

PART PRODUCTION

ELMET [®]
SMART SILICONE SOLUTIONS



ELMET PART PRODUCTION





SMART SILICONE SOLUTIONS

As an internationally active, high-end system & service supplier specializing in dosing and processing liquid silicone, ELMET ranks among the absolute experts in this field. The Upper Austrian company has utilized this specific experience to become a global player in the production of high-quality silicone and multi-component moldings. The company has been finding the best and most individual solutions for its customers for more than 25 years – be it part production or the design and production of complex systems.

SMART RESPONSIBILITY

Production on machines and systems from ELMET conserves resources, saves material, results in minimum flash and is waste-free. This is ensured by efficient molding technologies with reduced sprue, patented dosing technologies, and the very latest energy-efficient curing ovens. A benefit for customers and the environment. However, environmental management begins much earlier at ELMET. High quality standards combined with sustainability optimize the ecological footprint of all products as early as the production stage. The company's own photovoltaic systems supply electricity for production, offices, and the ELMET-E car fleet. Closed process water cycles and a sophisticated heat extraction system ensure that no energy is lost.

TECHNOLOGY

TECHNOLOGY AS THE BASIS FOR SMART SUCCESS

Year after year, billions of parts pass through the individual production processes at the ELMET plant in Oftringen. ELMET acts as a co-product developer, prototyper, and ISO-certified large-series manufacturer. The basis for this is provided by state-of-the-art (multi-component) injection molding machines equipped with ELMET dosing technology. In combination with fully integrated robot solutions, versatile demolding systems tailored to customer requirements, and automation cells for quality inspection and fully automatic packaging, ELMET fulfills its customers' wishes in the widest variety of industrial sectors, often exceeding the diverse demands. The team continuously extends the limits of feasibility for this purpose, creating truly smart solutions for ELMET and its customers.





ELMET TECHNOLOGY

Specific expertise is not built overnight. The ELMET specialists have therefore been working on optimizing technological solutions for some three decades now. In this way, the company has gradually established the core of its success and benefited in the sphere of part production from perfectly coordinated mold/dosing technology combinations developed in-house.

YOUR BENEFITS:

- Mold management with master mold concepts for the most individual solutions
- Mold inserts from 1 to 256 times
- Patented cold runner technology
- Servicing and maintenance as a preventive service in the company's Moldmaking department
- Automation technology with specific solutions and modules:
 - Slitting station
 - Pressure testing
 - Leak testing
 - Measuring and weighing technology
 - QR code laser inscription & scanners
- 3D scan measurement

THE BUILDING BLOCKS OF ELMET'S SUCCESS

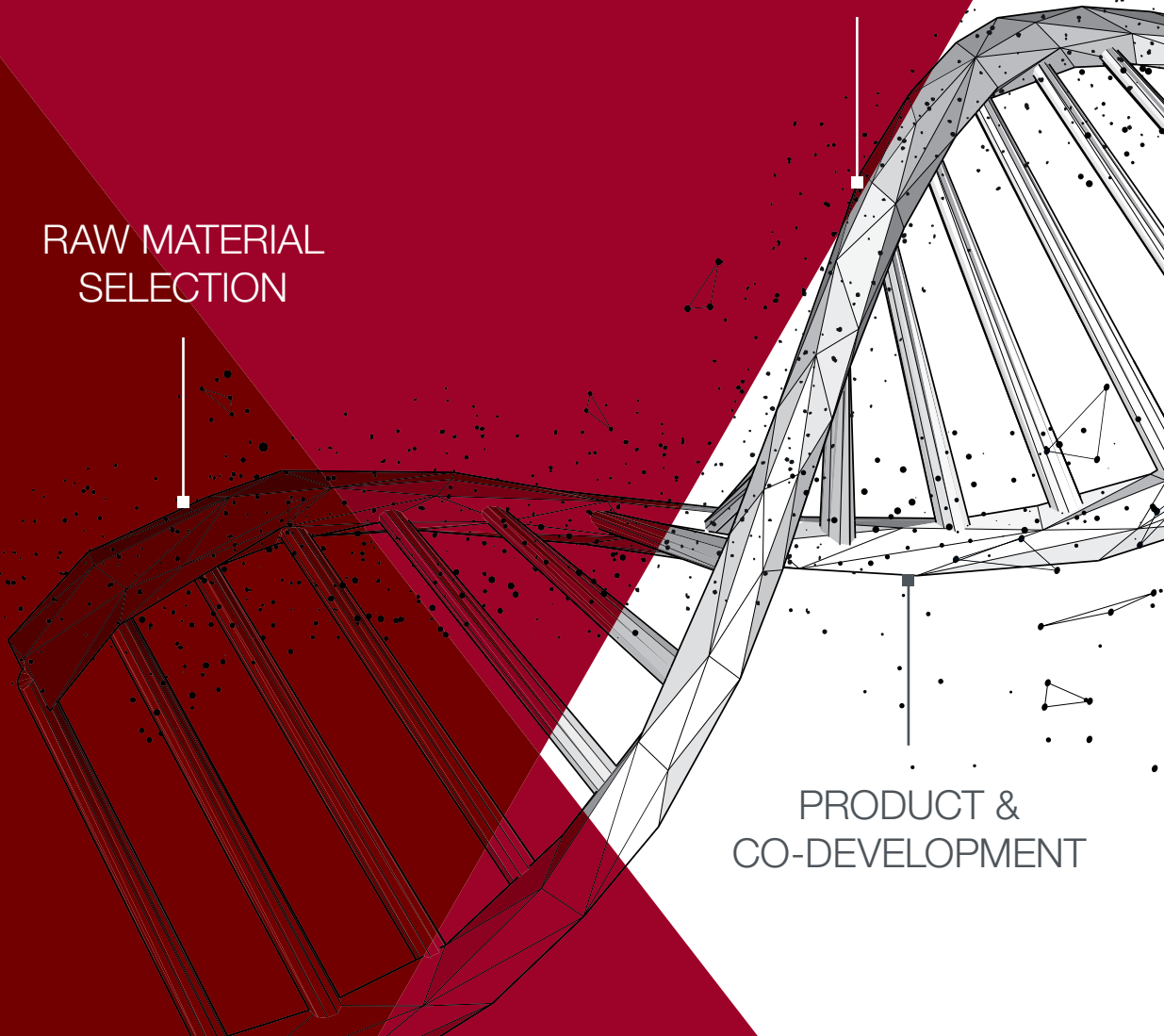
DNA is the genetic information of living organisms. ELMET acts as a living company that is continuously evolving for its partners. But the structure of ELMET DNA is no accident. It is the result of evolution and experience. ELMET uses this know-how with a passion for the success of its customers. ELMET designs, builds, and optimizes all molds, components, and solutions at its Austrian site in Offering.

ELMET DNA

RAW MATERIAL
SELECTION

PROTOTYPING

PRODUCT &
CO-DEVELOPMENT



SERIES
PRODUCTION



COLD RUNNER
SYSTEMS
LSR MOLDS

CUSTOMIZED
AUTOMATION AND
PACKAGING
SOLUTIONS

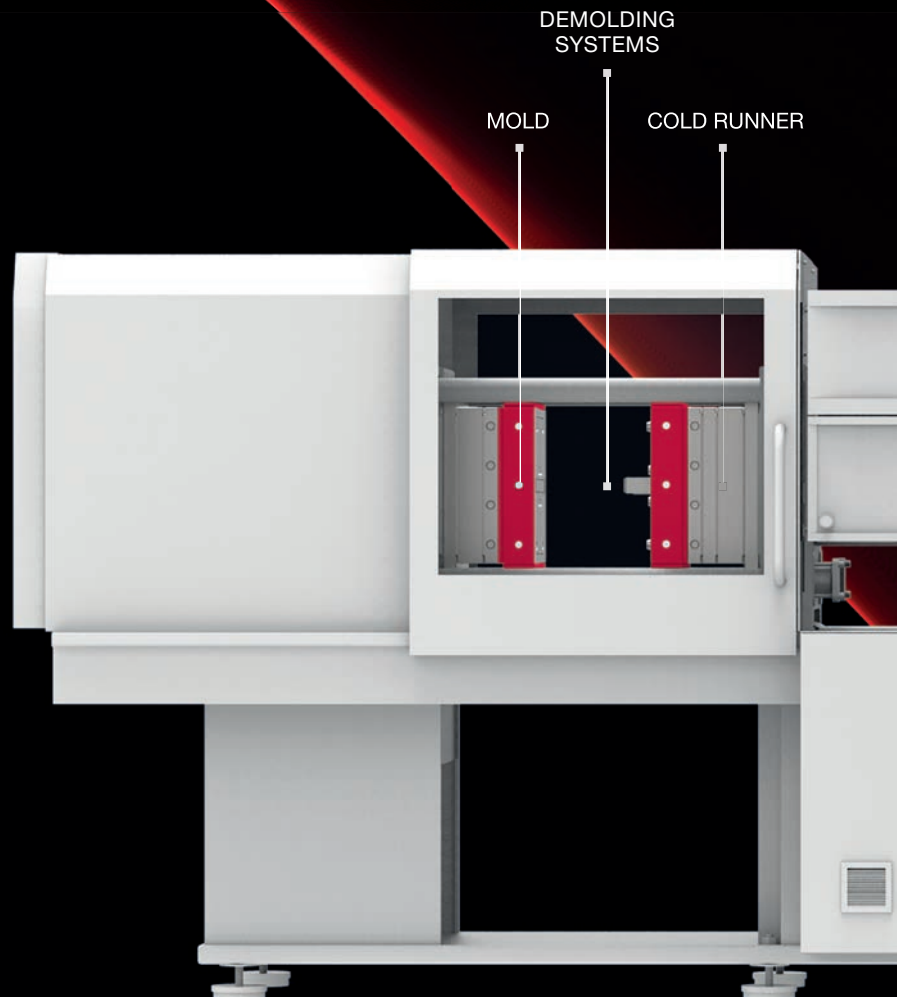
QUALITY &
PROJECT
MANAGEMENT

LIM &
DOSING
SYSTEMS

EXPERIENCE

ELMET FINDS THE PERFECT SOLUTIONS

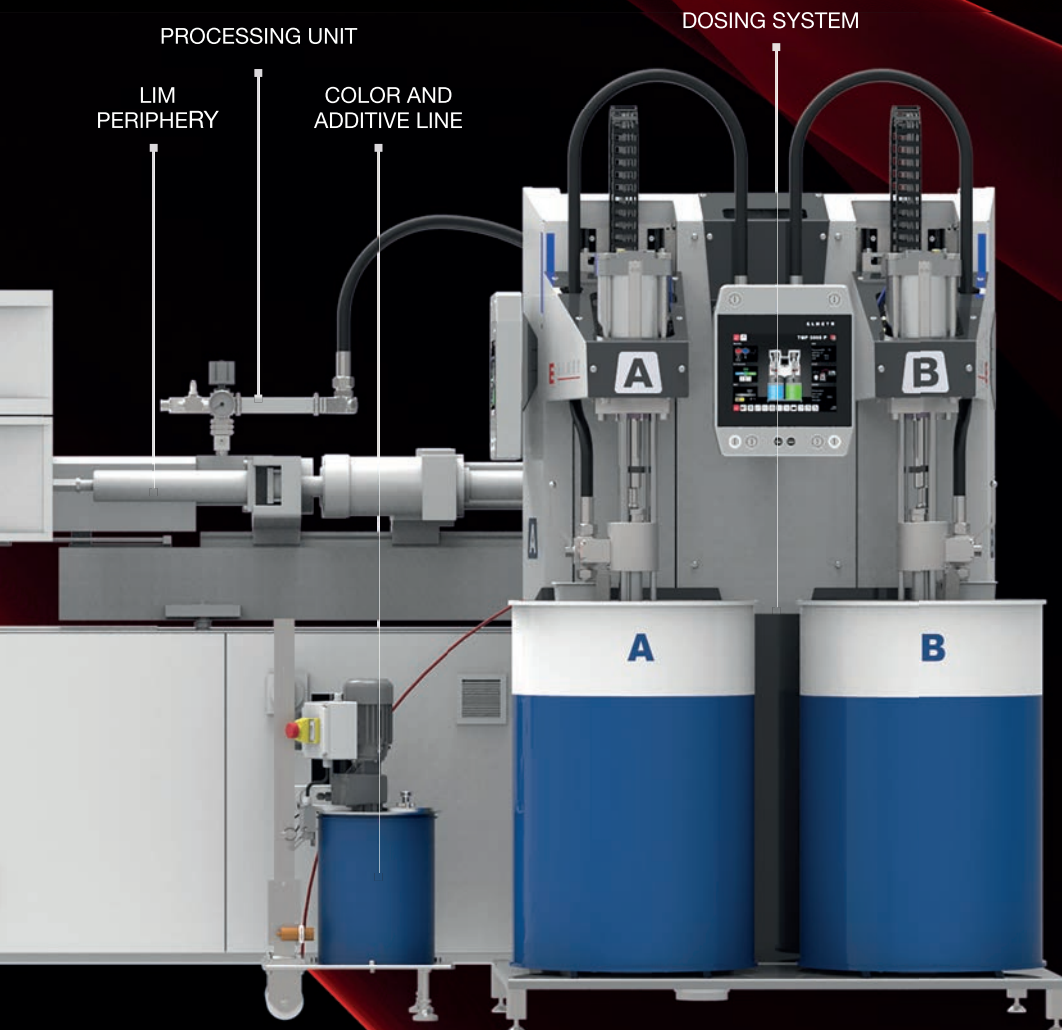
Finding the ideal material is the basis for all other steps in component production. Selection of the optimal materials alone is a complex procedure. The choice includes liquid silicone rubber (LSR), high-temperature vulcanized (HTV) silicone, silicone/silicone (2K), silicone/thermoplastic (2K), multiple components/silicone (3K), silicone/metal, silicone/electronics, and silicone/glass. On this basis, the team cooperates closely with the customer in developing the product and all the processes. Continuous process simulations check the progress and indicate potential weak points in a virtual environment. Only after this extensive digital verification process has been completed successfully does the ELMET team create a prototype based on requirements as an A, B, or C-sample.



SMART SUCCESS MANAGEMENT



With the ideal prototypes in the portfolio, the production process can begin on site. As a comprehensive systems supplier of elastomer production cells, ELMET guarantees particularly high security of supply and independence. All solutions are planned, produced, and processed in-house. A state-of-the-art production environment has been available since 2022. Here, the expertise accumulated over decades is continuously enhanced. And customers benefit from this, because ELMET is a byword for commitment to cooperation in the most complex of challenges and projects. Active quality management and innovative packaging solutions round off the smart success of the company's in-house production and ensure this success for the long term – as with all the molds, dosing technology, parts, and assemblies from a single source that leave the ELMET plant year after year.



SUSTAINED QUALITY MANAGEMENT

Quality management at ELMET is an essential part of the partnership with customers. Only highest quality standards ensure long-term success. The focus is on the following aspects here:

- Fulfillment of all relevant requirements from customers and legal regulations
- Efficient use of machine, material, and environmental resources
- Implementation of optimum safety standards for people in production
- Continuous sharpening of the safety ambitions in the company
- Continuous accumulation of knowledge and specific expertise
- New measuring equipment and inspection cells
- Maintenance of cooperative relationships in the business environment
- Continuous improvement of products and processes

Conscious action generates quality and ensures the economic success of ELMET and its partners. This consciousness has been certified many times at ELMET.



Utmost importance is attached to quality management in the team.



ISO 9001:2015

Trust is good – control is better! With this guiding principle, ELMET guarantees and documents compliance with the defined customer conditions and internal quality requirements in all production stages. The very latest measurement technologies and a comprehensive data processing system ensure highest quality standards. As a globally active company, working at the highest quality level and offering customers only top quality are particularly important to ELMET. Certification according to ISO 9001:2015 is a matter of course.

With the certificates, ELMET stands for transparency and quality in LSR processing and dosing from Austria!

IATF 16949:2016

ELMET acts as a partner in many different industrial sectors, whereby the focus lies in the automotive industry. For this reason, certification according to the strict standards of IATF 16949:2016 has been performed in addition to ISO 9001:2015.

SMART SILICONE SOLUTIONS



THE POTENTIAL APPLICATIONS OF SILICONE ARE PRACTICALLY INFINITE THANKS TO THE PROPERTIES OF THE MATERIAL.

Every year, several billion parts for everyday products are produced on ELMET systems. Silicone has an unmistakable property profile. Hardly any other material combines so many positive attributes.

- Outstanding low-temperature flexibility and high-temperature resistance
- Excellent compression set
- High resistance to chemicals and environmental influences
- Water-repellent surface
- High transparency that can be colored with pigments as desired
- Good flame resistance, non-toxic combustion products in the event of fire
- Formulations from electrically insulating to semi-conductive
- Good radiation resistance
- Biocompatible
- Allergen-free
- Abrasion resistant
- Excellent elasticity and impact resistance
- Neutral taste and odor



MOBILITY

e.g. mat seals • single-core seals • radial seals • components of the charging infrastructure for electromobility • axial seals • o-rings • damping pads • bellows • highly transparent components and optical lenses

HEALTH CARE

e.g. membranes • hoses • baby and bottle teats • breastfeeding aids • drinking cups • respiratory masks • respiration accessories • flow-through valves • syringe plungers • check valves • needle-free valves • micro applications • protective masks • damping elements • cosmetic accessories (scrubbers, brushes, scrapers, etc.) • dental equipment

INDUSTRY & ELECTRONICS

e.g. valves and pressure membranes • sealing elements for electronic parts • high-frequency technology • vibration and oscillation dampers • parts for consumer electronics (buttons, acoustic parts, housing elements)

HOUSEHOLD & FOOD

e.g. shower heads & sealing accessories • components for hinge systems • dosing membranes for foods and liquids • baking forms • baking utensils (cooking spoons, dough spatulas) • seals for kitchen appliances • control elements



PROJECT MANAGEMENT

IN THE FIELD OF
PROJECT MANAGEMENT
ELMET IS A TECHNICAL
DEVELOPER AND A
RELIABLE PARTNER.



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WELL-MAINTAINED PARTNERSHIPS IN SMART STRUCTURES

ELMET project management is characterized by seamless controlling and direct communication with partners and the team. Clear contacts are assigned to each area to be easily and unbureaucratically available to customers. Implementation of specifications is based in practice on the involvement of partners during the quotation phase and on parallel checking of the requirements profile. Only in this way can customer requirements be implemented precisely. Experienced ELMET project managers act as central contacts, forming an excellent interface – from the planning phase through to project implementation. As a full system & service supplier, ELMET operates using clearly defined interfaces with all of its business partners.



ELMET INSPIRES WITH
SMART SILICONE SOLUTIONS.

www.elmet.com

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