



## STEEL CHIMNEYS

Exhaust systems for the industry



## YOUR PARTNER JEREMIAS

The Jeremias Group, headquartered in Wassertrüdingen (Bavaria), is one of the world's leading manufacturers of flue systems and chimney systems in all areas of heat and power generation for industrial and residential applications.

Strong, open and international – that's how we have been presenting ourselves for almost 50 years. Worldwide production sites and sales offices represent entrepreneurial success, ambitious visions and healthy growth. With innovative products, outstanding service and highly qualified employees, we want to inspire our customers every day and achieve the goal of sustainable joint success.

Currently, our product range includes more than 100 different CE-certified systems for private and commercial applications as well as free-standing steel chimneys with a diameter of up to four meters.











#### WITH JEREMIAS YOUR PROJECT IN THE BEST HANDS!

Our experts advise you personally for the chimney design and from planning through to pro-production and turnkey installation.

TOGETHER WITH YOU, we plan all the necessary process steps and items and gladly consider your individual requirements and wishes.

SO WE DEVELOP the optimal chimney solution for your project and successfully execute even the most demanding projects.

## RANGE OF SERVICES

- Complete project management
- Personal advice
- Planning
- Design

- Production
- Transportation
- Assembly
- Maintenance / condition monitoring

#### **OUR RANGE OF SERVICES:**

- Many years of know-how and global experience
- Solutions formulated as per your needs
- Own production with high quality materials
- Perfect processing and constant quality control
- Timely implementation and assembly
- Flexible solutions from a single source





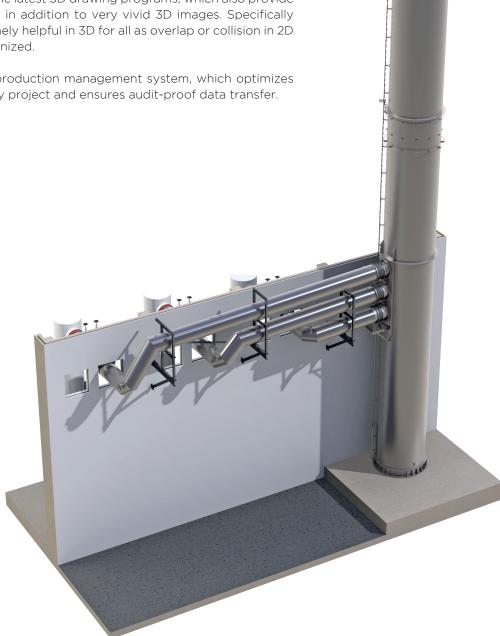


### **DESIGN AND PLANNING**

The high quality comes from qualified experts and most modern plant for construction, which plays an extremely important role as the basis for each project.

To achieve this, we use the latest 3D drawing programs, which also provide perfect production base in addition to very vivid 3D images. Specifically pipeline plans are extremely helpful in 3D for all as overlap or collision in 2D view are often not recognized.

This is supported by a production management system, which optimizes the processes in the daily project and ensures audit-proof data transfer.





Jeremias provided a steel chimney with 3 inner tubes and flue pipe from boiler to chimney for a power generator in southern Germany.



#### **DIMENSIONS:**

Height 42 m Outer Ø 2600 mm 3 x inner Ø 950 mm Flues stainless steel 1.4571 in 2.0 mm Platform at the top accessible by ladder

The difficulty in this project was the installation of flue gas pipe at a height of approximately 9-13 m, which had to be mounted on the wall. To keep the steel construction slim, all three lines were placed atop one another, so that they are mounted close to the building and were lead into the steel chimney one over the other.

Furthermore, three silencers 2 tonnes in weight and about 8 m length had to be installed in a steel construction inside the building, which demanded enormous precision work from the installers





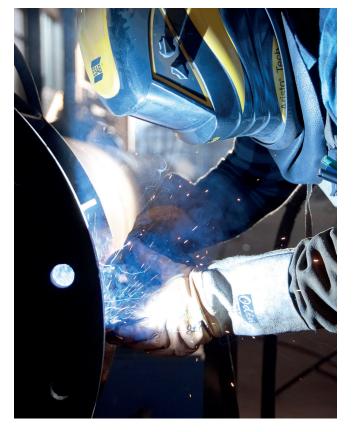
### **QUALITY**

#### QUALITY IS TOP PRIORITY

To meet the high standards, we process different materials (mainly stainless steel and black steel in various grades) on separate machines and in separate production facilities. So we avoid the risk of loss of quality due to corrosion contact.

To maintain quality of the highest level, we have an ultra-modern plant and employ skilled workers in the field of metalworking, certified welders, own welding engineers and welding experts.

At the same time, we are members of professional associations, keep our certifications regularly up to date and obtain certificates certifying the first class product quality and production processes.



















### **BASICS OF STEEL CHIMNEYS**

As a result of years of experience, know-how of many worldwide realized projects and regular communication with our customers you can expect the highest quality of Jeremias products with perfect workmanship. Individuality is the key: all chimneys and additionally required components are perfectly matched and customized to the client's project.

Four different types of chimneys form a solution, which will be adjusted individually depending on the application and requirements.



"FSA" a free-standing, double-walled steel chimney has a static supporting outer tube and an expandable, exhaust gas carrying inner tube, which enables universal use and great heights.



For power stations with different heat sources "FSA-X" is the first choice. Identical to the structure of the "FSA" several separately mounted inner tubes are used herein. The inner tubes can be used independently depending on the respective gas generator.



The "FSB" is a freestanding, single pipe, insulated and clad steel chimney with static carrying inner flue. This chimney type is realized as a rule, with a fixation.



In type "FS-RM" the mast provides the support and allows external mounting of Jeremias exhaust systems made of stainless steel up to a height of 30 m. One can also use the mast for exhaust with more than one inner pipes. This system combines the advantages of a free-standing chimney with the flexibility of stainless steel elements.

## **SILENCERS**

Noise from the operations in fireplaces are routed through the exhaust pipe to the outside which might be disturbing.

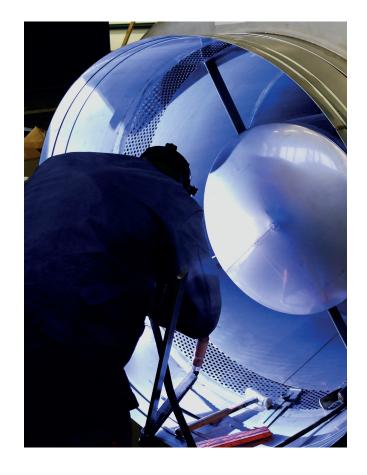
This noise can be reduced effectively by installing silencers. Depending on the heat generator, sound frequency and structural circumstances different types of silencers can be used.

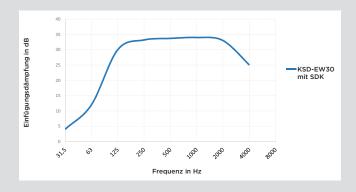
#### APPLICATION

generators

#### SOLUTION

Boiler Absorption silencer
CHP Combined silencer
Gas turbines Split silencer
Fans Absorption silencer
Biomass boiler Combined silencer
Emergency power Combined silencer





Exemplary attenuation curve in dB - octave

Frequency (Hz)	KSD-EW30 with SDK
31,5	4
63	12
125	30
250	33
500	34
1000	34
2000	33
4000	25



## FLUE GAS PIPES

Interconnections between the boiler and chimney usually require detailed planning in coordination with the site management and measurement. Depending on the application and customer requirements we assemble and deliver flue gas line as elements construction or fully welded/flanged.

We would gladly like to take over designing, manufacture, assembly and transport of

- Piping
- Steel structures
- Compensators
- Exhaust valves







# VENTILATION TOWERS

FSC is a free-standing, single-walled inlet/exhaust chimney used in the air conditioning and ventilation. The visible static bearing tube is here at the same time the medium leading system.

The modern building complexes inlet/exhaust chimneys must not be only functionally designed for the particular application, but should also meet the highest aesthetic standards.

With polished or painted steel surface our ventilation towers are always a visual treat to watch.

- 1 FREE SCHOOL "ANN-SOPHIE", KUENZELSAU Height 4750 mm, Ø 700 mm Nm³/h 7300, 4 pieces (Inlet / Outlet)
- WÜRTH HAUPTSITZ, KUENZELSAU Height 5500 mm, Ø 1200 mm Nm³/h 26100, 2 pieces (Inlet / Outlet)
- 3 HETTICH MÖBEL, BUENDE Height 3200 mm, Ø 2000 mm Nm³/h 50000, 6 Spieces (Inlet)









## **INSTALLATION AND LOGISTICS**

In addition to design and production, we have also offer turnkey installation of the services that we offer.

We take care of everything starting from site visits to the organization of cranes and platforms. We also coordinate with the project managers to book the necessary lifting guipment for the assembly period.

Together with our international partner companies, Jeremias realized installation of steel chimneys and flue gas ducts for all applications far beyond Germany.

Oversize transports up to a length of 40 m are easily feasible to deliver in Germany as well as in the neighbouring countries. Through our long-term logistics partners, we guarantee a timely and flawless product delivery at installation site.

For overseas shipments, our trained staff will be happy to share their expertise for customs clearance and shipping.







#### REFERENCE VOITH, HEIDENHEIM

Jeremias supplied a 50 m steel chimney for three CHP Jenbacher J 624 with about 4.4 MW electrical power.

MAIN FEATURES: Height 50 m Outer Ø 2500 mm 3 x inner Ø 900 mm Flues stainless steel 1.4571 in 2.0 mm Measuring platform with outer width 1000 mm Platform at top accessible by ladder

The total scope of this project was to dismantle three existing chimneys and disposed them and to plan, produce and assemble a new steel chimney with 3 inner pipes. In addition, as requested by the customer we installed a sound damping cores, which were suspended by mobile crane in the mouth of chimney. On sound measurement this retrofit helped reduce the noise.

# WORKING TOGETHER FOR SUCCESS

We are happy about the many and at the same time long term customer relationships both at home and abroad. In addition to know-how, flexibility and expert advice, fairness, openness, transparency and continuous dialogue with our customers constitutes the basis for successful projects at Jeremias.

We appreciate your trust in us!







#### REFERENCE LIST

- 1 COLOGNE (DE): 2xFSA-4, Height 24m, outer Ø 1700mm
- 2 MALOV (DK): FSA-2, Height 20m, outer Ø 2100mm
- 3 HAMBURG (DE): 3xFSA, Height 55m, outer Ø 1600mm
- 4 PUERTO (MEX): 2xFSA, Height 30m, outer Ø 1800mm











- 5 KECSKEMET (HU): 2xFSA-3, Height 50m, outer Ø 3000mm
- 6 POZNAN (PL): FSC, Height 4m, outer Ø 1200mm



7 WACKERSDORF (DE): 3xFSA, Height 15m, outer Ø 500mm



















#### REFERENCE LIST GERMANY

- INGOLSTADT: FSA-2, Height 55m, Outer Ø 3500mm
- SAARLOUIS: FSA-3/FSA-2, Height 40m, Outer Ø je 1600mm
- EISENBERG: FSA-3, Height 30m, Outer Ø 1700mm
- AMBERG: 3X FSA, Height 17m, Outer Ø je 550mm

- UNTERFÖHRING: 4X FSA, Height 25m, Outer Ø 1400mm
- DORMAGEN: 2X FSA-3/1X FSA-2, Height 40m, Outer Ø je 2950mm
- FSA-3, Height 36m, Outer Ø 2600mm



#### **GERMANY**

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