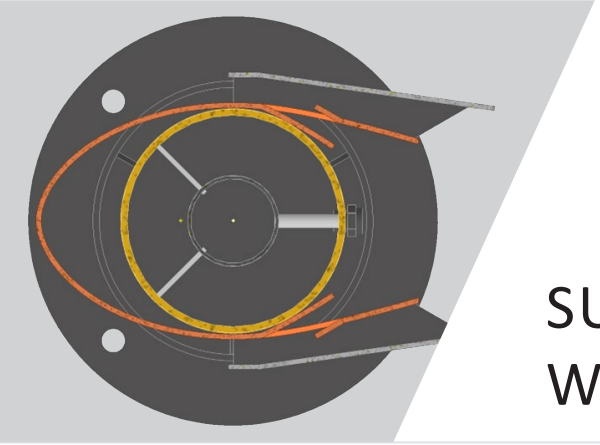


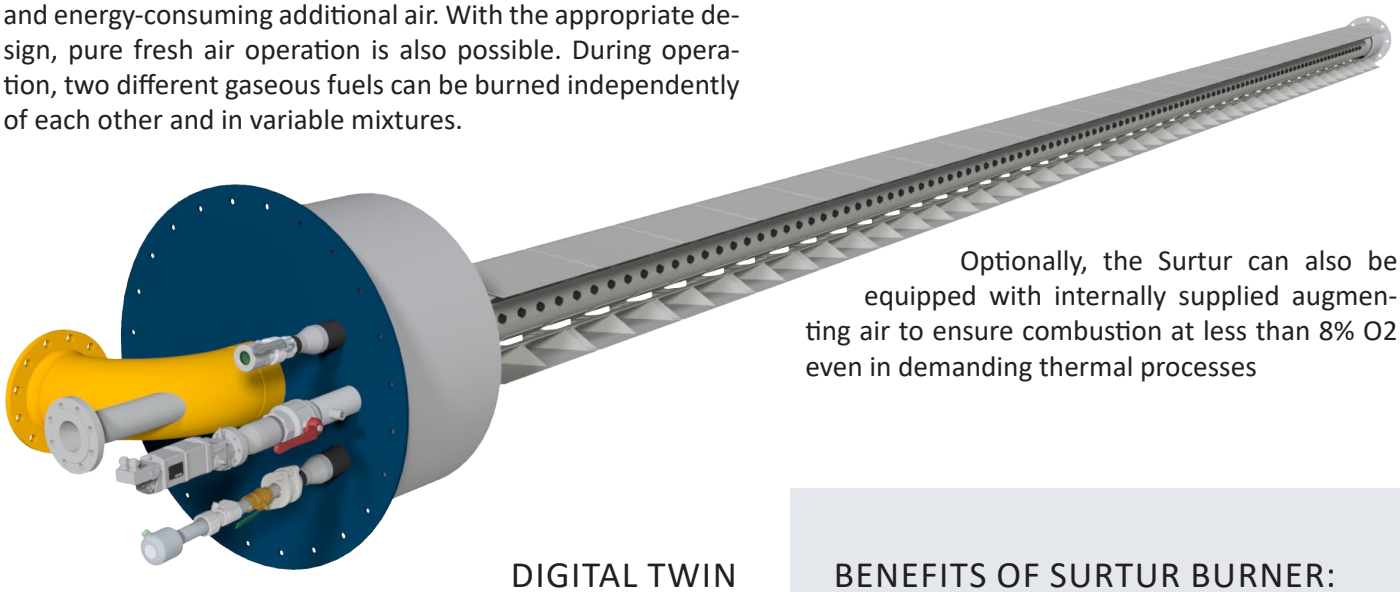
SURTUR GRID BURNER FOR WASTE HEAT BOILER

INNOVATIVE BURNER TECHNOLOGY FOR THE LATEST GENERATION OF GAS TURBINES

With the Surtur, M&S offers an innovative grid burner for use in waste heat boilers. Designed for the latest generation of gas turbines, the efficient turbine exhaust gas burner achieves a residual O2 content from > 8% in the combustion process and optimum temperature range. The future-proof burner design enables 100% burner output without the need for expensive and energy-consuming additional air. With the appropriate design, pure fresh air operation is also possible. During operation, two different gaseous fuels can be burned independently of each other and in variable mixtures.

TURBINE EXHAUST GAS BURNER WITH 8% RESIDUAL O_2 CONTENT

At the heart of the Surtur grid burner is its newly developed geometry: a specially calculated profile optimizes the flow around the grid burner with the turbine exhaust gases and reliably ensures an ignitable fuel-air ratio from > 8% O2 content in the temperature range of 1120-1600°C.



Optionally, the Surtur can also be equipped with internally supplied augmenting air to ensure combustion at less than 8% O2 even in demanding thermal processes

DIGITAL TWIN

The Surtur grid burner was developed and simulated for the first time as a complete digital twin in terms of aerodynamics, thermodynamics, combustion and mechanics/strength on the basis of CAD/CFD/FEM tools used in aviation. This digital model can be adapted to the specific project situation at short notice and the optimum system configuration can be reliably determined before production and implementation.

This gives boiler manufacturers, EPCs and operators significantly greater project certainty right from the start with regard to compliance with all combustion parameters, performance under various load/fuel gas assumptions and installation and commissioning times.

BENEFITS OF SURTUR BURNER:

- Reliable combustion up to 8% residual O2 (temperature range 1120-1600 °C)
- No additional air supply required
- Very low pressure loss for a surface burner
- Quick procurement of spare parts
- High flame stability and a uniform temperature profile along the burner element across the entire duct cross-section
- Optional possibility to burn two different gaseous fuels independently of each other

CONTACT US!

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