POWERPOINT
7-3-1

SCRIPT
Let's review why clearances are so important.

HOT SPOT
Proper clearances prevent unwanted fires.

PROMPT
Where do you measure clearances from?

PROMPT
How can combustibles that are too close catch fire if no flame is present?

Clearances are critical, years after the installation.

SCRIPT

HOT SPOT
Firestops are important to safety and therefore get close attention from inspectors.

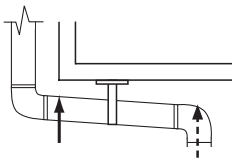
Section 7 Direct Vent / Topic 3 Pipe Clearances

Session 1: UNDERSTAND THE IMPORTANCE OF MAINTAINING MINIMUM CLEARANCES FOR DIRECT VENT PIPE.

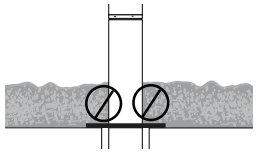
The high temperatures that direct vent pipe can reach require that safe distances from combustible materials, or clearances, be maintained. These clearances vary greatly depending on the manufacturer and are NOT indicated on the direct vent pipe itself.

Clearances are given as minimum distances between the pipe and any combustible material — including joists, trusses, studs, sub floors, plywood, drywall, plaster enclosures, insulating sheathing, rafters, roofing, and many other materials. These clearances must be open airspace free of any other materials, combustible or not, including insulation, wiring, and ductwork.

1. Make sure that the minimum clearance is met or exceeded in all installation situations.
   a. Fire can result from failure to meet clearances.



2. Clearances are measured from the pipe to the closest surface of adjacent materials.
   a. Some manufacturers may require horizontal pipe to have an upward slope. Measure clearances from the highest point on the sloped pipe to the nearest combustible surface.
   b. You should also check the clearance from the top of a 90° elbow, since some manufacturers require greater clearances above the horizontal pipe attached to it.
3. No materials, whether combustible or not, are allowed in the airspace clearance.

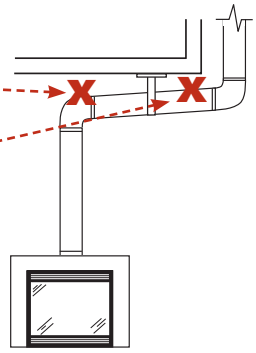


   a. Combustibles catch fire when they are heated to their ignition temperature.
   b. Ignition temperature of combustibles like wood framing lowers as they dry out over time.
   c. Combustible materials may scorch and smolder before they catch fire, but that may not be noticed if they are concealed.
   d. Flame does not have to be present, just enough heat.
4. As an important safety feature, clearances are "hot spots" for many local inspectors. Proper installation will prevent call backs.

7-44

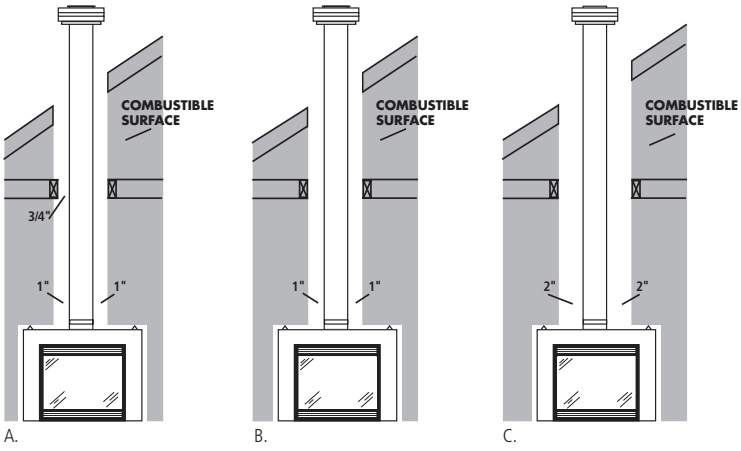
Exercises

1. Mark on the elbow directly above the fireplace the closest possible point to the combustible surface above it.
2. Mark the offset pipe connected to the elbow on the point that is the closest possible distance from the combustible surface above it.



3. Which of the following would be acceptable if the installation instructions state: "for vertical pipe, a 1" clearance to combustibles must be maintained."

❑ A ☑ B ☑ C



4. Can noncombustible insulation be allowed to be in contact with the vent? Why?

no; because insulation transfers heat to adjacent combustibles and because it blocks the cooling effect of heated air rising and pulling in cooler air that keeps nearby combustibles below their ignition temperature