

Wafer World

The regular insider information from R&D Engineers 2010 06

Our New Website

Have you visited it recently?



It has been completely redesigned, we have earned a fine reputation of as a leading source of manufacturing of Ice Cream Cone and Wafer Biscuits Machinery for the global industry.

lts

Updated

Expanded

User Friendly

Informative

Let us know if you have any suggestions for improving our website. We would like to hear from you at info@rndwafers.com

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TECHNICAL

Exhaust System

Exhaust gases contain aggressive substances which may lead to corrosion when the negative pressure is too weak. Therefore, it is advantageous to fit water separators at the exhaust damper to drain condensation water.

The exhaust damper must be fixed to the roof and properly supported with girders. The oven cannot carry the weight.

The exhaust ducts are not supplied with the oven unless so ordered.

To calculate the requirement of exhaust extractors for the oven...

Exhaust Gas Volume: Calculate the surface of a baking plate and multiply by 0.00083 m3/h/mm2,

the result being the exhaust gas volume per hour baking tong.

Then multiply by the number of baking tongs.

Example: Baking plate size 350mm x 470mm, (WA 48)

 $350 \times 470 = 164 500 \times 0.00083 = ca. 136.535 \text{ m}_3/\text{hr}$

 $136.535 \text{ m}_3/\text{h} \times 48 \text{ baking tongs} = 6553.68\text{h}$

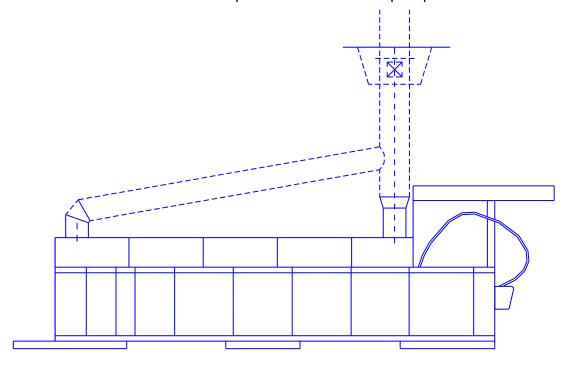
Exhaust Temperature: ca.250°C

Negative Pressure Required: 10 mm water column, measured 200 mm above the exhaust

gas outlets of the oven.

Damper Diameter: 305 mm outside diameter, with adjustable butterfly valves.

Number and position of exhaust dampers possible.



An illustration of a simple exhaust system

PRODUCT IDEAS

MASALA WAFERS

Wafers can also be sold as a savoury snack





with cheese and oregano dressing as shown above

HOTO FEATURE

Sharing experiences.









We welcome clients to visit us for trial, training and testing their ordered machines.



Thailand

Date: 16 - 19 June, 2010 Stall No.: F 16, Venue: Bangkok International Trade Exhibition Centre, Bangkok, Thailand



Asia Food Expo Philippines

Date: 8 - 11 September, 2010 Booth No.: 1130, Venue: World Trade Center Manila, Philippines



Indonesia

Date: 27 - 30 October, 2010 Stall No.: 2DI 150, Venue: Jakarta International Expo Kemayoran, Indonesia



TECHNOLOGY

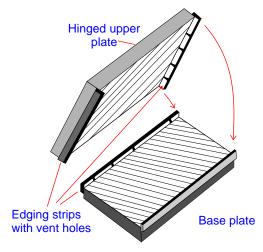
Wafer Biscuit Manufacturing Science

Part - 04

BAKING OF WAFER SHEETS

The principal features of construction of a tong are a pair of plates as used for baking wafer sheets as

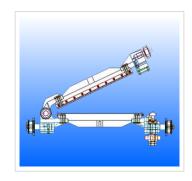
illustrated below



The plates may vary in size but are typically 460 x 290 mm. The plates are bolted to carrier plates which are hinged and which have a strong latch on the side opposite the hinge to hold the plates together against the pressure developed between the plates during baking. Total pressure of 2-3 tons, or 1.4-2.1 kg/cm2 are possible. In our modern "WA Series" wafer plants the carrier plates are integral with the actual wafer plate.







Each plate carries an engraved pattern frequently of parallel or criss-crossed grooves, known as 'reeding'. The depth of the reeding varies considerably with the product being baked but may typically lie between 0.5-1.2 mm. The pattern of the reeding is carried through into the finished wafer sheet as a pattern of ridges.

These facilitate the adhesion of wafer and filling in the final product. The edges of the plates carry strips of metal which bridge the gap between the plates when in the closed position. To permit the escape of steam the edging strips have vent channels machined into the metal at intervals along their length.

The number and dimensions of these vents significantly affect some properties of the baked wafer, noticeably its thickness. The steam vents also permit the extrusion of some batter from between the plates.

Some loss of batter is necessary to ensure that the space between the plates is completely filled. However such loss must be kept as low as possible.

The partly dried blobs of batter attached to the edges of the wafer sheet are known as 'bobble' and are removed by mechanical means as the wafer sheet leaves the oven.

DISCLAIMER

We are unable to accept responsibility for any errors contained in this document, and we reserve the right to make changes.

