

BIMERIC Modular

Servo Production and
Assembly System

EFFICIENT PRODUCTION

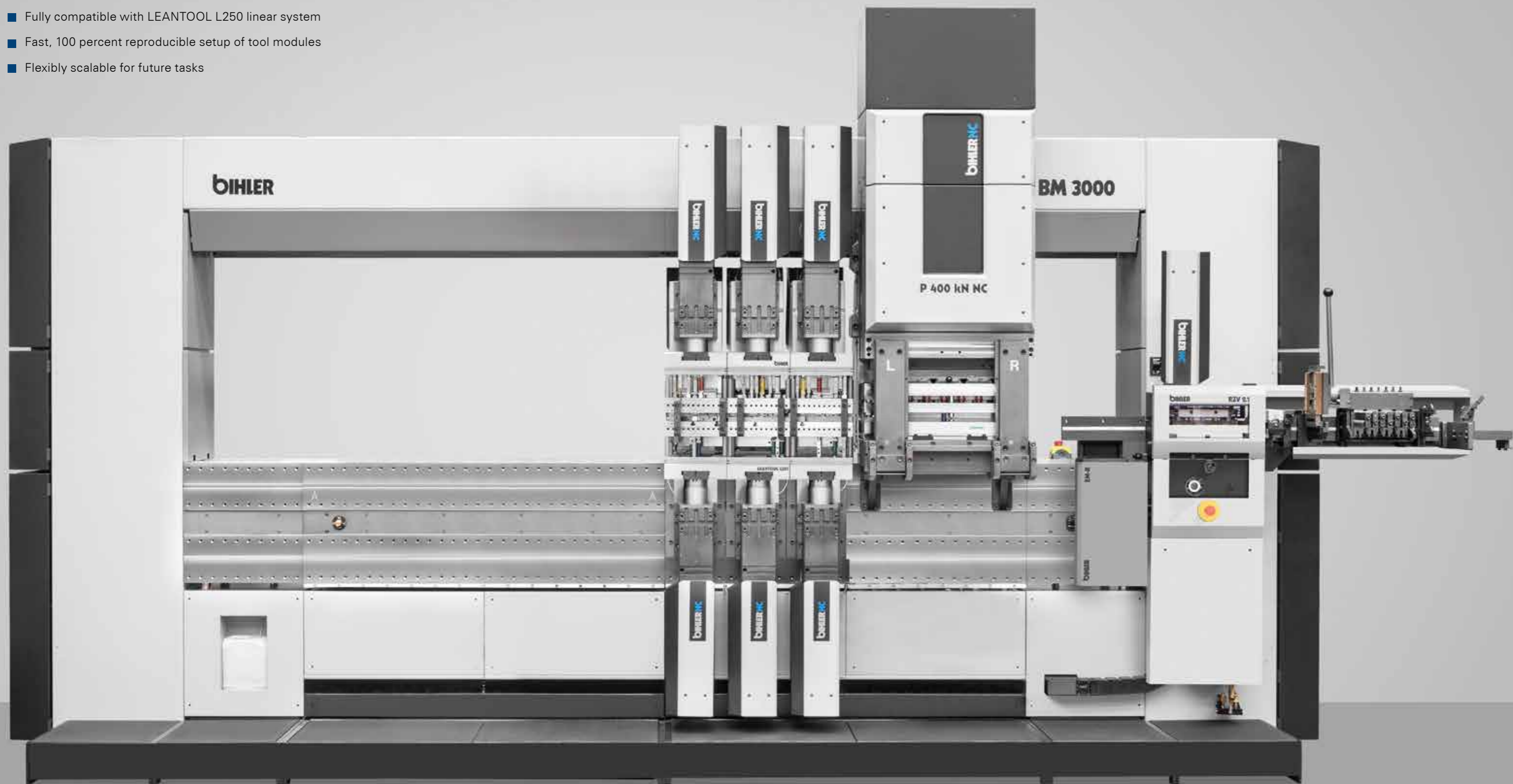
The servo production and assembly system BIMERIC Modular is the ideal solution platform for your efficient component and assembly production. The servo machine impresses with its standardized machine and tooling technology for significant cost savings, very short „time-to-market“ and particularly short setup times.

High-performance flow production from the starting material to ready-to-install assemblies enables you to 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 tasks at any time.

BIMERIC Modular

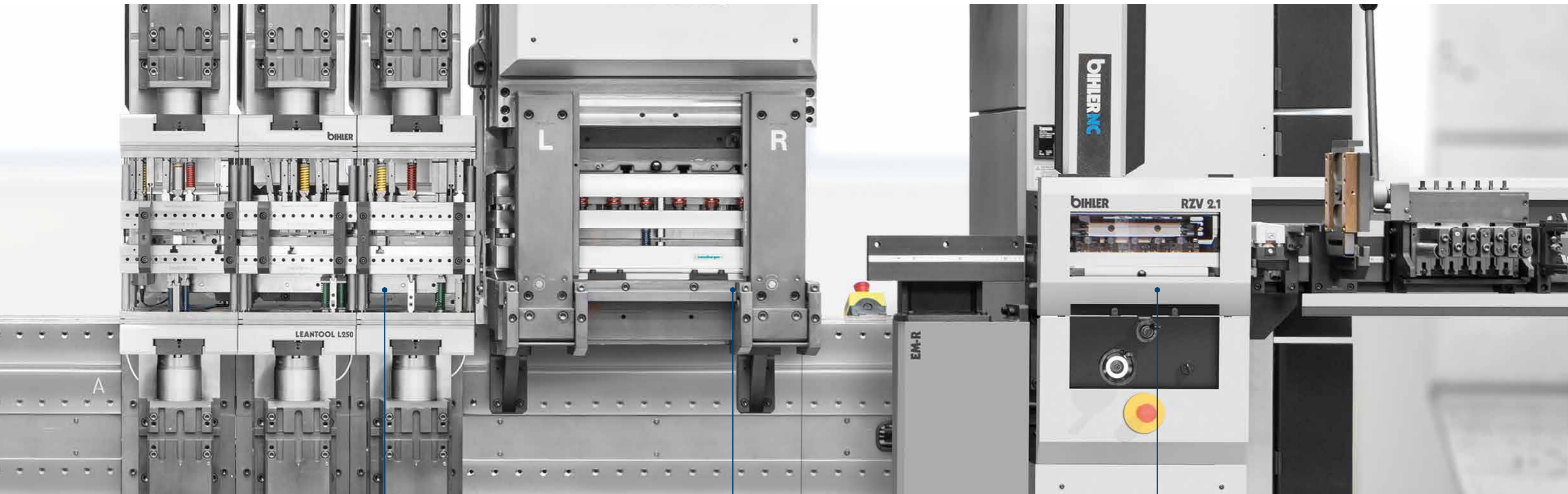
Highlights

- Modular servo production and assembly system for flexible and efficient component and assembly production
- Standardized, pre-assembled process modules for feeding, stamping and forming
- PLUS empty slots for additional servo process modules and customized assemblies
- Fully compatible with LEANTOOL L250 linear system
- Fast, 100 percent reproducible setup of tool modules
- 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 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.



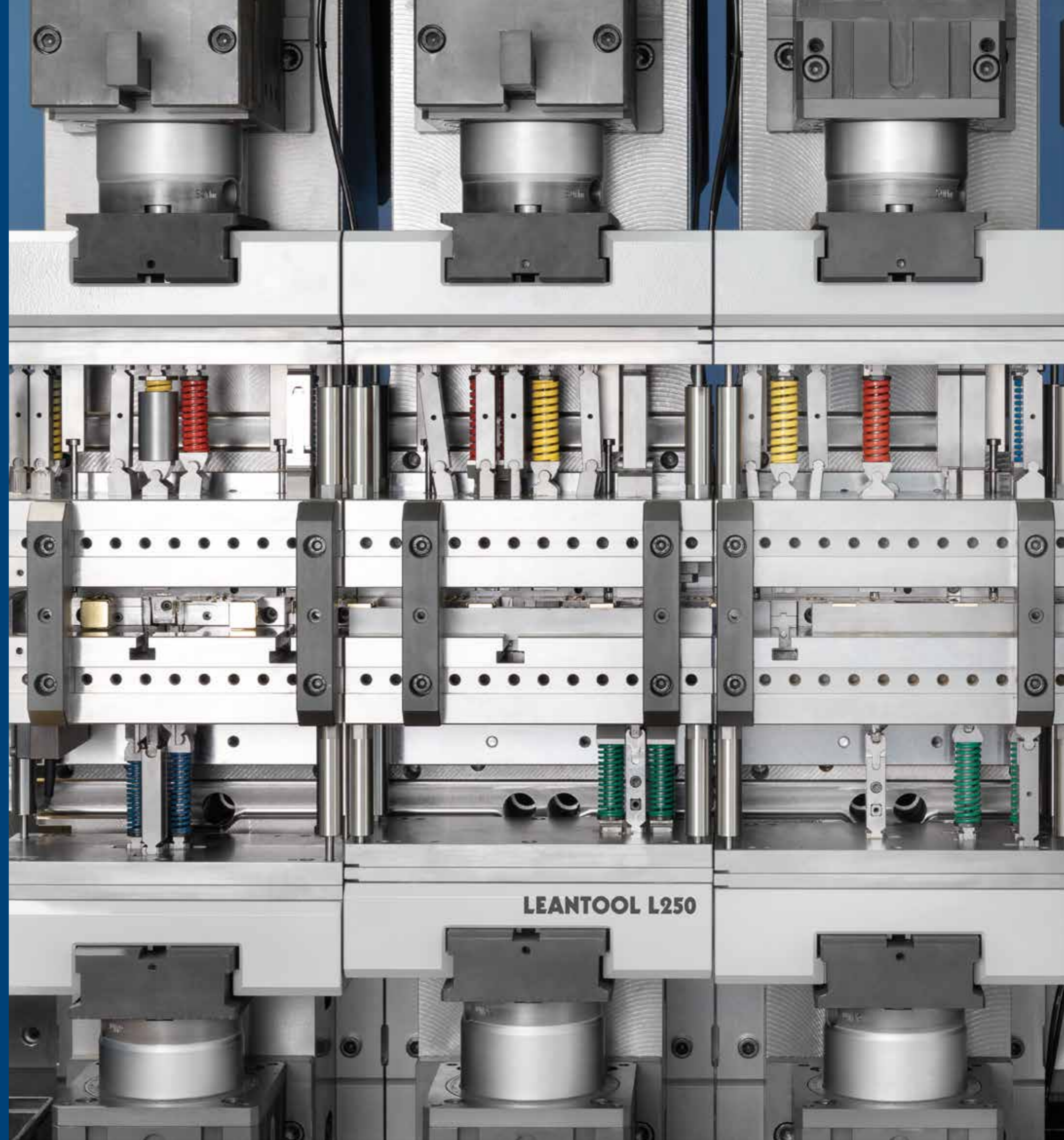
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LEANTOOL compatibility

Flexible job scheduling

The BIMERIC Modular is fully compatible with the LEANTOOL linear tool L250. Therefore the servo machine is provided with the LEANTOOL basic equipment. The basic equipment provides the interfaces for the linear forming tool and the corresponding standard parts. The basic equipment includes tool carriers for implementing the basic tools as well as base plates for attaching the punch holders.

Besides the BIMERIC Modular is part of the new Bihler overall system. This means that if a stamped and formed part that was previously manufactured on a GRM-NC develops into an assembly during its product life cycle, the LEANTOOL forming modules can be transferred one-to-one to the BIMERIC Modular and combined there with value-adding processes. In practice, the BIMERIC Modular thus ensures flexible job scheduling, reduced tooling costs, high productivity thanks to simple and fast setup of the standardized tool modules, and consistent top quality of the manufactured assemblies.



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 supports you like a second man at the machine. You operate 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



Otto Bihler Maschinenfabrik GmbH & Co. KG
Lechbrucker Str. 15
87642 Halblech
GERMANY

+49(0)8368/18-0
www.bihler.de