



# **BNC SERIES**

Servo Production Systems

**BIHLER**



## Optimize your production

Switch to the new servo-controlled BNC production systems for your production of strip and wire parts. The machines and all processing units are fully compatible with the MRP standard. All existing tool applications of MRP machine types UB2/B, UB3/B and UB4/B can be quickly and easily adapted and optimized for the BNC. You benefit from significantly higher productivity and flexibility in your production and increase your added value.



# BNC SERIES

Servo Production Systems

- Full tool compatibility with MRP machine types UB2/B (BNC 2), UB3/B and UB4/B (BNC 4)
- Significant increase in output
- Easier and faster machine set-up
- Minimum tooling time
- Rapid response to short-term customer requests
- Maximum ease of use with Bihler VariControl VC 1 machine and process control system
- Maximum process safety and product quality





# BNC SERIES

Servo Production Systems

Machines manufactured by MRP (Meyer, Roth & Pastor) are characterized by:

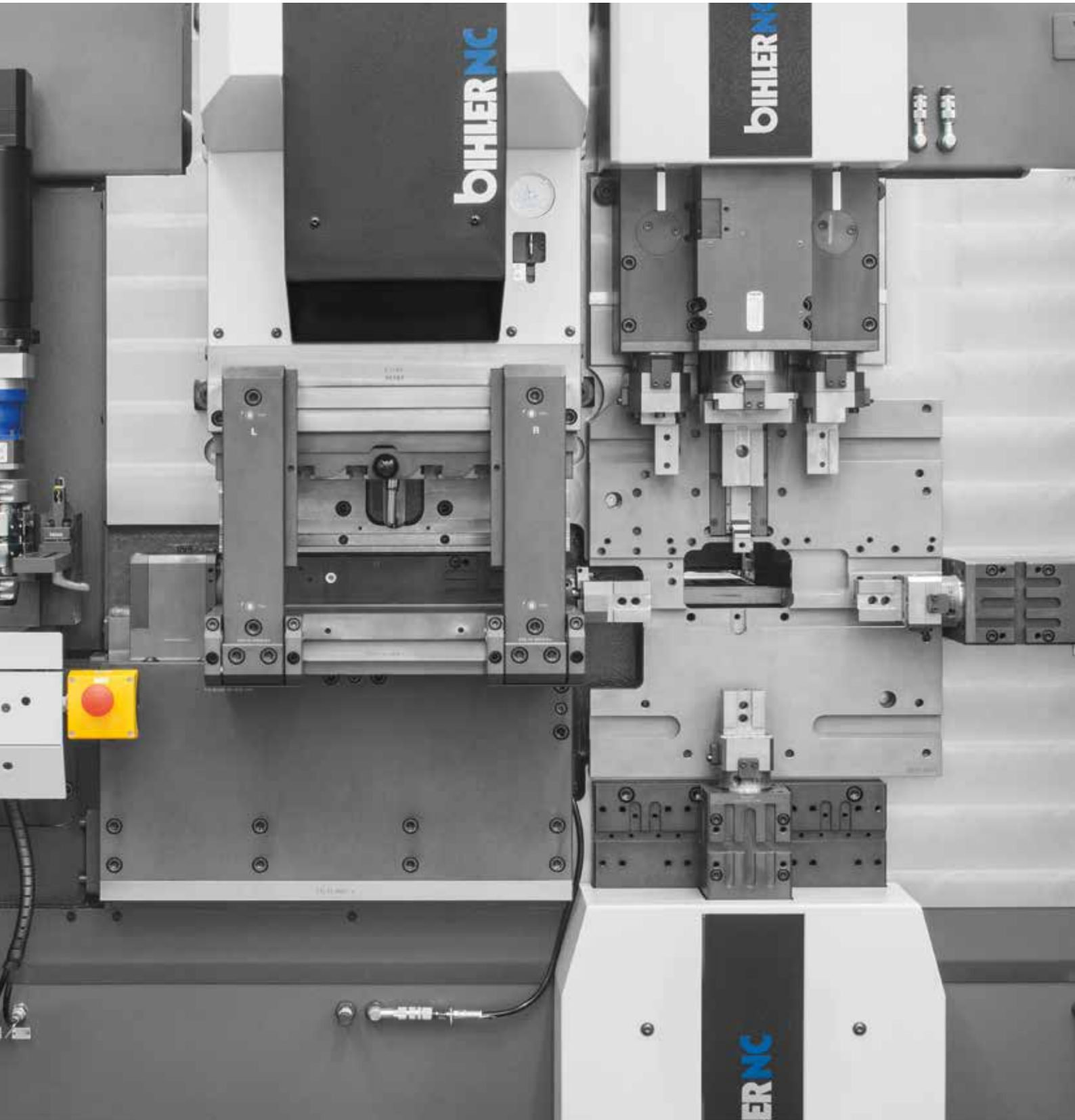
- Complex adjustments during machine and tool set-up
- High machine age 15+ years
- Difficult spare parts supply

With relocation and optimization of MRP tools on the BNC you get:

- Short set-up times and fast tool change
- 100% reproducible retooling
- High flexibility for application areas
- Fast delivery of spare parts (engine and controller)







# BNC SERIES

Servo units



## Material feed

The servo-controlled RZV 2.1 material feed is designed for both strip and wire material (without retooling mechanical components). It offers impressive feed speeds and excellent positioning accuracy. Variable feed lengths from zero to infinity, as well as different feed lengths within one total feed length can be realized. The RZV 2.1 automatically compensates for thickness tolerances in the material. Material guides for different strip and wire dimensions are made with quick-change systems.



## Press

Compatibility with cutting tools of the MRP standards is ensured. Die sets of UB2/3/4 cutting tools can be mounted using adapter sets. The press tables with their waste breakdown offer a universal design.



## Units

The compact NC units offer plenty of machining freedom. Working stroke, working location and motion profile are programmed freely over the entire operating range. The maximum force can be achieved at any time and in any stroke position. Forming motions can be implemented with constant force transmission.

The standard NCA units have a quick release and quick-change system for tool fasteners. For the direct integration of UB2/3/4 tools, adjusted mounting plates are installed on the NCA units. They guarantee the seamless integration of existing tools. Conversion and optimization of the motion profiles for the individual movements during tool changes can be performed quickly and easily without additional mechanical elements – simply by programming.





### Pivoting machining position

The axis for the „bending from the front“ function is mounted on a pivotable device. This device is securely fixed in its exact working position with a quick clamping system on a dedicated mounting bracket.

The optional NCA unit for the movement „bending from the front“ is pivoted to the side into a parking position when it is not needed as well as for tool assembly and maintenance.



### Maximum process reliability

Several features guarantee high process reliability. All units have an integrated cooling and central lubrication system. A software-integrated overload protection safeguards equipment against overload. For maximum precision, all units are fitted with an integrated absolute measuring system. This means operation is possible without overruns. Process-related thermal effects are fully compensated.

**MORE EFFICIENT  
MORE PRODUCTIVE  
MORE FLEXIBLE**

# VC 1

Machine and process control

## Highlights at a glance

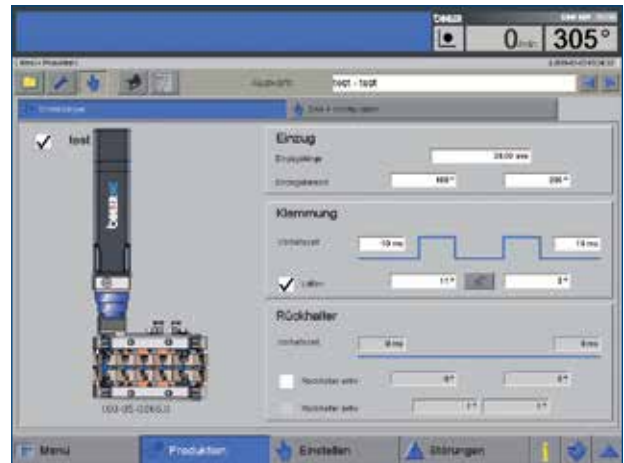
- Easy, flexible machine setup without an external programming device
- Customized menu navigation for fast setup and retooling
- Freely configurable, individually adaptable production menus and user interfaces
- Multimedia diagnostics and online help system
- Integrated recording of measurement and production data
- Remote maintenance (optional)

## Convenient operation

With the VariControl VC 1 you operate the BNC intuitively and safely via a swiveling touchscreen terminal and other operating elements. The control system is fully integrated into the housing of the compact machines.

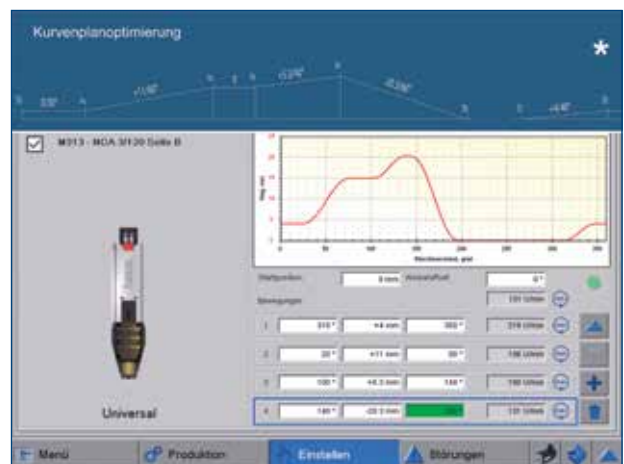
## Direct programming

NC processing units are programmed directly via simple input screens.



## Function chart optimization

Individual and easy optimization of travel profiles for higher productivity.



# BNC SERIES

Technical data

## BNC 2

## BNC 4

Stroke rate	Infinitely incremental from 1 to 300 1/min. (depending on motion profiles, forces and tool paths)	Infinitely incremental from 1 to 300 1/min. (depending on motion profiles, forces and tool paths)
NC two-point excenter press	max. nominal force 70kN, max. stroke 10mm, table length 220mm, max. strip width 25mm	max. nominal force 200kN, max. stroke 12mm, table length 440mm, max. strip width 40mm
NC slide units	<p><b>Triple NC slide unit (top):</b> short-term peak force per axis max. 10kN, stroke max. 60mm</p> <p><b>Triple NC slide unit (bottom):</b> short-term peak force per axis max. 10kN, stroke max. 60mm</p> <p><b>Triple NC slide unit (bottom, single configuration):</b> short-term peak force max. 10kN, stroke max. 60mm</p> <p><b>NC unit (horizontal movement from left):</b> 1 × NCA 4 / 120.12000, short-term peak force max. 12kN, stroke 52.5mm</p> <p><b>NC unit (horizontal movement from right):</b> 1 × NCA 4 / 120.12000, short-term peak force max. 12kN, stroke 120mm</p>	<p><b>Triple NC slide unit (top):</b> per axis left / right short-term peak force max. 19kN, max. stroke 80mm; axis center short-term peak force max. 31kN, max. stroke 78mm</p> <p><b>NCA4 slide unit – layout below possible as triple configuration:</b> per axis short-term peak performance max. 19kN, max. stroke 100mm</p> <p><b>NC unit (horizontal movement from left):</b> 1 × NCA 4 / 120.19000, short-term peak force max. 19kN, stroke 64mm</p> <p><b>NC unit (horizontal movement from right):</b> 1 × NCA 4 / 120.19000, short-term peak force max. 19kN, stroke 100mm</p>
NC central mandrels	<p><b>NC central mandrel (rear complete):</b> Mandrel carriage 1 × NCA 4 / 120.12000, max. short-term peak force 12kN, max. stroke max. stroke 55.5mm; Mandrel lever 1 × NCA 2 / 60.1500, max. short-term peak force 1.5kN, stroke 60mm</p> <p><b>NC unit (from front):</b> (Bending from front) NCA 4 / 120.12000, short-term peak force max. 12kN, stroke 120mm</p>	<p><b>NC central mandrel (rear complete):</b> Mandrel carriage 1 × NCA 4 / 120.12000, max. short-term peak force 12kN, max. stroke 70,5mm; Mandrel lever 1 × NCA 3/200.3500, max. short-term peak force 3.5kN, stroke 156mm</p> <p><b>NC unit (from front):</b> NCA 4 / 120.12000, short-term peak force max. 19kN, stroke 120mm; optional installation on pivoting holder</p>
NC hold-down device	1 × NCA 2 / 60.4000, max. clamping force 2kN, max. stroke 60mm	1 × NCA 3 / 120.8900, max. clamping force 8.9kN, max. stroke 33mm
Dimensions	2,016 × 1,525 × 2,341mm	2.600 mm x 1.900 mm x 2.650 mm
Weight	approx. 3000kg	approx. 4500 kg

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