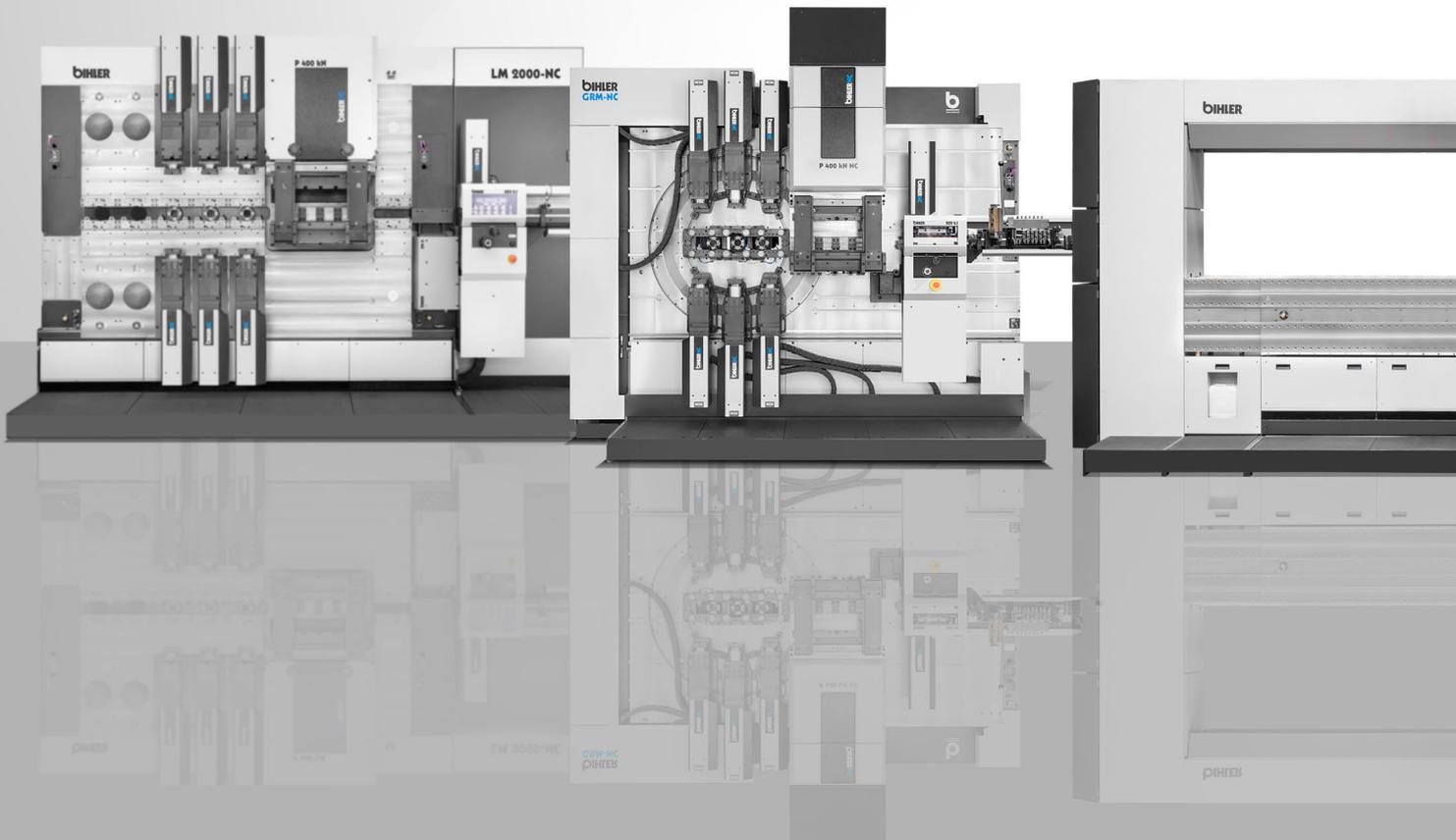
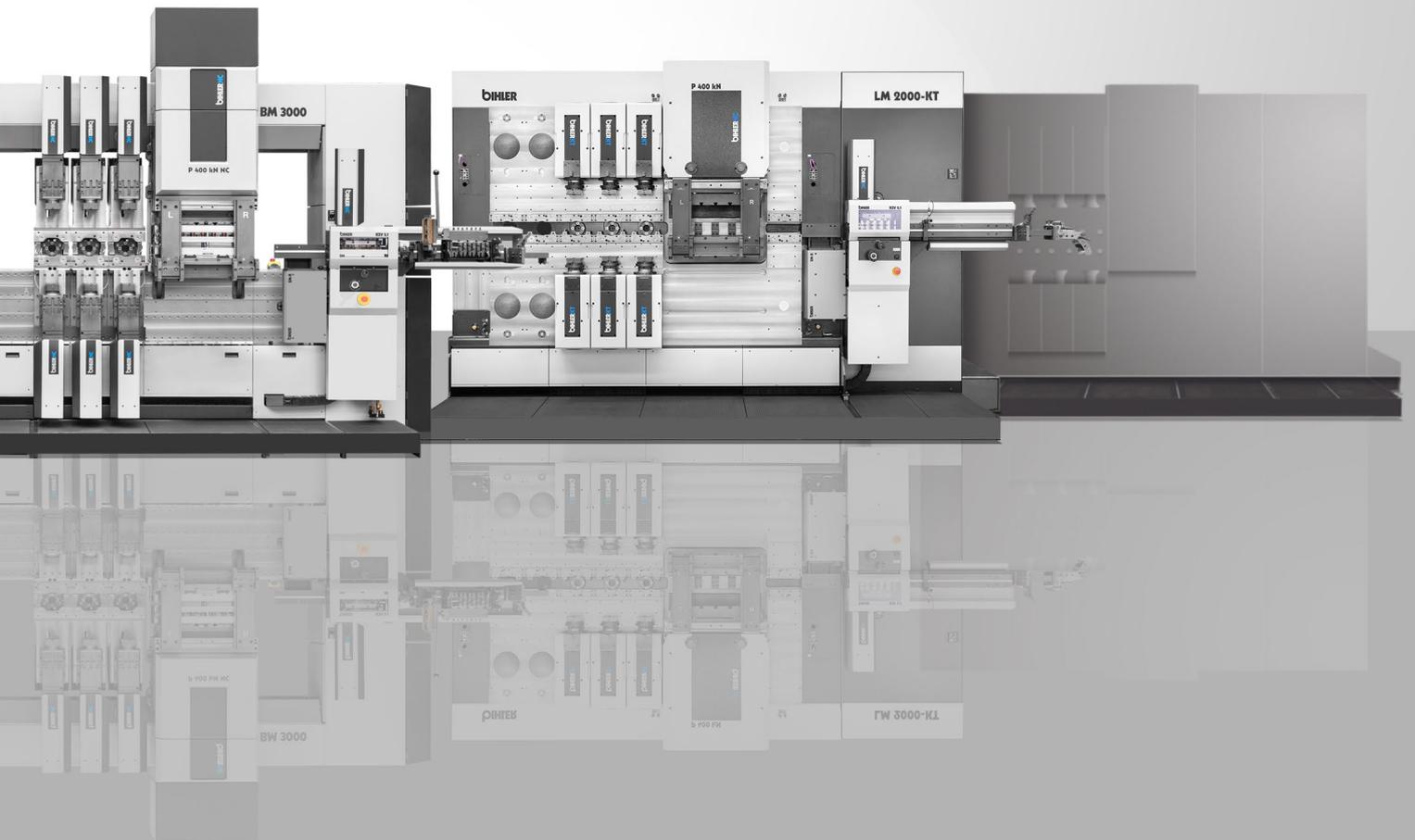


MODULAR SERIES

Plug & Produce –
Consistently modular
and compatible

CONSISTENT MODULAR COMPATIBLE

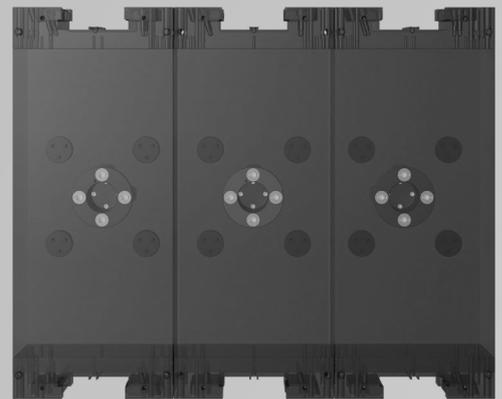




The new Bihler Modular Series offers new production possibilities, and even more effective ways to meet ever-increasing production demands. Consisting of five high-performance, highly standardized models, these modular machines are fully compatible with one other with respect to the linear forming tools that are used, and they feature uniform interfaces in the forming area. As a result, the variety of different solutions and machines is significantly reduced. Uniformly designed forming tools can now be operated simply and independently of the machine in accordance with the „plug & produce“ principle.

STANDARD IN A BOX

FORMING

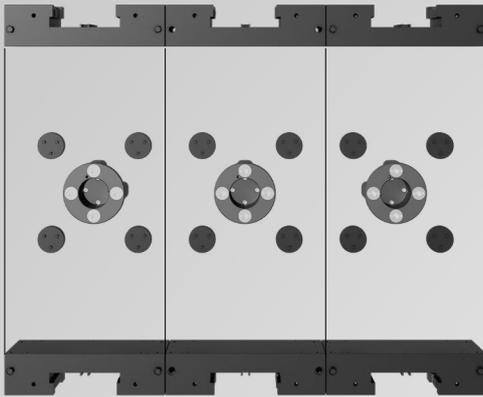


Tool modules with the corresponding interfaces

- simple
- always ready for setup
- reproduced setup procedures

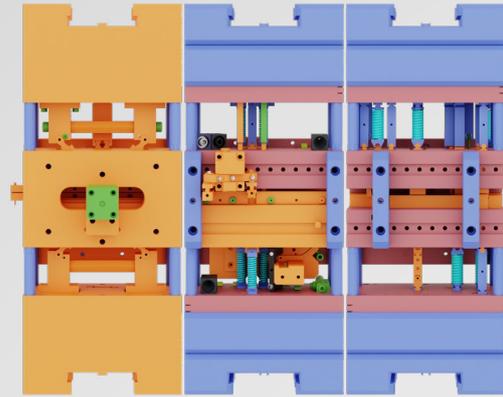
STAMPING





Tool interface
= machine interface

- Compatible stamping and forming tools (linear tools)
- A suitable machine - whatever the task
- Consistency and ease of use



customized

partially-
standardized

standardized

Full flexibility within the
tool modules

- You decide the design - according to the task
- Individual to highly standardized modules
- You have all the freedom at any time

Meusburger standard cutting frames

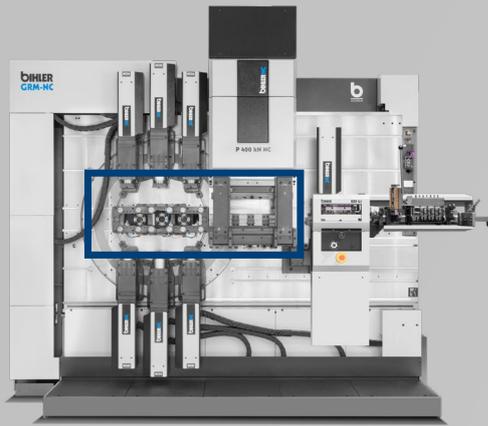
Compatible with Meusburger standard cutting frames SBP 400 and SBH 400

meusburger

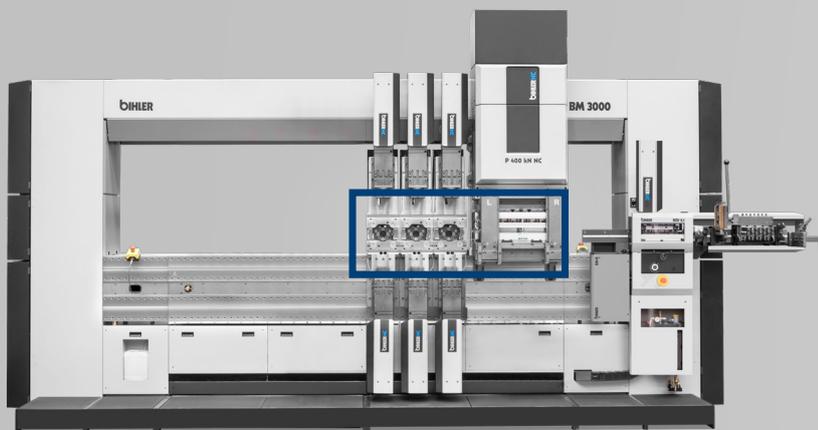
PLUG & PRODUCE

Production simplified through compatibility

All machines have standardized interfaces and a zero-point clamping system with hydraulic clamping functions. This makes them fully compatible with each other in terms of the linear stamping and forming tools used. A direct assignment of tool to machine is completely eliminated.



Universal Servo Stamping and Forming Machine
GRM-NC



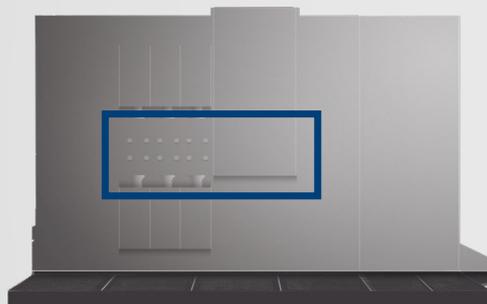
Servo Production and Assembly System
BIMERIC Modular



Cam-controlled Linear Machine
LM 2000-KT



Servo Linear Machine
LM 2000-NC



High Speed Machine
(in planning)

ADVANTAGES

1

Simplified, stable production planning and order planning

Standardized, uniform machine interfaces guarantee machine-independent application of the forming tools. The fixed assignment of particular tools to particular machines is not required. As a result, production planning time and effort can be greatly reduced, more efficient order planning and sequencing can be established, and capacity bottlenecks can be eliminated.

2

Machine-independent tool design

The uniform design guideline for stamping and forming tools enables the user to design the tools independently of the machine. By dramatically reducing the number of staff required to participate in the design process, the independent design capability offers the user a more efficient use of their design engineers' expertise, and conserves valuable design time and capacity.

3

Flexible tool technology

These five machines provide maximum flexibility by allowing you to use the exact tool technology you need - whether it is the highly-standardized LEANTOOL technology, or any parts from it, or your own linear tool standard. Simply follow the guidance provided by the product line - the tools can be set up quickly and easily, and they are fully compatible with your machine park.

4

Digital transparency at all times

Each of these five machines is equipped, as a standard feature, with OPC UA interfaces, which form the bases for future applications in the IoT, M2M and I4.0. The interfaces can also be used to transfer machine conditions to a higher-level MES or EAP system, or to connect to the “Bihler Analysis Tool” software tool in plug & play operation. The digital tool does not require any customizing, yet it provides clearly-presented features for production analyses.

5

Simplified and efficient maintenance

The five machines utilize many identical components. For example, the GRM-NC, the LM 2000-NC, and the BIMERIC BM are all equipped with the same servo slide units, the same quick tool clamping system, and the same material feed. The use of identical components across the board increases machine availability time, and decreases the need for spare part maintenance inventories. The net result? Efficient and simplified maintenance that serves to minimize effort, time, and cost.

6

Optimized work for your employees

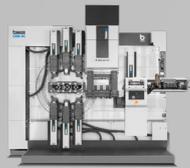
Uniformity, standardization, and consistency are reflected in all aspects of the Modular Series, which makes the work process more clear-cut and more straightforward for your employees: uniform operating routines for machine control; a standardized cross-machine design guideline for tool design, a large number of identical components for maintenance; and a uniform setup system. These many features all work together - to ensure that you always have the right machines for job planning - and to ensure that your employees work in an optimal production setting.

MACHINE USE

You can choose which Bihler machine is right for you. Our machines meet all of the requirements of the production world, whether it be small-, medium- or large-batch sizes, or low value added, or high value added by way of additional processes. Each of our five machines is compatible with all of the others. All use uniformly designed linear forming tools that offer great flexibility, and can be quickly reused or relocated, or, if necessary, they can be modified, depending on the product life cycle of the components. Each of the five machines provide all of the advantages of the full Modular Series.

SMALL TO MEDIUM BATCH SIZES

STAMPING FORMING



GRM-NC



LM 2000-NC



BIMERIC MODULAR

STAMPING FORMING + PROCESSES



+



LM 2000-NC



BIMERIC MODULAR

STAMPING FORMING + PROCESSES + ASSEMBLY



+



BIMERIC MODULAR

HIGH BATCH SIZES

VERY HIGH BATCH SIZES



LM 2000-KT



HIGHSPEED-MACHINE



LM 2000-KT



BIMERIC MODULAR

GRM-NC

Small and medium series, using different tooling technologies

Very quick setup, servo-controlled universal machine. The GRM-NC is highly flexible, and can be used with different tool technologies, such as the adaptation of GRM stock tools (radial and linear), LEANTOOL Radial, and LEANTOOL Linear.

LM 2000-NC

Small and medium series, with linear tools

Very quick setup, servo-controlled production machine with a total machining length of 2,000 mm, and cycle rates of up to 250 per minute. In addition to forming, additional processes can be integrated, such as contact welding, thread forming, and screw insertion.

BIMERIC MODULAR

Forming + additional processes, through to assembly

Modular servo-controlled production machine. The BIMERIC has the ability to carry out many processes in addition to forming - whether they are an extension with joining processes (e.g., welding, thread cutting, screw insertion), or an orderly placement of the components in trays, or a complete assembly of a sheet metal part. All automated control functions are available.

LM 2000-KT

Small and large series, with linear tools

High-performance, cam-controlled production machine with a total machining length of 2,000 mm, and cycle rates of up to 500 per minute. In addition to forming, additional processes can be integrated, such as contact welding, thread forming, and screw insertion.

HIGHSPEED-MACHINE

Large- to high-volume series

High-performance, cam-controlled production machine offering maximum cycle rates for high-volume production. The tools are backward compatible (in terms of speed) to the entire Modular Series. (Currently in pre-development)



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

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

www.bihler.de