

### CNC Tube bending machine for the production of two- and three-dimensionally bent parts from tube material



## BMZ 8 BMZ 12 BMZ 61

 Simple change of tools due to intelligent tool system



### Our Accomplishments for your Benefit

- High level of flexibility and high degree of automation
- Highest output and quality
- Value added superior and precise technology
- Perfect handling of machine due to functional design
- Configuration of machine according to product requirements

### **Design Features**

- Extremely high bending speeds
- Integrated loading and unloading automation (option)
- Right/left bending in one clamping
- Combined rotary-draw, roll and free-form bending
- Fully electronic machine concept, all relevant bending parameters are CNC-controlled
- Increased output, especially when producing complicated parts
- User-friendly machine control WAFIOS WPS 3.2 EasyWay with plain-language programming of lengths / angles or coordinates, connection of all machine components, graphic operator interface
- User-friendly and secure machine control due to new handheld operating device with touch screen
- Ergonomic machine concept, designed for multipleshift, reliable operation
- Reduced retooling times due to simple and repeatable tool changes
- Open collet system for holding tubes whose ends have been processed and that are fitted with/without cap nuts
- Tube lengths of up to appr. 2,000 mm are possible
- Up to 10/14 CNC axes

 The loadingarm axis serves for automation purposes (option)



### **Bending Head**

The bending head has been designed for combined right/left bending procedures in one clamping. The lateral displacement of the bending head also enables the production of complicated geometries. This multi-functional bending head is able to hold all common WAFIOS tube tool systems.

Tooling with auxiliary gripper



# Versatile, Powerful and Profitable – WAFIOS CNC Tube Bending Machines

### **New Bending Dimensions**

The BMZ series is based on a successful and reliable concept. Designed for the production of complicated bent parts from cut-to-length, end-treated and ready-to-install tubes, the WAFIOS BMZ series sets standards on the market since many years.

The extremely flexible and universal WAFIOS tool systems increase the service life of the machines significantly. Tools for roll-bending, rotary-bending and free-form bending operations can be employed. As the bending head enables left- and right-bending operations in one clamping, the production of complicated two- and three-dimensional work pieces is possible in one pass. Due to the WAFIOS tool systems, bending times, unproductive times and retooling times have been reduced to a minimum.



A New handheld unit with touch screen



User-friendly control due to WAFIOS programming system WPS 3.2 EasyWay

### Quality

For more than 120 years the name WAFIOS has stood for the highest in terms of quality expectations, safety standards and technical innovation in German manufacturing systems engineering.

### 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.



A wiper die and follow bar for left-/right-bending operations are available for the BMZ 61 as an option



 User-friendly control due to WAFIOS programming system WPS 3 (BMZ 61)



Technical Data		BMZ 8	BMZ 12	BMZ 61
Operating range	Tube diameter, max.* Standard lengths* (recommended) From BMZ magazine	8.0 x 1 mm up to 2,000 mm 100 - 2,000 mm	12.0 x 1 mm25.4 x 1 mmup to 2,000 mmup to 3,000 mm100 - 2,000 mm100 - 2,000 mm	up to 3,000 mm
CNC axes	Standard/Maximum Bending head Spindle unit (without swiveling) Lateral displacement of bending head Internal mandrel unit Auxiliary gripper Loading arm Swiveling the collet	6 / 10 3 axes 2 axes 1 axes  Pneumatic 1 axes (optional) 1 axes (optional)	7 / 10 3 axes 2 axes 1 axes 1 axes (optional) Pneumatic 1 axes (optional) 1 axes	7 / 16 4 axes 3 axes 1 axes (optional) 1 axes (optional) Pneumatic  1 axes
Collet	Operating principle Structure Single stroke Multiple stroke	Pneumatic Open 750 mm At will	Pneumatic Open 750 mm At will	Pneumatic Open/closed 1,000mm At will
Programming	Length/angle Coordinates Order lists Graphical display	Yes Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes Yes
Automatisierung	Loading from a magazine Position-oriented depositing Combination with robots	Optional Optional Optional	Standard Standard Optional	Standard Standard Optional
Weight		1,150 kg	1,950 kg	4,700 kg
Space requirements (I x w x h mm)		2,100 x 1,250 x 2,050	2,150 x 1,250 x 2,050	3,870 x 1,760 x 1,600
Machine control		WPS 3.2 EasyWay	WPS 3.2 EasyWay	WPS 3

\* All specifications depend on material and bending radius, different lengths on request



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Precision Machinery for Wire and Tube