

CHAPTER 15 EXHAUST SYSTEMS
SECTION M1506
EXHAUST DUCTS AND EXHAUST OPENINGS

M1506.1 Duct construction.

Where exhaust duct construction is not specified in this chapter, construction shall comply with Chapter 16.

M1506.2 Duct length.

The length of exhaust and supply ducts used with ventilating equipment shall not exceed the lengths determined in accordance with Table M1506.2.

Exception: Duct length shall not be limited where the duct system complies with the manufacturer's design criteria or where the flow rate of the installed ventilating equipment is verified by the installer or approved third party using a flow hood, flow grid or other airflow measuring device.

**TABLE M1506.2
DUCT LENGTH**

DUCT TYPE Fan airflow rating (CFM @ 0.25 inch wc ^a)	FLEX DUCT								SMOOTH-WALL DUCT							
	50	80	100	125	150	200	250	300	50	80	100	125	150	200	250	300
Diameter ^b (inches)	Maximum length ^{c, d, e} (feet)															
3	X	X	X	X	X	X	X	X	5	X	X	X	X	X	X	X
4	56	4	X	X	X	X	X	X	114	31	10	X	X	X	X	X
5	NL	81	42	16	2	X	X	X	NL	152	91	51	28	4	X	X
6	NL	NL	158	91	55	18	1	X	NL	NL	NL	168	112	53	25	9
7	NL	NL	NL	NL	161	78	40	19	NL	NL	NL	NL	NL	148	88	54
8 and above	NL	NL	NL	NL	NL	189	111	69	NL	NL	NL	NL	NL	NL	198	133

For SI: 1 foot = 304.8 mm.

- a. Fan airflow rating shall be in accordance with ANSI/AMCA 210-ANSI/ASHRAE 51.
- b. For noncircular ducts, calculate the diameter as four times the cross-sectional area divided by the perimeter.
- c. This table assumes that elbows are not used. Fifteen feet of allowable duct length shall be deducted for each elbow installed in the duct run.
- d. NL = no limit on duct length of this size.
- e. X = not allowed. Any length of duct of this size with assumed turns and fittings will exceed the rated pressure drop.

M1506.3 Exhaust openings.

Air exhaust openings shall terminate not less than 3 feet (914 mm) from property lines; 3 feet (914 mm) from operable and nonoperable openings into the building and 10 feet (3048 mm) from mechanical air intakes except where the opening is located 3 feet (914 mm) above the air intake. Openings shall comply with Sections R303.5.2 and R303.6.