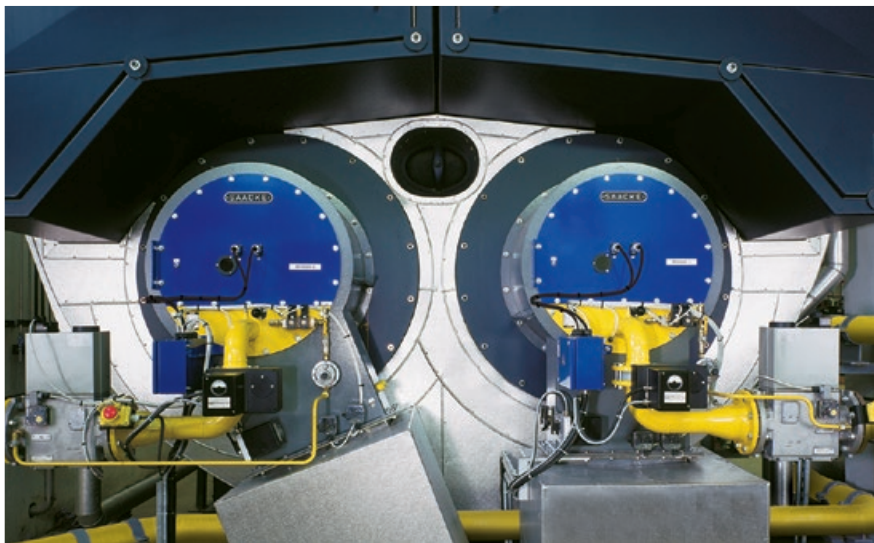
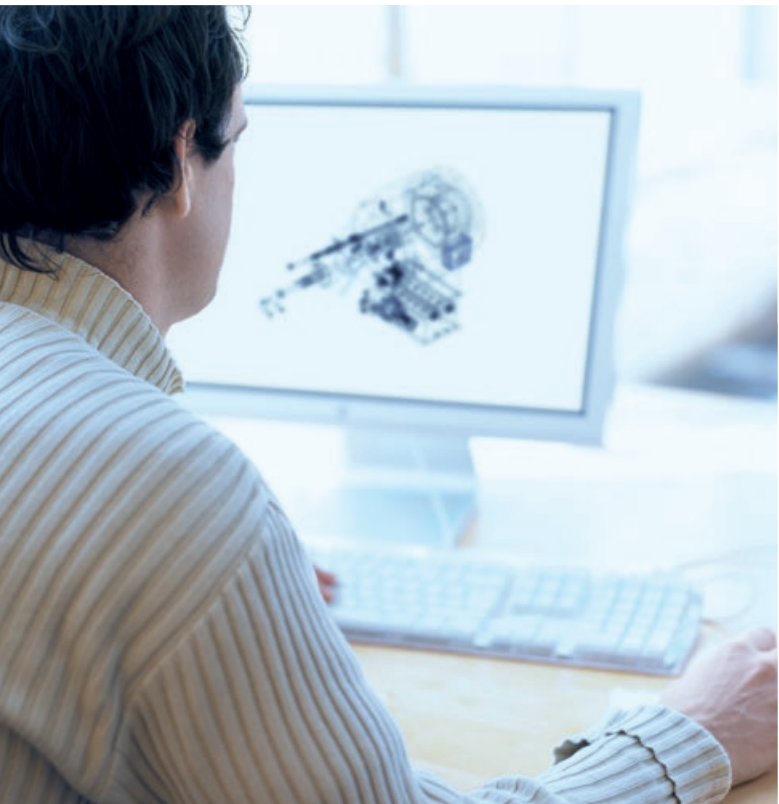




# INDUSTRIAL SOLUTIONS

PRODUCTS AND SERVICES



## PRODUCT – SEE MODERNIZATION MODULES



## OPTIMIZE EFFICIENCY – REDUCE ENERGY LOSSES

Combustion plant losses are a drain on the budget as well as the environment. In many cases, up to 10% of all fuels used are wasted. This means that modern industrial firing plants have to use fuels most efficiently. But, optimization does not necessarily have to result in higher expense or long downtimes. Frequently, small changes to burners, boilers or controls already suffice to produce a tangible increase in the efficiency of your plant. SAACKE provides support with an extensive selection of modernization tools from a weak points analysis all the way up to the optimization of the relevant components.

***A BETTER USE  
OF ENERGY.***

### Our services

- Calculation of cost and emission reduction potentials using the SAACKE Energy Efficiency Calculator
- Optimization of the operation and control parameters (e.g. feedwater and desalination control)
- Speed-controlled motors
- O<sub>2</sub>/CO controls
- Economizer and heat exchanger

### Your benefits

- Considerable increase in fuel efficiency
- Precise analysis and customization of every efficiency measure
- Improved plant control behavior
- Can be used for all burners, controls and heat generators
- Short pay back period
- Long life-time of all components



# BURNERS, COMBUSTION CHAMBERS & HOT GAS GENERATORS



Tx



**Plug-and-play solution in the lower capacity range**

<b>POWER RANGE</b>	0.25-2.5 MW
<b>FUELS</b>	Natural gas, light oil, propane gas
<b>FIELDS OF APPLICATION</b>	Water shell boilers (Cornish boilers as over-fired or reverse boilers), thermal fluid heaters, small-scale steam generation for industry, commercial businesses, municipalities, hospitals and district housing

SKVJG



**Reliable monoblock burners for use on land and at sea**

<b>POWER RANGE</b>	1-6.5 MW
<b>FUELS</b>	Natural Gas, light oil, biogas, biopetroleum and animal fat
<b>FIELDS OF APPLICATION</b>	Marine boilers, horizontally fired boilers (water shell boilers and water-tube boilers as over-fired boilers), thermal fluid heaters

EUROTHERM



**Compact solution for the lower capacity range**

<b>POWER RANGE</b>	2.5-5 MW
<b>FUELS</b>	Natural gas, light oil, liquefied petroleum gas
<b>FIELDS OF APPLICATION</b>	Almost all heat generators, compact combustion systems

SKVG-A



**Compact burner based on rotary cup atomizer technology**

<b>POWER RANGE</b>	4-17.5 MW
<b>FUELS</b>	Natural gas, light oil, heavy oil and biopetroleum
<b>FIELDS OF APPLICATION</b>	All established heat generators and furnace geometries

TEMINOX GLS



**Flexible, compact burner for minimum emissions**

<b>POWER RANGE</b>	4-25 MW
<b>FUELS</b>	Natural gas, light oil, biogas, liquefied petroleum gas and other special fuels
<b>FIELDS OF APPLICATION</b>	Large shell boilers, water-tube boilers and thermal fluid heaters in various geometries, asphalt mixing systems and process plants

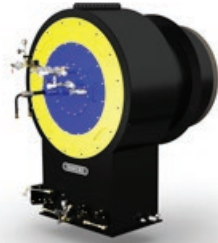
SKVG



**Proven, flexible technology for standard and special solutions**

<b>POWER RANGE</b>	1-60 MW
<b>FUELS</b>	Standard fuels and almost all gaseous and liquid special fuels
<b>FIELDS OF APPLICATION</b>	Marine and land applications in both the standard and processing sector

## DDZG



### A system for all applications for the high-power field

**POWER RANGE**

7-100 MW

**FUELS**

Natural gas, light oil, special and process gases

**FIELDS OF APPLICATION**

Water-tube boilers and thermal fluid heaters in various geometries, gas turbine exhaust gas burners in power plants and waste incineration plants

## TF-DDZG



### Heavy oil emission values that set the standard

7-50 MW

Natural gas, light oil, heavy oil, gaseous and liquid special fuels

Water-tube boilers, thermal fluid heaters and process plants of varying geometries

## DDZG GTA



### Burner for turbine flue gas

**POWER RANGE**

Heat output: 10-100 MW

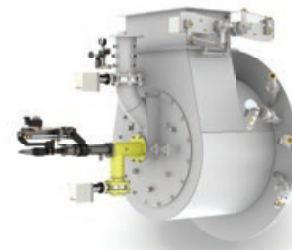
**FUELS**

Natural gas, light oil, heavy oil, gaseous and liquid special fuels

**FIELDS OF APPLICATION**

Heat recovery and water-tube boilers, insulated combustion chambers with downstream flue gas heat exchangers, heating turbine exhaust gases in power plants, drying plants, heating process air

## DDZG GTM



### Burner for efficient micro combined power & heat generation

Heat output: 2-20 MW

Natural gas, light oil, biogas and gaseous special fuels

Large shell and reverse shell boilers, water-tube boilers, thermal fluid heaters, hot gas generators (for fresh air and combined operation with external flue gas recirculation)

## SSB



### Short flame for process combustion

**POWER RANGE**

1-120 MW

**FUELS**

All liquid and gaseous fuels

**FIELDS OF APPLICATION**

Ideal for water-tube boilers, thermal fluid heaters and combustion chambers in all orientations, ignition and support for waste and incineration plants

## CCS-HT



### Combustion chamber for high-temperature applications

2-55 MW

Suitable for all standard fuels, low calorific liquids and gases as well as numerous atomized fuels

For drying, calcination as well as heating and utilizing process gases

## SSB-D



### Use dust and byproducts as cost-effective fuel

**POWER RANGE**

2-60 MW

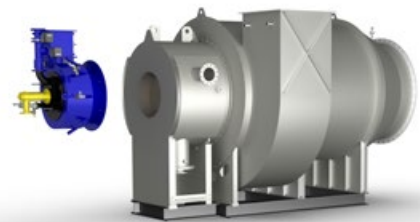
**FUELS**

For dusts with a particle size < 0.5 mm and a heat value of 10-30 MJ/kg

**FIELDS OF APPLICATION**

Suitable for hot gas generators and water-tube boilers

## CCS-LT



### Combustion chamber for low-temperature applications

1.5-35 MW

Fuel gases and light oil in acc. with DIN 51603-1 and similar liquid fuels

Drying, heating and utilizing process gases, gas and flue gas incineration

## SSB-LCG/LCL



### Access fuels with low heat values and reduce costs

**POWER RANGE**

1-100 MW

**FUELS**

Gases with extremely low heating values over 2.0 MJ/m<sup>3</sup> without supporting fuels as well as liquids with extremely low heating values (5-15 MJ/kg)

**FIELDS OF APPLICATION**

Suitable for all heat generators

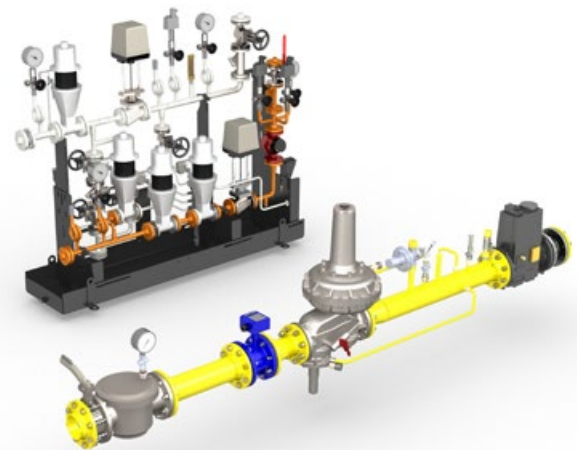
## Burner control



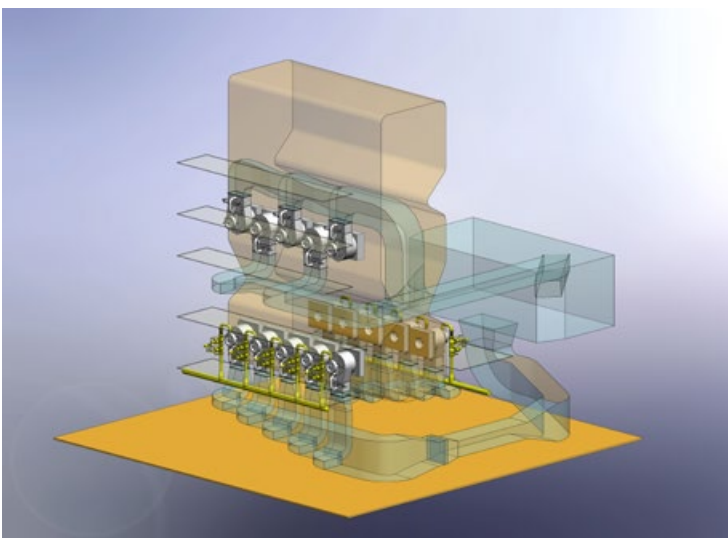
SAACKE has always produced individual combustion components while also keeping an eye on the big picture. Because, what's the use of having the best burner without a perfectly aligned and seamlessly integrated control system? That's why SAACKE developed the burner control series se@vis. Flexible standard designs are just as much a part of the portfolio as customized solutions for on land and at sea – from automatic firing sequences and control systems with mechanical or electrical compound control up to programmable logic controllers and easy-to-configure management systems with up to eight channels and modes of operation. SAACKE burner controls naturally also have numerous international approvals and have been certified by a large number of maritime classification societies.

## Fuel and air supply

Even small fluctuations in fuel pressure and quality have a negative impact on reliable and low-emissions combustions. Depending on the fuel, flow rate, burner type and control, SAACKE offers the matching valve. Heaters can be integrated just as easily as filters or pumps. The valve stations can also be tested in the factory, which significantly reduces commissioning times. Furthermore clean and stable firing is also based on an optimized combustion air supply. With decades of experience in the construction of air ducts, fans, bends, flarings and branching points, SAACKE guarantees customized planning and reduced operating costs.



## Engineering competence



Whether turnkey solutions or individual modules, conventional firing or complex feasibility studies – SAACKE provides the know-how and technology for all thermal processes under one roof. Our decades of experience mean that we can ensure a smooth project implementation, even within tight timeframes. Our test and development center in Bremen uses established applications, such as CFD simulations, and cooperates with renowned universities and research institutes. This means that we are always at the cutting edge of technology and have a decisive knowledge advantage in many decisions. From the concept and the basic engineering up to assembly and commissioning, we are your partner in combustion technology.



# AT HOME WORLDWIDE – AND ALWAYS NEARBY

More than 20 countries and 70 international offices and over 1,000 highly skilled employees – just like our burner systems, our service is flexible, competent and present on every continent. Around the globe, around the clock: our international teams consult, repair, maintain and deliver on your behalf. Even in emergencies day and night we are there for you thanks to our service hotline. In all other cases, your local SAACKE contact partner in your region is always ready to help.

Free worldwide: the SAACKE  
service supportline for emergencies  
**+800 10020001**

## Production sites

### Bremen (Germany)

The head office is home to both the production facility and the development center.

### Zagreb (Croatia)

Part of the SAACKE Group since 1999, specializing in the production of burners, boilers and additional equipment for marine applications.

### Qingdao (PR of China)

140 employees predominantly produce boilers for marine application. It is ideally located near the Port of Qingdao.



SAACKE GmbH  
Südweststraße 13  
28237 Bremen, Deutschland  
Tel. +49 421 6495-0  
Fax +49 421 6495-5224  
[info@saacke.com](mailto:info@saacke.com)  
[www.saacke.com](http://www.saacke.com)