

GyralGrinder® Puck and Ring Grinder



Highlights

- Gyral force technology
- Touch-Screen LCD User Interfaced
- Programmable Impact Intensity
- Programmable Impact Duration Time
- Automatic Single Lever Grinding Dish, Locking/Release Mechanism
- Ergonomic floor model reduces user fatigue
- Reliable routine operation; one moving part
- Heavy duty $\frac{3}{4}$ HP DC motor
- Acoustic sound abatement padding
- Cycle Completion Alert
- Different Grinding vessel materials (sold separately)

The GyralGrinder puck and ring grinder is a floor model machine standard to innumerable x-ray laboratories for crushing geological, cement, raw-mix, sinters, slags and many other types of sample substances. It is a highly energetic impaction device engineered to reduce sample particles to a uniform size, shape and configuration in just moments of operation.

The principle of operation is based on creating a controlled imbalanced condition to a grinding dish containing grinding puck, thick dense ring and the sample. The grinding puck and ring are fabricated of the same material to maximize and maintain uniformity of hardness. The gyral mechanics moves the secured dish and free moving puck, ring and sample material in a lateral circular motion. Keeping them out-of-phase with each other has the effect of intensifying the lateral forces and more efficiently pulverizing the samples.

The GyralGrinder puck and ring grinder additionally provides the user with the ability to alter the impact of intensity. This feature enables the analyst to select the optimum condition for specific sample substances by controlling the frequency of impacts and time elapsed between impact occurrences.

The GyrGrinder® Model 5000's control panel, Figure 1, contains an on/off button and intensity of impact control and a programmable electronic timer with a LED display.

The GyrGrinder® model 5100's control panel, Figure 2, has an On/Off button and a LCD Touchscreen user interface that allows easy control for the programmable time of operation as well as the Intensity of Impact control. Additionally the GyrGrinder® model 5100 includes a Dither control that allows the Intensity of Impact to be automatically varied over a programmable percentage of full scale range to improve grinding results. Lastly the Intensity of Impact and Time can be programmed to have the GyrGrinder® automatically change the Intensity of Impact at various points in time of the grinding cycle.

The grinding dish clamping mechanism is uniquely engineered to operate with the use of only a single lever. A safety self-locking device integrated with the lever prevents the inadvertent release of the clamping lever during operation, Figure 3. The entire clamping mechanism swings to one side for increased full access to the working chamber, Figure 4. These operations are performed using just one hand. The interior of the unit is lined with acoustical sound absorbing material. Fabricated from heavy gauge steel and powder coated. Casters and leveling legs are also included.

The GyrGrinder is ergonomically designed for functionality, convenience and consideration to lessen operator fatigue. All operations and controls are intentionally positioned at waist-high levels and close proximity to the machine. The working chamber is accessible by raising the rear-hinged safety lid with the aid of two gas filled springs to further minimize effort. The front panel controls are located on the front of the safety lid. The safety lid must remain closed in order for any grinding operations to commence.

*grinding vessels sold separately

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