Venting Wood Stone Stone Hearth Ovens

Refer to venting and installation instructions which are found in the installation manual.

Pertinent venting codes for Commercial Cooking Equipment: NFPA 96, International Mechanical Code (IMC) and your local code.

Local code enforcement: City or County Building Dept., Fire Marshall or Fire Dept., Health Dept.

Direct Connect Venting Method

Direct Connect

ADVANTAGES:

Cost, simplicity Aesthetics: no hood sticking out

DISADVANTAGES:

High exhaust temperatures prevent the use of fire suppression systems | No filters or spark arrest features | Cannot tie into other duct systems | Uncommon in larger buildings | Not all jurisdictions allow | Not suitable for some Fire Deck models (6045 & 8645)

While code states ovens producing grease and/or smoke require Type 1 hood, NFPA 96 recognizes Direct Connect for solid fuel (IMC does not). So... acceptance at discretion of jurisdiction.

Hood Venting Method

Type 1 Hood

ADVANTAGES:

DISADVANTAGES:

Initial cost | Some (surmountable) aesthetic challenges

MUST overhang front of the oven in accordance with hood Listing. If not Listed, in accordance with NFPA 96 or IMC (Listed hoods will generally have a smaller footprint & CFM requirement than NFPA 96 / IMC built hood.)

Type 1 hoods require fire suppression, per code.

Read down for fuel type and across for system component

FUEL

Gas only

Solid fuel involved

Gas only

Solid fuel involved

DUCT

VENT TYPE

Use a grease-rated duct fabricated in accordance with NFPA 96 or International Mechanical Code, or a Listed grease duct.

Attach duct to collar on oven with full perimeter weld or Listed connector.

Attach duct to collar on hood with full perimeter weld or other approved method, per NFPA 96, IMC.

Install duct run in accordance with NFPA 96, IMC. Pay particular attention to clearances, clean out locations.

Multistory locations will likely require a fire-rated chase.

Hood can share duct with other gas equipment. Balancing tamper may be req. Solid fuel appliances can share duct with other solid fuel appliances.

FAN

Fan termination at roof in accordance with NFPA 96, IMC.

Non-solid fuel equipment may be terminated on side of building per NFPA 96, IMC and local codes.

Solid fuel must be terminated vertically above the roof.

may be terminated on side of building per NFPA 96, IMC and local codes.

Non-solid fuel equipment

Solid fuel must be terminated vertically above the roof.

No in-line fans because of high temperatures.

Avoid in-line fans.

No in-line fans.

AIRFLOW

Obtain airflow requirement from installation manual.

the specific duct run (length, duct dimensions, # of elbows &

airflow requirements) to size the fan.

System designer / Mechanical engineer will take info about

System designer

System designer / Mechanical engineer will take specifics pertaining to duct run (length, duct dimensions, # of elbows & hood specs) to size the fan.

Obtain CFM & static pressure rating for hood.

Use a fan! Minimizes down drafts & the influence of other venting equipment.

Use a fan! Hood will not work without a fan.

Make-Up Air (MUA)

For the system to work properly, make-up air MUST be provided whenever the oven venting system is running.

Make-up air should equal CFMs removed.

Never modulate airflow to a stone hearth oven as it will cause erratic performance. Demand systems, such as Marvel, Melink—These systems MAY be used to interlock, but NOT to modulate airflow.

INTERLOCK

2-Pole Switch

Interconnect Relay

Not an option.

2-Pole Switch

Interconnect Relay

Autostart

FIRE SUPPRESSION

Fire suppression system not an option for Direct Connect due to high exhaust temperatures in the duct.

Fusible link and duct / plenum nozzles installed in hood. Tied into gas shut-off for oven. May also be tied into fan, alarm, etc. per local requirements.

Not recommended: directing nozzles into oven. Cool liquid + hot ceramic = bad

Nozzles into the oven do not add any benefit since fuel is shut off to oven.

Nozzles into oven may be necessary evil, or, per code, a hose nearby may be required to extinguish the solid fuel fire.

CLEANING

3 months or as necessary

At **least** monthly

3 months or as necessary

At **least** monthly