

OIL FURNACE

PPN 10

INNOVATIVE AUTOMATED

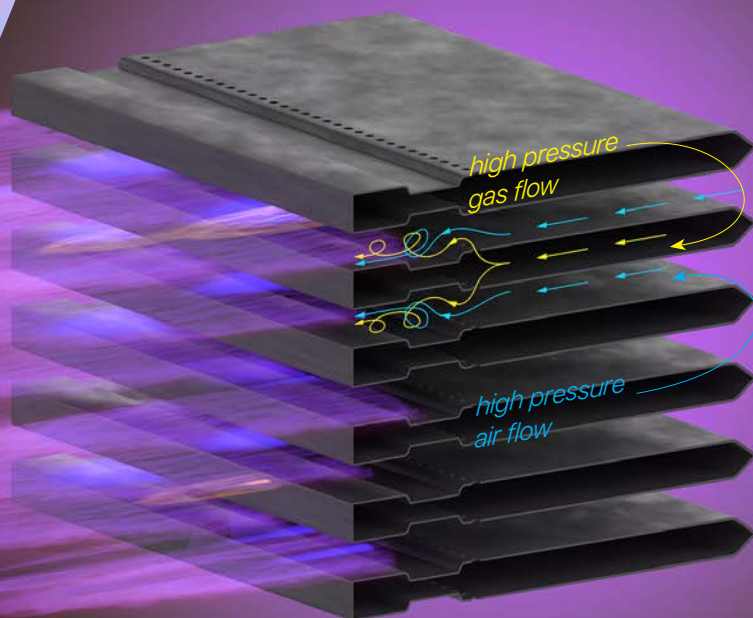
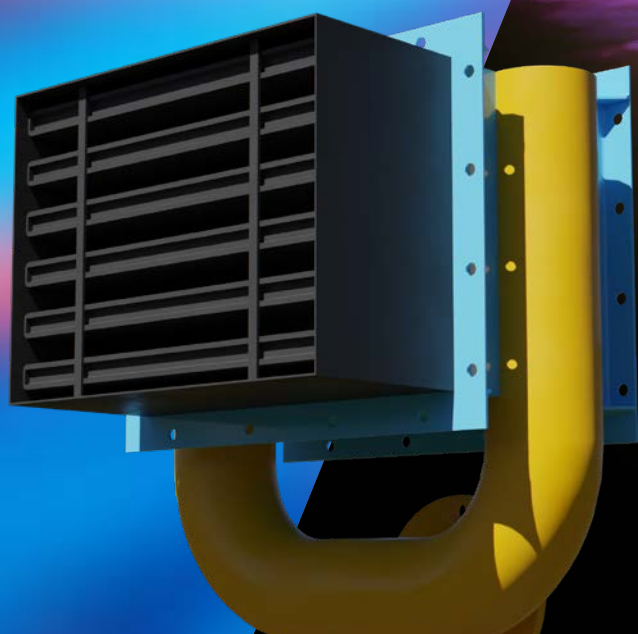


 **ZKMK**

WESTERN KAZAKHSTAN
MACHINE BUILDING COMPANY

STREAM-NICHE[®] TECHNOLOGY OF FUEL COMBUSTION

Burners with innovative combustion technology provide high-quality mixing for efficient burning of fuel gas.



FULL AUTOMATION AND A HIGH LEVEL OF INDUSTRIAL SAFETY

- digital temperature and pressure sensors
- combustion process control systems
- intelligent oil supply valves
- fuel gas flow control regulators
- SIEMENS[®] SIMATIC[®] industrial controllers

INTEGRATION WITH SCADA SYSTEMS

Systems for collecting, processing, displaying and archiving information for remote monitoring and control of the furnace operation mode.



FIRE SAFETY

The automation system allows you to complete the furnace with nitrogen or powder extinguishing agents.

MODULAR DESIGN

Ease of transportation quick installation in the field replacement of any module during major repairs.

EFFICIENT PROCESS OF ENERGY TRANSFER FROM COMBUSTION PRODUCTS TO HEAT REMOVAL SURFACES

MULTILAYER BLOCK LINING OF THE FURNACE VOLUME

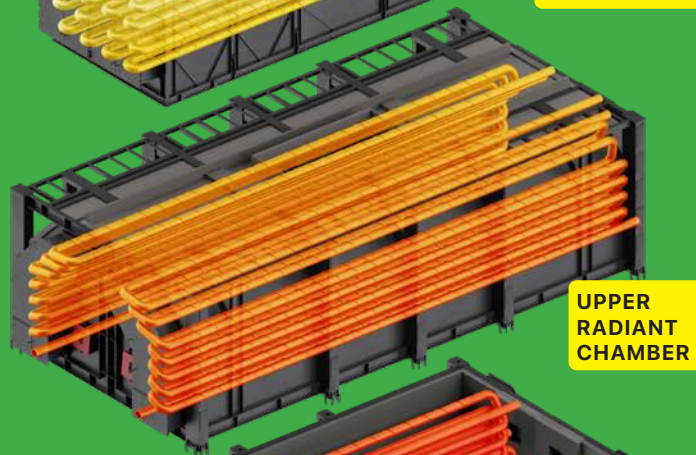
Provides reliable thermal insulation reducing heat loss.

A significant reduction in the aerodynamic removal of the outer layer of the lining material due to the strength of the block.

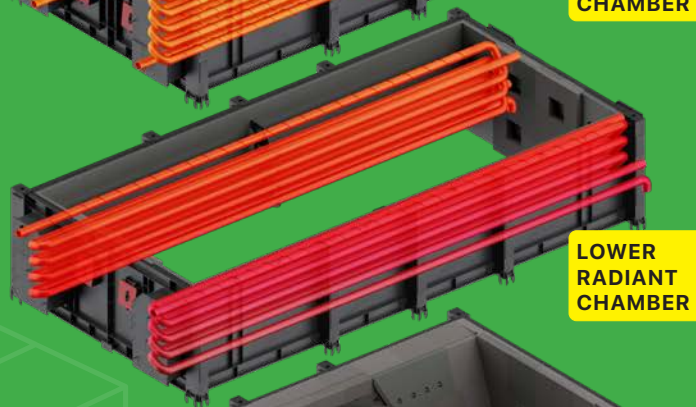
Quick replacement of lining blocks during repair.



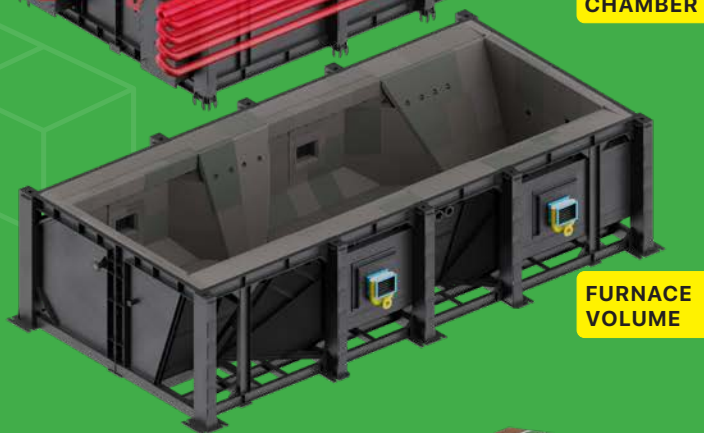
CONVECTIVE CHAMBER



UPPER RADIANT CHAMBER

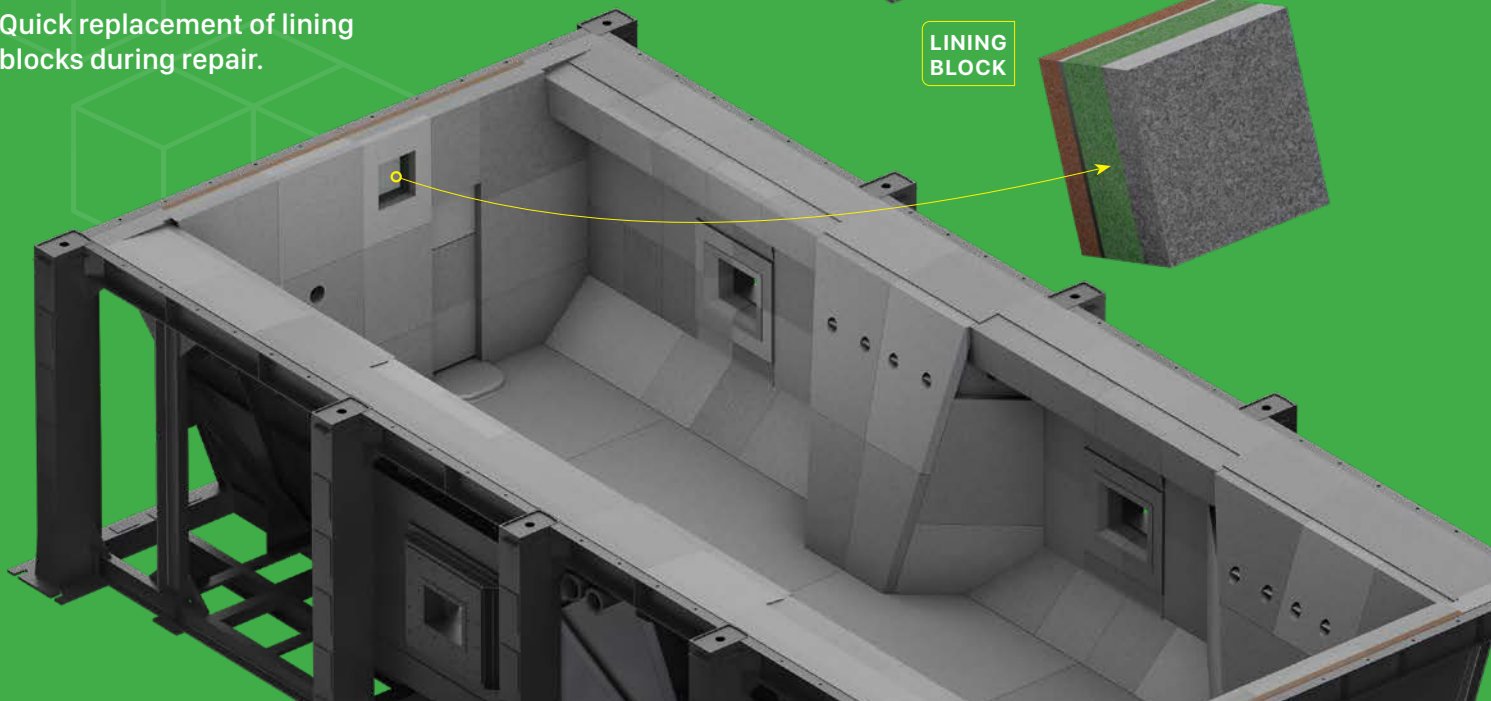
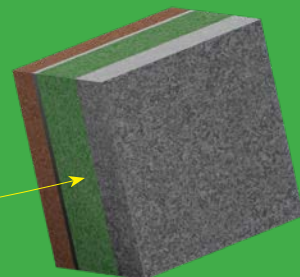


LOWER RADIANT CHAMBER



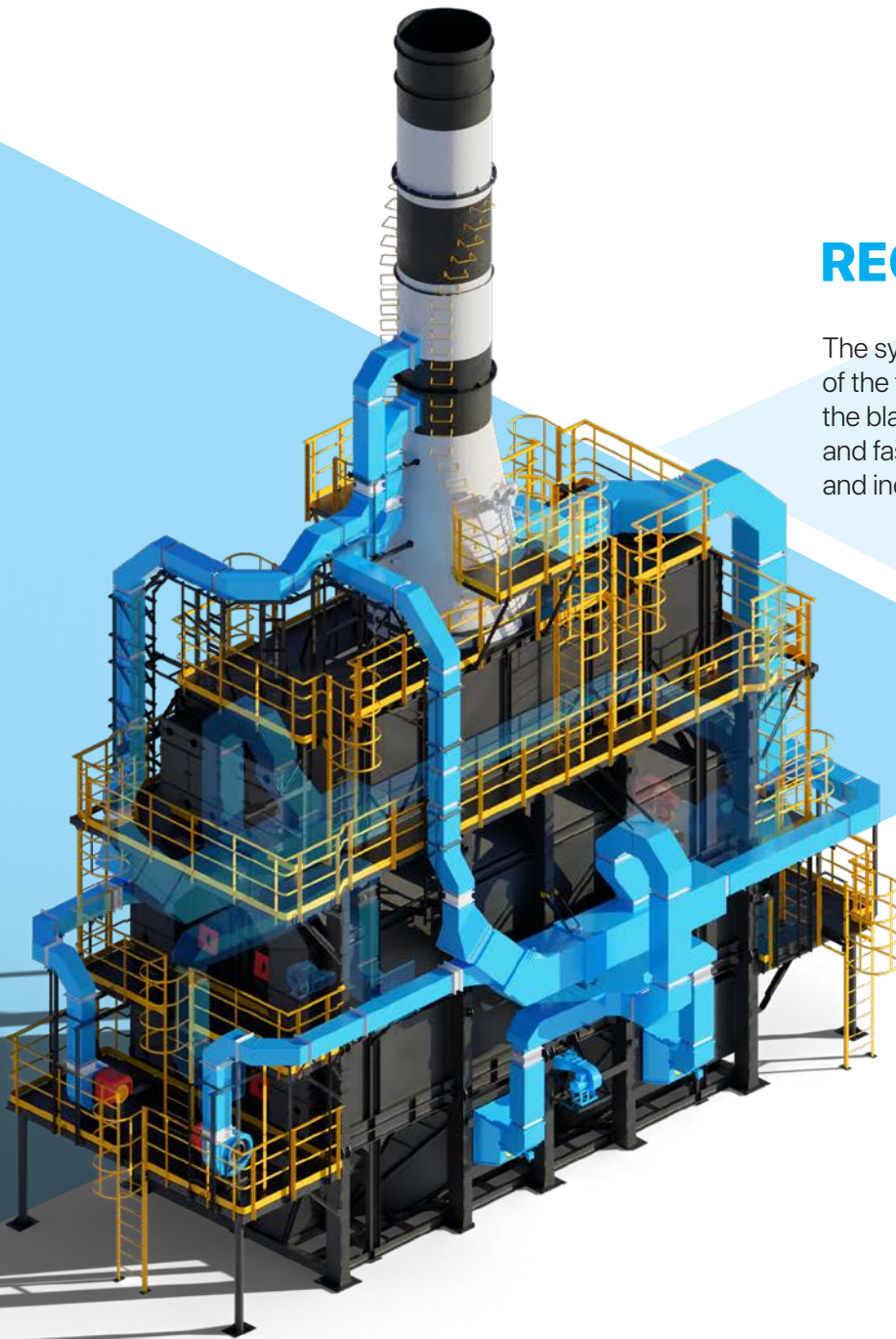
FURNACE VOLUME

LINING BLOCK



TECHNICAL SPECIFICATIONS

Useful thermal power of	8 Gcal/h	31.7466 MMBTU/h
Consumption of the heated product at $\Delta t=40^{\circ}\text{C}$	600 m ³ /h	158 500 gal/h
The maximum pressure of the product at the entrance to the furnace is	63 kgf/cm ²	896 psi
Number of burners	4 pcs	4 pcs
Gas consumption at the maximum mode of	1 000 m ³ /h	264 170 gal/h
Availability of a recursion system	yes	yes
Furnace efficiency	85%	85%
Climate conditions	-40°C...+50°C	-40°F...+120°F
Overall dimensions	length - 16,4 m width - 7,5 m height - 22 m	length - 53.8 ft width - 24.5 ft height - 72.2 ft



RECUPERATION

The system for returning part of the thermal energy by heating the blasting air is the most rational and fast-paying way to save fuel and increase efficiency

WE WERE ABLE TO MEET THE HIGH ENVIRONMENTAL REQUIREMENTS FOR CO₂ EMISSIONS INTO THE ATMOSPHERE AT THE LEVEL OF 20 ppm

