

# CNC Coiling and Bending Center for the Production of Two- and Three-Dimensional Parts and Frames from Wire and Profiled Material



Series  
BMU

# Series BMU

▼ Bending head and cutting unit



▼ Feed unit including straightening unit



## Our Accomplishments for your Benefit

- Very broad range of products
- High degrees of freedom during bending
- Only provider of rotary straightening technology
- Various upgrading and in-line possibilities
- Enhanced operating convenience and flexibility due to user-friendly WPS 3.2 EasyWay

## Design Features

- Bending machine available in three sizes
- Basic machines upgradable to 24 CNC axes
- Robust feed unit for advancing and rotating the wire, option of motor-driven displacement together with the combination roller straightener for adjusting the bend-back clearance
- Fast CNC-controlled cutting unit with optimized cycle times (servomotor-driven displacement option)
- Versatile bending head with large bending clearance and flexible application possibilities thanks to the infinitely rotating bending and mandrel axis as well as long transverse and up/down strokes
- Infeed and bending tools compatible with previous models
- User-friendly user interface WAFIOS WPS 3.2 EasyWay with plain-text programming of lengths, angles or coordinates, and linking of all machine components, graphic user interface
- Control panel carriage with touchscreen display and hand-held operating device
- Combination roller straighteners cover the entire operating range of the machine
- Air-conditioned switch cabinet

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- Combo straightening apparatus cover the entire working range of the machine

## Operation

- User-friendly and fast set-up with the hand-held operating device with touchscreen
- Reduced set-up times due to ergonomic access to all tool positions as well as simple and fast programming of tools, material parameters and bending program with the WPS 3.2 EasyWay
- *iQbend*: Optimization of bending sequences
- *iQwire®*: Simulation of wire bending processes
- *iQinspect*: Automatic measurement and correction of bent parts
- *iQsmartbend*: Automatic optimization of bending processes
- *iQconvert*: Reduction of programming and set-up times through import of CAD geometry data

▼ Bending after the cut



# Versatile, Flexible and Profitable - WAFIOS CNC Coiling and Bending Machines, Series BMU

## Trend-Setting Machine Concept

The BMU series is based on a successful and reliable concept which in the past few years has set standards - especially for the production of complicated bent parts - as it was consistently improved and can be upgraded for the most diverse bending tasks.

The standard equipment of the BMU line includes a user-friendly device for displacing the infeed. Then the optimum distance between infeed and bending head is adjusted accordingly. As an option, the displaceable infeed can be equipped with a servomotor. The facts that the wire does not have to be pushed backwards through the straightener anymore when producing short end legs and that the entire wire length of the bent part can be straightened in one pass are of great advantage. Thereby the quality and accuracy is significantly increased. This equipment is especially suited for free-form bending small wire diameters.

The installation of a rotary straightening unit for highest straightening quality and process reliability is available as an option.

## Quality

For over a 120 years, the name WAFIOS has represented the highest level of quality expectations, safety standards and German technical innovation related to the engineering of manufacturing systems.

## Reliability

Strict quality controls, state-of-the-art production systems and many years of experience guarantee that your investment is in safe hands. Our global service network ensures high availability of WAFIOS machinery.

## Efficiency

High production output and a long service life will save money and shorten the amortization time of your investment



▲ Multi-radii bending tool for bending and free-form bending

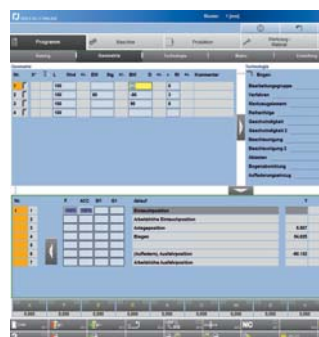


▲ 4-Pin bending tool, type 5

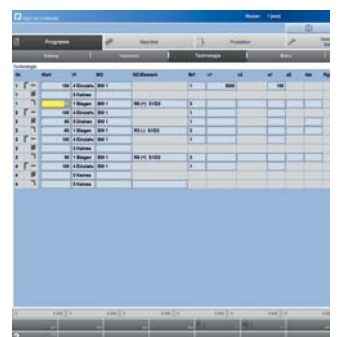
▼ Displaceable cutting unit, position 1



▼ Displaceable cutting unit, position 2

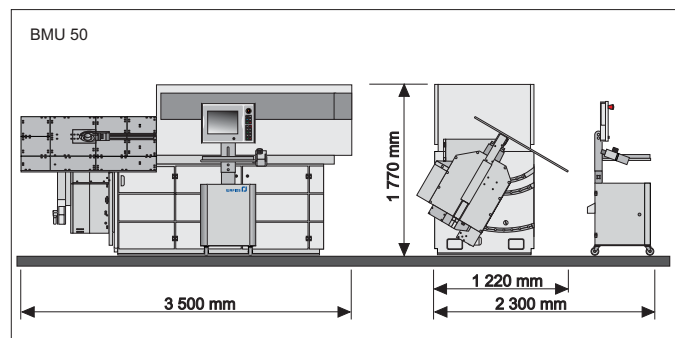


▲ WPS 3.2 EasyWay - Geometry level



▲ WPS 3.2 EasyWay - Technology level

Technical Data	BMU 40	BMU 50
Operating range, wire Ø 600 N/mm <sup>2</sup> 1.200 N/mm <sup>2</sup> 1.900 N/mm <sup>2</sup>	3.0 – 8.0 mm 3.0 – 5,0 mm 3.0 – 4.0 mm	4.0 – 10.0 mm 4.0 – 6.0 mm 4.0 – 5.0 mm
Extended operating range (option)	Wire Ø from 1.5 mm	Wire Ø from 2.0 mm
Feed rollers	3 Pairs	4 Pairs
Rotary angle, mandrel axis	Infinite	Infinite
Rotary angle, bending axis	Infinite	Infinite
Bending head, up/down stroke	+25 mm / -120 mm	+25 mm / -120 mm
Bending head, transverse stroke at 0° position	+200 mm / -200 mm	+200 mm / -200 mm
Bending head, transverse stroke at 30° position	+200 mm / -100 mm	+200 mm / -100 mm
Motor-adjustable bend-back clearance (mm)	400 - 1,300	400 - 1,300
Bending head positioning	+30° / 0° (manual)	+30° / 0° (manual)
Stroke of CNC support plate (opt.)	+25 mm / -235 mm	+25 mm / -235 mm
Max. feed speed	120 m/min	120 m/min
Bending torque	ca. 520 Nm	ca. 1,050 Nm
Number of standard CNC axes	24	24



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Precision Machinery for Wire and Tube