



City of Santa Monica  
Building and Safety Division

**Residential Rough Mechanical Checklist**

**This is to be used as a general checklist; it is not inclusive of all code requirements and inspection criteria.**  
**Per California Mechanical Code (CMC)**

**ROUGH MECHANICAL – GENERAL**

- Equipment shall be listed (and labeled) for its use. All equipment installed per manufacturer's installation instructions, which must be on site when inspector arrives. [CMC 303.1]. Appliances anchored to resist seismic forces.
- Primary condensate shall terminate in the tailpiece of a lavatory or an approved location (drywell ok), not to drain to public way. Shall be a minimum 3/4" with a slope of 1/8" per foot. [CMC 309.1]
- Secondary condensate to terminate in a conspicuous location. [CMC 309.2]
- Gas fired equipment, in bedroom, bathroom, and closet leading to a bedroom/bath shall comply with CMC 904.
- Type B or L vents-Horizontal vent maximum 75% to the length of the vertical (Horizontal equals less than 45 degrees from vertical, minimum vent slope 1/4" per foot). [CMC 802.6.1.1]
- Clearance to combustibles: single wall vent 6", double wall (B, L and BW) vent 1" (minimum) [Table 8-2]
- Vent terminations per section CMC 802.6.2.
- Main gas shut off valve ahead of meter, outside & readily accessible. [CPC chapter 12]
- Gas test – minimum 10 minutes, twice working pressure, gauge twice test pressure.
- Gas (appliance) connector shall not pass through a building or appliance wall. [CMC 1312.2]
- Roof top equipment screening requirements. [SMMC 9.04 & 10.02.140]
- Equipment on roof buildings of more than 15 ft. in height shall have an inside means of access to roof and shall have a guard minimum 42" high and prevent passage of 21" sphere, if equipment is within 10' of roof edge. [CMC 304.1.2 and CBC 1013]
- Smoke alarms and Carbon Monoxide detectors per California Building Code sections 907 and 420 respectively.

**ENVIRONMENTAL AIR DUCTS: including dryers, bath exhaust, and range hoods**

- Terminate minimum 3ft. from building opening or property line. [CMC 504.5]
- Back draft damper required. [CMC 504.1]



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### **CLOTHES DRYER**

- Flexible gas connector maximum 6 feet and not concealed. [CMC 504.3.2.1]
- Duct shall be smooth metal inside and a maximum 14' with two 90-degree elbows (subtract 2ft. for each additional elbow) shall terminate outside. [CMC 504.3.2.2]
- Minimum diameter 4". [CMC 504.3.2]
- No screws allowed into airflow. [CMC 504.3.1]

### **BATHROOM EXHAUST FAN**

- Rooms containing bathtubs, showers, spas (bathing fixtures) or water closets shall have mechanical ventilation. [CBC 1203.4.2.1]

### **RANGE**

- Vertical clearance above range 30" minimum to combustibles. [CMC 916.1]
- Gas valve readily accessible (no tools or special knowledge required). [CPC1212.4]
- Install per manufactures listing. Typically 18" minimum clearance to combustibles (cabinets) within 2-3" horizontally.
- Hood and duct made of metal with smooth interior surfaces. [CMC 504.2]

### **ATTIC/FORCED AIR**

- Minimum opening for access to attic with equipment 22" x 30" or large enough to remove the unit. [CMC 904.11.1]
- Maximum Distance from opening 20 feet. [CMC 904.11.2]
- Solid floor from access door minimum 24 inches wide. [CMC 904.11.3]
- Minimum 30" deep level platform in front of fire box with 30"X30"X30" clear space in front of unit. [CMC 904.11.4]
- Minimum attic height 30" (at access). [CBC 1209.2]
- Switched light at access [CMC 904.11.5]
- One 20 amp dedicated circuit to unit, unit hardwired per S.M.M.C.
- GFCI outlet (on separate circuit) for service.

### **DUCTS Chapter 6**

- Seismic restraint per CMC 604.2.4.
- Duct supports per Table 6-7.
- No combustibles within ducts or plenums, some exceptions see CMC 602.2.
- Joints shall be taped or gasketed airtight. [CMC 602.4]



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### **COMBUSTION AIR Chapter 7**

- Minimum vent area 1 sq. in. per 4,000 Btu/hr. each (direct to outdoor, vertical venting).
- Minimum vent area 1 sq. in. per 2,000 Btu/hr. each (direct to outdoor, horizontal venting). [CMC 701.4.1]
- Dampers shall not be installed in combustion air ducts. [CMC 701.11]

### **UNDER FLOOR/FORCED AIR**

- FAU minimum support slab 3 inches above grade. CMC 904.3.1
- FAU minimum 6 inches above ground when suspended, 12 inch clear on each side [CMC 904.3.1]
- Required access (to service equipment) minimum 22"x 30". [CMC 904.11]
- Access maximum 20 ft. to equipment (unobstructed) with solid 24" wide floor.
- Light fixture at equipment with switch for light at access point. [CMC 904.11]
- GFCI outlet near equipment.
- Minimum 30" X 30" level work platform at equipment. [CMC 904.11]
- Minimum clearance metal duct to earth 4"/encasement under concrete 2". [CMC 604.2]
- Install and support flexible duct per manufacturer or SMACNA (with 1" strap every 4 feet).
- Air ducts installed under a floor in a crawl space shall be installed so as to maintain a minimum vertical clearance of 18" for all portions of ducts that would obstruct access to any part of crawl space. [CMC 604.1]

### **GARAGE/FORCED AIR**

- Min. 18" above floor and protected from vehicle damage. [CMC 604.4]
- Ducts through one hour fire-rated wall shall be a minimum 26 gauge.
- Combustion Air furnace /inside source. [CMC 701.2]
- Unconfined space is greater than 50 cu. ft./1000 Btu/hr. [CMC 223.0]
- Combustion air openings in upper and lower 12 inches of compartment. CMC 701.4.1

**Wall Furnaces- see CMC 928 and separate checklist**

**Kilns- see CMC 930**

**Forced Air Unit Changeout - see separate checklist**

**Type I Hood (Commercial Kitchen Exhaust)- see CMC Chapter 5 and separate checklist**