

## Applications

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

# Suction Diffusers

Pressures to 200 PSIG  
Temperatures to 400°F

## FEATURES

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

## MATERIALS

Cast Iron  
Carbon Steel  
Stainless Steel

## END CONNECTIONS

Flat Faced  
Raised Face  
Buttweld

## SIZE RANGES

2" x 1-1/4"  
(50mm x 32mm)  
up to 24" x 24"  
(600mm x 600mm)





# S SERIES CAST IRON SUCTION DIFFUSERS

## SPECIFICATION

Pressures To 200 PSIG (18.96 barg)  
Temperatures to 400°F (66°C)

- 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 SS start up mesh over SS 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

### MODELS

- S - Cast Iron Suction Diffuser

### OPTIONS

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

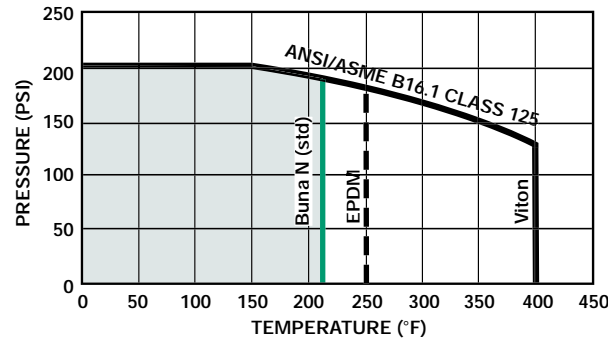
### APPLICATIONS

- Pump protection

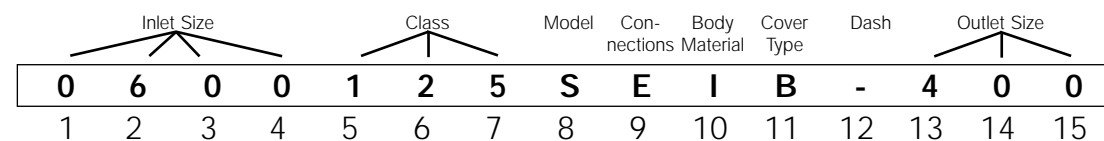
### APPLICABLE CODES

- ASME B16.1

### PRESSURE/TEMPERATURE CHART



### SUCTION DIFFUSER ORDERING CODE



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

Class - Position 5-7
125 - 125# Flanged
Model - Position 8
S - Cast Suction Diffuser
Connections - Position 9
F - FF Flanged
Body Material - Position 10
I - Cast Iron
Cover Type - Position 11
B - Bolted
Dash - Position 12

Outlet Size - Position 13-15
200 - 2"
250 - 2½"
300 - 3"
400 - 4"
500 - 5"
600 - 6"
800 - 8"
100 - 10"
120 - 12"

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

# S SERIES CAST IRON SUCTION DIFFUSERS

## SPECIFICATION

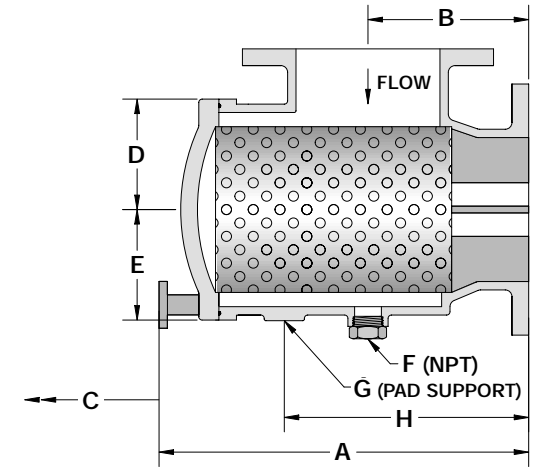
Suction Diffuser shall mount directly to the suction side of the pump in either a horizontal or vertical position. The cover shall have a Buna N O-ring and knobs to minimize down time. The Suction Diffuser shall be available with reduced outlet sizes. The Suction Diffuser shall be \_\_\_\_\_ inlet by \_\_\_\_\_ outlet with ANSI 125# FF flanges and shall have a \_\_\_\_\_ start up mesh with a \_\_\_\_\_ perforated screen. The Suction Diffuser shall be SSI S Series.

### MATERIALS OF CONSTRUCTION

Body .....Cast Iron A126-B  
Cover .....Cast Iron A126-B  
Perforated Screen<sup>1</sup> .....304 SS  
Mesh Screen .....304 SS  
Knob<sup>2</sup> .....Ductile Iron  
O-ring<sup>1</sup> - Standard .....Buna N  
Optional .....EPDM  
Optional .....Viton  
Plug<sup>2</sup> .....Malleable Iron

1 Recommended Spares.

2 Materials of equivalent strength may be substituted at manufacturer's option.



Connections:  
2" x 1¼" - 12" x 12" Flanged

### SCREEN OPENINGS

SIZE	STANDARD SCREEN	START UP LINER
All	1/8" Perf.	20 Mesh

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

Size		A	B	C <sup>1</sup>	D	E	F	G <sup>2</sup>	H	Weight
Inlet	Outlet									
2 (50)	1½ (32)	10.2 (259)	4.5 (114.3)	5.0 (127)	4.5 (114.3)	2.2 (55)	¾ (20)	¾ (20)	5.9 (15.1)	19 (8.6)
2 (50)	2 (40)	10.2 (260)	4.5 (114.3)	5.0 (127)	4.5 (114.3)	2.2 (55)	¾ (20)	¾ (20)	5.9 (15.1)	21 (9.5)
2 (50)	2 (50)	10.2 (260)	4.5 (114.3)	5.0 (127)	4.5 (114.3)	2.2 (55)	¾ (20)	¾ (20)	5.9 (15.1)	23 (10.4)
2½ (65)	2 (50)	10.9 (276)	5.0 (127)	5.0 (127)	5.0 (127)	2.5 (64)	½ (15)	1 (25)	6.6 (16.7)	32 (14.5)
2½ (65)	2½ (65)	10.9 (276)	5.0 (127)	5.0 (127)	5.0 (127)	2.5 (64)	½ (15)	1 (25)	6.6 (16.7)	34 (15.4)
3 (80)	2 (50)	10.2 (260)	5.5 (139.7)	5.0 (127)	5.5 (139.7)	2.2 (55)	¾ (20)	1 (25)	5.9 (15.1)	37 (16.8)
3 (80)	2½ (65)	11.3 (288)	5.5 (139.7)	5.0 (127)	5.5 (139.7)	3.0 (76)	¾ (20)	1 (25)	7.0 (17.9)	49 (22.2)
3 (80)	3 (80)	11.3 (288)	5.5 (139.7)	5.2 (133)	5.5 (139.7)	3.0 (76)	¾ (20)	1 (25)	7.0 (17.9)	55 (24.9)
4 (100)	3 (80)	13.1 (332)	6.5 (165.1)	5.2 (133)	6.5 (165.1)	3.9 (98)	¾ (20)	1 (25)	8.8 (22.3)	57 (25.9)
4 (100)	4 (100)	12.8 (325)	6.5 (165.1)	7.1 (181)	6.5 (165.1)	3.9 (98)	¾ (20)	1½ (32)	8.3 (210.1)	92 (41.7)
5 (125)	4 (100)	15.7 (400)	7.5 (190.5)	7.1 (181)	7.5 (190.5)	4.4 (112.7)	¾ (20)	1½ (32)	7.6 (194)	97 (44.0)
5 (125)	5 (125)	16.2 (411)	7.5 (190.5)	7.1 (181)	7.5 (190.5)	5.6 (141)	1 (25)	1½ (32)	10.0 (254)	101 (45.8)
6 (150)	4 (100)	13.1 (332)	8.0 (203.2)	7.1 (181)	8.0 (203.2)	3.9 (98)	¾ (20)	1½ (32)	8.8 (22.3)	140 (63.5)
6 (150)	5 (125)	17.0 (433)	8.0 (203.2)	7.1 (181)	8.0 (203.2)	5.4 (138)	1 (25)	1½ (32)	10.7 (272)	145 (65.8)
6 (150)	6 (150)	17.0 (433)	8.0 (203.2)	7.9 (200)	8.0 (203.2)	5.4 (138)	1 (25)	2 (50)	10.7 (272)	182 (82.6)
8 (200)	6 (150)	17.0 (433)	8.0 (203.2)	7.9 (200)	9.0 (228.6)	5.4 (138)	1 (25)	2 (50)	10.7 (272)	197 (89.4)
8 (200)	8 (200)	20.8 (528)	9.0 (228.6)	16.3 (413)	9.0 (228.6)	6.9 (176.5)	1 (25)	2 (50)	11.6 (295)	292 (132.5)
10 (250)	8 (200)	20.8 (528)	9.0 (228.6)	16.3 (413)	11.0 (279.4)	6.9 (176.5)	1 (25)	2 (50)	11.6 (295)	312 (141.5)
10 (250)	10 (250)	26.3 (667)	11.0 (279.4)	16.3 (413)	11.0 (279.4)	9.8 (248)	1 (25)	2 (50)	14.2 (360)	398 (180.5)
12 (300)	8 (200)	25.3 (643)	11.0 (279.4)	16.3 (413)	11.0 (279.4)	8.2 (209)	1 (25)	2 (50)	13.7 (349)	412 (186.9)
12 (300)	10 (250)	26.3 (667)	11.0 (279.4)	16.3 (413)	12.0 (304.8)	9.8 (248)	1 (25)	2 (50)	14.2 (360)	491 (222.7)
12 (300)	12 (300)	26.3 (667)	12.0 (304.8)	18.1 (461)	12.0 (304.8)	9.8 (248)	1 (25)	2 (50)	15.4 (390)	573 (259.9)

1. Distance required for Screen Removal.

2. Mounting Pad Support

# CAST SUCTION DIFFUSERS OPEN AREA RATIOS

## with Standard Perforated Screen

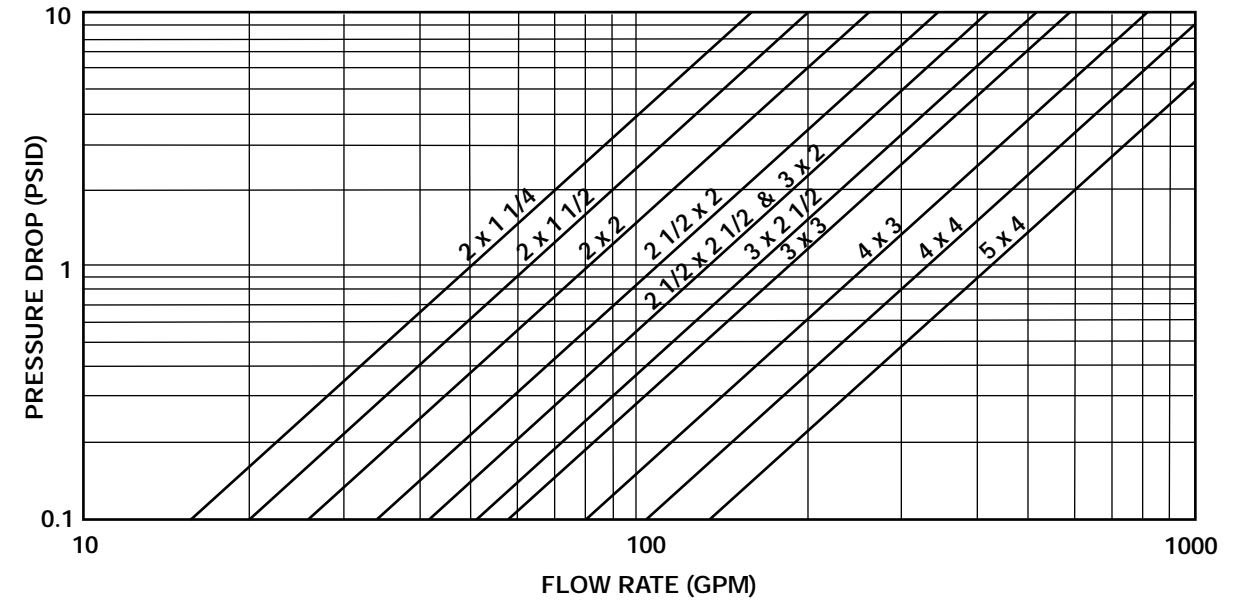
Opening 40%, 1/8" Diameter

Size	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 x 1 1/4	1.23	25	10.00	8.1
2 x 1 1/2	1.77	25	10.00	5.6
2 x 2	3.14	36	14.40	4.6
2 1/2 x 2	3.14	36	14.40	4.6
2 1/2 x 2 1/2	4.91	49	19.60	4.0
3 x 2	3.14	36	14.40	4.6
3 x 2 1/2	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

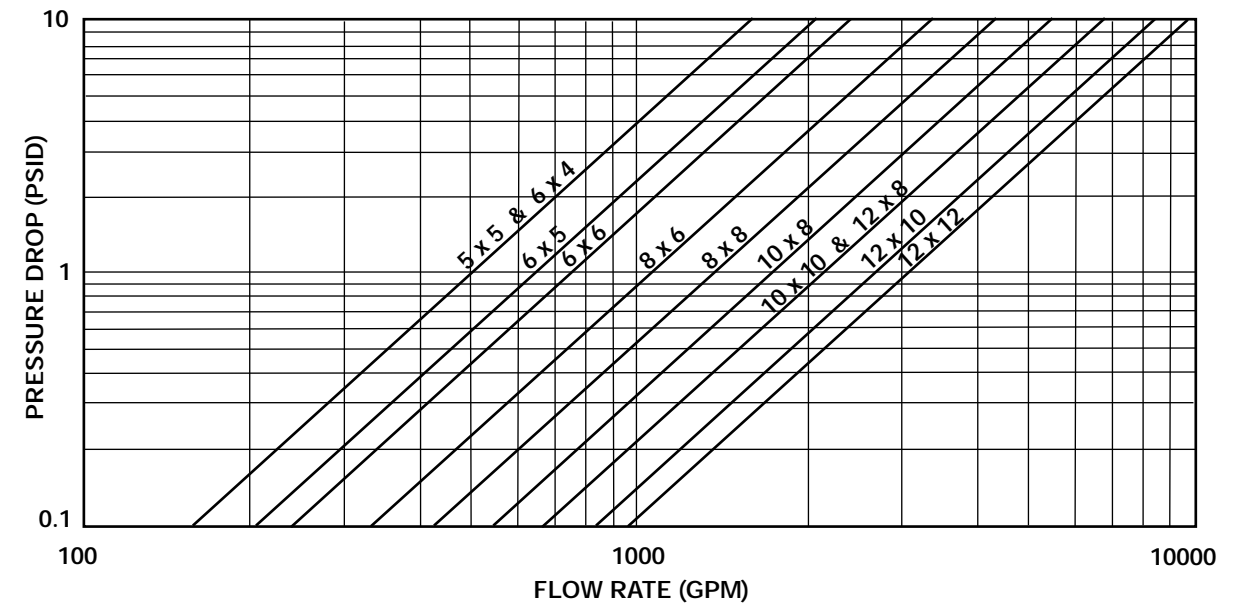
OAR = Free Screen Area divided by Nominal Outlet Area.  
 Free Screen Area = Opening % times Gross Screen Area.  
 Values shown are approximate. Contact factory for exact ratios.

# CAST SUCTION DIFFUSERS PRESSURE DROP-LIQUIDS

SIZES 2" x 1-1/4" - 5" x 4"



SIZES 5" x 5" - 14" x 10"



Pressure drop curves are based on water flow with standard screens.  
 For other Screen Openings and/or flow media, please contact factory.



# FF SERIES FABRICATED SUCTION DIFFUSERS

Pressures To 285 PSIG (19.7 barg)  
Temperatures to 400°F (204°C)

- Strainer, flow straightener, elbow and pipe reducer for pump applications
- Standard and custom engineered designs
- Integral straightening vanes reduce turbulence to improve pump efficiency
- One, three or five pipe diameters of flow straightening (Style 1, 2 or 3)
- Standard, undersized or oversized outlet connections
- Direct mount to the suction side of a pump in either horizontal or vertical position
- Supporting pads for easy mounting of standard I.D. support foot
- Drain connection with plug furnished as standard

**MODELS** see Ordering Code below

### OPTIONS

- Customer specified materials, sizes and designs
- Other flow straightening quality designs
- Hinged or quick opening/operator assisted covers
- Vent and/or differential pressure connections
- ASME "U" stamped vessels on request
- Other perforated screen and mesh liner baskets
- Data Packages and MTR's available on request

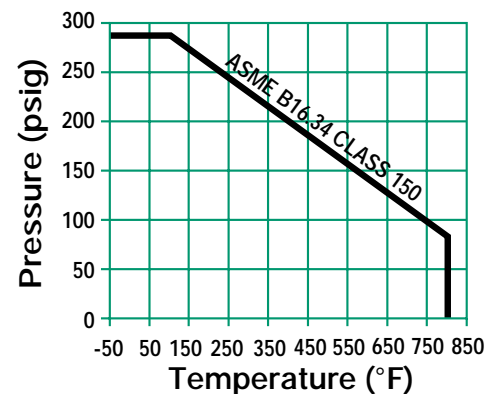
### APPLICATIONS

- Pump Protection

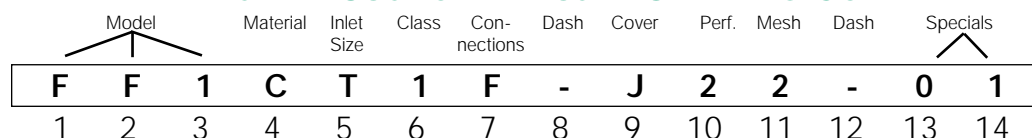
### APPLICABLE CODES

- ASME B31.1, ASME B31.3 and/or ASME Section VIII, Div. 1
- CRN in all Provinces
- TSSA approved and certified
- Welders certified to ASME Section IX

### PRESSURE/TEMPERATURE CHART



### FABRICATED SUCTION DIFFUSER ORDERING CODE



**Model - Position 1, 2 & 3**  
 FF1 - Style 1 - Standard Outlet  
 FF2 - Style 1 - Undersized Outlet  
 FF3 - Style 1 - Oversized Outlet  
 FF4 - Style 2 - Standard Outlet  
 FF5 - Style 2 - Undersized Outlet  
 FF6 - Style 2 - Oversized Outlet  
 FF7 - Style 3 - Standard Outlet  
 FF8 - Style 3 - Undersized Outlet  
 FF9 - Style 3 - Oversized Outlet  
 FFZ - Custom Configuration

**Material - Position 4**  
 C - Carbon Steel  
 L - Low Temp CS  
 V - 304 SS  
 T - 316 SS  
 M - Monel  
 Z - Other

**Inlet Size - Position 5**  
 H - 2      S - 12  
 J - 2-1/2    T - 14  
 K - 3      U - 16  
 M - 4      V - 18  
 N - 5      W - 20  
 P - 6      X - 22  
 Q - 8      Y - 24  
 R - 10     Z - Other

**Class - Position 6**  
 A - 125  
 1 - 150  
 2 - 250  
 3 - 300  
 Z - Other

**Connection - Position 7**  
 F - Flat Face Flange  
 J - Ring Joint  
 R - Raised Face Flange  
 Z - Other

**Dash - Position 8**

**Cover - Position 9**  
 A - None  
 B - Bolted  
 C - C-Clamp  
 J - Standard Hinged  
 D - Davit Bolted  
 H - T - Bolt Hinged  
 T - Threaded Hinged  
 Y - Yoke Hinged  
 Z - Other

**Perf. - Position 10**  
 A - None    5 - 5/32"  
 B - 3/64"    6 - 3/16"  
 1 - 1/32"    7 - 7/32"  
 2 - 1/16"    8 - 1/4"  
 3 - 3/32"    9 - 3/8"  
 4 - 1/8"     Z - Other

**Mesh - Position 11**  
 A - None    6 - 60  
 1 - 10      7 - 80  
 2 - 20      8 - 100  
 3 - 30      9 - 120  
 4 - 40      Z - Other  
 5 - 50

**Dash - Position 12**  
**Specials -**  
 Position 13 & 14  
 Consult Factory  
 (Leave Blank if not used)

Standard Outlet is one size smaller than the inlet.  
 Undersized Outlet is two sizes smaller than the inlet.  
 Oversized Outlet is the same size as the inlet.

Any item outside this range must be special ordered and must be clearly indicated on the order form (select "Z" and fill in special field).

# FF SERIES FABRICATED SUCTION DIFFUSERS SPECIFICATION

Suction Diffuser shall mount directly mounting to the suction side of the pump in either a horizontal or vertical position. The Suction Diffuser shall be manufactured in accordance with ASME B31.1, ASME B31.3 and /or ASME Section VIII, Div. I. The Suction Diffuser shall be available with reduced outlet sizes. The Suction Diffuser shall be \_\_\_\_\_ inlet by \_\_\_\_\_ outlet and shall have a \_\_\_\_\_ perforated screen. The Suction Diffuser shall have the equivalent of \_\_\_\_\_ pipe diameters of flow straightening. The Suction Diffuser shall be SSI FF Series.

### MATERIALS OF CONSTRUCTION\*-(Std Carbon Steel Body)

Body .....	A106-B CS
Cover .....	A105 CS
Flanges .....	A105 CS
Reducer Plate .....	A516-70 CS
Coupling .....	A105 CS
Plug .....	A105 CS
Screen <sup>1</sup> .....	304 SS
Cover Gasket <sup>1</sup> .....	304 SS Spiral Wound
Stud .....	A193-B7 CS
Nut .....	A194-2H CS

\* Other materials are available upon request.  
 Standard materials are subject to change.  
 Please contact factory for Certified drawings.

<sup>1</sup> Recommended Spare Parts.

Connections:  
10" x 6" - 24" x 24" Flanged

### SCREEN OPENINGS

SIZE	STANDARD SCREEN	MATERIALS
All	1/8" Perf.	304 SS

## OPEN AREA RATIOS with Standard Perforated Screen

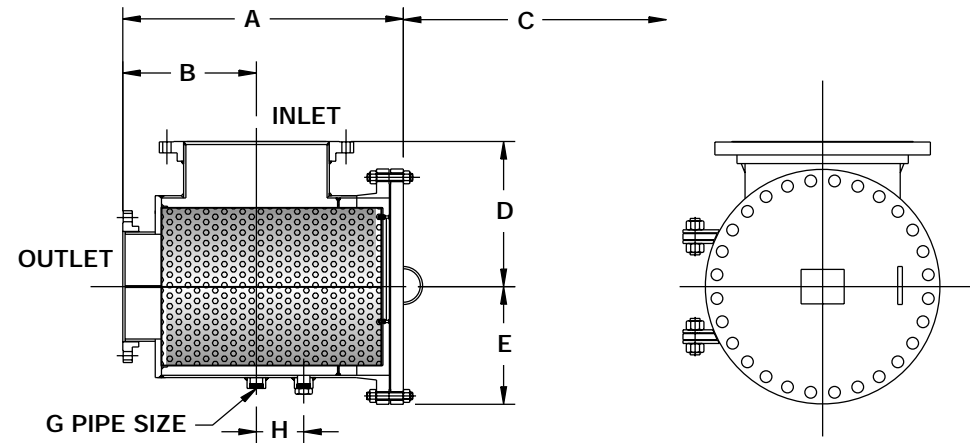
Opening 40%, 1/8" Diameter

Size	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)
10 x 6	28.89	346	138	4.8
10 x 8	50.03	442	177	3.5
10 x 10	78.85	535	214	2.7
12 x 8	50.03	503	201	4.0
12 x 10	78.85	609	244	3.1
12 x 12	113.10	715	286	2.5
14 x 10	78.85	655	262	3.3
14 x 12	113.10	769	308	2.7
14 x 14	140.50	845	338	2.4
16 x 12	113.10	861	344	3.0
16 x 14	140.50	940	376	2.7
16 x 16	185.66	1065	426	2.3
18 x 14	140.50	1040	416	3.0
18 x 16	185.66	1178	471	2.5
18 x 18	237.10	1320	528	2.2
20 x 16	185.66	1285	514	2.8
20 x 18	237.10	1447	579	2.4
20 x 20	294.83	1727	691	2.3
24 x 18	237.10	1693	677	2.9
24 x 20	294.83	1999	800	2.7
24 x 24	429.13	2351	940	2.2

OAR = Free Screen Area divided by Nominal Outlet Area.  
 Free Screen Area = Opening % times Gross Screen Area.  
 Values shown are approximate. Contact factory for exact ratios.



# FABRICATED SUCTION DIFFUSERS DIMENSIONS & WEIGHTS

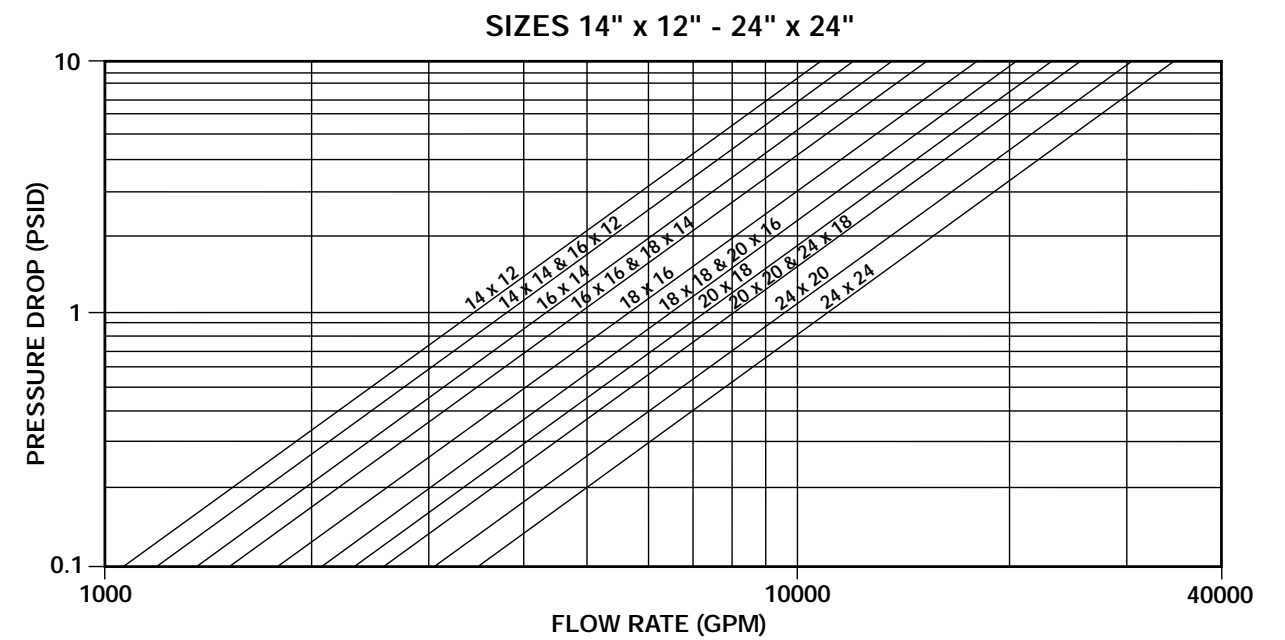
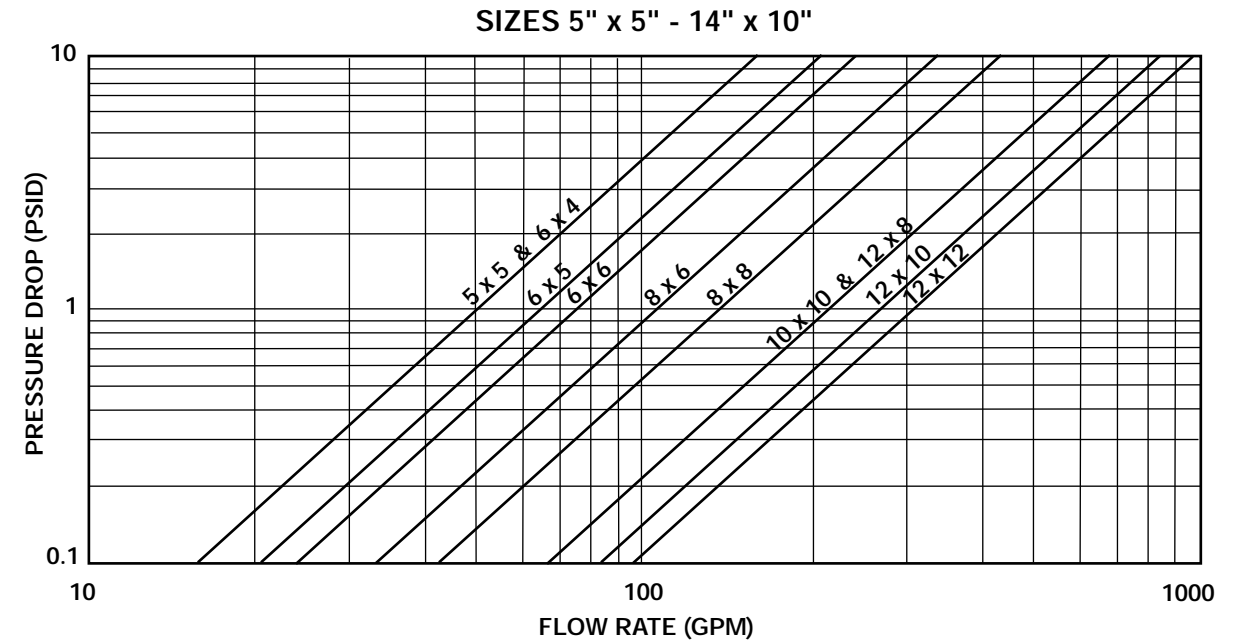


DIMENSIONS\* inches (mm) AND WEIGHTS pounds (kg)

Inlet	Outlet	A1	A2	A3	B1	B2	B3	C'	D	E	F	G	H	Weight <sup>2</sup>
<b>Standard Outlet</b>														
10 (250)	8 (200)	22.63 (575)	26.63 (676)	30.63 (778)	11.13 (283)	15.13 (384)	19.13 (486)	17.38 (441)	12.63 (321)	8 (203)	1 (40)	1 (40)	4.12 (105)	339 (154)
12 (300)	10 (250)	25.81 (656)	30.81 (783)	35.81 (910)	15.13 (384)	19.13 (486)	23.13 (587)	18.81 (478)	12.88 (327)	10.50 (267)	1.5 (40)	1.5 (40)	4.75 (121)	530 (240)
14 (350)	12 (300)	26.38 (670)	32.38 (822)	38.38 (975)	13.44 (341)	19.44 (494)	25.44 (646)	21.50 (546)	15.25 (387)	11.75 (298)	1.50 (40)	1.50 (40)	5.25 (133)	808 (366)
16 (400)	14 (350)	32.31 (821)	39.31 (998)	46.31 (1176)	16.75 (425)	23.75 (603)	30.75 (781)	26.75 (679)	16.25 (413)	12.50 (318)	2 (50)	2 (50)	5.50 (140)	1086 (493)
18 (450)	16 (400)	32.56 (827)	40.56 (1030)	48.56 (1233)	10.62 (270)	18.62 (473)	26.62 (676)	26.62 (676)	17.63 (448)	13.75 (349)	2 (50)	2 (50)	6.50 (165)	1256 (570)
20 (500)	18 (450)	32.13 (816)	41.13 (1045)	50.13 (1273)	23.13 (588)	32.13 (816)	41.13 (1045)	25.25 (641)	20.13 (511)	16 (406)	2 (50)	2 (50)	2.87 (73)	1793 (813)
24 (600)	20 (500)	40 (1016)	50 (1270)	60 (1524)	21.13 (537)	31.13 (791)	41.13 (1045)	32.50 (826)	22 (559)	17.47 (444)	2 (50)	2 (50)	8.94 (227)	3545 (1608)
<b>Undersized Outlet</b>														
10 (250)	6 (150)	21.88 (556)	24.88 (632)	27.88 (708)	9.75 (248)	13.75 (349)	17.75 (451)	17.31 (440)	11.13 (283)	8 (203)	1 (25)	1 (25)	4 (102)	261 (118)
12 (300)	8 (200)	22.50 (572)	26.50 (673)	30.50 (775)	11.25 (286)	15.25 (387)	19.25 (489)	18.81 (478)	12.88 (327)	9.50 (241)	1.5 (40)	1.5 (40)	4.63 (118)	437 (198)
14 (350)	10 (250)	25.88 (657)	30.88 (784)	35.88 (911)	15.13 (384)	19.13 (486)	23.13 (587)	18.88 (480)	14 (356)	10.50 (267)	1.5 (40)	1.5 (40)	4.25 (108)	670 (304)
16 (400)	12 (300)	26.25 (667)	32.25 (819)	38.25 (972)	13.63 (346)	19.63 (499)	25.63 (651)	21.50 (546)	15.50 (394)	11.75 (298)	2 (50)	2 (50)	5.06 (129)	913 (414)
18 (450)	14 (350)	29.31 (744)	36.31 (922)	43.31 (1100)	16.75 (425)	23.75 (603)	30.75 (781)	26.75 (679)	16.38 (416)	12.50 (318)	2 (50)	2 (50)	5.88 (149)	1058 (480)
20 (500)	16 (400)	32.56 (827)	40.56 (1030)	48.56 (1233)	17.19 (437)	25.19 (640)	33.19 (843)	26.62 (676)	17.88 (454)	13.75 (349)	2 (50)	2 (50)	6.63 (168)	1452 (659)
24 (600)	18 (450)	32.13 (816)	41.13 (1045)	50.13 (1273)	17 (432)	26 (660)	35 (889)	25.25 (641)	23.88 (607)	16 (406)	2 (50)	2 (50)	7.81 (198)	2382 (1080)
<b>Oversized Outlet</b>														
10 (250)	10 (250)	25.81 (656)	30.81 (783)	35.81 (910)	15.13 (384)	19.13 (486)	23.13 (587)	18.81 (478)	13.63 (346)	10.50 (267)	1 (25)	1 (25)	5.31 (135)	420 (190)
12 (300)	12 (300)	23.44 (595)	23.44 (595)	23.44 (595)	2.63 (67)	6.63 (168)	10.63 (270)	21.50 (546)	15.13 (384)	11.75 (298)	1.50 (40)	1.50 (40)	4.69 (119)	650 (295)
14 (350)	14 (350)	32.13 (816)	39.13 (994)	46.13 (1172)	16.75 (425)	23.75 (603)	30.75 (781)	26.75 (679)	16 (406)	12.50 (318)	1.5 (40)	1.5 (40)	5 (127)	964 (437)
16 (400)	16 (400)	32.56 (827)	40.56 (1030)	48.56 (1233)	17.19 (437)	25.19 (640)	33.19 (843)	26.62 (676)	17.50 (445)	13.75 (349)	2 (50)	2 (50)	8.06 (205)	1280 (580)
18 (450)	18 (450)	32.13 (816)	41.13 (1045)	50.13 (1273)	17 (432)	26 (660)	35 (889)	25.25 (641)	19.88 (505)	16 (406)	2 (50)	2 (50)	5.94 (151)	1572 (713)
20 (500)	20 (500)	40 (1016)	50 (1270)	60 (1524)	21.13 (537)	31.13 (791)	41.13 (1045)	32.50 (826)	21.63 (549)	17.47 (444)	2 (50)	2 (50)	8 (203)	2560 (1161)
24 (600)	24 (600)	41.38 (1051)	53.38 (1356)	65.38 (1661)	22.13 (562)	34.13 (867)	46.13 (1172)	34.88 (886)	23.88 (606)	17.47 (444)	2 (50)	2 (50)	7.81 (198)	3600 (1633)

1. Distance required for screen removal.  
 2. Weight shown for Style 1. For Styles 2 and 3, multiply Style 1 weight by 1.1 or 1.2, respectively.  
 \* Dimensions are subject to change. Contact factory for certified drawings when required. Custom dimensions available upon request.


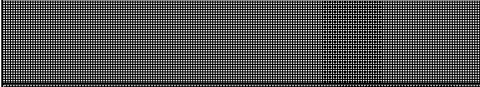
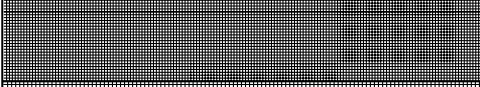
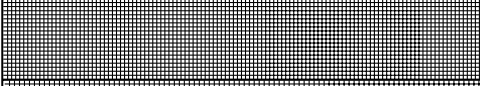
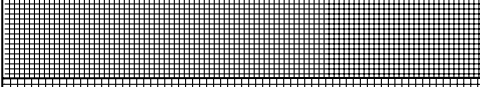
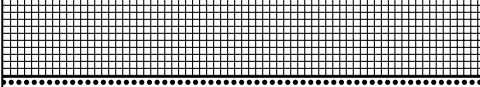
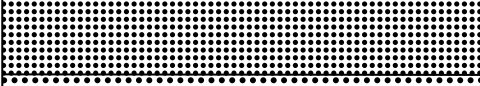
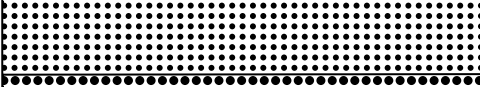
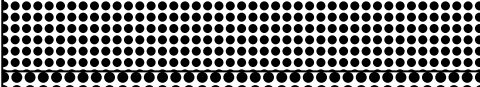
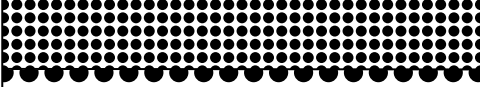
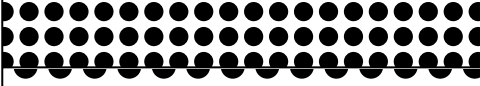




# FABRICATED SUCTION DIFFUSERS PRESSURE DROP-LIQUIDS



Pressure drop curves are based on water flow with standard screens.  
 For other Screen Openings and/or flow media, please contact factory.



# 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 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.

## INSTALLATION AND MAINTENANCE INSTRUCTIONS

### INSTALLATION

- 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 strainer.
- Mount standard support leg and foot to 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 leak around joints.
- After piping and initial circulation is complete, remove fine mesh start-up strainer.

### MAINTENANCE

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 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.