



Our Expertise for your Benefit

Expertise, experience, quality – G+H Group

Customised solutions and maximum quality are the hallmarks of the products and services of G+H Group. Customers benefit from our decades of experience.



INSULATION
FIRE PREVENTION
NOISE CONTROL



G+H Group is one of the market leaders in Europe. We want to be the best for our customers. We are there wherever and whenever you need us. Our network consists of more than 50 branches in Germany and subsidiaries in other European countries. Our research and development

»Our know-how is second to none - and that is what you can rely on.«

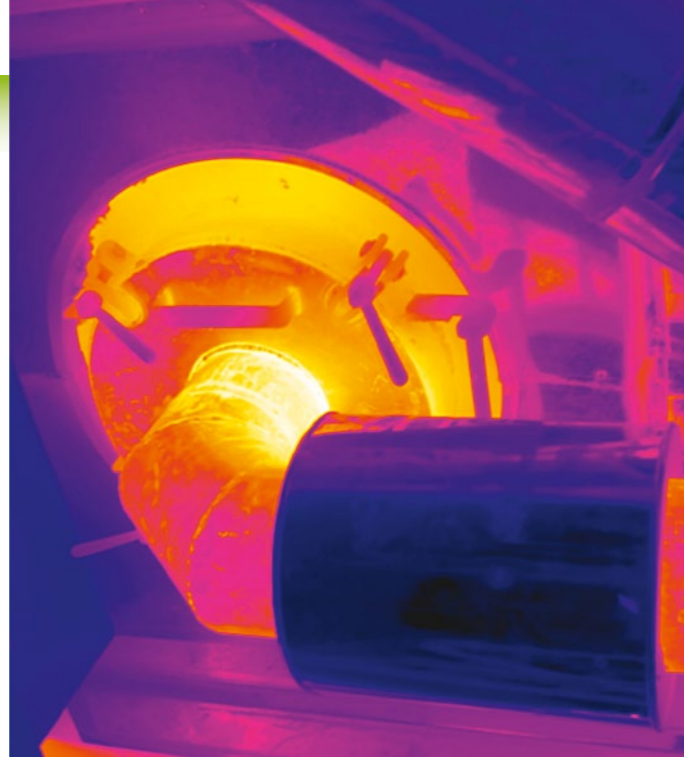
department is an important engine of innovation driver for the entire sector. As one of the VINCI Energies companies in Germany, we are part of VINCI S.A. – the world's largest private concession and construction group. Highest possible quality and efficiency, adherence to deadlines, cost-effectiveness, innovations and

sustainability are the hallmarks of our work. We tailor our products and services to the individual requirements of our customers. Moreover, G+H employ a high number of company-internal staff.

www.guh-group.com

OUR SERVICES

- Consulting
- Design
- Delivery
- Installation and assembly
- Maintenance and repair
- Refurbishment



Cost reduction thanks to individually optimized insulation systems

Customised insulating systems for the plant in question reduce heat losses and minimise operating costs and CO₂ emissions.

Energy-efficient plants and minimising greenhouse emissions are an increasingly key concern for industry and plant operators.

High-efficiency insulating systems can also contribute to achieve this and even generate economically attractive returns. The adopted measures can be superbly integrated into existing energy management systems.

»Significant contribution to tackling global warming«

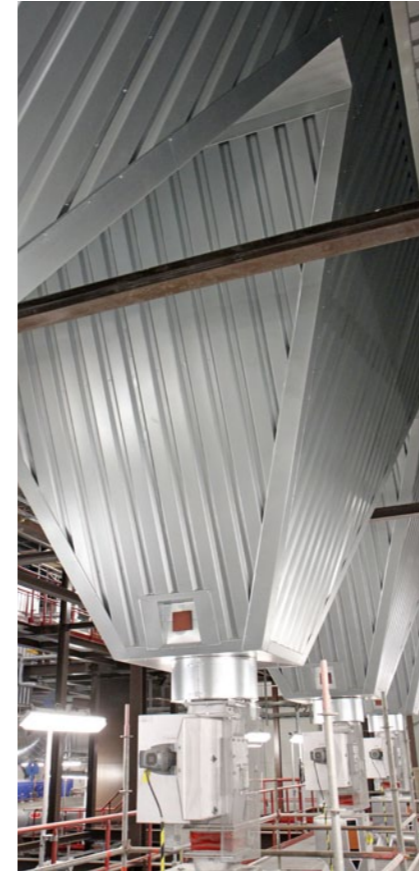
A customised insulation solution tailored to the plant in question can result in a significant reduction of heat losses. The energy saving potential over non-efficiency-designed insulating

systems ranges from 60 to over 90 percent. This kind of optimisation will pay for itself within a few years and in some cases just months. In operational plants, there is hardly a more profitable investment to be made.

Optimisation with on-site customer-oriented service

Perfect knowledge of the individual local situation is required to provide for optimal consultation and determination of saving potentials. This enables us to address the specific needs of our customers and the plant's requirements – simply get in touch!

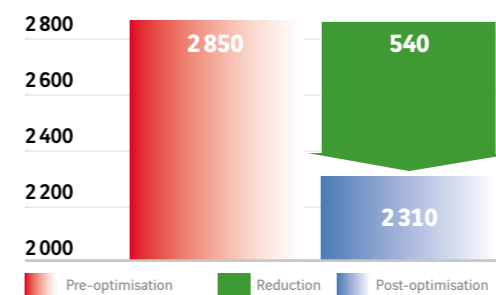
Our specially trained experts apply state-of-the-art measuring methods and decades of experi-



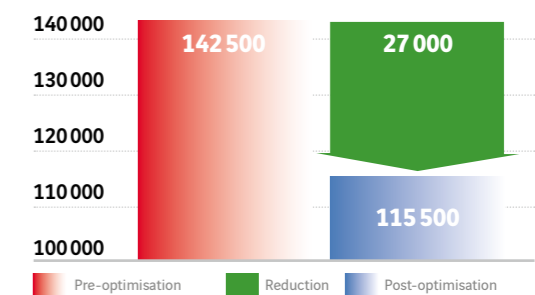
ence in technical insulation. We can help you and your company to take fast, economically prudent measures for optimising your facilities – giving you high-efficiency insulation that cuts your operating costs and makes an important contribution to protecting the environment. We offer you a

Europe-wide standardised energy audit as an objective and independent means of evaluating the implemented measures. During this technical insulation performance check (TIPCHECK), specially trained TIPCHECK engineers examine the performance of your insulating systems.

Example of the heat loss from a boiler system in a chemical plant (MWh/year)



Example of the heat loss costs from a boiler system in a chemical plant (Euros/year)





Application-oriented solutions for insulating systems

The service portfolio G+H Insulation provides innovative, tailor-made solutions for optimising operation of your systems.

As a leading European supplier of technical insulation, G+H Insulation delivers customer-oriented, innovative solutions. Our service portfolio ranges from engineering and project management to the manufacturing, installation, service and maintenance of insulating systems. Our customised solutions are used in every conceivable branch of industry, in operational plants and in technical building equipment. They are particularly called for in operational systems where insulation has to meet the most stringent demands in functionality and reliability.



High-tech and innovative insulating systems
We collaborate closely with our customers to develop top-quality insulation solutions that meet their systems' specific requirements. We can provide

you with insulating systems for use in low-temperature zones (e.g. LNG facilities) right through to insulation for large-scale boiler plants and reactors operating at temperatures that can sometimes greatly exceed 600 degrees Celsius. Our priority is always to ensure reliable operation of the systems and the safety of the workforce.

G+H Insulation offers special solutions for areas with maximum safety requirements – e.g. power plants including nuclear, petrochemicals, thermal oil pipelines, splash-proofing in the hydraulic oil pipeline sector and even special insulating systems in potentially explosive environments. Thanks to our technical expertise and decades of



experience in the field of insulation, our experts design solutions for any of your individual requirements.

In plants requiring both thermal and noise insulation, we can provide you with specially customised systems.

Our portfolio also includes insulation that meets high requirements for a homogeneous temperature zone, for example for quickly rotating, hot components such as steam and gas turbines. Our mattress or spray insulations ensure a reliable operation of your plants. In cold insulation, too, an even temperature field plays an important role in order to prevent the formation of condensation. In order to meet the high demands in this area, we can supply you with

solutions made from in-situ polyurethane foams for insulating systems free of heat bridges and joints.

OUR AREAS OF APPLICATION

- Power plants and power plant components
- Chemical and petrochemical plants
- LNG plants
- Food and luxury consumption industry
- Mechanical and plant engineering
- Automotive industry
- Technical building equipment
- Special solutions

OUR SERVICES

- Heat insulation for pipes, containers, fittings, tank systems and boilers
- Cold insulation for cooling and freezing systems, air conditioning and ventilation systems, pipes, containers and fittings
- Installation of trace heating systems
- Insulation for power plant components such as large-scale boilers, flue gas cleaning plants and ducts



Experts in fire prevention

Applying fire prevention measures is the most effective way of stopping flames and flue gasses spreading. We offer you our support during the complete process, starting with the selection of the right equipment to proper installation through to maintenance.

Flames and flue gas one of the biggest risks to human life and property. In the event of fire, preventive measures stop the flames from spreading, keep escape and rescue routes clear, and save lives.

supporting structures and industrial plants.

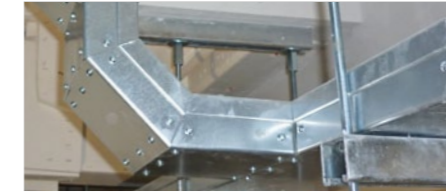
Impartial consulting services
When it comes to recommending products, we are impartial and pinpoint solutions that are cost-effective and best suited to our customers' requirements.

Professional installation
The continuous training and development of our staff ensure the professional installation of all fire prevention equipment.

Lifelong maintenance
On our customers' request, our service can be extended to cover the entire service life of an installation.

The experts from G+H Group ensure that fire prevention installations work exactly when they need to. For example, we have developed an electrical installation duct for escape and rescue routes, which activates during a fire and can even be

installed in extremely confined spaces. And we use sprayed mortar systems on a vermiculite/perlite base in order to protect key components from the heat given off from a local fire.



»We have the expertise and decades of experience.«

The fire protection division of G+H Group offers far more than just professional installation. Once we have assessed the existing situation, we work together with the customer to devise the safest possible fire protection solution. Our solutions incorporate comprehensive advice and the efficient implementation of building requirements for the fire protection installation in question, e.g. electrical and ventilation systems, pipe systems, building joints, steel

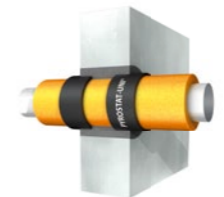
G+H PRODUCTS AND G+H SOLUTIONS IN PREVENTIVE FIRE PROTECTION

- PYROMENT KVB 2000® and PYROMENT KVB 2000® TYPE W (for exterior use):
The full cable wrap is laid directly around the cables and smothers cable fires as they ignite.
- PYROSTAT-UNI®
Pipe sealant for flammable and non-flammable pipes with and without insulation. Approved for pipes with diameters of up to 813 millimetres
- PYROTAM
Pipe casing for non-flammable pipes with fire resistance classes R 90 and R 120, for penetration through solid walls and ceilings and for empty conduit penetration
- PYROTAM SH
Pipe sealant with a support distance on one side of eight metres
- PYRODOM® TYP BWF
Thanks to its special design, this innovative joint seal can be moved around all three axes, and bridges joint widths of up to 200 mm.
- PYROMENT® IK90 BD
The extremely thin electric installation duct is easy to open and close when modifications are required and can also be used in areas that are difficult to access.
- ENCAPSULATION
of mobile diesel stand-by units
- FITTINGS ENCLOSURE
Fire protection housing for fittings with a fire resistance rating of 120 minutes
- BURST ELEMENTS
Equipment for releasing overpressure for 10 kV transformer stations with a fire resistance rating of 90 minutes
- EI-60 housing
Fire-resistant and earthquake-proof housing for cable conduits in power plants

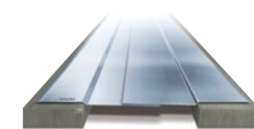
NEW!
We acquired European approval ETA-15/0293 for the I-duct in 2015.



PYROMENT® IK90 BD I 30 to I 120



PYROSTAT-UNI® R 30 to R 90



PYRODOM® F 30 to F 120



PYROMENT® IK90 BD I 30 to I 120





Expertise from a single source for power plants across the globe

We offer our customers a whole range of reliable and customised services – from engineering, through the supply of state-of-the-art components for gas turbines, right up to turnkey solutions.

As an experienced partner for builders of gas turbine power plants, G+H Noise Control designs, delivers and installs complete noise control systems.

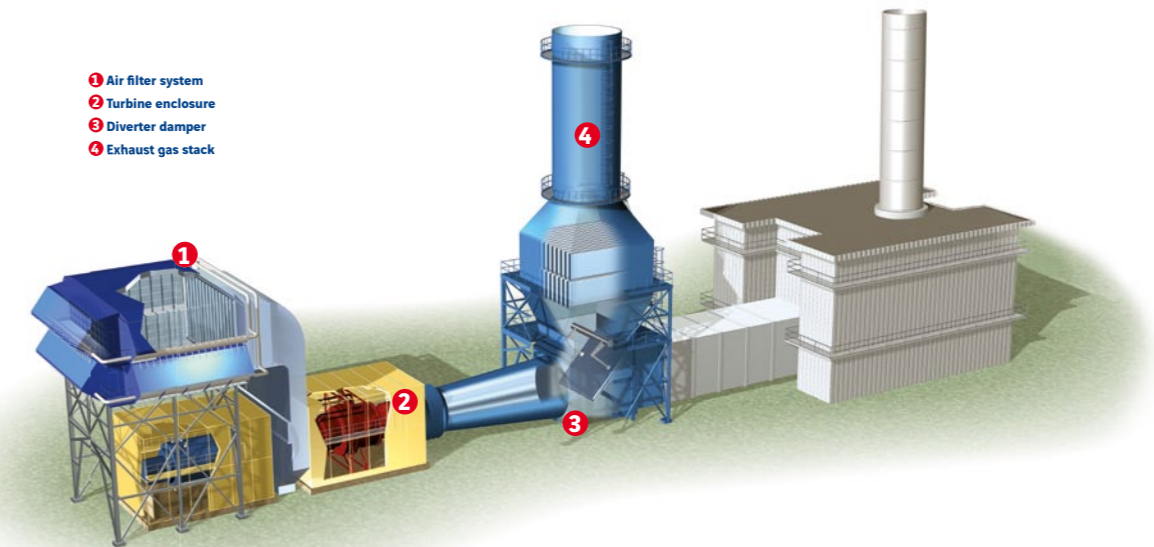
field of noise control – from building supervision to turnkey system installation.

Intake systems

Our air intake systems and filter houses ensure combustion air achieves the level of purity necessary for efficient operation of gas turbines – no matter which climate zone the power plant is located in. We plan and devise the purpose-made intake and filter system.

»Our services extend far beyond pure noise control.«

These are based on decades of research and development work and set standards in the



Exhaust gas systems

Our exhaust gas systems and complete exhaust gas stacks minimise noise emissions from gas turbines.

and fulfil the most stringent technical demands.

Retrofitting measures

Renovating and optimising noise-control components is often more cost-effective than implementing new installations. We know the best solutions for you.

Silencers and acoustical enclosures

Silencers and acoustical enclosures are essential for effectively reducing noise emissions. Noise control systems by G+H Noise Control are designed to the individual requirements of our customers

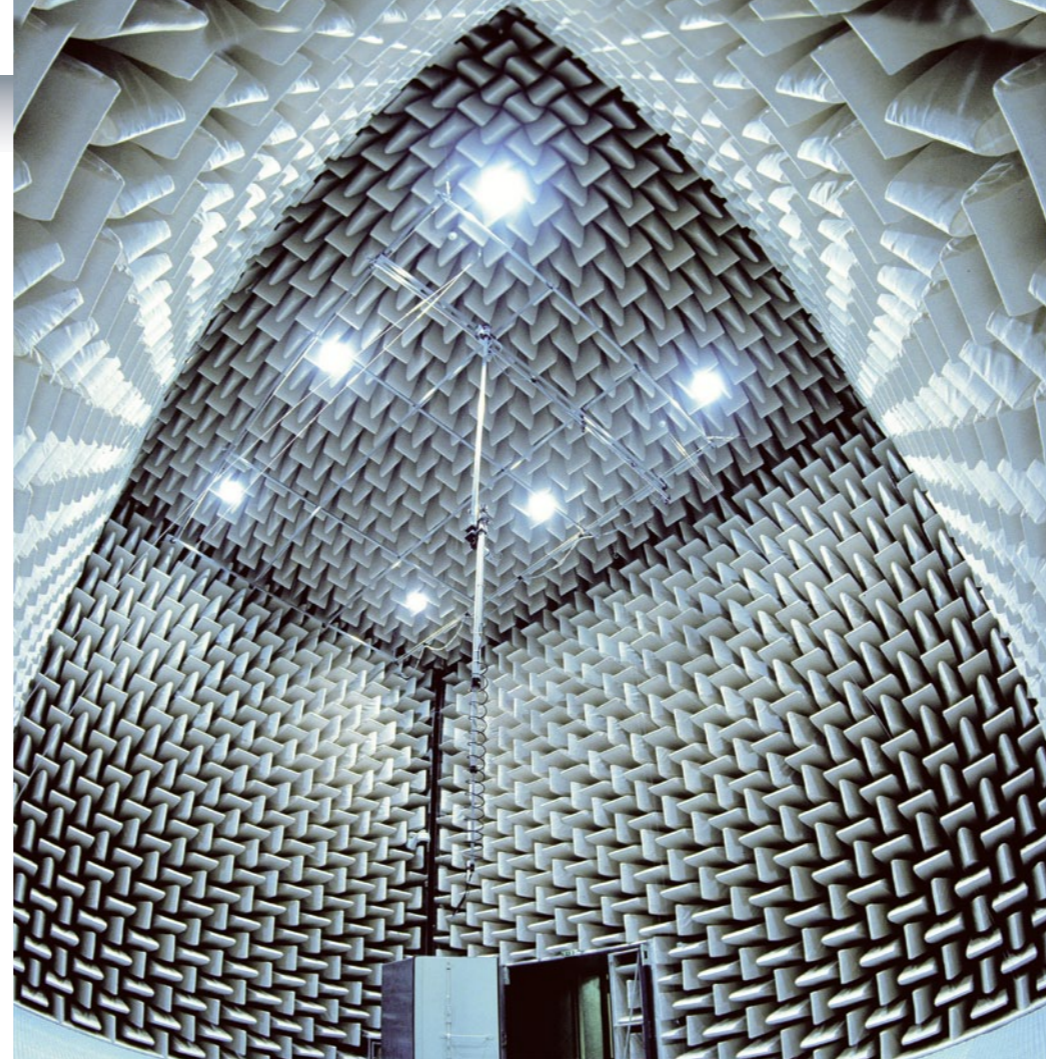
OUR PORTFOLIO IN POWER PLANT NOISE CONTROL

- Air intake ducts
- Flow-optimised silencers for filter houses, for example single or combination filter systems, and pulse filter houses
- Droplet catchers
- Evaporative coolers
- Anti-icing systems
- Heat exchangers
- Instrumentation and control technology
- Operating and maintenance equipment
- Exhaust ducts
- Diffusers
- Flow-optimised, highly temperature resistant exhaust silencers
- Heat and sound-absorbing insulation for exhaust ducts and heat recovery boilers
- Metal and fabric expansion joints
- Guide vanes



We protect the environment against sound and noise

G+H Noise Control is one of the leading companies worldwide in the technical acoustics industry. We also work to ensure safety in working environments where laser technology is used.



Systems by G+H Noise Control are used wherever the environment needs to be protected against sound and noise. Our solutions tackle these kinds of problems head on, quickly and efficiently. Our tried-and-tested products and systems have a modular design. Customers can rely on technologically-optimised, cost-effective solutions.

OUR SERVICES

- Consulting
- Design/engineering
- Development and tests in a dedicated acoustics laboratory
- Project management
- Installation
- Monitoring of construction and installation

We have more than 50 years of experience in research, development and project management. We are able to combine the consulting and planning expertise of an engineering office with the practical know-how of a contractor – from the consulting phase all the way through to turnkey implementation.

G+H Noise Control is also experienced in laser protection. We have developed laser protection booths for welding

»We are also experienced in laser protection.«

robots in the automotive industry. In the event of a malfunction, they protect people from being injured by laser beams.

OUR SOLUTIONS FOR INDUSTRIAL NOISE CONTROL

- Sound-insulating enclosures insulate and absorb sound using highly-efficient structures at the source of the noise.
- Sound-insulating cabins facilitate focused, concentrated work and create an atmosphere conducive to relaxed working.
- Sound-absorbing screening walls help in cases where it is not possible to combat noise at source.
- Doors, gates and windows combine functionality and outstanding sound insulation.
- Sound-absorbing wall and ceiling linings improve room acoustics and provide protection against damage to hearing.
- Silencers for technical systems offer reliable protection against noise emissions without having a negative impact on the media flow.
- Anechoic rooms, reverberation rooms and audiometric rooms enable standardised acoustic measurements in all areas.
- Innovative, lightweight laser protection booths ensure effective protection and uninterrupted production processes.





We protect people, machines and buildings

Problems caused by vibrations and structure-borne noise occur in virtually all areas of technology.

Vibrations and structure-borne noise impair health and cause damage to buildings and systems. A lot of experience is needed to select the best measures for

most effective solutions for a broad spectrum of applications.



»Our solutions are accurate and efficient. Our tried-and-tested systems have a modular design.«

vibration insulation, to define damping masses and to calculate vibration amplitudes and levels. We offer you the

OUR SERVICES

- Consulting
- Design/engineering
- Product selection
- Project management
- Measurement
- OEM solutions for protection against vibrations and structure-borne noise
- Installation
- Monitoring of construction and installation

OUR SOLUTIONS

Vibration-insulation elements, such as steel isolation springs and insulation boards, protect people, machinery and buildings against structure-borne sound and vibrations.

Made-to-measure solutions

Our metal technology division can shape special parts to your precise needs. We will make them specially for you.



The metal technology division of G+H Group specialises in noise control and insulation. We cut, bend, round, edge, bead, fold and weld all types of sheet metal. Our state-of-the-art processing machines tools enable us to



create made-to-measure components. Skilled employees are available for our customers in any location – so that the outcome meets the customer's precise requirements.

Much more than just a facade

We are the right partner if you require facade technology – from the consulting phase through to implementation.

The facade technology division of G+H Group designs, plans and installs cladding for new buildings and renovation works.

The ultimate facade provides protection against heat, cold and noise and generates a pleasant room climate.

Working together with our customer, our experts first define the requirements for the facade in terms of functionality, building physics, visual design and budget.

We monitor the implementation process and deliver top

quality while also ensuring that the project is finished on time.

OUR SERVICES

- Metal facades
- Metal roof coverings
- Roof sealings
- Roof renovations





G+H ISOLIERUNG GmbH

Janderstr. 5

68199 Mannheim

Germany

Phone +49 621 502-0

Fax: +49 621 502-599

info@guh-gruppe.de

www.guh-gruppe.de