

05/2016

Mod: FRM/5E-F

Production code: ROTOR WIND 5E-F



Diamond
catering equipment

CHAPTER 2.0

Technical Features

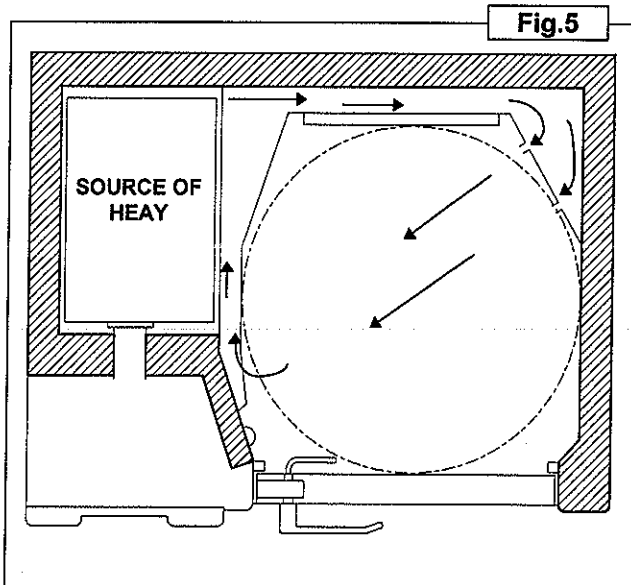
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2.1 Description

The operating principle consists of transmitting heat to the food to be baked or thawed by means of preheated air forced to circulate in the oven. The correct temperatures and the correct air speed together with the uniform distribution of the heat are the elements for optimal utilization of the rotary convection oven. A heat source is installed on the rear wall (fig. 5). This may be a combustion or electrical source equipped with a fan that distributes the hot air uniformly by means of special devices to the food. The exhaust air is evacuated through the openings provided and returns inside the combustion chamber to be reheated and recycled into the oven.

The oven is provided with a humidifier that is designed where necessary for proper baking, to produce and transfer steam at atmospheric pressure to the food.

The oven is equipped in the "standard" version with a mechanical pulling and hooking unit. Alternatively the oven can be equipped with a combined mechanical hooking and raising unit. This latter is recommended when heavy loads have to be handled.



2.2 Requisites of the Site

In supplying the indications for proper installation, the constructor does not give any warranty as to the suitability of the premises for installation of the oven and/or the adjacent areas. In this connection, it is advisable to consult a professional expert also as regards the observance of any local laws and/or regulations.

The premises in general must have sufficient openings to allow for the passage of the larger parts of the machine (see Characteristics and Technical Data).

The premises in general must be permanently aerated so as to ensure an adequate supply of comburent air and ventilation in respect of the applicable safety standards for heating systems.

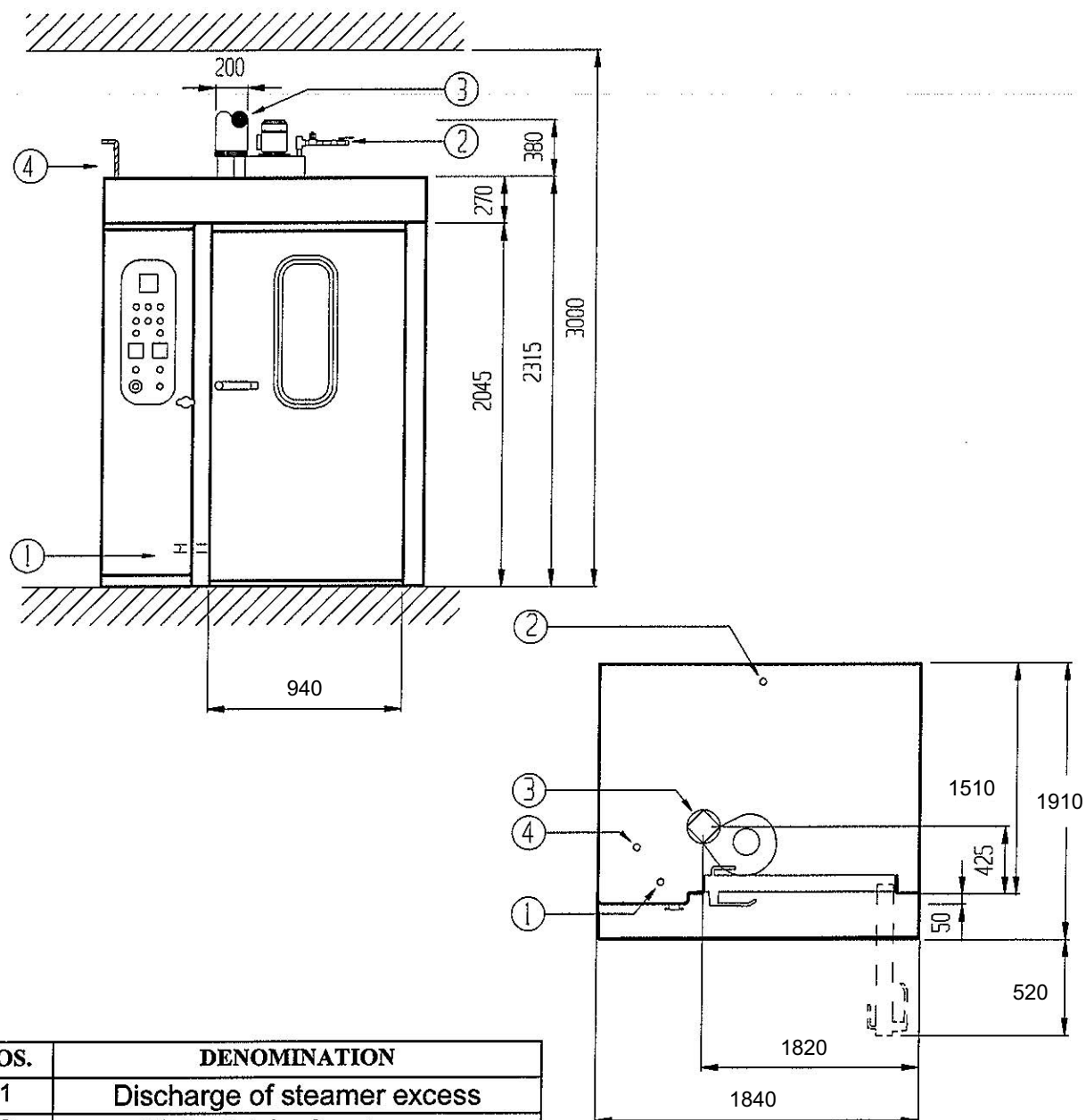
The base on which the oven stands (FLOOR) in its final location must be smooth, flat (using a bubble level) and at the same level as the surrounding area; furthermore it must be able, with an adequate safety margin, to bear the weight of the machine.

Before installing the machine, the site must be prepared with all the supply connections indicated in the diagrams.

There must be a space of at least 60 cm all around the oven and in any case there must be enough room to perform any necessary work on the burner and install the panelling.

At least twice as much room (120-150 cm) should be available in front of the oven to allow ample working space (LOADING/ UNLOADING).

2.3 Dimensions and Connection for Electric Oven



POS.	DENOMINATION
1	Discharge of steamer excess
2	Water intake for steamer
3	Steam exhaust pipe
4	Power supply connection

2.4 Characteristics of Electric Oven

Description	U.M	No.	Remarks
Weight	Kg	1100	
Size oven (base AxB)	mm	1840x1510	
Max. width cart	mm	660	
Max.diagonal cart	mm	1000	
Tray	cm	60x80	
Max. load cart	Kg	90	Hook/platform
Max. load cart	Kg	250	Automatic hoist
Baking surface	m ²	8,6	Cart 18 trays 60x80
Baking surface	m ²	7,2	Cart 15 trays 60x80
Hourly production	Kg	120	
Max. working temp.	°C	300	
Temp. increase rate	°C/min	12	Empty
Temp. increase rate	°C/min	6	With full load
Moistening interval	min	20	Oven temp. 250°C
Steam exhaust fan	dm ³ /s	360	
Power installed	Kw	47	
C.M.G. Energie Electric	Kw	22	

2.5 Oven Connections



The electrical and hydraulic connections must be made in respect of the applicable regulations. They must be made by professionally qualified personnel with authority to issue certificates of conformity as required by law.

2.5.1 Electrical Connection

The electrical power supply must reach the oven through a magnetothermic differential switch which must be:

- grounded
- installed at an appropriate distance from the oven
- readily visible and accessible

The wiring must be suitable for the maximum power absorbed by the oven, with particular attention to the size of the cables which must be suitable for the maximum power absorbed by the machine as indicated on the rating plate and in **Chap. 2.3-2.5**



It is of primary importance to ascertain the condition of the grounding system as a fundamental safety requisite.



It is forbidden to alter and/or tamper with the safety mechanisms and the electrical circuitry installed by the constructor.

2.5.2 Humidifier Supply

The hydraulic connection of the machine includes: intake of clean water at a pressure of 1.5-2 bar, using a 1/2" Ø GAS pipe.

This connection provides for production of steam at atmospheric pressure through the humidifier in the baking chamber.



The installation of a water softener on the supply line reduces the formation of dangerous calcium deposits.

2.5.3 Humidifier Drain

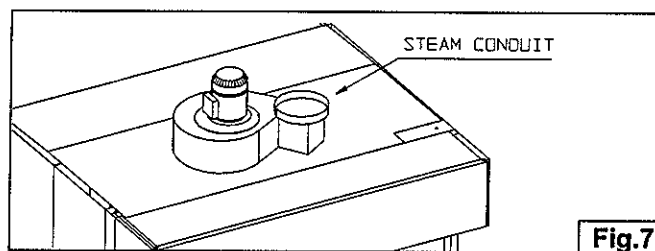
Excess water from the humidifying process is drained out through a 1/2" Ø GAS pipe located in the rear of the oven.



Complete the drain into the sewer or cesspool with a trap.

2.5.7 Steam Vent

The steam that is released from the baking chamber is vented into the atmosphere through a special steam conduit with a diameter of 200. The steam conduit should be installed on the pressure opening of the suction device (fig. 7).



At the base of each ascending tract of the chimney a collection chamber with a condensation drain pipe must be constructed. There must also be an adequate opening for inspection and cleaning.



The use of inoxidizable materials and pipes is to be preferred.