



Clark County Building Department

4701 West Russell Road, Las Vegas, NV 89118 ~ (702) 455-3000

Kitchen Hood Test Data

James Gerren, P.E., Director

Werner Hellmer P.E., Deputy Director Scott Telford P.E., Deputy Director

DATE: _____

CONTRACTOR NAME: _____

T.A.B. APPROVED AGENCY: _____

PERMIT #: _____

JOB ADDRESS: _____

JOB NAME/TENANT: _____

HOOD LOCATION: _____

PLAN SHEET NO.: _____ TESTING EQUIPMENT TYPE: _____

1. TYPE OF HOOD: TYPE I TYPE II

LIST ALL EQUIPMENT UNDER HOOD:

2. ACTUAL HOOD SIZE:

_____ FT. X _____ FT. = _____ SQ. FT.
(Hood Width) (Hood Length) (Hood Area)

3. REQUIRED QUANTITY OF AIR:

_____ FT. X _____ FT. X _____ = _____ CFM.
(Hood Width) (Hood Length) (Formula) (Hood Exhaust)

4. ACTUAL QUANTITY OF AIR AS MEASURED: _____ CFM.
(Actual Volume)

5. ACTUAL TOTAL FILTER AREA: _____ SQ. FT.
(Filter Area)

6. FILTER AIR FLOW RATE PER SQ. FT. OF FILTER AREA:

_____ CFM - _____ SQ. FT. = _____ FPM
(CFM from No. 4) (Filter Area) (Each Filter)

7. LISTED FILTER AIR FLOW RATE: = _____ FPM PER FILTER
(As Shown on Filter)

8. ACTUAL DUCT SIZE:

$$\frac{\text{FT. X}}{\text{(Front Width)}} \times \frac{\text{FT.}}{\text{(Side Width)}} = \frac{\text{SQ. FT.}}{\text{(Duct Size) (rectangular duct)}}$$

OR

$$0.79 \times \frac{\text{FT.}}{\text{(Duct Diameter)}} = \frac{\text{SQ. FT.}}{\text{(Duct Size) (round duct)}}$$

9. ACTUAL GREASE DUCT AIR VELOCITY:

$$\frac{\text{CFM}}{\text{(CFM from No. 4)}} - \frac{\text{SQ. FT.}}{\text{(Duct Size from No. 8)}} = \frac{\text{FPM}}{\text{(Duct Velocity)}}$$

10. REQUIRED DUCT SYSTEM AIR VELOCITY FOR SHOP MADE HOODS:

1500 FPM (minimum)
2500 FPM (maximum)

OR

MANUFACTURERS STATED VELOCITY FOR LISTED HOODS:

_____ FPM (minimum)
_____ FPM (maximum)

11. 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

DATE OF TEST

TITLE & AFFILIATION

FORMULA FOR SIZING GREASE DUCT AND DETERMINING AIR VELOCITY

USING THE FOLLOWING FORMULAS, THE VELOCITY IN A GIVEN SIZE DUCT CAN BE REAIDLY FOUND. THE MINIMUM SIZE ALLOWABLE 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.

$$\begin{aligned} 144 \times Ah \times f \text{ divided by } Ad &= V \\ 144 \times Ah \times f \text{ divided by } V \text{ min.} &= Ad \text{ (max)} \\ 144 \times Ah \times f \text{ divided by } V \text{ max.} &= Ad \text{ (min)} \end{aligned}$$

- Ah = hood area, in square feet.
- Ad = duct area, in square inches
- F = exhaust factor, for type of equipment
- V = velocity, in lineal feet per minute
- V min. = 1500 lineal feet per minute
- V max. = 2500 lineal feet per minute