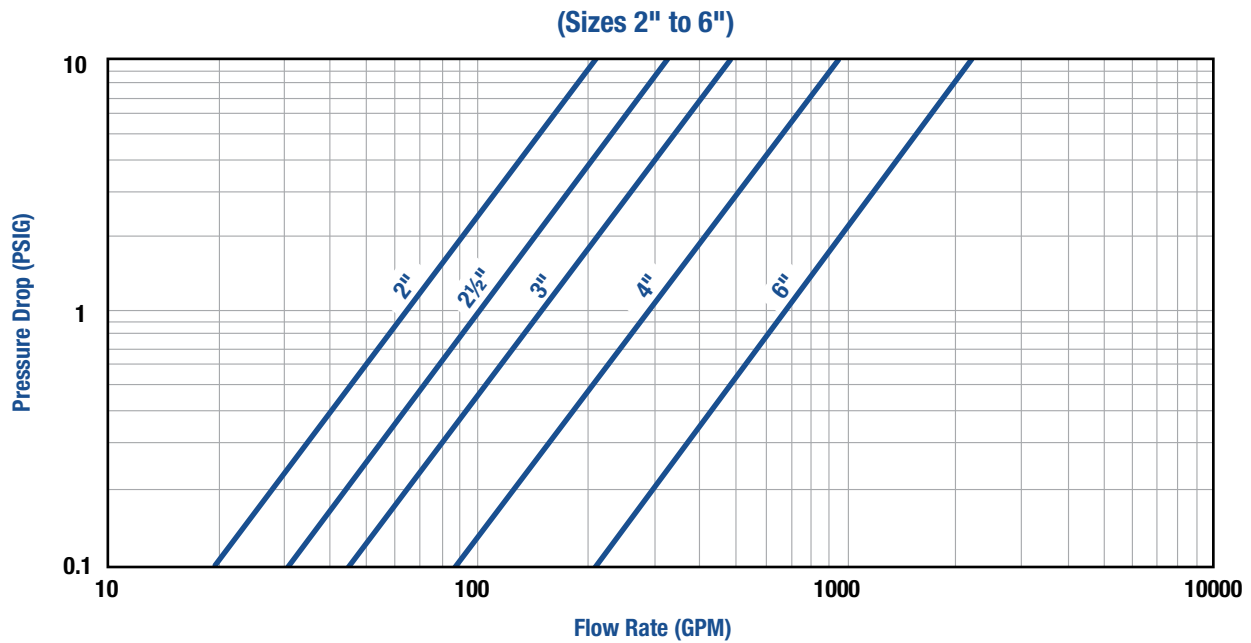
| Dimensions | | | | | | | | | | | |
|------------|-----|-------|-----|-------|-----|-------|-----|------|------|--------|-------|
| Size | | A | | B | | C | | D | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| 2" | 50 | 16.25 | 413 | 10.50 | 268 | 14.88 | 378 | 1.87 | 48 | 125 | 57 |
| 3" | 80 | 20.25 | 514 | 12.75 | 324 | 18.00 | 457 | 2.87 | 73 | 163 | 74 |
| 4" | 100 | 23.25 | 541 | 15.00 | 381 | 21.25 | 539 | 3.87 | 98 | 253 | 115 |
| 6" | 150 | 27.75 | 705 | 18.88 | 480 | 26.63 | 667 | 5.75 | 5.75 | 580 | 263.6 |
| 8" | 200 | 34.50 | 876 | 22.63 | 575 | 32.00 | 813 | 7.50 | 7.50 | 1080 | 490.9 |

| Materials | | |
|---------------------|------------------------|------------------------|
| Part | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Cap | A216-WCB | A351-CF8M |
| Screen ¹ | 304 SS | 304 SS |
| Plug ² | A105 | 304 SS |
| Gasket ¹ | 304 SS Spiral Wound | 304 SS Spiral Wound |
| Stud | A193-B7 | A320-B8 |
| Nut ² | A194-2H | A194-8 |

Dimensions applicable only to Y-Strainers with Flanged Connections | Contact VSA for dimensions of Y-Strainers with Ring Joint Connections | Dimensions shown are subject to change. Consult factory for certified drawings when required
¹ 900Y strainers are not furnished with a drain/blow-down connection Consult factory if required. | ¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted

Pressure Drop VS. Flow Rate

Water Service, Clean Basket, 1/32" to 1/4" Perforated Screen*



Open Area Ratios

Standard Perforated Screen*

| Carbon & Stainless Steel 900Y2 Series Y-Strainer | | | | | | |
|--|-----------------------------------|-----------|--------------------------------------|--------------------------------------|-------------------------------------|-----------------------|
| Size | Perf. Diameter (mm ²) | Opening % | Flange Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| 2" | 3/64 | 36 | 3.14 | 48.9 | 17.61 | 5.6 |
| 3" | 3/64 | 36 | 7.07 | 99.5 | 35.83 | 5.1 |
| 4" | 1/8 | 40 | 12.57 | 161.6 | 64.62 | 5.1 |
| 6" | 1/8 | 40 | 28.27 | 290.7 | 116.28 | 4.1 |
| 8" | 1/8 | 40 | 50.27 | 440.2 | 176.08 | 3.5 |

OAR = Free Screen Area / Nominal Inlet Area | Free Screen Area = Opening % x Gross Screen Area | Values shown are approximate. Consult factory for exact ratios.

* For Gas, Steam or Air service, consult factory.

1500Y Series

Y-Strainers

Carbon & Stainless Steel Body | NPT, Socketweld, Flanged, Ring Joint & Buttweled Ends



Sizes
½" to 6"



Pressure
up to 3705 PSIG
(258.5 BARG)



Temperature
up to 800°F
(426°C)



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 1500 rated strainers
- NPT, RF or RTJ, Socketweld and Buttweled connections designed in accordance with ASME B16.34, B16.5, B16.25 and B16.11
- SSI Exclusive - Body blow down flange and cover flange dimensions are in dimensional accordance with ASME B16.5
- All Flanged connections complete with Bolted Cover
- One piece cast body
- Upper and lower machined seats
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings
- Drain/Blow-off connection furnished with plug

Applicable Codes (designed in accordance with)

- ASME B16.11
- ASME B16.5
- ASME B16.34
- ASME B16.25

Models

- 1500Y1T – Carbon or Stainless NPT with Threaded Cover
- 1500Y2W – Carbon or Stainless Socketweld with Threaded Cover
- 1500Y2T – Carbon, Stainless or Chrome Moly NPT with Bolted Cover
- 1500Y2W – Carbon, Stainless or Chrome Moly Socketweld with Bolted Cover
- 1500Y2F – Carbon or Stainless Flanged with Bolted Cover
- 1500Y2J – Carbon or Stainless Ring Joint with Bolted Cover

Options

- Chrome Moly bodies available on Y2T and Y2W models
- Other perforated screens and mesh liners
- Drain connections and other gasket materials
- Oxygen cleaning
- Special internal/external coatings and linings
- Contact factory for other options

1500Y Series Ordering Code

| 1 Inlet Size | | | | 2 Model | | | | 3 Body | 4 Perf | 5 Mesh | | 6 Optional | | | |
|-----------------|---|---|---|------------|---|---|---|-----------|-----------|-----------|---|---------------|---|---|---|
| 0 | 1 | 5 | 0 | 1 | 5 | 0 | 0 | Y | 2 | T | R | - | 3 | _ | _ |

| 1 Inlet Size | |
|-----------------|-----|
| 0200 | 2" |
| 0300 | 3" |
| 0600 | 6" |
| 0250 | 2½" |
| 0400 | 4" |

| 2 Model | |
|----------------|--|
| 1500Y1T | CS or SS, NPT with Threaded Cover |
| 1500Y1W | CS or SS, Socketweld with Bolted Cover |
| 1500Y1W | CS or SS, Socketweld with Threaded Cover |
| 1500Y2F | CS or SS, Flanged with Bolted Cover |
| 1500Y2T | CS or SS, NPT with Bolted Cover |
| 1500Y2J | CS or SS, Ring Joint with Bolted Cover |

| 3 Body Material | |
|--------------------|-----------------|
| C | Carbon Steel |
| T | Stainless Steel |

1. Standard Screens: Y1T and Y2T, 1/2"-11/2"—1/32" perf, Y2 2"-6"—1/8" perf.
2. For other screen material, contact factory.

| 4 Perf ¹ (304SS Material ²) | |
|---|---------|
| A | No Perf |
| 2 | 1/16" |
| 7 | 7/32" |
| 1 | 1/32" |
| 3 | 3/32" |
| 8 | 1/4" |
| B | 3/64 |
| 5 | 5/32" |
| 9 | 3/8" |
| 4 | 1/8" |
| 6 | 3/16" |

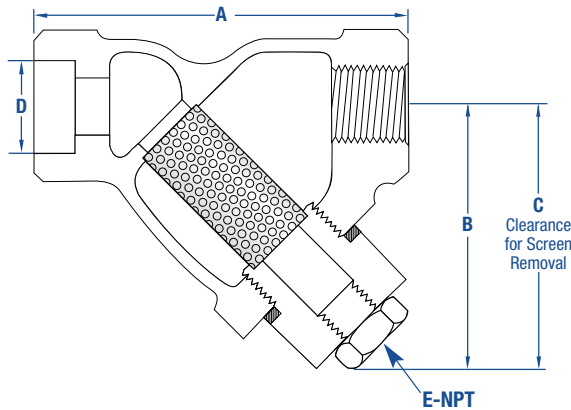
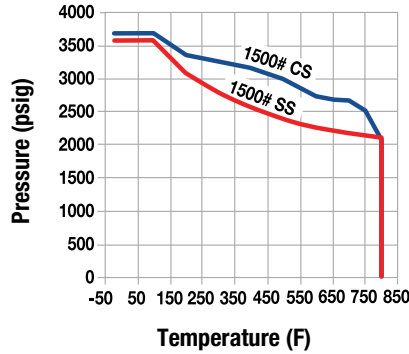
| 5 Mesh ² (Leave Blank if not required) | |
|--|-----|
| 1 | 10 |
| 4 | 40 |
| 7 | 80 |
| 2 | 20 |
| 5 | 50 |
| 8 | 100 |
| 3 | 30 |
| 6 | 60 |
| 9 | 120 |

| 6 Optional (Leave Blank if not required) | |
|---|---------------------------|
| D | Special Drain Size |
| N | Nace MR01-75 |
| F | Silicon Free |
| X | Oxygen Cleaning |
| G | Special Gaskets |
| Y | Other / Multiple Specials |
| T | Special Testing |

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Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

½" to 1"

Pressure

3705 PSIG (258.5 BARG)

Temperature

800° F (427° C)

End Connections

Threaded (NPT)
Socketweld

Screen Openings

½"-1" | 1/32" Perf | 304 SS

Features

- One piece cast body
- ASME Class 1500 rated strainers
- Upper and lower machined seats
- All Flanged connections complete with Bolted Cover
- Drain / Blow-off connection furnished with plug
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

| Dimensions | | | | | | | | | | | | | |
|------------|----|------|-----|------|-----|------|-----|------|-------|------|----|--------|-----|
| Size | | A | | B | | C | | D | | E | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| ½" | 15 | 3.94 | 100 | 3.56 | 90 | 5.31 | 135 | 0.88 | 22.23 | 0.25 | 8 | 2.4 | 1.1 |
| ¾" | 20 | 4.25 | 108 | 3.94 | 100 | 5.00 | 127 | 1.06 | 27.05 | 0.38 | 10 | 3.3 | 1.5 |
| 1" | 25 | 5.00 | 127 | 4.69 | 120 | 7.50 | 178 | 1.33 | 33.78 | 0.50 | 15 | 6.0 | 2.7 |

| Materials | | |
|---------------------|------------------------|------------------------|
| Part | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Cap ² | A216-WCB | A351-CF8M |
| Screen ¹ | 304 SS | 304 SS |
| Plug ² | A105 | A182-316 |
| Gasket ¹ | 304 SS Spiral Wound | 304 SS Spiral Wound |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted

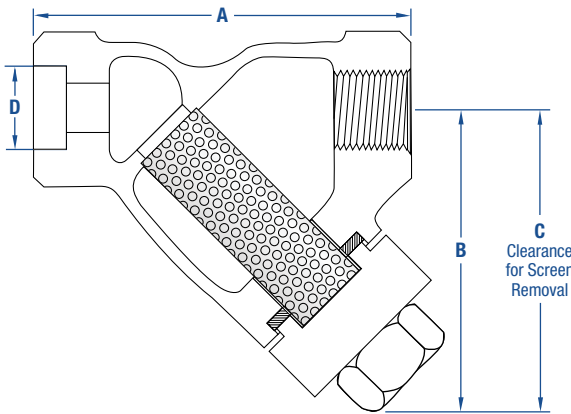
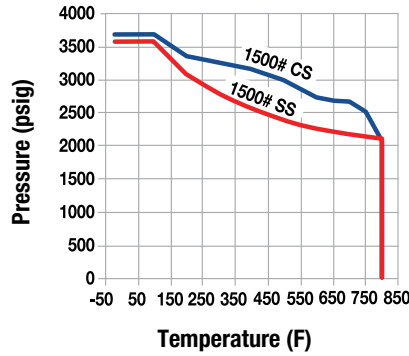
1500Y2 Series

Y-Strainers

Carbon & Stainless Steel Body | NPT & Socketweld Ends



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

1/2" to 2"

Pressure

3705 PSIG (258.5 BARG)

Temperature

800° F (427° C)

End Connections

Threaded (NPT)
Socketweld

Screen Openings

1/2"–1 1/2" | 1/32" Perf | 304 SS
2" | 3/64" Perf | 304 SS

Features

- One piece cast body
- ASME Class 1500 rated strainers
- Upper and lower machined seats
- All Flanged connections complete with Bolted Cover
- Drain / Blow-off connection furnished with plug
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

| Dimensions | | | | | | | | | | | |
|------------|----|------|-----|------|-----|-------|-----|------|----|--------|------|
| Size | | A | | B | | C | | D | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| 1/2" | 15 | 3.94 | 100 | 5.13 | 130 | 6.50 | 165 | 0.88 | 22 | 7 | 3.2 |
| 3/4" | 20 | 4.25 | 108 | 5.91 | 150 | 7.09 | 180 | 1.13 | 29 | 11 | 5 |
| 1" | 25 | 5.00 | 127 | 6.69 | 170 | 8.47 | 215 | 1.31 | 33 | 15 | 6.8 |
| 1 1/4" | 32 | 8.38 | 213 | 7.06 | 179 | 8.63 | 219 | 1.69 | 43 | 22 | 10 |
| 1 1/2" | 40 | 8.38 | 213 | 7.06 | 179 | 8.63 | 219 | 1.94 | 49 | 22 | 10 |
| 2" | 50 | 9.38 | 238 | 7.88 | 200 | 10.00 | 254 | 2.44 | 62 | 26 | 11.8 |

| Materials | | |
|---------------------|------------------------|------------------------|
| Part | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Cover ² | A216-WCB | A351-CF8M |
| Screen ¹ | 304 SS | 304 SS |
| Gasket ¹ | 304 SS Spiral Wound | 304 SS Spiral Wound |
| Stud | A193-B7 | A193-B8-1 |
| Nut | A194-2H | A194-8 |

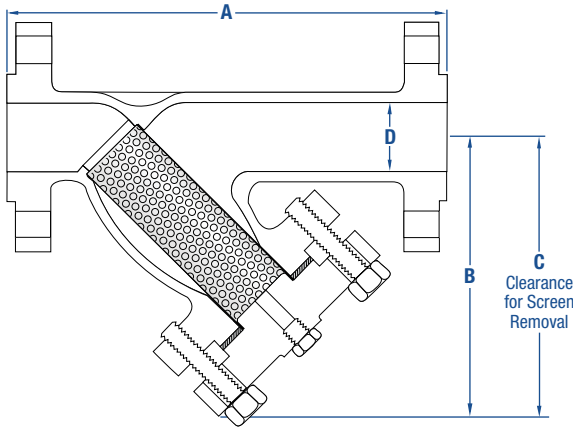
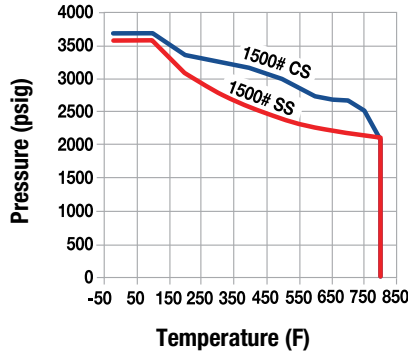
Dimensions shown are subject to change. Consult factory for certified drawings when required.

1500Y2 strainers are not furnished with a drain/blow-down connection Consult factory if required. | ¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted

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Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel y-strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel y-strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 6"

Pressure

3705 PSIG (258.5 BARG)

Temperature

800° F (427° C)

End Connections

Flanged
Ring Joint

Screen Openings

2"–3" | 3/64" Perf | 304 SS
4"–6" | 1/8" Perf | 304 SS

Features

- One piece cast body
- ASME Class 1500 rated strainers
- Upper and lower machined seats
- All Flanged connections complete with Bolted Cover
- Drain / Blow-off connection furnished with plug
- Generous screen area and properly proportioned straining chamber to minimize initial pressure drop while maximizing time between cleanings

| Dimensions | | | | | | | | | | | |
|------------|-----|-------|-----|-------|-----|-------|-----|------|-----|--------|-------|
| Size | | A | | B | | C | | D | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| 2" | 50 | 16.25 | 413 | 10.50 | 268 | 14.88 | 378 | 1.88 | 48 | 125 | 56.7 |
| 2½" | 65 | 19.38 | 492 | 13.38 | 340 | 14.50 | 368 | 2.25 | 47 | 142 | 64.6 |
| 3" | 80 | 22.25 | 565 | 14.50 | 368 | 20.50 | 521 | 2.75 | 73 | 243 | 110.2 |
| 4" | 100 | 25.25 | 641 | 16.38 | 416 | 23.00 | 584 | 3.63 | 92 | 388 | 176 |
| 6" | 150 | 32.00 | 813 | 21.75 | 551 | 30.50 | 775 | 5.38 | 137 | 817 | 370.6 |

| Part | Materials | |
|---------------------|------------------------|------------------------|
| | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Cover | A216-WCB | A351-CF8M |
| Screen ¹ | 304 SS | 304 SS |
| Plug ² | A105 | 304 SS |
| Gasket ¹ | 304 SS Spiral Wound | 304 SS Spiral Wound |
| Stud | A193-B7 | A320-B8 |
| Nut ² | A194-2H | A194-8 |

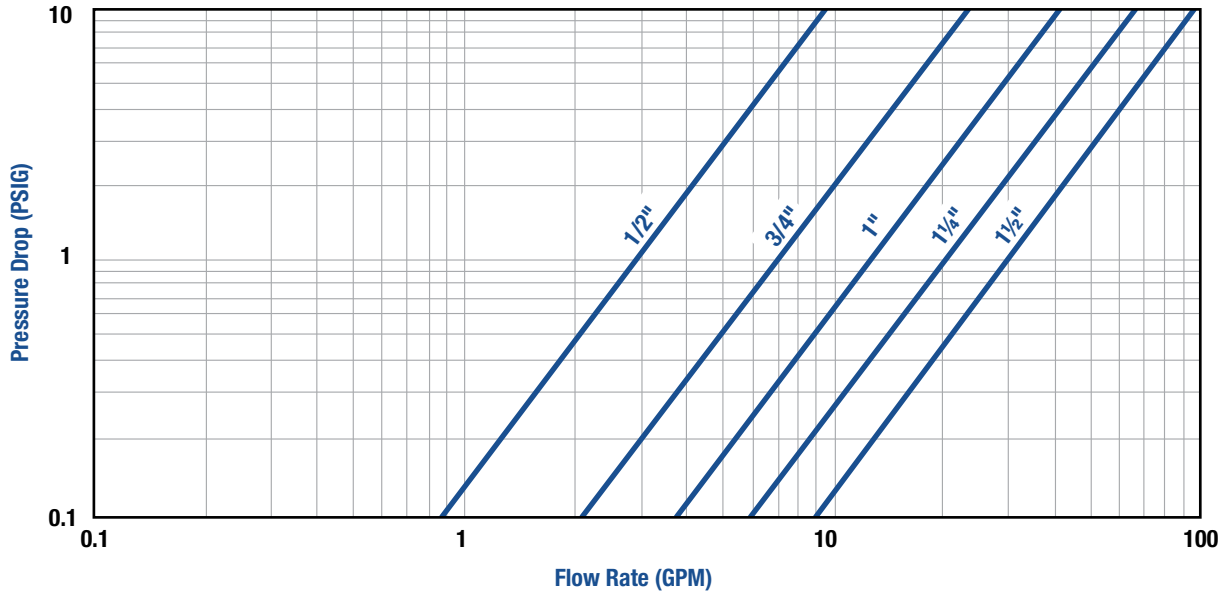
Dimensions shown are subject to change. Consult factory for certified drawings when required.

1500Y2 strainers are not furnished with a drain/blow-down connection Consult factory if required. | ¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted

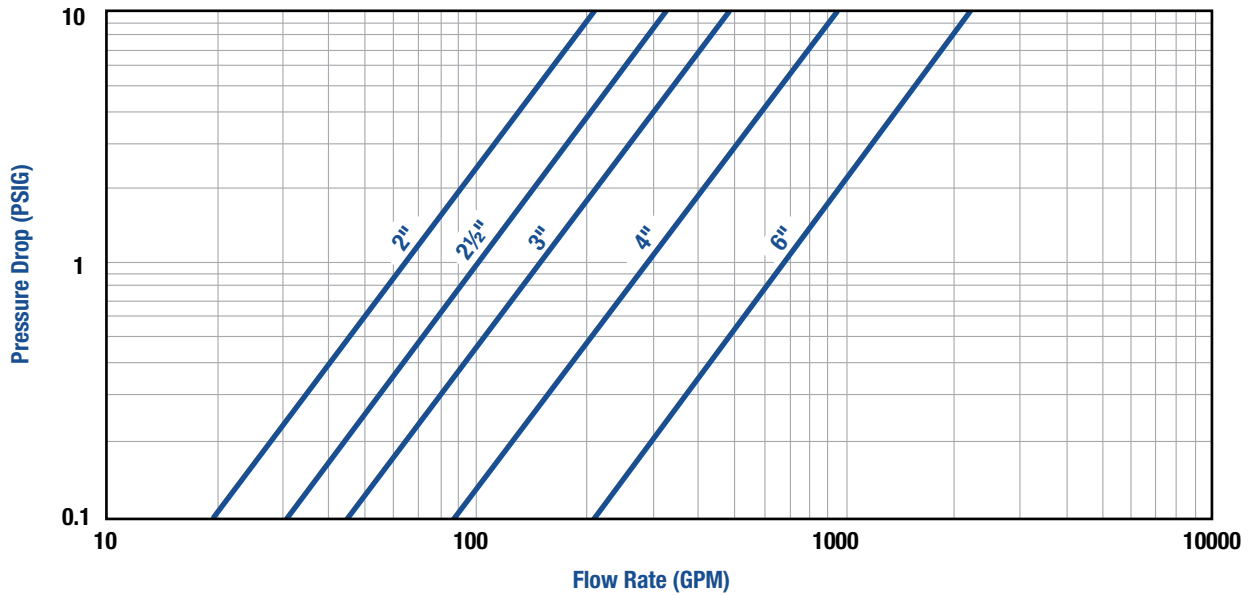
Pressure Drop VS. Flow Rate

Water Service, Clean Basket, 1/32" to 1/4" Perforated Screen*

(Sizes 1/2" to 1 1/2")



(Sizes 2" to 6")



* For Gas, Steam or Air service, consult factory.

Open Area Ratios

Standard Perforated Screen*

| Carbon & Stainless Steel 1500Y1 Series Y-Strainer | | | | | | |
|---|-------------------------|-----------|---------------------------------------|--------------------------------------|-------------------------------------|-----------------------|
| Size | Perf. Diameter (inches) | Opening % | XH Pipe Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| ½" | 1/32 | 28 | 0.23 | 5.0 | 1.4 | 6.0 |
| ¾" | 1/32 | 28 | 0.43 | 6.6 | 1.8 | 4.3 |
| 1" | 1/32 | 28 | 0.72 | 10.6 | 3.0 | 4.1 |

| Carbon & Stainless Steel 1500Y2 Series Y-Strainer | | | | | | |
|---|-------------------------|-----------|----------------------------------|--------------------------------------|-------------------------------------|-----------------------|
| Size | Perf. Diameter (inches) | Opening % | XH Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| ½" | 1/32 | 36 | 0.23 | 6.2 | 1.7 | 7.5 |
| ¾" | 1/32 | 36 | 0.43 | 8.3 | 2.3 | 5.4 |
| 1" | 1/32 | 36 | 0.72 | 13.7 | 3.8 | 5.4 |
| 1¼" | 1/32 | 28 | 1.23 | 24.9 | 7.0 | 5.7 |
| 1½" | 1/32 | 36 | 1.77 | 24.9 | 6.9 | 4.0 |
| 2" | 3/64 | 36 | 2.95 | 31.4 | 11.31 | 8.6 |

| Carbon & Stainless Steel 1500Y2 Series Y-Strainer | | | | | | |
|---|-------------------------|-----------|---------------------------------------|--------------------------------------|-------------------------------------|-----------------------|
| Size | Perf. Diameter (inches) | Opening % | Flanged Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| 2" | 3/64 | 36 | 3.14 | 48.9 | 17.61 | 5.6 |
| 2½" | 3/64 | 36 | 4.91 | 83.4 | 30.02 | 6.1 |
| 3" | 3/64 | 36 | 7.07 | 109.9 | 39.56 | 5.6 |
| 4" | 1/8 | 40 | 12.57 | 165.0 | 66.01 | 5.3 |
| 6" | 1/8 | 40 | 28.27 | 314.5 | 125.78 | 4.4 |

OAR = Free Screen Area / Nominal Inlet Area | Free Screen Area = Opening % x Gross Screen Area | Values shown are approximate. Consult factory for exact ratios.

Pressure Drop Correction Factors

| Centistokes | SSU | Unlined Perforated Basket | 20 Mesh Lined Basket | 40 Mesh Lined Basket | 60 Mesh Lined Basket | 80 Mesh Lined Basket | 100 Mesh Lined Basket | 200 Mesh Lined Basket |
|-------------|------------|---------------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|
| 2 | 30 (water) | 1 | 1.05 | 1.2 | 1.4 | 1.6 | 1.7 | 2 |
| 100 | 500 | 1.6 | 1.7 | 1.9 | 2.1 | 2.4 | 2.6 | 3.1 |
| 216 | 1000 | 1.7 | 2 | 2.2 | 2.4 | 2.6 | 2.8 | 3.3 |
| 433 | 2000 | 1.9 | 2.2 | 2.4 | 2.7 | 2.9 | 3.2 | 3.8 |
| 650 | 3000 | 2 | 2.3 | 2.6 | 2.9 | 3.2 | 3.5 | 4.1 |
| 1083 | 5000 | 2.2 | 2.6 | 3 | 3.5 | 4 | 4.5 | 5.3 |
| 2200 | 10000 | 2.5 | 3 | 3.5 | 4.2 | 5 | 6 | 7.1 |

- 1) Obtain water pressure drop from graphs on appropriate product page.
- 2) Multiply the pressure drop obtained from (1) by the specific gravity of the liquid.
- 3) Multiply the pressure drop from (2) by the appropriate correction factor for the mesh liner and/or viscosity.

| Example | Answer |
|---|---|
| Model: 150Y2 Size: 4" Body: Carbon Steel Filtration: 1/8" perf. screen 40 Mesh Flow Rate: 200 GPM Fluid: Water SG: 1 Viscosity: 30 SSI | A) From Pressure Drop Chart on page 13 pressure drop of water is .48 psid. B) Multiply by specific gravity; $.48 \times 1 = .48$ psid. C) From chart above, multiply answer from B) by correction factor $.48 \times 1.2$ (correction factor) = .576 psid. |

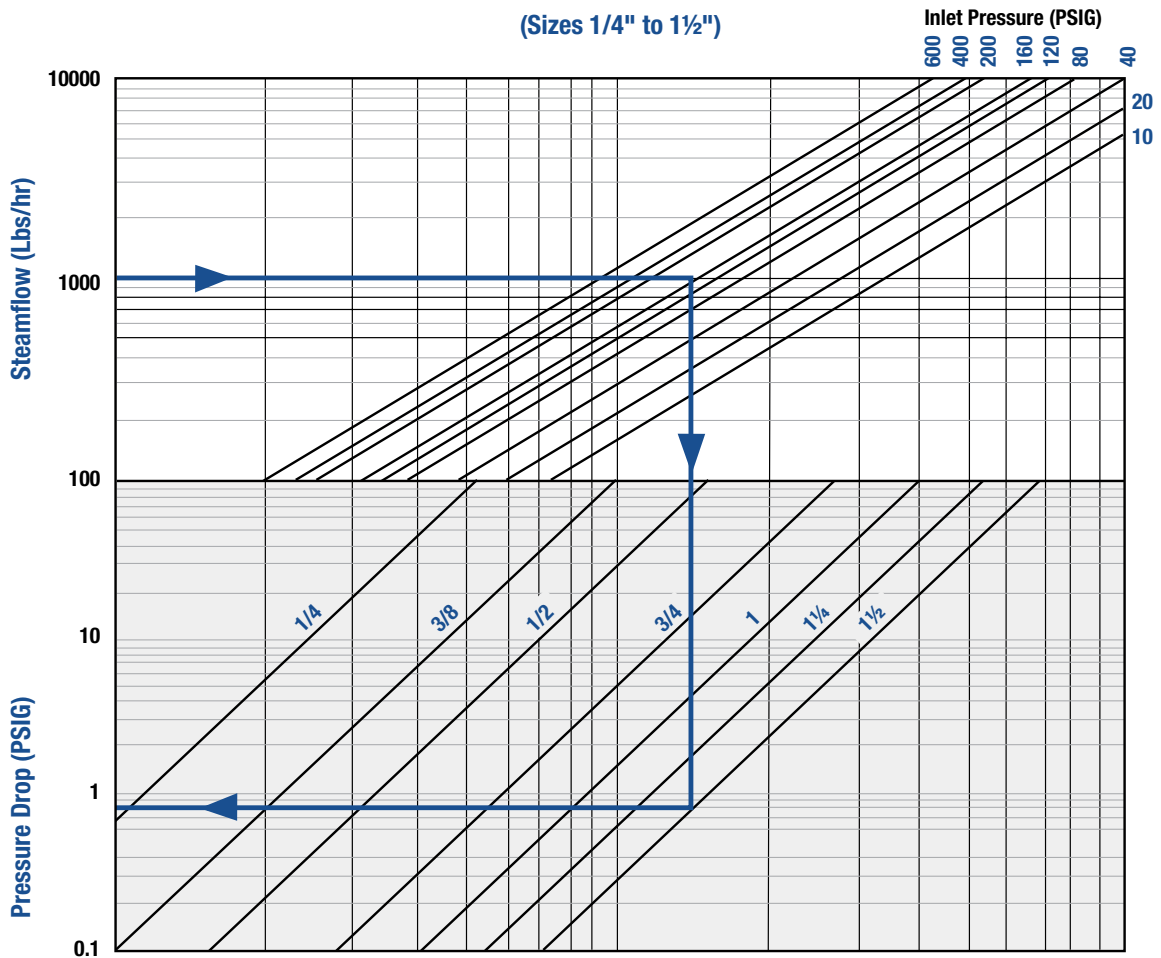
Correction Factors for Clogged Screens

| % Clogged | Ratio of Free Screen Area to Pipe Area | | | | | | |
|-----------|--|------|------|------|------|------|------|
| | 10:1 | 8:1 | 6:1 | 4:1 | 3:1 | 2:1 | 1:1 |
| 10 | – | – | – | – | – | – | 3.15 |
| 20 | – | – | – | – | – | 1.15 | 3.9 |
| 30 | – | – | – | – | – | 1.4 | 5 |
| 40 | – | – | – | – | – | 1.8 | 6.65 |
| 50 | – | – | – | – | 1.25 | 2.5 | 9.45 |
| 60 | – | – | – | 1.15 | 1.8 | 3.7 | 14.5 |
| 70 | – | – | – | 1.75 | 2.95 | 6.4 | 26 |
| 80 | – | 1.1 | 1.75 | 3.6 | 6.25 | 14 | 58 |
| 90 | 2.3 | 3.45 | 6 | 13.5 | 24 | 55 | – |

* Multiply values obtained from Pressure Drop Charts by the appropriate values shown below.

| Example | Answer |
|---|---|
| Strainer Size: 6" Model: 150Y2 Body: Carbon Steel Filtration: 1/8" Perf. Flow rate: 1000 GPM Service: Water % Clogged: 60% | A) The Pressure Drop Chart on page 13 indicates a drop of 2.2 psid B) The Effective Area Chart indicates a ratio of 3.0 free area to pipe area. C) Using the Chart above read the correction factor of 3:1 to be 1.8 at 60% clogged. D) Total pressure drop equals $2.2 \times 1.8 = 3.96$ psid. |

Pressure Drop Correction Factors



- 1) Pressure drop curve is based on saturated steam flow with standard screens. See page 40 for correction factors to be used with other fluids and/or screen openings.
- 2) Chart can be used for air and gas by using the following formula:

$$Q_s = 0.138 Q_g \sqrt{\frac{DP}{P_2} (460+t) \text{ s.g.}} \quad \left\{ \begin{array}{l} DP < 1.0 \\ \text{FOR NON-CRITICAL} \\ \text{FLOW} \end{array} \right.$$

- Q_s** = Equivalent Steam Flow, lbs./hr.
- Q_g** = Air or gas flow, SCFM.
- t** = Temperature, °F.
- s.g.** = Specific gravity (s.g. = 1 for air.)
- DP** = Pressure Drop, psid
- P₂** = Outlet Pressure

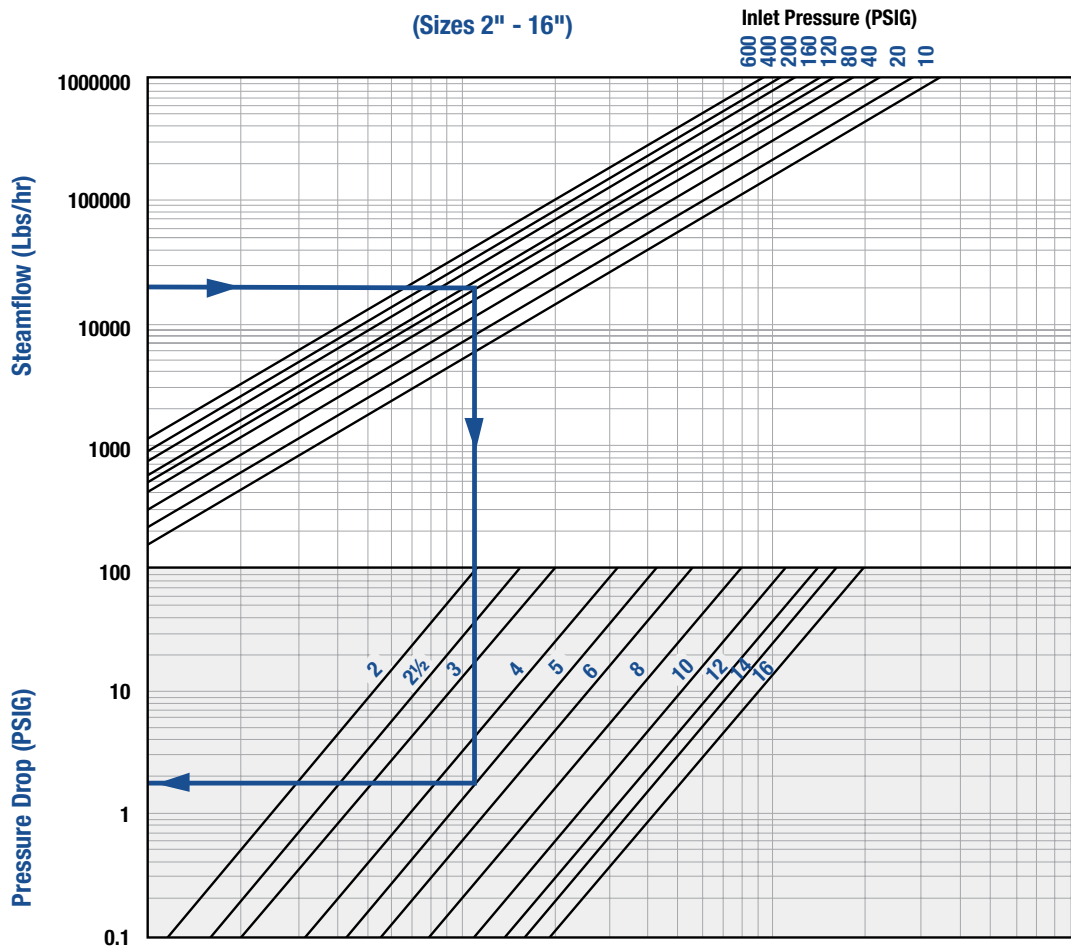
Example

Service: Saturated Steam Flow
Pressure: 160 PSIG
Steam Flow: 1000 Lbs/hr
Size: 1-1/2"

- Locate steam flow.
- Follow horizontal line to required pressure.
- Follow vertical line downwards to required strainer size.

- Follow horizontal line to read pressure drop.
- Pressure drop equals 0.8 psid.

Pressure Drop Correction Factors



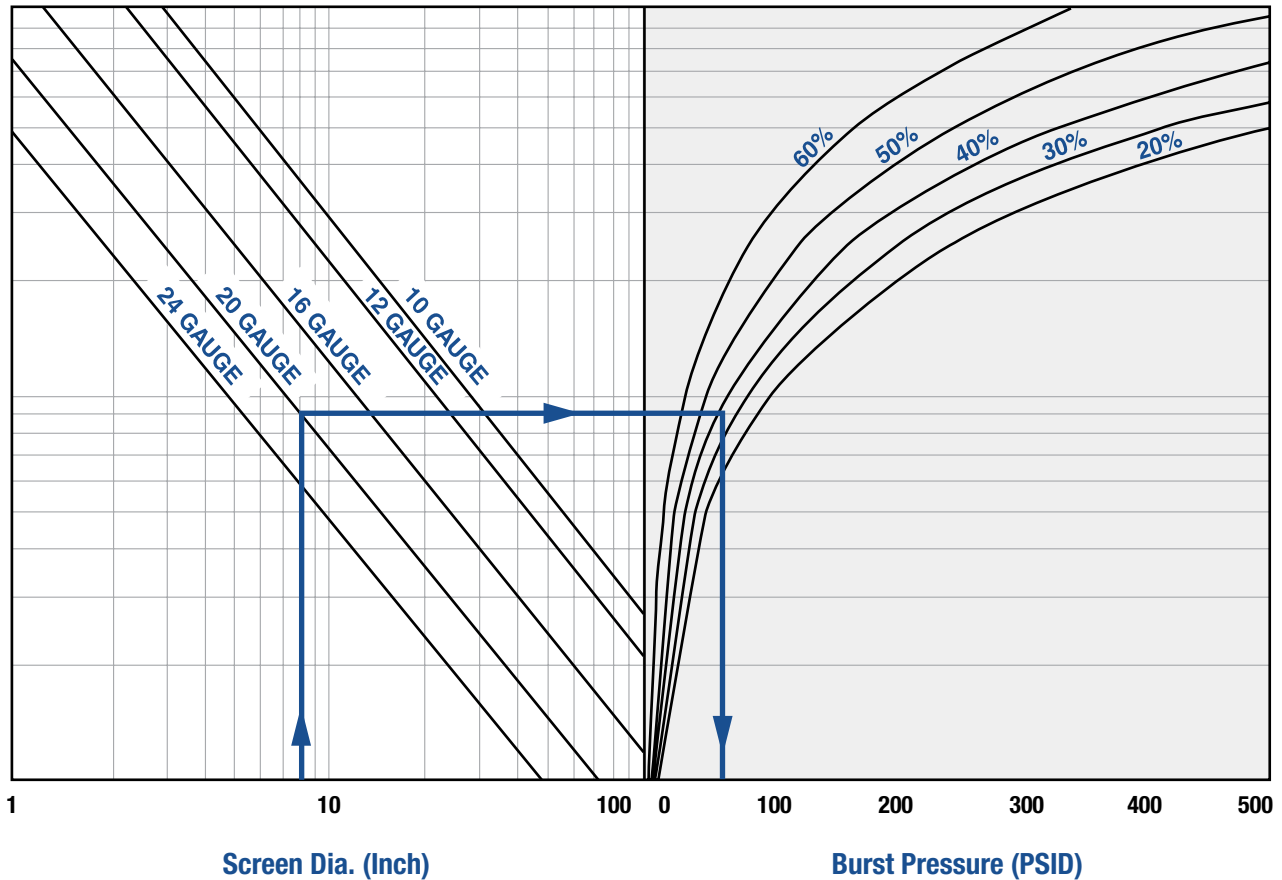
- 1) Pressure drop curve is based on saturated steam flow with standard screens. See page 40 for correction factors to be used with other fluids and/or screen openings.
- 2) Chart can be used for air and gas by using the following formula:

$$Q_s = 0.138 Q_g \sqrt{\frac{DP}{P_2} (460+t) \text{ s.g.}} \quad \left\{ \begin{array}{l} DP < 1.0 \\ \text{FOR NON-CRITICAL} \\ \text{FLOW} \end{array} \right.$$

- Q_s** = Equivalent Steam Flow, lbs./hr.
- Q_g** = Air or gas flow, SCFM.
- t** = Temperature, °F.
- s.g.** = Specific gravity (s.g. = 1 for air.)
- DP** = Pressure Drop, psid
- P₂** = Outlet Pressure

| Example | | |
|---|---|---|
| <p>Service: Saturated Steam Flow Pressure: 120 PSIG Steam Flow: 20,000 Lbs/hr Size: 5"</p> | <ul style="list-style-type: none"> • Locate steam flow. • Follow horizontal line to required pressure. • Follow vertical line downwards to required strainer size. | <ul style="list-style-type: none"> • Follow horizontal line to read pressure drop. • Pressure drop equals 1.8 psid. |

Pressure Drop Correction Factors



1) The above chart is for use with perforated plate and based on the formula:

$$P = \frac{St}{R - 0.4t}$$

P = Burst pressure, psid
 S = Reduced allowable stress, psi
 t = Thickness of perforated plate, in.
 R = Outside radius of screen, in.

- 2) The above chart is based on a screen material of stainless steel and is valid for operating temperatures up to 100°F. The chart may be used for higher temperatures however it will result in a safety factor reduction. (At 100°F the chart's safety factor is approximately four (4), at 1000°F the chart safety factor is reduced to approximately two (2). It is the responsibility of the user to determine an acceptable safety factor.
- 3) The chart may be used for carbon steel at an approximate 25% reduction in safety factor.
- 3) See Screen Openings Chart for % Open Area's of inventoried perforated plate.

Example

Strainer Size: 8"
Screen Thickness: 20 Gauge
Screen Perforations: 0.125" (40% O.A.)

- Locate screen diameter (assume 8" diameter screen)
- Follow vertical line to gauge thickness.
- Follow vertical line downwards to required strainer size.

- Follow vertical line downward to read burst pressure.
- Burst pressure equals 60 psid approx.

Strainer Checklist

Please take the factors listed below into account when selecting a strainer. Kindly fill out and send the pertinent information, to your best ability, so that we can recommend a Strainer to suit your specific requirements.

| | | | |
|--|-----------------------------|---|-------------------------------------|
| 1) Fluid to be strained: | | 9) Nature of solids to be strained out: | |
| 2) Flow rate: | | 10) Size of solids to be strained: | Size of mesh/perf. required: |
| 3) Density of fluid: | | 11) Clearance limitation - Above: | Below: |
| 4) Viscosity of fluid: | | Left: | Right: |
| 5) Fluid working pressure: | Maximum pressure: | 12) Maximum pressure drop with clean screen: | |
| 6) Fluid working temperature: | Maximum temperature: | 13) Expected cleaning frequency: | |
| 7) Preferred material of strainer construction: | | 14) Any other information deemed relevant | |
| 8) Present pipeline size and material: | | | |

Contact Information

| | | | |
|------------------------|-------------------------|-------------------|---------------|
| Name: | | Company: | |
| Address: | | City/Town: | |
| Province/State: | Postal/Zip Code: | Phone: | Email: |

Installation and Maintenance Instructions

Strainer Installation Instructions

- Ensure all machined surfaces are free of defects and that the inside of the strainer is free of foreign objects.
- For horizontal and vertical pipelines, the strainer should be installed so that the blow-down drain connection is pointed downward.
- For flanged end strainers, the flange bolting should be tightened gradually in a back and forth clockwise motion. Threaded end strainers should use an appropriate sealant.
- Once installed, increase line pressure gradually and check for leakage around joints.
- If the strainer is supplied with a start-up screen, monitor pressure drop carefully.

Screen Removal Instructions

- Drain piping.
- Vent line to relieve pressure.
- Loosen cover and open to access screen.
- Remove, clean and replace screen in original position (Note: In some instances, a high pressure water jet or steam may be required for effective cleaning).
- Inspect cover gasket for damage. If necessary, replace. (Note: If spiral wound gaskets have been used, they must be replaced and can not be used again).
- Tighten cover. The strainer is ready for line startup.

CAUTION SHOULD BE TAKEN DUE TO POSSIBLE EMISSION OF PROCESS MATERIAL FROM PIPING. ALWAYS ENSURE NO LINE PRESSURE EXISTS WHEN OPENING COVER.

Maintenance Instructions

For maximum efficiency, determine the length of time it takes for the pressure drop to double that in the clean condition. Once the pressure drop reaches an unacceptable value, shut down line and follow the “Screen Removal Instructions” above. A pressure gauge installed before and after the strainer in-line will indicate pressure loss due to clogging and may be used to determine when cleaning is required.

Trouble Shooting and Diagnostic Techniques

- After pressurizing, inspect cover and other joints for leakage. Gasket replacement or cover tightening is necessary if leakage occurs.
- If the required filtration is not taking place, ensure the screen is installed in the correct position, that being flush to the screen seating surfaces.

WARNING

This product operates in pipelines or with equipment that carries fluids and/or gasses at elevated temperatures and pressures. Caution should be taken to make sure that this equipment is installed correctly and inspected regularly. Caution should also be taken to protect personnel from fluid or gas leakage.



Sizes
1/2" to 20"



Pressure
up to 740 PSIG



Temperature
up to 800°F



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- Cast or Fabricated construction
- Filtration down to 40 microns
- Large strainer baskets
- Compact & high capacity units available

End Connections

- Flat Faced
- Threaded (NPT)
- Raised Face
- Socketweld
- Butt weld

Materials

- Cast Iron
- Carbon Steel
- Bronze
- Stainless Steel

ASME Ratings

- Class 125
- Class 150
- Class 300



Sizes
2" to 20"



Pressure
up to 200 PSIG
(13.8 BARG)



Temperature
up to 450°F
(232°C)



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 125 rated strainers
- FF connections designed in accordance with ASME B16.1
- Angular basket for straight through flow
- Stainless steel perforated basket is standard
- Recommended minimum straining level is 250 microns
- NPT drain connection furnished with plug as standard

Applicable Codes (designed in accordance with)

- ASME B16.1

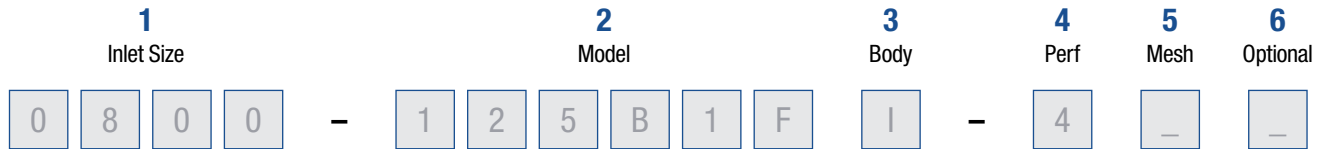
Models

- 125B1F - Straight Flow

Options

- Other screen perforations and mesh liners
- Quick Opening Covers - see page 60

125B Series Ordering Code



| 1 | Inlet Size | | | | |
|------|------------|------|-----|------|-----|
| 0200 | 2" | 0600 | 6" | 1600 | 16" |
| 0250 | 2½" | 0800 | 8" | 1800 | 18" |
| 0300 | 3" | 1000 | 10" | 2000 | 20" |
| 0400 | 4" | 1200 | 12" | | |
| 0500 | 5" | 1400 | 14" | | |

| 2 | Model |
|--------|---------------|
| 125B1F | Straight Flow |

| 3 | Body Material |
|---|---------------|
| I | Cast Iron |

| 4 | Perf ¹ (304SS Material ²) | | | | |
|---|--|---|-------|---|-------|
| B | 3/64" (std < 4") | 2 | 1/16" | 7 | 7/32" |
| 4 | 1/8" (std => 4") | 3 | 3/32" | 8 | 1/4" |
| A | None | 5 | 5/32" | 9 | 3/8" |
| 1 | 1/32" | 6 | 3/16" | Z | Other |

| 5 | Mesh ^{1,2} (Leave Blank if not required) | | | | |
|---|---|---|-----|---|-------|
| 1 | 10 | 5 | 50 | 9 | 120 |
| 2 | 20 | 6 | 60 | Z | Other |
| 3 | 30 | 7 | 80 | | |
| 4 | 40 | 8 | 100 | | |

| 6 | Optional (Leave Blank if not required) | | |
|----|--|---|---------------------------|
| D | Special Drain Size | G | Special Gaskets |
| E1 | 1/4" Vent | T | Special Testing |
| E2 | 3/8" Vent | X | Oxygen Cleaning |
| E3 | 1/2" Vent | Y | Other / Multiple Specials |
| F | Silicon Free | | |

1. Standard screens All 2"-3"—3/64" perf, All 4"-20"—1/8" perf.
2. For other screen materials contact factory.

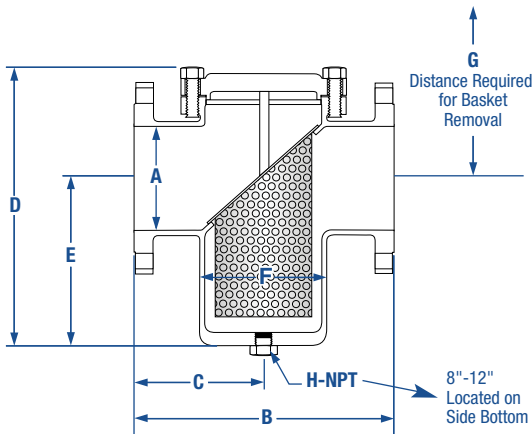
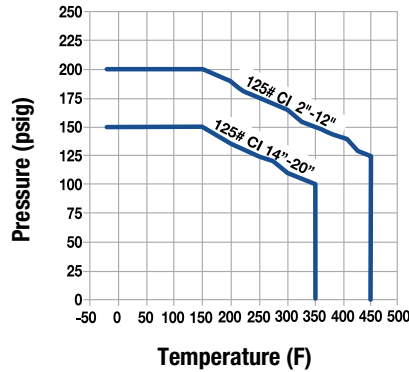
125B Series

Basket Strainers

Cast Iron Body | Flanged Ends



Pressure / Temperature Chart
ASME B16.1



Description

SSI manufactures cast iron basket strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI cast iron basket strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 6"

Pressure

200 PSIG (13.8 BARG)

Temperature

450° F (232° C)

End Connections

FF Flanged

Screen Openings

2"-3" | 3/64" Perf | 304 SS

4"-20" | 1/8" Perf | 304 SS

Features

- ASME Class 125 rated strainers
- Connections designed in accordance with ASME B16.1
- Angular basket for straight through flow
- Stainless steel perforated basket is standard
- Recommended minimum straining level is 250 microns
- NPT drain connection furnished with plug as standard

CRN

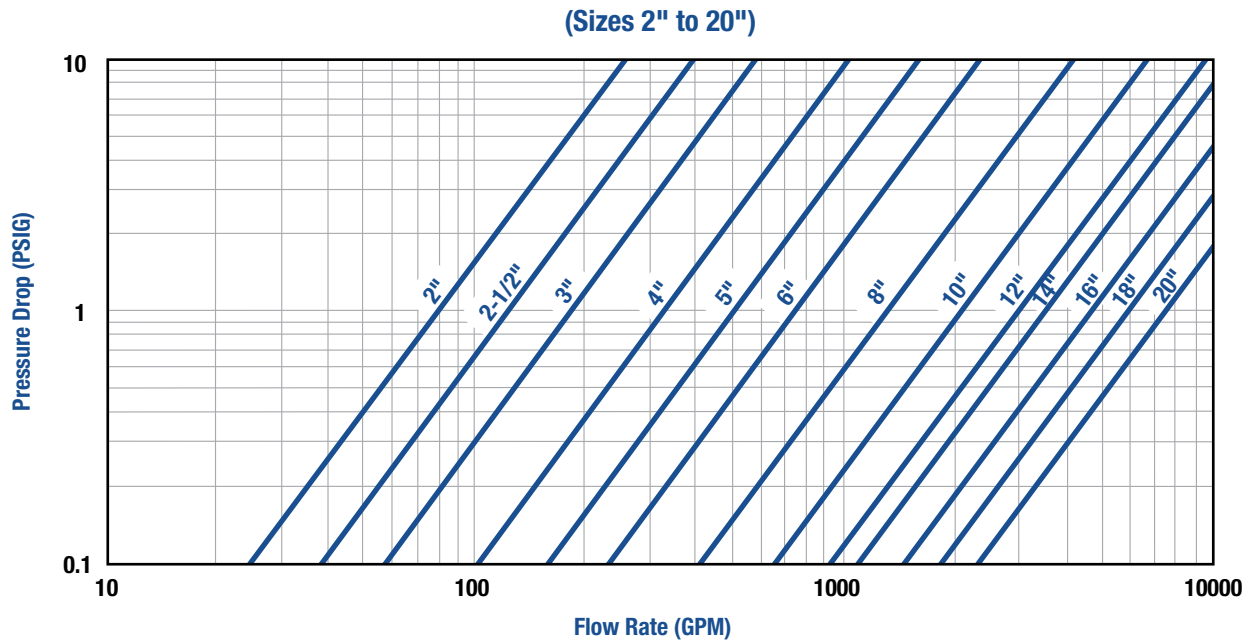
| Dimensions | | | | | | | | | | | | | | | | | | | | | |
|------------|------|-----|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|--------|-----|-----|------|-----|
| Size | A | | B | | C | | D* | | E | | F | | G | | H** | | Weight | | | | |
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg | lbs | kg | |
| 2" | 50 | 2 | 51 | 8.13 | 206 | 4.06 | 103 | 9.06 | 230 | 5.00 | 127 | 2.94 | 75 | 11.75 | 298 | 0.5 | 15 | 5 | 2.3 | 23 | 10 |
| 2½" | 56 | 2.5 | 64 | 8.25 | 210 | 4.13 | 106 | 9.81 | 249 | 6.00 | 152 | 4.00 | 102 | 13.25 | 337 | 0.75 | 20 | 7 | 3.2 | 33 | 15 |
| 3" | 80 | 3 | 76 | 8.88 | 251 | 4.94 | 125 | 12.19 | 310 | 7.13 | 181 | 5.00 | 127 | 15.38 | 391 | 0.75 | 20 | 9 | 4 | 44 | 20 |
| 4" | 100 | 4 | 102 | 11.50 | 292 | 5.75 | 146 | 13.63 | 346 | 8.00 | 203 | 5.81 | 148 | 17.75 | 451 | 1 | 25 | 13 | 6 | 67 | 30 |
| 5" | 125 | 5 | 127 | 13.13 | 333 | 6.56 | 167 | 14.56 | 370 | 8.50 | 216 | 7.06 | 179 | 20.50 | 521 | 1 | 25 | 20 | 9 | 88 | 40 |
| 6" | 150 | 6 | 152 | 14.88 | 378 | 7.44 | 189 | 15.75 | 400 | 9.00 | 229 | 7.94 | 202 | 23.00 | 584 | 1 | 25 | 26 | 12 | 120 | 54 |
| 8" | 200 | 8 | 203 | 18.69 | 475 | 9.38 | 238 | 19.94 | 506 | 12.00 | 305 | 9.84 | 250 | 30.00 | 762 | 1.5 | 40 | 45 | 20 | 220 | 100 |
| 10" | 250 | 10 | 254 | 20.13 | 511 | 10.00 | 254 | 26.00 | 660 | 13.19 | 335 | 12.31 | 313 | 35.50 | 902 | 1.5 | 40 | 70 | 32 | 353 | 160 |
| 12" | 300 | 12 | 305 | 26.75 | 679 | 13.38 | 349 | 30.13 | 765 | 16.22 | 412 | 15.34 | 390 | 42.50 | 1080 | 2 | 50 | 110 | 50 | 523 | 237 |
| 14" | 350 | 14 | 356 | 30.25 | 768 | 15.13 | 384 | 37.50 | 953 | 22.00 | 559 | 18.00 | 457 | 53.00 | 1346 | 1.5 | 40 | 140 | 64 | 815 | 370 |
| 16" | 400 | 16 | 406 | 33.13 | 841 | 16.63 | 422 | 39.50 | 1003 | 22.88 | 581 | 20.75 | 527 | 55.63 | 1413 | 2 | 50 | 180 | 82 | 1041 | 472 |
| 18" | 450 | 18 | 457 | 38.50 | 978 | 19.25 | 489 | 40.00 | 1016 | 19.00 | 483 | 24.25 | 616 | 61.00 | 1549 | 2 | 50 | 220 | 100 | 1446 | 656 |
| 20" | 500 | 20 | 508 | 41.38 | 1051 | 20.69 | 525 | 46.25 | 1175 | 23.25 | 591 | 26.50 | 673 | 69.25 | 1759 | 2 | 50 | 285 | 129 | 1980 | 898 |

| Materials | |
|------------------------|-----------------------|
| Part | Material |
| Body | A126-B |
| Cover | A126-B |
| Screen ¹ | 304 SS |
| Plug ² | A126-B |
| Gasket ¹ | Graphite ³ |
| Bolt/Stud ² | A307-B |
| Nut ² | A563 |

¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted | ³ Gasket for bolted cover (Quick Opening Covers see page 60)
 * For models with Quick Opening Cover, consult factory. For sizes 2"-6", allow clearance for bottom drain bolt removal | ** Side drain is standard on sizes 8" and larger, bottom drain is optional
 Dimensions shown are subject to change. Consult factory for certified drawings when required.

Pressure Drop VS. Flow Rate

Water Service, Clean Basket, 1/32" to 1/4" Perforated Screen*



Open Area Ratios

Standard Perforated Screen*

| Cast Iron 125B Series Basket Strainer | | | | | | |
|---|-----------------------|-----------|--|--------------------------------------|-------------------------------------|-----------------------|
| Size | Opening diameter (in) | Opening % | Nominal Outlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| 2" | 3/64 | 36 | 3.14 | 29.4 | 10.6 | 3.5 |
| 2½" | 3/64 | 36 | 4.91 | 43.6 | 15.7 | 3.3 |
| 3" | 3/64 | 36 | 7.07 | 75.0 | 27.0 | 3.9 |
| 4" | 1/8 | 40 | 12.57 | 104.4 | 41.8 | 3.3 |
| 6" | 1/8 | 40 | 28.27 | 177.3 | 70.9 | 2.5 |
| 8" | 1/8 | 40 | 50.27 | 307.0 | 122.8 | 2.4 |
| 10" | 1/8 | 40 | 78.54 | 450.0 | 180.0 | 2.3 |
| 12" | 1/8 | 40 | 113.1 | 688.5 | 275.4 | 2.4 |
| 14" | 1/8 | 40 | 153.94 | 1019.1 | 407.6 | 2.6 |
| 16" | 1/8 | 40 | 201.06 | 1248.6 | 499.4 | 2.5 |

For Gas, Steam or Air service, consult factory | OAR = Free Screen Area / Nominal Inlet Area | Free Screen Area = Opening % x Gross Screen Area | Values shown are approximate. Consult factory for exact ratios.

150B1 Series

Basket Strainers

Bronze, Carbon & Stainless Steel Body | Flanged Ends



Sizes
2" to 12"



Pressure
up to 285 PSIG
(19.7 BARG)



Temperature
up to 406°F
(207°C)



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 150 rated strainer
- RF or FF connections designed in accordance with ASME B16.5, B16.34 and B16.24
- Cover flange in accordance with ASME Section VIII, Div 1 Appendix II and ASME B16.5
- Angular basket for straight through flow
- Stainless steel perforated basket is standard
- Recommended minimum straining level is 250 microns
- NPT drain connection furnished with plug as standard

Applicable Codes (designed in accordance with)

- ASME B16.5
- ASME B16.24
- ASME B16.34

Models

- 1150B1F – Straight Flow

Options

- Other screen perforations and mesh liners
- Quick Opening Covers - see page 60

150B1 Series Ordering Code

| | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|-------------------|---|---|---|------------------|---|------------------|---|------------------|---|----------------------|---|---|
| 1 Inlet Size | | | | 2 Model | | | | 3 Body | | 4 Perf | | 5 Mesh | | 6 Optional | | |
| 0 | 6 | 0 | 0 | - | 1 | 5 | 0 | B | 1 | F | - | C | - | 4 | - | - |

| 1 | Inlet Size | | | | | |
|-------------|------------|-------------|----|-------------|-----|--|
| 0200 | 2" | 0400 | 4" | 0800 | 8" | |
| 0250 | 2½" | 0500 | 5" | 1000 | 10" | |
| 0300 | 3" | 0600 | 6" | 1200 | 12" | |

| 2 | Model |
|---------------|---------------|
| 150B1F | Straight Flow |

| 3 | Body Material | |
|----------|---------------|--------------------------|
| B | Bronze | T Stainless Steel |
| C | Carbon Steel | |

| 4 | Perf ¹ (304SS Material ²) | | | | | |
|----------|--|----------|-------|----------|-------|--|
| B | 3/64" (std < 4") | 2 | 1/16" | 7 | 7/32" | |
| 4 | 1/8" (std => 4") | 3 | 3/32" | 8 | 1/4" | |
| A | None | 5 | 5/32" | 9 | 3/8" | |
| 1 | 1/32" | 6 | 3/16" | Z | Other | |

| 5 | Mesh ^{1,2} (Leave Blank if not required) | | | | | |
|----------|---|----------|-----|----------|-------|--|
| 1 | 10 | 5 | 50 | 9 | 120 | |
| 2 | 20 | 6 | 60 | Z | Other | |
| 3 | 30 | 7 | 80 | | | |
| 4 | 40 | 8 | 100 | | | |

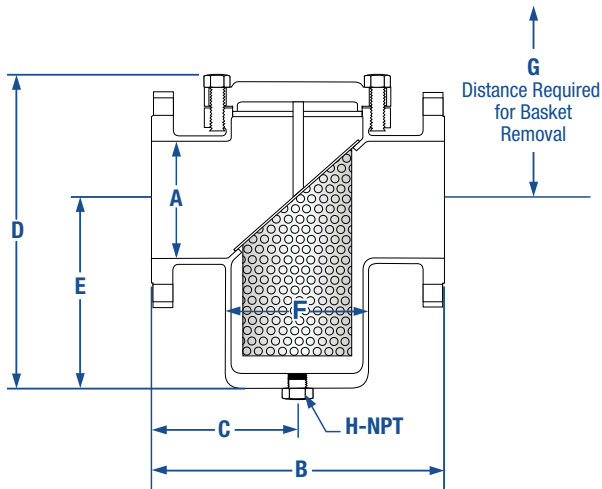
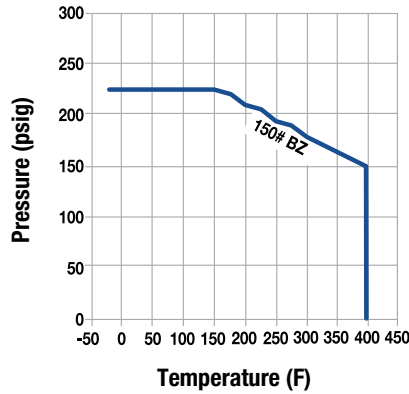
| 6 | Optional (Leave Blank if not required) | | | |
|-----------|--|----------|---------------------------|--|
| D | Special Drain Size | G | Special Gaskets | |
| E1 | 1/4" Vent | T | Special Testing | |
| E2 | 3/8" Vent | X | Oxygen Cleaning | |
| E3 | 1/2" Vent | Y | Other / Multiple Specials | |
| F | Silicon Free | | | |

1. Standard screens All 2"-3"—3/64" perf, All 4"-20"—1/8" perf.

2. For other screen materials contact factory.



**Pressure / Temperature Chart
ASME B16.34 & ASME B16.24**



Description

SSI manufactures bronze basket strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI bronze basket strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 6"

Pressure

285 PSIG (19.7 BARG)

Temperature

406° F (207° C)

End Connections

FF Flanged

Screen Openings

2"–3" | 3/64" Perf | 304 SS
4"–6" | 1/8" Perf | 304 SS

Features

- ASME Class 150 rated strainers
- Connections designed in accordance with ASME B16.5, B16.34 and B16.24
- Cover flange in accordance with ASME B16.5
- Angular basket for straight through flow
- Stainless steel perforated basket is standard
- Recommended minimum straining level is 250 microns
- NPT drain connection furnished with plug as standard

| Dimensions | | | | | | | | | | | | | | | | | | | | | |
|------------|-----|------|-----|-------|-----|------|-----|-------|-----|------|-----|------|-----|-------|-----|------|----|--------|-----|-----|------|
| Size | | A | | B | | C | | D | | E | | F | | G | | H | | Weight | | | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg | lbs | kg |
| 2" | 50 | 2 | 51 | 8.13 | 206 | 4.06 | 103 | 8.56 | 218 | 5.00 | 127 | 2.88 | 73 | 11.75 | 298 | 0.5 | 13 | 5 | 2.3 | 29 | 13 |
| 2½" | 56 | 2.5 | 64 | 8.75 | 222 | 4.38 | 111 | 8.94 | 227 | 6.25 | 159 | 3.88 | 98 | 13.75 | 349 | 0.25 | 19 | 7 | 3.2 | 33 | 15 |
| 3" | 80 | 3 | 76 | 9.88 | 251 | 4.94 | 125 | 11.25 | 286 | 7.13 | 181 | 4.75 | 121 | 15.38 | 391 | 0.25 | 19 | 9 | 4.1 | 48 | 21.8 |
| 4" | 100 | 4 | 102 | 11.50 | 292 | 5.75 | 146 | 13.19 | 335 | 8.00 | 203 | 5.69 | 145 | 17.75 | 451 | 1 | 25 | 13 | 5.9 | 69 | 31.4 |
| 5" | 125 | 5 | 127 | 13.13 | 333 | 6.56 | 167 | 14.50 | 368 | 8.50 | 216 | 6.94 | 176 | 20.50 | 521 | 1 | 25 | 20 | 9.1 | 105 | 48 |
| 6" | 150 | 6 | 152 | 14.88 | 378 | 7.44 | 189 | 15.00 | 381 | 9.00 | 229 | 7.94 | 202 | 23.00 | 584 | 1 | 25 | 26 | 12 | 121 | 55 |

| Materials | |
|------------------------|---------------------|
| Part | Material |
| Body | B62 |
| Cover | B62 |
| Screen ¹ | 304 SS |
| Plug ² | B16 |
| Gasket ¹ | Teflon ³ |
| Bolt/Stud ² | B16 |
| Nut ² | Nonferrous |

¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted | ³ Gasket for bolted cover (Quick Opening Covers see page 60)

* For models with Quick Opening Cover, consult factory | Dimensions shown are subject to change. Consult factory for certified drawings when required

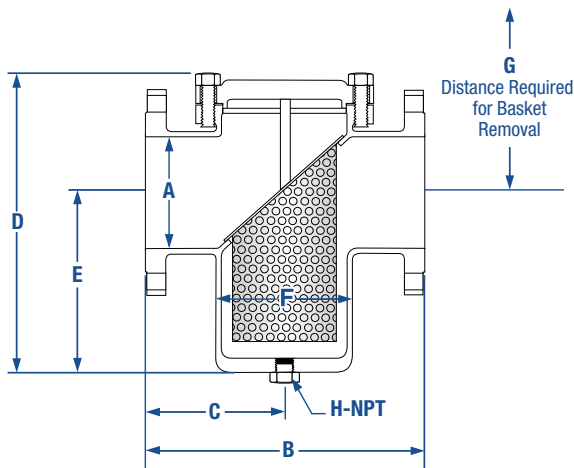
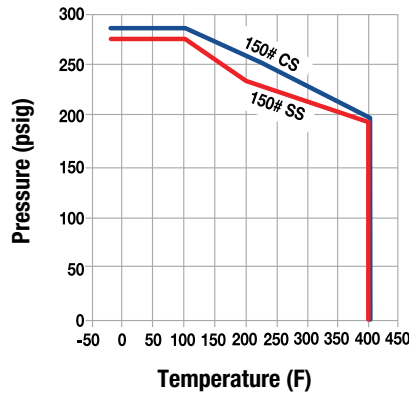
150B1 Series

Basket Strainers

Carbon & Stainless Steel Body | Flanged Ends



Pressure / Temperature Chart
ASME B16.34 & ASME B16.24



Description

SSI manufactures carbon steel basket strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel basket strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 12"

Pressure

285 PSIG (19.7 BARG)

Temperature

406° F (207° C)

End Connections

RF Flanged

Screen Openings

2"–3" | 3/64" Perf | 304 SS
4"–12" | 1/8" Perf | 304 SS

Features

- ASME Class 150 rated strainers
- Connections designed in accordance with ASME B16.5, B16.34 and B16.24
- Cover flange in accordance with ASME B16.5
- Angular basket for straight through flow
- Stainless steel perforated basket is standard
- Recommended minimum straining level is 250 microns
- NPT drain connection furnished with plug as standard

CRN

| Size | | Dimensions | | | | | | | | | | | | | | | | Weight | | | |
|------|-----|------------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|------|------|----|--------|-----|------|-------|
| | | A | | B | | C | | D | | E | | F | | G | | H | | Cover | | Unit | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg | lbs | kg |
| 2" | 50 | 2 | 51 | 8.13 | 206 | 4.06 | 103 | 9.56 | 243 | 5.63 | 143 | 3.25 | 83 | 12.50 | 318 | 1 | 25 | 5 | 2.3 | 29 | 13 |
| 2½" | 56 | 2.5 | 64 | 8.75 | 222 | 4.38 | 111 | 10.81 | 275 | 5.94 | 152 | 3.38 | 86 | 14.00 | 356 | 1 | 25 | 7 | 3.2 | 33 | 15 |
| 3" | 80 | 3 | 76 | 9.88 | 251 | 4.94 | 125 | 12.50 | 318 | 7.56 | 192 | 3.56 | 90 | 15.38 | 391 | 1 | 25 | 9 | 4.1 | 48 | 21.8 |
| 4" | 100 | 4 | 102 | 11.50 | 292 | 5.75 | 146 | 16.00 | 406 | 10.13 | 257 | 4.63 | 118 | 21.25 | 540 | 1 | 25 | 13 | 5.9 | 69 | 31.4 |
| 5" | 125 | 5 | 127 | 13.13 | 333 | 6.56 | 167 | 15.88 | 403 | 9.50 | 241 | 7.50 | 191 | 22.25 | 565 | 1 | 25 | 20 | 9.1 | 105 | 48 |
| 6" | 150 | 6 | 152 | 14.88 | 378 | 7.44 | 189 | 17.19 | 437 | 10.13 | 241 | 6.38 | 162 | 22.50 | 572 | 1 | 25 | 26 | 12 | 121 | 55 |
| 8" | 200 | 8 | 203 | 18.75 | 476 | 9.38 | 238 | 21.94 | 559 | 13.06 | 332 | 8.88 | 226 | 29.38 | 746 | 1 | 25 | 45 | 20 | 214 | 97.3 |
| 10" | 250 | 10 | 254 | 20.13 | 511 | 10.06 | 256 | 25.00 | 629 | 13.38 | 240 | 10.63 | 270 | 35.00 | 889 | 1 | 25 | 70 | 32 | 309 | 140.5 |
| 12" | 300 | 12 | 305 | 26.25 | 667 | 13.13 | 333 | 30.69 | 780 | 17.00 | 432 | 14.88 | 378 | 42.50 | 1080 | 2 | 50 | 110 | 50 | 476 | 216.4 |

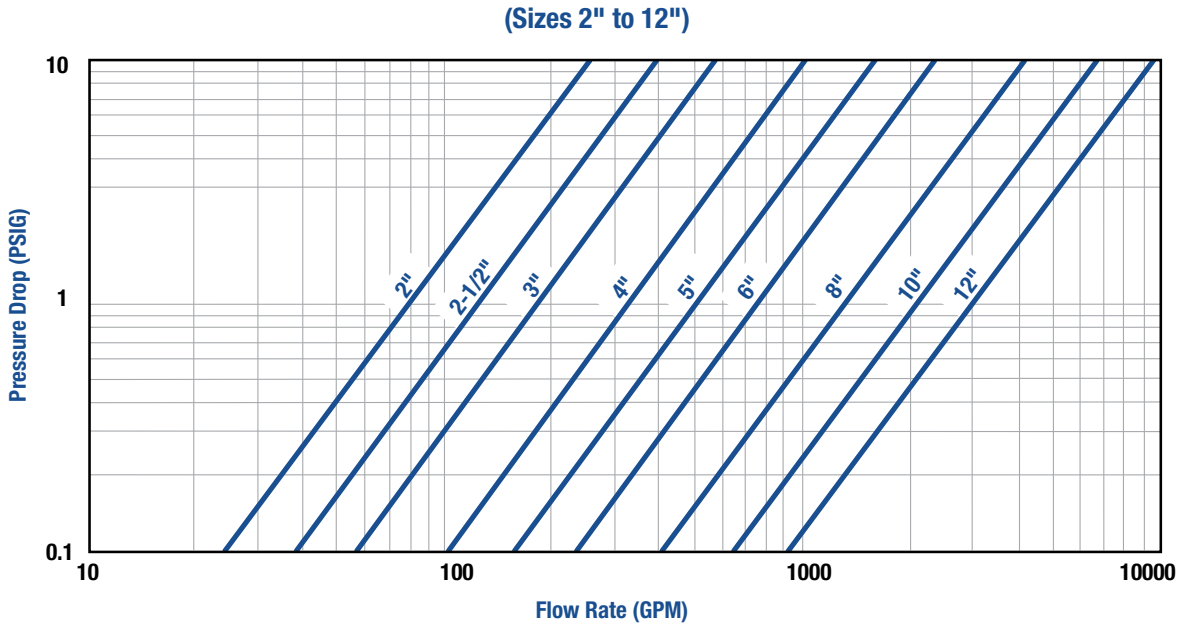
| Part | Materials | |
|------------------------|---------------------|---------------------|
| | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Cover | A216-WCB | A351-CF8M |
| Screen ¹ | 304 SS | 304 SS |
| Plug ² | A105 | A182-316 |
| Gasket ¹ | Teflon ³ | Teflon ³ |
| Bolt/Stud ² | A193-B7 | A193-B8-1 |
| Nut ² | A194-2H | A194-B |

¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted | ³ Gasket for bolted cover (Quick Opening Covers see page 60)

* For models with Quick Opening Cover, consult factory | Dimensions shown are subject to change. Consult factory for certified drawings when required

Pressure Drop VS. Flow Rate

Water Service, Clean Basket, 1/32" to 1/4" Perforated Screen*



Open Area Ratios

Standard Perforated Screen*

| Bronze 150B1 Series Basket Strainer | | | | | | |
|---|-----------------------|-----------|--------------------------------------|--------------------------------------|-------------------------------------|-----------------------|
| Size | Opening Diameter (in) | Opening % | Flange Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| 2" | 3/64 | 36 | 3.14 | 29.4 | 10.9 | 3.5 |
| 2½" | 3/64 | 36 | 4.91 | 44.3 | 16.4 | 3.3 |
| 3" | 3/64 | 36 | 7.07 | 66.7 | 24.7 | 3.5 |
| 4" | 1/8 | 40 | 12.57 | 97.2 | 38.9 | 3.1 |
| 5" | 1/8 | 40 | 28.27 | 170.1 | 68.0 | 2.4 |
| 6" | 1/8 | 40 | 50.27 | 318.6 | 127.5 | 2.5 |

| Carbon & Stainless Steel 150B1 Series Basket Strainer | | | | | | |
|---|-----------------------|-----------|---------------------------------------|--------------------------------------|-------------------------------------|-----------------------|
| Size | Opening Diameter (in) | Opening % | Nominal Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| 2" | 3/64 | 36 | 3.14 | 38.1 | 13.7 | 4.4 |
| 2½" | 3/64 | 36 | 4.91 | 41.6 | 15.0 | 3.0 |
| 3" | 3/64 | 36 | 7.07 | 59.6 | 21.5 | 3.0 |
| 4" | 1/8 | 40 | 12.57 | 119.9 | 48.0 | 3.8 |
| 6" | 1/8 | 40 | 28.27 | 177.4 | 71.0 | 2.5 |
| 8" | 1/8 | 40 | 50.27 | 296.5 | 118.6 | 2.4 |
| 10" | 1/8 | 40 | 78.54 | 413.5 | 165.4 | 2.1 |
| 12" | 1/8 | 40 | 113.10 | 730.3 | 292.1 | 2.6 |

For Gas, Steam or Air service, consult factory | OAR = Free Screen Area / Nominal Inlet Area | Free Screen Area = Opening % x Gross Screen Area | Values shown are approximate. Consult factory for exact ratios.

150B2 Series

Basket Strainers

Carbon & Stainless Steel Body | Flanged Ends



Sizes
1½" to 8"



Pressure
up to 285 PSIG
(19.7 BARG)



Temperature
up to 800°F
(427°C)



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 150 rated strainers
- RF connections designed in accordance with ASME B16.5 and/or B16.34
- SSI Exclusive - Cover flange is in dimensional accordance with ASME B16.5
- Over the top flow and machined basket seat eliminate any chance of dirty fluid bypass
- Large screen area minimizes pressure drop and cleaning intervals
- Stainless steel perforated baskets are standard
- Recommended minimum straining level is 40 microns
- NPT drain connection furnished with plug as standard

Applicable Codes (designed in accordance with)

- ASME B16.5
- ASME B16.34

Models

- 150B2F - Over the top flow

Options

- Other screen perforations and mesh liners
- Quick Opening Covers - see page 60

150B2 Series Ordering Code

| 1 Inlet Size | | | | 2 Model | | | | 3 Body | 4 Perf | 5 Mesh | 6 Optional | | | | |
|-----------------|---|---|---|------------|---|---|---|-----------|-----------|-----------|---------------|---|---|---|---|
| 0 | 4 | 0 | 0 | - | 1 | 5 | 0 | B | 2 | F | C | - | 4 | - | - |

| 1 | Inlet Size | | | | | |
|------|------------|------|----|------|----|--|
| 0150 | 1½" | 0300 | 3" | 0600 | 6" | |
| 0200 | 2" | 0400 | 4" | 0800 | 8" | |

| 2 | Model | |
|--------|--------------|--|
| 150B2F | Over the top | |

| 3 | Body Material | | | |
|---|---------------|--|---|-----------------|
| C | Carbon Steel | | T | Stainless Steel |

| 4 | Perf ¹ (304SS Material ²) | | | | | |
|---|--|---|-------|---|-------|--|
| B | 3/64" (std < 4") | 2 | 1/16" | 7 | 7/32" | |
| 4 | 1/8" (std => 4") | 3 | 3/32" | 8 | 1/4" | |
| A | None | 5 | 5/32" | 9 | 3/8" | |
| 1 | 1/32" | 6 | 3/16" | Z | Other | |

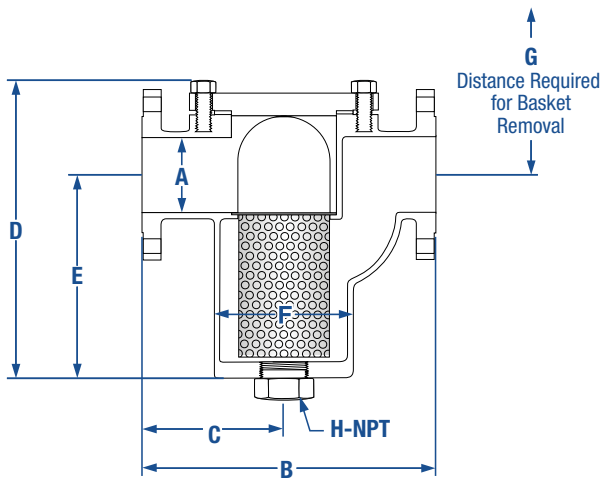
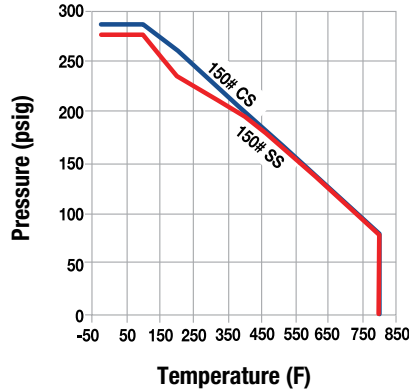
| 5 | Mesh ^{1,2} (Leave Blank if not required) | | | | | |
|---|---|---|-----|---|-------|--|
| 1 | 10 | 5 | 50 | 9 | 120 | |
| 2 | 20 | 6 | 60 | Z | Other | |
| 3 | 30 | 7 | 80 | | | |
| 4 | 40 | 8 | 100 | | | |

| 6 | Optional (Leave Blank if not required) | | | |
|----|--|--|---|---------------------------|
| D | Special Drain Size | | G | Special Gaskets |
| E1 | 1/4" Vent | | T | Special Testing |
| E2 | 3/8" Vent | | X | Oxygen Cleaning |
| E3 | 1/2" Vent | | Y | Other / Multiple Specials |
| F | Silicon Free | | | |

1. Standard screens All 1½" — 1/32" perf, All 2" — 3" — 3/64" perf, All 4" — 8" — 1/8" perf.
2. For other screen materials contact factory.



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel basket strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel basket strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

1½" to 8"

Pressure

285 PSIG (19.7 BARG)

Temperature

800° F (427° C)

End Connections

RF Flanged

Screen Openings

1½" | 1/32" Perf | 304 SS
 2"–3" | 3/64" Perf | 304 SS
 4"–8" | 1/8" Perf | 304 SS

Features

- ASME Class 150 rated strainers
- Connections designed in accordance with ASME B16.5 and/or B16.34
- Cover flange in accordance with ASME B16.5
- Over the top flow and machined basket seat eliminate any chance of dirty fluid bypass
- Large screen area min. pressure drop and cleaning intervals
- Stainless steel perforated basket is standard
- Recommended minimum straining level is 40 microns
- NPT drain connection furnished with plug as standard

| Dimensions | | | | | | | | | | | | | | | | | | | | | |
|------------|------|-----|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|--------|----|------|-----|-------|
| Size | A | | B | | C | | D | | E | | F | | G | | H | | Weight | | | | |
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg | lbs | kg | |
| 1½" | 40 | 1.5 | 38 | 9.50 | 241 | 4.75 | 121 | 10.25 | 260 | 6.88 | 175 | 3.44 | 87 | 13.50 | 343 | 0.5 | 15 | 5 | 2.3 | 30 | 13.6 |
| 2" | 50 | 2 | 51 | 10.50 | 267 | 5.25 | 133 | 11.81 | 300 | 8.19 | 208 | 4.13 | 105 | 15.63 | 397 | 0.75 | 20 | 7 | 3.2 | 46 | 20.9 |
| 3" | 80 | 3 | 76 | 13.13 | 333 | 6.56 | 167 | 15.56 | 395 | 11.19 | 284 | 5.38 | 137 | 19.75 | 502 | 1 | 25 | 17 | 7.7 | 78 | 35.5 |
| 4" | 100 | 4 | 102 | 17.25 | 438 | 8.88 | 225 | 16.13 | 410 | 11.44 | 291 | 6.69 | 170 | 20.75 | 527 | 2 | 50 | 20 | 9.1 | 114 | 51.8 |
| 6" | 150 | 6 | 152 | 19.63 | 498 | 10.88 | 276 | 25.56 | 649 | 19.31 | 491 | 10.00 | 254 | 31.13 | 791 | 2 | 50 | 45 | 20.5 | 241 | 109.5 |
| 8" | 200 | 8 | 203 | 27.00 | 686 | 14.63 | 371 | 35.44 | 900 | 27.94 | 710 | 12.31 | 313 | 42.25 | 1073 | 2 | 50 | 70 | 31.8 | 432 | 196.4 |

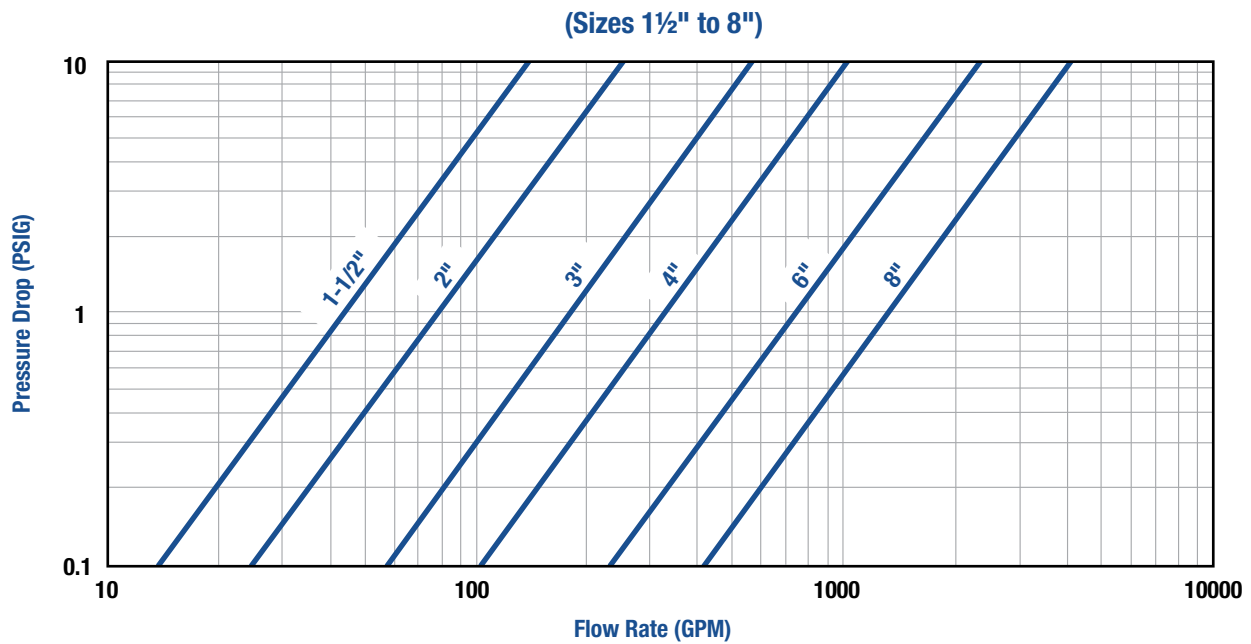
| Materials | | |
|----------------------------|-------------------------------------|-------------------------------------|
| Part | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Cover | A216-WCB | A351-CF8M |
| Screen ¹ | 304 SS | 304 SS |
| Plug ² | A105 | 304 SS |
| Gasket ¹ | 304 SS Spiral Wound ³ | 304 SS Spiral Wound ³ |
| Bolt/ Stud ² | A193-B7 | A320-B8 |
| Nut ² | A194-2H | A194-8 |

¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted | ³ Gasket for bolted cover (Quick Opening Covers see page 60)

* For models with Quick Opening Cover, consult factory. Allow clearance for bottom drain bolt removal | Dimensions shown are subject to change. Consult factory for certified drawings when required

Pressure Drop VS. Flow Rate

Water Service, Clean Basket, 1/32" to 1/4" Perforated Screen*



Open Area Ratios

Standard Perforated Screen*

| Carbon Steel 150B2 Series Basket Strainer | | | | | | |
|---|-----------------------|-----------|---------------------------------------|--------------------------------------|-------------------------------------|-----------------------|
| Size | Opening diameter (in) | Opening % | Nominal Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| 1½" | 1/32 | 28 | 1.77 | 29.1 | 8.2 | 4.6 |
| 2" | 3/64 | 36 | 3.13 | 42.8 | 15.4 | 4.9 |
| 3" | 3/64 | 36 | 7.07 | 101.0 | 36.4 | 5.1 |
| 4" | 1/8 | 40 | 12.57 | 118.1 | 47.2 | 3.8 |
| 6" | 1/8 | 40 | 28.27 | 365.7 | 146.3 | 5.2 |
| 8" | 1/8 | 40 | 50.27 | 675.4 | 270.1 | 5.4 |

For Gas, Steam or Air service, consult factory | OAR = Free Screen Area / Nominal Inlet Area | Free Screen Area = Opening % x Gross Screen Area | Values shown are approximate. Consult factory for exact ratios.



Sizes
1/2" to 2"



Pressure
up to 740 PSIG
(51 BARG)



Temperature
up to 800°F
(427°C)



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 300 rated strainers
- NPT and Socketweld connections designed in accordance with ASME B16.5 and B16.34
- SSI Exclusive - Cover flange is in dimensional accordance with ASME B16.5
- Over the top flow and machined basket seat eliminate any chance of dirty fluid bypass
- Large screen area minimizes pressure drop and cleaning intervals
- Threaded or socketweld connections
- Stainless steel perforated baskets are standard
- Recommended minimum straining level is 40 microns
- NPT drain connection furnished with plug as standard

Applicable Codes (designed in accordance with)

- ASME B16.5
- ASME B16.34

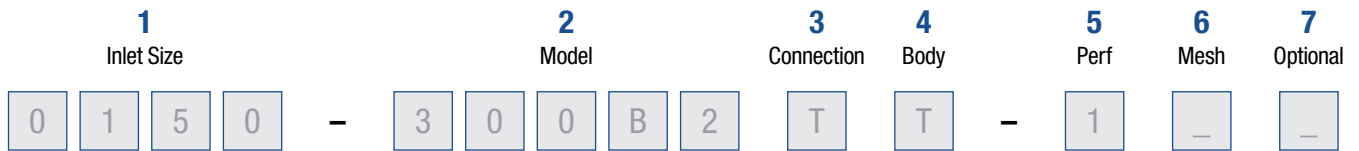
Models

- 300B2T – Threaded over the top flow
- 300B2W – Socketweld over the top flow

Options

- Other screen perforations and mesh liners
- Quick Opening Covers - see page 60
- Socketweld Connections

300B Series Ordering Code



| 1 Inlet Size | |
|---------------------|--------|
| 0050 | 1/2" |
| 0100 | 1" |
| 0150 | 1 1/2" |
| 0075 | 3/4" |
| 0125 | 1 1/4" |
| 0200 | 2" |

| 2 Model | |
|----------------|--------------|
| 150B2F | Over the top |

| 3 Connections | |
|----------------------|------------|
| T | Threaded |
| W | Socketweld |

| 4 Body Material | |
|------------------------|-----------------|
| C | Carbon Steel |
| T | Stainless Steel |

1. Standard screens All 1/2" - 1 1/2" —1/32" perf, All 2" —3/64" perf.
2. For other screen materials contact factory.

| 5 Perf ¹ (304SS Material ²) | | | | | |
|---|-------|----------|-------|----------|-------|
| 1 | 1/32" | 3 | 3/32" | 7 | 7/32" |
| B | 3/64" | 4 | 1/8" | 8 | 1/4" |
| A | None | 5 | 5/32" | 9 | 3/8" |
| 2 | 1/16" | 6 | 3/16" | Z | Other |

| 6 Mesh ^{1,2} (Leave Blank if not required) | | | | | |
|--|----|----------|-----|----------|-------|
| 1 | 10 | 5 | 50 | 9 | 120 |
| 2 | 20 | 6 | 60 | Z | Other |
| 3 | 30 | 7 | 80 | | |
| 4 | 40 | 8 | 100 | | |

| 7 Optional (Leave Blank if not required) | | | |
|---|--------------------|----------|---------------------------|
| D | Special Drain Size | T | Special Testing |
| F | Silicon Free | X | Oxygen Cleaning |
| G | Special Gaskets | Y | Other / Multiple Specials |
| N | Nace MR01-75 | | |

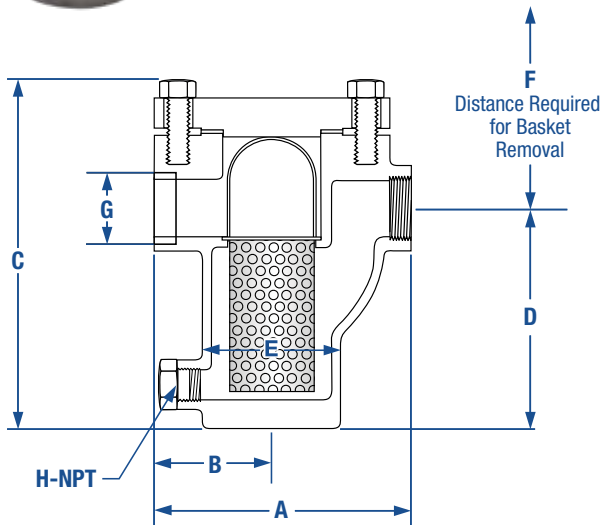
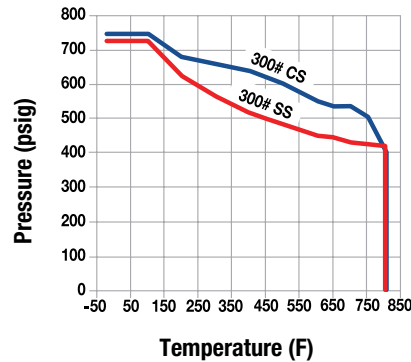
300B Series

Basket Strainers

Carbon & Stainless Steel Body | Threaded & Socketweld Ends



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel basket strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel basket strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

½" to 2"

Pressure

740 PSIG (51 BARG)

Temperature

800° F (427° C)

End Connections

Threaded (NPT)
Socketweld

Screen Openings

½"–1½" | 1/32" Perf | 304 SS
2" | 3/64" Perf | 304 SS

Features

- ASME Class 300 rated strainers
- Connections designed in accordance with ASME B16.5 and B16.34
- Cover flange in accordance with ASME B16.5
- Over the top flow and machined basket seat eliminate any chance of dirty fluid bypass
- Large screen area min. pressure drop and cleaning intervals
- Stainless steel perforated basket is standard
- Recommended minimum straining level is 40 microns
- NPT drain connection furnished with plug as standard

| Size | | Dimensions | | | | | | | | | | | | | | | | Weight | | | |
|------|----|------------|-----|------|-----|-------|-----|------|-----|------|-----|-------|-----|------|----|-------|-----|--------|------|--|--|
| inch | mm | A | | B | | C* | | D | | E | | F | | H | | Cover | | Unit | | | |
| | | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg | lbs | kg | | |
| ½" | 15 | 6.13 | 156 | 3.13 | 80 | 6.31 | 179 | 4.00 | 102 | 2.13 | 54 | 5.75 | 146 | 0.38 | 10 | 6 | 2.7 | 20 | 9.1 | | |
| ¾" | 20 | 6.75 | 171 | 3.44 | 87 | 8.38 | 213 | 5.00 | 127 | 2.50 | 64 | 7.44 | 189 | 0.38 | 10 | 8 | 3.6 | 25 | 11.4 | | |
| 1" | 25 | 6.75 | 171 | 3.44 | 87 | 8.38 | 213 | 5.00 | 127 | 2.50 | 64 | 7.44 | 189 | 0.50 | 15 | 8 | 3.6 | 25 | 11.4 | | |
| 1¼" | 32 | 8.13 | 206 | 4.31 | 109 | 11.94 | 303 | 7.75 | 197 | 3.44 | 87 | 11.06 | 281 | 0.75 | 20 | 12 | 5.4 | 46 | 20.9 | | |
| 1½" | 40 | 8.13 | 206 | 4.31 | 109 | 11.94 | 303 | 7.75 | 197 | 3.44 | 87 | 11.06 | 281 | 0.75 | 20 | 12 | 5.4 | 46 | 20.9 | | |
| 2" | 50 | 9.00 | 229 | 4.81 | 122 | 12.44 | 316 | 7.75 | 197 | 4.25 | 108 | 11.69 | 297 | 1.00 | 25 | 16 | 7.3 | 61 | 27.8 | | |

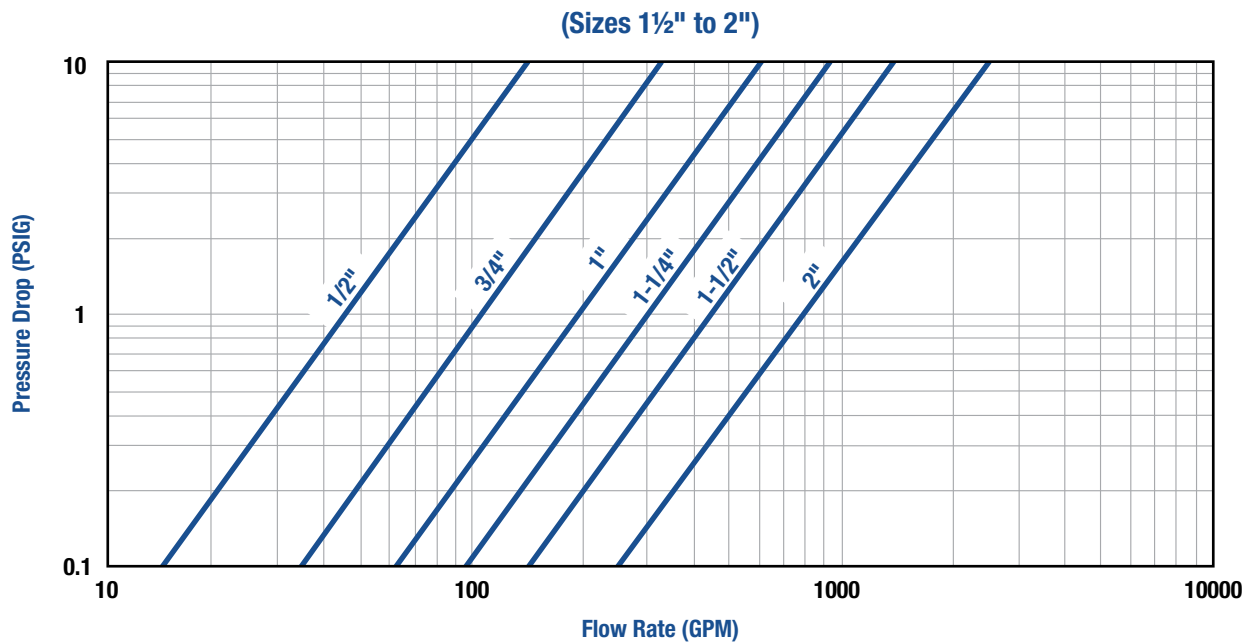
| Part | Materials | |
|------------------------|-------------------------------------|-------------------------------------|
| | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Cover | A216-WCB | A351-CF8M |
| Screen ¹ | 304 SS | 304 SS |
| Plug ² | A105 | A182-316 |
| Gasket ¹ | 304 SS Spiral Wound ³ | 304 SS Spiral Wound ³ |
| Bolt/Stud ² | A193-B7 | A193-B8-1 |
| Nut ² | A194-2H | A194-8 |

¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted | ³ Gasket for bolted cover (Quick Opening Covers see page 60)

* For models with Quick Opening Cover, consult factory | Dimensions shown are subject to change. Consult factory for certified drawings when required

Pressure Drop VS. Flow Rate

Water Service, Clean Basket, 1/32" to 1/4" Perforated Screen*



Open Area Ratios

Standard Perforated Screen*

| Carbon & Stainless Steel 300B Series Basket Strainer | | | | | | |
|--|-----------------------|-----------|---------------------------------------|--------------------------------------|-------------------------------------|-----------------------|
| Size | Opening diameter (in) | Opening % | Nominal Inlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| ½" | 1/32 | 28 | 0.30 | 14.1 | 4.0 | 13.0 |
| ¾" | 1/32 | 28 | 0.53 | 22.3 | 6.2 | 11.7 |
| 1" | 1/32 | 28 | 0.86 | 22.3 | 6.2 | 7.2 |
| 1¼" | 1/32 | 28 | 1.50 | 46.9 | 13.1 | 8.8 |
| 1½" | 1/32 | 28 | 2.04 | 46.9 | 13.1 | 6.4 |
| 2" | 3/64 | 36 | 3.36 | 57.1 | 20.6 | 6.1 |

For Gas, Steam or Air service, consult factory | OAR = Free Screen Area / Nominal Inlet Area | Free Screen Area = Opening % x Gross Screen Area | Values shown are approximate. Consult factory for exact ratios.

Pressure Drop Correction Factors

| Centistokes | SSU | Unlined Perforated Basket | 20 Mesh Lined Basket | 40 Mesh Lined Basket | 60 Mesh Lined Basket | 80 Mesh Lined Basket | 100 Mesh Lined Basket | 200 Mesh Lined Basket |
|-------------|------------|---------------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|
| 2 | 30 (water) | 1 | 1.05 | 1.2 | 1.4 | 1.6 | 1.7 | 2 |
| 100 | 500 | 1.6 | 1.7 | 1.9 | 2.1 | 2.4 | 2.6 | 3.1 |
| 216 | 1000 | 1.7 | 2 | 2.2 | 2.4 | 2.6 | 2.8 | 3.3 |
| 433 | 2000 | 1.9 | 2.2 | 2.4 | 2.7 | 2.9 | 3.2 | 3.8 |
| 650 | 3000 | 2 | 2.3 | 2.6 | 2.9 | 3.2 | 3.5 | 4.1 |
| 1083 | 5000 | 2.2 | 2.6 | 3 | 3.5 | 4 | 4.5 | 5.3 |
| 2200 | 10000 | 2.5 | 3 | 3.5 | 4.2 | 5 | 6 | 7.1 |

- 1) Obtain water pressure drop from graphs on appropriate product page.
- 2) Multiply the pressure drop obtained from (1) by the specific gravity of the liquid.
- 3) Multiply the pressure drop from (2) by the appropriate correction factor for the mesh liner and/or viscosity.

| Example | Answer |
|--|--|
| Model: 150B1 Size: 4" Filtration: 1/8" perf. screen 40 Mesh Flow Rate: 200 GPM Fluid: Water SG: 1 Viscosity: 30 SSI | A) From Pressure Drop Chart, pressure drop of water is .38 psid B) Multiply by specific gravity; $.38 \times 1 = .38$ psid C) From chart above, multiply $.38 \times 1.2$ (correction factor) = .456 psid |

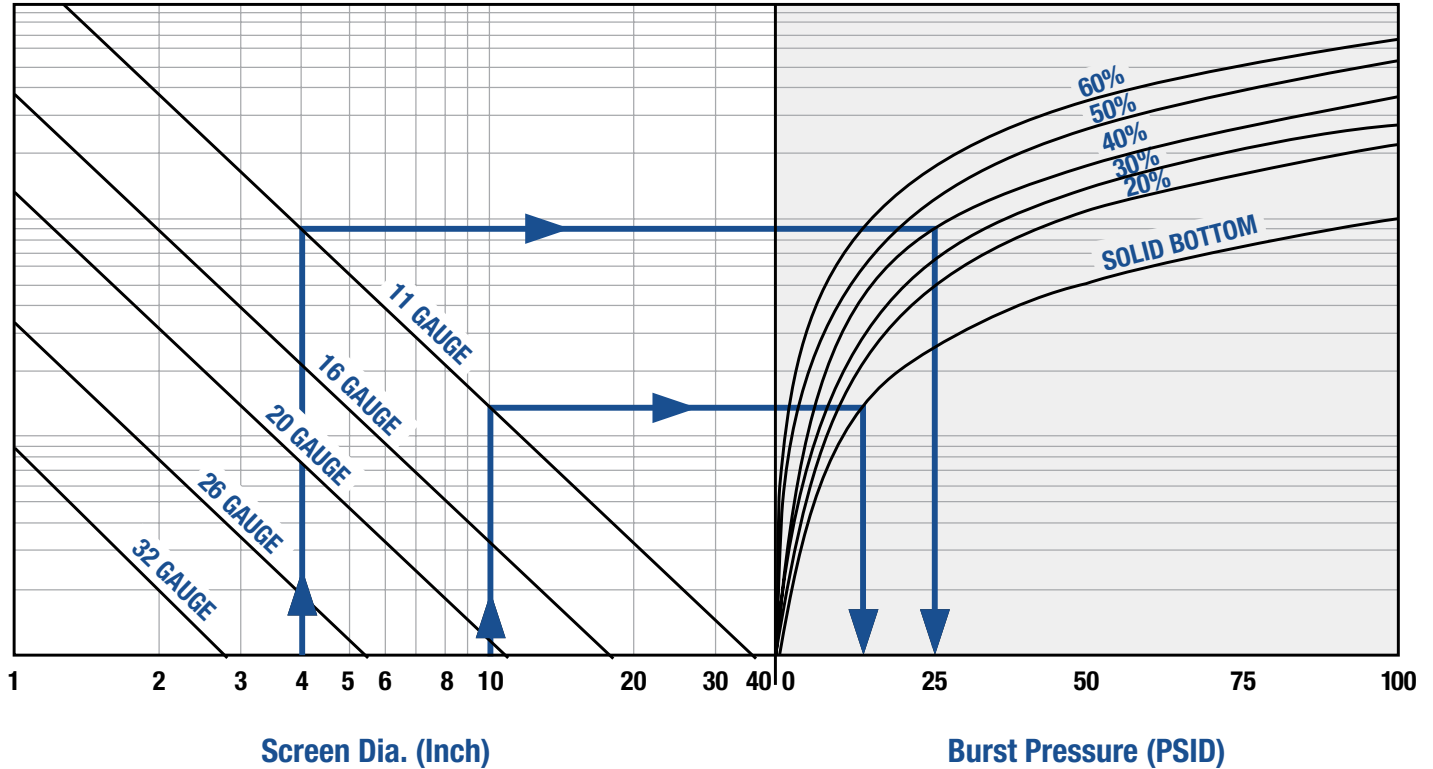
Correction Factors for Clogged Screens

| % Clogged | Ratio of Free Screen Area to Pipe Area | | | | | | |
|-----------|--|------|------|------|------|------|------|
| | 10:1 | 8:1 | 6:1 | 4:1 | 3:1 | 2:1 | 1:1 |
| 10 | – | – | – | – | – | – | 3.15 |
| 20 | – | – | – | – | – | 1.15 | 3.9 |
| 30 | – | – | – | – | – | 1.4 | 5 |
| 40 | – | – | – | – | – | 1.8 | 6.65 |
| 50 | – | – | – | – | 1.25 | 2.5 | 9.45 |
| 60 | – | – | – | 1.15 | 1.8 | 3.7 | 14.5 |
| 70 | – | – | – | 1.75 | 2.95 | 6.4 | 26 |
| 80 | – | 1.1 | 1.75 | 3.6 | 6.25 | 14 | 58 |
| 90 | 2.3 | 3.45 | 6 | 13.5 | 24 | 55 | – |

* Multiply values obtained from Pressure Drop Charts by the appropriate values shown below.

| Example | Answer |
|---|---|
| Strainer Size: 6" Model: 150B1 Body: Carbon Steel Filtration: 1/8" Perf. Flow rate: 1000 GPM Service: Water % Clogged: 60% | A) The Pressure Drop Chart indicates a drop of 1.50 psid with standard screen. B) The Effective Area Chart indicates a ratio of 2.5:1 free area to pipe area. C) Using chart above we read the correction factor of 2.5:1 (2:1 approx.) to be 3.7 at 60% clogged. D) Total pressure drop equals $1.50 \times 3.7 = 5.55$ psid. |

Pressure Drop Correction Factors



- Baskets with perforated bottoms are standard.
- Chart is based on standard dimensions. Higher burst pressure ratings are available. Please consult factory.
- Chart is based on stainless steel screen material. No safety factor is incorporated. It is the responsibility of the user to determine an acceptable safety factor.

Example

Strainer Size: 10"

Basket Type: Perforated Screen with 11 gauge solid flat bottom.

Screen Material Open Area: 20% – 60%

- Locate Strainer size.
- Follow vertical line to solid thickness.
- Follow horizontal line to solid bottom curve.

- Follow vertical line downward to read burst pressure.
- Burst pressure equals 15 psid.

Strainer Checklist

Please take the factors listed below into account when selecting a strainer. Kindly fill out and send the pertinent information, to your best ability, so that we can recommend a Strainer to suit your specific requirements.

| | | | |
|--|-----------------------------|---|-------------------------------------|
| 1) Fluid to be strained: | | 9) Nature of solids to be strained out: | |
| 2) Flow rate: | | 10) Size of solids to be strained: | Size of mesh/perf. required: |
| 3) Density of fluid: | | 11) Clearance limitation - Above: | Below: |
| 4) Viscosity of fluid: | | Left: | Right: |
| 5) Fluid working pressure: | Maximum pressure: | 12) Maximum pressure drop with clean screen: | |
| 6) Fluid working temperature: | Maximum temperature: | 13) Expected cleaning frequency: | |
| 7) Preferred material of strainer construction: | | 14) Any other information deemed relevant | |
| 8) Present pipeline size and material: | | | |

Contact Information

| | | | |
|------------------------|-------------------------|-------------------|---------------|
| Name: | | Company: | |
| Address: | | City/Town: | |
| Province/State: | Postal/Zip Code: | Phone: | Email: |

Installation and Maintenance Instructions

Strainer Installation Instructions

- Ensure all machined surfaces are free of defects and that the inside of the strainer is free of foreign objects.
- For horizontal and vertical pipelines, the strainer should be installed so that the blow-down drain connection is pointed downward.
- For flanged end strainers, the flange bolting should be tightened gradually in a back and forth clockwise motion. Threaded end strainers should use an appropriate sealant.
- Once installed, increase line pressure gradually and check for leakage around joints.
- If the strainer is supplied with a start-up screen, monitor pressure drop carefully.

Screen Removal Instructions

- Drain piping.
- Vent line to relieve pressure.
- Loosen cover and open to access screen.
- Remove, clean and replace screen in original position (Note: In some instances, a high pressure water jet or steam may be required for effective cleaning).
- Inspect cover gasket for damage. If necessary, replace. (Note: If spiral wound gaskets have been used, they must be replaced and can not be used again).
- Tighten cover. The strainer is ready for line startup.

CAUTION SHOULD BE TAKEN DUE TO POSSIBLE EMISSION OF PROCESS MATERIAL FROM PIPING. ALWAYS ENSURE NO LINE PRESSURE EXISTS WHEN OPENING COVER.

Maintenance Instructions

For maximum efficiency, determine the length of time it takes for the pressure drop to double that in the clean condition. Once the pressure drop reaches an unacceptable value, shut down line and follow the “Screen Removal Instructions” above. A pressure gauge installed before and after the strainer in-line will indicate pressure loss due to clogging and may be used to determine when cleaning is required.

Trouble Shooting and Diagnostic Techniques

- After pressurizing, inspect cover and other joints for leakage. Gasket replacement or cover tightening is necessary if leakage occurs.
- If the required filtration is not taking place, ensure the screen is installed in the correct position, that being flush to the screen seating surfaces.

WARNING

This product operates in pipelines or with equipment that carries fluids and/or gasses at elevated temperatures and pressures. Caution should be taken to make sure that this equipment is installed correctly and inspected regularly. Caution should also be taken to protect personnel from fluid or gas leakage.



Sizes
3/4" to 6"



Pressure
up to 3705 PSIG



Temperature
up to 800°F



Applications

Process Industry | Power Industry | Chemical Industry | Marine
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper | Steel Mills

Features

- Cone strainers
- 100% to 200% open area range (OAR) as standard

End Connections

- Wafer Flat Faced

Materials

- Stainless Steel



Sizes
3/4" to 6"



Pressure
up to 285 PSIG
(19.6 BARG)



Temperature
up to 800°F
(427°C)



Applications

Process Industry | Power Industry | Chemical Industry | Marine
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper | Steel Mills

Features

- Standard and custom designs
- Primarily used for new pipeline start-up or where solid loading is minimal
- Filtration down to 40 Microns available
- 100% to 200% open area range (OAR) as standard
- 304SS construction is standard. Construction in other materials is available
- May be installed in horizontal or vertical pipelines

Models

- TC1 – 100% open area – Flow inside to outside
- TC4 – 150% open area – Flow inside to outside
- TC7 – 200% open area – Flow inside to outside

Options

- Custom engineered designs
- Customer specified Open Area
- Other Screen and/or Mesh - See page 60

Applicable Codes (designed in accordance with)

- ASME Class 150 rated temporary strainers

Note: Temporary Strainers are designed for start up service of new or revamped piping systems. Temporary Strainers are not intended to be used in a permanent application. Contact factory when permanent applications are required

TC Series Ordering Code

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------|----------|------------|-------|------------|-------|------|------|
| Model | Material | Inlet Size | Class | Connection | Cover | Perf | Mesh |
| T C 1 | V | M | 1 | W | - | A | 4 A |

| 1 | Model |
|-----|---------------|
| TC1 | 100% I/O Flow |
| TC4 | 150% I/O Flow |

| 5 | Connection |
|---|--|
| W | Wafer Flat Face Smooth Finish (Designed to fit between RF Flanges) |

| 2 | Material |
|---|--------------------------------|
| V | 304 Stainless Steel (Standard) |

| 6 | Cover |
|---|-------|
| A | None |

| 3 | Inlet Size | | | | | |
|---|------------|---|-----|---|----|--|
| D | 3/4" | H | 2" | M | 4" | |
| E | 1" | J | 2½" | N | 5" | |
| G | 1½" | K | 3" | P | 6" | |

| 7 | Perf |
|---|------|
| 4 | 1/8" |

| 4 | Class |
|---|-------|
| 1 | 150 |

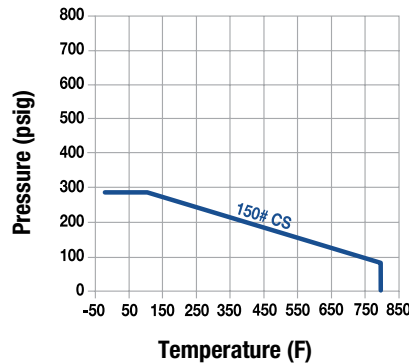
| 8 | Mesh |
|---|------|
| A | None |

TC Series Temporary Strainers

Stainless Steel | Cone



Pressure / Temperature Chart
ASME B16.1



Description

SSI manufactures temporary cone strainers that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI temporary cone strainers are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

¾" to 6"

Pressure

275 PSIG (18.9 BARG)

Temperature

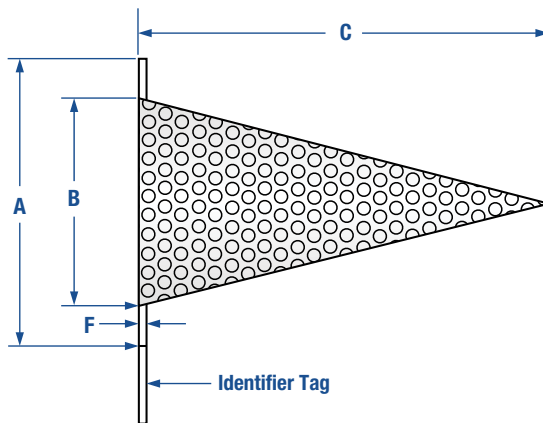
800° F (427° C)

End Connections

Wafer Flange Faced

Screen Openings

¾"–6" | 1/8" Perf | 22 Gauge¹



Features

- Primarily used for new pipeline start-up or where solid loading is minimal
- Available in conical configuration
- 100% to 200% open area range (OAR) as standard
- 304SS construction is standard
- May be installed in horizontal or vertical pipelines

| Dimensions | | | | | | | | | | | | | | | |
|------------|-----|------|-----|------|-----|------|-----|-------|-----|-------|-----|------|----|--------|-----|
| Size | | A | | B | | C | | | | | | F | | Weight | |
| inch | mm | inch | mm | inch | mm | 100% | | 150% | | 200% | | inch | mm | lbs | kg |
| ¾" | 20 | 2.13 | 54 | 0.63 | 16 | 1.13 | 29 | 1.67 | 43 | 2.25 | 57 | 0.13 | 3 | 0.5 | 0.2 |
| 1" | 25 | 2.50 | 64 | 0.75 | 19 | 1.63 | 41 | 2.50 | 64 | 3.33 | 84 | 0.13 | 3 | 0.5 | 0.2 |
| 1½" | 40 | 3.25 | 83 | 1.25 | 32 | 2.20 | 56 | 3.38 | 86 | 4.50 | 114 | 0.13 | 3 | 0.5 | 0.2 |
| 2" | 50 | 4.00 | 102 | 1.75 | 44 | 3.00 | 76 | 4.50 | 114 | 6.00 | 152 | 0.13 | 3 | 0.5 | 0.2 |
| 2½" | 65 | 4.75 | 121 | 2.25 | 57 | 3.20 | 81 | 5.00 | 127 | 6.67 | 170 | 0.13 | 3 | 1 | 0.5 |
| 3" | 80 | 5.25 | 133 | 2.75 | 70 | 4.00 | 102 | 6.25 | 159 | 8.50 | 216 | 0.13 | 3 | 1 | 0.5 |
| 4" | 100 | 6.75 | 171 | 3.75 | 95 | 5.13 | 130 | 7.88 | 200 | 10.63 | 270 | 0.13 | 3 | 2 | 0.9 |
| 5" | 125 | 7.63 | 194 | 4.63 | 117 | 6.50 | 165 | 10.13 | 257 | 14.00 | 356 | 0.13 | 3 | 2 | 0.9 |
| 6" | 150 | 8.63 | 219 | 5.38 | 137 | 8.13 | 207 | 13.00 | 330 | 17.00 | 432 | 0.13 | 3 | 3 | 1.4 |

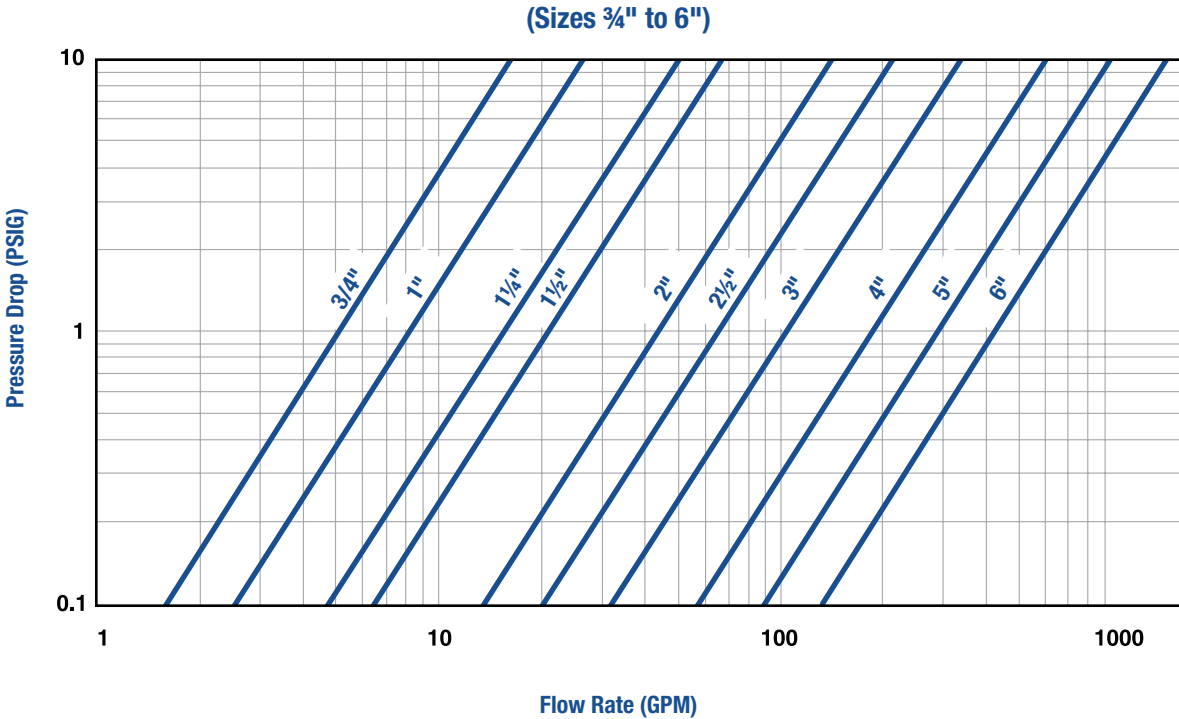
| Materials | |
|------------|----------|
| Part | Material |
| Ring | A240-304 |
| Handle | A240-304 |
| Perf Plate | A240-304 |
| Mesh | A276-304 |

¹ Dimensions shown using 1/8" perf and no mesh. Open Area percentage will change with alternate perf and/or mesh. The change will equal the ratio of the open area of the perf/mesh compared to the open area of 1/8" mesh.

* Open Area % for 1/8" perf is 40% | Dimensions shown are subject to change. Consult factory for certified drawings when required.

Pressure Drop VS. Flow Rate

Water Service, Clean Basket, 1/8" to 1/4" Perforated Screen*



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Pressure Drop Correction Factors

| Centistokes | SSU | Unlined Perforated Basket | 20 Mesh Lined Basket | 40 Mesh Lined Basket | 60 Mesh Lined Basket | 80 Mesh Lined Basket | 100 Mesh Lined Basket | 200 Mesh Lined Basket |
|-------------|------------|---------------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|
| 2 | 30 (water) | 1 | 1.05 | 1.2 | 1.4 | 1.6 | 1.7 | 2 |
| 100 | 500 | 1.6 | 1.7 | 1.9 | 2.1 | 2.4 | 2.6 | 3.1 |
| 216 | 1000 | 1.7 | 2 | 2.2 | 2.4 | 2.6 | 2.8 | 3.3 |
| 433 | 2000 | 1.9 | 2.2 | 2.4 | 2.7 | 2.9 | 3.2 | 3.8 |
| 650 | 3000 | 2 | 2.3 | 2.6 | 2.9 | 3.2 | 3.5 | 4.1 |
| 1083 | 5000 | 2.2 | 2.6 | 3 | 3.5 | 4 | 4.5 | 5.3 |
| 2200 | 10000 | 2.5 | 3 | 3.5 | 4.2 | 5 | 6 | 7.1 |

- 1) Obtain water pressure drop from graphs on appropriate product page.
- 2) Multiply the pressure drop obtained from (1) by the specific gravity of the liquid.
- 3) Multiply the pressure drop from (2) by the appropriate correction factor for the mesh liner and/or viscosity.

| Example | Answer |
|--|---|
| Model: TCIVMIW-A44 Size: 4" Filtration: 1/8" perf. screen 40 Mesh Flow Rate: 200 GPM Fluid: Water SG: 1 Viscosity: 30 SSI | A) From Pressure Drop Chart, pressure drop of water is 1.25 psid B) Multiply by specific gravity; $1.25 \times 1 = 1.25$ psid C) From chart above, multiply 1.25×1.2 (correction factor) = 1.5 psid |

Correction Factors for Clogged Screens

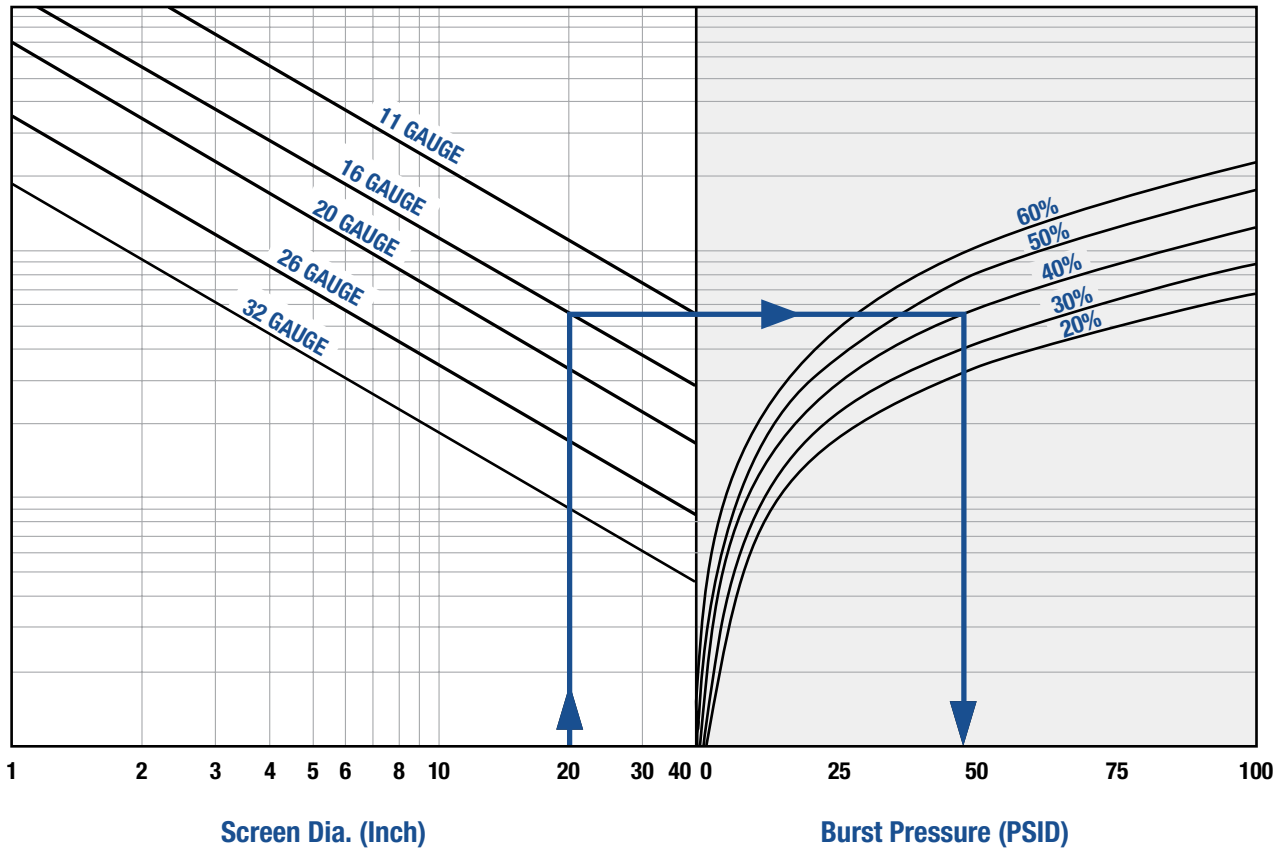
| % Clogged | Ratio of Free Screen Area to Pipe Area | | | | | | |
|-----------|--|------|------|------|------|------|------|
| | 10:1 | 8:1 | 6:1 | 4:1 | 3:1 | 2:1 | 1:1 |
| 10 | – | – | – | – | – | – | 3.15 |
| 20 | – | – | – | – | – | 1.15 | 3.9 |
| 30 | – | – | – | – | – | 1.4 | 5 |
| 40 | – | – | – | – | – | 1.8 | 6.65 |
| 50 | – | – | – | – | 1.25 | 2.5 | 9.45 |
| 60 | – | – | – | 1.15 | 1.8 | 3.7 | 14.5 |
| 70 | – | – | – | 1.75 | 2.95 | 6.4 | 26 |
| 80 | – | 1.1 | 1.75 | 3.6 | 6.25 | 14 | 58 |
| 90 | 2.3 | 3.45 | 6 | 13.5 | 24 | 55 | – |

* Multiply values obtained from Pressure Drop Charts by the appropriate values shown below.

| Example | Answer |
|---|---|
| Strainer Size: 6" Model: TCIVPIW-A4A Filtration: 1/8" Perf. Flow rate: 200 GPM Service: Water % Clogged: 60% | A) The Pressure Drop Chart indicates a drop of 1.50 psid with standard screen. B) The Effective Area Chart indicates a ratio of 2.5:1 free area to pipe area. C) Using chart above we read the correction factor of 2.5:1 (2:1 approx.) to be 3.7 at 60% clogged. D) Total pressure drop equals $1.50 \times 3.7 = 5.55$ psid. |

For Gas, Steam or Air service, consult factory | OAR = Free Screen Area / Nominal Inlet Area | Free Screen Area = Opening % x Gross Screen Area | Values shown are approximate. Consult factory for exact ratios.

Pressure Drop Correction Factors



1) The above chart is for use with perforated plate and based on the formula:

$$P = \frac{2St \cos \alpha}{D + 1.2t \cos \alpha}$$

SOURCE: ASME Section VIII, Div. 1., Appendix 1.

- P = Burst pressure, psi
- S = Reduced allowable stress
- t = Thickness of perforated plate, in.
- D = Dimension B (See page 83)
- α = 15 Degree

2) The above chart is based on standard dimensions. Higher burst pressure ratings are available. Please contact factory.

3) The above chart is based on a screen material of stainless steel. No safety factor is incorporated. It is the responsibility of the user to determine an acceptable safety factor.

3) See Screen Openings Chart for % Open Area's of inventoried perforated plate.

Example

Strainer Size: 20"
Screen Thickness: 16 Gauge
Screen Perforations: 40%

- Locate strainer size.
- Follow vertical line to gauge thickness.
- Follow horizontal line to required perforation open area.

- Follow vertical line downward to read burst pressure.
- Burst pressure equals 48 psid.

Installation and Maintenance Instructions

The temporary strainer is a device temporarily installed in a pipeline to remove sediment and debris from fluids. The temporary strainer is to be used for piping start-up applications only. The strainer is not to be used permanently installed in the process piping. If a permanent strainer is required after start-up, please contact the factory and/or refer to the SSI complete product line of pipeline strainers for your application.

Strainer Installation Instructions

- Unpack the strainer. Inspect for any damage occurring during transit. Report damage to the carrier.
- Ensure all machined surfaces are free of defects and that the inside of the strainers is free of foreign materials.
- Verify that the correct size and flange rating for the application.
- Review the application and chemical compatibility of the process fluid to the materials of construction of the strainer.
- If the strainer application has a mesh liner, it is important to note the position of this mesh liner.
- As specified at the time of order, the mesh liner is on the inside or outside of the strainer.
- Install the strainer into the pipeline between the pipe flanges. Ensure that the mesh lining (if provided) is facing the flow.
- Be sure to install the necessary gaskets and bolting. Torque bolts properly by using standard piping practices.
- Expel air for the pipeline where the strainer is installed. Start the system gradually. This will eliminate sudden shock to the strainer and other equipment in the line. Close any open pipeline vents after air is expelled.



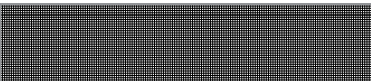
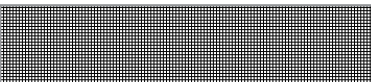
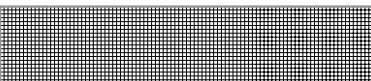
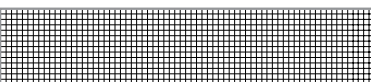
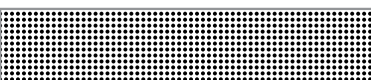
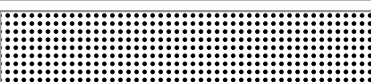
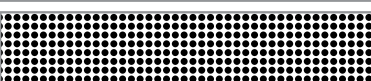
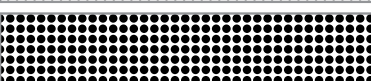





Maintenance Instructions

- For maximum efficiency, determine the length of time it takes for the pressure drop to double that in the clean condition.
- Once the pressure drop reaches an unacceptable value, the strainer should be clean and/or removed.
- A pressure gauge installed before and after the strainer in line will indicate pressure loss due to clogging and may be used to determine when cleaning is required.
- Slowly close the pipeline valves upstream and downstream for the strainer. Make sure these valves are tightly closed.
- Relieve the fluid pressure from the pipeline where the strainer is installed. The pipeline must be drained and internal pressure relieved prior to removing the strainer. Proceed to remove the strainer.

WARNING

This product operates in pipelines or with equipment that carries fluids and/or gasses at elevated temperatures and pressures. Caution should be taken to make sure that this equipment is installed correctly and inspected regularly. Caution should also be taken to protect personnel from fluid or gas leakage.

Screen Openings

| | |
|--|--|
|  | 100 Mesh - 30% O.A. 0.006" Openings |
|  | 80 Mesh - 36% O.A. 0.008" Openings |
|  | 60 Mesh - 38% O.A. 0.010" Openings |
|  | 40 Mesh - 41% O.A. 0.016" Openings |
|  | 30 Mesh - 45% O.A. 0.022" Openings |
|  | 20 Mesh - 49% O.A. 0.035" Openings |
|  | 0.027" Dia.- 23% O.A. |
|  | 0.033" Dia.- 28% O.A. |
|  | 3/64" Dia.- 36% O.A. |
|  | 1/16" Dia.- 37% O.A. |
|  | 3/32" Dia.- 39% O.A. |
|  | 1/8" Dia.- 40% O.A. |
|  | 5/32" Dia.- 58% O.A. |
|  | 3/16" Dia.- 50% O.A. |
|  | 1/4" Dia.- 40% O.A. |

Factors to Consider

1) Purpose

If the strainer is being used for protection rather than direct filtration, standard screens will suffice in most applications.

2) Service

With services that require extremely sturdy screens, such as high pressure/temperature applications or services with high viscosities, perforated screens without mesh liners are recommended. If a mesh liner is required to obtain a certain level of filtration, then a trapped perf/ mesh/perf combination is recommended.

3) Filtration Level

When choosing a perf. or mesh/perf. combination, attention should be given to ensure overstraining does not occur. As a general rule, the specified level of filtration should be no smaller than half the size of the particle to be removed. If too fine a filtration is specified, the pressure drop through the strainer will increase very rapidly, possibly causing damage to the screen.

Screen openings other than those shown above are readily available. Various mesh sizes as fine as 5 micron and perforated plate as coarse as 1/2" Dia. are in inventory.

Screens are available in a wide range of materials. Screens of carbon steel, stainless steel (304, 316), alloy 20, monel 400, hastelloy C and titanium grade 2 are in inventory.

Custom manufactured screens are available upon request. Please consult factory.

Replacement Cylindrical Screens

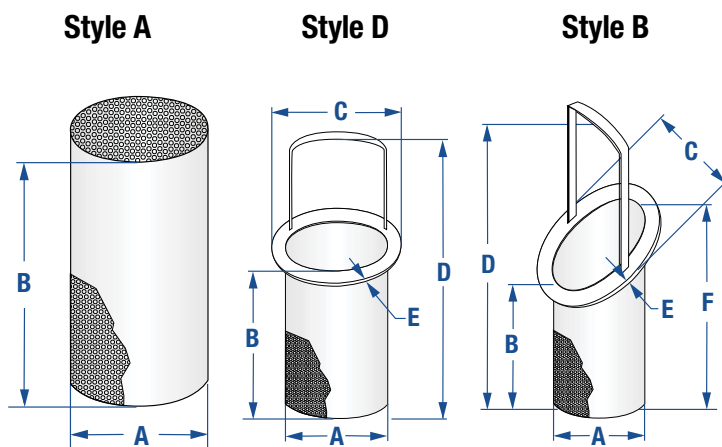
Design Features

SSI design's and manufactures screens and baskets for all makes of Y, basket and duplex strainers. The range of materials and size of units is unlimited.

SSI is able to provide baskets manufactured from:

- Perforated Plate
- Mesh or Mesh/Perf. combination
- Wedge Wire
- Electron Beam Small Hole Perforated Plate

Using the above processes or combination thereof, SSI can provide screens and baskets suitable for a wide range of applications.



| Contact Information | |
|---------------------|--------|
| Name | |
| Company: | |
| Phone: | Email: |

| Performance Requirements |
|------------------------------------|
| Required Level of Filtration = |
| Material of Construction = |
| Minimum Specified Burst Pressure = |
| Flow Direction = |
| Other = |

| Dimensional Requirements |
|-----------------------------|
| Style: |
| Screen Outer Diameter (A) = |
| Screen Height (B) = |
| Ring OD (C) = |
| Overall Height (D) = |
| Ring Thickness (E) = |
| Basket Long Height (F) = |



Sizes
2"x1½" to 12"x12"



Pressure
up to 200 PSIG



Temperature
up to 212°F



Applications
Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- Filtration Down to 40 Microns
- Large Diffuser Screens
- Long and Short Neck Versions Available
- Cast Construction

End Connections

- Flat Faced
- Raised Face
- Buttweld

Materials

- Cast Iron

ASME Ratings

- Class 125

125S Series

Suction Diffusers

Cast Iron Body | Flanged Ends



Sizes

2"x1¼" to 12"x12"



Pressure

up to 200 PSIG (13.8 BARG)



Temperature

up to 250°F (121°C)



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- All encompassing Strainer, Flow Straightener, Elbow and Pipe Reducer for pump applications
- Direct mount to the suction side of a pump in either horizontal or vertical position
- Flow turbulence reduced through integral straightening vanes for improved pump efficiency
- All strainers supplied with removable Stainless Steel startup mesh over Stainless Steel perforated plate
- Cast Iron FF Flanges on all sizes
- All sizes complete with O-ring sealed covers with knob bolts to minimize down time
- Supporting pads for easy mounting of standard I.D. support foot
- Drain connection with plug furnished as standard

Applicable Codes (designed in accordance with)

- ASME B16.1

Models

- 125SFI – Cast Suction Diffuser

Options

- Other perforated screens and mesh liners
- EPDM or Viton cover O-ring
- Differential connections
- Bolted covers

125S Series Ordering Code

| | | | | | | | | | | | | | | |
|------------------------|---|---|---|-------------------|---|---|---|---|--------------------|------------------|------------------|---|---|---|
| 1 Inlet Size | | | | 2 Model | | | | | 3 Outlet | 4 Perf | 5 Mesh | | | |
| 0 | 6 | 0 | 0 | - | 1 | 2 | 5 | S | F | I | N | - | 4 | 2 |

| 1 | Inlet Size | | | | | |
|------|------------|------|----|------|-----|--|
| 0200 | 2" | 0400 | 4" | 0800 | 8" | |
| 0250 | 2½" | 0500 | 5" | 1000 | 10" | |
| 0300 | 3" | 0600 | 6" | 1200 | 12" | |

| 2 | Model |
|--------|--------------|
| 125SFI | 125# Flanged |

| 3 | Outlet Size | | | | | |
|---|-------------|---|----|---|-----|--|
| G | 1½" | M | 4" | R | 10" | |
| H | 2" | N | 5" | S | 12" | |
| J | 2½" | P | 6" | | | |
| K | 3" | Q | 8" | | | |

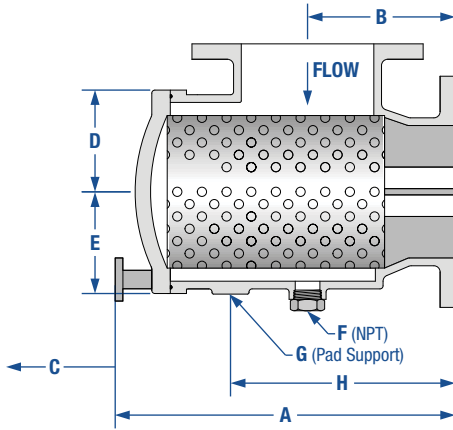
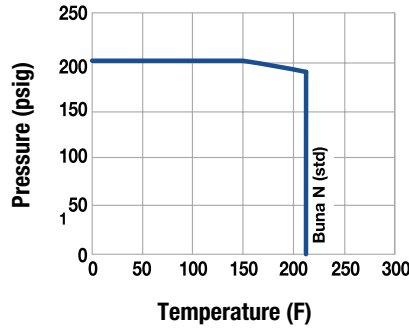
| 4 | Perf |
|---|------|
| 4 | 1/8" |

| 5 | Mesh |
|---|------|
| 2 | 20" |

Cast Suction Diffusers are supplied standard with Buna N cover O-ring and 1/8" perforated screen with a removable 20 mesh start up liner. For other screen materials contact factory.



Pressure / Temperature Chart



Sizes

2" x 1½" to 12" x 12"

Pressure

200 PSIG (18.96 BARG)

Temperature

212° F (100° C)

End Connections

FF Flanged

Screen Openings

2"-12" | 1/8" Perf | 20 Mesh*

Features

- All-encompassing Strainer, Flow Straightener, Elbow and Pipe Reducer for pump applications
- Direct mount to the suction side of a pump in a horizontal or vertical position
- Flow turbulence reduced through integral straightening vanes for improved pump efficiency
- All strainers supplied with removable Stainless Steel startup mesh over Stainless Steel perforated plate
- All sizes complete with O-ring sealed covers with knob bolts to minimize down time
- Supporting pads for easy mounting of the standard I.D. support foot
- Drain connection with plug furnished as standard

| Dimensions | | | | | | | | | | | | | | | | | | | | | |
|------------|--------|------|-----|-------|-----|------|-------|----------------|-----|------|-------|------|-------|------|----|----------------|----|-------|-----|--------|-------|
| Size | | | | A | | B | | C ³ | | D | | E | | F | | G ⁴ | | H | | Weight | |
| Inlet | Outlet | | | | | | | | | | | | | | | | | | | | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| 2" | 50 | 1½" | 40 | 10.25 | 260 | 5 | 114.3 | 5.00 | 127 | 4.5 | 114.3 | 2.19 | 55.0 | 0.75 | 20 | 0.75 | 20 | 5.94 | 151 | 21 | 9.5 |
| 2" | 50 | 2" | 50 | 10.25 | 260 | 5 | 114.3 | 5.00 | 127 | 4.5 | 114.3 | 2.19 | 55.0 | 0.75 | 20 | 0.75 | 20 | 5.94 | 151 | 23 | 10.4 |
| 2½" | 65 | 2" | 50 | 10.88 | 276 | 5 | 127.0 | 5.00 | 127 | 5.0 | 127.0 | 2.50 | 64.0 | 0.50 | 15 | 1.00 | 25 | 6.56 | 167 | 32 | 14.5 |
| 2½" | 65 | 2½" | 65 | 10.88 | 276 | 5 | 127.0 | 5.00 | 127 | 5.0 | 127.0 | 2.50 | 64.0 | 0.50 | 15 | 1.00 | 25 | 6.56 | 167 | 34 | 15.4 |
| 3" | 80 | 2" | 50 | 10.25 | 260 | 6 | 139.7 | 5.00 | 127 | 5.5 | 139.7 | 2.19 | 55.0 | 0.75 | 20 | 1.00 | 25 | 5.94 | 151 | 37 | 16.8 |
| 3" | 80 | 2½" | 65 | 11.31 | 288 | 6 | 139.7 | 5.00 | 127 | 5.5 | 139.7 | 3.00 | 76.0 | 0.75 | 20 | 1.00 | 25 | 7.06 | 179 | 49 | 22.2 |
| 3" | 80 | 3" | 80 | 11.31 | 288 | 6 | 139.7 | 5.25 | 133 | 5.5 | 139.7 | 3.00 | 76.0 | 0.75 | 20 | 1.00 | 25 | 7.06 | 179 | 55 | 24.9 |
| 4" | 100 | 3" | 80 | 13.00 | 332 | 7 | 165.1 | 5.25 | 133 | 6.5 | 165.1 | 3.88 | 98.0 | 0.75 | 20 | 1.00 | 25 | 8.75 | 223 | 57 | 25.9 |
| 4" | 100 | 4" | 100 | 12.81 | 325 | 7 | 165.1 | 7.13 | 181 | 6.5 | 165.1 | 3.88 | 98.0 | 0.75 | 20 | 1.25 | 32 | 8.25 | 210 | 92 | 41.7 |
| 5" | 125 | 4" | 100 | 15.75 | 400 | 8 | 190.5 | 7.13 | 181 | 7.5 | 190.5 | 4.44 | 112.5 | 0.75 | 20 | 1.25 | 32 | 7.63 | 194 | 97 | 44.0 |
| 5" | 125 | 5" | 125 | 16.13 | 411 | 8 | 190.5 | 7.13 | 181 | 7.5 | 190.5 | 5.56 | 141.0 | 1.00 | 25 | 1.25 | 32 | 10.00 | 254 | 101 | 45.8 |
| 6" | 150 | 4" | 100 | 13.00 | 332 | 8 | 203.2 | 7.13 | 181 | 8.0 | 203.2 | 3.88 | 98.0 | 0.75 | 20 | 1.25 | 32 | 8.75 | 223 | 140 | 63.5 |
| 6" | 150 | 5" | 125 | 17.00 | 433 | 8 | 203.2 | 7.13 | 181 | 8.0 | 203.2 | 5.44 | 138.0 | 1.00 | 25 | 1.25 | 32 | 10.69 | 272 | 145 | 65.8 |
| 6" | 150 | 6" | 150 | 17.00 | 433 | 8 | 203.2 | 7.13 | 181 | 8.0 | 203.2 | 5.44 | 138.0 | 1.00 | 25 | 2.00 | 50 | 10.69 | 272 | 182 | 82.6 |
| 8" | 200 | 6" | 150 | 17.00 | 433 | 8 | 203.2 | 7.13 | 181 | 9.0 | 228.6 | 5.44 | 138.0 | 1.00 | 25 | 2.00 | 50 | 10.69 | 272 | 197 | 89.4 |
| 8" | 200 | 8" | 200 | 20.81 | 528 | 9 | 228.6 | 16.25 | 413 | 9.0 | 228.6 | 7.00 | 176.5 | 1.00 | 25 | 2.00 | 50 | 11.63 | 295 | 292 | 132.5 |
| 10" | 250 | 8" | 200 | 20.81 | 528 | 9 | 228.6 | 16.25 | 413 | 11.0 | 279.4 | 7.00 | 176.5 | 1.00 | 25 | 2.00 | 50 | 11.63 | 295 | 312 | 141.5 |
| 10" | 250 | 10" | 250 | 26.25 | 667 | 11 | 279.4 | 16.25 | 413 | 11.0 | 279.4 | 9.75 | 248.0 | 1.00 | 25 | 2.00 | 50 | 14.19 | 360 | 398 | 180.5 |
| 12" | 300 | 8" | 200 | 25.31 | 643 | 11 | 279.4 | 16.25 | 413 | 11.0 | 279.4 | 8.25 | 209.0 | 1.00 | 25 | 2.00 | 50 | 13.75 | 349 | 412 | 186.9 |
| 12" | 300 | 10" | 250 | 26.25 | 667 | 11 | 279.4 | 16.25 | 413 | 12.0 | 304.8 | 9.75 | 248.0 | 1.00 | 25 | 2.00 | 50 | 14.19 | 360 | 491 | 222.7 |
| 12" | 300 | 12" | 300 | 26.25 | 677 | 12 | 304.8 | 18.13 | 461 | 12.0 | 304.8 | 9.75 | 248.0 | 1.00 | 25 | 2.00 | 50 | 15.38 | 360 | 573 | 259.9 |

| Materials | |
|---------------------|----------------|
| Part | Material |
| Body | A126-B |
| Cover | A126-B |
| Screen ¹ | 304 SS |
| Mesh | 304 SS |
| Knob ² | Ductile Iron |
| O-Ring ¹ | Buna N |
| Plug ² | Malleable Iron |

¹ Recommended Spare Parts | ² Materials of equivalent strength may be substituted | ³ Distance required for Screen Removal | ⁴ Mounting Pad Support
* 20 Mesh Liner is removable | Dimensions shown are subject to change. Consult factory for certified drawings when required

Open Area Ratios

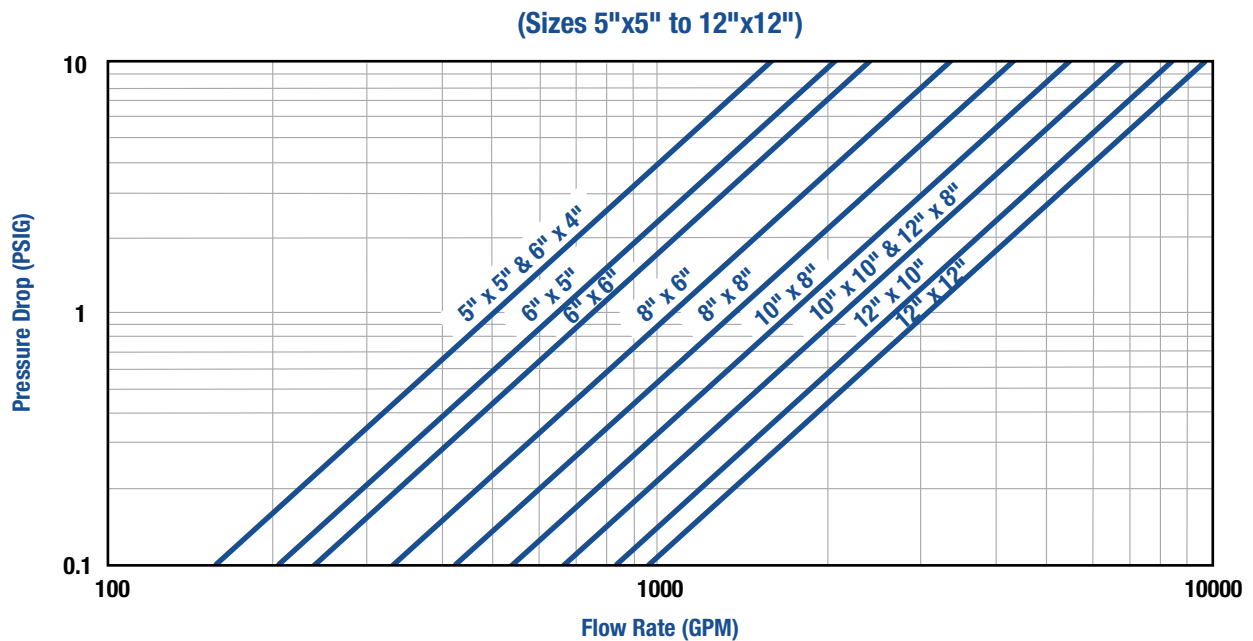
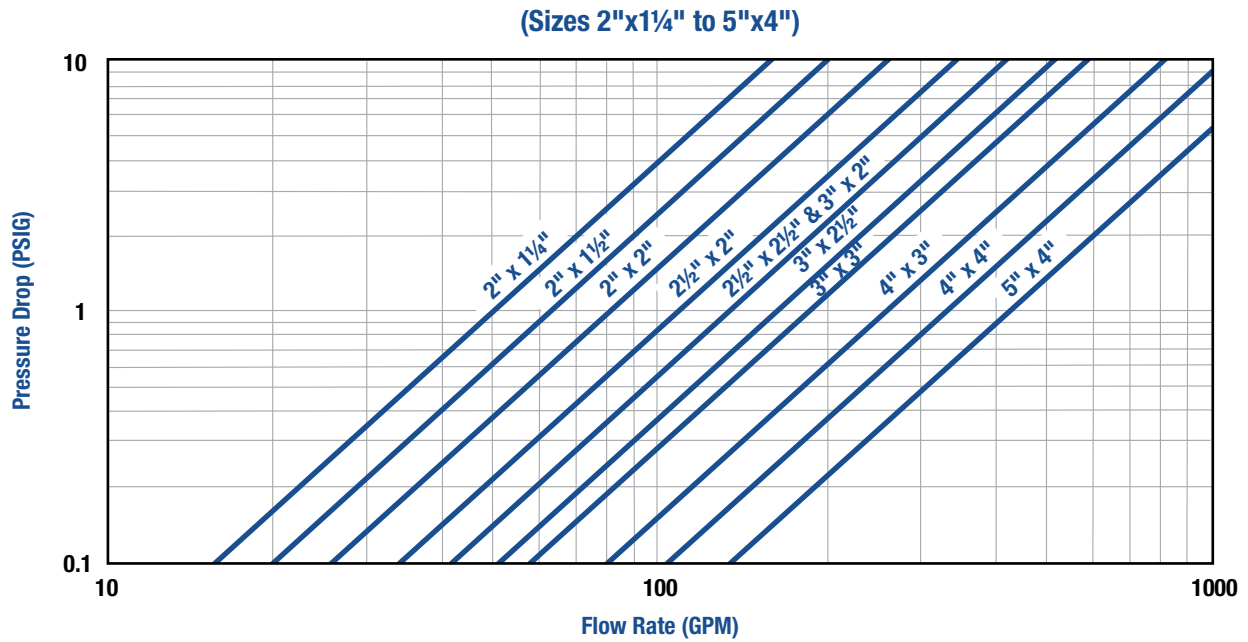
Standard Perforated Screen*

| Opening 40% 1/8" Diameter | | | | |
|-----------------------------|--|--------------------------------------|-------------------------------------|-----------------------|
| Size | Nominal Outlet Area (in ²) | Gross Screen Area (in ²) | Free Screen Area (in ²) | Open Area Ratio (OAR) |
| 2 x 1½ | 1.77 | 25 | 10.00 | 5.6 |
| 2 x 2 | 3.14 | 36 | 14.40 | 4.6 |
| 2½ x 2 | 3.14 | 36 | 14.40 | 4.6 |
| 2½ x 2½ | 4.91 | 49 | 19.60 | 4.0 |
| 3 x 2 | 3.14 | 36 | 14.40 | 4.6 |
| 3 x 2½ | 4.91 | 49 | 19.60 | 4.0 |
| 3 x 3 | 7.07 | 60 | 24.00 | 3.4 |
| 4 x 3 | 7.07 | 111 | 44.40 | 6.3 |
| 4 x 4 | 12.57 | 105 | 42.00 | 3.3 |
| 5 x 4 | 12.57 | 111 | 44.40 | 3.5 |
| 5 x 5 | 19.64 | 176 | 70.40 | 3.6 |
| 6 x 4 | 12.57 | 111 | 44.40 | 3.5 |
| 6 x 5 | 19.64 | 245 | 98.00 | 5.0 |
| 6 x 6 | 28.27 | 245 | 98.00 | 3.5 |
| 8 x 6 | 28.27 | 245 | 98.00 | 3.5 |
| 8 x 8 | 50.27 | 428 | 171.20 | 3.4 |
| 10 x 8 | 50.27 | 428 | 171.20 | 3.4 |
| 10 x 10 | 78.54 | 665 | 266.00 | 3.4 |
| 12 x 8 | 50.27 | 428 | 171.20 | 3.4 |
| 12 x 10 | 78.54 | 665 | 266.00 | 3.4 |
| 12 x 12 | 113.10 | 739 | 295.60 | 2.6 |

OAR = Free Screen Area / Nominal Inlet Area | Free Screen Area = Opening % x Gross Screen Area | Values shown are approximate. Consult factory for exact ratios.

Pressure Drop VS. Flow Rate

Water Service, Clean Basket, 1/32" to 1/4" Perforated Screen*



For Gas, Steam or Air service, consult factory

Installation and Maintenance Instructions

Installation Instructions

- Ensure all machined surfaces are free of defects and that the inside of the diffuser is free of foreign objects.
 - Provide for distance “C” as this dimension represents the distance required for removal of the strainer.
 - Mount standard support leg and foot to the pad of suction diffuser.
 - Align inlet and outlet pipe connections. For flanged connections, the flange bolting should be tightened gradually in a back and forth clockwise motion.
 - Once installed, increase line pressure gradually and check for a leak around joints.
 - After piping and initial.
-

Maintenance Instructions

For maximum efficiency, determine the length of time it takes for the pressure drop to double that in the clean condition. Once the pressure drop reaches an unacceptable value, shut down the line, drain piping and remove, clean and replace the screen. A differential pressure gauge installed before and after diffuser in line will indicate pressure loss due to clogging and may be used to determine when cleaning is required.

WARNING

This product operates in pipelines or with equipment that carries fluids and/or gasses at elevated temperatures and pressures. Caution should be taken to make sure that this equipment is installed correctly and inspected regularly. Caution should also be taken to protect personnel from fluid or gas leakage.



Sizes
2" to 14"



Pressure
up to 200 PSIG



Temperature
up to 212°F



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- Practical 3-in-1 design
- Operates automatically and silently
- Standard handwheel for ease of operation

End Connections

- FF Flanged

Materials

- Cast Iron

ASME Ratings

- Class 125

125T Series

Triple Duty Valves

Cast Iron Body | Flanged Ends



Sizes
2" to 14"



Pressure
up to 200 PSIG
(13.8 BARG)



Temperature
up to 212°F
(100°C)



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- All encompassing Strainer, Flow Straightener, Elbow and Pipe Reducer for pump applications
- Direct mount to the discharge side of a pump in either horizontal or vertical position
- Flow turbulence reduced through integral straightening vanes for improved pump efficiency
- All strainers supplied with removable Stainless Steel startup mesh over Stainless Steel perforated plate
- Cast Iron FF Flanges on all sizes
- All sizes complete with O-ring sealed covers with knob bolts to minimize down time
- Supporting pads for easy mounting of standard I.D. support foot
- Drain connection with plug furnished as standard

Applicable Codes (designed in accordance with)

- ASME B16.1

Models

- 125SFI – Cast Suction Diffuser

Options

- Other perforated screens and mesh liners
- EPDM or Viton cover O-ring
- Differential connections
- Bolted covers

125T Series Ordering Code



| 1 | Inlet Size | | | | | |
|------|------------|------|----|------|-----|--|
| 0200 | 2" | 0400 | 4" | 0800 | 8" | |
| 0250 | 2½" | 0500 | 5" | 1000 | 10" | |
| 0300 | 3" | 0600 | 6" | 1200 | 12" | |

| 2 | Model |
|--------|-------------------|
| 125TFI | Triple Duty Valve |

| 3 | O-Ring |
|---|--------|
| B | Buna N |

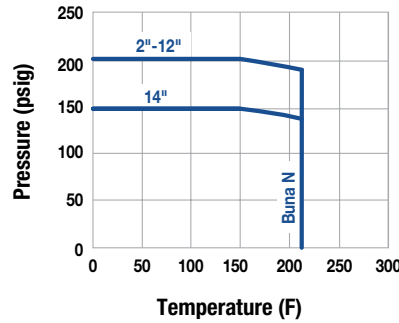
Maximum Rated Flow Coefficients (Cv)*

* Maximum Cv rating is at 100% of stem rise

| Valve Size | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|------|------|------|------|
| 2" | 2½" | 3" | 4" | 5" | 6" | 8" | 10" | 12" | 14" |
| 83 | 129 | 189 | 335 | 529 | 766 | 1372 | 2154 | 3106 | 4016 |



Pressure / Temperature Chart
ASME B16.1



Description

SSI manufactures 2-piece cast iron triple duty valves that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI 2-piece cast iron triple duty valves are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 14"

Temperature

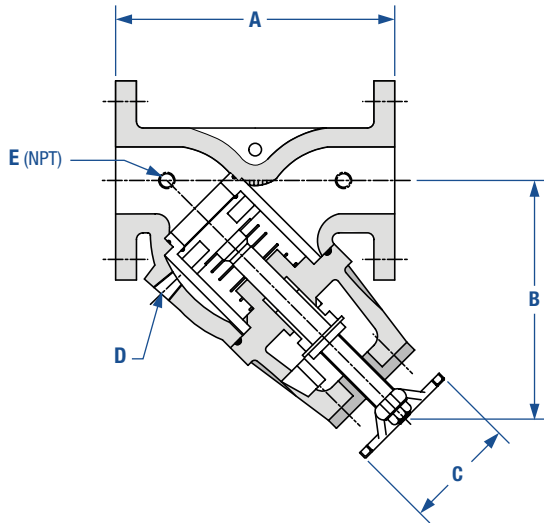
212° F (100° C)

Pressure

200 PSIG (13.8 BARG)

End Connections

FF Flanged



Features

- Triple function includes a spring loaded silent check valve, balancing valve and shutoff valve to minimize cost and reduce installation time
- Operates automatically and silently
- Center guided soft seal disc ensures leak free performance
- Spring loaded Buna N disc provides no impact shutoff and prevents water hammer upon closing
- Graduated position indicator provides accurate visual check of valve position
- Standard handwheel for ease of operation
- Cracking pressure of 1/4 PSI
- Drain and differential connections with plug are furnished as standard

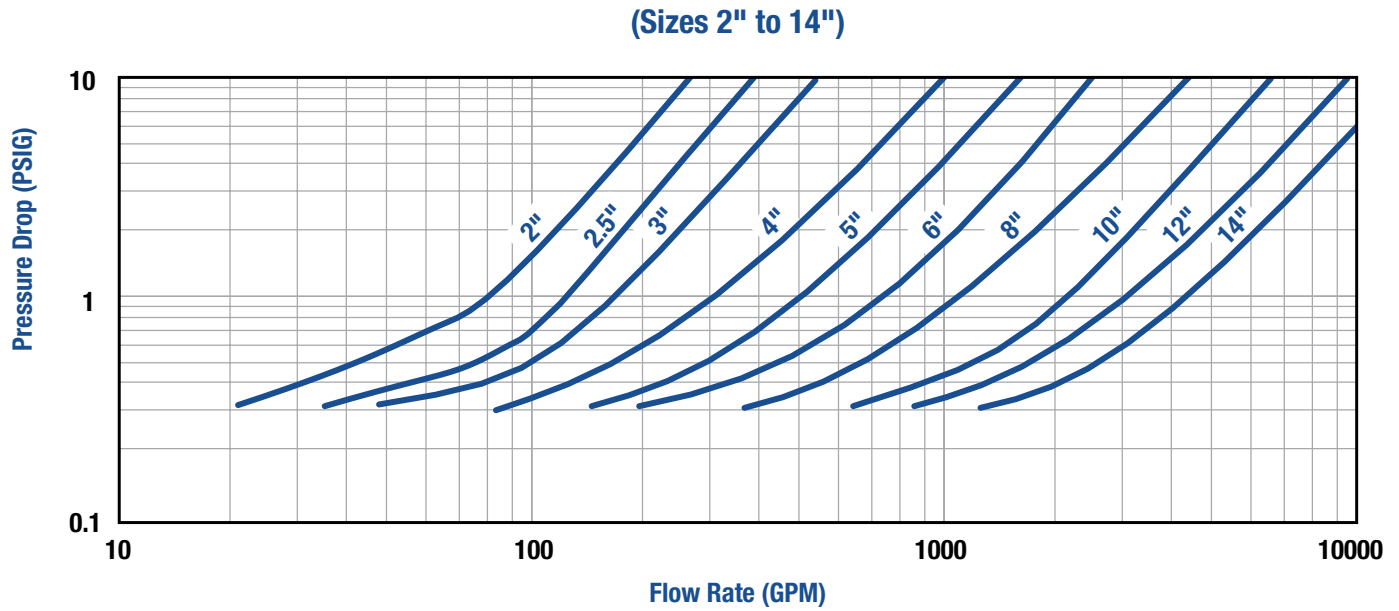
| Size | | Dimensions | | | | | | | | | | Weight | |
|------|-----|------------|------|--------|------|--------|------|--------|------|--------|------|--------|-----|
| inch | mm | A inch | A mm | B inch | B mm | C inch | C mm | D inch | D mm | E inch | E mm | lbs | kg |
| 2" | 50 | 8.38 | 213 | 9.63 | 244 | 6.31 | 159 | 0.5 | 15 | 0.25 | 8 | 34 | 15 |
| 2½" | 65 | 9.81 | 250 | 10.00 | 254 | 6.31 | 159 | 0.5 | 15 | 0.25 | 8 | 40 | 18 |
| 3" | 80 | 10.00 | 254 | 10.13 | 257 | 9.38 | 238 | 0.5 | 15 | 0.25 | 8 | 50 | 23 |
| 4" | 100 | 14.50 | 368 | 12.63 | 321 | 9.38 | 238 | 0.5 | 15 | 0.25 | 8 | 100 | 45 |
| 5" | 125 | 16.00 | 407 | 16.38 | 416 | 11.00 | 279 | 0.5 | 15 | 0.25 | 8 | 155 | 70 |
| 6" | 150 | 18.00 | 457 | 17.50 | 444 | 11.00 | 279 | 0.75 | 20 | 0.25 | 8 | 200 | 91 |
| 8" | 200 | 21.50 | 546 | 18.50 | 470 | 12.50 | 317 | 0.75 | 20 | 0.25 | 8 | 350 | 159 |
| 10" | 250 | 25.50 | 648 | 21.69 | 552 | 12.50 | 317 | 1 | 25 | 0.25 | 8 | 480 | 218 |
| 12" | 300 | 30.00 | 762 | 24.50 | 622 | 12.50 | 317 | 1 | 25 | 0.25 | 8 | 660 | 299 |
| 14" | 350 | 30.38 | 771 | 24.50 | 622 | 12.50 | 317 | 1 | 25 | 0.25 | 8 | 790 | 359 |

| Materials | |
|---------------|-----------------|
| Part | Material |
| Body & Yoke | A126-B |
| Disc Guide | DI/Nickel Plate |
| Disc | Ductile Iron |
| Packing Gland | Ductile Iron |
| Packing | Graphite |
| Spring | Stainless Steel |
| Stem | Stainless Steel |
| Seat Seal | Buna N |
| Disc Seal | Buna N |

* Dimensions shown are in full open position | Dimensions shown are subject to change. Consult factory for certified drawings when required.

Pressure Drop VS. Flow Rate

Water Service, Clean Basket, 1/32" to 1/4" Perforated Screen*



Installation and Maintenance Instructions

Installation Instructions

- Ensure all machined surfaces are free of defects and that the inside of the valve is free of foreign objects.
- The valve should be installed on the discharge side of the pump with the flow arrow pointed away from the pump discharge.
- Minimum recommended space for pump sizes 2" through 6" is 12". Minimum recommended space for pump sizes 8" through 14" is 24".
- It is not recommended to mount a valve directly to the pump.
- Sufficient clearance should be left around the valve for removal and/or repair.
- Valve should be mounted with the stem pointing up to facilitate proper seating of the valve disc.
- When connecting the valve to the line be sure that the flanges are the same – flat face to flat face. Flat face flanges require full face gaskets. The specified face-to-face dimension of the valve is approximate due to machining tolerances. Allow adjustment in prefabricated piping or request certified dimensions.
- Check to see that flange gaskets are properly positioned before tightening the bolts. Tighten bolts gradually in a back and forth clockwise motion.
- Once installed, “crack” the valve open before starting the pump.
- Gradually adjust the stem until the proper flow rate is reached. Tapped ports are provided on the valve to insert equipment to measure the valve pressure differential.

Maintenance Instructions

- Before starting, make a note of the position of the stem indicator.
- Shut down the pump and close the isolation valves.
- Open the valve completely so that the stem back seats against the inside of the yoke cover. Loosen the two nuts holding the flanged gland.
- Remove the old packing and clean out the packing box. Place a set (usually three or four) of the new packing rings around the stem. Be sure to stagger the 45 degrees split in the packing rings. Press packing rings into the packing box.
- Replace the flanged gland and nuts. Do not over tighten or the stem may seize.
- Adjust the valve stem indicator to its original position. If there is any leakage around the packing tighten both gland nuts a 1/4 turn at a time until the leakage stops. It is very important that the gland nuts be tightened evenly.
- For all other maintenance please contact the factory.

WARNING

This product operates in pipelines or with equipment that carries fluids and/or gasses at elevated temperatures and pressures. Caution should be taken to make sure that this equipment is installed correctly and inspected regularly. Caution should also be taken to protect personnel from fluid or gas leakage.



Sizes
2" to 24"



Pressure
up to 1480 PSIG



Temperature
up to 600°F



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- Compact design
- Low pressure loss
- Minimal installation costs

End Connections

- Wafer Flat Face
- Wafer Raised Face

Body Materials

- Cast Iron
- Carbon Steel
- Stainless Steel

Seat Materials

- Buna-N
- EPDM
- Viton
- Metal To Metal

ASME Ratings

- Class 125
- Class 150
- Class 300
- Class 600

Design Advantage

The short face to face design inherently makes this check valve significantly lighter (10% of the weight of a conventional swing check). The valve is designed to fit between two flanges and requires no flanges of its own. The double door check valve can be installed in any position as the spring aids in keeping the valve closed (Consult factory for vertical downward flow). These features allow you to design your piping layout in the most efficient and least expensive fashion.

Shock Bumpers

An integral cast bumper is present on all Series WT double door check valves (Except class 125 Lb.). The bumpers can be found on both discs, which meet when the valve reaches a fully open position. This design feature prevents the discs from pressing against the stop pin and eliminates leverage that would cause unnecessary stresses and wear. The purpose of the stop pin is to prevent over travel of either disc, which would result in valve failure.

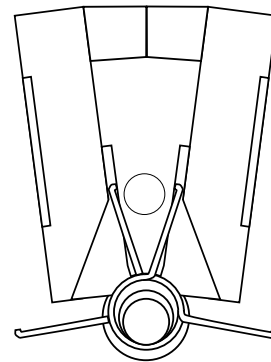


FIGURE 1

Resilient Seat

The basic design of the Series WT double door check valve is illustrated in Fig. 2. This seal is chemically bonded using specially designed adhesives that provide rubber tearing bonds throughout the operating range of the seat material. In case of resilient seat failure, the design permits the doors to float and make contact with the metal surface the seats were adhered to. This feature allows the valve to function even if the resilient seat is not present. The seat design illustrated in Fig. 3 is also available. This design results in a controlled seat squeeze and provides a metal to metal backup seal (Fig.4).

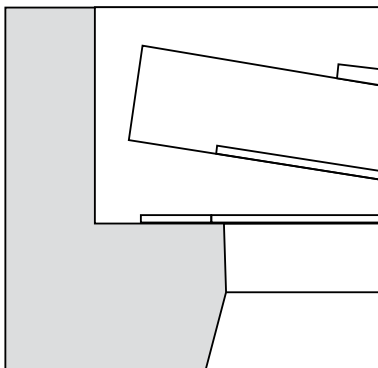


FIGURE 2

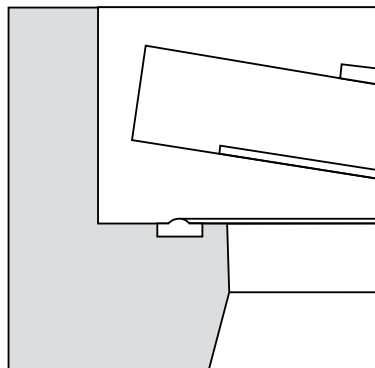


FIGURE 3

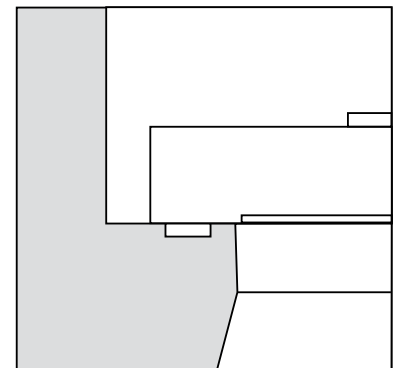


FIGURE 4

Minimal Seat Wear

The Series WT double door check valve was designed to eliminate the possibility of seat wear caused by friction at the heel of the double doors while maintaining low back pressure sealing capabilities. The clearance between the body, disc and hinge pin results in the discs cracking open at the heel location first. When the valve opens the heel does not drag across the seating surface and cause wear. As the valve closes, the spring will take the toe of the disc into the seating surface first, while the line back pressure will force the heels and hinge pin back to the seat to complete the seal.

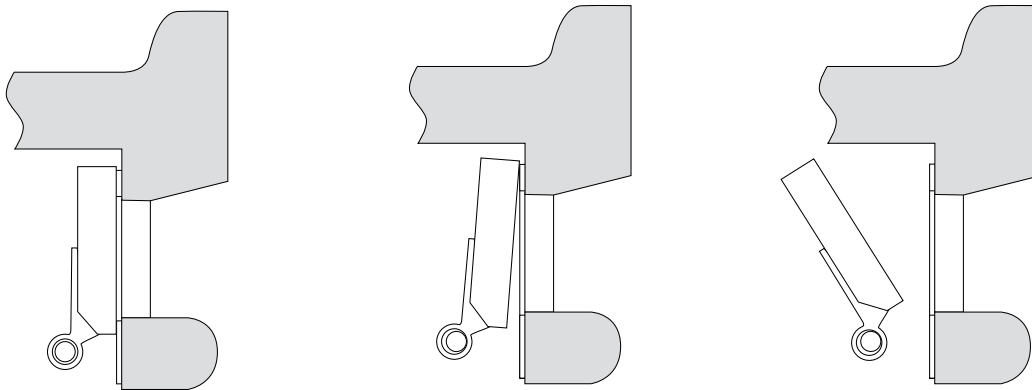


FIGURE 5

Spring Closing

The specially designed torsion spring in the Series WT double door check valve holds the valve discs closed under no flow conditions (Consult factory for vertical downward flow). Pipeline flow (head) causes the discs to open and conversely when flow decays to a point near zero velocity, the force from the legs of the torsion spring instantly closes the valve discs for non-slam shutoff. The Series WT double door check valve comes complete with corrosion resistant stainless steel springs as standard.

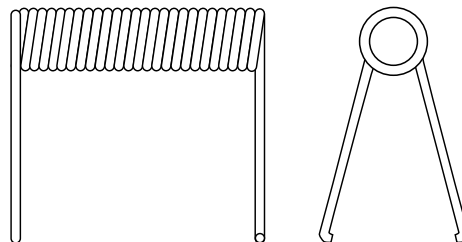


FIGURE 6

Double Door Check Valves

Cast Iron Body | Wafer Style

125WT Series



Sizes

2" to 24"



Pressure

up to 200 PSIG
(13.8 BARG)



Temperature

up to 250°F
(121°C)



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 125 rated Check Valves
- Wafer body style fits between FF or RF flanges
- Teflon thrust washers
- Resilient Buna-N seats
- Seat design lifts then swings discs to minimize seat wear
- Independent springs optimizes valve plate closing rates while minimizing spring stress
- Lifting lug tap on all valves 6" and larger

Models

- 125WTIB - Cast Iron Body, Bronze Disc, Buna Seat
- 125WTIT - Cast Iron Body, Stainless Steel Disc, Buna Seat

Options

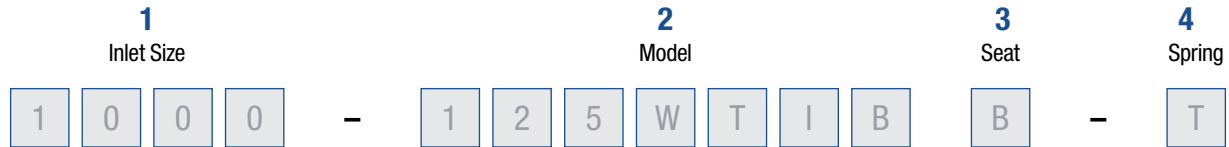
- EPDM Seats
- Other Spring Material

Canadian Registration - 0E18341.5

Applicable Codes (designed in accordance with)

- ASME Sec VIII and B16.1 Bodies
- API 598
- FM approved 30246911 (2"-10" only)

125WT Series Ordering Code



| 1 | Inlet Size | | | | | |
|------|------------|------|-----|------|-----|--|
| 0200 | 2" | 0600 | 6" | 1600 | 16" | |
| 0250 | 2½" | 0800 | 8" | 1800 | 18" | |
| 0300 | 3" | 1000 | 10" | 2000 | 20" | |
| 0400 | 4" | 1200 | 12" | 2400 | 24" | |
| 0500 | 5" | 1400 | 14" | | | |

| 3 | Seat |
|---|--------|
| B | Buna-N |

| 4 | Spring |
|---|-----------------|
| T | Stainless Steel |

| 2 | Model |
|---------|---------------------------------------|
| 125WTIB | Cast Iron Body & Bronze Disc |
| 125WTIT | Cast Iron Body & Stainless Steel Disc |

Flow Coefficient Values (Cv)*

* US-GPM @ 1 PSID

| Valve Size | | | | | | | | | | | | | |
|------------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|-------|
| 2" | 2½" | 3" | 4" | 5" | 6" | 8" | 10" | 12" | 14" | 16" | 18" | 20" | 24" |
| 60 | 100 | 170 | 340 | 520 | 850 | 1600 | 2400 | 3800 | 4400 | 5800 | 7500 | 9800 | 15000 |

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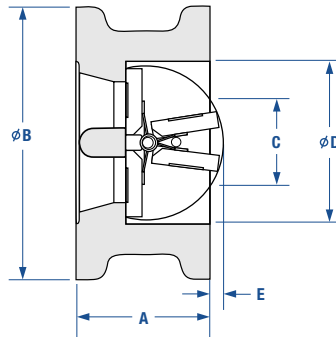
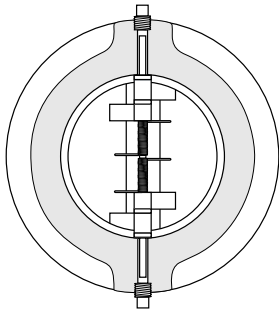
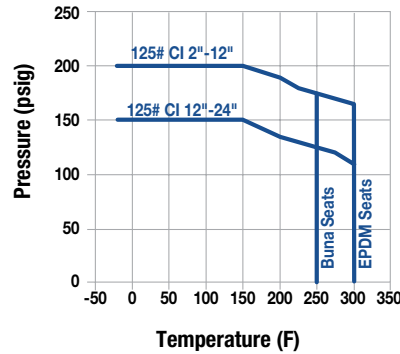
125WT Series

Double Door Check Valves

Cast Iron Body | Wafer Style



Pressure / Temperature Chart
ASME B16.1



Description

SSI manufactures stainless steel double door check valves that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI stainless steel double door check valves are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 24"

Pressure

200 PSIG (13.8 BARG)

Temperature

250° F (121° C)

End Connections

Wafer Flanged

Cracking Pressure

Horizontal - 0.3 PSID
Vertical - 0.75 PSID

Features

- Wafer body style fits between FF or RF flanges
- Teflon thrust washers
- Resilient Buna-N seat design lifts then swing discs to minimize seat wear
- Independent springs optimize valve plate closing rates while minimizing spring stress
- Lifting lug tap on all valves 6" and larger

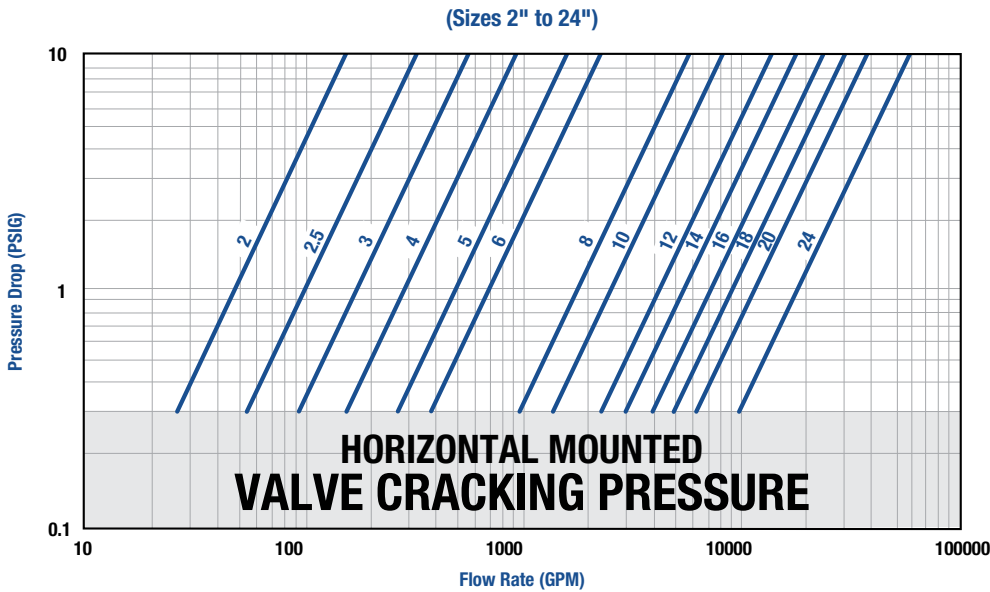
CRN

| Dimensions | | | | | | | | | | | | | | | | | | |
|------------|-----|------|-----|-------|-----|----------------|-----|-------|-----|------|-----|----------------|----------|----|--------|--------|-----|-------|
| Size | | A | | B* | | C ¹ | | D | | E | | Stud Selection | | | | Weight | | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | Qty | Diameter | | Length | | lbs | kg |
| | | | | | | | | | | | | | inch | mm | inch | mm | | |
| 2" | 50 | 2.13 | 54 | 4.13 | 105 | 2 | 51 | 2.38 | 60 | 0.13 | 3 | 4 | 0.63 | 16 | 5.50 | 140 | 3 | 1.4 |
| 2½" | 65 | 2.13 | 54 | 4.88 | 124 | 2.5 | 64 | 2.88 | 73 | 0.50 | 13 | 4 | 0.63 | 16 | 6.00 | 152 | 5 | 2.3 |
| 3" | 80 | 2.25 | 57 | 5.38 | 137 | 3 | 76 | 3.50 | 89 | 0.63 | 16 | 4 | 0.63 | 16 | 6.25 | 159 | 8 | 3.6 |
| 4" | 100 | 2.50 | 64 | 6.88 | 175 | 4 | 102 | 4.50 | 114 | 1.00 | 25 | 8 | 0.63 | 16 | 6.25 | 159 | 13 | 5.9 |
| 5" | 125 | 2.75 | 70 | 7.75 | 197 | 5 | 127 | 4.50 | 140 | 1.25 | 32 | 8 | 0.75 | 19 | 7.00 | 184 | 16 | 7.3 |
| 6" | 150 | 3.00 | 76 | 8.75 | 222 | 6 | 152 | 6.63 | 168 | 1.63 | 41 | 8 | 0.75 | 19 | 8.00 | 203 | 20 | 9.8 |
| 8" | 200 | 3.75 | 95 | 11.00 | 279 | 8 | 203 | 8.63 | 219 | 2.38 | 60 | 8 | 0.75 | 19 | 9.50 | 241 | 37 | 16.8 |
| 10" | 250 | 4.25 | 108 | 13.38 | 340 | 10 | 254 | 10.75 | 273 | 3.00 | 76 | 12 | 0.88 | 22 | 10.50 | 267 | 57 | 25.9 |
| 12" | 300 | 5.63 | 143 | 16.13 | 410 | 12 | 305 | 12.75 | 324 | 3.88 | 99 | 12 | 0.88 | 22 | 12.25 | 311 | 93 | 42.2 |
| 14" | 350 | 7.25 | 184 | 17.75 | 451 | 12.5 | 318 | 14.00 | 356 | 4.00 | 102 | 12 | 1.00 | 25 | 13.00 | 330 | 205 | 93.1 |
| 16" | 400 | 7.50 | 191 | 20.25 | 514 | 15 | 381 | 16.00 | 406 | 5.25 | 133 | 16 | 1.00 | 25 | 13.50 | 343 | 271 | 123.0 |
| 18" | 450 | 8.00 | 203 | 21.63 | 549 | 17 | 432 | 18.00 | 457 | 6.00 | 152 | 16 | 1.13 | 29 | 14.50 | 368 | 310 | 140.7 |
| 20" | 500 | 8.38 | 213 | 23.88 | 606 | 19 | 483 | 20.00 | 508 | 6.88 | 175 | 20 | 1.13 | 29 | 15.25 | 387 | 377 | 171.2 |
| 24" | 600 | 8.75 | 222 | 28.25 | 718 | 22.75 | 578 | 24.00 | 610 | 8.25 | 210 | 20 | 1.25 | 32 | 16.25 | 413 | 551 | 250.2 |

| Materials | |
|-----------|------------------------------------|
| Part | Material |
| Body | A126-B |
| Discs | Al/Bz B148 C954 or 316SS A351-CF8M |
| Seat | Buna-N |
| Spring | 316SS |

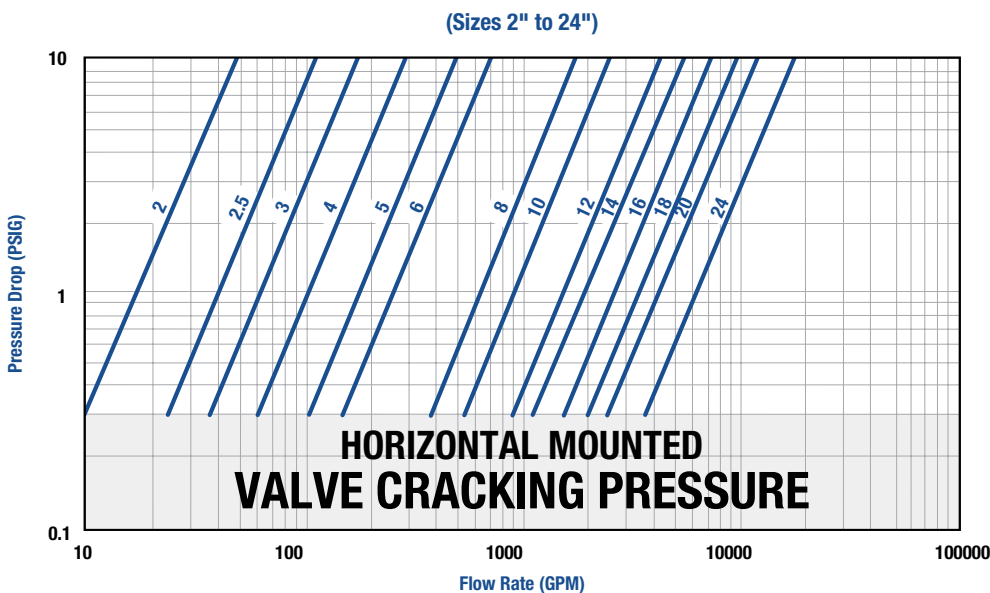
* Add the "B" dimensions and the diameter of the stud to achieve the ANSI B16.1 bolt hole circle diameter | ¹ Minimum bore diameter of companion flanges
Dimensions shown are subject to change. Consult factory for certified drawings when required.

Pressure Drop - Liquids



- Pressure drop curves are based on water flow
- Valve cracking pressure is equal to or less than 0.3 psid when mounted horizontally
- Valve cracking pressure increases to between 0.75 and 1.25 psid when installed vertically with flow upwards

Pressure Drop - Air



- Pressure drop curves are based on air flow at 60°F and 1 ATM pressure
- Valve cracking pressure is equal to or less than 0.3 psid when mounted horizontally
- Valve cracking pressure increases to between 0.75 and 1.25 psid when installed vertically with flow upwards

¹ For correct installation and maintenance please see our I&M manual | ² Horizontal installation – Disc pin must be installed in vertical position | ³ Vertical installation (downward flow) – Consult factory

150WT Series

Double Door Check Valves

Carbon & Stainless Steel Body | Wafer Style



Sizes
6" to 12"



Pressure
up to 285 PSIG
(19.7 BARG)



Temperature
up to 600°F
(316°C)



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 150 rated check valves
- Wafer body style fits between FF or RF flanges
- Size 6" and larger are supplied with a valve lifting lug
- Upper and lower SS thrust washers
- Resilient Buna-N, Viton and metal seats
- Seat design lifts then swings discs to minimize seat wear
- Shock bumpers minimize stresses in hinge pins
- Independent springs optimizes valve plate closing rates while minimizing spring stress
- Dual rating 2" - 3" 150#, 300# and 600# Classes
- Dual ratings 4" 150# and 300# Classes

Applicable Codes (designed in accordance with)

- ASME B16.34 ratings
- API 594
- API 598

Models

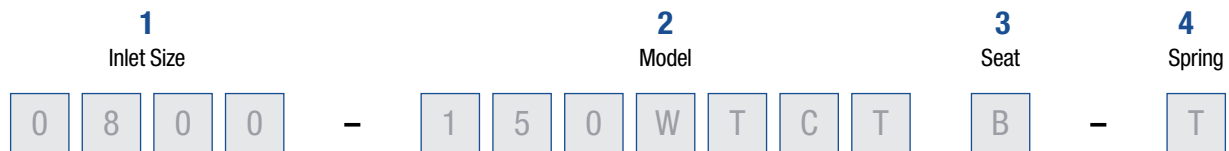
- 150WTCT – Cast Steel Body, Stainless Steel Disc, Buna Seat
- 150WTST – Stainless Steel Body, Stainless Steel Disc, Metal or Viton Seat

Options

- EPDM Seats
- Other Spring Material

Canadian Registration - OC18512.5

150WT Series Ordering Code



| 1 | Inlet Size | | | |
|------|------------|------|-----|--|
| 0600 | 6" | 1000 | 10" | |
| 0800 | 8" | 1200 | 12" | |

| 3 | Seat* | |
|---|-----------------------|------------------------|
| B | Buna-N (CS Body only) | V Viton (SS Body only) |
| M | Metal (SS Body only) | |

| 2 | Model |
|---------|----------------------|
| 150WTCT | Carbon Steel Body |
| 150WTST | Stainless Steel Body |

| 4 | Spring |
|---|-----------------|
| T | Stainless Steel |

Flow Coefficient Values (Cv)*

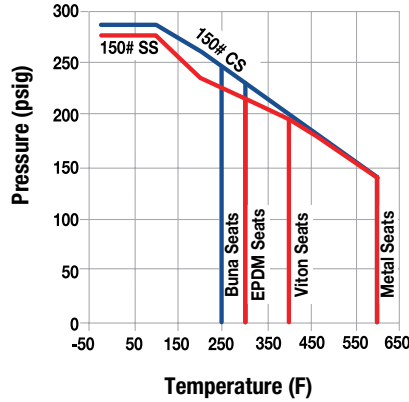
* US-GPM @ 1 PSID

| Valve Size | | | |
|------------|------|------|------|
| 6" | 8" | 10" | 12" |
| 705 | 1795 | 2563 | 4295 |

* 150WTCT - Buna-N seat only 150WTST - Viton or Metal seat



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel double door check valves that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel double door check valves are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

6" to 12"

Pressure

285 PSIG (19.7 BARG)

Temperature

600° F (316° C)

End Connections

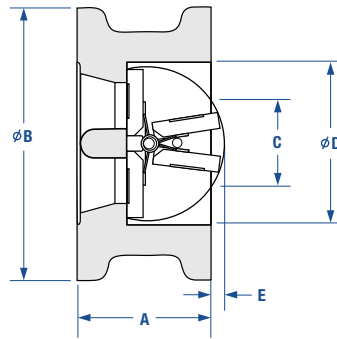
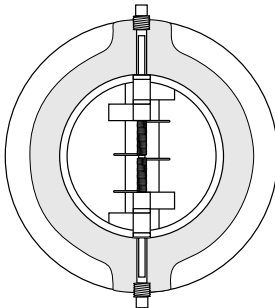
Wafer Flanged

Cracking Pressure

Horizontal - 0.3 PSID
Vertical - 0.75 PSID

Features

- Wafer body style fits between FF or RF flanges
- Supplied with a valve lifting lug
- Upper and lower SS thrust washers
- Resilient Buna-N , Viton and metal seats
- Seat design lifts then swings discs to minimize seat wear
- Shock bumpers minimize stresses in hinge pins
- Independent springs optimizes valve plate closing rates while minimizing spring stress
- Dual rating 2"-3" 150#, 300# and 600# Classes
- Dual ratings 4" 150# and 300# Classes



CRN

| Dimensions | | | | | | | | | | | | | | | | | | |
|------------------|----------------|------|------|-------|------------------------------------|-------|------|-------|------|------|-----|----------------|--------|-----|--------|-----|-----|------|
| Size | A ¹ | | B* | | C ² | | D | | E | | Qty | Stud Selection | | | Weight | | | |
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | | Diameter | Length | lbs | kg | | | |
| 2" ³ | 50 | | | | Use 2" 600WT-150# on page 117-118 | | | | | | | | | | | | | |
| 2½" ³ | 66 | | | | Use 2½" 600WT-150# on page 117-118 | | | | | | | | | | | | | |
| 3" ³ | 80 | | | | Use 2" 600WT-150# on page 117-118 | | | | | | | | | | | | | |
| 4" ⁴ | 100 | | | | Use 4" 300WT-150# on page 113-114 | | | | | | | | | | | | | |
| 6" | 150 | 3.88 | 99 | 8.75 | 222 | 5.38 | 137 | 6.63 | 168 | 1.38 | 35 | 8 | 0.75 | 19 | 8.25 | 210 | 35 | 15.9 |
| 8" | 200 | 5.00 | 127 | 11.00 | 279 | 7.38 | 187 | 8.63 | 219 | 2.00 | 51 | 8 | 0.75 | 19 | 9.75 | 248 | 70 | 31.8 |
| 10" | 250 | 5.75 | 146 | 13.38 | 340 | 9.50 | 241 | 10.75 | 273 | 2.88 | 73 | 12 | 0.88 | 22 | 11 | 279 | 114 | 51.8 |
| 12" | 300 | 7.13 | 181 | 16.13 | 410 | 11.25 | 286 | 12.75 | 324 | 3.38 | 86 | 12 | 0.88 | 22 | 12.25 | 311 | 180 | 81.8 |

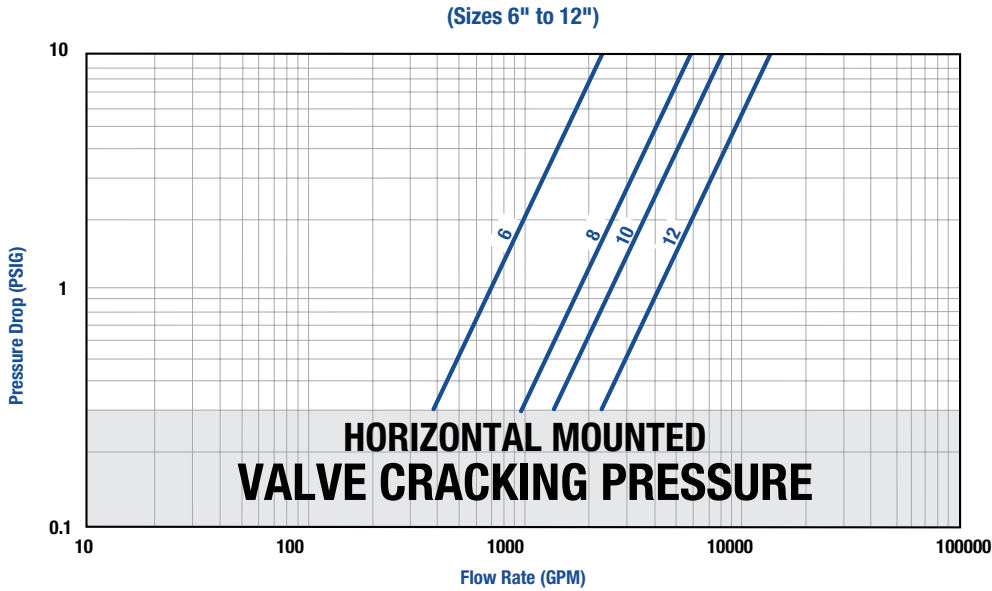
| Materials | | |
|-----------|--------------|-----------------|
| Part | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Discs | A351-CF8M | A351-CF8M |
| Seat | Buna-N | Viton or Metal |
| Spring | 316SS | 316SS |

¹ Dimensions in accordance with API 594 | ² Minimum bore diameter of companion flanges | ³ Sizes 2", 2½", 3" 150WT, 300WT & 600WT are interchangeable, use 600WT for all applications in these sizes

* Size 4", 150WT & 300WT are interchangeable, use 300WT for 4" size | Dimensions shown are subject to change. Consult factory for certified drawings when required.

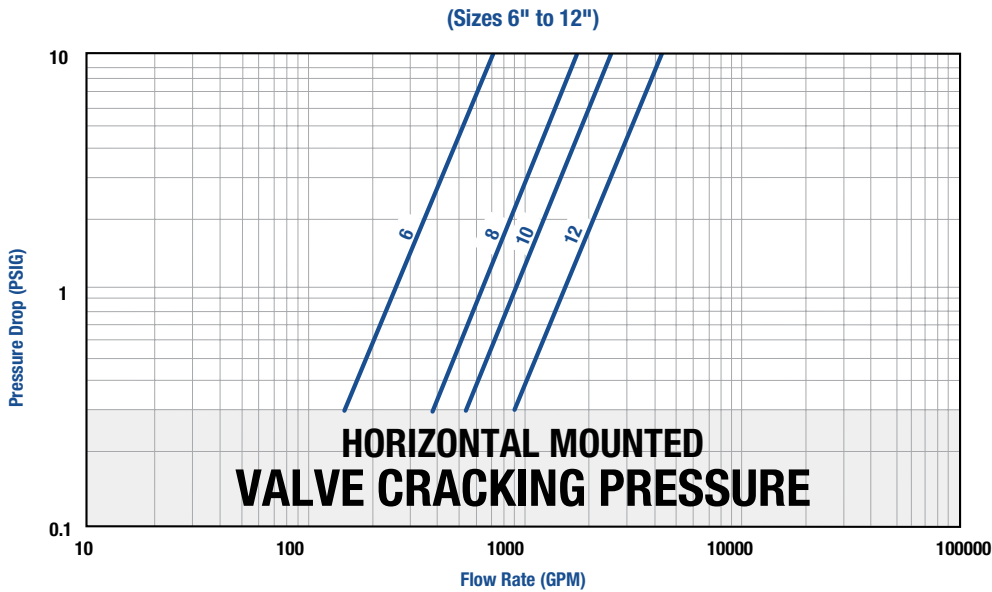
* Add the "B" dimension and the diameter of the stud to achieve the ANSI B16.5 bolt hole circle diameter

Pressure Drop - Liquids



- Pressure drop curves are based on water flow
- Valve cracking pressure is equal to or less than 0.3 psid when mounted horizontally
- Valve cracking pressure increases to between 0.75 and 1.25 psid when installed vertically with flow upwards

Pressure Drop - Air



- Pressure drop curves are based on air flow at 60°F and 1 ATM pressure
- Valve cracking pressure is equal to or less than 0.3 psid when mounted horizontally
- Valve cracking pressure increases to between 0.75 and 1.25 psid when installed vertically with flow upwards

¹ For correct installation and maintenance please see our I&M manual | ² Horizontal installation – Disc pin must be installed in vertical position | ³ Vertical installation (downward flow) – Consult factory



Sizes
4" to 12"



Pressure
up to 740 PSIG
(51 BARG)



Temperature
up to 600°F
(316°C)



Applications
Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 300 rated check valves
- Wafer body style fits between FF or RF flanges
- Size 6" and larger are supplied with a valve lifting lug
- Upper and lower SS thrust washers
- Resilient Buna-N and Viton
- Seat design lifts then swings discs to minimize seat wear
- Shock bumpers minimize stresses in hinge pins
- Independent springs optimizes valve plate closing rates while minimizing spring stress
- Dual rating 2" - 3" 150#, 300# and 600#
- Dual ratings 4" 150# and 300#

Applicable Codes (designed in accordance with)

- ASME B16.34 ratings
- API 594
- API 598

Models

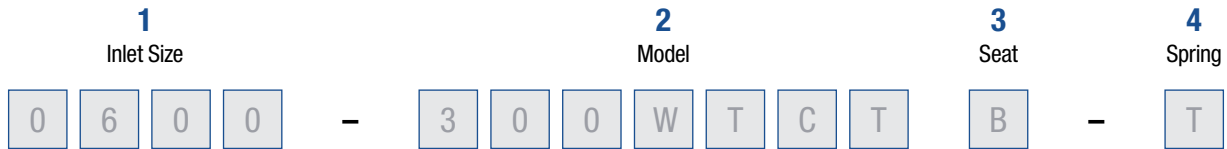
- 300WTCT – Cast Steel Body, Stainless Steel Disc, Buna Seat
- 300WTTT – Stainless Steel Body, Stainless Steel Disc, Viton Seat

Options

- EPDM Seats
- Other Spring Material

Canadian Registration - OC18512.5

300WT Series Ordering Code



| 1 | Inlet Size | | | |
|------|------------|------|-----|--|
| 0400 | 4" | 1000 | 10" | |
| 0600 | 6" | 1200 | 12" | |
| 0800 | 8" | | | |

| 2 | Model |
|---------|----------------------|
| 300WTCT | Carbon Steel Body |
| 300WTTT | Stainless Steel Body |

| 3 | Seat* | | |
|---|-----------------------|---|----------------------|
| B | Buna-N (CS Body only) | V | Viton (SS Body only) |

| 4 | Spring |
|---|-----------------|
| T | Stainless Steel |

Flow Coefficient Values (Cv)*

* US-GPM @ 1 PSID

| Valve Size | | | | | |
|------------|-----|-----|------|------|------|
| 4" | 5" | 6" | 8" | 10" | 12" |
| 291 | 494 | 705 | 1795 | 2563 | 4295 |

* 300WTCT - Buna-N seat only 300WTTT - Viton seat only

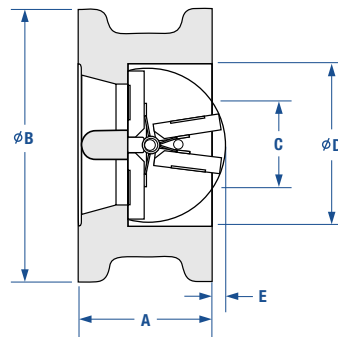
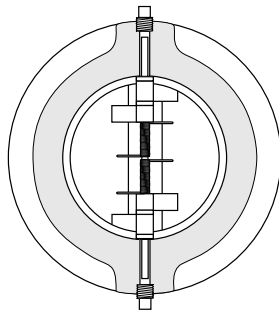
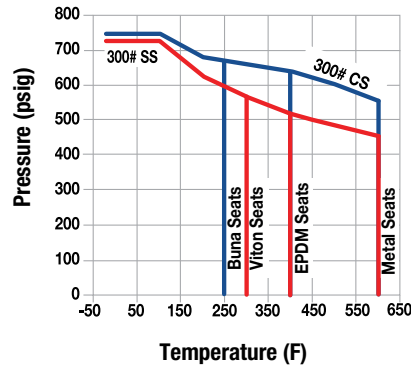
300WT Series

Double Door Check Valves

Carbon & Stainless Steel Body | Wafer Style



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel double door check valves that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel double door check valves are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

4" to 12"

Pressure

740 PSIG (51 BARG)

Temperature

600° F (316° C)

End Connections

Wafer Flanged

Cracking Pressure

Horizontal - 0.3 PSID

Vertical - 0.75 PSID

Features

- Wafer body style fits between FF or RF flanges
- Supplied with a valve lifting lug
- Upper and lower SS thrust washers
- Resilient Buna-N and Viton seats
- Seat design lifts then swings discs to minimize seat wear
- Shock bumpers minimize stresses in hinge pins
- Independent springs optimizes valve plate closing rates while minimizing spring stress
- Dual rating 2"–3" 150#, 300# and 600# Classes
- Dual ratings 4" 150# and 300# Classes

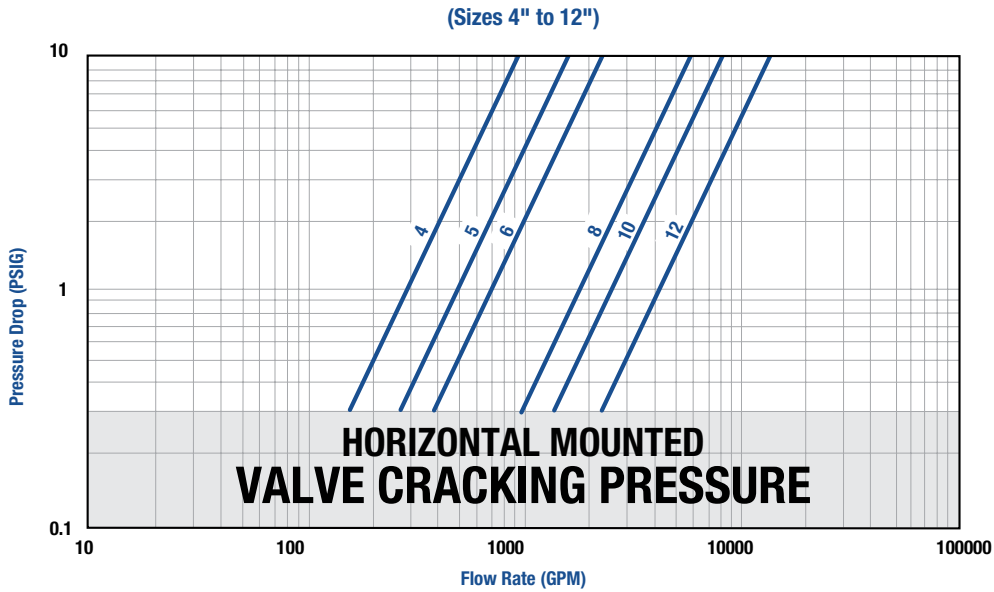
CRN

| Size | | Dimensions | | | | | | | | | | | | | | Stud Selection | | | | Weight | |
|------------------------------------|-----|----------------|------|----------------|-------|----------------|-------|------|-------|------|------|-----|----------|------|--------|----------------|-----|-----|------|--------|--|
| inch | mm | A ¹ | | B [*] | | C ² | | D | | E | | Qty | Diameter | | Length | | lbs | kg | | | |
| | | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | | inch | mm | inch | mm | | | | | |
| 2" ³ | 50 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| Use 2" 600WT-300# on page 117-118 | | | | | | | | | | | | | | | | | | | | | |
| 2½" ³ | 66 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| Use 2½" 600WT-300# on page 117-118 | | | | | | | | | | | | | | | | | | | | | |
| 3" ³ | 80 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| Use 2" 600WT-300# on page 117-118 | | | | | | | | | | | | | | | | | | | | | |
| 4" ⁴ | 100 | 150WT | 2.88 | 73 | 6.88 | 175 | 3.38 | 86 | 4.50 | 114 | 0.75 | 19 | 8 | 0.63 | 16 | 7 | 178 | 18 | 8.2 | | |
| | | 300WT | 2.88 | 73 | 7.13 | 181 | 3.38 | 86 | 4.50 | 114 | 0.75 | 19 | 8 | 0.75 | 19 | 8.13 | 207 | 18 | 8.2 | | |
| 6" | 150 | - | 3.88 | 99 | 9.88 | 251 | 5.38 | 137 | 6.63 | 168 | 1.38 | 35 | 12 | 0.75 | 19 | 9.63 | 245 | 44 | 20.0 | | |
| 8" | 200 | - | 5.00 | 127 | 12.13 | 308 | 7.38 | 187 | 8.63 | 219 | 2.00 | 51 | 12 | 0.88 | 22 | 11.25 | 286 | 75 | 34.0 | | |
| 10" | 250 | - | 5.75 | 146 | 14.25 | 362 | 9.50 | 241 | 10.50 | 273 | 2.88 | 73 | 16 | 1.00 | 25 | 12.75 | 324 | 123 | 55.8 | | |
| 12" | 300 | - | 7.13 | 181 | 16.63 | 422 | 11.25 | 286 | 12.75 | 324 | 3.38 | 86 | 16 | 1.13 | 29 | 14.63 | 372 | 196 | 89.0 | | |

| Part | Materials | |
|--------|--------------|-----------------|
| | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Discs | A351-CF8M | A351-CF8M |
| Seat | Buna-N | Viton |
| Spring | 316 SS | 316 SS |

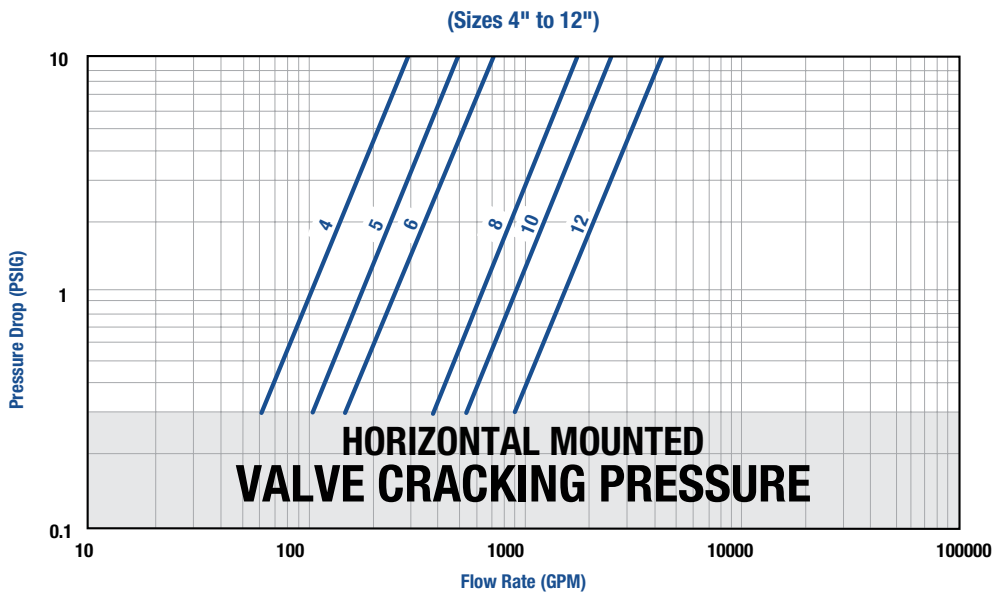
¹ Dimensions in accordance with API 594 | ² Minimum bore diameter of companion flanges | ³ Sizes 2", 2½", 3" 150WT, 300WT & 600WT are interchangeable, use 600WT for all applications in these sizes
⁴ Size 4", 150WT & 300WT are interchangeable, use 300WT for 4" size - 4" sizes fit between both 150# & 300# flanges | Dimensions shown are subject to change. Consult factory for certified drawings when required.
^{*} Add the "B" dimension and the diameter of the stud to achieve the ANSI B16.5 bolt hole circle diameter

Pressure Drop - Liquids



- Pressure drop curves are based on water flow
- Valve cracking pressure is equal to or less than 0.3 psid when mounted horizontally
- Valve cracking pressure increases to between 0.75 and 1.25 psid when installed vertically with flow upwards

Pressure Drop - Air



- Pressure drop curves are based on air flow at 60°F and 1 ATM pressure
- Valve cracking pressure is equal to or less than 0.3 psid when mounted horizontally
- Valve cracking pressure increases to between 0.75 and 1.25 psid when installed vertically with flow upwards

¹ For correct installation and maintenance please see our I&M manual | ² Horizontal installation – Disc pin must be installed in vertical position | ³ Vertical installation (downward flow) – Consult factory

600WT Series

Double Door Check Valves

Carbon & Stainless Steel Body | Wafer Style



Sizes

2" to 3"



Pressure

up to 1480 PSIG
(101.9 BARG)



Temperature

up to 600°F
(316°C)



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 600 rated check valves
- Wafer body style fits between FF or RF flanges
- Upper and lower SS thrust washers
- Resilient Buna-N and Viton
- Seat design lifts then swings discs to minimize seat wear
- Shock bumpers minimize stresses in hinge pins
- Independent springs optimizes valve plate closing rates while minimizing spring stress
- Dual rating 2" - 3" 150#, 300# and 600#

Applicable Codes (designed in accordance with)

- ASME B16.34 ratings
- API 594
- API 598

Models

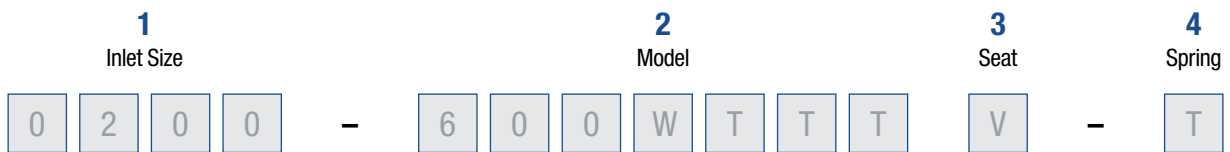
- 600WTCT – Cast Steel Body, Stainless Steel Disc, Buna Seat
- 600WTTT – Stainless Steel Body, Stainless Steel Disc, Metal or Viton Seat

Options

- EPDM Seats
- Other Spring Material

Canadian Registration - OC18512.5

600WT Series Ordering Code



| 1 Inlet Size | |
|--------------|------------|
| 0200 | 2" 3000 3" |
| 0250 | 2½" |

| 2 Model | |
|----------------|----------------------|
| 600WTCT | Carbon Steel Body |
| 600WTTT | Stainless Steel Body |

| 3 Seat* | |
|----------|-----------------------|
| B | Buna-N (CS Body only) |
| V | Viton (SS Body only) |
| M | Metal (SS Body only) |

| 4 Spring | |
|----------|-----------------|
| T | Stainless Steel |

Flow Coefficient Values (Cv)*

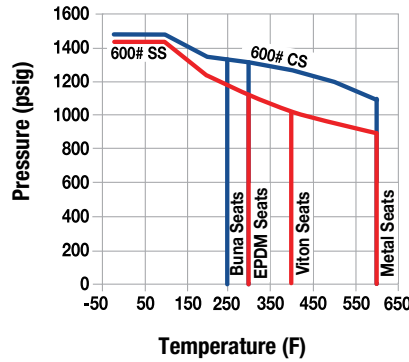
* US-GPM @ 1 PSID

| Valve Size | | |
|------------|-----|-----|
| 2" | 2½" | 3" |
| 48 | 90 | 171 |

* 300WTCT - Buna-N seat only 300WTTT - Viton seat only



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel double door check valves that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel double door check valves are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 3"

Pressure

1480 PSIG (101.9 BARG)

Temperature

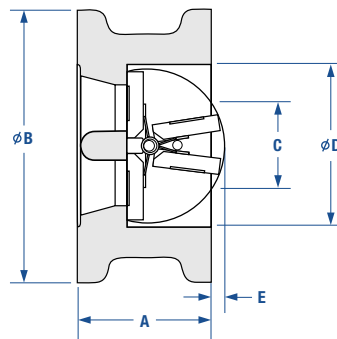
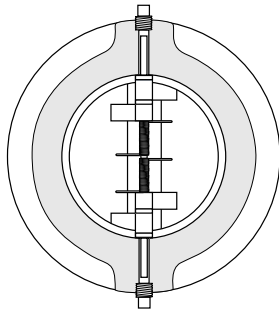
600° F (316° C)

End Connections

Wafer Flanged

Cracking Pressure

Horizontal - 0.3 PSID
Vertical - 0.75 to 1.25 PSID



Features

- Wafer body style fits between FF or RF flanges
- Upper and lower SS thrust washers
- Resilient Buna-N, Viton and metal seats
- Seat design lifts then swings discs to minimize seat wear
- Shock bumpers minimize stresses in hinge pins
- Independent springs optimizes valve plate closing rates while minimizing spring stress
- Dual ratings 2"-3" 150#, 300# and 600#

CRN

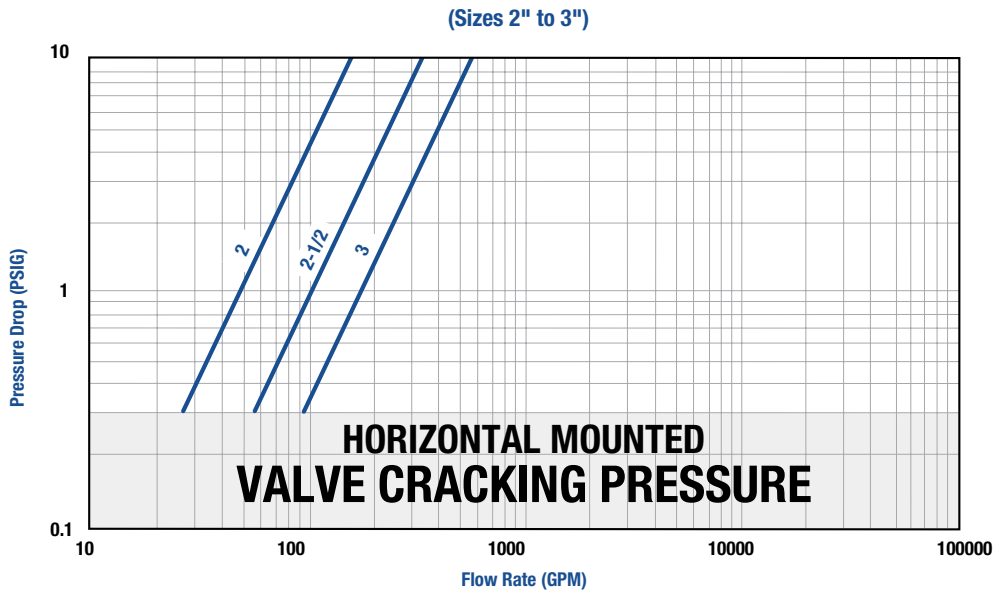
| Dimensions | | | | | | | | | | | | | | Stud Selection | | | | Weight | |
|------------------|----|----------------|------|------|------|----------------|----|------|------|------|------|-----|----------|----------------|--------|------|-----|--------|-----|
| Size | | A ¹ | | B* | | C ² | | D | | E | | Qty | Diameter | | Length | | lbs | kg | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | | inch | mm | inch | mm | | | |
| 2" ³ | 50 | 150# | 2.38 | 60 | 4.13 | 105 | - | - | 2.38 | 60 | - | - | 4 | 0.63 | 15.9 | 6.00 | 152 | 6 | 2.7 |
| | | 300#/600# | 2.38 | 60 | 4.38 | 111 | - | - | 2.38 | 60 | - | - | 8 | 0.63 | 15.9 | 6.88 | 175 | 6 | 2.7 |
| 2½" ³ | 65 | 150# | 2.63 | 67 | 4.88 | 124 | 2 | 51 | 3.00 | 77 | 0.25 | 6 | 4 | 0.63 | 15.9 | 6.25 | 159 | 10 | 4.5 |
| | | 300#/600# | 2.63 | 67 | 5.13 | 130 | 2 | 51 | 3.00 | 77 | 0.25 | 6 | 8 | 0.75 | 19 | 7.50 | 190 | 10 | 4.5 |
| 3" ³ | 80 | 150# | 2.88 | 73 | 5.38 | 137 | 2 | 51 | 3.50 | 89 | 0.25 | 6 | 4 | 0.63 | 15.9 | 7.00 | 178 | 13 | 5.9 |
| | | 300#/600# | 2.88 | 73 | 5.88 | 149 | 2 | 51 | 3.50 | 89 | 0.25 | 6 | 8 | 0.75 | 19 | 8.13 | 207 | 13 | 5.9 |

| Materials | | |
|-----------|--------------|-----------------|
| Part | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Discs | A351-CF8M | A351-CF8M |
| Seat | Buna-N | Viton or Metal |
| Spring | 316 SS | 316 SS |

¹ Dimensions in accordance with API 594 | ² Minimum bore diameter of companion flanges | ³ 300WT and 600WT are interchangeable, use 600WT for both applications

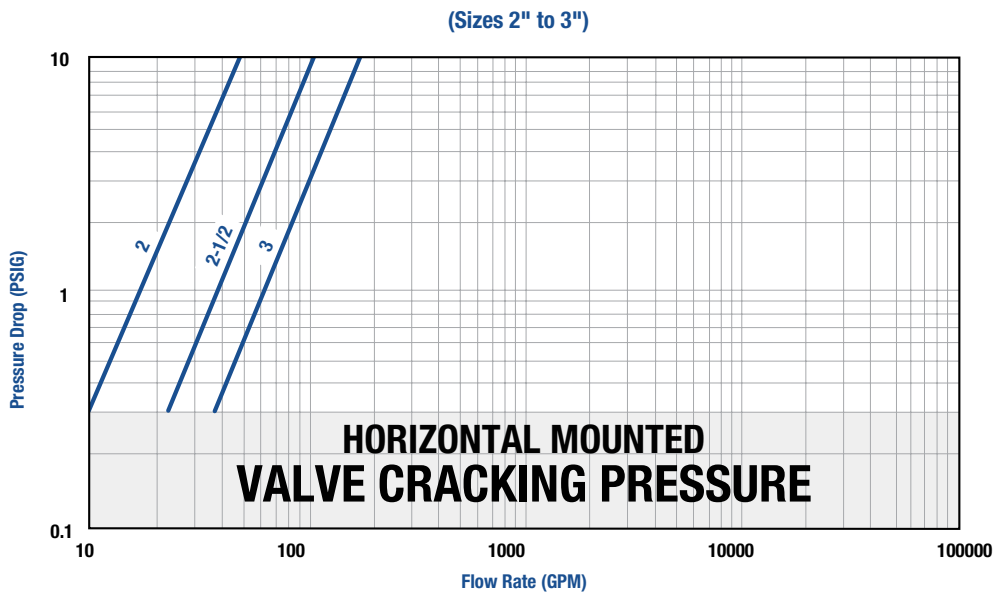
* Add the "B" dimension and the diameter of the stud to achieve the ANSI B16.5 bolt hole circle diameter | Dimensions shown are subject to change. Consult factory for certified drawings when required.

Pressure Drop - Liquids



- Pressure drop curves are based on water flow
- Valve cracking pressure is equal to or less than 0.3 psid when mounted horizontally
- Valve cracking pressure increases to between 0.75 and 1.25 psid when installed vertically with flow upwards

Pressure Drop - Air



- Pressure drop curves are based on air flow at 60°F and 1 ATM pressure
- Valve cracking pressure is equal to or less than 0.3 psid when mounted horizontally
- Valve cracking pressure increases to between 0.75 and 1.25 psid when installed vertically with flow upwards

¹ For correct installation and maintenance please see our I&M manual | ² Horizontal installation – Disc pin must be installed in vertical position | ³ Vertical installation (downward flow) – Consult factory

Valve Location & Orientation in Piping

Check valves should be installed, if possible, a minimum of 6 pipe diameters from other line elements, i.e. elbows, pumps, valves, etc.

Horizontal Lines

- Valves installed in horizontal lines must be bolted in place with the hinge post in the vertical position, i.e. in such a manner that the hinge pin retainers are at the top and bottom of the installed valve, perpendicular to the flow.

Vertical Lines

- In the upward position, no special attention needs to be given to the hinge post position. The only exception being when mounted directly downstream of an elbow. In this case, the hinge post should be mounted perpendicular to the outermost portion of the elbow. Consult factory for vertical down flow applications.

Precautions

- Do not install Series WT check valves directly against another valve whereby the check valve discharges downstream directly into the valve.
- Do not install the valve whereby it directly discharges downstream into a tee or elbow fitting.
- Series WT check valves should not be used in severe pulsating services such as reciprocating compressor discharges.
- It is recommended that the check valves be installed a minimum of three pipe diameters downstream of a pump or compressor.

Maintenance

- SSI Series WT check valves are permanently lubricated and normally require no routine maintenance.

Reconditioning

IMPORTANT! BEFORE DISASSEMBLY, VALVE MUST FIRST BE ISOLATED FROM SYSTEM PRESSURE AND FLOW.

Disc & Shaft Removal

CAUTION! BEFORE ATTEMPTING THE FOLLOWING SHAFT EXTRACTION, BE SURE TO PRESS A HAND OVER THE DISC SPRING. FAILURE TO DO THIS MAY RESULT IN PERSONAL INJURY DUE TO THE SPRING "LAUNCHING" ITSELF UNEXPECTEDLY ONCE THE SHAFT IS PULLED FREE OF IT.

- After observing the above precaution, remove the valve from the pipeline and lay flat with open, body cavity side facing up. Remove pipe plugs from top and bottom of body with a wrench. Insert a punch and lightly tap the top of the shaft until it is accessible on the other side of the body. Pull shaft through body to remove. The internals of the valve are now ready to be cleaned and inspected.

Reassembly

- Use new replacement parts, as required and a liberal amount of general-purpose grease (such as Mystic JT-6) on seals and machined mating surfaces. Reinsert the disc into the body cavity with the shaft holes in-line with top and bottom shaft port. Slide the shaft into the body through the shaft opening on one side of the valve. Continue sliding the shaft through the disc, spring and remaining shaft port the opposite side of the body. Install pipe plugs into the body using a good industrial grade thread sealant compound

WARNING

This product operates in pipelines or with equipment that carries fluids and/or gasses at elevated temperatures and pressures. Caution should be taken to make sure that this equipment is installed correctly and inspected regularly. Caution should also be taken to protect personnel from fluid or gas leakage.



Sizes
2" to 12"



Pressure
up to 740 PSIG



Temperature
up to 400°F



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- Silent non-slam closure
- Wafer body style
- Reduces surge and water hammer

End Connections

- Wafer Flat Faced
- Wafer Raised Face

Body Materials

- Cast Iron
- Carbon Steel
- Stainless Steel

Disc Materials

- Bronze
- Stainless Steel

Materials

- Cast Iron
- Carbon Steel
- Stainless Steel

ASME Ratings

- Class 125
- Class 150
- Class 300



Sizes
2" to 12"



Pressure
up to 200 PSIG
(13.8 BARG)



Temperature
up to 300°F
(149°C)



Applications
Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 125 rated check valves
- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Center guided at both ends to prevent binding and cocking
- Compact face to face length for space saving
- Wafer body style fits between FF or RF flanges

Applicable Codes (designed in accordance with)

- ASME Sec VIII and B16.1 Bodies
- API 598

Models

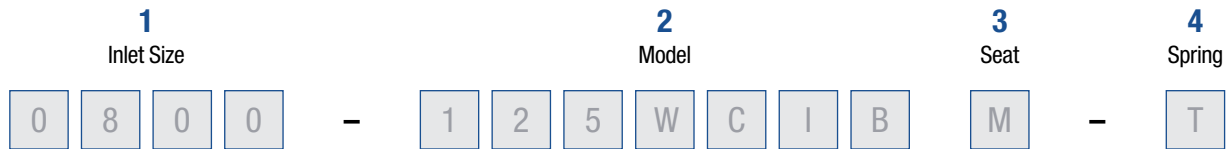
- 125WCIB - Cast Iron Body, Bronze Disc
- 125WCIT - Cast Iron Body, Stainless Steel Disc

Options

- EPDM Seats
- Other Spring Material
- Heavier or Lighter Springs

Canadian Registration - OC18512.5

125WC Series Ordering Code



| 1 | Inlet Size | | | | | |
|------|------------|------|----|------|-----|--|
| 0200 | 2" | 0400 | 4" | 0800 | 8" | |
| 0250 | 2½" | 0500 | 5" | 1000 | 10" | |
| 0300 | 3" | 0600 | 6" | 1200 | 12" | |

| 2 | Model |
|---------|--------------------------------------|
| 125WCIB | Cast Iron Body, Bronze Disc |
| 125WCIT | Cast Iron Body, Stainless Steel Disc |

| 3 | Seat |
|---|-------|
| M | Metal |

| 4 | Spring |
|---|-----------------|
| T | Stainless Steel |

Flow Coefficient Values (Cv)

| Size (in) | Min Cv (@ .3 PSID) | Cv (@ 1 PSID) | Max Cv (@ 10 PSID) |
|-----------|--------------------|---------------|--------------------|
| 2" | 51 | 58 | 73 |
| 2½" | 84 | 90 | 106 |
| 3" | 119 | 134 | 168 |
| 4" | 179 | 210 | 285 |
| 5" | 265 | 300 | 391 |
| 6" | 383 | 430 | 548 |
| 8" | 639 | 740 | 964 |
| 10" | 1114 | 1250 | 1581 |
| 12" | 1604 | 1800 | 2277 |

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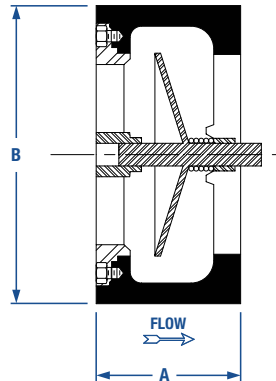
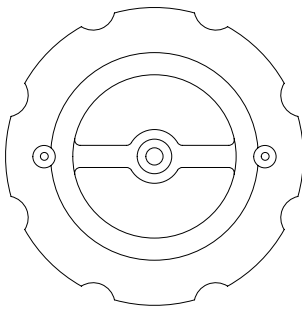
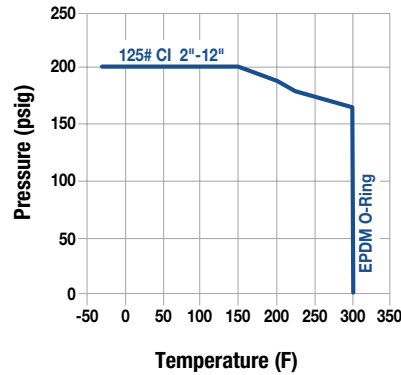
125WC Series

Wafer Silent Check Valves

Cast Iron Body | Wafer Style



Pressure / Temperature Chart
ASME B16.1



Description

SSI manufactures cast iron silent check valves that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI cast iron silent check valves are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 12"

Pressure

200 PSIG (13.8 BARG)

Temperature

300° F (149° C)

End Connections

Wafer Flanged

Cracking Pressure

Horizontal - 0.3 PSID

Vertical - 0.75 to 1.25 PSID

Features

- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Center guided at both ends to prevent binding and cocking
- Compact face to face length for space saving
- Wafer body style fits between FF or RF flanges

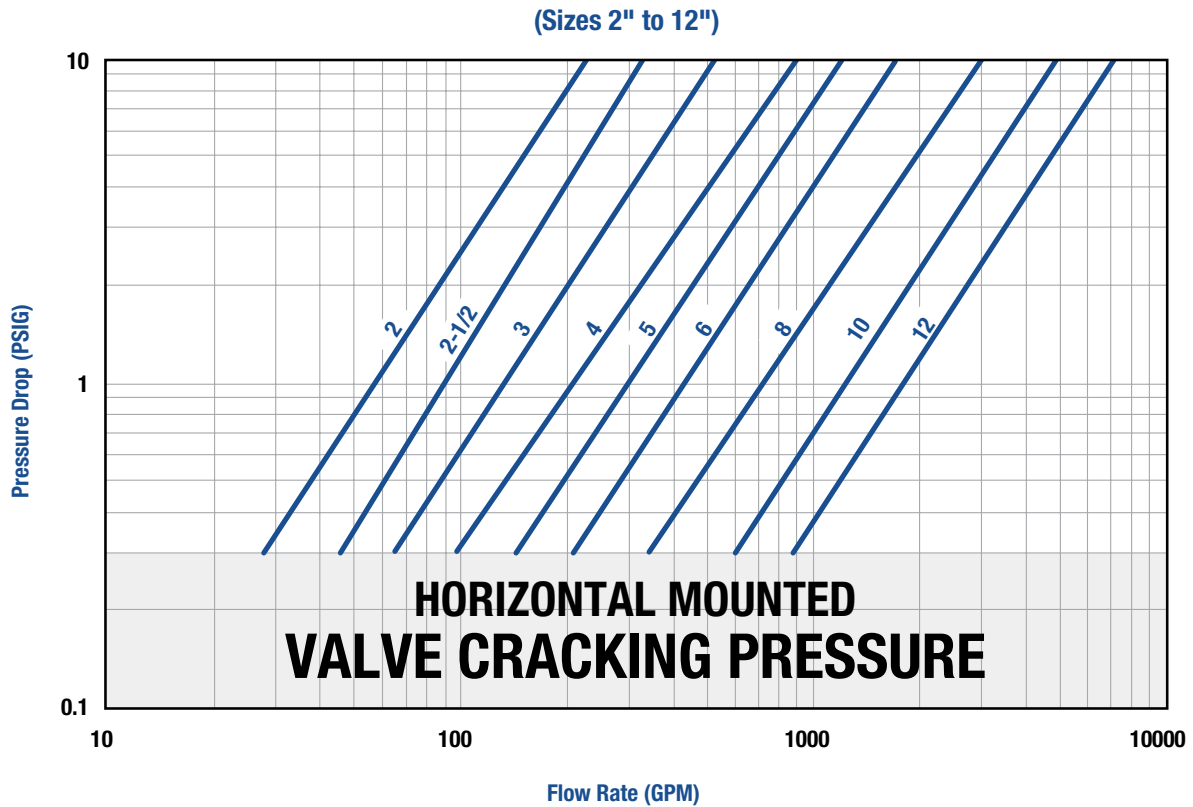
CRN

| Dimensions | | | | | | | | | | | | |
|------------|-----|-------|-----|-------|-----|-----|----------------|----|--------|-----|--------|-------|
| Size | | A | | B* | | Qty | Stud Selection | | | | Weight | |
| inch | mm | inch | mm | inch | mm | | Diameter | | Length | | lbs | kg |
| | | | | | | | inch | mm | inch | mm | | |
| 2" | 50 | 2.69 | 68 | 4.13 | 105 | 4 | 0.63 | 16 | 6.50 | 165 | 5 | 2.3 |
| 2½" | 65 | 2.88 | 73 | 4.88 | 124 | 4 | 0.63 | 16 | 6.75 | 171 | 8 | 3.6 |
| 3" | 80 | 3.19 | 81 | 5.38 | 137 | 4 | 0.63 | 16 | 7.00 | 178 | 10 | 4.5 |
| 4" | 100 | 4.00 | 103 | 6.88 | 175 | 8 | 0.63 | 16 | 8.00 | 203 | 19 | 8.6 |
| 5" | 125 | 4.63 | 118 | 7.75 | 197 | 8 | 0.75 | 19 | 8.75 | 222 | 30 | 13.6 |
| 6" | 150 | 5.56 | 142 | 8.75 | 222 | 8 | 0.75 | 19 | 10.50 | 267 | 42 | 19.1 |
| 8" | 200 | 6.50 | 165 | 11.00 | 279 | 8 | 0.75 | 19 | 11.25 | 286 | 87 | 39.5 |
| 10" | 250 | 8.22 | 209 | 13.38 | 340 | 12 | 0.88 | 22 | 12.25 | 311 | 146 | 66.2 |
| 12" | 300 | 11.25 | 286 | 16.13 | 410 | 12 | 0.88 | 22 | 16.50 | 419 | 304 | 137.9 |

| Materials | |
|-----------|------------------------------------|
| Part | Material |
| Body | A126-B |
| Discs | Al/Bz B148 C954 or 316SS A351-CF8M |
| Seat | Bronze or Stainless Steel |
| Spring | 316 SS |
| O-Ring | EPDM |

* Add the "B" dimension and the diameter of the stud to achieve the ANSI B16.5 Bolt Hole Circle Diameter | Dimensions shown are subject to change. Consult factory for certified drawings when required.

Pressure Drop VS. Flow Rate



- Pressure drop curves are based on water flow.
- Valve cracking pressure is equal to or less than 0.3 psid when mounted horizontally.
- Valve cracking pressure increases to between 0.75 and 1.25 psid when installed vertically with flow upwards.

¹ For correct installation and maintenance please see our I&M manual | ² Vertical installation (downward flow) – Consult factory | ³ Always use Strainers in upstream piping | ⁴ Not recommended for Steam Service

150WC Series

Wafer Silent Check Valves

Carbon & Stainless Steel Body | Wafer Style



Sizes
8" to 12"



Pressure
up to 285 PSIG
(19.7 BARG)



Temperature
up to 400°F
(204°C)



Applications

Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 150 rated check valves
- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Center guided at both ends to prevent binding and cocking
- Compact face to face length for space saving
- Wafer body style fits between FF or RF flanges
- Dual rating 150# and 300# in sizes 2" through 6"

Applicable Codes (designed in accordance with)

- ASME Sec. VIII and B16.34 Bodies
- API 598

Models

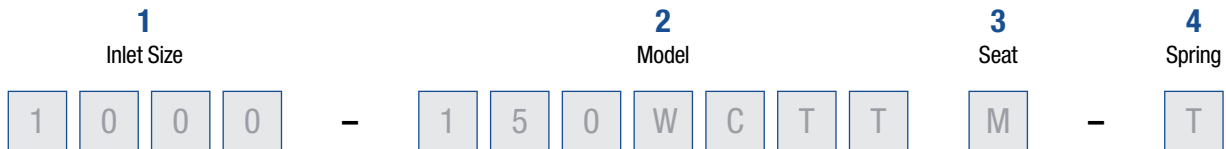
- 150WCCT – Cast Steel Body, Stainless Steel Disc
- 150WCST – Stainless Steel Body, Stainless Steel Disc

Options

- Viton Seats
- Other Spring Material
- Heavier or Lighter Springs

Canadian Registration - 0C18512.5

150WC Series Ordering Code



| 1 | Inlet Size | | | | |
|------|------------|------|-----|------|-----|
| 0800 | 8" | 1000 | 10" | 1200 | 12" |

| 2 | Model |
|---------|--|
| 150WCCT | Carbon Steel Body, Stainless Steel Disc |
| 150WCST | Stainless Steel Body, Stainless Steel Disc |

| 3 | Seat |
|---|-------|
| M | Metal |

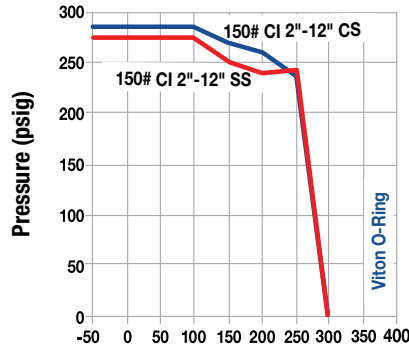
| 4 | Spring |
|---|-----------------|
| T | Stainless Steel |

Flow Coefficient Values (Cv)

| Size (in) | Min Cv (@ .3 PSID) | Cv (@ 1 PSID) | Max Cv (@ 10 PSID) |
|-----------|--------------------|---------------|--------------------|
| 8" | 639 | 740 | 1297 |
| 10" | 1114 | 1250 | 1800 |
| 12" | 1297 | 1992 | 2593 |



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel silent check valves that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel silent check valves are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

8" to 12"

Pressure

285 PSIG (19.7 BARG)

Temperature

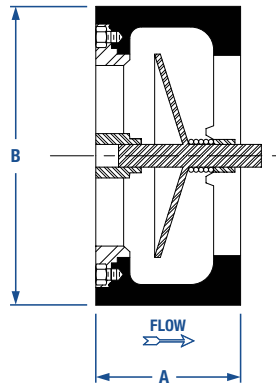
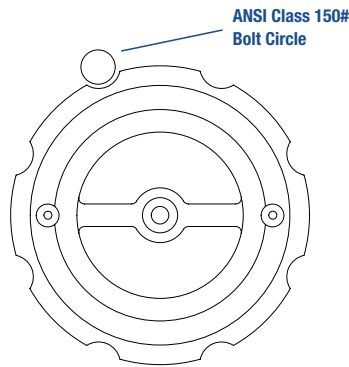
400° F (149° C)

End Connections

Wafer Flanged

Cracking Pressure

Horizontal - 0.3 PSID
Vertical - 0.75 to 1.25 PSID



Features

- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Center guided at both ends to prevent binding and cocking
- Compact face to face length for space saving
- Wafer body style fits between FF or RF flanges
- Dual rating 150# and 300# in sizes 2" through 6"

CRN

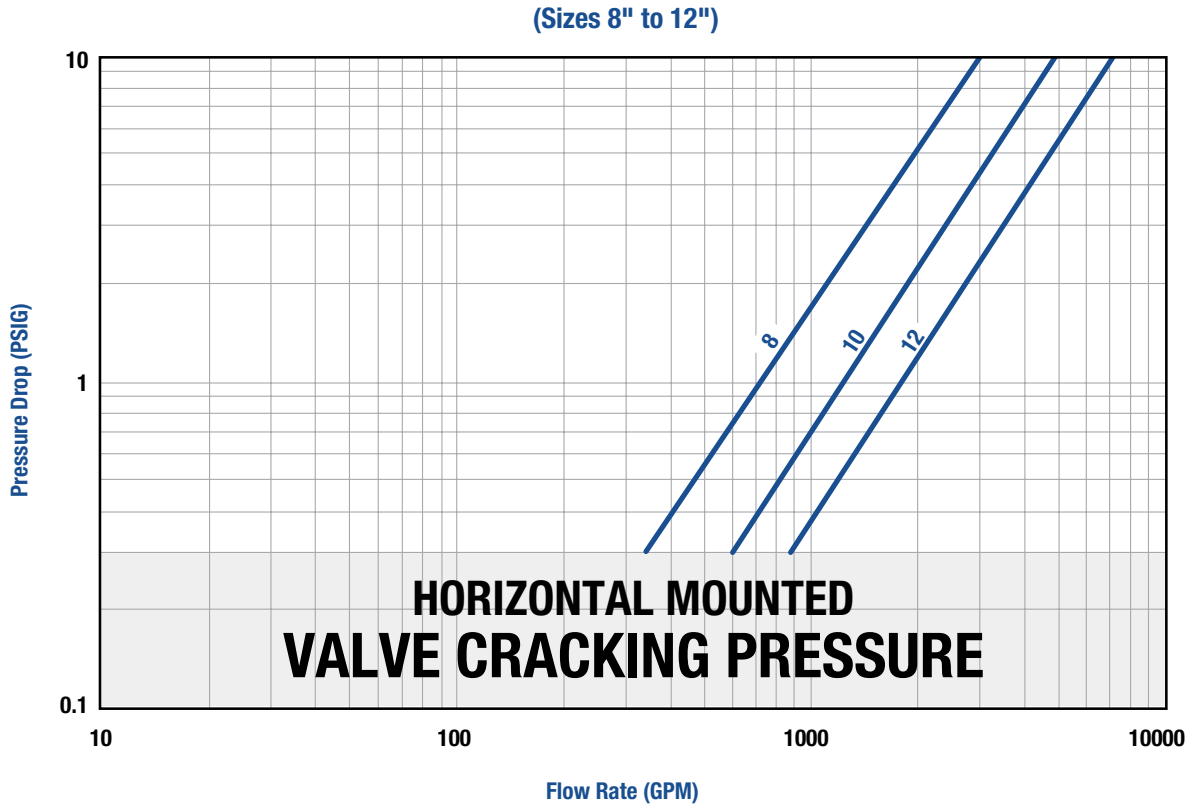
| Dimensions | | | | | | | | | | | | |
|------------|-----|-------|-----|-------|-----|-----|----------------|----|--------|-----|--------|------|
| Size | | A | | B* | | Qty | Stud Selection | | | | Weight | |
| inch | mm | inch | mm | inch | mm | | Diameter | | Length | | lbs | kg |
| | | | | | | | inch | mm | inch | mm | | |
| 2" | | | | | | 8 | 0.75 | 19 | 11.25 | 286 | 79 | 35.8 |
| 2½" | | | | | | 12 | 0.88 | 22 | 12.25 | 311 | 147 | 66.7 |
| 3" | | | | | | 12 | 0.88 | 22 | 16.50 | 419 | 280 | 127 |
| 4" | | | | | | 12 | 0.88 | 22 | 16.50 | 419 | 280 | 127 |
| 5" | | | | | | 12 | 0.88 | 22 | 16.50 | 419 | 280 | 127 |
| 6" | | | | | | 12 | 0.88 | 22 | 16.50 | 419 | 280 | 127 |
| 8" | 200 | 6.50 | 165 | 11.00 | 279 | 8 | 0.75 | 19 | 11.25 | 286 | 79 | 35.8 |
| 10" | 250 | 8.25 | 209 | 13.38 | 340 | 12 | 0.88 | 22 | 12.25 | 311 | 147 | 66.7 |
| 12" | 300 | 11.25 | 286 | 16.13 | 410 | 12 | 0.88 | 22 | 16.50 | 419 | 280 | 127 |

| Materials | | |
|-----------|--------------|-----------------|
| Part | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Discs | A351-CF8M | A351-CF8M |
| Seat | A351-CF8M | A351-CF8M |
| Spring | 316 SS | 316 SS |
| O-Ring | Viton | Viton |

* Sizes 2" through 6" 150WC and 300WC are interchangeable, use 300WC for all applications in these sizes | Dimensions shown are subject to change. Consult factory for certified drawings when required.

* Add the "B" dimension and the diameter of the stud to achieve the ANSI B16.5 bolt hole circle diameter

Pressure Drop VS. Flow Rate



- Pressure drop curves are based on water flow.
- Valve cracking pressure is equal to or less than 0.3 psid when mounted horizontally.
- Valve cracking pressure increases to between 0.75 and 1.25 psid when installed vertically with flow upwards.

¹ For correct installation and maintenance please see our I&M manual | ² Vertical installation (downward flow) – Consult factory | ³ Always use Strainers in upstream piping | ⁴ Not recommended for Steam Service



Sizes
2" to 6"



Pressure
up to 740 PSIG
(51 BARG)



Temperature
up to 400°F
(204°C)



Applications
Process Industry | Power Industry | Chemical Industry
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper

Features

- ASME Class 300 rated check valves
- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Center guided at both ends to prevent binding and cocking
- Compact face to face length for space saving
- Wafer body style fits between FF or RF flanges
- Dual rating 150# and 300# in sizes 2" through 6"

Applicable Codes (designed in accordance with)

- ASME Sec. VIII and B16.34 Bodies
- API 598

Models

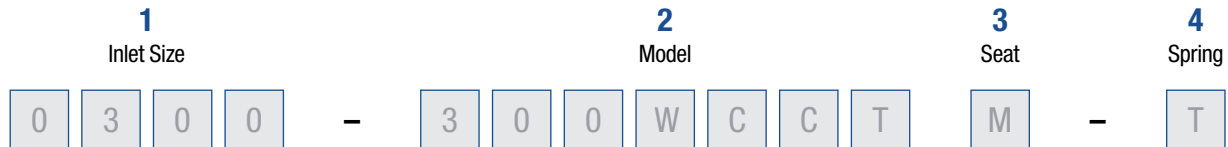
- 300WCCT – Cast Steel Body, Stainless Steel Disc
- 300WCTT – Stainless Steel Body, Stainless Steel Disc

Options

- Viton Seats
- Other Spring Material
- Heavier or Lighter Springs

Canadian Registration - 0C18512.5

300WC Series Ordering Code



| 1 Inlet Size | |
|--------------|-----|
| 0200 | 2" |
| 0250 | 2½" |
| 0300 | 3" |
| 0400 | 4" |
| 0500 | 5" |
| 0600 | 6" |

| 2 Model | |
|----------------|--|
| 300WCCT | Carbon Steel Body, Stainless Steel Disc |
| 300WCTT | Stainless Steel Body, Stainless Steel Disc |

| 3 Seat | |
|----------|-------|
| M | Metal |

| 4 Spring | |
|----------|-----------------|
| T | Stainless Steel |

Flow Coefficient Values (Cv)

| Size (in) | Min Cv (@ .3 PSID) | Cv (@ 1 PSID) | Max Cv (@ 10 PSID) |
|-----------|--------------------|---------------|--------------------|
| 2" | 51 | 58 | 73 |
| 2½" | 84 | 90 | 106 |
| 3" | 119 | 134 | 168 |
| 4" | 179 | 210 | 285 |
| 5" | 265 | 300 | 391 |
| 6" | 383 | 430 | 548 |

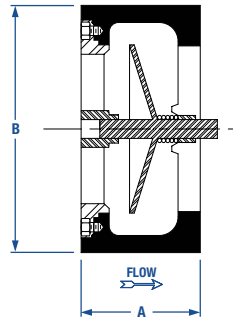
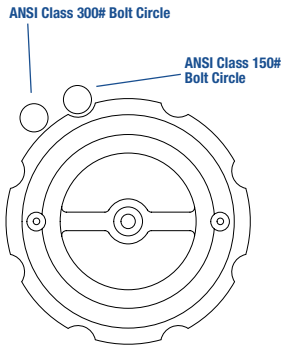
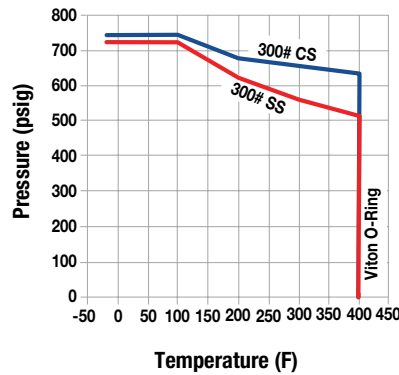
300WC Series

Wafer Silent Check Valves

Carbon & Stainless Steel Body | Wafer Style



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel silent check valves that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel silent check valves are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 6"

Pressure

740 PSIG (51 BARG)

Temperature

400° F (204° C)

End Connections

Wafer Flanged

Cracking Pressure

Horizontal - 0.3 PSID
Vertical - 0.75 to 1.25 PSID

Features

- Designed to reduce surge and Water Hammer
- Silent, non-slam closure
- Center guided at both ends to prevent binding and cocking
- Compact face to face length for space saving
- Wafer body style fits between FF or RF flanges
- Dual rating 150# and 300# in sizes 2" through 6"

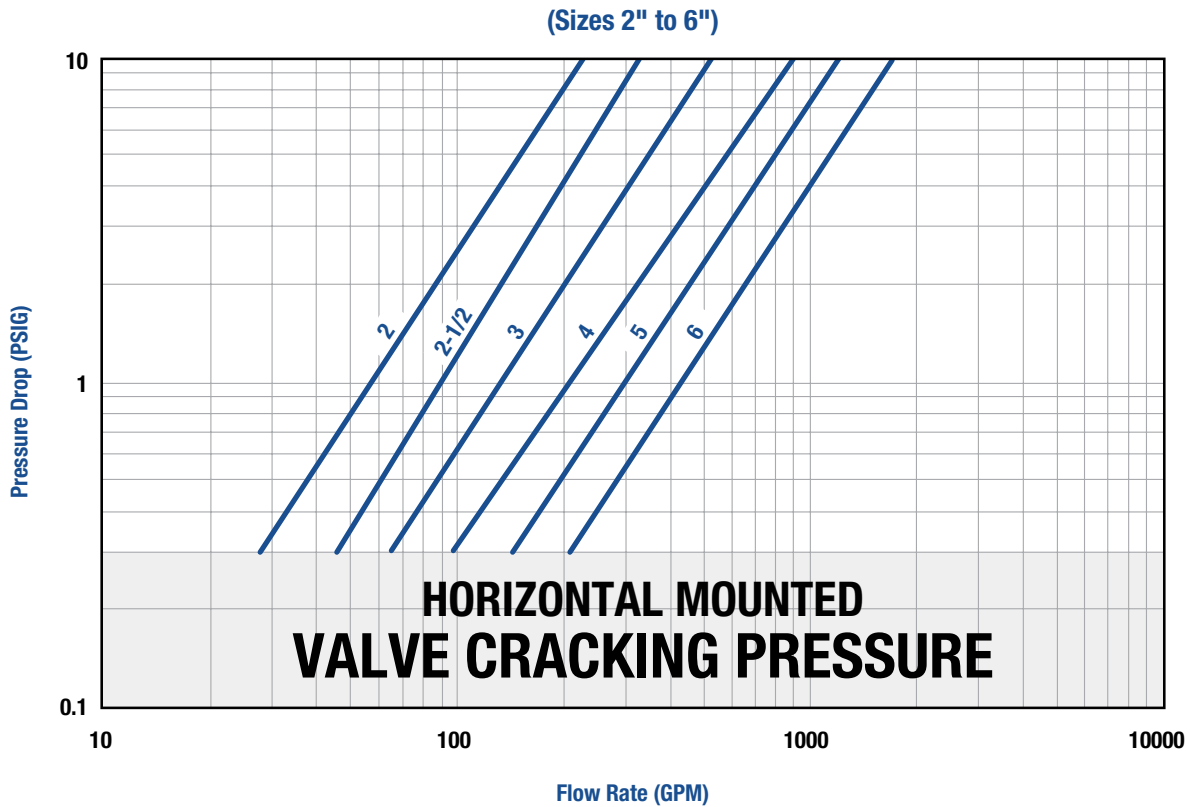
CRN

| Dimensions | | | | | | | | | | | | | |
|------------|-----|------|------|------|------|-----|----------------|------|--------|-------|--------|----|------|
| Size | | A | | B* | | Qty | Stud Selection | | | | Weight | | |
| inch | mm | inch | mm | inch | mm | | Diameter | | Length | | lbs | kg | |
| 2" | 50 | 150 | 2.63 | 67 | 4.13 | 105 | 4 | 0.63 | 16 | 6.25 | 159 | 5 | 2.3 |
| | | 300 | 2.63 | 67 | 4.38 | 111 | 8 | 0.63 | 16 | 6.50 | 165 | | |
| 2½" | 65 | 150 | 2.88 | 73 | 4.88 | 124 | 4 | 0.63 | 16 | 6.75 | 171 | 7 | 3.2 |
| | | 300 | 2.88 | 73 | 5.13 | 130 | 8 | 0.75 | 19 | 7.25 | 184 | | |
| 3" | 80 | 150 | 3.13 | 79 | 5.88 | 137 | 4 | 0.63 | 16 | 7.00 | 178 | 11 | 5.0 |
| | | 300 | 3.13 | 79 | 5.88 | 149 | 8 | 0.75 | 19 | 7.75 | 197 | | |
| 4" | 100 | 150 | 4.00 | 102 | 6.88 | 175 | 8 | 0.63 | 16 | 8.00 | 203 | 20 | 9.1 |
| | | 300 | 4.00 | 102 | 7.13 | 181 | 8 | 0.75 | 19 | 9.00 | 229 | | |
| 5" | 125 | 150 | 4.63 | 117 | 7.75 | 197 | 8 | 0.75 | 19 | 8.50 | 216 | 34 | 15.4 |
| | | 300 | 4.63 | 117 | 8.50 | 216 | 8 | 0.75 | 19 | 9.75 | 247 | | |
| 6" | 150 | 150 | 5.56 | 141 | 8.75 | 222 | 8 | 0.75 | 19 | 10.00 | 254 | 42 | 19.1 |
| | | 300 | 5.56 | 141 | 9.88 | 251 | 12 | 0.75 | 19 | 10.75 | 273 | | |

| Materials | | |
|-----------|--------------|-----------------|
| Part | Carbon Steel | Stainless Steel |
| Body | A216-WCB | A351-CF8M |
| Discs | A351-CF8M | A351-CF8M |
| Seat | A351-CF8M | A351-CF8M |
| Spring | 316 SS | 316 SS |
| O-Ring | Viton | Viton |

* Add the "B" dimension and the diameter of the stud to achieve the ANSI B16.5 bolt hole circle diameter | Dimensions shown are subject to change. Consult factory for certified drawings when required.

Pressure Drop VS. Flow Rate



- Pressure drop curves are based on water flow.
- Valve cracking pressure is equal to or less than 0.3 psid when mounted horizontally.
- Valve cracking pressure increases to between 0.75 and 1.25 psid when installed vertically with flow upwards.

¹ For correct installation and maintenance please see our I&M manual | ² Vertical installation (downward flow) – Consult factory | ³ Always use Strainers in upstream piping | ⁴ Not recommended for Steam Service

Check Valve Installation

- Valves may be installed upward vertically, horizontally, or at other angles. For vertical downward flow please consult with the factory.
- Install the valve with proper positioning of the flow arrow.
- Support and align adjacent piping and the valve.
- Install lubricated flange bolts.
- Hand tighten, then torque the bolts using the cross-over flange bolt-tightening method to load the bolts evenly, and eliminate concentrated stresses.
- Valves must be mounted to ANSI flanges with conventional flat face or ring gaskets.
- Proper centering of the ring gaskets is important to prevent internal leakage.
- Never lift the valve by the bronze or stainless steel trim.
- Install a strainer in the piping.

Precautions

- Do not install check valves directly against another valve whereby the check valve discharges downstream directly into the valve.
- Do not install the valve whereby it directly discharges downstream into a tee or elbow fitting.
- These valves are not suggested for installation in sewage ejector piping.
- Careful consideration should be given to the selection of valves for use in an air, steam, hot water and boiler feed systems. Consult our factory on these applications.
- Individuals performing removal and disassembly should be provided with suitable protection from possibly hazardous liquids.
- Before disassembly, the valve must first be isolated from system pressure and flow.
- Upon disassembly ensure spring pressure is released slowly to prevent personal injury due.

WARNING

This product operates in pipelines or with equipment that carries fluids and/or gasses at elevated temperatures and pressures. Caution should be taken to make sure that this equipment is installed correctly and inspected regularly. Caution should also be taken to protect personnel from fluid or gas leakage.



Sizes
2" to 18"



Pressure
up to 400 PSIG



Temperature
up to 400°F



Applications

Process Industry | Power Industry | Chemical Industry | Liquid Service
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper | Marine

Features

- Silent non-slam closure
- Flanged body style
- Metal to metal seats

End Connections

- Flat Face
- Raised Face

Body Materials

- Cast Iron
- Carbon Steel
- Stainless Steel

Disk Materials

- Bronze
- Stainless Steel

ASME Ratings

- Class 125
- Class 150
- Class 250

125FC Series | Flanged Silent Check Valves

Cast Iron Body | Flanged Style



Sizes
2" to 18"



Pressure
up to 200 PSIG
(13.8 BARG)



Temperature
up to 300°F
(149°C)



Applications
Process Industry | Power Industry | Chemical Industry | Liquid Service
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper | Marine

Features

- ASME Class 125 rated check valve
- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Center guided at both ends to prevent binding and cocking
- Flanged body style
- Bronze Metal to Metal Seats

Models

- 125FCIB - Cast Iron Body, Bronze Seat and Disc

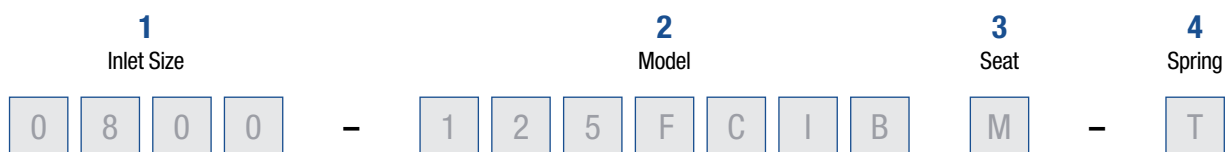
Options

- Other Spring Material
- Heavier or Lighter Springs

Applicable Codes (designed in accordance with)

- Bodies in accordance with ASME B16.1
- API 598

125FC Series Ordering Code



| 1 | Inlet Size | | | | |
|------|------------|------|-----|------|-----|
| 0200 | 2" | 0500 | 5" | 1200 | 12" |
| 0250 | 2½" | 0600 | 6" | 1400 | 14" |
| 0300 | 3" | 0800 | 8" | 1600 | 16" |
| 0400 | 4" | 1000 | 10" | 1800 | 18" |

| 3 | Seat |
|---|-------|
| M | Metal |

| 4 | Spring |
|---|-----------------|
| T | Stainless Steel |

| 2 | Model |
|---------|-----------------------------|
| 125FCIB | Cast Iron Body, Bronze Disc |

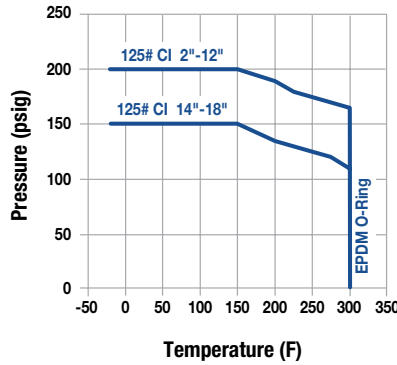
Flow Coefficient Values (Cv)

| Size (in) | Min Cv (@ .3 PSID) | Cv (@ 1 PSID) | Max Cv (@ 10 PSID) |
|-----------|--------------------|---------------|--------------------|
| 2" | 53 | 63 | 89 |
| 2½" | 99 | 105 | 120 |
| 3" | 135 | 148 | 174 |
| 4" | 246 | 265 | 300 |
| 5" | 402 | 430 | 474 |
| 6" | 566 | 605 | 696 |

| Size (in) | Min Cv (@ .3 PSID) | Cv (@ 1 PSID) | Max Cv (@ 10 PSID) |
|-----------|--------------------|---------------|--------------------|
| 8" | 1004 | 1105 | 1297 |
| 10" | 1579 | 1700 | 1992 |
| 12" | 2556 | 2575 | 2593 |
| 14" | 3286 | 3350 | 3479 |
| 16" | 4199 | 4300 | 4427 |
| 18" | 5112 | 5225 | 5376 |



Pressure / Temperature Chart
ASME B16.1



Description

SSI manufactures cast iron silent check valves that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI cast iron silent check valves are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 18"

Pressure

200 PSIG (13.8 BARG)

Temperature

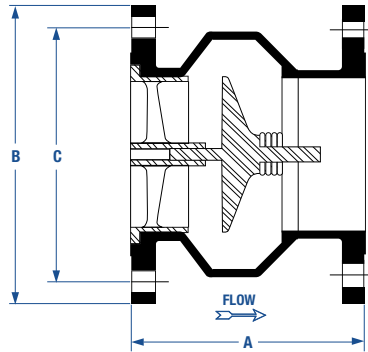
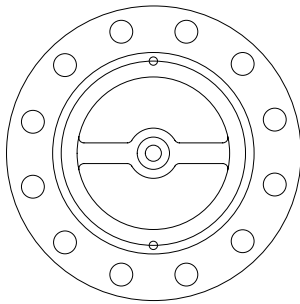
300° F (149° C)

End Connections

FF Flanged

Cracking Pressure

Horizontal - 0.3 PSID
Vertical - 0.75 to 1.25 PSID



Features

- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Center guided at both ends to prevent binding and cocking
- Bronze Metal to Metal Seats
- Designed to reduce Water Hammer

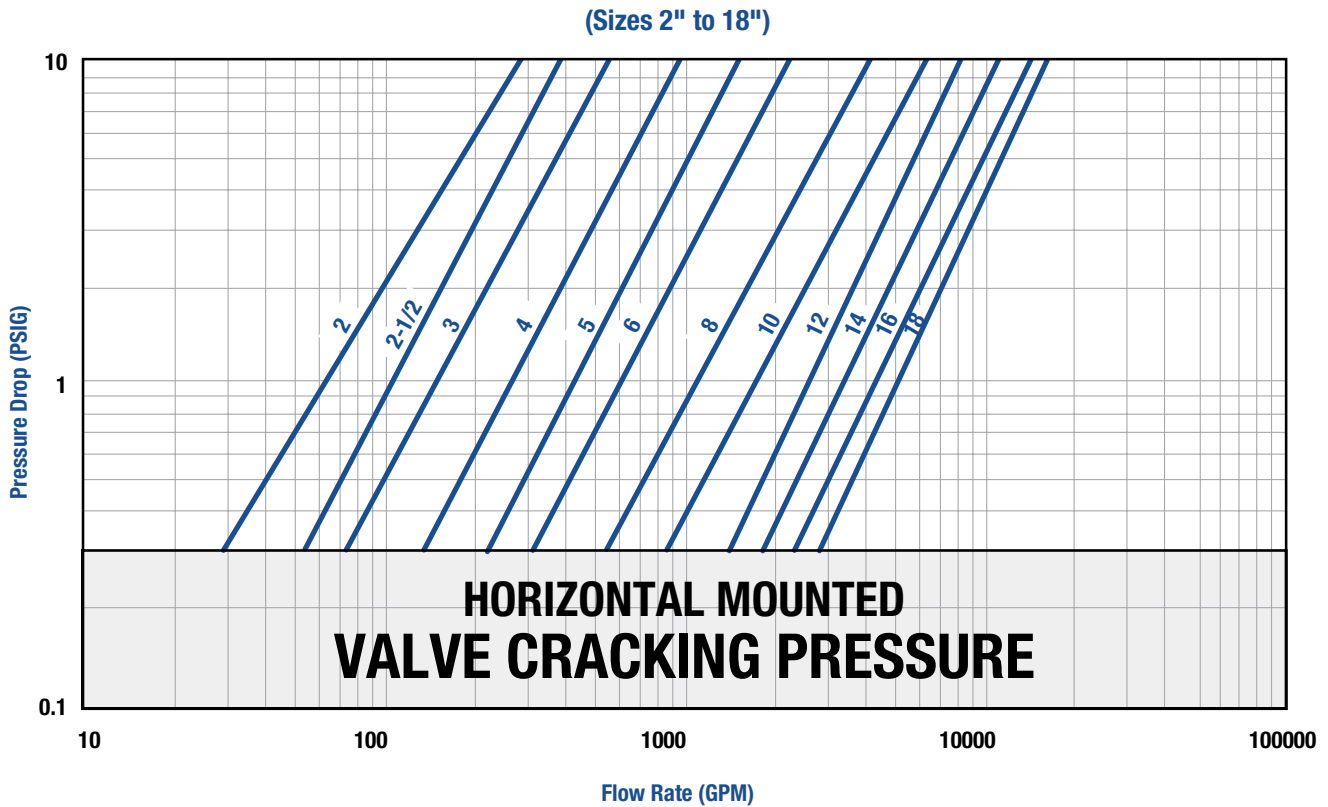
CRN

| Dimensions | | | | | | | | | |
|------------|-----|-------|-----|------|-----|-------|-----|--------|------|
| Size | | A | | B | | C | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| 2" | 50 | 6.13 | 156 | 6.0 | 152 | 4.75 | 121 | 21 | 9.4 |
| 2½" | 65 | 7.00 | 178 | 7.0 | 178 | 5.50 | 140 | 31 | 13.8 |
| 3" | 80 | 7.50 | 191 | 7.5 | 191 | 6.00 | 153 | 37 | 16.5 |
| 4" | 100 | 8.50 | 216 | 9.0 | 229 | 7.50 | 191 | 62 | 28 |
| 5" | 125 | 9.50 | 241 | 10.0 | 254 | 8.50 | 216 | 80 | 36 |
| 6" | 150 | 10.50 | 267 | 11.0 | 280 | 9.50 | 241 | 106 | 48 |
| 8" | 200 | 13.50 | 343 | 13.5 | 343 | 11.75 | 299 | 175 | 79 |
| 10" | 250 | 16.25 | 413 | 16.0 | 406 | 14.25 | 362 | 267 | 121 |
| 12" | 300 | 20.25 | 515 | 19.0 | 483 | 17.00 | 431 | 477 | 216 |
| 14" | 350 | 22.75 | 580 | 21.0 | 533 | 18.75 | 477 | 785 | 356 |
| 16" | 400 | 24.75 | 629 | 23.5 | 597 | 21.25 | 540 | 900 | 408 |
| 18" | 450 | 22.50 | 572 | 25.0 | 635 | 22.75 | 578 | 1032 | 468 |

| Materials | |
|-----------|------------|
| Part | Material |
| Body | A126-B |
| Discs | B62 Bronze |
| Seat | B62 Bronze |
| Spring | 316 SS |
| O-Ring | EPDM |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

Pressure Drop VS. Flow Rate



- Pressure drop curves are based on water flow.
- Valve cracking pressure is equal to or less than 0.3 psid when mounted horizontally.
- Valve cracking pressure increases to between 0.75 and 1.25 psid when installed vertically with flow upwards.

¹ For correct installation and maintenance please see our I&M manual | ² Vertical installation (downward flow) – Consult factory | ³ Always use Strainers in upstream piping | ⁴ Not recommended for Steam Service



Sizes
2" to 16"



Pressure
up to 285 PSIG
(19.7 BARG)



Temperature
up to 400°F
(204°C)



Applications
Process Industry | Power Industry | Chemical Industry | Liquid Service
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper | Marine

Features

- ASME Class 150 rated check valve
- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Center guided at both ends to prevent binding and cocking
- Flanged body style
- Stainless Steel Metal to Metal Seats

Models

- 150FCCT - Cast Steel Body, Stainless Steel Seat and Disc
- 150FCTT - Stainless Steel Body, Stainless Steel Seat and Disc

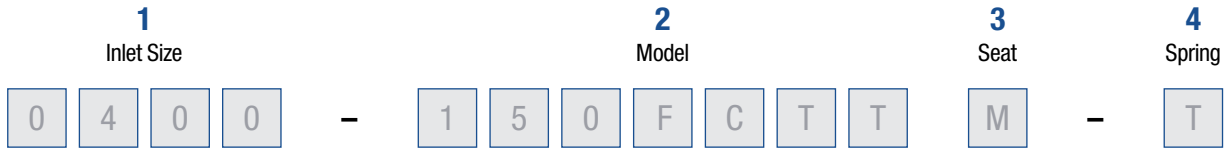
Options

- Other Spring Material
- Heavier or Lighter Springs

Applicable Codes (designed in accordance with)

- ASME Sec. VIII and B16.34 Bodies
- API 598

150FC Series Ordering Code



| 1 Inlet Size | |
|--------------|-----|
| 0200 | 2" |
| 0250 | 2½" |
| 0300 | 3" |
| 0400 | 4" |

| 2 Model | |
|---------|---|
| 150FCCT | Cast Steel Body, Stainless Steel Seat and Disc |
| 150FCTT | Stainless Steel Body, Stainless Steel Seat and Disc |

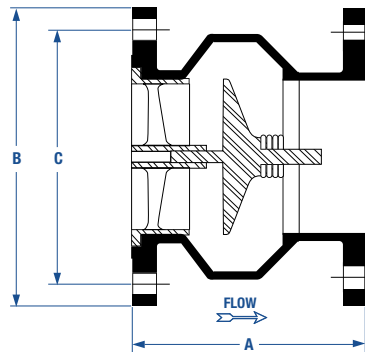
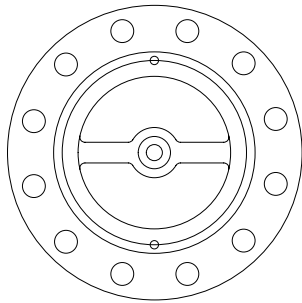
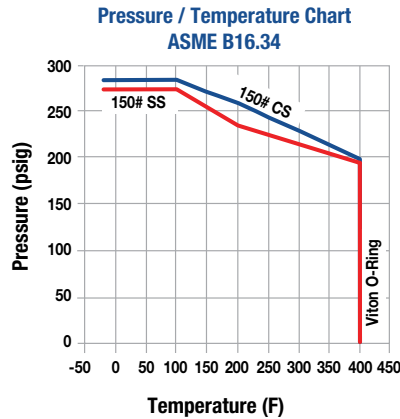
| 3 Seat | |
|--------|-------|
| M | Metal |

| 4 Spring | |
|----------|-----------------|
| T | Stainless Steel |

Flow Coefficient Values (Cv)

| Size (in) | Min Cv (@ .3 PSID) | Cv (@ 1 PSID) | Max Cv (@ 10 PSID) |
|-----------|--------------------|---------------|--------------------|
| 2" | 52 | 63 | 89 |
| 2½" | 99 | 105 | 120 |
| 3" | 135 | 148 | 174 |
| 4" | 246 | 265 | 300 |
| 5" | 402 | 430 | 474 |
| 6" | 566 | 605 | 696 |

| Size (in) | Min Cv (@ .3 PSID) | Cv (@ 1 PSID) | Max Cv (@ 10 PSID) |
|-----------|--------------------|---------------|--------------------|
| 8" | 1004 | 1105 | 1297 |
| 10" | 1579 | 1700 | 1992 |
| 12" | 2556 | 2575 | 2593 |
| 14" | 3286 | 3350 | 3479 |
| 16" | 4199 | 4300 | 4427 |



Description

SSI manufactures carbon steel silent check valves that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel silent check valves are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 16"

Pressure

285 PSIG (19.7 BARG)

Temperature

400° F (149° C)

End Connections

FF Flanged

Cracking Pressure

Horizontal - 0.3 PSID

Vertical - 0.75 to 1.25 PSID

Features

- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Center guided at both ends to prevent binding and cocking
- Flanged body style
- Stainless steel metal to metal seats

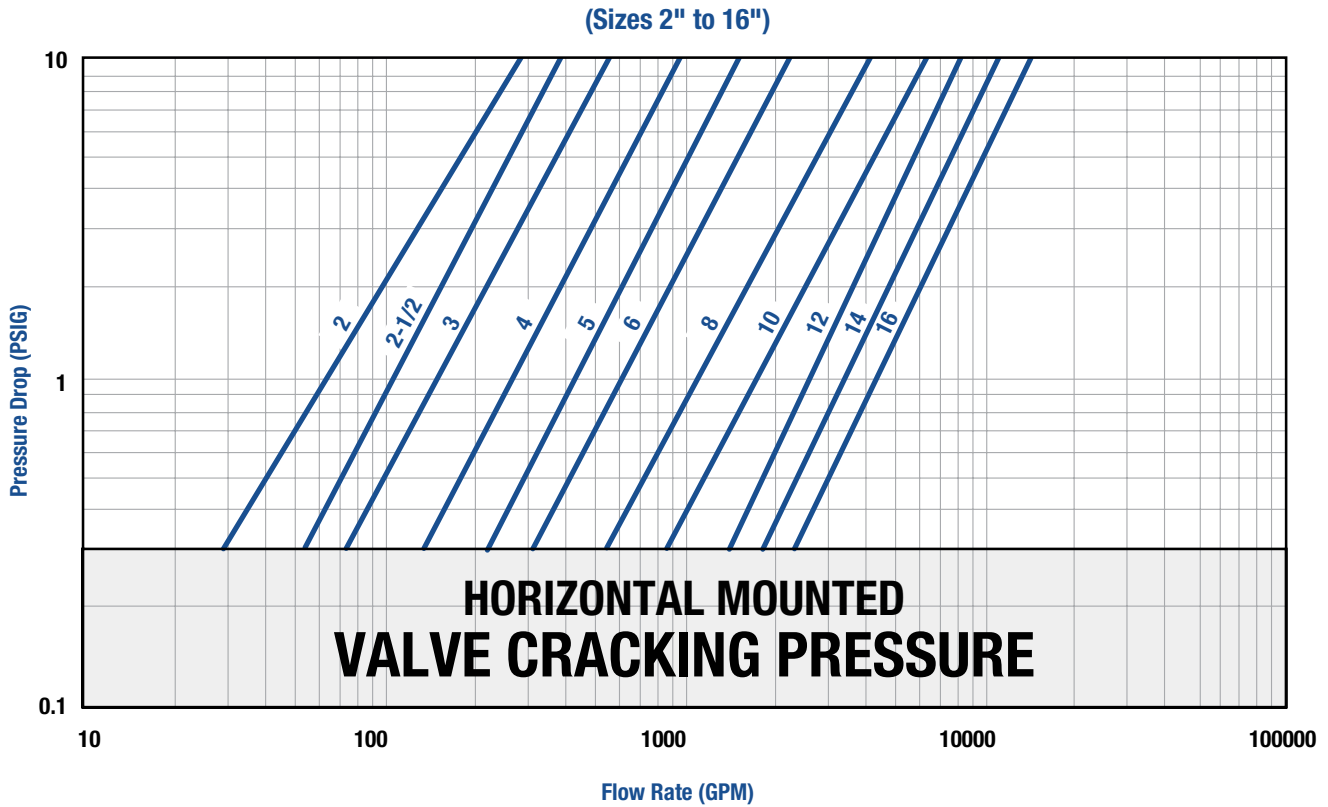
CRN

| Size | | Dimensions | | | | | | Weight | |
|------|-----|------------|-----|------|-----|-------|-----|--------|------|
| inch | mm | A | | B | | C | | lbs | kg |
| 2" | 50 | 6.25 | 159 | 6.0 | 152 | 4.75 | 121 | 15 | 6.6 |
| 2½" | 65 | 7.00 | 178 | 7.0 | 178 | 5.50 | 140 | 21 | 9.3 |
| 3" | 80 | 7.50 | 191 | 7.5 | 191 | 6.00 | 153 | 26 | 11.5 |
| 4" | 100 | 8.50 | 216 | 9.0 | 229 | 7.50 | 191 | 48 | 21.3 |
| 5" | 125 | 9.50 | 242 | 10.0 | 254 | 8.50 | 216 | 61 | 27.3 |
| 6" | 150 | 10.50 | 267 | 11.0 | 280 | 9.50 | 241 | 76 | 34.1 |
| 8" | 200 | 12.00 | 305 | 13.5 | 343 | 11.75 | 299 | 129 | 58.4 |
| 10" | 250 | 14.00 | 356 | 16.0 | 406 | 14.25 | 362 | 183 | 82.8 |
| 12" | 300 | 18.00 | 457 | 19.0 | 483 | 17.00 | 431 | 344 | 156 |
| 14" | 350 | 19.50 | 495 | 21.0 | 533 | 18.75 | 477 | 433 | 196 |
| 16" | 400 | 21.00 | 533 | 23.5 | 597 | 21.25 | 540 | 607 | 275 |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

| Part | Materials | |
|--------|--------------|-----------------|
| | Carbon Steel | Stainless Steel |
| Body | A216 WCB | A351 CF8M |
| Discs | A351 CF8M | A351 CF8M |
| Seat | A351 CF8M | A351 CF8M |
| Spring | 316 SS | 316 SS |
| O-Ring | Viton | Viton |

Pressure Drop VS. Flow Rate



- Pressure drop curves are based on water flow.
- Valve cracking pressure is equal to or less than 0.3 psid when mounted horizontally.
- Valve cracking pressure increases to between 0.75 and 1.25 psid when installed vertically with flow upwards.

¹ For correct installation and maintenance please see our I&M manual | ² Vertical installation (downward flow) – Consult factory | ³ Always use Strainers in upstream piping | ⁴ Not recommended for Steam Service

250FC Series

Flanged Silent Check Valves

Cast Iron Body | Flanged Style



Sizes
2½" to 12"



Pressure
up to 400 PSIG
(27.6 BARG)



Temperature
up to 200°F
(93°C)



Applications

Process Industry | Power Industry | Chemical Industry | Liquid Service
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper | Marine

Features

- ASME Class 250 rated check valve
- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Center guided at both ends to prevent binding and cocking
- Flanged body style
- Bronze Metal to Metal Seats

Models

- 250FCIB - Cast Iron Body, Bronze Seat and Disc
- 150FCTT – Stainless Steel Body, Stainless Steel Seat and Disc

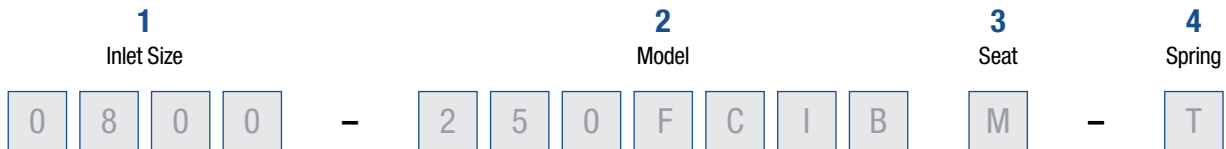
Options

- Other Spring Material
- Heavier or Lighter Springs

Applicable Codes (designed in accordance with)

- ASME B16.1

250FC Series Ordering Code



| 1 | Inlet Size | | | |
|------|------------|------|----|----------|
| 0250 | 2½" | 0500 | 5" | 1000 10" |
| 0300 | 3" | 0600 | 6" | 1200 12" |
| 0400 | 4" | 0800 | 8" | |

| 3 | Seat |
|---|-------|
| M | Metal |

| 4 | Spring |
|---|-----------------|
| T | Stainless Steel |

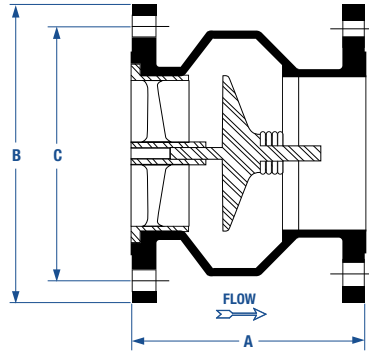
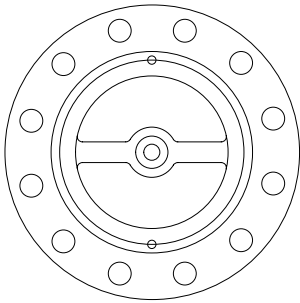
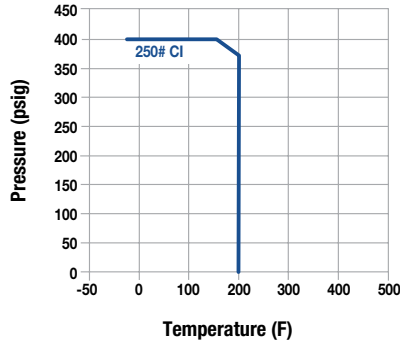
| 2 | Model |
|---------|-----------------------------|
| 250FCIB | Cast Iron Body, Bronze Disc |

Flow Coefficient Values (Cv)

| Size (in) | Min Cv (@ .3 PSID) | Cv (@ 1 PSID) | Max Cv (@ 10 PSID) |
|-----------|-----------------------|------------------|-----------------------|
| 2½" | 78 | 110 | 348 |
| 3" | 110 | 155 | 490 |
| 4" | 197 | 278 | 879 |
| 5" | 308 | 435 | 1376 |
| 6" | 442 | 625 | 1976 |
| 8" | 788 | 1115 | 3526 |
| 10" | 1252 | 1770 | 5597 |
| 12" | 1768 | 2500 | 7906 |



Pressure / Temperature Chart
ASME B16.1



Description

SSI manufactures cast iron silent check valves that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI cast iron silent check valves are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 18"

Pressure

400 PSIG (27.6 BARG)

Temperature

200° F (93° C)

End Connections

FF Flanged

Cracking Pressure

Horizontal - 0.3 PSID
Vertical - 0.75 to 1.25 PSID

Features

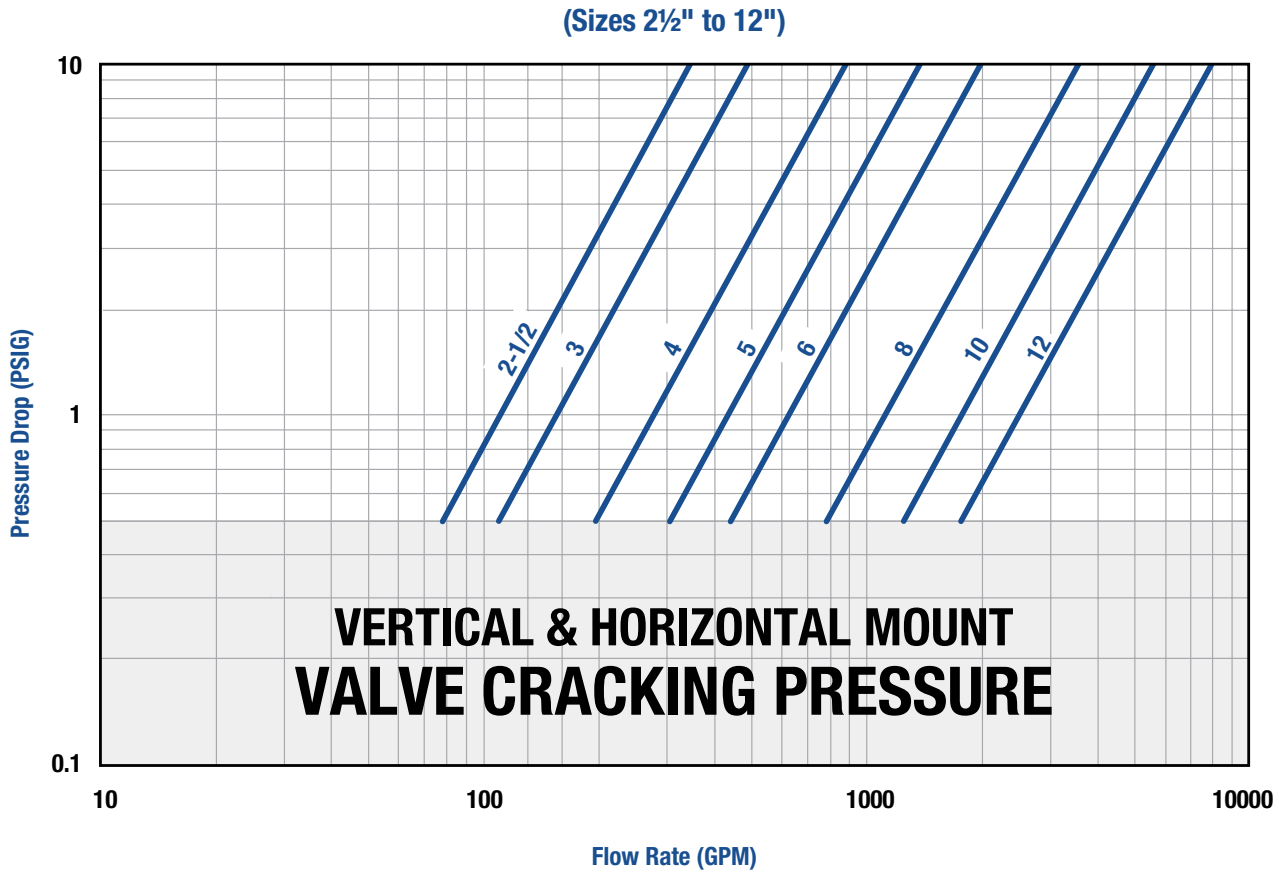
- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Center guided at both ends to prevent binding and cocking
- Bronze metal to metal seats
- Designed to reduce water hammer

| Dimensions | | | | | | | | | |
|------------|-----|-------|-----|-------|-----|-------|-----|--------|------|
| Size | | A | | B | | C | | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg |
| 2½" | 65 | 5.50 | 127 | 5.50 | 127 | 5.88 | 150 | 30 | 13.6 |
| 3" | 80 | 6.00 | 150 | 8.25 | 216 | 6.63 | 168 | 36 | 16.4 |
| 4" | 100 | 7.25 | 184 | 10.00 | 254 | 7.88 | 200 | 59 | 27 |
| 5" | 125 | 8.50 | 216 | 11.00 | 280 | 9.25 | 235 | 78 | 36 |
| 6" | 150 | 9.75 | 248 | 12.50 | 318 | 10.63 | 270 | 103 | 47 |
| 8" | 200 | 12.50 | 318 | 15.00 | 381 | 13.00 | 331 | 179 | 82 |
| 10" | 250 | 15.50 | 394 | 17.50 | 445 | 15.25 | 388 | 253 | 115 |
| 12" | 300 | 14.25 | 362 | 20.50 | 521 | 17.75 | 451 | 401 | 182 |

| Materials | |
|-----------|------------|
| Part | Material |
| Body | A126-A |
| Discs | B62 Bronze |
| Seat | B62 Bronze |
| Spring | 316 SS |
| O-Ring | EPDM |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

Pressure Drop VS. Flow Rate



- Pressure drop curves are based on water flow.
- Valve cracking pressure is equal to or less than 0.5 psid when installed vertically and horizontally.

¹ For correct installation and maintenance please see our I&M manual | ² Vertical installation (downward flow) – Consult factory | ³ Always use Strainers in upstream piping | ⁴ Not recommended for Steam Service

Check Valve Installation

- Valves may be installed upward vertically, horizontally, or at other angles. For vertical downward flow please consult with the factory.
- Install the valve with proper positioning of the flow arrow.
- Support and align adjacent piping and the valve.
- Install lubricated flange bolts.
- Hand tighten, then torque the bolts using the cross-over flange bolt-tightening method to load the bolts evenly, and eliminate concentrated stresses.
- Valves must be mounted to ASME flanges with conventional flat face or ring gaskets.
- Proper centering of the ring gaskets is important to prevent internal leakage.
- Never lift the valve by the bronze or stainless steel trim.
- Install a strainer in the piping.

Precautions

- Do not install check valves directly against another valve whereby the check valve discharges downstream directly into the valve.
- Do not install the valve whereby it directly discharges downstream into a tee or elbow fitting.
- These valves are not suggested for installation in sewage ejector piping.
- Careful consideration should be given to the selection of valves for use in an air, steam, hot water and boiler feed systems. Consult our factory on these applications.
- Individuals performing removal and disassembly should be provided with suitable protection from possibly hazardous liquids.
- Before disassembly, the valve must first be isolated from system pressure and flow.
- Upon disassembly ensure spring pressure is released slowly to prevent personal injury due to the spring “launching” itself unexpectedly.

WARNING

This product operates in pipelines or with equipment that carries fluids and/or gasses at elevated temperatures and pressures. Caution should be taken to make sure that this equipment is installed correctly and inspected regularly. Caution should also be taken to protect personnel from fluid or gas leakage.

* Check valves should be installed, if possible, a minimum of 6 pipe diameters from other line elements, i.e. elbows, pipes, valves, etc.



Sizes
2" to 18"



Pressure
up to 285 PSIG



Temperature
up to 400°F



Applications

Process Industry | Power Industry | Chemical Industry | Liquid Service
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper | Marine

Features

- Silent non-slam closure
- Flanged body style
- Metal to metal seats

End Connections

- Flat Face
- Raised Face

Body Materials

- Cast Iron
- Carbon Steel
- Stainless Steel

Disk Materials

- Bronze
- Stainless Steel

ASME Ratings

- Class 125
- Class 150
- Class 250



Sizes
2" to 18"



Pressure
up to 200 PSIG
(13.8 BARG)



Temperature
up to 300°F
(149°C)



Applications
Process Industry | Power Industry | Chemical Industry | Liquid Service
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper | Marine

Features

- ASME Class 125 rated foot valve
- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Heavy duty stainless steel screening with flow areas three to four times that of the pipe area
- Center guided at both ends to prevent binding and cocking
- Flanged body style
- Bronze Metal to Metal Seats

Applicable Codes (designed in accordance with)

- Bodies in accordance with ASME B16.1

Models

- 125FVIB – Cast Iron Body, Bronze Seat and Disc

Options

- Consult factory

125FV Series Ordering Code

| 1 Inlet Size | | | | 2 Model | | | | 3 Seat | 4 Perf | 5 Mesh | | | | | |
|-----------------|---|---|---|------------|---|---|---|-----------|-----------|-----------|---|---|---|---|---|
| 0 | 6 | 0 | 0 | - | 1 | 2 | 5 | F | V | I | B | M | - | 4 | 5 |

| 1 | Inlet Size | | | | |
|------|------------|------|-----|------|-----|
| 0200 | 2" | 0500 | 5" | 1200 | 12" |
| 0250 | 2½" | 0600 | 6" | 1400 | 14" |
| 0300 | 3" | 0800 | 8" | 1600 | 16" |
| 0400 | 4" | 1000 | 10" | 1800 | 18" |

| 4 | Perf (304SS Material ¹) | | | | |
|---|-------------------------------------|---|-------|---|------|
| 1 | 1/32" | 3 | 3/32" | 8 | 1/4" |
| B | 3/64" | 5 | 5/32" | 9 | 3/8" |
| 4 | 1/8" (std) | 6 | 3/16" | | |
| 2 | 1/16" | 7 | 7/32" | | |

| 2 | Model |
|---------|---|
| 125FVIB | Cast Iron Body, Bronze Disc, Metal Seat |

| 5 | Mesh (Leave Blank if not required) | | | | |
|---|------------------------------------|---|----|---|----|
| 1 | 10 | 4 | 40 | 7 | 70 |
| 2 | 20 | 5 | 50 | 8 | 80 |
| 3 | 30 | 6 | 60 | 9 | 90 |

| 3 | Seat |
|---|-------|
| M | Metal |

Flow Coefficient Values (Cv)

| Size (in) | Min Cv (@ .3 PSID) | Cv (@ 1 PSID) | Max Cv (@ 10 PSID) |
|-----------|--------------------|---------------|--------------------|
| 2" | 53 | 63 | 89 |
| 2½" | 99 | 105 | 120 |
| 3" | 135 | 148 | 174 |
| 4" | 246 | 265 | 300 |
| 5" | 402 | 430 | 474 |
| 6" | 566 | 605 | 696 |

| Size (in) | Min Cv (@ .3 PSID) | Cv (@ 1 PSID) | Max Cv (@ 10 PSID) |
|-----------|--------------------|---------------|--------------------|
| 8" | 1004 | 1105 | 1297 |
| 10" | 1579 | 1700 | 1992 |
| 12" | 2556 | 2575 | 2593 |
| 14" | 3286 | 3350 | 3479 |
| 16" | 4199 | 4300 | 4427 |
| 18" | 5112 | 5225 | 5376 |

1. For other screen materials contact factory.

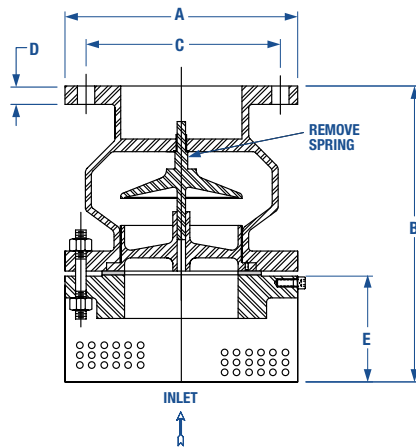
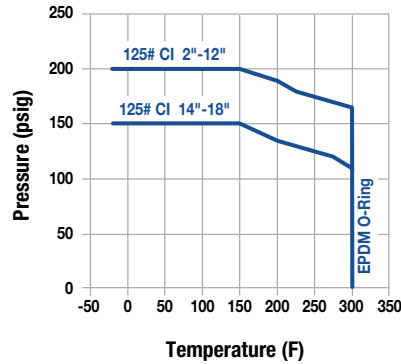
125FV Series

Foot Valves

Cast Iron Body | Flanged Style



Pressure / Temperature Chart
ASME B16.1



Description

SSI manufactures cast iron foot valves that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI cast iron foot valves are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 18"

Pressure

200 PSIG (13.8 BARG)

Temperature

300° F (149° C)

End Connections

FF Flanged

Cracking Pressure

Vertical - Consult Factory

Features

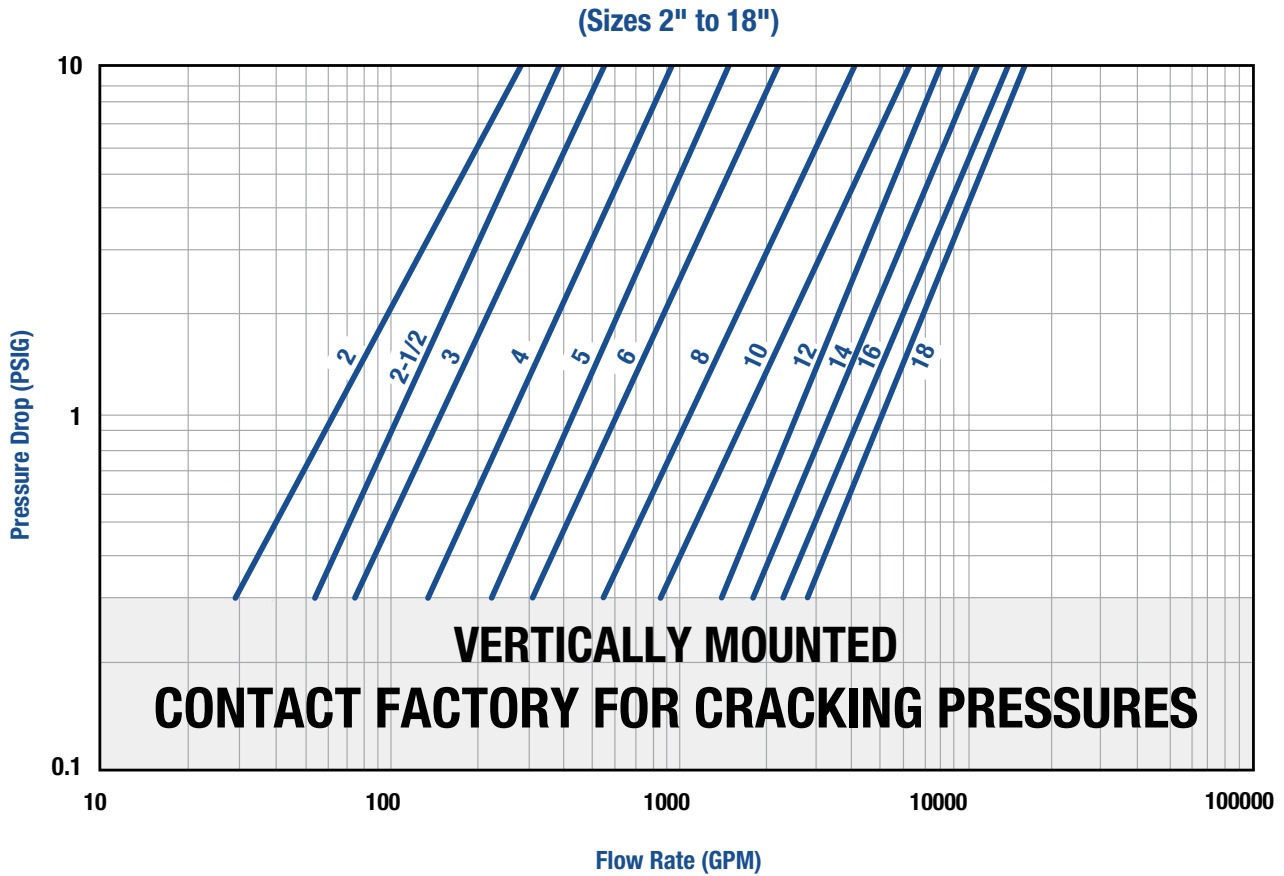
- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Heavy duty stainless steel screening with flow areas three to four times that of the pipe area
- Center guided at both ends to prevent binding and cocking
- Bronze metal to metal seats

| Dimensions | | | | | | | | | | | | | | | | | | |
|------------|-----|------|-----|-------|-----|-------|-----|------|----|------|-----|-----------|-----|-----------|----|------------|--------|-----|
| Size | | A | | B | | C | | D | | E | | Stud Lgth | | Bolt Size | | # of Bolts | Weight | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | Bolts | lbs | kg |
| 2" | 50 | 6.0 | 152 | 8.38 | 213 | 4.75 | 121 | 0.75 | 19 | 3 | 76 | 3.25 | 83 | 0.63 | 16 | 4 | 30 | 14 |
| 2½" | 65 | 7.0 | 178 | 8.63 | 219 | 5.50 | 140 | 0.88 | 22 | 3 | 76 | 3.50 | 89 | 0.63 | 16 | 4 | 45 | 20 |
| 3" | 80 | 7.5 | 191 | 9.63 | 244 | 6.00 | 152 | 0.94 | 24 | 3 | 76 | 3.75 | 95 | 0.63 | 16 | 4 | 51 | 23 |
| 4" | 100 | 9.0 | 229 | 11.13 | 283 | 7.50 | 191 | 0.94 | 24 | 3 | 76 | 3.75 | 95 | 0.63 | 16 | 8 | 83 | 38 |
| 5" | 125 | 10.0 | 254 | 13.38 | 340 | 8.50 | 216 | 0.94 | 24 | 4 | 102 | 4.00 | 102 | 0.75 | 19 | 8 | 104 | 47 |
| 6" | 150 | 11.0 | 279 | 15.88 | 403 | 9.50 | 241 | 1.00 | 25 | 5 | 127 | 4.00 | 102 | 0.75 | 19 | 8 | 133 | 60 |
| 8" | 200 | 13.5 | 343 | 19.63 | 498 | 11.75 | 298 | 1.13 | 29 | 6 | 152 | 4.25 | 108 | 0.75 | 19 | 8 | 215 | 98 |
| 10" | 250 | 16.0 | 406 | 23.63 | 600 | 14.25 | 362 | 1.19 | 30 | 7 | 178 | 4.75 | 121 | 0.88 | 22 | 12 | 324 | 147 |
| 12" | 300 | 19.0 | 483 | 23.38 | 594 | 17.00 | 432 | 1.25 | 32 | 8 | 203 | 4.75 | 121 | 0.88 | 22 | 12 | 557 | 253 |
| 14" | 350 | 21.0 | 533 | 25.88 | 657 | 18.75 | 476 | 1.38 | 35 | 9 | 229 | 5.25 | 133 | 1.00 | 25 | 12 | 890 | 404 |
| 16" | 400 | 23.5 | 597 | 29.00 | 737 | 21.25 | 540 | 1.44 | 37 | 10 | 254 | 5.50 | 140 | 1.00 | 25 | 16 | 1034 | 469 |
| 18" | 450 | 25.0 | 635 | 31.13 | 791 | 22.75 | 578 | 1.56 | 40 | 11 | 279 | 6.00 | 152 | 1.13 | 29 | 16 | 1171 | 531 |

| Materials | |
|------------|------------|
| Part | Material |
| Body | A126-B |
| Disc | B62 |
| Seat | B62 |
| Bolt | SA193 B8 |
| Studs | SA193 B7 |
| Hex Nuts | SA194 2H |
| Screen FLG | SA105 |
| Screen | SA240 304 |
| Gasket | Red Rubber |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

Pressure Drop VS. Flow Rate



- For correct installation and maintenance, please see our I & M manual.
- Mount only in vertical position with upward flow.

* Pressure drop curves are based on water flow.

150FV Series

Foot Valves

Carbon & Stainless Steel Body | Flanged Style



Sizes
2" to 16"



Pressure
up to 285 PSIG
(19.7 BARG)



Temperature
up to 400°F
(204°C)



Applications

Process Industry | Power Industry | Chemical Industry | Liquid Service
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper | Marine

Features

- ASME Class 150 rated foot valve
- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Heavy duty stainless steel screening with flow areas three to four times that of the pipe area
- Center guided at both ends to prevent binding and cocking
- Flanged body style
- Stainless Steel Metal to Metal Seats

Applicable Codes (designed in accordance with)

- ASME Sec. VIII and B16.34 Bodies

Models

- 150FVCT – Carbon Steel Body, Stainless Steel Seat and Disc
- 150FVTT – Stainless Steel Body, Stainless Steel Seat and Disc

Options

- Consult factory

150FV Series Ordering Code

| 1 Inlet Size | | | | 2 Model | | | | 3 Seat | 4 Perf | 5 Mesh | | | | | |
|-----------------|---|---|---|------------|---|---|---|-----------|-----------|-----------|---|---|---|---|---|
| 0 | 6 | 0 | 0 | - | 1 | 5 | 0 | F | V | C | T | M | - | 4 | 5 |

| 1 | Inlet Size | | | | |
|------|------------|------|-----|------|-----|
| 0200 | 2" | 0500 | 5" | 1200 | 12" |
| 0250 | 2½" | 0600 | 6" | 1400 | 14" |
| 0300 | 3" | 0800 | 8" | 1600 | 16" |
| 0400 | 4" | 1000 | 10" | | |

| 2 | Model |
|---------|---|
| 150FVCT | Carbon Steel Body, SS Disc, Metal Seat |
| 150FVTT | Stainless Steel Body, SS Disc, Metal Seat |

| 3 | Seat |
|---|-------|
| M | Metal |

| 4 | Perf (304SS Material ¹) | | | | |
|---|-------------------------------------|---|-------|---|-------|
| 1 | 1/32" | 2 | 1/16" | 6 | 3/16" |
| B | 3/64" | 3 | 3/32" | 7 | 7/32" |
| 4 | 1/8" (std) | 5 | 5/32" | 8 | 1/4" |

| 5 | Mesh (Leave Blank if not required) | | | | |
|---|------------------------------------|---|----|---|-----|
| 1 | 10 | 4 | 40 | 7 | 80 |
| 2 | 20 | 5 | 50 | 8 | 100 |
| 3 | 30 | 6 | 60 | | |

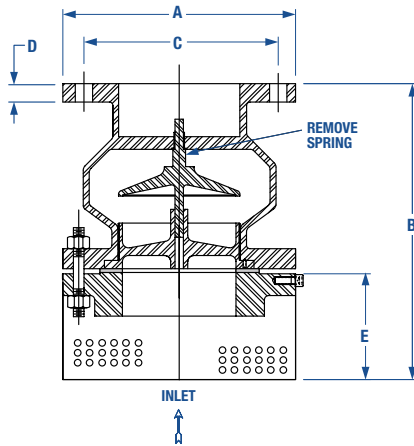
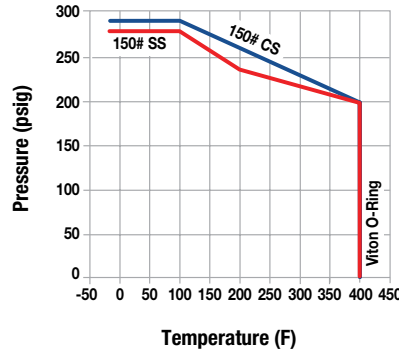
Flow Coefficient Values (Cv)

| Size (in) | Min Cv (@ .3 PSID) | Cv (@ 1 PSID) | Max Cv (@ 10 PSID) |
|-----------|-----------------------|------------------|-----------------------|
| 2" | 53 | 63 | 89 |
| 2½" | 99 | 105 | 120 |
| 3" | 135 | 148 | 174 |
| 4" | 246 | 265 | 300 |
| 5" | 402 | 430 | 474 |
| 6" | 566 | 605 | 696 |

| Size (in) | Min Cv (@ .3 PSID) | Cv (@ 1 PSID) | Max Cv (@ 10 PSID) |
|-----------|-----------------------|------------------|-----------------------|
| 8" | 1004 | 1005 | 1297 |
| 10" | 1579 | 1700 | 1992 |
| 12" | 2556 | 2575 | 2593 |
| 14" | 3286 | 3350 | 3479 |
| 16" | 4199 | 4300 | 4427 |



Pressure / Temperature Chart
ASME B16.34



Description

SSI manufactures carbon steel foot valves that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI carbon steel foot valves are suitable for a full range of steam, liquid, gas & oil, power, pulp & paper, process equipment, chemical, metal & mining and water & waste applications.

Sizes

2" to 16"

Pressure

285 PSIG (19.7 BARG)

Temperature

400° F (204° C)

End Connections

FF Flanged

Cracking Pressure

Vertical - Consult Factory

Features

- Designed to reduce surge and water hammer
- Silent, non-slam closure
- Heavy duty stainless steel screening with flow areas three to four times that of the pipe area
- Center guided at both ends to prevent binding and cocking
- Stainless steel metal to metal seats

Dimensions

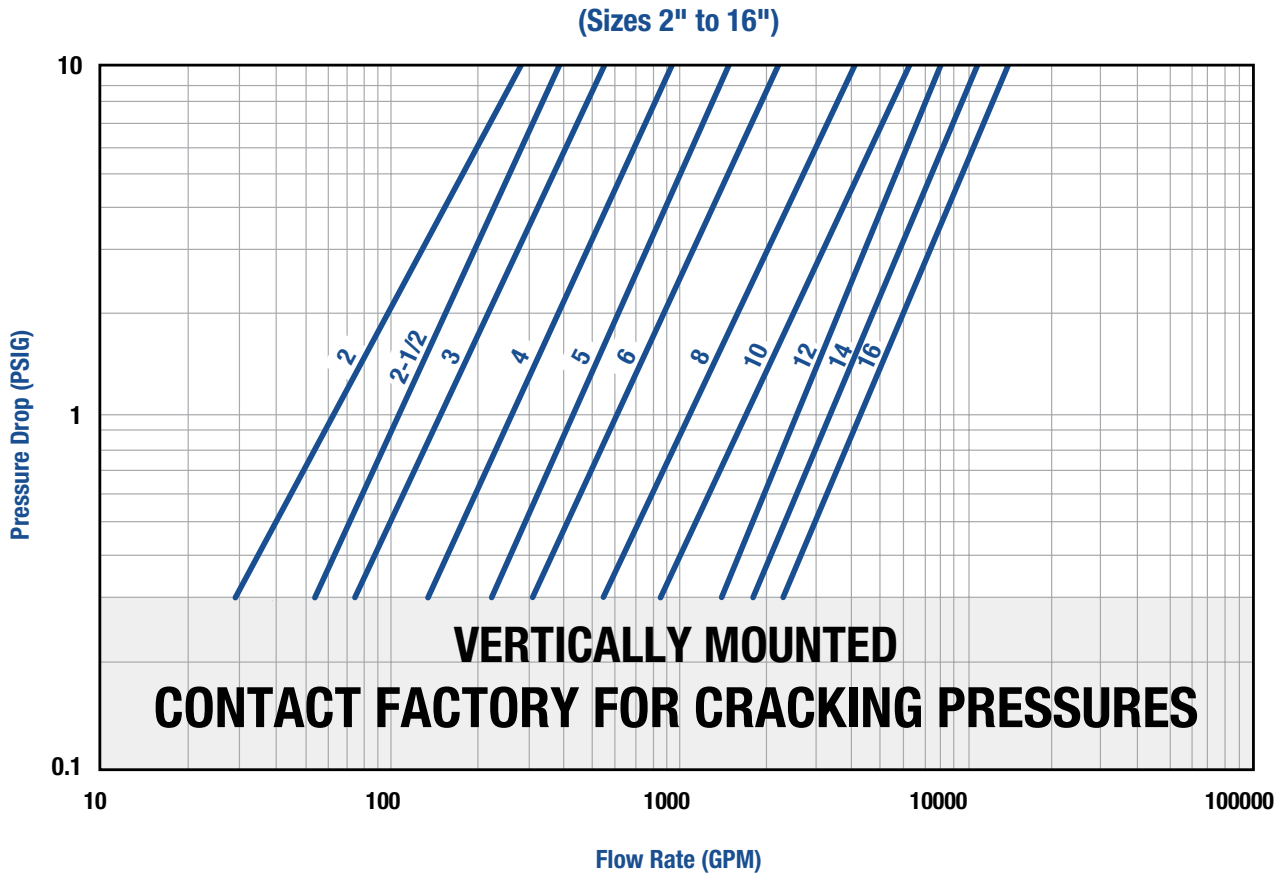
| Size | A | | B | | C | | D | | E | | Stud Lgth | | Bolt Size | | # of Bolts | Weight | | |
|------|------|-------|------|-------|------|-------|------|------|------|----|-----------|------|-----------|------|------------|--------|-----|-----|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | | lbs | kg | |
| 2" | 50 | 6.00 | 152 | 8.38 | 213 | 4.75 | 121 | 0.75 | 19 | 3 | 76 | 3.25 | 83 | 0.63 | 16 | 4 | 25 | 11 |
| 2½" | 65 | 7.00 | 178 | 8.63 | 219 | 5.50 | 140 | 0.88 | 22 | 3 | 76 | 3.50 | 89 | 0.63 | 16 | 4 | 35 | 16 |
| 3" | 80 | 7.50 | 191 | 9.63 | 244 | 6.00 | 152 | 0.94 | 24 | 3 | 76 | 3.75 | 95 | 0.63 | 16 | 4 | 45 | 20 |
| 4" | 100 | 9.00 | 229 | 11.13 | 283 | 7.50 | 191 | 0.94 | 24 | 3 | 76 | 3.75 | 95 | 0.63 | 16 | 8 | 70 | 32 |
| 5" | 125 | 10.00 | 254 | 13.38 | 340 | 8.50 | 216 | 0.94 | 24 | 4 | 102 | 4.00 | 102 | 0.75 | 19 | 8 | 90 | 41 |
| 6" | 150 | 11.00 | 279 | 15.88 | 403 | 9.50 | 241 | 1.00 | 25 | 5 | 127 | 4.00 | 102 | 0.75 | 19 | 8 | 115 | 52 |
| 8" | 200 | 13.50 | 343 | 19.63 | 498 | 11.75 | 298 | 1.13 | 29 | 6 | 152 | 4.25 | 108 | 0.75 | 19 | 8 | 181 | 82 |
| 10" | 250 | 16.00 | 406 | 23.63 | 600 | 14.25 | 362 | 1.19 | 30 | 7 | 178 | 4.75 | 121 | 0.88 | 22 | 12 | 265 | 120 |
| 12" | 300 | 19.00 | 483 | 23.38 | 594 | 17.00 | 432 | 1.25 | 32 | 8 | 203 | 4.75 | 121 | 0.88 | 22 | 12 | 425 | 193 |
| 14" | 350 | 21.00 | 533 | 25.88 | 657 | 18.75 | 476 | 1.38 | 35 | 9 | 229 | 5.25 | 133 | 1.00 | 25 | 12 | 550 | 249 |
| 16" | 400 | 23.50 | 597 | 29.00 | 737 | 21.25 | 540 | 1.44 | 37 | 10 | 254 | 5.50 | 140 | 1.00 | 25 | 16 | 695 | 315 |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

Materials

| Part | Materials | |
|------------|--------------|-----------------|
| | Carbon Steel | Stainless Steel |
| Body | A216 WCB | A351 CF8M |
| Disc | A351 CF8M | A351 CF8M |
| Seat | A351 CF8M | A351 CF8M |
| Bolt | SA193 B8 | SA193 B8 |
| Studs | SA193 B7 | SA193 B7 |
| Hex Nuts | SA194 2H | SA194 2H |
| Screen FLG | SA105 | SS-304 |
| Screen | SA240 304 | SA240 316 |
| Gasket | Red Rubber | Red Rubber |

Pressure Drop VS. Flow Rate



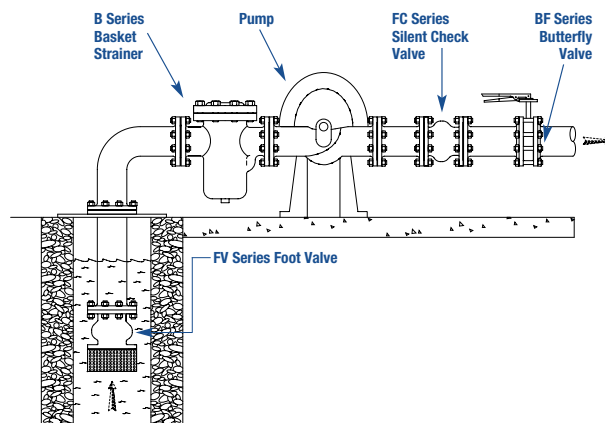
- For correct installation and maintenance, please see our I & M manual.
- Mount only in vertical position with upward flow.

* Pressure drop curves are based on water flow.

Foot Valve Installation

- Valves may be installed upward vertically only.
- Install the valve with proper positioning of the flow arrow.
- Support and align adjacent piping and the valve.
- Install lubricated flange bolts.
- Hand tighten, then torque the bolts using the cross-over flange bolt-tightening method to load the bolts evenly, and eliminate concentrated stresses.
- Valves must be mounted to ASME flanges with conventional flat face or ring gaskets.
- Do not install foot valve directly against another valve whereby the check valve discharges downstream directly into the valve.
- Do not install the valve whereby it directly discharges downstream into a tee or elbow fitting.

- These valves are not suggested for installation in sewage ejector piping.
- Never lift the valve by the bronze or stainless steel trim.



Precautions

- Individuals performing removal and disassembly should be provided with suitable protection from possible hazardous liquids.
- Do not install foot valve directly against another valve whereby the foot valve discharges downstream directly into the valve.

- Foot valves are not recommended for installation in sewage ejector piping.
- Prior to disassembly, the valve must first be isolated from the system's (electrically isolated pump) pressure and flow.

Maintenance

- Individuals performing removal and disassembly should be provided with suitable protection from possibly hazardous liquids.
- Before disassembly, valve must first be isolated from system pressure and flow.
- To replace screen remove two screen retainer bolts, replace the screen and reassemble retainer bolts.

- To replace gasket, first dismantle the screen and then remove nuts of the strainer flange studs and separate the gasket from foot valve. Replace the gasket and reassemble in the reverse order.
- To replace the valve seat, first dismantle the screen, screen flange and then remove two seat retaining countersunk screws and take out the valve seat. Replace the valve seat and reassemble in reverse order.
- Lubricate bolts/nuts, hand tighten, then torque the bolts using the crossover flange bolt-tightening method to load the bolts evenly, and eliminate concentrated stresses.

WARNING

This product operates in pipelines or with equipment that carries fluids and/or gasses at elevated temperatures and pressures. Caution should be taken to make sure that this equipment is installed correctly and inspected regularly. Caution should also be taken to protect personnel from fluid or gas leakage.

* Check valves should be installed, if possible, a minimum of 6 pipe diameters from other line elements, i.e. elbows, pipes, valves, etc.



Sizes

½" to 20"



Pressure

up to 225 PSIG



Temperature

up to 230°F



Applications

Process Industry | Power Industry | Chemical Industry | Liquid Service
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper | Marine

Features

- For connection pipes and equipment
- Easy to install
- Horizontal or vertical mounting

End Connections

- Flanged
- Threaded (NPT)

Body Materials

- Neoprene

End Materials

- Zinc Plated
- Ductile Iron

ASM, ATM & AUM Series

Neoprene Body | Flanged & NPT Style | Single & Double Sphere

Expansion Joints



Sizes
½" to 20"



Pressure
up to 225 PSIG
(15.51 BARG)



Temperature
up to 230°F
(110°C)



Applications
Process Industry | Power Industry | Chemical Industry | Liquid Service
Oil & Gas | Metals & Mining | Water & Waste | Pulp & Paper | Marine

Features

- For connection pipes and equipment where flanged ends are preferred
- Flat faced flanged single sphere connectors
- Easy to install floating flanges allow variable pressure, temperature and movement
- Increased acoustic resistance, dampens hydraulic surge and shock
- Accommodates thermal movement and misalignment
- Four way greater movement provides high level of installation flexibility
- Precision molded synthetic rubber reinforced with nylon cord
- Horizontal or vertical mounting

Applicable Codes (designed in accordance with)

- ASME/ANSI B1-20.1 (AUM)

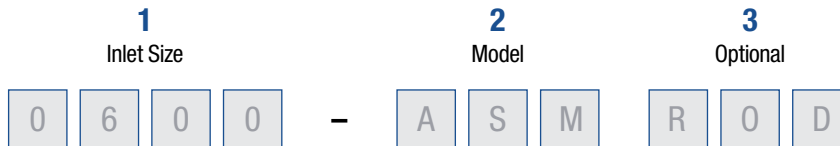
Models

- ASM - Flanged Connection
- ATM - Flanged Connection
- AUM – NPT Connection

Options

- Control Rods (ASM and ATM)

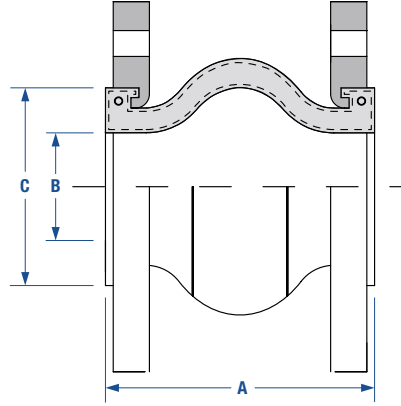
Expansion Joints Ordering Code



| 1 | Inlet Size | | | | |
|------|------------|------|-----|------|-----|
| 0050 | ½" | 0250 | 2½" | 1000 | 10" |
| 0075 | ¾" | 0300 | 3" | 1200 | 12" |
| 0100 | 1" | 0400 | 4" | 1400 | 14" |
| 0125 | 1¼" | 0500 | 5" | 1600 | 16" |
| 0150 | 1½" | 0600 | 6" | 1800 | 18" |
| 0200 | 2" | 0800 | 8" | 2000 | 20" |

| 2 | Model |
|-----|----------------------------------|
| ASM | Single Sphere, FLG, CI, Neoprene |
| ATM | Double Sphere, FLG, CI, Neoprene |
| AUM | Double Sphere, NPT, CI, Neoprene |

| 3 | Optional |
|-----|--------------------------------|
| ROD | Control Rod (ASM and ATM only) |



Description

SSI manufactures zinc plated expansion joints that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI zinc plated expansion joints are suitable for a full range of water, gas, steam, petrochemical and general use/utility services and applications.

Sizes

1" to 20"

Pressure

225 PSIG (15.51 BARG)

Temperature

230° F (110° C)

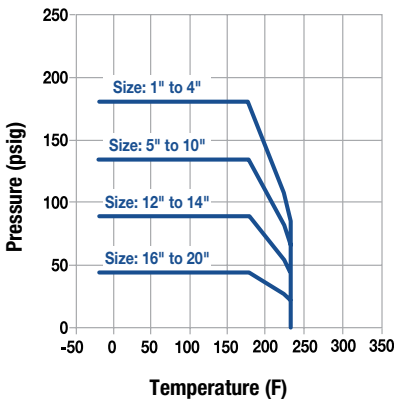
End Connections

FF Flanged

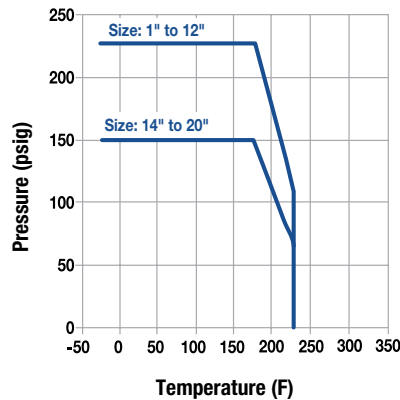
Burst Pressure

850 PSIG

Pressure / Temperature Chart Without Control Rods



Pressure / Temperature Chart With Control Rods



Features

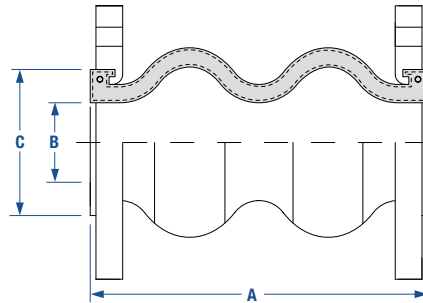
- For connection pipes and equipment where flanged ends are preferred
- Easy to install floating flanges allow variable pressure, temperature and movement
- Increased acoustic resistance, dampens hydraulic surge and shock
- Accommodates thermal movement and misalignment
- Four-way greater movement provides high level of installation flexibility
- Precision molded synthetic rubber with nylon cord
- Horizontal or vertical mounting

| Size | | Dimensions | | | | | | | | | | Weight | | | | | | | |
|------|-----|------------|-----|--------------------|------------|------------------|------------------|------|----|------|----|---------|-----|-----------|-----|-----|------|-----|------|
| | | A | | Allowable Movement | | | | B | | C | | No Rods | | With Rods | | | | | |
| | | | | Axial Comp. | Axial Ext. | Lateral Deflect. | Angular Deflect. | | | | | lbs | kg | lbs | kg | | | | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg | lbs | kg | | |
| 1" | 25 | 6.00 | 152 | 0.75 | 19 | 0.47 | 12 | 0.56 | 14 | 0.59 | 15 | 1.53 | 39 | 2.94 | 75 | 5 | 2.3 | 10 | 4.7 |
| 1¼" | 32 | 6.00 | 152 | 0.75 | 19 | 0.47 | 12 | 0.56 | 14 | 0.59 | 15 | 1.53 | 39 | 2.94 | 75 | 7 | 3.2 | 10 | 4.7 |
| 1½" | 38 | 6.00 | 152 | 0.75 | 19 | 0.47 | 12 | 0.56 | 14 | 0.59 | 15 | 1.53 | 39 | 2.94 | 75 | 8 | 3.6 | 12 | 5.4 |
| 2" | 51 | 6.00 | 152 | 0.75 | 19 | 0.47 | 12 | 0.56 | 14 | 0.59 | 15 | 1.91 | 48 | 3.38 | 86 | 11 | 5.0 | 15 | 7.0 |
| 2½" | 64 | 6.00 | 152 | 0.75 | 19 | 0.47 | 12 | 0.56 | 14 | 0.59 | 15 | 2.47 | 63 | 4.13 | 105 | 11 | 5.0 | 19 | 8.7 |
| 3" | 76 | 6.00 | 152 | 0.75 | 19 | 0.47 | 12 | 0.56 | 14 | 0.59 | 15 | 2.88 | 73 | 4.66 | 118 | 13 | 5.9 | 23 | 10.4 |
| 4" | 102 | 6.13 | 156 | 0.75 | 19 | 0.47 | 12 | 0.56 | 14 | 0.59 | 15 | 3.94 | 100 | 5.84 | 148 | 17 | 7.7 | 25 | 11.4 |
| 5" | 127 | 6.13 | 156 | 0.75 | 19 | 0.47 | 12 | 0.56 | 14 | 0.59 | 15 | 5.00 | 127 | 7.02 | 178 | 21 | 9.5 | 30 | 13.6 |
| 6" | 152 | 6.13 | 156 | 0.75 | 19 | 0.47 | 12 | 0.56 | 14 | 0.59 | 15 | 5.78 | 147 | 8.28 | 210 | 25 | 11.3 | 37 | 16.8 |
| 8" | 203 | 6.13 | 156 | 1.00 | 25 | 0.47 | 12 | 0.88 | 22 | 0.59 | 15 | 7.84 | 199 | 10.25 | 260 | 37 | 16.8 | 53 | 24.0 |
| 10" | 254 | 8.00 | 203 | 1.00 | 25 | 0.63 | 16 | 0.88 | 22 | 0.59 | 15 | 9.75 | 248 | 12.69 | 322 | 58 | 26.3 | 82 | 37.2 |
| 12" | 305 | 8.00 | 203 | 1.00 | 25 | 0.63 | 16 | 0.88 | 22 | 0.59 | 15 | 11.66 | 296 | 14.56 | 370 | 80 | 36.3 | 109 | 49.4 |
| 14" | 356 | 8.00 | 203 | 1.00 | 25 | 0.63 | 16 | 0.88 | 22 | 0.59 | 15 | 13.22 | 336 | 16.25 | 413 | 101 | 45.8 | 138 | 62.6 |
| 16" | 406 | 8.00 | 203 | 1.00 | 25 | 0.63 | 16 | 0.88 | 22 | 0.59 | 15 | 15.16 | 385 | 18.28 | 464 | 127 | 57.6 | 176 | 79.8 |
| 18" | 457 | 8.00 | 203 | 1.00 | 25 | 0.63 | 16 | 0.88 | 22 | 0.59 | 15 | 17.31 | 440 | 20.63 | 524 | 136 | 61.7 | 183 | 83.0 |
| 20" | 508 | 8.00 | 203 | 1.00 | 25 | 0.63 | 16 | 0.88 | 22 | 0.59 | 15 | 19.28 | 490 | 22.56 | 573 | 158 | 71.7 | 212 | 96.1 |

| Materials | |
|--------------------|-------------------------|
| Part | Material |
| Body | Neoprene |
| Reinforcing Fabric | Nylon Cord |
| Wire | Hard Steel |
| Floating Flanges | CS Zinc Plated RST 37-2 |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

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Description

SSI manufactures zinc plated expansion joints that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI zinc plated expansion joints are suitable for a full range of water, gas, steam, petrochemical and general use/utility services and applications.

Sizes

1" to 12"

Pressure

225 PSIG (15.51 BARG)

Temperature

230° F (110° C)

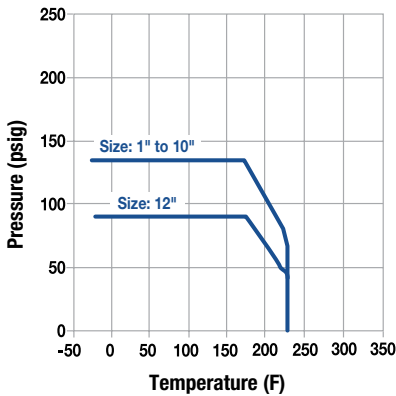
End Connections

FF Flanged

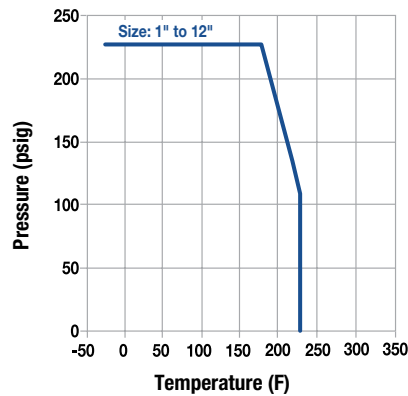
Burst Pressure

854 PSIG

Pressure / Temperature Chart Without Control Rods



Pressure / Temperature Chart With Control Rods



Features

- For connection pipes and equipment where flanged ends are preferred
- Easy to install floating flanges allow variable pressure, temperature and movement
- Increased acoustic resistance, dampens hydraulic surge and shock
- Accommodates thermal movement and misalignment
- Four-way greater movement provides high level of installation flexibility
- Precision molded synthetic rubber with nylon cord
- Horizontal or vertical mounting

| Size | | A | | Allowable Movement | | | | | | | | B | | C | | Weight | | | |
|------|-----|-------|-----|--------------------|----|------------|----|------------------|----|------------------|----|-------|-----|-------|-----|---------|------|-----------|------|
| | | | | Axial Comp. | | Axial Ext. | | Lateral Deflect. | | Angular Deflect. | | | | | | No Rods | | With Rods | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | lbs | kg | lbs | kg |
| 1" | 25 | 4.75 | 121 | 2.09 | 53 | 1.06 | 27 | 1.78 | 45 | 1.59 | 40 | 1.53 | 39 | 2.95 | 75 | 5 | 2.3 | 10.6 | 4.8 |
| 1¼" | 32 | 7.00 | 178 | 2.09 | 53 | 1.06 | 27 | 1.78 | 45 | 1.59 | 40 | 1.53 | 39 | 2.95 | 75 | 5 | 2.3 | 10.6 | 4.8 |
| 1½" | 38 | 7.00 | 178 | 2.09 | 53 | 1.06 | 27 | 1.78 | 45 | 1.59 | 40 | 1.53 | 39 | 2.95 | 75 | 5 | 2.3 | 12.1 | 5.5 |
| 2" | 51 | 7.00 | 178 | 2.09 | 53 | 1.06 | 27 | 1.78 | 45 | 1.59 | 40 | 1.53 | 48 | 3.34 | 85 | 8 | 3.6 | 15.9 | 7.2 |
| 2½" | 64 | 7.00 | 178 | 2.09 | 53 | 1.06 | 27 | 1.78 | 45 | 1.59 | 40 | 2.47 | 63 | 4.66 | 105 | 10 | 4.5 | 19.9 | 8.9 |
| 3" | 76 | 7.00 | 178 | 2.09 | 53 | 1.06 | 27 | 1.78 | 45 | 1.59 | 40 | 2.88 | 73 | 4.66 | 118 | 13 | 5.9 | 23.1 | 10.5 |
| 4" | 102 | 9.00 | 229 | 2.09 | 53 | 1.22 | 31 | 1.59 | 40 | 1.38 | 35 | 3.94 | 100 | 5.84 | 148 | 19 | 8.6 | 26.7 | 12.1 |
| 5" | 127 | 9.00 | 229 | 2.09 | 53 | 1.22 | 31 | 1.59 | 40 | 1.38 | 35 | 5.00 | 127 | 7.00 | 178 | 22 | 10.0 | 31.5 | 14.3 |
| 6" | 152 | 9.00 | 229 | 2.56 | 65 | 1.22 | 31 | 1.59 | 40 | 1.38 | 35 | 5.78 | 147 | 8.28 | 210 | 27 | 12.2 | 39.2 | 17.8 |
| 8" | 203 | 13.00 | 330 | 2.56 | 65 | 1.19 | 30 | 1.38 | 35 | 1.19 | 30 | 7.84 | 199 | 10.25 | 260 | 42 | 19.0 | 59.5 | 27.0 |
| 10" | 254 | 13.00 | 330 | 2.56 | 65 | 1.19 | 30 | 1.38 | 35 | 1.19 | 30 | 9.75 | 248 | 12.69 | 322 | 58 | 26.3 | 88.0 | 39.9 |
| 12" | 305 | 13.00 | 330 | 2.56 | 65 | 1.19 | 30 | 1.38 | 35 | 1.19 | 30 | 11.66 | 296 | 14.56 | 370 | 84 | 38.1 | 117.9 | 53.5 |

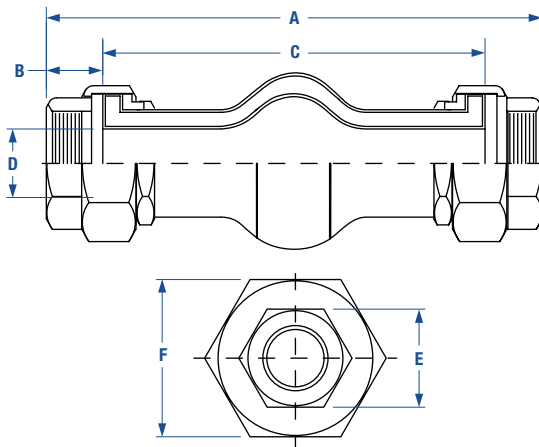
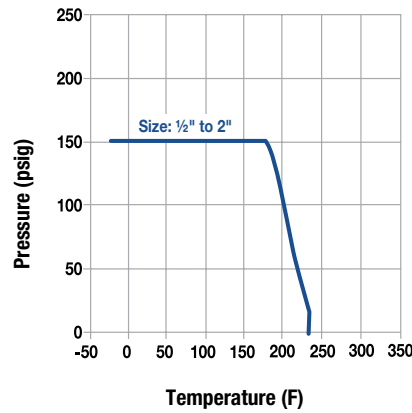
| Materials | |
|--------------------|-------------------------|
| Part | Material |
| Body | Neoprene |
| Reinforcing Fabric | Nylon Cord |
| Wire | Hard Steel |
| Floating Flanges | CS Zinc Plated RST 37-2 |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

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Pressure / Temperature Chart



Description

SSI manufactures ductile iron expansion joints that are long-lasting, functional, cost-effective, and are well suited for commercial and industrial use. SSI ductile iron expansion joints are suitable for a full range of water, gas, steam, petrochemical and general use/utility services and applications.

Sizes

½" to 2"

Pressure

150 PSIG (10.34 BARG)

Temperature

230° F (110° C)

End Connections

Threaded (NPT)

Burst Pressure

570 PSIG

Features

- For connection pipes and equipment where threaded union ends are preferred
- Excellent ability to absorb vibrations, sounds and withstand high pressures
- Accommodates thermal movement and misalignment
- Four-way greater movement provides high level of installation flexibility
- Precision molded synthetic rubber with nylon cord
- Easy to install

Dimensions

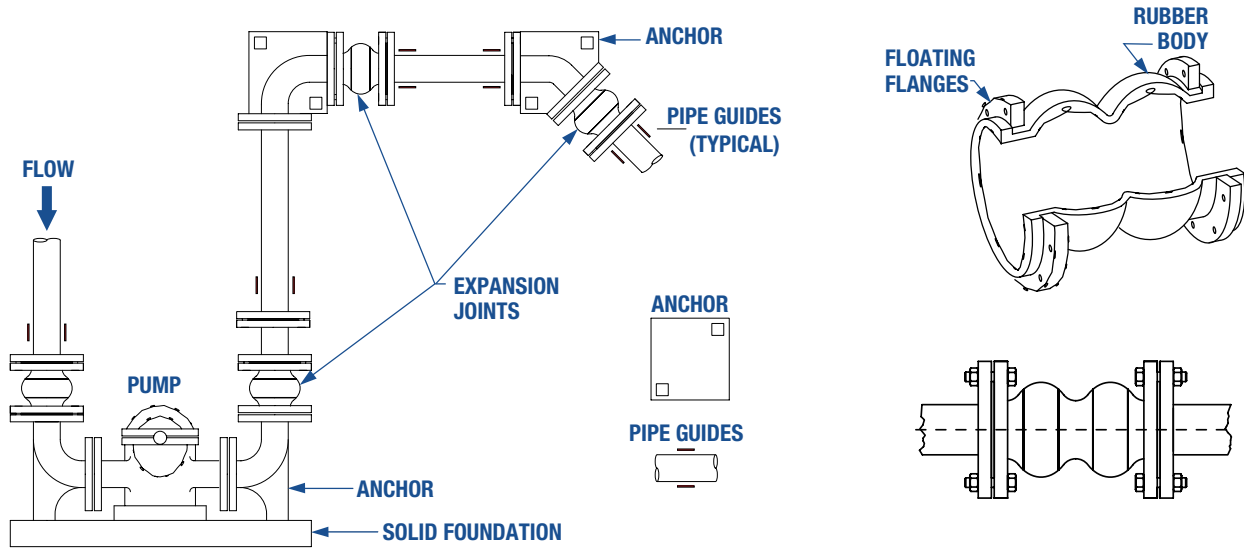
| Size | Installed Length | | | Travel | | Allowable Movement | | | B | C | D | Inner Dia. | E | F | Weight | |
|----------|------------------|-------------|-------------|-------------------|-------------|--------------------|-------------|------------------|------|----|------|------------|------|------|--------|------------------|
| | Neutral Length | Min. Length | Max. Length | Rec. Pipe Opening | Total Comp. | Total Extended | Axial Comp. | Lateral Deflect. | | | | | | | | Angular Deflect. |
| inch ½" | 8 | 7.34 | 8.13 | 7.31 | 7.13 | 8.22 | 0.88 | 0.25 | 0.88 | 32 | 0.91 | 6.09 | 0.53 | 1.06 | 1.69 | 1 |
| mm 13 | 203 | 187 | 206 | 186 | 181 | 209 | 22 | 6 | 22 | 32 | 23 | 155 | 13 | 27 | 43 | 0.5 |
| inch ¾" | 8 | 7.34 | 8.13 | 6.88 | 7.13 | 8.22 | 0.88 | 0.25 | 0.88 | 32 | 1.00 | 5.91 | 0.75 | 1.34 | 1.97 | 1 |
| mm 19 | 203 | 187 | 206 | 175 | 181 | 209 | 22 | 6 | 22 | 32 | 25 | 150 | 19 | 34 | 50 | 0.5 |
| inch 1" | 8 | 7.34 | 8.13 | 6.63 | 7.13 | 8.22 | 0.88 | 0.25 | 0.88 | 25 | 1.19 | 5.53 | 1.00 | 1.63 | 2.50 | 2 |
| mm 25 | 203 | 187 | 206 | 168 | 181 | 209 | 22 | 6 | 22 | 25 | 30 | 140 | 25 | 41 | 64 | 0.9 |
| inch 1¼" | 8 | 7.34 | 8.13 | 6.63 | 7.13 | 8.22 | 0.88 | 0.25 | 0.88 | 25 | 1.19 | 5.53 | 1.25 | 1.97 | 2.84 | 3 |
| mm 32 | 203 | 187 | 206 | 168 | 181 | 209 | 22 | 6 | 22 | 25 | 30 | 140 | 32 | 50 | 72 | 1.5 |
| inch 1½" | 8 | 7.34 | 8.13 | 6.63 | 7.13 | 8.22 | 0.88 | 0.25 | 0.88 | 20 | 1.38 | 5.13 | 1.53 | 2.25 | 3.72 | 4 |
| mm 38 | 203 | 187 | 206 | 168 | 181 | 209 | 22 | 6 | 22 | 20 | 35 | 130 | 39 | 57 | 94 | 2.0 |
| inch 2" | 8 | 7.34 | 8.13 | 6.63 | 7.13 | 8.22 | 0.88 | 0.25 | 0.88 | 15 | 2.00 | 4.72 | 1.84 | 2.75 | 3.72 | 6 |
| mm 51 | 203 | 187 | 206 | 168 | 181 | 209 | 22 | 6 | 22 | 15 | 40 | 120 | 47 | 70 | 94 | 2.6 |

Dimensions shown are subject to change. Consult factory for certified drawings when required.

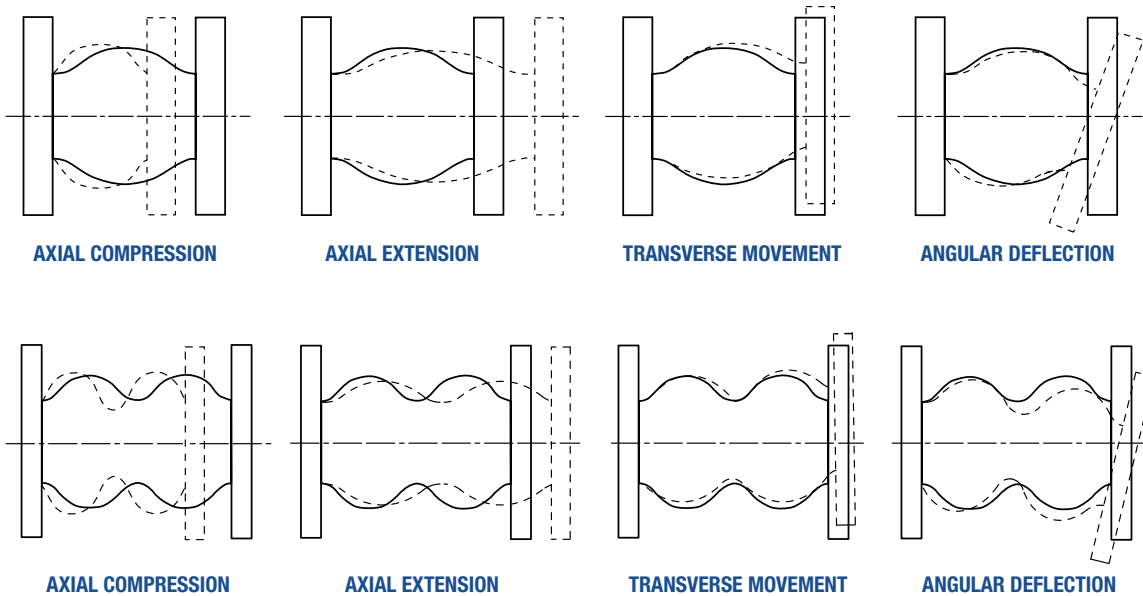
Materials

| Part | Material |
|--------------------|--------------|
| Body | Neoprene |
| Reinforcing Fabric | Nylon Cord |
| Wire | Hard Steel |
| NPT Ends | Ductile Iron |

Typical Installation

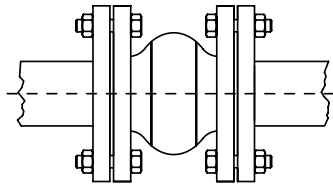


Allowable Movement

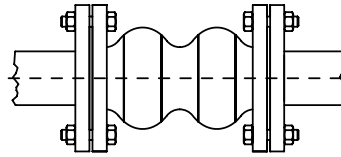


WARNING

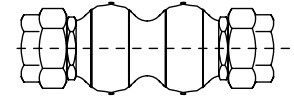
Expansion joints may operate in pipelines or equipment carrying fluids and or gases at elevated temperatures and pressures. Precaution should be taken to make sure these parts are installed correctly and inspected regularly. Caution should be taken to protect personnel in the event of leakage of fluids or gases.



SERIES ASM SINGLE SPHERE CONNECTOR



SERIES ATM SINGLE SPHERE CONNECTOR

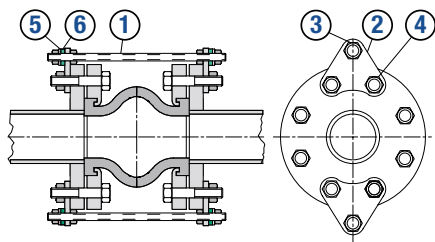


SERIES AUM CONNECTOR

Expansion Joint Mounting Instructions

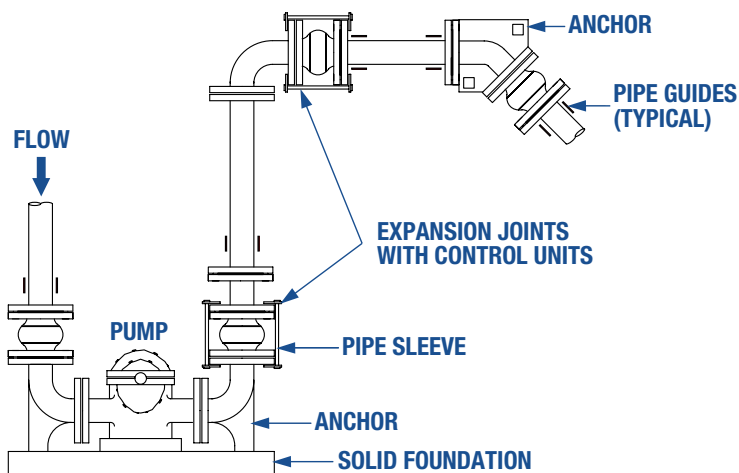
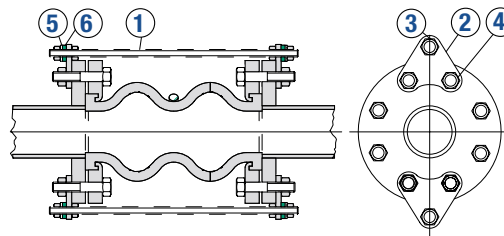
- Make sure that the expansion joint rating, for temperature, pressure, vacuum, movement and elastomeric materials, matches the systems requirements.
- Anchors are required whenever a piping system changes direction. Expansion joints should be located as close as possible to anchor points (See Figure 1).
- For piping that is not anchored, control rods must be used to prevent excessive movement from occurring (See Installation & Maintenance Instructions Control Rod for Expansion Joints).
- Expansion joints are not designed to make up for piping misalignment errors. Piping misalignments of more than 1/8", in any direction, will reduce the rated movement, stress the materials and reduce service life of the expansion joint.
- Before installation, check the interior, exterior and flange faces of the expansion joint for cuts and gouges.
- Piping must be supported so that expansion joint does not carry any weight. Make sure that the rubber expansion joints do not support compression or extension due to the weight of the upstream or downstream pipe.
- When installing the rubber expansion joint, make sure that the connector not be twisted in any case (especially for Series AUM).
- To determine end thrust, multiply thrust factor by PSIG.
- Vacuum rating is based on installed length, without external load. Product should not be installed "extended" on vacuum applications.
- Install at the face to face dimension shown on the drawing. Make sure the mating flanges are clean and are standard steel flat faced or no more than the 1/16" raised face type (See Figure 2).
- Joints must be pre-compressed approximately 1/8" to 3/16" in order to obtain a correct installed fact-to-face dimension.
- Floating metallic flanges freely rotate on the bellow to compensate for mating flange misalignment.
- Install the expansion joint against the mating pipe flanges and install bolts so that the bolt head is against the expansion joint flange.
- Flange-to-flange dimensions of the expansion joint must match the breech opening.
- Make sure mating flanges are clean and are FLAT FACED TYPE. When attaching beaded end flange expansion joints to raised face flanges, a ring gasket is required to prevent metal flange faces from cutting rubber bead during installation.
- Never install expansion joints next to wafer type check or butterfly valves. Serious damage to the rubber flange bead can result due to lack of flange mating surface and/or bolt connection.
- Do not use gaskets. Care must be taken when pushing the joint into the breech between the mating flanges so as not to roll the leading edge of the joint out of its flange groove.
- Do not bolt directly to another component with an elastomer face or to a specialty flange such as the Victualic® type without inserting a solid full-face metallic gasket.
- Cross tighten the bolts. Minimum recommended flange bolt torque foot pounds for the following joint sizes are: 1" to 2" – 28.90ft-lbm 2-1/2" to 8" – 43.40 ft-lb., 10" to 20" – 57.90 ft-lb.
- Do not over tighten to the point where there is metal to metal contact between the joint flange and the mating flange. Never tighten an expansion joint to the point that there is metal-to-metal contact between the expansion joint flange and the mating flange. NOTE: Over torquing bolts can cause deformation of the rubber expansion joint flanges, this resulting in possible premature failure. NOTE: Due to rubber's tendency to relax after initial tightening, it is necessary to retighten the flange bolts, typically within 1 week of initial installation.
- If bolt threads are facing the joint, trim the length of the bolts so they do not extend past the nut more than 1/8" to avoid contact with the joint.
- Insulation over expansion joints is not recommended. However, if insulation is required, it should be a design that is easy to remove to allow access to the flanges.
- Store expansion joints face down, in a cool dry location on a wooden pallet.
- Check the tightness of retaining rings two or three weeks after installation and re-tighten as necessary.

SERIES ASM WITH CONTROL RODS

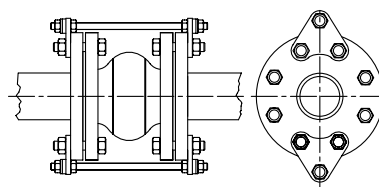


1. ROD
2. PLATE
3. NUT
4. HEAD NUT
5. STEEL WASHER
6. RUBBER WASHER

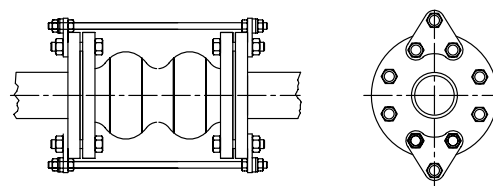
SERIES ATM WITH CONTROL RODS



SERIES ASM WITH CONTROL RODS



SERIES ATM WITH CONTROL RODS



Function

- Expansion joints are not designed to withstand excessive end thrusts, wide temperature fluctuations or high pressure changes (i.e. starting a pump). When pressures or temperatures exceed the unit's design capability, premature failure of the expansion joint will occur. To prevent excessive movement, Expansion joints must be installed in an anchored system, between two fixed anchor points in a piping system, to control expansion or contraction of the line. Piping anchors must be capable of withstanding the line thrust generated by internal pressure or wide temperature fluctuations. The failure of these anchors can cause excessive pipeline motion. When proper anchoring cannot be provided, control rods are required (See Figure 1).

- A control rod assembly is a set of two or more control rods placed across an expansion joint, from flange to flange, to minimize or prevent damage to the expansion joint caused by excessive extension, compression or motion of a pipeline and to absorb static pressure thrust. Control rods allow specified expansion joint movement (axial extension) and pipe contraction (axial compression) which will then preclude the possibility of motion that would over-elongate and damage the joint. The control rod assembly can also be set at the maximum allowable expansion and or contraction of the expansion joint. Control rods are not required in systems that are anchored. However, when used in this manner, control units are an additional safety factor and minimizes possible damage to adjacent equipment. Control rods are always required in unanchored systems.

WARNING

Expansion joints may operate in pipelines or equipment carrying fluids and or gases at elevated temperatures and pressures. Normal precautions should be taken to make sure these parts are installed correctly and inspected regularly. Caution should be taken to protect personnel in the event of leakage of fluids or gasses.

Expansion Joint Mounting Instructions

- Anchors are required whenever a piping system changes direction. Expansion joints should be located as close as possible to anchor points. If an anchoring system is not used, it is recommended that control rods be installed on the expansion joint to prevent excessive movement from occurring due to pressure thrust in the line (See Figure 1).
- To determine end thrust, multiply thrust factor by operating pressure of system. This is the end thrust in PSIG.
- Vacuum rating is based on installed length, without external load. Product should not be installed "extended" on vacuum applications.
- Joints must be pre-compressed approximately 1/8" to 3/16" in order to obtain a correct installed face-to-face dimension. During installation, the pre-compression should not exceed 3/16" (5 mm).
- The alignment of the piping system should be adjusted and secured with fixation points as close as possible on each side of the expansion joint at a distance less than three times the pipe's nominal diameter.
- These fixation points must be installed when mounting an expansion joint with control rods or an elbow pipe. If there is considerable distance between two fixation points, guiding points can be installed in order to support and guide the pipe (cf. installation scheme).
- Before installation, check the interior, exterior and flange faces of the expansion joint for cuts and gouges.
- When installing, make sure that the rubber expansion joints do not support compression or extension due to the weight of the upstream or downstream pipe.
- When installing the rubber expansion joint, make sure that the connector is not twisted (especially for Series AUM).
- Mounting order: (1) upstream pipe – anchor, (2) downstream pipe – anchor, (3) expansion joint.
- Verify that the upstream and downstream pipe alignment does not deviate more than 1/8" (3 mm) and that the expansion joint does not support heavy weight.
- To prevent damage to the expansion joint surface, verify that the surfaces, coming in contact with the expansion joint, are clean and without cutting edges (pipe).
- Avoid direct contact with the expansion joint rubber surface by inserting the bolts on the arch side of the joint.
- If welding is carried out within close range, cover or dismount the expansion joint.
- Do not paint or coat the joint with insulation.
- Store the joint in a flat position avoiding humidity and extreme temperatures.
- Bolt tightness should be checked daily within the first month after services and checked periodically.

- 1) **CANCELLATIONS & RESTOCKING POLICY:** Purchase orders once placed by Buyer and accepted by Seller can be cancelled only with Seller's written consent and upon terms which will save Seller from loss. No orders may be cancelled subsequent to delivery and/or shipment, whichever occurs first. As estimated actual damages, Buyer agrees to pay Seller the greater of Seller's actual costs incurred prior to cancellation plus a reasonable profit, or the following minimum cancellation charges: a) 20% of Order value if cancelled thirty (30) or more days prior to the original delivery/shipment date; b) 50% of the Order value if cancelled thereafter; or, c) 100% of the Order value of any non-standard items, which are items not built for stock or built to Buyer's specifications.
- 2) **RETURNED PRODUCT:** All sales are final; all custom products (non-stocking) are not subject to return, credit or refund. The return of obsolete and used Products shall not be permitted. The Purchaser shall not return Products without first obtaining Seller's written permission and shall be subject to a restocking charge. Products must be returned within 10 days after the date that written permission has been given. All transportation charges for any returned Products shall be paid by the Purchaser. Request to return Products must be accompanied by relevant customer order and Seller's invoice number(s). Final acceptance of returned Products is subject to examination and/or testing. Products will not be accepted for return or credit later than six (6) months after invoicing.
- 3) **PRICES:** Possession of price lists will not be accepted by the Seller as an obligation, or offer, to sell any goods listed therein. All prices contained in published price lists are subject to change without notice and supersede those of all previous lists. Prices quoted are based on current exchange rates; Seller reserves the right to adjust pricing to reflect the exchange rate in effect at the product receipt date to Seller's facility.
- 4) **LIQUIDATED DAMAGES:** Liquidated damages will not be accepted in the event of order placement.
- 5) **SALES TAXES, ETC.:** The Purchaser shall pay and be responsible for all provincial, local or federal sales, use or other taxes (including general sales or value added taxes) and customs duties now or hereinafter enacted which may be applicable to the sale of the Products or the importation of the Products to the destination specified by the Purchaser and which duties and taxes shall be the responsibility of the Purchaser.
- 6) **CREDIT APPROVAL:** Orders are accepted subject to satisfactory credit approval. Pending credit approval, delivery may be delayed without liability to Seller.
- 7) **TERMS OF PAYMENT:** The terms of payment for Products purchased pursuant to this Agreement are (I) upon acceptance of the purchase order a deposit in such amount as may be set out in the Seller's written acceptance notice and (II) the balance within 30 days from the date of invoice. Any invoice amount which is not paid when due shall bear interest at the rate of one and one-half (1 ½%) percent per month until paid in full.
- The Purchaser agrees that it will not have any rights of set off against or deduction from the purchase price for the Products payable by the Purchaser pursuant to this Agreement. The Purchaser grants to Seller a purchase money security interest in all Products delivered pursuant to this Agreement and all proceeds thereof (whether cash or non-cash and including, without limitation, accounts, instruments and chattel paper). Any failure by the Purchaser to pay the purchase price in full as provided in this Agreement shall constitute an event of default for purposes of said security interest. Upon the occurrence of any such default, Seller shall have all rights of a secured party after default under applicable law. Any repossession and removal of any Products shall be without prejudice to any of Seller's other remedies at law or in equity. The Purchaser agrees, without further consideration, at any time, to do or cause to be done, to execute and deliver, all such further acts and instruments (including, without limitation, financing statements approved for filing) as Seller may reasonably request in order to perfect Seller's security interest.
- 8) **DELIVERY DATE:** Seller will utilize reasonable best efforts to meet the delivery schedules stipulated in this Agreement. In the event the provisions of Section 14 hereof shall apply, the delivery date shall be extended by a number of days that is equal to the duration of the event or condition that is responsible for such delay.
- 9) **TITLE AND SHIPMENT:** All quotations and sales are FCA Loaded Truck ValvSource Warehouse (Inco Terms 2010) unless otherwise specified in writing and agreed by both parties. Seller's responsibility ceases upon delivery to carrier and title shall transfer and risk of loss shall be borne by Buyer at that point. Any expedited or other premium transportation charges requested by Buyer will be for the account of Buyer. Prices include domestic packing, blocked and strapped to open pallets and wrapped in Poly. No claims for price adjustments will be honored unless presented within six (6) months from date of invoice. All quotations are subject to change without notice and prior to sale of goods.
- 10) **INSPECTION BY PURCHASER:** All Products must be inspected by the Purchaser upon receipt and the Purchaser and Seller, collectively, agree to file appropriate claims with the carrier when there is evidence of shipping damage, either concealed or external. Claims for shortage or error in shipment or for damage other than shipping damage must be made within 5 days after receipt of shipment, failing which the Purchaser shall be deemed to have accepted the shipment.
- 11) **LIMITED WARRANTY:** Purchaser acknowledges that the Products are provided to the Purchaser subject only to the limited warranties provided by the manufacturer of the Products and are subject to all of the conditions, limitations and exclusions set out therein, all of which are hereby accepted by the Purchaser. The warranty exclusions include, without limitation, (I) any defects caused by faulty installation performed by Purchaser or third parties, (II) any damage caused by the contractors or tradesman of the Purchaser, (III) any damage caused by improper use or misuse, including exposure to excessive temperatures, moisture or cleaning agents and solvents and (IV) any damage caused during transportation or improper storage. Claims for warranty repairs and replacements must be made within the applicable time period described in the manufacturer's limited warranty. In no event shall Seller be liable for other than the repair or replacement of any defective Products. In no event shall Seller be liable for any damages, direct or indirect, special or consequential, including, without limitation, damages for lost profits, business interruption, or economic loss arising out of defects in the Products.
- 12) **EXCLUSION OF WARRANTIES:** Except as expressly set forth herein seller disclaims all warranties with regard to the products including, without limitation, all implied warranties of merchantability and fitness for a particular purpose.
- 13) **CATALOGUE AND OTHER PRINTED MATTER:** Seller's illustrations are representations of a certain size of each line of Product, but do not necessarily represent all sizes and materials in detail. Similarly, dimensions, weights and material information have been prepared with care, but their correctness is not guaranteed. Seller reserves the right to vary the designs and dimensions without notice.
- 14) **FORCE MAJEURE:** Any delay or failure of performance by Seller shall be excused if and to the extent caused, directly or indirectly, events beyond Seller's control including, without limitation, fire, flood earthquake, lightning, hurricane, explosion, accident or breakdown, acts of God, embargo, strike, labour dispute, labour trouble, lockout, shortage or control of power supply, shortage of supplies or raw materials, or any causes whether of the same kind as the causes enumerated before or not. Subject to any express provisions of this Agreement, any such causes of delay shall extend the time of performance by the length of delay occasioned thereby.
- 15) **NO WAIVER:** No waiver by Seller of any right hereunder or of any right granted in connection with a failure to perform or breach by the Purchaser shall be deemed as a waiver of any other right hereunder or of any right granted in connection with any other failure or breach by the Purchaser, whether of a similar nature or otherwise.
- 16) **NOTICE:** Any notice made under or in relation to this Agreement shall be sent to the addresses first above written or such other address as the intended recipient shall have previously designated by written notice, by postage prepaid registered mail or by telegram including telex, followed by a confirmation letter by postage prepaid and return receipt requested registered mail. The notice shall be deemed to be made on the fifth day following the date of mailing.
- 17) **ENTIRE AGREEMENT:** This Agreement contains the entire agreement and understanding of the parties hereto with respect to the subject matter of this Agreement, and supersedes all prior discussions, agreements, understandings of any and every nature, whether written or oral, between the parties with respect to the subject matter of this Agreement, and no condition, definition, warranty or representation other than those expressly provided for in this Agreement with respect to the subject matter of this Agreement shall be binding upon either party hereto.
- 18) **AMENDMENTS IN WRITING:** Any amendment, modification, change or alteration of this Agreement shall be made in writing which expressly refers to this Agreement and which is signed by a duly authorized officer or representative of each of the parties hereto.
- 19) **SEVERABILITY:** All provisions of this Agreement are severable and this Agreement shall be interpreted and enforced as if all completely invalid or unenforceable provisions were not contained herein. All partially valid and enforceable provisions shall be enforced to the extent they are valid and enforceable.
- 20) **NO AGENCY OR PARTNERSHIP:** Nothing herein contained shall be deemed or construed to constitute either party the agent or partner of the other. Neither party shall have any right, title or authority to enter into any contract, agreement or commitment on behalf of the other or to bind the other in any manner whatsoever.
- 21) **GOVERNING LAW:** This agreement shall be governed by and construed in accordance with the laws of the jurisdiction from which the products are shipped by the seller to the purchaser and the parties hereby attorn to the courts of such jurisdiction.
- 22) **ENUREMENT:** This Agreement shall enure to the benefit of and be binding upon the parties hereto and on their successors and permitted assigns.
- 23) **SELLER DEFINED:** For the purposes hereof, Seller means the Corporation listed as such on the front page of the Invoice or acceptance notice of which these terms and conditions of sale form a part.

Notes

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- 1,2,3 Piece Ball Valves
- Flanged Floating Ball Valves
- Knife Gate Valves
- Butterfly Valves
- Actuation
- Position Switches



- Y, Basket & Temporary Strainers
- Check Valves
- Triple Duty Valves
- Foot Valves
- Expansion Joints



- Pressure Gauges & Accessories
- Temperature Indicators
- Needle Valves
- Thermowells & Thermocouples



- Brass Ball Valves
- Bronze Gate, Globe, & Check Valves
- Cast Iron Gate, Globe, & Check Valves
- Cast & Forged Steel Gate, Globe and Check Valves



- Cast Gate, Globe & Check Valves
- Forged Gate, Globe & Checks
- Threaded Ball Valves
- Flanged Ball Valves



For more information contact:



- 1,2,3 Piece Ball Valves
- Flanged Floating Ball Valves
- Knife Gate Valves
- Butterfly Valves
- Actuation
- Position Switches



- Y, Basket & Temporary Strainers
- Check Valves
- Triple Duty Valves
- Foot Valves
- Expansion Joints



- Pressure Gauges & Accessories
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- Brass Ball Valves
- Bronze Gate, Globe, & Check Valves
- Cast Iron Gate, Globe, & Check Valves
- Cast & Forged Steel Gate, Globe and Check Valves



- Cast Gate, Globe & Check Valves
- Forged Gate, Globe & Checks
- Threaded Ball Valves
- Flanged Ball Valves



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