125S SERIES
CAST IRON SUCTION DIFFUSERS

Pressures To 200 PSIG (18.96 barg)
Temperatures to 212°F (100°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 Stainless Steel startup mesh over Stainless Steel perforated plate**
- **Cast Iron FF Flanges on all sizes**
- **All sizes complete with O-ring sealed covers with knob bolts to minimize down time**
- **Supporting pads for easy mounting of standard I.D. support foot**
- **Drain connection with plug furnished as standard**

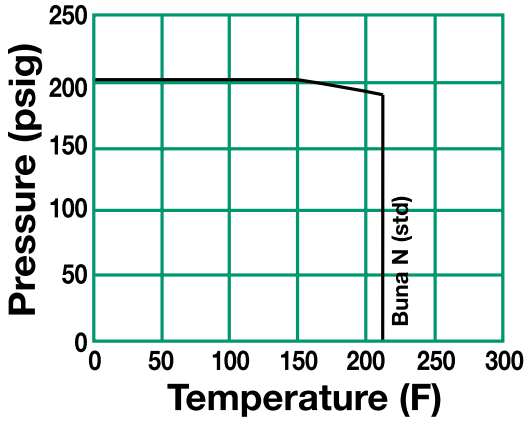
APPLICATIONS

- Pump protection

APPLICABLE CODES (Designed in accordance with)

- ASME B16.1

PRESSURE/TEMPERATURE CHART



MODELS

- 125SFI – Cast Suction Diffuser

OPTIONS

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

Cast Iron Suction Diffuser Ordering Code

Inlet Size				Dash	Model						Outlet Size	Dash	Perf	Mesh
0	6	0	0	-	1	2	5	S	F	I	N	-	4	2
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

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
- 125SFI - 125# Flanged

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

Dash - Position 13

Perf - Position 14
- 4 - 1/8"

Mesh - Position 15
- 2 - 20"

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

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

125S SERIES
CAST IRON SUCTION DIFFUSERS

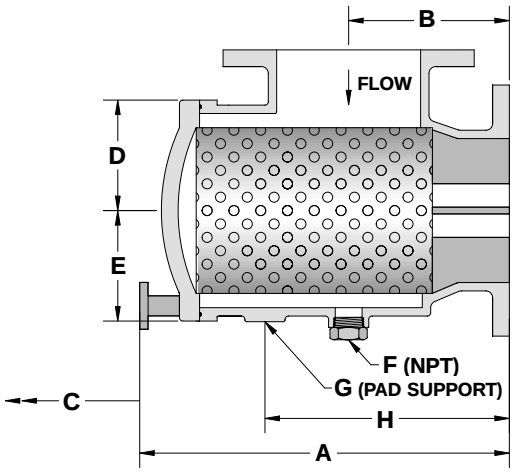
SPECIFICATION

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 ASME Class 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[1] .....304 SS
Mesh Screen .....304 SS
Knob[2] .....Ductile Iron
O-ring[1] - Standard .....Buna N
Optional .....EPDM
Optional .....Viton
Plug[2] .....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*

*20 Mesh Liner is removeable

DIMENSIONS inches (mm) **and WEIGHTS** pounds (kg)

Size		A	B	C[1]	D	E	F	G[2]	H	Weight
Inlet	Outlet									
2 (50)	1½ (40)	10¼ 260.00	4½ 114.30	5 127.00	4½ 114.30	2 3/16 55.00	3/4 (20)	3/4 (20)	5 15/16 151.00	21 (9.5)
2 (50)	2 (50)	10¼ 260.00	4½ 114.30	5 127.00	4½ 114.30	2 3/16 55.00	3/4 (20)	3/4 (20)	5 15/16 151.00	23 (10.4)
2½ (65)	2 (50)	10⅞ 276.00	5 127.00	5 127.00	5 127.00	2½ 64.00	1/2 (15)	1 (25)	6 9/16 167.00	32 (14.5)
2½ (65)	2½ (65)	10⅞ 276.00	5 127.00	5 127.00	5 127.00	2½ 64.00	1/2 (15)	1 (25)	6 9/16 167.00	34 (15.4)
3 (80)	2 (50)	10¼ 260.00	5½ 139.70	5 127.00	5½ 139.70	2 3/16 55.00	3/4 (20)	1 (25)	5 15/16 151.00	37 (16.8)
3 (80)	2½ (65)	11 5/16 288.00	5½ 139.70	5 127.00	5½ 139.70	3 76.00	3/4 (20)	1 (25)	7 1/16 179.00	49 (22.2)
3 (80)	3 (80)	11 5/16 288.00	5½ 139.70	5¼ 133.00	5½ 139.70	3 76.00	3/4 (20)	1 (25)	7 1/16 179.00	55 (24.9)
4 (100)	3 (80)	13 332.00	6½ 165.10	5¼ 133.00	6½ 165.10	3⅜ 98.00	3/4 (20)	1 (25)	8¾ 223.00	57 (25.9)
4 (100)	4 (100)	12 13/16 325.00	6½ 165.10	7⅛ 181.00	6½ 165.10	3⅜ 98.00	3/4 (20)	1¼ (32)	8¼ 210.10	92 (41.7)
5 (125)	4 (100)	15¾ 400.00	7½ 190.50	7⅛ 181.00	7½ 190.50	4 7/16 112.70	3/4 (20)	1¼ (32)	7⅝ 194.00	97 (44.0)
5 (125)	5 (125)	16⅛ 411.00	7½ 190.50	7⅛ 181.00	7½ 190.50	5 9/16 141.00	1 (25)	1¼ (32)	10 254.00	101 (45.8)
6 (150)	4 (100)	13 332.00	8 203.20	7⅛ 181.00	8 203.20	3⅜ 98.00	3/4 (20)	1¼ (32)	8¾ 223.00	140 (63.5)
6 (150)	5 (125)	17 433.00	8 203.20	7⅛ 181.00	8 203.20	5 7/16 138.00	1 (25)	1¼ (32)	10 11/16 272.00	145 (65.8)
6 (150)	6 (150)	17 433.00	8 203.20	7⅞ 200.00	8 203.20	5 7/16 138.00	1 (25)	2 (50)	10 11/16 272.00	182 (82.6)
8 (200)	6 (150)	17 433.00	8 203.20	7⅞ 200.00	9 228.60	5 7/16 138.00	1 (25)	2 (50)	10 11/16 272.00	197 (89.4)
8 (200)	8 (200)	20 13/16 528.00	9 228.60	16¼ 413.00	9 228.60	7 176.50	1 (25)	2 (50)	11⅝ 295.00	292 (132.5)
10 (250)	8 (200)	20 13/16 528.00	9 228.60	16¼ 413.00	11 279.40	7 176.50	1 (25)	2 (50)	11⅝ 295.00	312 (141.5)
10 (250)	10 (250)	26¼ 667.00	11 279.40	16¼ 413.00	11 279.40	9¾ 248.00	1 (25)	2 (50)	14 3/16 360.00	398 (180.5)
12 (300)	8 (200)	25 5/16 643.00	11 279.40	16¼ 413.00	11 279.40	8¼ 209.00	1 (25)	2 (50)	13¾ 349.00	412 (186.9)
12 (300)	10 (250)	26¼ 667.00	11 279.40	16¼ 413.00	12 304.80	9¾ 248.00	1 (25)	2 (50)	14 3/16 360.00	491 (222.7)
12 (300)	12 (300)	26¼ 667.00	12 304.80	18⅛ 461.00	12 304.80	9¾ 248.00	1 (25)	2 (50)	15⅜ 390.00	573 (259.9)

1. Distance required for Screen Removal.
2. Mounting Pad Support.

125S SERIES
OPEN AREA RATIOS
with Standard Perforated Screen

Opening 40%, 1/8" Diameter

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

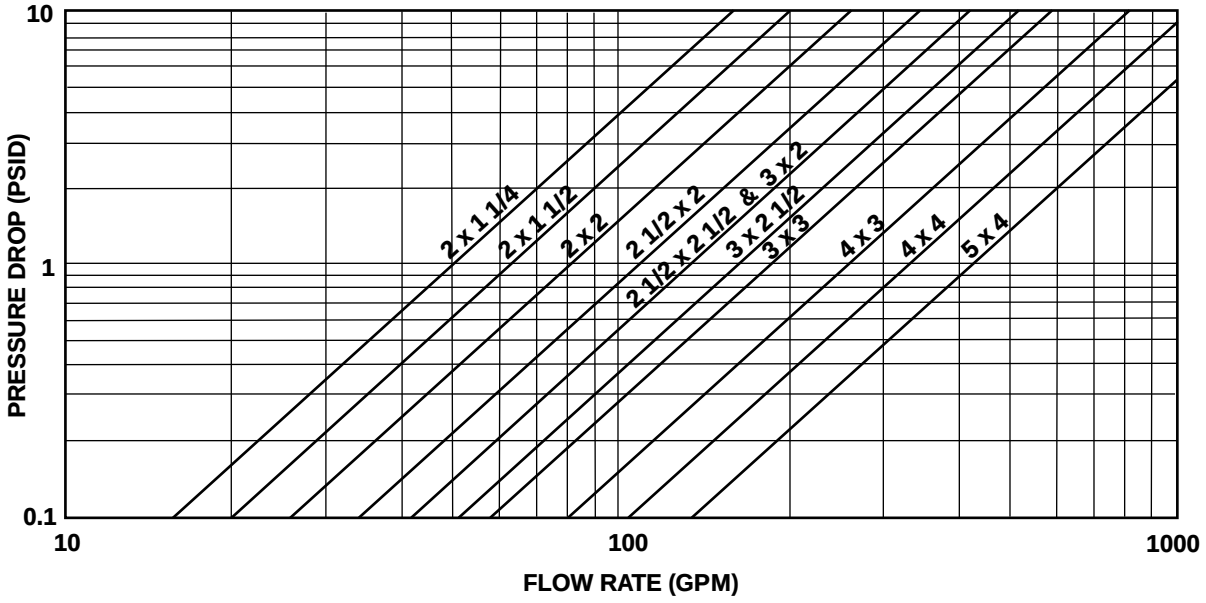
OAR = Free Screen Area divided by Nominal Outlet Area.
Free Screen Area = Opening % times Gross Screen Area.
Values shown are approximate. Contact factory for exact ratios.

125S SERIES

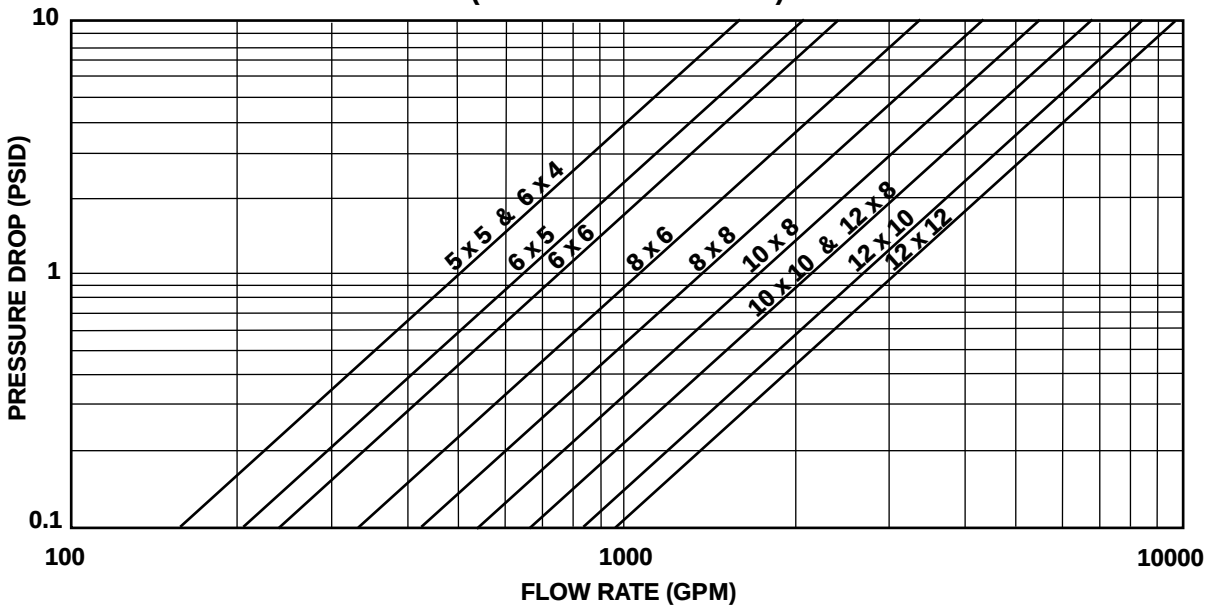
PRESSURE DROP VS FLOW RATE

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

(Sizes 2"x1¼" - 5"x4")



(Sizes 5"x5" - 12"x12")



For other viscous liquids or mesh liners, contact factory.