

# FIRING SYSTEMS FOR POWER PLANTS AND INDUSTRIAL BOILERS

M&S Combustion Technologies is your partner for future-oriented and functionally reliable firing systems for power plants and industrial boilers as well as thermo-processing plants in the power range 5-100 MW per burner. From engineering to commissioning, M&S offers all services from a single source.

Various liquid or gaseous fuels as well as variable mixtures are used in the M&S firing plants.

## FUELS

### Liquid

- Oils
- Residues
- Fuels
- Other

### Gaseous

- Gases
- Steel mill gases
- Refinery gases
- Special and residual gases

## PRODUCTS



### BURNERS:

- Super Low Nox Burner with internal flue gas recirculation type S-NAB
- NAB Burner for Power firing
- Turbine Exhaust Gas Burner Type GT for heating up the GT-flue gases for downstream thermal processes
- Low Calorific Gas Burners
- Start Up and Support Burners for grate firing and fluidized bed boilers of any kind
- Grid Burners Type FB for turbine exhaust gas heating for the operation of a waste heat boiler after gas turbines up to 300 MW



### CONTROL VALVE SETS / PLANT COMPONENTS:

- Oil pump and preheating stations
- Gas reducing stations
- Gas and oil valve, control stations
- Air/flue gas mixers and flow straighteners

### CONTROLS

- Fail-Safe burner controls  
Siemens: S7-1500, S7-400 / PCS7
- HIMA: HIMatrix, HIQuad, HIMax

## SERVICES



Engineering



Production



Commissioning



Hard- / Software solutions



Maintenance



Remote monitoring

# ELDUR BURNER FOR GASEOUS AND LIQUID FUELS

The new M&S **Eldur burner** is the consistent further development of the proven M&S Low NOx burner in the field of industrial firing technology.

In the burner power range between 5 MW and 100 MW, the **Eldur burner** offers the extensive configuration and design options that are familiar from M&S, with even more significantly reduced NOx emission values.

At the same time, it has been possible to leave the low burner draft loss on the air side at 25 mbar, so that no changes have to be made to the combustion air blowers when replacing burners on old plants for emission or modernization reasons.

## SIGNIFICANTLY IMPROVED INTERNAL FLUE GAS CIRCULATION

The innovative M&S **Eldur burner** offers a significant improvement in internal flue gas recirculation. This allows NOx values (based on 3% O<sub>2</sub>) of ≤ 70 mg/Nm<sup>3</sup> to be achieved for natural gas operation without secondary measures.

To achieve the BAT limit of NOx ≤ 60 mg/Nm<sup>3</sup> for natural gas operation, only about 10% external flue gas recirculation volume is required.

## ELDUR BURNER IS H<sub>2</sub>-READY

Of course, the M&S **Eldur burner** is also suitable for the use of pure hydrogen (H<sub>2</sub>-ready).

### WHY M&S?

- many years of experience with firing systems for power plants, industrial boilers and thermoprocessing plants
- all services - from engineering to commissioning - from a single source



## ADVANTAGES OF THE ELDUR BURNER:

- NOx values of ≤ 70 mg/Nm<sup>3</sup> for natural gas operation without secondary measures
- NOx values of ≤ 60 mg/Nm<sup>3</sup> for natural gas operation with only 10 % external flue gas recirculation
- Burner draft loss still only 25 mbar
- Familiar, extensive configuration and design options of the burner for various liquid and gaseous fuels
- Plant operation with pure hydrogen possible (H<sub>2</sub>-ready)
- Burner can also be used as an extension or for modernization (refit) of existing plants

## PLEASE CONTACT US!

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