

'ZA' Series Automatic Cone Baking Machine



The 'ZA' Series are efficient ovens for the large scale production of all kinds of ice cream cones, moulded sugar cones, cups and hollow wafers. According to the output required these machines are supplied with 12, 18, 24, 30, 36 baking moulds or higher.

These ovens can be heated by Liquid Petroleum Gas (LP Gas) or Electricity. An automatic stacking device can be supplied as an extra. The Machine is driven by motor with a variable speed attachment.

Baking Moulds

The baking moulds are mounted on carriages fitted on to an endless chain. These moulds pass under an automatic batter depositor at a selected speed between 90sec. to 3 minutes. The batter pump is synchronized with the movement of the moulds to ensure accurate injection of the batter into the center of the mould. On emerging from the oven an automatic stripping device removes the waste batter. These moulds automatically open and the baked cones are ejected onto the stacking conveyor and are subsequently packed.

The baking moulds are manufactured from special quality cast alloy to ensure dimensional stability, homogenous and dense surface, to enable thermal stability and heat accumulation and excellent thermal conductivity. The diameter of cones decides the number of cavities in the moulds. The mould carriages is so designed to give a quick changeover from one set of moulds to another for the production of a different size of cone.

The efficient insulation of the baking chamber gives a minimum loss of heat and efficient utilization of energy.

Workers required

One skilled and two unskilled workers are required to complete all operations.

Operational Area required

The total operational area required is about 1000 to 15000 Sq.ft.(100-150 sq.meter)

Batter Depositor

The depositing head of the Batter depositor moves at the same speed as the baking moulds and so deposits the liquid batter centrally in the mould engravings.

Stripping Device

The cam-operated stripping knife, removes the small lumps of the batter that form on the outside of the moulds at the steam slots during the process.

Cone Ejector

The ejector mandrel, synchronized with the speed of the passing moulds, move into loosen the cones from the open baking mould. The cones then drop into the chutes feeding onto the conveyor of the stacking device.

Gas Burners

Efficiently designed burners ensure uniform heat for even baking characteristics. It also ensures an optimal gas consumption.



Scraping Device



Cone Ejector



Cone Stacker Counter



Gas Burners

Technical Data

This data given underneath describes for baking machines on LP Gas heating (Baking cycle 1.5 minutes)

Type	'ZA'12**	'ZA'18	'ZA'24	'ZA'30	'ZA'36
Approx.Hourly output at cone diameter of	Cones	Cones	Cones	Cones	Cones
Up to 29mm (11 cones/mould)	3900	7900	10500	13200	16000
Up to 32mm (10 cones/mould)	3600	7200	9600	12000	14400
Up to 36mm (9 cones/mould)	3240	6500	8600	10800	12900
Up to 41mm (8 cones/mould)	2880	5800	7700	9600	11500
Up to 47mm (7 cones/mould)	2520	5000	6700	8400	10100
Up to 56mm (6 cones/mould)	2160	4300	5700	7200	8600
Up to 68mm (5 cones/mould)	1800	3600	4800	6000	7200
IF GAS HEATING*					
LP Gas consumption Kg. Per hour approx	4-8	8-12	12-15	15-18	18-21
Electrical load in KW* (for LP Gas heated plant)	3.2	3.2	3.2	4.0	4.0
IF ELECTRIC HEATING*					
Electrical load in KW*	45	65	87	108	130
Consumption in KW*	35	46	62	77	92
Dimensions (without automatic staking device)					
Length in Metres	3.6	4.8	6.0	7.2	8.4
Width in Metres	1.1	1.1	1.1	1.1	1.1
Height in Metres	1.7	1.7	1.7	1.7	1.7
WEIGHT & SHIPPING DETAILS					
Net Weight Kg	3000	4000	5000	6000	7000
Weight including seaworthy packing	4250	5250	6500	7500	8500
Shipping space approx. In Cubic feet/m ³	11	18	25	36	47

* The capacities indicated above are maximum values. The exact capacity depends on baking time, recipe and cone size

** Small plant may have longer baking cycle

*** If Sugar is used in the batter recipe, the production capacity would reduce.

† Modifications reserved

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We are constantly guided by our principle of offering our customers better and better machines; to give increased efficiency and higher levels of automation. The technical data and illustrations are subject to change without notice

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