Spring End Grinding Machine for Compression Springs

G 450
Our Accomplishments for your Benefit

- **Application-oriented standard equipment**
  - Designed for the most common spring end grinding applications
  - Powerful cooling and dust extraction concept
  - Rigid design of dressing tool with 2 axes
  - Laser sensors for automatic grinding wheel positioning
  - Spring length measuring device (in-process)
- **Defined number of options, e.g.**
  - Particulate deflector (option)
  - Angular dressing of grinding wheels (option)
- **WPS 3.2 EasyWay programming system**
  - Modern operating concept
- **Machine assembled in China**
  - Manufactured in China, based on many years of WAFIOS know-how

Design Features

**Machine Structure**

- Spring end grinding machine with one loading plate for grinding both compression spring ends simultaneously in crush-grinding or down-feed operation
- Completely revised machine design
- Grinding table with highly wear-resistant table plates
- Laser sensors for automatic compensation of grinding wheel wear
- Automatic dressing system

- Optimized ventilation system
- Air showers for active cooling of springs during the grinding process
- Interface for automatic loading unit or interface (option)
- Spring length measuring device
- Protective hood and protective shield
- Convenient unlocking and swiveling-out of grinding table
Powerful, Safe and Profitable – WAFIOS Spring End Grinding Machines

Excellent Combination of Solid and Reliable Technology

WAFIOS ‘Performance’ machines feature an optimized scope of standard equipment and a defined number of options. The machines assembled in China are based on the engineering know-how WAFIOS AG acquired over the past decades. All of them are equipped with the high-end WPS 3.2 EasyWay programming system. A high output and high machine availability are the result.

The G 450 reaches an optimal production capacity by an infinitely adjustable peripheral speed of the grinding wheels between 30 and 50 m/s and an active cooling concept.

The new and very robust design of the machine for grinding springs and for dressing grinding wheels ensures consistent quality. The compensation of the grinding wheel wear is carried out automatically on the G 450 by two servomotors that are controlled by two laser sensors.

The extraction channel has been positioned tangentially to the grinding wheel and thus improves the extraction of grinding wheel dust. The availability of the machine is significantly increased by the optionally available particulate deflector. A special alloy prevents deposits of grinding dust in the extraction channel. Time- and labor-consuming cleaning processes are significantly reduced.

Quality
For more than 120 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.
<table>
<thead>
<tr>
<th>Technical Data</th>
<th>G 450</th>
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<tbody>
<tr>
<td>Wire Ø:</td>
<td>1.0 - 9.0 mm</td>
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<tr>
<td>Outer spring diameter:</td>
<td>max. 100 mm</td>
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<tr>
<td>Spring length:</td>
<td>appr. 350 mm for new grinding wheels</td>
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<tr>
<td>Grinding wheels:</td>
<td>450 x 80 x 100 mm (outer ø x height x bore hole ø)</td>
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<tr>
<td>Loading plate diameter:</td>
<td>580 mm</td>
</tr>
<tr>
<td>Loading plate bore hole Ø:</td>
<td>50 mm</td>
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<tr>
<td>Loading plate rpm:</td>
<td>infinitely variable from 0.2 - 50 rpm (freely selectable indexing)</td>
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<tr>
<td>Peripheral speed of grinding wheels</td>
<td>35 – 50 m/s (infinitely variable)</td>
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<tr>
<td>Installed power of grinding spindles:</td>
<td>appr. 2 x 7.5 kW</td>
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<tr>
<td>Space required (l x w x h):</td>
<td>2,100 x 2,200 x 2,900 mm (without extraction unit)</td>
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<tr>
<td>Weight:</td>
<td>appr. 3,600 kg (without extraction unit)</td>
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