



Facade Tutorials

BISTRO HOME

Option

2

Flat Wall
Installation

Incorporating your Wood Stone Home oven into a facade.

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Initial Considerations



There are a virtually unlimited number of design possibilities available when integrating a Wood Stone Home oven into your kitchen. This booklet covers initial considerations, basic layouts and construction considerations to help you successfully incorporate your Wood Stone Home oven into a facade.



Because of its rectangular shape, Bistro Home ovens are often incorporated into a kitchen design by applying facade materials, such as tile, stone or brick, directly onto the oven exterior.

Alternatively, the shape of Mountain Home ovens makes them ideal for inclusion into a wide range of structural plans, including flat and curved walls, corners, cylinders and even freeform shapes.

To ensure a surprise-free facade installation with any model, the following considerations should be addressed early in the oven selection and design process:

1. VENTING & CLEARANCES

The oven must be connected directly to a grease-rated duct. Use either a manufactured grease duct listed to UL 1978, or a field built grease duct constructed in accordance with NFPA96 and other applicable codes. Grease duct is specifically designed to safely vent flammable grease-laden vapors from cooking equipment. B-vent or other common residential duct material should not be used. The facade design must allow for proper airflow and adequate clearances. See the [Installation and Operation Manual](#) on the Wood Stone Home website for details.

2. THE FAÇADE SURROUND

Do you want to install a finish wall across the face of the oven or install the oven within an enclosure? Will you fabricate the connection between the oven and facade or, in the case of Mountain Home ovens, use optional Wood Stone facade extensions? An extensive assortment of facade extensions has been designed to substantially reduce on-site fabrication and installation time, taking the guesswork out of the construction process and helping to ensure a durable, safe installation. A wide array of doorway, storage box and service panel facade extensions can be seen on the [Facade Extensions](#) section on the Wood Stone Home website.

3. FAÇADE MATERIAL UNDERLayment

If installing finish materials directly onto the oven, will underlayment be installed on-site, or will the oven be ordered facade-ready? Facade-ready ovens come with the non-combustible cement board underlayment pre-installed and ready for immediate application of the facade materials. Proper allowances are made for combustion air openings, and relevant components are extended to accommodate the depth of applied materials to create a clean finished look. All finish material must be non-combustible.

4. STUCCO-READY OVENS

For a traditional look, Mountain Home and Bistro Home ovens are available stucco-ready. The sheet metal oven body exterior is omitted, and instead the fully-insulated oven body is covered with steel mesh, ready for field application of non-combustible stucco (by others). Stucco-ready ovens are connected directly to a grease-rated duct.

Submit your installation and ventilation plans to your local authority having jurisdiction before proceeding.



bistro home

This tutorial covers flat wall facade installations on Bistro Home ovens.

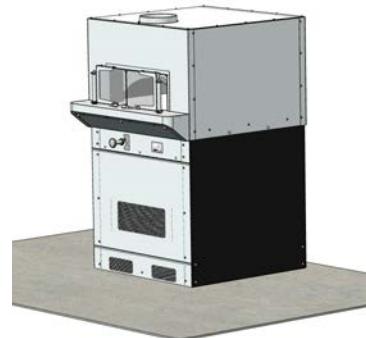
Illustrations are representative of all Bistro Home models, although wood-fired only models do not have a Flame Height Control Knob. The example oven, a Bistro Home WS-BH-4343 RFG, is equipped with a standard stainless steel Service Panel and optional glass doors. A Storage Box, with or without drawers, is available as an option.

Specification Sheets and CAD (KCL) symbols (*dwg) for Bistro Home ovens can be found under the Specs & DWGs tab of the model's product page on the Wood Stone Home website.

THE BASE OVEN

The standard Bistro Home oven is mounted on a black powder coat finish steel stand, with stainless steel front components and upper sides standard. A facade-ready option is also available. On facade-ready ovens, non-combustible cement board is installed at the factory, ready for installation of the facade material, such as tile, stone or brick.

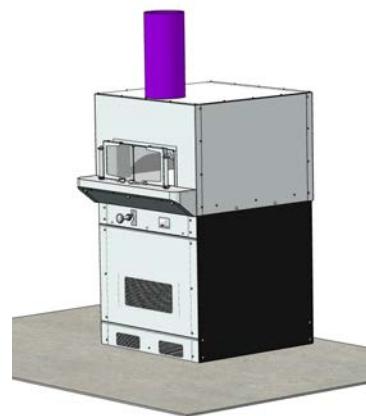
An optional set of glass doors is shown in this example. When working on the front of the oven, we recommend removing the glass doors to prevent damage.



Step 1. INSTALL SUPPLIED OVEN COMPONENTS

Note the location of the perforated air intake on the Service Panel. Combustion air flows into the space under the oven through this area, which must be left free of obstructions. [See Airflow Detail below.](#)

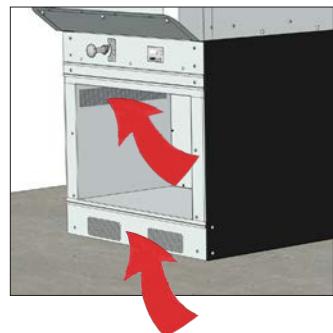
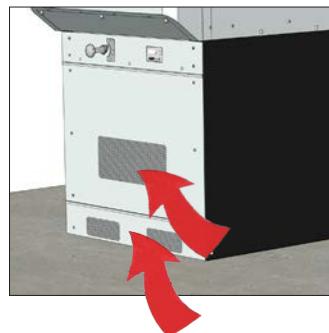
Connect the flue to the oven's flue collar. Use either a manufactured grease duct listed to UL 1978, or a field built grease duct constructed in accordance with NFPA96 and other applicable codes. Grease duct is specifically designed to safely vent flammable grease-laden vapors from cooking equipment. B-vent or other common residential duct material should not be used. If the oven is being completely enclosed, make certain the duct system has been approved by the authority having jurisdiction before covering. See the [Oven Venting](#) section on the Wood Stone Home website for more details.



DETAIL > AIRFLOW

Air flows into the space under the oven through the perforated air intake on the front of the Service Panel, through side vents in the case of the optional Storage Box, and the perforations in the Toe Kick.

At least one of these areas must be free of obstructions to allow proper airflow. The burners in the gas oven will not operate without sufficient combustion air. To avoid common installation mistakes that affect airflow, see the [Oven Venting](#) section on the Wood Stone Home website.



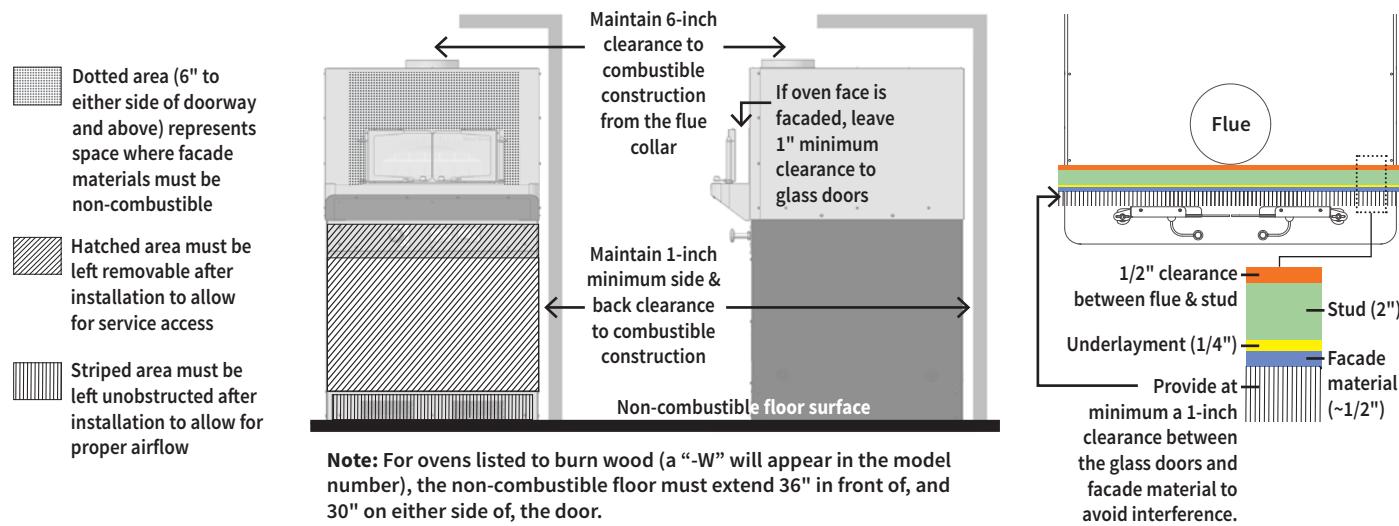
Step 2. BUILD STUD WALL

Metal studs (shown in green) are recommended. Around the doorway area, metal studs are required. Maintain a 1-inch clearance from the oven to combustible materials. Do not pack this airspace with insulation or any other material. While a zero-inch clearance from the oven to non-combustible materials is allowed, the respective clearances to combustibles are transferred to those non-combustibles.

Building materials 6 inches to either side and above the doorway must be non-combustible. [See Clearances Detail below](#).

The Service Panel must be left accessible and unobstructed after installation for air intake and routine service of the oven burner. [See Service Panel Detail on next page](#).

The rear panel must be installed to ensure the safe and proper operation of the oven.



DETAIL > CLEARANCES

A major cause of oven-related fires is a failure to maintain required clearances to combustible material. Required clearances for Bistro Home ovens are defined as follows:

- Provide 1-inch side clearance to combustible building materials. Do not pack this airspace with insulation or any other material.
- Provide a non-combustible floor surface AND for ovens utilizing solid fuel, a non-combustible floor surface covering at least 30" to each side, and 36" in front of the door opening.
- Provide 6" top clearance to combustible building materials.
- Any facade materials 6 inches to either side of the doorway and above must be of non-combustible construction with no exceptions.

Note: A zero-inch clearance to non-combustible construction is allowed. However, the respective clearances to combustibles are transferred to these non-combustibles.

Step 3. INSTALL NON-COMBUSTIBLE UNDERLAYMENT

The material (shown in orange) is non-combustible cement board. Non-combustible material is required 6 inches to either side and above the oven doorway.

Non-combustible material is required anywhere the facade touches the doorway or mantle. Generally, non-combustible cement board is also used as facing material within the lower recessed area between the studs, adjacent to the Service Panel and mantle support. Drywall and Sheetrock are considered a combustible and must not be used.

If the facade-ready option was not chosen, before applying cement board, it is often desirable to extend the lip around the doorway to provide a clean finished look to the ends of the facade material. The doorway lip must be stainless steel to meet sanitary requirements. A doorway lip is provided with the facade-ready option. [See Doorway Lip Detail on next page.](#)

If the Service Panel is covered, air intake will occur only through the perforated Toe Kick, which must be left unobstructed for proper performance of the oven. The Service Panel (or optional Storage Box) must be installed for structural stability, and left removable—all service and maintenance to the oven occurs from beneath the oven. The front opening below the oven is the ONLY access to the area beneath the oven. [See Airflow Detail under Step 1.](#)

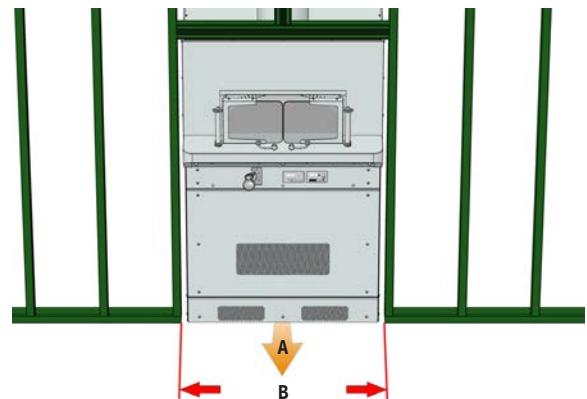
The Control Box must also be left unobstructed and removable for service and maintenance. [See Service Panel Detail below and Flame Height Control Knob Detail on next page.](#)



DETAIL > SERVICE PANEL

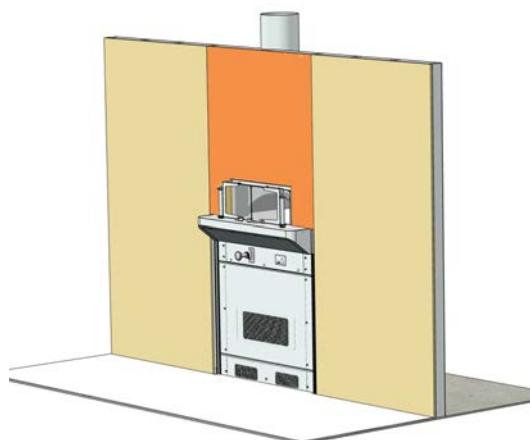
When the facade is complete, the Service Panel must remain removable. "A" represents the unobstructed path of the panel for removal. "B" represents the width necessary to keep that path clear after the installation of all building and facade materials.

Any facade or enclosure below the mantle of gas-fired or combination ovens must allow for (1) unobstructed access for removal of Service Panel or Storage Box, (2) easy access to all controls and (3) sufficient combustion air for gas burners.



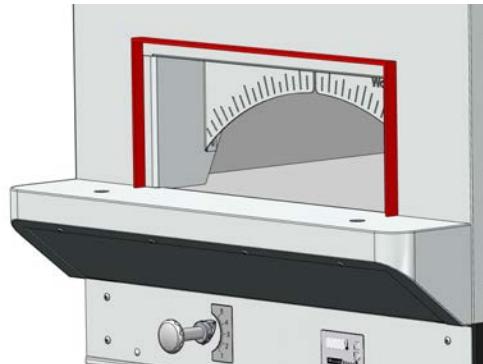
Step 4. INSTALL ADDITIONAL UNDERLAYMENT

Drywall (shown in yellow) is installed on the stud wall. While building materials more than 1 inch away from the oven do not need to be non-combustible, many installers choose to make the entire wall out of the non-combustible cement board to simplify construction and create a consistent facade underlayment.

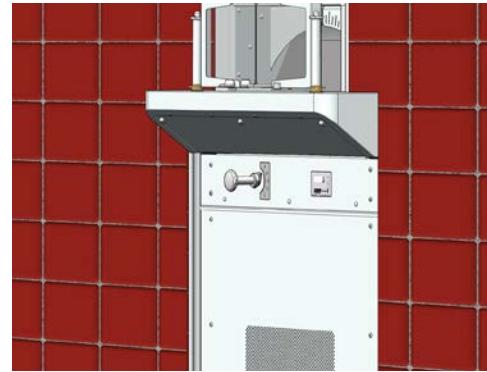


DETAIL > DOORWAY LIP

The purpose of the doorway lip is to provide a finished edge where the facade material meets the doorway. It must be installed before application of the cement board. An angled piece of 14 gauge stainless steel slides between the existing doorway trim and oven face. A doorway lip is provided with the facade-ready option.

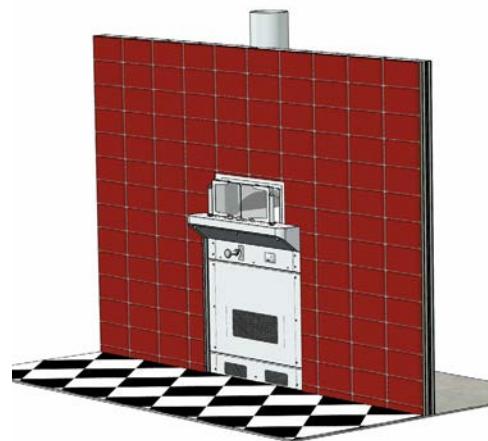
**DETAIL > FLAME HEIGHT CONTROL KNOB**

The Flame Height Control Knob adjusts the height of the radiant flame inside the oven. It is required to operate the oven and must be fully accessible after all finishing is completed.

**Step 5. ADD FACADE MATERIAL**

The facade wall can be finished with any non-combustible decorative material that can be affixed to the wall surface, including tile, stone or brick. It is always advisable to consult with the appropriate authority having jurisdiction before proceeding as there may be regulations regarding the suitability of various materials. Temperatures above the oven doorway can reach over 200 °F—select materials and adhesives suitable for this temperature.

It is necessary for the proper operation of our ovens that the Flame Height Control Knob be fully accessible after all finishing is completed. This knob controls temperature in our gas ovens. **See Flame Height Control Knob Detail below.**

**MORE INFORMATION**

To see innovative design solutions created by other Wood Stone customers, visit the [Photo Gallery](#) on the Wood Stone Home website.

We recommend the following links for additional installation information:

- [Wood Stone Facade Extensions](#)
- [Custom Oven Finishes](#)
- [Unloading & Moving](#)
- [Installation Clearances](#)
- [Wood Stone Oven Venting](#)
- [Installation and Operation Manuals](#)