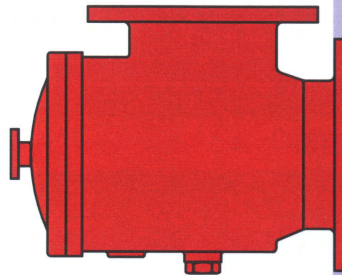




# ELBI IRON FLANGED SUCTION DIFFUSERS

## ELBI MODEL CISD



### DESIGN SPECIFICATIONS

- DESIGNED FOR DIRECT MOUNTING TO THE SUCTION SIDE OF A PUMP IN EITHER HORIZONTAL OR VERTICAL POSITION.
- INTEGRAL STRAIGHTENING VANES REDUCE FLOW TURBULENCE.
- IRON STRAINERS ARE COMPLETE WITH FF FLANGES IN ACCORDANCE WITH ASME B16.1.
- AVAILABLE WITH EQUAL OR REDUCED OUTLET FLANGES.
- DIFFUSER SIZES 6" AND SMALLER ARE COMPLETE WITH O-RING SEALED KNOB COVERS.
- DIFFUSER SIZES 8" AND LARGER ARE COMPLETE WITH O-RING SEALED STUD/NUT COVERS.
- CAST ON SUPPORTING PADS FOR CONVENIENT MOUNTING OF STANDARD I.D. SUPPORT FOOT.
- ALL STRAINERS FURNISHED WITH A REMOVABLE TYPE 304 SS 20 MESH START-UP SCREEN.
- DRAIN CONNECTION FURNISHED WITH PLUG AS STANDARD.
- DIFFERENTIAL CONNECTIONS ARE OPTIONAL.

### PARTS LIST AND STANDARD MATERIALS

DESCRIPTION	SPECIFICATIONS
	CAST IRON
BODY	A126-B
COVER	A126-B
STUDS/NUTS (2) (4)	A307 - B/A563
KNOBS (2) (5)	A395 DUCTILE IRON/STEEL
SCREEN (1)	TYPE 304 SS
GASKET (1) (3)	BUNA-N O-RING
PLUG (2)	A126-B

#### NOTES

1. Recommended spares.
2. Material of equivalent strength may be substituted at manufacturer's option.
3. Other gasket materials are available.
4. Applicable to sizes 8" and larger.
5. Applicable to sizes 6" and smaller.

### UPPER PRESSURE LIMITS (NON-SHOCK)

ELBI SERIES	BODY MATERIAL	M.A.W.P. PSIG (BARS)
CISD	A126-B	200 (13.79)

**NOTE** Pressure-temperature ratings in accordance with ASME B16.1. Temperature limited by seal material.

### UPPER TEMPERATURE LIMITS

SEAL MATERIAL	UPPER LIMITS °F (°C)
BUNA-N (1)	212 (100)
EPDM	250 (121)
VITON	400 (204)

**NOTE 1** Standard seal material is BUNA-N.

### LOWER TEMPERATURE LIMITS

BODY MATERIAL	LOWER LIMITS °F (°C)
A126-B	-20 (-28.9)

### SUCTION DIFFUSER SCREEN OPEN AREA RATIOS

SIZE in/mm	2 x 1-1/2	2 x 2	2-1/2 x 2	2-1/2 x 2-1/2	3 x 2	3 x 2-1/2	3 x 3	4 x 3	4 x 4	5 x 4	5 x 5
Nominal Outlet Area in <sup>2</sup> /cm <sup>2</sup>	1.77 11.42	3.14 20.26	3.14 20.26	4.91 31.68	0.14 0.90	4.91 31.68	7.07 45.61	7.07 45.61	12.57 81.10	12.57 81.10	19.64 126.71
Gross Screen Area in <sup>2</sup> /cm <sup>2</sup>	25.00 161.29	36.00 232.26	36.00 232.26	49.00 316.13	36.00 232.26	49.00 316.13	60.00 387.10	111.00 716.13	105.00 677.42	111.00 716.13	176.00 1135.48
Free Screen Area in <sup>2</sup> /cm <sup>2</sup>	10.00 64.52	14.40 92.90	14.40 92.90	19.60 126.45	14.40 92.90	19.60 126.45	24.00 154.84	44.40 286.45	42.00 270.97	44.40 286.45	70.40 454.19
Open Area Ratio	5.60	4.60	4.60	4.00	4.60	4.00	3.40	6.30	3.30	3.50	3.60

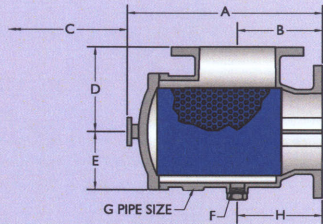
SIZE in/mm	6 x 4	6 x 5	6 x 6	8 x 5	8 x 6	8 x 8	10 x 8	10 x 10	12 x 8	12 x 10	12 x 12
Nominal Outlet Area in <sup>2</sup> /cm <sup>2</sup>	12.57 81.10	19.64 126.71	28.27 182.39	19.64 126.71	28.27 182.39	50.27 324.32	50.27 324.32	78.54 506.71	50.27 324.32	78.54 506.71	113.10 729.68
Gross Screen Area in <sup>2</sup> /cm <sup>2</sup>	111.00 716.13	245.00 1580.64	245.00 1580.64	245.00 1580.64	245.00 1580.64	428.00 2761.28	428.00 2761.28	665.00 4290.31	428.00 2761.28	665.00 4290.31	739.00 4767.73
Free Screen Area in <sup>2</sup> /cm <sup>2</sup>	44.40 286.45	98.00 632.26	98.00 632.26	98.00 632.26	98.00 632.26	171.20 1104.51	171.20 1104.51	266.00 1716.13	171.20 1104.51	266.00 1716.13	295.60 1907.09
Open Area Ratio	3.50	5.00	3.50	5.00	3.50	3.40	3.40	3.40	3.40	3.40	2.60

**NOTE 1** Values shown are approximate. Contact factory for exact values.



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### STANDARD SCREENS

SIZE RANGE	START-UP OPENING	PERMANENT OPENING
2" - 3" 50 - 80 mm	0.032 in 0.8 mm	0.045 in 1.2 mm
4" - 12" 100 - 300 mm	0.032 in 0.8 mm	0.125 in 3.2 mm

### ELBI SERIES CISD DIMENSIONAL DATA

SIZE in/mm		A in/mm	B in/mm	C in/mm	D in/mm	E in/mm	F in/mm	G in/mm	H in/mm	Weight Lb./Kg.
INLET	OUTLET									
2	1-1/4	10.19	4.50	8.81	4.50	2.19	3/4	3/4	6.13	19
50	32	259	114	224	114	56	20	20	156	9
2	1-1/2	10.19	4.50	8.81	4.50	2.19	3/4	3/4	6.13	21
50	40	259	114	224	114	56	20	20	156	10
2	2	10.25	4.38	8.81	4.50	2.75	3/4	3/4	6.00	23
50	50	260	111	224	114	70	20	20	152	10
2-1/2	2	8.50	4.25	4.75	4.25	3.13	1/2	1	6.56	32
65	50	216	108	121	108	80	15	25	167	15
2-1/2	2-1/2	8.50	4.25	4.75	4.25	3.13	1/2	1	6.56	34
65	65	216	108	121	108	80	15	25	167	15
3	2	10.50	4.25	5.00	5.50	2.50	3/4	1	6.00	37
80	50	260	108	127	140	64	20	25	152	17
3	2-1/2	8.25	4.38	5.00	4.69	3.13	3/4	1	5.75	49
80	65	210	111	127	119	80	20	25	146	22
3	3	11.38	6.00	5.25	5.50	3.63	3/4	1	7.13	55
80	80	289	152	133	140	92	20	25	181	25
4	3	13.00	6.50	5.25	6.50	4.25	3/4	1	8.75	57
100	80	330	165	133	165	108	20	25	222	26
4	4	13.00	6.50	6.75	6.50	4.25	3/4	1-1/4	8.38	92
100	100	330	165	171	165	108	20	32	213	42
5	4	11.13	5.75	6.75	6.63	4.25	3/4	1-1/4	7.63	97
125	100	283	146	171	168	108	20	32	194	44
5	5	12.63	6.50	7.13	6.50	4.88	1	1-1/4	8.63	101
125	125	321	165	181	165	124	25	32	219	46
6	4	13.00	7.00	6.75	8.00	4.25	3/4	1-1/4	8.00	140
150	100	330	178	171	203	108	20	32	229	47
6	5	17.00	8.00	7.13	8.00	5.50	1	1-1/4	10.75	145
150	125	432	203	181	203	140	25	32	273	66
6	6	16.50	8.00	7.88	10.00	5.58	1	2	10.75	182
150	150	419	203	200	254	149	25	50	273	83
8	5	21.00	9.00	16.25	7.50	5.00	1	2	9.00	260
200	125	533	229	413	191	191	25	50	229	118
8	6	17.00	8.25	7.88	9.00	5.88	1	2	10.75	197
200	150	432	209	200	229	149	25	50	273	89
8	8	21.00	9.25	16.25	9.25	8.00	1	2	11.63	292
200	200	533	235	413	235	203	25	50	295	132
10	8	20.75	9.25	16.25	11.25	8.00	1	2	12.00	312
250	200	527	235	413	286	203	25	50	305	142
10	10	26.00	11.00	16.13	11.25	8.00	1	2	13.75	398
250	250	660	279	410	286	203	25	50	349	181
12	8	18.88	9.25	16.25	12.00	6.38	1	2	11.63	412
300	200	480	233	413	305	132	25	50	295	187
12	10	26.00	11.00	16.13	12.00	8.00	1	2	13.75	491
300	250	660	279	410	305	203	25	50	349	223
12	12	26.00	12.00	18.13	12.00	9.25	1	2	13.88	573
300	300	660	305	461	305	235	25	50	353	260

#### NOTES

- Dimension "C" is distance for screen removal.
- All strainers furnished with removable type 304SS 20 mesh start-up screen.
- Dimensions shown are subject to change. Contact factory for certified prints when required.