



SAACKE

Sustainable combustion technology



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Electronical Engineer

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Senior Master Chief

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CENG&Chief Electrician



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Heavy Lift and Container
Ships



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Marine Surveyor

Machinery and Ships

CEO



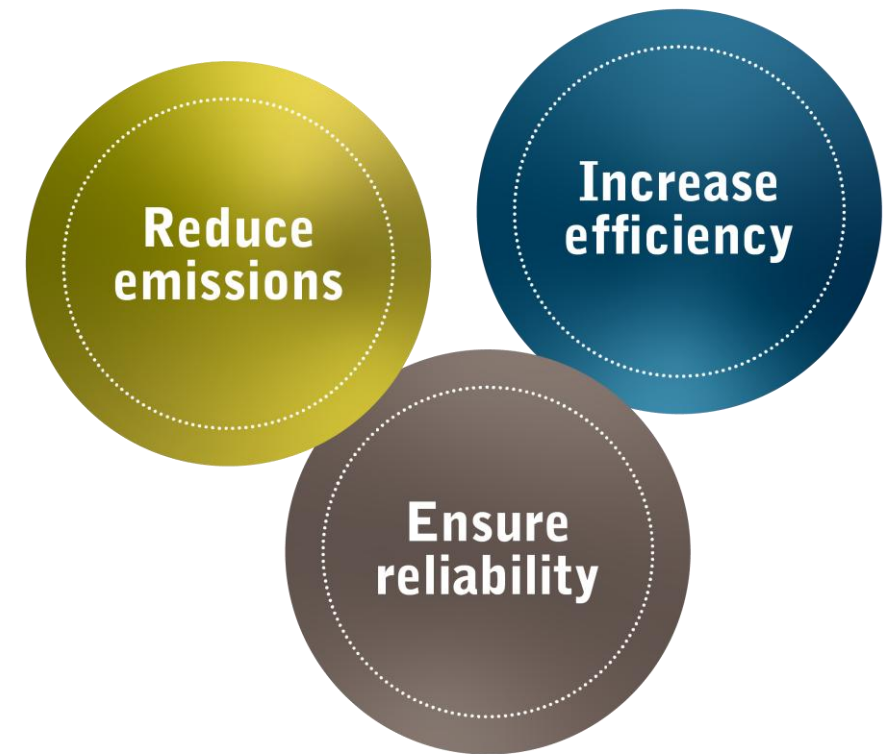
Sales Director

SAACKE & Director of
Scandinavian Boiler Services

SAACKE – sustainable combustion technology for industry and marine applications.

SAACKE is the **world's leading provider of industrial combustion technology**. We develop and produce innovative solutions capable of utilizing all types of fuels exceptionally efficiently, thus helping our customers to reduce their ecological footprints and minimize CO₂ emissions.

With our after-sales service, we also reduce the operating costs over the **plants' life cycles**: we extend their useful service lives, adapt them to suit new operating and legal requirements, and offer our customers support in the continuous optimization of their efficiency and performance.



In use all over the world for maximum efficiency in challenging settings.



SAACKE is a sustainable company – family values are passed down from generation to generation.



2005 *4th generation*

Henning Saacke, Angelika Saacke-Lumper, Bettina Saacke

1964 *3rd generation*

Hans-Herbert Saacke (1964–2005)

1945 *2nd generation*

Dr. Herbert Saacke (1945–1964)

1931 *1st generation*

Carl Saacke, der Gründer (1931 – 1945)



Technological leadership and innovation are part of SAACKE's DNA.

Right since the introduction of the legendary SKV burners, SAACKE has been continuously further developing its burner technology.

In a time of increasing fuel diversity and strict emission regulations, we are the **market leader in the development of burners and control systems** guaranteeing **high productivity and availability** with even the most complex of fuels.



TEMINOX

Classic fuels
and lowest
emissions in
fire-tube
boilers



ROTONOX

For highly
viscous fuels
under the
hardest
conditions in all
applications



SSB

For special
fuels in all
applications



ATONOX

Classic fuels
and lowest
emissions in
water-tube
boilers

SAACKE offers expertise and technology for tapping the full potential of the fuel.

- ✓ Whether **high** or **low** heat values...
- ✓ Whether **fossil**, **biogenic**, or **synthetic (e-fuel)**...
- ✓ Whether **gaseous**, **liquid**, or **pulverized**...
- ✓ Whether **standardized**, **customized**, or optimized by **innovative solutions**...

...you can reduce the environmental impact of the combustion to the minimum possible with the available technology.



Safety, efficiency, and minimal emissions for the operation of your burner.



Industrial solutions

Technology and expertise for the planning, delivery, and commissioning of combustion plants for hot water, steam, and drying applications.



Marine systems

Incinerators for dry cargo vessels, offshore plants, and LNG tankers, which satisfy the highest demands on safety, environmental friendliness, and energy efficiency.



Customer service solutions

Expertise for repair and maintenance services, operational support, and optimization. Our SAACKE spare parts and upgrade packages extend the useful service life of the plant.

Our company – represented all over the world.

Represented by subsidiaries,
sales and service partners,
and customer support
centers in more than

50 countries



> 450

engineers



1.100

employees



> 200

members of service staff

SAACKE applications for industry

Optimal solutions in combustion technology.



Industrial solutions – process heat for your industry.



SAACKE applications for the marine industry

Experience counts... your partner from Germany.



Marine systems – a selection of areas of application:

Whether it's for cargo, energy, or passenger transport – with SAACKE, you have the safest, most efficient, and most environmentally friendly solution on board!



Marine systems

Auxiliary boiler as an independent solution and as a master/slave solution:

- System: Taking the use and the expected fuel into consideration
- Exhaust gas boiler/economizer
- Combination-type burner
- Burner: Capacity ranges up to 37 MW taking fuels into consideration
- Boiler: Capacity ranges up to 110 t/h and design pressure up to 2.5 MPa



Marine boilers and burner systems for different standard applications and individual requirements.



Marine systems – fuels.

With SAACKE on board, your vessel is always seaworthy.
Set the course for your next voyage.



MGO



ULSFO



Ammonia



LPG



HFO



Methanol



LNG



DUAL FUEL Burner Systems

Standard Liquid Fuels

MGO & HFO – from High to Ultra Low Sulfur, Bio Fuels



LNG

ReGas, Boil-Off Gas Handling ; GCU-Function



Methanol

GCU Function



Ammonia

Combustion, GCU Function
Add. pre-combustion



Hydrogen

Combustion, GCU Function, ReGas



Electrical Heaters

Shore Power

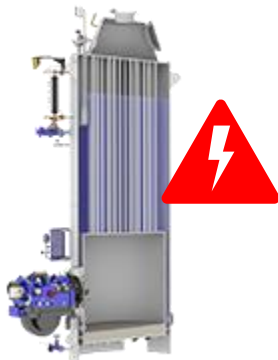
Gaseous Fuels

**Safe Fuel Supply acc. IGF Code
For LNG, Ammonia, Hydrogen and
for Methanol**



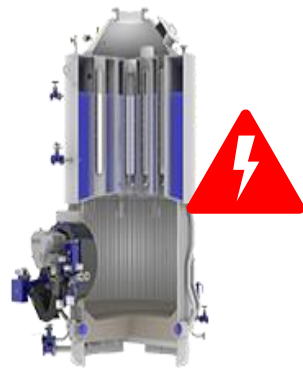
Gas Valve Unit - GVU

Dual Fuel Boilers + Electrical Heating Systems



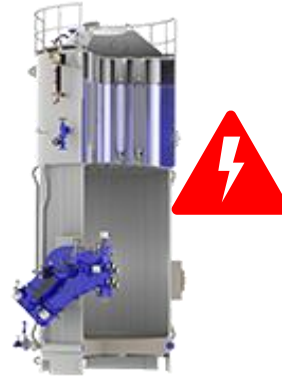
FMB-VS

- . Up to 5 t/h
- . Design Press. 12bar



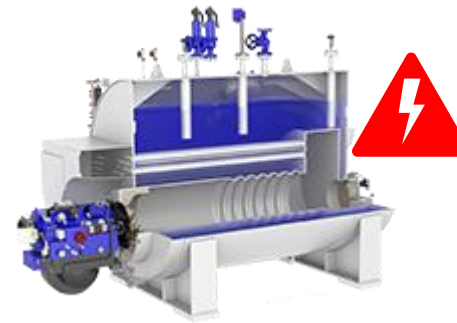
FMB-VM

- . Up to 6-25 t/h
- . Design Press. 12bar



FMB-VM

- . Up to 14-45 t/h
- . Design Press. 18bar



FMB-HF

- . Up to 10 t/h
- . Design Press. 18bar



FMB-VD

- . Up to 30-110 t/h
- . Design Press. 25bar



FMB-VF-LONOX

- Up to 18 t/h
- Design Press. 10bar



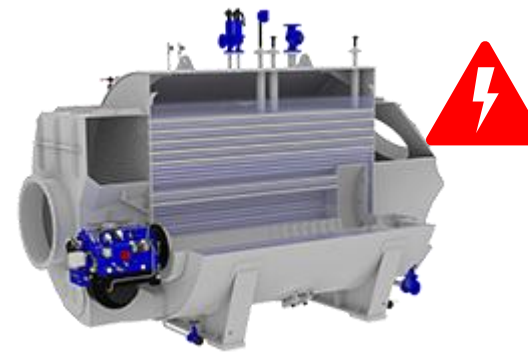
CMB-VF / CMB-VF-LONOX

- . CMB-VF-LONOX up to 13 t/h
- . CMB-VF up to 18 t/h
- . Design Press. 12bar



CMB-VS

- . Oil-fired range up to 5 t/h
- . Flue gas range as needed
- . Design Press. 12bar



CMB-HF

- . Oil-fired range up to 10 t/h
- . Flue gas range as needed
- . Design Press. 12bar

17.10.2025

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**Fair winds and following
seas with SAACKE.**



Better Life Energy

Drive green shipping forward

Waste Heat – proven technologies !



Waste **Heat Recovery** Unit



Standard Sizes – adapted to individuell ER set-up



All in- One Package



Slow Steaming vs. heat demand



Fuel Saver – par excellence



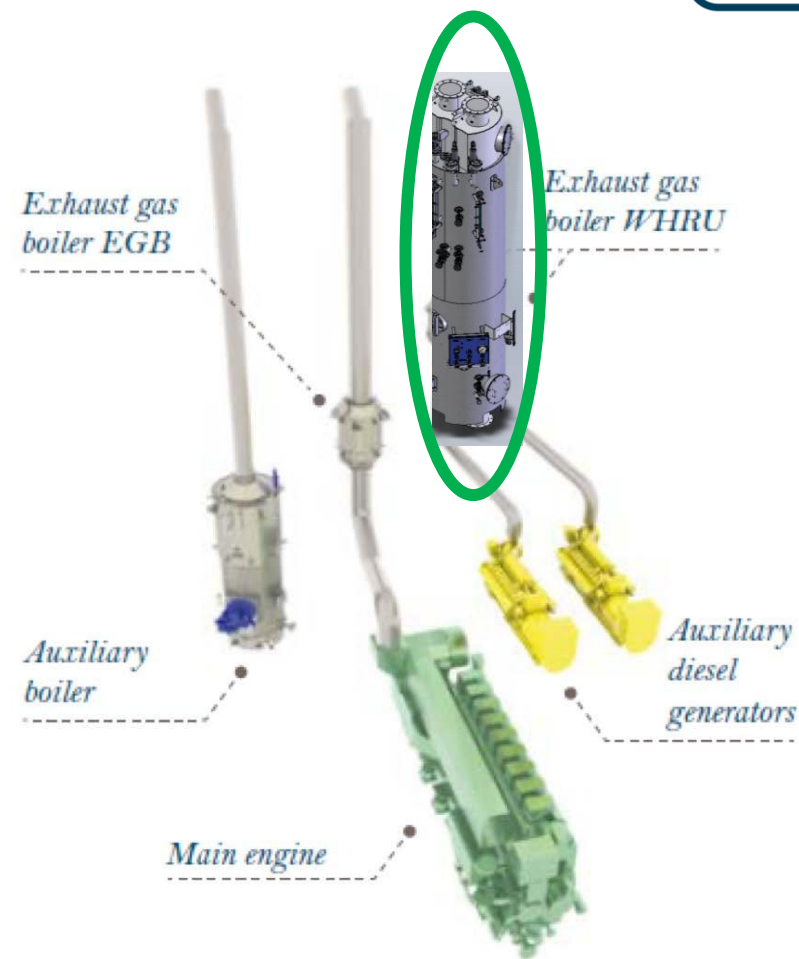
Value for Money

Save energy and costs immediately

Why let energy go to waste – by utilizing waste heat recovery, the vessel saves fuel, reduces CO₂ emissions and will become more energy-efficient overall.

The efficiency SAACKE waste heat recovery system:

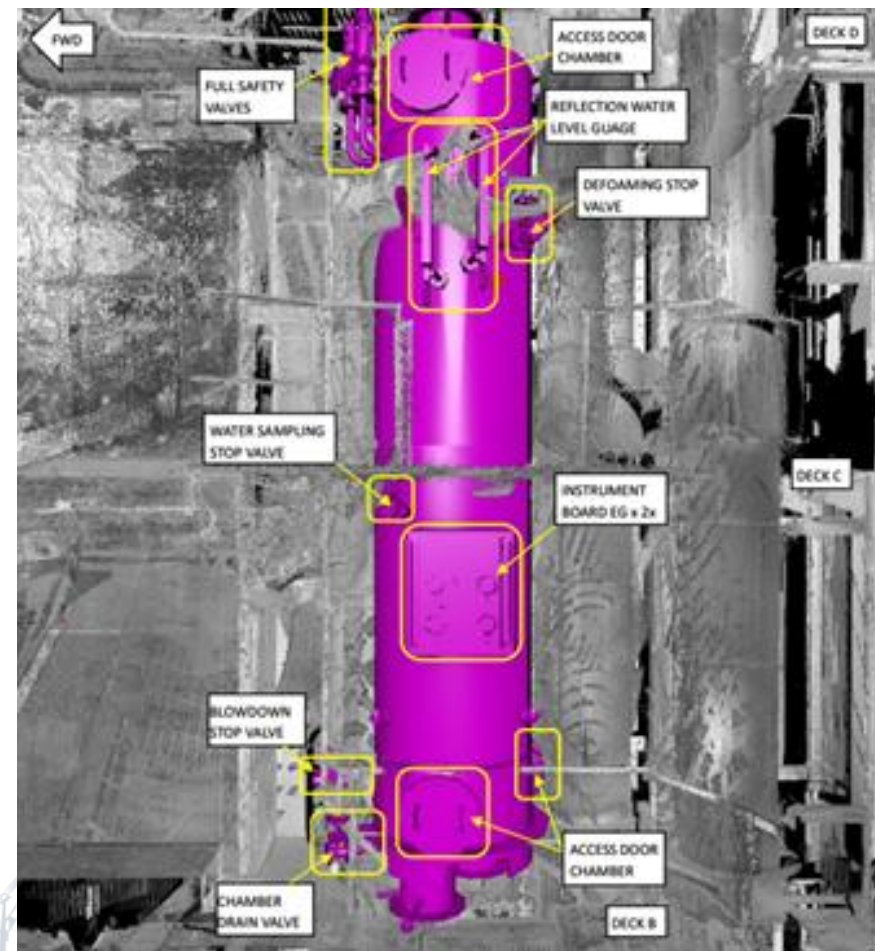
- Uses waste heat from exhaust gas to extract energy for other needs on the ship
- Can reduce the auxiliary boiler fuel consumption by more than 80 % – depending on the characteristics of the ship and its trading pattern
- Actively saves additional costs such as CO₂ emission taxes



Save energy and costs immediately

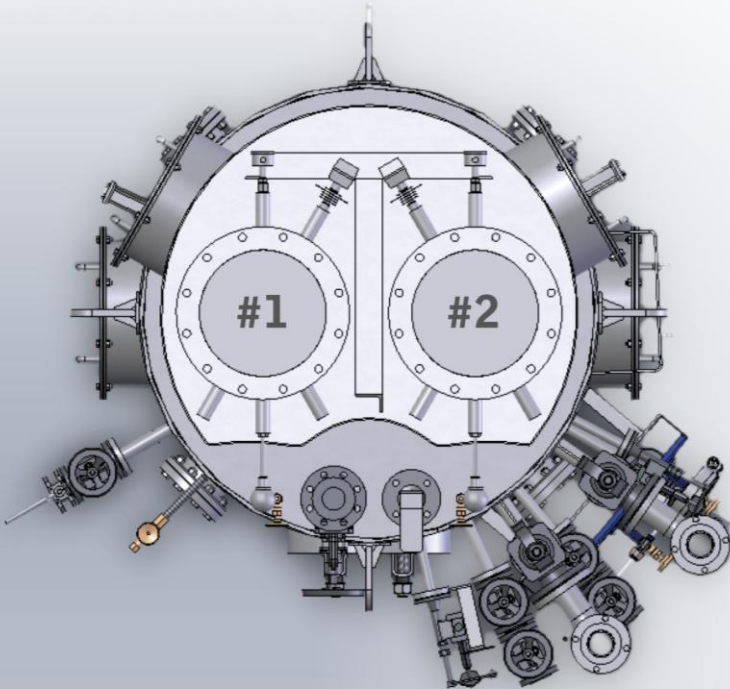
Additional advantages of the application of WHRU boilers for auxiliary engines:

- A fully redundant system tied into the existing feedwater and steam system
- It can be easily and quickly integrated into any existing steam and feed water system – regardless of the original boiler manufacturer
- SAACKE low footprint twin pass vertical drum solution reduces the amount of work for EG system adaption
- Design with forced circulation is also available
- WHRU is available for retrofitting and for new builds



Simplified engineering – easy installation

The twin pass WHRU solution offers far greater flexibility in operating the auxiliary engines compared to a single engine unit while maintenance cost remains on a single engine application level. **Waste heat recovery with added value:**



Proven **reduction** of auxiliary boiler fuel consumption **by more than 80 %**



Required **electrical power consumption** is normally limited to control voltage only and is **up to 6 times lower** compared to forced circulation solutions



Unlimited dry-running is possible, therefore zero added risk to vessel operation



Connection to the existing **feedwater system**



Low foot print vertical drum **space-saving design**



Horizontal layout available

Simplified engineering – easy installation



Minimal monitoring /control effort (water level controller, exhaust gas inlet /outlet temp., drum pressure)



Very low maintenance costs thanks to the **robust, soot-fire proof design**



Noise reduction (WHRU also acts as a silencer)



OPEX reduction due to reduced running hours of auxiliary boiler burner



Dry running possible **without time limitation**



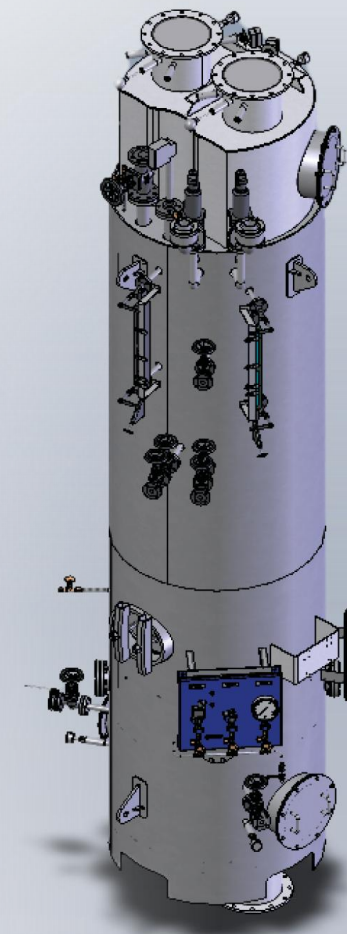
Single drum twin pass standardized solution, single pass also available



Commissioning within one working day



Low A/E load optimized design with gas by-pass also available



Utilizing the existing systems



Reusing the existing
feedwater pumps



No changes
to Hotwell



No changes to
existing Steam
Dumping / Condenser



No Interface
Issues



Together for greener shipping

MAERSK & SAACKE „All the way to ZERO“



Supported by
Mr. Rajaneesh Padmanandhan
Head of Fleet Optimisation & Retrofits – Chartered Fleet
Maersk Chartering

**Latest WHRU References : CMA CGM; NISSEN, V
Ships, CPO, Wilhemsen / MPC , SYNERGIE, etc**





With SAACKE and Customer
Support Centers in over
50 countries
around the world ...



... and **70**
international
SAACKE offices.



Thank You for Your attention