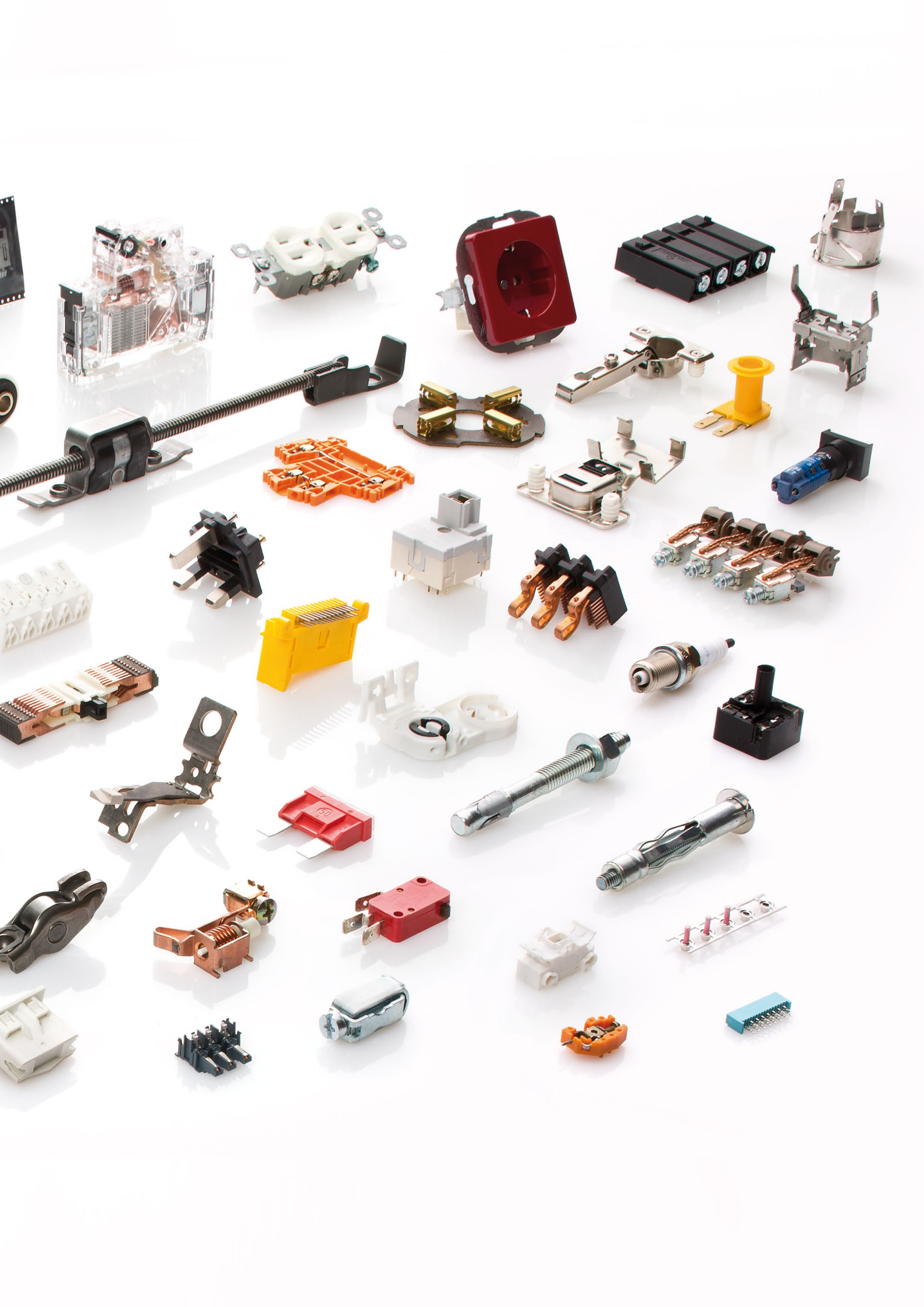


BIMERIC Modular

Servo Production and
Assembly System



EFFICIENT PRODUCTION

The BIMERIC Modular servo production and assembly system is the ideal solution platform for your efficient component and assembly production. The compact servo machine convinces with standardized machine and tool technology for significant cost savings, very short „time-to-market“ and particularly fast, reproduced set-up.

With high-performance inline production from the starting material to ready-to-install assemblies, you achieve the highest manufacturing quality. State-of-the-art control technology guarantees simple operation and consistently high process reliability. Thanks to its flexible scalability, you can also adapt the BIMERIC Modular to your specific tasks at any time.

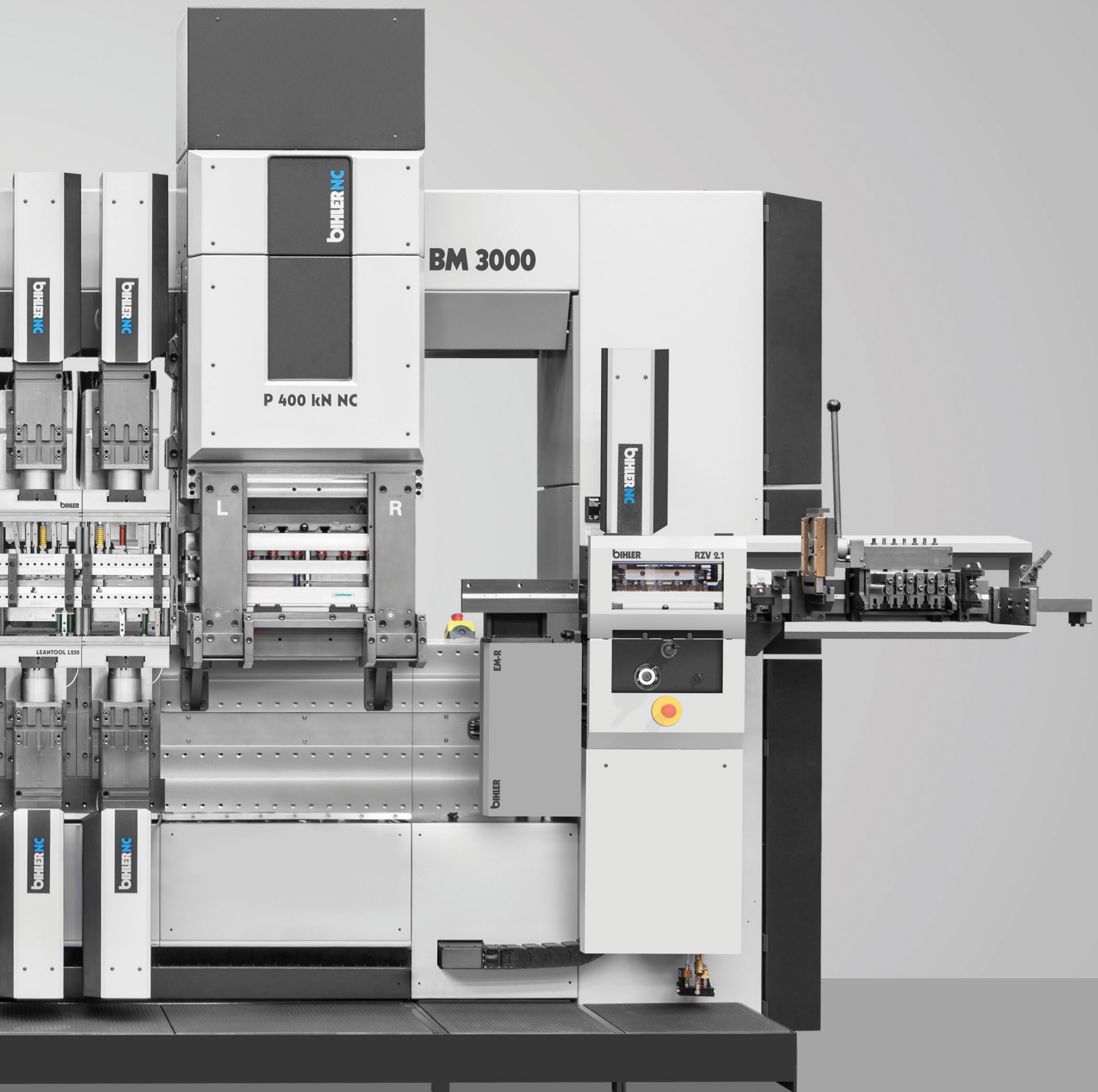
BIMERIC Modular

Highlights

- Modular servo production and assembly system for highly productive, flexible component and assembly production
- Standardized, pre-assembled process modules for feeding, stamping and forming
- Press installation space compatible with Meusburger standard cutting frames
- Fully compatible with uniformly designed linear tools
- Standard interfaces and zero-point clamping system with hydraulic clamping functions for fast, 100 percent reproducible setup of tool modules forming tool setup
- PLUS empty slots for additional servo process modules and customized assemblies

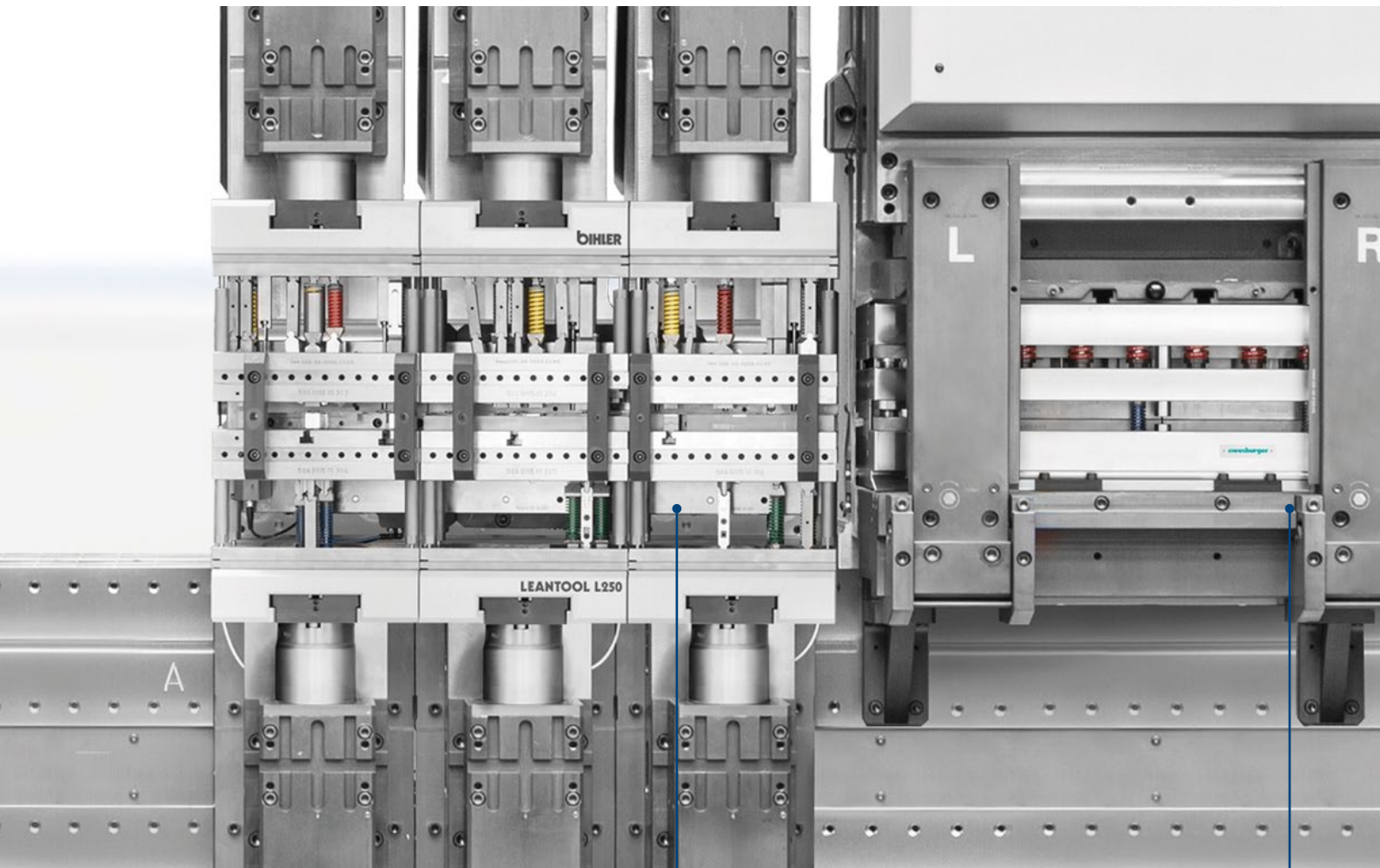


- Integrated sensors in all machine and processing components for monitoring and protection as part of predictive maintenance
- Flexibly scalable for future tasks



BIMERIC Modular

Standardization / Modularization



Standardized process modules

The BIMERIC Modular features a modularized design of the feeding, stamping and forming processes on one console each. Each of these process modules is standardized according to the same principle and designed for 80 mm strip width. In addition, the BIMERIC Modular has so-called PLUS empty spaces. Here, further servo process modules and customized units for individual processes - especially for assembly operations - can be integrated.

The individual modules can be used flexibly according to the task at hand. This means that the servo machine can be operated with only minimal hardware configuration, for example in the form of a single forming module. If processes are expanded at a later date, the scalable machine can be cost-effectively retrofitted.

Forming module BM-L250

- Pre-assembled NC units with LEANTOOL L250 interfaces for very short tool set-up times
- Fast (max. 250 1/min. depending on travel profile) and exact execution of tool movements
- Freely programmable motion profiles
- Maximum force (31 kN) freely selectable over the entire working range
- Arbitrarily scalable and subsequently expandable
- Module length: Number of NC slide pairs x 250 mm



Stamping module PM400

- Pre-assembled 400 kN spindle press
- High cycle rates up to 250 1/min.
- Designed for standardized Meusburger SBP 400 and SBH 400 cutting frames
- Module length: 750 mm

Feeding module EM-R

- Flexibly configurable modular system
- Standardized from material infeed from the right to the beginning of the cutting tool
- Pre-assembled feed system RZV 2.1 for highly dynamic, slip-free feeding and positioning
- Optional units: Strip guards, strip oilers, straighteners, standardized strip guide blanks
- Module length: 2,000 mm

BIMERIC Modular

Servo Process Modules

Powerful servo process modules

Depending on your application, standardized servo process modules are used. The wide range of Bihler modules covers all applications in forming, assembly, handling and joining technology. You benefit from a single point of contact for all processes, equipment and control. For special requirements, we modify the modules individually for you.

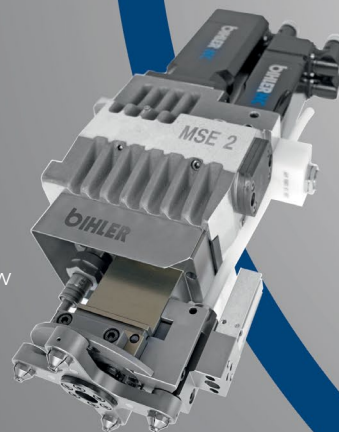
Pick & Place units



Transport belt



Multi-use screw insertion unit



Tapping units





Lift-rotate unit



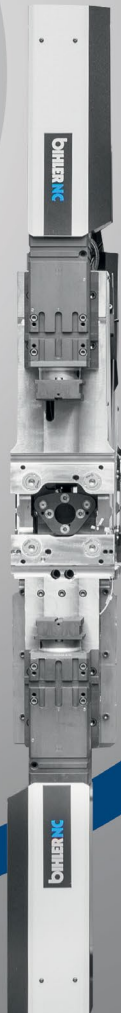
Linear actor



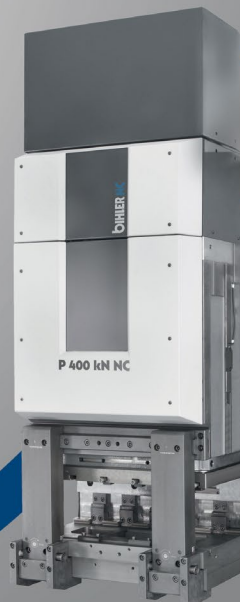
Robots



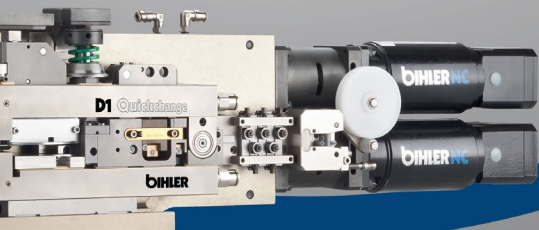
Material feed RZV 2.1



NC units



NC press



Contact welding units

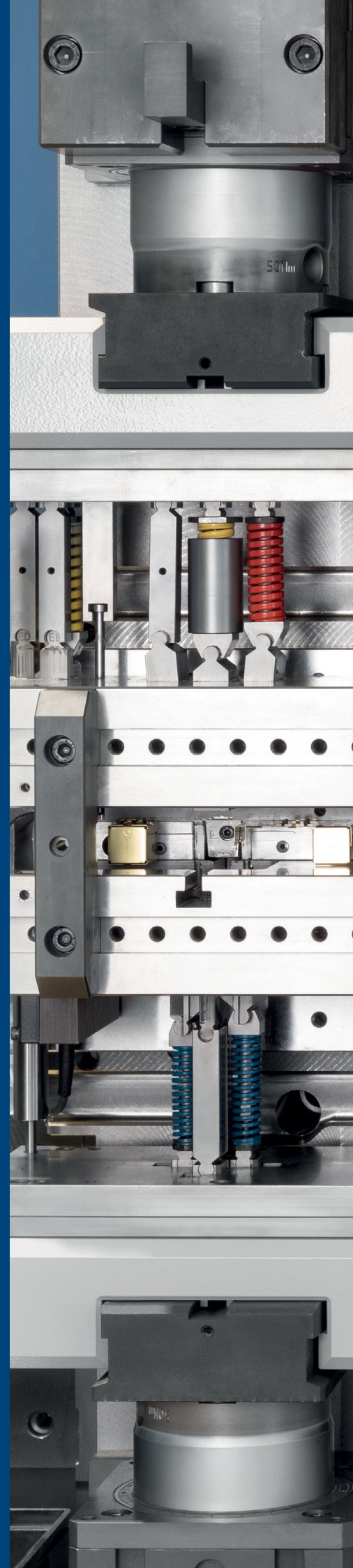
BIMERIC Modular

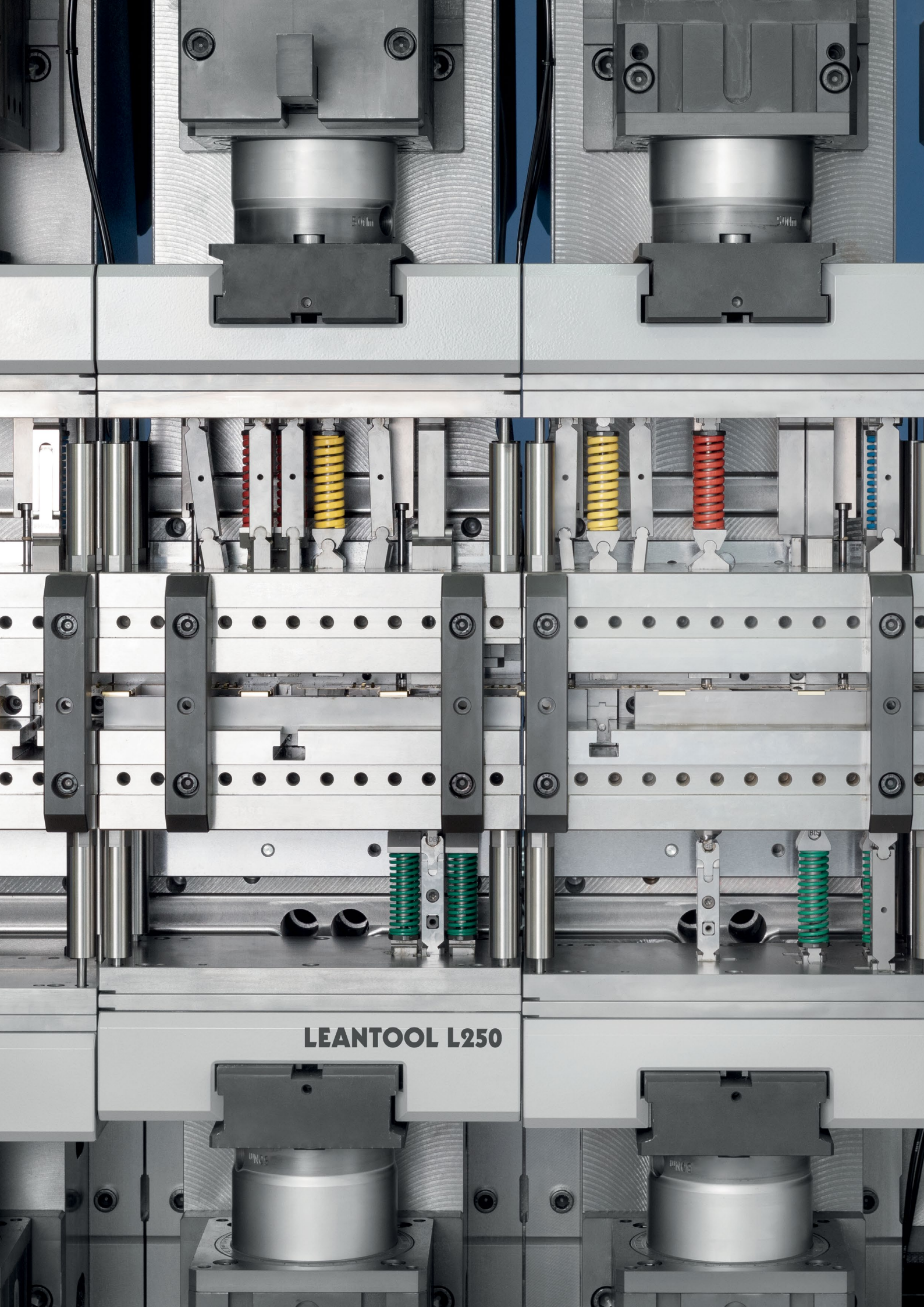
Tool compatibility

Flexible job scheduling

The BIMERIC Modular is fully compatible with uniformly designed linear tools - type LEANTOOL, parts from LEANTOOL or with the user's compatible tool standard. For this purpose, the servo machine is equipped with the LEANTOOL basic equipment. This provides the interfaces for the linear forming tools and the associated standard parts. Its components are the tool carriers for mounting the basic tools and the base plates for mounting the punch holders and rams.

The BIMERIC Modular is thus part of the Bihler Modular Series. This means that uniformly designed forming tools can be transferred flexibly between the GRM-NC, LM 2000-KT, LM 2000-NC and BIMERIC Modular machines, depending on the required batch size, variety of variants or further value-added processes. In practice, the BIMERIC Modular thus ensures flexible job scheduling, reduced tool costs and high productivity through simple and fast setup of the standardized tool modules.





LEANTOOL L250

VC 1

Machine and process control

Highlights of the control system

- Easy setup of the machine without external programming device
- Direct programming of the servo-controlled units via self-explanatory input mask
- Customized menu navigation for fast setting and changeover of the machine
- Multimedia diagnosis and online help system bASSIST
- Freely configurable production menus and user interfaces
- Integrated measured value and production data acquisition (OPC UA interface)
- Remote Service (optional)

Convenient operation

The VariControl VC 1 central machine and process control system (Version 2.0) provides a full range of machine and process control functions. It controls, regulates and monitors all machine and process functions. Freely programmable digital and analog I/O bus modules have been integrated on the machine side, which serve to operate, monitor, and safeguard the tooling and process technology.

The VC 1 supports your operator like a second man at the machine. He operates the BIMERIC Modular intuitively and safely via a swiveling terminal with touchscreen and other operating elements. The integrated bASSIST multimedia diagnostics and online help system provides a lot of useful information (videos, graphics, etc.) and allows processes to be optimized easily.



BIMERIC Modular

Technical Data

System concept	Standardized modular system (individual design also possible)
Stroke rate	max. 250 cycles/min. (depending on application)
Drive	Completely servo-controlled
Control system	VariControl VC 1 machine and process control system. Control cabinet with power supply unit and electronic control and monitoring system integrated in machine housing. Mobile operating unit with 15" TFT touch display, keyboard and operating elements. Machine controller with I/O bus modules for the entire machine control. Mold controller with I/O bus modules, standard 4 freely programmable modules with 8 channels each, programmable as input or output. 2 bus modules programmable with 16 inputs and 16 outputs. Press force and slide force monitoring optional
Integrated supply	Pneumatic, hydraulic and central lubrication (depending on application)
Material feed	NC radial gripper feed RZV 2.1; positioning accuracy +/- 0.02 mm
NC press	NC spindle press: max. nominal force 400 kN, stroke 4 - 60 mm
NC units	NCA-5: max. nominal force 31 kN, max. stroke 100 mm
NC process modules	For all applications in forming, assembly, handling and joining technology
Assembly line	Standardized workpiece carrier spacing 100 mm, 150 mm, 200 mm (individual travel profiles and step widths possible in this range)
Machine base body	Length 1,500 mm (can be combined up to 6,000 mm), width 500 mm, height 500 mm
Protective device	Safety fence, personal protection or sound enclosure



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