Check Code Requirements for Safe Fireplace Stone Facing and Fireplace Wood Mantel Installation

Building codes vary across the country regarding the amounts of space between the wood-burning firebox opening and the nearest combustible material such as a wood fireplace mantel. Also, each manufacturer of pre-fabricated metal fireplaces specifies safety clearances required for each box they manufacture. When thinking about and selecting a new mantel, one of your first steps should be to check with your local building code compliance office (and/or the manufacturer) to see what fire hazard clearances you need. Wood burning, gas burning, and electric fireboxes likely all have different clearance requirements.

As a general rule (as shown in most all the photographs of mantels and fireplaces throughout our website,) you will need 6" to 8" of non-combustible material on the sides of the firebox and 12" of non combustible material on the top of the firebox. This space is from the firebox opening to the nearest combustible material, such as the inside edge of a wood mantel leg. The facing material will need to be at least ½" larger than the minimum code spacing requirement on each side and the top so that the fireplace mantle can overlap the outer edges of the facing material. *MantelCraft* mantels are designed to fit the facing in this manner since the overlap provides a simple yet neat and professional finish between the facing material and the mantel. Once you know what the code requires and where the facing will overlap the firebox, you can determine the size of the facing material.

How to figure stone fireplace facing material sizes (usually in granite, marble, or slate)

To determine the facing leg width:

Fireboxes are made so that the facing material can be placed flush with the fireplace opening. Fire codes will require at least 6" to 8" of non-combustible facing material on each side of the firebox. The length of the facing leg is determined by where the facing header will be positioned on the top of the firebox. (Note: The facing header **CANNOT** cover any louvers on the firebox.)

To determine the stone facing header height:

If code requires 12" of space above the top of the firebox opening, and you have 6" of louvers on the top of the firebox exposed, subtract the 6" of exposed firebox from the 12" code requirement and add 1/2" for the mantel overlap. You will need at least a 6-1/2" tall stone facing header. The length of the facing material header is determined by where the legs are positioned. The header is at least the same length as the measurement from outside-to-outside of the installed stone facing legs.

THESE FACING SIZES REPRESENT THE *MINIMUM SIZE* OF FACING MATERIAL NEEDED. The facing material could be larger and be overlapped by the mantel; several inches of facing that doesn't show after a mantel is installed can be hidden behind the mantel leg and/or mantel header/breastplate.

How to Size a Mantel

Once you have the facing material dimensions you can determine the maximum mantel opening dimensions.

Mantel opening width " \mathbf{A} " = facing material header length minus 1" (1/2" overlap each side)

Mantel opening height "**B**" = facing material leg length plus facing material header width minus 1/2" (1/2" overlap on top)

Mantel return depth "**C**"= 1-1/2" (if your stone facing is 3/4" thick or less) Mantel return depth "**C**"= Your stone facing thickness plus 1"

Important! Once you determine your A-B-C dimensions...

Make sure the shelf length of the mantel you have just sized will fit your wall space and make sure the mantel body width will fit on your hearth (if you are using a hearth.) You can calculate all the other specifications for your mantel looking at the dimensions chart on our mantel product pages, for example:

Mantel Body Width = mantel opening width plus two leg widths

Mantel Shelf Length = mantel opening width plus two (Leg + Shelf Overhang)

Mantel Overall Height = Mantel Opening Height plus mantel breast dimension

Mantel Shelf Depth = return depth plus the factor given in the dimension chart

MantelCraft - America's choice for Fireplace Mantels

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