

Exhaust Venting

WARNING: IT IS THE CUSTOMER'S RESPONSIBILITY TO MEET ALL STATE AND LOCAL CODES, AND INSURANCE REQUIREMENTS. IMPROPER INSTALLATION OF THE EXHAUST STACK COULD CAUSE AN EXPLOSION THAT MAY RESULT IN EQUIPMENT DAMAGE, PERSONAL INJURY OR POSSIBLE DEATH.

We recommend you contact your local building inspection service or a qualified mechanical contractor for specific recommendations and/or requirements on your system.

Despatch Industries is not a mechanical contractor.

THE FOLLOWING INFORMATION IS A TYPICAL GUIDELINES ONLY!

- Oven Exhaust — The diameter of the exhaust stack should be sized so that it's area in square inches, is equal to/or greater than the area in square inches of the equipment's exhaust discharge opening (forced or gravity).

*Example: exhaust discharge outlet is 3.5" by 8.5" (area = 3.5 x 8.5 = 29.75). The area of a 7" diameter stack is equal to 3.14 times the vent stack radius squared (area = 3.14 x (3.5)² = 38.48).**

- Indirect Fired Burner Exhaust — The diameter of the exhaust stack should be sized by one the following methods which ever is larger (forced or gravity):
 - One pipe diameter larger than the burner's radiant tube exhaust discharge diameter.
 - 1.5 times the area in square inches of the burner's radiant tube exhaust discharge.
- We recommend that the exhaust stack be a vertical run straight up without restriction.
 - When using more than two (2) elbows, we recommend that you go to the next largest pipe size to reduce the static pressure. **Using more than four (4) elbows is not recommended.**

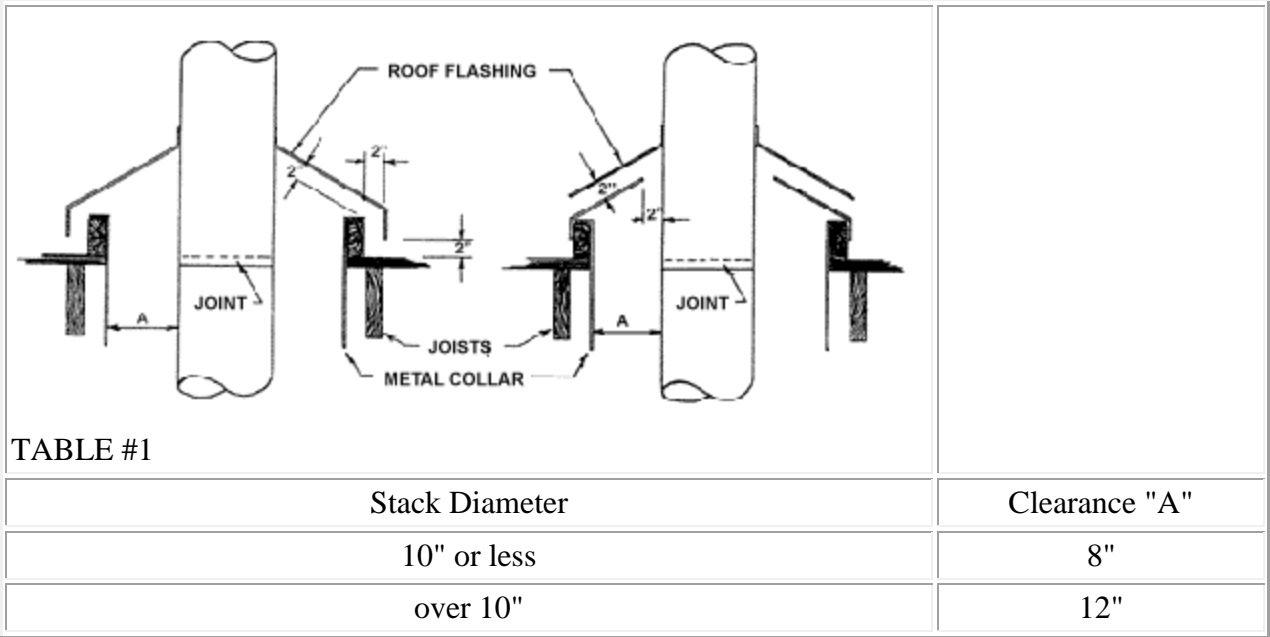
Note: Volume of Air in Cubic Feet per Minute (**CFM**) is equal to the Air Velocity in Feet per Minute (**FPM**) times the area (**Ft²**)

We hope you will find this information useful. THANK YOU for contacting us and allowing us to be a service to you. Please contact us at 1-800-473-7373 if you have any questions.

Typical exhaust duct installation for passing through combustible roofs when the stack temperature are below 650

- All hot exhaust ducts must have the space around them ventilated to keep the temperature of the surrounding combustible surfaces below 160°f.
- Metal collars must be provided around roof openings in combustible material.
- Rain shields must be provided with suitable clearances to ventilate the space around the hot duct, as shown in the following figures #1 and #2.
- Rain caps (not shown) must not be of the design to deflect the hot air directly on the roof.

Figure #1 & Figure #2



Typical exhaust duct installation for passing through combustible roofs when the stack temperature are 650 F or above.

- All hot exhaust ducts must have the space around them ventilated to keep the temperature of the surrounding combustible surfaces below 160°F.
- Metal collars must be provided around roof openings in combustible material.
- Rain shields must be provided with suitable clearances to ventilate the space around the hot duct, as shown in the following figures #3 and #4.
- When exhaust temperatures reach or exceed 1050°F, it is necessary to provide an insulated exhaust stack as shown in Figure #4. Also make sure that the roof flashing is fastened to the insulated portion of the stack.
- Rain caps (not shown) must not be of the design to deflect the hot air directly on the roof.

Figure #3 & Figure #4
(650°F to 1050°F) & (Over 1050°F)

TABLE #2

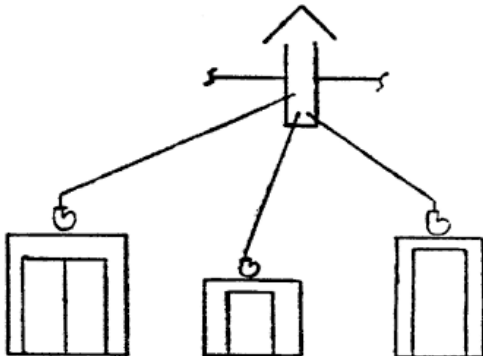
Stack Diameter	Clearance "A"	Clearance "B"
10" or less	4"	9"
over 10"	6"	12"

Commoned Exhaust Stacks

Separate ovens should not be commoned together in one exhaust stack because a differential pressure in the wrong direction is possible due to room pressure when running only one oven.

The exhaust from running oven(s) can fill up inside non-running oven(s) instead of venting outside via the exhaust stack.

This method should not be used!



One common exhaust blower fan system can be used, but it must be proven to be operating before any of the ovens are operated. This also presents a problem to balance the exhaust flow from each oven. It is necessary to insure that each oven is exhausting the correct airflow.

The best way is to provide individual stacks for each oven with their own roof opening or running individual stacks through one opening in the roof.

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