Product information
Ultra low NO_x burner ATONOX

SAACKE

NO_x CLEAN COMBUSTION < 30 mg/Nm³ BEST AVAILABLE TECHNOLOGY NO_x

Modular all-rounder

ATONOX: A flexible concept in burners for the lowest possible NO_x emissions and low operating costs

- Building materials industry
- Steel and metal production
- Wood processing
- Waste incineration
- Energy and heat supply
- Chemical industry
- Refineries
- Food industry

As an innovative development in the domain of low NO_x gas burners, the ATONOX from SAACKE heralds the start of a new generation. The secret lies mainly in the modular assembly system, from which various burner types can be readily configured. This makes the ATONOX extremely flexible and reduces effort and costs of modernizing individual boilers.

Emissions in accordance with EU's Best Available Technology

Due to a new procedural concept and low losses of pressure electricity consumption of the fan is reduced, which lowers operating costs. The ATONOX sets new standards with regard to environmental protection and consistently operates below stringent emission limits – even without secondary measures such as external recirculation of flue gases. It is therefore also in line with the strict current Chinese emission limits and the EU emission limits for gas-fired new and existing plants that will come into force in 2021 due to the Best Available Technlogy requirements. The ATONOX thus offers flexibility and one thing above all: excellent quality, "Made by SAACKE".

Advantages at a glance

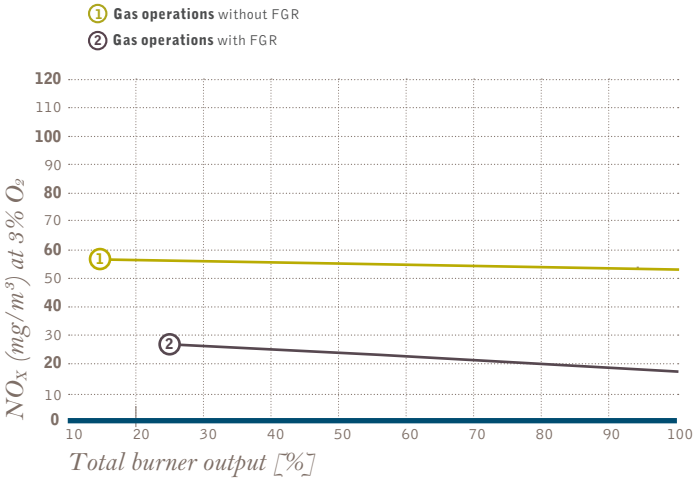
- Ideal for new plants and modernizations (retrofit) due to simple project planning, fast installation and cost-effective system integration
- Complex brick lining geometries in the boiler and thus no need for time-consuming maintenance or repair work
- Unrivalled small installation diameter at the boiler body (30 to 40 % less than the competition), Use existing boiler openings without cost-intensive modification of the tube bending
- No fragile ceramic burner components and robust Design with gas nozzles without small bore holes
- System solutions perfectly adapted to the furnace geometry with single or multiple burner applications
- RLowest emissions without external exhaust gas recirculation. Further emission reduction through external exhaust gas recirculation. – also within the scope of retrofitting
- Air preheating up to 300 °C
- Compatible with various burner controls

Flexible construction method for tailored combustion solutions

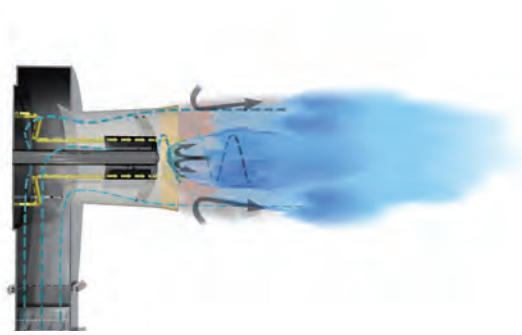
Already the basic option offers excellent value for money. The ATONOX series of burners features a wide range of uses, high performance for the heart of your power plant furnace and surpasses the competition with unbeatably low emissions. Due to its compact size, the ATONOX is ideal for modernizing boiler plants, since the burner openings on the boiler can be kept as they are without additional bending of the boiler pipes.

Low NO_x burner ATONOX

Achievable emission values with Low NO_x burner ATONOX in gas operation at optimum conditions



Mass flows (gas, air) at ATONOX



Key technical data: Low NO_x burner ATONOX

Applications	Water tube boilers, thermal oil heaters, Steam boiler, hot water boiler
Burner capacity (max.)	10-80 MW
Combustion air temperature	0-300 °C
Pressure loss air side	20-30 mbar
Control range	up to 1:8

Emission values*

		Natural gas
NO_x [mg/m³]	without FGR	< 60
With suitable furnace size NO_x could be lower than 60 mg/Nm³ without FGR.		
NO_x [mg/m³]	with FGR	< 30

* Based on 3 % O_2, under ideal conditions the lower values apply

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