

  **2010**
GENO/GRINDER[®]
CELL LYSER & HOMOGENIZER



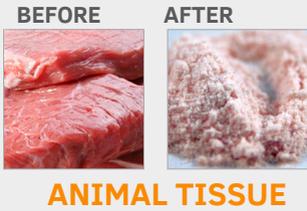
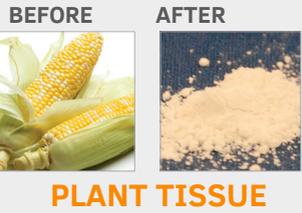
SAMPLE PREPARATION FOR:

DNA/RNA/Protein Extraction
Pesticide Residue Extraction
QuEChERS
Food Safety
Crop Research
BioMedical Research

SPEX[®] SamplePrep[®]

WWW.SPEXSAMPLEPREP.COM

THE NEXT GENERATION GENO/GRINDER®



ADDITIONAL SAMPLE TYPES:

- CELL CULTURES
- CANNABIS
- YEAST
- BACTERIA
- LEAVES
- VEGETABLES
- BEANS
- BIOFUELS

Large Window to view samples during processing

Fully Adjustable Clamp allows simple front loading of vials or plates

Sound Insulation ensures quiet operation

Programmable Touch Screen Control Panel

CE



The Geno/Grinder® is an automated high-throughput homogenizer and cell lyser.

It is specifically designed for rapid cell disruption of plant and animal tissue through bead beating. This enables fast and efficient extraction (impact assisted extraction) of nucleic acids, proteins and other molecules of interest.

The sample clamp has a unique, vigorous, vertical motion enabling increased reproducibility over traditional sample preparation methods. The clamp is fully adjustable to accommodate a full range of sample vials from 2mL to 50mL or up to six deep well titer plates.

With variable speed settings up to 1750 RPM the Geno/Grinder is able to pulverize the toughest samples, it can also be used as a high speed mixer.



Rugged construction ensures a long life of heavy work.



Shock Mounted motor reduces bench vibration



Safety interlock system for operator protection



TOUCH SCREEN CONTROL PANEL

The fully programmable control panel can be tilted to give the user an optimal viewing angle. Programmable parameters include run time, rate, cycles, and pause. Administrative lockout features (password protected) only allows certain users access to specific protocols. Run history is recorded and data can be exported to USB. The Geno/Grinder is self-diagnostic and records information for service.



Up to 20 protocols can be saved for simple and fast recall, increasing productivity and reducing operator error.



A resources screen includes training videos, accessories, instructions and tech support.



PREPARING SAMPLES TO EXTRACT DNA IS EASY WITH THE GENO/GRINDER®



1. Place 50 to 100mg of fresh tissue in a 2ml tube pre-loaded with grinding media.
2. Add 500 microliters of lysis buffer to tube (or as instructed by method).
3. Place capped tube into the Foam holder and insert it into the Geno/Grinder clamp and tighten.
4. On the control panel, set Speed to 1000rpm and Run Time for 2 minutes.
5. The clamp shakes the sample in a consistent vertical motion. The grinding media inside the tube disrupts the sample.
6. Samples are ready for the next step in the extraction method.



Internal lamp illuminates the clamp during processing allowing user to monitor samples.



Vertically moving clamp ensures equal conditions for every sample.

GENO/GRINDER® ACCESSORIES

A full range of accessories are available for the Geno/Grinder from different sized titer plates, vials and vial sets to different types of grinding media. Visit www.spexsampleprep.com/2010genogrinder for further information.



GRINDING VIAL & TUBES

Centrifuge tubes hold samples larger than those traditionally placed in titer plates. Vial sets come pre-loaded with steel balls.



TITER PLATES & CAP-MATS

Available in 24, 48 and 96-well formats. Used for many applications such as large sample dilutions, cell suspension and RNA extractions.



KRYO-TECH® ACCESSORIES

SPEX Kryo-Tech® accessories are used to maintain tissue samples at subzero temperatures during grinding to increase yields of RNA, proteins and pesticides. They can also be used to help grind samples that are difficult to grind at room temperature.



GRINDING MEDIA

Grinding media is available in different sizes and materials such as steel, zirconia and ceramic. Silica beads are available in 3 grades: Molecular biology, low binding and acid washed. Ceramic cylinders aid the QuEChERS method.



PRE-FILLED TUBES

These pre-filled vials can be used in a wide range of applications. It is ideal for grinding complex samples like bacteria, small yeast and soil. Holds 0.5 to 1.0mL of sample.

CRYOGENIC GRINDING FOR YOUR TEMPERATURE SENSITIVE SAMPLES

SPEX Freezer/Mills are programmable cryogenic laboratory mills that grind the toughest or most temperature sensitive samples. Samples are ground in sealed vials using a magnetically driven impactor while the vial is continuously immersed in liquid nitrogen. Three models are available with different sample grinding capacities.

To learn more visit www.spexsampleprep.com/freezermill



DEMO & SAMPLE GRIND PROGRAM

SPEX SamplePrep has a complimentary **Demo Program** allowing you to try our equipment in your laboratory. We also offer in-house Sample Grinding and Testing services. To send in your request visit www.spexsampleprep.com/demo-request.



APPLICATION NOTES ONLINE

Our library of application notes can help you find the most suitable products and methods for your application. You can read our application notes online or download a copy. Visit www.spexsampleprep.com/apnotes

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