# Forno Bravo, LLC

## Casa2G and Premio2G Residential Modular Refractory Ovens, Including:

**Casa2G80, Casa2G90, Casa2G100, Casa2G110**

**Premio2G100, Premio2G110, Premio2G120**

## Installation and Operating Manual

***A MAJOR CAUSE OF OVEN-RELATED FIRE IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIR SPACES) TO COMBUSTIBLE MATERIALS. IT IS OF UTMOST IMPORTANCE THAT THIS OVEN BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.***

*Forno Bravo, LLC*
*744 Neeson Road*
*Marina, CA 93933*
*(800) 407-5119*
*info@fornobravo.com*
*http://www.fornobravo.com*

Tested to UL 737-07, UL2162 and NSF/ANSI 4-07.

# WARNING

## READ ALL INSTRUCTIONS BEFORE INSTALLING AND USING THE APPLIANCE. FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR EVEN DEATH.

When this oven is not properly installed, a fire may result. To reduce the risk of fire, follow the installation instructions. It is essential to use only building and insulation materials designed for the purpose.

Use proper safety equipment when installing this oven, including gloves and professional breathing masks.

**Contact your local building or fire officials for clarification on any restrictions on installation of this oven in your area, or need for inspection of the oven installation.**

HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.

DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS.

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

Keep children and pets away from hot oven.

Use firewood for burning only. DO NOT use charcoal, pressure treated lumber, chipped wood products, sappy wood such as pine, laminated wood or any material other than dry medium or hard firewood.

DO NOT USE liquid fuel (firelighter fluid, gasoline, lantern oil, kerosene or similar liquids) to start or maintain a fire.

BEWARE of very high temperatures in the oven and use long oven gloves and mitts to handle pots and tools. DO NOT put unprotected hands or arms inside oven while it is lit.

Dispose of ashes using a metal shovel and place in a metal bin with a tightly fitting lid. The container should be stored on a non-combustible surface, away from all combustible materials. Ensure ashes are completely cold before disposing of them appropriately.

BEWARE of flying sparks from mouth of oven. Ensure that no combustible materials are within range of oven at any time.

DO NOT close the oven door fully while a fire is in the oven. Closing the door fully will cut off oxygen to the fire, causing the fire to erupt suddenly when the door is removed. Always keep door tilted to allow air to circulate in the oven.

DO NOT use water to dampen or extinguish fire in the oven.

DO NOT pack required air spaces with insulation or other materials.

When the curing of the refractories is not done as part of the manufacturing process, the manufacturer's recommended curing process shall be specified. Follow the instructions for curing the oven. Failure to follow the curing schedule can cause damage to the oven, and void the oven warranty.

**SAVE THESE INSTRUCTIONS**

# Limited Warranty

## Forno Bravo, LLC Ovens and Fireplaces

### THE WARRANTY

Forno Bravo, LLC, an importer and producer of ovens and fireplaces, warrants it ovens and fireplaces (herein referred to as Product) to be free from defects in materials and workmanship for a period of (1) one year from the date of shipment.

### QUALIFICATIONS TO THE WARRANTY

The complete Product Warranty outlined above does not apply under the following circumstances:

(1) The Product was not installed in accordance with Forno Bravo installation instructions and local building codes.

(2) The Product has been subjected to non-standard use, including burning fuels with abnormal burning characteristics including, driftwood, coal, plywood and wood products using a binder that may burn at excessive temperatures and cause damage to the Product.

(3) This Warranty does not apply to normal wear and tear.

(4) This Warranty does not apply to any cracking caused by over-firing or the failure to follow a proper curing schedule.

(5) In the event that the Listing plate has been removed, altered or obliterated.

(6) On parts that would be normally worn or replaced under normal conditions.

(7) Normal cracking due to expansion and contraction stress relief in either the dome or floor tiles.

### LIMITATION ON LIABILITY

It is expressly agreed and understood that Forno Bravo's sole obligation and purchaser's exclusive remedy under this Warranty, under any other warranty, expressed or implied, otherwise, shall be limited to replacement, repair, or refund, as specified above, and such liability shall not include, and purchaser specifically renounces any rights to recover, special, incidental, consequential or other damages of any kind whatsoever, including, but not limited to, injuries to persons or damage to property, loss of profits or anticipated profits, or loss of use of the product.

In no event shall Forno Bravo be responsible for any incidental or consequential damages caused by defects in its products, whether such damage occurs or is discovered before or after replacement or repair, and whether or not such damage is caused by Forno Bravo's negligence. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. The duration of any implied warranty with respect to this Product is limited to the duration of the foregoing warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above may not apply to you.

### INVESTIGATION OF CLAIMS AGAINST WARRANTY

Forno Bravo reserves the right to investigate any and all claims against this Warranty and to decide upon method of settlement.

### DEALERS HAVE NO AUTHORITY TO ALTER THIS WARRANTY

Forno Bravo's employees and dealers have no authority to make any warranties nor to authorize any remedies in addition to or inconsistent with those stated above.

### HOW TO REGISTER A CLAIM AGAINST WARRANTY

In order for any claim under this Warranty to be valid, Forno Bravo must be notified of the claimed defect in writing or by telephone to Forno Bravo, 744 Neeson Road, Marina, CA, 93933. Claims against this Warranty in writing should include the date of installation, and a description of the defect.

# Table of Contents

## Contained in the Crate

Oven dome with integral vent;

Firebrick tile oven floor and landing;

Steel door with thermometer;

Ceramic blanket dome insulating;

Ceramic board floor insulation;

High temp, waterproof mortar;

24" stainless steel, single wall chimney with rain cap for outdoor use only.

### *Options*

Decorative three piece brick arch

Extra 24" single wall chimney pipe sections

DuraTechUL103 double wall chimney system

Infrared thermometer

Remote probe thermometer

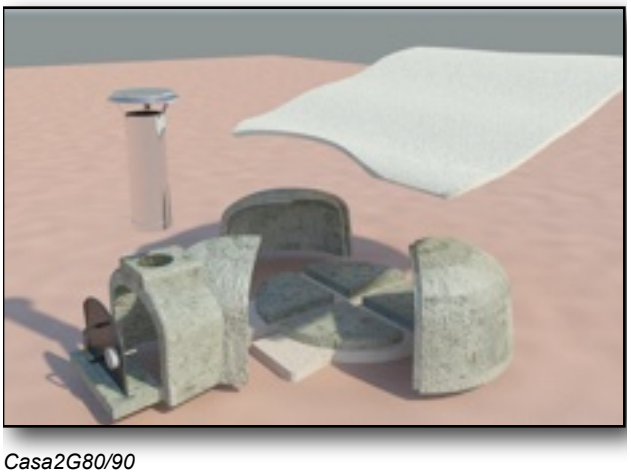
Tuscan grill

Pizza peels

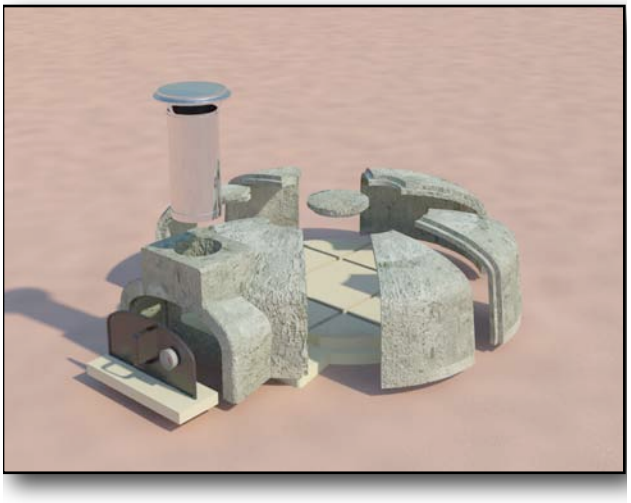
Oven brushes, rakes and shovels

Terracotta bakeware

Imported Italian pizza ingredients



*Casa2G80/90*



*Casa2G110*

## At-a-Glance Casa2G

| | Casa2G80 | Casa2G90 | Casa2G100 | Casa2G110 |
|---|---|---|---|---|
| Cooking Floor | 32"W x 40"D | 36"W x 44"D | 40"W x 48"D | 44"W x 52"D |
| External Dimensions | 36"W x 42"D x 19"H | 40"W x 46"D x 19"H | 44"W x 50"D x 20"H | 48"W x 54"D x 20"H |
| Oven Opening | 17"W x 10"H | 17"W x 10"H | 20"W x 10.5"H | 20"W x 10.5"H |
| Vent Landing | 20.5"W x 8"D | 20.5"W x 8"D | 23.5"W x 8"D | 23.5"W x 8"D |
| Dome Height | 15" | 15" | 16" | 16" |
| Monoblock Oven Opening with Integral Vent | ✔ | ✔ | ✔ | ✔ |
| Sealing Door Jamb | ✔ | ✔ | ✔ | ✔ |
| Vent Opening Diameter | 6" | 6" | 8" | 8" |
| Chimney Type | Single wall steel, UL103, or clay | Single wall steel, UL103, or clay | Single wall steel, UL103, or clay | Single wall steel, UL103, or clay |
| Commercial Grade, Kiln-Fired Cooking Floor | ✔ | ✔ | ✔ | ✔ |
| Ceramic Blanket Insulation | 3 x 1" | 3 x 1" | 3 x 1" | 3 x 1" |
| Floor Ceramic Board Insulation | 1 x 2" | 1 x 2" | 1 x 2" | 1 x 2" |
| High Temp, Waterproof Mortar | 25 lb. | 25 lb. | 50 lb. | 50 lb. |
| 24" Single Wall Stainless Steel Chimney with Cap | 6" diameter | 6" diameter | 8" diameter | 8" diameter |
| Steel Door with Thermometer | ✔ | ✔ | ✔ | ✔ |
| Dome Pieces | 3 | 3 | 5 | 7 |
| Pizzas at a Time | 2 | 3 | 5 | 7 |
| Weight (without crate) | 750 lb. | 825 lb. | 1025 lb. | 1150 lb. |

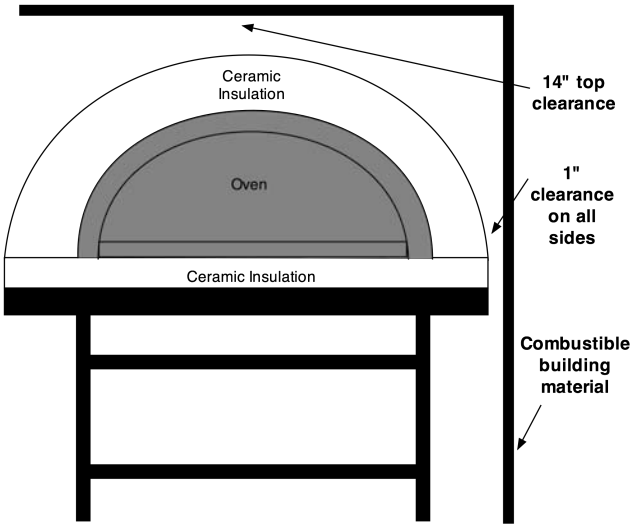
## At-a-Glance Premio2G

| | Premio2G100 | Premio2G100 | Premio2G100 |
|---|---|---|---|
| Cooking Floor | 40”W x 48”D | 44”W x 52”D | 48”W x 56”D |
| External Dimensions | 46”W x 51”D x 21”H | 50”W x 55”D x 21”H | 54”W x 59”D x 21”H |
| Oven Opening | 20”W x 10.5”H | 20”W x 10.5”H | 20”W x 10.5”H |
| Vent Landing | 23.5”W x 8”D | 23.5”W x 8”D | 23.5”W x 8”D |
| Dome Height | 16” | 16” | 16” |
| Monoblock Oven Opening with Integral Vent | ✔ | ✔ | ✔ |
| Sealing Door Jamb | ✔ | ✔ | ✔ |
| Vent Opening Diameter | 8” | 8” | 8” |
| Chimney Type | Single wall steel, UL103, or clay | Single wall steel, UL103, or clay | Single wall steel, UL103, or clay |
| Commercial Grade, Kiln-Fired Cooking Floor | ✔ | ✔ | ✔ |
| Ceramic Blanket Insulation | 4 x 1” | 4 x 1” | 4 x 1” |
| Floor Ceramic Board Insulation | 1 x 3” | 1 x 3” | 1 x 3” |
| High Temp, Waterproof Mortar | 50 lb. | 50 lb. | 50 lb. |
| 24” Single Wall Stainless Steel Chimney with Cap | ✔ | ✔ | ✔ |
| Steel Door with Thermometer | ✔ | ✔ | ✔ |
| Dome Pieces | 5 | 7 | 7 |
| Pizzas at a Time | 5 | 7 | 9 |
| Weight (without crate) | 1300 lb. | 1450 lb. | 1600 lb. |

# Oven Clearances

*It is essential to maintain clearance space between the oven components and any combustible material, such as walls and ceilings. Failure to maintain these clearances can result in fire.*

## Combustible Wall Clearance




The oven must have a minimum 1" (25 mm) clearance to combustibles from all sides, and 14" (356 mm) clearance to combustibles from the top.

If building materials will contact the oven, they must be completely noncombustible. Please note that standard drywall (or sheet rock) is considered a combustible.

The area directly above the doorway and 6" (152 mm) to each side of the doorway must be covered with non-combustible material.

Non-combustible construction may contact the oven and must then maintain 1" (25 mm) clearance to combustibles.

If the space between the legs of the stand is used for wood storage, it is recommended that it be a covered container or box to prevent the possibility of sparks or embers from making contact with the stored wood. An 8-1/2" (eight and one-half inch) air space clearance is required between the bottom of the oven and any wood storage container.

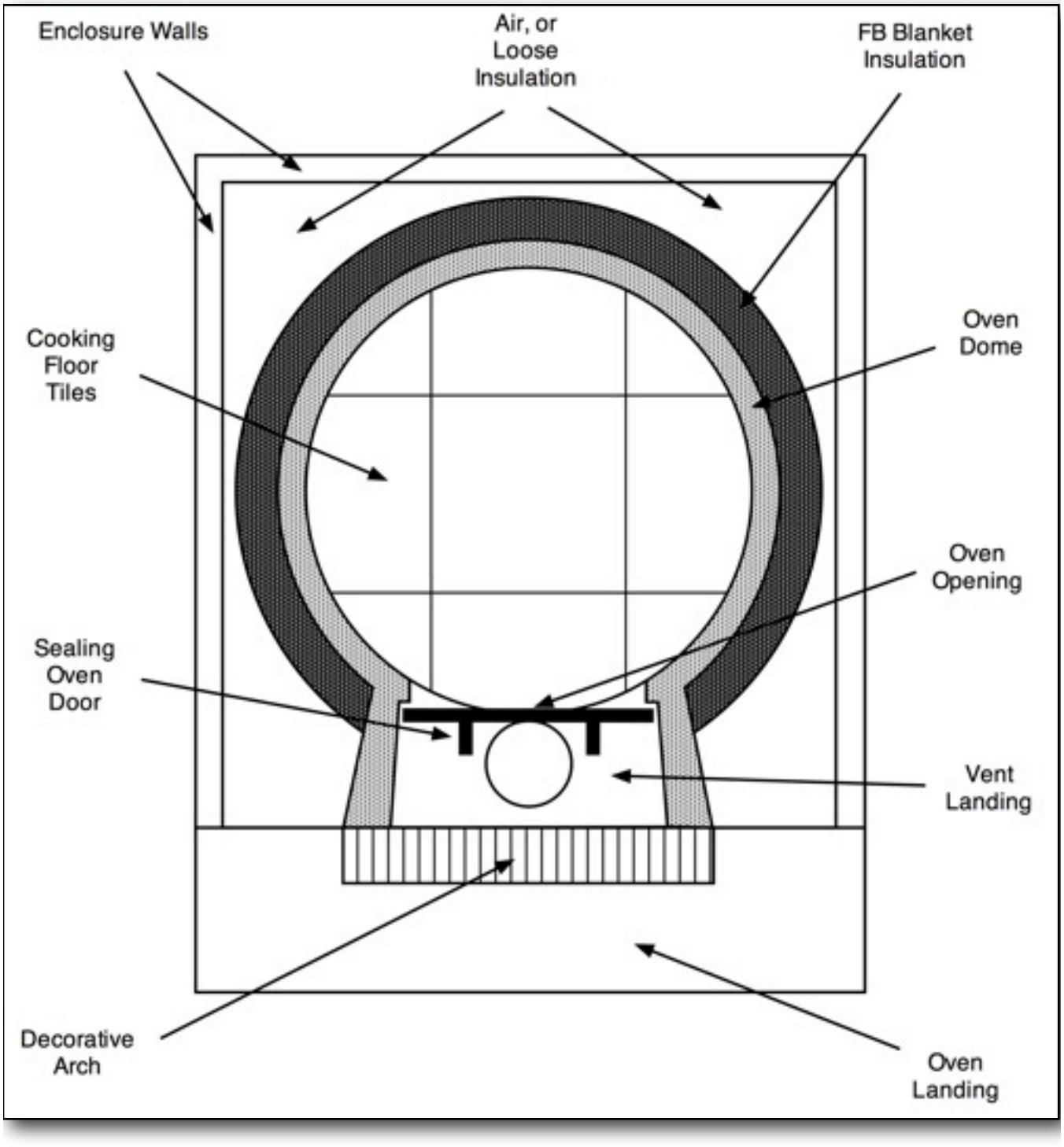
## Floor Hearth Extension

The minimum floor hearth extension areas from the oven door opening to combustible floors are as follows:

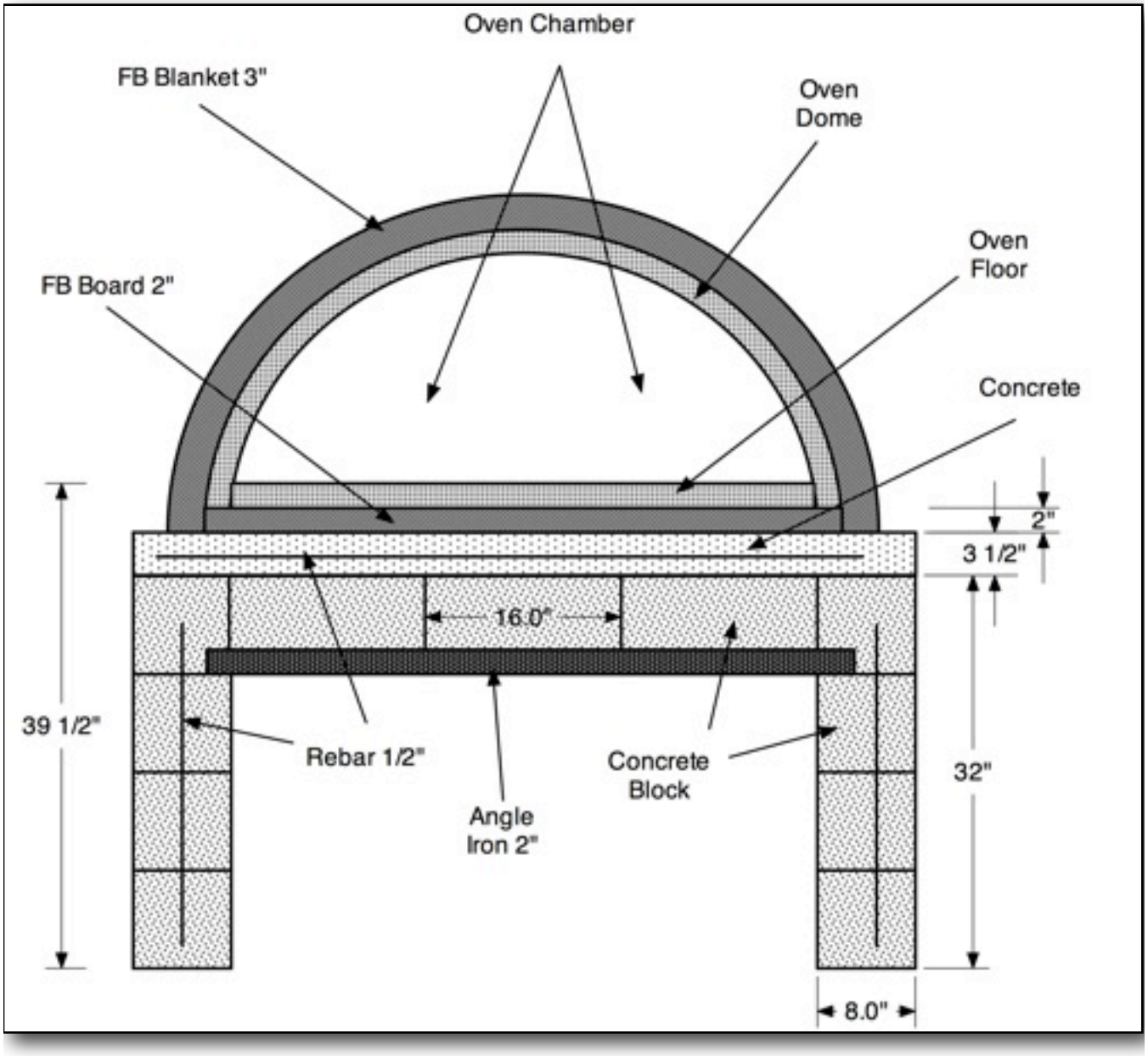
- 30” (762) to each side of the door opening
- 36” (914 mm) in front of the door opening

## Installation Elevations

### *Top Elevation*

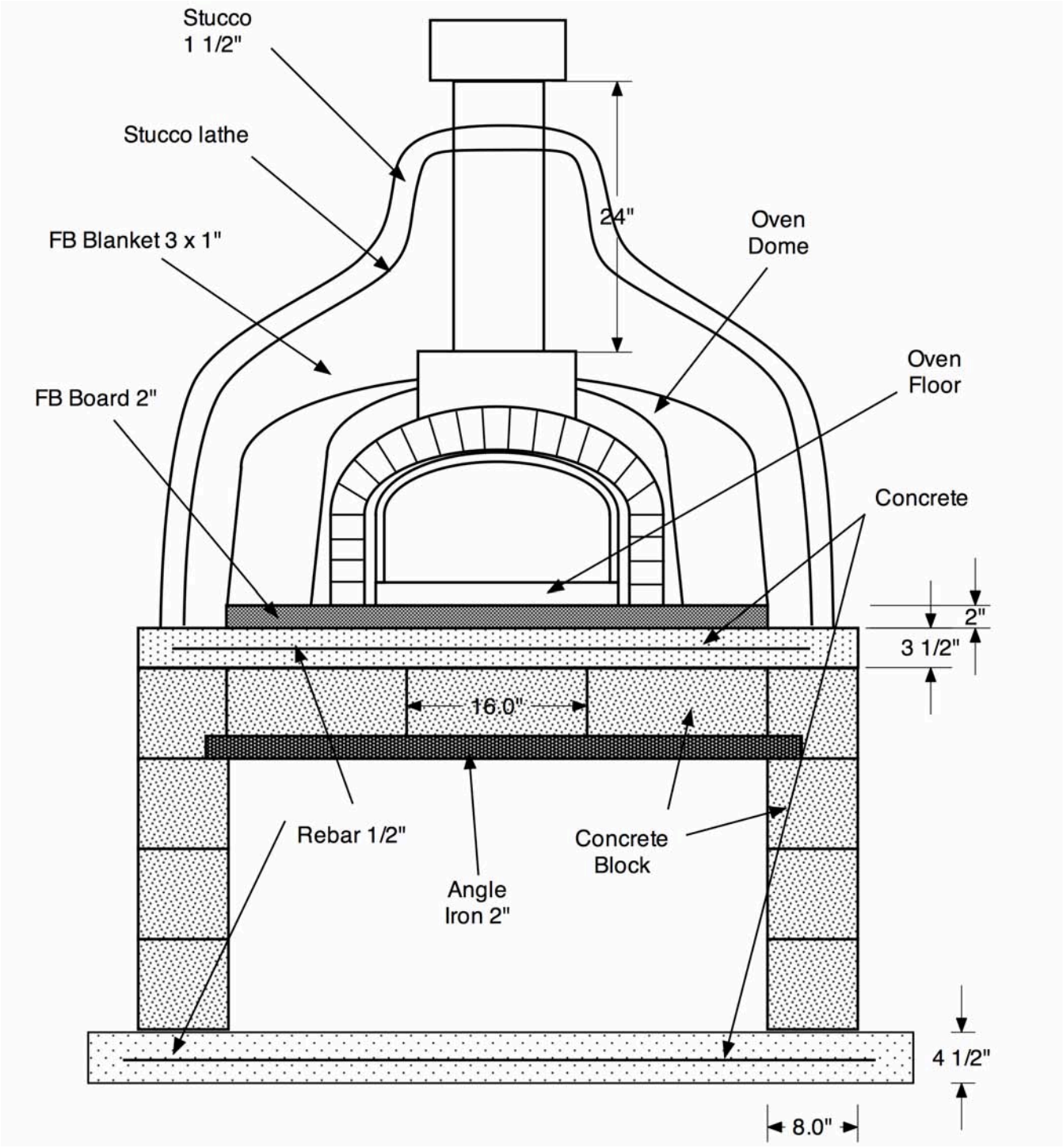


## *Front Elevation: Block Stand and Insulation*

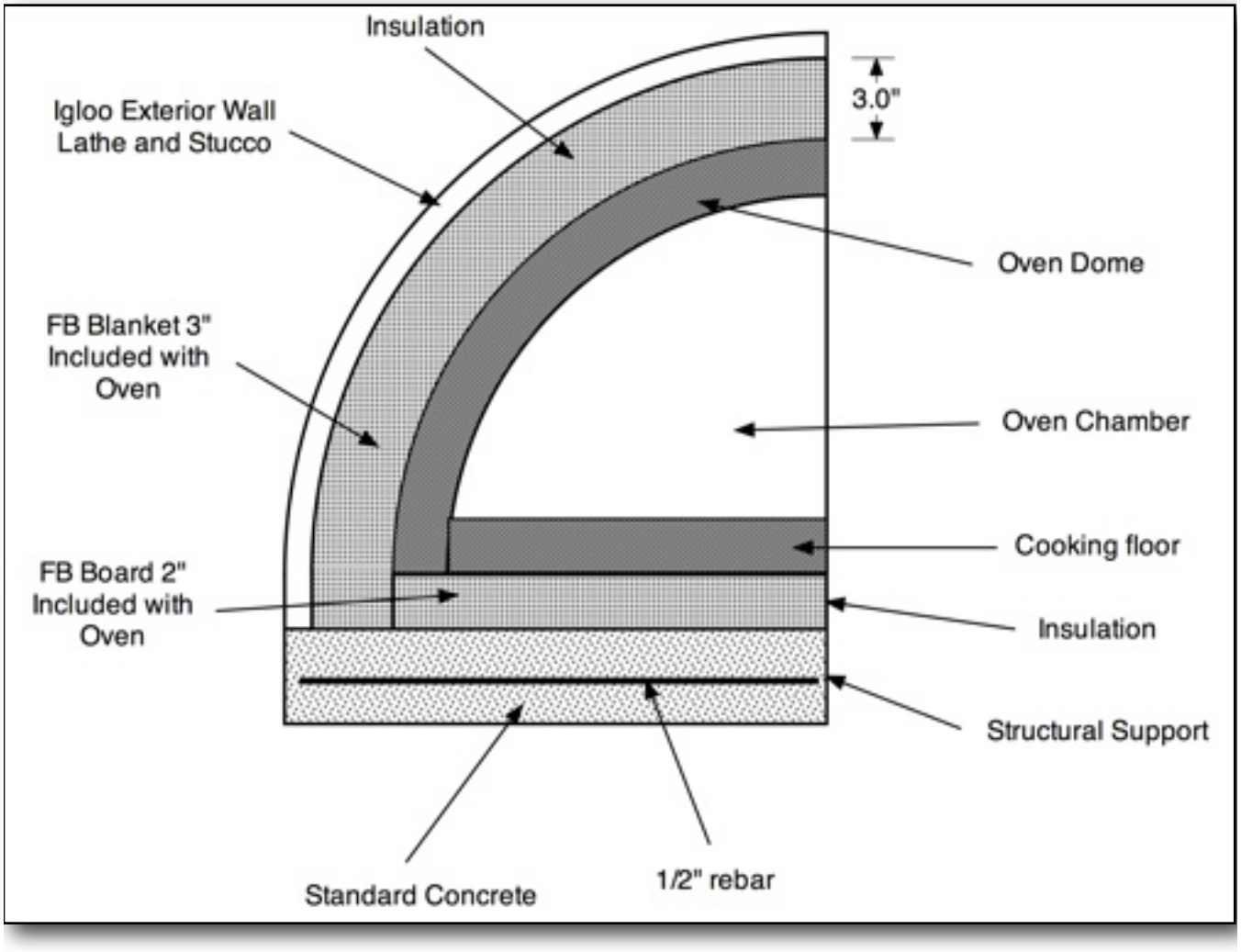



This example uses standard concrete blocks (CMU).

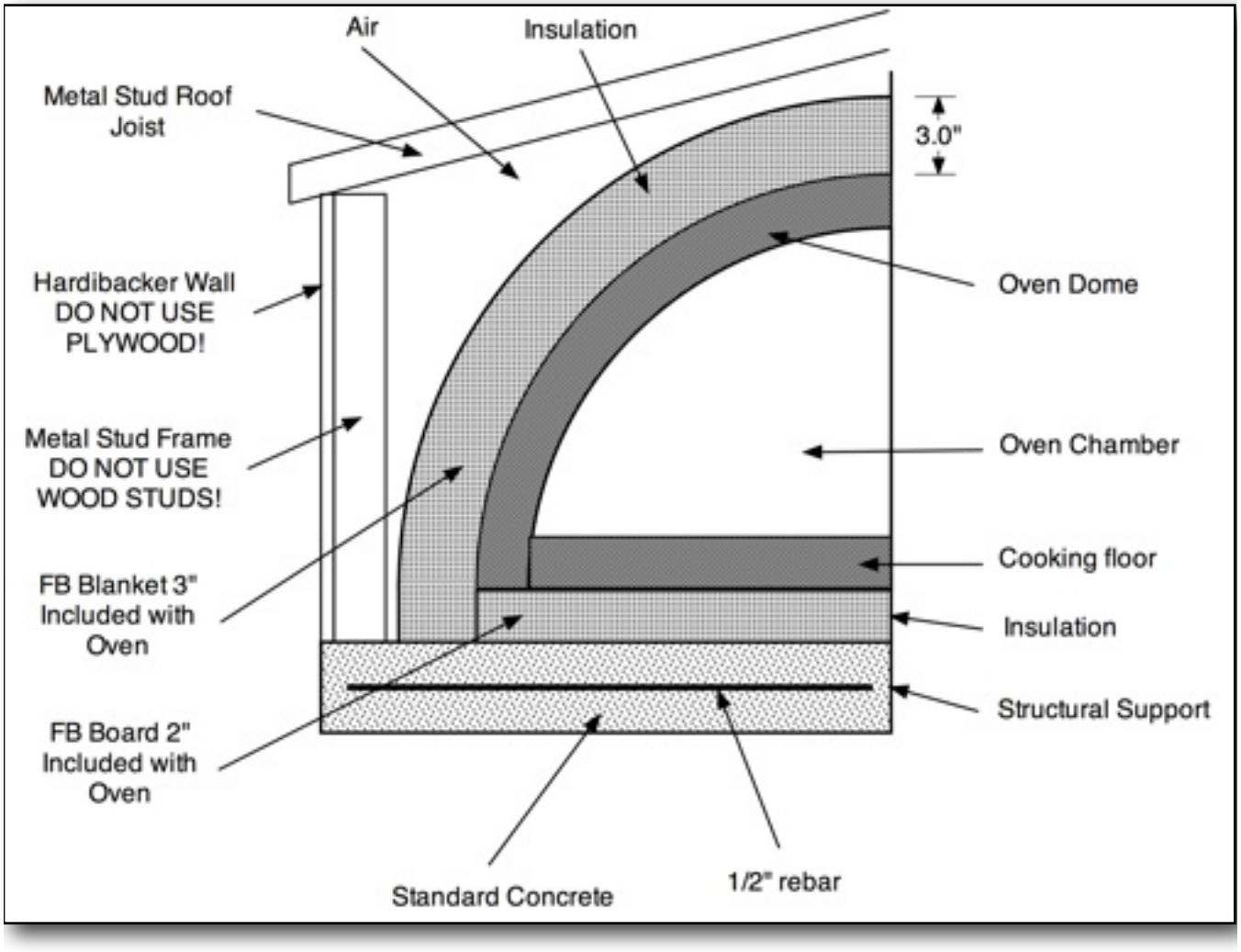
## *Front Elevation: Igloo*



### *Cross Section: Igloo*



## *Cross Section: Walled Enclosure*



## *Stand Dimensions*

| | Oven Exterior | Dome Insulation | Hearth Width | Hearth Depth |
|---|---|---|---|---|
| **Casa2G80** | 36"W x 42"D" | 3" | 46" | 53" |
| **Casa2G90** | 40"W x 46"D | 3" | 50" | 57" |
| **Casa2G100** | 44"W x 50"D | 3" | 54" | 61" |
| **Casa2G110** | 48"W x 54"D | 3" | 58" | 65" |
| **Premio2G100** | 46"W x 51"D | 4" | 58" | 63" |
| **Premio2G110** | 50"W x 55"D | 4" | 62" | 67" |
| **Premio2G120** | 54"W x 59"D | 4" | 66" | 71" |

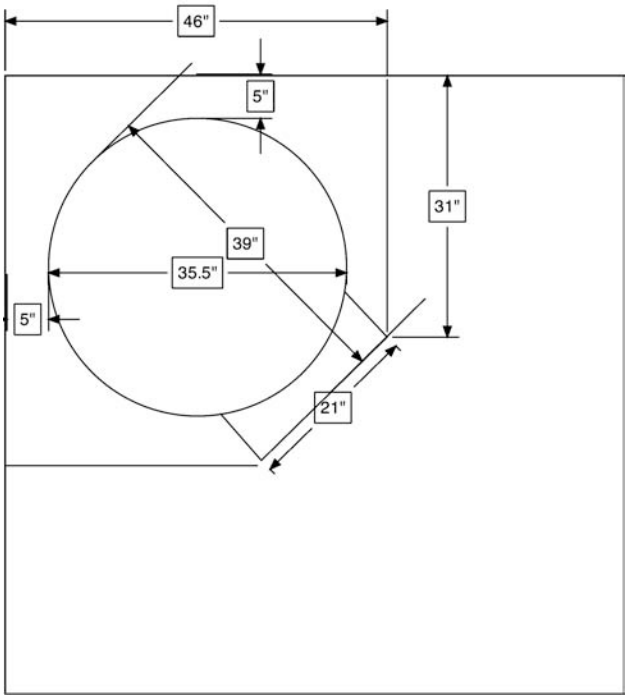
The stand dimensions for your specific oven installation are based on the following formula:

Width = Oven exterior width + insulation thickness + enclosure wall thickness.

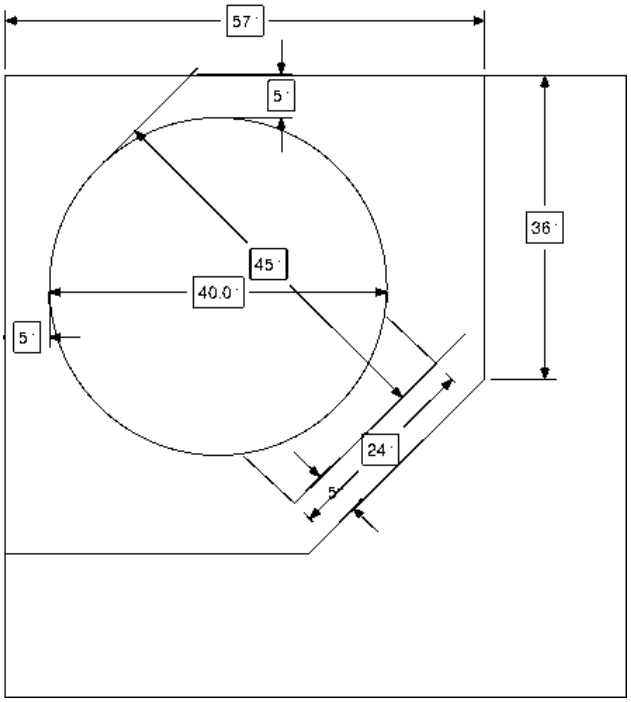
Depth = Oven exterior depth + rear insulation thickness + rear enclosure wall thickness + landing depth

The sample dimensions above are based on 2" upper walls and a 6" oven landing. Adjust your dimensions according to your specific installation.

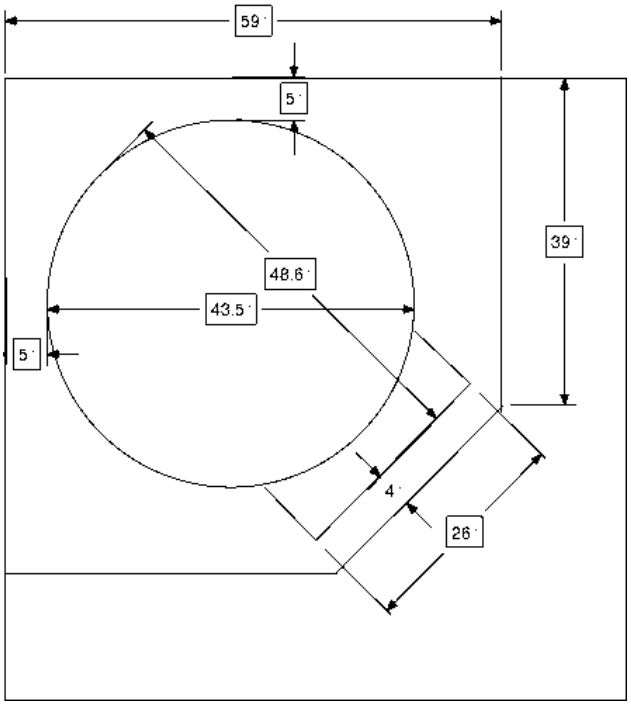
### *Corner Installation: Casa2G80 32" (internal)*



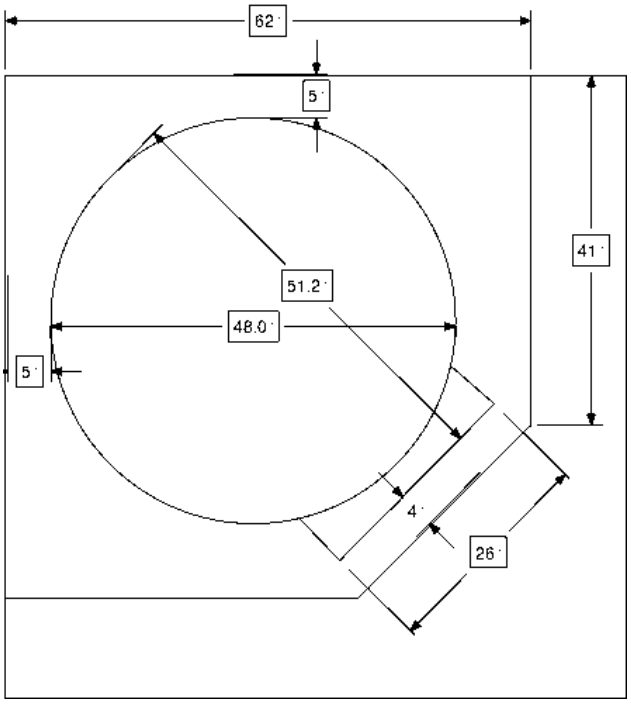

### *Corner Installation: Casa2G90 36" (internal)*



### *Corner Installation: Casa2G100 40" (internal)*




### *Corner Installation: Casa2G110 44" (internal)*



## Quick Start Guide

The Quick Start Guide gives you a snapshot overview of the installation process.

| | |
|---|---|
| Foundation Slab<br><br>Frame and pour a standard 3 1/2" rebar reinforced concrete slab. |  |
| Oven Stand<br><br>Assembled a block stand to the appropriate hearth width. |  |
| Concrete Hearth<br><br>Frame and pour a 3 1/2" rebar reinforced concrete hearth using Hardibacker as a permanent bottom form. |  |

| | |
|---|---|
| Floor Insulation<br><br>Cut and assemble the FB Board insulating board to fit under the oven. It can be assembled on wet or dry concrete, and does not require adhesive. |  |
| Oven Floor Assembly<br><br>Assemble and level the cooking floor on a bed of fine sand. |  |
| Oven Dome Assembly<br><br>Assemble the oven dome and seal the outside of the oven dome seams with refractory mortar. Do not put mortar inside the joints or between the oven pieces. Seal the bottom of the dome and the oven landing to the insulation board using refractory mortar. |  |

| | |
|---|---|
| Chimney Assembly<br><br>Coat the bottom of the chimney with fireplace caulk and slide the chimney into the round vent opening. Seal the chimney and vent with additional fireplace caulk.<br><br>For UL103 installation, screw the chimney system anchor place in place using chimney caulk to seal.<br><br>For refractory chimney installation, follow the instructions in Chapter 6 of this manual. |  |
| Oven Insulation<br><br>Wrap the oven in three or four layers of 1" FB Blanket (depending on the oven model). Overlap the joints. |  |

| | |
|---|---|
| Attach the Brick Arch<br><br>Attach the optional Brick Arch using standard masons mortar. |  |
| Shape the Igloo<br><br>Shape the Igloo with Wire lathe and cover with a two coat stucco system.<br><br>For other enclosure types, refer to Chapter 9 of this manual. |  |

# 1. Foundation

## Overview

Your oven stand and oven chamber are installed on a concrete pad. We recommend a minimum thickness of 5 ½ inches (14 cm) for the Foundation slab, however your location, soil conditions and local building ordinances will dictate the thickness required.

The slab dimensions listed below are 8 " wider than the dimensions of your concrete block stand, providing you with 2" for finish material, and a 2" reveal on either side of the stand. The slab is also 10" deep, allowing for 4" in the back (2" finish and reveal), and 6" in front (the additional space makes a nice edge for your wood storage). The foundation slab will also be used to support forms that you will use during the hearth slab construction The finished top of the slab should be 2"-3" above ground level.

## Instructions

First, excavate your foundation. The slab frame for a 5 ½"(14 cm) foundation is best composed of 2x6 inch lumber set so the top of the form is 2-3" (5-8 cm) above ground level. The longer form boards should sit inside the shorter boards, and the completed form can be held in place by driving wooden stakes into the ground around the perimeter. Before securing everything permanently, check to make sure the form is located and faces exactly where you want it, and is level and square.

Lay a 3" base of pea gravel (or crushed rock), compact the rock, and cover it with a layer of 6 ml plastic sheeting to stop the slab from wicking water.

Place a sheet of wire mesh inside the foundation frame, and install a two-piece grid using 1/2" rebar (#4) set 4" and 8" inside the foundation frame. Tie the rebar together with tie wire, then set the wire mesh and rebar half way up the pad (2 3/4"), using either rebar stand-offs or fragments of brick.

*1.1. Framed, lined, with wire mesh and rebar.*

Mix and pour the concrete, and then level it. Use a 2"x4" to screed and level the concrete, then finish to a smoothness that works for you as the bottom of your wood storage area. Allow the slab to cure for a day or two. Keeping it damp will help it cure better and become stronger.

*1.2. The finished foundation ready to cure.*

## Other Considerations

Depending on where you live, you may have to excavate 18" or more, of topsoil to reach a stable substrate such as

hard clay. If you do excavate to a depth greater than the foundation form height, you will need to add a material, such as thoroughly compacted pea gravel or crushed rock, which will allow for the drainage of water from under the concrete slab. Placing a layer of plastic sheeting over the material will help prevent it from wicking water from the slab too quickly, making it brittle and prone to cracking.

You may also want to install your oven as part of a larger outdoor kitchen project. Use the dimensions for the oven in conjunction with your other kitchen elements, such as counters, a grill, storage, a sink, and refrigeration. You might find it easier to form your entire kitchen at one time.

*1.3. A complete outdoor kitchen foundation.*

*1.4 The foundation and first course of stand blocks.*

## Hints and Tips

Use a tiller to break up the ground before you excavate. You can rent one from Home Depot. If your ground is hard and/or dry, water it with a sprinkler for a couple of days before you start. Your site should be soft, but not muddy.

Compare both diagonal measurements of your foundation frame to ensure that your foundation will be square. Double check that your foundation really faces the exact direction you want your oven to face. Once the diagonals are of equal length, you may want to temporarily attach 2”x4” lumber horizontally to form triangles at the corners and hold your form square during the pour.

The weight of concrete in the foundation can be heavy (40 80 lb. bags or more), and mixing it by hand in a wheelbarrow might use up energy and time that will serve you better later in the project. Rent a mixer from Home Depot, and ask a friend (or pay a local teenager) to help you mix and pour the slab.

There are also mix-on-your-site trucks that come and just make as much concrete as you need on site, so you might want to price this option if available in your area.

Check with your local equipment rental company for a 1-yard mixer that you can tow behind a standard pickup truck.

If your building site is far from your street or curb, you can hire a concrete pump to shoot the concrete where you want it. The pump rental is typically a different company from the concrete delivery truck.

# 2. The Oven Stand

## Overview

The oven stand is typically constructed using standard 8”x8”x16” concrete masonry units (CMU), though it can also be made from brick, metal, or formed concrete.

## Instructions

Build a block stand comprised of four courses using standard 8"x16"x8" and 8"x8"x8" concrete blocks. The first three courses of the block stand form a three-sided U, leaving an opening in the oven front that provides access for wood storage. The fourth course of blocks spans the opening at the front of the U, by resting on two pieces of 2"x2"x3/8" angle iron.

Using a chalk line, mark the layout of your block stand directly on the foundation slab. Make sure that it faces exactly where you want your oven opening to face. Then, lay your first course of blocks directly on your slab. Use pre-mixed mortar where necessary to ensure that the first course of blocks is level, front and back, side to side, and on the diagonals.

Take your time with getting the first course set correctly, because it will be increasingly difficult to correct problems later.

*2.1. Carefully lay out the first course of blocks.*

In the following courses, stagger your blocks using either 8"x8"X8" blocks, or cut blocks, to ensure that the joints are offset. Lay the next two courses, for a total of three.

After you have laid your first three courses, set your two pieces of 2"x2" angle iron across the opening between the two legs of the U shape. Note that the back piece of angle iron must be cut to allow clearance for the rest of the top course of blocks.

*2.2. Cut the back angle iron to leave room for blocks.*

Grind, or cut, 3/8" from the edges of each block that rests on the angle iron, so that they lie flush with the rest of the fourth course. Finish laying the rest of the fourth course of blocks.

*2.3. The finished stand.*

After you have completely assembled the block stand, check that the walls are square, level and plumb. Drop a section of 1/2" rebar in every other core, and fill those cores with concrete.

## Variations

Variations include round stands, corner ovens, oven with an attached outdoor kitchen, pre-cast lintels, and metal stands.

*2.4. A corner installation.*

*2.4. Custom metal stand with stud frame.*

*2.5. Stand with cast lintels.*

## Tips and Hints

When selecting the direction your oven will face, consider making sure that your opening does not face possible winds, which might disrupt your cooking and fire management.

We also recommend dry stacking your blocks, then filling every other core (or the corners) with concrete. It's a lot faster, and sturdier as well. Block the cores that you have not filled with your empty concrete bag to stop your hearth concrete from spilling into the holes.

# 3. The Insulating Hearth

## Overview

Your oven sits on a two-layer hearth, comprised of an insulating layer that rests on top of a 3 1/2" concrete slab. The FB Board insulation is included with the oven, is easy to install and very efficient at holding heat inside your oven.

## Instructions

1. Using 2"x4" lumber build the frame for the bottom of the form. The frame should be roughly 3/8" smaller than the width and depth of your block stand, so that it can be easily removed after the hearth has cured.

2. Cut (12) lengths of 2"x4" that will serve as the legs that hold the form in place. Use 1/4" shims to accurately set the top of the frame. The top of the 2"x4" frame should be about 3/4" below the top of the stand (to allow for the 1/2" Hardibacker form bottom and shims).

*3.1. The form bottom ready for the Hardibacker.*

3. Build the sides of the form using either 2"x4" or 2"x8" lumber to fit around the block stand edges. The form sides will need to be supported by 2"x4" legs and shims.

*3.2 Form sides held in place with 2"x4" supports.*

4. Cut the sheets of 1/2" Hardibacker to fit inside the wood form and lay on top of the block stand. Set two 2"x4" legs supporting a 2"x4" on its side directly under the joint, which will support the weight of the wet hearth while it is curing.

*3.3. Hardibacker and form set in place.*

5. Build a grid of 1/2" rebar slightly shorter than the external dimension of the wood forms, on 12" centers, starting 6" in from the edges of the form, set half-way up the 3 1/2" concrete layer (about 1 3/4").

*3.4 Rebar set in center of the concrete pad.*

6. Pour 3 1/2" of standard concrete and allow for it to start curing before adding the FB Board. Yo do not want to install FB Board on wet concrete, as it will wick up water

*3.6. Structural layer waiting on insulating layer.*

7. Cut and place the FB Board insulation, making sure the insulation and the oven face straight forward and that the front of the oven is exactly where you want it.

*3.7. FB Board set in place.*

# 4. Set the Cooking Floor

## Overview

Measure your hearth to ensure that you are centering your oven left and right on the hearth. How far back you set the cooking surface will depend on the size and material you are using for the oven landing in front of the oven opening. Do a trial layout using your oven landing material and your oven floor. This will help you place your oven to the correct depth on the hearth slab.

## Instructions

Spread a 3/8" layer of fine sand using a notched trowel. Lay your cooking surface in place, butting the joints tightly together. Check for level. This is your true cooking surface, so it is vital that it is completely level in all directions. Check again that the oven "faces" straight forward.

*4.1. Set the cooking floor on a thin bed of sand.*

*4.2. Set the vent landing level with the cooking floor.*

# 5. Dome Assembly

## Overview

The dome and vent pieces make up the oven cooking chamber and ventilation system. The oven rests on the FB Board insulation and encloses the cooking floor.

## Instructions

Makes sure to dampen the oven pieces with a sponge before applying the high heat mortar included with the oven.

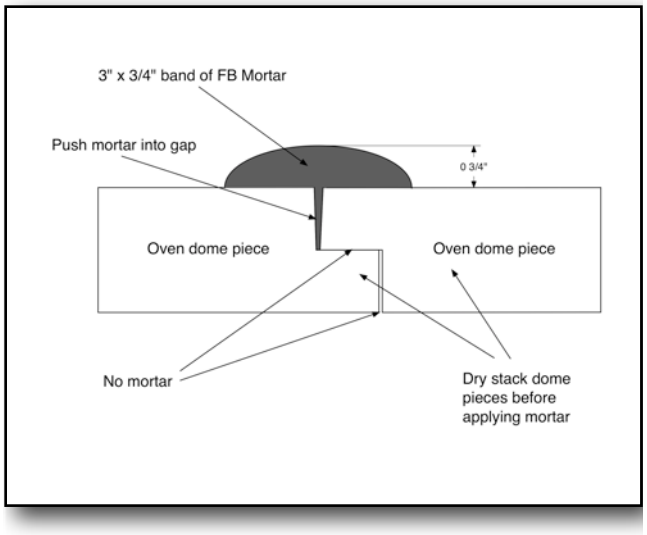
**Only apply mortar on the outside of the oven dome pieces, not in between the pieces, otherwise thermal expansion and contraction will cause the mortar to crack and fall apart.**

Set your oven dome pieces around the oven floor, taking care to ensure that each piece lies flat on the insulating hearth and lines up squarely with the other dome pieces. Push the pieces tightly together BEFORE you apply the mortar.

*5.1. Line up the dome pieces.*

*5.2. Seal the outside of the oven dome joints.*

Seal the outside of the oven dome joints with a 2" wide x 3/4" high band of high temp mortar.




*5.3. Dome assembly.*

Seal the intersection between the oven dome and vent and the insulating board with a 2"w x 3/4"h band of high heat mortar.

The oven has the option of a decorative brick vent arch. The arch attaches to the front of the oven dome body and vent assembly. A custom, site-built arch can also be used, and can be constructed from virtually any non-combustible material.

---

**You do not need to coat the outside of the oven dome with additional mortar. The oven dome is made using a high density castable refractory material that provides excellent heat hold capacity.**

---

# 6. Chimney Installation

## Overview

Your oven can be attached to one of three types of chimney system: the single wall stainless steel chimney supplied with the oven, a UL103HT Listed chimney system, or a refractory chimney flue liner. DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

The table below outlines the internal dimension of the chimney system recommended for each oven size.

| Oven Size | Chimney Internal Diameter |
|---|---|
| **Casa2G80/90** | 6" |
| **Casa2G/Premio2G 100/110** | 8" |
| **Premio2G120** | 8” |

## Single Wall Chimney for Outdoor Installation

Each oven contains a 24” section of single wall stainless steel pipe with an anchor plate and rain cap, intended for outdoor installations. Additional 24” sections of pipe can be added to meet specific installation requirements.

---

**Do not use single wall chimney pipe on indoor installation.**

---

*6.1 Casa2G with single wall stainless steel chimney.*

## UL103HT for Outdoor and Indoor Installation

The DuraTech chimney system is a UL103HT Listed for indoor and outdoor installation for solid fuel appliances, including Forno Bravo ovens. The system specifies a clearance of at least 2” between the chimney and any combustible materials, and a height of 24” above any combustible material within 10’. Consult the manufacturer’s installation guide for complete details.

*6.2. The DuraTech system.*

The Duratech system includes an anchor plate, angle sets for chimney offsets, chimney pipe of various lengths, strapping and a spark arrestor.

## Steel Chimney Installation

Always follow the manufacturer's instruction for proper installation and clearances from combustible materials, and follow all relevant local building and fire codes.

To install the anchor plate you need to seal the anchor plate to the vent using the mortar provided with the oven, and hold the anchor plate in place using 3/16" x 1 1/4" Tapcon concrete screws. Pre-drill 5/32" holes using a masonry drill bit, then screw the anchor plate in place.

*6.3. Pre-drill 5/32" holes to line up with the anchor plate.*

*6.4. Apply a bead of refractory mortar.*

*6.5. Screw the anchor plate in place.*

*6.6. Check for level.*

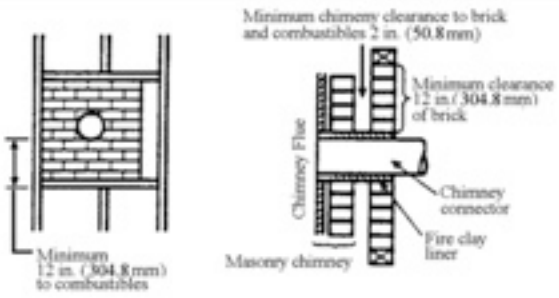
## Masonry Chimney

For indoor installations, the minimum air space clearance between interior masonry chimneys and combustible materials shall be 2". Any chimney with at least one interior wall shall be treated as interior. All spaces between chimneys and floors or ceilings through which chimneys pass shall be fire stopped with non-combustible material.

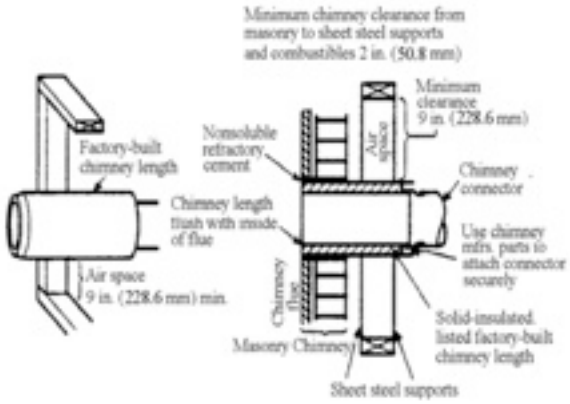
The fire stopping of spaces between chimneys and wood joists, beams or headers shall be galvanized steel not less thinner than 26 gage in thickness or non combustible sheet material not more thicker than 1/2 in.

If it is necessary to pass through combustible walls to connect the oven to a chimney liner, the following clearances must be maintained.

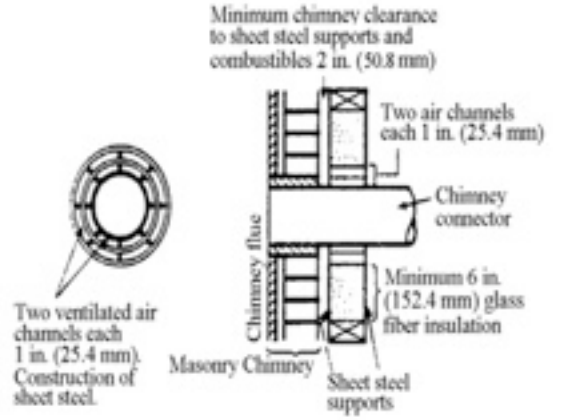
Method A. 12" (304.8 mm) Clearance to Combustible Wall Member: Using a minimum thickness 3.5" (89 mm) brick and a 5/8" (15.9 mm) minimum wall thickness clay liner, construct a wall pass-through. The clay liner must conform to ASTM C315 (Standard Specification for Clay Fire Linings) or its equivalent. Keep a minimum of 12" (304.8 mm) of brick masonry between the clay liner and wall combustibles. The clay liner shall run from the brick masonry outer surface to the inner surface of the chimney flue liner but not past the inner surface. Firmly grout or cement the clay liner in place to the chimney flue liner.



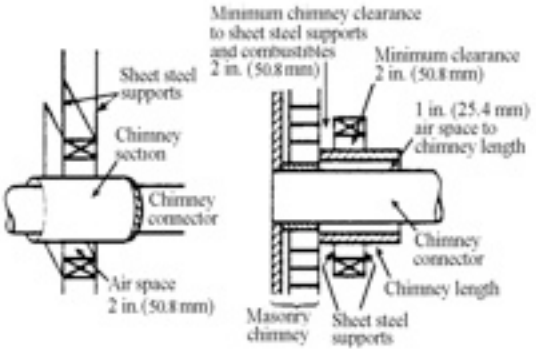

Method B. 9" (228.6 mm) Clearance to Combustible Wall Member: Using a 6" (152.4 mm) inside diameter, listed factory-built Solid-Pak chimney section with insulation of 1" (25.4 mm) or more, build a wall pass-through with a minimum 9" (228.6 mm) air space between the outer wall of the chimney length and wall combustibles. Use sheet metal supports fastened securely to wall surfaces on all sides, to maintain the 9" (228.6 mm) air space. When fastening supports to chimney length, do not penetrate the chimney liner (the inside wall of the Solid-Pak chimney). The inner end of the Solid-Pak chimney section shall be flush with the inside of the masonry chimney flue, and sealed with a non-water soluble refractory cement. Use this cement to also seal to the brick masonry penetration.




Method C. 6" (152.4 mm) Clearance to Combustible Wall Member: Starting with a minimum 24 gage (.024" [.61 mm]) 6" (152.4 mm) metal chimney connector, and a minimum 24 gage ventilated wall thimble which has two air channels of 1" (25.4 mm) each, construct a wall pass-through. There shall be a minimum 6" (152.4) mm separation area containing fiberglass insulation, from the outer surface of the wall thimble to wall combustibles. Support the wall thimble, and cover its opening with a 24-gage minimum sheet metal support. Maintain the 6" (152.4 mm) space. There should also be a support sized to fit and hold the metal chimney connector. See that the supports are fastened securely to wall surfaces on all sides. Make sure fasteners used to secure the metal chimney connector do not penetrate chimney flue liner.




Method D. 2" (50.8 mm) Clearance to Combustible Wall Member: Start with a solid-pak listed factory built chimney section at least 12" (304 mm) long, with insulation of 1" (25.4 mm) or more, and an inside diameter of 8" (2 inches [51 mm] larger than the 6" [152.4 mm] chimney connector). Use this as a pass-through for a minimum 24-gage single wall steel chimney connector. Keep solid-pak section concentric with and spaced 1" (25.4 mm) off the chimney connector by way of sheet metal support plates at both ends of chimney section. Cover opening with and support chimney section on both sides with 24 gage minimum sheet metal supports. See that the supports are fastened securely to wall surfaces on all sides. Make sure fasteners used to secure chimney flue liner.



# 7. Insulate the Oven Dome

Each oven comes with either 3 x 1" or 4 x 1" of ceramic insulation, enough to fully insulate your oven to where the outside of the oven enclosure will remain cool to the touch while the oven reaches temperatures in excess of 900ºF.

*7.1. FB Blanket inside a rebar Igloo frame.*

## Instructions

Ceramic fiber blanket insulation such as FB Blanket is easy to work with, and is easy to cut and shape. Always use a mask when working with any ceramic insulation. Take care to overlap any joints. Optionally, you can hold the insulation in place with a metal band or wire mesh.

# 8. Enclosure Design Styles

## Overview

The oven enclosure must be sealed to protect your oven and its insulation from water. It can be constructed from concrete block, rebar and stucco mesh, metal stud and concrete board or free standing brick or stone.The style of the enclosure is up to you, your imagination, and the availability of local materials. The examples shown here from around the country will give you a start.

**A MAJOR CAUSE OF OVEN-RELATED FIRED IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIR SPACES) TO COMBUSTIBLE MATERIALS. IT IS OF UTMOST IMPORTANCE THAT THIS OVEN BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.**

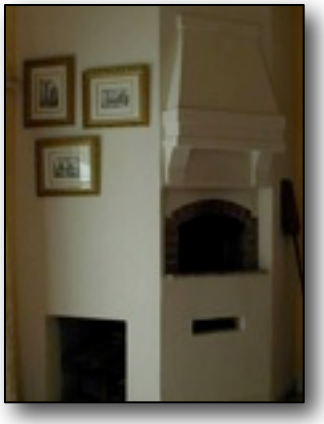
For more design ideas, visit us at www.fornobravo.com.

*Barrel Vault*

*Gable House*

*Stone House*

*Stucco House*



*Indoor Corner Oven*

*Igloo*

*Igloo*

*Brick House*

*Stone House*

*Wall Oven*

*Gabled House*

*Stone House*

*Stone House*

*Corner Oven*

*Gabled Stone House*

# 9. Igloo Enclosure

## Overview

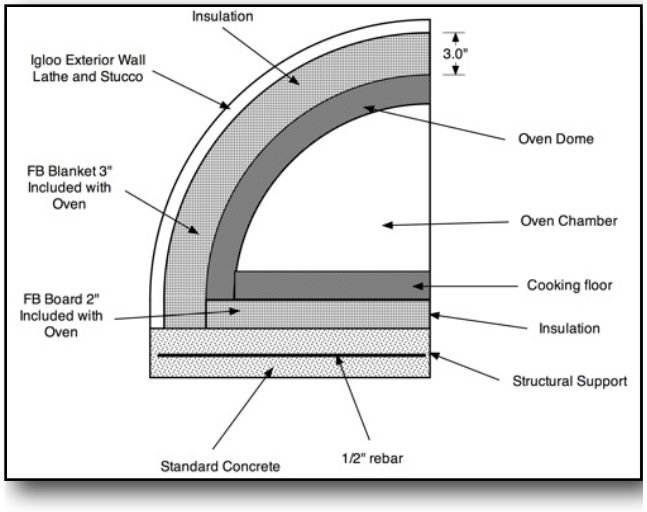
The Igloo is a traditional Italian and Mediterranean pizza oven design style where the enclosure follows the basic lines of the oven dome and chimney—thus the Igloo.

## Instructions

There are two ways of making the Igloo shape, both of which follow the guidelines set forth in Graphic 9.1. First, you can create the Igloo using stucco lathe and insulating concrete. The insulating concrete is then covered with a thin finish coat of waterproof stucco.

Second, the Igloo shape can be created with rebar and stucco lathe, separately from the dome. Drill 1/4” holes around the perimeter of the oven hearth, the distance you want away from the exterior of your oven, to accommodate your insulation thickness. Insert pieces of pencil rebar in the holes, and bend them to the desired Igloo shape. Cover the pencil rebar with stucco mesh, and secure it in place with concrete tie wire to make the Igloo frame solid.

Cover the entire structure with a 1/2"-3/4" undercoat of stucco, followed by a finish stucco coat to the style you prefer. Finally, seal the entire oven with a weatherproof stucco coat or paint.




*9.1 The sections of an Igloo oven.*

*9.2. The oven dome and lathe shape the Igloo.*

*9.3. Rebar and lathe shape the Igloo.*

*9.4. Rough coat of stucco on wire lathe.*

# 10. Walled Enclosures

## Overview

The Gabled House, or walled enclosure, is one of the most traditional ways to finish a brick oven. There are examples of these ovens throughout the Italian countryside.

The basic process for finishing your oven this way is straightforward. Construct walls around your oven using metal studs to a height of at least 6" higher than the top of your insulated oven dome. Face the metal studs with concrete board, and finish the exterior of the oven with stucco, brick, or stone. The roof design is up to the builder, and it can be finished with stone, clay tile or modern composite tile.

---

**DO NOT USE WOOD or PLYWOOD TO FRAME YOUR OVEN ENCLOSURE. USE METAL STUDS AND NON COMBUSTIBLE BACKER BOARD.**

---

## Instructions

Using traditional partition wall building techniques, build a wall using a single metal stud lying flat as a bottom plate, and two metal studs lying flat as the top plates for each wall. Attach the bottom plate to the concrete hearth slab using concrete screws. Set metal studs every 16" in the body of the wall to support the concrete board.

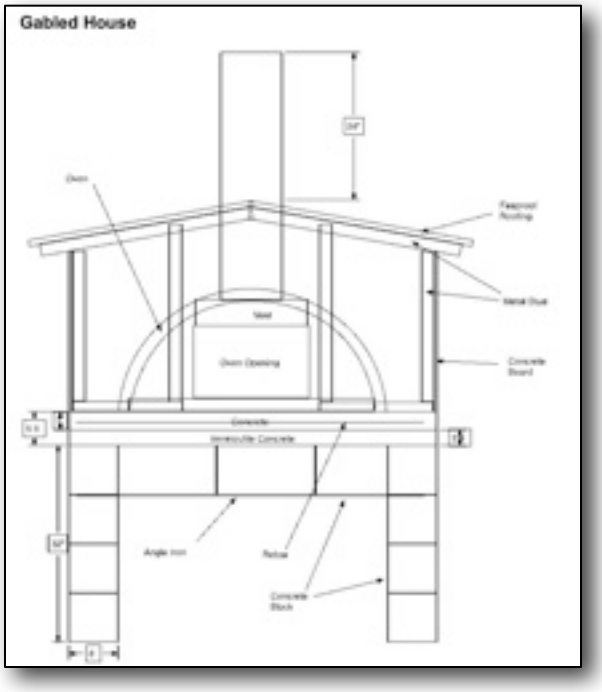
Interlock the top two metal stud top plates at each corner to give the structure more strength. Set two vertical studs at each corner for a larger face to attach the concrete board, and to give the structure more strength.

## The Oven Opening

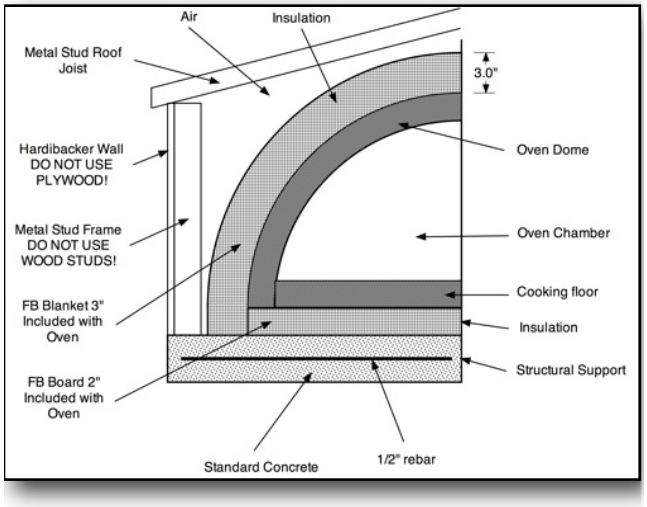
Set the location of the front wall of the oven enclosure so that the brick arch at the oven opening projects forward by a couple of inches. Set one horizontal stud at the top of the arch, and set two additional studs at a 45-degree angle on the sides of the arch to provide support for the concrete board.

## Finish

Attach your concrete board using metal stud screws. You can finish your enclosure walls with stucco, brick, or stone. The roof design is up to the designer, and can be finished with stone, clay tile or composite tile. The gap between the oven and the enclosure walls is filled with FB Blanket.




*10.1. The basic walled enclosure.*




*10.2. The layers of a walled enclosure oven.*

*10.3. Metal studs and a gabled roof.*

*10.4. Attach concrete board.*

## Tips and Techniques

Build your walled enclosure the same way you would build a partition wall using wood studs. Set the vertical studs on 15" centers, and always center your concrete board seams directly on your vertical studs.

Use the flat head screws design specifically for attaching concrete board to metal studs, as they do a good job of drilling into the metal studs, and leave a flat surface that can be easily finished with stucco or stone.

## 11. Curing Your Oven

It is important at this point that you cure your oven slowly, by building a series of five increasingly larger fires, starting with a low temperature. If you begin building large fires in your oven right way, you will compromise your oven's longevity and ability to cook well, and cause damage, including cracking.

After you have installed your oven, there is still a great deal of moisture in the mortars, hearth concrete, vermiculite, and the oven chamber and vent. Each of these oven components was recently produced using an air-drying, water-based process. Simply letting the oven stand for a week does not "cure" the moisture out of them oven.

Before you start the curing process, let the complete oven sit for one week. Then, start a series of low and growing fires, using the analog temperature gauge provided in the oven door/frame. The temperature gauge reads the oven's air temperature. For a more accurate temperature reading of the oven refractory surfaces, which can be use for many types of cooking, you can use the optional Digital Infrared Thermometer, which can be purchased in the Forno Bravo Store.

Day 1. Maintain a fire temperature of 300ºF throughout the day and as long as possible into the evening.

Day 2. Repeat at 350ºF.

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**Important Note. While it is difficult to maintain consistent, low temperature fires, it is critical for proper curing that you do not go above these temperatures during the first two days.**

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Day 3. Repeat at 400ºF.

Day 4. Repeat at 450ºF.

Day 5. Repeat at 500ºF.

Close the oven door every evening to preserve dryness and heat.

### Important Notes

**Use solid wood fuels only**. DO NOT use charcoal, pressure treated lumber, chipped wood products, sappy wood such as pine, laminated wood or any material other than dry medium or hard firewood.

**Do not use products not specified for use with this oven.**

DO NOT USE liquid fuel (firelighter fluid, gasoline, lantern oil, kerosene or similar liquids) to start or maintain a fire.

Never use water to lower temperature inside the oven, or to extinguish the fire.

There must be a period of time between completing the masonry work and beginning the actual firing cure. Longer is better than shorter, particularly for the actual dome cement. The cement and mortar must cure first and this process is actually improved by keeping the cement moist and not letting it dry out.

Also, using a space heater can help, but only so far. It is not an alternative to fire curing. We tested a space heater in an assembled Forno Bravo precast oven for two days, then quickly heated the oven up, (don't do this at home -- it was an experiment to see what would happen to an oven that we have here) and we found that we created a very large amount of steam from the oven, mortars and vermiculite, which went on for hours and hours.

## 12. Firing and Operation

Oven bricks intended for direct contact with bread and/or pizza products only. All other food products must not come into contact with brick surface but should be contained within approved cookware.

Start your fire using a taste-free, odor-free fire starter and dry kindling. Build your fire up slowly, adding wood to the back and sides as the fire grows.

Continue to add wood until the oven reaches the desired temperature. Then, move the fire to one side and brush the oven floor. Only use a copper brush, and do not use steel wire brushes, natural fiber brushes or wet clothes to clean the oven floor.

The fire must be built directly on the oven floor. DO NOT elevate the fire.

You can monitor your oven temperature using the analog oven air temperature gauge provided with the oven, or with an optional Digital Infrared Thermometer.

DO NOT over fire your oven, or build a fire where flame exits the oven door opening.

BEWARE of very high temperatures in the oven and use long oven gloves and mitts to handle pots and tools. DO NOT put unprotected hands or arms inside oven while it is lit.

BEWARE of flying sparks from mouth of oven. Ensure that no combustible materials are within range of oven at any time.

DO NOT close the oven door fully while a fire is in the oven. Closing the door fully will cut off oxygen to the fire, causing the fire to erupt suddenly when the door is removed. Always keep door tilted to allow air to circulate in the oven.

Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire in the oven. Keep all such liquids well away from the oven when in use.

The oven should be operated only with the doors fully opened or fully closed. When doors are left partially open, gas and flame may be drawn out of the oven opening, creating the risk of both fire and smoke.

Keep the oven door opening free of all combustible materials when the oven is in operation.

Disposal of Ashes. Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a non-combustible floor, or on the ground, well away from all combustible materials pending disposal. When the ashes are disposed by burial in soil, or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

Wood can be stacked in the area under the oven hearth.

## 13. Maintenance and Cleaning

The oven can inspected through the door opening. Allow the oven to completely cool before inspecting the vent and chimney pipe for creosote build up.

Have your chimney cleaned by a professional chimney sweep if you have doubts about your ability to clean it. Use a plastic, wood, or steel brush. Do not use a brush that will scratch the stainless steel liner of your chimney. Scrub the spark arrestor with a wire brush.

To remove the Chimney Cap for cleaning, either twist counter-clockwise to remove the entire cap, or unscrew the four (4) screws that attach the cap's support legs to the cap base. The Tee Cleanout Cap can be removed by turning counter-clockwise. Be sure to replace Tee Cleanout Cap when you are finished cleaning the chimney.

Creosote – Formation and need for removal. When wood is burned slowly, it produces tar and other organic vapors that combine with expelled moisture to form creosote. The creosote vapors condense in a relatively cook oven flue and exhaust hood of a slow burning fire. As a result, creosote residue accumulates on the flue lining and exhaust hood. When ignited, this creosote makes an extremely hot fire.

The oven flue should be inspected at least twice a year to determine when creosote buildup has occurred.

When creosote has accumulated, it should be removed to reduce risk of fire.

# Appendix 1. InstallationTools List

## Tools

- A circular saw with three blades: general-purpose wood, metal and diamond masonry. The diamond masonry blade costs more, but last longer and cuts quickly.
- A hammer.
- A rubber mallet.
- 2'-3' level.
- Grinder (optional). You can use the grinder to cut rebar, wire, and concrete block. It will save you time from not having to frequently change blades on your circular saw.
- A chalk line.
- A builder's pencil.
- A notched tile trowel for setting the cooking floor.
- Goggles and a dust mask.
- A mixing tub.
- A hoe for mixing.
- A square-edged transfer shovels.
- A tamper.
- Concrete mixer (optional). You can rent one.
- A bucket, scrub brush and sponge for clean up.
- A garden sprayer to keep your masonry damp.

# Appendix 2. Material List

Please calculate your exact requirements depending on your oven size and enclosure design.

## 80cm/32" or 90cm/36" Oven

### Foundation

- (30) 80 lb. bags of Ready-Mix concrete
- (8) 1/2" x10' rebar, (4) cut to 80";(4) cut to 94"
- (4) 2"x6"x8' studs, (2) cut to 83";(2) cut to 94"
- (48) Sq ft of wire mesh
- (12) Rebar stand-offs
- (104) Sq ft of 6 mil plastic sheeting
- Handful of plastic zip-ties, or ball of tie wire
- 1/2 cu yd of gravel
- (1) Box 2 1/2" framing nails

### Block Stand

- (50) 8"x8"x16" blocks, (12) of which are cut to 8"x8"x12"
- (5) 8"x8"x8" blocks
- (3) ½" x 10' 1/2" rebar, each cut into (3) 40" sections to fill nine block cores
- (14) 80 lb. bags concrete for filling every other core
- (2) 1.5"x1.5"x56" angle iron (for front span)
- (3) 60 lb. bag mortar (to level first course of blocks)

### Concrete Hearth

- (2) 4'x'8x3/4" sheets of plywood or particle board
- (4) 2"x4"x8' wood studs
- (4) 2"x6"x8' wood studs
- (1) Box shims (or make your own from scrap wood)
- The rest of the 2 1/2" framing nails
- (12) ½" x 10' rebar, (6) cut to 72"; (6) cut to 84"
- (17) 80 lb. bags of pre-mixed concrete

## 100mc/40", 110cm/44" or 120cm/48" Oven

### Foundation

- (46) 80 lb. bags of Ready-Mix concrete
- (8) ½" x 10' rebar, four cut to 80"; four cut to 94"
- (4) 2"x6"x8' studs, two cut to 83"; two cut to 94"
- (48) Sq ft of wire mesh
- (12) Rebar stand-offs
- (104) Sq ft of 6 mil plastic sheeting
- Handful of plastic zip-ties, or ball of tie wire
- 1/2 cu yd of gravel
- (1) Box 2 1/2" framing nails

### Block Stand

- (63) 8"x8"x16" blocks, 12 of which are cut to 8"x8"x12"
- (10) 8"x8"x8" blocks
- (3) ½" x 10' rebar, each cut into three 40" sections to fill nine block cores
- (14) 80 lb. bags concrete for filling every other core
- (2) 1.5"x1.5"x56" angle iron (for front span)
- (3) 60 lb. bags mortar (to level first course of blocks, if needed)

### Concrete Hearth

- (2) 4'x'8x3/4" sheets of plywood or particle board
- (4) 2"x4"x8' wood studs
- (4) 2"x6"x8' wood studs
- (1) Box shims (or make your own from scrap wood)
- The rest of the 2 1/2" framing nails
- (12) ½" x 10' rebar, (6) cut to 72"; (6) cut to 84"
- (30) 80 lb. bags of pre-mixed concrete

# Appendix 3. Cucina Stand Assembly

The Cucina stand is an optional modular metal stand frame for creating a "built-in" look for the Forno Bravo residential ovens. The stand consists of a metal stand frame and hearth tray, along with pre-cut and pre-drilled backer board panels that face the outside and inside of the stand and form the bottom of the hearth tray. The stand is designed to hold a customer-installed concrete hearth and decorative finish, such as stucco, stone or brick.

## Assembly Instructions

1. Bolt the metal frame together and set it in place.

2. Screw the backer panels to the inside of the metal frame.

3. Screw the backer panels to the outside of the frame. Do not worry if there are gaps between the panels. The stand will be covered with a decorative finish.

4. Lay the backer panels in the bottom of the hearth tray and support them with a customer supplied support built using 2x4 lumber. The support will hold the tray panel and concrete in place while the wet concrete is curing.Cut the 2x4 lumber to make a "T" under each panel, where to top of the support touches the bottom of the panel.

5. For the Casa2G ovens, place a grid of 1/4" rebar running in both directions every 10", located in the center of the tray (equal amounts of concrete above and below the rebar grid.

6. Mix and pour standard pre-mix concrete to fill the tray, and leave it to cure for 24 hours.

7. Remove the support.

8. Place the oven on top of the concrete hearth.

---

**Do not place an assembled Forno Bravo oven inside the stand tray. The stand is not designed to accurately fit the size of any assembled oven and you will damage the oven enclosure if you try to make it fit. Pour a concrete hearth and place the assembled oven on top of the cured concrete.**

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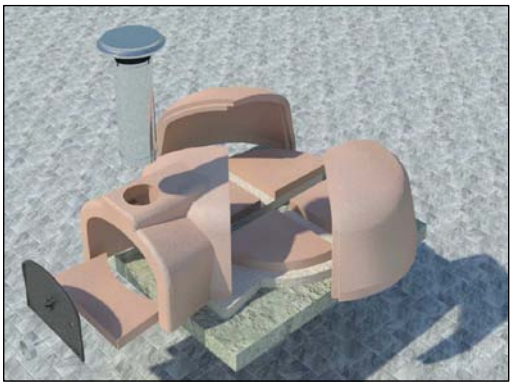
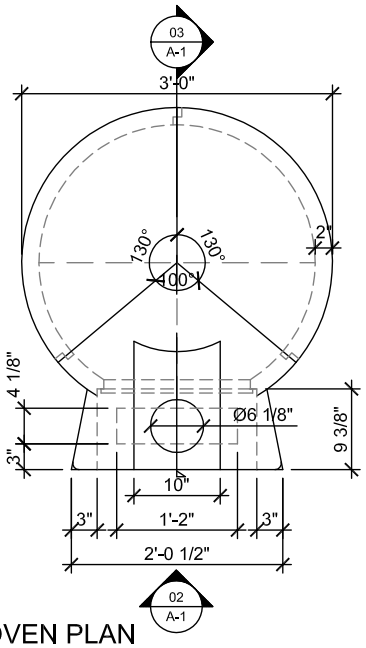
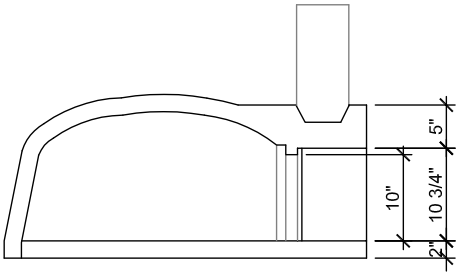
## Appendix 4. Oven Dimensions



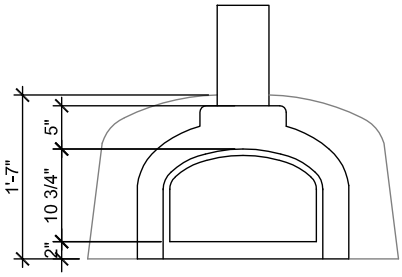
3D VIEW
NOT TO SCALE




01 A-1 OVEN PLAN
SCALE: 3/4"=1'-0"

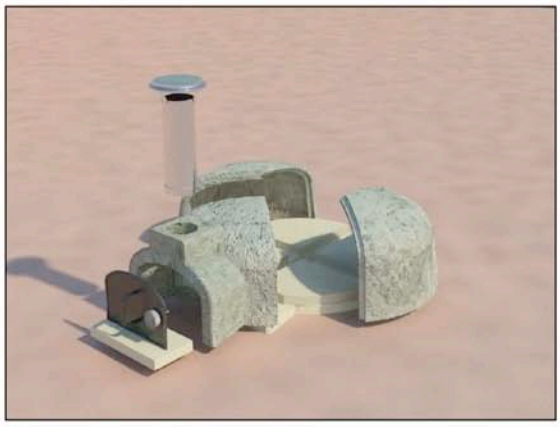



03 A-1 SIDE ELEVATION
SCALE: 3/4"=1'-0"

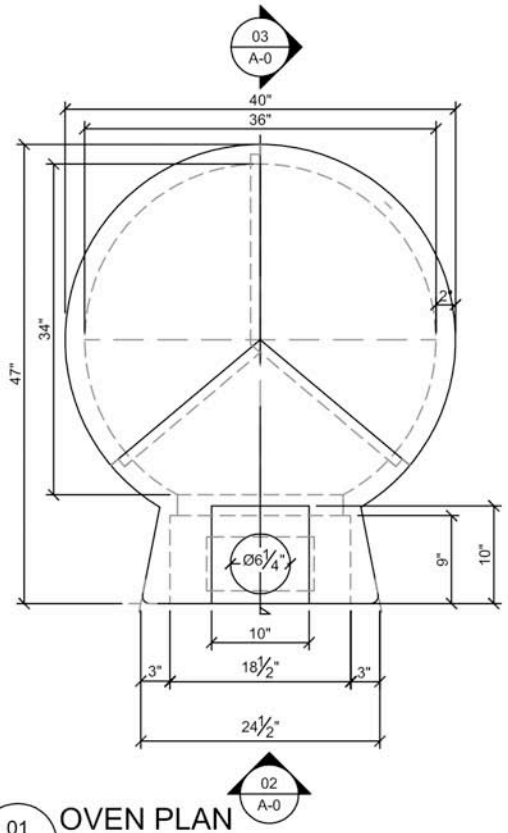



02 A-1 FRONT ELEVATION
SCALE: 3/4"=1'-0"

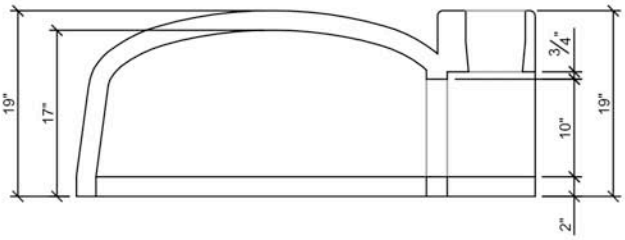
| | | | |
|---|---|---|---|
| A-1 | FORNO BRAVO, LLC<br>CASA2G80 | Project number | 0913 |
| | | Date | 9.9.09 |
| | | Drawn by | MC |



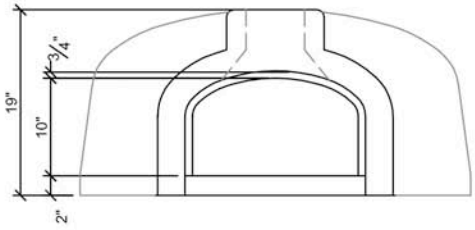
3D VIEW
NOT TO SCALE




01 A-0 OVEN PLAN
SCALE: 3/4"=1'-0"

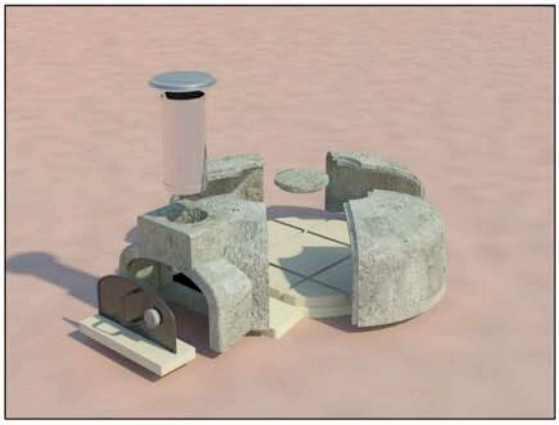



03 A-0 SIDE ELEVATION
SCALE: 3/4"=1'-0"

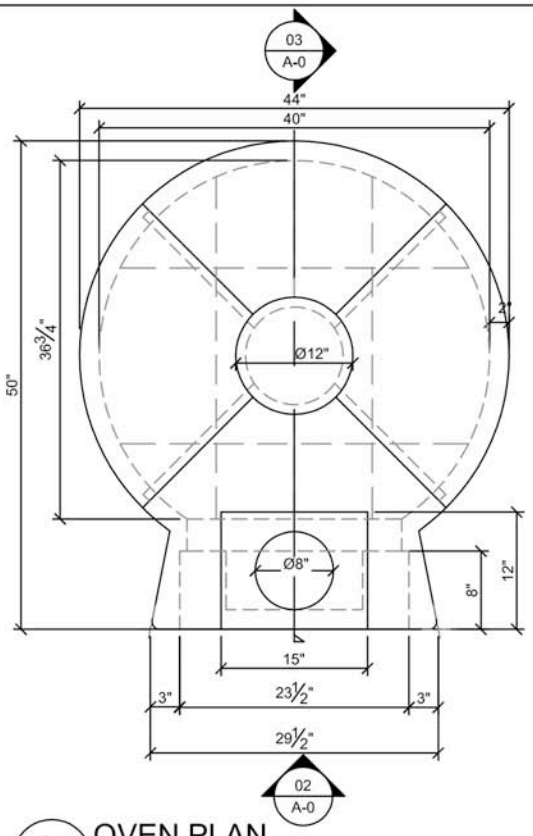



02 A-0 FRONT ELEVATION
SCALE: 3/4"=1'-0"

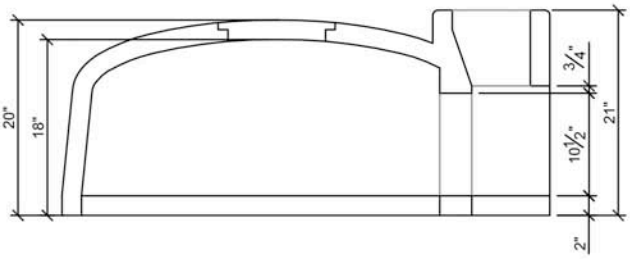
| | | | |
|---|---|---|---|
| A-0 | FORNO BRAVO, LLC<br>CASA2G90 | Project number | 0916 |
| | | Date | 10.27.10 |
| | | Drawn by | MC |



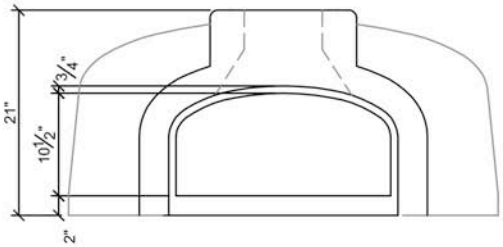
3D VIEW
NOT TO SCALE




01 A-0 OVEN PLAN
SCALE: 3/4"=1'-0"

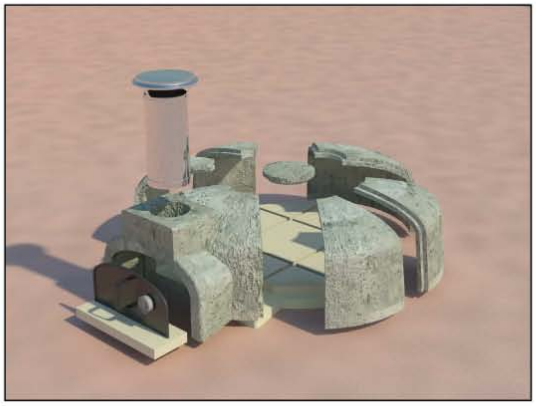



03 A-0 SIDE ELEVATION
SCALE: 3/4"=1'-0"

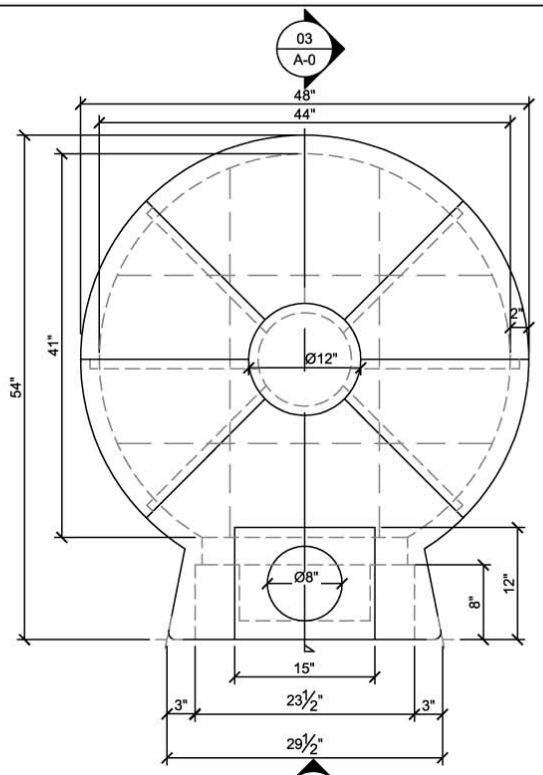



02 A-0 FRONT ELEVATION
SCALE: 3/4"=1'-0"

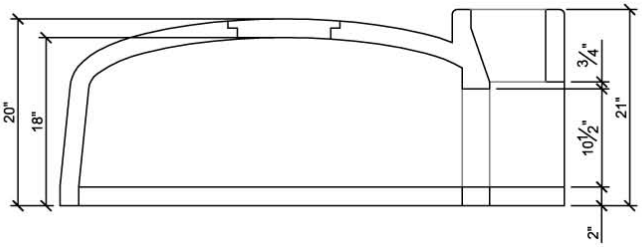
| | | | |
|---|---|---|---|
| A-0 | FORNO BRAVO, LLC<br>CASA2G100 | Project number | 0916 |
| | | Date | 10.27.10 |
| | | Drawn by | MC |



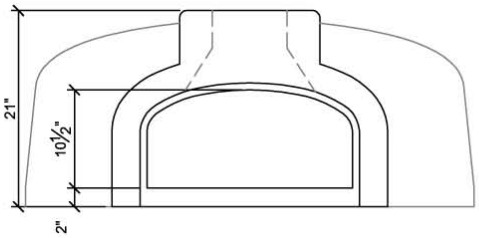
3D VIEW
NOT TO SCALE




01 A-0 OVEN PLAN
SCALE: 3/4"=1'-0"

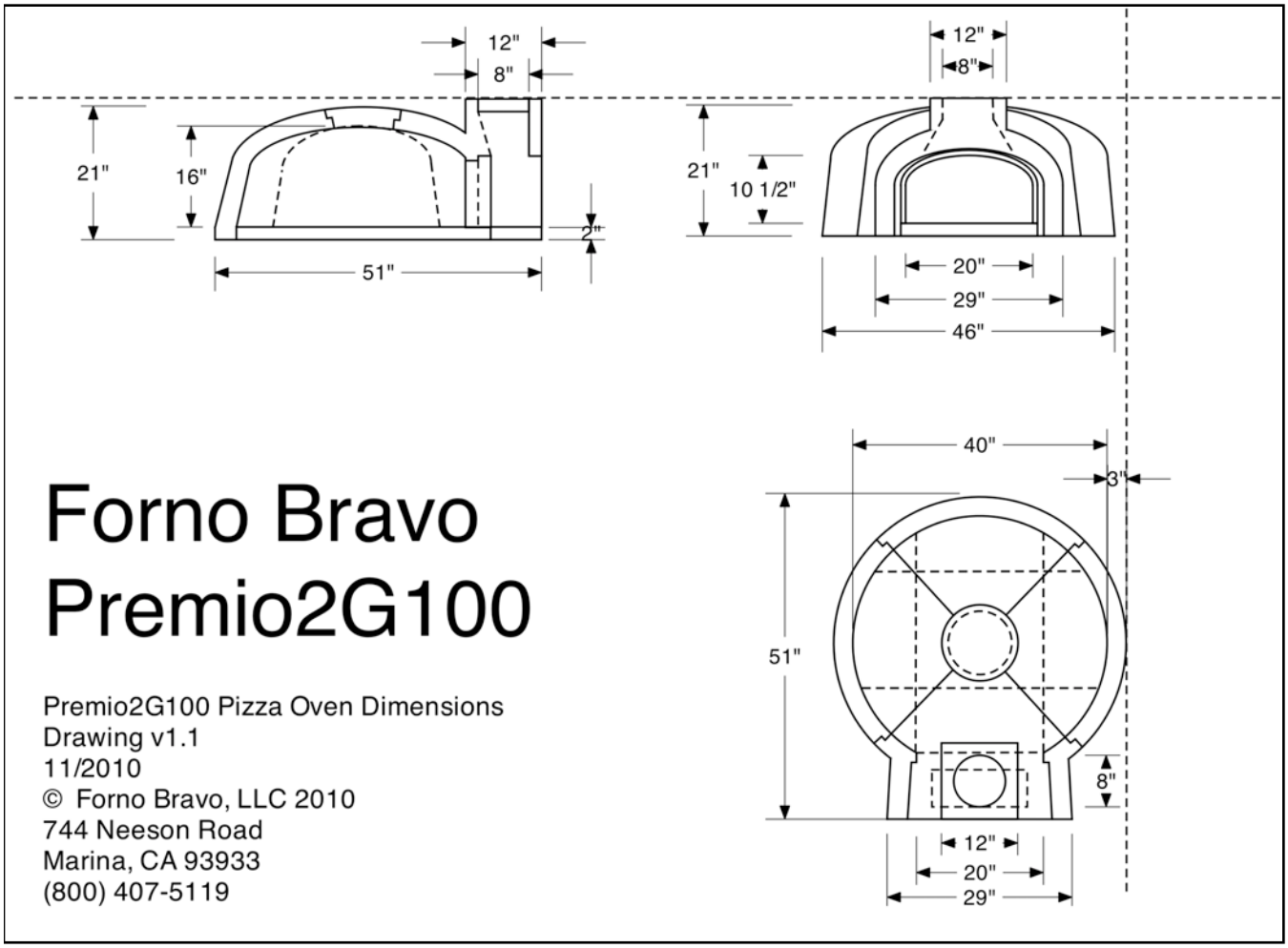



03 A-0 SIDE ELEVATION
SCALE: 3/4"=1'-0"




02 A-0 FRONT ELEVATION
SCALE: 3/4"=1'-0"

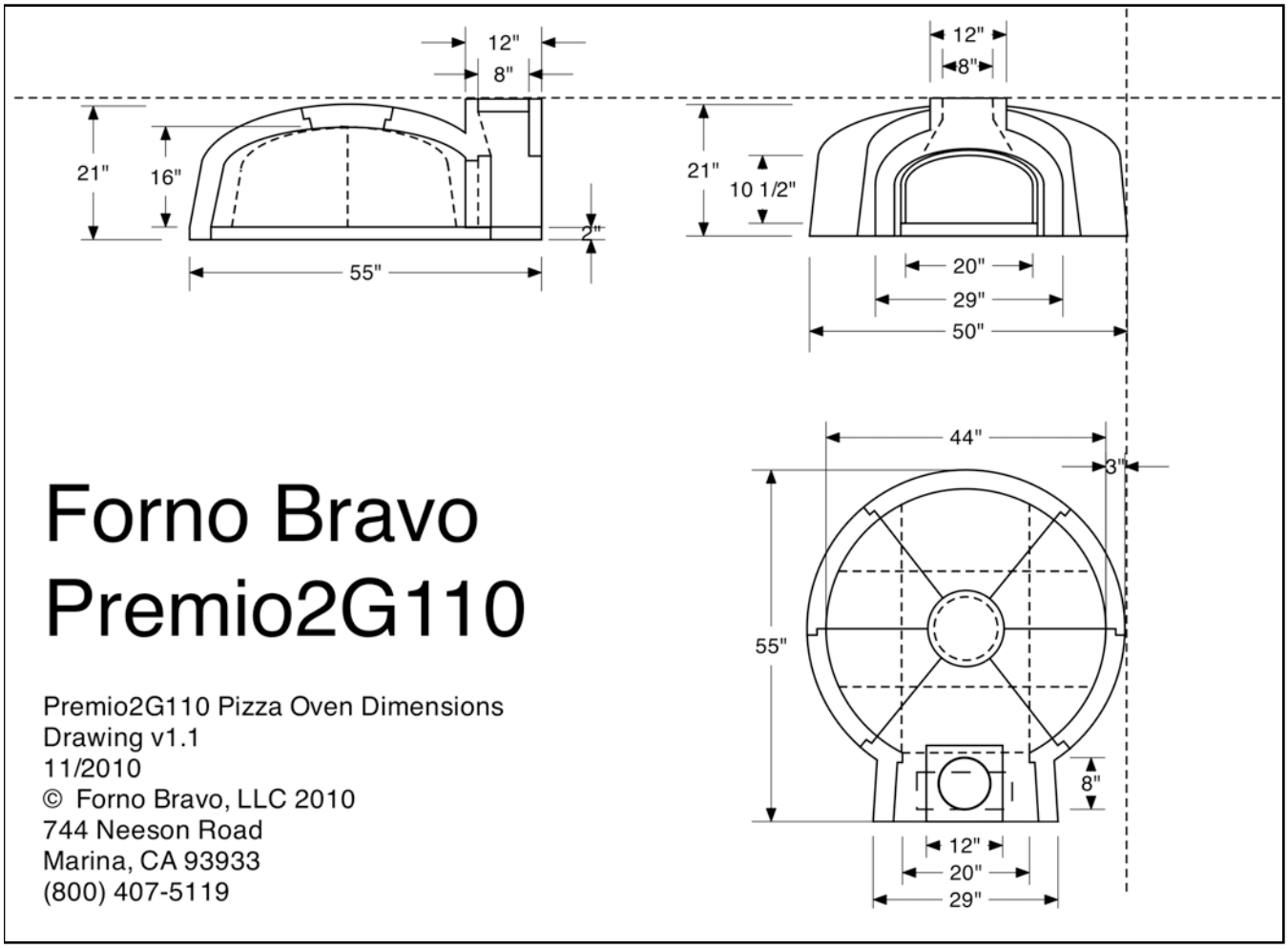
| | | | |
|---|---|---|---|
| A-0 | FORNO BRAVO, LLC<br>CASA2G110 | Project number | 0916 |
| | | Date | 11.1.09 |
| | | Drawn by | MC |




# Forno Bravo Premio2G100

Premio2G100 Pizza Oven Dimensions
Drawing v1.1
11/2010

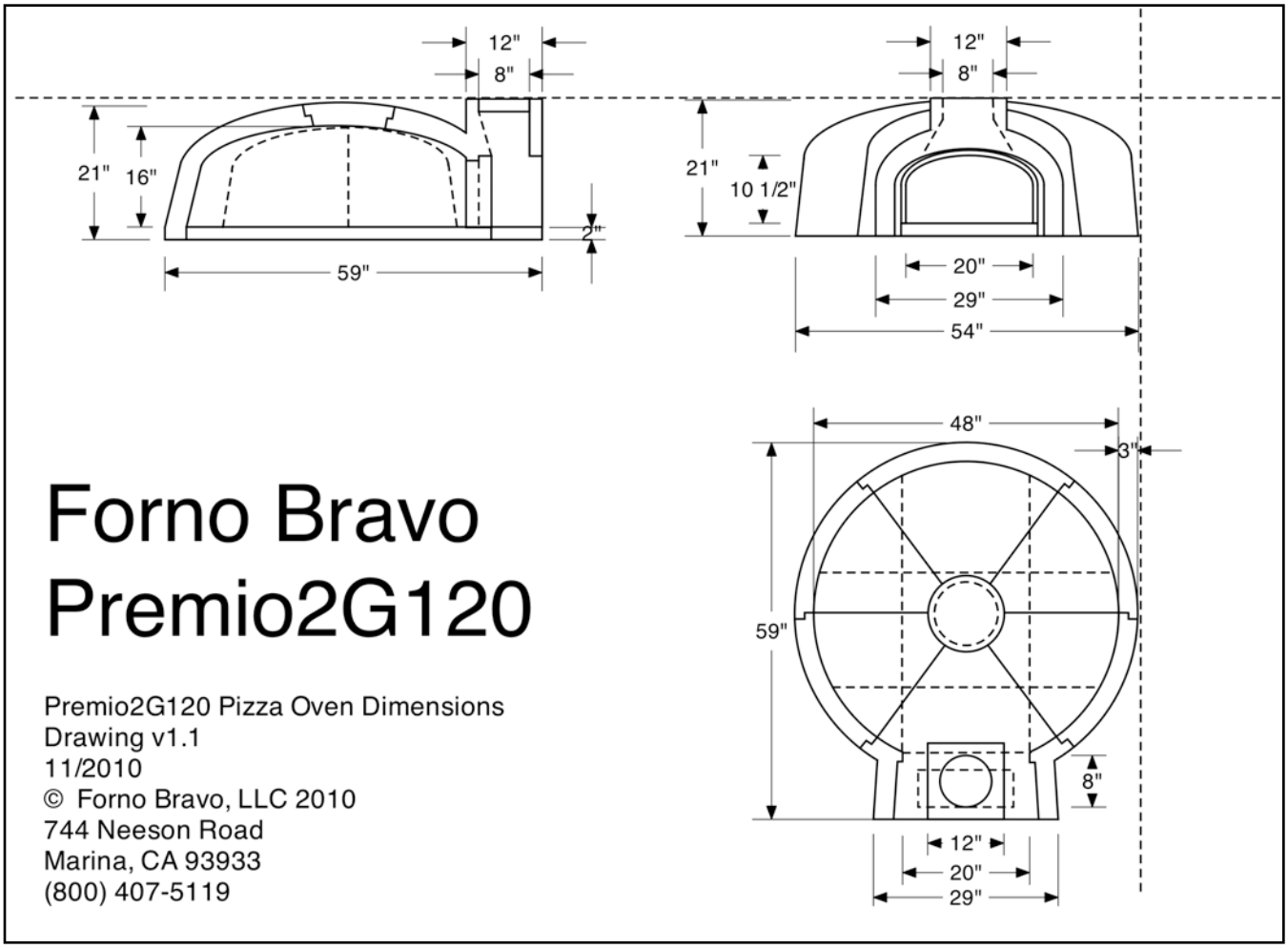
744 Neeson Road
Marina, CA 93933
(800) 407-5119




# Forno Bravo Premio2G110

Premio2G110 Pizza Oven Dimensions
Drawing v1.1
11/2010

744 Neeson Road
Marina, CA 93933
(800) 407-5119




# Forno Bravo Premio2G120

Premio2G120 Pizza Oven Dimensions
Drawing v1.1
11/2010

744 Neeson Road
Marina, CA 93933
(800) 407-5119