

Flexible Duct Sizing Chart

Flex duct sizes by airflow. Flex needs a larger size than sheet metal for the same airflow.

- Friction rate 0.1 in. w.g. per 100 ft
- Flexible duct FULLY EXTENDED, absolute roughness 0.003 ft (10x galvanized)
- Compressed or sagging flex has far more resistance than this. These sizes assume it is pulled tight.
- Equal friction method, ASHRAE Fundamentals Ch. 34 (Darcy-Weisbach with the Haaland friction factor).

CFM	Round duct	Velocity (fpm)	in. w.g. / 100 ft	Rectangular	Low profile
25	4"	286	0.065	4 x 4	—
50	5"	367	0.077	6 x 4	8 x 4
75	6"	382	0.065	6 x 6	12 x 4
100	7"	374	0.051	8 x 8	16 x 4
125	7"	468	0.078	8 x 8	16 x 4
150	8"	430	0.056	8 x 8	16 x 4
175	8"	501	0.075	8 x 8	16 x 4
200	8"	573	0.097	8 x 8	16 x 4
250	9"	566	0.081	10 x 10	18 x 6
300	10"	550	0.067	10 x 10	24 x 6
350	10"	642	0.091	10 x 10	24 x 6
400	12"	509	0.046	12 x 12	24 x 6
450	12"	573	0.058	12 x 12	24 x 6
500	12"	637	0.071	12 x 12	24 x 6
600	14"	561	0.045	14 x 14	30 x 8
700	14"	655	0.061	14 x 14	30 x 8
800	14"	748	0.079	14 x 14	30 x 8
900	14"	842	0.100	14 x 14	30 x 8
1000	16"	716	0.062	16 x 16	30 x 8
1200	16"	859	0.088	16 x 16	30 x 8
1400	18"	792	0.064	18 x 18	30 x 10
1600	18"	905	0.084	18 x 18	30 x 10
1800	20"	825	0.061	20 x 20	30 x 12
2000	20"	917	0.075	20 x 20	30 x 12
2500	22"	947	0.071	22 x 22	30 x 14
3000	24"	955	0.065	22 x 22	30 x 18
3500	24"	1114	0.087	22 x 22	30 x 18
4000	26"	1085	0.075	24 x 24	30 x 20

Reference data for everyday sizing, not an engineering design. Final duct sizing should be checked by a licensed professional against ACCA Manual D for the specific system.