



ELECTRIC ALLROUNDER

The benchmark for
high-end part production

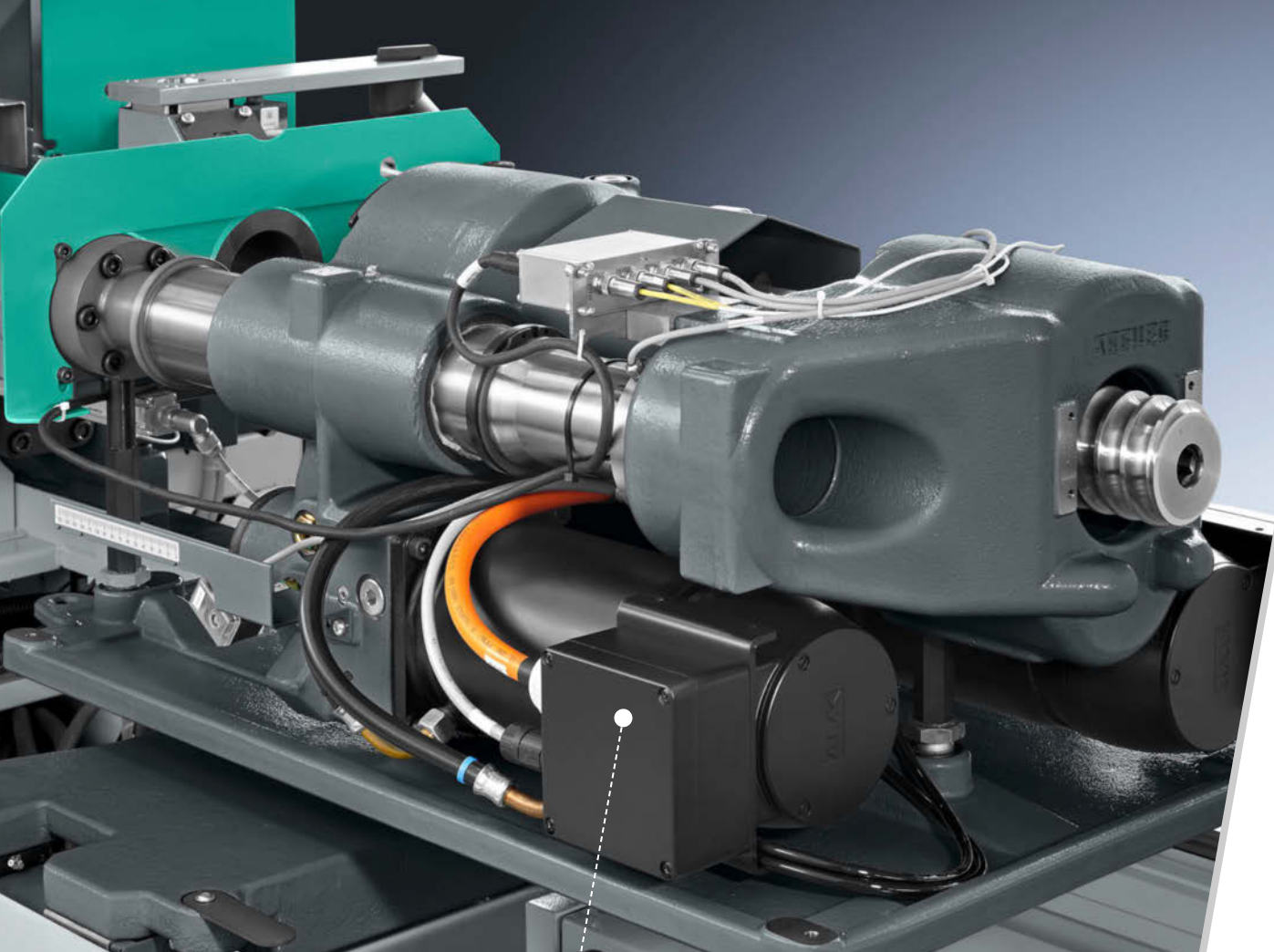
ARBURG

PROFIT- ORIENTED

Typically electric:
easy implementation of
demanding tasks.

We set standards! This also applies to our electric ALLROUNDERS. 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 work with our entry-level GOLDEN ELECTRIC or our high-precision ALLDRIVE, whether you are at home in the medical technology, packaging or automotive industries: you will produce demanding moulded parts easily and highly efficiently.

WIR SIND DA.



Servo-electric drives
operate with great efficiency.

AT A GLANCE

// Powerful and cost-efficient at the same time: With a perfect spectrum of available machine-sizes, our electric machines are suitable for all of your applications. The GOLDEN ELECTRIC is our standardised entry-level model at an unbeatable price. For higher demands on the equipment and for more demanding production tasks, our ALLDRIVE offers you the features you need. Choose your electric ALLROUNDER from one of the most comprehensive ranges in the industry. \\\

Modern machine technology for greater allround 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 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, high efficiency of the servo-electric drives, and recovery of braking energy form the basis for high energy efficiency. The energy requirement is reduced by up to 50 per cent.

Precision

Direct spindle gears ensure mechanically rigid drives 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, in-house developed and produced planetary roller screw drives with a five-year warranty.

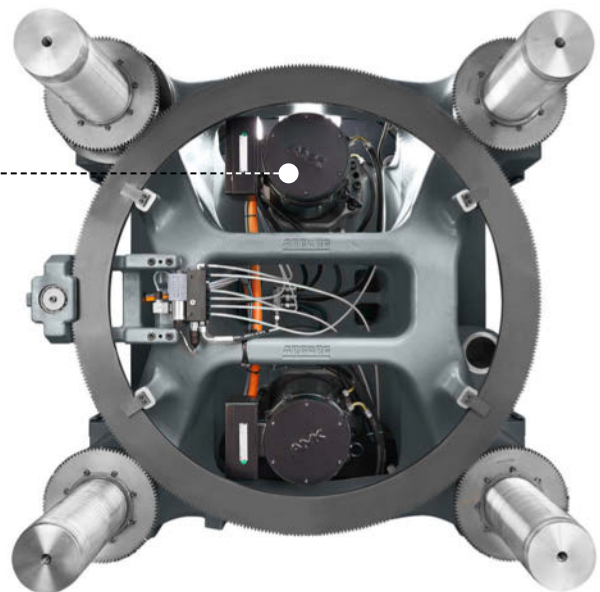
Emission minimisation

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

Availability

Our ALLROUNDERS are designed for a long machine life. The automatic central oil lubrication system minimises maintenance. The lubrication intervals calculated according to performance (predictive maintenance) increase reliability to ensure smooth production.

High-quality technology without compromises: servo motors from AMKmotion drive machine and mould axes.



**GOLDEN
ELECTRIC**

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

Clamping forces: **600 - 2,000 kN**

Injection units: **170 - 800**

ALLDRIVE

Distances between tie bars: **270 - 920 mm**

Clamping forces: **350 - 5,000 kN**

Injection units: **5 - 2100**

ALLDRIVE: MORE EQUIPMENT – MORE FLEXIBILITY

// Do you need more flexibility in terms of equipment? Want to handle demanding production tasks with high precision? You want to maximise your productivity? Our high-precision ALLDRIVE can be individually adapted using a variety of performance variants. So you have freedom of choice: exactly as your area of application requires. //

Electric performance variants

"Comfort" – Performance specification similar to standard hydraulic machines. Predestined for technical parts and particularly efficient operation.

- Reproducible injection with the aXw Control ScrewPilot.
- Servo hydraulics for simultaneous movement of a secondary axis and the servo-electric main axes.
- **"Comfort +"** - alternative with increased injection speeds.

"Premium" - Version expanding on "Comfort" for a wide range of applications.

- Dry cycle times up to 15 per cent shorter.
- Higher injection speeds.
- Equipped with GESTICA as standard.
- Servo-electric mould height adjustment system as standard.
- Extended equipment for special and multi-component processes.

"Ultimate" – Version expanding on "Premium" for high-speed and challenging processes.

- Dry cycle times up to 25 per cent shorter.
- Significantly higher injection speeds.
- **"Ultimate +"** – Alternative with maximum injection speeds.

100,000,000 CYCLES



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

GOLDEN ELECTRIC: TOP TECHNOLOGY – UNBEATABLE PRICE

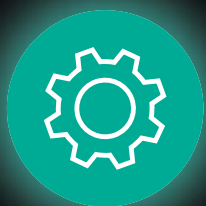
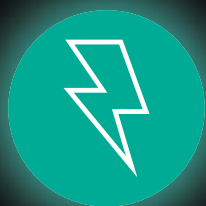
// What does the future of injection moulding technology look like? One trend is the growing proportion of electric machines in injection moulding companies worldwide. With our GOLDEN ELECTRIC series, we are responding precisely to this trend and have focused specifically on your requirements: uncompromisingly high quality, standardised technology at a great price. //

"Golden" recipe for success

- Tie-bar spacings, cylinder modules and operating philosophy are identical across all machine series.
- "Made by ARBURG – Made in Germany": we consistently implement this level of quality.
- High-end standards such as precise spindle gear units.
- Low energy requirements and low emissions

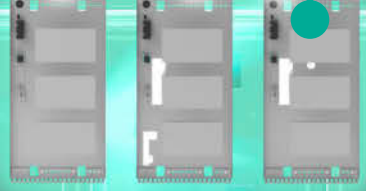
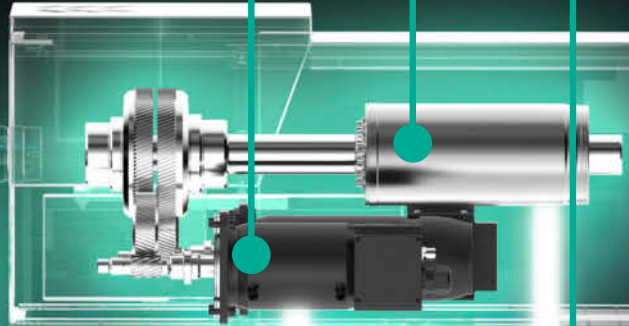
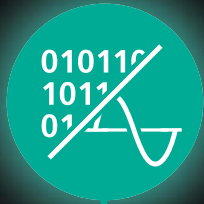
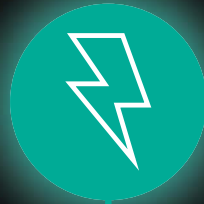
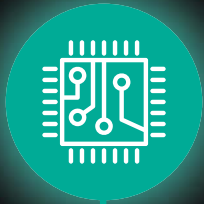
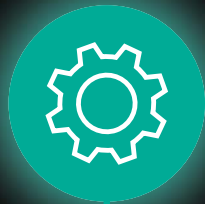
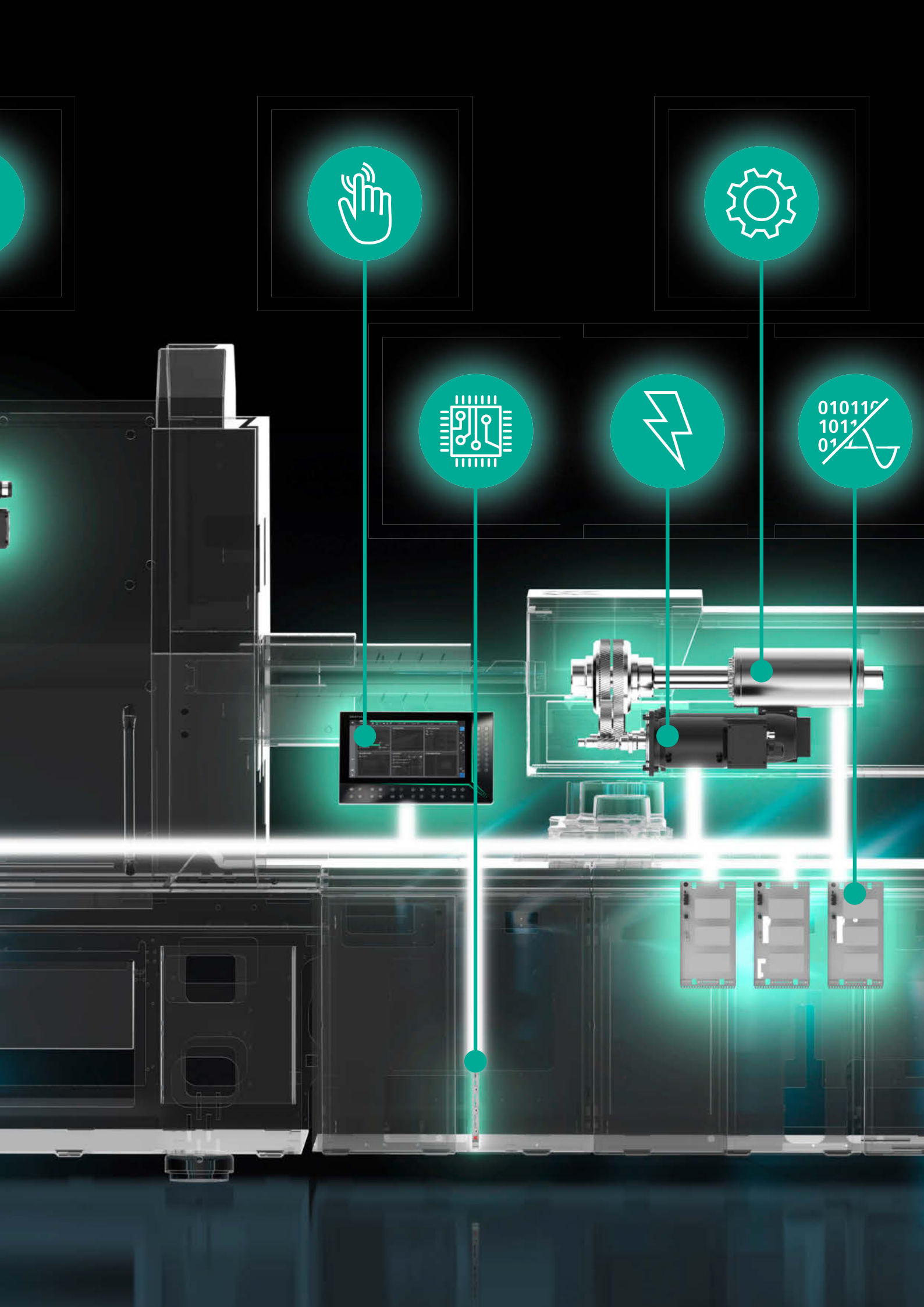
GOLDEN
ELECTRIC





OUR DRIVE TRAIN – SOURCE OF POWER AND QUALITY

// Without an excellent drive, excellent products cannot be produced. Better still, if you not only develop these high-quality components yourself, but also build them yourself. This philosophy also pays off in the drive train. The acquisition and integration of the drive specialist and long-standing development partner AMKmotion into the ARBURG family reflects this strategy and the continuation of tradition. This allows us to respond in a highly flexible manner to market requirements as well as customer wishes. And what does this mean for you? More independence, ongoing technological advantage, higher degree of utilisation and flexibility. All advantages that pay off very quickly. //





Drive for greater performance

Our electric ALLROUNDERS are high-end solutions for your production. Injection, dosing and mould opening and closing are servo-electrically driven – energy-saving, precise and frequently simultaneous movements included.

Drive for greater flexibility

We have thought about the drive train of our ALLROUNDERS in a holistic way. This way, everything can be tailored exactly to your needs. An example: when it comes to the secondary axes for the ejector, nozzle movement and core pull, you can choose between hydraulic and electric alternatives.

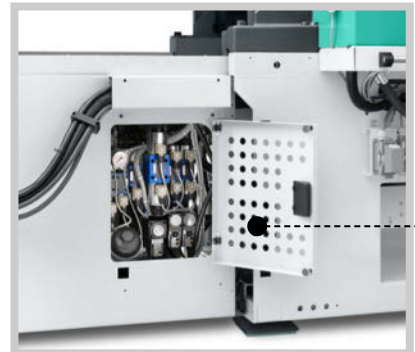
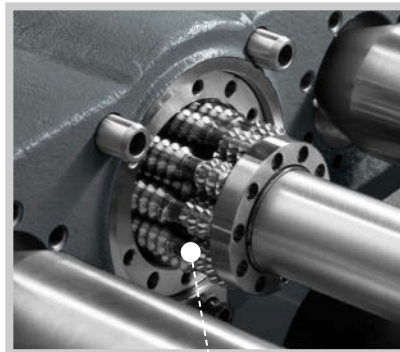
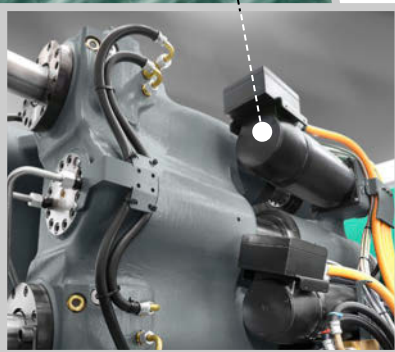
Drive for greater independence

We develop and build the components of the drive train ourselves. We have been following this philosophy for a long time. This means we are largely independent of suppliers and have large parts of the supply chain in our own hands.

Drive for greater reliability

Our robust drive train is the foundation for long and stable running times. The result speaks for itself: less maintenance and high reliability ensure smooth production and a fast return on investment.

Robust and reliable:
Servo motors are generally
liquid-cooled.



Extremely reliable: five-year
warranty for our planetary roller
screw drives.

THE DRIVE TRAIN IS OUR EXPERTISE



Drive:

Liquid-cooled servo motors: low emissions, high operational reliability and recuperation.



Mould:

From a single source: application-specific electric drives for mould functions.



Control system:

GESTICA operating panel: smart assistants for active operator support.



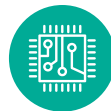
Automatic control technology:

Inverter with closed cooling circuit for fast cycles and long holding pressure phases.



Transmission elements:

Direct-acting spindle gears: reliable power transmission for high degree of utilisation.



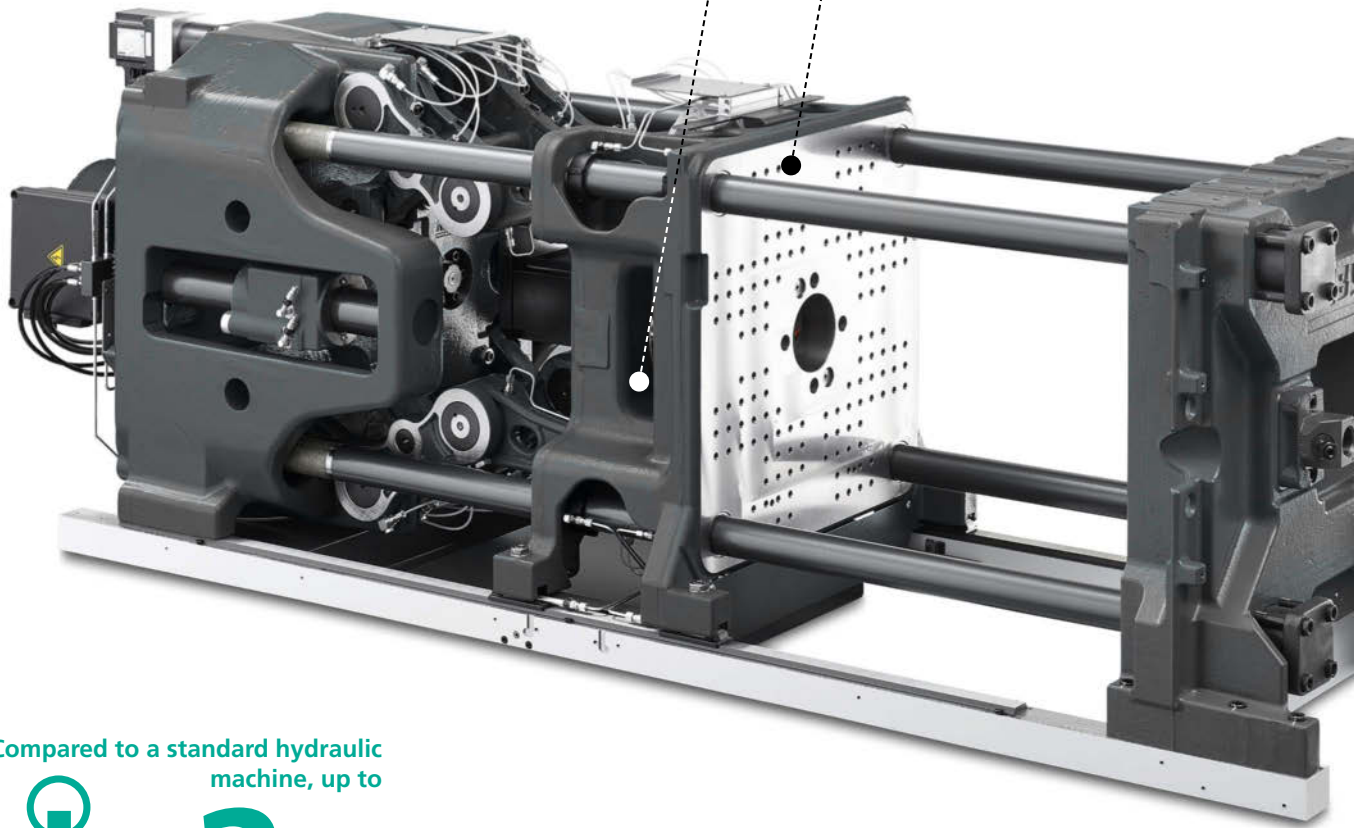
Networking:

ALLROUNDER 630 A to 920 A equipped with connectivity modules and additional assistance packages.

Powerful: secondary axes are optionally driven servo-electrically or with small hydraulic accumulator systems.

Easily accessible: cross-series ejector quick-connect coupling simplifies set-up.

Generous installation space and opening stroke also suitable for large moulds.



Compared to a standard hydraulic machine, up to



2 s
SHORTER
DRY CYCLE TIME

CLAMPING UNITS: FAST

// Highly precise and economical: this is how our electric toggle-type clamping units work. 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-oriented 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 use

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

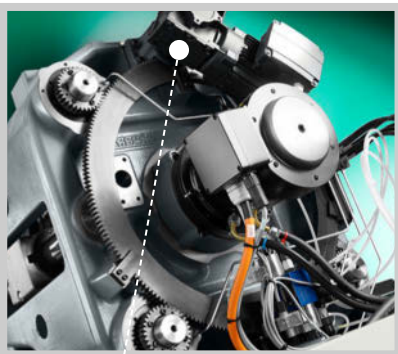
Precise positioning

At the centre of our clamping system are the mechanically-rigid spindle gear units, which 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 conveniently be adapted to different mould installation heights by means of an electrical adjustment. The clamping force regulation (for ALLDRIVE, depending on size and performance variant) generates a consistent locking force and thus automatically compensates for the thermal expansion of the mould.

Media connections close to the mould (option): the increased protection towards the back of the machine provides for much free space.



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



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



Swivelling injection unit: the screw can then be removed without dismantling the cylinder module.



Simple conversion: central coupling of all cylinder module supply units and screw quick-connect coupling.

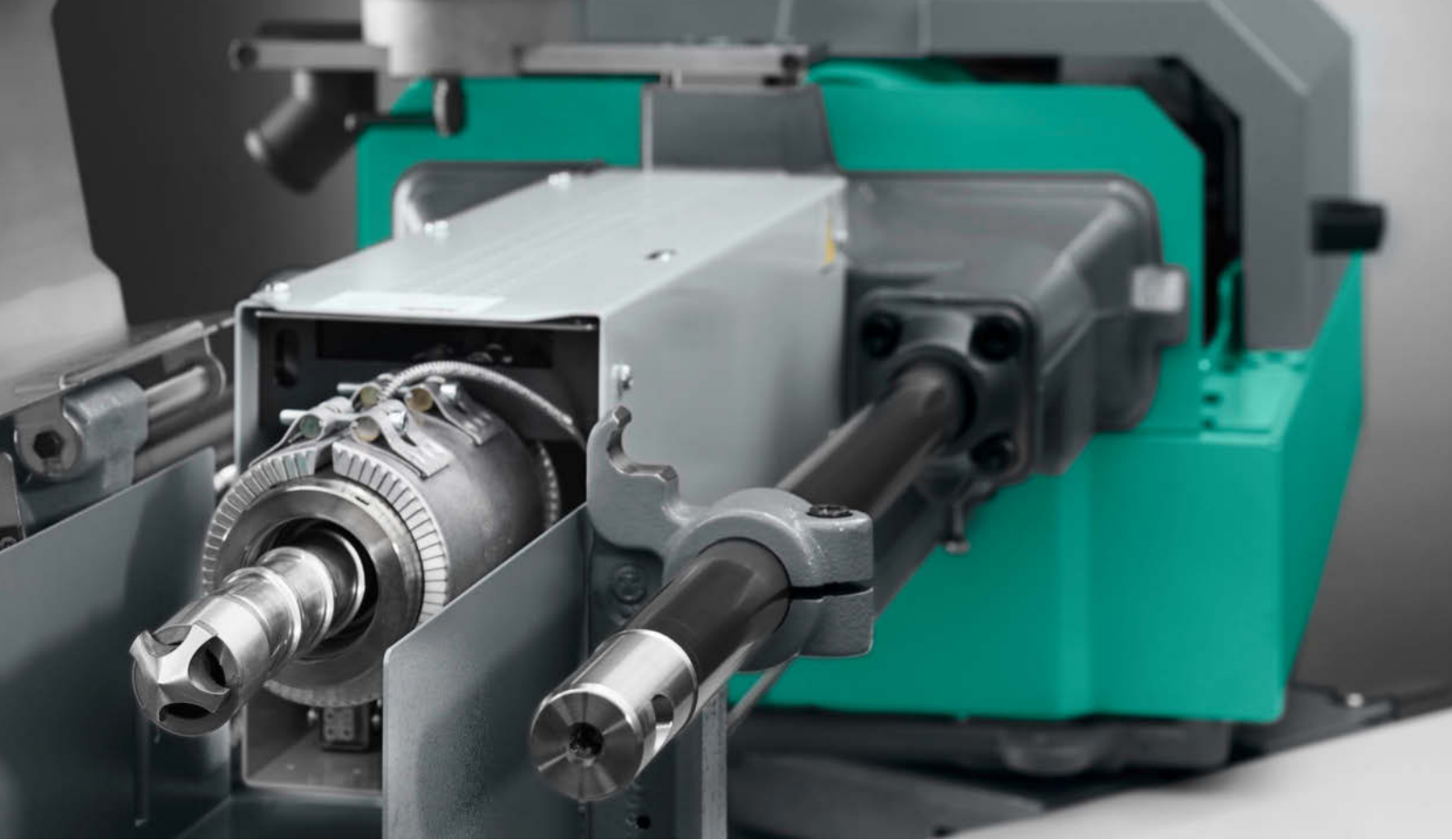
INJECTION UNITS: PRECISE

// Homogeneous material preparation and precise injection form the basis for high-quality part production. This is ensured, for example, by the mechanically rigid drive axes, which ensure 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 nozzle movement and dosage across cycles. Another tangible advantage for you is that our injection units can be quickly converted and cleaned. //



**SMALL
SHOT WEIGHTS**

can be reproduced in the
micro injection unit



Diverse combinations

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

Servo-electric injection

The aXw Control ScrewPilot achieves reproducible mould filling by means of force/position controlled injection, dynamic acceleration with active brakes, and precise pressure detection via sensors close to the axis. Liquid-cooled motors allow 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 and cyclically on the ALLDRIVE, it can also be processed faster and more gently.



SMART CONTROLLER

// Maintaining control over machine, mould, robotic 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 processes, and actively supports you in every operating situation.

All the features of our SELOGICA and GESTICA control systems are designed for a fast, secure and comfortable set-up and operating process. This enables 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 Further information:
GESTICA brochure

Central management

Thanks to its unsurpassed standard operational systems, 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? Can be programmed!

Intuitive operation

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

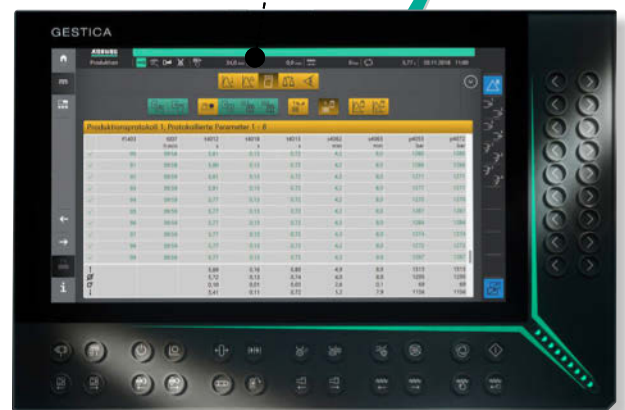
More efficient operation

Easy set-up and fast start-up. Reliable part quality and high productivity. Controlled system status and efficient support structure. Higher-level data exchange and more transparency. Our assistance packages and connectivity modules – the latter of which are a standard feature – provide the basis for all of this. “Ready for digitalisation”? Of course!

GESTICA – the pioneering control system that builds on the comprehensive performance of the proven SELOGICA. Gestures and more assistance make operation easier and more intuitive.



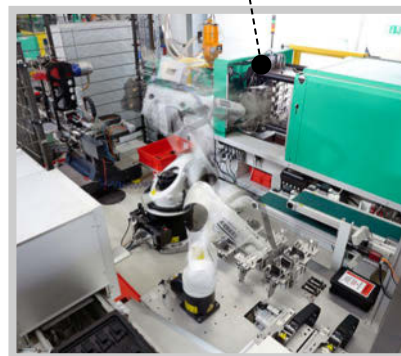
SELOGICA – the control centre with diverse functions for specialised technology, enabling even non-standard sequences to become standard in your work.



APPLICATIONS: FROM PRACTICE

// 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: These are your requirements, which are perfectly covered by our electric ALLROUNDERS. With our attractive entry-level GOLDEN ELECTRIC model or the highly precise, customisable ALLDRIVE. Our high-end technology demonstrates its worth day after day, directly in your production operations. //

Demanding technical parts:
Complete turnkey systems
from a single source.



Medical technology mass-produced
articles: profit-oriented unit costs
through short cycle times.

Further information:
Turnkey projects brochure

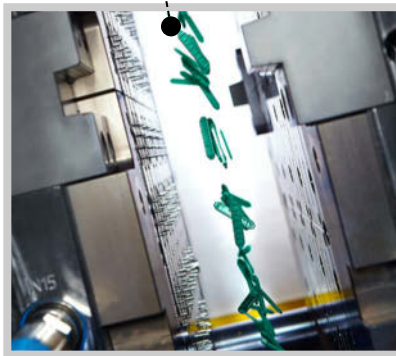
Rain/light sensor (automotive)



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 reproducibility with
servo-electric drives.

i / Further information:
Application expertise brochure



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Media Centre: in-depth,
captivating, entertaining.

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