

Appendix A: Ductwork

29.01 Ductwork Systems

Ductwork Sizing Criteria

SYSTEM TYPE	MAXIMUM FRICTION RATE IN W.G./100 FT.	MINIMUM VELOCITY FT./MIN.	MAXIMUM VELOCITY FT./MIN.	COMMENTS / REASONS
GENERAL AIR HANDLING SYSTEMS				
LOW PRESSURE DUCTS	0.10 (0.15)	---	1,500 - 1,800	When CFM > 6,000 Velocity Governs; When CFM < 6,000 Friction Rate Governs; Applicable for Supply, Return, Exhaust and Outside Air Systems
MEDIUM PRESSURE DUCTS	0.20 (0.25)	---	2,000 - 2,500	When CFM > 6,000 Velocity Governs; When CFM < 6,000 Friction Rate Governs; Applicable for Supply Systems Only
HIGH PRESSURE DUCTS	0.40 (0.45)	---	2,500 - 3,500	When CFM > 5,000 Velocity Governs; When CFM < 5,000 Friction Rate Governs; Applicable for Supply Systems Only
TRANSFER AIR DUCTS	0.03 - 0.05	---	1,000	When CFM > 3,200 Velocity Governs; When CFM < 3,200 Friction Rate Governs;
OUTSIDE AIR SHAFTS	0.05 - 0.10	---	1,000	When CFM > 1,200 Velocity Governs; When CFM < 1,200 Friction Rate Governs;
GRAVITY RELIEF AIR SHAFTS	0.03 - 0.05	---	1,000	When CFM > 3,200 Velocity Governs; When CFM < 3,200 Friction Rate Governs;
GENERAL EXHAUST AND SPECIAL EXHAUST SYSTEMS				
GENERAL EXHAUST DUCTS	0.10 (0.15)	---	1,500 - 1,800	When CFM > 6,000 Velocity Governs; When CFM < 6,000 Friction Rate Governs;
TOILET EXHAUST DUCTS	0.10 (0.15)	---	1,500 - 1,800	When CFM > 6,000 Velocity Governs; When CFM < 6,000 Friction Rate Governs;
KITCHEN HOOD EXHAUST DUCTS	---	1,500	2,200	BOCA: 1,500 FPM Min. - 2,200 FPM Max; SBCCI: 1,500 FPM Min.; UBC: 1,500 FPM Min. - 2,500 FPM Max; NFPA: 1,500 FPM Min.
DISHWASHER EXHAUST DUCTS	0.10 (0.15)	1,500	2,200	
ACID, AMMONIA, & SOLVENT MAINS	0.50 (0.60)	1,000	3,000	Mains & Risers 1,500 - 3,000 FPM; Branches & Laterals 1,000 - 2,000 FPM
ACID, AMMONIA, & SOLVENT STACKS	---	3,000	4,000	
SILANE DUCTS	---	250	---	Velocity across the neck of the cyclinder or cabinet window or access port
LOUVERS				
INTAKE	---	---	500	Maximum Velocity through Free Area; Assuming 50% Free Area - Max. Velocity 250 FPM through Gross Louver Area
EXHAUST OR RELIEF	---	---	700	Maximum Velocity through Free Area; Assuming 30% Free Area - Max. Velocity 350 FPM through Gross Louver Area

Notes:

- 1. Friction Rates in parenthesis should only be used when space constraints dictate.
- 2. Maximum aspect ratio 4:1 unless space constraints dictate greater aspect ratios.
- 3. When diffusers, registers, and grilles are mounted to supply, return, and exhaust ducts, duct velocities should not exceed 1,500 FPM or noise will result.

Ductwork Support

DUCTWORK TYPE	MAXIMUM HANGER SPACING FEET
Horizontal Ducts less than 4 square feet	8
Horizontal Ducts 4 to 10 square feet	6
Horizontal Ducts greater than 10 square feet	4
Vertical Round Ducts	12
Vertical Rectangular Ducts	10

Ductwork Cost Ratios

SMACNA PRESSURE CLASS	INSTALLED COST RATIO
± 1/2"	1.00
± 1"	1.05
± 2"	1.15
± 3"	1.40
+ 4"	1.50
+ 6"	1.60
+ 10"	1.80

ASPECT RATIOS	INSTALLED COST RATIO	OPERATING COST RATIO
1:1	1.00	1.000
2:1	1.13	1.001
3:1	1.28	1.005
4:1	1.45	1.010
5:1	1.65	1.012
6:1	1.85	1.020
7:1	2.08	1.030

Friction Loss Correction Factors for Ducts

VELOCITY Fpm	MATERIAL							
	GALV. STEEL STAINLESS STEEL	DUCT LINER	ALUMINUM	CARBON STEEL	FIBEROUS GLASS (2)	PVC	CONCRETE OR CONC. BLOCK (1)	DRYWALL
500	1.00	1.25	0.98	0.93	1.25	0.93	1.5-1.9	1.25
600	1.00	1.28	0.98	0.92	1.27	0.92	1.5-1.9	1.27
700	1.00	1.30	0.98	0.92	1.30	0.92	1.5-2.0	1.30
800	1.00	1.31	0.97	0.91	1.31	0.91	1.5-2.0	1.31
900	1.00	1.32	0.97	0.90	1.31	0.90	1.5-2.0	1.31
1000	1.00	1.33	0.97	0.90	1.32	0.90	1.6-2.1	1.32
1200	1.00	1.36	0.97	0.89	1.34	0.89	1.6-2.1	1.34
1400	1.00	1.38	0.96	0.88	1.36	0.88	1.6-2.1	1.36
1600	1.00	1.40	0.96	0.87	1.38	0.87	1.6-2.2	1.38
1800	1.00	1.41	0.96	0.86	1.39	0.86	1.6-2.3	1.39
2000	1.00	1.42	0.96	0.85	1.40	0.85	1.7-2.3	1.40
2500	1.00	1.45	0.95	0.84	1.42	0.84	1.7-2.3	1.42
3000	1.00	1.47	0.95	0.83	1.43	0.83	1.7-2.3	1.43
3500	1.00	1.49	0.95	0.83	1.44	0.83	1.8-2.4	1.44
4000	1.00	1.50	0.94	0.82	1.45	0.82	1.8-2.4	1.45
4500	1.00	1.52	0.94	0.81	1.46	0.81	1.8-2.4	1.46
5000	1.00	1.54	0.94	0.80	1.48	0.80	1.8-2.4	1.48
5500	1.00	1.55	0.93	0.79	1.49	0.79	1.8-2.4	1.49
6000	1.00	1.56	0.93	0.78	1.50	0.78	1.8-2.4	1.50

Notes:

1. First number indicated is for smooth concrete; second number indicated is for rough concrete.
2. Flexible ductwork has a friction loss correction factor of 1.5 to 2.0 times the value read from friction loss tables, ductulators, etc.

Velocities vs. Velocity Pressures

VELOCITY Fpm	VELOCITY PRESSURE In. WG.	VELOCITY Fpm	VELOCITY PRESSURE In. WG.	VELOCITY Fpm	VELOCITY PRESSURE In. WG.
50	0.0002	2,050	0.262	4,050	1.023
100	0.0006	2,100	0.275	4,100	1.048
150	0.001	2,150	0.288	4,150	1.074
200	0.002	2,200	0.302	4,200	1.100
250	0.004	2,250	0.316	4,250	1.126
300	0.006	2,300	0.330	4,300	1.153
350	0.008	2,350	0.344	4,350	1.180
400	0.010	2,400	0.359	4,400	1.207
450	0.013	2,450	0.374	4,450	1.235
500	0.016	2,500	0.390	4,500	1.262
550	0.019	2,550	0.405	4,550	1.291
600	0.022	2,600	0.421	4,600	1.319
650	0.026	2,650	0.438	4,650	1.348
700	0.031	2,700	0.454	4,700	1.377
750	0.035	2,750	0.471	4,750	1.407
800	0.040	2,800	0.489	4,800	1.436
850	0.045	2,850	0.506	4,850	1.466
900	0.050	2,900	0.524	4,900	1.497
950	0.056	2,950	0.543	4,950	1.528
1,000	0.062	3,000	0.561	5,000	1.559
1,050	0.069	3,050	0.580	5,050	1.590
1,100	0.075	3,100	0.599	5,100	1.622
1,150	0.082	3,150	0.619	5,150	1.654
1,200	0.090	3,200	0.638	5,200	1.686
1,250	0.097	3,250	0.659	5,250	1.718
1,300	0.105	3,300	0.679	5,300	1.751
1,350	0.114	3,350	0.700	5,350	1.784
1,400	0.122	3,400	0.721	5,400	1.818
1,450	0.131	3,450	0.742	5,450	1.852
1,500	0.140	3,500	0.764	5,500	1.886
1,550	0.150	3,550	0.786	5,550	1.920
1,600	0.160	3,600	0.808	5,600	1.955
1,650	0.170	3,650	0.831	5,650	1.990
1,700	0.180	3,700	0.853	5,700	2.026
1,750	0.191	3,750	0.877	5,750	2.061
1,800	0.202	3,800	0.900	5,800	2.097
1,850	0.213	3,850	0.924	5,850	2.134
1,900	0.225	3,900	0.948	5,900	2.170
1,950	0.237	3,950	0.973	5,950	2.207
2,000	0.249	4,000	0.998	6,000	2.244

Velocities vs. Velocity Pressures

VELOCITY Fpm	VELOCITY PRESSURE In. WG.	VELOCITY Fpm	VELOCITY PRESSURE In. WG.	VELOCITY Fpm	VELOCITY PRESSURE In. WG.
6,050	2.282	8,050	4.040	10,050	6.297
6,100	2.320	8,100	4.090	10,100	6.360
6,150	2.358	8,150	4.141	10,150	6.423
6,200	2.397	8,200	4.192	10,200	6.486
6,250	2.435	8,250	4.243	10,250	6.550
6,300	2.474	8,300	4.295	10,300	6.614
6,350	2.514	8,350	4.347	10,350	6.678
6,400	2.554	8,400	4.399	10,400	6.743
6,450	2.594	8,450	4.452	10,450	6.808
6,500	2.634	8,500	4.504	10,500	6.873
6,550	2.675	8,550	4.558	10,550	6.939
6,600	2.716	8,600	4.611	10,600	7.005
6,650	2.757	8,650	4.665	10,650	7.071
6,700	2.799	8,700	4.719	10,700	7.138
6,750	2.841	8,750	4.773	10,750	7.205
6,800	2.883	8,800	4.828	10,800	7.272
6,850	2.925	8,850	4.883	10,850	7.339
6,900	2.968	8,900	4.938	10,900	7.407
6,950	3.011	8,950	4.994	10,950	7.475
7,000	3.055	9,000	5.050	11,000	7.544
7,050	3.099	9,050	5.106	11,050	7.612
7,100	3.143	9,100	5.163	11,100	7.681
7,150	3.187	9,150	5.220	11,150	7.751
7,200	3.232	9,200	5.277	11,200	7.820
7,250	3.277	9,250	5.334	11,250	7.890
7,300	3.322	9,300	5.392	11,300	7.961
7,350	3.368	9,350	5.450	11,350	8.031
7,400	3.414	9,400	5.509	11,400	8.102
7,450	3.460	9,450	5.567	11,450	8.173
7,500	3.507	9,500	5.627	11,500	8.245
7,550	3.554	9,550	5.686	11,550	8.317
7,600	3.601	9,600	5.746	11,600	8.389
7,650	3.649	9,650	5.807	11,650	8.461
7,700	3.696	9,700	5.866	11,700	8.534
7,750	3.745	9,750	5.927	11,750	8.607
7,800	3.793	9,800	5.988	11,800	8.681
7,850	3.842	9,850	6.049	11,850	8.755
7,900	3.891	9,900	6.110	11,900	8.829
7,950	3.940	9,950	6.172	11,950	8.903
8,000	3.990	10,000	6.234	12,000	8.978

Sheet Metal Gauges

SHEET METAL GAUGE	THICKNESS INCHES	REMARKS	SHEET METAL GAUGE	THICKNESS INCHES	REMARKS
0	0.3125	WELDED DUCTWORK ONLY	19	0.0437	SMACNA DUCTWORK CONSTRUCTION
1	0.2810		20	0.0375	
2	0.2650		21	0.0343	
3	0.2500		22	0.0312	
4	0.2340		23	0.0280	
5	0.2187		24	0.0250	
6	0.2030		25	0.0218	
7	0.1875		26	0.0187	
8	0.1720		27	0.0170	GAUGES NOT PERMITTED FOR DUCTWORK CONSTRUCTION
9	0.1560		28	0.0156	
10	0.1400		29	0.0140	
11	0.1250		30	0.0125	
12	0.1090		31	0.0109	
13	0.0937		32	0.0100	
14	0.0780		33	0.0093	
15	0.0700		34	0.0085	
16	0.0625	SMACNA DUCTWORK CONSTRUCTION	35	0.0078	
17	0.0560		36	0.0070	
18	0.0500				

Sheet Metal Gauges and Weights

SHEET METAL GAUGE	MATERIAL WEIGHT, Lb./Sq.Ft.		
	GALVANIZED STEEL	300 SERIES STAINLESS STEEL	ALUMINUM
26	0.906	0.748	0.224
24	1.156	0.987	0.282
22	1.406	1.231	0.352
20	1.656	1.491	0.451
18	2.156	2.016	0.563
16	2.656	2.499	0.718
14	3.281	3.154	0.901
12	4.531	4.427	1.141
10	5.781	5.670	1.436

SMACNA HVAC Ductwork Sheet Metal Gauges

MAXIMUM DUCT DIMENSION	SMACNA PRESSURE CLASS						
	±1/2	±1	±2	±3	+4	+6	+10
To 12	26	26	26	24	24	24	24
13 - 18	26	26	26	24	24	24	24
19 - 24	26	26	26	24	24	22	20
25 - 30	26	26	24	22	22	20	18
31 - 36	26	26	22	20	20	18	18
37 - 42	26	24	22	20	18	18	18
43 - 48	26	24	20	18	18	18	18
49 - 54	26	22	18	18	18	18	18
55 - 60	24	22	18	18	18	18	18
61 - 66	22	18	18	18	18	18	18
67 - 72	22	18	18	18	18	18	18
73 - 78	22	18	18	18	18	18	16
79 - 84	22	18	18	18	18	18	16
85 - 90	22	18	18	18	18	18	16
91 - 96	22	18	18	18	18	18	16
97+	18	18	18	18	18	18	16

Notes:

1. Table is based on 5 feet maximum reinforcing spacing.
2. Lighter sheet metal gauges may be used with additional reinforcing and heavier gauges may be used with less reinforcing (See SMACNA manuals).
3. Commercial installations recommend 24 gauge minimum.

Galvanized Rectangular Duct Weight

WIDTH + DEPTH Inches	SHEET METAL GAUGE						SURFACE AREA Sq.Ft./ Lin.Ft.
	26 (12")	24 (24")	22 (48")	20 (60")	18 (60+)"	16	
8	1.51	1.93	2.34	2.76	3.59	4.43	1.33
9	1.70	2.17	2.64	3.11	4.04	4.98	1.50
10	1.89	2.41	2.93	3.45	4.49	5.53	1.67
11	2.08	2.65	3.22	3.80	4.94	6.09	1.83
12	2.27	2.89	3.52	4.14	5.39	6.64	2.00
13	2.45	3.13	3.81	4.49	5.84	7.19	2.17
14	2.64	3.37	4.10	4.83	6.29	7.75	2.34
15	2.83	3.61	4.39	5.18	6.74	8.30	2.50
16	3.02	3.85	4.69	5.52	7.19	8.85	2.67
17	3.21	4.09	4.98	5.87	7.64	9.41	2.83
18	3.40	4.34	5.27	6.21	8.09	9.96	3.00
19	3.59	4.58	5.57	6.56	8.53	10.51	3.17
20	3.78	4.82	5.86	6.90	8.98	11.07	3.34
21	3.96	5.06	6.15	7.25	9.43	11.62	3.50
22	4.15	5.30	6.44	7.59	9.88	12.17	3.67
23	4.34	5.54	6.74	7.94	10.33	12.73	3.83
24	4.53	5.78	7.03	8.28	10.78	13.28	4.00
25	4.72	6.02	7.32	8.63	11.23	13.83	4.17
26	4.91	6.26	7.62	8.97	11.68	14.39	4.34
27	-	6.50	7.91	9.32	12.13	14.94	4.50
28	-	6.74	8.20	9.66	12.58	15.49	4.67
29	-	6.98	8.49	10.01	13.03	16.05	4.83
30	-	7.23	8.79	10.35	13.48	16.60	5.00
31	-	7.47	9.08	10.70	13.92	17.15	5.17
32	-	7.71	9.37	11.04	14.37	17.71	5.34
33	-	7.95	9.67	11.39	14.82	18.26	5.50
34	-	8.20	9.96	11.73	15.27	18.81	5.67
35	-	8.43	10.25	12.08	15.72	19.37	5.83
36	-	8.67	10.55	12.42	16.17	19.92	6.00
37	-	8.91	10.84	12.77	16.62	20.47	6.17
38	-	9.15	11.13	13.11	17.07	21.03	6.34
39	-	9.39	11.42	13.46	17.52	21.58	6.50
40	-	9.63	11.72	13.80	17.97	22.13	6.67
41	-	9.87	12.01	14.15	18.42	22.69	6.83
42	-	10.12	12.30	14.49	18.87	23.24	7.00
43	-	10.36	12.60	14.84	19.31	23.79	7.17
44	-	10.60	12.89	15.18	19.76	24.35	7.34
45	-	10.84	13.18	15.53	20.21	24.90	7.50
46	-	11.08	13.47	15.87	20.66	25.45	7.67
47	-	11.32	13.77	16.22	21.11	26.00	7.83

Galvanized Rectangular Duct Weight

WIDTH + DEPTH Inches	SHEET METAL GAUGE						SURFACE AREA Sq.Ft./ Lin.Ft.
	26 (12")	24 (24")	22 (48")	20 (60")	18 (60+)	16	
48	-	11.56	14.06	16.56	21.56	26.56	8.00
49	-	11.80	14.35	16.91	22.01	27.11	8.17
50	-	12.04	14.65	17.25	22.46	27.67	8.34
51	-	12.28	14.94	17.60	22.91	28.22	8.50
52	-	12.52	15.23	17.94	23.36	28.77	8.67
53	-	12.76	15.52	18.29	23.81	29.32	8.83
54	-	13.01	15.82	18.63	24.26	29.88	9.00
55	-	13.25	16.11	18.98	24.70	30.43	9.17
56	-	13.49	16.40	19.32	25.15	30.99	9.34
57	-	13.73	16.70	19.67	25.60	31.54	9.50
58	-	13.97	16.99	20.01	26.05	32.09	9.67
59	-	14.21	17.28	20.36	26.50	32.65	9.83
60	-	14.45	17.58	20.70	26.95	33.20	10.00
61	-	-	17.87	21.05	27.40	33.75	10.17
62	-	-	18.16	21.39	27.85	34.31	10.34
63	-	-	18.45	21.74	28.30	34.86	10.50
64	-	-	18.75	22.08	28.75	35.41	10.67
65	-	-	19.04	22.43	29.20	35.97	10.83
66	-	-	19.33	22.77	29.65	36.52	11.00
67	-	-	19.63	23.12	30.09	37.07	11.17
68	-	-	19.92	23.46	30.54	37.63	11.34
69	-	-	20.21	23.81	30.99	38.18	11.50
70	-	-	20.50	24.15	31.44	38.73	11.67
71	-	-	20.80	24.50	31.89	39.29	11.83
72	-	-	21.09	24.84	32.34	39.84	12.00
73	-	-	21.38	25.19	32.79	40.39	12.17
74	-	-	21.68	25.53	33.24	40.95	12.34
75	-	-	21.97	25.88	33.69	41.50	12.50
76	-	-	22.26	26.22	34.14	42.05	12.67
77	-	-	22.55	26.57	34.59	42.61	12.83
78	-	-	22.85	26.91	35.04	43.16	13.00
79	-	-	23.14	27.26	35.48	43.71	13.17
80	-	-	23.43	27.60	35.93	44.27	13.34
81	-	-	23.73	27.95	36.38	44.82	13.50
82	-	-	24.02	28.29	36.83	45.37	13.67
83	-	-	24.31	28.64	37.28	45.93	13.83
84	-	-	24.61	28.98	37.73	46.48	14.00
85	-	-	24.90	29.33	39.18	47.03	14.17
86	-	-	25.19	29.67	38.63	48.59	14.34
87	-	-	25.48	30.02	39.08	48.14	14.50

Galvanized Rectangular Duct Weight

WIDTH + DEPTH Inches	SHEET METAL GAUGE						SURFACE AREA Sq.Ft./ Lin.Ft.
	26 (12")	24 (24")	22 (48")	20 (60")	18 (60+)"	16	
88	-	-	25.78	30.36	39.53	48.69	14.67
89	-	-	26.07	30.71	39.98	49.25	14.83
90	-	-	26.36	31.05	40.43	49.80	15.00
91	-	-	26.66	31.40	40.87	50.35	15.17
92	-	-	26.95	31.74	41.32	50.91	15.34
93	-	-	27.24	32.09	41.77	51.46	15.50
94	-	-	27.53	32.43	42.22	52.01	15.67
95	-	-	27.83	32.78	42.67	52.57	15.83
96	-	-	28.12	33.12	43.12	53.12	16.00
97	-	-	28.41	33.47	43.57	53.67	16.17
98	-	-	28.71	33.81	44.02	54.23	16.34
99	-	-	29.00	34.16	44.47	54.78	16.50
100	-	-	29.29	34.50	44.92	55.33	16.67
101	-	-	29.58	34.85	45.37	55.89	16.83
102	-	-	29.88	35.19	45.82	56.44	17.00
103	-	-	30.17	35.54	46.26	56.99	17.17
104	-	-	30.46	35.88	46.71	57.55	17.34
105	-	-	30.76	36.23	47.16	58.10	17.50
106	-	-	31.05	36.57	47.61	58.65	17.67
107	-	-	31.34	36.92	48.06	59.21	17.83
108	-	-	31.64	37.26	48.51	59.76	18.00
109	-	-	31.93	37.61	48.96	60.31	18.17
110	-	-	32.22	37.95	49.41	60.87	18.34
111	-	-	32.51	38.30	49.86	61.42	18.50
112	-	-	32.81	38.64	50.31	61.97	18.67
113	-	-	33.10	38.99	50.76	62.53	18.83
114	-	-	33.39	39.33	51.21	63.08	19.00
115	-	-	33.69	39.68	51.65	63.63	19.17
116	-	-	33.98	40.02	52.10	64.19	19.34
117	-	-	34.27	40.37	52.55	64.74	19.50
118	-	-	34.56	40.71	53.00	65.29	19.67
119	-	-	34.86	41.06	53.45	65.85	19.83
120	-	-	35.15	41.40	53.90	66.40	20.00
121	-	-	35.44	41.75	54.35	66.95	20.17
122	-	-	35.74	42.09	54.80	67.51	20.34
123	-	-	36.03	42.44	55.25	68.06	20.50
124	-	-	36.32	42.78	55.70	68.61	20.67
125	-	-	36.61	43.13	56.15	69.17	20.83
126	-	-	36.91	43.47	56.60	69.72	21.00
127	-	-	37.20	43.82	57.04	70.27	21.17

Galvanized Rectangular Duct Weight

WIDTH + DEPTH Inches	SHEET METAL GAUGE						SURFACE AREA Sq.Ft./ Lin.Ft.
	26 (12")	24 (24")	22 (48")	20 (60")	18 (60+)"	16	
128	-	-	37.49	44.16	57.49	70.83	21.34
129	-	-	37.79	44.51	57.94	71.38	21.50
130	-	-	38.08	44.85	58.39	71.93	21.67
131	-	-	38.37	45.20	58.84	72.49	21.83
132	-	-	38.67	45.54	59.29	73.04	22.00
133	-	-	38.96	45.89	59.74	73.59	22.17
134	-	-	39.25	46.23	60.19	74.15	22.34
135	-	-	39.54	46.58	60.64	74.70	22.50
136	-	-	39.84	46.92	61.09	75.25	22.67
137	-	-	40.13	47.27	61.54	75.81	22.83
138	-	-	40.42	47.61	61.99	76.36	23.00
139	-	-	40.72	47.96	62.43	76.91	23.17
140	-	-	41.01	48.30	62.88	77.46	23.34
141	-	-	41.30	48.65	63.33	78.02	23.50
142	-	-	41.59	48.99	63.78	78.57	23.67
143	-	-	41.88	49.34	64.23	79.13	23.83
144	-	-	42.18	49.68	64.68	79.68	24.00
145	-	-	42.47	50.03	65.13	80.23	24.17
146	-	-	42.77	50.37	65.58	80.79	24.34
147	-	-	43.06	50.72	66.03	81.34	24.50
148	-	-	43.35	51.06	66.48	81.89	24.67
149	-	-	43.64	51.41	66.93	82.45	24.83
150	-	-	43.94	51.75	67.38	83.00	25.00
151	-	-	44.23	52.10	67.82	83.55	25.17
152	-	-	44.52	52.44	68.27	84.11	25.34
153	-	-	44.82	52.79	68.72	84.66	25.50
154	-	-	45.11	53.13	69.17	85.21	25.67
155	-	-	45.40	53.48	69.62	85.77	25.83
156	-	-	45.70	53.82	70.07	86.32	26.00
157	-	-	45.99	54.17	70.52	86.87	26.17
158	-	-	46.28	54.51	70.97	87.43	26.34
159	-	-	46.57	54.86	71.42	87.98	26.50
160	-	-	46.87	55.20	71.87	88.53	26.67
161	-	-	47.16	55.55	72.32	89.09	26.83
162	-	-	47.45	55.89	72.77	89.64	27.00
163	-	-	47.75	56.24	73.21	90.19	27.17
164	-	-	48.04	56.58	73.66	90.75	27.34
165	-	-	48.33	56.93	74.11	91.30	27.50
166	-	-	48.62	57.27	74.56	91.85	27.67
167	-	-	48.92	57.62	75.01	92.41	27.83

Galvanized Rectangular Duct Weight

WIDTH + DEPTH Inches	SHEET METAL GAUGE						SURFACE AREA Sq.Ft./ Lin.Ft.
	26 (12")	24 (24")	22 (48")	20 (60")	18 (60+")	16	
168	-	-	49.21	57.96	75.46	92.96	28.00
169	-	-	49.50	58.31	75.91	93.51	28.17
170	-	-	49.80	58.65	76.36	94.07	28.34
171	-	-	50.09	59.00	76.81	94.62	28.50
172	-	-	50.38	59.34	77.26	95.17	28.67
173	-	-	50.67	59.69	77.71	95.73	28.83
174	-	-	50.97	60.03	78.16	96.28	29.00
175	-	-	51.26	60.38	78.60	96.83	29.17
176	-	-	51.55	60.72	79.05	97.39	29.34
177	-	-	51.85	61.07	79.50	97.94	29.50
178	-	-	52.14	61.41	79.95	98.49	29.67
179	-	-	52.43	61.76	80.40	99.05	29.83
180	-	-	52.73	62.10	80.85	99.60	30.00
181	-	-	53.02	62.45	81.30	100.15	30.17
182	-	-	53.31	62.79	81.75	100.71	30.34
183	-	-	53.60	63.14	82.20	101.26	30.50
184	-	-	53.90	63.48	82.65	101.81	30.67
185	-	-	54.19	63.83	83.10	102.37	30.83
186	-	-	54.48	64.17	83.55	102.92	31.00
187	-	-	54.78	64.52	83.99	103.47	31.17
188	-	-	55.07	64.86	84.44	104.03	31.34
189	-	-	55.36	65.21	84.89	104.58	31.50
190	-	-	55.65	65.55	85.34	105.13	31.67
191	-	-	55.95	65.90	85.79	105.69	31.83
192	-	-	56.24	66.24	86.24	106.24	32.00
193	-	-	56.53	66.59	86.69	106.79	32.17
194	-	-	56.83	66.93	87.14	107.35	32.34
195	-	-	57.12	67.28	87.59	107.90	32.50
196	-	-	57.41	67.62	88.04	108.45	32.67
197	-	-	57.70	67.97	88.49	109.01	32.83
198	-	-	58.00	68.31	88.94	109.56	33.00
199	-	-	58.29	68.66	89.38	110.11	33.17
200	-	-	58.58	69.00	89.83	110.67	33.34
201	-	-	58.88	69.35	90.28	111.22	33.50
202	-	-	59.17	69.69	90.73	111.77	33.67
203	-	-	59.46	70.04	91.18	112.33	33.83
204	-	-	59.76	70.38	91.63	112.88	34.00
205	-	-	60.05	70.73	92.08	113.43	34.17
206	-	-	60.34	71.07	92.53	113.99	34.34
207	-	-	60.63	71.42	92.98	114.54	34.50

Galvanized Rectangular Duct Weight

WIDTH + DEPTH Inches	SHEET METAL GAUGE						SURFACE AREA Sq.Ft./ Lin.Ft.
	26 (12")	24 (24")	22 (48")	20 (60")	18 (60+)"	16	
208	-	-	60.93	71.76	93.43	115.09	34.67
209	-	-	61.22	72.11	93.88	115.65	34.83
210	-	-	61.51	72.45	94.33	116.20	35.00
211	-	-	61.81	72.80	94.77	116.75	35.17
212	-	-	62.10	73.14	95.22	117.31	35.34
213	-	-	62.39	73.49	95.67	117.86	35.50
214	-	-	62.68	73.83	96.12	118.41	35.67
215	-	-	62.98	74.18	96.57	118.97	35.83
216	-	-	63.27	74.52	97.02	119.52	36.00
217	-	-	63.56	74.87	97.47	120.07	36.17
218	-	-	63.86	75.21	97.92	120.63	36.34
219	-	-	64.15	75.56	98.37	121.18	36.50
220	-	-	64.44	75.90	98.82	121.73	36.67
221	-	-	64.73	76.25	99.27	122.29	36.83
222	-	-	65.03	76.59	99.72	122.84	37.00
223	-	-	65.32	76.94	100.16	123.39	37.17
224	-	-	65.61	77.28	100.61	123.95	37.34
225	-	-	65.91	77.63	101.06	124.50	37.50
226	-	-	66.20	77.97	101.51	125.05	37.67
227	-	-	66.49	78.32	101.96	125.61	37.83
228	-	-	66.79	78.66	102.41	126.16	38.00
229	-	-	67.08	79.01	102.86	126.71	38.17
230	-	-	67.37	79.35	103.31	127.27	38.34
231	-	-	67.66	79.70	103.76	127.82	38.50
232	-	-	67.96	80.04	104.21	128.37	38.67
233	-	-	68.25	80.39	104.66	128.93	38.83
234	-	-	68.54	80.73	105.11	129.48	39.00
235	-	-	68.84	81.08	105.55	130.03	39.17
236	-	-	69.13	81.42	106.00	130.59	39.34
237	-	-	69.42	81.77	106.45	131.14	39.50
238	-	-	69.71	82.11	106.90	131.69	39.67
239	-	-	70.01	82.46	107.35	132.25	39.83
240	-	-	70.30	82.80	107.80	132.80	40.00

Notes:

- 1. Table includes 25% allowance for bracing, hangers, reinforcing, joints and seams. Add 10% for insulated ductwork systems.
- 2. The first column is the sum of the width and depth of the duct (i.e., a 20 × 10 duct equals 30 inches).
- 3. Columns 2 through 7 give weight of galvanized steel ducts in pounds per lineal foot.
- 4. Column 8 gives the ductwork surface area used for estimating insulation.
- 5. Numbers in parenthesis below sheet metal gauges indicate maximum duct dimension for the indicated gauge.

Galvanized Round Duct Weight

DIAMETER	GAUGE						SURFACE AREA Sq.Ft/ Lin.Ft.
	26	24	22	20	18	16	
3	0.89	1.13	1.38	1.63	2.12	2.61	0.79
4	1.19	1.51	1.84	2.17	2.82	3.48	1.05
5	1.48	1.89	2.30	2.71	3.53	4.35	1.31
6	1.78	2.27	2.76	3.25	4.23	5.22	1.57
7	2.08	2.65	3.22	3.79	4.94	6.08	1.83
8	2.37	3.03	3.68	4.34	5.64	6.95	2.09
9	2.67	3.40	4.14	4.88	6.35	7.82	2.36
10	2.96	3.78	4.60	5.42	7.06	8.69	2.62
11	3.26	4.16	5.06	5.96	7.76	9.56	2.88
12	3.56	4.54	5.52	6.50	8.47	10.43	3.14
14	4.15	5.30	6.44	7.59	9.88	12.17	3.67
16	4.74	6.05	7.36	8.67	11.29	13.91	4.19
18	5.34	6.81	8.28	9.75	12.70	15.65	4.71
20	5.93	7.57	9.20	10.84	14.11	17.38	5.24
22	6.52	8.32	10.12	11.92	15.52	19.12	5.76
24	7.12	9.08	11.04	13.01	16.93	20.86	6.28
26	7.71	9.84	11.96	14.09	18.34	22.60	6.81
28	8.30	10.59	12.88	15.17	19.76	24.34	7.33
30	8.89	11.35	13.80	16.26	21.17	26.08	7.85
32	9.49	12.11	14.72	17.34	22.58	27.81	8.38
34	10.08	12.86	15.64	18.43	23.99	29.55	8.90
36	10.67	13.62	16.56	19.51	25.40	31.29	9.42
38	11.27	14.38	17.48	20.59	26.81	33.03	9.95
40	11.86	15.13	18.40	21.68	28.22	34.77	10.47
42	12.45	15.89	19.32	22.76	29.63	36.51	11.00
44	13.05	16.65	20.24	23.84	31.04	38.24	11.52
46	13.64	17.40	21.17	24.93	32.46	39.98	12.04
48	14.23	18.16	22.09	26.01	33.87	41.72	12.57
50	---	18.92	23.01	27.10	35.28	43.46	13.09
52	---	19.67	23.93	28.18	36.69	45.20	13.61
54	---	20.43	24.85	29.26	38.10	46.94	14.14
56	---	21.18	25.77	30.35	39.51	48.67	14.66
58	---	21.94	26.69	31.43	40.92	50.41	15.18
60	---	22.70	27.61	32.52	42.33	52.15	15.71
62	---	23.45	28.53	33.60	43.74	53.89	16.23
64	---	24.21	29.45	34.68	45.16	55.63	16.76
66	---	24.97	30.37	35.77	46.57	57.37	17.28
68	---	25.72	31.29	36.85	47.98	59.10	17.80
70	---	26.48	32.21	37.93	49.39	60.84	18.33
72	---	27.24	33.13	39.02	50.80	62.58	18.85

Galvanized Round Duct Weight

DIAMETER	GAUGE						SURFACE AREA Sq.Ft/ Lin.Ft.
	26	24	22	20	18	16	
74	---	27.99	34.05	40.10	52.21	64.32	19.37
76	---	28.75	34.97	41.19	53.62	66.06	19.90
78	---	29.51	35.89	42.27	55.03	67.80	20.42
80	---	30.26	36.81	43.35	56.44	69.53	20.94
82	---	31.02	37.73	44.44	57.86	71.27	21.47
84	---	31.78	38.65	45.52	59.27	73.01	21.99
86	---	32.53	39.57	46.61	60.68	74.75	22.51
88	---	33.29	40.49	47.69	62.09	76.49	23.04
90	---	34.05	41.41	48.77	63.50	78.23	23.56
92	---	34.80	42.33	49.86	64.91	79.96	24.09
94	---	35.56	43.25	50.94	66.32	81.70	24.61
96	---	36.32	44.17	52.02	66.73	83.44	25.13
98	---	37.07	45.09	53.11	69.14	85.18	25.66
100	---	37.83	46.01	54.19	70.55	86.92	26.18
102	---	38.59	46.93	55.28	71.97	88.66	26.70
104	---	39.34	47.85	56.36	73.38	90.39	27.23
106	---	40.10	48.77	57.44	74.79	92.13	27.75
108	---	40.86	49.69	58.53	76.20	93.87	28.27
110	---	41.61	50.61	59.61	77.61	95.61	28.80
112	---	42.37	51.53	60.70	79.02	97.35	29.32
114	---	43.13	52.45	61.78	80.43	99.09	29.85
116	---	43.88	53.37	62.86	81.84	100.82	30.37
118	---	44.64	54.29	63.95	83.25	102.56	30.89
120	---	45.40	55.21	65.03	84.67	104.30	31.42
122	---	46.15	56.13	66.11	86.08	106.04	31.94
124	---	46.91	57.05	67.20	8749	107.78	32.46
126	---	47.67	57.97	68.28	88.90	109.52	32.99
128	---	48.42	58.89	69.37	90.31	111.25	33.51
130	---	49.18	59.81	70.45	91.72	112.99	34.03
132	---	49.94	60.73	71.53	93.13	114.73	34.56
134	---	50.69	61.66	72.62	94.54	116.47	35.08
136	---	51.45	62.58	73.70	95.95	118.21	35.60
138	---	52.21	63.50	74.79	97.37	119.95	36.12
140	---	52.96	64.42	75.87	98.78	121.68	36.65
142	---	53.72	65.34	76.95	100.19	123.42	37.18
144	---	54.48	66.26	78.04	101.60	125.16	37.70

Notes:

- 1. Table includes 25% allowance for bracing, hangers, reinforcing, joints, and seams. Add 10% for insulated ductwork systems.
- 2. Table gives weight of galvanized steel ducts in pounds per lineal foot.

Galvanized Flat Oval Ductwork Weight

NOMINAL FLAT OVAL SIZE	EQUIV. ROUND	CROSS SECTIONAL AREA SQ.FT.	SURFACE AREA SQ.FT./ LN.FT.	GAUGE	WEIGHT LBS./ LN.FT.
3 x 8	5.1	0.15	1.57	24	2.3
3 x 9	5.6	0.18	1.83	24	2.6
3 x 11	6.0	0.22	2.09	24	3.1
3 x 12	6.4	0.25	2.36	24	3.4
3 x 14	6.7	0.29	2.62	24	3.8
3 x 15	7.0	0.32	2.88	24	4.2
3 x 17	7.3	0.36	3.14	24	4.5
3 x 19	7.5	0.39	3.40	24	4.9
3 x 22	8.0	0.46	3.93	24	5.7
4 x 7	5.7	0.18	1.57	24	2.3
4 x 9	6.2	0.22	1.83	24	2.6
4 x 10	6.7	0.26	2.09	24	3.1
4 x 12	7.2	0.31	2.36	24	3.4
4 x 13	7.6	0.35	2.62	24	3.8
4 x 15	8.0	0.40	2.88	24	4.2
4 x 17	8.4	0.44	3.14	24	4.5
4 x 18	8.5	0.48	3.40	24	4.9
4 x 20	9.0	0.52	3.68	24	5.3
4 x 21	9.5	0.57	3.93	24	5.7
5 x 8	6.6	0.25	1.83	24	2.6
5 x 10	7.3	0.30	2.09	24	3.0
5 x 11	7.9	0.35	2.36	24	3.4
5 x 13	8.4	0.41	2.62	24	3.8
5 x 14	8.8	0.46	2.88	24	4.2
5 x 16	9.3	0.52	3.14	24	4.5
5 x 18	9.5	0.57	3.40	24	4.9
5 x 19	10.0	0.63	3.66	24	5.3
5 x 21	10.5	0.68	3.93	24	5.7
6 x 8	6.9	0.26	1.83	24	2.6
6 x 9	7.7	0.33	2.09	24	3.0
6 x 11	8.4	0.39	2.36	24	3.4
6 x 12	8.9	0.46	2.62	24	3.8
6 x 14	9.6	0.53	2.88	24	4.2
6 x 15	10.1	0.59	3.14	24	4.5
6 x 17	10.5	0.65	3.40	24	4.9
6 x 19	11.0	0.72	3.66	24	5.3
6 x 20	11.5	0.79	3.93	24	5.7

Galvanized Flat Oval Ductwork Weight

NOMINAL FLAT OVAL SIZE	EQUIV. ROUND	CROSS SECTIONAL AREA SQ.FT.	SURFACE AREA SQ.FT./ LN.FT.	GAUGE	WEIGHT LBS./ LN.FT.
6 x 22	11.8	0.85	4.18	24	6.0
6 x 23	12.0	0.92	4.45	24	6.4
6 x 25	12.5	0.98	4.71	22	8.3
6 x 28	13.2	1.11	5.23	22	9.2
6 x 30	13.5	1.18	5.50	22	9.7
6 x 31	13.8	1.24	5.76	22	10.1
6 x 33	14.0	1.31	6.02	22	10.6
6 x 34	14.3	1.38	6.28	22	11.0
6 x 36	14.5	1.44	6.54	22	11.5
6 x 37	14.9	1.50	6.80	22	12.0
6 x 39	15.0	1.57	7.07	22	12.4
6 x 41	15.4	1.64	7.33	22	12.9
6 x 44	15.9	1.77	7.85	22	13.8
6 x 45	16.0	1.83	8.12	22	14.3
6 x 52	17.0	2.09	9.16	20	19.0
6 x 59	18.0	2.42	10.47	20	21.7
7 x 10	8.7	0.42	2.36	24	3.4
7 x 12	9.4	0.50	2.62	24	3.8
7 x 13	10.1	0.57	2.88	24	4.2
7 x 15	10.7	0.65	3.14	24	4.5
7 x 16	11.0	0.73	3.40	24	4.9
7 x 18	11.7	0.80	3.67	24	5.3
7 x 20	12.0	0.88	3.93	24	5.7
7 x 21	12.5	0.95	4.19	24	6.1
7 x 23	13.0	1.03	4.45	24	6.4
8 x 10	9.0	0.44	2.36	24	3.4
8 x 11	9.8	0.53	2.62	24	3.8
8 x 13	10.6	0.62	2.88	24	4.2
8 x 14	11.2	0.70	3.14	24	4.5
8 x 16	11.5	0.79	3.40	24	4.9
8 x 17	12.0	0.87	3.67	24	5.3
8 x 18	12.4	0.90	3.80	24	5.5
8 x 19	13.0	0.96	3.93	24	5.7
8 x 21	13.5	1.05	4.18	24	6.1
8 x 22	14.0	1.13	4.45	24	6.4
8 x 24	14.4	1.23	4.71	24	6.8
8 x 27	15.2	1.40	5.23	22	9.2
8 x 30	15.9	1.57	5.76	22	10.2
8 x 33	16.6	1.74	6.28	22	11.0
8 x 35	17.0	1.83	6.54	22	11.5

Galvanized Flat Oval Ductwork Weight

NOMINAL FLAT OVAL SIZE	EQUIV. ROUND	CROSS SECTIONAL AREA SQ.FT.	SURFACE AREA SQ.FT./ LN.FT.	GAUGE	WEIGHT LBS./ LN.FT.
8 x 36	17.3	1.92	6.80	22	12.0
8 x 39	17.9	2.09	7.33	22	12.9
8 x 43	18.6	2.27	7.85	22	13.8
8 x 46	19.1	2.44	8.37	22	14.7
8 x 49	19.6	2.62	8.89	20	18.4
8 x 50	20.0	2.71	9.16	20	19.0
8 x 52	20.2	2.80	9.42	20	19.5
8 x 58	21.0	3.14	10.47	20	21.7
8 x 65	22.0	3.49	11.52	20	23.8
8 x 71	23.0	3.84	12.57	18	33.9
8 x 77	24.0	4.19	13.61	18	36.7
9 x 12	10.8	0.64	2.88	24	4.2
9 x 14	11.5	0.74	3.14	24	4.6
9 x 15	12.0	0.83	3.40	24	4.9
9 x 17	12.9	0.93	3.67	24	5.3
9 x 18	13.5	1.03	3.93	24	5.7
9 x 20	14.0	1.13	4.19	24	6.1
9 x 22	14.5	1.23	4.45	24	6.4
9 x 23	15.0	1.33	4.71	24	6.8
10 x 12	11.0	0.66	2.88	24	4.2
10 x 13	11.9	0.77	3.14	24	4.5
10 x 15	12.5	0.87	3.40	24	4.9
10 x 16	13.4	1.00	3.66	24	5.3
10 x 18	14.0	1.09	3.93	24	5.7
10 x 19	14.5	1.20	4.19	24	6.1
10 x 20	14.7	1.25	4.18	24	6.1
10 x 21	15.0	1.31	4.45	24	6.4
10 x 23	15.7	1.42	4.71	24	6.8
10 x 24	16.0	1.53	4.97	24	7.2
10 x 26	16.7	1.63	5.23	22	9.2
10 x 27	17.0	1.75	5.50	22	9.7
10 x 29	17.7	1.86	5.76	22	10.2
10 x 30	18.0	1.96	6.02	22	10.6
10 x 32	18.5	2.07	6.28	22	11.1
10 x 34	19.0	2.18	6.54	22	11.5
10 x 35	19.3	2.29	6.80	22	12.0
10 x 38	20.1	2.51	7.33	22	12.9
10 x 41	20.8	2.73	7.85	22	13.8
10 x 43	21.0	2.84	8.12	22	14.3
10 x 45	21.5	2.95	8.37	22	14.7

Galvanized Flat Oval Ductwork Weight

NOMINAL FLAT OVAL SIZE	EQUIV. ROUND	CROSS SECTIONAL AREA SQ.FT.	SURFACE AREA SQ.FT./ LN.FT.	GAUGE	WEIGHT LBS./ LN.FT.
10 x 48	22.1	3.16	8.89	22	15.6
10 x 51	22.8	3.39	9.42	20	19.5
10 x 52	23.0	3.49	9.69	20	20.1
10 x 54	23.3	3.60	9.95	20	20.6
10 x 57	23.8	3.82	10.56	20	21.9
10 x 60	24.4	4.04	11.00	20	22.8
10 x 63	25.0	4.25	11.52	20	23.8
10 x 67	25.5	4.47	12.05	20	24.9
10 x 70	26.0	4.69	12.51	20	25.9
10 x 73	26.4	4.91	13.10	18	35.3
10 x 76	27.0	5.13	13.61	18	36.7
11 x 14	13.0	0.90	3.40	24	4.9
11 x 16	13.6	1.02	3.67	24	5.3
11 x 17	14.0	1.14	3.93	24	5.7
11 x 19	15.0	1.26	4.19	24	6.1
11 x 22	16.3	1.50	4.71	24	6.8
11 x 24	17.0	1.62	4.97	24	7.2
12 x 14	13.0	0.92	3.40	24	4.9
12 x 15	13.8	1.05	3.67	24	5.3
12 x 17	14.5	1.18	3.93	24	5.7
12 x 18	15.3	1.31	4.19	24	6.1
12 x 20	16.0	1.44	4.45	24	6.4
12 x 21	16.7	1.57	4.71	24	6.8
12 x 25	18.0	1.83	5.24	22	9.2
12 x 28	19.1	2.09	5.76	22	10.1
12 x 31	20.1	2.36	6.28	22	11.1
12 x 34	20.9	2.62	6.81	22	12.0
12 x 37	21.9	2.88	7.33	22	12.9
12 x 40	22.7	3.14	7.85	22	13.8
12 x 42	23.0	3.27	8.12	22	14.3
12 x 43	23.5	3.40	8.37	22	14.7
12 x 45	24.0	3.53	8.64	22	15.2
12 x 47	24.3	3.67	8.89	22	15.6
12 x 50	25.0	3.93	9.42	20	19.5
12 x 53	25.7	4.19	9.95	20	20.6
12 x 56	26.3	4.45	10.56	20	21.9
12 x 59	26.9	4.71	11.00	20	22.8
12 x 62	27.5	4.98	11.52	20	23.8

Galvanized Flat Oval Ductwork Weight

NOMINAL FLAT OVAL SIZE	EQUIV. ROUND	CROSS SECTIONAL AREA SQ.FT.	SURFACE AREA SQ.FT. / LN.FT.	GAUGE	WEIGHT LBS. / LN.FT.
12 x 65	28.1	5.23	12.05	20	24.9
12 x 69	28.7	5.51	12.57	20	26.0
12 x 72	29.2	5.76	13.10	18	35.3
12 x 78	30.0	6.28	14.14	18	38.1
12 x 81	31.0	6.54	14.66	18	39.5
14 x 17	16.0	1.37	4.19	24	6.1
14 x 19	17.0	1.53	4.45	24	6.4
14 x 20	17.5	1.68	4.71	24	6.8
14 x 22	18.0	1.83	4.97	24	7.2
14 x 23	18.9	1.98	5.23	24	7.6
14 x 27	20.2	2.30	5.76	22	10.1
14 x 28	21.0	2.44	6.02	22	10.6
14 x 30	21.3	2.60	6.28	22	11.0
14 x 31	22.0	2.75	6.54	22	11.5
14 x 33	22.4	2.91	6.80	22	12.0
14 x 34	23.0	3.05	7.07	22	12.4
14 x 36	23.4	3.21	7.33	22	12.9
14 x 38	24.0	3.36	7.59	22	13.3
14 x 39	24.4	3.51	7.85	22	13.8
14 x 41	25.0	3.67	8.12	22	14.3
14 x 42	25.3	3.84	8.37	22	14.7
14 x 45	26.1	4.12	8.89	22	15.6
14 x 49	26.9	4.43	9.42	20	19.5
14 x 52	27.7	4.74	9.95	20	20.6
14 x 55	28.4	5.04	10.56	20	21.9
14 x 58	29.1	5.35	11.00	20	22.8
14 x 61	29.8	5.65	11.52	20	23.9
14 x 64	30.5	5.96	12.05	20	24.9
14 x 67	31.1	6.27	12.57	20	26.0
14 x 71	31.7	6.57	13.10	18	35.9
14 x 77	33.0	7.18	14.14	18	38.1
16 x 19	18.0	1.75	4.71	24	6.8
16 x 21	19.0	1.92	4.97	24	7.2
16 x 22	19.5	2.08	5.23	24	7.6
16 x 24	20.0	2.27	5.50	24	7.9
16 x 25	20.9	2.44	5.76	22	10.2
16 x 29	22.3	2.79	6.28	22	11.0
16 x 30	23.0	2.97	6.54	22	11.5
16 x 32	23.5	3.13	6.80	22	12.0
16 x 33	24.0	3.32	7.07	22	12.4

Galvanized Flat Oval Ductwork Weight

NOMINAL FLAT OVAL SIZE	EQUIV. ROUND	CROSS SECTIONAL AREA SQ.FT.	SURFACE AREA SQ.FT./ LN.FT.	GAUGE	WEIGHT LBS./ LN.FT.
16 x 35	24.7	3.48	7.33	22	12.9
16 x 36	25.0	3.67	7.59	22	13.3
16 x 38	25.7	3.84	7.85	22	13.8
16 x 41	26.8	4.19	8.38	22	14.7
16 x 44	27.7	4.53	8.89	22	15.6
16 x 46	28.0	4.71	9.16	22	16.1
16 x 47	28.6	4.88	9.42	22	16.6
16 x 49	29.0	5.06	9.69	20	20.1
16 x 51	29.4	5.23	9.95	20	20.6
16 x 54	30.2	5.59	10.47	20	21.7
16 x 57	31.0	5.93	11.00	20	22.8
16 x 60	31.8	6.28	11.52	20	23.8
16 x 63	32.5	6.61	12.05	20	24.9
16 x 66	33.3	6.98	12.57	20	26.0
16 x 69	34.0	7.33	13.09	20	27.1
16 x 76	35.0	8.03	14.14	18	38.1
16 x 79	36.0	8.38	14.66	18	39.5
18 x 21	19.9	2.16	5.23	24	7.6
18 x 23	21.0	2.36	5.50	24	7.9
18 x 24	21.6	2.56	5.76	24	8.3
18 x 26	22.0	2.75	6.02	22	10.6
18 x 27	23.1	2.95	6.28	22	11.0
18 x 29	24.0	3.14	6.54	22	11.5
18 x 31	24.5	3.35	6.80	22	12.0
18 x 32	25.0	3.53	7.07	22	12.4
18 x 34	25.7	3.73	7.33	22	12.9
18 x 37	27.0	4.13	7.85	22	13.8
18 x 40	28.1	4.53	8.37	22	14.7
18 x 43	29.1	4.92	8.89	22	15.6
18 x 46	30.2	5.31	9.42	22	16.6
18 x 49	31.1	5.70	9.95	20	20.6
18 x 53	32.0	6.10	10.56	20	21.9
18 x 56	32.9	6.49	11.00	20	22.8
18 x 59	33.7	6.88	11.52	20	23.8
18 x 62	34.5	7.26	12.05	20	24.9
18 x 65	35.3	7.67	12.51	20	25.9
18 x 68	36.0	8.07	13.10	20	27.1
18 x 71	37.0	8.44	13.61	18	36.7
18 x 78	38.0	9.23	14.66	18	39.5

Galvanized Flat Oval Ductwork Weight

NOMINAL FLAT OVAL SIZE	EQUIV. ROUND	CROSS SECTIONAL AREA SQ.FT.	SURFACE AREA SQ.FT./ LN.FT.	GAUGE	WEIGHT LBS./ LN.FT.
20 x 26	23.6	3.05	6.28	22	11.0
20 x 29	25.2	3.49	6.81	22	12.0
20 x 31	26.0	3.71	7.07	22	12.4
20 x 33	26.6	3.93	7.33	22	12.9
20 x 34	27.0	4.15	7.59	22	13.3
20 x 36	28.0	4.36	7.85	22	13.8
20 x 39	29.2	4.81	8.37	22	14.7
20 x 40	30.0	5.02	8.64	22	15.2
20 x 42	30.3	5.23	8.89	22	15.6
20 x 44	31.0	5.45	9.16	22	16.1
20 x 45	31.4	5.67	9.42	22	16.6
20 x 47	32.0	5.89	9.69	22	17.0
20 x 48	32.5	6.11	9.95	22	17.5
20 x 51	33.4	6.55	10.56	20	21.9
20 x 55	34.4	6.98	11.00	20	22.8
20 x 58	35.3	7.41	11.52	20	23.8
20 x 61	36.2	7.86	12.05	20	24.9
20 x 64	37.1	8.29	12.57	20	26.0
20 x 67	37.9	8.71	13.10	20	27.1
20 x 77	40.0	10.04	14.66	18	39.5
22 x 25	23.9	3.12	6.28	22	11.0
22 x 28	25.6	3.60	6.81	22	12.0
22 x 31	27.2	4.08	7.33	22	12.9
22 x 35	28.7	4.56	7.85	22	13.8
22 x 38	30.0	5.04	8.38	22	14.7
22 x 39	31.0	5.28	8.64	22	15.2
22 x 41	31.3	5.52	8.90	22	15.6
22 x 42	32.0	5.76	9.16	22	16.1
22 x 44	32.5	6.00	9.42	22	16.6
22 x 46	33.0	6.24	9.69	22	17.0
22 x 47	33.7	6.48	9.95	22	17.5
22 x 50	34.8	6.96	10.47	20	21.7
22 x 53	35.8	7.44	11.00	20	22.8
22 x 57	36.7	7.92	11.52	20	23.8
22 x 60	37.8	8.40	12.04	20	24.9
22 x 63	38.7	8.88	12.57	20	26.0
22 x 66	39.6	9.36	13.09	20	27.1
22 x 69	40.4	9.84	13.61	20	28.2
22 x 75	42.0	10.80	14.66	18	39.5
22 x 82	44.0	11.76	15.71	18	42.3

Galvanized Flat Oval Ductwork Weight

NOMINAL FLAT OVAL SIZE	EQUIV. ROUND	CROSS SECTIONAL AREA SQ.FT.	SURFACE AREA SQ.FT. / LN.FT.	GAUGE	WEIGHT LBS. / LN.FT.
24 x 27	25.9	3.66	6.81	22	12.0
24 x 30	28.1	4.19	7.33	22	12.9
24 x 33	29.3	4.71	7.85	22	13.8
24 x 37	30.8	5.23	8.38	22	14.7
24 x 40	32.2	5.76	8.90	22	15.6
24 x 41	33.0	6.02	9.16	22	16.1
24 x 43	33.5	6.28	9.42	22	16.6
24 x 44	34.0	6.54	9.69	22	17.1
24 x 46	34.7	6.80	9.95	22	17.5
24 x 49	35.9	7.33	10.47	20	21.7
24 x 52	37.0	7.85	11.00	20	22.8
24 x 55	38.1	8.38	11.52	20	23.8
24 x 59	39.2	8.90	12.04	20	24.9
24 x 62	40.1	9.42	12.57	20	26.0
24 x 65	41.1	9.95	13.09	20	27.1
24 x 68	42.0	10.47	13.61	20	28.2
24 x 74	44.0	11.52	14.66	18	39.5
26 x 29	27.9	4.25	7.33	22	12.9
26 x 32	29.7	4.82	7.85	22	13.8
26 x 35	31.3	5.39	8.38	22	14.7
26 x 39	32.8	5.96	8.90	22	15.6
26 x 42	34.3	6.52	9.42	22	16.6
26 x 45	35.6	7.09	9.95	22	17.5
26 x 48	36.9	7.66	10.47	22	18.4
26 x 51	38.1	8.22	11.00	20	22.8
26 x 54	39.3	8.79	11.52	20	23.8
26 x 57	40.4	9.36	12.04	20	24.9
26 x 61	41.5	9.93	12.57	20	26.0
26 x 64	42.5	10.49	13.09	20	27.1
26 x 67	43.5	11.06	13.61	20	28.2
26 x 70	44.4	11.63	14.14	20	29.3
28 x 31	29.9	4.88	7.85	22	13.8
28 x 34	31.7	5.50	8.38	22	14.7
28 x 37	33.4	6.11	8.90	22	15.6
28 x 41	34.9	6.72	9.42	22	16.6
28 x 44	36.4	7.33	9.95	22	17.5
28 x 47	37.8	7.94	10.47	22	18.4
28 x 50	39.1	8.55	11.00	20	22.8
28 x 53	40.3	9.16	11.52	20	23.8
28 x 56	41.5	9.77	12.04	20	24.9

Galvanized Flat Oval Ductwork Weight

NOMINAL FLAT OVAL SIZE	EQUIV. ROUND	CROSS SECTIONAL AREA SQ.FT.	SURFACE AREA SQ.FT./ LN.FT.	GAUGE	WEIGHT LBS./ LN.FT.
28 x 59	42.6	10.38	12.57	20	26.0
28 x 63	43.8	10.99	13.09	20	27.1
28 x 66	44.8	11.60	13.61	20	28.2
28 x 69	45.8	12.22	14.14	20	29.3
30 x 33	32.0	5.56	8.38	22	14.7
30 x 36	33.7	6.22	8.90	22	15.6
30 x 39	35.4	6.87	9.42	22	16.6
30 x 43	37.0	7.53	9.95	22	17.5
30 x 46	38.5	8.18	10.47	22	18.4
30 x 49	39.9	8.84	11.00	20	22.8
30 x 52	41.2	9.49	11.52	20	23.8
30 x 55	42.5	10.15	12.06	20	25.0
30 x 58	43.7	10.80	12.57	20	26.0
30 x 61	44.9	11.46	13.09	20	27.1
30 x 64	46.0	12.11	13.61	20	28.2
30 x 68	47.1	12.77	14.14	20	29.3
30 x 71	48.2	13.42	14.66	18	39.5
32 x 35	34.0	6.28	8.90	22	15.6
32 x 38	35.8	6.98	9.42	22	16.6
32 x 41	37.4	7.68	9.95	22	17.5
32 x 45	39.0	8.38	10.47	22	18.4
32 x 48	40.5	9.08	11.00	22	19.3
32 x 51	42.0	9.77	11.52	20	23.8
32 x 54	43.3	10.47	12.04	20	24.9
32 x 57	44.6	11.17	12.57	20	26.0
32 x 60	45.9	11.87	13.09	20	27.1
32 x 63	47.1	12.57	13.61	20	28.2
32 x 67	48.3	13.26	14.14	20	29.3
32 x 70	49.4	13.96	14.66	20	30.3
34 x 37	36.0	7.05	9.42	22	16.6
34 x 40	37.8	7.79	9.95	22	17.5
34 x 43	39.5	8.52	10.47	22	18.4
34 x 47	41.1	9.27	11.00	22	19.3
34 x 50	42.6	10.01	11.52	20	23.8
34 x 53	44.1	10.75	12.04	20	24.9
34 x 56	45.5	11.50	12.57	20	26.0
34 x 59	46.8	12.24	13.09	20	27.1
34 x 62	48.1	12.98	13.61	20	28.2

Galvanized Flat Oval Ductwork Weight

NOMINAL FLAT OVAL SIZE	EQUIV. ROUND	CROSS SECTIONAL AREA SQ.FT.	SURFACE AREA SQ.FT./ LN.FT.	GAUGE	WEIGHT LBS./ LN.FT.
34 x 65	49.3	13.72	14.14	20	29.3
34 x 69	50.5	14.46	14.66	20	30.3
34 x 72	51.6	15.20	15.18	18	31.4
36 x 39	38.0	7.85	9.95	22	17.5
36 x 42	39.8	8.64	10.47	22	18.4
36 x 45	41.5	9.42	11.00	22	19.4
36 x 49	43.1	10.21	11.52	20	23.8
36 x 52	44.7	11.00	12.04	20	24.9
36 x 55	46.2	11.78	12.57	20	26.0
36 x 58	47.6	12.57	13.09	20	27.1
36 x 61	48.9	13.35	13.61	20	28.2
36 x 64	50.2	14.14	14.14	20	29.3
36 x 67	51.1	14.92	14.66	20	30.3
36 x 71	52.7	15.71	15.18	18	40.9
38 x 41	40.0	8.70	10.47	22	18.4
38 x 44	41.8	9.53	11.00	22	19.3
38 x 47	43.5	10.36	11.52	22	20.3
38 x 51	45.2	11.19	12.04	20	24.9
38 x 54	46.7	12.02	12.57	20	26.0
38 x 57	48.2	12.85	13.09	20	27.1
38 x 60	49.7	13.68	13.61	20	28.2
38 x 63	51.0	14.51	14.14	20	29.3
38 x 66	52.4	15.34	14.66	20	30.3
38 x 69	53.7	16.16	15.18	20	31.4
40 x 43	42.0	9.60	11.00	22	19.3
40 x 46	43.8	10.47	11.52	22	20.3
40 x 49	45.6	11.34	12.04	20	24.9
40 x 53	47.2	12.21	12.57	20	26.0
40 x 56	48.8	13.09	13.09	20	27.1
40 x 59	50.4	13.96	13.61	20	28.2
40 x 62	51.8	14.83	14.14	20	29.3
40 x 65	53.2	15.71	14.66	20	30.3
40 x 68	54.5	16.58	15.18	20	31.4
40 x 71	55.8	17.45	15.71	18	42.3

Notes:

1. Equivalent round is the diameter of the round duct which will have the capacity and friction equivalent to the flat oval duct size.
2. To obtain the rectangular duct size, use the Trane Ductulator and equivalent round duct size.
3. Table includes 25% allowance for bracing, hangers, reinforcing, joints, and seams. Add 10% for insulated ductwork systems.
4. Table lists standard sizes as manufactured by United Sheet Metal, a Division of United McGill Corporation.

Equivalent Rectangular Duct Dimensions

DUCT DIA. IN.	RECT. SIZE IN.	ASPECT RATIO							
		1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75
6	WIDTH	---	6						
	HEIGHT	---	5						
7	WIDTH	6	8						
	HEIGHT	6	6						
8	WIDTH	7	9	9	11				
	HEIGHT	7	7	6	6				
9	WIDTH	8	9	11	11	12	14		
	HEIGHT	8	7	7	6	6	6		
10	WIDTH	9	10	12	12	14	14	15	17
	HEIGHT	9	8	8	7	7	6	6	6
11	WIDTH	10	11	12	14	14	16	18	17
	HEIGHT	10	9	8	8	7	7	7	6
12	WIDTH	11	13	14	14	16	16	18	19
	HEIGHT	11	10	9	8	8	7	7	7
13	WIDTH	12	14	15	16	18	18	20	19
	HEIGHT	12	11	10	9	9	8	8	7
14	WIDTH	13	14	17	18	18	20	20	22
	HEIGHT	13	11	11	10	9	9	8	8
15	WIDTH	14	15	17	18	20	20	23	25
	HEIGHT	14	12	11	10	10	9	9	9
16	WIDTH	15	16	18	19	20	23	23	25
	HEIGHT	15	13	12	11	10	10	9	9
17	WIDTH	16	18	20	21	22	25	25	28
	HEIGHT	16	14	13	12	11	11	10	10
18	WIDTH	16	19	21	23	24	25	28	28
	HEIGHT	16	15	14	13	12	11	11	10
19	WIDTH	17	20	21	23	24	27	28	30
	HEIGHT	17	16	14	13	12	12	11	11
20	WIDTH	18	20	23	25	26	27	30	30
	HEIGHT	18	16	15	14	13	12	12	11
21	WIDTH	19	21	24	26	28	29	30	33
	HEIGHT	19	17	16	15	14	13	12	12
22	WIDTH	20	23	26	26	28	32	33	36
	HEIGHT	20	18	17	15	14	14	13	13
23	WIDTH	21	24	26	28	30	32	35	36
	HEIGHT	21	19	17	16	15	14	14	13
24	WIDTH	22	25	27	30	32	34	35	39
	HEIGHT	22	20	18	17	16	15	14	14
25	WIDTH	23	25	29	30	32	36	38	39
	HEIGHT	23	20	19	17	16	16	15	14
26	WIDTH	24	26	30	32	34	36	38	41
	HEIGHT	24	21	20	18	17	16	15	15
27	WIDTH	25	28	30	33	36	38	40	41
	HEIGHT	25	22	20	19	18	17	16	15

Equivalent Rectangular Duct Dimensions

DUCT DIA. IN.	RECT. SIZE IN.	ASPECT RATIO							
		1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75
28	WIDTH	26	29	32	35	36	38	43	44
		26	23	21	20	18	17	17	16
29	WIDTH	27	30	33	35	38	41	43	44
		27	24	22	20	19	18	17	16
30	WIDTH	27	31	35	37	40	43	45	47
		27	25	23	21	20	19	18	17
31	WIDTH	28	31	35	39	40	43	45	50
		28	25	23	22	20	19	18	18
32	WIDTH	29	33	36	39	42	45	48	50
		29	26	24	22	21	20	19	18
33	WIDTH	30	34	38	40	44	47	50	52
		30	27	25	23	22	21	20	19
34	WIDTH	31	35	39	42	44	47	50	52
		31	28	26	24	22	21	20	19
35	WIDTH	32	36	39	42	46	50	53	55
		32	29	26	24	23	22	21	20
36	WIDTH	33	36	41	44	48	50	53	55
		33	29	27	25	24	22	21	20
38	WIDTH	35	39	44	47	50	54	58	61
		35	31	29	27	25	24	23	22
40	WIDTH	37	41	45	49	52	56	60	63
		37	33	30	28	26	25	24	23
42	WIDTH	38	43	48	51	56	59	63	66
		38	34	32	29	28	26	25	24
44	WIDTH	40	45	50	54	58	61	65	69
		40	36	33	31	29	27	26	25
46	WIDTH	42	48	53	56	60	65	68	72
		42	38	35	32	30	29	27	26
48	WIDTH	44	49	54	60	62	68	70	74
		44	39	36	34	31	30	28	27
50	WIDTH	46	51	57	61	66	70	75	77
		46	41	38	35	33	31	30	28
52	WIDTH	48	54	59	63	68	72	78	83
		48	43	39	36	34	32	31	30
54	WIDTH	49	55	62	67	70	77	80	85
		49	44	41	38	35	34	32	31
56	WIDTH	51	58	63	68	74	79	83	88
		51	46	42	39	37	35	33	32
58	WIDTH	53	60	66	70	76	81	85	91
		53	48	44	40	38	36	34	33
60	WIDTH	55	61	68	74	78	83	90	94
		55	49	45	42	39	37	36	34
62	WIDTH	57	64	71	75	82	88	93	96
		57	51	47	43	41	39	37	35

Equivalent Rectangular Duct Dimensions

DUCT DIA. IN.	RECT. SIZE IN.	ASPECT RATIO							
		1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75
64	WIDTH	59	65	72	79	84	90	95	99
		59	52	48	45	42	40	38	36
66	WIDTH	60	68	75	81	86	92	98	105
		60	54	50	46	43	41	39	38
68	WIDTH	62	70	77	82	90	95	100	107
		62	56	51	47	45	42	40	39
70	WIDTH	64	71	80	86	92	99	105	110
		64	57	53	49	46	44	42	40
72	WIDTH	66	74	81	88	94	101	108	113
		66	59	54	50	47	45	43	41
74	WIDTH	68	76	84	91	98	104	110	116
		68	61	56	52	49	46	44	42
76	WIDTH	70	78	86	93	100	106	113	118
		70	62	57	53	50	47	45	43
78	WIDTH	71	80	89	95	102	110	115	121
		71	64	59	54	51	49	46	44
80	WIDTH	73	83	90	98	104	113	118	124
		73	66	60	56	52	50	47	45
82	WIDTH	75	84	93	100	108	115	123	129
		75	67	62	57	54	51	49	47
84	WIDTH	77	86	95	103	110	117	125	132
		77	69	63	59	55	52	50	48
86	WIDTH	79	88	98	105	112	119	128	135
		79	70	65	60	56	53	51	49
88	WIDTH	80	90	99	107	116	124	130	138
		80	72	66	61	58	55	52	50
90	WIDTH	82	93	102	110	118	126	133	140
		82	74	68	63	59	56	53	51
92	WIDTH	84	94	104	112	120	128	138	143
		84	75	69	64	60	57	55	52
94	WIDTH	86	96	107	116	124	131	140	146
		86	77	71	66	62	58	56	53
96	WIDTH	88	99	108	117	126	135	143	151
		88	79	72	67	63	60	57	55
98	WIDTH	90	100	111	119	128	137	145	154
		90	80	74	68	64	61	58	56
100	WIDTH	91	103	113	123	132	140	148	157
		91	82	75	70	66	62	59	57
102	WIDTH	93	105	116	124	134	142	153	160
		93	84	77	71	67	63	61	58
104	WIDTH	95	106	117	128	136	146	155	162
		95	85	78	73	68	65	62	59

Equivalent Rectangular Duct Dimensions

DUCT DIA. IN.	RECT. SIZE IN.	ASPECT RATIO						
		3.00	3.50	4.00	5.00	6.00	7.00	8.00
6	WIDTH HEIGHT							
7	WIDTH HEIGHT							
8	WIDTH HEIGHT							
9	WIDTH HEIGHT							
10	WIDTH HEIGHT							
11	WIDTH HEIGHT	18 6	21 6					
12	WIDTH HEIGHT	21 7	21 6	24 6				
13	WIDTH HEIGHT	21 7	25 7	24 6	30 6			
14	WIDTH HEIGHT	24 8	25 7	28 7	30 6	36 6		
15	WIDTH HEIGHT	24 8	28 8	28 7	35 7	36 6	42 6	
16	WIDTH HEIGHT	27 9	28 8	32 8	35 7	42 7	42 6	48 6
17	WIDTH HEIGHT	27 9	32 9	32 8	35 7	42 7	49 7	48 6
18	WIDTH HEIGHT	30 10	32 9	36 9	40 8	42 7	49 7	56 7
19	WIDTH HEIGHT	30 10	35 10	36 9	40 8	48 8	49 7	56 7
20	WIDTH HEIGHT	33 11	35 10	40 10	45 9	48 8	56 8	56 7
21	WIDTH HEIGHT	33 11	39 11	40 10	45 9	54 9	56 8	64 8
22	WIDTH HEIGHT	36 12	39 11	44 11	50 10	54 9	56 8	64 8
23	WIDTH HEIGHT	39 13	42 12	44 11	50 10	54 9	63 8	64 8
24	WIDTH HEIGHT	39 13	42 12	48 12	55 11	60 10	63 9	72 9
25	WIDTH HEIGHT	42 14	46 13	48 12	55 11	60 10	70 10	72 9
26	WIDTH HEIGHT	42 14	46 13	52 13	55 11	66 11	70 10	72 9
27	WIDTH HEIGHT	45 15	49 14	52 13	60 12	66 11	70 10	80 10

Equivalent Rectangular Duct Dimensions

DUCT DIA. IN.	RECT. SIZE IN.	ASPECT RATIO						
		3.00	3.50	4.00	5.00	6.00	7.00	8.00
28	WIDTH	45	49	56	60	66	77	80
	HEIGHT	15	14	14	12	11	11	10
29	WIDTH	48	53	56	65	72	77	88
	HEIGHT	16	15	14	13	12	11	11
30	WIDTH	48	53	60	65	72	77	88
	HEIGHT	16	15	15	13	12	11	11
31	WIDTH	51	56	60	70	78	84	88
	HEIGHT	17	16	15	14	13	12	11
32	WIDTH	54	56	60	70	78	84	96
	HEIGHT	18	16	15	14	13	12	12
33	WIDTH	54	60	64	75	78	91	96
	HEIGHT	18	17	16	15	13	13	12
34	WIDTH	57	60	64	75	84	91	96
	HEIGHT	19	17	16	15	14	13	12
35	WIDTH	57	63	68	75	84	91	104
	HEIGHT	19	18	17	15	14	13	13
36	WIDTH	60	63	68	80	90	98	104
	HEIGHT	20	18	17	16	15	14	13
38	WIDTH	63	67	72	85	96	105	112
	HEIGHT	21	19	18	17	16	15	14
40	WIDTH	66	70	76	90	96	105	120
	HEIGHT	22	20	19	18	16	15	15
42	WIDTH	69	74	80	90	102	112	120
	HEIGHT	23	21	20	18	17	16	15
44	WIDTH	72	81	84	95	108	119	128
	HEIGHT	24	23	21	19	18	17	16
46	WIDTH	75	84	88	100	114	126	136
	HEIGHT	25	24	22	20	19	18	17
48	WIDTH	78	88	92	105	120	126	136
	HEIGHT	26	25	23	21	20	18	17
50	WIDTH	81	91	96	110	120	133	144
	HEIGHT	27	26	24	22	20	19	18
52	WIDTH	84	95	100	115	126	140	152
	HEIGHT	28	27	25	23	21	20	19
54	WIDTH	90	98	104	120	132	147	160
	HEIGHT	30	28	26	24	22	21	20
56	WIDTH	93	102	108	125	138	147	160
	HEIGHT	31	29	27	25	23	21	20
58	WIDTH	96	105	112	130	144	154	168
	HEIGHT	32	30	28	26	24	22	21
60	WIDTH	99	109	116	130	144	161	
	HEIGHT	33	31	29	26	24	23	
62	WIDTH	102	112	120	135	150	168	
	HEIGHT	34	32	30	27	25	24	

Equivalent Rectangular Duct Dimensions

DUCT DIA. IN.	RECT. SIZE IN.	ASPECT RATIO						
		3.00	3.50	4.00	5.00	6.00	7.00	8.00
64	WIDTH HEIGHT	105 35	116 33	124 31	140 28	156 26		
66	WIDTH HEIGHT	108 36	119 34	128 32	145 29	162 27		
68	WIDTH HEIGHT	111 37	123 35	132 33	150 30	168 28		
70	WIDTH HEIGHT	114 38	126 36	136 34	155 31			
72	WIDTH HEIGHT	117 39	130 37	140 35	160 32			
74	WIDTH HEIGHT	123 41	133 38	144 36	165 33			
76	WIDTH HEIGHT	126 42	137 39	148 37	165 33			
78	WIDTH HEIGHT	129 43	140 40	152 38				
80	WIDTH HEIGHT	132 44	144 41	156 39				
82	WIDTH HEIGHT	135 45	147 42	160 40				
84	WIDTH HEIGHT	138 46	151 43	164 41				
86	WIDTH HEIGHT	141 47	154 44	168 42				
88	WIDTH HEIGHT	144 48	158 45					
90	WIDTH HEIGHT	147 49	161 46					
92	WIDTH HEIGHT	150 50	165 47					
94	WIDTH HEIGHT	153 51	168 48					
96	WIDTH HEIGHT	159 53						
98	WIDTH HEIGHT	162 54						
100	WIDTH HEIGHT	165 55						
102	WIDTH HEIGHT	168 56						
104	WIDTH HEIGHT							

Notes:

- 1. Shaded areas exceed the recommended maximum 4:1 aspect ratio.

Round/Rectangular Duct Equivalents

A/B	3	3.5	4	4.5	5	5.5	6	7	8	9	10	11
3.0	3.3											
3.5	3.5	3.8										
4.0	3.8	4.1	4.4									
4.5	4.0	4.3	4.6	4.9								
5.0	4.2	4.6	4.9	5.2	5.5							
5.5	4.4	4.8	5.1	5.4	5.7	6.0						
6	4.6	5.0	5.3	5.7	6.0	6.3	6.6					
7	4.9	5.3	5.7	6.1	6.4	6.8	7.1	7.7				
8	5.2	5.7	6.1	6.5	6.9	7.2	7.6	8.2	8.7			
9	5.5	6.0	6.4	6.9	7.3	7.6	8.0	8.7	9.3	9.8		
10	5.7	6.3	6.7	7.2	7.6	8.0	8.4	9.1	9.8	10.4	10.9	
11	6.0	6.5	7.0	7.5	8.0	8.4	8.8	9.5	10.2	10.9	11.5	12.0
12	6.2	6.8	7.3	7.8	8.3	8.7	9.1	9.9	10.7	11.3	12.0	12.6
13	6.4	7.0	7.6	8.1	8.6	9.0	9.5	10.3	11.1	11.8	12.4	13.1
14	6.6	7.2	7.8	8.4	8.9	9.3	9.8	10.8	11.4	12.2	12.9	13.5
15	6.8	7.5	8.0	8.6	9.1	9.6	10.1	11.0	11.8	12.6	13.3	14.0
16	7.0	7.7	8.3	8.8	9.4	9.9	10.4	11.3	12.2	13.0	13.7	14.4
17	7.2	7.9	8.5	9.1	9.6	10.2	10.7	11.6	12.5	13.4	14.1	14.9
18	7.3	8.0	8.7	9.3	9.9	10.4	11.0	11.9	12.9	13.7	14.5	15.3
19	7.5	8.2	8.9	9.5	10.1	10.7	11.2	12.2	13.2	14.1	14.9	15.7
20	7.7	8.4	9.1	9.7	10.3	10.9	11.5	12.6	13.5	14.4	15.2	16.0
22	8.0	8.7	9.5	10.1	10.8	11.4	12.0	13.0	14.1	15.0	15.9	16.8
24	8.3	9.1	9.8	10.5	11.2	11.8	12.4	13.5	14.6	15.6	16.5	17.4
26	8.5	9.4	10.1	10.9	11.5	12.2	12.8	14.0	15.1	16.2	17.1	18.1
28	8.8	9.6	10.4	11.2	11.9	12.6	13.2	14.5	15.6	16.7	17.7	18.7
30	9.0	9.9	10.7	11.5	12.2	13.0	13.6	14.9	16.1	17.2	18.3	19.3
32		10.2	11.0	11.8	12.6	13.3	14.0	15.3	16.5	17.7	18.8	19.8
34		10.4	11.3	12.2	12.9	13.6	14.4	15.7	17.0	18.2	19.3	20.4
36		10.7	11.5	12.4	13.2	14.0	14.7	16.1	17.4	18.6	19.8	20.9
38			11.8	12.7	13.5	14.3	15.0	16.5	17.8	19.0	20.2	21.4
40			12.0	13.1	13.8	14.7	15.3	16.8	18.2	19.5	20.7	21.8
42				13.2	14.0	14.9	15.6	17.1	18.5	19.9	21.1	22.3
44				13.4	14.3	15.1	15.9	17.5	18.9	20.3	21.5	22.7
46				13.7	14.6	15.4	16.2	17.8	19.3	20.6	21.9	23.2
48					14.8	15.7	16.5	18.1	19.6	21.0	22.3	23.6
50					15.1	15.9	16.8	18.4	19.9	21.4	22.7	24.0
52						16.2	17.1	18.7	20.2	21.7	23.1	24.4
54						16.4	17.3	19.0	20.6	22.0	23.5	24.8
56						16.7	17.6	19.3	20.9	22.4	23.8	25.2
58							17.8	19.5	21.2	22.7	24.2	25.5
60							18.1	19.8	21.5	23.0	24.5	25.9
62								20.1	21.7	23.3	24.8	26.3
64								20.3	22.0	23.6	25.1	26.6
66								20.6	22.3	23.9	25.5	26.9
68								20.8	22.6	24.2	25.8	27.3
70								21.1	22.8	24.5	26.1	27.6
72									23.1	24.8	26.4	27.9
74									23.3	25.1	26.7	28.2
76									23.6	25.3	27.0	28.5
78									23.8	25.6	27.3	28.8
80									24.1	25.8	27.5	29.1
82										26.1	27.8	29.4
84										26.4	28.1	29.7
86										26.6	28.3	30.0
88										26.8	28.6	30.3
90										27.1	28.9	30.6
92											29.1	30.8
94											29.4	31.1
96											29.6	31.4
98											29.9	31.7
100											30.1	31.9

Round/Rectangular Duct Equivalents

A/B	12	13	14	15	16	17	18	19	20	22	24	26
3.0												
3.5												
4.0												
4.5												
5.0												
5.5												
6												
7												
8												
9												
10												
11												
12	13.1											
13	13.7	14.2										
14	14.2	14.7	15.3									
15	14.6	15.3	15.8	16.4								
16	15.1	15.7	16.4	16.9	17.5							
17	15.6	16.2	16.8	17.4	18.0	18.6						
18	16.0	16.7	17.3	17.9	18.5	19.1	19.7					
19	16.4	17.1	17.8	18.4	19.0	19.6	20.2	20.8				
20	16.8	17.5	18.2	18.9	19.5	20.1	20.7	21.3	21.9			
22	17.6	18.3	19.1	19.8	20.4	21.1	21.7	22.3	22.9	24.0		
24	18.3	19.1	19.9	20.6	21.3	22.0	22.7	23.3	23.9	25.1	26.2	
26	19.0	19.8	20.6	21.4	22.1	22.9	23.5	24.2	24.9	26.1	27.3	28.4
28	19.6	20.5	21.3	22.1	22.9	23.7	24.4	25.1	25.8	27.1	28.3	29.5
30	20.2	21.1	22.0	22.9	23.7	24.4	25.2	25.9	26.6	28.0	29.3	30.5
32	20.8	21.8	22.7	23.5	24.4	25.2	26.0	26.7	27.5	28.9	30.2	31.5
34	21.4	22.4	23.3	24.2	25.1	25.9	26.7	27.5	28.3	29.7	31.0	32.4
36	21.9	22.9	23.9	24.8	25.7	26.6	27.4	28.2	29.0	30.5	32.0	33.3
38	22.4	23.5	24.5	25.4	26.4	27.2	28.1	28.9	29.8	31.3	32.8	34.2
40	22.9	24.0	25.0	26.0	27.0	27.9	28.8	29.6	30.5	32.1	33.6	35.1
42	23.4	24.5	25.6	26.6	27.6	28.5	29.4	30.3	31.2	32.8	34.4	35.9
44	23.9	25.0	26.1	27.1	28.1	29.1	30.0	30.9	31.8	33.5	35.1	36.7
46	24.4	25.5	26.6	27.7	28.7	29.7	30.6	31.6	32.5	34.2	35.9	37.4
48	24.8	26.0	27.1	28.2	29.2	30.2	31.2	32.2	33.1	34.9	36.6	38.2
50	25.2	26.4	27.6	28.7	29.8	30.8	31.8	32.8	33.7	35.5	37.2	38.9
52	25.7	26.9	28.0	29.2	30.3	31.3	32.3	33.3	34.3	36.2	37.9	39.6
54	26.1	27.3	28.5	29.7	30.8	31.8	32.9	33.9	34.9	36.8	38.6	40.3
56	26.5	27.7	28.9	30.1	31.2	32.3	33.4	34.4	35.4	37.4	39.2	41.0
58	26.9	28.2	29.4	30.6	31.7	32.8	33.9	35.0	36.0	38.0	39.8	41.6
60	27.3	28.6	29.8	31.0	32.2	33.3	34.4	35.5	36.5	38.5	40.4	42.3
62	27.6	28.9	30.2	31.5	32.6	33.8	34.9	36.0	37.1	39.1	41.0	42.9
64	28.0	29.3	30.6	31.9	33.1	34.3	35.4	36.5	37.6	39.6	41.6	43.5
66	28.4	29.7	31.0	32.3	33.5	34.7	35.9	37.0	38.1	40.2	42.2	44.1
68	28.7	30.1	31.4	32.7	33.9	35.2	36.3	37.5	38.6	40.7	42.8	44.7
70	29.1	30.4	31.8	33.1	34.4	35.6	36.8	37.9	39.1	41.2	43.3	45.3
72	29.4	30.8	32.2	33.5	34.8	36.0	37.2	38.4	39.5	41.7	43.8	45.8
74	29.7	31.2	32.5	33.9	35.2	36.4	37.7	38.8	40.0	42.2	44.4	46.4
76	30.0	31.5	32.9	34.3	35.6	36.8	38.1	39.3	40.5	42.7	44.9	47.0
78	30.4	31.8	33.3	34.6	36.0	37.2	38.5	39.7	40.9	43.2	45.4	47.5
80	30.7	32.2	33.6	35.0	36.3	37.6	38.9	40.2	41.4	43.7	45.9	48.0
82	31.0	32.5	34.0	35.4	36.7	38.0	39.3	40.6	41.8	44.1	46.4	48.5
84	31.3	32.8	34.3	35.7	37.1	38.4	39.7	41.0	42.2	44.6	46.9	49.0
86	31.6	33.1	34.6	36.1	37.4	38.8	40.1	41.4	42.6	45.0	47.3	49.6
88	31.9	33.4	34.9	36.4	37.8	39.2	40.5	41.8	43.1	45.5	47.8	50.0
90	32.2	33.8	35.3	36.7	38.2	39.5	40.9	42.2	43.5	45.9	48.3	50.5
92	32.5	34.1	35.6	37.1	38.5	39.9	41.3	42.6	43.9	46.4	48.7	51.0
94	32.8	34.4	35.9	37.4	38.9	40.3	41.7	43.0	44.3	46.8	49.2	51.5
96	33.0	34.7	36.2	37.7	39.2	40.6	42.0	43.3	44.7	47.2	49.6	52.0
98	33.3	35.0	36.5	38.1	39.5	41.0	42.4	43.7	45.1	47.6	50.1	52.5
100	33.6	35.2	36.8	38.4	39.8	41.3	42.7	44.1	45.4	48	50.5	52.9

Round/Rectangular Duct Equivalents

A/B	28	30	32	34	36	38	40	42	44	46	48	50
3.0												
3.5												
4.0												
4.5												
5.0												
5.5												
6												
7												
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11												
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13												
14												
15												
16												
17												
18												
19												
20												
22												
24												
26												
28	30.6											
30	31.7	32.8										
32	32.7	33.9	35.0									
34	33.7	34.9	36.1	37.2								
36	34.6	35.9	37.1	38.2	39.4							
38	35.6	36.8	38.1	39.3	40.4	41.5						
40	36.4	37.8	39.0	40.3	41.5	42.6	43.7					
42	37.3	38.7	40.0	41.3	42.5	43.7	44.8	45.9				
44	38.1	39.5	40.9	42.2	43.5	44.7	45.8	47.0	48.1			
46	38.9	40.4	41.8	43.1	44.4	45.7	46.9	48.0	49.2	50.3		
48	39.7	41.2	42.6	44.0	45.3	46.6	47.9	49.1	50.2	51.4	52.5	
50	40.5	42.0	43.6	44.9	46.2	47.5	48.8	50.0	51.2	52.4	53.6	54.7
52	41.2	42.8	44.3	45.7	47.1	48.4	49.7	51.0	52.2	53.4	54.6	55.7
54	41.9	43.5	45.1	46.5	48.0	49.3	50.7	52.0	53.2	54.4	55.6	56.8
56	42.7	44.3	45.8	47.3	48.8	50.2	51.6	52.9	54.2	55.4	56.6	57.8
58	43.3	45.0	46.6	48.1	49.6	51.0	52.4	53.8	55.1	56.4	57.6	58.8
60	44.0	45.7	47.3	48.9	50.4	51.9	53.3	54.7	56.0	57.3	58.6	59.8
62	44.7	46.4	48.0	49.6	51.2	52.7	54.1	55.5	56.9	58.2	59.5	60.8
64	45.3	47.1	48.7	50.4	51.9	53.5	54.9	56.4	57.8	59.1	60.4	61.7
66	46.0	47.7	49.4	51.1	52.7	54.2	55.7	57.2	58.6	60.0	61.3	62.6
68	46.6	48.4	50.1	51.8	53.4	55.0	56.5	58.0	59.4	60.8	62.2	63.6
70	47.2	49.0	50.8	52.5	54.1	55.7	57.3	58.8	60.3	61.7	63.1	64.4
72	47.8	49.6	51.4	53.2	54.8	56.5	58.0	59.6	61.1	62.5	63.9	65.3
74	48.4	50.3	52.1	53.8	55.5	57.2	58.8	60.3	61.9	63.3	64.8	66.2
76	48.9	50.9	52.7	54.5	56.2	57.9	59.5	61.1	62.6	64.1	65.6	67.0
78	49.5	51.4	53.3	55.1	56.9	58.6	60.2	61.8	63.4	64.9	66.4	67.9
80	50.1	52.0	53.9	55.8	57.5	59.3	60.9	62.6	64.1	65.7	67.2	68.7
82	50.6	52.6	54.6	56.4	58.2	59.9	61.6	63.3	64.9	66.5	68.0	69.5
84	51.1	53.2	55.1	57.0	58.8	60.6	62.3	64.0	65.6	67.2	68.7	70.3
86	51.7	53.7	55.7	57.6	59.4	61.2	63.0	64.7	66.3	67.9	69.5	71.0
88	52.2	54.3	56.3	58.2	60.1	61.9	63.6	65.4	67.0	68.7	70.2	71.8
90	52.7	54.8	56.8	58.8	60.7	62.5	64.3	66.0	67.7	69.4	71.0	72.6
92	53.2	55.3	57.4	59.3	61.3	63.1	64.9	66.7	68.4	70.1	71.7	73.3
94	53.7	55.9	57.9	59.9	61.9	63.7	65.6	67.3	69.1	70.8	72.4	74.0
96	54.2	56.4	58.4	60.5	62.4	64.3	66.2	68.0	69.7	71.5	73.1	74.8
98	54.7	56.9	59.0	61.1	63.0	64.9	66.8	68.6	70.4	72.2	73.8	75.5
100	55.2	57.4	59.5	61.6	63.6	65.5	67.4	69.2	71	72.8	74.5	76.2

Round/Rectangular Duct Equivalents

A/B	52	54	56	58	60	62	64	66	68	70	72	74
50												
52	56.8											
54	57.9	59.0										
56	59.0	60.1	61.2									
58	60.0	61.2	62.3	63.4								
60	61.0	62.2	63.4	64.5	65.6							
62	62.0	63.2	64.4	65.5	66.7	67.8						
64	63.0	64.2	65.4	66.6	67.7	69.9	70.0					
66	63.9	65.2	66.4	67.6	68.8	69.9	71.0	72.1				
68	64.9	66.2	67.4	68.6	69.8	71.0	72.1	73.2	74.3			
70	65.8	67.1	68.3	69.6	70.8	72.0	73.2	74.3	75.4	76.5		
72	66.7	68.0	69.3	70.6	71.8	73.0	74.2	75.4	76.5	77.6	78.7	
74	67.5	68.9	70.2	71.5	72.7	74.0	75.2	76.4	77.5	78.7	79.8	80.9
76	68.4	69.8	71.1	72.4	73.7	75.0	76.2	77.4	78.6	79.7	80.9	82.0
78	69.3	70.6	72.0	73.3	74.6	75.9	77.1	78.4	79.6	80.7	81.9	83.0
80	70.1	71.6	72.9	74.2	75.4	76.9	78.1	79.4	80.6	81.8	82.9	84.1
82	70.9	72.3	73.7	75.1	76.4	77.8	79.0	80.3	81.5	82.8	84.0	85.1
84	71.7	72.6	74.6	76.0	77.3	78.7	80.0	81.3	82.5	83.8	85.0	86.1
86	72.5	73.3	75.4	76.8	78.2	79.6	80.9	82.2	83.5	84.7	85.9	87.1
88	73.3	74.0	76.3	77.7	79.1	80.5	81.8	83.1	84.4	85.7	86.9	88.1
90	74.1	75.6	77.1	78.5	79.9	81.3	82.7	84.0	85.3	86.6	87.9	89.1
92	74.9	76.4	77.9	79.3	80.8	82.2	83.5	85.4	86.2	87.5	88.8	90.1
94	75.6	77.2	78.7	80.1	81.6	83.0	84.4	86.0	87.1	88.4	89.7	91.0
96	76.3	77.9	79.4	80.9	82.4	83.8	85.3	86.6	88.0	89.3	90.7	91.9
98	77.1	78.7	80.2	81.7	83.2	84.7	86.1	87.5	88.9	90.2	91.6	92.9
100	77.8	79.4	81	82.5	84	85.5	86.9	88.3	89.7	91.1	92.4	93.8

Round/Rectangular Duct Equivalents

A/B	76	78	80	82	84	86	88	90	92	94	96	98
70												
72												
74												
76	83.1											
78	84.2	85.3										
80	85.2	86.4	87.5									
82	86.3	87.4	88.5	89.6								
84	87.3	88.5	89.6	90.7	91.8							
86	88.3	89.5	90.7	91.8	92.9	94.0						
88	89.3	90.5	91.7	92.9	94.0	95.1	96.2					
90	90.3	91.5	92.7	93.9	95.0	96.2	97.3	98.4				
92	91.3	92.5	93.7	94.9	96.1	97.2	98.4	99.5	100.6			
94	92.3	93.5	94.7	95.9	97.1	98.3	99.4	100.6	101.1	102.8		
96	93.2	94.5	95.7	96.9	98.1	99.3	100.5	101.6	102.7	103.8	104.9	
98	94.2	95.5	96.7	97.9	99.1	100.3	101.5	102.7	103.8	104.9	106.0	107.1
100	95.1	96.4	97.6	98.9	100.1	101.3	102.5	103.7	104.8	106	107.1	108.2

Notes:

- 1. Shaded areas and bold numbers exceed the recommended maximum 4:1 aspect ratio.