



PRODUCTS AND SERVICES

Efficient plastics processing
„Made by ARBURG“

ARBURG

PIONEER

Technology, expertise, service –
we always give our best for you!

Our aspiration is: To be your technology and system partner! In every respect. Whether injection molding or industrial additive manufacturing. Whether stand-alone machine or highly automated turnkey system. Whether process control or comprehensive digital data management – including cloud-based solutions. Regardless of the industry you are involved in, the processes you use, or the parts and unit volumes you want to manufacture. Our modular product portfolio has the right solution for all your requirements. We do our utmost to meet your efficient plastics processing needs.


WIR SIND DA.

Wide range: We offer you machines with clamping forces from 14 to 730 tons.

ARBURG
ALLROUNDER 570 E
GOLDEN
ELECTRIC

THE REFERENCE FOR INJECTION MOLDING TECHNOLOGY: ALLROUNDERS

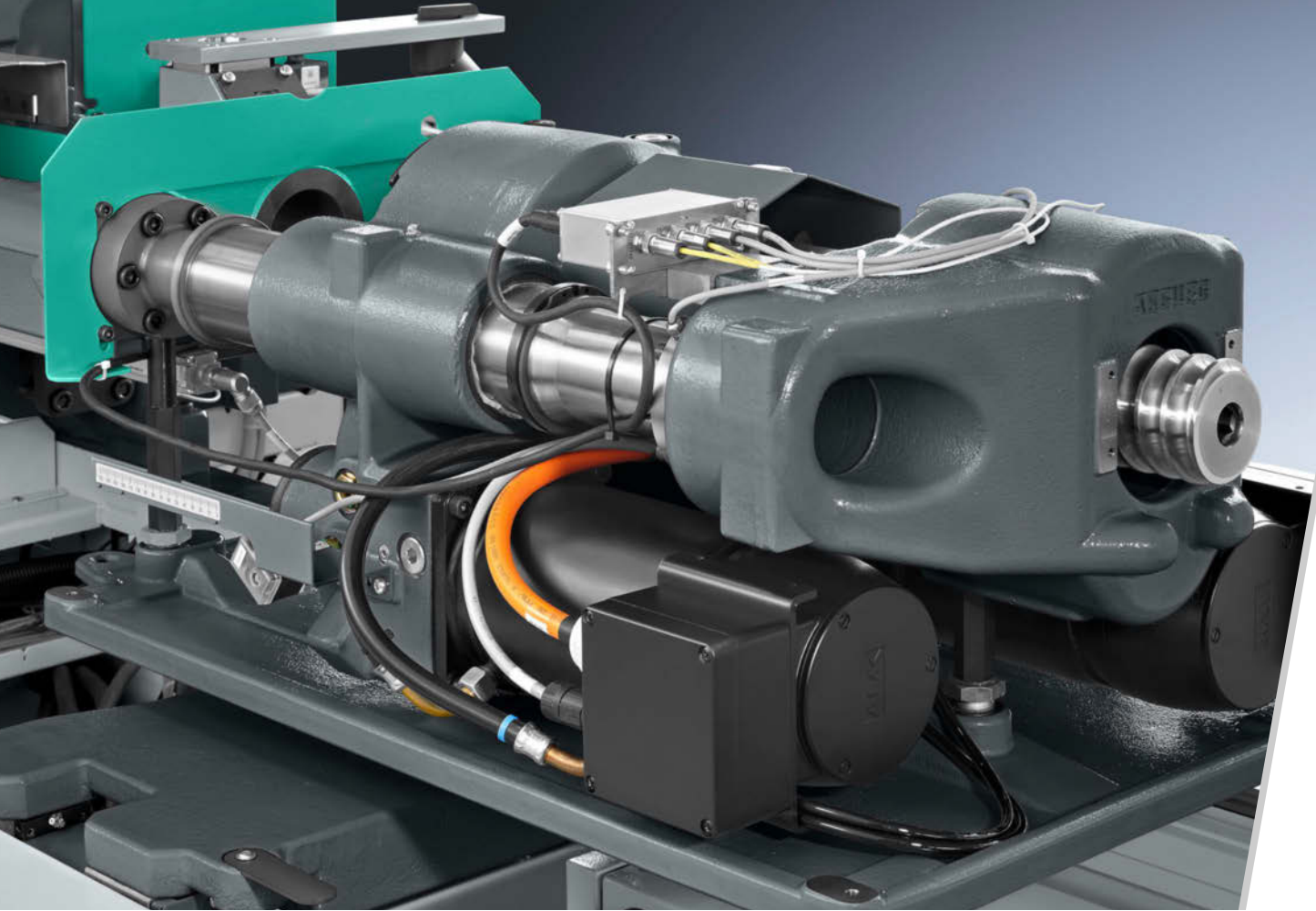
// Why should you trust in our ALLROUNDERS? Because you can rely on the best that is available when it comes to injection molding technology. From small to large. From conventional to vertical configuration. From performance version to high-speed machine. From comprehensively standardized entry-level model to customized process-technology-adapted machine. Our product range is aligned to your requirements in a targeted manner. The choice is yours: Precisely according to your wishes! //



„Made by ARBURG - Made in Germany“:
We consistently implement
this quality standard.

Intuitive and smart: Our SELOGICA
and GESTICA control systems
facilitate your work decisively!

Highly compatible: Tie-bar spacings,
cylinder modules and operating philosophy
are identical across all machine series.



PROFIT-ORIENTED: ELECTRIC ALLROUNDERS

// Performance-oriented and cost-efficient: With a perfect spectrum of available machine-sizes, our electric machines are suitable for all of your applications. The GOLDEN ELECTRIC is our standardized entry-level model at an unbeatable price. In the case of higher requirements in terms of equipment, our EDRIVE offers additional features. And the more demanding your production tasks become, the more interesting our ALLDRIVE will become for you. Choose your ALLROUNDER from one of the most comprehensive ranges in the industry. //

Speed

Injection, dosing and opening and closing of the mold are servo-electrically driven as standard on GOLDEN ELECTRIC, EDRIVE and ALLDRIVE machines and are therefore completely independent. Fast acceleration and speeds, as well as simultaneous movements enable high-speed cycles.

Energy efficiency

The toggle-type clamping unit, the high efficiency of the servo-electric drives, as well as the recovery of braking energy to the grid form the basis for high energy efficiency. The energy requirement is reduced by between 25 and 50 percent.

Precision

play-free, direct-acting spindle drives provide for mechanically rigid drive axes and dynamic movements. The excellent positioning accuracy of servo-electric drives permits maximum reproducibility and part quality.

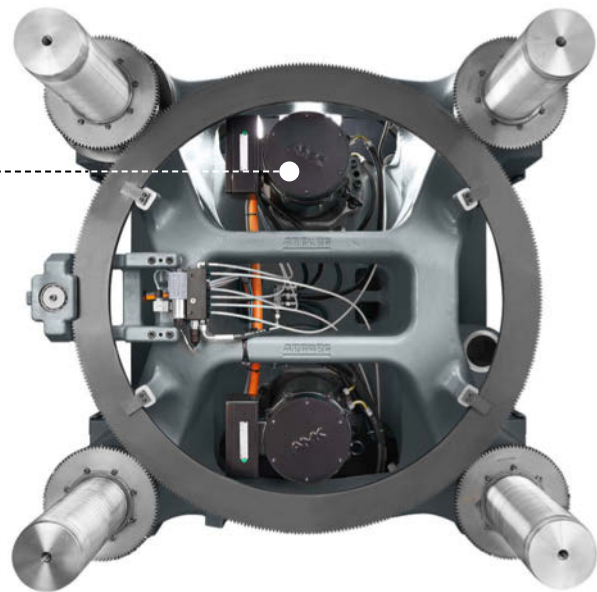
Value

The high degree of reliability of the machines and subsequent minimal variability in the process is achieved through many technical details. This includes, for example, the closed cooling circuit of motors and converters for fast cycles and long holding pressure phases.

Minimizing emissions

The liquid-cooled drives operate quietly without air turbulence and reduce emissions into the environment. Closed drives and spindle systems prevent exposure to dust caused by abrasion. Perfect conditions for use in pure production environments.

Uncompromising high-end technology: Servo motors are generally liquid-cooled.



Compared to a standard hydraulic machine, up to

50 %
ENERGY
SAVING

Distance between tie bars: **10.63 - 36.22 inch**

Clamping forces: **39 - 560 tons**

Injection units: **0.1 - 45.4 oz**



Flagship ALLROUNDER 1120 H: Its attractive and highly functional design will be progressively implemented on further machines.

Distance between tie bars: **10.63 - 44.09 inch**

Clamping forces: **39 - 730 tons**

Injection units: **1.4 - 94.2 oz**

HIGH PERFORMANCE: HYBRID ALLROUNDERS

// If you are interested in high performance during the production of mass-produced technical parts, then you should work with our hybrid ALLROUNDERS. That's because the HIDRIVE brings the best of our modular product range together in a single series just for you: electric speed and precision paired with hydraulic power and dynamics. Reliable, highly-productive and simultaneously energy-efficient – for your production. Day after day. 24 hours. Around the clock. //



Further information:
Hybrid ALLROUNDER brochure

WITH OUR MODULARITY, YOU KEEP YOUR UNIT COSTS UNDER CONTROL.

Production capacity

The hybrid ALLROUNDER machine concept has been configured with the particular aim of achieving high production capacities. It brings together the servo-electric clamping units of the ALLROUNDER A and generously dimensioned injection units with hydraulic accumulator technology. All movement axes operate completely independently of one another.

Energy optimization

The servo-electric drives for mold movement and dosing as well as the recovery of braking energy to the network form the basis for high energy efficiency. Moreover, the hydraulic drive operates with a performance-adapted pump and an efficiency class IE3 electric motor.

Cycle time reduction

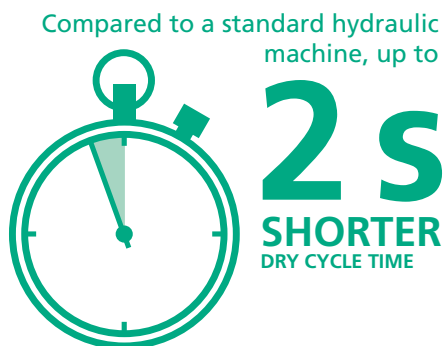
Simultaneous movements combined with extremely short dry cycle times of the servo-electric clamping units enable fast cycles. Special features such as „injection on the fly“ while the mold is closing or dosage that takes place across several cycles are also available.

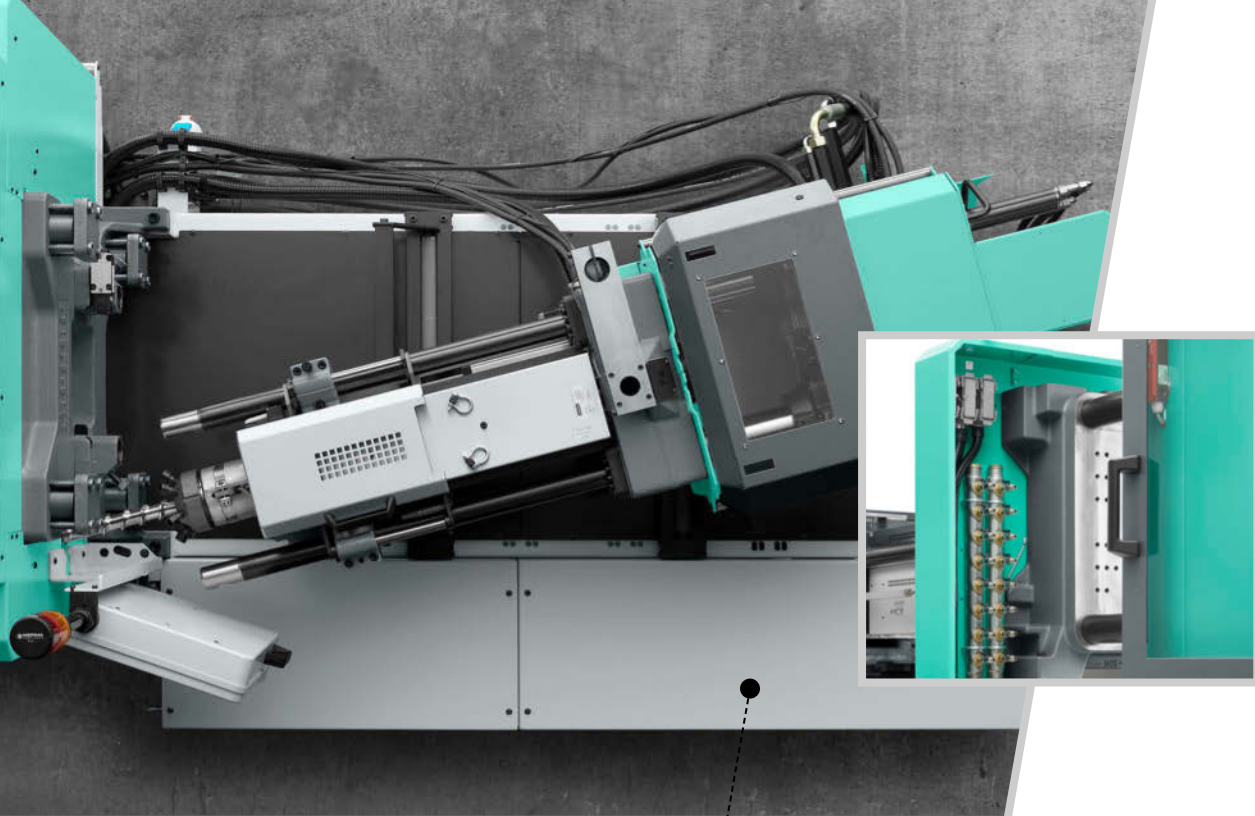
Dynamics

As well as the servo-electric toggle, the hydraulic accumulator technology also reduces cycle times. This enables large, dynamic injection volume flows to be achieved. Furthermore, a position-regulated screw ensures maximum reproducibility and part quality.

Cost-efficiency

The sophisticated hybrid ALLROUNDER technology is synonymous with reliable operation and maximum availability. In addition, technical detailed solutions minimize the set-up and maintenance effort. This also makes day-to-day production much more efficient.





Practical relevance in every detail:
Our sophisticated technology offers
you all the freedom required
for efficient operation.

EXEMPLARY: HYDRAULIC ALLROUNDERS

// Reliable, proven injection molding technology „Made by ARBURG - Made in Germany“: This is what our hydraulic machines stand for. With the ALLROUNDER principle, differential piston system and position-regulated screw, we have been setting benchmarks since 1961. They range from the low-cost entry-level GOLDEN EDITION model to the flexible, adaptable ALLROUNDER S. Our modular design offers you process-optimized solutions with low operating costs and the greatest possible variety of applications. You simply specify your requirements and we configure a suitable hydraulic ALLROUNDER especially for you. //

Distance between tie bars:	6.69 - 36.22 inch
Clamping forces:	14 - 560 tons
Injection units:	0.5 - 94.3 oz

i Further information:
Hydraulic ALLROUNDER brochure

Diverse applications

Our machine concept is extremely flexible and can be precisely adapted for operation in conjunction with all familiar injection molding processes. This is ensured by numerous equipment and configuration options. For example, the ALLROUNDER S can

- use swiveling clamping units to encapsulate inserts (ALLROUNDER principle).
- work with an interchangeable injection unit in the mold parting line.
- fill the mold in a linear action using a horizontally free-sliding injection unit (VARIO principle).

Individuality

The power of the drive technology can be individually adapted. Multiple hydraulic variants and electrical configuration levels allow you to achieve greater energy efficiency, higher precision and speed - just as your application demands.

Cost efficiency

The GOLDEN EDITION is our entry-level hydraulic model. The recipe for success: The use of proven, uncompromising high-end technology, standardized at an unbeatable price. Two-circuit pump technology is provided as standard for example.

Reproducibility

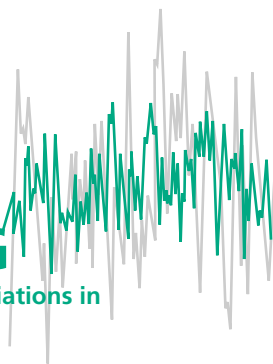
Regulated injection ensures the customary high part quality. Our unique position-regulated screw can therefore be used to achieve dynamic and reproducible injection that is on a par with electric machines.

Reliability

Optimum availability and a long service life are synonymous with the ARBURG name. Examples include energy-saving oil circulation via the differential piston system of the clamping unit, or the scratch-proof powder enamel coating of the machine components.

REPRODUCIBLE MOLD FILLING

thanks to a position-regulated screw – variations in shot weight can be significantly reduced



SIMPLY PRACTICAL: VERTICAL ALLROUNDERS

// Clearly: Much of the focus with our vertical ALLROUNDER machines is on efficiency in practice. This calls for dependable, process-reliable and precise operation. But above all, they must be one thing: Ergonomic. This ensures that cooperation between human and machine is a comfortable experience. Our versatile vertical product range is fully focused on the encapsulation of inserts and offers you all the features required to help you manage your specific tasks. //

Vertical free-space system
of the ALLROUNDER V: Perfect
for both manual and automated
part feed systems.



Automated part feed system:
Our rotary table machines
ensure high productivity.

Ideal for manual activities:
The low table heights of our
vertical ALLROUNDERS.

i Further information:
Vertical ALLROUNDER brochure

Ergonomics

Efficient encapsulation of inserts? This means organizing manual work in a comfortable and time-saving manner. This is precisely the purpose of our vertical free-space system on the ALLROUNDER V: It provides unimpeded access to the mold when inserting and removing items.

Process reliability

High plasticizing and molded part quality: Our special position-regulated screw enables reproducible injection, comparable with electric machines. The servo-electric rotary tables of the ALLROUNDER V and T operate energy-efficiently, quickly and precisely.

Application suitability

The right technology for every application. We achieve this thanks to:

- A wide range of designs, machine sizes and injection units
- Vertical and horizontal arrangement of the injection units
- Task-specific equipment, such as for silicone processing

Automation

Shorter cycle times and higher productivity: Rotary and shuttle tables are available to enable simultaneous insertion and removal during the injection process. Versatile configuration options ensure that the machines can also be easily integrated in turnkey systems.

Space optimization

Especially our ALLROUNDER V machines impress with their compact design and small footprint. This makes the machines ideal for use, even in confined production environments. The scope for planning the installation of the machines remains correspondingly high.

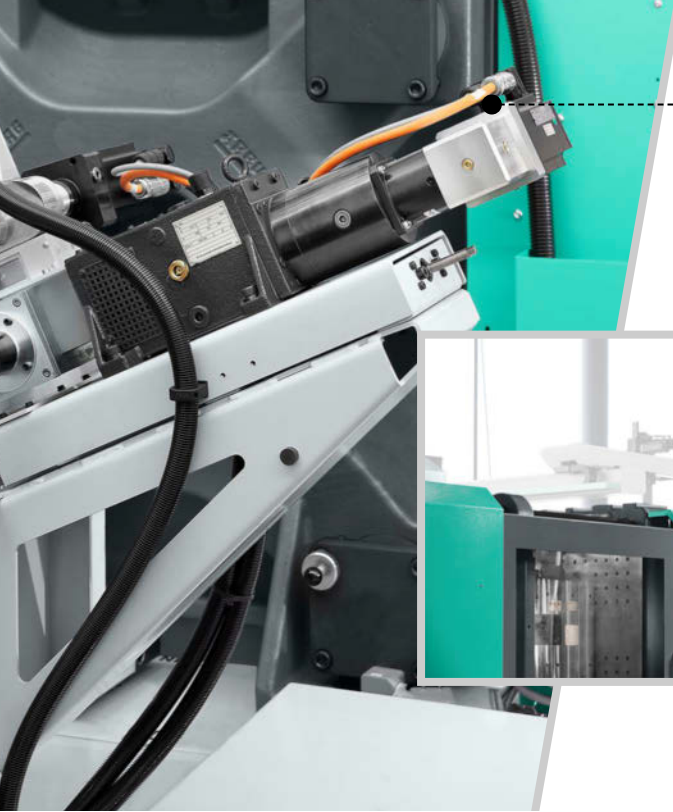


Variety of clamping systems

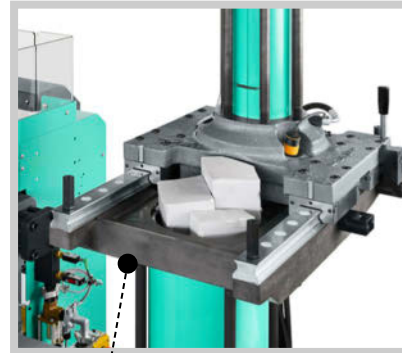
Clamping forces: **14 - 355 tons**

Injection units: **0.5 - 45.4 oz**

Further special sizes and injection units available on request.



Precise coordination: e.g.
lightweight construction
for Fiber Direct Compounding
or foaming with ProFoam.



Material compatible: e.g. processing
solid silicone (HTV) or moist polyester
(BMC) with INJESTER tamping device.

PERFECTLY COMPATIBLE: THE ADDITIONAL EQUIPMENT

// Our machine technology is completed by flexible additional equipment, with which you can adapt your ALLROUNDERS individually to the relevant production requirements and injection molding process. Modular design, simple operation and complete integration are a matter of course for us. The same applies to comprehensive application technology consulting. Our aspiration is to support you in every aspect. To ensure that you can do one thing without fail: Produce efficiently! //

Outstanding support

- Machine and process technology consulting
- Assistance with molded part and mold design
- Support during in-depth trials and tests

“EVERYTHING POSSIBLE IN TERMS OF PROCESS ENGINEERING WITH US.”

Application expertise

You couldn't ask for more! To find the best solution for you, we provide well-founded expertise in all facets of injection molding and special additional equipment e.g. for


- Multi-component injection molding
- Injection molding of silicones, elastomers, thermosets and metal or ceramic powders
- Injection molding of lightweight parts through foaming processes, Fiber Direct Compounding (FDC) and thermoplastic composites
- Working under clean-room conditions
- Micro-injection molding
- Injection compression molding
- Encapsulation of inserts

Peripheral equipment and accessories

The individual expansion of your ALLROUNDER does not end with process technology, however. In terms of peripheral equipment and accessories, we offer efficient options:

- THERMOLIFT granulate dryer and conveyor – compact unit for installation close to the machine, with which two ALLROUNDERS can be fed.
- Unscrewing units for precise demolding of external and internal threads in molded parts – optionally available in various versions.
- Rapid clamping systems for simple, fast and reliable mold changes.

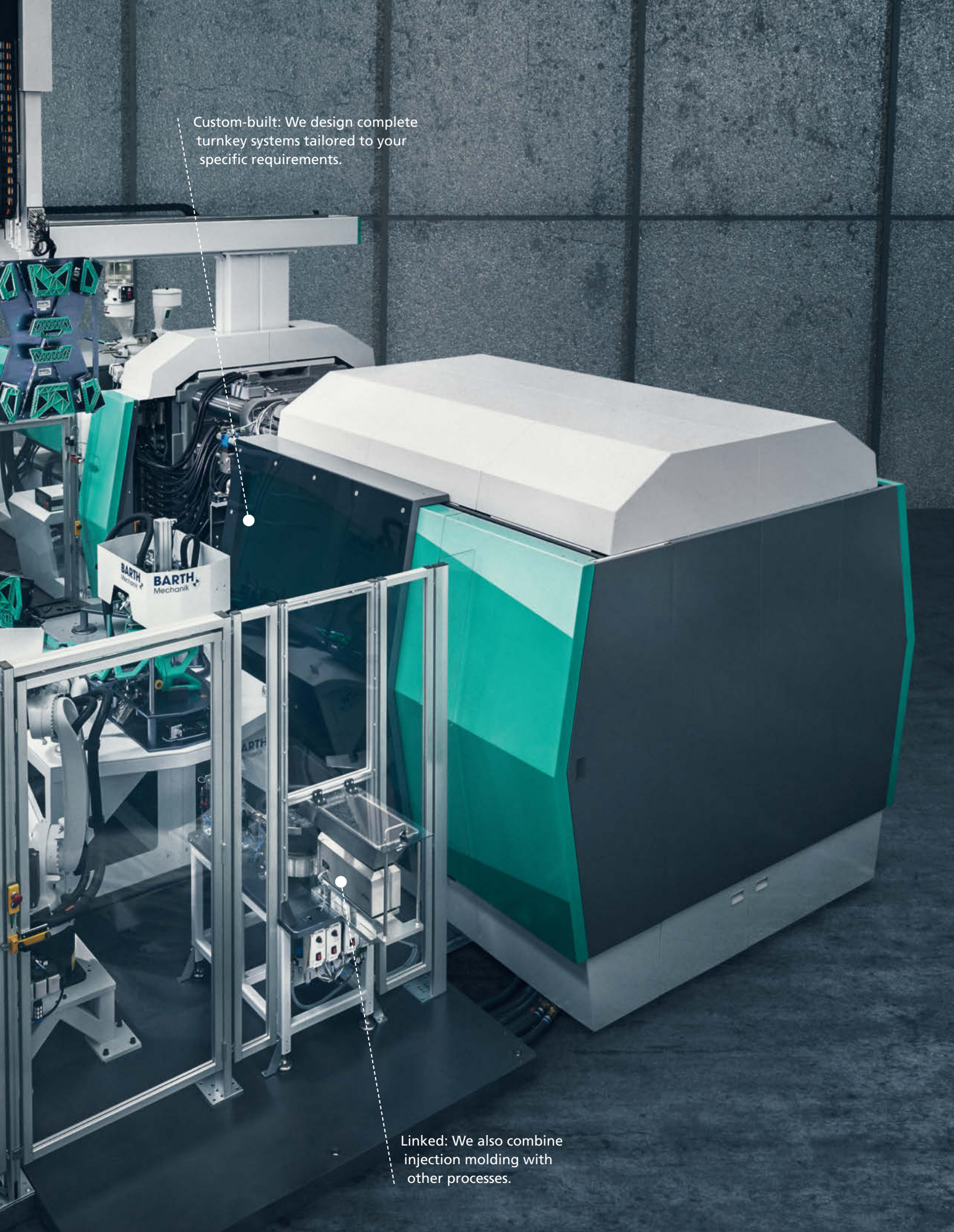


A photograph of an industrial robotic assembly line. The scene is dimly lit, with a dark, textured background. In the foreground, a white metal frame supports a robotic arm and various components. A conveyor belt system is visible, with several green plastic parts being processed. A dashed white line points from the text block to a specific component on the machine.

Integrated: We automate operations upstream and downstream of the injection molding process.

PRIMARY CONTRACTOR ARBURG

// Machine, robotic system, peripheral equipment, process control, data management – we relieve you of the planning and implementation of demanding production tasks. You have just one point of contact, one order and one delivery date for your project. As a technology and system partner, we assume overall responsibility. And you can concentrate on what's essential: Your customers. //



Custom-built: We design complete turnkey systems tailored to your specific requirements.

Linked: We also combine injection molding with other processes.



FACILITATORS: ROBOTIC SYSTEMS

// Productivity and reliability really count. That's why our ALLROUNDER machines and robotic systems work hand in hand. Adapted to your specific requirements. Precise, fast and reliable. Integrated complete solutions that allow you to start production directly. We make everything possible. This is thanks to a broad product range and extensive integration with which you can centrally manage and synchronously control processes. This is the only way to ensure highly efficient and cost-effective robotic technology. //



Further information:
Robotic systems brochure

Various robotic systems

Handling weights:

1 - 120 kg

Plug and work

Space-saving design and fast production readiness: The ALLROUNDER and robotic system form a fully functional CE-certified unit. As a primary contractor, ARBURG guarantees perfectly coordinated interfaces and safety features – both mechanical and electrical.

Flexibility

Can you coordinate robotic technology precisely to every handling task? Yes, you can! Our product range extends from a simple picker to versatile linear robots and multi-functional multi-axis robots. Moreover, various designs and special versions with practical configuration options are also available in terms of size, axes, axis drives and lengths. Also available: Extensive interfaces for gripper and peripheral technology. Greater flexibility is not possible.

Cost-efficiency

Top quality and performance: We also implement these principles consistently with our robotic systems. The robust, low-maintenance technology ensures a long service life and high availability. Extensive integration simplifies set-up and reduces mold-entry times.

Ease of operation

As with ALLROUNDERS, robotic systems can be configured using typical ARBURG sequence programming. The signal exchange goes well beyond the range of functions of a Europmap interface. This has clear benefits for you:

- One data set – no adaptation required
- Synchronous process control - short cycle times
- Assistance functions – easy set-up, fast start-up
- Low training requirement - same approach for all machines

**93,000,000
KILOMETERS**

- the distance covered by ARBURG robotic systems each year



Fully compatible: Standardized operating system reduces training and set-up requirements.

UNIQUE: TURNKEY PROJECTS

// Looking to further increase added value with regard to your injection molding process? We can offer you the wide-ranging expertise for the automation and integration of even complex process steps. Several hundred individual turnkey systems go into operation each year, with ARBURG acting as the primary contractor and covering all aspects, from design to cycle-time optimization. Just tell us your production task and we'll take care of it. Professionally and reliably - just as you'd expect from us. //

A lot is possible: Automated process steps increase production efficiency.



Interdisciplinary teamwork:
We generate synergy effects for
individual project concepts.



Further information:
Turnkey projects brochure

OUR EXPERTISE OFFERS YOU ADDED VALUE.

All-round carefree package

Our turnkey experts are called in whenever operations need to be integrated upstream and downstream of the injection molding process. We assume overall responsibility as „architects“ of your turnkey system. Services range from individual design, the definition of interfaces, as well as the coordination and monitoring of the entire project, from procurement to commissioning. This all-round carefree package continues seamlessly in our range of services. Here too, we act as a point of contact that takes care of all aspects.

Comprehensive project management

We always provide the best turnkey solutions because we network at an interdisciplinary level in brainstorming teams. This gives you access to our extensive expertise. System concepts are developed together with you and always follow the „second pair of eyes principle“. Discussing all issues as a team ensures maximum creativity and confidence in realizing all your tasks. We deliver your complete turnkey system on the date agreed with you. Because these are pre-tested and the sequences are optimized, they can quickly go into production.

A local presence, worldwide

Our position within the market, size and global presence make us a reliable partner the world over. We provide not only local sales and service, but also turnkey experts who design production cells tailored to your market and realist them with local partners. This has several benefits for you: No language barriers exist and physical proximity enables faster processing of inquiries.

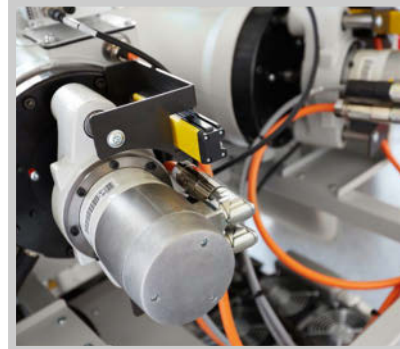
We are technology and system
partners for automated produc-
tion cells with more than

20 YEARS
OF EXPERIENCE





Unique technology: Integrated material preparation melts the granulate in the same way as in injection molding.



ADDITIVE MANUFACTURING REINVENTED: FREEFORMER

// We are completely redefining plastics processing with our patented process for industrial additive manufacturing, known as ARBURG Plastic Freeforming (APF). The freeformer, our system for the additive manufacturing of functional parts, produces efficiently and flexibly. No mold required. Parts created directly from 3D CAD data. With qualified standard granulates. Layer-by-layer application of tiny plastic droplets. Get started with a technology that offers brand new opportunities to produce individual one-off parts and multi-variant small-volume batches. //

freeformer – more than just 3D printing

- Open system
- Material diversity through standard granulates
- High quality
- Functional parts – also as hard/soft combinations





SINGLE-UNIT BATCHES: NO PROBLEM.

Highly customized: Open for process optimizations and qualification of your own materials.

Material diversity

The freeformer can be used to process qualified standard granulates in a flexible way. It does not require any prefabricated materials such as resins, powders or filaments. This means that a wide range of low-cost materials and dyes are available to choose from. However, reproducible additive manufacturing requires the materials used to be qualified. This results in optimized process data, which we make available to you as reference materials. We are continuously expanding this database. In addition to the standard materials which can be used additively, you can also process special original materials using our freeformer. This includes, for example, TPEs with various Shore hardnesses, PP (semi-crystalline), biopolymers, flame-proof materials and medical-grade polylactide.

Open system

The freeformer is designed as an open system. Slice and process parameters are freely programmable and can thus be individually optimized at any time. Based on our data sets for reference materials, your modified original materials are quickly available for use, as was the case with a PC approved for aerospace applications or an FDA-compliant medical-grade TPE.

Multi-component technology

The freeformer is equipped as standard with several discharge units. You can use these to produce parts in various materials and color combinations – also as durable hard/soft combinations. In the case of complex part geometries, you can alternatively use one component to construct support structures.





DIGITALLY NETWORKED: SMART PRODUCTION

More transparency, more flexibility, more efficiency! The basis for this are automated processes and direct information exchange. Process data is captured online, shared across the network, and the sequences are dynamically controlled and optimized. However, this calls for interdisciplinary expertise, which is what we provide for you. Our wide-ranging expertise extends from machine, process, automation and control technology through to IT networking. It enables your individual solutions for digitalization to be implemented in a targeted manner. //

ROAD TO DIGITALISATION

4th Industrie

powered by Arburg

ARBURG


ALLROUNDER 1120 H

NETWORKER: HOST COMPUTER SYSTEM

// Saving time and costs: Our modular ARBURG host computer system (ALS) offers you all the features that you need for the efficient organization and cost-effective optimization of your injection molding production facility. With the experience from several hundred installed Manufacturing Execution Systems (MES), we deliver you the ideal basis for your digital transformation. //

Greater flexibility: Wide range of options for integrating the entire production facility, such as I/O modules, etc.

More efficiency: Optimal utilization of the available resources thanks to a central overview.

 Further information:
Host computer system brochure

Practical management

Networking of the complete production facility, including manual workstations? ALS offers you every freedom in this regard: From input terminals and I/O modules through to standardized interfaces for the injection moulding machines of all manufacturers. Your system can always be extended flexibly thanks to combinable modules.

Detailed planning

Special injection molding production features such as mould inserts, for example, make detailed planning excessively complex for conventional ERP, PPS and BDE control stations. With ALS, you optimize your production based on online data, capacity utilization, quality and delivery reliability of your production.

Automatic archiving

Reliable documentation without complicated manual data input and incorrect entries. This simplifies audits and certifications considerably, leaving you more time for organization and optimization of your production – ALS also assists you in a targeted manner here.

Reliable information

ALS actively informs you and keeps you up-to-date worldwide! Feedback and key figures relating to machines, orders, shifts and production quality are immediately available. Maximum transparency, wherever, whenever and however you need it: Whether at the PC, in the production facility, or on the go.

Simple implementation

We plan and implement the suitable ALS system solution jointly with you. On-site guidance, as well as comprehensive training options ensure a high level of acceptance among your employees as well as amortization of your investment in a short time.

**1,250
hours**
**OF WORKING TIME
SAVED PER YEAR**



by dispensing with manual data entry
in the case of 20 machines



Greater transparency: Precise information allows you to make analyses and decisions at all times



EFFICIENCY DRIVER: SMART FACTORY

// This digitization of the factory makes it possible to integrate processes that respond extremely flexibly to changes and can largely control themselves. This leads to a higher value creation from products. Furthermore, completely new business models can be developed, e.g. through the direct integration of customer wishes. As a technology leader and trendsetter in the plastics industry, we are constantly opening up new horizons in what is technically possible. And we impressively demonstrate this with specific solutions. This means that the associated potential is directly available for you. //

For your digitalization

- Assistance packages for control systems
- Online data acquisition and production organization
- IT-networked process chains
- Mass customization in 3D
- Smart services

i Further information:
Smart factory brochure

Online data exchange:
Through IT networking, customer
wishes can be integrated in
the value-added chain.

DIGITALIZATION THAT BEST MEETS YOUR NEEDS.

Individual strategies required

The digital transformation with modern information technology such as the Internet cloud and mobile devices will significantly transform the industrial process.

- Transparent production – processes are traceable.
- Flexible production – small-volume and one-off parts can be produced cost-effectively.
- Efficient production – processes are resource-saving and fast.

There is no general solution for digitalization! This is because no two injection molding production tasks are alike. Every company must rather devise dedicated solutions for their own production processes. We will be delighted to help you!

ARBURG offers numerous components

Our aspiration is: To be your technology and system partner! Whether you want to make individual machines „smarter“. Whether you want to flexibly implement automated turnkey systems. Whether you want to make your production more transparent through integrated data exchange. On the basis of our machine, robotic, process, control and information technology, we can support you on your way to the „smart factory“. You benefit from modular, scalable and individually combinable components with which you can efficiently design and optimize your processes. That is „Industrie 4.0 – powered by Arburg“.

TOP SOLUTIONS FOR ALL INDUSTRIES

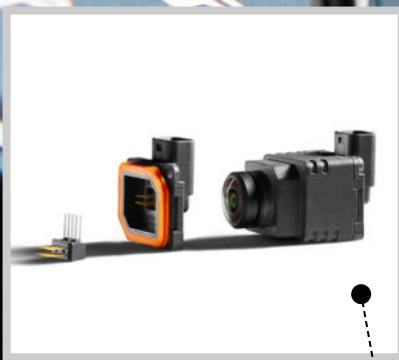
// Simply working cost-effectively – with us, you're on the right track! In order to further enhance the efficiency of your plastics processing, holistic thinking is required. Injection molding, industrial additive manufacturing, individual turn-key projects, end-to-end digitalization, full-service worldwide – we meet all your requirements, professionally and reliably. For all industries. Whether in the automotive industry, packaging sector, electronics, medical technology or optics – as you have come to expect from us. //

Medical: Production and packaging of dental drills under clean-room conditions.



Medical: Individual additive manufacture of a cranial bone made from PLLA.

Automotive electronics:
Production of complex hybrid connector on turnkey systems.



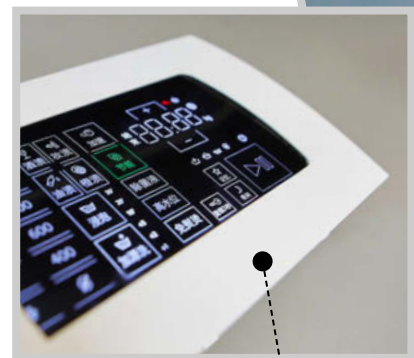
Further information:
Production efficiency brochure



Lightweight construction for automotive applications: Reducing costs for high-strength parts with Fiber Direct Compounding.



Packaging: Production of two-component closures in high volumes using cube-mould technology



Optics: Implementing an innovative 3D touch panel for washing machines in reproducible part quality.



Service Allround: Whenever and wherever you need us – we are there for you.



ALL-ROUND SUPPORT: ARBURG SERVICE

// For us at ARBURG, service is not just something we do, but rather an expression of an attitude: When you use our injection molding or additive manufacturing technology, you can rest assured of comprehensive support over the entire system lifetime, in the knowledge that you can rely on our world-class, responsive service offerings. Be it the delivery of genuine parts, telephone hotline, immediate deployment of our service technicians or specialist training courses We do our utmost to ensure that you can produce efficiently and successfully. //

Spare parts and direct support
on the ground in around

100
COUNTRIES



Further information:
Service worldwide brochure



ARBURG

www.arburg.com



Scan this code to visit our
Media Center: in-depth,
captivating, entertaining.

ARBURG GmbH + Co KG
Arthur-Hehl-Strasse
72290 Lossburg
Tel.: +49 7446 33-0
www.arburg.com
contact@arburg.com

WIR SIND DA.