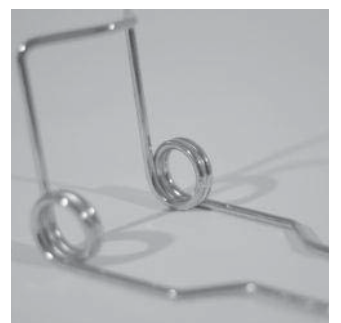


## CNC Coiling and Bending Machines for the Production of Torsion Springs



Series  
FMK

# Series FMK

▼ Newly designed rotary infeed system with two pairs of feed rollers

▼ Tool change and setup time is minimized thanks to the fixed and automatically approachable tool positions



## Our Offer – Your Benefit

- **Cost-optimised solution**
- **High flexibility creates market opportunities and an extremely wide variety of possible uses**
- **Zero-error production**

## Design Features

### Machine Structure

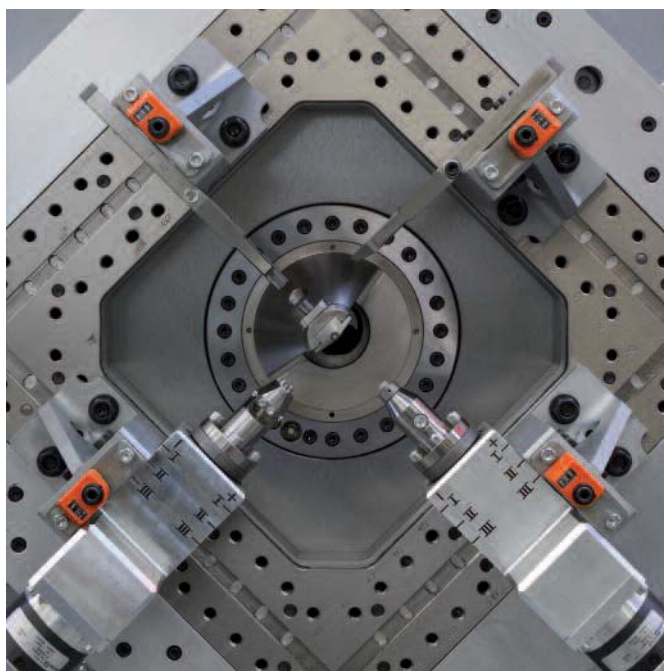
- Standard version with 6 CNC axes (rotary infeed / coiling wire guide / compound table / rotary unit)
- Swiveling roller straightener
- Additional rotary units (optional: max. 2)
- Switch mandrel attachment (optional)
- High-performance control system for 8 CNC axes
- Innovative machine design with full consideration of ergonomic design aspects
- Maximum upgrade level: 8 CNC axes

### Compound Table

- Enables eccentric working without additional tooling requirements
- Cartesian table axes aligned to vertical plane
- Coiling, bending and cutting tools are positioned on the compound table (positions can be stored in memory).
- Additional setup positions for shortening of tool adjustment travel

## Software

- Includes the latest version of the tried and tested control software WAFIOS WPS 3.
- Clearly laid out and simple menu controls for user-friendly operation via the touch screen.
- **New: IQspring®** automatically ensures the optimal positioning of tools.
- Thanks to the automatic controls, tool change and setup time is significantly reduced.
- Continuous monitoring of machine status and service intervals



# Quality, Reliability and Efficiency – WAFIOS FMK Torsion Spring Coiling Machines

## Redefining Productivity

The WAFIOS FMK is designed for the production of torsion springs and offers new technical solutions for increased productivity and cost optimization.

The Cartesian compound table is a completely new design. Even though it only requires two CNC axes, it can virtually match all of the functions of conventional spring coiling machines.

The latest version of the WPS 3 control software offers machine operators completely new tool setup options. As well as automated tool positioning on the compound table, it also offers tool configuration options.

The WAFIOS FMK range is available in two basic versions for wire diameters of 0.6 – 2.0 mm and 1.2 – 3.2 mm.

## Quality

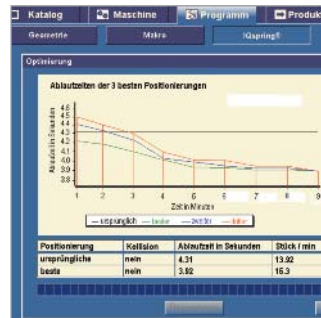
For more than 100 years the name WAFIOS has stood for the highest in terms of quality expectations, safety standards and technical innovation in German manufacturing systems engineering.

## 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

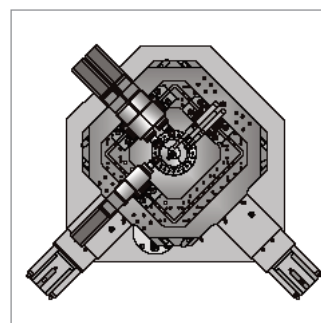
High production output and a long service life will save money and shorten the amortization time of your investment.



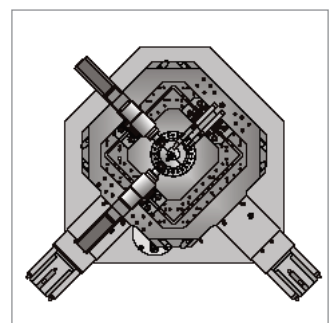
▲ New version of the user software WPS 3 with IQspring® for the optimal positioning of tools



▲ Tremendous flexibility thanks to the highly varied options for tool use



▲ Example configuration: Basic machine with 6 CNC axes and 2 additional rotary units



▲ Example configuration: Basic machine with 6 CNC axes plus 1 rotary unit with switch mandrel

Technical Data	FMK 2	FMK 3
Wire dia. (for 2,000 N/mm <sup>2</sup> )	0.6 - 2.0 mm	1.2 - 3.2 mm
Axes	6 (max. 8)	6 (max. 8)
Feed speed	100 m/min.	85 m/min.
Bending torque (rotary unit)	5,2 Nm	23,8 Nm
Bend-back clearance, max.	100 mm	150 mm
Rotary angle	infinite	infinite
Compound table traversing distances	max. 140 mm	max. 200 mm
Output up to ca.	120 pcs/min	85 pcs/min
Dimensions l x w x h mm	1,970 x 1,410 x 2,065	3,000 x 2,300 x 2,400
Weight	ca. 2,100 kg	ca. 3,800 kg



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Precision Machinery for Wire and Tube