



ELECTRIC ALLROUNDER

The benchmark for high-end
part production

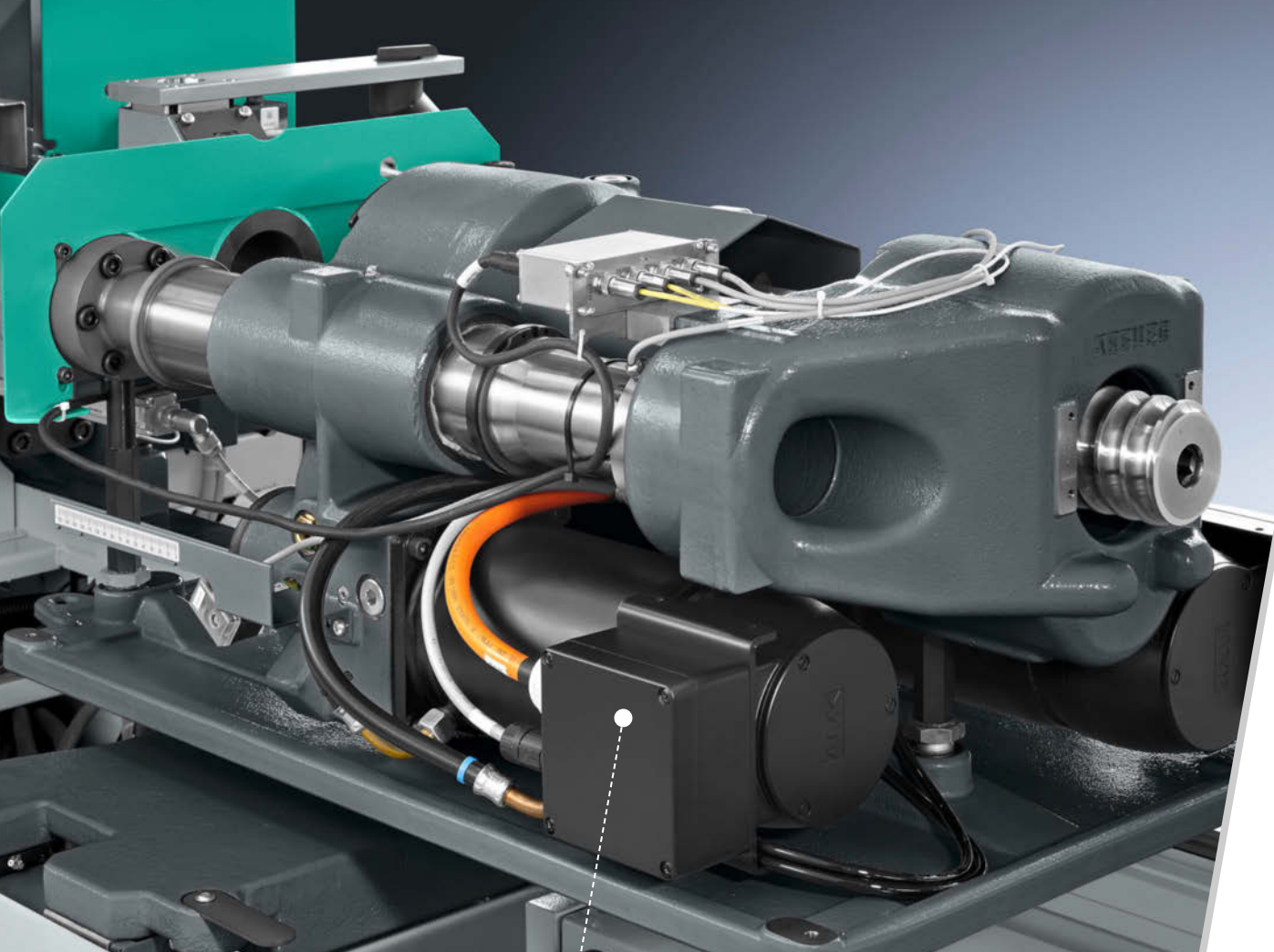
ARBURG

PROFIT- ORIENTED

Typically electric:
easy implementation of
demanding tasks.

We set standards! And that applies to our electric ALLROUNDERS too. What does this mean for you? It means, for example, that our drives are designed according to the highest functional and quality criteria – “Made by ARBURG – Made in Germany”. Regardless of whether you’re working with our GOLDEN ELECTRIC general purpose machine series or our high-precision ALLDRIVE, and whether medical technology, packaging or the automotive industry is your specialism, we provide easy, highly efficient solutions for producing challenging moulded parts.

WIR SIND DA.



Servo-electric drives operate extremely efficiently.

AT A GLANCE

// Cost-effective performance that's simply outstanding: with a perfect spectrum of machine dimensions available, our electric machines are suitable for all of your applications. The GOLDEN ELECTRIC is our standardised general purpose machine series at an unbeatable price. To accommodate more demanding equipment requirements and more challenging production tasks, our ALLDRIVE offers the features you need. Choose your electric ALLROUNDER from one of the most comprehensive ranges in the industry. //

Modern machine technology for greater all-round efficiency

- Short dry cycle times as well as simultaneous machine movements
- Reproducible mould filling
- Extremely low energy requirement
- Low cooling requirement and noise level

Speed

Injection, dosing and opening and closing of the mould are servo-electrically driven as standard on GOLDEN ELECTRIC and ALLDRIVE machines – allowing fully independent operation. 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 mains form the basis for outstanding energy efficiency. The energy requirement is reduced by up to 50 percent.

Precision

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

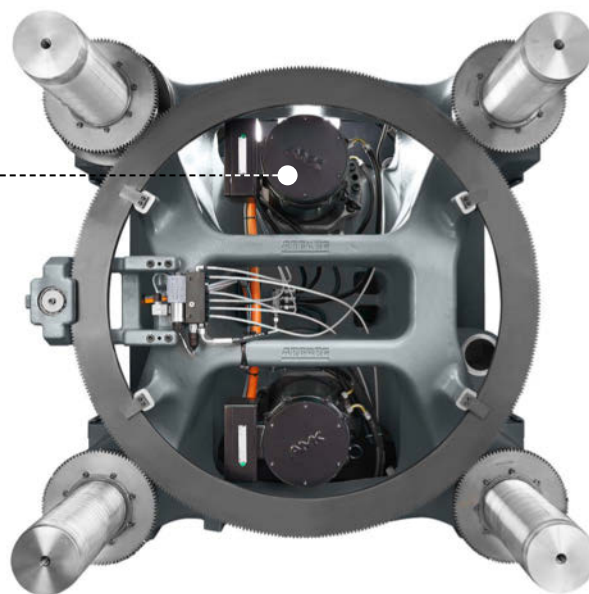
Value

Numerous technical details enable the machines to operate with exceptional reliability and minimal variations in the process. These include, for example, the closed cooling circuit of motors and converters for fast cycles and long holding pressure phases.

Emission minimisation

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.

High-quality technology without compromise: servo motors are generally liquid-cooled.



GOLDEN
ELECTRIC

Distance between tie-bars: **370 - 570 mm**

Clamping forces: **600 - 2000 kN**

Injection units: **170 - 800**

ALLDRIVE

Distance between tie-bars: **270 - 1120 mm**

Clamping forces: **350 - 6500 kN**

Injection units: **5 - 2100**

"Made by ARBURG – Made in Germany":
we consistently implement
this quality standard.

ARBURG


ALLROUNDER 570 E

**GOLDEN
ELECTRIC**

**GOLDEN
ELECTRIC**

LEADING TECHNOLOGY – AT THE BEST PRICE

// What does the future of injection moulding technology look like? One marked trend is the growing proportion of electric machines in injection moulding plants worldwide. With our GOLDEN ELECTRIC series, we are following this trend and have been guided by your requirements in its development. To achieve this, we've created a golden recipe for success: the use of proven, uncompromising high-end technology at an unbeatable price. Ideal for producing your quality parts even more profitably! //



Highly compatible: the tie-bar spacings, cylinder modules and operational philosophy are identical across all machine series.

The Golden touch: high-end standards such as play-free spindle gear units.

ALLDRIVE: MORE EQUIPMENT – MORE FLEXIBILITY

// Need more flexibility in your equipment? Looking for high-precision solutions to challenging production tasks? Want to maximise your productivity? Our ALLDRIVE machines can be individually adapted using a variety of performance variants. That leaves you the freedom to choose exactly what your area of application requires. //

Performance variants

L1: the basis for all our electric ALLROUNDERS. Designed for technical parts and particularly energy-saving operation.

- Performance specification similar to standard hydraulic machines
- Servo hydraulics: serial movements of secondary axes (ejector, nozzle movement and core pull) in relation to one another – simultaneous movements in relation to servo-electric axes
- Regulated mould locking in two stages possible (not for GOLDEN ELECTRIC)

L2: an alternative for the ALLDRIVE in high-speed applications and complex processes.

- Shorter dry cycle times and higher injection speeds
- Small hydraulic accumulator systems: simultaneous movements of secondary axes in relation to one another as well as in relation to servo-electric axes
- Regulated mould locking in several stages possible
- Cycle-overlapping movements possible

L3: an alternative for the ALLDRIVE in the case of thin-walled applications and the highest demands on machine performance.

- All adaptations of performance variant L2
- Even greater injection speeds

100,000,000 CYCLES



This record number for an ALLDRIVE shows just how reliably the electric machines operate

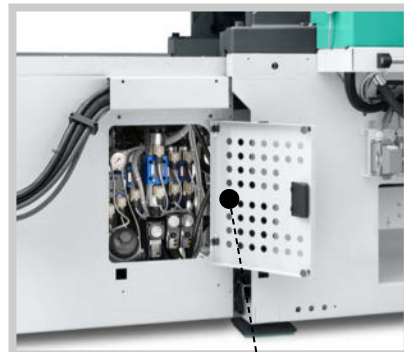
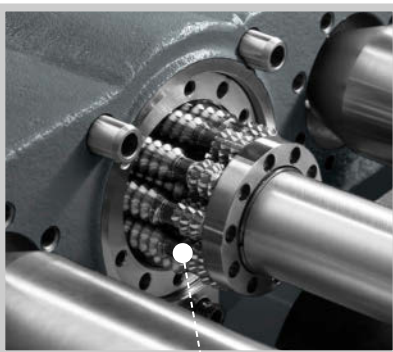
Ready for digitalisation: ALLROUNDER
630 A to 1120 A machines with a
clamp design are equipped with not
only connectivity modules, but also
assistance packages as standard.



DRIVE SYSTEMS: ENERGY-EFFICIENT

// High-end drive systems make our electric ALLROUNDERS extremely economical in every production application. Despite their high dynamics, these machines operate extremely energy-efficiently. This is due to the servo-electric drives that are used for all important movements – and are available in several performance variants. When it comes to the secondary axes for the ejector, nozzle movement and core pull, you can choose between hydraulic and electric alternatives. This enables you to coordinate the machine and application precisely with individual customisation. //

Play-free and precise:
GOLDEN ELECTRIC machines
use ball screw drives.



Exceptionally durable and precise: the
highly resilient planetary roller screw
drives in our ALLDRIVE machines.

Efficient: integrated hydraulics are ideal
for high ejector and nozzle contact forces.

Servo-electric drives

Injection, dosing and mould opening and closing are servo-electrically driven – with energy-saving, high-precision and frequently simultaneous movements included. The technical high-end solutions used in this case:

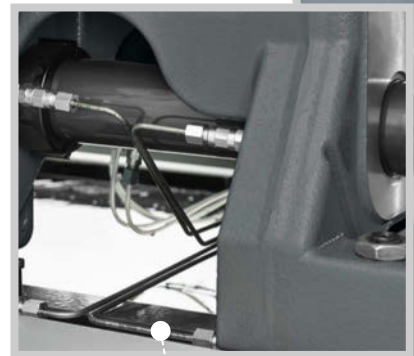
- Play-free power transmission with direct-acting spindle gear units
- Liquid-cooled servo motors ensure smooth running, temperature stability and operational safety with less air turbulence
- Closed cooling circuit for the motors and converters
- Recovery of braking energy

Integrated hydraulics

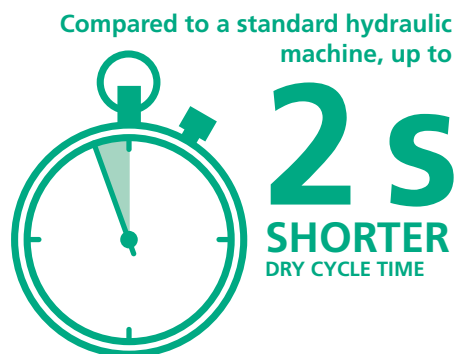
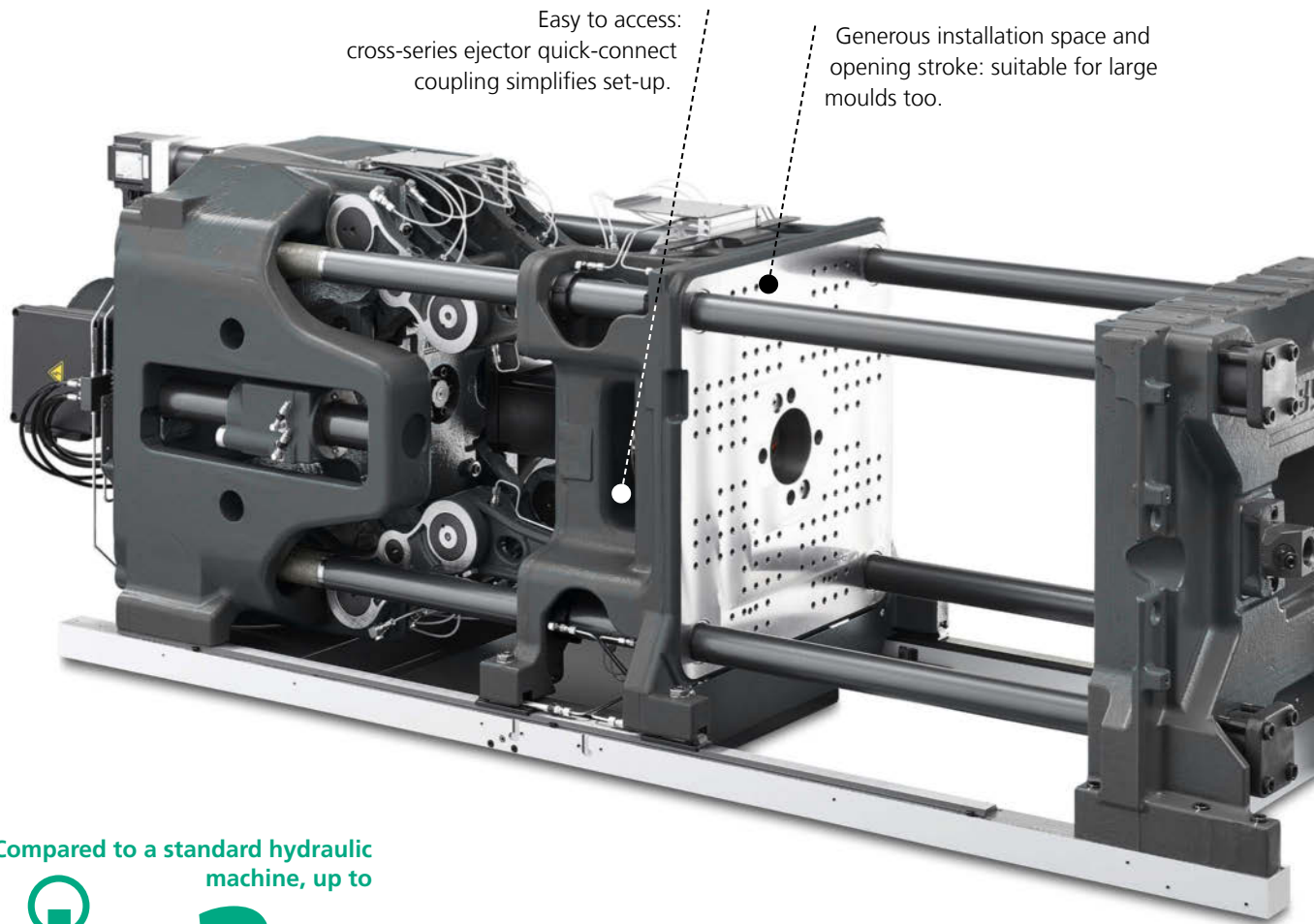
The secondary axes are hydraulically driven, while the ejectors and core pulls are also available in servo-electric versions. The servo hydraulics provide the basis for energy-efficient sequences for secondary axes. A small hydraulic accumulator system is available as an alternative for particularly complex moulds. Want to use moulds with hydraulic functions? No problem with our electric ALLROUNDER machines!

High availability

Our robust drive systems are the basis for long, stable and fault-free running times. The automatic central oil lubrication system and the grease lubrication points that converge at a central point outside the panelling minimise the maintenance effort for the toggle-type clamping units. Because lubrication can take place during operation without interrupting production, availability is increased. Lubrication intervals are thereby calculated individually, depending on the forces, speeds, strokes and times that have been set. This type of predictive maintenance saves operating time and minimises costs. All this means greater cost-effectiveness in day-to-day operation.



Easy maintenance: automatic central oil lubrication system for the clamping unit.



CLAMPING UNITS: FAST

// Highly precise and economical: our electric toggle-type clamping unit. Save money daily with energy-efficient running characteristics! The kinematics of the double five-point toggle system is optimally adapted to the servo-electric drive. The application-focused design of the drive systems on the GOLDEN ELECTRIC and ALLDRIVE machines ensures short dry cycle times. In addition, the simultaneous movements of the clamping unit and ejector considerably reduce cycle times in your production facility. //

Five-point toggle system

The double five-point toggle system features a stable construction with multiple guidance points. This provides for absolutely symmetrical force application during movements and mould locking – even with heavy moulds. Despite the compact design, large opening strokes are possible.

Protective mould insert

The box-type construction of the movable mould mounting platen is longitudinally guided and supported. Together with four tie-bar guidance, this results in high-level parallelism and precision for extended periods between mould maintenance. Highly sensitive tie bar strain measurement ensures active mould protection.

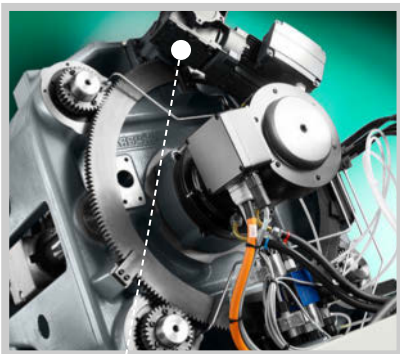
Precise positioning

The centrepiece of our mechanically rigid closing system: play-free spindle gear units. This enables us to assume all positions with a high degree of precision. This simplifies the transfer of parts to robotic systems.

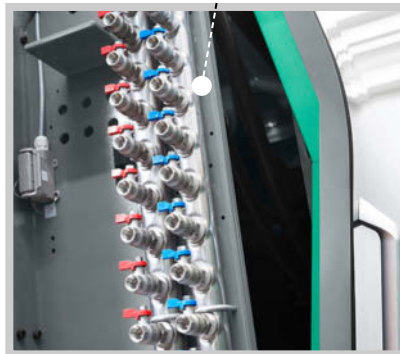
Clamping force regulation

The toggle can be conveniently adapted to different mould installation heights by means of electrical adjustment. The clamping force regulation (for ALLDRIVE, depending on the size and performance variant) generates a consistent locking force and thus automatically compensates for the thermal expansion of the mould.

Near-mould media connections (optional): increased protection towards the back of the machine provides for a great deal of free space.

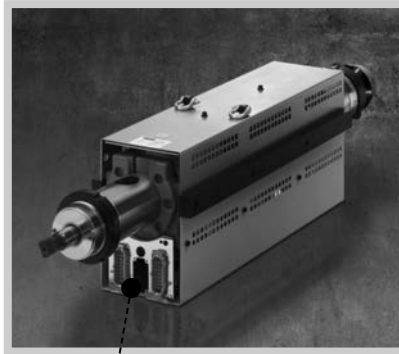


Electric mould height adjustment: effective help for short set-up times.



Servo-electric ejector (optional): highly precise dropping of moulded parts for even shorter cycle times.

Swing-out injection unit: the screw can be removed without dismantling the cylinder module.



Easy to convert: central coupling of all cylinder module supply units and screw quick-connect coupling.



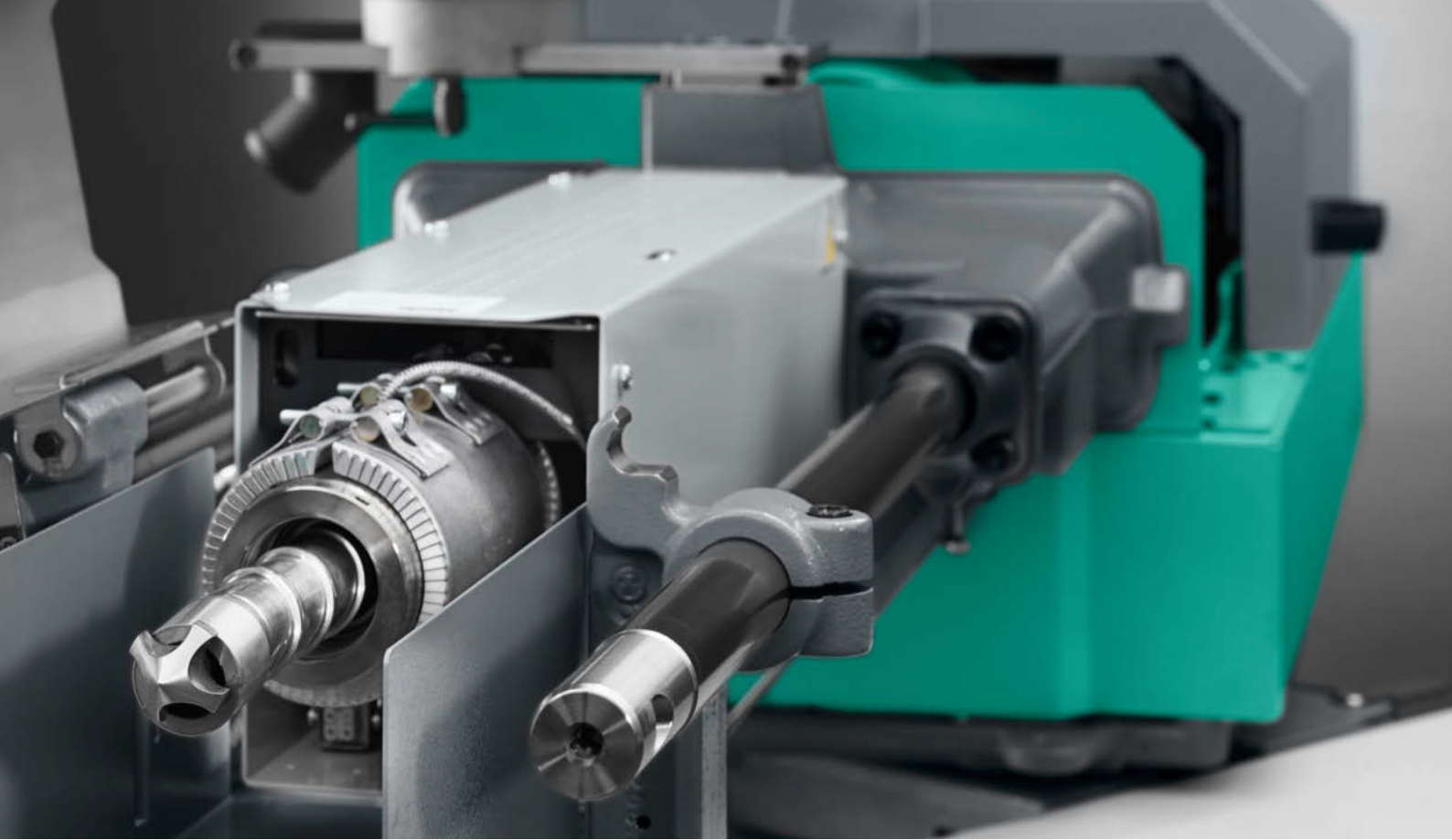
INJECTION UNITS: PRECISE

// Homogeneous material preparation and precise injection form the basis for high-quality part production. This is ensured by the mechanically rigid drive axes, for example, which enable excellent process control. Another benefit is found in potential energy savings. With the ALLDRIVE, you maintain full control of your cycle times thanks to simultaneous machine movement and dosage across cycles. Our injection units can also be converted and cleaned quickly – another clear advantage for you. //



**SMALL
SHOT WEIGHTS**

can be reproduced in the
micro injection unit



Wide variety of combinations

The cylinder modules are compatible with all series and are finely graded. A number of versions ensure optimum protection against wear. Moreover, screws with non-standard geometries allow you to process all common plastics.

Servo-electric injection

Reproducible mould filling is achieved by force-regulated and position-regulated injection, dynamic acceleration and precise pressure detection via sensors close to the axis. Liquid-cooled motors enable fast cycles and long holding pressure phases.

Torque-free nozzle contact

Our two-tie-bar guidance facilitates absolutely leak-tight nozzle contact – also ideal for both flat and extended nozzles. The build-up of the nozzle contact forces is programmable and regulated, which reduces wear on the nozzle and mould.

Direct dosing drive

The independent servo-electric injection and dosing drives allow for regulated dynamic pressure and lead to higher energy efficiency and precision. Since the melt can be dosed simultaneously across cycles on the ALLDRIVE, it can also be processed faster and more gently.



CONTROL SYSTEM: SMART

// Maintaining control over the machine, mould, robotic technology and peripheral technology requires a suitably powerful central control system. This calls for smart technology that offers extensive data integration options, monitors and adaptively controls your process, and supports you in every operating situation. All the features of our SELOGICA and GESTICA control systems are designed for a fast, secure and convenient set-up and operating process. This allows you to get the best out of all your applications. //

Highlights

- SELOGICA and GESTICA – fully compatible
- Graphic sequence programming
- Real-time plausibility check
- Assistance packages and connectivity modules – ready for digitalisation
- Central control system for complete production cells

i More information:
SELOGICA and GESTICA brochure

Central management

Thanks to its unsurpassed standard operational system, the SELOGICA saves time and costs. The simple integration of a wide variety of peripheral equipment enables sequence management even for complete production cells, with only one data set. Short cycle times? They're programmable!

Intuitive operation

The graphics-based operational philosophy is intuitive and consistently geared towards process optimisation. Our unique graphical sequence programming with real-time plausibility check always clearly indicates the logical position of the current programming step. Operating errors? Out of the question!

More efficient operation

Easy set-up and fast start-up. Assured part quality and excellent productivity. Controlled system status and time-saving support. Higher-level data exchange and more transparency. Our assistance packages and connectivity modules provided as standard form the basis for all these benefits. Ready for digitalisation? Of course!

The pioneering GESTICA control system builds on the comprehensive performance of the SELOGICA system. Gestures and added assistance make operation even simpler and more intuitive.

The SELOGICA control system offers a whole range of functions for specialised technology – even non-standard sequences are handled as though they were standard.

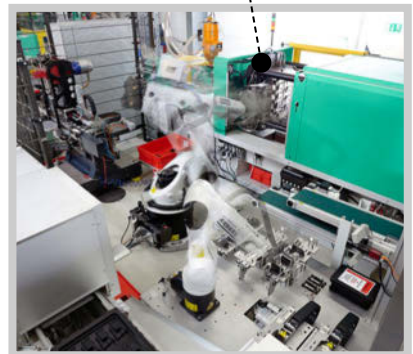


The new design of the SELOGICA ND operating panel is based on the look of the GESTICA.

APPLICATIONS: IN PRACTICE

// Our electric ALLROUNDER machines provide the ideal solutions for medical technology parts in the clean room, packaging in large unit volumes, safety-related products in the automotive industry or even reproducible production of precision small parts at a constant quality level. Whether you chose our attractive GOLDEN ELECTRIC general purpose machine series or the highly precise, individually adjustable ALLDRIVE, our high-end technology proves its worth day after day – directly in your production operations. //

Challenging technical parts:
complete turnkey systems from
a single source.



Mass-manufactured medical items:
profit-oriented unit costs thanks to
short cycle times.



More information:
turnkey projects brochure

Rain/light sensor (automotive)



High-output production:
synchronous ejection enables
even faster cycles.



Micro injection moulding: extremely
small shot weights thanks to the size
5 micro-injection unit.



Film insert moulding: excellent repro-
ducibility with servo-electric drives.



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Media Centre: in-depth,
captivating, entertaining.

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

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