

## Applications

- Process Industry
- Metals and Mining
- Power Industry
- Water and Waste Water
- Chemical Industry
- Pulp and Paper
- Oil and Gas

# Basket Strainers

Pressures to 3705 PSIG  
Temperatures to 800°F

BASKET  
STRAINERS

## FEATURES

- Cast or Fabricated construction
- Filtration down to 40 microns
- Large strainer baskets
- Both compact and high capacity units are available

## MATERIALS OF CONSTRUCTION

- Cast Iron
- Bronze
- Carbon Steel
- Stainless Steel
- Other materials upon request

## END CONNECTIONS

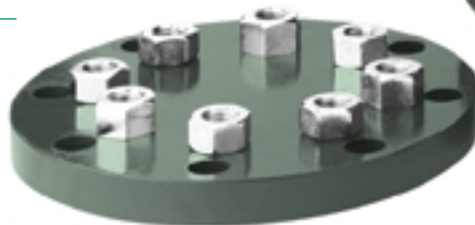
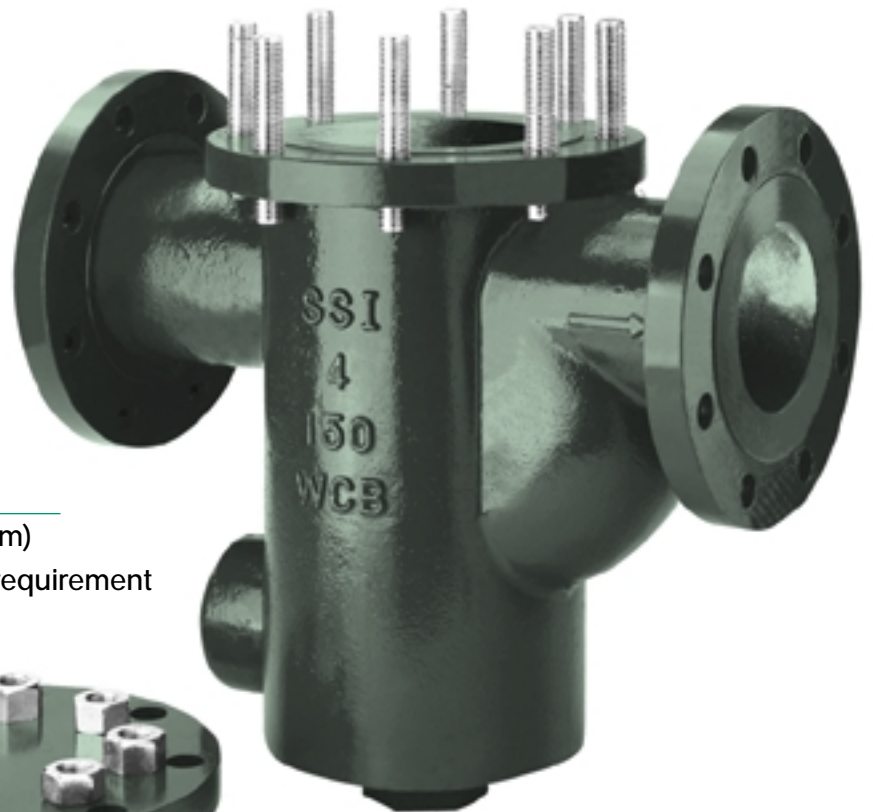
- Flat Faced
- Raised Face
- Buttweld
- Threaded (NPT)
- Socketweld

## SIZES

- Cast - 1/2" (15mm) up to 20" (500mm)
- Fabricated - custom sizes to meet requirement

## RATINGS

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





# 125B SERIES CAST IRON FLANGED BASKET STRAINERS

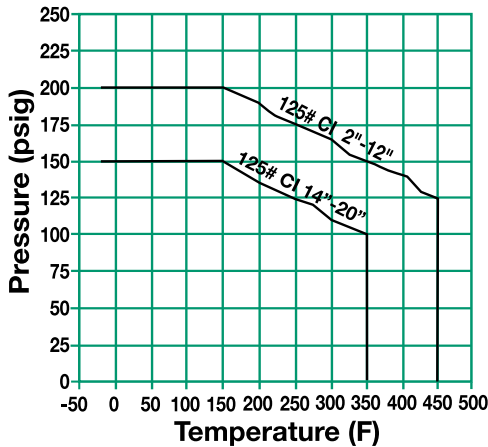
PRESSURES TO 200 PSIG (13.8 BARG)  
TEMPERATURES TO 450°F (232°C)

- 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

## APPLICATIONS

- Water, Oil Systems
- Other Liquid Systems
- Protection of Pumps, Meters, Valves and Similar Equipment

## PRESSURE/TEMPERATURE CHART ASME B16.1



For Quick Opening Covers Ratings, see page 91.

## MODELS

- 125B1F - Straight Flow

## OPTIONS

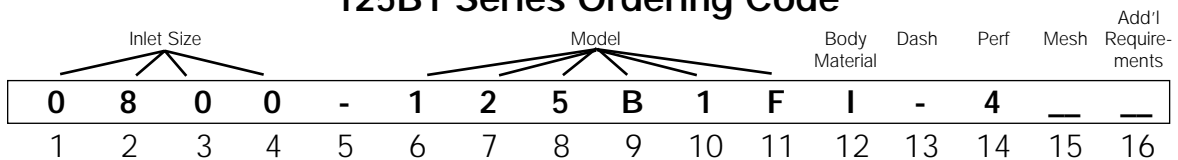
- Other screen perforations and mesh liners
- Quick Opening Covers - See page 91

## APPLICABLE CODES (Designed in accordance with)

- ASME B16.1

Canadian Registration OE10279.5C

## 125B1 Series Ordering Code



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

**Dash** - Position 5  
**Model** - Position 6 - 11  
125B1F - Straight Flow  
**Body Material** - Position 12  
I - Cast Iron  
**Dash** - Position 13

**Perf**<sup>1</sup> - Position 14  
**304 SS Material**<sup>2</sup>  
B - 3/64" (std < 4")  
4 - 1/8" (std => 4")  
A - None  
1 - 1/32"  
2 - 1/16"  
3 - 3/32"  
5 - 5/32"  
6 - 3/16"  
7 - 7/32"  
8 - 1/4"  
9 - 3/8"  
Z - Other

**Mesh**<sup>2</sup> - Position 15  
**Leave Blank If not Required (Std. All)**  
1 - 10  
2 - 20  
3 - 30  
4 - 40  
5 - 50  
6 - 60  
7 - 80  
8 - 100  
9 - 120  
Z - Other

**Add'l Requirements** - Position 16  
**Leave Blank If not Required**  
D - Special Drain Size  
E1 - 1/4" Vent  
E2 - 3/8" Vent  
E3 - 1/2" Vent  
F - Silicon Free  
G - Special Gaskets  
T - Special Testing  
V1 - Clamp Cover  
X - Oxygen Cleaning  
Y - Other and / or Multiple Specials

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

2. For other screen material, contact factory.

**Indicate Specials Clearly On the Order**



For any variations, use the part numbering system above but clearly indicate the additional requirement.

# 125B SERIES CAST IRON FLANGED BASKET STRAINERS

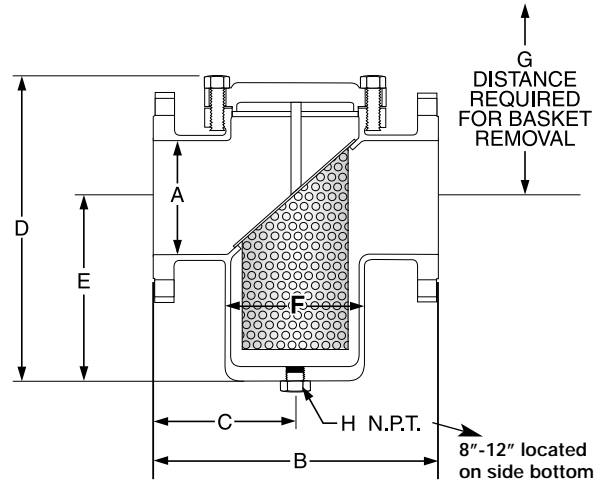
## SPECIFICATION

Basket Strainer shall have straight flow with an angular basket. The Basket Strainer shall be cast iron rated to ASME Class 125 designed in accordance with B16.1. The screen shall be size \_\_\_\_\_ perforated stainless steel. The Strainer shall have an inlet size of \_\_\_\_\_ and open area ratio of \_\_\_\_\_. The Basket Strainer shall be SSI 125B Series.

## MATERIALS OF CONSTRUCTION

Body ..... Cast Iron A126-B  
 Cover ..... Cast Iron A126-B  
 Screen<sup>1</sup> ..... 304 SS  
 Plug<sup>2</sup> ..... Cast Iron A126-B  
 Gasket<sup>1</sup> ..... Graphite<sup>3</sup>  
 Bolt/Stud<sup>2</sup> ..... A307-B  
 Nut<sup>2</sup> ..... A563

1. Recommended Spare Parts
2. Materials of equivalent strength may be substituted
3. Gasket for bolted cover. *For Quick Opening Covers see page 91*



Connections: 2" - 20" FF Flanged

BASKET STRAINERS

## SCREEN OPENINGS

| SIZE     | STANDARD SCREEN | MATERIALS |
|----------|-----------------|-----------|
| 2" - 3"  | 3/64 Perf.      | 304 SS    |
| 4" - 20" | 1/8 Perf.       | 304 SS    |

## DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)

| SIZE          | A             | B                 | C                 | D*                | E                | F                 | G                | H**           | WEIGHT       |               |
|---------------|---------------|-------------------|-------------------|-------------------|------------------|-------------------|------------------|---------------|--------------|---------------|
|               |               |                   |                   |                   |                  |                   |                  |               | Cover        | Unit          |
| 2<br>(50)     | 2<br>(51)     | 8 1/8<br>(206)    | 4 1/16<br>(103)   | 9 1/16<br>(230)   | 5<br>(127)       | 2 15/16<br>(75)   | 11 1/4<br>(298)  | 1/2<br>(15)   | 5<br>(2.3)   | 23<br>(10)    |
| 2 1/2<br>(65) | 2 1/2<br>(64) | 8 1/4<br>(210)    | 4 1/8<br>(106)    | 9 3/16<br>(249)   | 6<br>(152)       | 4<br>(102)        | 13 3/4<br>(337)  | 3/4<br>(20)   | 7<br>(3.2)   | 33<br>(15)    |
| 3<br>(80)     | 3<br>(76)     | 9 1/8<br>(251)    | 4 15/16<br>(125)  | 12 3/16<br>(310)  | 7 1/8<br>(181)   | 5<br>(127)        | 15 1/2<br>(391)  | 3/4<br>(20)   | 9<br>(4)     | 44<br>(20)    |
| 4<br>(100)    | 4<br>(102)    | 11 1/2<br>(292)   | 5 1/4<br>(146)    | 13 3/8<br>(346)   | 8<br>(203)       | 5 13/16<br>(148)  | 17 1/4<br>(451)  | 1<br>(25)     | 13<br>(6)    | 67<br>(30)    |
| 5<br>(125)    | 5<br>(127)    | 13 1/2<br>(333)   | 6 1/8<br>(167)    | 14 1/16<br>(370)  | 8 1/2<br>(216)   | 7 1/8<br>(179)    | 20 1/2<br>(521)  | 1<br>(25)     | 20<br>(9)    | 88<br>(40)    |
| 6<br>(150)    | 6<br>(152)    | 14 1/2<br>(378)   | 7 1/8<br>(189)    | 15 3/4<br>(400)   | 9<br>(229)       | 7 15/16<br>(202)  | 23<br>(584)      | 1<br>(25)     | 26<br>(12)   | 120<br>(54)   |
| 8<br>(200)    | 8<br>(203)    | 18 11/16<br>(475) | 9 1/8<br>(238)    | 19 15/16<br>(506) | 12<br>(305)      | 9 27/32<br>(250)  | 30<br>(762)      | 1 1/2<br>(40) | 45<br>(20)   | 220<br>(100)  |
| 10<br>(250)   | 10<br>(254)   | 20 1/2<br>(511)   | 10<br>(254)       | 26<br>(660)       | 13 3/16<br>(335) | 12 1/16<br>(313)  | 35 1/2<br>(902)  | 1 1/2<br>(40) | 70<br>(32)   | 353<br>(160)  |
| 12<br>(300)   | 12<br>(305)   | 26 3/4<br>(679)   | 13 3/8<br>(340)   | 30 1/8<br>(765)   | 16 1/32<br>(412) | 15 11/32<br>(390) | 42 1/2<br>(1080) | 2<br>(50)     | 110<br>(50)  | 523<br>(237)  |
| 14<br>(350)   | 14<br>(356)   | 30 1/4<br>(768)   | 15 1/8<br>(384)   | 37 1/2<br>(953)   | 22<br>(559)      | 18<br>(457)       | 53<br>(1346)     | 1 1/2<br>(40) | 140<br>(64)  | 815<br>(370)  |
| 16<br>(400)   | 16<br>(406)   | 33 1/2<br>(841)   | 16 1/8<br>(422)   | 39 1/2<br>(1003)  | 22 1/8<br>(581)  | 20 3/4<br>(527)   | 55 1/8<br>(1413) | 2<br>(50)     | 180<br>(82)  | 1041<br>(472) |
| 18<br>(450)   | 18<br>(457)   | 38 1/2<br>(978)   | 19 1/4<br>(489)   | 40<br>(1016)      | 19<br>(483)      | 24 1/4<br>(616)   | 61<br>(1549)     | 2<br>(50)     | 220<br>(100) | 1446<br>(656) |
| 20<br>(500)   | 20<br>(508)   | 41 3/8<br>(1051)  | 20 11/16<br>(525) | 46 1/4<br>(1175)  | 23 1/4<br>(591)  | 26 1/2<br>(673)   | 69 1/4<br>(1759) | 2<br>(50)     | 285<br>(129) | 1980<br>(898) |

\* 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.

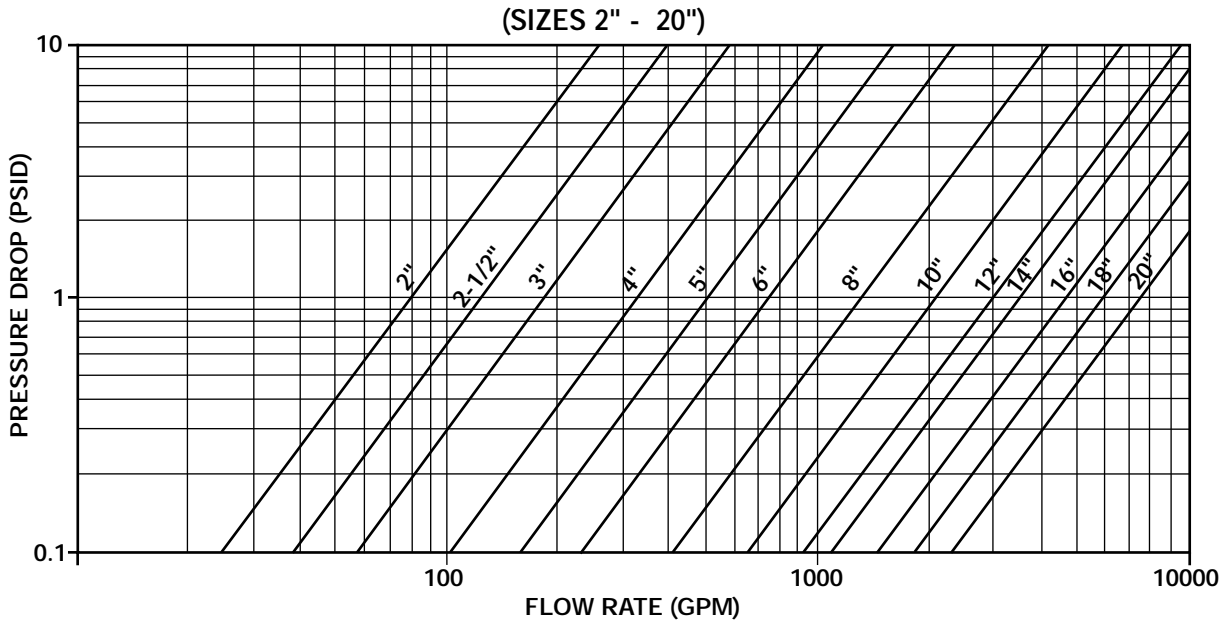
Dimensions shown are subject to change. Consult factory for certified drawings.

# 125B SERIES

## CAST IRON FLANGED BASKET STRAINERS

### PRESSURE DROP VS FLOW RATE

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



# 125B SERIES

## CAST IRON FLANGED BASKET STRAINERS

### OPEN AREA RATIOS

with Standard Perforated Screen

| Size | Opening diameter (in) | Opening % | Nominal Outlet Area (in <sup>2</sup> ) | Gross Screen Area (in <sup>2</sup> ) | Free Screen Area (in <sup>2</sup> ) | 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                   |

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

Other Screen Openings  
Page 90

Basket Burst Pressure  
Page 96

Correction Factors for Other  
Viscous Liquids and/or Mesh Liners  
Page 95

Correction Factors  
for Clogged Screens  
Page 95



NOTES:



# 150B1 SERIES CAST BRONZE, CARBON STEEL, STAINLESS STEEL FLANGED BASKET STRAINERS

PRESSURES TO 285 PSIG (19.7 BARG)  
TEMPERATURES TO 406°F (207°C)

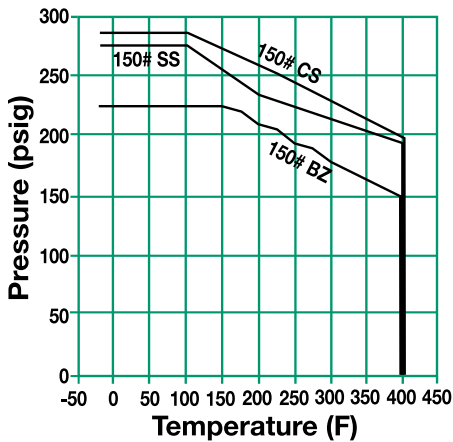
## APPLICATIONS

- Water, Oil Systems
- Other Liquid Systems
- Protection of Pumps, Meters, Valves and Similar Equipment

- 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

## PRESSURE/TEMPERATURE CHART

ASME B16.34, ASME B16.24



For Quick Opening Covers Ratings see page 91.

## MODELS

- 150B1F – Straight Flow

## OPTIONS

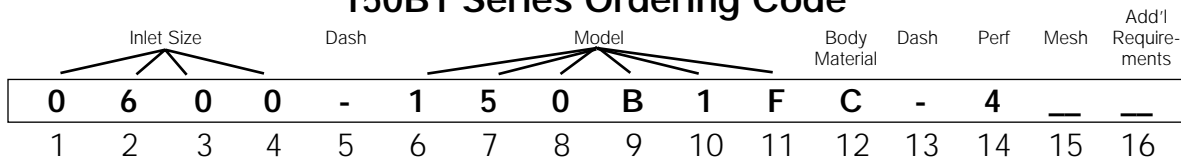
- Other screen perforations and mesh liners
- Quick Opening Covers - See page 91

## APPLICABLE CODES (Designed in accordance with)

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

Canadian Registration OE10274.5C

## 150B1 Series Ordering Code



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

**Model** - Position 6 - 11  
 150B1F - Straight Flow  
**Body Material** - Position 12  
 B - Bronze  
 C - Carbon Steel  
 T - Stainless Steel  
**Dash** - Position 13

**Perf<sup>1</sup>** - Position 14  
**304 SS Material<sup>2</sup>**  
 B - 3/64"  
 4 - 1/8"  
 A - None  
 1 - 1/32"  
 2 - 1/16"  
 3 - 3/32"  
 5 - 5/32"  
 6 - 3/16"  
 7 - 7/32"  
 8 - 1/4"  
 9 - 3/8"  
 Z - Other

**Mesh<sup>2</sup>** - Position 15  
**Leave Blank If not Required (Std all)**  
 1 - 10  
 2 - 20  
 3 - 30  
 4 - 40  
 5 - 50  
 6 - 60  
 7 - 80  
 8 - 100  
 9 - 120  
 Z - Other

**Add'l Requirements** - Position 16  
**Leave Blank If not Required**  
 D - Special Drain Size  
 E1 - 1/4" Vent  
 E2 - 3/8" Vent  
 E3 - 1/2" Vent  
 F - Silicon Free  
 G - Special Gaskets  
 N - Nace MR01-75  
 T - Special Testing  
 V1 - Clamp Cover  
 X - Oxygen Cleaning  
 Y - Other and / or Multiple Specials

For any variations, use the part numbering system above but clearly indicate the additional requirement.

1. Standard Screens:  
 All 2"-3" — 3/64" perf,  
 All 4"-12" — 1/8" perf.

2. For other screen material, contact factory.

**Indicate Specials Clearly On the Order**



# 150B1 SERIES CAST BRONZE, CARBON STEEL, STAINLESS STEEL FLANGED BASKET STRAINERS

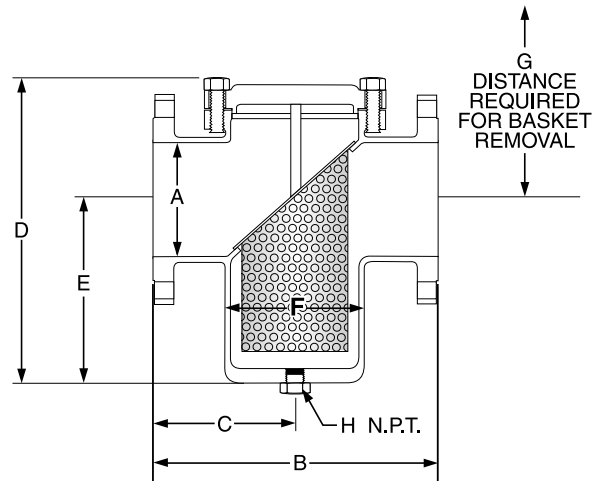
## SPECIFICATION

Basket Strainer shall have straight flow with an angular basket. The Basket Strainer shall be \_\_\_\_\_ body material rated to ASME Class 150 in accordance with ASME B16.5, B16.24 and/or B16.34. The screen shall be size \_\_\_\_\_ perforated stainless steel. The Strainer shall have an inlet size of \_\_\_\_\_ and open area ratio of \_\_\_\_\_. The Basket Strainer shall be SSI 150B1 Series.

## MATERIALS OF CONSTRUCTION

|                        | Bronze              | Carbon Steel        | Stainless Steel     |
|------------------------|---------------------|---------------------|---------------------|
| Body                   | Bronze B62          | A216-WCB            | A351-CF8M           |
| Cover                  | Bronze B62          | A216-WCB            | A351-CF8M           |
| Screen <sup>1</sup>    | 304 SS              | 304 SS              | 304 SS              |
| Plug <sup>2</sup>      | Bronze B16          | A105                | A182-316            |
| Gasket <sup>1</sup>    | Teflon <sup>3</sup> | Teflon <sup>3</sup> | Teflon <sup>3</sup> |
| Bolt/Stud <sup>2</sup> | Bronze B16          | A193-B7             | A193-B8-1           |
| Nut <sup>2</sup>       | Nonferrous          | A194-2H             | A194-B              |

1. Recommended Spare Parts
2. Materials of equivalent strength may be substituted.
3. Gasket for bolted cover. *For Quick Opening Covers Ratings see page 91.*



Connections  
BZ: 2" - 6" FF Flanged  
CS, SS: 2" - 12" RF Flanged

## SCREEN OPENINGS

| SIZE     | STANDARD SCREEN | MATERIALS |
|----------|-----------------|-----------|
| 2" - 3"  | 3/64 Perf.      | 304 SS    |
| 4" - 12" | 1/8 Perf.       | 304 SS    |

## DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)

| SIZE          | A             | B               | C                |                  | D*                |                 | E                |                | F               |                  | G                |                 | H         |             | WEIGHT      |                |
|---------------|---------------|-----------------|------------------|------------------|-------------------|-----------------|------------------|----------------|-----------------|------------------|------------------|-----------------|-----------|-------------|-------------|----------------|
|               |               |                 | Stl.             | Bz.              | Stl.              | Bz.             | Stl.             | Bz.            | Stl.            | Bz.              | Stl.             | Bz.             | Stl.      | Bz.         | Cover       | Unit           |
| 2<br>(50)     | 2<br>(51)     | 8 1/8<br>(206)  | 4 1/8<br>(103)   | 4 1/8<br>(103)   | 9 1/8<br>(243)    | 8 1/8<br>(218)  | 5 5/8<br>(143)   | 5<br>(127)     | 3 1/4<br>(83)   | 2 1/8<br>(73)    | 12 1/2<br>(318)  | 11 1/4<br>(298) | 1<br>(25) | 1/2<br>(13) | 5<br>(2.3)  | 29<br>(13)     |
| 2 1/2<br>(65) | 2 1/2<br>(64) | 8 3/4<br>(222)  | 4 3/8<br>(111)   | 4 3/8<br>(111)   | 10 13/16<br>(275) | 8 5/8<br>(227)  | 5 15/16<br>(152) | 6 1/4<br>(159) | 3 3/8<br>(86)   | 3 3/8<br>(98)    | 14<br>(356)      | 13 3/4<br>(349) | 1<br>(25) | 3/4<br>(19) | 7<br>(3.2)  | 33<br>(15)     |
| 3<br>(80)     | 3<br>(76)     | 9 1/8<br>(251)  | 4 15/16<br>(125) | 4 15/16<br>(125) | 12 1/2<br>(318)   | 11 1/4<br>(286) | 7 7/8<br>(192)   | 7 7/8<br>(181) | 3 7/8<br>(90)   | 4 1/4<br>(121)   | 15 5/8<br>(391)  | 15 5/8<br>(391) | 1<br>(25) | 3/4<br>(19) | 9<br>(4.1)  | 48<br>(21.8)   |
| 4<br>(100)    | 4<br>(102)    | 11 1/2<br>(292) | 5 1/4<br>(146)   | 5 3/8<br>(146)   | 16<br>(406)       | 13 3/8<br>(335) | 10 1/8<br>(257)  | 8<br>(203)     | 4 5/8<br>(118)  | 5 11/16<br>(145) | 21 1/4<br>(540)  | 17 3/4<br>(451) | 1<br>(25) | 1<br>(25)   | 13<br>(5.9) | 69<br>(31.4)   |
| 5<br>(125)    | 5<br>(127)    | 13 3/8<br>(333) | 6 1/8<br>(167)   | 6 3/8<br>(167)   | 15 7/8<br>(403)   | 14 1/2<br>(368) | 9 1/2<br>(241)   | 8 1/2<br>(216) | 7 1/2<br>(191)  | 6 15/16<br>(176) | 22 1/4<br>(565)  | 20 1/2<br>(521) | 1<br>(25) | 1<br>(25)   | 20<br>(9.1) | 105<br>(48)    |
| 6<br>(150)    | 6<br>(152)    | 14 7/8<br>(378) | 7 1/8<br>(189)   | 7 1/8<br>(189)   | 17 7/8<br>(437)   | 15<br>(381)     | 10 5/8<br>(241)  | 9<br>(229)     | 6 1/8<br>(162)  | 7 15/16<br>(202) | 22 1/2<br>(572)  | 23<br>(584)     | 1<br>(25) | 1<br>(25)   | 26<br>(12)  | 121<br>(55)    |
| 8<br>(200)    | 8<br>(203)    | 18 3/4<br>(476) | 9 3/8<br>(238)   | —                | 21 15/16<br>(559) | —               | 13 3/8<br>(332)  | —              | 8 3/8<br>(226)  | —                | 29 3/8<br>(746)  | —               | 1<br>(25) | —           | 45<br>(20)  | 214<br>(97.3)  |
| 10<br>(250)   | 10<br>(254)   | 20 1/8<br>(511) | 10 1/8<br>(256)  | —                | 25<br>(629)       | —               | 13 3/8<br>(340)  | —              | 10 3/8<br>(270) | —                | 35<br>(889)      | —               | 1<br>(25) | —           | 70<br>(32)  | 309<br>(140.5) |
| 12<br>(300)   | 12<br>(305)   | 26 1/4<br>(667) | 13 3/8<br>(333)  | —                | 30 11/16<br>(780) | —               | 17<br>(432)      | —              | 14 7/8<br>(378) | —                | 42 1/2<br>(1080) | —               | 2<br>(50) | —           | 110<br>(50) | 476<br>(216.4) |

\*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.

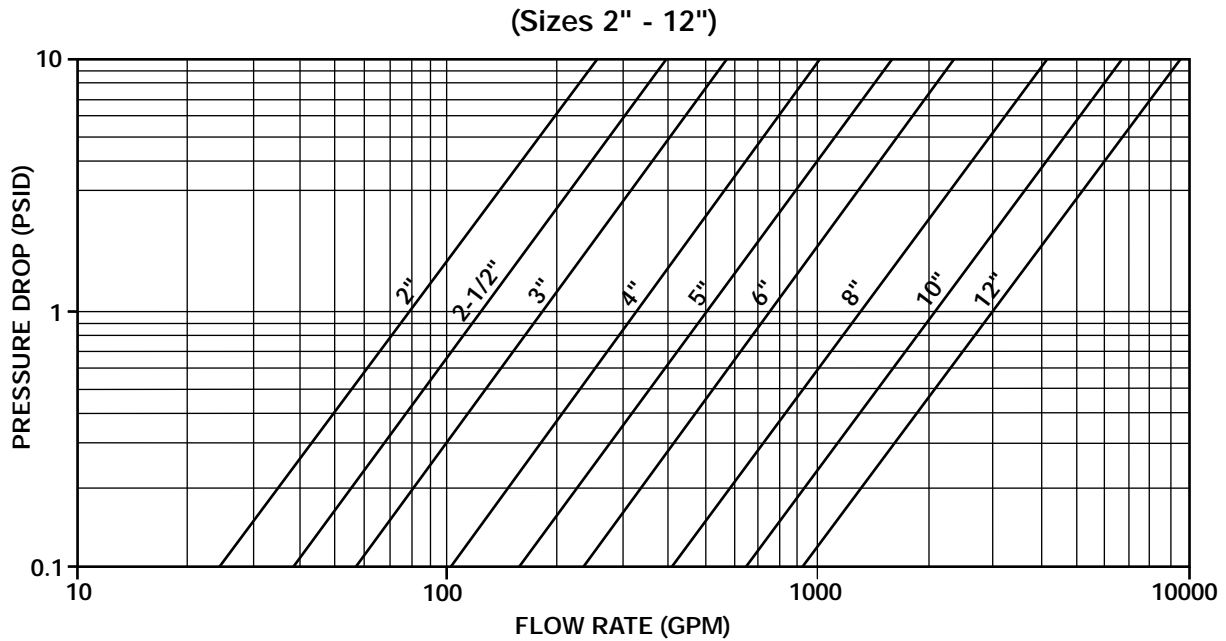
BASKET  
STRAINERS

# 150B1 SERIES

## CAST BRONZE, CARBON STEEL, STAINLESS STEEL

### PRESSURE DROP VS FLOW RATE

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



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

# 150B1 SERIES

## CAST BRONZE, CARBON STEEL, STAINLESS STEEL

### OPEN AREA RATIOS

with Standard Perforated Screen

#### BRONZE ONLY

| Size | Opening diameter (in) | Opening % | Flange Inlet Area (in <sup>2</sup> ) | Gross Screen Area (in <sup>2</sup> ) | Free Screen Area (in <sup>2</sup> ) | 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 STEEL & STAINLESS STEEL ONLY

| Size | Opening diameter (in) | Opening % | Nominal Inlet Area (in <sup>2</sup> ) | Gross Screen Area (in <sup>2</sup> ) | Free Screen Area (in <sup>2</sup> ) | 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                   |

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

Other Screen Openings  
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Basket Burst Pressure  
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Correction Factors for Other  
Viscous Liquids and/or Mesh Liners  
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Correction Factors  
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NOTES:



# 150B2 SERIES CAST CARBON STEEL, STAINLESS STEEL FLANGED BASKET STRAINERS

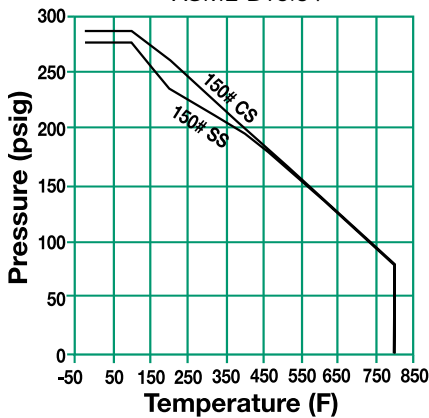
PRESSURES TO 285 PSIG (19.7 BARG)  
TEMPERATURES TO 800°F (427°C)

- 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

## APPLICATIONS

- Water, Oil Systems
- Other Liquid Systems
- Protection of Pumps, Meters, Valves and Similar Equipment

## PRESSURE/TEMPERATURE CHART ASME B16.34



For Quick Opening Covers Ratings See page 91

## MODELS

- 150B2F - Over the top flow

## OPTIONS

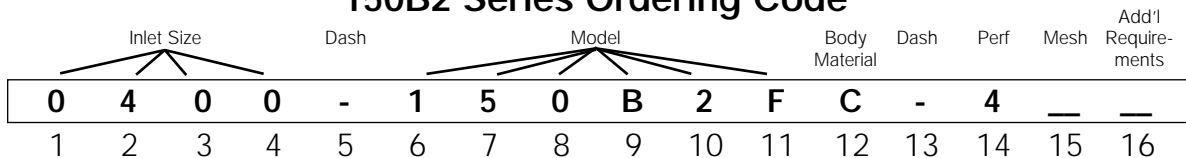
- Other screen perforations and mesh liners
- Quick Opening Covers - See page 91

## APPLICABLE CODES (Designed in accordance with)

- ASME B16.5
- ASME B16.34

Canadian Registration OE10274.5C

## 150B2 Series Ordering Code



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

**Dash** - Position 5

**Model** - Position 6 - 11  
150B2F - Over The Top  
**Body Material** - Position 12  
C - Carbon Steel  
T - Stainless Steel  
**Dash** - Position 13

**Perf<sup>1</sup>** - Position 14  
**304 SS Material<sup>2</sup>**  
B - 3/64"  
4 - 1/8"  
A - None  
1 - 1/32"  
2 - 1/16"  
3 - 3/32"  
5 - 5/32"  
6 - 3/16"  
7 - 7/32"  
8 - 1/4"  
9 - 3/8"  
Z - Other

**Mesh<sup>2</sup>** - Position 15  
**Leave Blank If not Required (Std. all)**  
1 - 10  
2 - 20  
3 - 30  
4 - 40  
5 - 50  
6 - 60  
7 - 80  
8 - 100  
9 - 120  
Z - Other

**Add'l Requirements** - Position 16  
**Leave Blank If not Required**  
D - Special Drain Size  
E1 - 1/4" Vent  
E2 - 3/8" Vent  
E3 - 1/2" Vent  
F - Silicon Free  
G - Special Gaskets  
N - Nace MR01-75  
T - Special Testing  
V1 - Clamp Cover  
X - Oxygen Cleaning  
Y - Other and / or Multiple Specials

1. Standard screens All 1½"—1/32" perf, All 2"-3"—3/64" perf, All 4"-8"—1/8" perf.  
2. For other screen material, contact factory.  
For any variations, use the part numbering system above but clearly indicate the additional requirement.

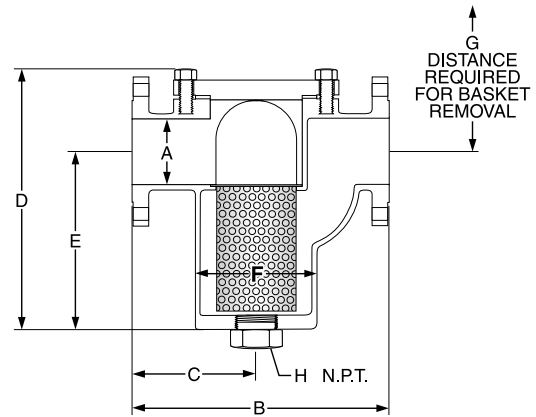
**Indicate Specials Clearly On the Order**



# 150B2 SERIES CAST CARBON STEEL, STAINLESS STEEL FLANGED BASKET STRAINERS

## SPECIFICATION

Basket Strainer shall have over the top flow with a machined basket seat. The Basket Strainer shall be cast steel or stainless steel rated to ASME Class 150 in accordance with ASME B16.5 and B16.34. The cover flange dimensions shall be in dimensional accordance with ASME B16.5. The screen shall be size \_\_\_\_ perforated stainless steel. The Strainer shall have an inlet size of \_\_\_\_ and open area ratio of \_\_\_\_\_. The Basket Strainer shall be SSI 150B2 Series.



BASKET STRAINERS

## MATERIALS OF CONSTRUCTION

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

1. Recommended Spare Parts
2. Materials of equivalent strength may be substituted.
3. Gasket for bolted cover. *For Quick Opening Covers, see page 91*

Connections: 1½" - 8" RF Flanged

## SCREEN OPENINGS

| SIZE    | STANDARD SCREEN | MATERIALS |
|---------|-----------------|-----------|
| 1½"     | 1/32 Perf.      | 304 SS    |
| 2" - 3" | 3/64 Perf.      | 304 SS    |
| 4" - 8" | 1/8 Perf.       | 304 SS    |

## DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)

| SIZE       | A          | B            | C            | D*           | E            | F            | G             | H<br>NPT  | WEIGHT       |                |
|------------|------------|--------------|--------------|--------------|--------------|--------------|---------------|-----------|--------------|----------------|
|            |            |              |              |              |              |              |               |           | Cover        | Unit           |
| 1½<br>(40) | 1½<br>(38) | 9½<br>(241)  | 4¾<br>(121)  | 10¼<br>(260) | 6⅞<br>(175)  | 3⅞<br>(87)   | 13½<br>(343)  | ½<br>(15) | 5<br>(2.3)   | 30<br>(13.6)   |
| 2<br>(50)  | 2<br>(51)  | 10½<br>(267) | 5¼<br>(133)  | 11½<br>(300) | 8⅞<br>(208)  | 4⅞<br>(105)  | 15⅞<br>(397)  | ¾<br>(20) | 7<br>(3.2)   | 46<br>(20.9)   |
| 3<br>(80)  | 3<br>(76)  | 13⅞<br>(333) | 6⅞<br>(167)  | 15⅞<br>(395) | 11¾<br>(284) | 5⅞<br>(137)  | 19¼<br>(502)  | 1<br>(25) | 17<br>(7.7)  | 78<br>(35.5)   |
| 4<br>(100) | 4<br>(102) | 17¼<br>(438) | 8⅞<br>(225)  | 16⅞<br>(410) | 11⅞<br>(291) | 6⅞<br>(170)  | 20¼<br>(527)  | 2<br>(50) | 20<br>(9.1)  | 114<br>(51.8)  |
| 6<br>(150) | 6<br>(152) | 19⅞<br>(498) | 10⅞<br>(276) | 25⅞<br>(649) | 19⅞<br>(491) | 10<br>(254)  | 31⅞<br>(791)  | 2<br>(50) | 45<br>(20.5) | 241<br>(109.5) |
| 8<br>(200) | 8<br>(203) | 27<br>(686)  | 14⅞<br>(371) | 35⅞<br>(900) | 27⅞<br>(710) | 12⅞<br>(313) | 42¼<br>(1073) | 2<br>(50) | 70<br>(31.8) | 432<br>(196.4) |

\*For models with Quick Opening Cover, consult factory. Allow clearance for bottom drain bolt removal.

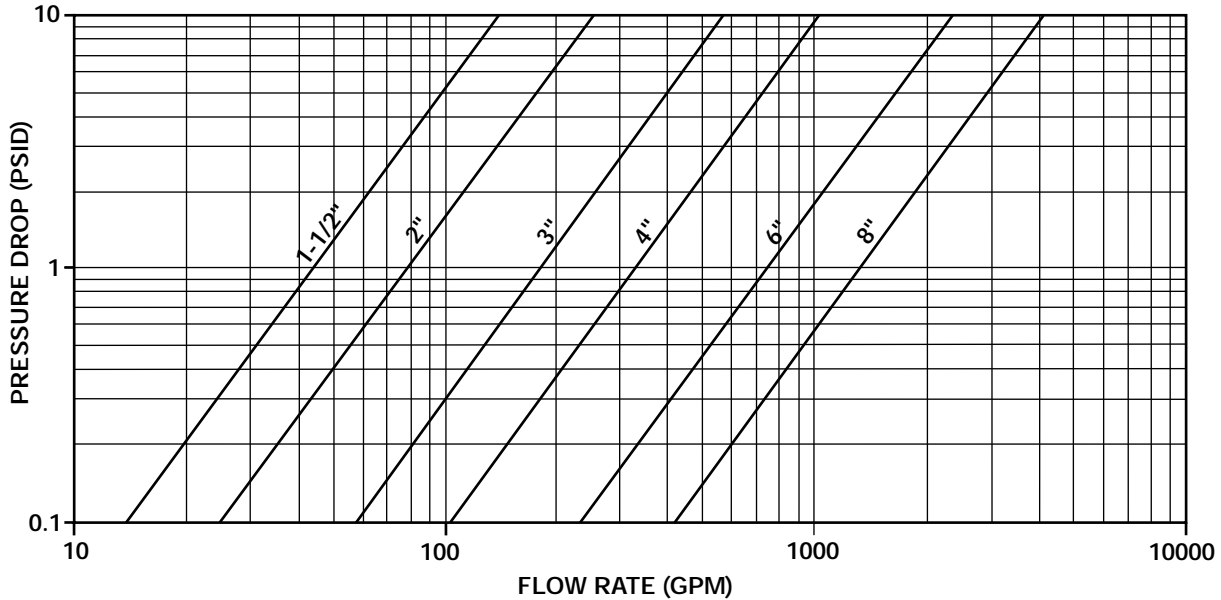
Dimensions shown are subject to change. Consult factory for certified drawings.

# 150B2 SERIES

## CAST CARBON STEEL, STAINLESS STEEL

### PRESSURE DROP VS FLOW RATE

Water Service, Clean Basket, 1/32" - 1/4" Perforated Screen\*  
(Sizes 1½" - 8")



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

# 150B2 SERIES

## CAST CARBON STEEL, STAINLESS STEEL

### OPEN AREA RATIOS

with Standard Perforated Screen

| Size | Opening diameter (in) | Opening % | Nominal Inlet Area (in <sup>2</sup> ) | Gross Screen Area (in <sup>2</sup> ) | Free Screen Area (in <sup>2</sup> ) | 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                   |

OAR = Free Screen Area / Nominal Inlet Area

Free Screen Area = Opening % x Gross Screen Area

Values shown are approximate. Consult factory for exact ratios.

Other Screen Openings  
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Basket Burst Pressure  
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Correction Factors for Other  
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Correction Factors  
for Clogged Screens  
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NOTES:



# 300B SERIES CAST CARBON STEEL, STAINLESS STEEL THREADED BASKET STRAINERS

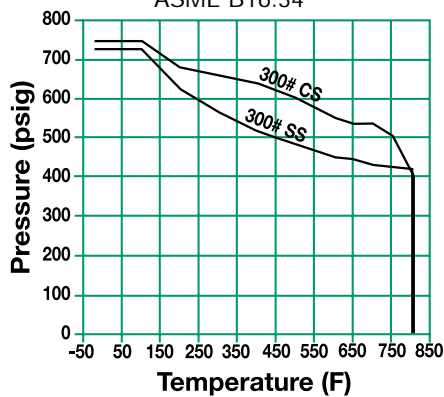
PRESSURES TO 740 PSIG (51 BARG)  
TEMPERATURES TO 800°F (427°C)

- 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 by-pass
- 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

## APPLICATIONS

- Water, oil systems
- Other liquid systems
- Protection of pumps, meters, valves and similar equipment

**PRESSURE/TEMPERATURE CHART**  
ASME B16.34



For Quick Opening Covers Ratings, see page 91

## MODELS

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

## OPTIONS

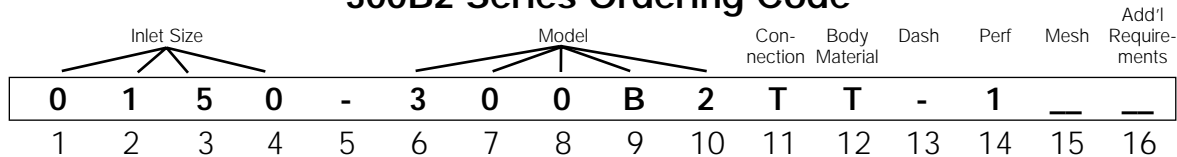
- Other screen perforations and mesh liners
- Quick Opening Covers - See page 91
- Socketweld Connections

## APPLICABLE CODES (Designed in accordance with)

- ASME B16.5
- ASME B16.34

Canadian Registration - OE10274.5C

## 300B2 Series Ordering Code



|   |  |   |  |  |
|---|--|---|--|--|
| <p><b>Inlet Size</b> - Position 1 - 4</p> <p>0050 - 1/2"<br/>0075 - 3/4"<br/>0100 - 1"<br/>0125 - 1 1/4"<br/>0150 - 1 1/2"<br/>0200 - 2"</p> <p><b>Dash</b> - Position 5</p> <p><b>Model</b> - Position 6 - 10<br/>300B2 - Over The Top</p> | <p><b>Connection</b> -<br/>Position 11<br/>T - Threaded<br/>W - Socketweld</p> <p><b>Body Material</b> -<br/>Position 12<br/>C - Carbon Steel<br/>T - Stainless Steel</p> <p><b>Dash</b> - Position 13</p> | <p><b>Perf</b><sup>1</sup> - Position 14<br/>304 SS Material<sup>2</sup></p> <p>1 - 1/32"<br/>B - 3/64"<br/>A - None<br/>2 - 1/16"<br/>3 - 3/32"<br/>4 - 1/8"<br/>5 - 5/32"<br/>6 - 3/16"<br/>7 - 7/32"<br/>8 - 1/4"<br/>9 - 3/8"<br/>Z - Other</p> | <p><b>Mesh</b><sup>2</sup> - Position 15<br/><b>Leave Blank<br/>If not Required<br/>(Std. all)</b></p> <p>1 - 10<br/>2 - 20<br/>3 - 30<br/>4 - 40<br/>5 - 50<br/>6 - 60<br/>7 - 80<br/>8 - 100<br/>9 - 120<br/>Z - Other</p> | <p><b>Add'l Requirements</b> -<br/>Position 16<br/><b>Leave Blank<br/>If not Required</b></p> <p>D - Special Drain Size<br/>F - Silicon Free<br/>G - Special Gaskets<br/>N - Nace MR01-75<br/>T - Special Testing<br/>V1 - Clamp Cover<br/>X - Oxygen Cleaning<br/>Y - Other and / or<br/>Multiple Specials</p> <p><b>Indicate Specials<br/>Clearly On the Order</b></p> |
|---|--|---|--|--|

1. Standard screens All 1/2" - 1 1/2"—1/32" perf,  
All 2"—3/64" perf.  
2. For other screen materials, contact factory.  
For any variations, use the part numbering system  
above but clearly indicate the additional requirement.



# 300B SERIES CAST CARBON STEEL, STAINLESS STEEL THREADED BASKET STRAINERS

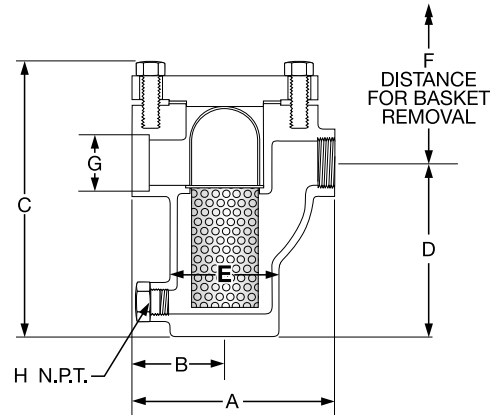
## SPECIFICATION

Basket Strainer shall have over the top flow with a machined basket seat. The Basket Strainer shall be cast steel or stainless steel rated to ASME Class 300 designed in accordance with ASME B16.5 and/or B16.34. The cover flange dimensions shall be in accordance with ASME B16.5. The screen shall be size \_\_\_\_ perforated stainless steel. The Strainer shall have an inlet size of \_\_\_\_ and open area ratio of \_\_\_\_\_. The Basket Strainer shall be SSI 300B2 Series.

## MATERIALS OF CONSTRUCTION

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

1. Recommended Spare Parts
2. Materials of equivalent strength may be substituted.
3. Gasket for bolted cover. *For Quick Opening Covers, see page 91*



Connections: 1/2" - 2"  
NPT or Socketweld

## SCREEN OPENINGS

| SIZE          | STANDARD SCREEN | MATERIALS |
|---------------|-----------------|-----------|
| 1/2" - 1 1/2" | 1/32 Perf.      | 304 SS    |
| 2"            | 3/64 Perf.      | 304 SS    |

## DIMENSIONS inches (mm) AND WEIGHTS pounds (kg)

| SIZE          | A              | B                | C*                | D              | E              | F                 | H           | WEIGHT      |              |
|---------------|----------------|------------------|-------------------|----------------|----------------|-------------------|-------------|-------------|--------------|
|               |                |                  |                   |                |                |                   |             | Cover       | Unit         |
| 1/2<br>(15)   | 6 1/8<br>(156) | 3 1/8<br>(80)    | 6 5/8<br>(179)    | 4<br>(102)     | 2 1/8<br>(54)  | 5 3/4<br>(146)    | 3/8<br>(10) | 6<br>(2.7)  | 20<br>(9.1)  |
| 3/4<br>(20)   | 6 3/4<br>(171) | 3 7/8<br>(87)    | 8 3/8<br>(213)    | 5<br>(127)     | 2 1/2<br>(64)  | 7 1/8<br>(189)    | 3/8<br>(10) | 8<br>(3.6)  | 25<br>(11.4) |
| 1<br>(25)     | 6 3/4<br>(171) | 3 7/8<br>(87)    | 8 3/8<br>(213)    | 5<br>(127)     | 2 1/2<br>(64)  | 7 1/8<br>(189)    | 1/2<br>(15) | 8<br>(3.6)  | 25<br>(11.4) |
| 1 1/4<br>(32) | 8 1/8<br>(206) | 4 5/8<br>(109)   | 11 15/16<br>(303) | 7 3/4<br>(197) | 3 7/8<br>(87)  | 11 1/8<br>(281)   | 3/4<br>(20) | 12<br>(5.4) | 46<br>(20.9) |
| 1 1/2<br>(40) | 8 1/8<br>(206) | 4 5/8<br>(109)   | 11 15/16<br>(303) | 7 3/4<br>(197) | 3 7/8<br>(87)  | 11 1/8<br>(281)   | 3/4<br>(20) | 12<br>(5.4) | 46<br>(20.9) |
| 2<br>(50)     | 9<br>(229)     | 4 13/16<br>(122) | 12 1/8<br>(316)   | 7 3/4<br>(197) | 4 1/4<br>(108) | 11 11/16<br>(297) | 1<br>(25)   | 16<br>(7.3) | 61<br>(27.8) |

\*For models with Quick Opening Cover, consult factory.

Dimensions shown are subject to change.

Consult factory for certified drawings.

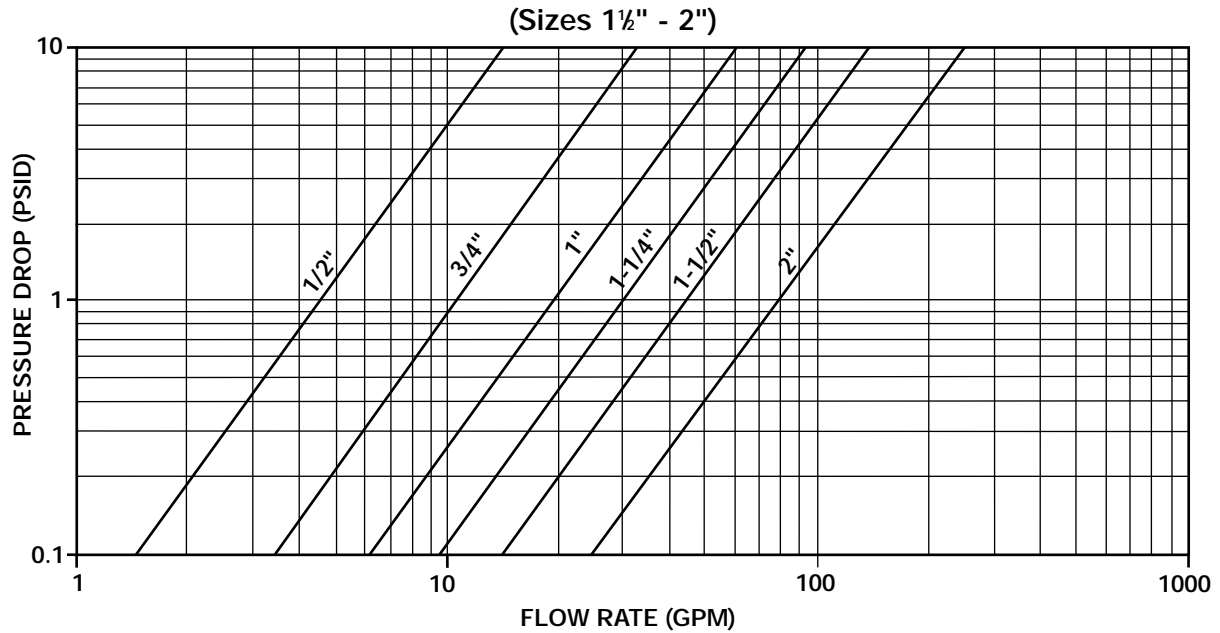
BASKET  
STRAINERS

# 300B SERIES

## CAST CARBON STEEL, STAINLESS STEEL

### PRESSURE DROP VS FLOW RATE

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



# 300B SERIES

## CAST CARBON STEEL, STAINLESS STEEL

### OPEN AREA RATIOS

with Standard Perforated Screen

| Size | Opening Diameter (in) | Opening % | Nominal Inlet Area (in <sup>2</sup> ) | Gross Screen Area (in <sup>2</sup> ) | Free Screen Area (in <sup>2</sup> ) | 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                   |

OAR = Free Screen Area / Nominal Inlet Area  
 Free Screen Area = Opening % x Gross Screen Area

Other Screen Openings  
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Basket Burst Pressure  
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Correction Factors for Other  
Viscous Liquids and/or Mesh Liners  
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Correction Factors  
for Clogged Screens  
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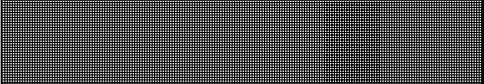
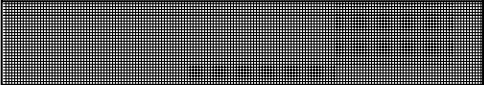
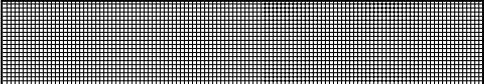
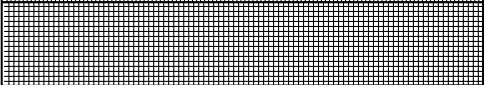
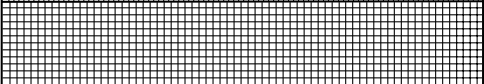
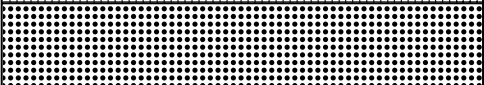
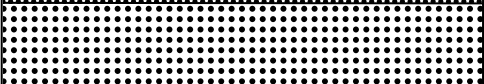
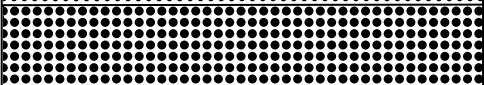
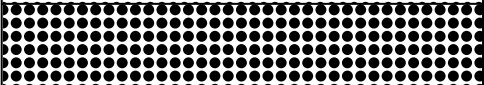




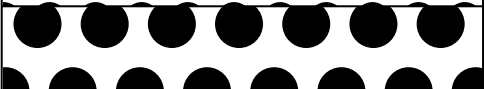


NOTES:

# **BASKET STRAINER TECHNICAL INFORMATION**

# SCREEN OPENINGS

## BASKET STRAINERS

|   |  |
|---|--|
|    | 100 Mesh - 30% O.A.<br>0.006" Openings |
|    | 80 Mesh - 36% O.A.<br>0.008" Openings  |
|    | 60 Mesh - 38% O.A.<br>0.010" Openings  |
|    | 40 Mesh - 41% O.A.<br>0.016" Openings  |
|    | 30 Mesh - 45% O.A.<br>0.022" Openings  |
|    | 20 Mesh - 49% O.A.<br>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 a 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.

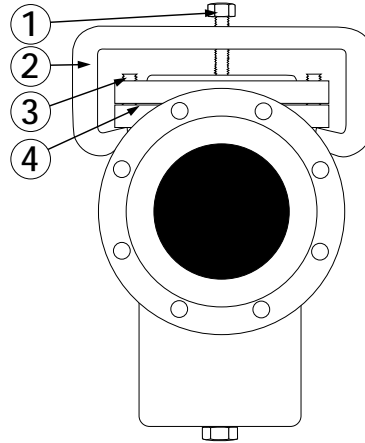
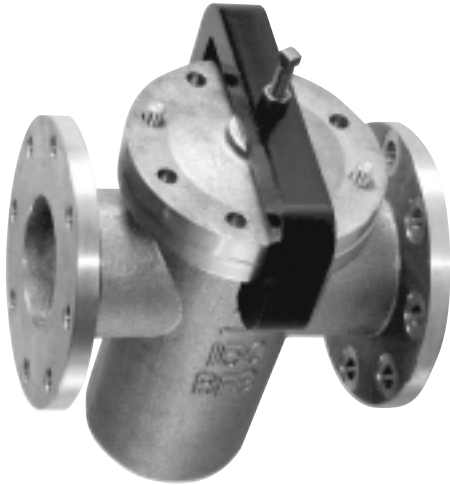
Screen openings other than those shown above are readily available. Various mesh sizes as fine as 5 micron and perforated plate as coarse as 1/2" Dia. are in inventory.

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.

# CAST BASKET STRAINERS

## QUICK OPENING COVERS



COVER TYPE C - QUICK OPENING C-CLAMP

BASKET  
STRAINERS

### COVER TYPE C - QUICK OPENING C-CLAMP

- Ideal for low pressure applications.
- Allows for extremely quick access to strainer basket.
- To be used on non-lethal liquid service only.

### AVAILABILITY

1/2" - 12"

### UPPER PRESSURE LIMITS (NON-SHOCK)

| M.A.W.P<br>psig (bar) | Maximum Allowable<br>Working Temp. °F (°C) |
|-----------------------|--|
| 50 (3.44)*            | 100 (37.8)                                 |

\* Through 5" inlet consult factory for larger sizes.

| Part Numbers | Weight (lbs) |
|--------------|--------------|
| 0200-clamp   | 5            |
| 0250-clamp   | 5            |
| 0300-clamp   | 5            |
| 0400-clamp   | 9            |
| 0500-clamp   | 10           |
| 0600-clamp   | 19           |
| 0800-clamp   | 21           |
| 1000-clamp   | 24           |
| 1200-clamp   | 27           |

### MATERIALS OF CONSTRUCTION

| Item # | Description            | Specifications                  |
|--------|------------------------|---------------------------------|
| 1      | Clamp Bolt (2)         | A449 Grade 5                    |
| 2      | Clamp                  | A516-70 Carbon Steel            |
| 3      | Anti-rotating Stud (2) | A307-B                          |
| 4      | Gasket - 1/2" - 6"     | Flat Rubber (Non-asbestos)      |
|        | Gasket - 8" - 12"      | Buna-N O-ring (Groove in Cover) |

CAUTION: This type of closure does not meet the requirements of Section UG-35.2 of ASME Section VIII, Div. 1.

Use caution when utilizing this type of device.

# FB SERIES

## FABRICATED STRAINERS

### QUICK OPENING COVERS AND COVER REMOVAL AIDS

The quick release covers and cover removal aids, available on fabricated strainers, are distinguished by their compact size and functional design. Materials of construction are in accordance with ASME specifications and manufacturing complies with the applicable rules of the ASME Code for Pressure Piping and with the ASME Boiler and Pressure Vessel Code.

## COVER REMOVAL AID

### COVER TYPE D - BOLTED WITH DAVIT ASSEMBLY

The Davit Assembly permits the user to swing the cover away to facilitate basket or screen removal for cleaning. It is used primarily for larger strainers where cover removal is difficult. The Davit Assembly is an inexpensive alternative to quick release covers, especially when operating conditions require a bolted cover.



## QUICK OPENING COVERS



### COVER TYPE H - T-BOLT HINGED COVER

The T-bolt Hinged Cover is the most economical quick opening closure we offer on fabricated strainers for nominal pressure applications. The T-bolt Hinged Cover utilizes an O-ring seal. It opens quickly and easily by loosening the T-bolts until they clear the holding lugs and swinging the head open on its hinge. Camlock and Break-over Wrench Assemblies that eliminate the need for a wrench are also available.

# FB SERIES FABRICATED STRAINERS QUICK OPENING COVERS AND COVER REMOVAL AIDS

## COVER TYPE Y - YOKE HINGED COVER

The Yoke Hinged Cover is a true ANSI rated closure that utilizes an O-ring seal. The Yoke Hinged Cover is used primarily on high pressure applications and is available with 150#, 300#, 600#, 900#, and 1500# ANSI ratings with a wide range of operating aids, ranging from a single lever chain and sprocket drive to completely automated.



BASKET  
STRAINERS



## COVER TYPE T - THREADED HINGED COVER

The Quick Opening Threaded Cover consists of a cap fastened to a hub welded to the strainer body. The female cap is threaded onto the male hub with an O-ring seal. This O-ring prevents corrosion of the closure threads, providing long, trouble free service. The Threaded Cover is for both nominal and high pressure applications.

### GENERAL COMPARISON OF DIFFERENT CLOSURE TYPES

| Comparison Item               | Closure Type  |                |               |                    |                 |
|-------------------------------|---------------|----------------|---------------|--------------------|-----------------|
|                               | Bolted Type B | w/Davit Type D | T-Bolt Type H | Bolted Yoke Type Y | Threaded Type T |
| Cost                          | Lowest        | Low            | Moderate      | High               | High            |
| Quick Opening Ability         | Poor          | Fair           | Good          | Best               | Best            |
| Low Pressure Applications     | X             | X              | X             | —                  | —               |
| Nominal Pressure Applications | X             | X              | X             | X                  | X               |
| High Pressure Applications    | X             | X              | —             | X                  | X               |

Standard O-Ring material BUNA-N (-30 to 250°F)  
Standard O-Ring material Viton (-15 to 400°F)

# BASKET STRAINERS

## REPLACEMENT BASKET SCREENS



We have screens and baskets for all makes of Y, basket and duplex strainers. The range of materials and size of units is unlimited.

We provide baskets manufactured from:

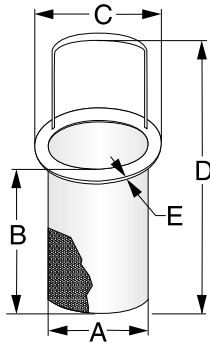
- **Perforated Plate**
- **Mesh or Mesh/Perf. Combination**
- **Wedge Wire**
- **Laser Beam Small Hole Perforated Plate**

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

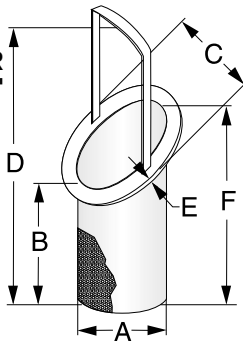
## SCREEN/BASKET CHECKLIST

Kindly photocopy this page and fill out the pertinent information.

**BASKET STRAINER STYLE "D"**



**BASKET STRAINER STYLE "B"**



### Performance Requirements

| Description                        | Customers Requirement |
|------------------------------------|-----------------------|
| Required Level of Filtration =     |                       |
| Material of Construction =         |                       |
| Minimum Specified Burst Pressure = |                       |
| Flow Direction =                   |                       |
| Other =                            |                       |

### Dimensional Requirements

| Description           |        | Customers Requirement |
|-----------------------|--------|-----------------------|
| Style                 | B or D |                       |
| Basket Outer Diameter | A =    |                       |
| Basket Height         | B =    |                       |
| Ring OD               | C =    |                       |
| Overall Height        | D =    |                       |
| Ring Thickness        | E =    |                       |
| Basket Long Height    | F =    |                       |

# BASKET STRAINER

## PRESSURE DROP CORRECTION FACTORS

### Mesh Lined Baskets and/or Fluids with a Viscosity other than Water

| 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

**Model:** 150B1  
**Size:** 4"  
**Filtration:** 1/8" perforated screen  
 40 Mesh lines  
**Flow rate:** 200 GPM  
**Fluid:** Water  
**SG:** 1  
**Viscosity:** 30 SSI

#### Answer

- 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

**Strainer Size:** 6"  
**Model:** 150B1  
**Body:** Carbon Steel  
**Filtration:** 1/8" Perf.  
**Flow rate:** 1000 GPM  
**Service:** Water  
**% Clogged:** 60%

#### Answer

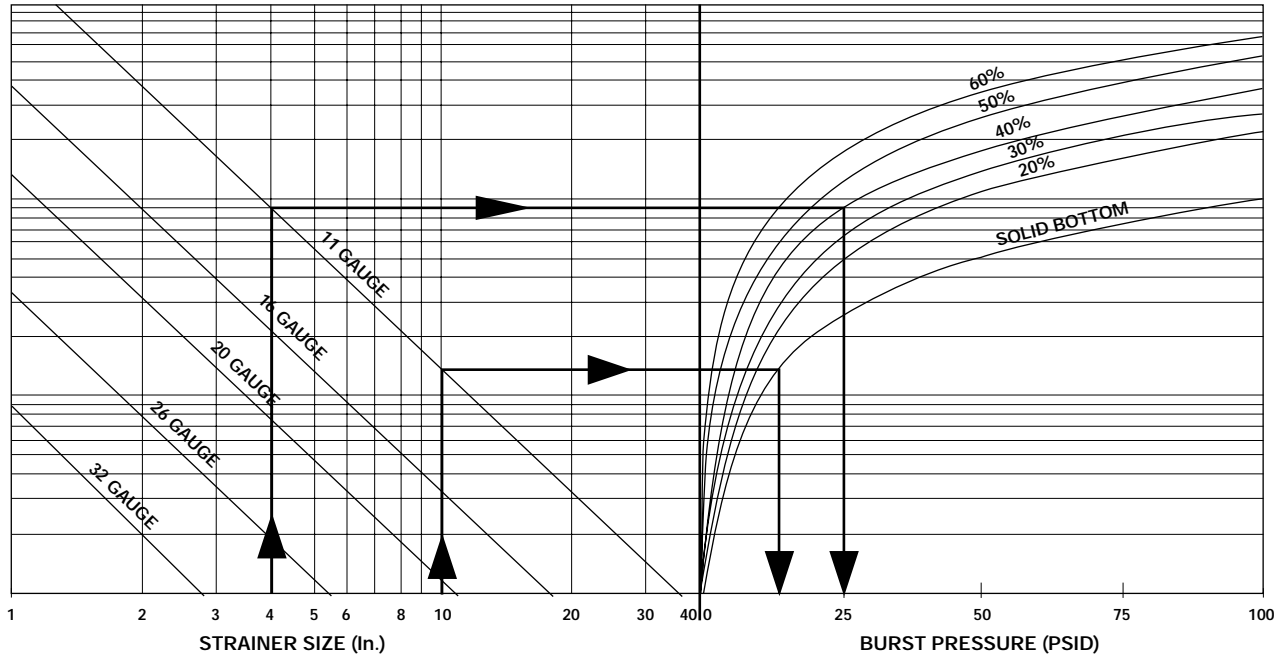
- A) The Pressure Drop Chart indicates a drop of 1.50 psid with standard screen.
- B) The Effective Area Chart indicates a ratio of 2.5:1 free area to pipe area.
- C) Using Chart above we read the correction factor of 2.5:1 (2:1 approx.) to be 3.7 at 60% clogged.
- D) Total pressure drop equals  $1.50 \times 3.7 = 5.55$  psid.



# BASKET STRAINER

## BURST PRESSURE

### BASKET STRAINERS



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%**

#### Answer

- 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.

Source: ASME Section VIII, Div. 1, UG-34

# BASKET STRAINERS

## CHECKLIST

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

- |   |  |
|---|--|
| <p>1. Fluid to be strained _____</p> <p>2. Flow rate _____</p> <p>3. Density of fluid _____</p> <p>4. Viscosity of fluid _____</p> <p>5. Fluid working pressure _____<br/>Maximum pressure _____</p> <p>6. Fluid Working Temp. _____<br/>Maximum Temp. _____</p> <p>7. Preferred material of strainer construction _____</p> <p>8. Present Pipeline size &amp; material _____</p> <p>9. Nature of solids to be strained out _____</p> <p>10. Size of solids to be strained out _____<br/>Size of mesh or Perf. Req. _____</p> | <p>11. Clearance Limitation Above _____ Below _____<br/>Left side facing inlet _____ Right side facing inlet _____</p> <p>12. Maximum pressure drop with clean screen _____</p> <p>13. Expected cleaning frequency _____</p> <p>14. Any other information deemed relevant _____<br/>_____<br/>_____</p> <p>Name _____</p> <p>Company _____</p> <p>Address _____</p> <p>City/Town _____</p> <p>State _____ Zip Code _____</p> <p>Telephone ( _____ ) _____</p> <p>Fax ( _____ ) _____</p> |
|---|--|

**BASKET STRAINERS**



# BASKET STRAINER

## 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. (For Duplex Strainers, isolate required chamber).
  - 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 start-up.
- 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 GUIDES 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.*