



# HYBRID ALLROUNDERS

More power: efficient combination of  
hydraulic and electric technology

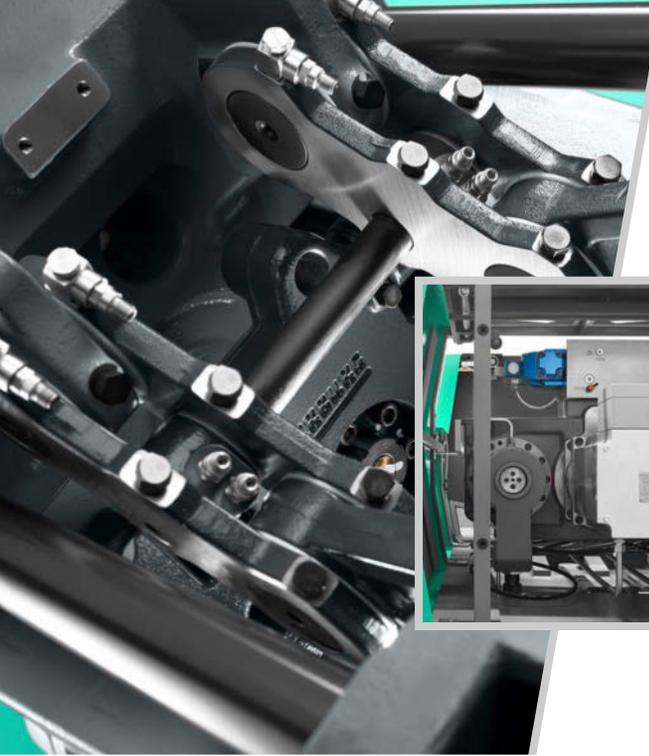
**ARBURG**

# HIGH PERFORMANCE

**ALLROUNDER HIDRIVE:**  
Keeping unit costs under control.  
through high performance.

„Made by ARBURG - Made in Germany“ - If you want top performance in mass produced items, then you should use 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.

**WIR SIND DA.**



Servo-electric drives guarantee optimized cycle times and energy savings.



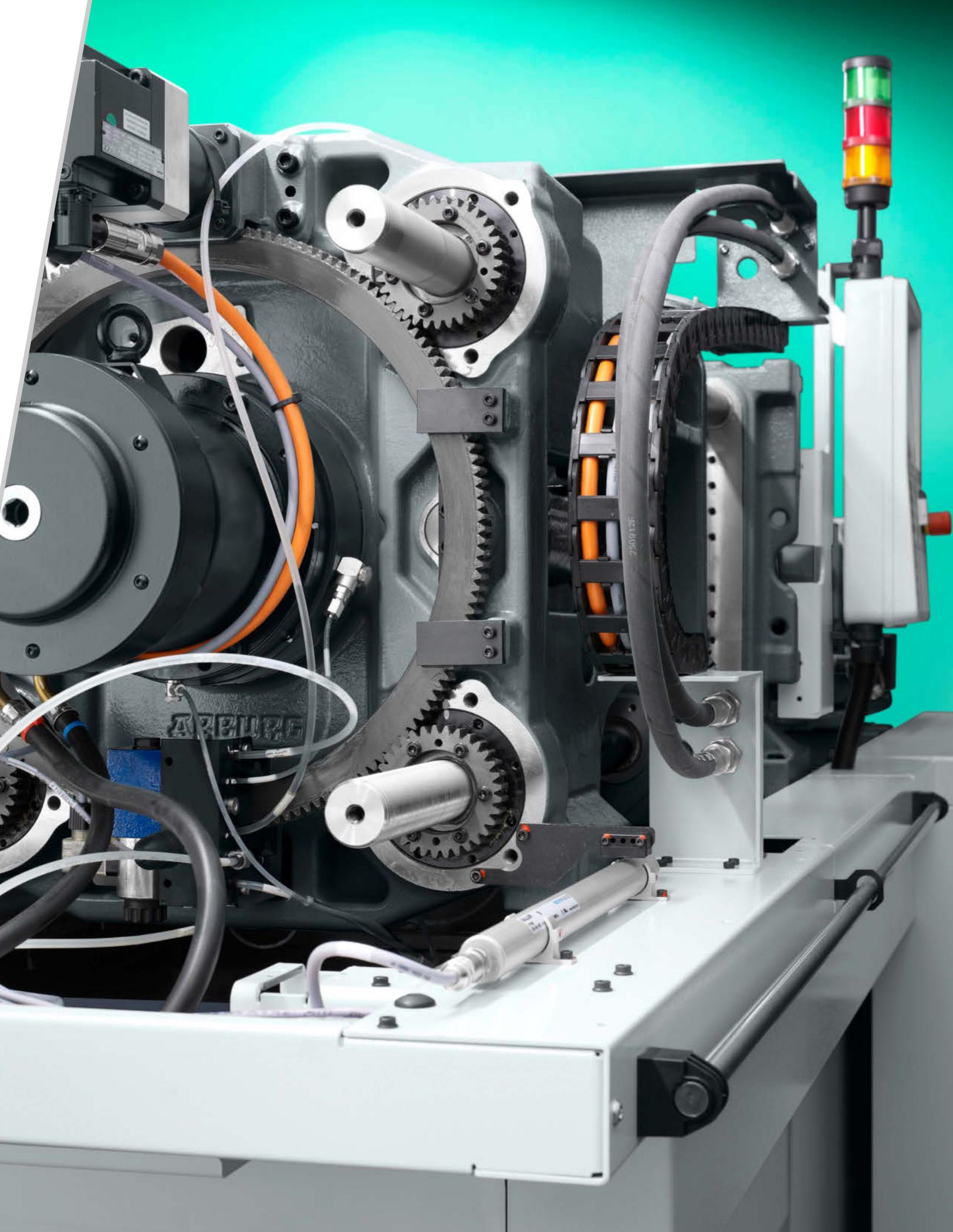
Hydraulic accumulator technology: the best basis for large, dynamic injection volume flows.

## AT A GLANCE

// The intelligent concept of our hybrid ALLROUNDER combines sophisticated electric and hydraulic clamping and injection units, as well as ARBURG's unique control technology, to create a particularly cost-effective series. Thanks to the performance variants and the modular structure, a machine series has been created that provides you with uncompromising high performance. With the HIDRIVE, you always implement your production tasks at competitive unit costs, no matter how demanding they become. //

### Machine concept: ideal for mass-produced technical items

- Extremely short dry cycle times
- Simultaneous movements
- Large, dynamic injection flows
- Up to 40 percent reduced energy requirement



# HIDRIVE: MORE HYBRID PERFORMANCE

// Do you want to make your production more efficient and at the same time conserve resources? With a perfect spectrum of performance variants, our hybrid machines are suitable for all applications. The high-quality technology ensures economical operation even when performing demanding tasks. For you, this means: more flexibility and more independence! //

## COMFORT performance variant

Resource-saving technology combined with reliable design.

Predestined for technical parts and particularly efficient operation.

- Energy requirement reduced by up to 50 percent (compared to comparable hydraulic machines).
- Optimized oil management reduces cooling water and oil requirements (up to 35 percent).
- Dry cycle times up to 30 percent shorter.
- Optimized accessibility for set-up and service activities.



# WE CONTINUOUSLY DEVELOP PROVEN TECHNOLOGIES IN A PRACTICAL AND HOLISTIC WAY.

## **PREMIUM performance variant**

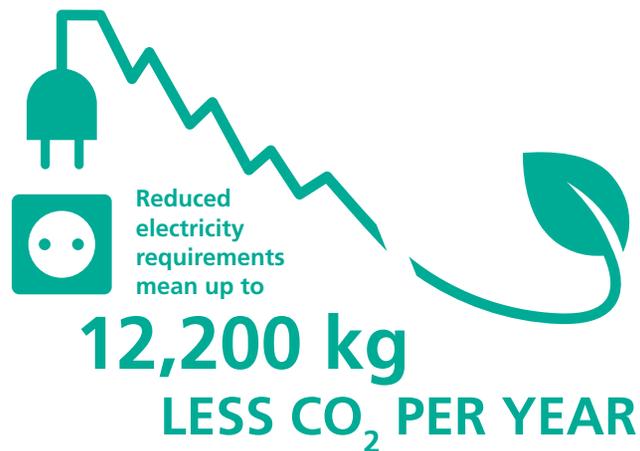
Version expanding on the "Comfort" performance variant for a wide range of applications.

- Significantly reduced energy requirement and emissions.
- Dry cycle times up to 30 percent shorter.
- Simultaneous machine movements of two hydraulic secondary axes.
- Equipped with GESTICA as standard.

## **ULTIMATE performance variant**

Version expanding on "Premium" performance variant for high-speed and challenging processes.

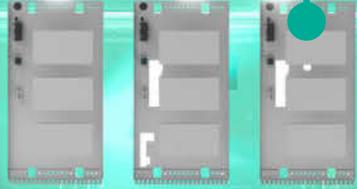
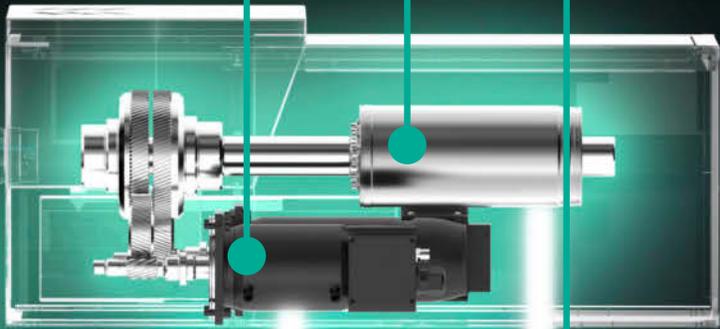
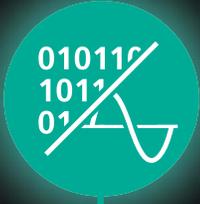
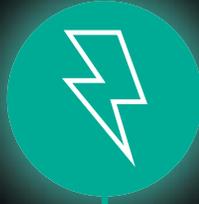
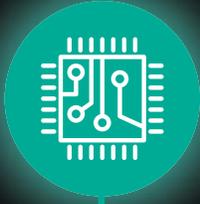
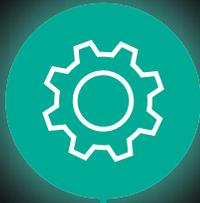
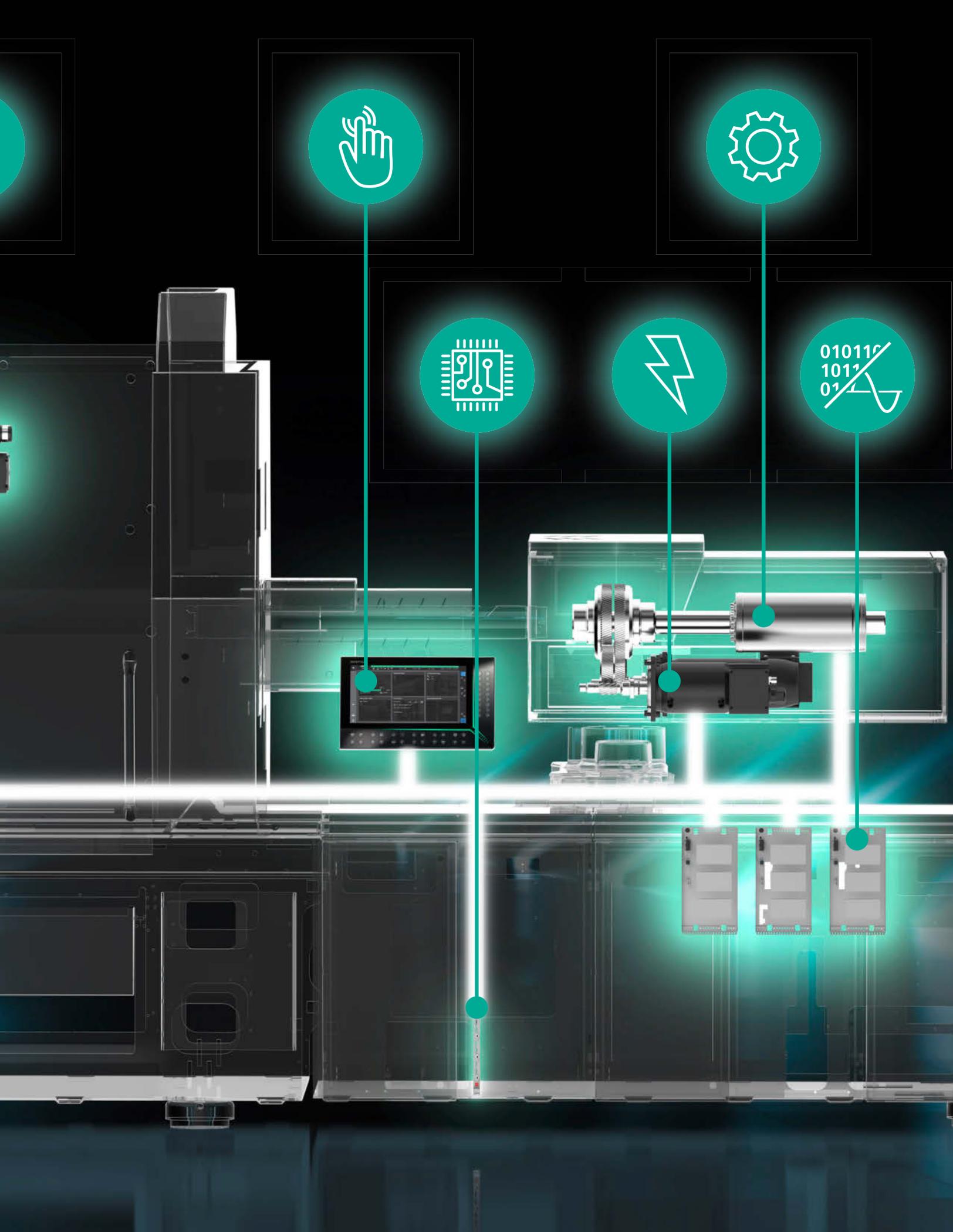
- Dry cycle times up to 40 percent shorter.
- Hydraulic accumulator technology for simultaneous and precise movements of all axes.
- Equipped with aXw Control ScrewPilot as standard.





## 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 utilization and flexibility. All advantages that pay off very quickly. //





## Drive for greater performance

Our electric ALLROUNDERS are high-end solutions for your production. Dosing and mold 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.

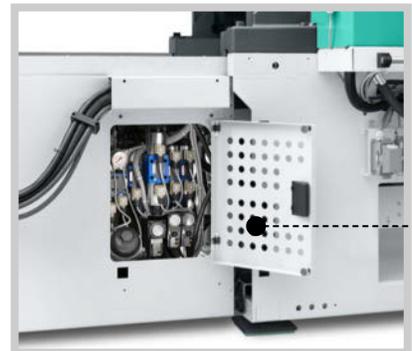
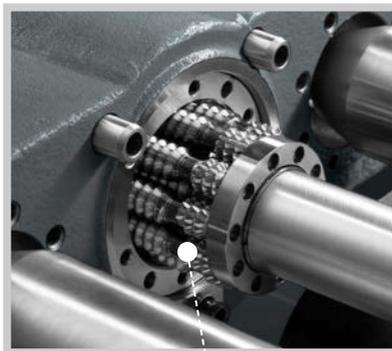
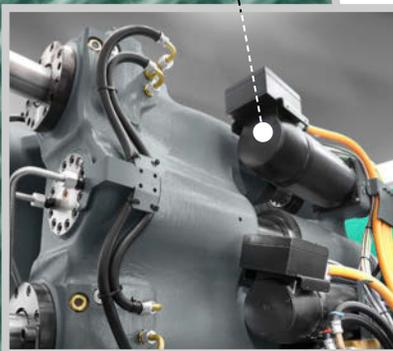
## Drive for greater independence

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.



## Mold:

From a single source: application-specific electric drives for mold 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:

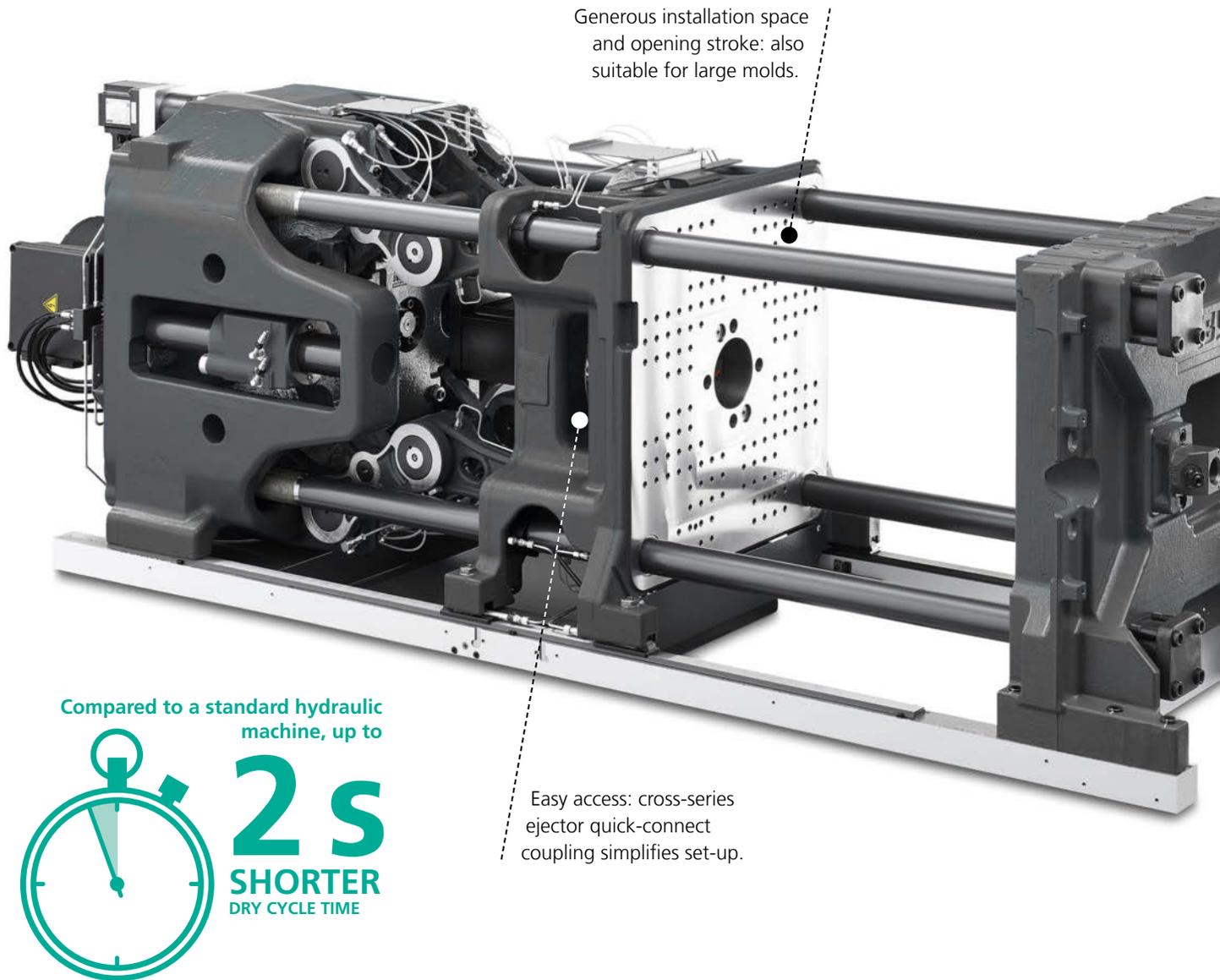
Direct-acting powertrain: reliable power transmission for high degree of utilization.



## Networking:

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

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



Generous installation space and opening stroke: also suitable for large molds.

Compared to a standard hydraulic machine, up to



**2 s**  
**SHORTER**  
DRY CYCLE TIME

Easy access: cross-series ejector quick-connect coupling simplifies set-up.

## CLAMPING UNITS: PRODUCTIVE

// High-precision and cost-efficient: This is how the toggle-type clamping units of our hybrid ALLROUNDERS work. Save money every day with energy-efficient running characteristics! The kinematics of the double five-point toggle are optimally adapted to the servo-electric drive. Looking to significantly reduce cycle times? Due to the extremely short dry cycle times of the HIDRIVE machines and simultaneous movements of the clamping unit and ejector, this is not a problem! //

## Five-point toggle system

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

## Protective mold use

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

## Precise positioning

The centerpiece of our closing system is the mechanically-rigid, high load-bearing planetary roller screw drive, which enables us to assume all positions with a high degree of precision. This simplifies the transfer of parts to robotic systems.

## Clamping force control

The toggle can be adapted with ease to different mold installation heights by means of a servo-electric adjustment system. The clamping force control generates a consistent locking force and thus automatically compensates for the thermal expansion of the mold.

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



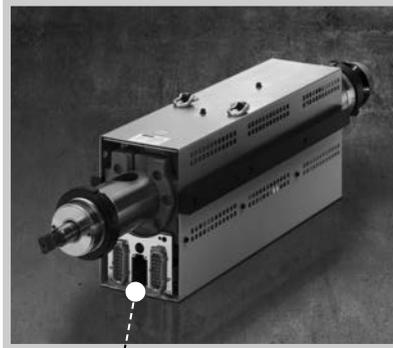
Servo-electric ejectors (optional): particularly precise dropping of molded parts for even shorter cycle times.



Folding steps: convenient access to the clamping unit of the ALLROUNDER 1120 H.



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



Simple changeover: Central connection of all cylinder module supply units and screw quick-connect coupling.

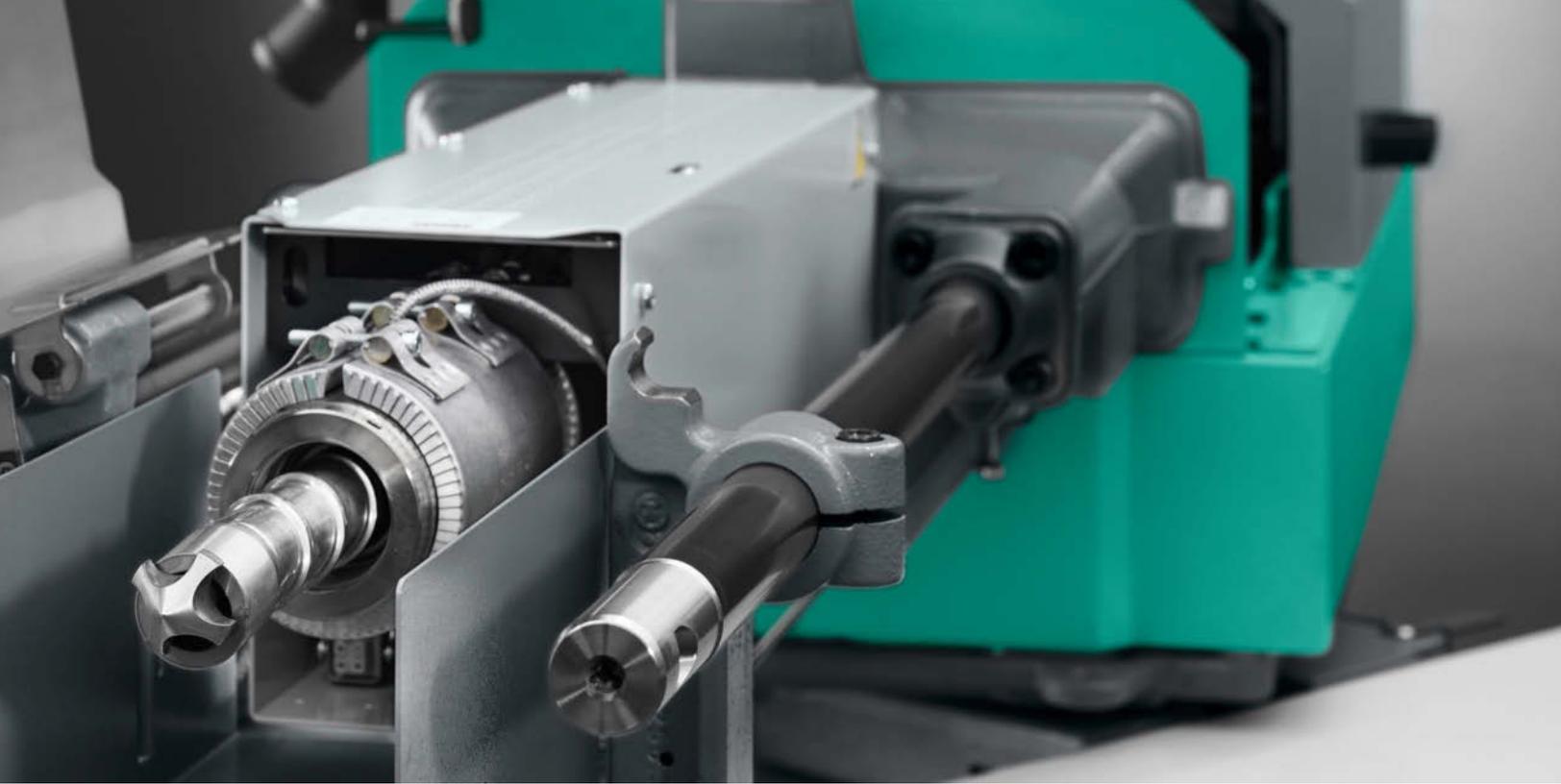
## INJECTION UNITS: DYNAMIC

// Homogeneous material preparation and precise injection form the basis for high-quality part production. With our HIDRIVE, this is achieved through the combination of regulated injection with the aXw Control ScrewPilot, dynamic hydraulic accumulator technology, and energy-saving servo-electric dosing drive. You can keep your cycle times under control thanks to cross-cycle dosing and simultaneous nozzle movement. Another tangible advantage for you is that our injection units can be quickly converted and cleaned. //

**REPRODUCIBLE**  
**MOLD FILLING**



with our ScrewPilot – fluctuations in the shot weight can be significantly reduced



### **Wide variety of combinations**

The cylinder modules are compatible with all series and are finely graded. Various versions ensure optimum protection against wear. In addition, screws in special geometries allow you to process all common plastics.

### **Regulated Injection**

Precise pressure and speed control during injection with the ScrewPilot. Dynamic acceleration via hydraulic accumulator technology: our combination for reproducible mold filling and molded part quality as well as high injection capacity.

### **Torque-free nozzle contact**

Our two-tie-bar guide 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 mold.

### **Electric dosing system**

The independent dosing drive leads to obvious energy savings plus increased precision. A further result: significantly reduced cycle times in some cases. Since the melt can be dosed simultaneously and cyclically, it can also be processed more gently.



# CONTROL SYSTEM: SMART

// Maintaining control over the machine, mold, 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 fast, secure, and convenient setup and operation. This allows you to get the best out of all your applications. //

## Highlights

- SELOGICA and GESTICA – fully compatible
- Graphic sequence programming
- Direct plausibility checks
- Assistance packages and connectivity modules
- “Ready for Digitalization”
- Central control system for complete production cells

**i** / Further information:  
GESTICA brochure

## Central management

Thanks to their unsurpassed standard operating system, the SELOGICA and GESTICA save time and costs. The simple integration of different 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 optimization of the processes. 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 setup and fast startup. 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 digitalization? Of course!

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



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



# APPLICATIONS: IN PRACTICE

// The concept of our hybrid ALLROUNDERS is always an attractive alternative. Whether your needs are high precision and reproducibility or speed and dynamics, the performance characteristics of the machines comprehensively meet a multitude of injection molding requirements. From high-output production, through mass-produced technical components, to thin-walled molded parts, our HIDRIVE machines prove their reliability in everyday use. Time after time. //

From automotive to medical:  
complete turnkey systems  
from a single source.



Mass-produced technical components:  
precise positioning of the toggle-type  
clamping unit speeds up part removal.

**i** / Further information:  
turnkey projects brochure



Thin-walled items: reliable production with highly dynamic injection flow rate.



Ideal basis for packaging items: short dry cycle times of the servo-electric clamping unit.



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



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application expertise brochure



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# WIR SIND DA.