MANUAL FOR SETTING UP AND MASON A FIN OVEN 18 (weight 2-3 tons!)

The package of standard drawings is enclosed. The hatched surfaces are the walls which still have to be built. These can be made of clay blocks ore bricks. The description concerns the use of clay blocks. Bricks can be laid using the same mortar. The mortar of clay:sand, 1:5 (without cement) can be kept for years. If it is made up with a maximum of 2 to 3% cement it can only be kept for 24 hours.
Steel parts in the oven, with the exception of the feed-through/guide pipes, remain separated from the bricks by ceramic fibre of 2 mm.
Make a mould from wood for the opening for the furnace door. Make this mould 1 cm larger on all sides than the built-in size of the fireplace door.

Make a slab from reinforced concrete using the sizes in the map drawing C - C. Its height must reach 5cm above the final floor height (Gauge). When it has hardened sufficiently the walls can be built up.
Keep on ‘sponging’ into the channels in order to get the joints and inside corners smooth. The clay blocks can be cut to size with a concrete tile cutter or, if necessary, sawn with 'hard point' tooth or a diamond grinder. All clay blocks are built in at the side (clamp) with the rough side facing outwards and the smooth side facing inwards.

Build the first layer on the concrete slab as indicated in drawing C - C and lay the steel plate on top. Place the 3 large casting elements on top. Clamp these slabs temporarily together with a screw clamp . See drawing one page 8. Place the steel frame with the grade inside it. The ash box fits underneath it. Place the casting blocks (without any mortar whatsoever) as a firebox on the steel frame. Apply ceramic fibre 2 mm around the outside of the large slabs using a paste of wet tile adhesive. Continue to build up the oven with the clay blocks against the fibre. The walls and casting concrete remain separated by the fibre.
Cover the fireplace according to drawings A - A and B - B. Pay attention to the 20 mm rock wool layer on top. Then place the casting beams on top. Continue to build up to the height of the casting concrete slabs which form the ‘neck’, drawing I - I. The by-pass comes one layer above this.
Place the by-pass and wrap it in fibre before it is built in. Make a few grooves in the guiding pipes using a file or grinding stone in order to attach them better with adhesive. Cover the oven with the casting covering slabs. Only the back channel (for flue gases) remains open. Place insulating plates of rock wool 8 cm thick on the covering plates. Extend the outside walls to ± 5 cm above the steel wool. Cover the rock wool with 'metal net' and mortar.

A hole must be left in the cover of rock wool and 'metal net' with mortar for the chimney with an interior diameter of 20 cm. Then cover the oven with mortar on the 'metal net'. The total weight of the flue may not rest on the oven, but it must be attached to the construction of the house.

In order to give the oven rounded edges, first roughly round off the blocks.

Before plastering thoroughly brush the outside walls.

Make up plaster using clay and sand like masonry mortar.

Mix clay and sand (half a barrel) with some water, 1 L (chopped) straw, (with 1 L of cement if necessary), until it forms a mouldable/soft mass and use it to shape the oven to the desired model. Roughen several layers separately and allow them to dry in between. Reinforce them, if necessary, by means of strong ventilation.
When it is dry, the clay morter can be fastened with a thick layer of wallpaper paste (which is colourless) or it can be painted using whitewash or latex in a normal or satin finish.

When the finishing off has been completed, remove the mould. Place the fireplace door in the recess and assemble onto the studs. The steel door flange is enclosed in rock wool with a thickness of at least 1 cm. When assembly has been completed, cut off the studs. Place the clean-out door and the ash door with firm adhesive, smooth off along the inside and support it temporarily until the adhesive has set (in just a few hours).

After assembling the flue, stoke the oven according to the instructions for ‘**stoking / dry stoking.’**

Tile ovens conforming to environmental requirements of DIN 18891
Test report of the Fin Oven, type 8D. Tigchelaar

1. Summary

The Fin-Oven type 8D of Tigchelaar Tile ovens has been tested in conformity with the environmental requirements of DIN 18891. The measured C0 concentration is by nominal capacity 0.24% by 13% O_2; the output is 87.7%. The oven meets the requirements for obtaining the Netherlands certification type.

2. Introduction

A Netherlands certification type has been applied for by the Tigchelaar Tile Ovens Company for the Fin Oven Type 8-D conforming to the environmental requirements of DIN 18891. The test was carried out at the laboratory of the Combustion & Conversion department of TNO-MEP. The test composition used meets the acknowledgement criteria for laboratories as laid down in the NKO*) criteria.

3. Details of wood stove supplier

Name : Tigchelaar Tile ovens
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Telephone number: (+31) 56-6602171
Contact : Mr. F. Tigchelaar

Date of application : June 1999

*) NKO Dutch Association for the Recognition of Calibration and Test laboratories and Inspection institutions.