



Pioneering innovations.
Hettich Business Unit AEW



Automotive, Electronics, Window & Door Hardware

AEW

An idea evolves into a product

We can supply whatever you need – from a simple component to a functional module, from a metal part overmoulded with plastic to a highly-complex functional group. Our process chains are tailored to your requirements and product specifications.

With its specialist expertise in engineering, development and mass production, Hettich supplies components, assemblies and modules for leading companies in major industry sectors.

In its demanding and highly competitive markets, Hettich has a reputation as a flexible, high-calibre and creative partner. AEW, serving the automotive, electronics and window & door hardware industry segments, is a business unit of the Hettich Group. Hettich has production facilities in Germany, the Czech Republic and Spain.

1

Consulting

We're big enough to do the job, but small enough to work on a personal basis. We set store by personal contact in consulting and service. Our engineers, development specialists and sales men will translate your product requirements into complete solutions. They have the breadth of experience to take account of all production factors, from economic analyses to logistics.

2

Development

Our yardstick for success is zero-defect products and end-to-end project support. The zero-defect approach starts with concept and consulting, covers design and development and includes all production and logistics steps. Customers use Hettich as an extended workbench in developing mechanical components and assemblies.

3

Prototyping

We use rapid prototyping processes to supply you with models and functional prototypes of components and assemblies. We're experts in NC milling, stereo lithography, sheet metal processing and vacuum casting.

4

Tooling

An experienced team of 50 employees monitors the entire process chain of tool making across an area of 620 m². The project responsibility starts with the data transfer and continues with giving support in the field of article development /-optimization, tool design, tool making, sampling, surveying and testing components and complex devices during serial production. Our tooling portfolio consists of high-quality tools for injection

moulding with integrated hot channel technology and tools for zamac and magnesium diecasting. Through maintenance and tool repair we do ensure the sustainability of our tools throughout the article lifetime.

Tool Design / New Tools

Supporting our customers right from the beginning of the article design phase, helps us optimizing production processes and cutting down tool costs. Modern machinery and an interdisciplinary cooperation of our design, tool and production department put us in a position to react rapidly and flexibly to the needs of the market and its high-quality requirements. Our inventive talent and open mind regarding new technologies and permanently increasing quality requirements motivate our specialist to give their best and to improve our processes further.

Tool Repair

Safety in use of the tools is ensured through servicing, maintenance and repair throughout the article life cycle. An experienced team guarantees tool repair and tool maintenance on 7days during 24h.

5

Quality assurance:

Quality management systems certified to TS16949, environmental

6

Series production:

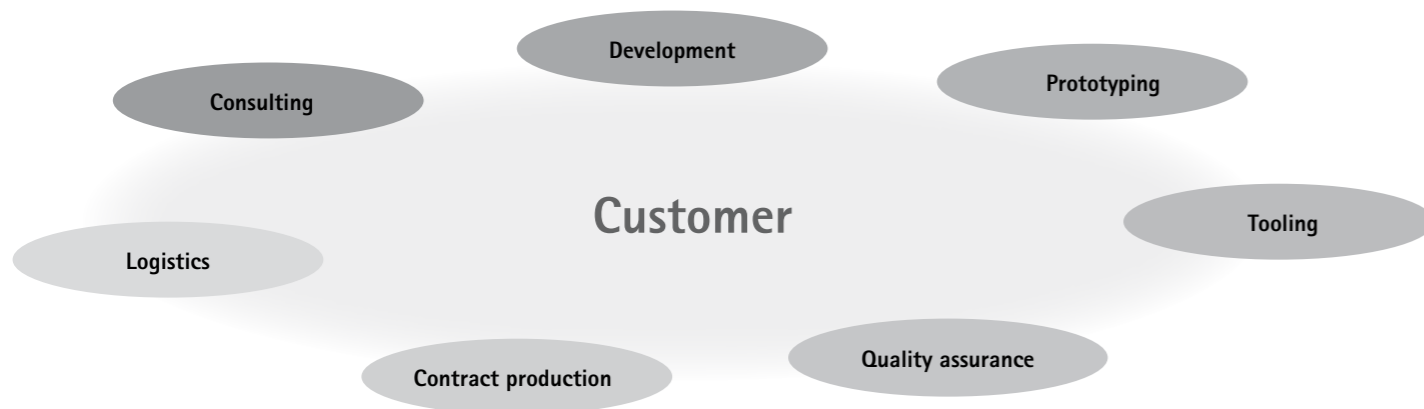
We're quick to exploit advances in technology and processes in order to shorten lead times in contract manufacturing. With the focus on our zero-defect goal, production processes are planned so that workpieces need not be repositioned between successive process steps.

7

Logistics

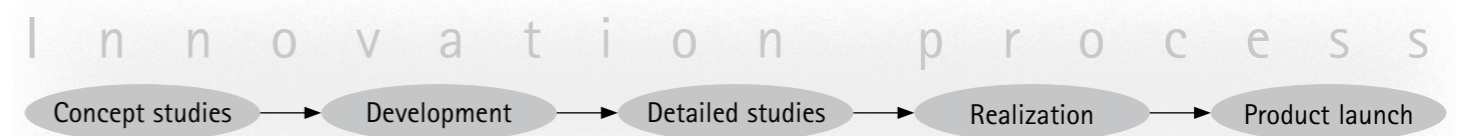
Hettich can rely on the infrastructure of an international group of companies with excellent communications and transport networks. Fundamental to the strong supply chain is a transparent logistics network and professional local sourcing and purchasing. Our employees in the dispatch and warehouse are operating for our customers in 2-shifts. If required we can enlarge our capacities to 3-shifts. The status AEO (Authorized Economic Operator) will become initiated this year. We can store and supply all kinds of palettes and packaging material.

More than a product. You supply the systems. We deliver the components.



We do provide the following services:

- Project management and coordination with internal and external partners
- Design concepts for different applications
- Rapid initial 3D CAD concepts and 2D drawings
- Packaging and component collision tests
- Revising design studies and defining optimized tool concepts
- Finding detailed solutions for clipping systems, locking and sliding mechanisms
- FEM calculations for optimized component design
- Rapid Prototyping
- Defining tolerances in terms of material and component design
- Consulting in terms of material selection



Technology

Zinc/magnesium diecasting

We produce diecasted modules and components made of zamac and magnesium. Our customer service starts with concept and consulting, covers design, development and project management and includes all production steps from initial sampling to serial production.

High-precision parts are produced inside production cells where they are removed by robotic systems. Additional final treatments such as stamping, grinding blasting are implemented in the fully automated production process.

We use special treatments such as insert and overmoulding technology and automated assembly. According to customer requirements the parts are galvanized, passivated or coated.

Our highly motivated and experienced employees in our diecasting shop produce highly precisioned products using state-of-the-art production systems and high quality tools. Our output amounts to more than 3 million shots.



Injection moulding plastics



On 80 diecasting machines with clamp forces ranging from 70 to 4.500kN we produce 60 million high-precision diecasting parts per month during 7 days per week. Our injection moulding shop processes all popular plastic granulates such as PA and POM and also high-quality resins. The consumption amounts to 3,000 tons granules/year.

On 20 fully-automatic product lines we assemble complex modules such as damping systems for drawers and "Technik für Möbel" (Technology for furniture). For the automotive industry we do produce locking systems for glove box departments and window lifters.

Besides conventional production methods we also use special manufacturing processes such as assembly injection, 2 component moulding and automated insert moulding.

Our yardstick for success which enables us to maintain long-term customer relationships is our zero-defect product strategy put into practice by using mould cavity pressure management.



Assembly

Developing and building our own assembly robots is just one of the factors that make us a leading systems supplier of complex mechanical or electrical modules. Our customers can opt for manual, semi-automatic or fully-automatic assembly. We also offer camera-aided quality control, fully-automatic function testing and integrated packaging options.



Products

Hinge bracket for arm rest



Lightweight structural component in the central console. Diecast magnesium. Perfect hinge function thanks to an innovative tooling concept and precision production, which guarantee tight tolerances especially for the bearing points.

Tailgate drive for cars and SUVs



A new drive unit allows tailgates on cars and SUVs to be operated automatically. The complete drive unit is enclosed in a housing closed with a cover. These components are made of diecast magnesium. Their design takes account of the extremely high stresses on the components and the limited space available. Manufacturing the bearing seats to tight tolerances ensures wear-free operation and a long service life.

Winder bolts for window lift systems



Winder bolts are standard elements in window lift systems and are produced in large numbers. Manufacturing them from zinc alloys in a hot chamber diecasting process satisfies the requirements for good mechanical characteristics, high precision and competitive costs.

Glove box lock



The release mechanism and the integrated locking mechanism are linked via a torsion rod in this technically challenging functional group. Using high-quality engineered plastic and diecast metal components ensures that the glove box will remain securely shut, even in extreme situations, eg, when an airbag inflates.

Displays made of magnesium



Driven by our target to reduce CO2 pollution and weight, housings and display units made of magnesium represent an area of our special expertise. Our hot chamber diecasting technology enables us to produce lightweight and thermally conductive components with tight tolerances and an optimized electromagnetic protection. The use of pure alloy AZ91HP guarantees a high level of quality and offers the best characteristics in terms of protecting against corrosion.

Instrument panel made of magnesium



Lightweight instrument panel designed as 3-part module consisting of panels for driver, center and passenger side. The parts are stamped, pre-assembled, shot blasted and trimmed.

Functional parts made of zamac



High-quality engineered diecast metal components designed for platform concepts used in the automotive industry.

Locking mechanism for arm rest



Locking mechanism for arm rest ECE version and alternative locking mechanism with implemented ball bearing sensor for the US market.

Actuator for electric window lifting system



Fully-automatic assembly process of components for electric window lifters.

Products

Slider and hinge for arm rests inside the middle console



Components designed for the furniture industry become also applied in the automotive industry. E.g. horizontal and vertical adjustment of the center arm rest.

Car antenna (coated)



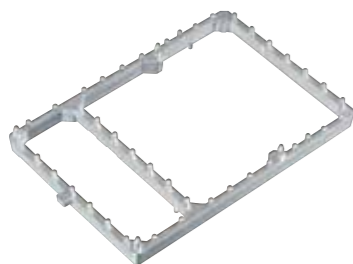
We supply the substrate (diecast zinc chassis with Cr-VI-free surface protection and plastic overmoulding) and the cover (plastic painted to match bodywork colour), and handle the logistics.

Frame/front panel



Front frame for electronic measurement and control devices. We use a highly automated production process sequence: cast, coat, glue in display window, insert rubber seal, clip on cover flap, assemble frame and front panel.

Frame for electronic components



Carrier frame for electronic parts for use with mobile phones. We cast thin-walled articles (wall thicknesses down to 0.8 mm) on our high-precision, microprocessor-controlled systems. Important here was maintaining the tight casting tolerances for the soldering pins. Automated quality control is integrated in the production process.

Mobile data capture



Powder-coated magnesium housing for mobile data capture device. Impact resistance, water and dust tightness to withstand harsh environments were overriding considerations throughout design and production. Our processes: cast, powder coat, glue in Bluetooth antenna, integrate W-LAN display window and fibre optic light guide and seal join

Corner transmission for tilt and turn windows



The diecast zinc, injection moulded plastic and steel components are manufactured in house. Supplied fully assembled and ready to install.

Corner pivot rest for tilt and turn windows



Heavy-duty diecast zinc component.

Sliding restrictor



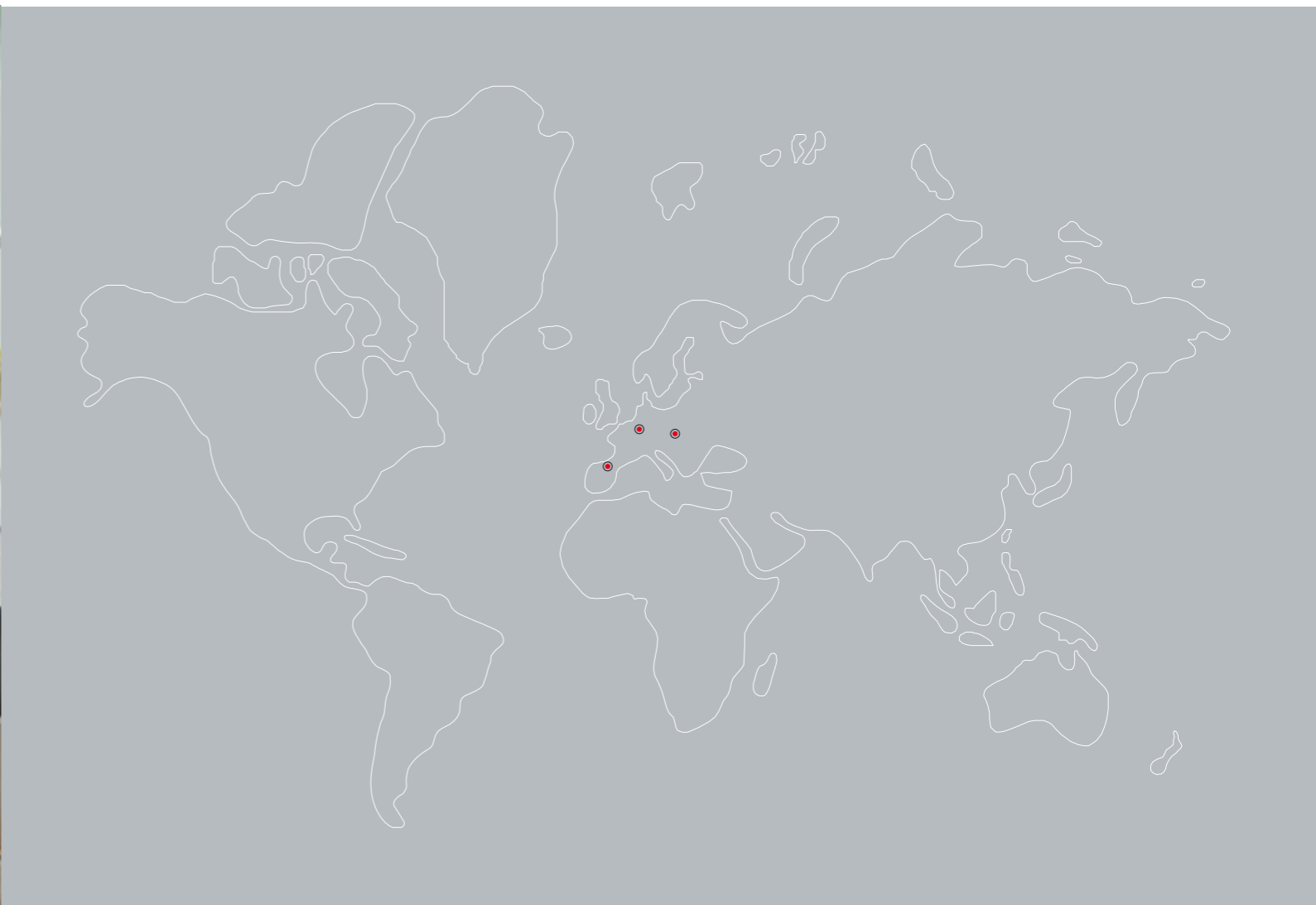
The stamped, diecast, injection moulded plastic and turned components are manufactured in house. We ship fully assembled modules ready for installation.

References



- AMS
- Brose
- Continental AG
- Daimler AG
- Dräxlmaier
- Ferco
- Gretsch-Unitas
- Grupo Antolin
- IMS:Gear
- Johnson Controls
- Jumo
- Katek
- Kathrein
- Key Plastics
- Küster ADS
- Magna
- Siemens
- Tyco
- Vectron

Our Locations



Germany:
Hettich Druck- und Spritzguss:
 Zinc- and Magnesium Diecasting,
 Plastic Injection Moulding, Modules

Spain:
 Stamping, Assembly

Czech Republic:
 Zinc Diecasting, Plastic Injection Moulding, Assembly

Druck- und Spritzgusswerk
Hettich GmbH & Co. KG
Siegener Str. 37
35066 Frankenberg

Telefon +49 6451 741-0
Fax +49 6451 741-200
hds.info@de.hettich.com
www.hettich.com

11300-AEW-1010-HDS/ENG

