HOST COMPUTER SYSTEM

Digital production control
NETWORKER

Efficient, cost-effective, online:
Digital production management
powered by ARBURG.
More transparency, more flexibility, more efficiency! Our ARBURG host computer system (ALS) is a detailed planning tool for your injection molding production that sets new standards. Process data is captured online, clearly prepared and available end to end. Direct, reliable, active. Turning big data into smart data! Start your digital transformation – with ARBURG as your “smart partner”.

WIR SIND DA.
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.

**AT A GLANCE**

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.
**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 molding machines of all manufacturers. Your system can be always be extended flexibly thanks to combinable modules.

**Detailed planning**

Special injection molding production features such as mold inserts, for example, make detailed planning excessively complex for conventional ERP, PPC and PDA control stations. With ALS, you optimize your systems 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 when mobile.

**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.

Greater transparency: Precise information allows you to make analyses and decisions at all times and anywhere in the world.
GET ON BOARD

The ARBURG host computer system (ALS) is the central tool for efficient organization of your injection molding production and therefore an important step towards the “smart factory”. In order to help you get started, we have put together the ALS package. This ensures transparency right from the start and allows you to achieve significant time and cost savings. The modular configuration can be extended at any time, enabling you to react quickly to new requirements.

ALS package overview

Use this pre-configured module selection to make your daily work even more efficient.

- **Production organization**: Optimize with online information.
- **Production networking**: With an open structure.
- **Production data**: Make available in real time and across locations.
- **Production documentation**: Clear and available “per click” at any time.
- **Setting data**: Convenient and secure archiving.

FLEXIBLE MODULAR KIT

for the configuration and extension of your host computer system
Information center

★ Base: Enter data for production overview and manage molds
Remote: Remote maintenance via Internet
Mobile production: Mobile MDA or PDA terminal
Mobile monitoring: Production information on mobile devices
Information: Individual info screens
Mobile maintenance: Maintenance terminal for mobile devices
I/O modules: Connection of any machines/workstations via signals
Web I/O condition: Measuring ambient conditions
Web I/O alarms: Output devices for central alarm signaling
★ ALLROUNDER interfaces: Connectors for ALLROUNDERs
Energy visualization interface: Connection licenses for energy meters
Machine interfaces: Connectors for injection molding machines and protocols of various manufacturers
Device connector: System data acquisition via network
OPC UA connector: Data acquisition via OPC UA
★ Clients: Access ALS server from PC workstations
Terminal: Enter data manually

Production management

Orders: Plan and monitor orders
ERP interface: Exchange data with PPC/ERP system
Maintenance: Manage, monitor and document maintenance orders
Groupware: Automatic notification of events and generation of cyclical reports
Production variants: Plan alternative molds and take account of machine performance
Resource conflict: Monitor molds for double assignment
MES interface: Exchange data with production management systems
Batch: Batch change documentation
Material staging interface: Exchange data with material provisioning systems
Maintenance verification: Verify maintenance tasks

Quality assurance

★ Programs: Manage programs and transfer them to the machine
Quality: Statistical process control (SPC) and interface to quality assurance systems
Programs plus: Create parameter lists and comparisons, full text search

Documentation

★ Reports: Analyse order, item, mold and machine-related evaluation and export data
Progression: Create event log
Set-up log: Daily back-up of set-up log
Documents: Link documents with orders, programs, maintenance and much more
Data warehouse: Save states and events in database
Production log: Permanently archive process parameters
Events archive: Archive event data in database
Energy visualization: Capture and document energy data

★ Modules in ALS package
POWERSFUL INFORMATION CENTER

Quickly and flexibly respond to constantly changing requirements? No problem with our powerful ARBURG host computer system (ALS). It enables close IT networking and online data exchange. Across all your production facilities and locations - throughout the world. But also with your production planning system (PPC) or enterprise resource planning system (ERP). For a direct flow of information from the machine to material planning, purchasing and sales. This is digital transformation at its best!

**Highlights**

- Completely connected production
- Tailored to injection molding production
- The latest information at your fingertips – including on mobile equipment
- Evaluations per click
NETWORKED
INTERACTION
on the basis of an industrial Ethernet network
Central and comprehensive: Integrate the entire machine fleet and capture production data online.

1,250 HOURS OF WORKING TIME SAVED PER YEAR
by dispensing with manual data entry in the case of 20 machines
A RELIABLE DATA BASIS ENSURES EFFICIENT PRODUCTION.

Central acquisition

The basis for cost-effective production: Central management of master data with online acquisition of order progress, machine statuses, process parameters and alarm messages. This enables you to plan down to the minute at all times. The combination of machine and production data acquisition (MDA and PDA) allows you to make target/actual comparisons, to optimize processes and reduce set-up times.

Horizontal integration

Enabling you to integrate all production systems – even across several locations! Your options:

- Input terminals for older machines and manual workstations
- I/O modules for simple connection of any machines and plants
- Standardized interfaces for all makes of injection molding machines

Our ALLROUNDERs optimally interact with ALS, e.g. when exchanging setting data or recording fault causes.

Vertical integration

By means of seamless integration with your higher-level PPC/ERP system, ALS receives order data and automatically transmits the order progress. This ensures up-to-date production data and increases the added value of your planning system. You can choose where, when, how and which information is made available to you: From the smartphone to the flatscreen. This results in fewer internal queries regarding the status of production orders.
PREVENTIVE QUALITY ASSURANCE

Your setting data is priceless. That is why we collect and archive your data secure from loss with our ARBURG host computer system (ALS). This guarantees that your production only uses the current, most recently optimized and released change statuses. Diskettes and memory cards: A thing of the past! Your product quality is constantly reproducible, complaints tend towards zero. A further advantage: You are perfectly prepared for audits and certifications.

Always up-to-date: Central access to optimized and approved setting data.
**Improve quality**

The recording and monitoring of actual values makes changes in the production process traceable and contributes to high product quality. Reference values and tolerance bands can be managed product-specifically. You will be warned of imminent quality deviations and can respond in time – without having to interrupt production.

**Proof of quality**

Order-specific protocolling and archiving of the actual process values leads to seamless verification of production quality. Detailed long-term analyses, statistical evaluations and proof of process capability, for example according to ISO TS 16949, can be implemented. Close networking with quality assurance systems is also possible.

**Archive setting data**

Setting logs and corresponding screen pages of the machine control system can be archived with the setting data. This makes it much easier to find the relevant data for a specific production combination. Also easily possible: Creation of parameter overviews from archived setting data or a detailed comparison of data sets. This enables you to document the settings even during a batch or a currently active order.

Permanent traceability: Order-specific recording, monitoring and documentation of actual process values.
EFFICIENT PRODUCTION MANAGEMENT

Manage your available resources, save time and minimize costs. It’s simple – with our ARBURG host computer system (ALS). Through direct assignment of orders to machines and the creation of queues via the planning chart. With forward-looking detailed planning of machine utilization, production dates, unit volumes, set-up and maintenance work including personnel requirements. Data exchange with planning systems such as SAP is fully automatic. All of this makes your order planning and monitoring reliable and transparent.
Central management
Integrative and interactive: Your order planning triggers the provision of the setting data, molds and materials required for production. The setting data is transmitted directly to the machine when production of the order commences. This makes production intelligent.

Plan precisely to the minute
Fully utilize capacities, minimize set-up and maintenance times – all this requires precise information. Include specialities such as the number of cavities, family molds, master molds or peripheral equipment in your detailed planning. Targeted data exchange also supports areas such as warehousing, mold construction or maintenance.

Reliable delivery
The current scheduling status at a glance: An active display of bottlenecks and potential delivery delays means you can provide information and act on an ad hoc basis. This helps you to ensure the timely manufacture of your products and thus a high level of customer satisfaction.

Maximization of availability
You can centrally manage and document all maintenance orders for molds, machines and peripheral equipment at one location. The continuous monitoring of deadlines and automatic reminders for pending work via text message, e-mail or info screen protect you against unscheduled machine downtimes.
You must first identify any potential for improvement to achieve continuous production optimization. This requires sound information. This information is provided by the ARBURG host computer system (ALS) per click – with all the important indicators and clearly prepared statistics, you are always up-to-date. Another benefit is that the available data can also be used during the decision-making process relating to capital investments. Knowledge is always preferable to speculation.

COMPREHENSIVE DOCUMENTATION AND ARCHIVING

Seamless documentation: Ideally equipped for certifications according to GMP, FDA, ISO TS 16949 and ISO 9001.
Continuous data acquisition

Long-term, reliable and with no effort: Documentation of production and order progress with all events. Protocolling of batch changes as an order log. Recording of parameter changes with all trends and developments in comparison with the specified setting data. In this way, your production data forms an ideal basis for comprehensive complaints management and seamless quality documentation with regard to your customers.

Targeted analysis

Whether the productivity of machines and molds or the cost-effectiveness of orders and articles are under examination: A large selection of predefined reports quickly provides help. Recorded production data can of course also be exchanged using common software tools. This allows you to easily realize individual evaluations.

Central networking

You can quickly access documents relevant to production, set-up or maintenance, such as inspection plans, instructions, checklists, reports and drawings. The direct link to master data, setting data and orders provides you with efficient document management. Consistently paperless and centrally available – always up-to-date!

A basis for efficient work: Call up information and acknowledge tasks on site, e.g. for maintenance.

A basis for energy management: Order-based acquisition of energy data.
APPLICATIONS: DIGITAL IN PRACTICE

Every production facility is unique. And its digital networking is just as individual. The ARBURG host computer system (ALS) with its modular, flexible concept plays a key role and offers you all the freedom you need for your digital transformation. Your data management is simplified and the transparency of your processes is increased. It allows you to utilize your available resources much more effectively – whether during order planning, quality assurance, mold management or maintenance.
Interactive checklists: Safely perform and document maintenance work.

Smart production – everything under control

ALS is the ideal tool to help you retrieve all important production data for your worldwide locations. Access everything per click: Fault messages, downtime causes, production progress, indicators such as OEE, availability and quality – and not only for ALLROUNDERS, but for all production systems. This creates transparency – whether on a smartphone or on a large screen in production. You can configure the views individually depending on the location and purpose of use, e.g. as a machine control station with alarms, as a quality chart with reject rates or as a production overview with orders.

Comprehensive information: Individually configured, clearly arranged and in your corporate design.
Coordinating maintenance

ALS enables you to document the life cycle of all the equipment in your production system. Documents for maintenance are stored centrally. Shot counts, operating hours, set-up processes etc. are determined automatically and directly recorded. Due dates for maintenance work are constantly monitored – and you receive advance warning in good time.

Optimize set-up processes

From as early as the order planning stage, ALS takes account of the storage location and availability of your molds, including master mold, inserts and accessories. Automatically generated provisioning lists, warehouse management via touch terminal and scanner support, or online transmission of setting data to the machine: All this adds up to efficient work sequences.

Documentation according to GMP

For order planning you can use ALS to define production combinations (e.g. from machine, peripheral equipment, mold, material) for which there is only one validated data set. You control production enabling via user identification with an RFID card and an ACTUAL-TARGET comparison via a scan. This means that you receive GMP-compliant process documentation at virtually no extra cost: From the continuous protocolling of process parameters via seamless batch tracking through to long-term archiving of set-up protocols and recalibrations.