

Required Clearance to Combustibles

IMPORTANT: The manufacturer is not responsible for installation and use practices that are beyond the scope of the product as defined in the product listing and in this installation manual.

Sheathing materials, such as plywood, particle board, and drywall, may cover the smoke dome front at 0" clearance. All combustible sheathing materials that protrude beyond front of firebox:

Models 28, 36, 42, and 48 (see Figure 2):

- Sides: 8" away
- Top of opening: 8" away

Drywall must be cut back from the firebox opening sides and above the top of the opening according to information above.

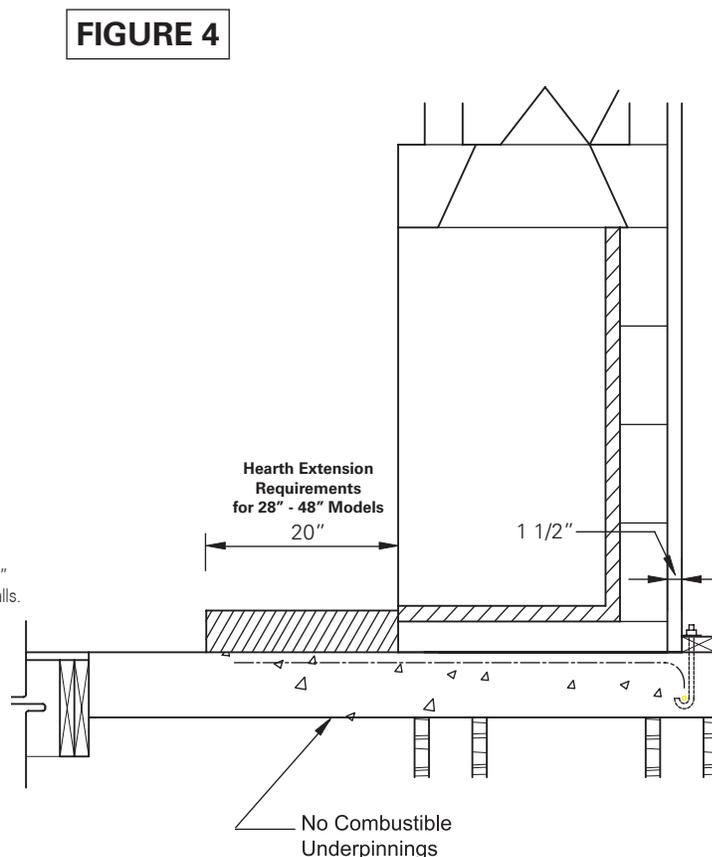
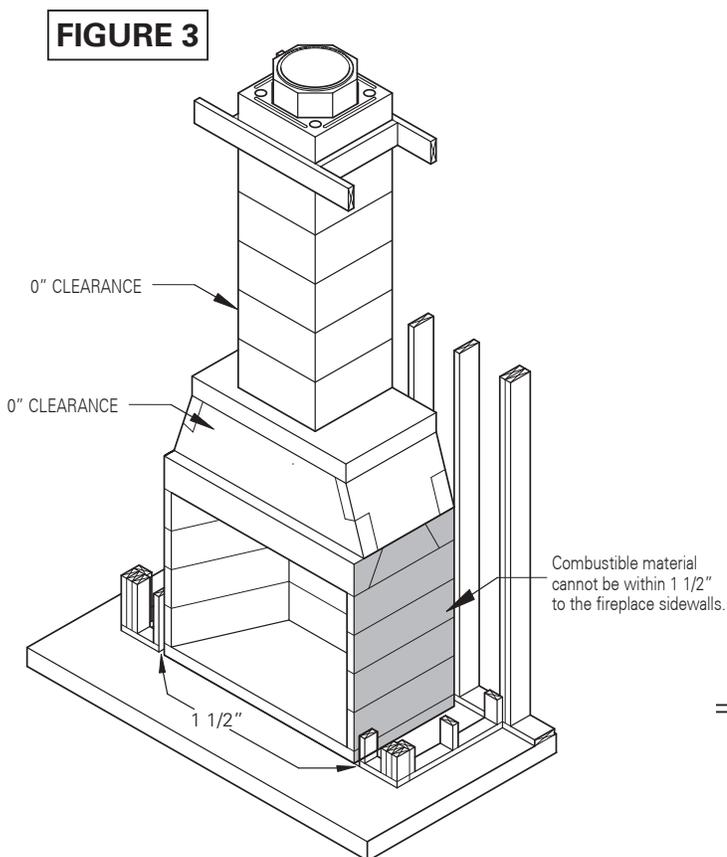
EXCEPTION: If insulation is used in walls surrounding the fireplace, insulation may be installed behind sheathing of gypsum board, plywood, particle board or other material on the side facing the Isokern. The facing material cannot be within 1 1/2" to the fireplace side walls.

The MAGNUM Series fireplace must sit upon a concrete support slab designed to bear the total installed weight of the fireplace and DM chimney system. These support slabs can have no wood underpinnings (**Figure 3**). See page 18 for more information on weight loads.

Concrete support slabs for MAGNUM Series fireplaces must provide the non-combustible hearth extension substrate needed to support the code required non-combustible hearth extension finish materials (**Figure 4**).

All MAGNUM Series fireplaces shall have hearth extensions of approved non-combustible material such as brick, tile, or stone that is properly supported and with no combustible material against the underside thereof. Wooden forms used during the construction of hearths and hearth extensions must be removed when the construction is complete.

If a raised fireplace floor and raised hearth extension are preferred, the raised underlying structure must be built of non-combustible material, be structurally designed to hold the weight of the fireplace and chimney system and must sit on non-combustible substrate.



Supporting Floor System

The MAGNUM 28, 36, 42, and 48 Fireplaces are not rated for installation on a combustible floor system unless used in the **Fire-Lite Application** (see Page 23). Fireplaces must be built upon a concrete support slab with no wood underpinnings. Proper reinforced concrete support slab for fireplace installations may include the following types:

1. Slab on grade: standard residential, minimum four inch (4") thick, 2500 psi concrete foundation on properly compacted fill. This type foundation can support Isokern installations up to thirty feet (30')* overall height without additional structural support. (brick ledge installations not included) **(Figure 5).**

* Minimum height. See page 3 for specific models.

2. Slab-on-grade foundations, thickened and reinforced: for additional load carrying **(Figure 6).**

3. Off-grade slab on foundation walls and footings. Projects with off-grade floor systems as well as upper story installations require this type of support. When building off-grade support slabs the code required hearth extension substrate should be built as a continuation of the support slab for the fireplace unit **(Figure 7).** Supports for off grade slabs must be concrete or steel and capable of supporting the slab, Isokern unit and the chimney.

For multi-floor and back-to-back installations, proper weight computation on an individual basis is required. Consult a local structural engineer for load bearing requirements.

IMPORTANT: Foundations and footings must meet local code and be approved by the local building authority. For any foundation design and load requirements check with a local structural engineer. **It is the responsibility of the General Contractor to insure adequate foundations.**

Fireplace weights* and "foot print" areas: The total fireplace weight and footprint for each model listed below includes: Fireplace pumice components only:

MAGNUM 28: 1040 lbs. @ 35.5" x 28" = 6.9 sq.ft.

MAGNUM 36: 1300 lbs. @ 43" x 28" = 8.4 sq.ft.

MAGNUM 42: 1420 lbs. @ 49" x 28" = 9.5 sq.ft.

MAGNUM 48: 1600 lbs. @ 53" x 28" = 10.3 sq.ft.

"Footprint" areas listed above are base plate dimensions for each model and are exclusive of code required hearth extension areas. See page 59 for hearth extension dimensions.

NOTE: Additional support slab area may be required at the side or back of the MAGNUM unit to provide bearing for structural supports to a DM offset chimney sequence. (See pages 32-34 for offset chimney support requirements.)

FIGURE 5

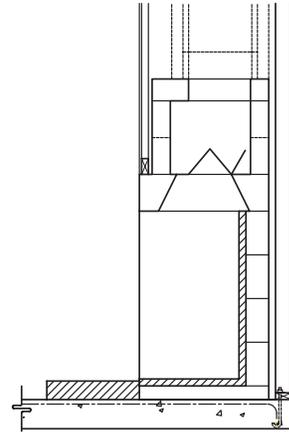


FIGURE 6

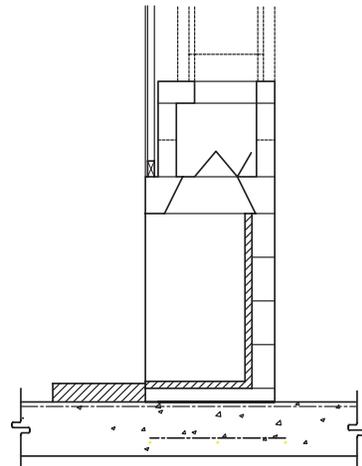
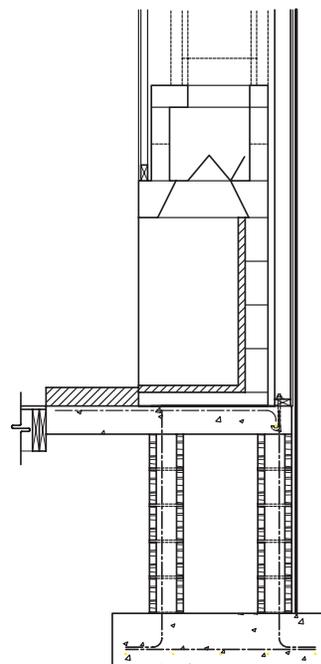


FIGURE 7



Clearance to Combustible Trim - 28, 36, 42 & 48 Models

Hearth Extensions

All MAGNUM 28, 36, 42, and 48 Fireplaces shall have hearth extensions of brick, concrete, stone, tile, or other code approved non-combustible material. Suitable hearth extension material for the fireplaces shall be placed on the hearth extension's non-combustible substrate and must extend to at least twenty inches (20") in front of the fireplace's finished opening and must extend to at least twelve inches (12") beyond the sides of the finished fireplace opening (**Figure 68**).

WARNING: The non-combustible hearth extension, by code, must sit on non-combustible substrate, which shall have no wood underpinnings. This means that off-grade wood floor systems shall be constructed in such a way that all wood floor joists and sub-flooring shall stop twenty inches (20") out from the front of the firebox (**Figure 69**).

Mantle and Mantle Shelf Clearances

Fireplaces are subject to the same building code safety clearances to combustible trim as with any radiant heat fireplace.

All combustible trim shall be kept at least eight inches (8") from the finished fireplace opening.

Combustible trim located along the sides of the fireplace opening, which project more than one and a half inches (1 1/2") from the face of the fireplace, shall have additional clearance from the eight inches (8") equal to the projection.

Combustible projecting mantles – up to twelve inches (12") of projection – shall not be placed less than fourteen inches (14") from the top of the fireplace opening. Combustible mantles, which project more than twelve inches (12") from the face of the fireplace, shall have additional clearance from the fourteen inches (14") equal to the projection.

NOTE: The local authority having jurisdiction may require greater clearances for projecting combustible mantle shelves. Be sure to check local building codes regarding required clearances to projecting combustible mantles.

Adjoining Walls: Side walls and walls to rooms adjoining fireplace installations cannot be closer than twenty-six inches (26") to the finished fireplace opening.

NOTE: "Clearance to Combustible Trim" are those distances required to ensure that a fireplace mantle or facing will not catch fire. In most cases, the distances should also be adequate to prevent any discoloration or warping due to heat. However each installation presents a unique and completely different set of circumstances involving many variables.

These include paint or finish composition, previous exposure to heat, methods and quality of construction, air flow patterns, etc. Because of these variables, the manufacturer does not guarantee that heat warping or discoloration will never occur.

FIGURE 68

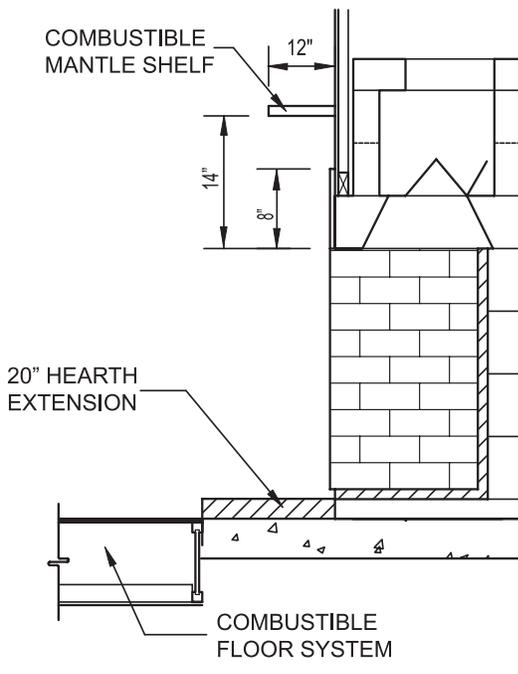


FIGURE 69

