# Commercial Kitchen Hoods (Types 1 + 2)

## Design Guidance

This is a design review checklist for code requirements for commercial kitchen hoods including grease ducts and their connections to hood and roof exhaust fans, exhaust fan details, make-up air details and suppression systems, etc. Please ensure the following items are fully addressed in the design documents. Also note that this list is a minimum scope of what we will be reviewing. Additional or result and issues may arise as these items are addressed.

## Type I Hoods

**IMC SECTION 507.2** requires Type I hoods "where cooking appliances produce grease or smoke as a result of the cooking process".

1. **Show/note all cooking equipment that must be provided with a Type I hood.**
2. **UL listing for the Type I kitchen grease hoods to be installed.** See IMC 507.1.
3. **Provide a heat sensor or other device to ensure the automatic operation of both the kitchen hood and the make-up air systems upon activation of the cooking devices.** See IMC 508.1.

### Use Applications:

- **Extra Heavy Duty (IMC 507.2.2):** Type 1 hoods over these appliances shall not cover other appliances that require fire extinguishing equipment and such hoods shall discharge to an independent exhaust system.
- **Fuel-burning Appliances (IMC 507.1.3):** Provisions shall be made to prevent the hood system from interfering with the normal operation of the vents for these appliances.

### Materials (IMC 5.7.2.3):

- **Type I hoods shall be constructed of steel that is a minimum .0466 inch thick or stainless steel that is minimum .0335 inch thick.**

### Supports

- **Supports shall be noncombustible and capable of supporting the hood, adjacent ductwork, the effluent load and the possible weight of the personnel working in or on the hood.** IMC 507.2.4.

### Joints, seams, penetrations (IMC 507.2.5):

- **External hood joints shall be made with a continuous liquid-tight weld or braze to the lower outermost perimeter of the hood.**
- **Internal joint, seams, penetrations, filter support frames, and other appendages shall not be required to be brazed or welded, but shall be sealed grease tight.**

### Cleaning, grease gutters (IMC 507.2.9):

- **The hood shall be designed to allow thorough cleaning of the entire hood.** Grease gutters shall drain to an approved collection receptacle that is also easily cleaned.

### Clearances (IMC 507.2.6):

- **Provide a minimum 18 inch clearance from the Type 1 grease hood to any combustible material.**
- **Clearance is not required for gypsum board attached to noncombustible structures provided that a smooth, cleanable, nonabsorbent and noncombustible material is applied between the gyp board and the hood.**

### Makeup Air (IMC SECTION 508):

1. **Provide exhaust and makeup air calculations for the kitchen or the entire space as applicable.** Include all sources of exhaust air and make-up air.
2. **Provide an interlock device between all exhaust and makeup air units to insure simultaneous operation when active.**
3. **Provide a heat sensor or other device to insure the automatic operation of both the kitchen hood and the make-up air systems upon activation of the cooking devices.**

## Type II Hoods

**IMC SECTION 507.3** "SHALL BE INSTALLED OVER COOKING OR DISHWASHING APPLIANCES THAT PRODUCE HEAT, STEAM OR PRODUCTS OF COMBUSTION AND DO NOT PRODUCE GREASE OR SMOKE SUCH AS STEAMERS, KETTLES, PASTA COOKERS, AND DISHWASHING MACHINES."

1. **Materials should be steel not less than 0.0296 (22 gauge), stainless steel that is 0.0220 (24 gauge) or copper weighing 0.0220 not less than 24 oz. per sq ft.**
2. **Supports shall be noncombustible and capable of supporting the hood, adjacent ductwork, the effluent load and the possible weight of the personnel working in or on the hood.** IMC 507.3.2.
3. **Joints, seams, and penetrations shall be constructed as set forth in IMC Ch. 6.** Shall be sealed on the interior of the hood and provide a smooth surface that is readily cleanable and water tight. IMC 507.7.3.3.