TURNKEY PROJECTS

Technology and system partner for individually automated production cells
UNIQUE

Machine, automation, peripheral equipment, control system, data management – we can do it all for you!
Automation is one of the most important topics in almost every industry. Its aim is to increase productivity, process reliability, availability and part quality in the face of increasing demands placed on plastics processing such as smaller batch sizes, function integration and multi-material design. As a result, production tasks are becoming increasingly complex. What is required here is a technology and system partner that can offer you an entire solutions portfolio from a single source.

WIR SIND DA.
Looking to further increase added value with regard to your injection moulding 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 we can handle every aspect, from design to cycle-time optimisation. Just tell us your production task and we’ll look after it. Professionally and reliably - just as you’d expect from us.

**AT A GLANCE**

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**What is it that characterises us as a turnkey partner?**

- Comprehensive expertise – also in relation to process, control and information technology
- Broad product portfolio
- Worldwide support
- Many years of experience
All-round carefree package

Our turnkey experts are called in whenever operations need to be integrated upstream and downstream of the injection moulding process. We assume overall responsibility as „architects“ of your turnkey system. Services range from individual design, the definition of interfaces or the coordination and monitoring of the entire process, 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 will care of everything.

A local presence, worldwide

Our position within the market, size and global presence make us a reliable partner the world over. We offer not only local sales and service, but also turnkey experts who design production cells tailored to your market and realise them with local partners. This has several benefits for you: Language barriers are removed. Physical proximity enables faster processing of inquiries. Pre- and after-sales simply become faster if the service engineer is based in the same country.

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 realising all your tasks. We deliver your complete turnkey system on the date agreed with you. Because these are pre-tested and the sequences are optimised, they can quickly go into production.

Practical and market-based: our turnkey solutions are discussed and developed locally within the team.

We are technology and system partners for automated production cells with more than 25 YEARS OF EXPERIENCE.
High process reliability and part quality

- Zero-fault production on the basis of defined quality characteristics
- Direct, cavity-related indication of the quality of the injection moulding process – reliable separation of good parts
- Unique part identification and traceability
- Production under controlled conditions in clean rooms, e.g. for optical or medical components

High productivity and availability

- Constant, fast and independent production
- Reliable availability of parts
- Realisation of challenging tasks, e.g. hot or delicate inserts

Optimised material flow

- System produces finished (ready-to-ship) components without intermediate transport or storage
- Efficient follow-up processes, e.g. no parts handling or optimal preparation of parts handling (position-based orientation)
- Less production space

ENORMOUS POTENTIAL FOR REDUCING UNIT COSTS.

A great deal is possible: automated process steps increase production efficiency.
Machine, robotic system, peripheral equipment, process control, data management - our turnkey solutions enable us to 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.
Linked: we also combine injection moulding with other processes.

Individualised: we design complete turnkey systems tailored to your specific requirements.
On-site functional testing at ARBURG: we optimise sequences in terms of quality, reliability and productivity.

Looking for an informative video? Scan here to visit our Media Centre.

TECHNOLOGICAL CONSULTING

Product idea
- Help with mould design
- Help with insert/moulded part design

Definition of production requirements
- Selection of technology (machine, process, robotic system)
- Determination of degree of automation

Drafting a solution concept and offer
- Project planning of possible scenarios
- System layout
- Process simulation
- Cycle time analysis

Assessment
- Presentation of solution concept
- Advantages/disadvantages of scenarios
- Economic efficiency calculations
Efficient solution as objective

Are you looking for an efficient turnkey solution that is as uncomplicated as possible? You just need to cooperate with our extremely well trained turnkey experts. We rely on a networked approach based on the „second pair of eyes principle“. Every concept and every design is discussed and evaluated in brainstorming teams - enabling us to fully exploit our experience and creativity for every task.

Precision landing as result

We offer comprehensive project management that ensures the delivery of the complete turnkey system on the agreed date. As this is pre-tested by us under production conditions and process sequences are optimised, you can expect fast production readiness. This is also ensured by our excellently trained technical specialists, who have solid expertise both in automation technology and injection moulding technology.

SYSTEM SERVICE

- Planning and building production cell
  - Technical specification
  - Selection of project partner
  - Definition of interfaces
  - Risk assessment

- Function test at ARBURG
  - Creation of data records (all operating modes)
  - Process optimisation
  - Acceptance under production conditions

- On-site installation
  - Establishment of production readiness
  - Instruction and training
  - CE certification

- Production
  - Preventive maintenance
  - Service

□ ARBURG □ Customer
Interdisciplinary teamwork: we generate synergy effects for individual project concepts.
Process overview
As a technology and system partner, our expertise ranges from machine, process, automation and control technology through to digital networking. This results in precisely tailored, automated production cells from a single source. For maximum production efficiency.

Unit costs are decisive
Our turnkey and application technology experts discuss all possible scenarios. Typical example: Is it more cost effective to implement components in the mould using a rotary unit or an available robotic system? Is it more efficient to use a multi-component machine or to link two machines via a robotic system? We consider all influencing factors when choosing the right combination from the numerous possibilities and therefore generate synergies. The mix of different competencies is crucial when it comes to reducing unit costs, optimising investment costs and preparing for future requirements.

The right technological fit!
From hydraulic, hybrid and electric to vertical entry machines. From adapted process technology, such as for thermoset or silicone processing, to versatile, linear or multifunctional multi-axis robots. We offer you every option for the technical specification for your turnkey system. All the technology is centrally managed and monitored via our control system. And all using a standard user interface and the same programming system. This enables you to get the best from your process. Information sharing, for example for unique part identification or comprehensive documentation in accordance with ISO/TS 16949 or GMP, can be realised with our ARBURG host computer system ALS.

Comprehensive management: we also handle control and data exchange.

Further information:
Products and services brochure
ADAPTED AUTOMATION

Automation is one topic that is always worth thinking about, regardless of the size of your company, your product range or your unit volumes. This also applies to existing production tasks, for which there are probably much more flexible and more economical solutions today. Use our extensive experience, whether for integrating operations around injection moulding or for linking them with other processes.
Wide range of tasks

Every year, several hundred production cells are designed by us according to your individual specifications and delivered in turnkey status. This results in a wide range of demands in terms of automation, however, there is a certain limit above which automation no longer makes sense. The limit is reached when the individual processes affect the availability of the system excessively and the required volume can no longer be ensured. For greater cost effectiveness we always incorporate the entire production process in our plans. This can also mean less automation than originally intended, for example by dividing the task into subprocesses with intermediate buffers or human/robot cooperation.

Preparation and feeding:
provision or segregation via turntable/shuttle table; accurate positioning, assembly (cables and contacts); set-down in trays; set-down separated according to cavities; stacking of boxes or trays; insertion of intermediate layers

Processing and linking:
printing; milling; separating sprue; deburring; assembling; welding; PUR foaming; extruding; additive manufacturing

Quality assurance:
preheating of inserts; checking (optical, mechanical, electrical, tightness); cooling; ionising; marking; packaging; labelling
Individual labelling: checking and documenting part quality in a single step.

Assembly within injection moulding cycle: high-volume production of watches becomes most cost-efficient.

Quick and easy: separation and testing of around 72,000 pins per hour.

Automated preparation: from delicate contacts to flexible cables - all components can be reliably fed.
Near-contour reworking: production of direct, ready-to-install insulating rails.

Hybrid plug with silicone seal for parking assistance feature (automotive).

Assured quality: provision of around 18,000 reels, separated according to cavities.

Ready to use: production and packaging of dental drills under hygienic conditions.