

FORM 1

DEPARTMENT OF HEALTH  
STATE OF HAWAII

NOISE & RADIATION BRANCH  
ENVIRONMENTAL PROTECTION &  
HEALTH SERVICES DIVISION

APPLICATION FOR PERMIT	
<input type="checkbox"/> Air Conditioning	<input type="checkbox"/> Ventilation

(Submit an original and a duplicate with one set of plans. One copy will be returned after review if permit is granted.)

I hereby apply for a permit on the project described below and enclose plans which were prepared by me or under my direct supervision. I certify that to the best of my knowledge the design is in complete accordance with the Air Conditioning and Ventilation Regulations of the Department of Health. (Except as noted under "Remarks.")

FIRM & ENGINEER				PROJECT			
Firm: _____ Engineer's Name: _____ Address: _____ City: _____ Zip: _____ Phone: _____				Name: _____ Address: _____ City: _____ Zip: _____			
Type of Occupancy: _____				Design Conditions: _____ Out: _____ DB _____ WB In: _____ DB _____ RH			
Unit or Zone No.*							Project Total
Area Served (Name)							
Conditioned Area, Sq. Ft.							
Persons Occupying							
Outdoor Air, CFM							
Supply Air, CFM							
Zone Total Heat, BTUH							
Unusual Heat, BTUH							
Equipment Capacity, Tons							
Exhaust: CFM							
: Location							
Remarks: _____							
DEPARTMENT OF HEALTH SECTION				ENGINEER'S CERTIFICATION			
Permit for installation, alteration or operation is granted in accordance with this application and its accompanying plans. This permit is revocable for cause. Within 60 days after completion of the system, the applicant shall notify the Department of Health in writing that the system is installed and operating substantially as designed.				Signature: _____  Date: _____			
Signature: _____ Name: _____ Title: _____							
PERMIT NO. _____		Date: _____		Engineer's seal shall be affixed			
Remarks: _____							

\*Attach additional pages if more data required.

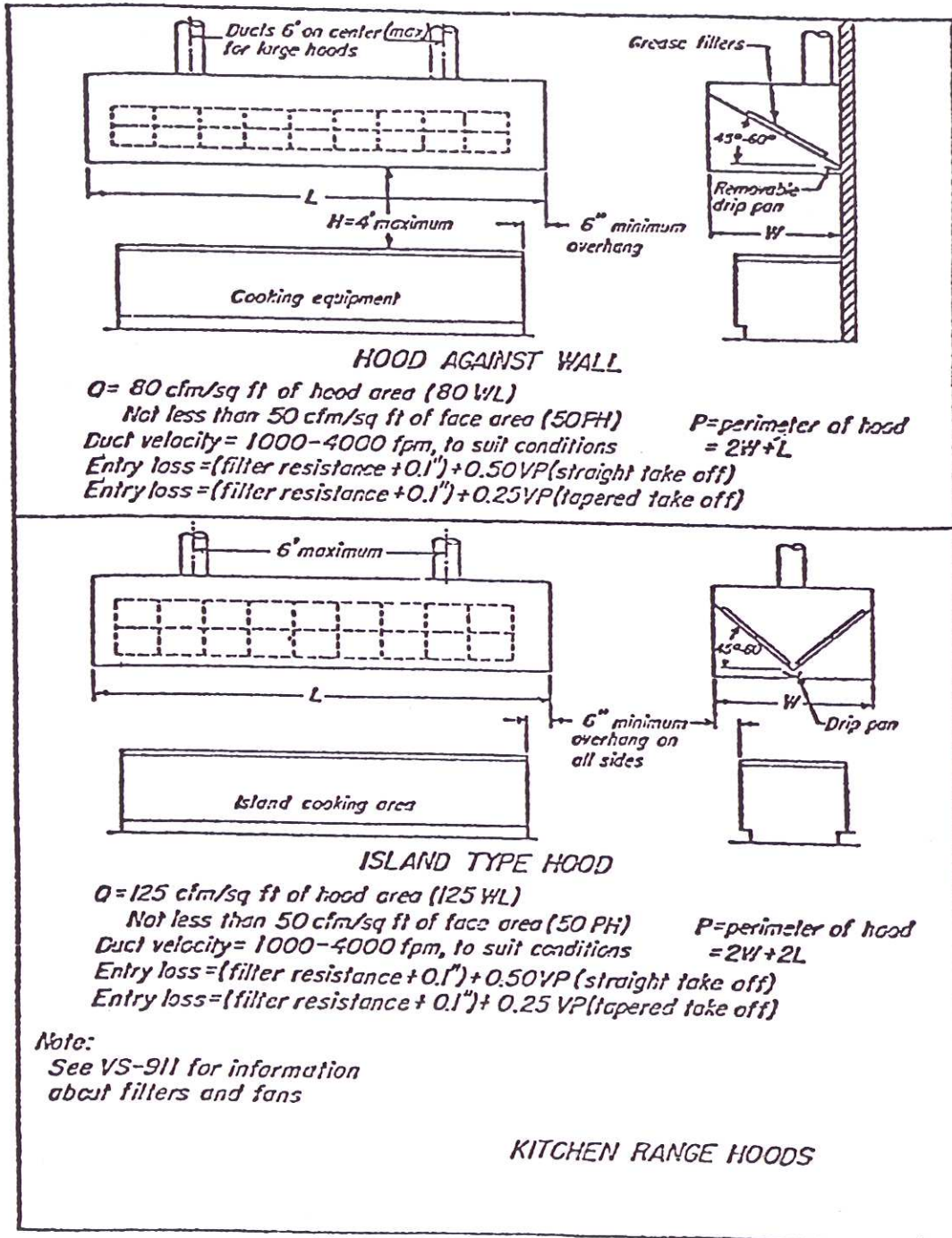
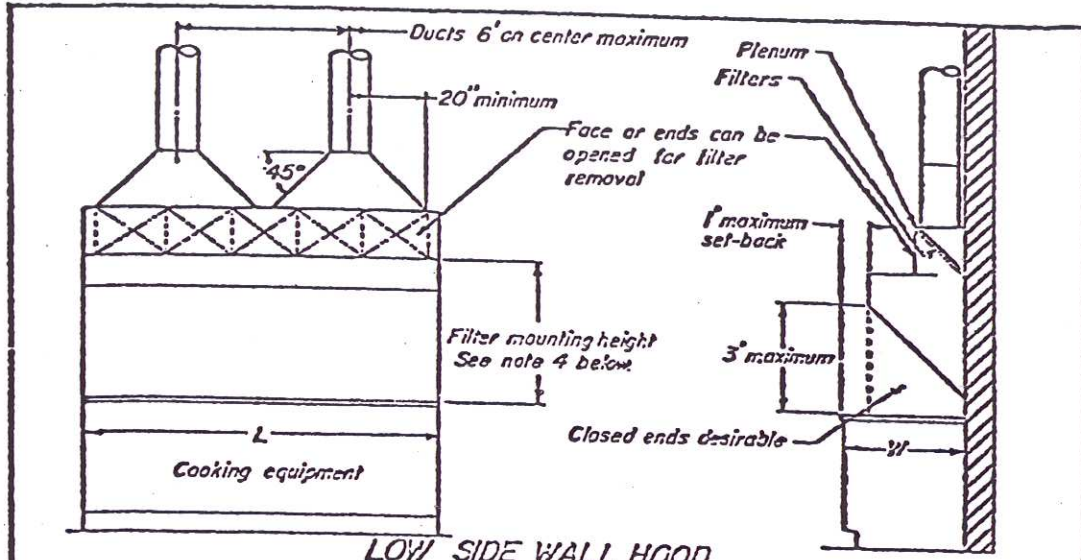


Figure 1



**LOW SIDE WALL HOOD**

$Q=200$  cfm/linear ft of cooking surface (200L)  
 Duct velocity = 1000-4000 fpm, to suit conditions  
 Entry loss = (filter resistance + 0.1") + 0.5VP (straight take off)  
 Entry loss = (filter resistance + 0.1") + 0.25 VP (tapered take off)

**NOTES FOR KITCHEN HOODS**

**Filters:**

1. Select practical filter size.
2. Determine number of filters required from manufacturer's data. (Usually: 2 cfm maximum exhaust for each sq in of filter area)
3. Install at 45°-60° to horizontal. Never horizontal.
4. Filter mounting height (Reference 65)
  - a. No exposed cooking flame—1½' minimum to lowest edge of filter.
  - b. Charcoal and similar fires—4' minimum to lowest edge of filter.

5. Shield filters from direct radiant heat.
6. Provide removable grease drip pan.
7. Clean pan and filters regularly.

**Fan:**

1. Use upblast discharge fan. Downblast is not recommended.
2. Select fan for design Q and SP resistance of filters and ductwork.
3. Adjust fan specification for expected exhaust air temperature.

**KITCHEN RANGE HOOD**

Figure 2