



Kitchen Hood Test Data

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Date: _____

Contractor Name: _____

Contractor License #: _____

Permit #: _____ Application #: _____

Job Name: _____

Job Address: _____

Hood Location: _____

Plan Sheet #: _____ Testing Equipment Type: _____

1. Type of Hood: _____

2. List all equipment under hood: _____

3. Actual Hood Size:

_____ ft. X _____ ft. = _____ sq ft.
(hood width) (hood Length) (hood Area)

4. Required quantity of air (see UMC 2012 for appropriate formula)

_____ ft X _____ ft. = _____ CFM
(hood width) (hood Length) (hood Area)

5. Actual Quantity of air as measured: _____ CFM
(actual volume)

6. Actual Total Filter Area: _____ sq ft.
(Filter area)

7. Filter Air flow rate per sq ft of filter are:

_____ CFM - _____ sq ft = _____ FPM
(CFM from #5) (filter area) (each filter)

8. Listed filter air flow rate = _____ FRM per filter
(as shown on filter)

9. Actual Duct Size:

$$\frac{\text{ft}}{\text{(front width)}} \times \frac{\text{ft}}{\text{(side width)}} = \frac{\text{sq ft.}}{\text{(duct size) (rectangular duct)}}$$

or

$$0.79 \times \frac{\text{ft}}{\text{(duct diameter)}} = \frac{\text{sq ft}}{\text{(duct size)}}$$

10. Actual Grease Duct Air Velocity:

$$\frac{\text{CFM}}{\text{(CFM from #5)}} - \frac{\text{sq ft.}}{\text{(Duct size from #9)}} = \frac{\text{FPM}}{\text{(Duct Velocity)}}$$

11. Required duct system air velocity for shop made hoods:

- a. 500 FPM (minimum)
- 2500 FPM (maximum)

Or

- b. Manufacturers stated velocity for listed hoods:

_____ FPM (minimum)
_____ FPM (maximum)

12. Makeup air source and size: _____
(size of source in total CFM)

THE EXHAUST AND MAKEUP AIR SYSTEMS SHALL BE CONNECTED BY AN ELECTRICAL INTERLOCK SWITCH.

Person performing test

Title and affiliation

FORMULA AND SIZING GREASE DUCT AND DETERMINING AIR VELOCITY

Using the following formulas, the velocity in a given size duct can be readily found. The minimum size allowance duct or the maximum size allowable duct may also be determined. By use of maximum velocities, shaft and duct sizes may be reduced to a minimum.

144 x Ah x f divided by Ad = V
144 x Ah x f divided by V min. = Ad (max)
144 x Ah x f divided by V max. = Ad (min)

- Ah = hood area, in square feet**
- Ad = duct area, in square inches**
- F = exhaust factor, for type of equipment (UMC section 2002-g)**
- V = velocity, in lineal feet per minute**
- V min = 500 lineal feet per minute**
- V max = 2500 lineal feet per minute**