

Our Delivery Program

Development and planning of firing plants individually designed on the basis of a modular series type production.



Combustion and Energy Systems

Technical Excellence

- Growing dynamism in global competition with regard to quality, time and cost-benefit ratio,
- minimal emissions for the protection of environment and resources,
- maximum flexibility regarding choice of economical fuel,
- continuous optimisation of all systems and components,
- worldwide service...

Economic Efficiency is Integral to Burner Technology



For more than 70 years our burner systems have proved their efficiency daily. Due to the success in the world's industrial thermal markets we have turned these requirements into technical reliability, first-rate engineering, power of innovation, and comprehensive service. More than 100 000 burners worldwide in every field of industry and process technology as well as more than 4 000 marine engines perform successfully for our customers.

Clean combustion with maximum efficiency, low emission rates, excellent operational reliability and, moreover, fast and 'easy' adjustment to individual environments and requirements secure your investment long-term.

The modular burner systems meet all their operators' requirements. Today and in the future. Standardised components and numerous variants allow a maximum amount of flexibility.



Our technological lead is founded on the readiness and ability to continuously improve our products and services and is supported by our own extensive research and development.

In co-operation with SAACKE, customers profit from the broad performance spectrum of our experience, the comprehensive competence of the worldwide operating system-supplier and from customer proximity through the global network of service partners – it's all in one.

Low NO_x Burners



SKVJ/G



JGL



SSB



DDZ/G

Swirl-type Burners SSB

Fuel	Capacity [MW]	1.0	3.0	7.0	15
		3.5	7.5	17.5	30
Burner size / Burner type		20	50	100	200
Heavy oil	SSBS				
Light oil	SSBL				
Gas	SSBG				
Heavy oil/gas	SSBGS				
Light oil/gas	SSBGL				

Steam Assisted Pressure Jet Burners DDZ

Fuel	Capacity [MW]	4.6	7.8	13.3	20.8	32.5	53.1	83.6
		11.7	19.8	31.8	50.4	81.5	126.8	134
Burner size / Burner type		8	10	12	14	16	18*	20*
Heavy oil	DDZ							
Light oil	DDZ							
Gas	DDG							
Heavy oil/gas	DDZG							
Light oil/gas	DDZG							

*upon request



HLG

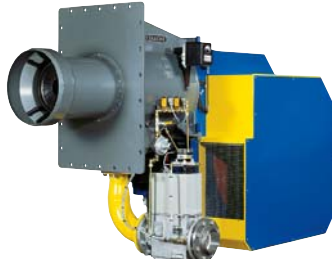
Monoblock Pressure Jet Burners EURO THERM

Fuel	Capacity [MW]	0.12	0.24	0.29	0.39	0.46	0.61	0.92
		0.36	0.72	1.14	1.55	2.28	3.05	4.60
Burner size / Burner type		5	10	15	20	30	40	60
Natural gas	HG							
Light oil	HL							
Medium oil (60cST/50°C)	HM							
Light oil/natural gas	HLG							

Ultra Low NO_x Burners



TGL, TG, TL



GLS, GS, LS



TF

TEMINOX® TGL Duoblock Burners

Fuel	Capacity [MW]	0.65	1.3	0.85	1.54	1.0	1.9	1.2	2.25	1.4	2.85	1.5	3.08
		▽ 3.9	▽ 3.9	▽ 5.3	▽ 5.3	▽ 6.6	▽ 6.6	▽ 8.1	▽ 8.1	▽ 10.4	▽ 10.4	▽ 11.5	▽ 11.5
Burner size / Burner type		35		45		55		70		90		100	
Light oil/gas	TGL	[Blue bar spanning all columns]											
Gas	TG	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]
Light oil	TL	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]

TEMINOX® GLS Mono- and Duoblock Burners

Fuel	Capacity [MW]	0.54	1.35	0.8	1.85	1.0	2.5	1.2	3.2	1.5	3.2	2.0	3.2
		▽ 5.4	▽ 5.4	▽ 7.5	▽ 7.5	▽ 9.5	▽ 9.5	▽ 12.0	▽ 12.0	▽ 15.2	▽ 14.0	▽ 18.5	▽ 14.0
Burner size / Burner type		55		75		95		125		155		185	
Light oil/gas	GLS	[Blue bar spanning all columns]											
Gas	GS	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]
Light oil	LS	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]

TF Duoblock Burners

Fuel	Capacity [MW]	2	1.66	3	2.5	4	3.33	5.2	4.33	6.4	5.33	8	6.66	10	8.33
		▽ 10	▽ 10	▽ 15	▽ 15	▽ 20	▽ 20	▽ 26	▽ 26	▽ 32	▽ 32	▽ 40	▽ 40	▽ 50	▽ 50
Burner size / Burner type		100		150		200		260		320		400		500	
Light oil/gas	TF-DDZG	[Blue bar spanning all columns]													
Gas	TF-DDG	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]
Light oil	TF-DDZ	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]

Beyond the legal requirements, the SAACKE TEMINOX® burners also comply with the even stronger values already required by official authorities and the dynamized emission limit values to be expected in future.

TEMINOX® burners are especially characterized by the following properties:

- GLS Low NO_x and TGL Ultra Low NO_x mixing system for optimum combustion with lowest emissions.
- Modular structure of mixing system, fan and sound absorber thus assuring optimum adaptation to all possible plant requirements.
- No external flue gas recirculation plant required. That means no additional flue gas fans, enlarged combustion air fans, ducts, control systems and safety equipment. Result: reduced plant costs.
- Short installation and start-up times as well as very easy mounting and maintenance by a service-friendly burner design.

Process Firing Plants

Thermal utilisation of residues

- Animal grease
- Poor gas
- Organically loaded wastes
- Exhaust air containing noxious matters

Combustion of special fuels

- Explosion-hazardous exhaust air/gases
- Liquids and gases with a high nitrogen content

Multi-stage thermal processes

Hot gas generators

Re-heating of gas flows

Ignition and supporting burners for waste incineration plants



Hot Gas Generators 1 MW – 50 MW

SAACKE hot gas generators equipped with SKV burners of any capacity are used for the generation of hot gases for drying processes, for the re-heating of flue gases in flue gas cleaning plants, for the combustion of non-standard fuels and the incineration of toxic wastes.



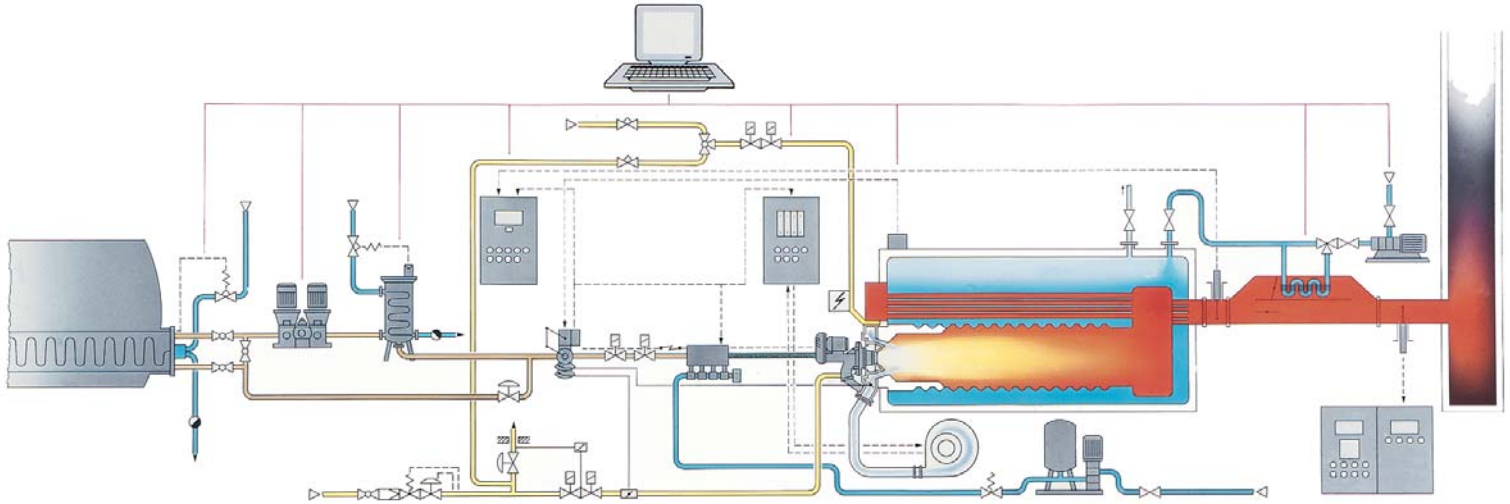
Thermal utilisation of residues from the production of resins

When producing resins, there are residues that must be disposed in an environmentally compatible way:

- formalin waste gas (high heat value, explosive)
- resin plant waste air (contaminated air)
- sewage water (difficult to clean)

The SAACKE plant incinerates these residues in an energy-saving and environmentally compatible way. The steam generated during combustion is fed into the supply lines of the resin-producing company.

SAACKE Plant Modernisation



In the course of the service life of a heat generator, a periodical adaptation to the actual state-of-the-art engineering and changed legal directives may be required. For this purpose, SAACKE offers a comprehensive program for improvements of the plant operation and safety.

Our consulting engineers can develop together with you an individual solution for a specific problem arising from your very special requirements. This guarantees optimum advantages for the customer by saving costs and improving the operation of the plant.

The following list specifies the focal points of services offered by us:

- Change of fuel for a reduction of cost and / or emissions

- Emission reduction in compliance with actually prevailing legal regulations by a retrofitting or exchange of the firing plant
- Retrofitting of the firing plant to an electronic compound control system
- Speed control of the combustion air fan
- Conversion of the heat generator for operation without continuous supervision
- Efficiency optimisation of the heat generator by means of waste gas heat exchangers for the preheating of feed water, returned water or combustion air

- Efficiency optimisation by controlling the oxygen content in the flue gas
- Increase of the operational safety by an upgrading of the EMC engineering with optimised control and monitoring processes
- Remote monitoring and control of the heat generator

It is self-evident that additional modernisation programs can be designed in reply to the special plant requirements of our customers.

SAACKE Plant Accessories

Electric Control Plants



Control and switchgear are components of firing plants individually adapted to actual operation conditions and are, therefore, appropriately planned and manufactured by SAACKE. All such components are mounted in chassis and may be integrated into already existing central control panels.

Automatic Firing Sequence Control



The automatic sequence control system is an essential component of a firing plant. This small compact unit is of self-monitoring type with electronic timing elements and relay outlets. Igniter and safety shut-off valves are controlled directly.

Approvals: DIN EN 230, DIN EN 298, EU Gas Appliances Guidelines and TRD 604 for continuous operation. This control unit also includes a leak testing of the gas valves.

Burner Management System BMS



The SAACKE BMS is a universal microprocessor system with a lighted graphical display. The BMS can be used e.g. as an actual value trouble- and operational signal system as well as an electric boiler sequence control system. A menu guides you through the various operational sequences. The language and the texts of optional various lengths are determined in compliance with the needs of the individual plant. The BMS is an optimal supplement of the automatic SAACKE firing sequence controller.

O₂ Feedback Control



The microprocessor monitored oxygen feedback control system ensures that the combustion process of any heating fluid takes place with a neither too high nor too low quantity of combustion air. Variations in fuel and combustion air data are immediately analysed and compensated. By these means, the SAACKE O₂-feedback control system not only optimizes the firing plant efficiency but reduces environmental pollution and helps saving energy costs.

Gas Valves and Fittings- and Control Valve Train



The modular construction of the gas valves and fittings- and control valve train allows an individual adaptation to prevailing operation conditions. It incorporates a leak testing device and is DVGW type-certified. At delivery, this unit is ready for direct connection so that a short installation time is guaranteed.

Heaters



SAACKE heaters are designed to achieve the viscosity necessary for atomisation. The heating system may be operated alternatively with steam, hot water, thermal oil or electrically according to customer's needs which are individually considered.

Steam/hot water heaters	1 – 16 m ² heating surface
Electrical heaters	4 – 60 kW



Austria
Belgium
 Bosnia and Herzegovina
 Bulgaria
Croatia
 Czech Republic
 Denmark
 Finland
France
Germany
Great Britain
 Greece
 Hungary
 Ireland
 Italy
 Macedonia
Netherlands
 Norway
Poland
 Romania
Serbia and Montenegro
 Slovakia
 Slovenia
Spain
 Sweden
Switzerland
Turkey

Canada
 USA

Argentina
Brazil
 Chile

Egypt
 Iran
Iraq
 Saudi Arabia

China
 India
Japan
 Korea
 Taiwan

Indonesia
 Philippines
 Singapore
 Thailand
 Vietnam

South-Africa

Russia
 Ukraine

Australia
 New Zealand

- **Training at site and in the SAACKE premises**
- **24-hour service**
- **Diagnostics by teleservice**
- **SAACKE companies, factories and service stations worldwide in 20 countries**
- **Additional 70 international SAACKE Contact Offices**

Count on this Service

SAACKE production sites and service stations in 20 countries worldwide, additional 70 international SAACKE contact offices, support and diagnostics by teleservice, supply of spare parts in 24-hour service, repair and replacement around the clock...

We help competently and immediately – wherever you need us.

Supported by a tight-knit, worldwide service network and extensive capacities in maintenance, repair and spare parts logistics, we ensure your burners' trouble-free operations long after assembly and commissioning at site.

SAACKE's customers worldwide can rely on fast availability regarding repair and replacement of all SAACKE burners. SAACKE's service partnership includes at the same time – depending on the individual agreement – maintenance and operational optimisation of your burners, training of boiler room personnel, safety inspections according to TRD or complete boiler room management by our specialists.

In line with our burner systems, we offer a wide choice of services at any time, according to your special requirements.

Our service is geared to one aim: to secure the functioning of your burners for many years - economic, eco-friendly, reliable!



Teleservice replaces external servicing in many cases.



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