



# 250Y SERIES CAST IRON, BRONZE, DUCTILE IRON Y STRAINERS NPT, FLANGED

PRESSURES TO 500 PSIG (34.5 BARG)  
TEMPERATURES TO 450°F (232°C)

- ANSI 250 PSIG rated strainers
- NPT and FF Flanges in accordance with ANSI 16.1, 16.15 and 16.4
- 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

## APPLICATIONS

- Steam, liquid, gas and oil service
- Power Industry
- Pulp & Paper
- Process Equipment
- Chemical Industry
- Metal & Mining
- Water & Waste

## 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

## APPLICABLE CODES

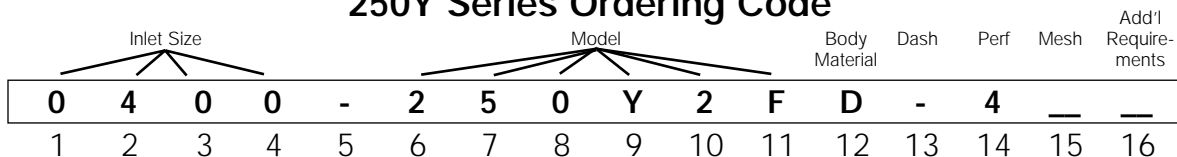
- ANSI B16.1
- ANSI B16.4
- ANSI B16.15

## MODELS

- 250Y1T – Bronze or Cast Iron, NPT, Threaded Cover
- 250Y2F - Ductile Iron, Flanged, Bolted Cover

Canadian Registration OEO591.9C BRZ & CI 250Y1 CI

## 250Y Series Ordering Code



<p><b>Inlet Size</b> - Position 1 - 4</p> <p>0038 - 3/8" 0050 - 1/2" 0075 - 3/4" 0100 - 1" 0125 - 1 1/4" 0150 - 1 1/2" 0200 - 2" 0250 - 2 1/2" 0300 - 3" 0400 - 4" 0500 - 5" 0600 - 6" 0800 - 8" 1000 - 10" 1200 - 12" 1400 - 14" 1600 - 16"</p>	<p><b>Dash</b> - Position 5</p> <p><b>Model</b> - Position 6 - 11</p> <p>250Y1T 250Y2F</p> <p><b>Body Material</b> - Position 12</p> <p>I - Cast Iron B - Bronze D - Ductile Iron</p> <p><b>Dash</b> - Position 13</p>	<p><b>Perf</b><sup>1</sup> - Position 14</p> <p><b>304SS Material</b><sup>2</sup></p> <p>A - No Perf (std Y1T Bz All - std Y1T CI &lt;=2")</p> <p>1 - 1/32" B - 3/64" 4 - 1/8" 2 - 1/16" 3 - 3/32" 5 - 5/32" 6 - 3/16" 7 - 7/32" 8 - 1/4" 9 - 3/8"</p>	<p><b>Mesh</b><sup>1,2</sup> - Position 15</p> <p><b>Leave Blank If not Required (std Y2F)</b></p> <p>1 - 10 2 - 20 3 - 30 4 - 40 5 - 50 6 - 60 7 - 80 8 - 100 9 - 120</p>	<p><b>Add'l Requirements</b> - Position 16</p> <p><b>Leave Blank If not Required</b></p> <p>D - Special Drain Size F - Silicon Free G - Special Gaskets T - Special Testing X - Oxygen Cleaning Y - Other and / or Multiple Specials</p> <p><b>Indicate Specials Clearly On the Order</b></p>
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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.

2. For other screen material, consult factory.

# 250Y1 SERIES CAST IRON Y STRAINERS NPT

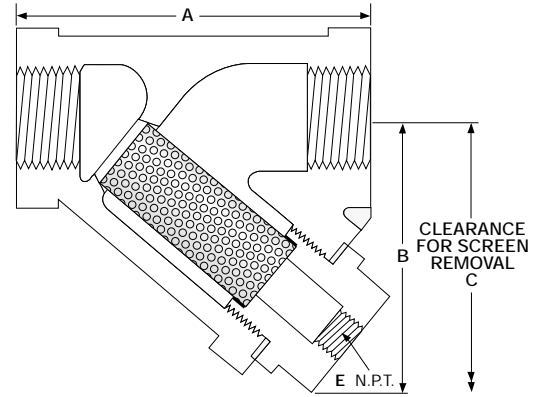
## SPECIFICATION

Y Strainer shall be straight flow design with NPT inlet/outlet connections. The strainer shall be rated to ANSI 250 PSIG rating in accordance with ANSI B16.4. The Strainer shall be cast iron body and the screen shall be size \_\_\_\_\_ perf / mesh 304 SS. The strainer shall have an inlet size of \_\_\_\_\_ and Open Area Ratio of \_\_\_\_\_. The Y Strainer shall be SSI 250Y1 Series.

## MATERIALS OF CONSTRUCTION

Body .....A126-B  
 Cap/Cover .....A126-B  
 Screen<sup>1</sup> .....304 SS  
 Plug<sup>2</sup> .....A126-B  
 Gasket<sup>1</sup> .....Graphite

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

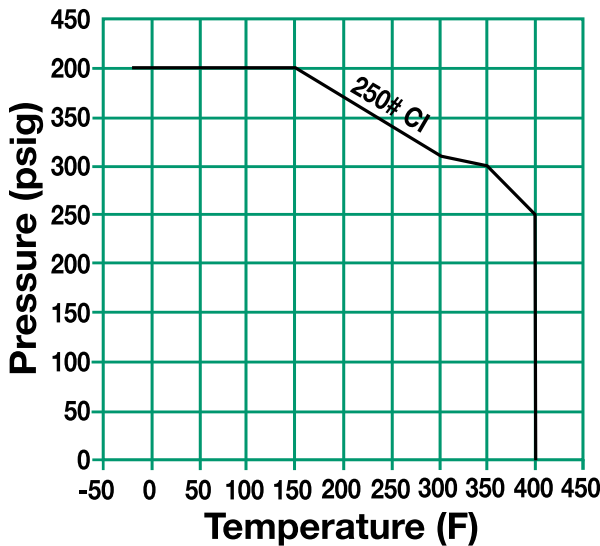


Connections: 1/4" - 3" NPT

## SCREEN OPENINGS

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

**PRESSURE/TEMPERATURE CHART**  
ASME B16.4



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

SIZE	A	B	C	E	WEIGHT
1/4 (8)	3 3/16 (81)	2 (50)	3 1/8 (80)	1/4 (8)	1.50 (.70)
3/8 (10)	3 3/16 (81)	2 (50)	3 1/8 (80)	1/4 (8)	1.50 (.70)
1/2 (15)	3 3/16 (81)	2 (50)	3 1/8 (80)	1/4 (8)	1.50 (.70)
3/4 (20)	3 3/4 (95)	2 1/16 (68)	3 1/16 (94)	5/16 (10)	2.50 (.50)
1 (25)	4 (102)	3 (62)	3 1/16 (94)	3/8 (10)	3.00 (1.4)
1 1/4 (32)	5 (127)	3 3/16 (87)	5 1/8 (129)	1/2 (20)	6.00 (1.4)
1 1/2 (40)	5 3/4 (146)	3 25/64 (96)	5 3/4 (146)	3/4 (20)	8.00 (3.6)
2 (50)	7 (178)	4 11/64 (110)	7 1/4 (184)	1 (25)	14.00 (3.6)
2 1/2 (65)	9 1/4 (235)	6 3/64 (155)	8 3/4 (222)	1 1/2 (40)	29.0 (10)
3 (80)	10 (254)	7 13/64 (188)	9 (2.29)	1 1/2 (40)	38.0 (13.6)

Dimensions shown are subject to change.  
 Contact factory for certified prints when required.

**250Y SERIES  
STRAINERS**

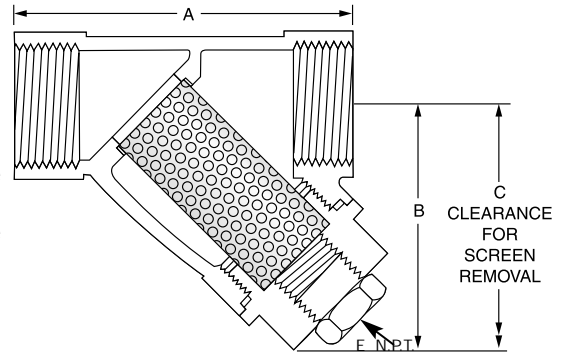
# 250Y1 SERIES BRONZE Y STRAINERS NPT

## SPECIFICATION

Y Strainer shall be straight flow design with NPT inlet/outlet connections. The strainer shall be rated to ANSI 250 PSIG rating in accordance with ANSI B16.15. The Strainer shall be bronze body and the screen shall be size \_\_\_\_\_ mesh 304 SS. The strainer shall be have an inlet size of \_\_\_\_\_ and Open Area Ratio of \_\_\_\_\_. The Y Strainer shall be SSI 250Y1 Series.

## MATERIALS OF CONSTRUCTION

Body ..... B584  
 Cap ..... B584  
 Screen<sup>1</sup> ..... 304 SS  
 Plug ..... B584  
 Gasket<sup>1</sup> ..... Silicone  
 1. Recommended Spare Parts

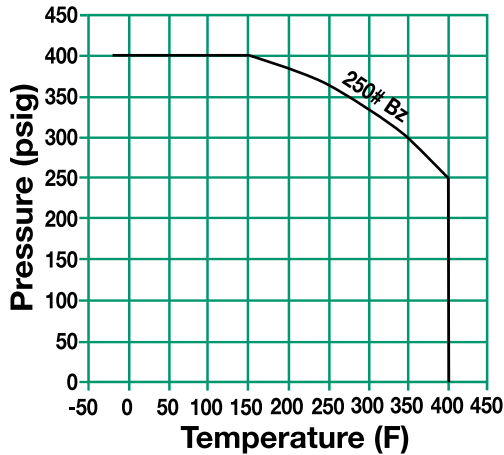


Connections: 1/2" – 3" NPT

## SCREEN OPENINGS

SIZE	STANDARD SCREEN	MATERIALS
1/2" - 1"	30 Mesh	304 SS
1 1/4" - 3"	20 Mesh	304 SS

PRESSURE/TEMPERATURE CHART  
ANSI B16.15



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

SIZE	A	B	C	E	WEIGHT
1/2 (15)	2 <sup>15</sup> / <sub>16</sub> (75)	2 <sup>1</sup> / <sub>8</sub> (54)	3 <sup>1</sup> / <sub>2</sub> (89)	<sup>3</sup> / <sub>8</sub> (10)	.9 (0.4)
3/4 (20)	3 <sup>3</sup> / <sub>8</sub> (86)	2 <sup>3</sup> / <sub>8</sub> (60)	4 <sup>1</sup> / <sub>2</sub> (114)	<sup>3</sup> / <sub>8</sub> (10)	1.3 (0.6)
1 (25)	4 <sup>1</sup> / <sub>8</sub> (103)	3 (76)	5 (127)	<sup>3</sup> / <sub>4</sub> (20)	2.1 (1.0)
1 1/4 (32)	4 <sup>15</sup> / <sub>16</sub> (125)	3 <sup>7</sup> / <sub>8</sub> (87)	5 <sup>3</sup> / <sub>8</sub> (146)	<sup>3</sup> / <sub>4</sub> (20)	3.0 (1.4)
1 1/2 (40)	5 <sup>3</sup> / <sub>4</sub> (146)	3 <sup>13</sup> / <sub>16</sub> (97)	6 <sup>3</sup> / <sub>8</sub> (162)	<sup>3</sup> / <sub>4</sub> (20)	4.0 (1.8)
2 (50)	6 <sup>11</sup> / <sub>16</sub> (170)	4 <sup>7</sup> / <sub>8</sub> (116)	9 <sup>7</sup> / <sub>8</sub> (230)	<sup>3</sup> / <sub>4</sub> (20)	7.1 (3.2)
2 1/2 (64)	7 <sup>1</sup> / <sub>2</sub> (191)	4 <sup>7</sup> / <sub>8</sub> (124)	10 (254)	1 <sup>1</sup> / <sub>4</sub> (32)	10.1 (4.6)
3 (76)	8 <sup>1</sup> / <sub>2</sub> (216)	5 <sup>1</sup> / <sub>2</sub> (140)	10 <sup>3</sup> / <sub>8</sub> (264)	1 <sup>1</sup> / <sub>4</sub> (32)	13.3 (6.1)

\* Consult factory for dimensions.  
 Dimensions shown are subject to change.  
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250Y SERIES  
STRAINERS

# 250Y2 SERIES DUCTILE IRON Y STRAINERS FLANGED

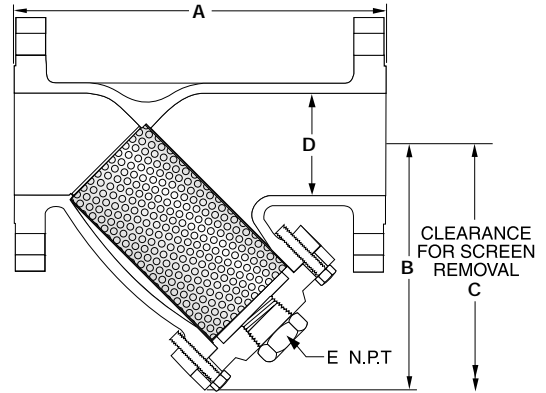
## SPECIFICATION

Y Strainer shall be straight flow design with RF Flanged inlet/outlet connections. The strainer shall be rated to ANSI 250 PSIG rating in accordance with ANSI B16.1. The Strainer shall be Ductile Iron and the screen shall be size \_\_\_\_\_ perf 304 SS. The strainer shall have an inlet size of \_\_\_\_\_ and Open Area Ratio of \_\_\_\_\_. The Y Strainer shall be SSI 250Y2 Series.

## MATERIALS OF CONSTRUCTION

Body .....	Ductile Iron A536
Cap .....	Ductile Iron A536
Screen <sup>1</sup> .....	304 SS
Plug .....	A126-B
Gasket <sup>1</sup> .....	Graphite
Bolt/Stud <sup>2</sup> .....	A307-B
Nut <sup>2</sup> .....	A563

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

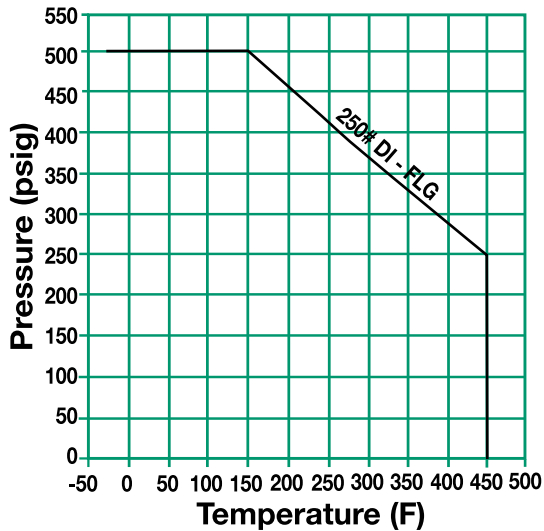


Connections: 2" - 12" RF Flanges

## SCREEN OPENINGS

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

PRESSURE/TEMPERATURE CHART  
ANSI B16.1



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

SIZE	A	B	C	D	E	WEIGHT
2 (50)	8 1/8 (226)	6 1/8 (156)	9 1/8 (232)	2 (51)	1/2 (15)	28 (13)
2 1/2 (65)	10 3/8 (273)	8 1/8 (205)	9 1/8 (251)	2 1/2 (64)	1 (25)	38 (17)
3 (80)	11 1/8 (295)	8 1/8 (214)	11 1/8 (286)	3 (76)	1 (25)	54 (24)
4 (100)	13 1/8 (353)	9 1/8 (245)	15 (381)	4 (102)	1 (25)	110 (50)
5 (125)	16 1/8 (416)	11 1/8 (295)	19 (483)	5 (127)	1 1/4 (32)	160 (73)
6 (150)	18 1/8 (470)	12 1/8 (321)	22 3/8 (578)	6 (152)	1 1/2 (40)	224 (102)
8 (200)	21 3/8 (543)	16 3/8 (416)	27 3/8 (692)	8 (203)	1 1/2 (40)	468 (212)
10 (250)	26 (660)	19 1/8 (486)	29 3/8 (756)	10 (254)	2 (50)	590 (268)
12 (300)	30 (762)	22 1/8 (560)	35 (889)	12 (305)	2 (50)	890 (404)

Dimensions shown are subject to change.  
Contact factory for certified prints when required.

250Y SERIES  
STRAINERS

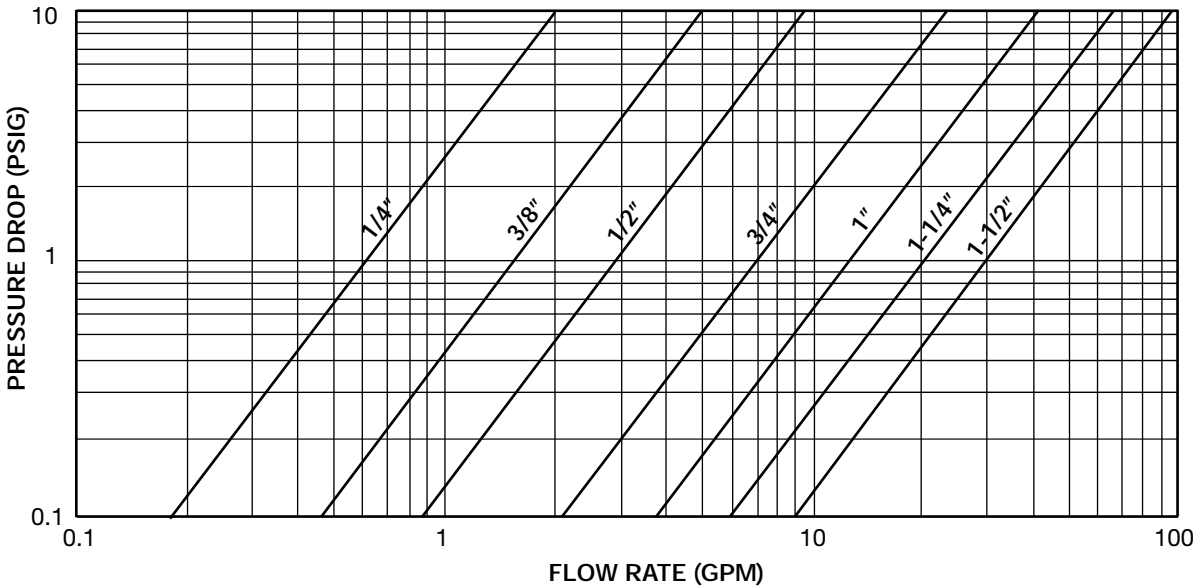
# 250Y SERIES

## CAST IRON, BRONZE, DUCTILE IRON

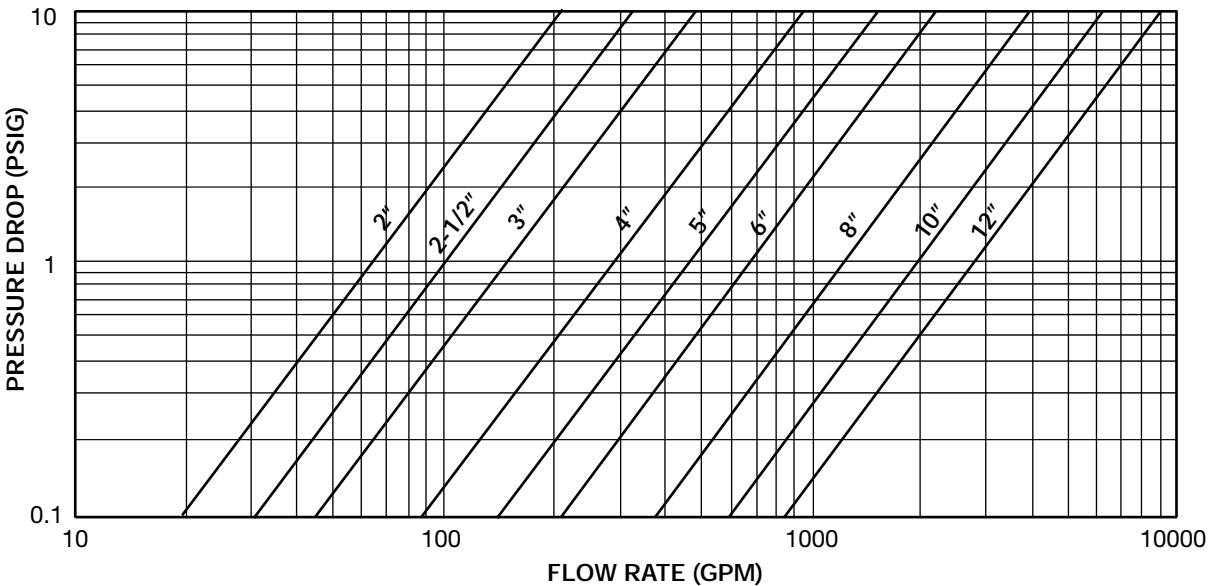
### PRESSURE DROP VS FLOW RATE

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

(Sizes 1/4" - 1 1/2")



(Sizes 2" - 12")



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

Steam Service Pressure Drop  
Page 433

Correction Factors for Other Viscous  
Liquids and/or Mesh Liners Page 432

Correction Factors for  
Clogged Screens Page 432

# 250Y SERIES

## CAST IRON, BRONZE, DUCTILE IRON

### OPEN AREA RATIOS

with Standard Perforated Screen

#### BRONZE

Size	Mesh	Opening %	Std Pipe 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	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

Size	Perf/Mesh Diameter	Opening %	Std Pipe Inlet Area (in <sup>2</sup> )	Gross Screen Area (in <sup>2</sup> )	Free Screen Area (in <sup>2</sup> )	Open Area Ratio (OAR)
¼	20	49	0.30	3.7	1.80	5.9
½	20	49	0.30	3.7	1.80	5.9
¾	20	49	0.30	3.6	1.74	5.7
1	20	49	0.53	6.3	3.11	5.8
1¼	20	49	0.86	7.9	3.85	4.5
1½	20	49	1.50	13.0	6.35	4.2
2	20	49	2.04	16.6	8.13	4.0
2½	3/64	36	3.36	28.3	13.85	4.1
3	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

Size	Perf. Diameter (inches)	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	10.58	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.

250Y SERIES STRAINERS

Other Screen Openings Page 430	Basket Burst Pressure Page 435
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