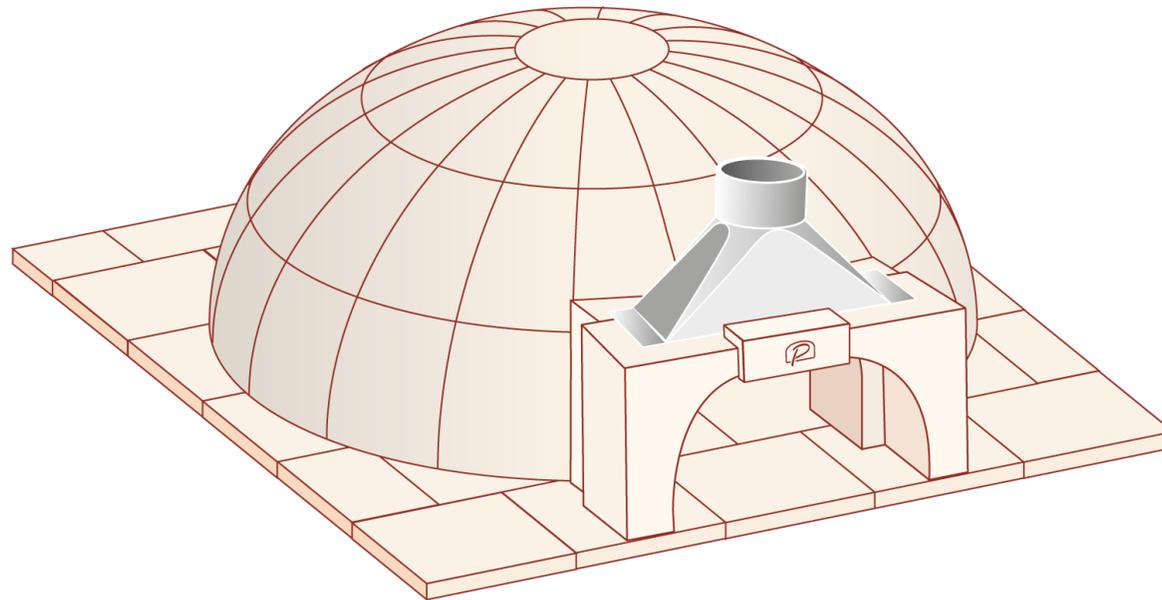


LIBERTE RANGE

Model 120

ASSEMBLY INSTRUCTIONS



OVEN PARTS LIST

Basic Formula	Model 120
Refractory terracotta tiles 33x33x6cm – Stone color	5
Refractory terracotta tiles 33x33x6cm – White color	25
Oven-entry	1 in 2 parts (left and right)
Smoke throat	1 in 3 parts (left, central, right)
Pediment Le Panyol	1
Voussoirs n°1 (120N1)	14
Voussoirs n°2 (120N2)	14
Voussoirs n°3 (120N3)	14
Voussoirs n°3A (120N3A)	3
Wood templates to place the voussoirs	14
Bevel wood templates to place the voussoirs	3
Wooden disc to place the templates	1
Keystone	1
Smoke adaptor Ø180 mm + Hardware	1
Refractory mortar for the oven dome – bags 25 kg	3
Grog to place under the tiles – bags 25 kg	7
Insulated door	1
Oven peel	1
Assembly instructions	1
Warranty	1
Complete Formula Grog	
Basic Formula	
+ Grog to insulate the oven dome- bags 25kg	35
+ Essential accessories kit (1 laser thermometer + 1 brush + 1 scraper + 1 wood peel)	1
+ Refractory Insulating Blanket - roll 3m ² - thickness 13mm	1
Complete Formula Blanket	
Basic Formula	
+ Refractory Insulating Blanket – Roll 3m ² - thickness 38mm	2
+ Chicken fence roll	1
+ Vermiculite (100 litres bag)	2
+ Refractory cement (25kg Bag)	2

TOOLS

- Spirit level
- Tape measure
- Spatula
- Trowel
- Rubber Mallet
- Jack
- Wood spacer
- Iron wire
- Drill
- Gloves



FOREWORD

Le Panyol ovens are made **exclusively** of Refractory White Earth, a 100% natural clay from our own quarry.

As the material is irregular by nature and the production methods are based partly on craft skills, you may find that there are gaps between the parts when it comes to assembling them. These will be filled in when you apply the refractory mortar.

These gaps allow the oven to expand.

The keystone may be slightly higher or lower than the dome of the oven.

The edges of the parts may crumble slightly if they are handled repeatedly.

THESE DIFFERENCES WILL IN NO WAY IMPAIR THE OPERATION OF YOUR OVEN OR SHORTEN ITS LIFE

The oven must be built under cover.



THE KEY STAGES OF ASSEMBLY

1. Choose a site for the oven
2. Build a base on which to sit the oven
3. Insulate the base
4. Assemble the oven floor – *see also the video*
5. Assemble the oven dome - *see also the video*
6. Apply the mortar
7. Insulate the oven dome
8. Connect the oven to a chimney pipe
9. Surround / decorate the oven

STEP 1 : Choosing a site

Before you start to assemble the oven, you'll need to decide where you're going to place it and work out exactly how much space you'll need to install it.

Check in particular that the floor can bear the weight of the finished oven (base + oven + insulation + surround + roof). The floor must be flat and should not subside under the weight of the construction.

The oven may be installed indoors or outdoors, stand-alone or incorporated into an existing building, near the pool, under a veranda or in the kitchen. A wide range of installations are possible. See our "Gallery" page on our website or ask the retailer in your region.

Outdoor Installation

The Le Panyol oven must be protected against bad weather by a roof wide enough to prevent the oven and hearth tiles from getting wet. It must be kept dry in winter as, if it absorbs water, frost would make it unusable. If the oven is stand-alone, the pipe must be approximately 1m long. However, if the oven is backed on to a wall or built into the home, the pipe must be long enough to go 40cm beyond the roof ridge (in accordance with DTU standard 24.1).

Indoor Installation

The Le Panyol oven must be connected to an existing or future-build chimney pipe, in accordance with DTU standard 24.1 (Unified Technical Document). Do not connect more than one apparatus to the same chimney pipe.

The pipe should be:

- 180 mm in diameter (the stainless steel smoke adaptor supplied with the oven is 180mm in diameter)
- Made up of a maximum of 2 x 45° bends
- Removable
- With a double skin if an indoor installation

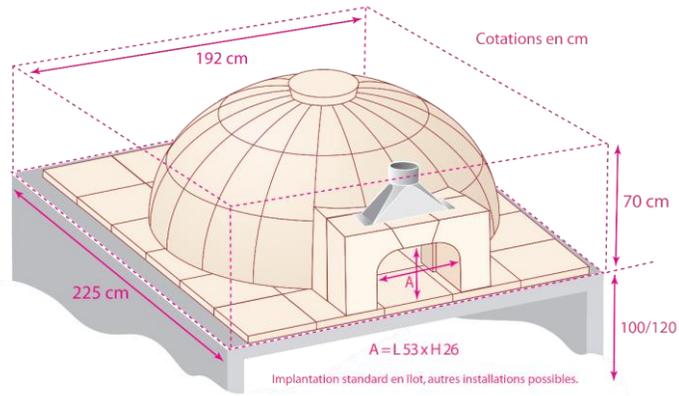
To prevent moisture and rainwater from getting into the pipe, you'll need to fit a rain cap on the top of the stack.

STEP 1 : Choose the final shape of the oven

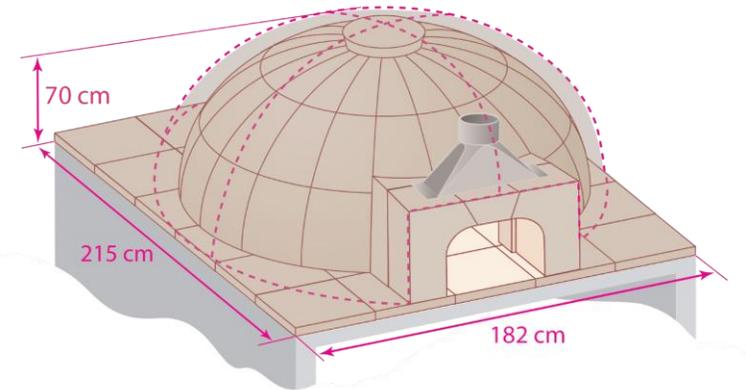
There are 2 kinds of shape for the oven : CUBIC and ROUNDED.

In terms of the shape, the insulation materials and the size of the base are different. For a rounded shape, there's no need to build a surrounding wall and therefore the size of the base is smaller.

Cubic shape



Rounded shape



STEP 2 : Building a base to support the oven

Foreword :

Before building the base, it is important to define the oven floor height (where the fire will be laid and the cooking done). This height defines the pillars' height of the base.

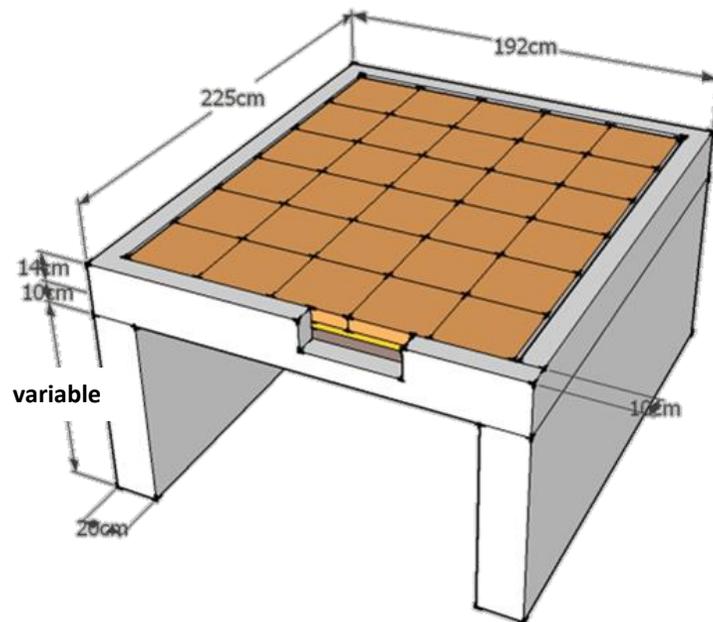
The oven floor is generally between 100 and 120 cm high, depending on the user's height and comfort requirements.

To calculate the pillars' height, subtract 24 cm to the oven floor height :

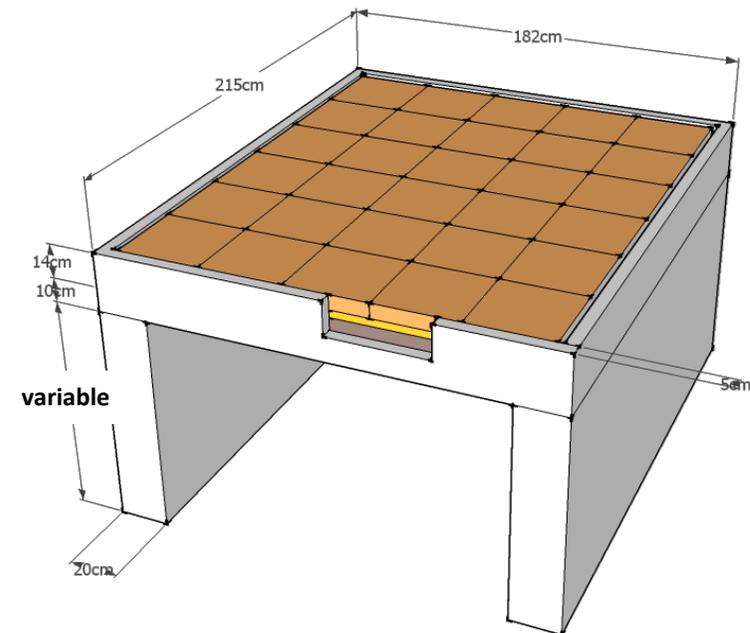
- the oven tiles : 6 cm thick
- the grog insulation under the oven tiles (included with the oven) : 3 cm thick
- The insulating plates (not provided with the oven) : 5 cm thick
- Reinforced concrete slab: 10 cm thick

Example : you want an oven floor height equal to 118 cm; then the pillars' height will be equal to $118 - 24 = 94$ cm

Dimensions of the base for a cubic shape



Dimensions of the base for a rounded shape



STEP 2 : Building a base to support the oven

Build :

- 3 breeze-block pillars 20 cm thick
- 1 reinforced concrete slab 10 cm thick
- 1 level (14 cm) of surrounding wall on the 3 sides using Siporex-type insulation blocks 10 cm thick if cubic shape and 5 cm thick if rounded shape. This wall will stem the grog under the floor tile.

Base width and depth

The dimensions include:

- Dimensions of the oven
- Thickness of the insulation
- Thickness of the surrounding wall
- Surround : rendering (i.e. a few millimeters thick)

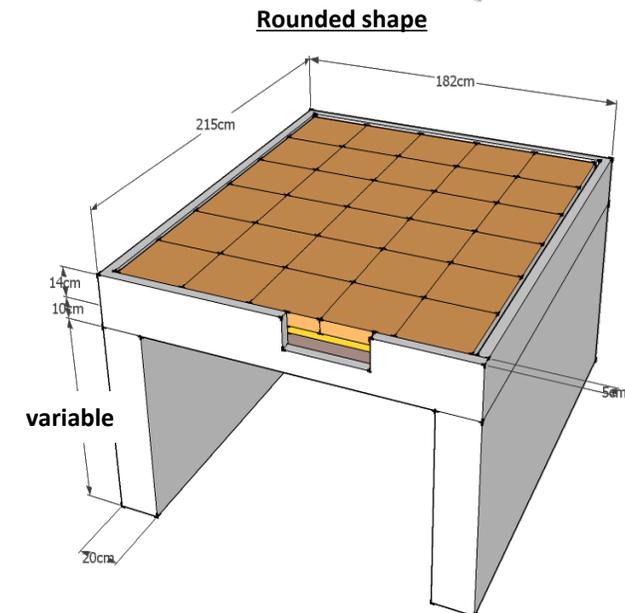
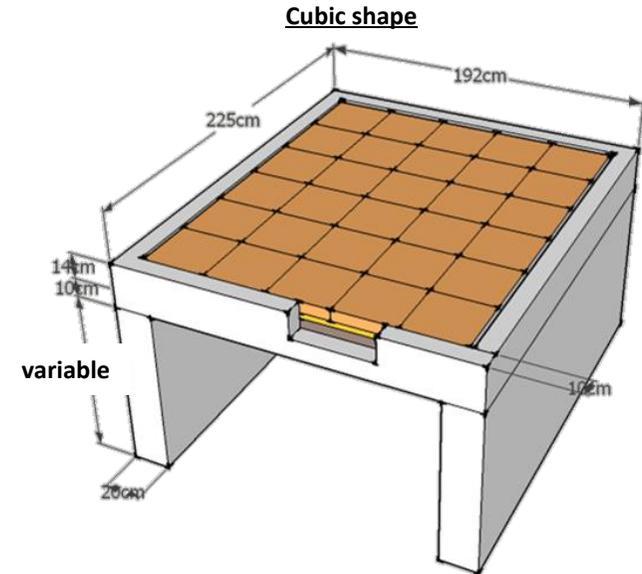
If the surround material is much thicker (bricks, stones,), you must add this thickness to the above dimensions

Warning:

These dimensions are minimum for a simple standard installation.

These dimensions are calculated with specific materials.

If you make any changes, you will have to calculate the dimensions of your base in terms of your choices.



STEP 3 : Insulating the base

Warning :

The photos are matching the model 83. For the model 120 there are 30 tiles but the process is exactly the same.

1. Insulate the reinforced concrete slab using dry Siporex-type insulation blocks 5 cm thick. Do not seal.
2. Pour out one bag of grog.
First, spread with the trowel to get an homogeneous bed of grog.
Check that the thickness is 3 cm. Level.

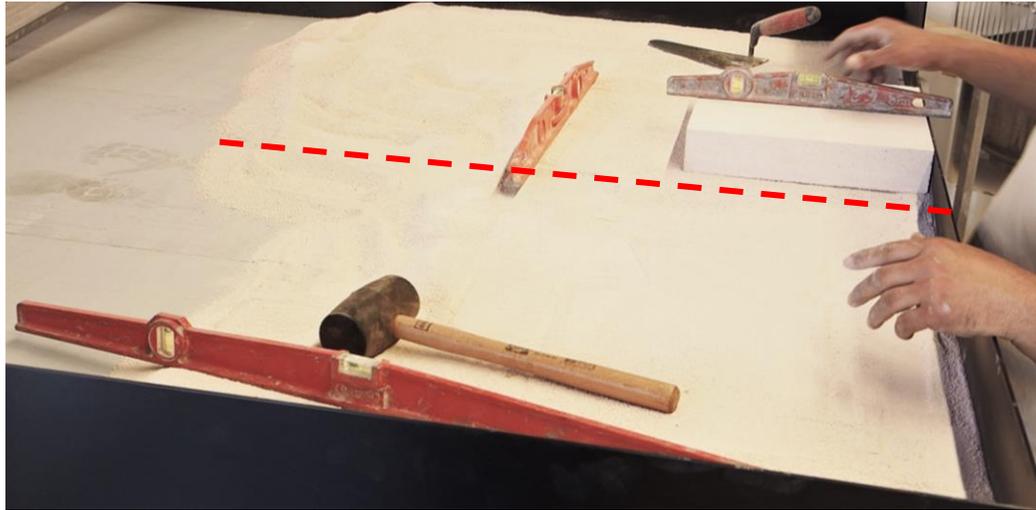


STEP 4 : Assembling the oven floor

The tiles must be laid against each other without sealing. Handle gently.

Draw the axis of the base. **Begin with the tiles with stone color** . Draw the axis of one tile. Match the 2 axis.

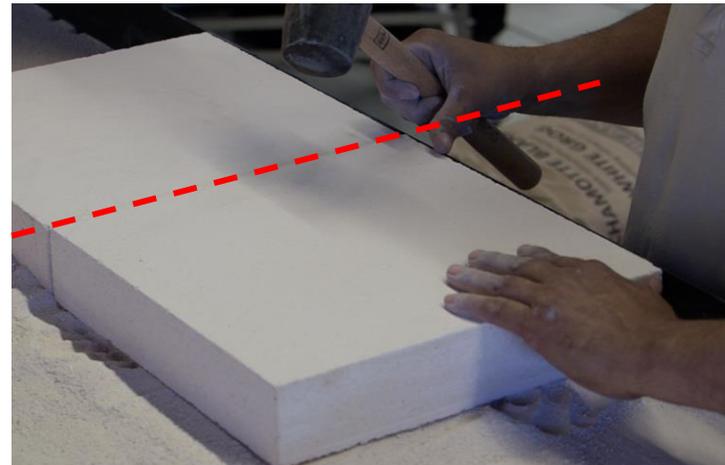
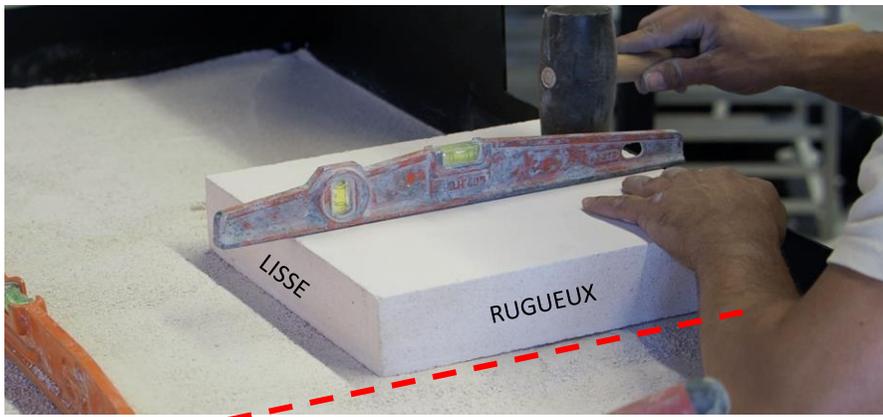
Warning : there is a way for the tiles. SMOOTH side on front and back, ROUGH side on left and right



Check that the tile is laid flat.

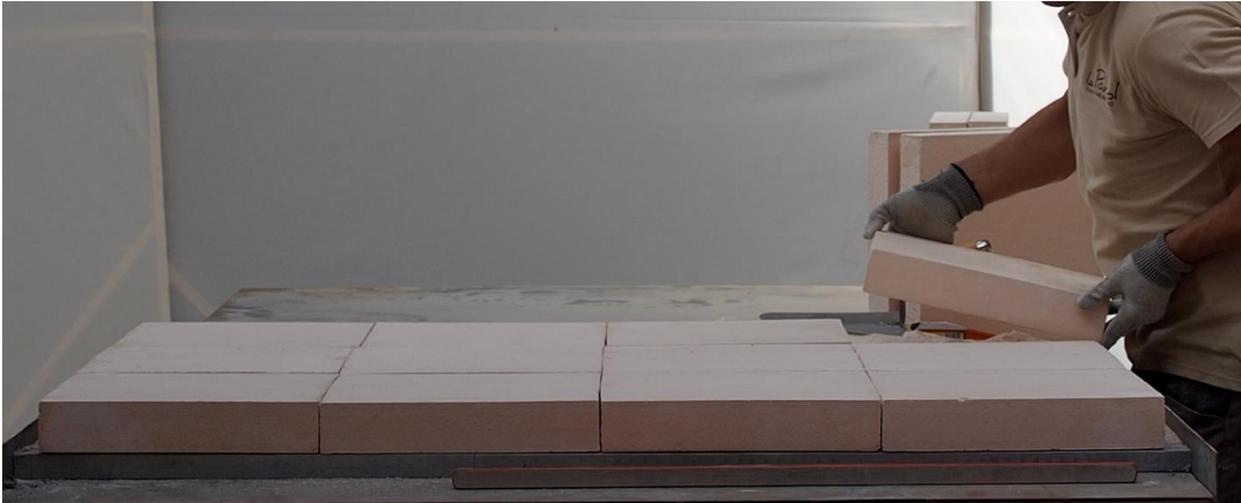
If necessary, even out the differences in thickness of the tiles by placing a bit more or less grog where required.

Place the other tiles on each side of the axis.

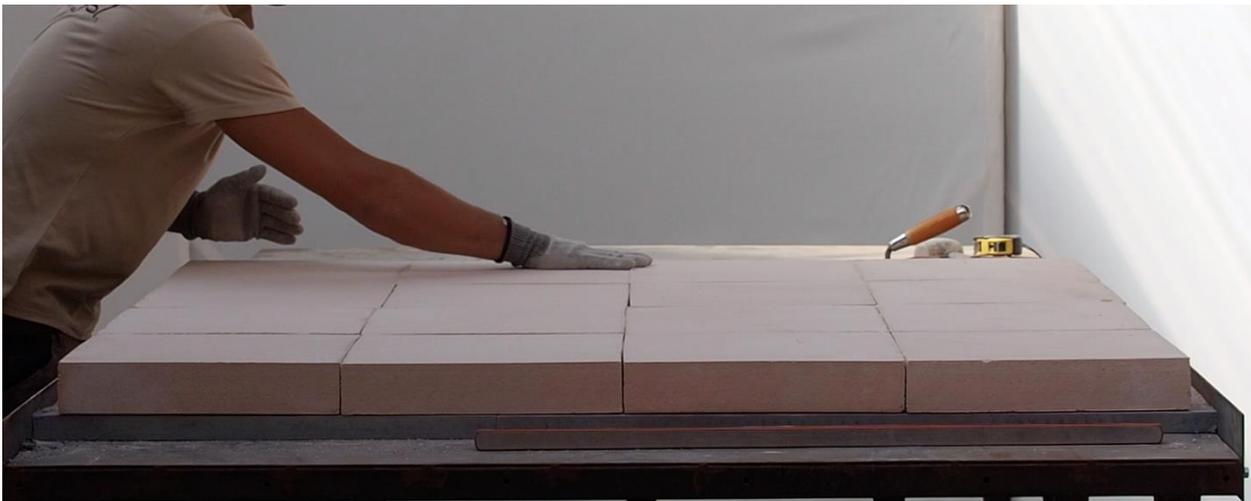


STEP 4 : Assembling the oven floor

Finish the first row. Then place the other tiles (white) on the same process.

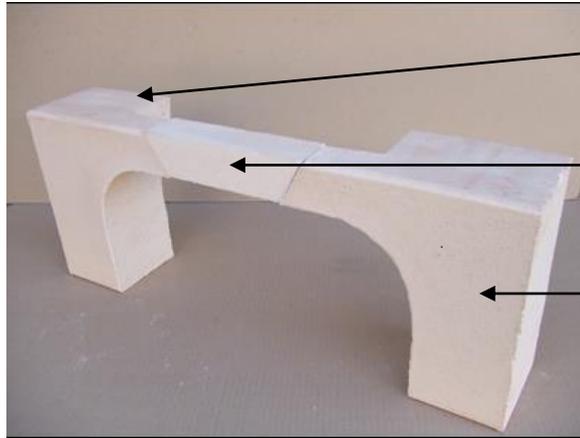


Once all the tiles are placed, check the level with your hand. Check that the oven floor is as flat as possible to avoid the pizza peel bumps during charging.



STEP 5 : Assembling the oven dome

STEP 1 : Placing the smoke throat pieces



Left pillar

Central piece

Right pillar



Draw the central axis of the oven floor.

Place the 2 pillars with equal distance from the axis. Place them with an overflow (1 cm) from the table.

Place the central piece. Do not seal for the moment.

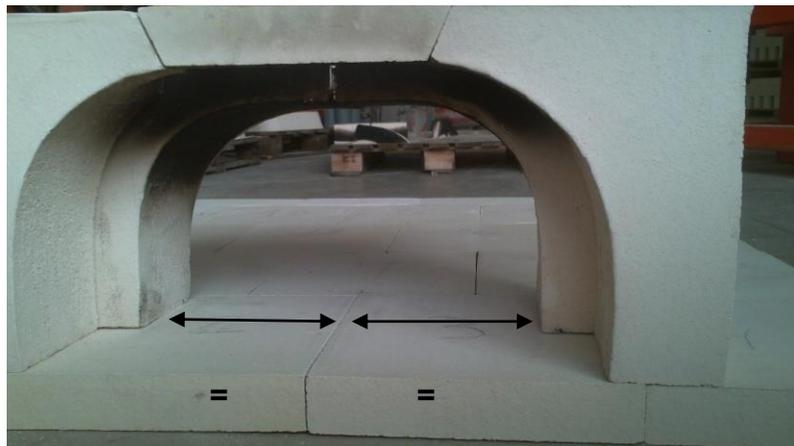
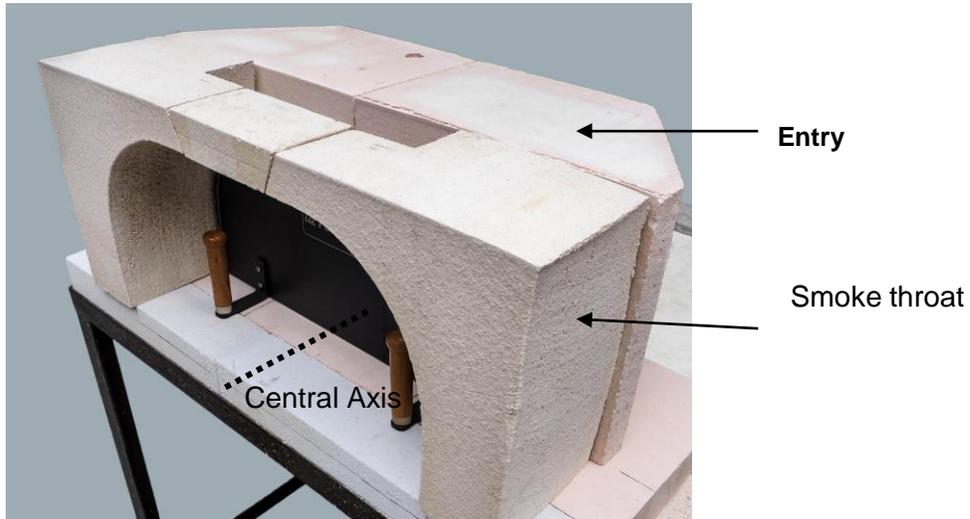
You should be able to insert and remove the door easily.



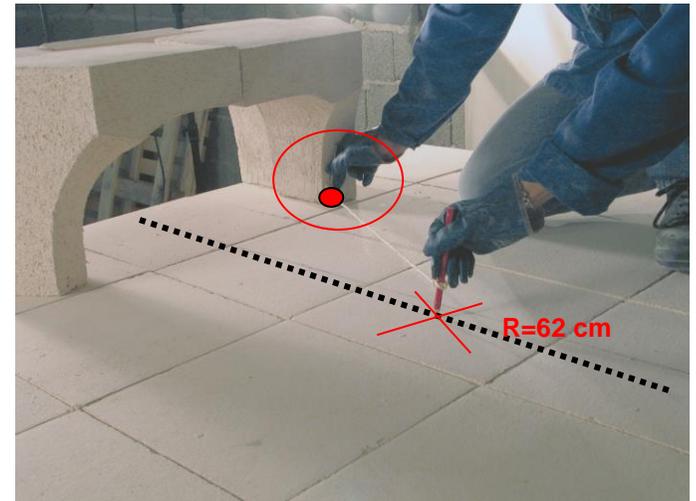
STEP 2 : Placing the oven entry

The entry is made of 2 pieces (Right (D) and Left (G))

Place these 2 pieces **behind** the smoke throat as below.



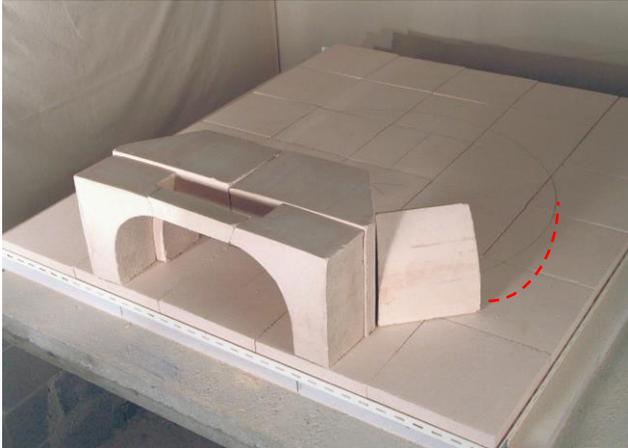
With a string and a nail, draw a circle as shown – 62 cm radius. This circle will help you to place the voussoirs (arch stones).



STEP 3 : Placing the voussoir row N°1

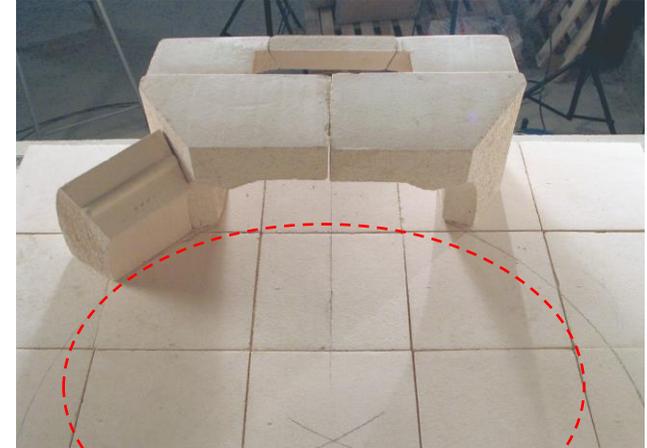
Front perspective:

1/ Place 1 voussoir N°1 (stamped 120N1) as shown in the picture.

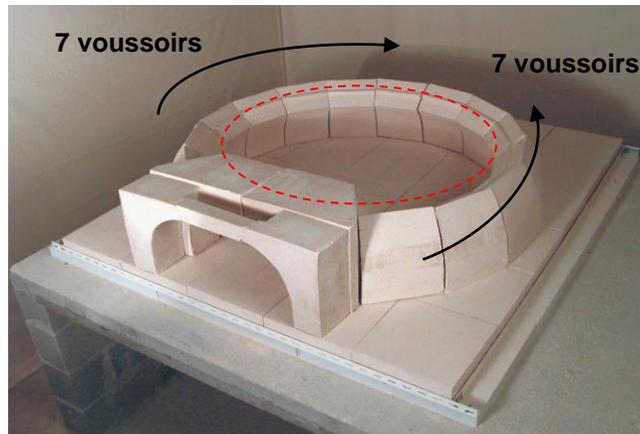


Back perspective :

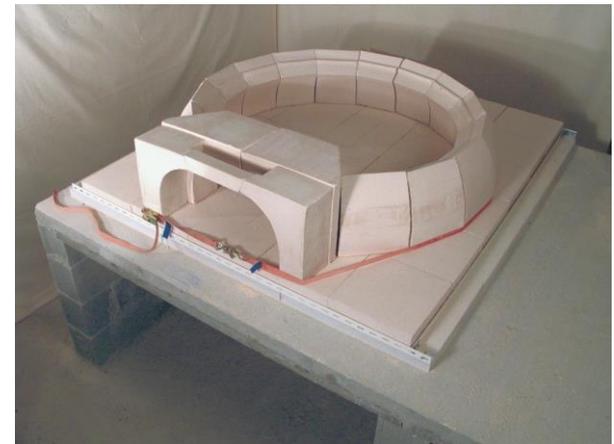
2/ Adjust the same voussoir as shown in the picture.



3/ Place 7 voussoirs N° 1 following the circle.
Do not tighten the voussoirs.
Place the last 7 voussoirs on opposite side.
Tenons should be lined up.



4/ To secure the construction, a strap should be installed above the oven floor.
Do not over-tighten the strap. Gently tightened is best

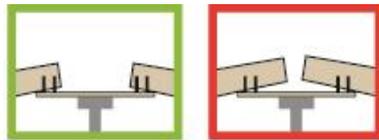


STEP 4 : Placing the wood templates

Protect the oven floor with paper or cardboard.

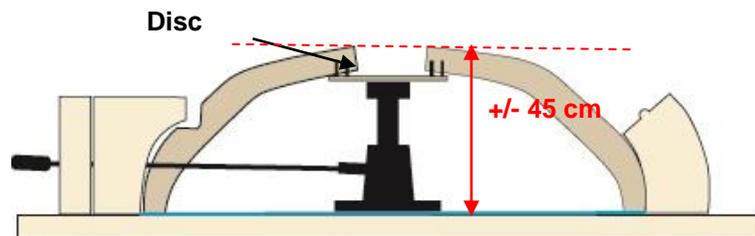
Place the jack in the center.

Place the wooden disc on the top of the jack..



YES

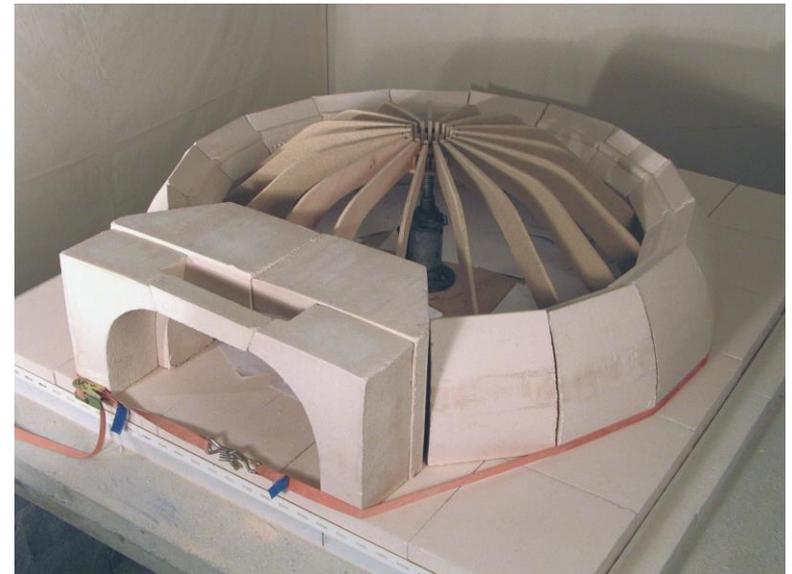
NO



Place the wood templates (1 per voussoir) in the wooden disc.

Black marking should be on the top and visible.

The bevel ones (3) are for the door opening.

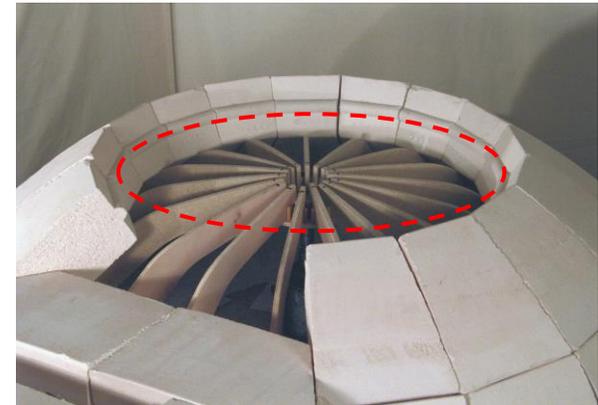
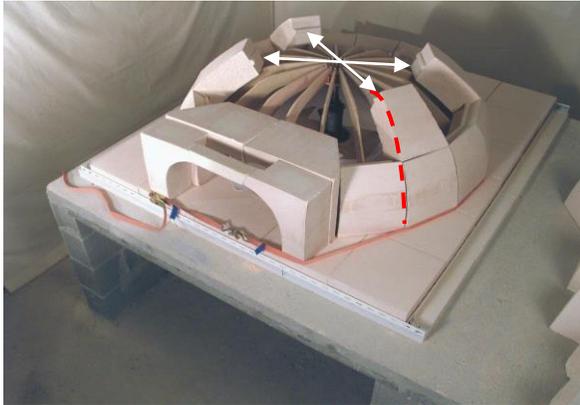


STEP 5 : Placing the voussoir row n°2 et n°3

N°1 Place 4 voussoirs N°2 stamped 120N2 as shown in the picture.

N°2 : When row N°2 is finished, make sure tenons are aligned.

Then complete the row with voussoirs N°2.

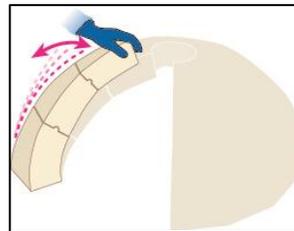


N°3 Place the third row of voussoirs, stamped 120N3, just like row n°2.

Adjust.



Adjust



N°4 : Place the last front voussoirs stamped 120N3A.

The dome is now finished.

Adjust the oven.



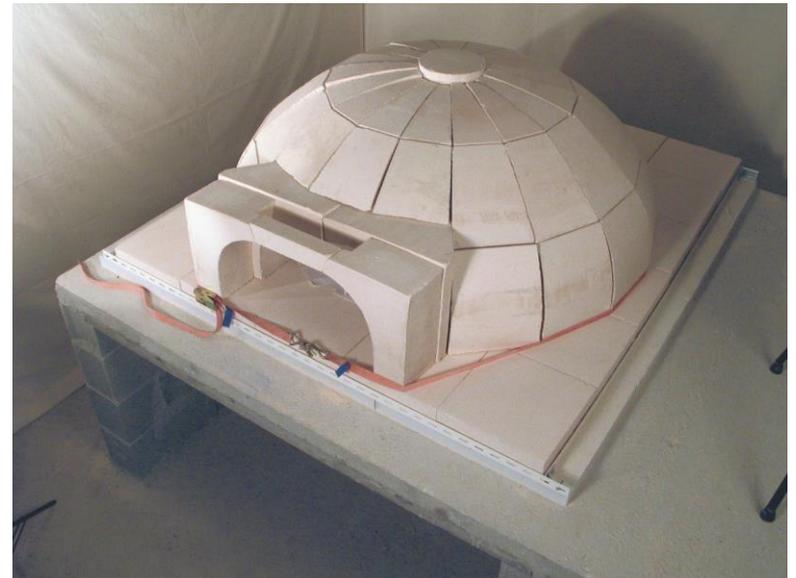
STEP 6 : Placing the keystone

Place the keystone on the top of the dome.
Do not drop it in yet. As you let the jack down slowly, settle the different oven pieces tightly around the keystone. Adjust the entire oven if necessary.

The dry stack is now finished.

The keystone can be a few centimetres higher than the cupola.

The oven is made with handmade refractory. It is normal if your oven pieces do not fit together perfectly. Gaps will be filled up later on with the provided refractory mortar.

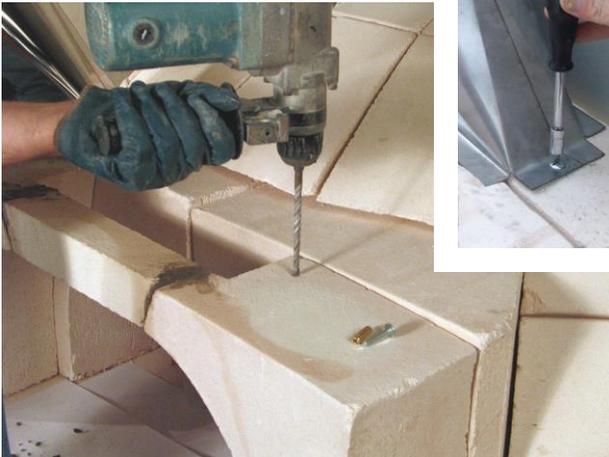


STEP 7 : Placing the smoke adaptor



Seal the central piece of the smoke throat with some provided refractory mortar.

- Place the smoke adaptor above the doorway, where there is a hole for evacuating smoke.
- Slide the edge of the smoke adaptor under the small arch stones on the dome.
- Make sure the smoke adaptor is facing the right way!
The inclined face should be on the dome side (so that it hugs the rounded shape)
- Mark the holes with a pencil for drilling.
- Remove the smoke adaptor and drill carefully (use an 8mm concrete bit without the 'hammer' mode)
- Insert the plugs provided.
- Reposition the smoke adaptor and tighten the screws.
- Make sure that the edges are flat. The joint will become watertight when the mortar is applied.



STEP 8 : Placing the pediment

Place the pediment in the middle.

Fix it PROPERLY with the mortar CR25H.

This piece will be still apparent when the oven will be insulated and decorated.



STEP 9 : Applying the mortar

[View
the video](#)

The aim of applying the mortar is to consolidate the whole of the dry assembly and to fill the gaps
The mortar is hydraulic, so you'll need to wet the dome regularly.
For the proportions, please refer to the instructions on the bag.

Phase 1 : Protect the oven dome

Put cardboard inside the oven in case water or mortar passes between the pieces.

Phase 2 : Fill in the spaces between the pieces

Make a small amount of mortar with a somewhat compact texture to fill the spaces between the pieces.
Start by wetting the area where you are going to apply the mortar.
Trowel in all visible spaces 2 to 3 cm deep
Do not hesitate to wet regularly as soon as you see that the terracotta has absorbed the water.



Phase 3 : Cover the entire dome

Make a second mortar to cover the entire dome.
Do not make the bag completely at once because the mortar dries very quickly. It is better to do it several times in small quantities.
For this second mortar, make a texture a little more liquid.
Pour the water little by little and take time to mix.

STEP 6 : Applying the mortar

View
the video

Wet again the dome.

Pour the mortar over the dome and spread with a trowel over a minimum thickness of 1 cm.

Proceed like this until completely covering the dome.

Work quickly enough because the mortar dries quickly.

Finish around the smoke adaptor.



Phase 4 : Cleaning

If there are areas to clean, do it right away with a damp sponge, before the mortar dries and stains.

Remove the cardboard from the oven.

Check that there are no smear; otherwise clean right away.

Phase 5 : Drying

Insulation with blanket : Leave to dry 24h

Insulation with grog : leave to dry for about 2 to 3 weeks.

The drying time varies according to where the oven is sited (indoors or outdoors), the ambient temperature, the season, etc.

The main thing is that the mortar and the oven should be properly dry before adding the insulation.



STEP 7 : Insulating the dome

The insulation techniques are different according to the insulation materials : Grog or Blanket.

You have chosen insulation with GROG

The provided materials for the insulation are :

- Blanket thickness 13 mm
- Grog bags 25 kg

Please go to pages 28 to 31

You have chosen insulation with BLANKET

The provided materials for the insulation are :

- Blanket thickness 38 mm
- Chicken fence
- Refractory cement bags + vermiculite bags

Please go to pages 32 to 35

Insulation with Grog

Insulating the dome with GROG

Step 1/ Place the blanket

Cover the dome with refractory blanket thickness 13 mm « without humping ».

Advice : cut triangles in the blanket.

If you have too much blanket, you can put the rest of it above the grog – see step 3



Insulating the dome with GROG

Step 2/ Build the surrounding wall

Build the surrounding wall on the sides and back to a suitable height with siporex blocks 10 cm thick.

For the front: build a wall **7 cm thick** around the doorway with a nick 25 x 3,5 cm to place the pediment.
The doorway remains visible. Do not cover it.



Example of surrounding wall with bricks decoration

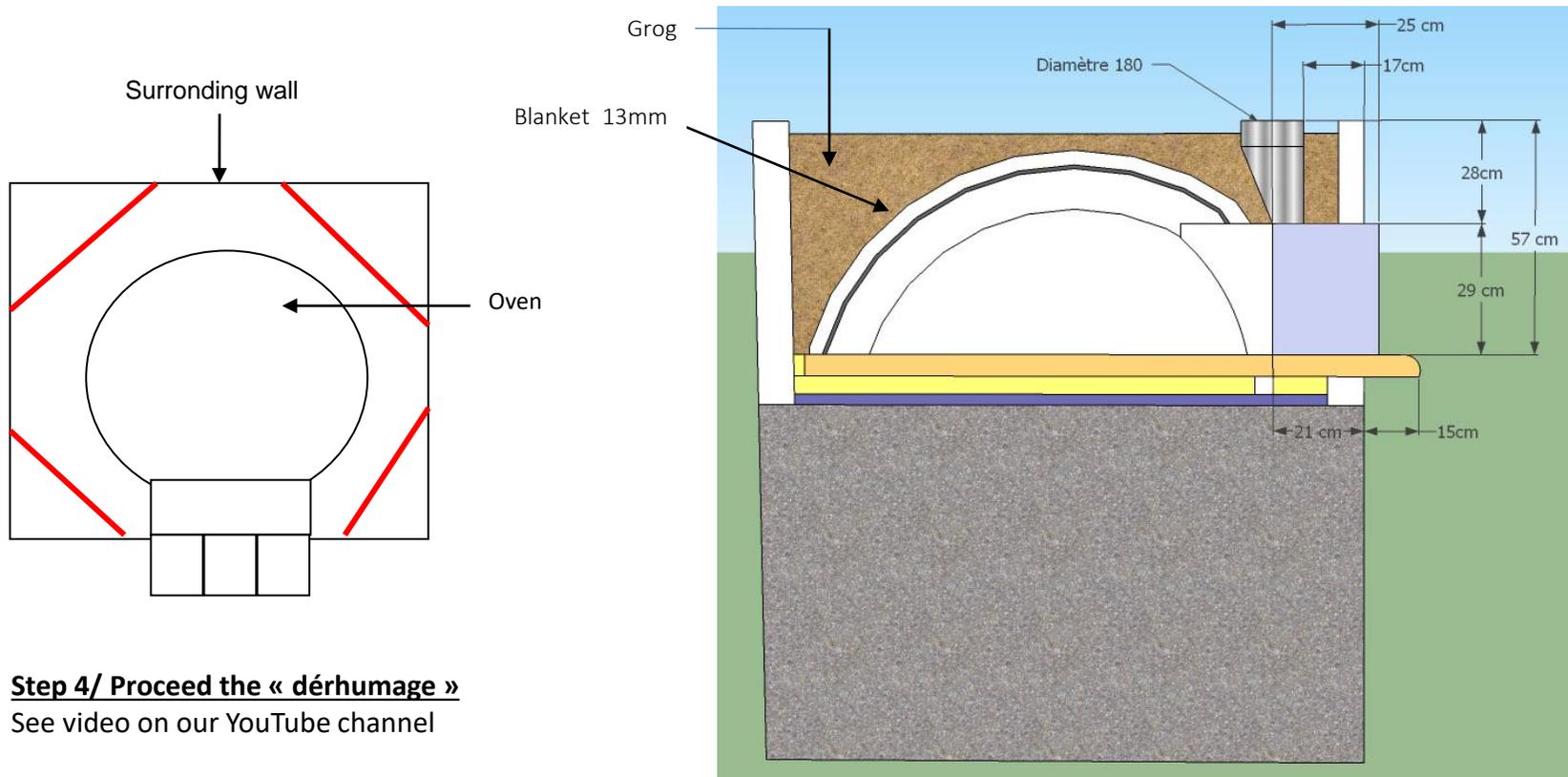
Insulating the dome with GROG

Step 3/ Place the GROG

Once the blanket and the flue chimney installed, shed the grog on the oven dome until it is no more visible.
The number of provided bags has been studied to get a performing insulation.

Advice : to prevent the grog from accumulating unnecessarily in the corners, build walls at each corner of the surrounding wall (see draw above).

To ensure that any residual moisture can be evacuated, the top of the oven should remain accessible through an access hatch.



Step 4/ Proceed the « dérhumage »

See video on our YouTube channel

Insulation with Blanket

Insulating the dome with BLANKET

Consult
the vidéo

1/ Place the blanket thick 38 mm

Recover the dome with refractory blanket « without humping ».

Advice : cut triangles in the blanket (see videos)



2/ Place a chicken fence (provided)

Recover with chicken fence / frame (same method as the blanket).



Insulating the dome with BLANKET

Consult
the vidéo

3/ Applying a refractory Mix : refractory cement + vermiculite + water:

Recover all the dome with a refractory MIX very wet :

- Mix dry the refractory cement with vermiculite (1 dose cement for 3 doses vermiculite)
- Add water until you obtain a mix liquid enough for an applying with trowel.
Advice : make several little quantities because the mortar dries quickly
- Make with a trowel a coating about 3 or 4 cm thick and smooth
- Leave to dry 2 weeks
- Proceed the « dérhumage » : see the video on our YouTube channel



Insulating the dome with BLANKET

For the final shape and finishing touches

- If you want a rounded shape:
 - Use the oven during 1 or 2 month before making the veneer
 - During this period, the oven will dilate. If small cracks appear, don't worry; they will be filled by the finishes.
 - For the veneer : painting, mozaic, coating, ...
- If you want a cubic shape :
 - Build the surrounding wall on the sides and back to a suitable height with siporex blocks 10 cm thick.
 - For the front: build a wall **7 cm thick** around the doorway with a nick 25 x 3,5 cm to place the pediment.**The doorway remains visible. Do not cover it.**



ROUNDED SHAPE



CUBIC SHAPE

STEP 11 : The chimney pipe

In accordance with DTU standard 24.1 (Unified Technical Document), you must not connect more than one apparatus to the same chimney pipe.

The pipe should be:

- 180 mm in diameter (the stainless steel smoke adaptor supplied with the oven is 180mm in diameter)
- Made up of a maximum of 2 x 45° bends
- Removable
- With a double skin if an indoor installation

Chimney pipes, flues and connectors must be swept regularly.

We recommend that you contact a specialist in the profession (fireplace builder, heating engineer, sweep, etc.)

STEP 12 : Surround / decoration

You can use a wide range of materials to suit the style you're looking for:

- Earthenware,
- Decorative stone
- Bricks,
- Rendering, etc.

They must be class M0 (French legislation which classifies materials according to their reaction to fire - M0 = non-combustible)

Stick the chosen material on the surrounding wall or insulated dome (if the rounded shape).

Consult the gallery on our website www.lepanyol.com