

# One system for all applications

in the high-performance range

**The innovative DDZG sets new standards in terms of emissions, and is revolutionizing the steam pressure atomizer market.**

Its secret is simple: It is essentially not just a burner, but also a variable, modular building block system from which burners can be configured. That is what makes the DDZG highly flexible while also delivering low NO<sub>x</sub> emissions that no competitor can match. The components of the new system are based on the SAACKE steam pressure atomizers tried and tested 1000 times. The range extends from inexpensive basic solutions to multi-fuel burners with several fuel guns for complex requirements, Ex-protection variants or air preheating up to 300°C.

As the heart of process firing the DDZG can burn even unconventional gases (e.g. with a high hydrogen content) safely and with low emissions. If required, it burns different gases and liquids as a simultaneous firing in a wide range of combinations. The SAACKE Engineering Team will find the optimum solution for your application too – just contact us to talk about it.

Despite this flexibility, the system's modularity ensures that the cost

## Technical data

<b>Burner output</b>	10 – 80 MW
<b>Fuels</b>	Light oil, heavy oil, gases (incl. special gases and process gases) Individually and in combination
<b>Applications</b>	Water-tube boilers, thermal oil heater, gas turbine flue gas burners in power plants, waste incineration plants
<b>Characteristics</b>	Lowest NO <sub>x</sub> -emissions, even without external flue gas recirculation

and labor commitment is kept highly competitive whatever the specific solution.

The new process concept keeps operating costs very low while at the same time delivering extremely low emissions. Low pressure losses minimize the power consumption of the fan.

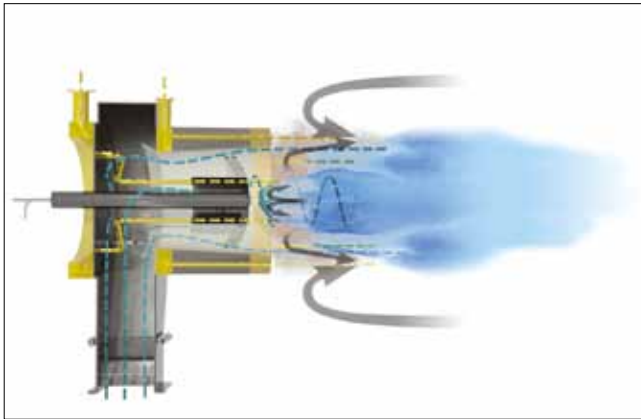
The DDZG also sets new standards in terms of environmental protection, reliably conforming to very stringent limits. In typical applications, emission limit requirements between 50 and 80 mg NO<sub>x</sub>/m<sup>3</sup> for operation with natural gas and 100 to 150 mg NO<sub>x</sub>/m<sup>3</sup> for fuel oil have already been met. Under the right conditions even lower emissions can be achieved.

The high energy efficiency and low maintenance cost represent the results of decades of continuous development work.

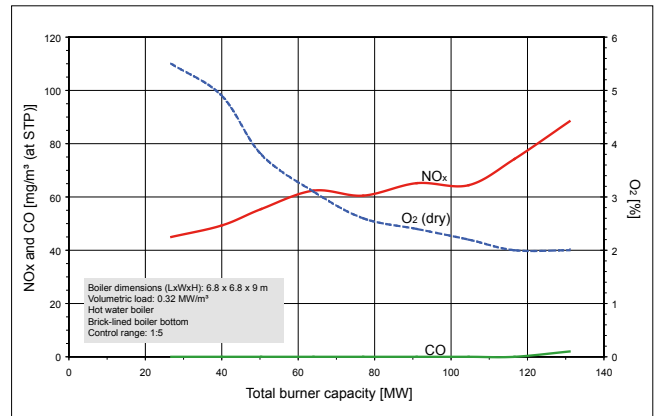
With all its flexibility, the DDZG is uncompromising in just two attributes: high quality and extremely long service life.

## DDZG Highlights

- New steam pressure atomizer generation
- Available for standard fuels and virtually all gaseous and liquid special fuels
- Flexible burner concept
- Simultaneous combustion of multiple gases also in combination with various liquid fuels
- Ideal for water-tube boilers, thermal oil boilers and process plant of varying geometry
- Possible to implement air preheating up to 300 °C
- Extremely low emissions
- Large control range
- Low operating costs thanks to high-efficiency combustion technology and low auxiliary power requirement
- Short planning phase thanks to modular design concepts
- Numerous pre-designed solutions as the basis for custom engineering
- Conforming to European Directives



Principle of operation of the burner



Extremely low emissions at all firing rates



Ultra-low NO<sub>x</sub> flame of the DDZG



Typical DDZG system, here with upshot burners

## Technical data

<b>Applications</b>	Water-tube boilers, thermal oil heater, gas turbine flue gas burners in power plants, waste incineration plants
<b>Burner output (max.)</b>	10 – 80 MW
<b>Combustion air temperature</b>	20 – 300 °C
<b>Natural gas</b>	
<b>Emission values</b>	NO <sub>x</sub> : 50 – 100 mg/m <sup>3</sup>
<b>Control range</b>	1:8
<b>Leigh oil LFO</b>	Steam atomizer
<b>Emission values</b>	NO <sub>x</sub> : < 180 mg/m <sup>3</sup>
<b>Control range</b>	1:5
<b>Natural gas</b>	Air pressure atomizer
<b>Emission values</b>	NO <sub>x</sub> : < 250 mg/m <sup>3</sup>
<b>Control range</b>	1:3
<b>Natural gas</b>	
<b>Emission values</b>	NO <sub>x</sub> : < 450 mg/m <sup>3</sup>
<b>Control range</b>	1:5

For further information, please visit: [www.saacke.com](http://www.saacke.com)