

advaltech

ADDING VALUE THROUGH INNOVATION

THAT'S WHAT ADVAL TECH STANDS FOR



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ADDING VALUE

Adding value for customers in challenging fields of activity – that's what Adval Tech stands for.

The Adval Tech Group, which is listed on the Swiss Stock Exchange, operates in the technology sectors of **stamping and forming** and **injection molding**, covering the entire value chain.

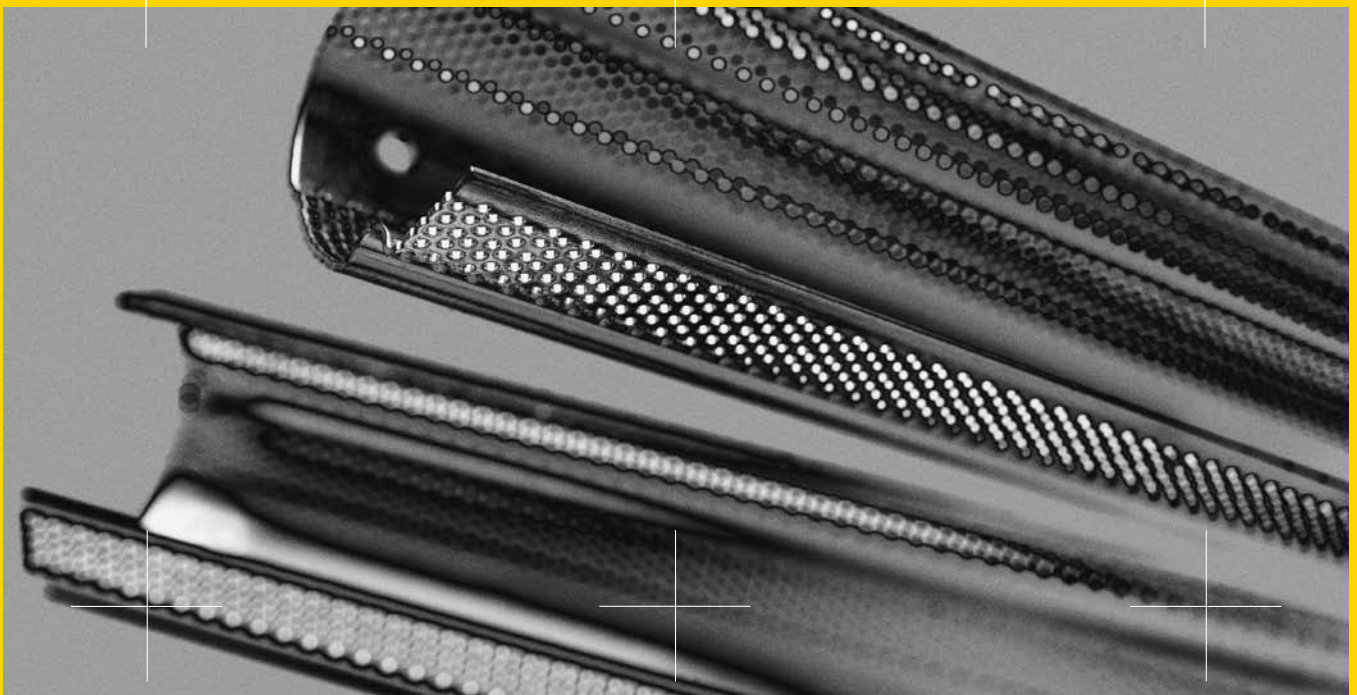
In **stamping and forming technology**, the group uses tools manufactured in-house to produce parts or components and also combines these into subassemblies where required.

In **injection molding technology**, Adval Tech manufactures molds for third parties and for in-house production of plastic components.

The group's **AWM, FOBOHA, Omni, Styner+Bienz, QSCH** and **Teuscher** brands are technological leaders in their respective target markets and have an excellent reputation.

The group's main sales markets are the **automotive, medical technology** and **consumer goods industries**. Within these markets Adval Tech focuses on selected customer groups and promising segments.

Being technological leaders, continuously improving products and processes – **adding value** through innovation: this is the passion and the challenge that motivates the Adval Tech Group's 3,500 employees afresh day by day.



OUR TECHNOLOGIES

Two technologies form the basis for the portfolio of products and services provided by the Adval Tech Group: stamping and forming of metals and injection molding of plastics.

In the field of **stamping and forming** Adval Tech manufactures volume components and subassemblies in large quantities. The stamping and forming tools necessary for this are developed and produced in-house by Adval Tech. The group also manufactures complete production lines for certain selected applications. Adval Tech's manufacturing facilities for stamping and forming are located in Switzerland and Brazil (Styner+Bienz) and also in Hungary (QSCH).

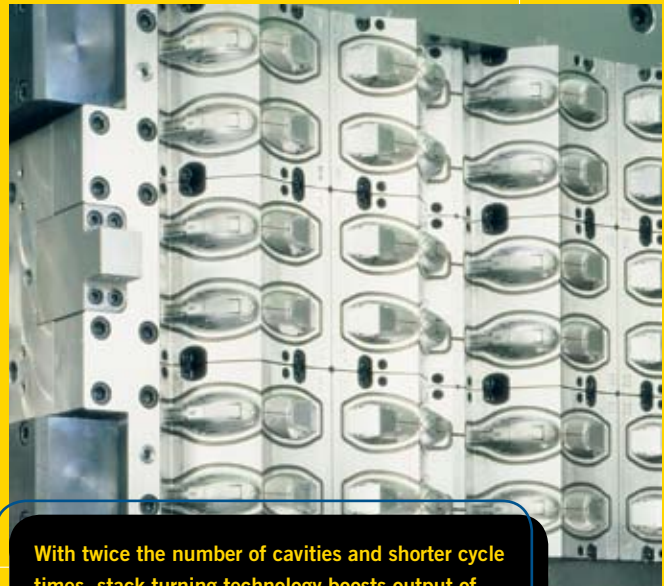
The group generates 95% of its revenues in stamping and forming through sales of volume components and subassemblies, and the remaining 5% with tools and production systems. More than 80% of Adval Tech's stamping and forming components are supplied to the automotive component supply industry. For example, one in three new vehicles produced worldwide is equipped with ABS housing covers from Styner+Bienz.

Adval Tech is a leader in stamping and forming, in both progressive composite and transfer technology. The latest technical know-how enables especially flexible transfer tools from Adval Tech to be operated at more than 250 strokes per minute and achieve useful raw material savings. Furthermore, certain assembly operations can be performed in the tool itself. Through the use of state-of-the-art tools Adval Tech assures its customers of extremely short development lead times.

In the field of **injection molding** Adval Tech manufactures molds and dies for third parties as well as producing components. The group's plants for developing and manufacturing production equipment are located in Switzerland (AWM), Germany (FOBO-HA) and the Chinese cities of Suzhou and Shanghai (Omni). Volume components and subassemblies are manufactured in Switzerland (AWM and Teuscher), China, Thailand, Malaysia and Mexico (Omni).



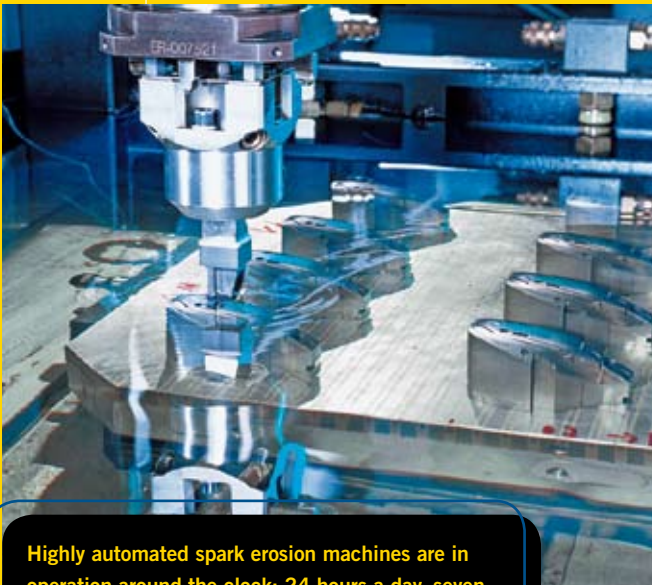
Almost 100 million yoke plates for ABS units are stamped and formed annually using progressive composite technology.



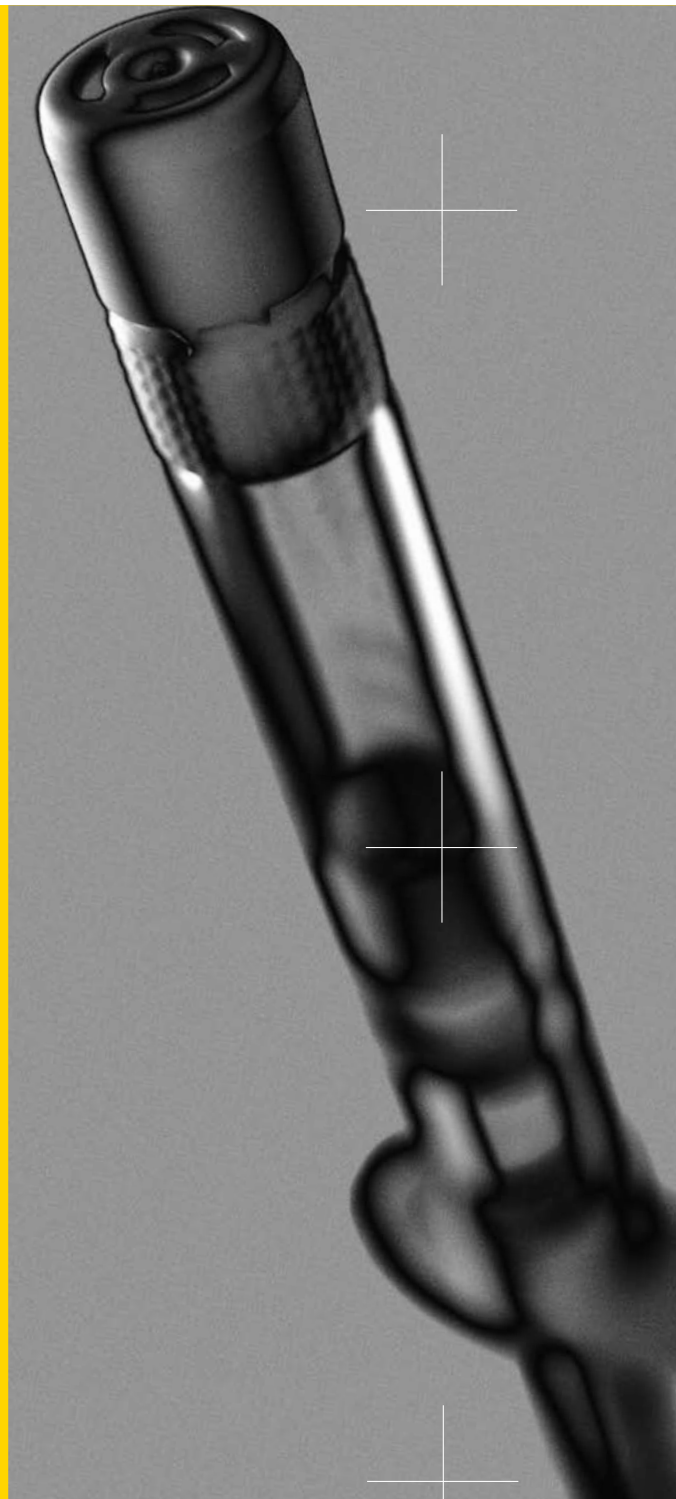
With twice the number of cavities and shorter cycle times, stack turning technology boosts output of plastic components by up to 100%.

Whether in stack turning technology, multi-component technology, the twin-cube system, In-Mold-Assembling or surface treatment technology in the nano range – Adval Tech's specialists have the right solution for challenging injection molding applications. Adval Tech focuses here on selected markets. Contact with customers is correspondingly close. The main sales markets for injection molding are medical technology, the consumer goods industry (including household appliances, information technology and optical storage media) and the automotive industry.

With its common customer base, global structures and composite materials solutions (metals and plastics) the Adval Tech Group systematically exploits the synergies of its two core technologies.



Highly automated spark erosion machines are in operation around the clock: 24 hours a day, seven days a week.



DIFFERENTIATION, FOCUS AND GLOBALIZATION

The Adval Tech Group's strategy is based on three pillars: differentiation in adding value, focus and globalization.

Differentiation in adding value

The value chain is identical for all target markets of the Adval Tech Group, but the group covers different elements of this value chain depending on market segment, application or customer. In the automotive industry and in medical technology, for example, involvement generally starts with consulting services during product development and concludes with the supply of the finished components, subassemblies or systems. By contrast, in certain consumer goods applications the assignment can be confined to producing and qualifying high-performance molds with the objective of significantly improving the customer's production performance.

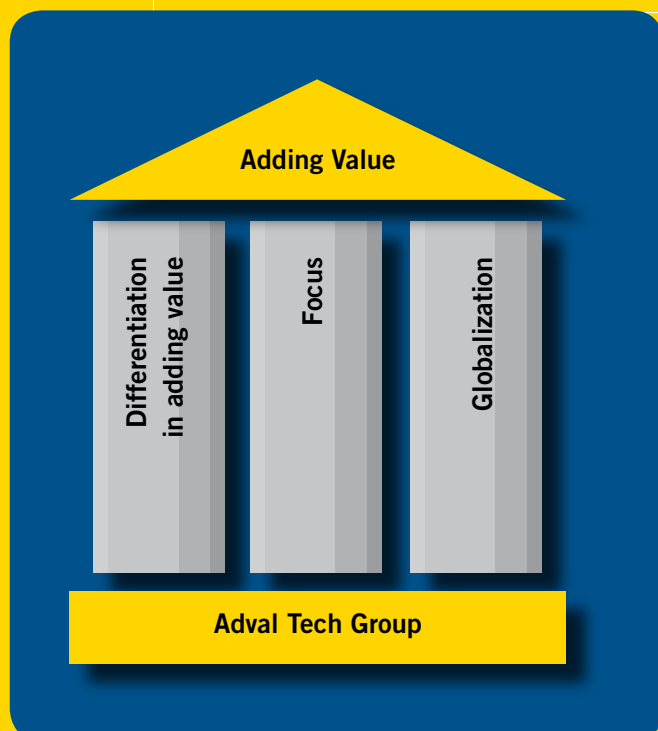
Focus

The Adval Tech Group focuses on growth markets with large unit volumes and repeatability in its main target markets; automotive, medical technology and consumer goods.

Within these markets Adval Tech has defined individual segments in which its strengths are especially valuable. At the same time Adval Tech aims to boost the components business in order to cushion the fluctuations inherent in the moldmaking business.

Globalization

The Adval Tech Group has a global presence – i.e. in all major markets in Europe, Asia and America. This applies both to the development and production of molds and to component manufacture.



THE ADVAL TECH GROUP'S MANUFACTURING PLANTS AND SERVICE COMPANIES



BUSINESS MODELS

The differentiation of the Adval Tech Group in adding value is reflected in four different business models: **One-Stop-Shop**, **Cooperation**, **Problem-solver** and **Performance**.

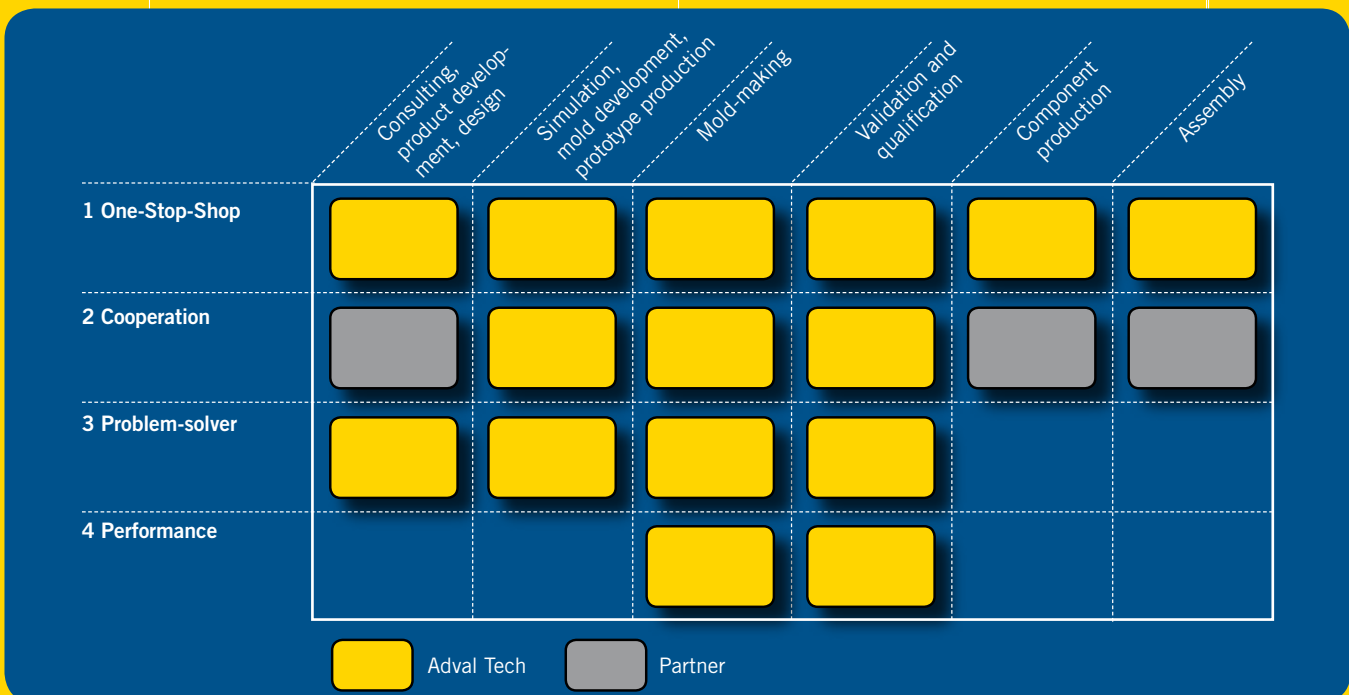
In the **One-Stop-Shop** model, Adval Tech operates along the entire value chain: from consulting in product development and design through product simulation, design and manufacture of the necessary molds and dies to qualification of complete production systems and the resulting manufacture of components. If required, Adval Tech also assumes responsibility for their combination into subassemblies or modules. Examples of this are steering and lighting systems for the automotive industry and applications in medical technology.

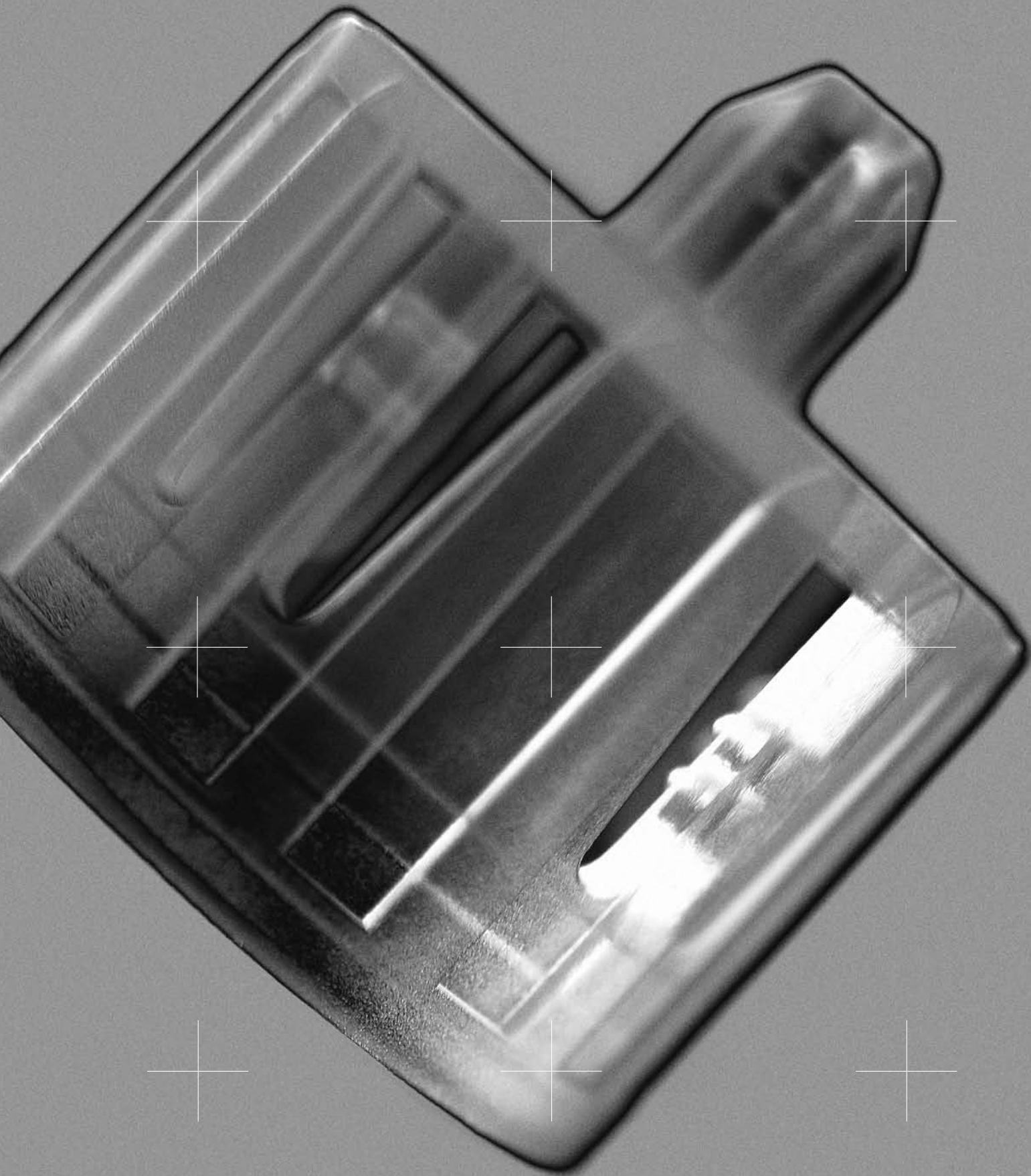
Adval Tech also covers the entire value chain in the **cooperation** model. But in this case not by going it alone, but rather in cooperation with strategic partners. Certain applications in medical technology are examples of this.

In certain segments of the consumer goods market, Adval Tech has become a **problem-solver**. This entails, for example, making high-performance molds and integrating them into turnkey production systems. In these cases Adval Tech's customers recognize the fact that Adval Tech supplies not just steel and design and production hours, but genuine industrialization solutions that enable them to achieve above-average productivity. Typical examples of this business model are production molds for food packaging.

With our fourth business model, characterized by the term **Performance**, Adval Tech ensures improved production performance for customers with qualified high-performance molds. The group applies this business model in the field of components for optical applications.

ADVAL TECH'S FOUR CUSTOMIZED BUSINESS MODELS





COMPONENTS AND PRODUCTION EQUIPMENT

In all its target markets Adval Tech focuses on specific segments and applications.

Volume components are produced over a period of several months or even years. The production period depends directly on the life cycle of the end product. In the case of components for the consumer goods industry these are usually rather shorter than for components in the medical technology or automotive industry. In these cases production cycles of six to eight years are quite customary. The volatility of demand for components is therefore much lower than for tools and molds, for example, which is a typical project business with low volume effects. Molds for manufacturing optical media are an exception to this; these are usually produced in short runs.

Adval Tech has clearly defined the market segments and customers to which components or production equipment are sold, so that mold customers are not in competition with the group's own component production operations.

In all its target markets the corporate group focuses on **specific segments** and **applications**, thus securing economically realistic market shares. At the same time it can continuously develop its outstanding **technical know-how** further in these segments.



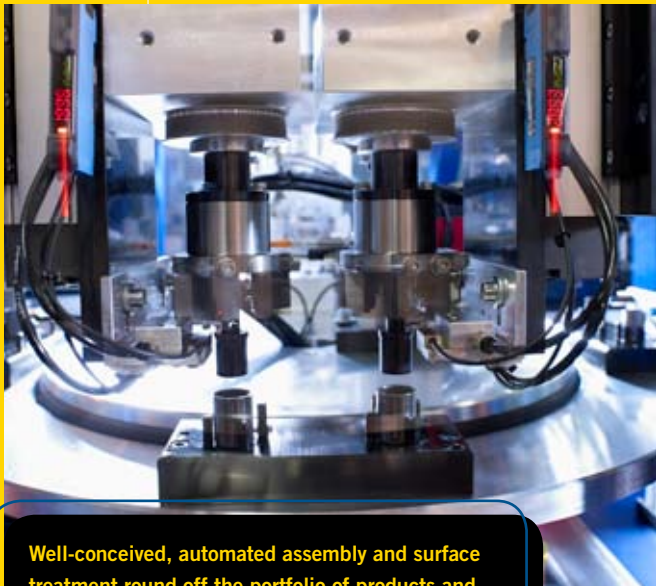
These innovative packages featuring the highest standards of design and function are produced using high-performance molds.



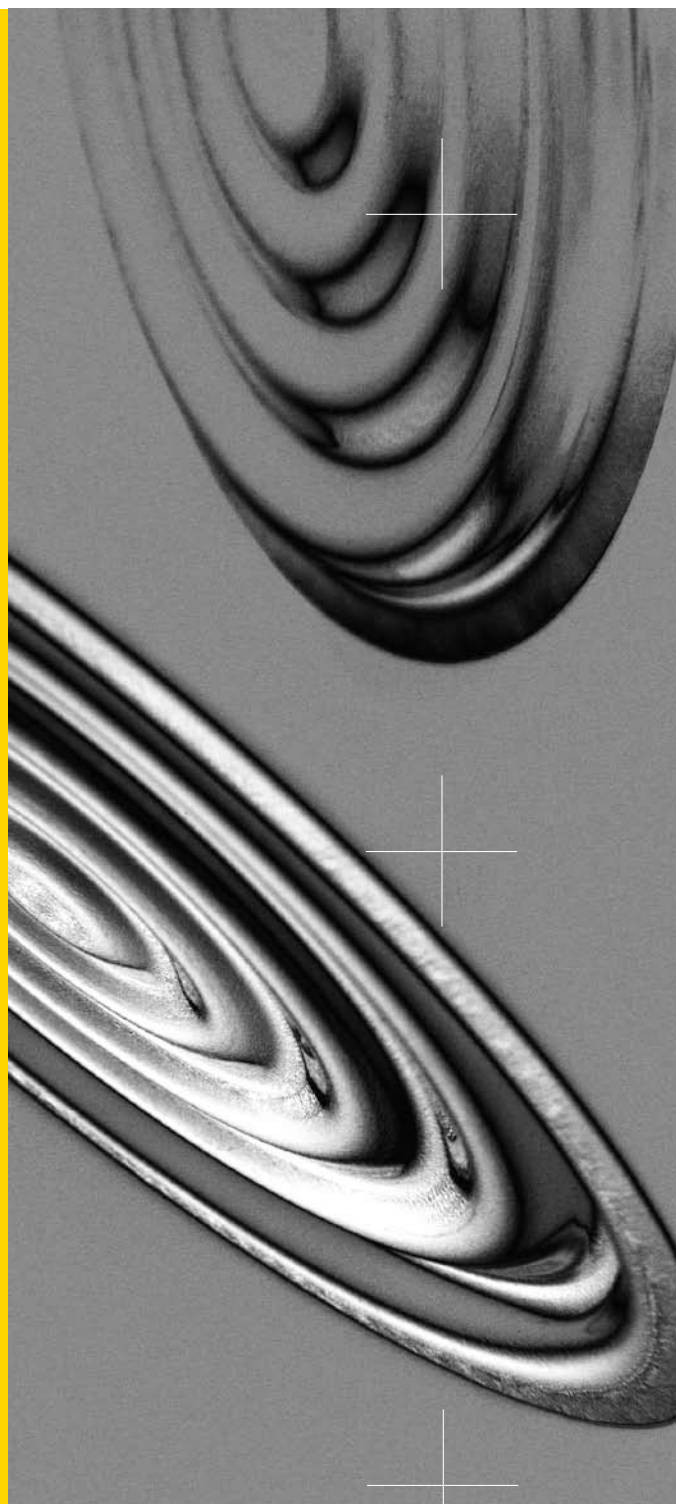
Industrialized production cells enable volume designer packaging for the consumer goods industry to be manufactured economically.



State-of-the-art tools for progressive composite and transfer systems enable components to be manufactured to the absolute limits of the process.



Well-conceived, automated assembly and surface treatment round off the portfolio of products and services in the Stamping and Forming segment.



ADVAL TECH IN THE AUTOMOTIVE INDUSTRY

In the automotive industry the Adval Tech Group plays a role in shaping the progress of technological development.

Time and again, Adval Tech sets technological standards for the industry by virtue of its outstanding process know-how, sound knowledge of the industry, new application technologies and not least its global presence.

Adval Tech is one of the **world's leading manufacturers** of components, subassemblies and subsystems in selected market segments and for specific applications in the automotive component supply industry.

Greater safety and comfort and minimum vehicle weight – these major innovation drivers in the automotive industry also create ample scope for the supply industry in terms of **new developments** in metal, plastics or composite materials.

Adval Tech combines innovative solutions with state-of-the-art application technologies.

Core activities in the field of **stamping and forming** include the following applications:

- steering systems
- ABS braking systems
- lighting systems
- fuel injection
- seat mounting systems
- passenger safety systems (airbags, crash sensors, safety belts, etc.)

In the field of **injection molding** Adval Tech focuses, for example, on the following applications:

- acoustic noise insulation and structural reinforcement components in the vehicle frame
- plastic components for the air conditioning system and lighting
- fuel tank filler necks, door handles, extrusion-coated trim components and cockpit applications
- engine compartment and underfloor components
- air/water separation and microfilter systems
- spoiler and air circulation components, throttle controls



These ignition cartridges must ensure the actuation of the airbag at the right moment. The predetermined breaking point necessary for this imposes very high standards in terms of scoring techniques and surface quality.



These lamp holders are completely assembled, tested and then delivered on a just-in-time basis by Adval Tech.




ADVAL TECH IN MEDICAL TECHNOLOGY

Within the space of a few years Adval Tech has established a major center of competence for the trend-setting medical technology sector.

By virtue of systematic specialization, an uncompromising approach to quality, clean room technology, state-of-the-art mold-making and well-conceived logistics concepts, Adval Tech has succeeded in establishing a leading center of competence for medical technology within a very short time. The group focuses here on the following three market segments: drug delivery, diagnostics and medical devices.

The component manufacturing plants are located in **Grenchen** (Switzerland), **Queretaro** (Mexico) and **Suzhou** (China), those for manufacturing high-performance molds in **Muri** (Switzerland), **Haslach** (Germany) and **Suzhou** (China).

Adval Tech implements highly complex, market-oriented projects from the original idea to the end product, packaged ready for use, in conformity with GMP (Good Manufacturing Practice) guidelines. The group performs **feasibility studies** and **risk analyses** and produces **prototype** and **high-performance production molds**, also with large numbers of cavities. Adval Tech manufactures plastic components in runs of millions under **clean room conditions** and assembles them into complex systems as required. As in all other fields, Adval Tech also cooperates with highly qualified, leading companies in assembly operations.



The highest standards in terms of clean air and microbiology are fulfilled in the injection molding and assembly of plastic components for syringe systems.



In the clean room individual components are assembled fully automatically into a device for the pharmaceutical industry.



These components manufactured by Adval Tech for the pharmaceutical industry meet high standards in terms of dimensional stability, appearance and quality.

ADVAL TECH IN THE CONSUMER GOODS INDUSTRY

Time and again, the Adval Tech Group demonstrates its global leadership in its core technologies of injection molding and stamping and forming with innovative applications for all areas of life.

Especially in the consumer goods sector, Omni is one of the leading injection molding companies in the Asia region and in Mexico. In six manufacturing facilities – two in China (Suzhou and Xiamen) and one each in Thailand, Malaysia and Mexico – Omni manufactures, for example, camera and printer housings as well as numerous components for household appliances. AWM and FOBOHA develop and manufacture injection molds and dies for food packaging, bottle closures, optical media, roll-on deodorant dispensers, shaving systems, toothpaste packaging, spray can tops and much more. Styner+Bienz manufactures metal components (for example, housings for automatic coffee machines) in large volumes for clearly defined markets and applications.

The diverse fields of application in the consumer goods sector call for very different solutions. The scope of projects in plastics ranges from standard, single-component molds to highly complex, multi-component, stack turning systems – from transparent boxes for refrigerators to closures for body lotion containers which are assembled directly in the mold. AWM is the undisputed world market leader in molds for manufacturing optical media and their packaging, and has repeatedly set new industry standards in recent years.



With »six.one« molds from Adval Tech all OD formats can be produced efficiently, quickly and in top quality from audio CDs to Blu-ray discs.



Adval Tech supports the Swiss global market leaders in commercial coffee machines with innovative solutions for sheet metal modules and overall casings.



This closure for a body lotion container is completely assembled directly in the mold using the double cube.



The latest generation of injection molds for beverage closures from Adval Tech sets new standards for cycle time and product quality.



Design and economy combined in a high-performance injection mold: with two-component and multi-level technology as well as coreback system and in-mold labeling.



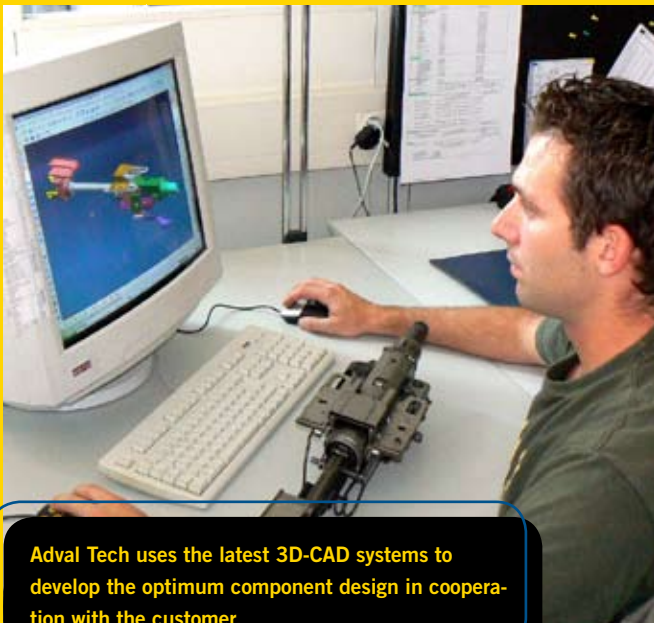
Adval Tech supplies this POS unit on request in the form of individual components or a preassembled module.

PRODUCT, PROCESS AND APPLICATIONS DEVELOPMENT

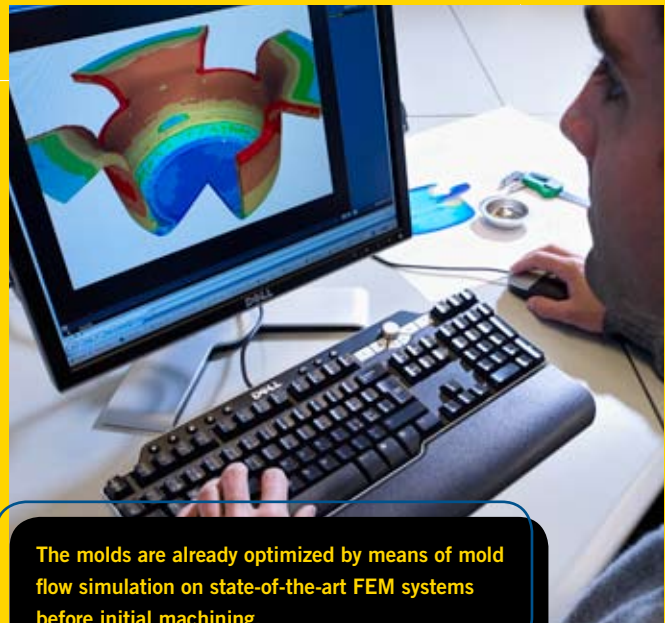
Adding value for customers – the Adval Tech Group succeeds in doing this not only by virtue of its very close contact with customers and the faultless quality of its products and services, but especially also due to its exceptionally strong innovative drive.

A striking feature of Adval Tech's global markets is the pace of innovation. Adval Tech plays a decisive role in co-shaping this technological progress.

At Adval Tech some 100 employees worldwide are engaged solely in developing products, processes and applications in close cooperation with customers. The group also cooperates with various Swiss universities. Regular patent applications are one outcome of these efforts.



Adval Tech uses the latest 3D-CAD systems to develop the optimum component design in cooperation with the customer.



The molds are already optimized by means of mold flow simulation on state-of-the-art FEM systems before initial machining.



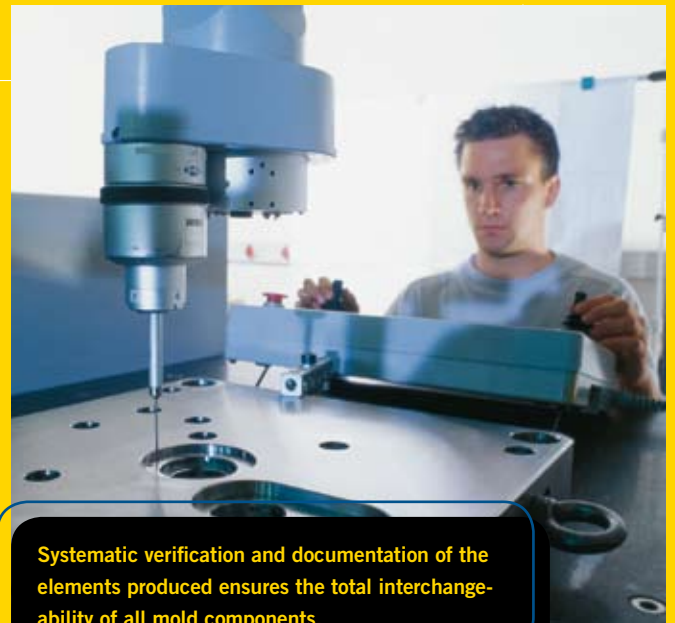
Flexible and well-equipped prototype production facilities enable components and samples to be supplied in the shortest possible time.



The contours of plastic components are scanned in three dimensions and deviations visualized in color.



Adval Tech produces mainly two-component parts for the automotive industry and the consumer goods sector in four-shift operations.



Systematic verification and documentation of the elements produced ensures the total interchangeability of all mold components.

GLOBAL PRODUCTION – THE ADVAL TECH GROUP'S MANUFACTURING PLANTS



Styner+Bienz FormTech Ltd, Niederwangen,
Switzerland

Activities: toolmaking, stamping, forming,
assembly

Markets: automotive

Certifications: ISO 9001, ISO 14001,
ISO/TS 16949



Styner+Bienz FormTech Ltd, Bern-Bümpliz,
Switzerland

Activities: Laser and stamping, folding,
bending, rounding, combining, welding,
coating, assembly

Markets: food, intralogistics and machine
manufacturing, measuring and analysis,
public sector

Certifications: ISO 9001, ISO 14001



Styner+Bienz FormTech Ltd, Uetendorf,
Switzerland

Activities: toolmaking, stamping, forming,
assembly

Markets: automotive

Certifications: ISO 9001, ISO 14001,
ISO/TS 16949



Styner+Bienz do Brasil Ltda., Sao José, Brazil

Activities: stamping, forming, assembly

Markets: automotive

Certifications: ISO 9001, ISO/TS 16949



QSCH Kft., Szekszárd, Hungary

Activities: toolmaking, stamping, forming, wet and powder
coating, assembly

Markets: automotive, consumer goods

Certifications: ISO 9001, ISO 14001, ISO/TS 16949



AWM Mold Tech Ltd, Muri, Switzerland

Activities: development, design and manufacture of high-performance molds

Markets: consumer goods (closures, packaging), medical

Certifications: ISO 9001



AWM Plast Tech Ltd, Merenschwand, Switzerland

Activities: multi-component injection molding, overmolding, subsequent processes, assembly of modules and components

Markets: automotive, consumer goods

Certifications: ISO 9001; ISO 14001; ISO/TS 16949



Teuscher Kunststoff-Technik Ltd, Grenchen, Switzerland

Activities: injection molding, subsequent processes (printing, low-voltage welding), assembly of modules, clean room technology

Markets: medical

Certifications: ISO 9001, ISO 13485



FOBOHA GmbH, Haslach, Germany

Activities: product development, design and manufacture of high-performance molds, multi-component and stack turning technology, pilot production

Markets: consumer goods, automotive, medical

Certifications: ISO 9001

GLOBAL PRODUCTION – THE ADVAL TECH GROUP'S
MANUFACTURING PLANTS



Omni Plastics (Suzhou) Co. Ltd, Suzhou, China

Activities: injection molding, subsequent processes, assembly

Markets: consumer goods, medical, automotive

Certifications: ISO 9001, ISO 14001, ISO 13485, ISO/TS 16949



Omni Industries Tech Center (Suzhou) Co. Ltd, Suzhou, China

Activities: design and manufacture of high-performance molds

Markets: consumer goods, automotive, medical

Certifications: ISO 9001 (ongoing)



Omni Plastics (Xiamen) Co. Ltd, Xiamen, China

Activities: injection molding, subsequent processes, assembly

Markets: consumer goods

Certifications: ISO 9001, ISO 14001, ISO/TS 16949



Omni Engineering (Shanghai) Co. Ltd, Shanghai, China

Activities: design and manufacture of high-performance molds

Markets: consumer goods, automotive

Certifications: ISO 9001, ISO 14001



Omni Plastics (Thailand) Co. Pty, Rayong, Thailand

Activities: injection molding, subsequent processes, assembly

Markets: consumer goods, automotive

Certifications: ISO 9001, ISO 14001, ISO 13485, ISO/TS 16949



Omni Precision Sdn Bhd, Johor Bahru, Malaysia

Activities: injection molding, subsequent processes, assembly

Markets: consumer goods, automotive

Certifications: ISO 9001, ISO 14001, ISO 13485, ISO/TS 16949



Omni Manufacturing Services SA DE CV, Queretaro, Mexico

Activities: injection molding, subsequent processes, assembly

Markets: consumer goods, medical, automotive

Certifications: ISO 9001, ISO/TS 16949

Key:

ISO 9001	Quality management
ISO 13485	Quality management – Medical Devices
ISO/TS 16949	Quality management – Automotive
ISO 14001	Environmental management

HISTORY OF THE ADVAL TECH GROUP

1924

Fritz Styner and Rudolf Bienz establish Styner+Bienz as a general partnership operating a small mechanical workshop in Bern-Bümpliz, Switzerland.

1942

Styner+Bienz becomes a public limited company.

1963

Styner+Bienz moves its headquarters to Niederwangen (Köniz) and employs a workforce of about 200 in its new factory building.

1974

With the acquisition of AWM in Muri (with 73 employees), Styner+Bienz secures a firm foothold in the trend-setting plastic injection molding technology sector.

1985

Styner+Bienz AG is the first company in Canton Berne, the first in the industry and the sixth in Switzerland to be awarded the ISO Certificate Schweizer Norm SN 029 100.

1997

The holding company and corporate group are re-named Adval Tech as part of the process of strategic refocusing.

1998

Initial public offering: shares of Adval Tech Holding AG are traded on the Zurich Stock Exchange.

1998

Foundation of the service company AWM Swiss Technology Ltd., Hong Kong

1999

Foundation of the production company Styner+Bienz do Brasil Ltda., Curitiba, PR, Brazil

2000

Foundation of the service company AWM Mold Service US Inc., Beverly, MA, USA

2003

Acquisition of FOBOHA GmbH Formenbau, Haslach, Germany

2004

Acquisition of Lanz Industrietechnik AG, Wolfwil, Switzerland.

2005

Acquisition of Teuscher Kunststoff-Technik AG, Grenchen, Switzerland.

2007

Acquisition of QSCH Termelő és Kereskedelmi Kft. Szekszárd, Hungary.

2008

Acquisition of the Omni Group, Singapore.



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