

# BLOW-OFF SILENCER AFTER VALVES AND TANKS

SILENCERS | NOISE PROTECTION

Furtak   
Salvenmoser  
INDUSTRIAL SILENCERS

**VALVE OPERATION IS ONE OF MOST POWERFUL SOURCES OF NOISE IN LARGE-SCALE PROCESS PLANTS AND POWER PLANTS.**

Single or periodic pulses (generated by expansion of highly compressible mediums like air, gases or steam) release acoustic energy through alternating vibrations. By this, **sound power levels up to 170 dB(A) can be reached.** We calculate the amount of emitted acoustic energy by the latest international standards and state-of-the-art computer modelling software.

**MAIN RANGE OF USE:**

- Valve and blow-off systems
- Start-up procedures of facilities
- Bypass of turbines
- Blow-off of various gases

**FACILITIES:**

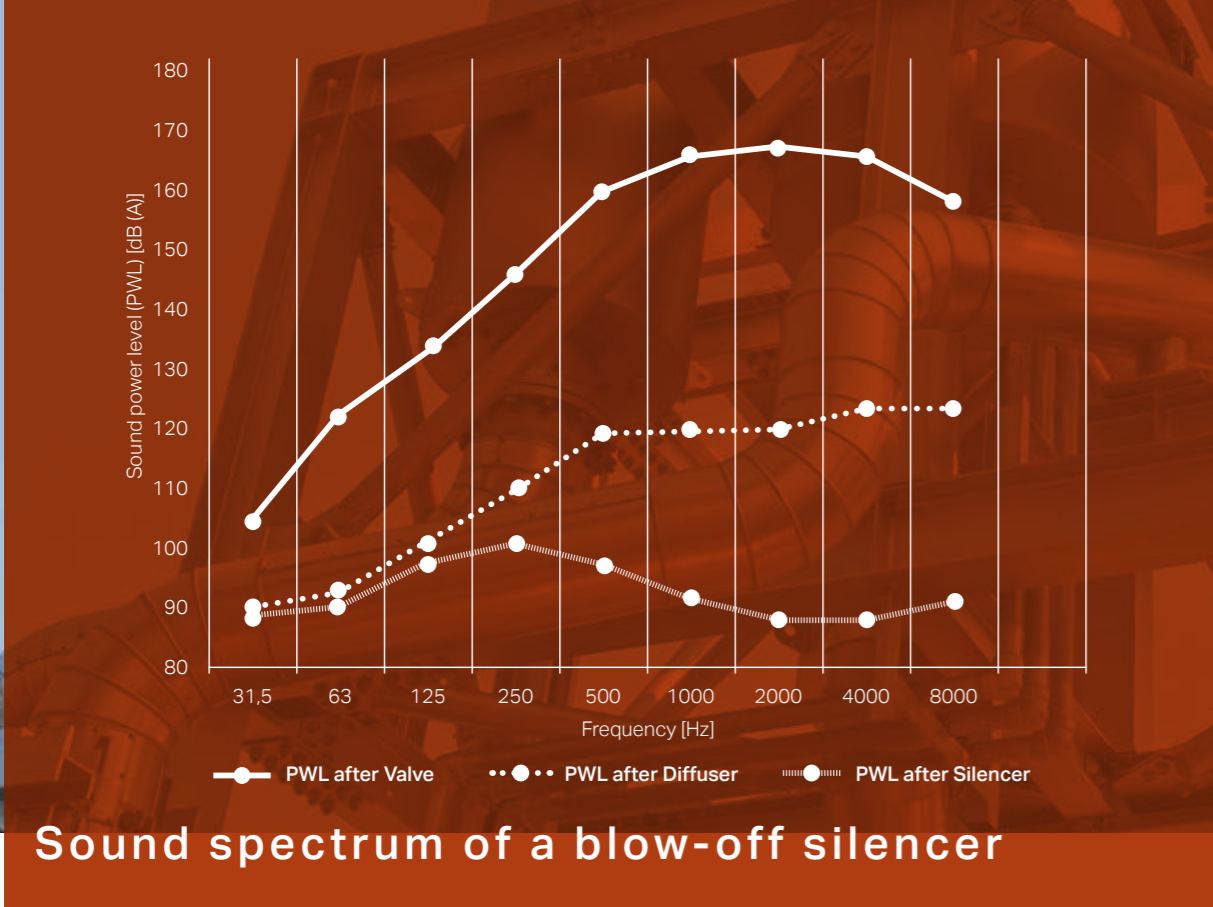
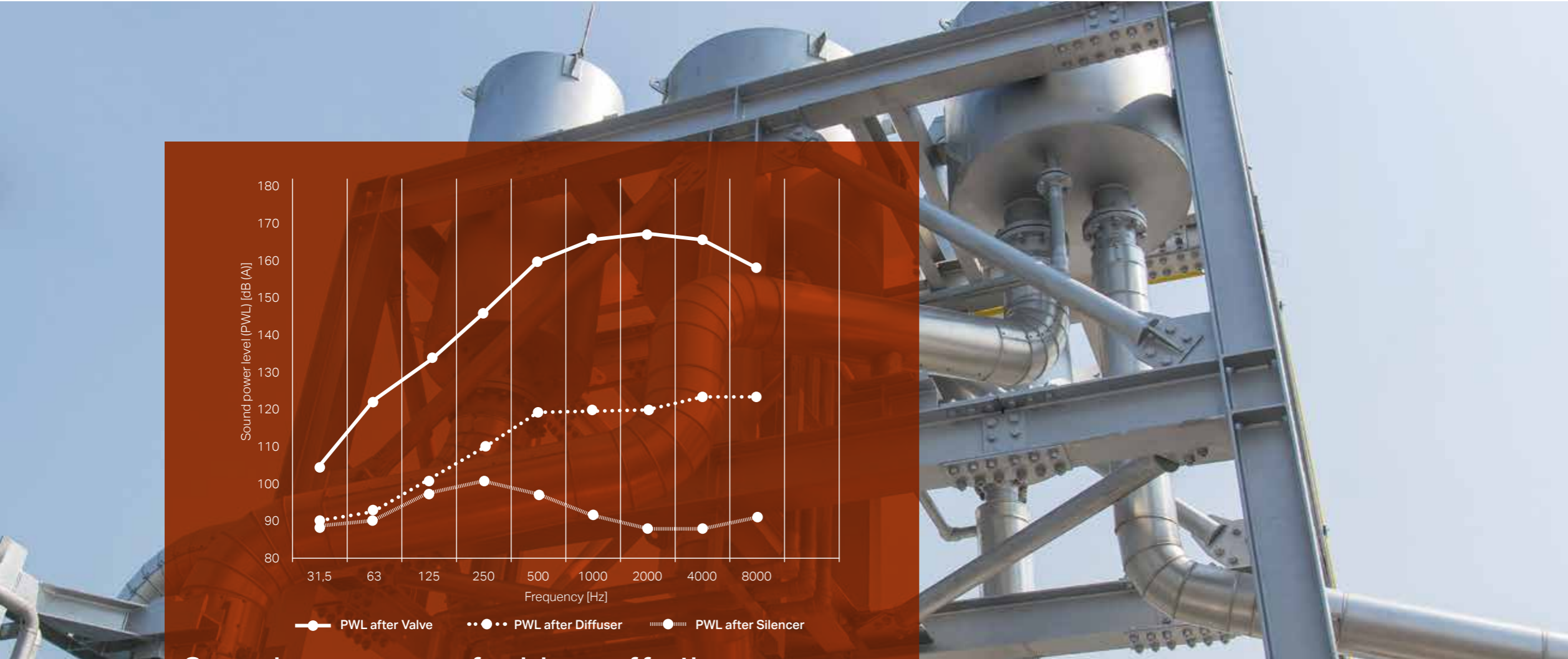
- Air separation plants
- Gas plants
- Power plants
- Chemical plants
- Petrochemical plants



Combination silencer systems – turns sound into energy.

# BLOW-OFF SILENCER

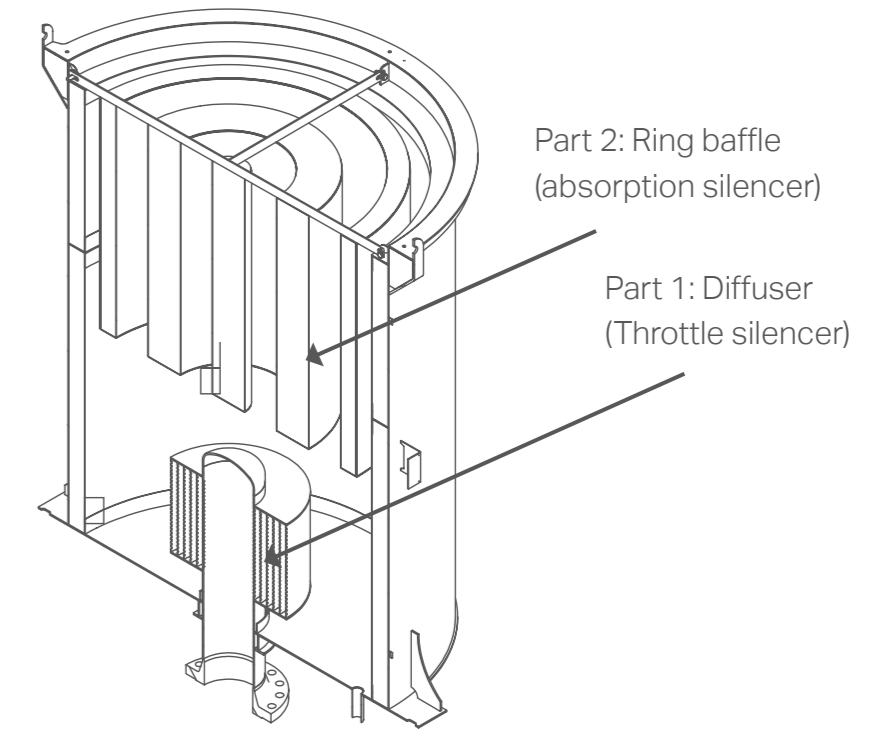




Sound spectrum of a blow-off silencer

**BLOW-OFF SILENCERS ARE A COMBINATION OF TWO DIFFERENT WORKING PRINCIPLES (THROTTLE AND ABSORPTION).**

While the throttle reduces the pulsations of streams by pressure compensation, **absorption converts the contained noise energy into thermal energy.** Using these two active acoustic principles, **sound power levels can be reduced by up to 70 dB.**



# THROTTLE AND ABSORPTION PRINCIPLE



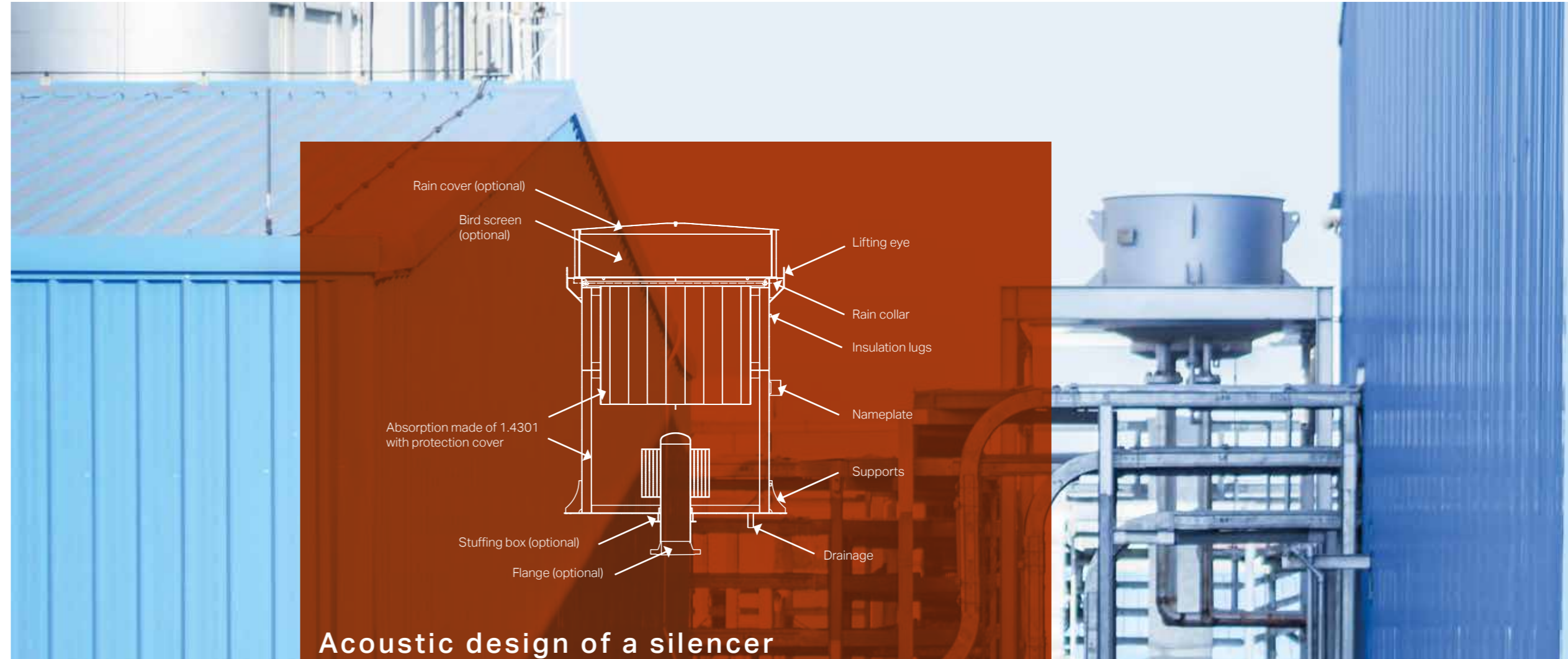
**EVERY SILENCER IS CUSTOM BUILT FOR THE CUSTOMERS' REQUIREMENTS.**

Our design is built for **longevity, high quality and efficiency**. All silencers are designed and calculated by 3D-software. Our customers' advantage: **Modern engineering and deployment of 3D data** to avoid possible collision and to enable the professional planning of supports and retainers.

Moreover, we are able to provide for up to **670°C steam thermal resistant materials** and for **deep temperatures high-alloy steel that can resist down to -196°C**.

**FOR THE ACOUSTIC DESIGN, THE FOLLOWING PARAMETERS ARE DETERMINING FACTORS:**

- acoustic requirements
- type of medium
- the valve pressure ratio
- required material and special components like stuffing box, roof, deflector, bird screen, measurement points etc.



# INDIVIDUAL SILENCERS





Professional noise protection for industrial plants

The **mechanic design of the components** complies with the respective technical guidelines (AD2000, EN1335, ASME, ...) and following the Pressure Equipment Directive 2014/68/EU.

**We at Furtak & Salvenmoser GmbH** are specialised in the implementation of a wide range of technical guidelines, assuring that your components are compliant to current laws and up-to-date regulations.

**We at Furtak & Salvenmoser GmbH** are experts in **blow-off silencers and equipment.**

**OUR SERVICES ARE TAILORED TO ALL CUSTOMER REQUIREMENTS AND INCORPORATE THE FOLLOWING KEY ASPECTS:**

- design and conception
- 3D design and detailed engineering
- Project management and strength calculation
- Manufacturing
- Inspection and approval
- Transportation, packing, customs handling
- Onsite management

# ACOUSTIC SOLUTIONS FOR EVERY INDUSTRIAL SECTOR



**PRODUCT PORTFOLIO FROM  
FURTAK & SALVENMOSER GMBH:**

- 1 Enclosure
- 2 Air intake duct and Splitter
- 3 Flue gas Silencer for bypass
- 4 Pipe insulation and cladding
- 5 Inline Silencer
- 6 Flue gas Silencer for boiler (HRSG)
- 7 Blow-off Silencer after valves and tanks
- 8 Air inlet and exhaust silencer for ventilation systems

# ONE-STOP SOLUTIONS



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**Salvenmoser**  
INDUSTRIAL SILENCERS

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