

Spring End Grinding Machines for Compression Springs



G+ Series

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▼ Grinding room with particulate deflector

▼ Grinding table and spring length measuring device (in-process)



Our Accomplishments for Your Benefit

- **Set up, connect, start – Spring end grinding with WAFIOS!**
 - Standard machine includes all features needed to meet high demands with regard to quality and output
 - Latest drive concept, all down-feed movements are carried out by servoaxes
 - Automatic dressing of grinding wheels
 - Spring length measuring device guarantees a reliable production process
 - Laser sensors for automatic compensation of grinding wheel wear
- **Easy programming with WAFIOS and EasyWay!**
 - WPS 3.2 EasyWay
 - Geometrical programming
 - Clearly structured user interface
 - Complete machine and process data control
- **WAFIOS Technology:**
 - **For those who demand the best!**
 - Solutions for process optimization (*iQs*)
 - *iQtemperature*: Patented solution for temperature-controlled grinding
 - *iQbestload*: Optimization of the loading process in relation to the grinding time
 - Patented particulate deflector avoids grinding dust deposits
 - Angular dressing of grinding wheels

Design Features

- Spring end grinding machines with 450 mm or 660 mm grinding wheel \varnothing for grinding both ends of compression springs
- Universal single-plate machine version with 580 mm or 740 mm loading plate \varnothing for down-feed and crush grinding operation
- Large-batch, double-plate machine version with 580 mm or 740 mm loading plate \varnothing for down-feed operation
- Grinding table with wear-resistant table plates
- Air showers for actively cooling the grinding process
- Noise-reduced protective hood
- Interface for loading and unloading equipment



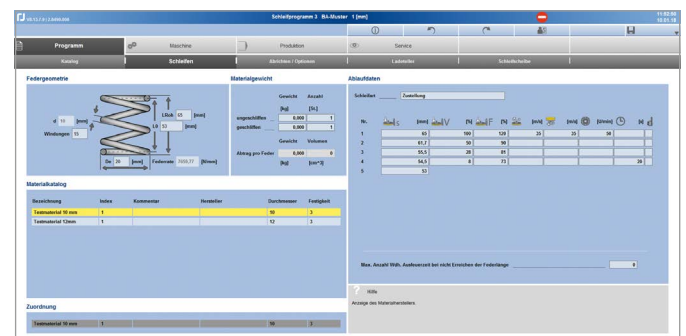
▲ G 660+ Double-plate machine version

Powerful, Safe and Precise – WAFIOS Spring End Grinding Machines

Excellent combination of solid and reliable technology

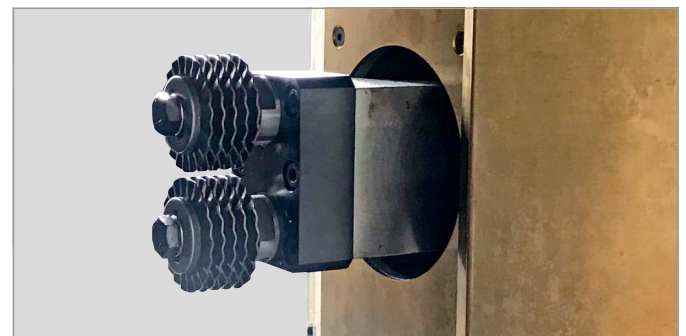
All standard machines guarantee optimum production conditions. They all feature an infinitely adjustable cutting speed, an automatic dressing process, laser-controlled compensation of the grinding wheel wear, spring length measurement as well as our reliable high-end control WPS 3.2 EasyWay with an automatic generation of programs.

Every machine can be adjusted to your needs as a huge range of options is available which includes hardware and software functions (some of them patented), e.g. unique *iQ* software functions for process optimization or *iQ*temperature for temperature-controlled grinding processes. Various interfaces allow communication with different peripheral devices, additional applications and automation solutions. Our open OPC-UA data interface is your access to the world of Industry 4.0.



▲ WAFIOS programming system WPS 3.2 EasyWay

▼ Automatic dressing unit



Quality

Since 1893, the WAFIOS name is synonymous with outstanding quality, safety standards, and technical innovations in the German mechanical engineering 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.



▲ Active cooling concept

Technical data	
Wire Ø depending on spring geometry:	[mm]
Outer spring diameter:	[mm]
Spring length:	[mm]
Grinding wheels: (outer Ø × height × bore hole Ø)	[mm]
Peripheral speed of grinding wheels:***	[m/s]
Installed power, grinding spindles:	[kW]
Loading plate speed:***	[rpm]

G 450+	
Wire Ø	1.0 – 9.0
Outer spring diameter	max. 100
Spring length	10 – max. 350
Grinding wheels	450 × 80 × 100
Peripheral speed of grinding wheels	35 – 50
Installed power, grinding spindles	ca. 2 × 7.5
Loading plate speed	0.2 – 50

G 660+	
Wire Ø	2.0 – 12.0
Outer spring diameter	max. 140
Spring length	12 – max. 350
Grinding wheels	600 × 100 × 150
Peripheral speed of grinding wheels	35 – 50
Installed power, grinding spindles	ca. 2 × 11
Loading plate speed	0.2 – 50

Number of loading plates:	
Loading plate diameter:	[mm]
Spring reception holes, loading plate:**	[mm]
Space required (without dust extraction): (l × w × h)	[m]
Weight: (without dust extraction):	[kg]

1	1	2
580*	740*	580
50	60	50
2.1 × 2.2 × 2.9	2.2 × 2.2 × 2.9	2.4 × 2.2 × 2.9
ca. 3,600	ca. 3,625	ca. 4,500

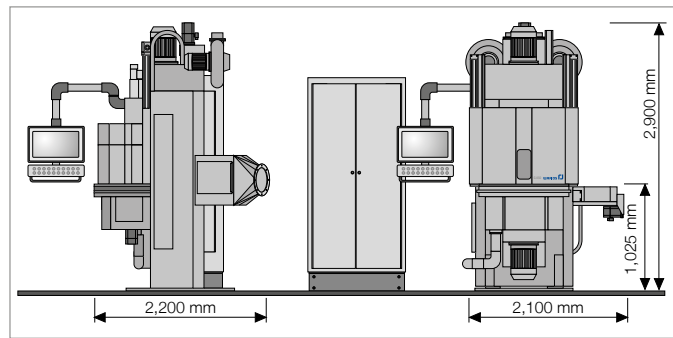
1	2
740	740
60	60
3.0 × 3.0 × 3.0	2.4 × 3.6 × 3.0
ca. 6,300	ca. 7,200

* Loading plate size can be selected, conversion not possible!

** Different diameters are available

***Infinitely adjustable

▼ G 450+ Single-plate Ø 580 mm



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