

# yeten combustion

industrial burners & control equipments



## MSB REFRACTORY DRY - OUT BURNERS

### FEATURES

**Capacities:** 1000 - 4500 kW

**Lambda -  $\lambda$ :** 40

High Xs Air Operation

User Friendly Compact Design

Manual & Automatic Temperature Control

Control Panel Acc. to Safety Standards

Temperature Recording System with Wi-Fi

### APPLICATIONS

Glass Furnace Heat - Up

Blast Furnace Runners Dry - Out

Aluminium Industry

Cement Industry

Petrochemical Industry

Incinerators

Industrial Boilers

## COMPACT DESIGN, USER FRIENDLY SYSTEM

System is completely designed for the needs of the operators. Combustion air fan, gas train and control cabinet are all located inside a transport car. During the operation and maintenance, every instrument of the system can be reached and detached easily.

Individual parts of the system such as, burner, air trim valve, gas & air flex hoses can be stored inside the transport car and can be delivered from factory to factory easily.



## CE CERTIFIED BURNER CONTROL CABINETS

Burner control cabinets are designed acc. to the local combustion safety standards (EN 746 - 2 , NFPA, etc.) and has a safety relay inside. There is a **driver** inside the cabinet to control the combustion air fan. Fan speed can be easily adjusted from the driver's control panel. Condition of the system and faults can be followed from the BCU. Visual and audible alarm systems warn the operators against system faults.

## MANUAL & AUTOMATIC TEMPERATURE CONTROL

There are 2 options for system control. Very precise temperature control is achieved with both options.

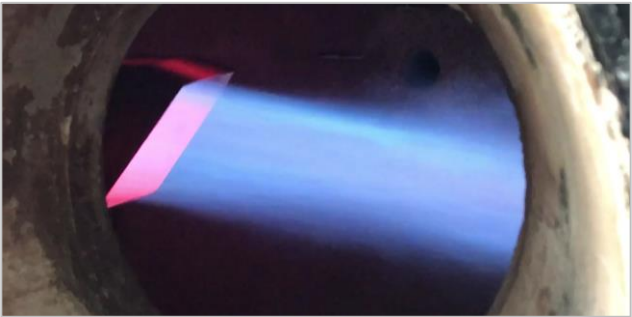
**Manual Control:** Operators control the system by adjusting the gas & air trim valves and fan driver manually acc. to the measured temperatures, required Xs air, etc.

**Automatic Control:** System is controlled automatically by a **Temperature Controller** acc. to the given temperature profile.

## HIGH XS AIR OPERATION

MSB Refractory Dry - Out Burners are suitable for working with **High Xs Air**. System can easily pressurize the furnace inside atmosphere.

During the process, burners can work continuously against positive cross pressure.



## INTEGRATED GAS & AIR FLOW MEASUREMENT SYSTEMS

Operators can precisely control the furnace temperature by adjusting the burner's fuel / air ratio with gas trim valve and fan driver.

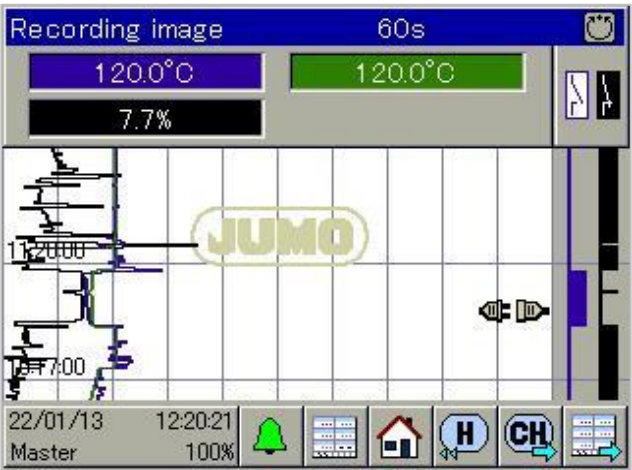
System offers integrated gas & air flow measurement systems as an option. Operators can locally see the burner's gas & air flow rates on the display of the 2 channel flow transmitter.

This way, they can adjust the fuel / air ratio more precisely with minimum effort.



## PORTABLE TEMPERATURE RECORDING UNITS

Portable temperature recording units with paperless recorder and K type thermocouples are built into a suitcase. Measured temperatures, gas & air flow rates of the burners, furnace inside pressures, alarms and system faults can be seen locally on the recorder's touch panel. Measured datas can also be transferred to other systems via Ethernet, Wi-Fi, USB, Modbus, etc.





## TAILOR - MADE SOLUTIONS FOR STEEL INDUSTRY

Robust, custom designed dry - out systems for heavy duty conditions. These systems are used to dry - out refractories of blast furnaces runners (main runner, slag runner, torpedo runner and tilting runners).



## GLASS FURNACE HEAT - UP

Over the years, refractory linings of the furnaces are getting old and replaced with new ones. Replaced refractories need to face a dry - out process acc. to the temperature profile supplied by the refractory producer. With their high Xs air operation and precise temperature control, MSB Refractory Dry - Out Burners are highly preferred in glass furnace heat - up applications.



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