



SCHIEDEL

Commercial - Data Centres

Chimney solutions designed for
data centre professionals

shop.schiedel.com/uk

Cutting-edge chimney solutions and unmatched expertise

Schiedel, Pioneering excellence at the forefront of your commercial project

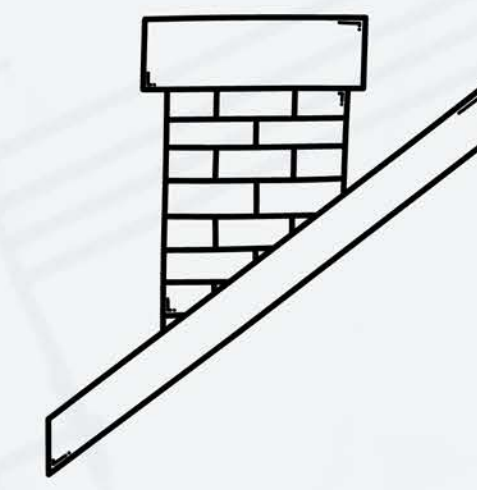
Explore excellence with Schiedel, Europe's premier supplier of commercial chimney systems, delivering precision and innovation across diverse sectors. Partner with us for unparalleled solutions in your commercial ventures.

Schiedel stands as the foremost supplier of prefabricated chimney systems in Europe, offering an extensive selection of flue and chimney products designed specifically for commercial applications. Their team of commercial specialists provides unparalleled support across a spectrum of sectors, including domestic and commercial boilers, marine and offshore installations, silencers, and more. From the initiation to the completion of projects, Schiedel offers comprehensive services encompassing system design, technical support, competitive quotations, and after-care services.

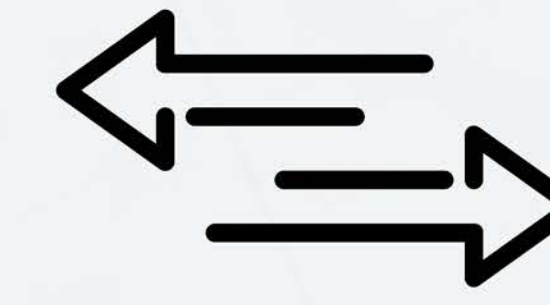
Demonstrating a commitment to innovation, Schiedel leverages cutting-edge technology and adheres to European Standards. With a dedication to customer satisfaction, Schiedel offers maintenance contracts, and their marketing team encourages clients to showcase projects through case studies, websites, PR, and social media channels.



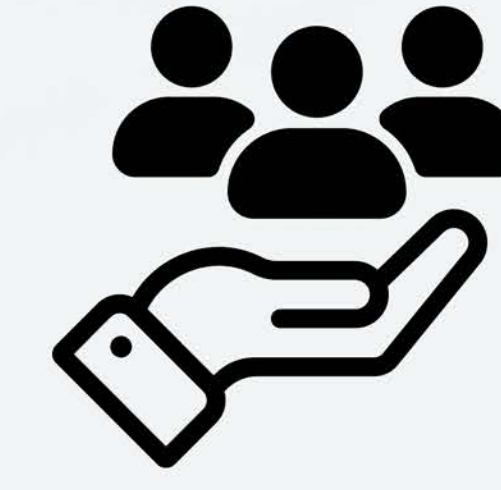
Schiedel's Flue Experience



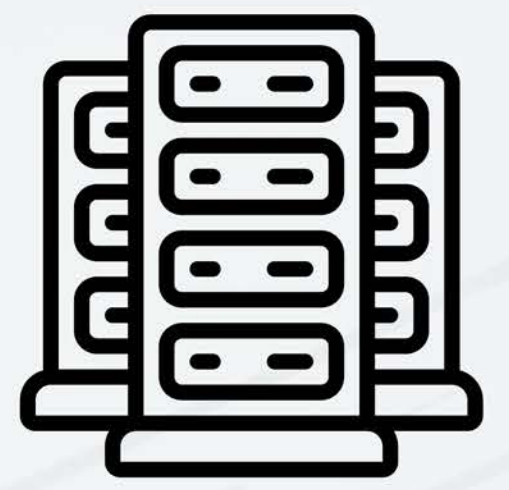
75 years' experience in flue design and manufacturing



Selling into both commercial and domestic markets



Successful installations in key data centre locations across Europe



Notable customers include: Equinix, Welcome Trust, Bunhill 2 Energy Centre,

The complete service

We provide a diverse range of products suitable for various commercial or industrial applications, including biomass flue systems, multi-flue chimneys, fan dilution systems, and generator exhausts. Additionally, we offer a comprehensive CAD design service and technical support. With unparalleled experience in both private and public sectors, Schiedel is a reliable partner for projects of any scale or nature, spanning chimneys to exhaust and venting systems. Our technical team offers site analysis and application advice, catering to projects not only in the UK and Europe but globally, where we have been delivering practical and installer-friendly solutions for over a quarter of a century, addressing both on-land and maritime requirements.

The incorporation of a BIM (Building Information Modelling) Catalogue underscores Schiedel's commitment to providing engineers, planners, and architects with extensive data and support throughout the planning process. The broad product portfolio covers chimney systems, commercial flue systems, venting systems, support systems, and exhaust systems, positioning Schiedel as a versatile and reliable choice for commercial projects.



Phil Lowe

Sales Director

<https://shop.schiedel.com/uk>

Schiedel Engineering: Tailored Solutions for Diverse Industries

Tailored Solutions for Exhaust, Chimney, Sound Pressure Reduction, and CLV Systems across Power, HVAC, Food, Marine, and Industrial Sectors

Our services mitigate financial, operational, and safety risks in flue gas installations. Specialising in modular exhaust and CLV systems tailored to each client's needs, we cater to various sectors, including factories, superyachts, hospitals, offices, and apartments.

Specialities

- Sound Pressure (reduction) Calculations
- Wind load calculations
- Back pressure calculations
- Structural integrity calculations
- Seismic calculations
- Norms & Regulations conformity checks 2D / 3D Drawings & Models
- Heat recovery calculations
- Temperature calculations (Outer wall & Heat flux)

Services

- Feasibility Study & Full design
- Commercial & Technical Quotations & Offers
- Project Management & Commissioning
- On Site Supervision
- Transportation / Delivery
- In-house & On site training
- Sub-contractor selection (Installer / Metal work / Structure manufacturer)
- Industrial Survey & Maintenance (management)

Designed for Safety

Crafting optimal solutions through rigorous structural, acoustic, and thermal calculations, with a paramount focus on enhancing safety within flue gas systems.



Quality Manufacturing

Globally renowned for their excellence, our modular components stand out with unparalleled dimensional precision and remarkable mechanical durability, assuring an extended lifespan that exceeds expectations.

Safety is paramount, achieved through meticulously designed lock fittings that ensure high-pressure tightness throughout the exhaust channel.

Our commitment to quality and service is ingrained in our manufacturing ethos. Equipped with cutting-edge machinery, our production processes are seamlessly integrated with the latest MRP planning and scheduling system. This synchronisation ensures that manufacturing aligns perfectly with project delivery schedules.

In order to ensure product quality and safety all our products are complying with industry standards and norms, international safety regulations and the environment:

- EN 13084 Free-standing Chimneys
- EN 1090 Fabrication & Assembly of steel and aluminium structures
- EN 1856 Chimneys - Requirements for metal chimneys
- EN 1993 (Eurocodes) Design of steel structures
- ASME American society of mechanical engineers
- GB 50051 (Chinese National Standard) Design of Chimneys
- ISO 9001 Quality management system
- ISO 14001 Environment management system



Installation

In addition to worldwide product delivery, we offer installation services facilitated by our trusted partners. To guarantee the proper installation of our flue gas systems by third-party installers, we provide on-site supervision and support in subcontractor selection, training, and the provision of comprehensive installation documentation.



In addition to managing operational excellence we actively contribute to EU standardisation, and regularly perform testing on various areas (mechanical, thermal, aerualic, combustion, acoustic, ...) in our laboratory facilities.

Flue gas Engineering

The placement of Flue gas systems, Engine exhausts, Chimneys, CLV systems, and Silencers within a project's timeline can often entail significant financial risks, particularly because they typically occupy a crucial position on the project's critical path.

Successfully and economically managing projects necessitates the ability to minimise or eradicate project risks. Projects involving commercial and industrial HVAC, flue gas, and silencer systems demand comprehensive expertise and diligent oversight across all project phases to mitigate risks effectively.

Each industrial, commercial, marine, and residential project necessitates a tailored approach. Whether it's designing stylish stoves, implementing high-efficiency boiler cascade systems, or installing high-power diesel engines, each project demands unique considerations and solutions.

The expertise in engineering exhaust systems and ensuring their compliant installation with legal regulations is pivotal to Schiedel's Center of Excellence (CoE) in securing the success of exhaust projects.

Seamless Integration, Optimal Performance: Redefining Data Center Ventilation for a Smarter Tomorrow

Elevating Data Center Efficiency with Precision Ventilation Solutions

Chimneys in data centers are crucial for the efficient operation of backup generators during power outages, ensuring continuous power to servers and uninterrupted digital service availability. By ventilating exhaust gases, functional chimneys maintain the reliability of backup power systems, preventing service disruptions.

Schiedel Chimneys stands at the forefront of revolutionising data center infrastructure with its pioneering precision ventilation solutions. In the dynamic landscape of information technology, we redefine excellence by seamlessly integrating our chimneys to optimise the performance of your data center. With an unwavering commitment to reliability and cutting-edge technology, Schiedel Chimneys become the backbone of your data infrastructure, offering unparalleled efficiency and future-forward innovation.

Experience the next level in data center ventilation as we transform challenges into opportunities, presenting smart solutions that elevate your data center's potential. In every aspect, Schiedel Chimneys represents a strategic partner for those seeking to navigate the ever-evolving demands of a digital era with confidence and efficiency.



Chimneys play a critical role in ensuring the resilience of data centres by enabling backup generators to function seamlessly during mains outages, ensuring continuous power for servers and vital digital services accessed by millions of users. However, their significance extends beyond operational considerations, impacting the construction phase of new data halls.

Delaying the installation of flues until the last moment, a common oversight known as the 'chimney blind spot,' can lead to errors, delays in project completion, and damage to a developer's reputation.

Recognising flues as integral to a robust uptime strategy is essential, particularly for achieving the highest Uptime Institute classification, Tier IV, which requires meticulous fault tolerance planning. Chimneys, by expelling generator fumes and managing heat dispersion, serve as a crucial first line of defense in the event of power cuts, contributing to uninterrupted data centre operations.

“We don’t just offer expertise, but top quality products that will offer you peace of mind for years to come”

David Wright
Exports Manager



Case study

Exhaust Flues for a Zurich data centre

We participated in a project located in Zurich, a city renowned for its prominent financial services sector and recognized as the economic, scientific, and social center of Switzerland. Equinix operates five ISO-certified Equinix IBX® data centers in Zurich.

Our responsibility involved not only supplying the necessary parts but also assisting the customer in assembling the two exhaust runs. The combination of our detailed instructions and the inherent simplicity of construction, applicable not only to this project but also to others involving our user-friendly components, contributed to its seamless execution, marking another successful endeavor for Schiedel Chimney Systems.

The customer was supplied with our HP 5000, which is a twin wall flue manufactured with a 0.6mm/1mm thick 316-grade stainless steel liner and 304-grade stainless steel case. It is insulated with a 25mm/50mm thick high-density superwool blanket and is designed to operate under pressure up to 5000Pa (European Standard Designation H1). Operating with a continuous flue gas temperature up to 600 °C (European Standard Designation T600). The system is also tested for thermal shock at 1000 °C.



HP5000 is a twin wall flue manufactured with a 0.6mm/1mm thick 316-grade stainless steel liner and 304-grade stainless steel case.



High & Low Pressure Ducting Schiedel HP 5000

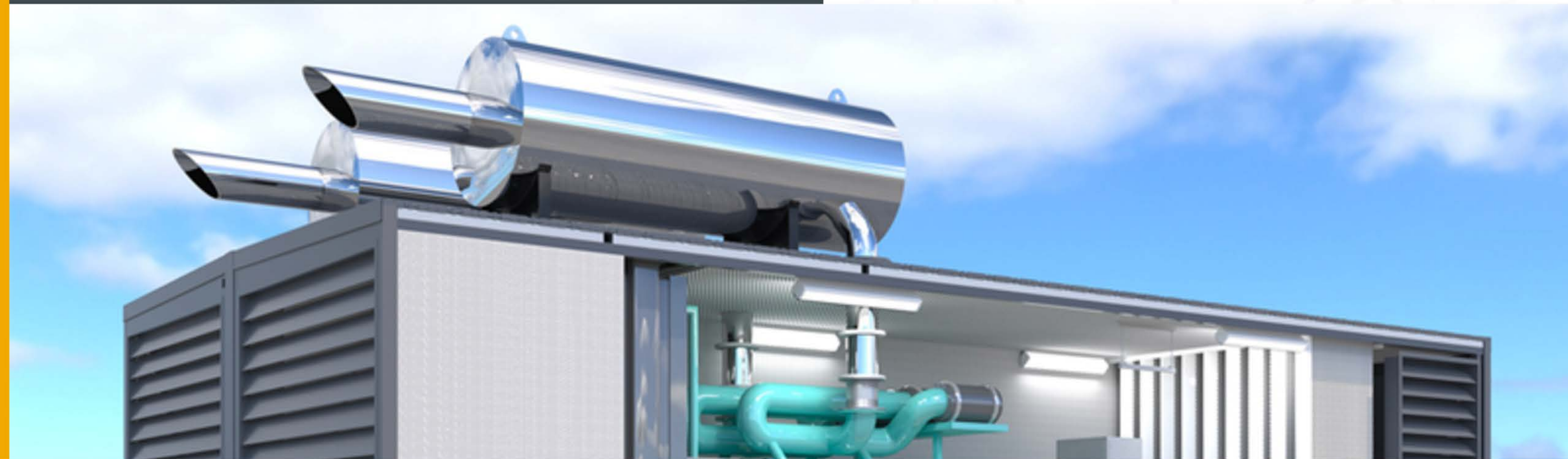
- Pressure tight up to 5000 Pa with premounted locking bands
- Moisture-proof, suitable for dry and wet operation
- Continuous operating flue gas temperatures up to 600 °C, thermal shock tested at 1000 °C
- Versatile use for all fuels and industrial applications
- Easy assembly with flange and v-shaped clamping band
- Adapter with counterflange for customer flanges available
- No on-site welding needed
- Stainless steel inner liner (1.4404) with combined flange connector
- Inner liner thickness: 0.6 mm (130-350 mm), 1 mm (other diameters)
- Outer liner thickness: 0.6 mm (130-550 mm), 0.7 mm (starting from 600 mm)
- Mineral wool insulation

Case studies continued

Commercial projects

Schiedel's expanding collection of case studies within the data center market encompasses significant ventures with key players such as Equinix and the Wellcome Trust. The subsequent list showcases notable projects within the non-residential sector.

Parratech data centre



Schiedel was tasked with providing exhaust solutions for the emergency power supply diesel generators in a Sydney datacenter. Our engineers designed 16 chimney stacks with a diameter of 600mm and a maximum height of 32m, following the architect's plans. The stacks were grouped at the side of the building. Schiedel ensured timely delivery of all materials on pallets to the client's agent in the port of Rotterdam, facilitating swift installation and avoiding delays in the construction timeline.



Groningen data centre

Schiedel's design factored in essential aspects such as rain deflection, diameter calculations, and management of sound, wind, and seismic factors. The project team handled JIT delivery and installation planning crucial for the project's size. Precision was key for installation as planned. Schiedel engineers provided vital support with parts lists, 3D models, and detailed installation instructions for timely and accurate implementation.



Eneria data centre

In Aalst, our engineering team devised exhaust and silencer solutions for three heavy-duty emergency power supply diesel generators. The solution involved a grouped series of 450mm diameter AD systems mounted on the building's side, extending to the roof with a maximum length of 24m. Silencer solutions were installed on top of the generator containers. Schiedel enlisted subcontractor PEMO projects to assist with installation.



Wellcome Trust Data centre

The Wellcome Genome Campus hosts leading organisations in genomics and computational biology, dedicated to advancing science to address major global challenges. Wellcome, a global charitable foundation, aims to improve health by fostering collaboration among brilliant minds.

Schiedel proudly collaborated with the campus and installer Willis & Thornley, installing 5 ICS 5000-400 mm diameter exhaust flues with a 25mm cavity. This highlights the adaptability and recommendation of Schiedel Chimney Systems for major commercial installations.

Environmental vision

Sustainability

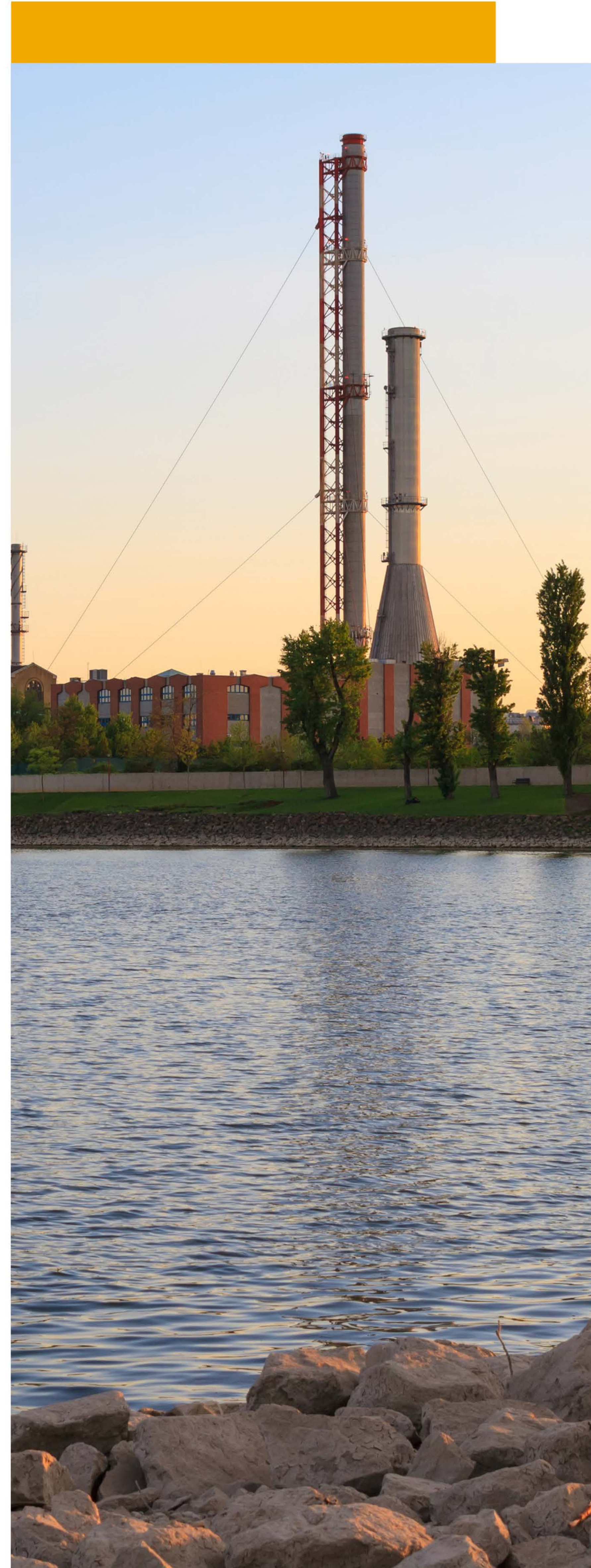
Environmental Vision

We aspire to be the leading producer of sustainable chimney systems. Our commitment lies in continually enhancing our environmental impact by efficiently utilising resources, optimising products, facilities, and processes. Our focus spans from the conception and procurement of machinery to the operational phases.

Our products stand out for being environmentally friendly, reliable, and innovative. They not only decrease energy costs but also contribute to a reduction in CO2 emissions. We are dedicated to minimising our ecological footprint by streamlining the manufacturing process and aligning operations with this fundamental principle.

Collaborating closely with international experts ensures that our products meet the highest technical standards, guaranteeing our customers receive high-quality, safe, and efficient solutions.

Intelligent and sustainable use of raw materials offers numerous advantages, like the regenerative, renewable and natural energy source wood. Employing wood for heating is environmentally beneficial and leaves a lasting positive impact on our surroundings.



Contemporary, energy-efficient fireplaces from Schiedel present solutions with minimal emissions and high efficiency. Heating with wood satisfies the needs of many individuals, utilising a natural and renewable resource that is both locally available and cost-effective. The advanced efficiency of modern fireplaces significantly reduces energy expenses. Wood's versatility is pivotal in achieving sustainable and environmentally friendly goals, making it a crucial energy source for promoting a climate-conscious approach.



Ceramic Chimney Systems

Beyond energy sources, the focus extends to modern heating systems and controlled ventilation, with ceramic emerging as the ideal material for flues. Ceramic's unique properties, including heat resistance and adaptability, align with our mission for environmental responsibility and sustainability.

The company actively collaborates on low-emission solutions and innovative filters to reduce fireplace emissions. In production, Schiedel emphasises sustainability and efficiency, using environmentally friendly ceramic material with reduced environmental impact.

The ceramic chimney systems offer advantages like high-performance flue liners, compatibility with air-independent heating, prefabricated units for faster construction, and the Thermo-shaft, ideal for air-independent heating. This comprehensive approach underscores Schiedel's commitment to optimizing its CO2 footprint and exploring renewable materials for future sustainable heating solutions.



Multi-functional twin wall insulated venting system

ICS 5000 - Product Overview

ICS 5000 is a versatile twin-wall insulated venting system designed for both internal and external use across a broad spectrum of engineering, combustion, and process equipment. This includes applications such as heating appliances, diesel generators, CHP systems, and service ducting.

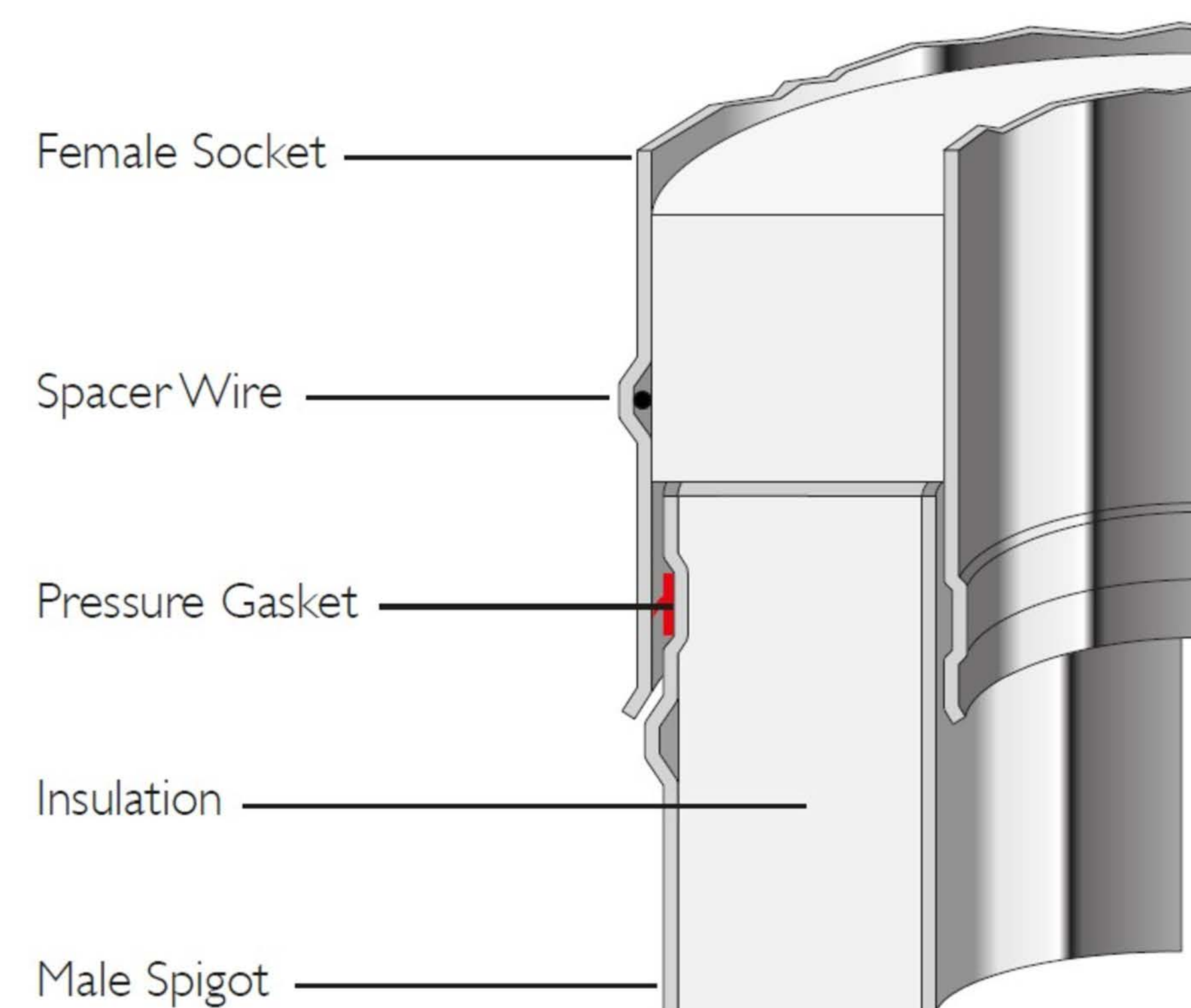
The ICS 5000 boasts a high-quality specification, featuring a 316L Grade Stainless steel liner, high-performance mineral blanket insulation, and a bright annealed 304 Grade stainless steel outer case.

The continuous seam-welded joint on both the liner and outer case, along with uniquely profiled spigot and socket joints with beveled end forms, ensures easy installation while meeting H1 performance criteria at 5000 Pa.

The thermal insulation blanket guarantees consistent insulation throughout the liner's entire effective length, facilitating rapid priming to normal operating temperatures and maintaining low external surface temperatures.

Product Features

- Engineered spigot and socket joint
- Pronounced lead in edge
- Quick and easy assembly
- Pressure gasket on outer case protected by insulation
- Continuous insulation avoids thermal bridging
- Inner liner free to expand and contract
- No requirement for expansion joints
- Lightweight
- No onsite welding or cutting required





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