

CASE STUDY:





DATA CENTRE MILANO

Exhaust solutions for Backup
Generator Sets in Data
Centres

DataFlue System

The System for Data Centers You Trust



-  Executive Summary
-  Initial challenges
-  Proposed Solution
-  Results & Benefits
-  Key Achievements
of The Project

EXECUTIVE SUMMARY

Hyperscale data centers are **large, essential facilities** built to handle scalable, high-performance applications. They need optimized network infrastructure, seamless connectivity, and low latency.

Supply of **16 self-supporting chimneys** and **16 modular chimneys** for smoke evacuation from backup motors for a **Data Center** in the province of Milan. Delivered in several phases with coordination between Jeremias, the client and the construction company so as not to block the construction and the rigid progress steps of the building site.



Innovative self-supporting and modular chimneys



Supply and installation



Modular design of the plant



Innovative solution



Good internal communication

COMPANY OVERVIEW

jeremias

With 9 production plants across Europe and the USA, Jeremias is the global leader in the design, manufacture, and installation of exhaust solutions for backup power in Data Processing Centres.

Our expertise and technology allow us to handle highly complex projects such as this one, delivering precise and efficient solutions.

jeremias.it

INITIAL CHALLENGES

jeremias

02

The **greatest challenge** for the project was the coordination of the works required to respect the strict timetables imposed by the Data Center construction program.

Great challenges

Greater solutions



The modular chimneys were installed by a partner who takes care of the assembly as well as other critical elements inside the DC.

The **versatility** and **knowledge** of the dynamics made it possible for the modulars to be easily installed with the help of carpentry structures.

The world's most widely installed Prefabricated Exhaust Pipe System



High Pressure
Tightness of the inner
pipe up to 15.000 Pa



Up to 600 ° working
Temperature



Pre-Insulated with
minimum 50mm high
Density rigid mineral
wool



Pre cladded with
Stainless steel



25 years corrosion
warranty



More than 1,500
projects in 30
countries



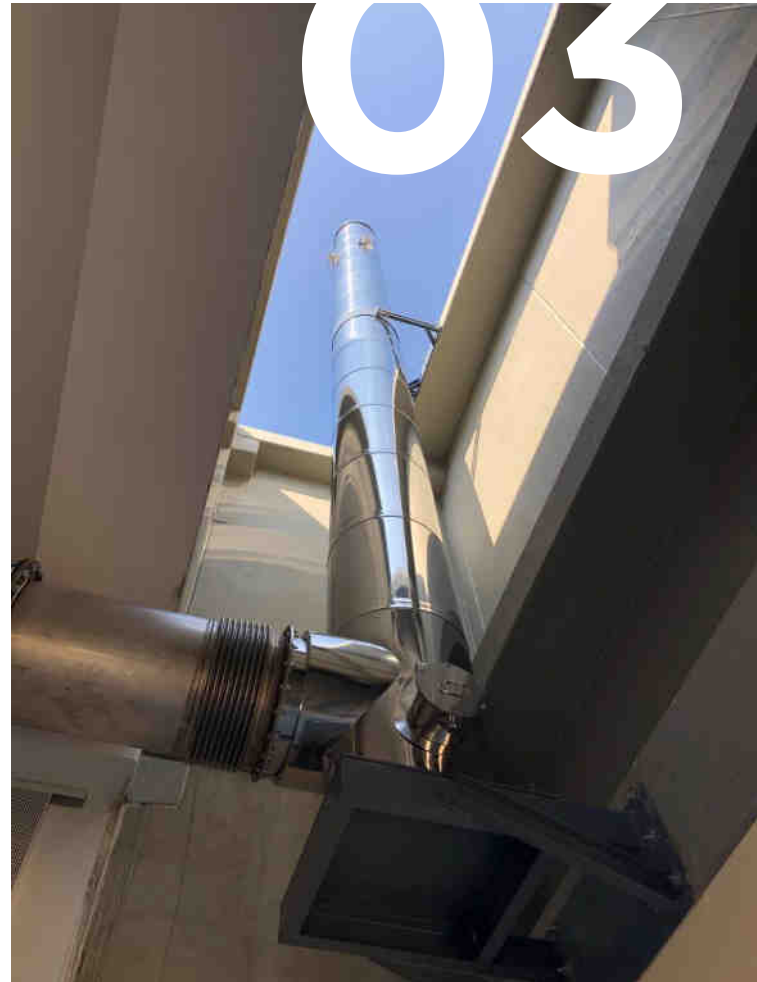
PROPOSED SOLUTION

The DWKL-50 modular system in this installation has a unique H1 seal that withstands up to 15,000 Pascals of pressure, without needing sealants due to its precise metal connection.

Jeremias modular chimney systems are **highly reliable**, made from **corrosion-resistant stainless steel**, **high-density insulation**, and produced with **advanced laser welding** in an Industry 4.0 setting.

The FSB series self-supporting chimneys are monobloc, insulated, and covered in steel, with the inner tube providing static support, even when insulated. The system can be fixed at the base or with intermediate supports.

Jeremias' technical team uses advanced design tools to ensure **precise, efficient, and cost-effective** installations.



Precise installation



High-quality materials



Advanced design tools



Static support

IMPLEMENTATION PROCESS

jeremias

04

The installation of the **modular chimneys**, given the lightness of the elements, was carried out by a lifting platform with the capacity to support the weight of the operators and the elements themselves, **making the required activities very fast.**

For the **self-supporting** ones, assembly was carried out with a crane but without the usual platform thanks to a **quick release system** at the base of the chimney.

The transport of self-supporting units has been optimized with **customized and reusable structures** for subsequent transports.

Fast

Easy

Precise

Effective



RESULTS AND BENEFITS

jeremias

05

**Space
efficiency**

**Risks widely
reduced**

**Accelerated
installation**

**Integrated
design process**

The modular installation of exhaust ducts speeds up assembly by eliminating welding and thermal insulation work and reducing risks, even for professionals.

In particular, in the self-supporting chimneys, the 'plug & play' solution with the possibility of installation and commissioning in a single day is ideal where a quick response is needed, drastically reducing time and labour that if prolonged can increase safety risks.



KEY ACHIEVEMENTS OF THE PROJECT

jeremias
06



Self-supporting
solution, efficient and
lightweight



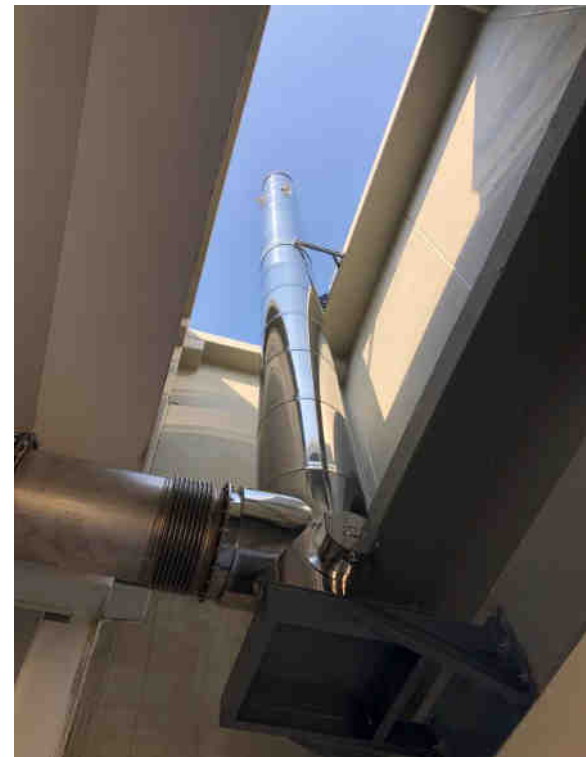
Collaborative design
with the main
contractor



Comprehensive delivery
of design, production,
and supervision under a
single provider



Quick and safe
installation





The Data Centre Partner You Trust



Jeremias Italia, Viale delle Nazioni, 10,
37135 Verona VR, Italia

jeremias.it