

**FOCUS ON PERFORMANCE**

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Competence, efficiency, durability, resistance, product life: values that define "Performance" for us. To live up to this standard, we direct our primary focus on the continuous advancement of our refractory linings while at the same time keeping an eye on improving our customers' production processes as well as the maximum availability of the systems to be lined.

STEULER-KCH is one of the international innovation and market leaders in the field of refractory systems. The portfolio of STEULER-KCH comprises shaped and unshaped refractory products. Whether it is dense, thermally, chemically and mechanically resistant or light, insulating materials – as a full-range supplier, STEULER-KCH provides all materials required for refractory lining, including complete anchoring systems.

From the development of the materials and their surefire selection, to application engineering consulting services, all the way to delivering complete engineering concepts for all lining details and processes, offering in-house production and, not least, professional assembly – STEULER-KCH plans, develops, coordinates, and installs refractory lining technology for your plant.

All this is provided from one source. As a result, our customers have an efficient contact and partner throughout their project: we look at refractory technology not in separate service steps; rather, we combine materials, engineering, and installation into a comprehensive, high-performance total package. Only optimally coordinated systems and services are able to do justice to the steadily increasing requirements of the production processes and plants. Individually coordinated components tap the true production potential of your plant, thus increasing its productivity.

Our specialists resort to the many years of experience of a team that masters a broad range of tasks. They are technical experts who offer you state-of-the-art support for all your needs – continuously and comprehensively. We regard our customer relations as long-term partnerships with the joint goal of further advancing your processes.

BEFORE GETTING STARTED, HERE IS OUR MOST IMPORTANT RECOMMENDATION:  
**TALK TO US.**

We don't want to offer you just any refractory solution – together with you we want to develop the perfectly fitting solution for your production processes, your installations, and your investments. Optimum solutions are developed in a dialog with the plant operator and taking all parameters and plant conditions into account. After all, one thing is certain: only if all factors, process data, and plant particulars are regarded in their toally, informed solutions can be created that go beyond satisfying short-term needs.

In an effort to understand your plant, we also look at upstream and downstream processes to get a comprehensive view of your operating and production conditions. Many plant layouts have become obsolete, and new material qualities can significantly extend service life, thus drastically reducing periodic downtimes.

**We should talk.**



# REFRACTORY ENGINEERING

## SAFE DESIGN FOR IMPROVED PLANT PERFORMANCE

Depending on the pertinent process conditions, we develop detailed lining concepts and refractory constructions. The specific refractory layout for the respective aggregate is created on the basis of the steel construction drawings and process data provided. Needless to say, the scope of work also includes wall construction concepts and installation drawings as well as heat transfer calculations and recommended heat-up procedures for the subsequent operation. This is our basis.



Yet we also advise engineering companies and operators on how to increase the efficiency and safety of the required production units and on the engineering details that help avoid risks and potential damage. We are a supporting partner and an experienced consultant that optimizes plant design and layout along with the lining concept to boost productivity and potential damage by adjusting the detail-engineering.

Our experience and the execution of all different kinds of projects in many industry sectors and production fields make us smart – so we can make you smart.







# REFRACTORY DEVELOPMENT

## EFFICIENT MATERIALS FOR MAXIMUM PLANT AVAILABILITY

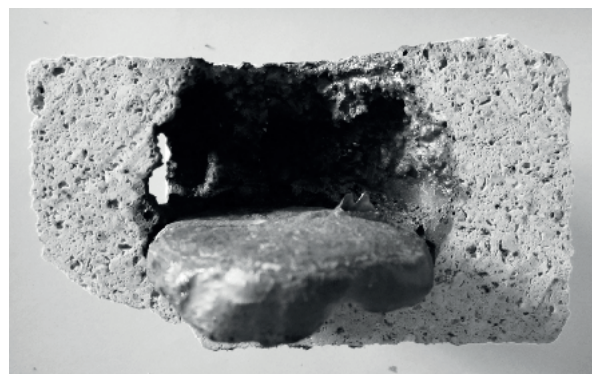
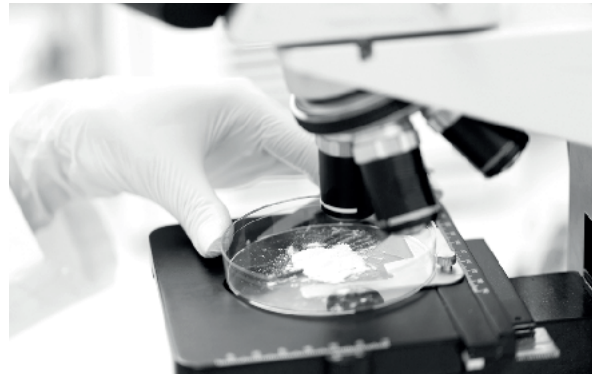
Longer service life of the plant, greater plant availability and productivity – this translates into improved efficiency. It is a principle that guides every investment and every decision. The same applies to the selection of the refractory linings. That's why we call it material efficiency.

Our Development Departments have set themselves the goal of creating and providing efficient materials for their pertinent application. The focus is always on extended service life of the lining and hence maximum plant availability for all our customers. Deciding which supply concept also constitutes the most efficient solution in the cost-benefit analysis depends on many factors. That is why the selection of materials and the definition of the optimum solution always take place in conjunction with the customer and by considering all parameters and plant conditions. Every production and every plant concept has its own development potential – and we have the fitting material for it. Or we develop the best one.

## THE SUITABLE MATERIAL FOR EVERY APPLICATION

It takes specific development departments to create comprehensive refractory solutions that are optimized for your needs. This is the only way the materials can be adjusted to the specific process requirements on whose basis individual material concepts are defined or developed. From the careful selection of raw materials and comprehensive production monitoring all the way to wear and slag resistance analyses based on the respective operation parameters of your plant – our professional development and application engineers are part of the project implementation from the get-go.

Waiting is not going to help: the sooner you implement profound concept optimization processes, the sooner you will notice the positive effects – extended service life, improved use of your production capacities, better process quality, and faster return on investment. You will notice that the right time to install the appropriate refractory solution is always now.





## THE RIGHT MATERIAL IN THE RIGHT FORMAT

Refractory technology is like a custom-made suit for your plant – it has to fit perfectly. It must reflect the plant-specific geometries and circumstances, the thermal specifications for the respective application, and it must withstand the chemical and, above all, mechanical stresses for a long time. All this has to be precisely coordinated, as form and function of all components are the decisive parameters for perfect implementation.



A large number of materials for specific requirements – in standard and unusual as well as special formats and complex geometries for universal lining solutions – this yields a nearly infinite number of possible combinations. And this is where you benefit. After all, being able to produce the right material in the right format means that we can provide special lining solutions with all required details at short notice.

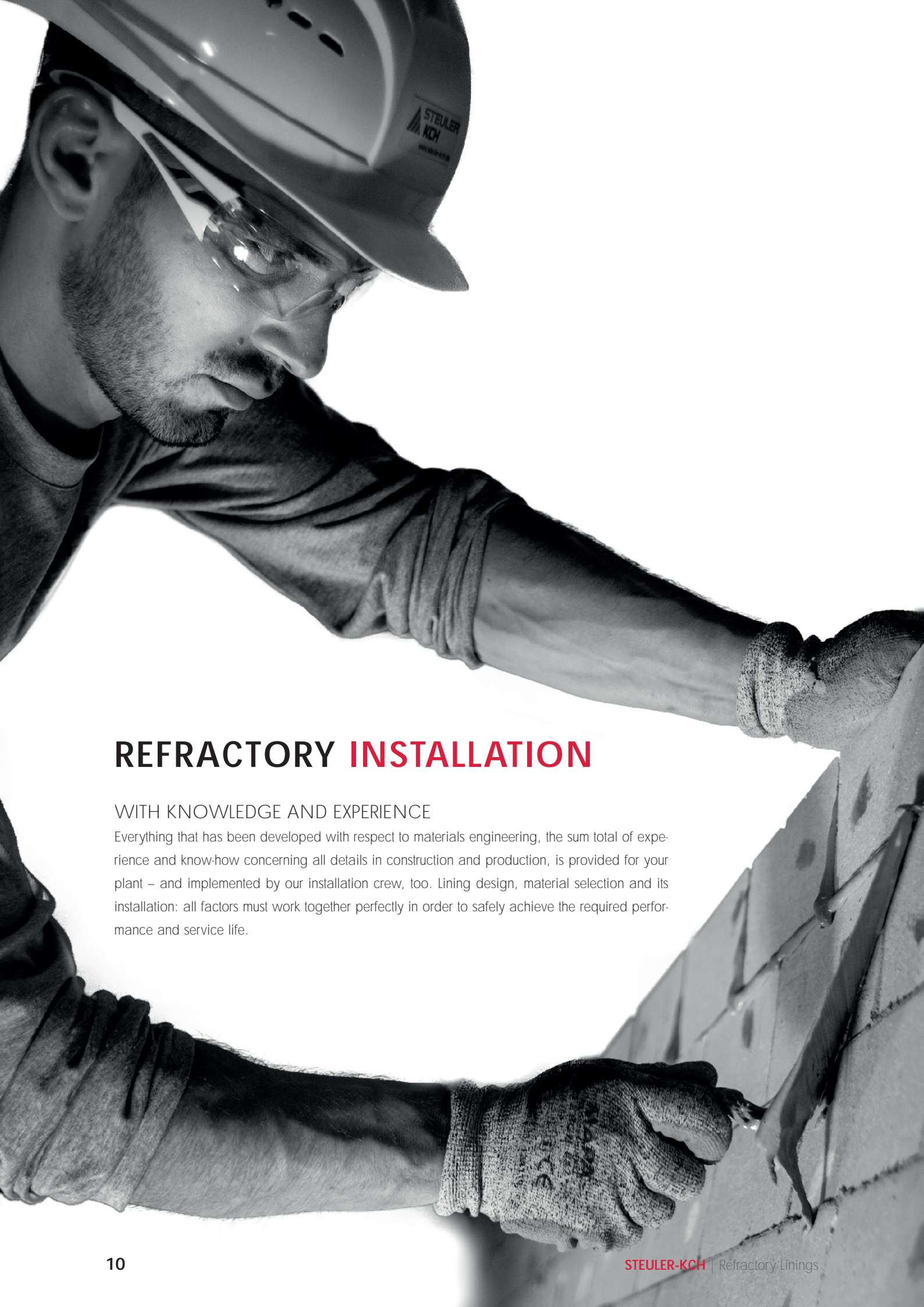
## EFFICIENT AND AT THE SAME TIME FLEXIBLE

STEULER-KCH has state-of-the-art production facilities with a large degree of automation. However, we can also produce special parts in the style of a manufacture. We build our own moulds so we can realize even the most complicated geometries quickly and effectively. We always use production experts with many years of experience who have developed a good eye and the proper skills for handling materials and geometries. This gives us the necessary flexibility even when dealing with small batch sizes if customer requirements and construction so dictate. And we are just as flexible when time is of the essence.



# REFRACTORY PRODUCTION





## REFRACTORY **INSTALLATION**

### WITH KNOWLEDGE AND EXPERIENCE

Everything that has been developed with respect to materials engineering, the sum total of experience and know-how concerning all details in construction and production, is provided for your plant – and implemented by our installation crew, too. Lining design, material selection and its installation: all factors must work together perfectly in order to safely achieve the required performance and service life.

## SPECIFIC CONSTRUCTION – PAINSTAKING EXECUTION

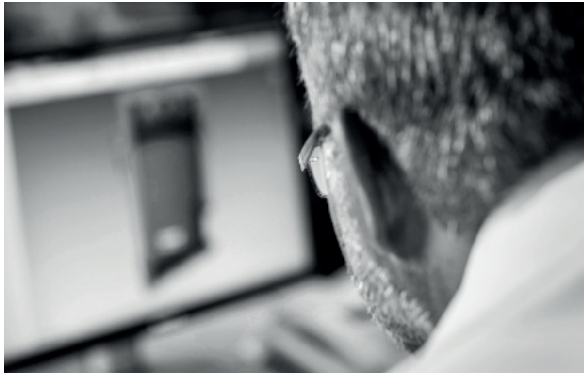
STEULER-KCH delivers competently at all project levels and in all project processes – including the installation of the complete refractory construction. Consequently, the ultimate coordination, the expert control and implementation of each and every project factor, are truly in experienced hands – those of our on-site professional installers and supervisors. STEULER-KCH installers use all their skills and experience to expertly execute all engineering specifications provided by the Design Department – on the one hand maintaining the overview of the entire project but on the other also keeping an eye on the special details.



## EFFICIENT PROJECT MANAGEMENT ENSURES GREATER PRODUCTIVITY

Our complete service covering all project steps ensures longer plant service life and hence your productivity. One of the crucial factors is installation time. Precise and dependable schedules of the process sequences, coordinated logistics of materials as well as assembly equipment and machines – at the right time and at the right place, anywhere in the world. Only perfect and prudent project logistics ultimately saves time – your time, which you can use for improving your productivity and your own performance.





## COMPETENT IN MANY INDUSTRY SECTORS

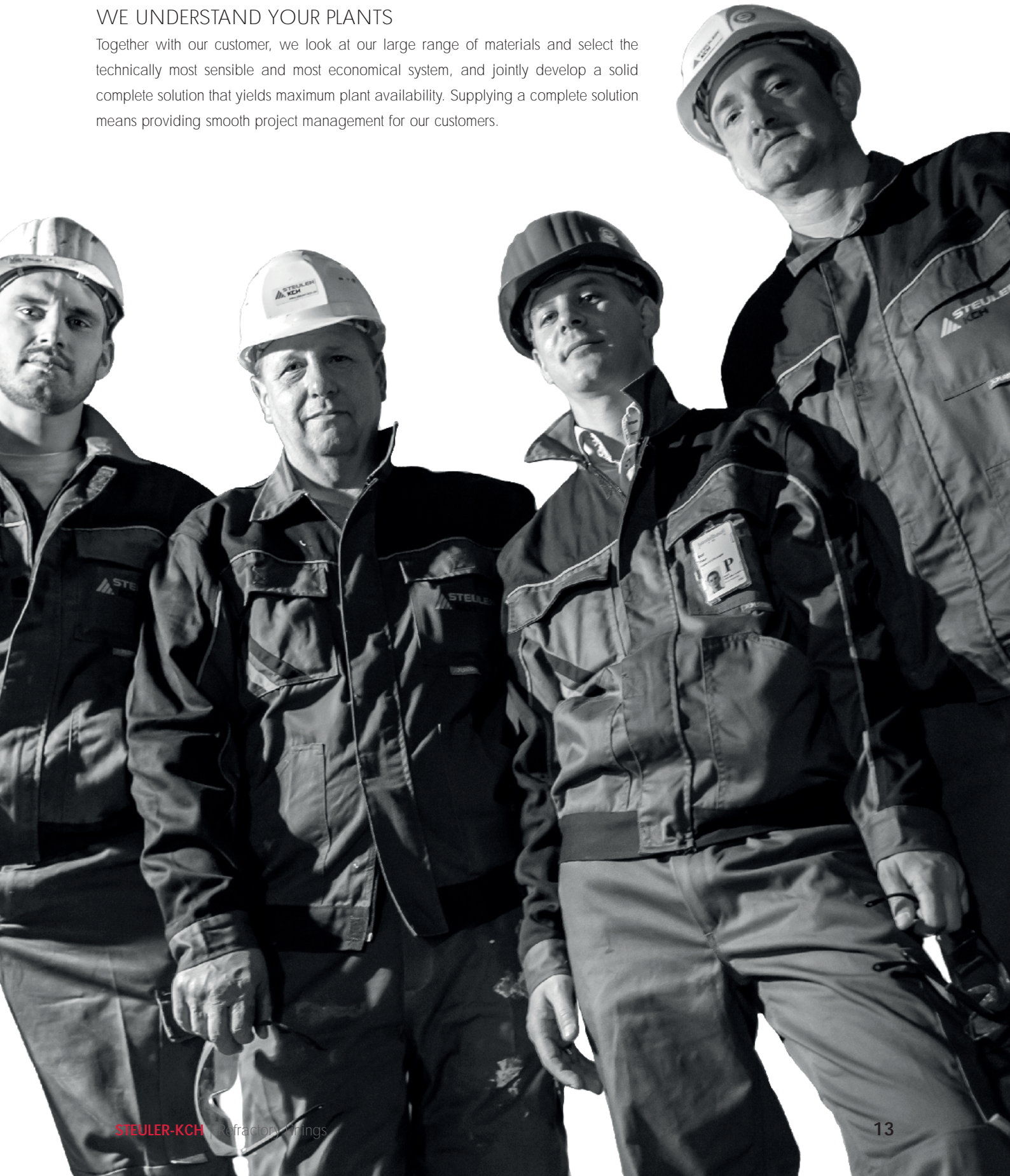
Technical consultation and coordination is provided by experienced STEULER-KCH refractory specialists – certified and qualified, they give advice and develop solutions as part of a comprehensive international quality assurance and management system. From the first consultation session to the implementation, our customers have the support of a contact person concerning all refractory-specific areas of their often complex plants. A project team plans and coordinates the professional implementation. Coordination between production and assembly, installation specifications for the installers, on-site project monitoring, and expert handling of the products are entirely taken care of by STEULER-KCH. With its international subsidiaries and representations, STEULER-KCH offers its customers a global network that develops and implements these comprehensive refractory solutions.



# REFRACTORY MANAGEMENT

## WE UNDERSTAND YOUR PLANTS

Together with our customer, we look at our large range of materials and select the technically most sensible and most economical system, and jointly develop a solid complete solution that yields maximum plant availability. Supplying a complete solution means providing smooth project management for our customers.

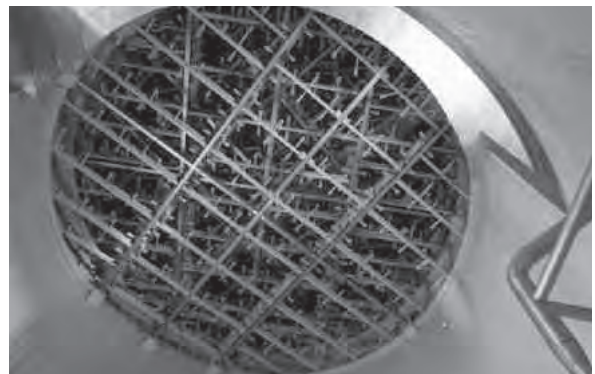




## GROWN COMPETENCE

### BUILDS ON EXPERIENCE AND KNOW-HOW

STEULER-KCH is a global partner for industrial linings and equipment. It goes without saying that the service range of STEULER-KCH also includes consulting regarding the planning and construction of corrosion and surface protection measures as well as the expert handling of materials and execution of construction projects: engineering and materials – the complete solution, all the way to the final installation.

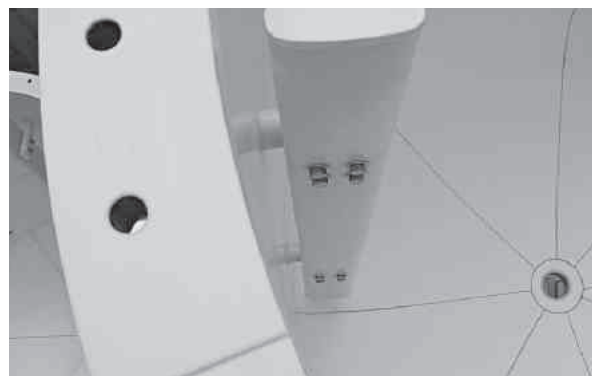




## A NETWORK ALSO FOR INDUSTRIAL LININGS AND EQUIPMENT

The product portfolio of STEULER-KCH Surface Protection Systems includes coatings and rubber linings, brick linings, and tile linings in the field of industrial surface and corrosion protection. The product portfolio of STEULER-KCH Plastics Engineering comprises piping, containers, and equipment for high chemical, thermal, and mechanical stresses.

These products are made strictly from thermoplastics or from fiberglass-reinforced plastics with and without inner liners or a fiber-reinforced phenolic resin material. They ensure reliable and lasting chemical resistance.



Together with its international subsidiaries and representatives, STEULER-KCH offers its customers a worldwide network which develops and implements comprehensive system solutions.

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