

CeraCon Sealing systems

Innovative single-component foam sealing technology

CeraCon

Exceeding the standards.

EN



Sealing systems

Enjoy Foaming Now

Innovative single-component foam sealing technology by CeraCon

Enjoy Foaming Now – this is not only our aim, but also our promise to you. And when you use our product for the first time at the latest, you will see that we keep our promises. Our foam sealing system combines two relevant strengths: foams with very good sealing properties, processed with innovative and reliable system technology.

We provide you with everything from a single source – the outstanding sealing materials of the Cera**PUR**® brand from our own development, the new Cera**FLOW**® foam dispen-

ing technology*, our many years of experience in the field of engineering and machine design, as well as our world-wide, reliable service. In short: we offer you comprehensive know-how for innovative single-component foam sealing technology!

Decisive technical advantages combined with economic benefits – which means for you:

ENJOY FOAMING NOW.

*This device is patent pending



A baby is sitting in a blue bathtub, surrounded by white foam. The baby is smiling and looking towards the camera. In the foreground, there are two yellow rubber ducks on a colorful towel. The background is a bright, slightly blurred window.

Enjoy Foaming Now.

Foam sealing technology by CeraCon.



When sealing really matters

The greatest challenge for a sealing system is protection against moisture and wetness. The physically foamed seals from CeraCon have a decisive advantage in this respect: they have a predominantly closed-cell foam structure. As a result, they retain their tightness even if they are partially broken or damaged, e.g. due to mechanical stress on the sealed components during assembly. Well-known

customers from all industries have been placing their trust in this single-component foam sealing technology for over 15 years – and we continue this tradition with our new Cera**PUR**® sealing materials and the Cera**FLOW**® foam dispensing technology.

And by the way: anything that keeps out moisture and wetness also prevents the entry of dust and dirt.

When sealing really matters.

Foam sealing technology by CeraCon.





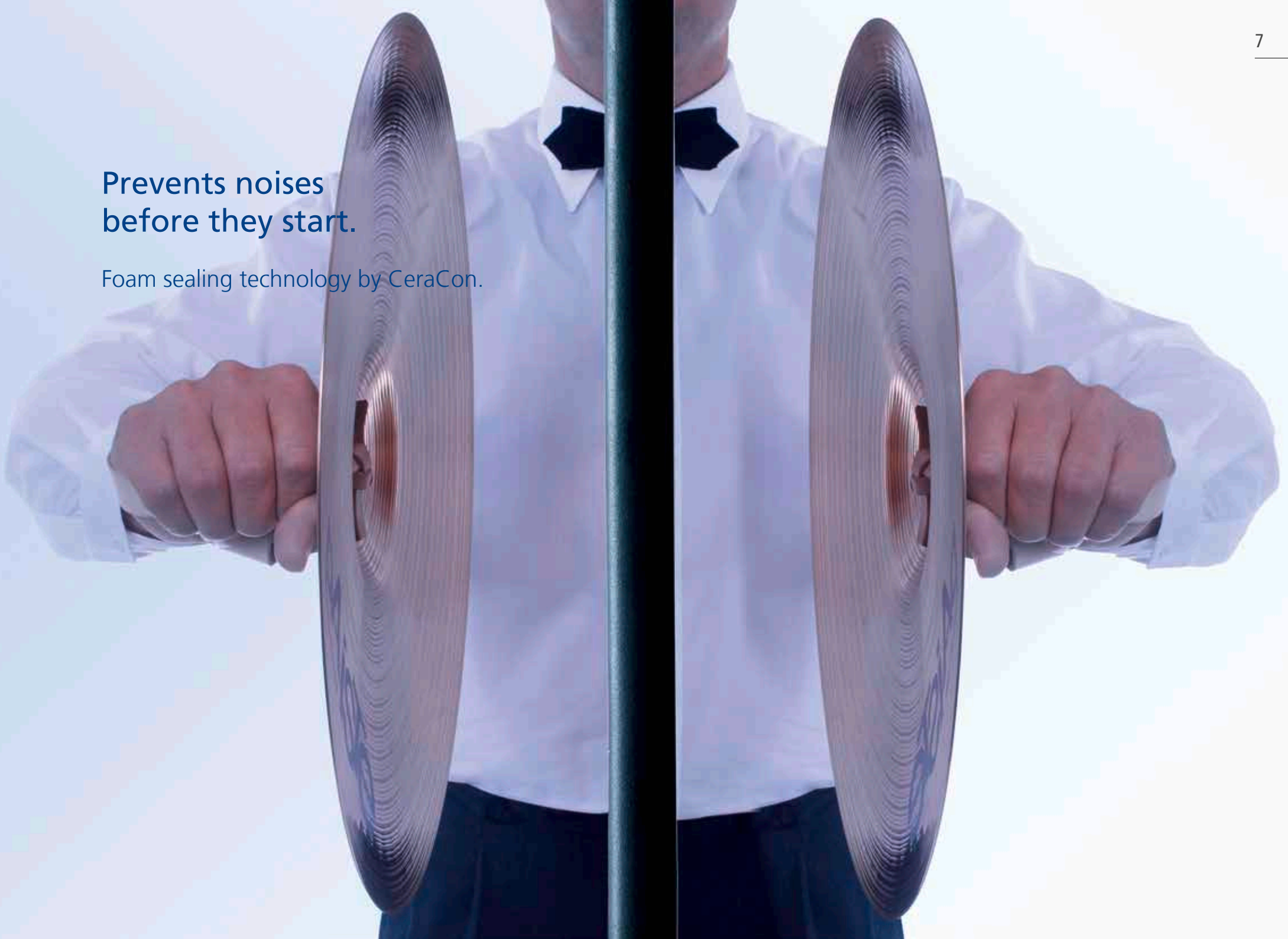
Prevents noises before they start

Today, components of different material hardnesses come together in vehicle interiors. These take up the motion dynamics generated while the vehicle is moving and cause friction noises – the expert calls this „Noise Vibration Harshness“ (NVH). This is perceived as a particularly negative feature, for example in the case of very high-quality or

quiet vehicles with an electric drive. Examples of this are creaking centre consoles or other elements in the vehicle interior. The single-component Cera**PUR**® foam is applied to the corresponding components and acts as a compressible buffer, which effectively and permanently suppresses the unwanted noises.

Prevents noises
before they start.

Foam sealing technology by CeraCon.



The five innovative pillars...



Sealing materials

Everything begins with the selection of the appropriate sealing material. Our specialists from the **CeraPUR®** Team are available to provide you with advice on this. The range of our single-component polyurethane materials also includes the right sealant for your application.



Foam technology

Various standardised types of **CeraFLOW®** machines cover the broad range of requirements for the different fields of application: from the dispensing of the smallest possible quantities for sealing beads as a replacement for O-rings to large-volume applications on switch cabinet doors.



...on which our sealing technology is based!



Automation

From the standardised robot cells to the fully automated, integrated production line: we develop individual solutions for your various tasks. Benefit from our extensive experience in the field of engineering and automation, including the integration of additional production processes.



Application engineering

In our laboratory, our specialists sample your components, create prototypes and pre-production samples and assist you with the further development of your designs if desired. The process parameters which are determined during this process are incorporated directly into the subsequent conceptual design.



Contract gasketing

Do you prefer a solution with „zero-investment“? Then we can foam your components for you in our own Contract Gasketing Department. This is an economically and strategically interesting alternative, particularly in the case of small or heavily fluctuating quantities.



Sealing materials

The Cera**PUR**® sealing materials are solvent-free and very fast cross-linking single-component elastomers. They are mechanically foamed, processed at room temperature in a standard room atmosphere and enable the efficient, environmentally friendly and reliable application of foamed seals. Because of the system used, none of the well-known problems such as the pot life, rinsing, test shots or the

search for the right mixing ratio apply here. The range of materials extends from standardised versions to special variants which are individually developed and tailored to specific requirements. Through the use of heating technology, our single-component foam sealing process can produce complete in-line-capable systems with cycle times of less than 2 sec.



The predominantly closed-cell Cera**PUR**® foam even keeps things tight when the outer skin of the foam bead has been damaged.



Foam technology

As easy as whipping cream – the Cera**FLOW**® foam dispensing technology works according to a similar principle. This is made possible by the single-component foaming process without a chemical reaction: With the aid of a pulse valve, individual gas bubbles of process air are injected into this stream of polyurethane material under high pressure. The mixture is then finely dispersed in a homogeniser

and precisely metered out by means of a metering cylinder via a valve. The softness of the foam can be continuously adjusted by changing the proportion of the air. Various standardised types of machines cover the broad range of requirements: from the metering of the smallest possible quantities for sealing beads as a replacement for O-rings to large-volume applications on switch cabinet doors.

The CeraCon foam sealing system consists of a single-component sealing material which is pumped into the CeraFLOW® machine via a pump, where it is mixed with compressed air and discharged, for example, via a robot-guided valve.

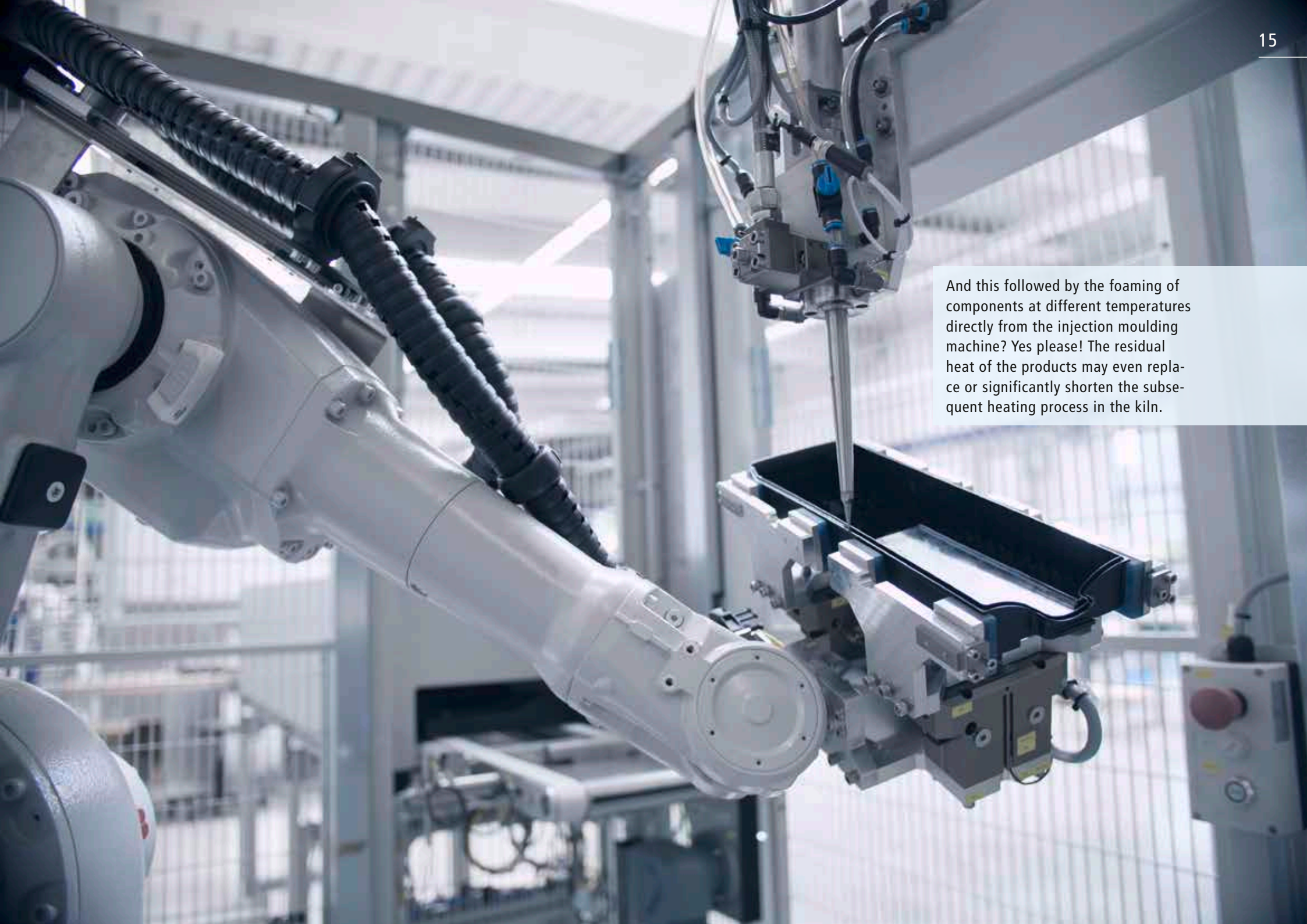




Automation

We develop individual solutions for your various tasks. Benefit from our extensive experience in the field of engineering and automation: we know – not least from our own contract production system – your special requirements as a serial manufacturer, including those resulting from Industry 4.0, for example. We incorporate all of this but only into our standardised robotic cells, but also into fully automated complete systems.

We create individual designs according to your specifications, including integration into existing production lines, e.g. as a direct connection to an injection moulding machine. In addition, we can – on request – integrate additional upstream and downstream production steps, e.g. pre-treatments, other dispensing applications, measuring and testing systems, laser applications (e.g. marking, separating etc.) or curing processes.



And this followed by the foaming of components at different temperatures directly from the injection moulding machine? Yes please! The residual heat of the products may even replace or significantly shorten the subsequent heating process in the kiln.



Application engineering

In our technical centre, our specialists sample your components and show you the optimum way to achieve tightness.

If required, they also provide support with the constructive design of your components and advise you on the selection of sealing materials and, if necessary, the appropriate

pre-treatment. Together with the resulting process parameters, these findings are later incorporated directly into the conceptual design of your production machine or contract gasketing order. In addition, we do the foaming of your prototypes and pre-series samples and carry out standardised component tests.



Accurate component measurements and standardised tests form part of the range of daily tasks in the field of application engineering.


Contract gasketing

Why buy a cow, when you only want a glass of milk? This is the reason why we also offer our foaming process on a contract gasketing basis.

Contract gasketing is an economically interesting alternative, particularly in the case of small or heavily fluctuating quantities. Not only that – with our machinery we are able to cope with your capacity peaks or foam pre-series parts for you.

Large-scale production also forms part of the portfolio of this independent area of our company, with production plants in Germany and abroad, including upstream or downstream working steps and QA measures. And if you wish, we can also set up and develop a contract production system in your own factories.





Whether ten or ten thousand – for any quantity, contract gasketing can represent an economical alternative to investing in a production machine.

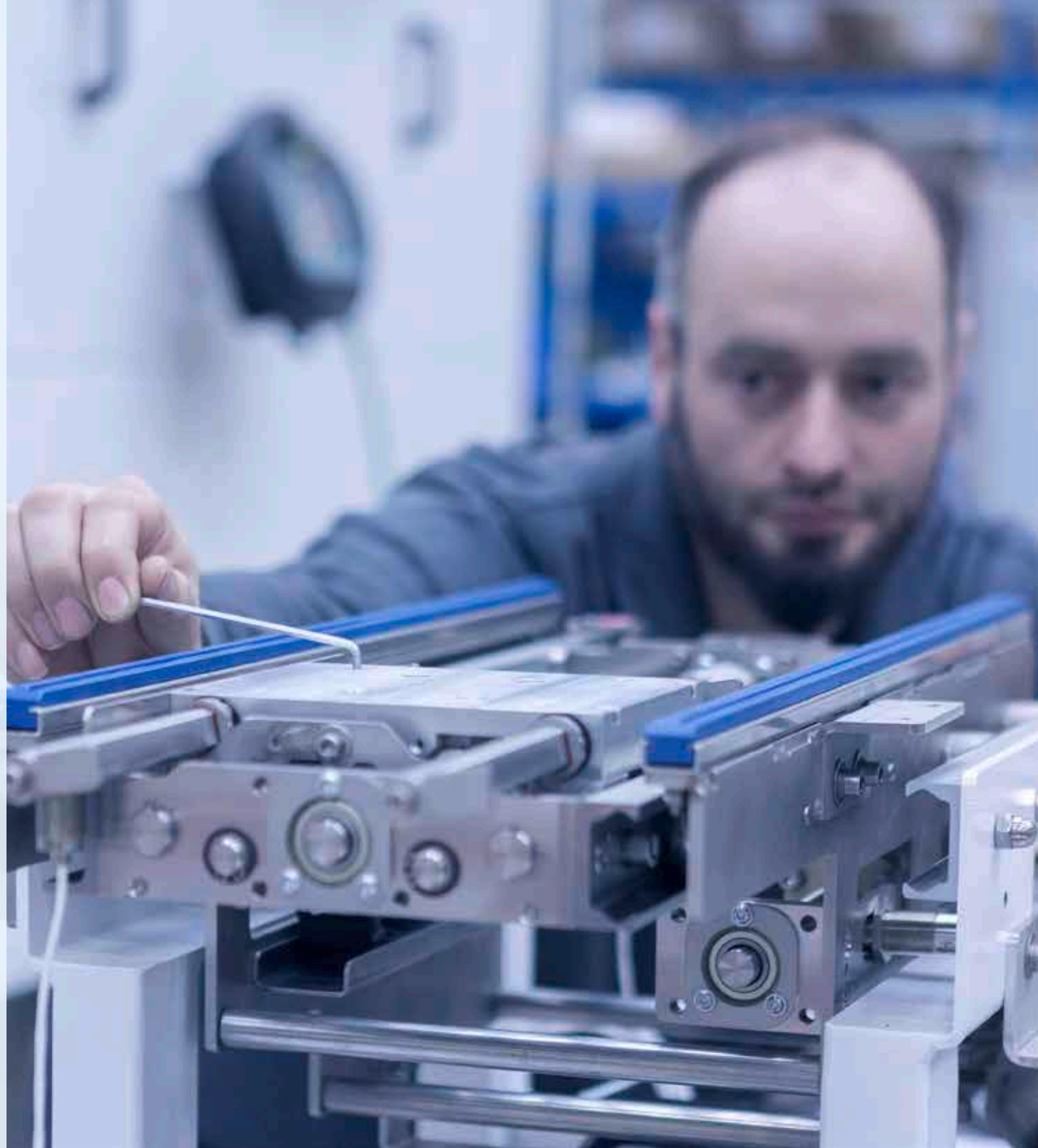
Services

For example, you may call it service, after-sales or customer service – we call it self-evident!

We are here for you if you have questions about our foam sealing systems or if there is an occasional problem: by email or telephone, remote maintenance and of course on site.

Our comprehensive range of services covers the entire life cycle of your production plant, from commissioning and production start-up, through maintenance and spare parts service to conversion and modernization.

And of course we also have an individual training offer for you.





Installation and commissioning



Production support



Servicing and maintenance



Spare parts service



Emergency service



Exchange units



Conversion and modernisation



Training offers



Rented and used plants

Genuine added value for you ...

...and not just sealing materials or mechanical engineering!

Anyone who wishes to generate real added value for their customers has to think in interdisciplinary terms, be flexible and have the appropriate experience: **And CeraCon fits the bill exactly!**

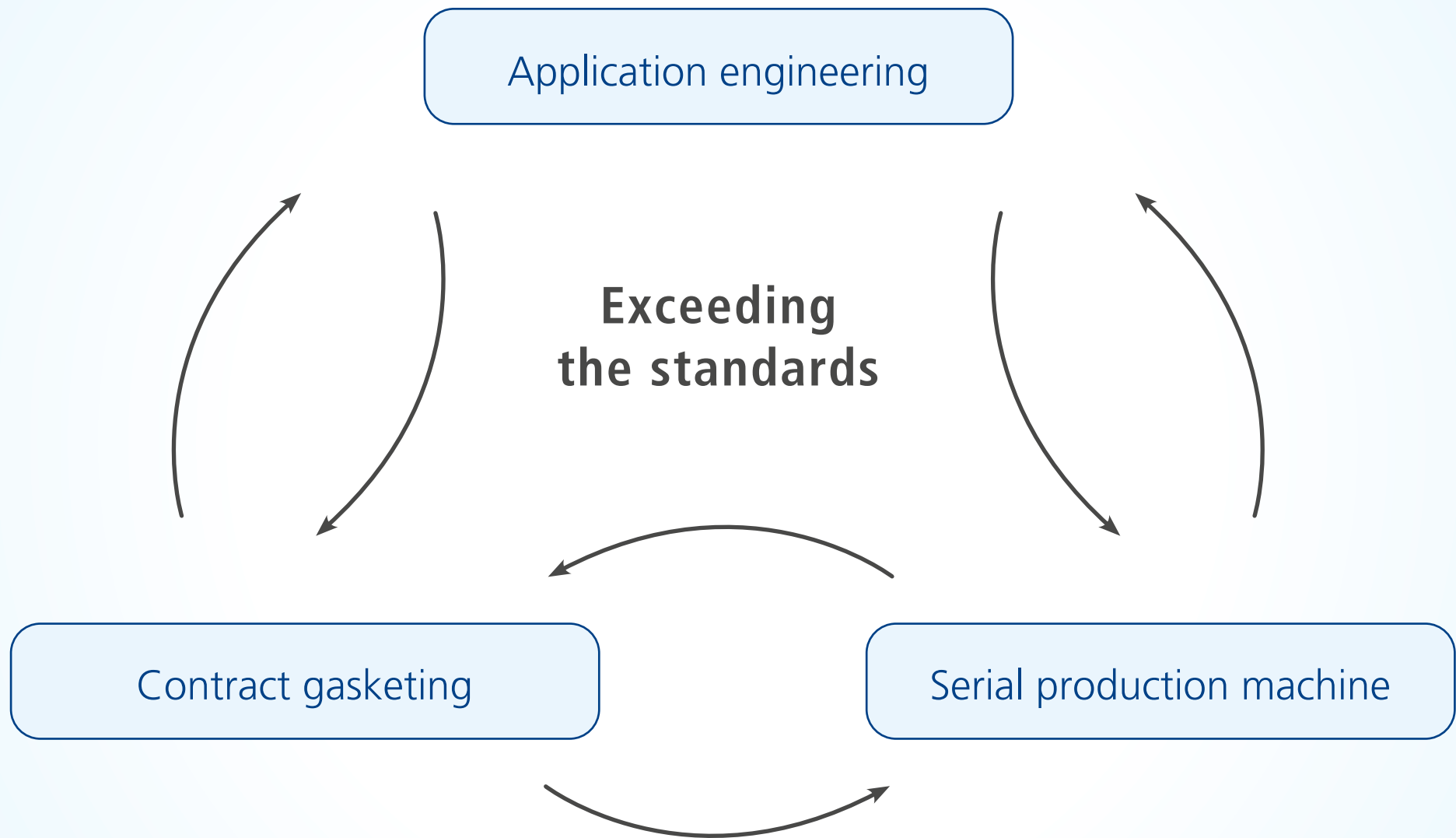
When it comes to engineering and automation, we are not just anyone. We design our machines for you not only with the knowledge and skills of an experienced mechanical engineer, but above all from *your* perspective: the experienced serial manufacturer.

This is possible because we at CeraCon have been serial manufacturers ourselves for 15 years now: we work on three shifts at our contract gasketing plant in Germany, with the result that the valuable practical experience that

we acquire every day is directly incorporated into our design work. This consistently increases our skills advantage select in this field.

Whether you then decide to invest in a production machine or opt for our contract gasketing service – you always benefit from the knowledge that has previously been acquired! This also applies, of course, if you subsequently decide in favour of a further step, e.g. having small quantities foamed initially before investing subsequently in your own machine.

Or if you change over from the production machine that you operate yourself to our contract gasketing service after your serial production has come to an end in order to fulfil your obligation to supply spare parts to your customers.



What you can expect: advantages and benefits

Sealing materials	Foam technology	Automation
<p>Very simple foaming process due to the single-component method without sources of disruption</p> <p>Fulfils very high tightness requirements as a result of the fine and predominantly closed-cell foam structure</p> <p>Immediate availability of foamed components due to the very fast and uniform curing process under heat</p>	<p>Can be used all over the world because of the reliable, mechanical foaming process without chemical reactions and independently of the surroundings</p> <p>Flexible for different sealing tasks, as the softness of the foam is continuously adjustable</p> <p>High system availability due to short start-up times and low maintenance</p>	<p>Quick installation and integration into your production process, as we have long-standing expertise in the field of engineering and automation</p> <p>High service-friendliness due to the modular design and the use of standardised components</p> <p>Single point of contact for sealing material and machine technology as well as for the integration of additional production processes (pre-treatments, heating processes, further dispensing applications, laser technology etc.)</p>

of our foam sealing technology at a glance

Application engineering

We make you look good and foam prototypes and samples to present to your customers

We make things easy for you by determining all of the necessary parameters for your subsequent production process

We assume responsibility for the component that needs to be sealed, since we are not satisfied by only providing advice on the constructive design

Contract gasketing

No investments

Easy cost control even when the quantities vary

No additional personnel or qualifications required



Automotive/E-mobility sector

Example applications with single-component polyurethane foam sealing technology



Sealing of rear lamps



Sealing of door modules



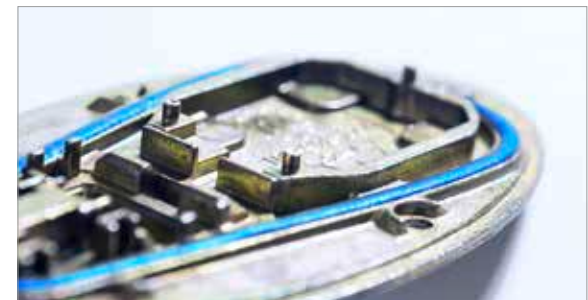
Sealing of locker cases



Sealing and cushioning of B-pillar covers



Cushioning of loudspeaker housings

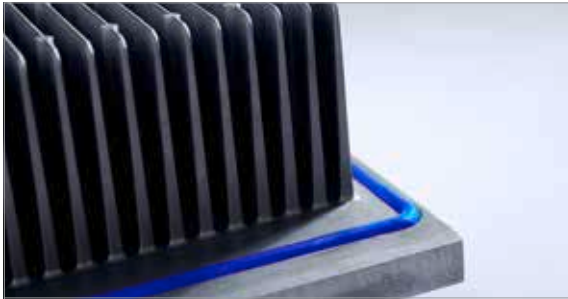


Sealing of bases for roof antennas

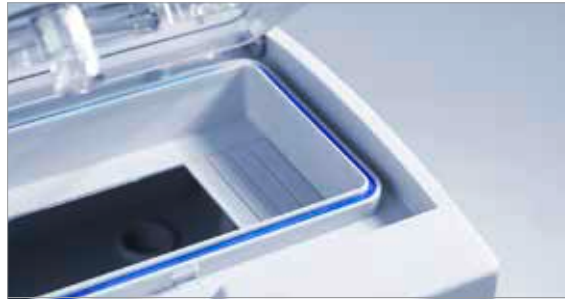


Electrics/Electronics sector

Example applications with single-component polyurethane foam sealing technology



Sealing of heat sinks for robot control systems



Sealing of fuse boxes



Sealing of housings for electronic parts



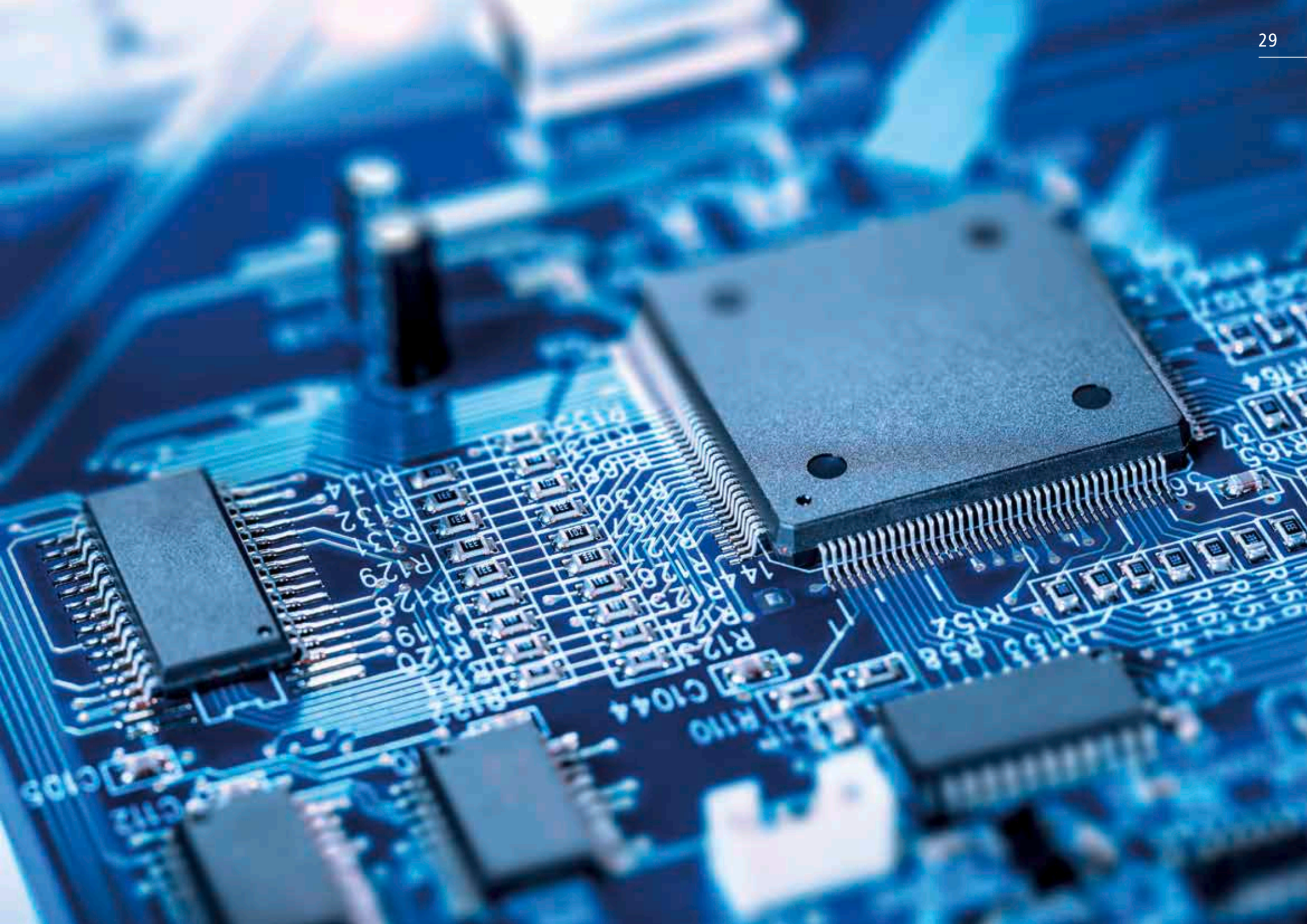
Sealing aluminium die-cast covers for electric motors



Sealing of distributor housings of cable bushings



Sealing of housing parts for traffic lights



Household appliances/White goods sector

Example applications with single-component polyurethane foam sealing technology



Sealing of lint filters for tumble dryers



Sealing of faceplates for dish washers



Sealing of housings of heat pumps for tumble dryers



Sealing of housings for mowing robots



Sealing of covers of transport safety devices for household appliances



Sealing of connecting flanges for washing machines



Miscellaneous sectors

Example applications with single-component polyurethane foam sealing technology



Sealing of wheel housings for travel cases



Sealing of lids for plastics containers



Sealing of screw tops



Sealing of plugs for drives of electric bicycles



Sealing of covers for roller shutter boxes



Sealing of housings for navigation devices for bicycles



CeraCon

Made than you expect

- Bauhof Pösch  
- Warenabgabe  
- Produktion 

Reinhold

These customers already place their trust in our skills

BOSCH

BROSE

CONTINENTAL

EBM-PAPST

GORENJE

HELLA

KIEKERT

MAGNA

MIELE

PHILIPS

SIEMENS

VALEO

Summarized OEM list (automotive sector)

AUDI

BMW

FORD

GM

JLR

MERCEDES-BENZ

VOLKSWAGEN

VOLVO



CeraCon Thermal systems

Automated temperature treatment

Ovens from CeraCon are industrial systems to heat up products and parts to a desired temperature up to 220° C and to cool them down afterwards.

By providing a variety of basic designs, we adapt our thermal systems so that they are ideally suited to your products, process requirements, production environments and investment budgets.



Thermal systems

CeraCon Thermal systems

Automated temperature treatment

From small to oversized, from standardized to custom-made. A selection of our vertical thermal systems can be seen here.



Thermal systems



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Sealing systems



Thermal systems

Subject to
modifications and errors.