

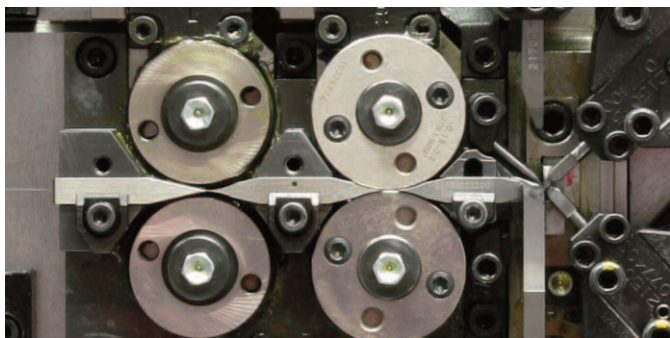
## Electronic Spring Coiling Machine for the Production of Compression Springs



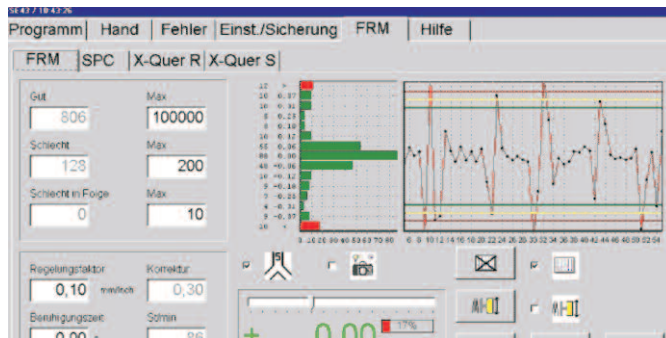
FSE 15

# FSE 15

▼ Two infeed roller pairs FSE 15 (option)



▼ SPC Analysis



## Our Offer – Your Benefit

- Modular shape able equipment classes tailored to customer specifications
- Reduced costs due to modular construction, energy efficiency and optimised re-tooling times
- Machine's minimal foot print allows an optimised factory planning and plant logistics
- Cost effective output thanks to higher availability
- Flexibility thanks to space saving machine concept

## Design Features

### Machine Construction

- Clear machine structure with minimized footprint
- Modern machine operation with max. 8 CNC axes
- Direct drive on infeed, shape axis and cut for increased precision and throughput
- Electronic jog wheel for comfortable and safe set-up of the machine and springs
- Powerful single pair of infeed rollers (2nd pair optional)
- Optimised accessibility due to fewer obstacles for measurement cameras
- Advantage: Smaller springs can be measured
- Rigid 2-finger winding device for minimal production tolerances
- Coiling pin holder with additional fine tuning
- Multi-function cut with rotary and straight cut
- Optimisation and simplification of the mandrel set-up
- Optional mandrel height adjustment and mandrel motion
- Simple maintenance and upkeep
- Perpendicular pitch (parallel pitch option)
- **NEW:** PTP coiling finger for initial tension control (option)

## Measuring and Sorting Technology

- Capacitive spring length measuring device optional
- Measuring camera optional
- Optional two-way sorting flap (three-way alternative)

## Software

- Standard with industrial PC (optional touch screen)
- User-friendly and easy-to-learn operating software
- Shortest set-up times due to simplified spring parameter input
- SPC analysis allows the verification of zero-error production



# Modularity, Precision and Cost Effectiveness - WAFIOS FSE 15 Spring Coiling Machine

## Flexibility is trump

Designed for the production of high-precision compression springs with small diameters, the WAFIOS FSE 15 provides an economical alternative for the production of all common types of compression springs.

The modular machine concept allows the individual configuration of equipment to match the production of a wide variety of parts. The FSE 15 can be upgraded to suit any application requirement, be it handling, operator comfort, or, for example with an optical analysis system for zero-error production.

The minimised space requirement due to the small foot print, in comparison to other machines in this operating range, assures an improved machine handling and problem-free integration of the machine into pre-existing production lines.

Easy accessibility from all sides greatly simplifies maintenance and machine handling. In the new machine, to change from right-hand to left-hand winding, the entire-shape slide along with its drive unit can be simply removed and re-aligned.

## 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

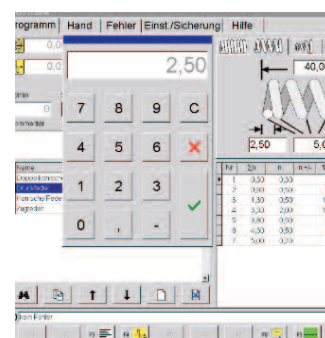
Strict quality controls, state-of-the-art production systems and many years of experience guarantee that your investment is in safe hands. Our global service network ensures high availability of WAFIOS machinery.

## Efficiency

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

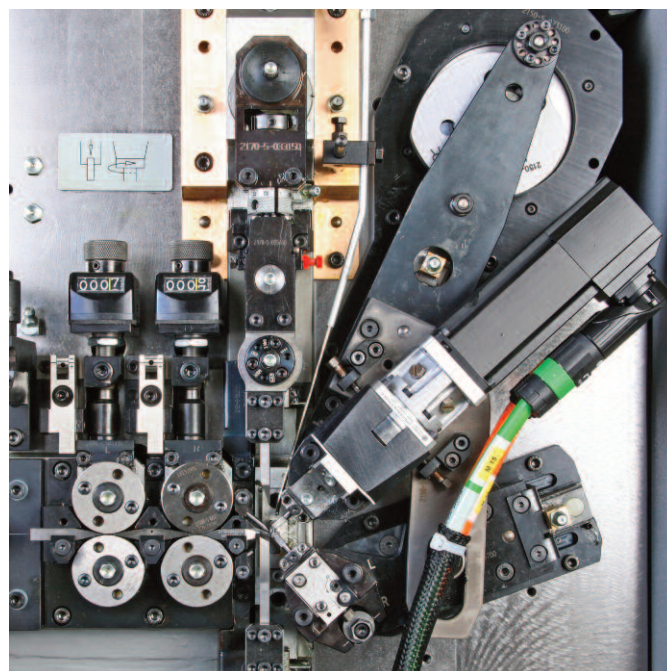


▲ Straight cut

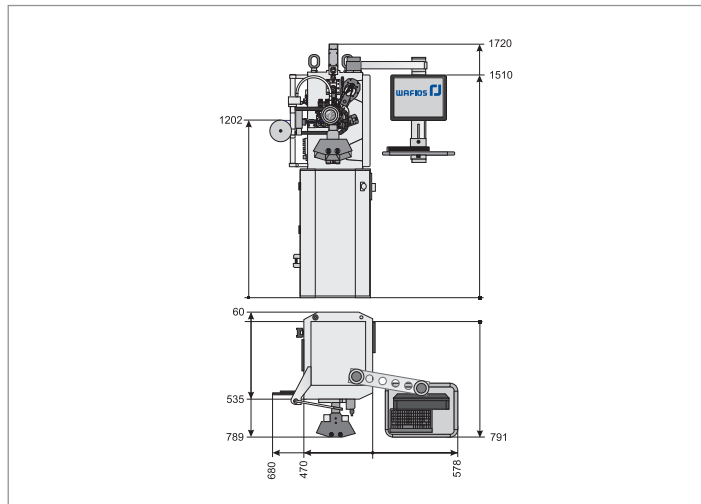


▲ Application template

▼ Tool area with ptp-finger



Technical data	FSE 15
Wire dia. (Rm 2.600 N/mm <sup>2</sup> ) (with working range extension)	ca. 0,12 - 0,6 mm (up to ca. 0,8 mm)
Spring diameter (max.)	20 mm
In-feed speed (max.)	150 m/min.
Output rate (max.)	750 pcs./min
Dimensions LxWxH (no pay-off)	900 x 900 x 1,700 mm
Weight	ca. 700 kg



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Precision machinery for wire and tube