

1st Quarter 2025

Spring Maker News

Coiling Equipment Newsletter



Special Pricing on some machines, call for quote!



PRODUCT FOCUS Spring End Grinding Machines

Fortuna Federn's GRM CNC Spring End Grinding Machines feature:

- Horizontal crush or down-feed grinding.
- Automatic adjustment that coordinates with the revolutions of the grinding wheels for increased capacity and efficiency.
- Servo controlled, semi-automatic grinding.
- Programmable control technology for the loading table that simplifies the loading of the machine.

Watch the Video showing the GRM 6 / 9 / 13 / 16 CNC features and in-use applications.

Click on the link to view: [GRM CNC - Spring end grinders on Vimeo](#)



We can design and build custom grinding plates based on your needs!

GRM-6	
Table based on ASTM A228 Music Wire	
Down Feed Grinding Wire Diameter	0.039" to 0.236"
Crush Grinding Wire Diameter	0.039" to 0.118"
Max Spring Diameter	3.149"
Spring Length	0.393" to 8.661"
Grinding Wheel Dimensions	400 x 200 x 50 mm
Loading Plate Diameter	420 mm

GRM-9	
Table based on ASTM A228 Music Wire	
Down Feed Grinding Wire Diameter	0.039" to 0.354"
Crush Grinding Wire Diameter	0.039" to 0.157"
Max Spring Diameter	3.937"
Spring Length	0.393" to 17.716"
Grinding Wheel Dimensions	450 x 200 x 60 mm
Loading Plate Diameter	520 mm

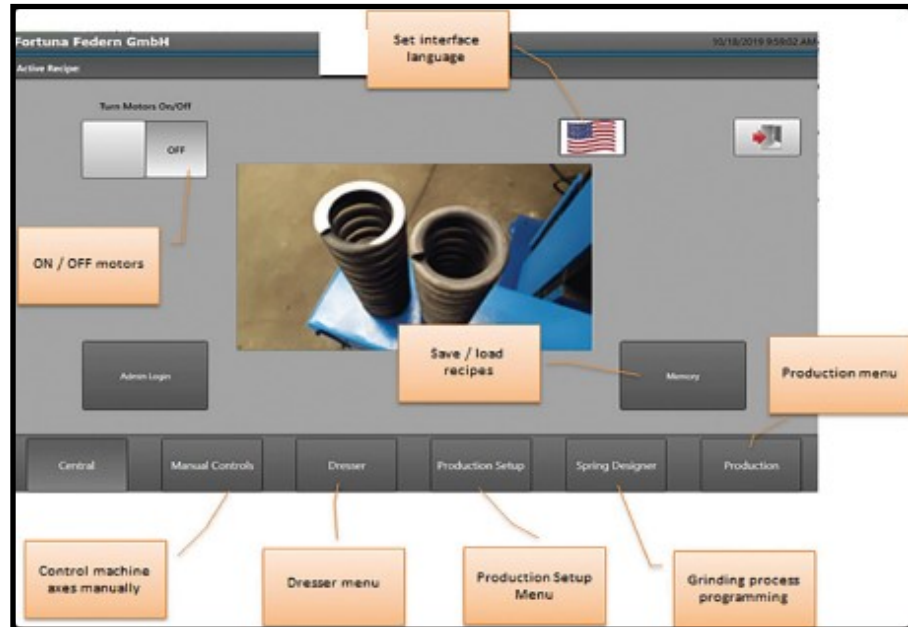
GRM-13	
Table based on ASTM A228 Music Wire	
Down Feed Grinding Wire Diameter	0.078" to 0.511"
Crush Grinding Wire Diameter	0.078" to 0.236"
Max Spring Diameter	5.511"
Spring Length	19.685" Max
Grinding Wheel Dimensions	660 x 350 x 80 mm
Loading Plate Diameter	580 mm

GRM-16	
Table based on ASTM A228 Music Wire	
Down Feed Grinding Wire Diameter	0.157" to 0.629"
Crush Grinding Wire Diameter	0.157" to 0.315"
Max Spring Diameter	7.874"
Spring Length	23.622" Max
Grinding Wheel Dimensions	915 x 200 x 120 mm
Loading Plate Diameter	1040 mm

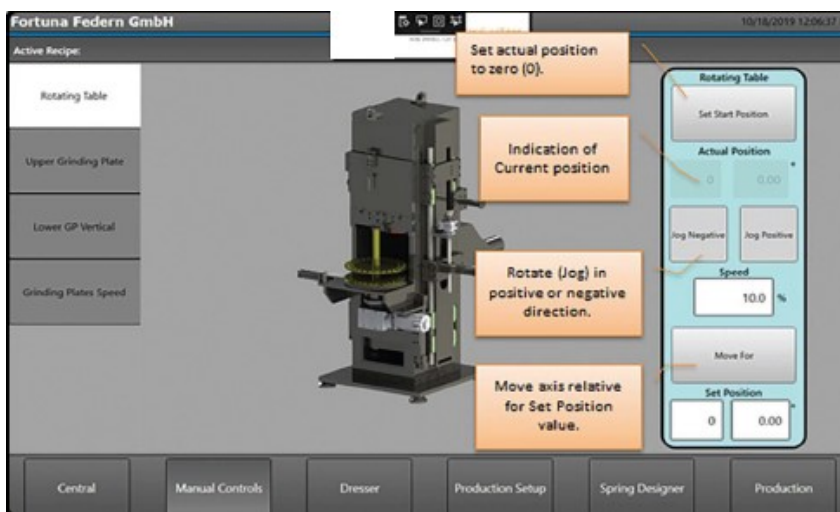
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HMI CNC Control Unit / Spring End Grinding Machines Manual Control



- The 13" Touch Screen has big, clear command buttons.
- It is very easy to load and save programs.
- The control unit can store several hundred programs.
- The software provides the operator maximum flexibility in programming.



The software is designed to give the operator maximum flexibility in programming.



- Each axis can be controlled in the "Manual Control" mode.
- When selected, the left side tab menu appears.
- Within each tab, the operator can select which axis will be controlled.
- The picture above shows an example of the axis manual control,

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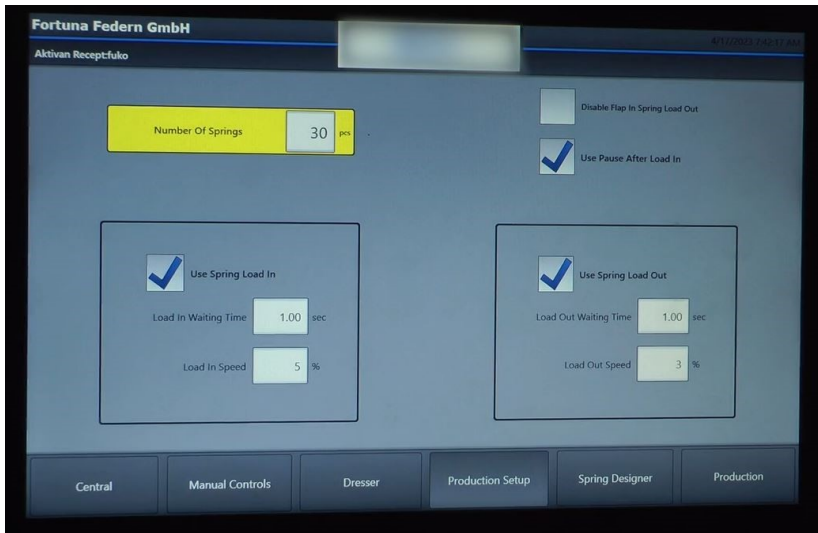
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AUSTRIA

HMI CNC Control Unit / Spring End Grinding Machines

Programming Menu

The Programming menu includes all key points for a fast and smooth set-up:

- Grinding speed.
- Spring loading speed.
- Spring loading time.
- Number of spring positions in disc.
- Spring unloading speed.
- Spring unloading time.



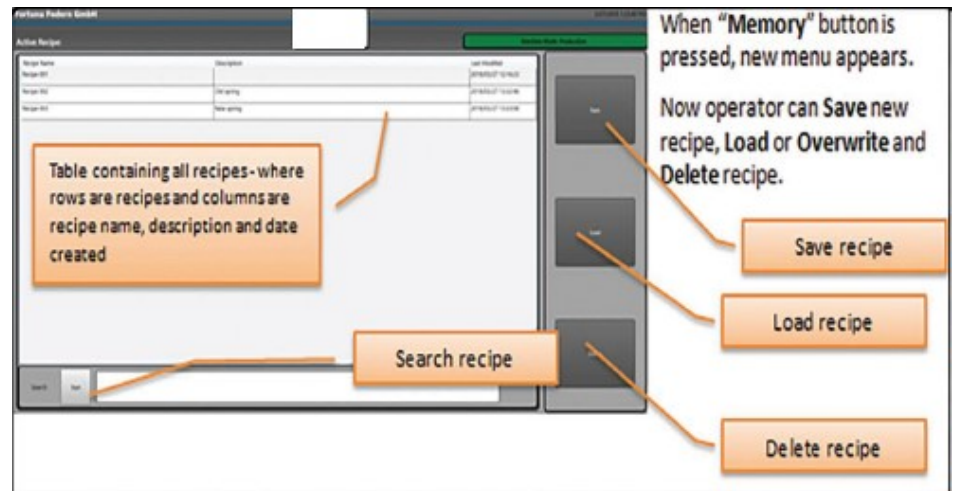
Even with the most complicated grinding requirements for springs, the programming menu gives the operator the ability to make fine adjustments to achieve the desired results.

Memory Menu

The Memory menu gives the operator the ability to:

- Save a program by name.
- Overwrite a program.
- Load and delete a program.
- Search by keyword.
- Preview a program without loading all parameters.

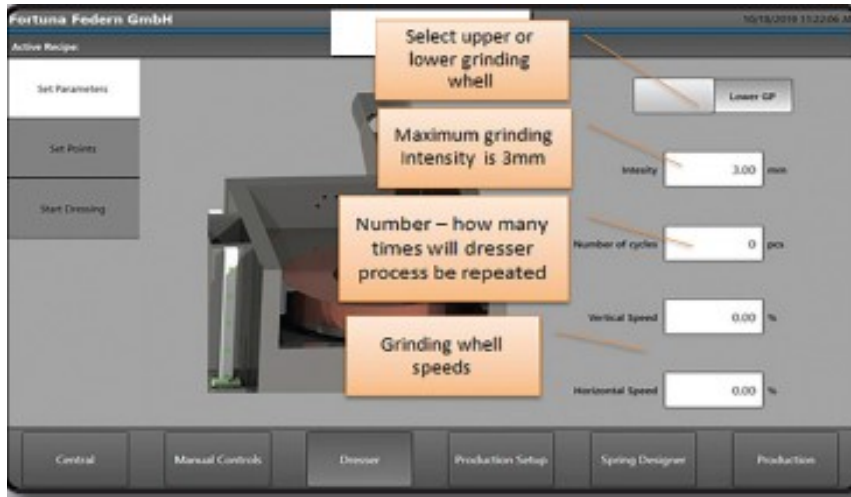
As the operator loads the program parameters, it is important to set-up the home position of the axes before saving.



When all of the programming steps are set-up correctly and saved in the memory menu, the process of repeating the production for the same spring in the future is fast and easy.

Automatic / Manual Dressing / Spring End Grinding Machines

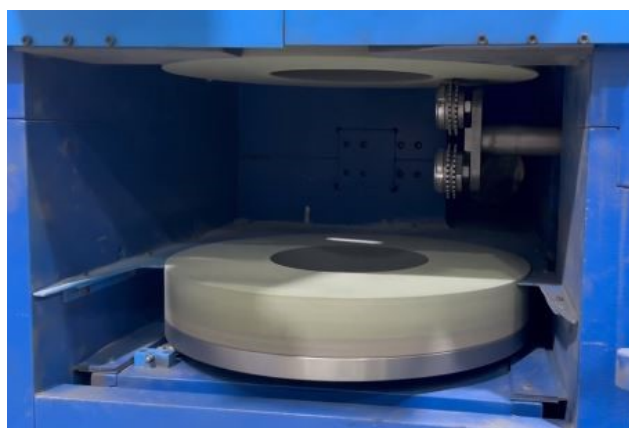
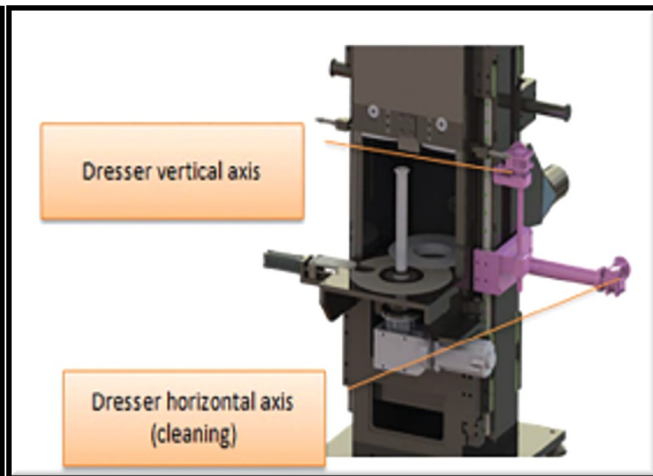
Dressing Menu



Grinding wheel dressing can be done in automatic or manual modes. Set-up includes:

- Number of cycles
- Upper grinding wheel
- Lower grinding wheel
- Intensity of dressing

Grinding wheel dressing is important to ensure good grinding results.



Dressing Program example

- Number of repetitions: 5
- Intensity: 2.5
- Intensity / Number of repetitions = 0.5
- After each dressing cycle, the dresser vertical axis will move 0.5 mm towards the grinding wheel repeating the cycle 5 times in total.

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Linear Guide / Exhaust System / Spring End Grinding Machines



Linear Guide

The linear bearing guiding system, in combination with the spindle axes, ensures the precise movement of the machine and smooth setting for the spring grinding process.

Exhaust System

An external filtration unit has to be connected to the grinding machine.

Your connection tube's inside diameter should be 150 mm.



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GRM-20V CNC Single-End Dry Grinding Machine



GRM-20-V CNC	
Table based on ASTM A228 Music Wire	
Wire Range	0.039" to 0.787"
Max, Outside Spring Diameter	9.842"
Max Spring Length	<u>Unlimited</u>
Grinding Wheel Dimensions	660 x 350 x 80 mm
Grinding Wheel RPM	970 Max
Machine (LxWxH)	1800 x 2560 x 1600 mm

NOW it is possible to grind springs that are longer and heavier!

- Our dry vertical grinding machine features an oscillating grinding stone rather than the springs oscillating.
- Compact machine design takes less space on shop floor.
- Grinding time and thickness are programmed in just three steps.
- Shorter set-up time results in higher productivity.
- While grinding one set of springs, the operator can prepare another set for grinding.
- Ground springs are easily removed from the grinding table when the grinding cycle is complete.
- Increased operator safety due to the closed grinding system and fixed spring supports.

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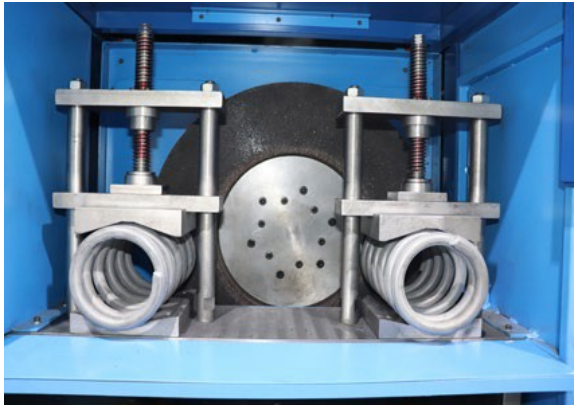
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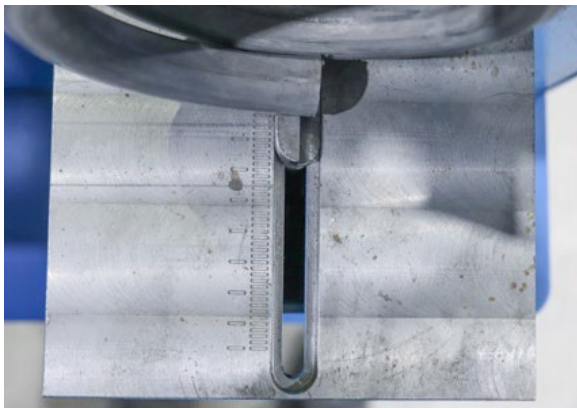
GRM-20V CNC Single-End Dry Grinding Machine



Enclosed Grinding Cabin



Oscillating Grinding Wheel in action



Limiter for setting equal distance of springs from the grinding wheel



Loading Plate ready for grinding



Easy to use software for production

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GRM-20V CNC Single-End Dry Grinding Machine



We have improved grinding dust removal with the dust intake located directly below the grinding wheel. The intake can be easily connected to the factory dust collector system (not included).

Watch the Video showing the GRM-20-V CNC features and in-use applications.

Click on the link to view: [GRM-20-V CNC - Spring single-end dry CNC grinding machine on Vimeo](#)

Drives	Turning of the grinding wheel	15 kW asynchronous	
	Depth/Horizontal movement of the grinding wheel	Depth: 1.4kW servo	Horizontal: 1.5 kW asynchronous
	Horizontal movement of loading plate	1.5 kW	
Machine Dimensions (L x W x H)		70.886" x 100.787" x 62.992"	
Electrical Cabinet Dimensions (L x W x H)		31.496" x 19.685" x 68.897"	
Machine Weight		8,818.5 lbs.	

Rapid Response!

We recognize that a fast response is important when you have an issue or a need!



Gerry Wright Al Uzumcu

We take pride in getting you an answer quickly when you contact us.

Whether you are looking for a replacement part, have a technical question or need a quote for the right machine for your spring making needs—we will provide you with a timely response.

Go to our website, email or call Al or Gerry directly.

Al Uzumcu:

al@coilingequipment.com

Cell: 847-910-7348

Gerry Wright:

gerry@coilingequipment.com

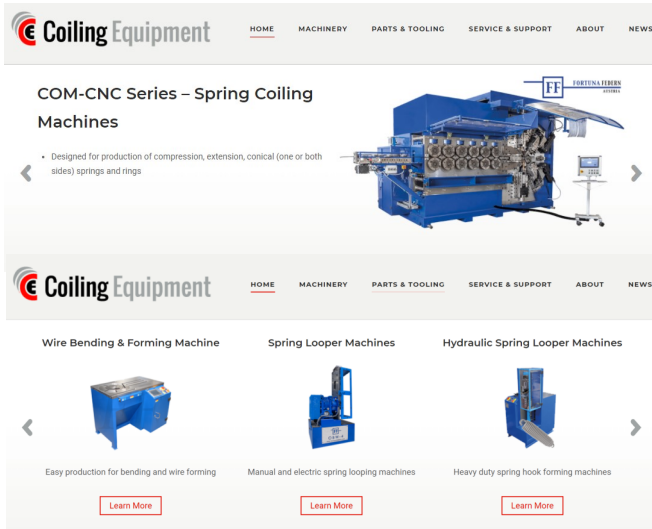
Cell: 847-525-8891

<https://coilingequipment.com/>

Your Rapid Response Team



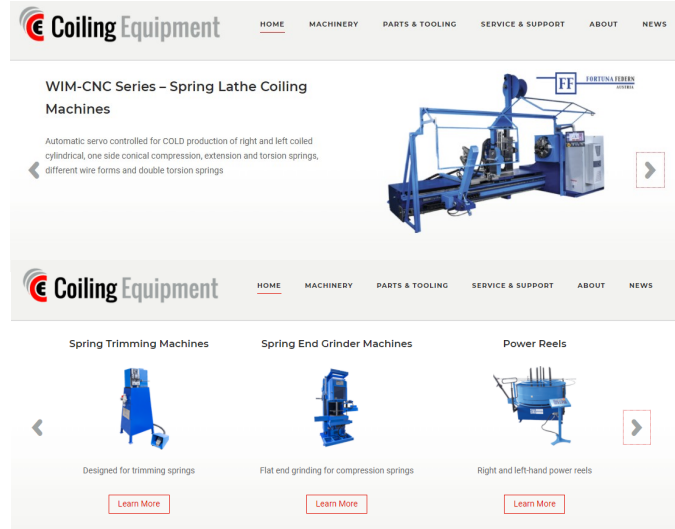
Many machines and options are available



COM-CNC Series – Spring Coiling Machines

• Designed for production of compression, extension, conical (one or both sides) springs and rings

Learn More



WIM-CNC Series – Spring Lathe Coiling Machines

Automatic servo controlled for COLD production of right and left coiled cylindrical, one side conical compression, extension and torsion springs, different wire forms and double torsion springs

Learn More



Coiling Machinery



Parts & Tooling



Coiling Machinery



Parts & Tooling