

Compression Spring Coiling and Heat Treatment Machinery System

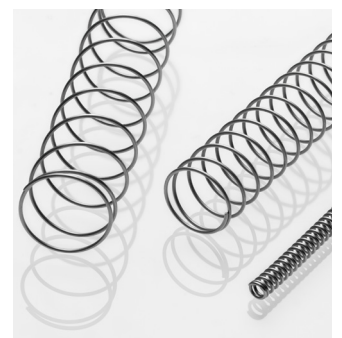
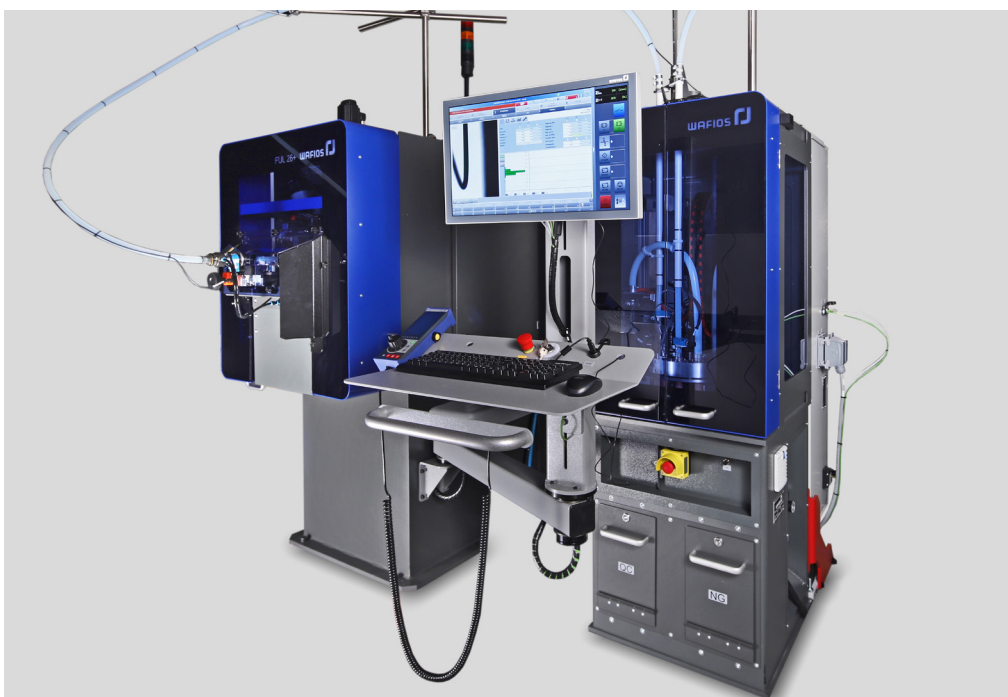
Technical Description:

The combination of Compression Spring Coiler FUL 26+ and Heat Treatment Unit HTU 12 enables synchronous coiling and heat treatment of compression springs. Both machines are fully integrated in the WPS 3.2 EasyWay programming system and share one database, one touchscreen and one hand-held operating device. The compression spring coiler controls and corrects the spring during the coiling process by means of two camera systems before it is being heat-treated. The heat treatment unit controls the spring during and after the heat treatment.

Our Accomplishments for your Benefit:

- Free programming of the process parameters “Pitch”, “Diameter” and “Length” at the compression spring coiling machine and in-line regulation via two camera systems (WAFIOS Vision System Plus/Comfort)
- Free programming and control of process parameters for conduction heating at the heat treatment unit
- Checking each individual spring by measuring their length after the integrated cooling-down process
- Possibility to process the spring directly in subsequent assembly processes or in packaging systems
- Space-saving installation compared to conventional heat treatment systems
- Transfer of all relevant process parameters and production data to higher-level systems by means of a common OPC-UA interface

Technical Data	HTU 12
Wire diameter:	ca. 0.45–0.90 mm
Material:	Stainless steel DIN EN 10270-3 e.g. 1.4310 Other materials on request
Outer spring diameter:	ca. 3.5–16.0 mm
Spring length:	ca. 60–240 mm
Coiling direction:	Right-hand coiled compression springs with closed end coils on both ends
Temperature:	up to 450 °C
Cycle time:	up to 60 springs/minute depending on wire dimensions and spring geometry



FUL 26+
with HTU 12