

whr Hossinger Kunststofftechnik GmbH



... more than plastics.

How Ideas Turn Into Products

We are a creative and flexible development partner for exceptional solutions.

In whr Hossinger you are choosing a system supplier with solid expertise, short decision-making processes and interdisciplinary competence across all branches of plastics technology.

We have been creating product innovations that focus on our customers and their requirements for almost 5 decades. We speak our customers' language, and we have the ability to meet international challenges in the areas of technical plastics systems and medical plastics systems.

Upon request, we will assume the overall responsibility for the project and develop and produce along the entire value chain under this full-service concept, optimizing things such as component design to ensure proper functioning.



S h a p i n g t h e F u t u r e .



As an effective processing partner, we implement formal design quality as well as customer requirements for look, feel and solidity.



Our company solves problems in all areas of the value chain around injection-molded plastics. That's what we mean by full service.



The P.L.E.A.S.E. Project with Pantec Biosolutions

In addition to supervising product development, we also worked out the design of components and tools on the basis of design studies and 3D models. Corresponding series tools were conceptualized with the aid of mold flow analysis.

Special attention was paid to meeting the most stringent surface quality demands, including color identity and the switch from glossy to matt structures. Sophisticated technology, such as 2K overmolding and the glass-effect technique, were used during the serial production of all components. We also enhance our service by offering imprinting with conducting paint, assembly and packaging.

To the benefit of our customer, we were able to achieve time advantages in all phases of the project. 14 tools were manufactured and sampled within 8 weeks. Of special note is the close and efficient collaboration with the development office as well as with the design company WILD-DESIGN.



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How Challenges Turn Into Projects

Combined plastics capabilities for joint commercial success.

A high degree of special knowledge acquired over several decades, competent production and proven reliability are key reasons why our customers continue to include us in their new projects, often as early as during the concept phase. That creates an obligation, but it is also a challenge. We meet tomorrow's tasks with innovative injection molding technologies because the demands placed on design and material quality as well as on functionality continue to rise.

To comply with the high standards and individuality of our customer's wishes we have established a network of external specialists and international, interdisciplinary teams to supplement our in-house expertise. We cooperate with these partners in areas such as industrial design and packaging/sterilization. We're also able to offer special solutions in the area of specialty packaging.

Our DIN ISO 9001 and DIN EN 13485 certified quality management is but one guarantee for the superb quality of our products and system solutions.

Requirements are especially high for processing the high-tech plastics material PEEK and for processing high-temperature materials.

PE	PA 12	PPE
PP	POM	PEI
PS	TPE	PSU
ABS	TPU	PPSU
SAN	PBT	PEEK
ASA	PET	LCP
PA 4.6	PC	PCTG
PA 6	PMMA	PVDF
PA 6.6	PPS	Blends
PA 11	PPO	

Our Material Expertise



Tomorrow's Product Lines.





The development of new, sophisticated plastics system solutions requires a constantly expanding palette of production capabilities.



In the coloristic area, our gravimetric color dosing system with computer-aided colorimetric analysis offers numerous design options while guaranteeing absolute color fidelity, reproducibility and documentation.

We shape the changing product lines, but we also assume responsibility through quality and the environmental friendliness of manufactured parts.



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How Tasks Turn Into Solutions

We offer creativity and partnership through dialogue.

whr Hossinger has been able to build up a reputation as a producer of sophisticated plastics systems over the past decades. Our range of services – „Everything from one source“ – includes new development, tool and automation technology, production, assembly, and packaging and logistics. For our customers, that means above all state-of-the-art, high-quality whr engineering.

Product development is one of the primary tasks of today’s system suppliers. In addition to profound consulting competence we also guarantee an effective implementation of new developments at minimum time and cost using modern technical equipment. Our 3D CAD systems are compatible with all data formats.

Beginning with the initial concept phase, we assess the ability to produce, assemble and test a product and evaluate tooling capacity and automation.

These parameters ensure quality during line production, where we also assist our customers with prototyping, pilot runs and batch production. Material selection and material studies are essential determining factors for product use in technical and medical plastics systems. All characteristics of the various thermoplastics can be retrieved from our system database.

Innovative system and tool concepts are developed at our company. It goes without saying that we use an uninterrupted CAD-CAM sequence for the entire production.

Our in-house tool shop thoroughly tests all tools used for technical or medical plastics systems before releasing them for mass production. We pay attention to minimal cycle times, low-stress production and dimensional stability. Joint success is based on an unconditional commitment to precision and quality.



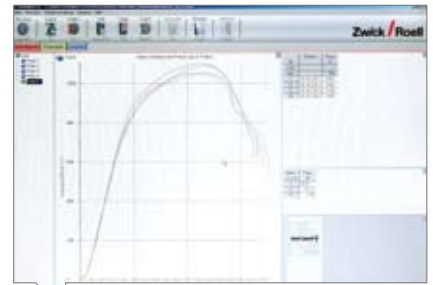


Mold-Flow-Analysis



The PURE Speaking Aid Project

Specific requirements included the translation of the product idea and the design concept into a plastics module with a first-rate surface feel while also taking into account tone quality and component stability.



We use state-of-the-art testing and measuring equipment in order to meet and secure the high demands on quality placed on your products.

We effectively manage all interfaces in the development process to make sure all cost, time and quality targets can be met.



Producing Results.



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How Tasks Turn Into Serial Successes

We offer high-end tool making in all its facets.

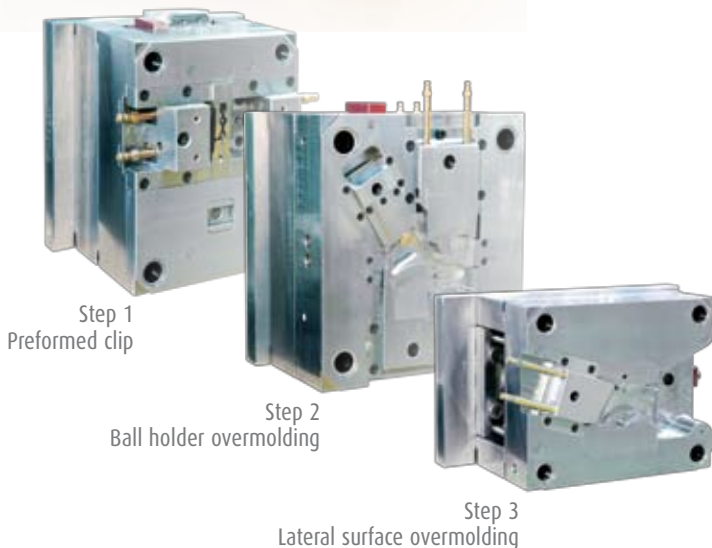
Excellent production resources form the basis for fulfilling the highest technical requirements. Our in-house tool shop develops highly complex injection molding tools, including tools for multiple-component parts. Low tool wear during serial production, high product quality and the associated long service life combine to reduce unit costs considerably.

Years of tool-making experience ensure an effective and economical implementation for the benefit of our customers.

If required, we can integrate production tools with complex handling and assembly equipment.



Closed-tube clip
(Coordinate system for
image-guided surgery)



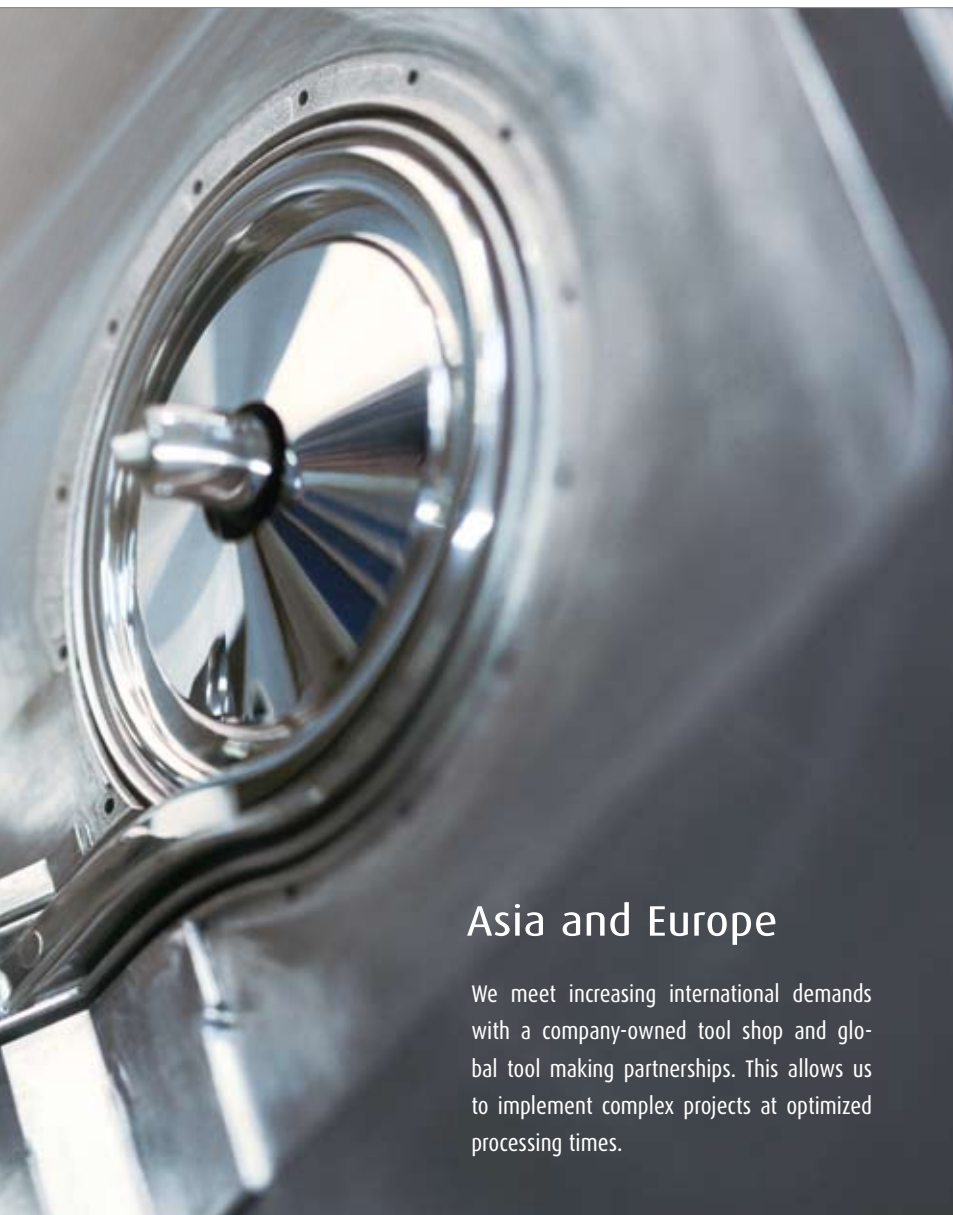
Step 1
Preformed clip

Step 2
Ball holder overmolding

Step 3
Lateral surface overmolding



Intermediate assembly step
with precision-pressing of
stainless steel balls into the
semi-finished product. The
next step is the overmol-
ding of the balls.

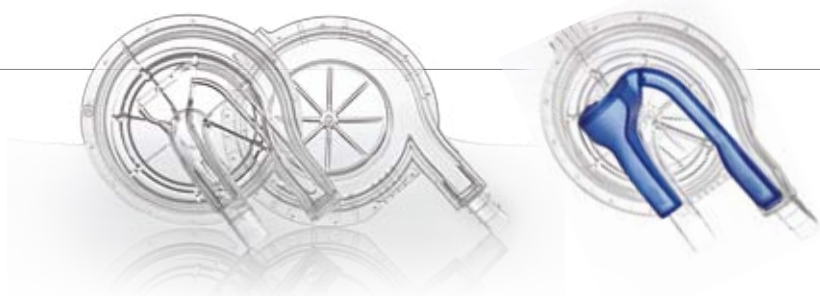


Asia and Europe

We meet increasing international demands with a company-owned tool shop and global tool making partnerships. This allows us to implement complex projects at optimized processing times.

Speaking the Customer's Language

Our experience and service-oriented approach as an OEM supplier allow us to understand and speak our customers' language. We have been active in the areas of medical technology, engineering and automotive for decades and are familiar with the formalities and with the „unwritten laws“. We adhere to the standards relevant for each sector and have adapted our production to the various requirements.



Thinking forward.



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How Competitive Advantages Grow Out of Production Concepts

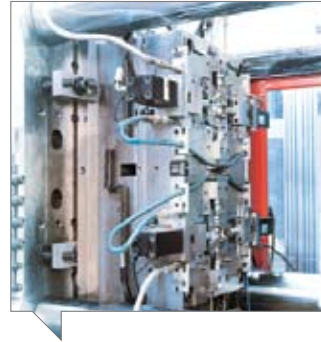
We fulfil your high-tech production requirements.

High quantities, shorter and shorter product cycles and increasing cost pressures also have an effect on production. First and foremost, however, it's the high-tech requirements for tool quality and production equipment that make the difference. With the whr production concept, our customers are guaranteed a mature production technology and high-quality manufactured parts.

Our modern machine park uses hydraulic and all-electric injection molding machines for highest production quality (closing forces between 250 and 3500 kN).



Touch screen monitors allow optimal adjustment, archiving and statistical analysis of production parameters.



Highly complex tool systems, in part with hydraulic slider solutions and multiple needle valve hot runner systems.



Automation and robotics are being used for efficient production and optimized unit costs.



Over the past few decades we have been able to accumulate a great deal of processing expertise in the production technologies

- **insert molding**
- **multi-component injection molding**
- **overmolding of high-precision metal inlays**
- **internal gas pressure method**
- **injection molding of thick-walled parts**
- **hybrid technologies**
- **mono sandwich technology**

Our goals include reducing product-specific cycle times by using new technologies, guaranteeing dimensional stability and minimizing weight. The requirements increase with the processing of high-tech materials and their fiberglass, carbon fibre or mineral fibre reinforcements. Our central drying and material supply rounds out the highly automated production process. Statistical process protocols and a continuous improvement process continuously optimize these procedures.

We perfect production processes and employ new technologies.

High-Tech in Series.



Cleanroom

To meet increasing product requirements we can produce and package under ISO Class 7 and 8 cleanroom conditions upon request to guarantee the faultless quality of sensitive products.



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How Products Turn Into Successes

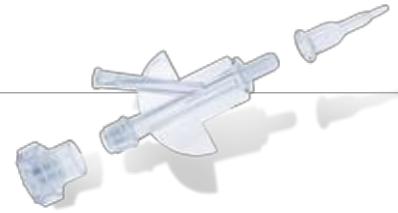
Focus on core competencies and high flexibility.

By using particularly effective and innovative production and injection molding technologies whr Hossinger is meeting tomorrow's requirements today. As a consequence, the company's level of technology is always growing. The integration of several production and finishing steps increases profitability. Assembly and joining processes can be optimally integrated. „Time-to-Market“ is an important component of our products' success. The application of new processes and technologies, including nano and ceramic compounds, coatings and the use of special steels are additional guarantors of success.

whr Hossinger checks your requirements with cross-industry processing competence when selecting materials.

Security

Upon request, we are happy to provide our customers with documentation for production parameters, raw materials and inserts for each part. This ensures the seamless traceability of sensitive parts and modules.



U n c o m p r o

Highest production accuracy is required for surgical sighting mechanisms, which are manufactured using hybrid technology and subsequent machining of the carbon fibre reinforced PEEK.

Development with Potential

Naturally, the need for tight tolerances and high safety levels also affects the design and deployment of production facilities. However, those lie at the end of a long road.

Using product development, design, engineering, mold making, injection molding (also in the cleanroom), product refinement, assembly, packaging and Just-in-Time delivery we travel this road together. In doing so, whr Hossinger stands for excellent quality at market-conform, compelling prices.

We place a high value on good customer relations because optimal service and total commitment form the basis of a trusting, goal-oriented collaboration.

- Excellent processing expertise
- Development at the customer's location
- CF-PEEK injection molding of thick-walled parts
- CF-PEEK 2K technology

Our strength: Special solutions for the medical sector that meet the most stringent requirements.



m i s i n g l y P r e c i s e .

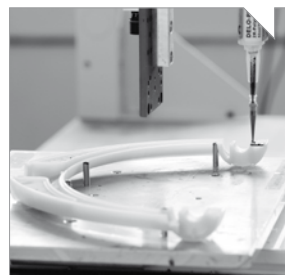
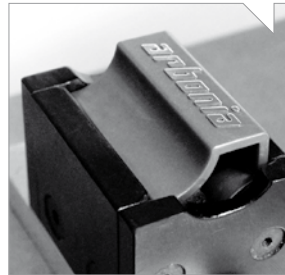
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How Expertise Turns Into Holistic System Solutions

We work with you to secure your market advantage.

We develop the best possible injection molding and assembly technology for a cost-optimized and efficient but still consistently high-quality production of your plastics systems.

The assembly of modules, including assembly under clean room conditions, is part of our repertoire. Our joining techniques include classical ultrasonic welding as well as vibration welding and heated tool welding. In addition to printing, marking and coating, our range of services also includes labelling and packaging as well as individual logistics solutions.



Robot controlled dosing of adhesives guarantees consistent quality



Our competences:

- Ultrasonic welding
- Heated tool welding
- Vibration welding
- Hot stamping
- Adhesive bonding
- Tampon printing
- Packaging
- Labelling
- Laser labelling
- Sputtering
- EMV coating
- Galvanizing
- Coating
- Module assembly

Think





The LED-VIEW Project

This dental illumination unit posed a significant challenge during assembly thanks to its extensive inner workings (14 plastics parts manufactured in-house plus 35 procured articles, such as cables, bushes, cooling elements, electronic components, etc.).

In addition, the high-gloss surface required special handling. The production of a thick-walled component with this type of perfect surface was only possible with hybrid injection molding technology conceived by whr Hossinger.



ing of Everything .



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