

# valor® H3 1000K

June 2020

1/2

## New Construction Applications - Cement Board and Wall Finish

### Non-combustible cement board (not required with -RC backing plates)

The H3 fireplace, when installed in a new construction application, requires a 1/2" [13 mm] thick non-combustible cement board or equivalent, to be used as a wall surface immediately above the unit—see diagram for minimum coverage.

Non-combustible materials will not ignite and burn. Such materials are those consisting entirely of steel, iron, brick, tile, concrete, slate, glass or plasters, or any combination thereof.

Materials that are reported as passing ASTM E 136, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 °C shall be considered non-combustible materials.

Extending the cement board well beyond the minimum shown will help avoid cracking due to differential expansion of materials. Pre-drill cement board with oversized holes and do not over-tighten screws to avoid cracking due to heat expansion.

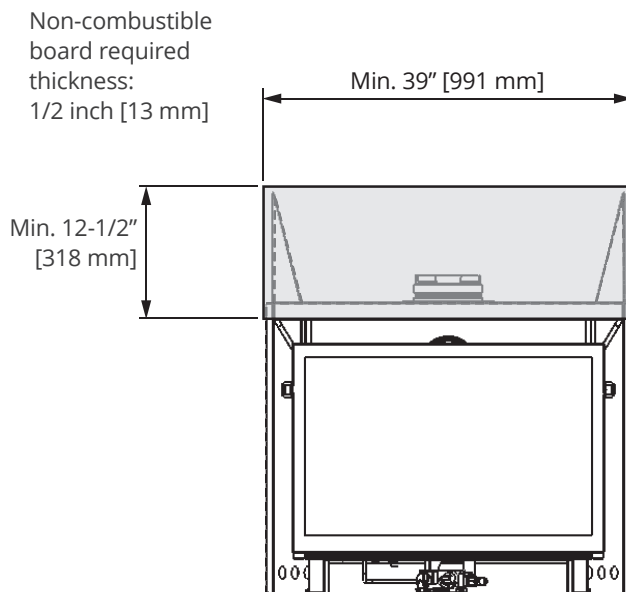
Standard gypsum wall board may be used beyond the perimeter of the cement board although it is preferable not to change materials to help avoid cracking.

### Finishing around trims

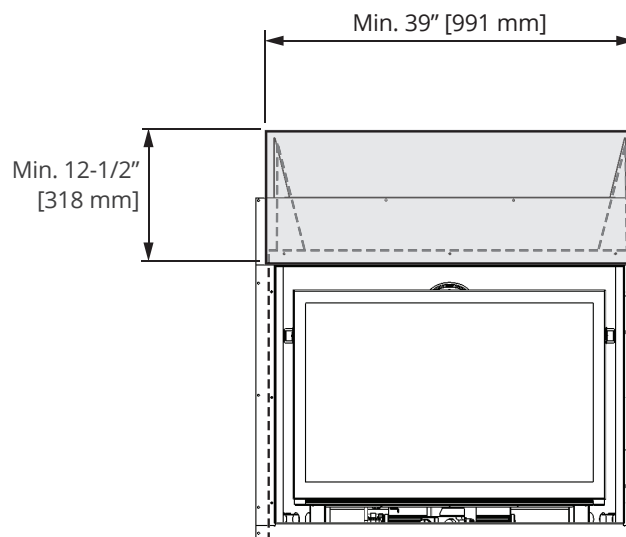
Additional non-combustible material such as tile, etc., may be applied over top of the wall surface or you may choose to leave it finished clean with no tile, etc.

The 1030 Clean Installation Kit installs at framing stage and must be installed at the same time as the appliance. Wall finishes butt up to frame of 1030 Clean Installation Kit.

### Minimum cement board dimensions



H3 with 1035BPB or 1040BPB



H3 with 1030CIK

## New Construction Applications - Cement Board and Wall Finish

New construction trims install after wall finish is applied. The perimeter of trims overlap wall finish; therefore thickness of any wall finish materials must be taken into consideration. Trims have enough adjustability to allow up to 3/4" thick non-combustible material applied over top of 1/2" thick non-combustible board.

Be aware that a trim is always required and that the wall finish thickness must be taken into account for all installations other than the Clean Installation Kit 1030CIK. Trims and fronts 1035 and 1040 will accept wall finish tucked under their edge up to approximately 1-1/4" thick.

### Cracking Wall Finishes

If a clean finish with no tile, etc. is desired, joints in the non-combustible board and the transition to gypsum board will require special attention if future cracking is to be controlled.

Shrinkage and differential movement of the framing and non-combustible wall board can transmit cracking through to tiles, etc.

Be aware that temperatures on the non-combustible wall surface above the appliance can exceed 200°F.

Below are some tips on how to best avoid any cracking:

- Always pre-drill screw holes through cement board and use screws with self-milling head.

- Allow materials to dry thoroughly before finishing the wall. Cement board has the ability to absorb up to 30 percent of its weight in water and may shrink as much as 1/8" over a 48" length when drying from a saturated condition. Running the fireplace for an extended period before final finishing will help drive out moisture.
- Always use mesh tape over joints.
- Always stagger joints in wall board.
- Behind joints, double up studs or use studs "on the flat" to add extra support to the joint. Adhesive on the backside of wall board behind any joints can help control differential movement.
- Use multiple, thinner coats of joint compound and allow to dry thoroughly between coats.
- Ensure framing materials are dry.
- After finishing the wall, introduce heat gradually to slowly dry any excess moisture rather than drying too fast.
- Avoid notching cement board or tiles around corners of window opening and instead provide a joint that intersects the corner.
- Avoid using large one-piece slab of material with a cut-out in the middle as a surround for the fireplace. Expansion above the opening will cause cracking at inside corners. Provide a joint that intersects the inside corner to avoid cracking.

