

JEREMIAS

EXHAUST SOLUTIONS FOR
GENERATORS
BOILERS
CHP UNITS
INDUSTRIAL OVENS
KITCHEN EXTRACT

 **Jeremias**
CHIMNEY SYSTEMS

PREFAB EXHAUST SYSTEMS

COMPARISON OF
JEREMIAS FACTORY MADE CHIMNEY SYSTEMS
VS
TRADITIONAL EXHAUST PIPING.

Jeremias
CHIMNEY SYSTEMS

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PREVIOUS DEFINITIONS

FACTORY MADE METAL CHIMNEY

Stainless steel system chimneys consist of two concentric stainless steel metal walls with insulation filling the annular space between them.

Factory made system chimneys are easy to handle and available with a wide range of fittings such as elbows, terminals and tees, all of which simple push together.

They are easily assembled and supported with purpose designed support brackets. These products, which can be used internally and externally and certified to EN 1856-1:2009.

Stainless steel systems tend to be used in modern infrastructure buildings because they are:

1. Easy to design together with all different installations
2. Easy to quantify the material needed and
3. Easy to calculate the cost of material and installation

TRADITIONAL EXHAUST PIPING:

Exhaust pipes normally made with on site cut and welded sections of heavy steel pipes in 3 or 4 mm thickness.

After installation the exhaust pipes are insulated and protected with aluminium or stainless cladding.

They require hot works on site (metal cutting, welding) and the installation by qualified workmanship in various different steps



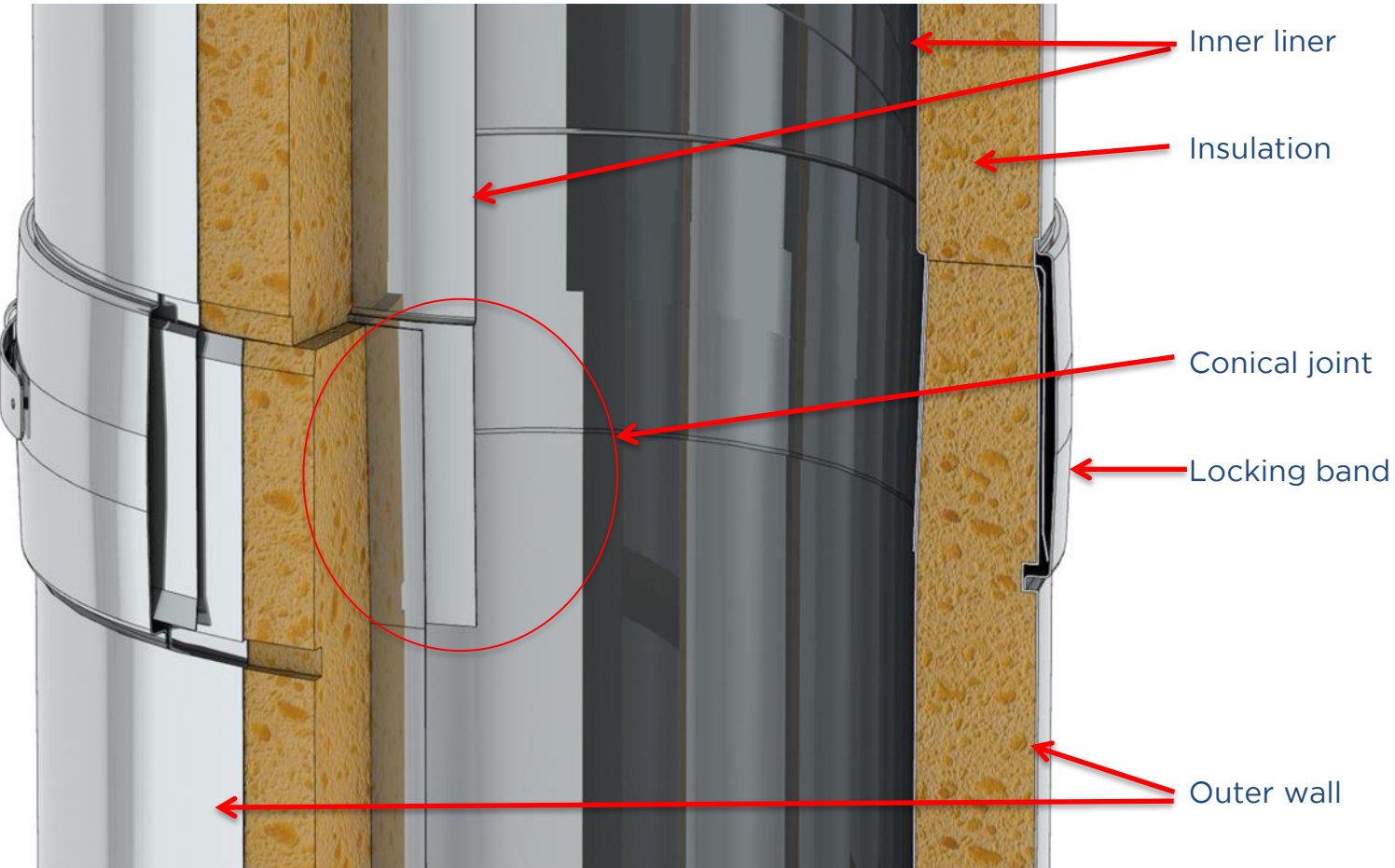
PRODUCT SPECIFICATIONS

Specifications	Jeremias Exhaust Systems	Traditional Exhaust Piping
Inner wall material	0,6mm thick AISI 304 or AISI 316 corrosion resistant stainless steel alloys	3mm thick rolled steel sheets
Inner wall jointing	Factory TIG or Laser gas shield welded	Manual arc welded
Insulation	25mm or 50mm thick rigid mineral wool, 120kg/m ³	50mm thick, rolled mineral wool, 80kg/m ³
Outer wall material	0,6mm thick AISI 304 or AISI 316 corrosion resistant stainless steel alloys	Aluminium
Outer wall jointing	Factory TIG or Laser gas shield welded	Riveted and apply silicon sealant
Method of jointing / installation	Male / female push joint design and secured by locking band (conical or expanded female engaging system)	Inner walls to be welded or flanged joint Rockwool wrapped and secured by metal wires Outer walls to be cladded riveted and sealed



PRODUCT SPECIFICATIONS

Transversal cut



Automatic line production



Fully welded components



PRODUCT SPECIFICATIONS

Specifications	Jeremias Exhaust Systems	Traditional Exhaust Piping
High Temperature Capabilities	Suitable for a continuous flue gas operating temperature of 600°C, in accordance to EN - 1856-1.	Not available Risk of points without insulation
High Pressure Capabilities Tested to 15000 Pa (USA)	Certified up to 5000Pa for positive pressure, in accordance to EN - 1856-1.	Not available Need to be tested on site
Windload	Tested and certified	Not available Must be provided for the specific project



Wind load test for brackets and supports at Jeremias test laboratory.



CORROSION RESISTANCE

CORROSION	Jeremias Exhaust Systems	Traditional Exhaust Piping
Inner & Outer walls material	<p>0.6mm thick SS304 or 316 corrosion resistant alloys steel for inner and outer walls</p> <p>Low mass density (thin materials) therefore rapid stabilization of the draught reducing condensation</p>	<p>3mm thick rolled steel sheets for inner walls</p> <p>≈ 0.6mm thick SS304 rolled steel sheets for outer walls</p> <p>Or aluminized steel cladding</p>
Outer wall jointing	<p>Factory TIG or Laser gas shield welded</p> <p>Long life joints</p> <p>No rain water entering into</p>	<p>Riveted and apply silicon sealant</p> <p>Joints loosen due to thermal expansion, vibrations, temperature change.</p> <p>Rain water entering into insulation</p>
Method of jointing/installation	<p>Conical male/female push joint design and secured by locking band</p> <p>No sealant required.</p> <p>Long life joints</p> <p>No rain water entering into insulation and inner walls</p>	<p>Inner walls to be welded or flanged joint Rockwool wrapped and secured by metal wires</p> <p>Outer walls to be cladded, riveted and sealed.</p>



Corrosion resistance - Ideal for outside installations

DC AMSTERDAM

NETHERLANDS

 **Jeremias**[®]
CHIMNEY SYSTEMS



INSULATION - NO HOT SPOTS !

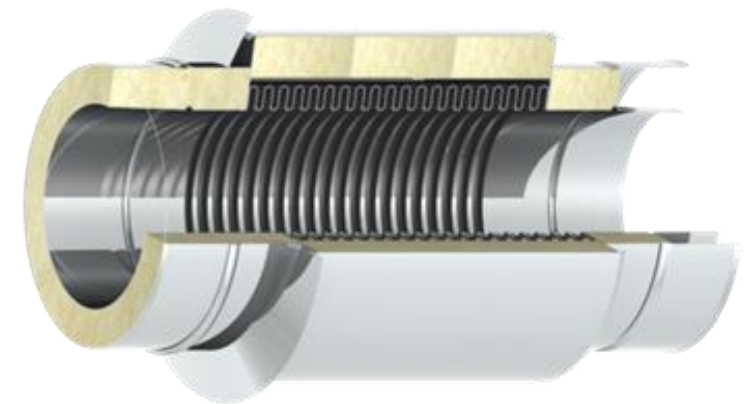
INSULATION	Jeremias Exhaust Systems	Traditional Exhaust Piping
Mineral wool	25 or 50mm thick, rigid mineral wool Slab, 120kg/m ³	50mm thick, rolled mineral wool, 80kg/m ³
Mineral wool thickness	25 or 50mm thick / other thicknesses available	50mm thick
Mineral wool density	120kg/m ³	80kg/m ³
Metal contact between inner & outer walls	No metal contact	Possible contact via metal wires on rolled mineral wool.



Rigid pre-cut mineral wool



Fully round insulated



Free movement of inner and outer wall



High Quality insulation & fire rating ideal for big infrastructure projects

NEW AL SABAH HOSPITAL

KUWAIT



LIGHT WEIGHT & EASY HANDLING

WEIGHT & HANDLING	Jeremias Exhaust Systems	Traditional Exhaust Piping
Weight per 1-meter length (Inner + Insulation + Outer)	≈ 25 kg	≈ 82 kg
No heavy lifting tackle require on site	Yes	No
No heavy structures / bracketing required on site	Yes	No
Single man handing capability	Yes	No



No heavy lifting



Light weight



Single man handling capability



Easy transportation on site



Light weight & Easy handling for a high quality installation

OCEAN PARK

HONG KONG

**Jeremias**[®]
CHIMNEY SYSTEMS



FIRE RATING

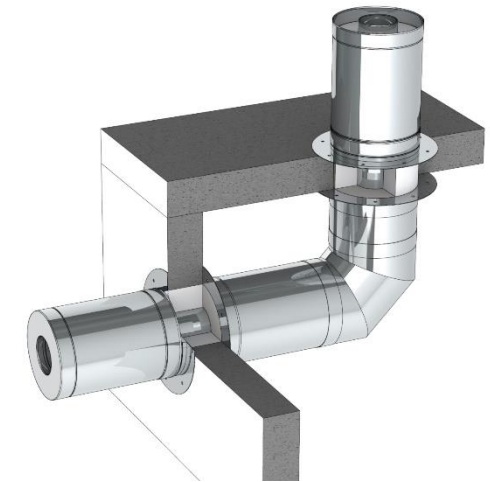
FIRE RESISTANCE	Jeremias Exhaust Systems	Traditional Exhaust Piping
4-Hours Fire Rating to BS 476/20	Yes	No
Fire Resistant Flue System to EN-13501	Yes	No
Suitable for Kitchen Extraction Systems	Yes	No
Suitable for Smoke Extraction Systems	Yes	No



Testing lab



Fire rated sleeves



Ideal for fire compartmentation





JEREMIAS FIRE RATING

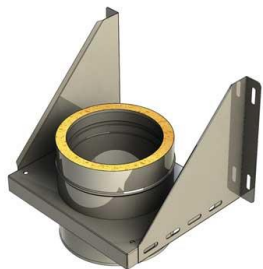
TESTED AND CERTIFIED
FIRE RATED
EXHAUST SYSTEMS

FITTINGS & ACCESSORIES

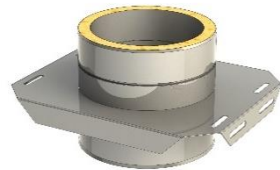
COMPLETE SYSTEM RANGE	Jeremias Chimney Systems	Traditional Exhaust Pipes
Purposed designed components	Yes	No
Factory made products, high quality, low tolerances	Yes	No
Customized / special designed fittings possible	Yes	No
Allow future extension or modification works (standardize components / fittings)	Yes	No



T- branches



supports



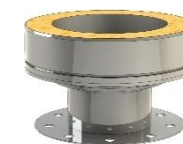
Different brackets



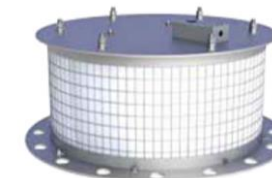
Different angle elbow



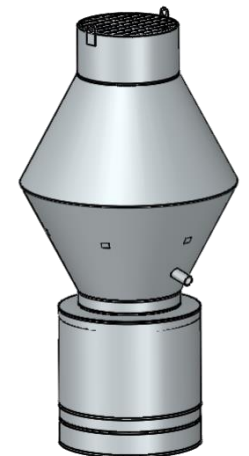
Horizontal terminals



Specific adapters



Pressure Relief Valves



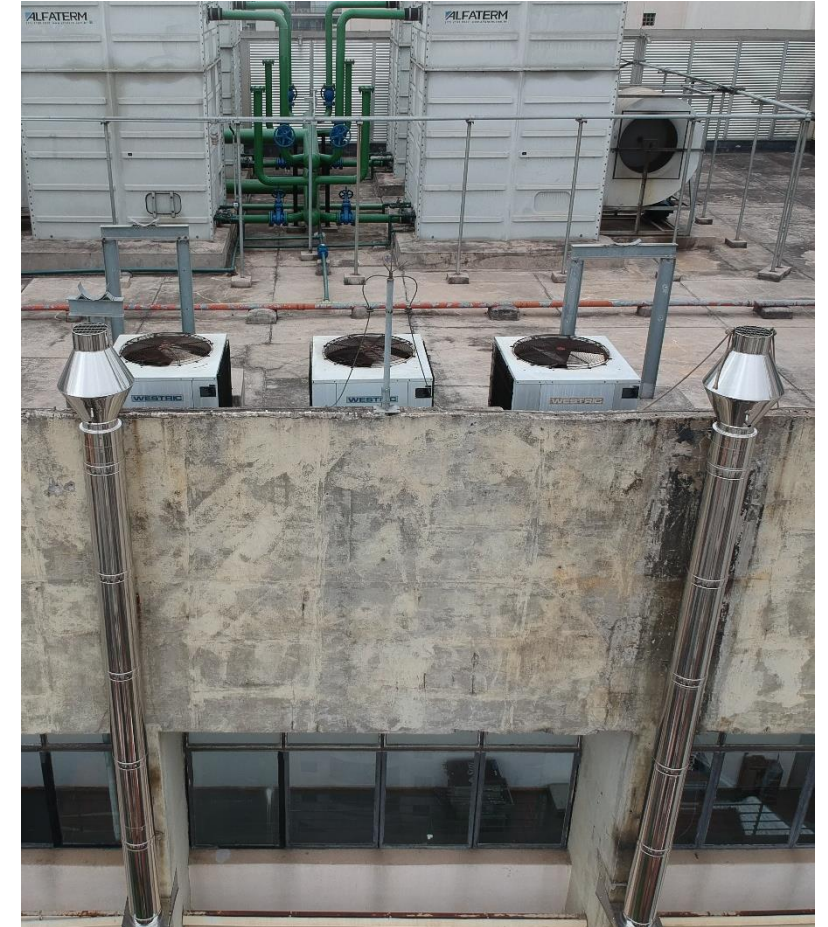
Rain hoods



Full Range Of Fittings & Accessories - ideal even in the rainiest regions

DC PERDIZES

SÃO PAULO, BRASIL

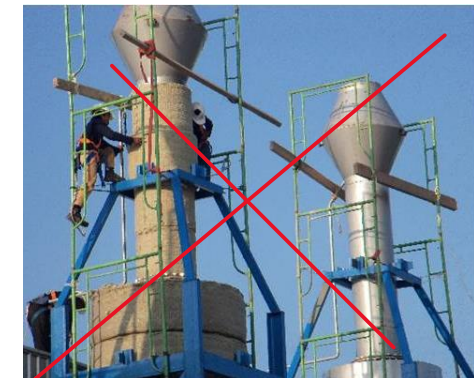


SAFE & EASE OF INSTALLATION

COMPLETE SYSTEM RANGE	Jeremias Chimney Systems	Traditional Exhaust Pipes
Man-Power & Skill level	<ul style="list-style-type: none"> • Supervisor & • Semi-skilled workers 	<ul style="list-style-type: none"> • Supervisor • Qualified welders • Semi skill workers for wrapping of rock-wool • Skill workers for outer wall cladding, rivet and sealing
Hot Works requirement	No hot work required	Hot works required
Working-At-Height	<ul style="list-style-type: none"> • Lesser installation process, therefore shorter installation times • Worker expose lesser time on Working-At-Height 	<ul style="list-style-type: none"> • More (double) installation process, therefore longer installation times • Worker expose more time on Working-At-Height
Duration of Installation	<p>One time operation</p> <ul style="list-style-type: none"> • One-time installation of the exhaust pipe brackets • One-time jointing on the pre-fabricated exhaust pipes 	<p>Total Four Work Process:</p> <ul style="list-style-type: none"> • One-time installation of the exhaust pipe & brackets • One-time jointing works on the inner exhaust pipes • One-time wrapping of the rock-wool • One-time outer wall cladding, riveting and sealing

SIMPLIER METHOD STATEMENTS

QUICKER RISK ASSEMENTS



No need for insulation & cladding on site!!

Safe & Ease Of Installation – ideal for complicated installations on height

P - ENERGY

ALMERIA, SPAIN

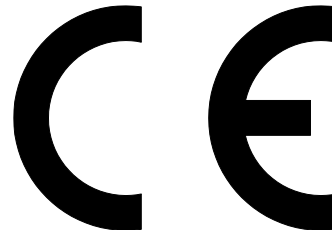


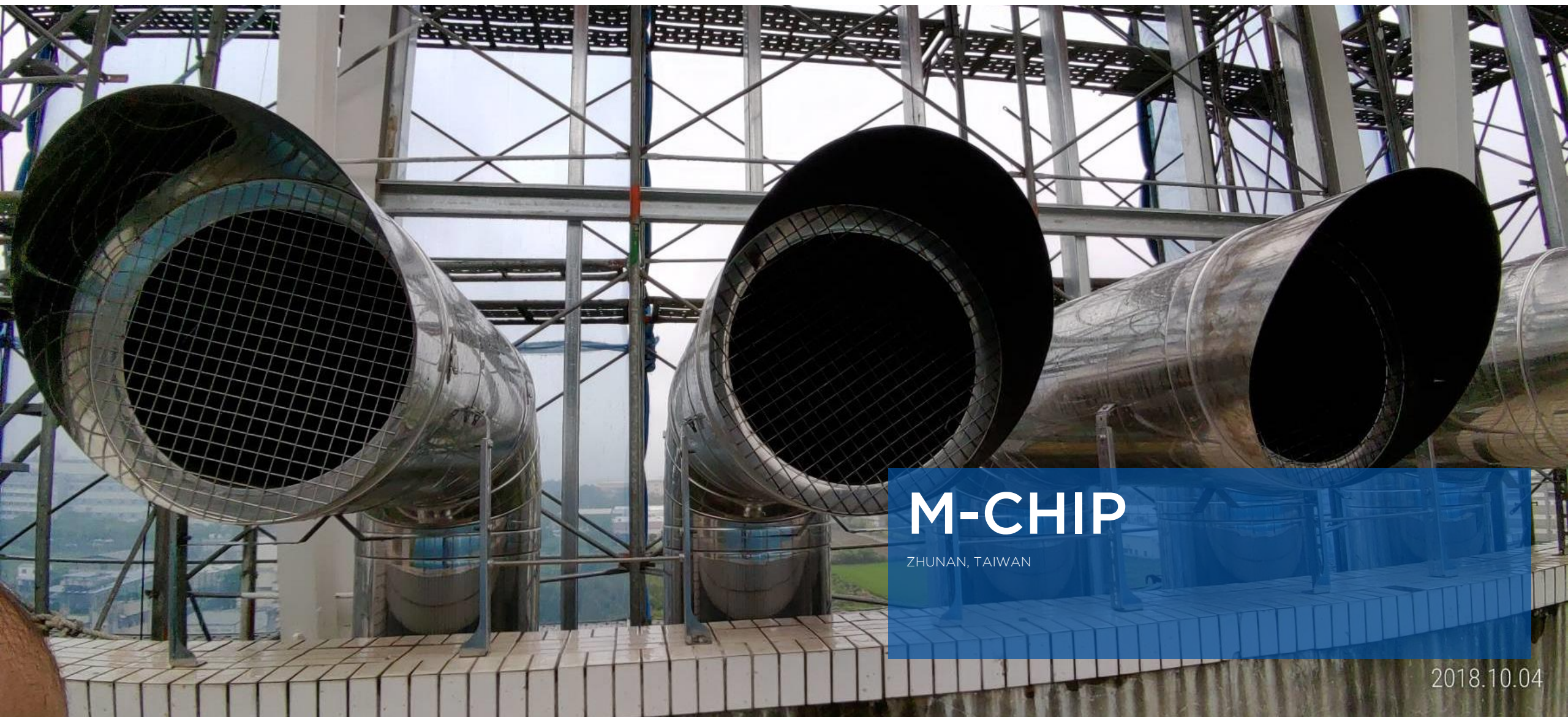
INTERNATIONAL CERTIFICATIONS

QUALIFIED TECHNICAL CAPACITY

Jeremias has the biggest amount of system certificates in the world:

- EN 1856-1: 2009
- CE Designation
- UL Listed
- German Lloyd for the Marine applications
- Country specific certifications
- ISO 9001: 2008 Quality Assurance
- More...





M-CHIP

ZHUNAN, TAIWAN

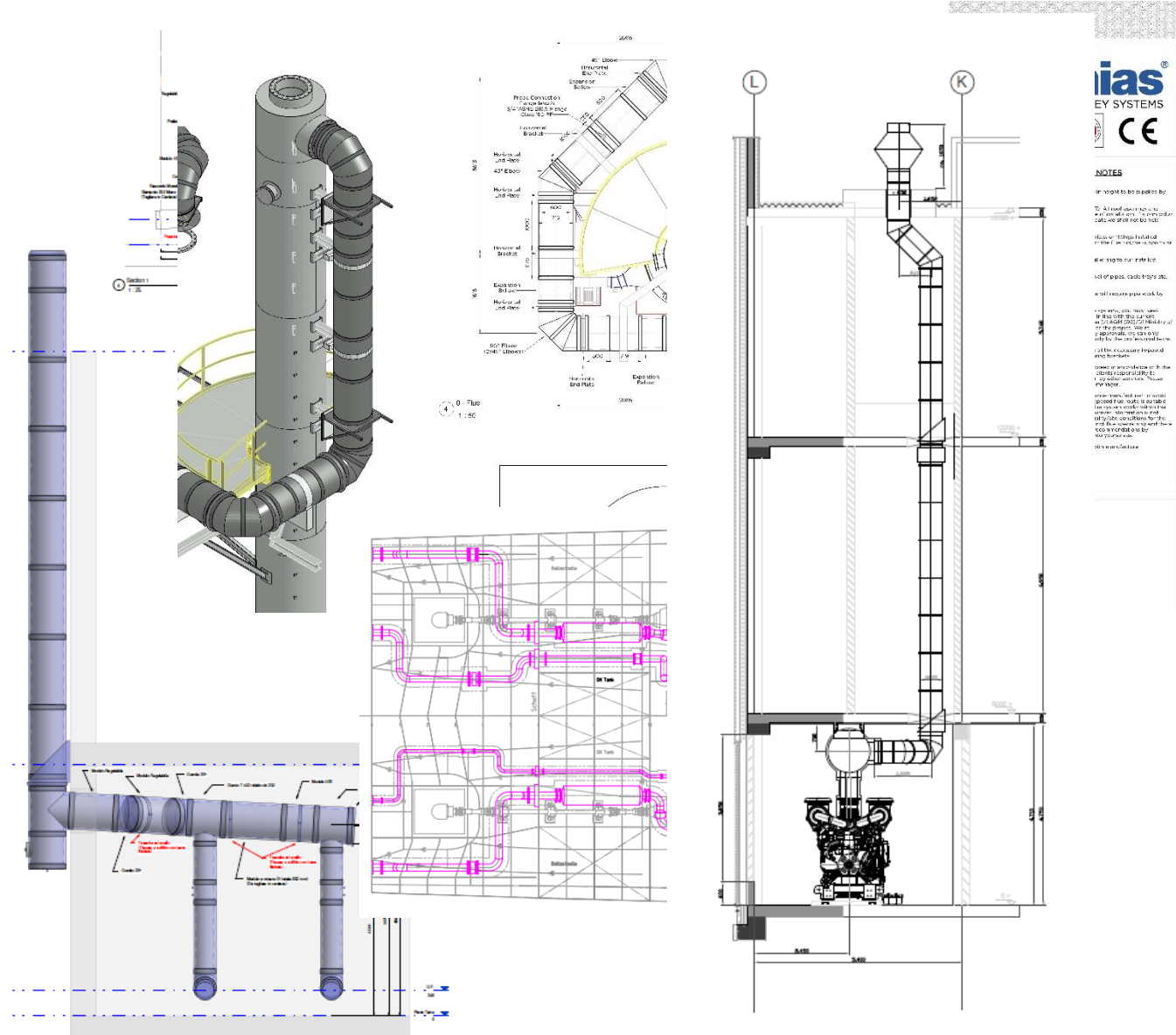
2018.10.04

TECHNICAL SUPPORT

QUALIFIED TECHNICAL CAPACITY

- Sizing and back pressure calculation
- Fire Resistance Consulting
- Custom designed silencers
- Support for design and technical development
- REVIT BIM & CAD design
- Static calculations for stacks (self-supporting)
- Multilingual specialist technical advice
- Professional customer service
- Manufacturer's warranty

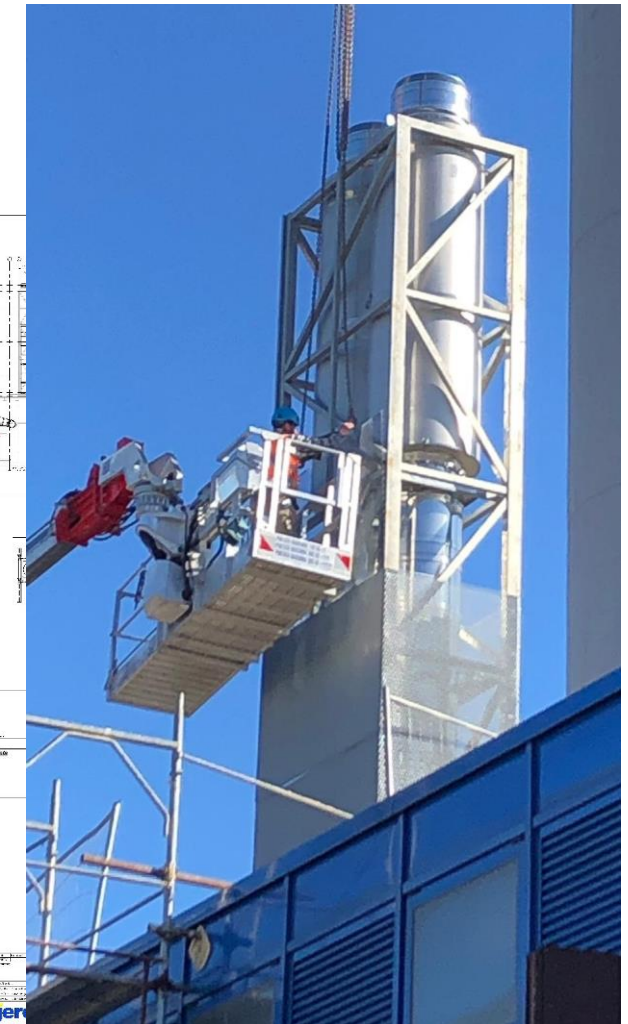
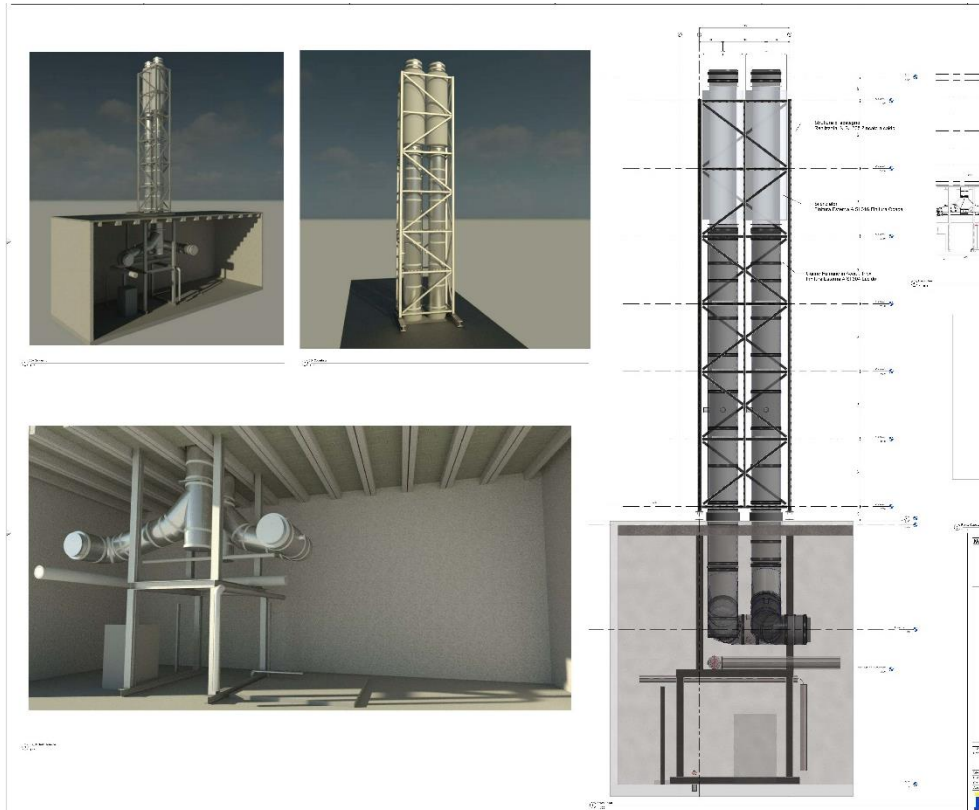
In Jeremias we have a highly professional team specialised in smoke and gas exhaust installations



SERVICES

EVERYTHING UNDER THE SAME ROOF – FROM DESIGN TO INSTALLATION

- Design, Fabrication, Supply and Installation Of Flues & Chimneys
- Condensing Commercial Boilers Flues
- Generator Exhausts
- Biomass Heating Centres
- CHP Exhaust
- Fan Dilution Systems
- Freestanding Masts
- Windshields
- Industrial Chimney Stacks
- Silencers
- Structure Design, Supply & Installation.
- Maintenance and Testing





**STEP AHEAD
YOUR SOLUTIONS
WITH JEREMIAS !**



Sales Network in 60 countries

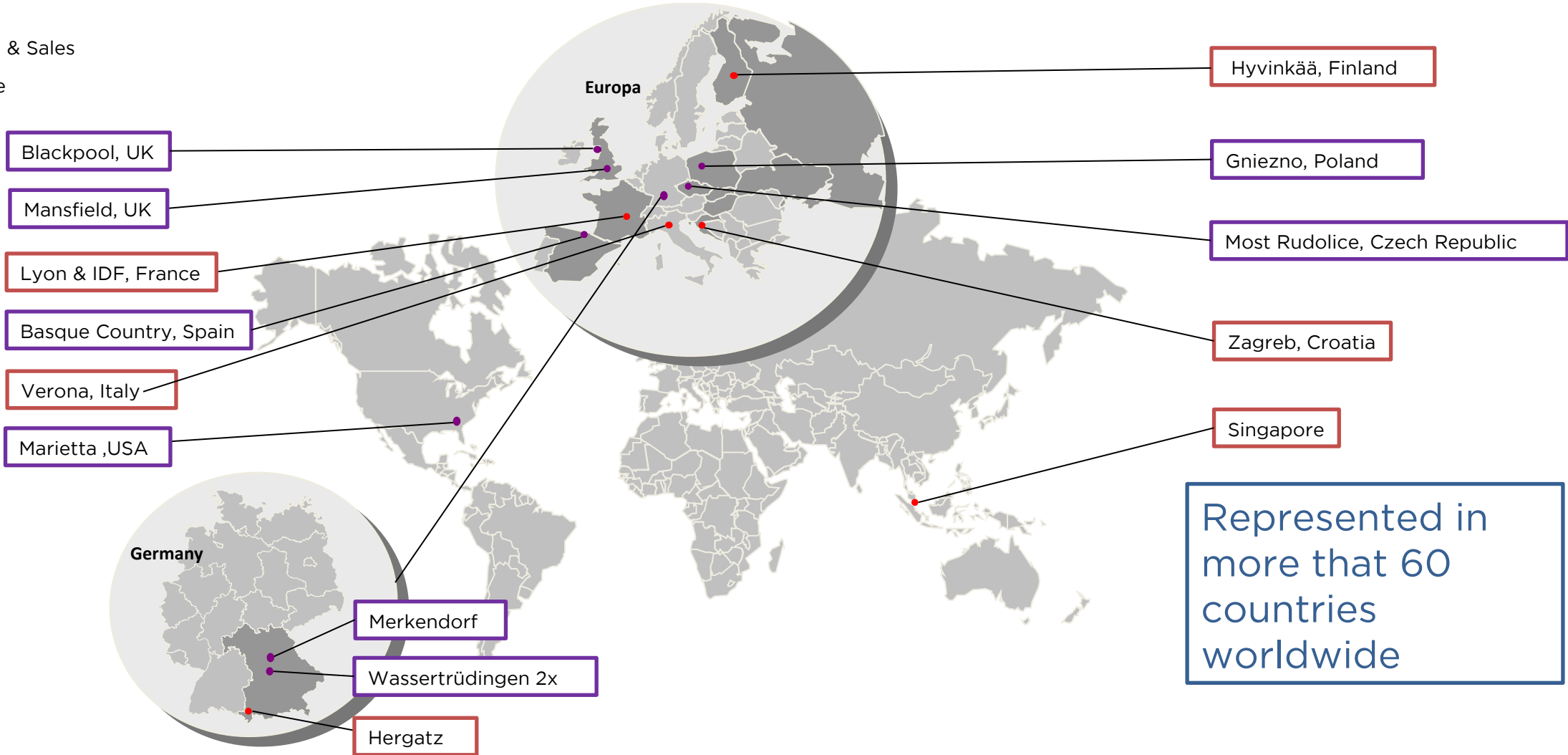
15.000 references

9 Production sites

1.850 employees

● Production & Sales

● Sales office



JEREMIAS GROUP 2023



JEREMIAS GROUP TOTAL QUALITY COMMITMENT

Jeremias **leading manufacturer of Factory Made Exhaust Systems**, covering all kind of domestic, commercial and industrial applications

Jeremias product range includes **100 different CE certified systems** covering specific applications of the exhaust industry complemented by freestanding Industrial steel chimneys up to 3 meter diameter.

Besides this compulsory CE Certification, Jeremias has also **special certifications and listings** needed in specific countries under i.e.; BS, Hetas, Swiss, Russian or US standards.

For further information, **Jeremias can supply technical guidance on various standards** including the latest version of the European Standard 1856-1/2:2010. Please contact our certification department.

www.jeremias-group.com



Warranty

WE AS MANUFACTURER GRANT YOU

25
YEARS

OF WARRANTY ON THE CORROSION RESISTANCE
OF OUR STAINLESS STEEL PRODUCTS.

For the pre-conditions please view our General Terms of Guarantee
on www.jeremias.de.



JEREMIAS GMBH | CHIMNEY SYSTEMS | OFFENRIEDER STR. 11-14 | D-91717 WASSERTRÜDINGEN



JEREMIAS
YOUR RELIABLE PARTNER!

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