

**ALL**  
TECHNOLOGIES  
**ONE**  
PARTNER

R.E.T. – Your specialist in elastomer technology

## 2 component injection moulding technology



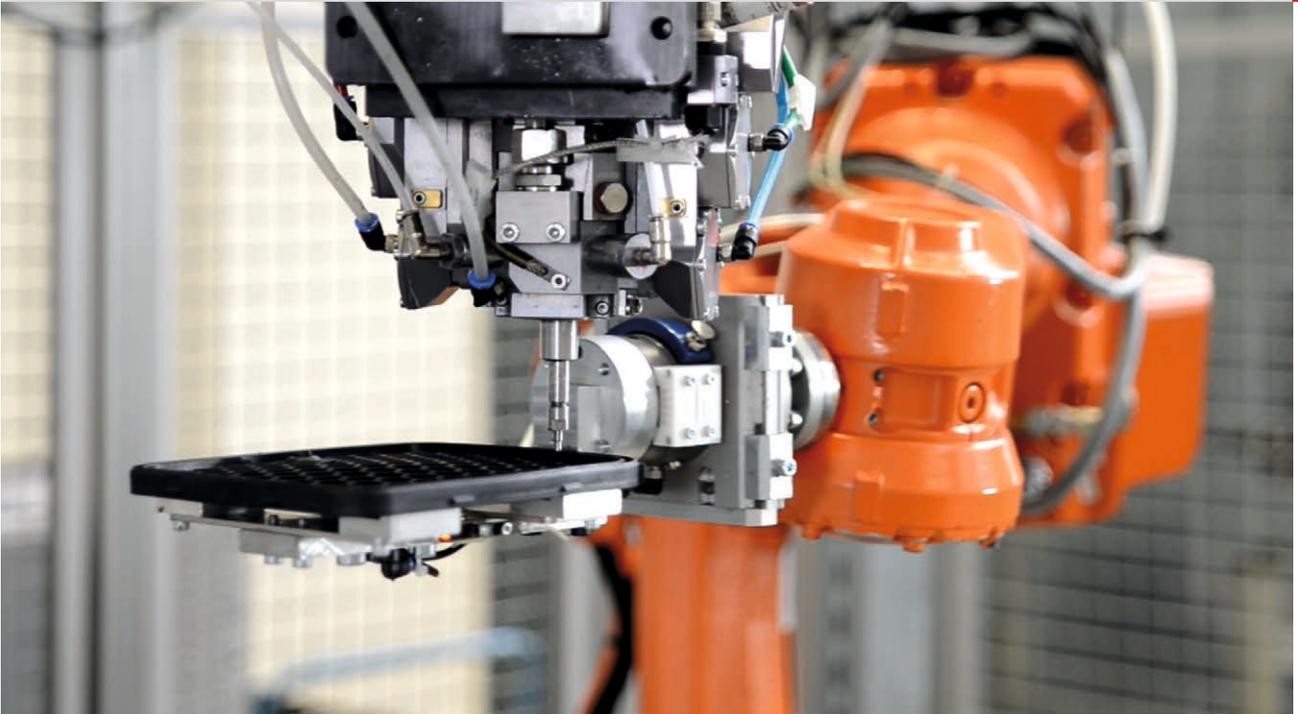
For over ten years now we have been manufacturing parts utilising a two-component process. A **hard component (thermo-plastic)** is merged together with a **soft component (elastomer)** in a continuous process to form a composite part. This type of merging different types of materials together produces an **outstanding adhesive action** without the need to chemically pre-treat thermo-plastic parts – an extremely efficient and economical process. Two-component technology is ideally suited for **high volume part production**. This method is especially efficient when using liquid silicone (LSR).

### **Two-Component Injection Moulding Benefits:**

- excellent elastomer adhesion to plastic parts
- no additional assembly steps
- fast cycle times
- minimal handling
- high degree of automation
- stable manufacturing processes
- inexpensive part prices



## Dosing Technology



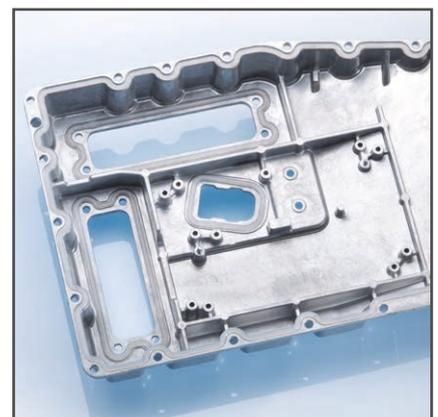
Whether talking about **dosing technology, dispensing technology, free application technology, freely applied seals, automatically dosed liquid seals, foam sealing or form-in-place processes (FIP processes)**, all of these describe the same process: Instead of a conventional insert seal, the sealing material is dosed automatically (R.E.T. prefers 1-C or 2-C silicone) in a liquid or paste state directly onto the component delivering **excellent repeatability precision.**

Applying the seal directly onto the component is carried out using the **latest 2D or 3D dosing systems at high speed and employing state of the art mixing technology.**

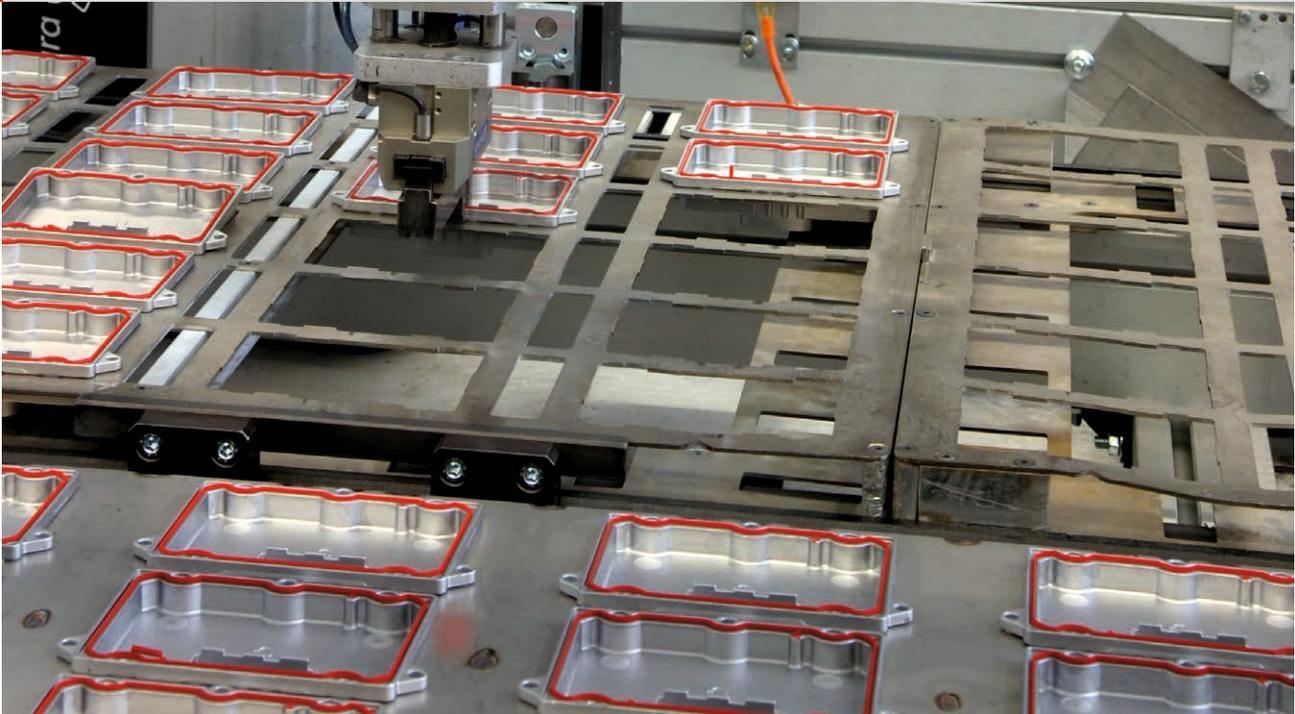
Dispense technology provides an alternative to manually assembled seals, as the seals adhere to the part and **do not come loose.**

### **Dosing Technology Benefits:**

- quick and cost-effective application
- excellent for small to large components
- great for small to large quantities
- seal application at different planes in one clamping process
- excellent adhesion between elastomer and the support part
- high level of process stability and reliability



## Composite Technology



This technology covers the following: **Rubber/plastic composite parts, rubber/metal composite parts, silicone/plastic composite parts** and **silicone/metal composite parts**. Composite parts are made up of a permanent bond between two different components. In general, an elastic material is vulcanised to a fixed substrate part.

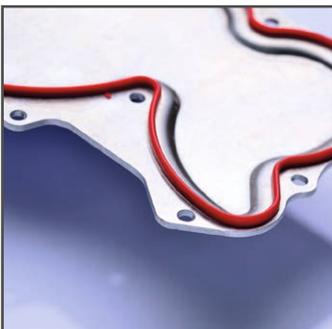
Suitable metal substrate materials include:

- aluminium, zinc, or magnesium high-pressure die cast parts
- aluminium, steel, or stainless steel turned parts
- press/stamped parts
- stamped or curved aluminium sheets, steel and stainless steel and so on.

Suitable plastic substrate materials are:

- PA   ■ PPS   ■ PBT
- PPA   ■ PEEK

The right pre-treatment is essential for a durable and excellent bond.



We have been utilising **all types of suitable pre-treatment processes** in series production for many years. The latest pre-treatment technology has been implemented especially for **series cast parts**.

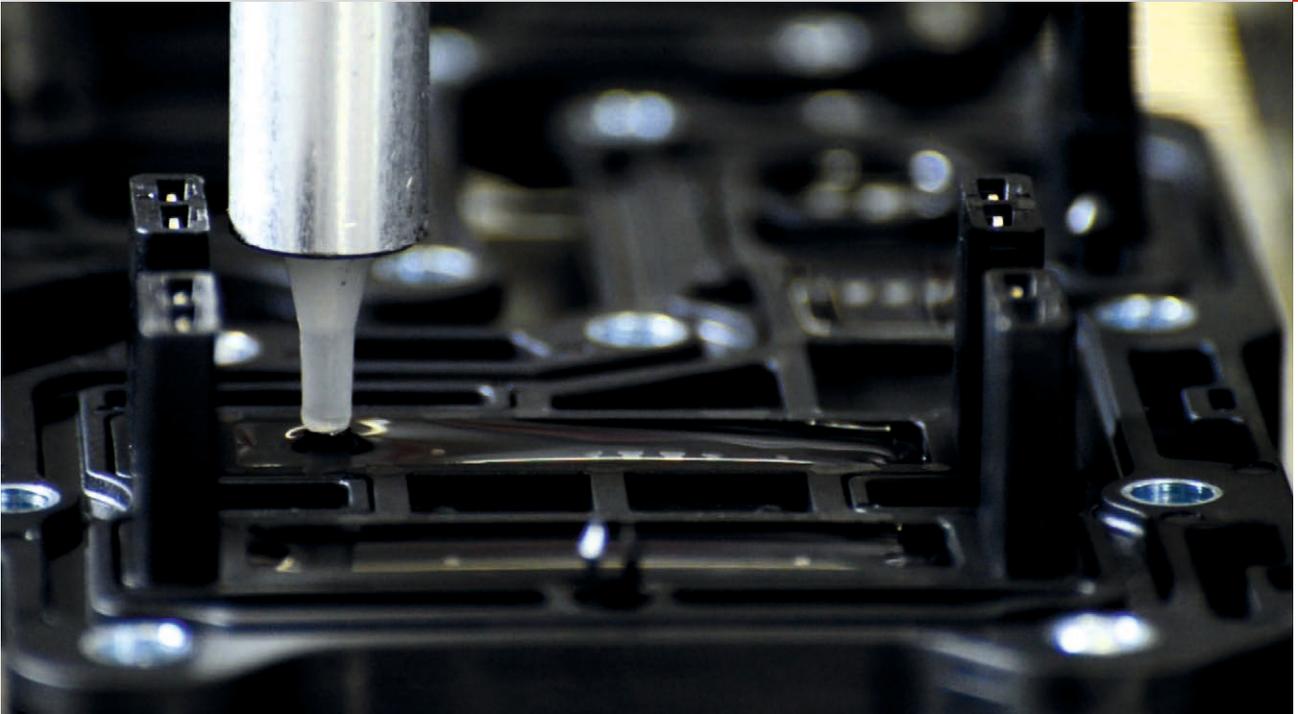
Therefore the most demanding technical requirements can be met for composite parts economically and efficiently.

### **Adhesive Technology Benefits:**

- compact design
- reduces the number of different parts
- minimises assembly effort and/or cost
- safeguards against loss of sealing thus increasing reliability and quality
- increases assembly options for components during and after assembly

Perfectly suited for composite parts used in the **most diverse types of applications** in all fields – whether for vehicle ECU seals, as an absorber/damping element in a vehicle or aircraft or as a shower head for the DIY and construction industry.

## Casting technology



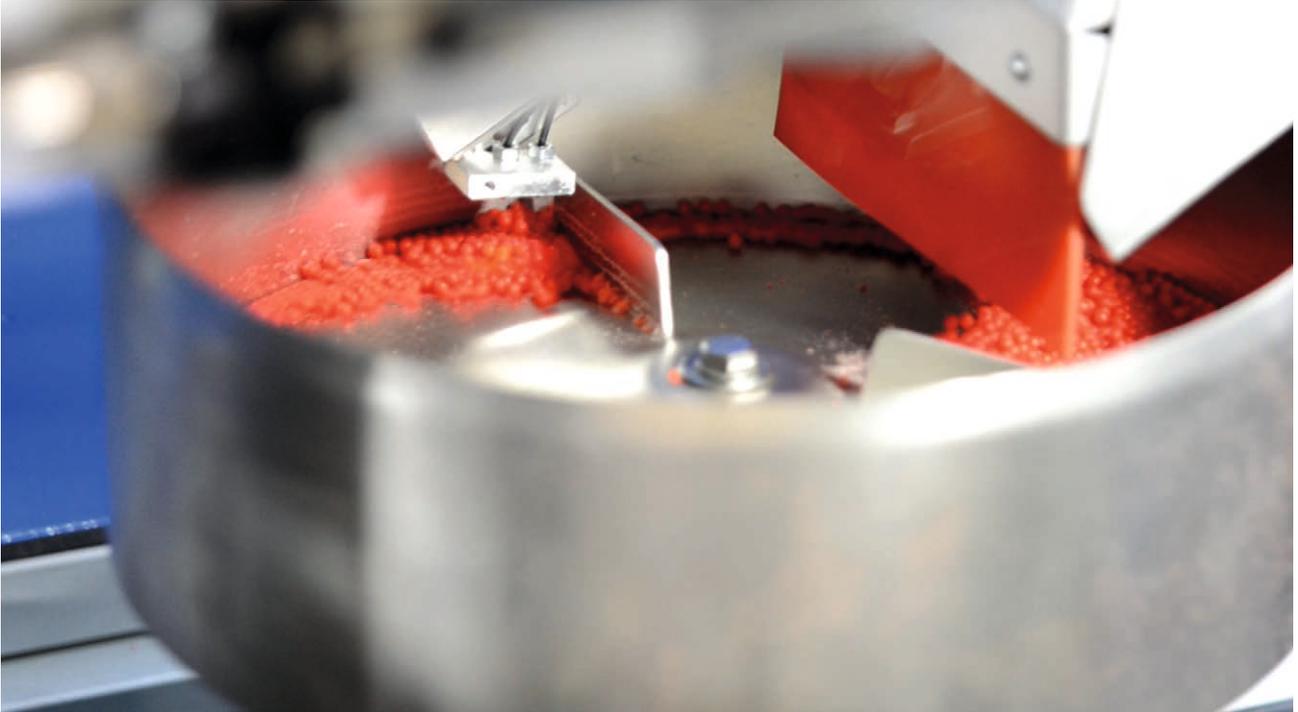
Casting technology or a casting technique enables **precise dosing of high quality casting compound directly around components** such as circuit boards or for housings. This liquid compound is applied directly onto the component and cures inside the housing.

### **Casting Technology Benefits:**

- protection against moisture, dirt and contamination, dust water and corrosion etc.
- attaches cast parts
- electrical insulation
- increases vibration and shock resistance
- offers touch-proof protection (electrical safety)



## Injection Moulding



We produce **moulded parts, damping elements, membranes and seals** from all current elastomers especially liquid silicone (LSR).

### SEALS AND MOULDED PARTS

Special sealing applications require special solutions. We manufacture customised seals, tailor made according to customers' special applications.

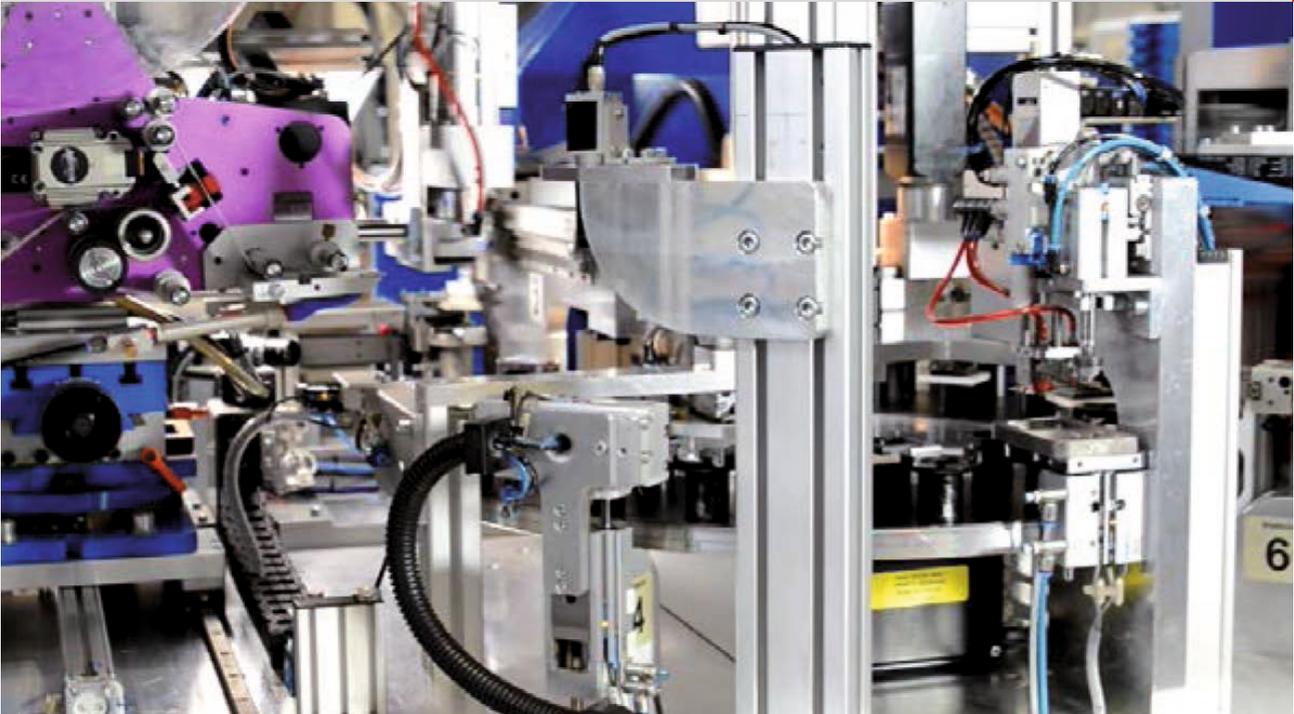
Our **modern injection moulding machines** manufacture components using the latest tooling technology – **waste-free, burr-free** and **requiring no rework**. Moreover, we offer additional services such as thermal treatment, surface coating, as well as 100% checks.



We designate **moulded parts** or **seals** as free-falling parts, which are **automatically manufactured** in middle to large quantities on **horizontal injection moulding machines**. After the tool opens, these parts are automatically demoulded from the cavity either by a brush and or push mechanism or by some other extraction system and then fall free into the provided transport container.

A typical example of this is the automatic production of one million silicone balls on a 128 cavity tool.

## Assembly Units and Assembly Technology



In addition to the core process of elastomer production, R.E.T. also offers upstream and downstream process steps and delivers complete assembly units.

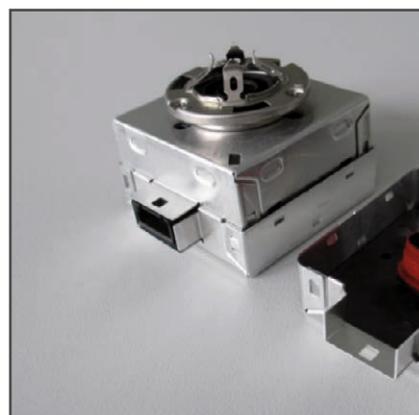
We also offer partial or fully automatic process steps such as:

- assembly
- blanking
- bonding
- imprinting
- screw fastening
- welding
- force fitting
- series production testing – 100% checks

R.E.T. takes over the responsibility of sub-assemblies for component quality within the complete supply chain as well as dealing with and managing all involved suppliers.

### **Delivered Benefits:**

- one contact person for all the components in a sub-assembly
- overall responsibility for the quality of all the components
- a simplified process chain (supply chain)



## R.E.T. – is a company of the REIFF Group

### Really handy: The R.E.T. tech App



Our free-of-charge tech App facilitates all types of conversions: This user-friendly App allows you to easily and quickly convert and retrieve 27 different units of measurement.

The App is available for Apple and Android devices at each respective store.

R.E.T. is a part of the REIFF Group – a group of companies with eight subsidiaries.

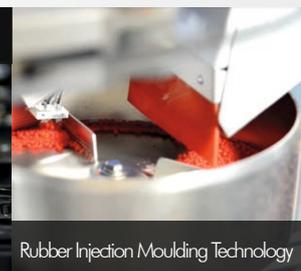
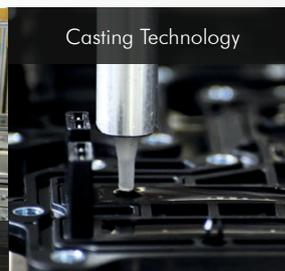
REIFF is a family owned concern with a history spanning over 100 years including 80 locations throughout Germany and Europe.

The companies within the REIFF Group operate independently and thus are very close to their respective markets.

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## Product & Process perfectly aligned together

Our nearly 50 years of experience handling everything that involves elastomers has made us into true professionals. Your benefit: We assess and evaluate **all reusable/recyclable materials** and **technologies** within the scope of your task as well as maximum cost effectiveness and quality.

You benefit from **process neutral consultation** and **professional engineering**. We supply elastomer moulded parts, elastomer composite parts and application technologies for complete housings and assembled sub-assemblies all from one source.

Depending on your requirements, we produce **middle to large scale series volumes**. The quality of our parts takes top priority, our processes are continuously optimised towards achieving **zero-defect**. We carry out 100 % inspection and validation.



## DIVERSE MIX OF INDUSTRIES

Customers from numerous sectors and market segments trust and rely on our experience and know how.

- automotive
- commercial vehicles
- machine engineering
- industrial systems
- food products
- medical technology

## CONSULTING EXPERTISE

The first step in any successful collaboration is an **individual consultation** regarding projects, products and approaches. This also includes professional **product design and engineering**.

Our engineers devise innovative solutions.

## PROFESSIONALISM

At our Reutlingen location, around **120 employees** manage your project. Our **modern production sites** are equipped with the **latest machines** geared to **modern production processes** and **methods**.

**Profit from our expertise today!**