

# 500 kW furnace n°1 “metallurgical and steel industry process”

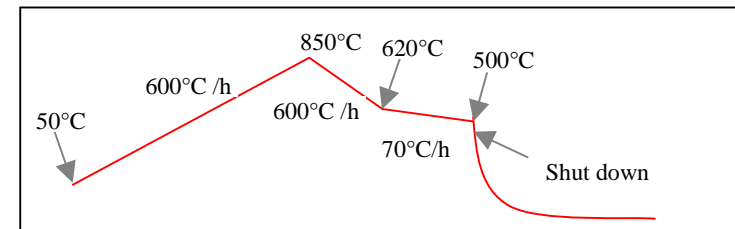


## Characteristics :

- Maximum temperature : 1350 °C
- Maximum Thermal Input : 500 kW
- Size : Width : 1,1 m - Height : 0,9 m - Length (adjustable) : 3,2 m
- Cooling system : adjustable water-cooled load on the roof
- 2 removable burner doors
- Type of fuel : Natural Gas, fuel-oil, coal, H<sub>2</sub>, syngas
- Type of oxidant : Air, preheated air (up to 1100 °C), O<sub>2</sub>

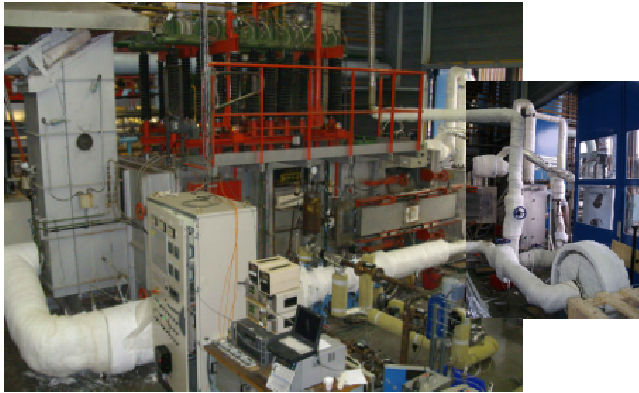
## Main profit :

- Easy to implement classical burner or regenerative burners
- Easy to program thermal cycles
- Complementarity with numerical simulation
- Able to run 24 hours a day without presence of workforce



Example of thermal cycle to fit with industrial process constraints

# 500 kW furnace n°2 “metallurgical and steel industry process”

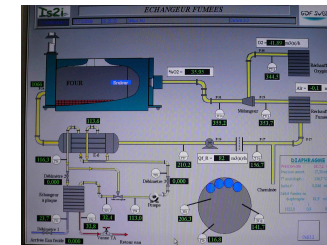


## Characteristics :

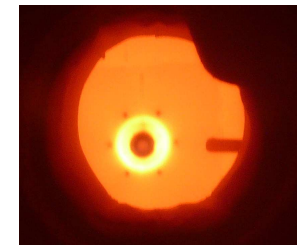
- Maximum temperature : 1350 °C
- Maximum Thermal Input : 500 kW
- Size : Width : 1,1 m - Height : 0,9 m - Length (adjustable) : 4 m
- Cooling system : adjustable water-cooled load on the roof
- **Dedicated section to detailed measurements**
- 2 removable burner doors
- Type of fuel : Natural Gas, fuel-oil, coal, H<sub>2</sub>, syngas
- Type of oxidant : Air, preheated air (up to 1100 °C), O<sub>2</sub>

## Main profit :

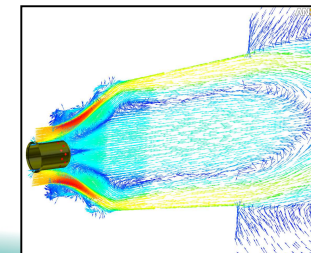
- Easy to implement classical burner or regenerative burners
- Complementarity with numerical simulation
- **In-flame measurements for providing experimental database**
- Able to run 24 hours a day without presence of workforce



Dedicated control panel



Effect of low-gcv gas combustion on luminosity



Numerical simulation to improve combustion efficiency