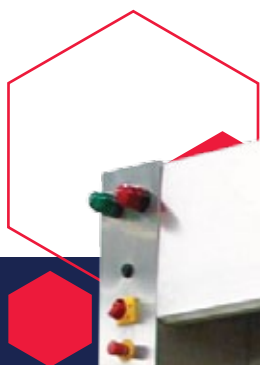


Mech
Masz
Szczeciński
sp. z o.o. sp.k.

CERAMIC STEAM PIPE DECK OVENS
PPCR



Perfect for every type of bread

Models: 10.3 / 12.3 / 14.2 / 16.2 / 18.2 / 20.2 / 22.2 / 24.2 m²

THE MANUFACTURER OF CERAMIC STEAM PIPE OVENS



SAVING

Powerful heat accumulation and energy efficiency

QUALITY

Pipe system – always perfect baking quality and strong evaporation

COMFORT

Silent operation, no movable parts/turbines

SAFETY

Possible application of different heating systems

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THE WEBSITE**



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High quality design



Maintenance of uniform temperature in the chamber

STEAM PIPE DECK OVEN.



Double piping of each chamber



Strong evaporation



Water bypass system at the evaporation system as a standard.



The oven is delivered to the customer in pieces so they can be brought in through a standard door of 80 x 200 [cm].

OVEN DESIGN OVEN FOR YEARS

Oven base

Oven base with hearth and duct system

The oven is delivered to the customer in pieces so they can be brought in through a standard door of 80 x 200 [cm]. Owing to this, it is not necessary to demolish the walls, prepare special holes or incur additional costs.

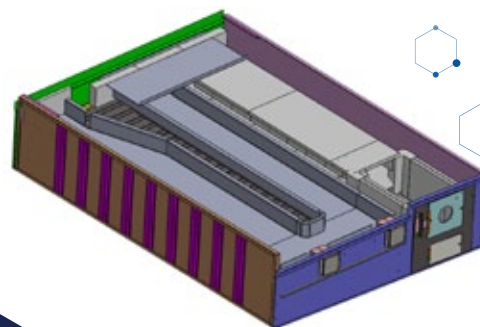
Construction begins with setting up the bottom oven 'frame' structure and lining a very thick insulation layer in the form of wool resistant to high temperatures. There is a hearth in the base and flue gas ducts are built. Metal components, boards and ceramic mortars resistant to high temperatures are used for the construction.

These components serve as an additional isolator and heat accumulator providing proper distribution thereof and long temperature maintenance.

Structure

Pipe system

The further construction stage is to position the system of pipes made of special certified steel. MECH-MASZ uses pipes with an outer diameter of 27 mm, 4 mm wall, which, as a result of studies, are best in terms of strength and heat transfer, contributing to reducing heating costs. The sides of the pipes and oven roof are additionally poured over with concrete and ceramic mortar.



*Budowa podstawy pieca z paleniskiem
oraz warstwą odporną na wysokie temperatury*

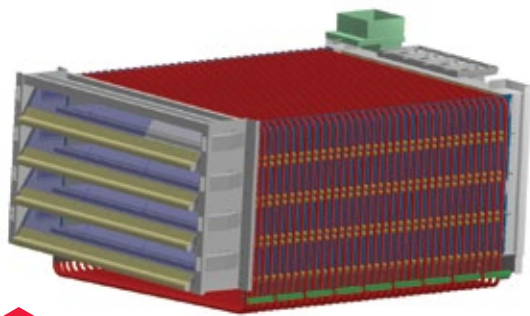


Width and height of the ducts, as well as their arrangement in the oven base are a result of many years of experience of MECH-MASZ in selling such ovens.



Every single pipe is tested for resistance to high pressure. Each pipe is filled with 'purified' water and the amount of water in the pipes results from know-how of the designers.

AISI 304 acid-proof steel of thickness dependant on 1, 1.5, 2 and 3 mm parts was one of the materials used to construct the oven. The whole external housing of the oven is made of stainless steel. The oven front housings feature additional ventilation grilles for fresh air supply to the bulbs or components located underneath the oven 'table', etc., which further extends their lifetime.



The use of pipes with a 27 mm diameter, 4 mm wall, guarantees optimal energy efficiency, reduces fuel consumption and ensures perfect temperature distribution in each chamber.



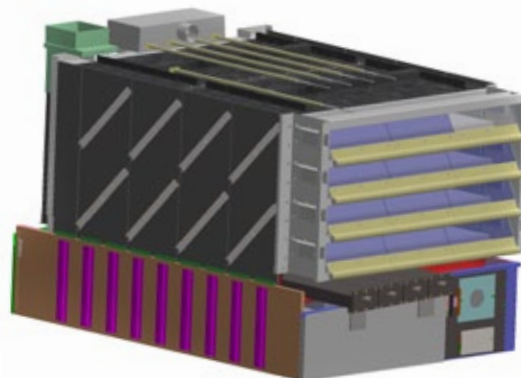
Double piping of each chamber

Steaming

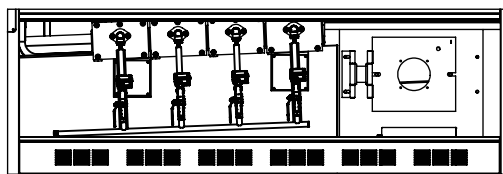
Proper amount of steam

One of the basic elements in achieving perfect bread is the right amount of steam during evaporation. Therefore, the evaporators are located in the best and warmest place, immediately above the flue gas ducts. Such an installation place provides appropriate temperature for fast regeneration. The entire evaporator structure is additionally 'immersed' in ceramic mortar which prevents temperature drops.

For cleaning the rods alone or the water feeding pipe, the evaporators can be accessed from the front of the oven after unscrewing only a couple of screws. Thus, maintenance and cleaning are very easy and not labour-intensive.



View of the oven without insulation



Water bypass system



Another component improving comfort and safety of works is standard equipment of the oven in the form of water bypasses, which allow operation/evaporation to be continued even in the event of power outage or failure of the solenoid valves.

The duration of feeding water to the evaporation system is time controlled which prevents the evaporators from overflowing, fast cooling or flooding of the chambers. Applied water hoses are resistant to high temperatures and pressure.



Baking plates

Mineral, hygienic materials
safety for health

The basic construction material of the plates is glass fibre poured over with a ceramic mixture. Only mineral materials are applied, so that the plates are hygienic and do not contain substances harmful to health. 20 mm thick ceramic plates are distinguished by their high strength of 1,900 kg/m³ which provides abrasion and impact resistance.



Door of baking chambers

Easy opening and cleaning

The door of each chamber is made of thick, double tempered glass resistant to high temperatures. The door is perfectly balanced owing to a proper counterweight for quick opening and closing. Easy and fast door disassembly, e.g. for cleaning purposes, requires no tools. Optionally, the glass may be replaced by metal sheets at the customer's request.



Exhaust fan

High efficiency fan

The fan is mounted in the oven hood. The front part of the hood is adjustable and retractable, which increases its surface and steam absorption. It is controlled from the oven panel. The power characteristics of the fan: 0.55 kW and 1400 rpm. Fan efficiency: 25-30 m³/min.

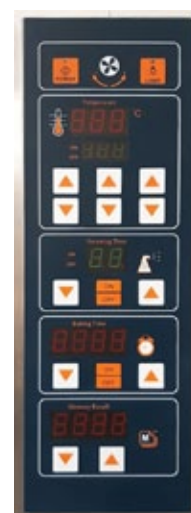
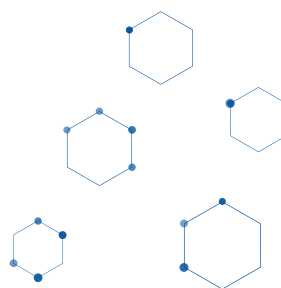




Control panel

Intuitive, user-friendly control panel

The electronic, intuitive control panel with all necessary functions: preset and actual temperature configuration and overview, baking time setting and countdown with sound signalling after completion, turning the hood fan on and off, setting the evaporation time. The panel operates at a low voltage of 24V.



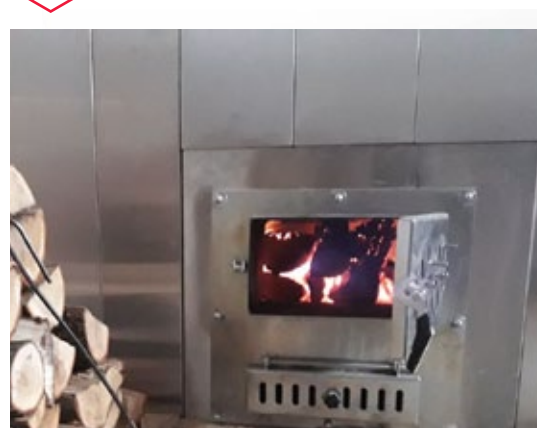
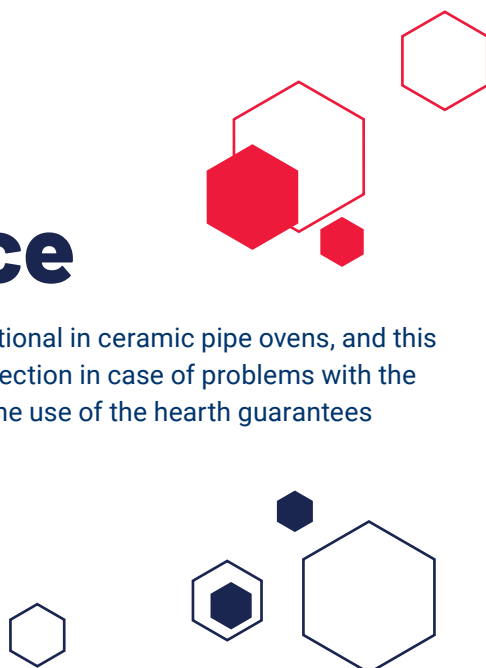
Safety

A thermal fuse – the torch switches off automatically after exceeding the maximum temperature of 300°C; the emergency and main switches – when they are pressed, all functions of the oven and torch deactivate; the microswitch on the funnel – when the funnel gate is closed, the torch stops which is also signalled by the red indicator light.



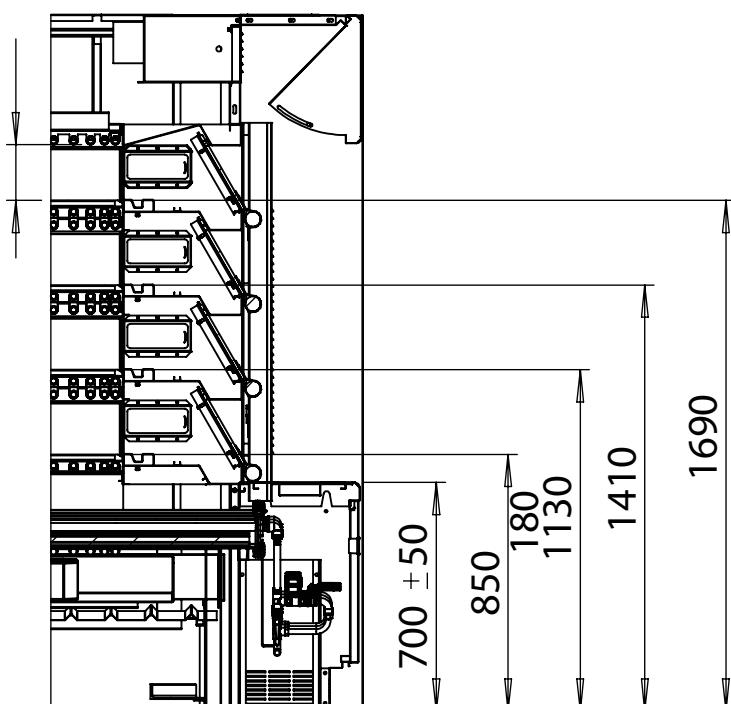
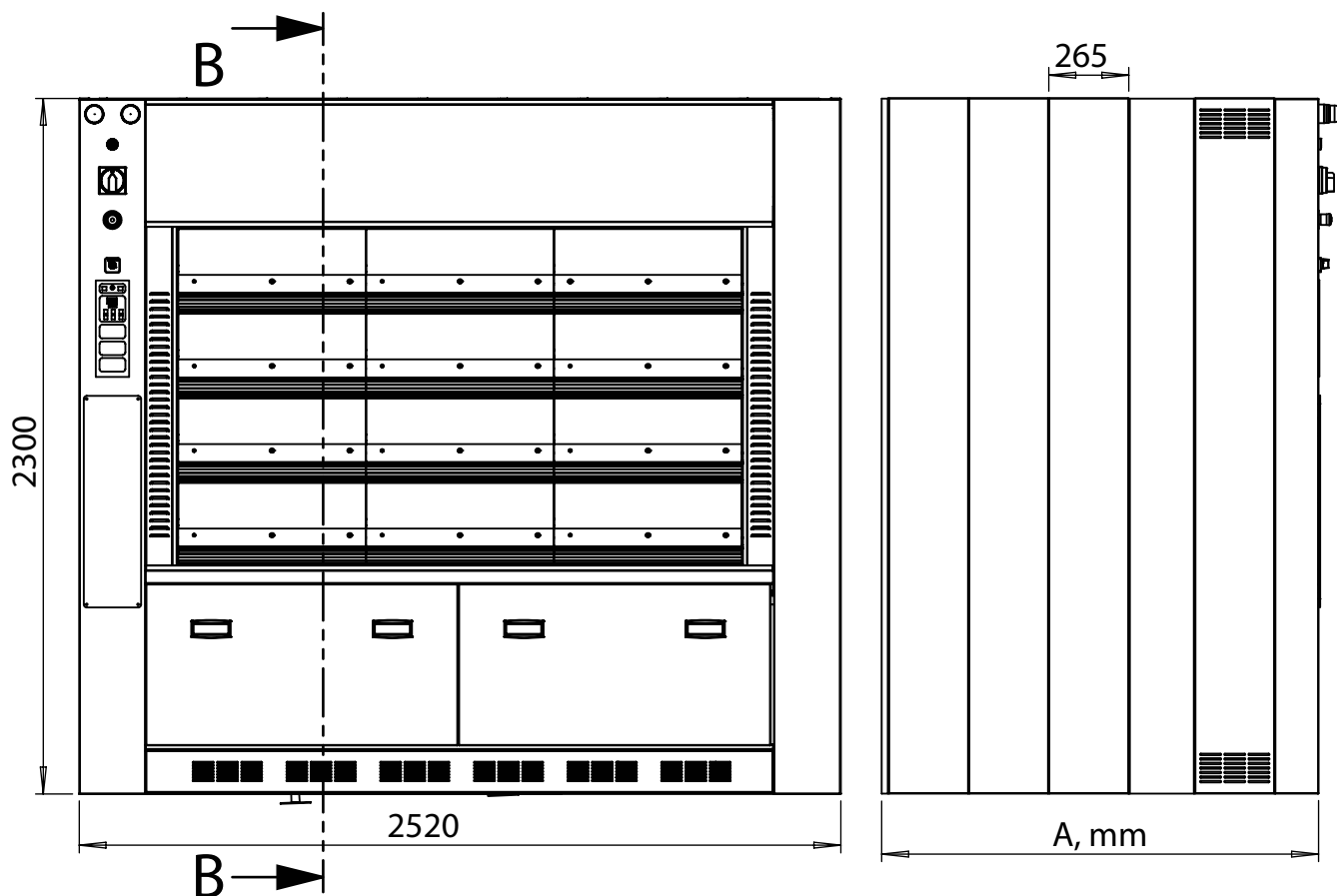
Furnace

Solid-fuel heating is optional in ceramic pipe ovens, and this ensures additional protection in case of problems with the basic energy source. The use of the hearth guarantees production continuity.





OVEN DIMENSIONS



Powierzchnia wypiekowa, m²	A mm
10,3	2700
12,3	2965
14,2	3230
16,2	3495
18,2	3760
20,2	4025
22,2	4290
24,2	4555



OPTIONAL OVEN EQUIPMENT

Bespoke proofing chambers

**CUSTOM-MADE CHAMBERS FOR
INDIVIDUAL DIMENSIONS
MEETING CUSTOMER'S NEEDS,
WHILE MAINTAINING OPTIMAL
USE OF SPACE IN THE
BAKERY / PASTRY**

The proofing chamber may be adopted to all types of trolleys, a pass-through chamber may be designed as well. The chambers are made of top quality acid proof steel grade AISI 304 (*cladding inside and outside the chamber*).



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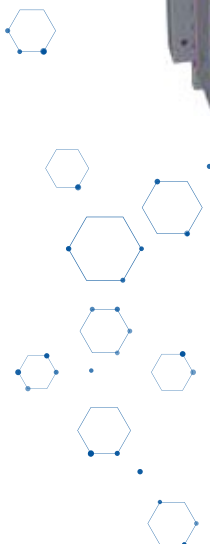


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EXTERNAL CLIMA UNIT

The generators produce steam with electrodes, not regular heaters, which improves the efficiency and resistance of the system to limescale from water and prevents the risk of burning.



AK-3 CLIMA UNIT

It provides precise adjustment of both parameters, i.e. humidity and temperature, which have a key impact on the dough growth effect.



MANUAL, SEMI-AUTOMATIC AND AUTOMATIC SYSTEMS



**no
effort**

LOADING SYSTEM

**THE COLUMN SYSTEM IS A FAST WAY
OF LOADING THE WHOLE DECK OVEN**

The column loading and unloading system designed for deck ovens significantly facilitates the loading and unloading process of the whole oven.

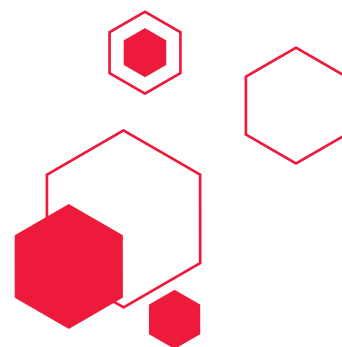
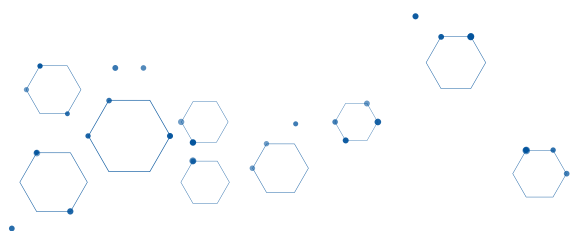
Reducing the loading time of one chamber ensures maintenance of the optimal temperature, thus uniform baking results and full control of the process.



**fast
loading**



WORK ORGANISATION



Oven loaders

The loader structure is made of specially prepared aluminium. The applied material is galvanised, so it does not leave hands dirty when touched and keeps its original appearance for a long time.

The canvas is stretched over the rollers fitted with bearings, which makes loading operations fast and easy.



Trolleys for oven loaders

Trolleys of that type are used to carry out the proofing process of dough placed on oven loaders. The trolley is made entirely of stainless steel.

Trolley dimensions are always customised, depending on the size of the baking oven.





CERAMIC STEAM PIPE OVENS

**Mech
Masz**
SZCZECIŃSKI



Our projects



Perfect for every type of bread

**Mech
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www.mech-masz.eu

CERAMIC STEAM PIPE DECK OVENS

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Leader in the industry

MECH-MASZ Szczeciński Sp. z o.o. Sp. k. established in 1986 is an industry leader of Polish manufacturers of bakery and confectionery machines.

- For 33 years, services tailored to customer needs and perfect quality of products have been the main features making the MECH-MASZ brand stand out.

We participate in all major bakery and confectionery fairs in Poland and Europe. We organise annual meetings for bakers and confectioners, while offering our baked goods and presenting the registered office. At present, the company manufactures more than 50 models of devices, and the full range includes about 800 products.

Our products are sold to domestic market customer and exported to more than 30 countries worldwide.



The company is ISO 9001:2015 certified.



You're investing in future

MECH-MASZ Szczeciński
spółka z ograniczoną odpowiedzialnością sp.k.



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