

Fall 2023

# Spring Maker News

Coiling Equipment Newsletter

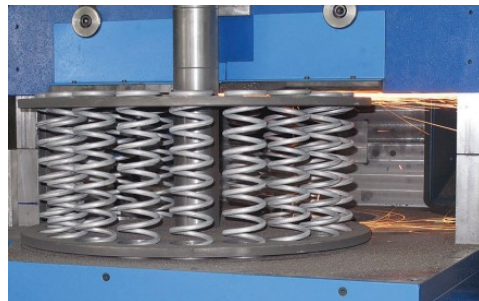


## PRODUCT FOCUS Spring End Grinding Machines

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**
- **Programable control technology for the loading table that simplifies the loading of the machine**

**New 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](#)



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

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

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

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

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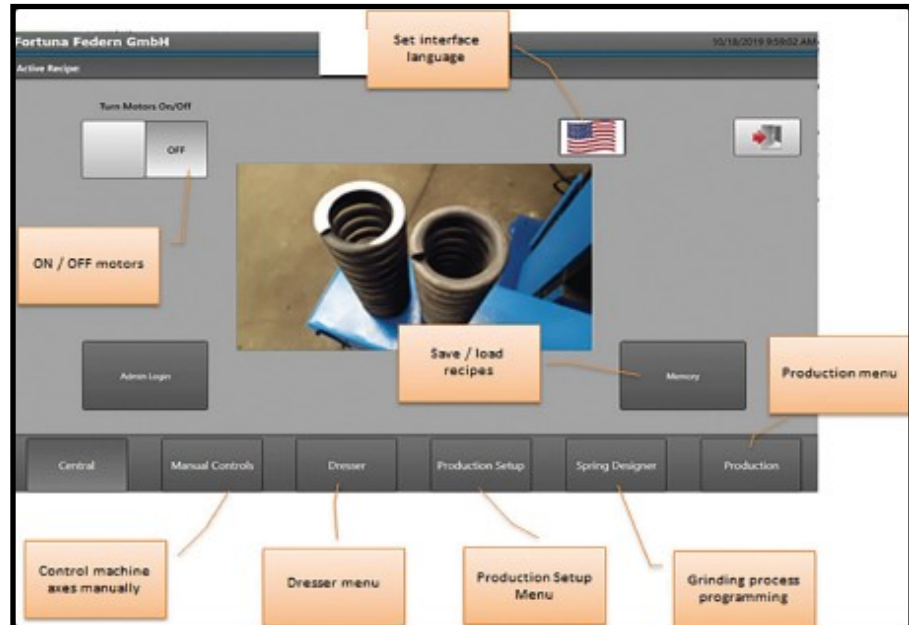
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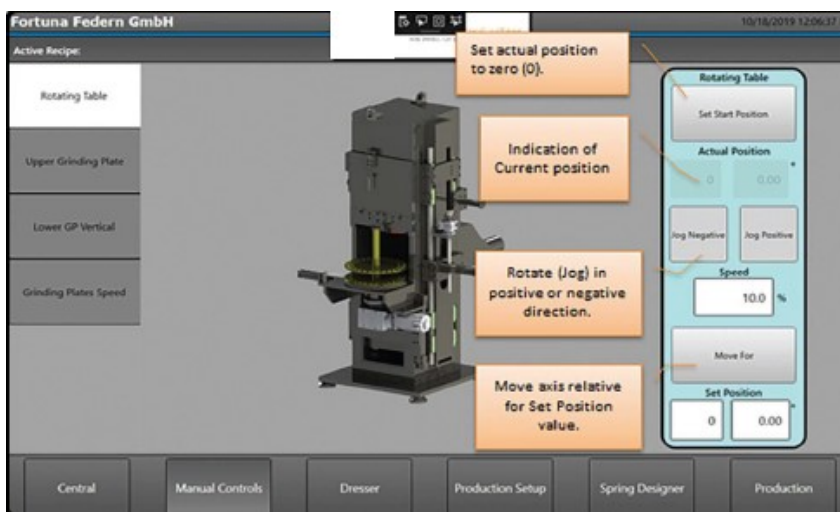
## PRODUCT FOCUS

 FORTUNA FEDERN  
AUSTRIA

### 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

## PRODUCT FOCUS

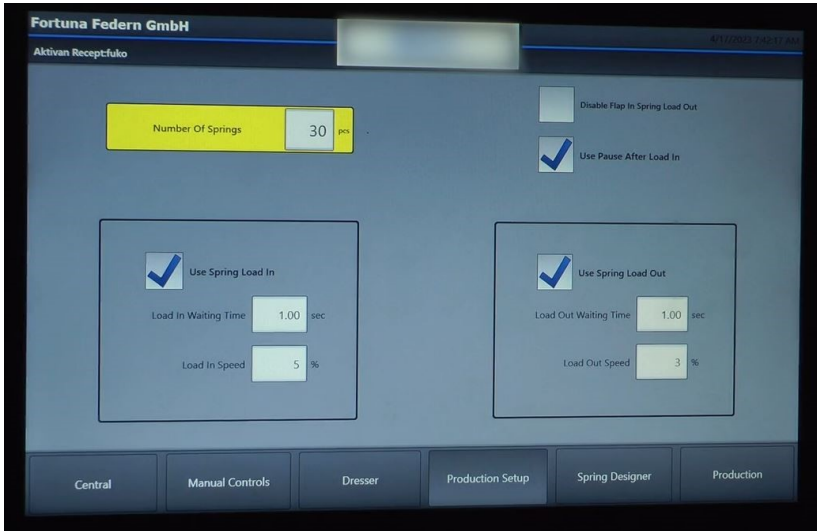


### HMI CNC Control Unit / Spring End Grinding Machines

#### Programming Menu

*The Programing 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



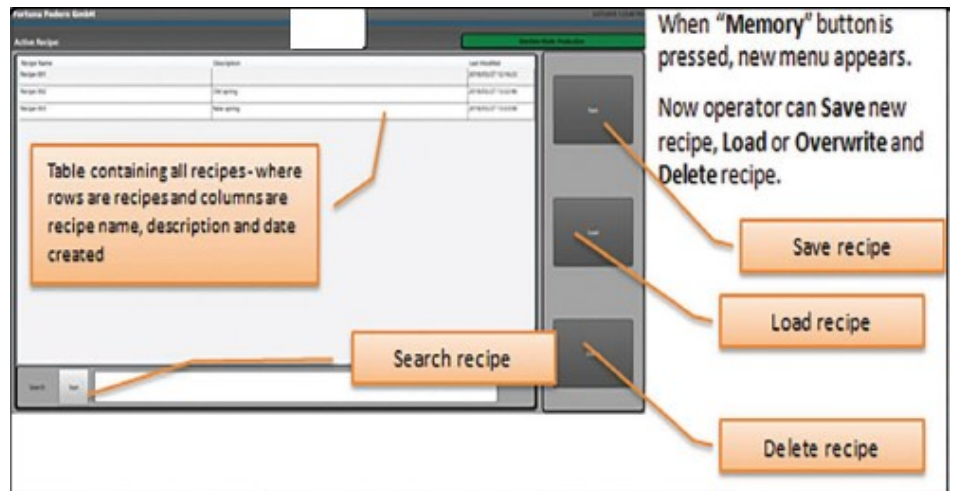
*Even with the most complicated grinding requirements for springs, the programming menu gives the operator the ability to make fine adjustments to achieve the desired results.*

#### 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.



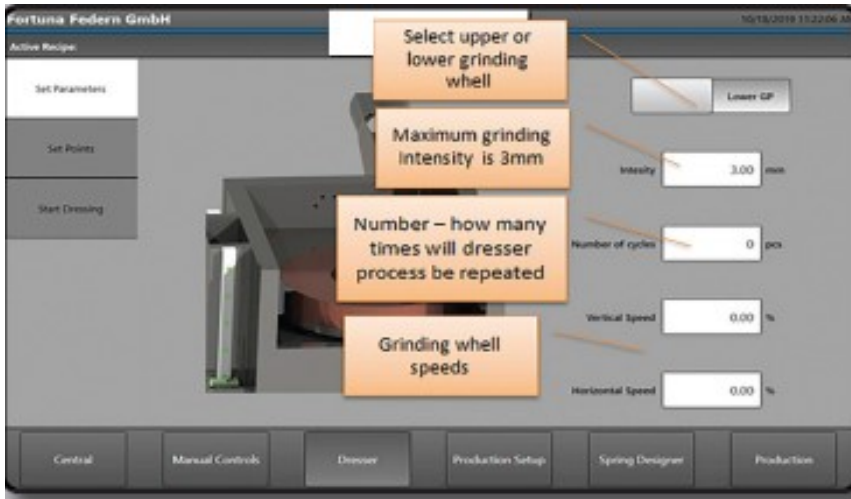
*When all of the programming steps are set-up correctly and saved in the memory menu, the process of repeating the production for the same spring in the future is fast and easy.*

## PRODUCT FOCUS



### Automatic / Manual Dressing / Spring End Grinding Machines

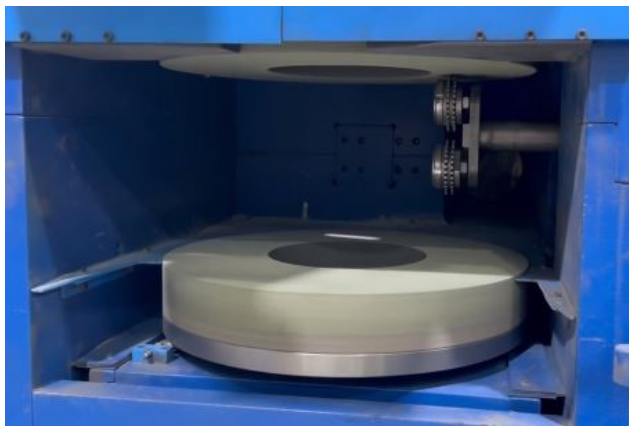
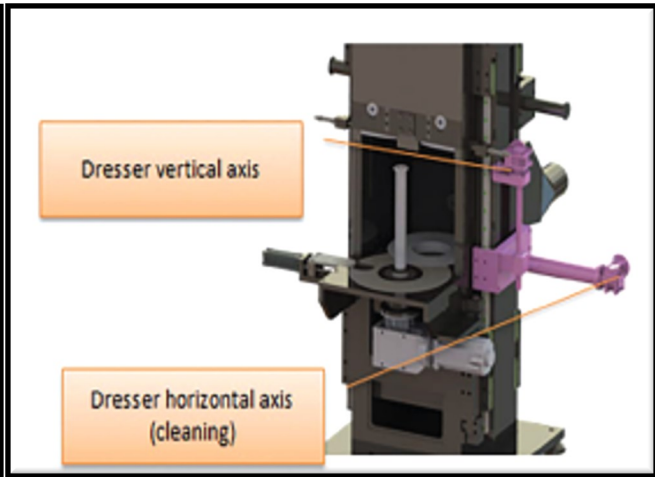
#### Dressing Menu



*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.*



# 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

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**Gerry Wright:**

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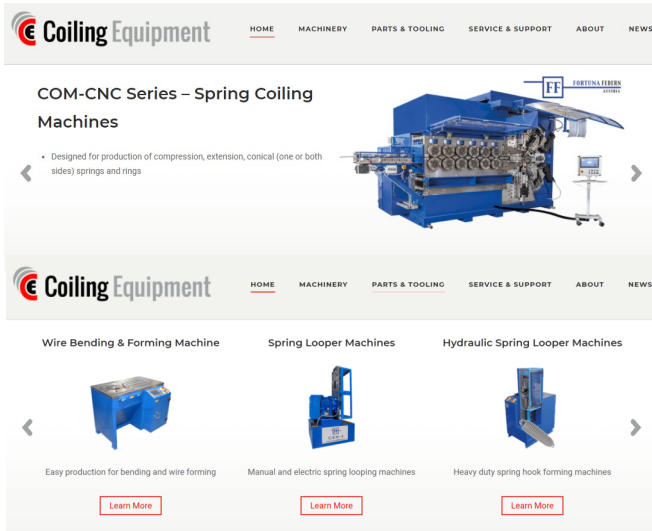
Cell: 847-525-8891

<https://coilingequipment.com/>

### Your Rapid Response Team



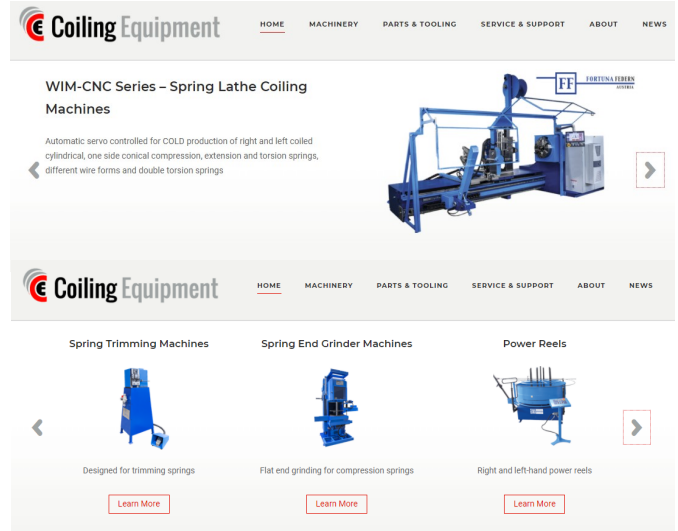
## Many machines and options are available



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