

CNC Bending and Coiling Machine for the Production of Two- and Three-Dimensional Parts and Frames from Wire and Profiled Materials



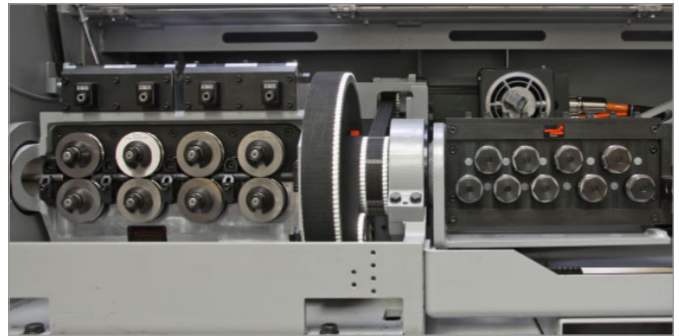
BM 50

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▼ Bending head and Cut



▼ Feed unit including straightening unit



Our Accomplishments for your Benefit

- **Tried and tested, successful machine structure**
- **Most of the tools from predecessor machines can be used**
- **Higher process safety thanks to adjustable bend-back clearance**
- **Consistent standard operating system**

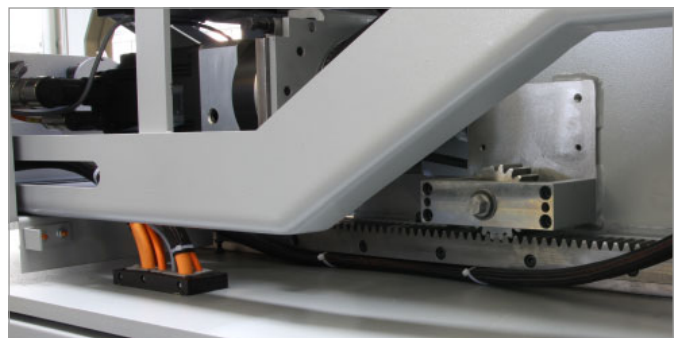
Design Features

- Bending machine available in 3 sizes
- Basic machine with 7 CNC axes, upgradable to 8 standard CNC axes
- Robust feed unit for advancing and rotating the wire, manually displaceable together with the combination roller straightener for adjusting the bend-back clearance
- Fast CNC-controlled cutting unit with optimized cycle times
- 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
- User-friendly user interface WAFIOS WPS 3.2 EasyWay with plain-text programming of lengths, angles or coordinates, and linking of all machine components
- Control panel carriage with touchscreen display and hand-held operating device
- Fast CNC machine control, upgradable to 14 CNC axes
- Numerous add-on devices available (options)
- Combination roller straighteners cover the entire operating range of the machine
- Air-conditioned switch cabinet

Operation

- User-friendly and fast set-up thanks to 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 properties and bending programs with WPS 3.2 EasyWay
- **iQbend**: automatic optimization of CNC program sequences with regard to the geometry of the bent part (option)
- **iQwire**: Real-time simulation for determination of cycle times and collision control (option)
- **iQinspect**: Import/export of nominal data or correction data from external measuring system to WAFIOS Programming System WPS 3.2 EasyWay (option)

▼ Displaceable feed and straightening unit



Versatile, Flexible and Profitable – WAFIOS CNC Coiling and Bending Machines, Series BM

Trend-Setting Machine Concept

The WAFIOS BM series has been designed for the production of two- and three-dimensional parts and frames made of wire and profiled material. It offers a new machine concept based on components and tools that have been tried and tested hundred of times. High process safety, the possibility to employ tools of predecessor models and the familiar standard operating system WAFIOS WPS 3.2 EasyWay enable high outputs.

The rotation of the wire is based on a well proven concept. The stationary mounted bending head is very robust even when high bending speeds are used.

Reliable concept: Fast and precise bending and coiling operations due to high flexibility of tools.

Sophisticated safety concept, CE conformity in accordance with Machinery Directive 2006/42/EC, in connection with pay-off unit H / AHP and protective fence.



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



▲ 4-Pin bending tool, type 5

Quality

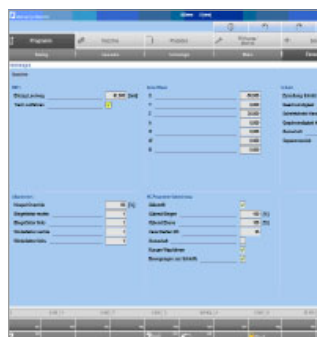
For more than 125 years, the name of WAFIOS has been synonymous with highest quality, safety standards, and technical innovations in the German machine manufacturing industry.

Reliability

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

Cost efficiency

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

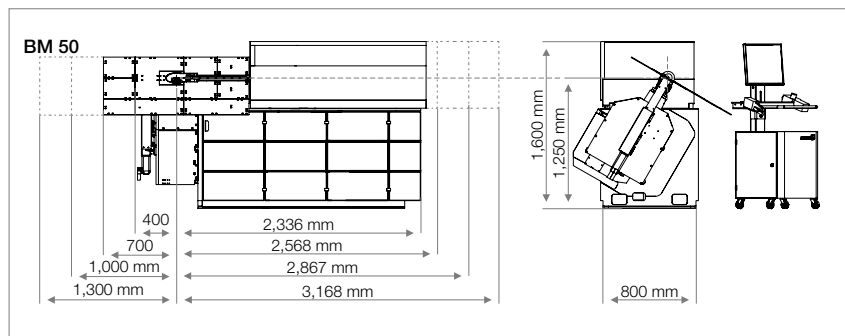


▲ *iQbend* in WPS 3.2 EasyWay



▲ User-friendly WAFIOS Programming System WPS 3.2 EasyWay

Technical Data	BM 50
Operating range, wire Ø: 600 N/mm ² 1,200 N/mm ² 1,900 N/mm ²	4.0 – 10.0 mm 4.0 – 6.0 mm 4.0 – 5.0 mm
Extension of wire range diameter (option)	Wire from 2.0 mm diameter
Feed rollers	4 Pairs
Rotary angle, mandrel axis	Infinite
Angle of rotation of bending axis	Infinite
Bending head, up/down stroke	+25 mm / –120 mm
Bending head transverse stroke	+200 mm / –100 mm
Bend-back clearance	400 / 700 / 1,000 / 1,300 mm
Bending head positioning	+30° fix
CNC support plate, stroke (option)	+25 mm / –235 mm
Feed speed	max. 120 m/min
Bending moment, tool holding fixture	ca. 1,050 Nm
Number of CNC axes	7 (8 / max. 14 as an option)



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Precision Machinery for Wire and Tube