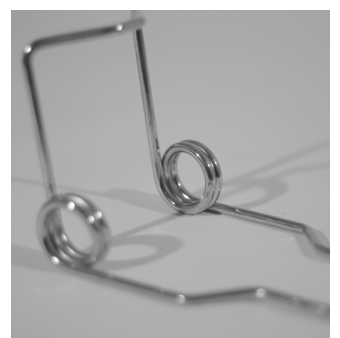


# CNC Spring and Wire Forming Systems for the Production of all Types of Springs



FMU 08+  
– FMU 32+

# FMU 08+ – FMU 32+

▼ Maximum flexibility thanks to a wide variety of tooling options

▼ New WPS 3.2 EasyWay with a simplified input of geometries for an easy programming of torsion springs



## Our Accomplishments for your Benefit

### ■ The "Plus" for your production: The FMU machines of the latest generation for more performance and operating convenience

- New elements, such as the simulation of operating sequences and the enhanced geometry-based programming process, support the operator in setting up the machine.
- The 3-year license for *iQspring+* is included in the machines' standard equipment. It enables the simulation of the production process, automatic collision control and performance optimization.
- The new control platform represents a secure, future-oriented concept as a basis for smart solutions.
- The design of the FMU+ machine offers the greatest product diversity and a performance increase of up to 10% compared to the previous machine.

### ■ Very high flexibility

- Variety of configurations for sliders, rotary units and other options - Different tool designs for coiling, winding and bending - Applications for the production of spring loops
- Production of a wide range of parts due to modular machine concept
- Quick retooling thanks to innovative tool solutions and individual arrangement of sliders and rotary units
- Ideal solution for small and medium-sized batches

### ■ High quality standards ensure zero-defect production

- Optical measuring systems are available (camera and laser)
- Advanced monitoring and control technology
- Evaluation of measured data by feedback from control system

## Design Features

### Machine structure

- High-precision rotary feed unit
- Rotating wire guide for individually programmable cutting and wire-guiding direction
- Force-locked cutting unit attachment for FMU 16/25+ and 32+
- Full HD multi-touch monitor (at least 21.5") for a better overview and gesture-based control
- Reuse of some of the tools from previous models possible

### Coiling device

- Standard equipment with 2-axes spring and wire forming device for coiling spring bodies
- 4-axes spring and wire forming device (option):
  - Possibility of eccentric displacement for coiling and winding spring bodies and carrying out bending operations
  - Coiling device is displaceable in longitudinal wire direction for carrying out highly complex bending operations and the possibility of working backwards

### CNC Linear unit (FMU 16/25+ and 32+)

- Increased output due to fewer subsequent operations
- Greater range of parts and higher output is possible

# Versatile, Powerful and Reliable - WAFIOS FMU Spring and Wire Forming Systems

## Masters of Flexibility and Productivity

Designed for the production of torsion, extension and extended loop springs as well as bent parts, the WAFIOS FMU+ series opens up a host of new options for the spring industry.

The tool carriers can be freely moved in different dimensions to unlock completely new design concepts for the production of parts, including simple or even highly complicated torsion springs and bent parts, double torsion springs with inner or outer spring bodies and extended loop springs even with tight spring indices.

The machines are characterized by quick set-up times thanks to the speed and ease with which the parts can be changed and the corresponding tool settings can be adjusted.

Additional equipment like laser sensors and optical measuring systems for quality assurance and production monitoring can also be integrated. It is also possible to upgrade the machine with multiple-station bending systems, pick-and-place transport systems and WAFIOS Teleservice for remote software support and diagnostic support.

## Quality

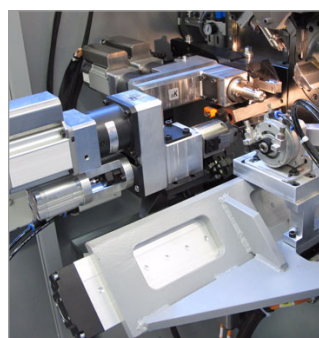
For more than 125 years, the name of WAFIOS has been synonymous with highest quality, safety standards, and technical innovations in the German machine manufacturing industry.

## 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.

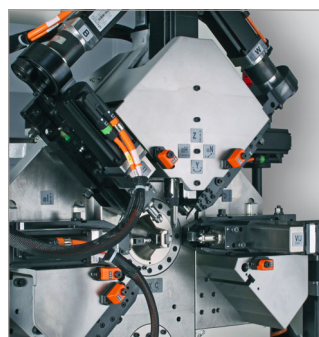


▲ CNC Linear unit

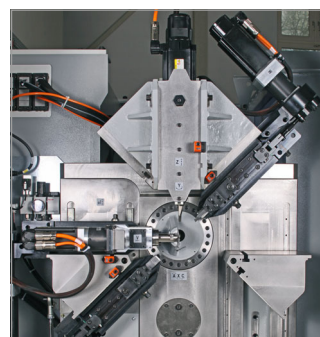


▲ Optical measuring system

▼ FMU 32+ with protective roll-up door on the side (option)

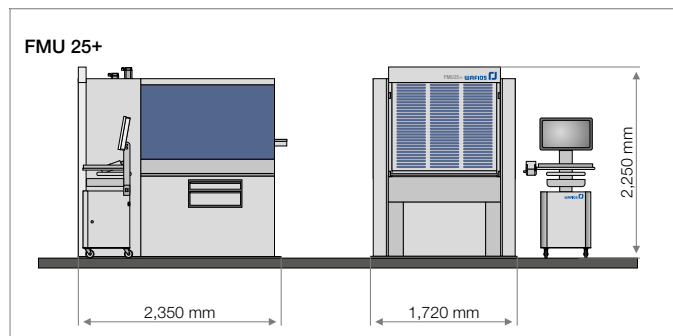


▲ 4-Axis spring and wire forming device FMU 16+



▲ 2-Axis spring and wire forming device FMU 25+

Technical data	FMU 08+	FMU 16+	FMU 20+	FMU 25+	FMU 32+
Wire Ø: [mm] (according to DIN EN 10270)	0.2 – 0.8	0.4 – 1.6	0.4 – 2.0	0.8 – 2.5	0.8 – 3.2
Feed rate: [m/min]	max. 120	max. 140	max. 140	max. 125	max. 125
Bend-back clearance: [mm]	max. 25	max. 75	max. 75	max. 130	Max. 130
Travel, vertical: [mm]	+40 / –80	+60 / –100	+60 / –100	+70 / –120	+70 / –120
Travel, horizontal table (option): [mm]	±60	±80	±80	±90	±90
Travel, longitudinal table (option): [mm]	100	110	110	180	180
Travel, linear unit: [mm]	–	320	320	400	400
Travel, slider: [mm]	34	54	54	80	95
Dimensions: (l × w × h) [mm]	1,200 × 1,620 × 2,200	1,050 × 1,600 × 1,800	1,050 × 1,600 × 1,800	1,720 × 2,350 × 2,250	1,600 × 2,300 × 2,250
Weight without pay-off unit: [kg]	ca. 1,400	ca. 1,450	ca. 1,450	ca. 3,500	ca. 3,600
Upgradable to max. no. of CNC axes	20	24	24	24	24



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