

# SUCTION DIFFUSER

## Figure S810 Suction Diffuser

The Figure S810 Suction Diffuser is compact and rugged for direct mounting to the suction side of a pump in either a horizontal or vertical position. In addition to removing foreign particles, the Figure S810 also provides proper flow conditions to the pump. Where space is limited, the Figure S810 can be used to replace the straight pipe normally required to reduce turbulence. The Figure S810 Suction Diffuser's permanent perforated stainless steel screen helps remove foreign particles. The inlet end is suitable for installation with Grinnell Couplings. The outlet end is provided with a 150# ANSI flat face flange. Integral straightening vanes in the diffuser outlet reduce turbulence so that stress and erosion on the pump is minimized.

Sizes: 3" (DN 80) – 16" (DN 400)

Maximum working pressure is 300 psi (20.7 bar) at 100°F (38°C).



Tech Data: G410

ACCESSORIES

## MATERIAL SPECIFICATIONS

### Body and Cover

- Ductile Iron Conforming to ASTM A-536

### Knobs

- Ductile Iron conforming to ASTM A-536 Grade 65-45-12 for sizes 3" x 2" – 10" x 8" (Stud/Nuts Carbon Steel conforming to ASTM A-193/194, for sizes 10" x 10" and larger)

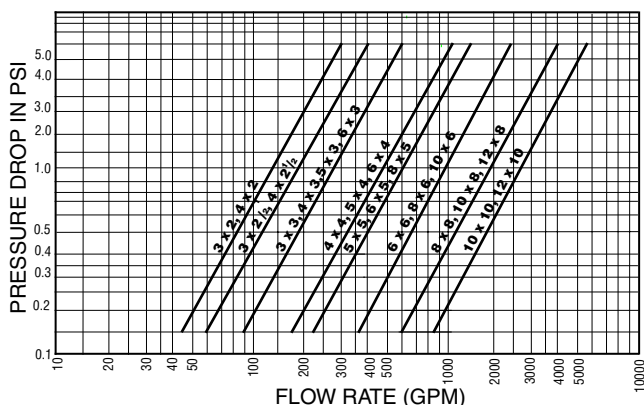
### Screen

- $\frac{5}{32}$ " perforated Stainless Steel for sizes 3" x 2" – 6" x 6";  $\frac{1}{8}$ " perforated Stainless Steel for sizes 8" x 5" and larger. Start up screen is 20 mesh Stainless Steel.

### Coating

- Black Enamel Paint

## Performance



For sizes not shown, contact Tyco Fire & Building Products

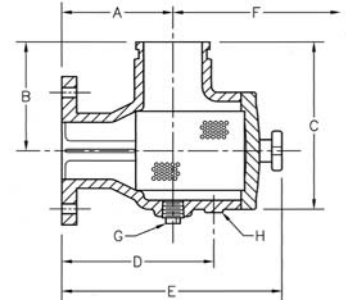
**Note:** It is good piping practice to apply a safety factor of 15% to 20% to the values in the above table.

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ACCESSORIES

Nominal Dimensions									
Pipe Size Inlet x Outlet Inches mm	A Inches mm	B Inches mm	C Inches mm	D Inches mm	E Inches mm	F Screen Removal Inches mm	G Plug NPT	H Pipe Support I.D. Inches mm	Approx. Weight lbs kg
3 x 2 80 x 50	5.50 139.7	5.50 139.7	8.48 215.4	7.38 187.5	11.56 293.6	9.63 244.6	0.75	1.38 35.1	38.0 17.2
3 x 2½ 80 x 65	5.50 139.7	5.50 139.7	8.48 215.4	7.38 187.5	11.56 293.6	9.63 244.6	0.75	1.38 35.1	39.0 17.7
3 x 3 80 x 80	5.50 139.7	5.50 139.7	8.48 215.4	7.38 187.5	11.56 293.6	9.63 244.6	0.75	1.38 35.1	40.0 18.1
4 x 2 100 x 50	5.75 146.1	5.75 146.1	9.13 231.9	7.63 193.8	11.81 300.0	11.18 284.0	0.75	1.38 35.1	48.0 21.8
4 x 2½ 100 x 65	6.50 165.1	6.50 165.1	10.48 266.2	8.75 222.3	13.13 333.5	9.63 244.6	1.00	1.38 35.1	49.0 22.2
4 x 3 100 x 80	6.50 165.1	6.50 165.1	10.48 266.2	8.75 222.3	13.13 333.5	9.63 244.6	1.00	1.38 35.1	50.0 22.7
4 x 4 100 x 100	6.50 165.1	6.50 165.1	10.48 266.2	8.75 222.3	13.13 333.5	9.63 244.6	1.00	1.38 35.1	52.0 23.6
5 x 3 125 x 80	6.50 165.1	6.50 165.1	10.48 266.2	8.75 222.3	13.13 333.5	11.50 292.1	1.00	1.38 35.1	94.0 42.6
5 x 4 125 x 100	6.50 165.1	6.50 165.1	11.94 303.3	10.00 254.0	15.75 400.1	14.00 355.6	1.00	1.38 35.1	96.0 43.5
5 x 5 125 x 125	7.50 190.5	7.50 190.5	11.94 303.3	10.00 254.0	15.75 400.1	14.88 378.0	1.00	1.38 35.1	101.0 45.8
6 x 3 150 x 80	8.00 203.2	8.00 203.2	13.31 338.1	10.50 266.7	16.88 428.8	16.56 420.6	1.00	1.38 35.1	103.0 46.7
6 x 4 150 x 100	8.00 203.2	8.00 203.2	13.31 338.1	10.50 266.7	16.88 428.8	16.56 420.6	1.00	1.38 35.1	106.0 48.1
6 x 5 150 x 125	8.00 203.2	8.00 203.2	13.31 338.1	10.50 266.7	16.88 428.8	16.56 420.6	1.00	1.38 35.1	110.0 49.9
6 x 6 150 x 150	8.00 203.2	8.00 203.2	13.31 338.1	10.50 266.7	16.88 428.8	16.56 420.6	1.00	1.38 35.1	113.0 51.2
8 x 5 200 x 125	9.00 228.6	9.00 228.6	14.38 365.3	11.50 292.1	17.88 454.2	16.88 428.8	1.00	1.38 35.1	135.0 61.2
8 x 6 200 x 150	9.00 228.6	9.00 228.6	15.31 388.9	11.50 292.1	17.88 454.2	16.88 428.8	1.00	1.38 35.1	137.0 62.1
8 x 8 200 x 200	9.00 228.6	9.00 228.6	16.75 425.5	11.75 298.5	20.75 527.1	22.88 581.2	1.25	1.38 35.1	222.0 100.7
10 x 6 250 x 150	9.48 240.8	9.48 240.8	15.50 393.7	11.94 303.3	18.31 465.1	16.88 428.8	1.00	1.38 35.1	230.0 104.3
10 x 8 250 x 200	9.00 228.6	9.00 228.6	18.44 468.4	11.75 298.5	20.75 527.1	22.88 581.2	1.25	1.38 35.1	236.0 107.0
10 x 10 250 x 250	11.00 279.4	11.00 279.4	20.00 508.0	14.00 355.6	26.38 670.1	30.75 781.1	1.25	1.38 35.1	343.0 155.6
12 x 8 300 x 200	9.00 228.6	9.00 228.6	19.63 498.6	11.75 298.5	20.75 527.1	22.88 581.2	1.25	1.38 35.1	357.0 161.9
12 x 10 300 x 250	11.00 279.4	12.75 323.9	21.00 533.4	14.00 355.6	26.38 670.1	30.75 781.1	1.25	1.38 35.1	357.0 161.9
12 x 12 300 x 300	12.00 304.8	12.00 304.8	22.06 560.3	15.25 387.4	26.18 665.0	30.75 781.1	1.25	1.38 35.1	357.0 161.9
14 x 10 350 x 250	11.00 279.4	11.00 279.4	22.50 571.5	14.00 355.6	26.38 670.1	30.75 781.1	1.25	1.38 35.1	507.0 229.9
14 x 12 350 x 300	12.00 304.8	12.00 304.8	22.38 568.5	15.25 387.4	26.18 665.0	31.00 787.4	1.25	1.38 35.1	601.0 272.6
14 x 14 350 x 350	14.00 355.6	14.00 355.6	25.00 635.0	17.50 444.5	27.75 704.9	33.13 841.5	2.00	1.38 35.1	706.0 320.2
16 x 14 400 x 350	14.00 355.6	14.00 355.6	26.00 660.4	17.50 444.5	27.88 708.2	31.00 787.4	2.00	1.38 35.1	750.0 340.1



Please refer to General Notes on page 17.