

Freezer/Mill®

Cryogenic grinders for tough or temperature-sensitive samples



Designed for samples that are impossible to grind at ambient temperatures.

- Low maintenance design with no moving parts
- Equipped with liquid nitrogen level sensor, insulated case and lid safety interlock switch for operator protection (liquid nitrogen required for operation)
- Dual electromagnetic grinding technology
- Grinds samples in the 0.1 gram to 100 gram range*
- Each grinding chamber holds one large grinding vial, one mid-size vial, four standard grinding vials, or four microvial sets

Some samples are impossible to grind at ambient temperatures. The Freezer/Mill is a unique grinding machine that uses liquid nitrogen to embrittle unconventional materials (that are difficult to grind at room temperature) and pulverizes them to a powder form without thermal degradation. Samples are placed in sealed cryogenic grinding vials then immersed in liquid nitrogen. The samples are cooled to cryogenic temperatures then ground by a magnetically shuttling impactor.

Since the vials are sealed, the cryogenic grinder maintains the integrity of its contents. Volatile compounds are retained, hazardous or critical samples are easily controlled, clean-up is simplified, and cross-sample contamination is eliminated.

*CG-500 – 0.1 to 100 g capacity (0.1 to 50 g per chamber)

FEATURES

- Intuitive color LCD touch screen controller
- Designed for vigorous horizontal milling
- Magnetic grinding mechanism
- Continuous cooling with liquid nitrogen sample vial immersion

APPLICATIONS INCLUDE

- DNA/RNA extraction
- Forensic/pharmaceutical testing
- RoHS/WEEE
- Consumer product testing
- Food safety
- Materials research
- Medical research

SAMPLE TYPES INCLUDE

- Plastics and polymers
- Animal tissue
- Pharmaceuticals
- Cannabis
- Yeast

Freezer/Mill® Options



CG-500 Dual-Chamber
Cryogenic Grinder



CG-450 Large Cryogenic
Grinder with LN Autofill



CG-400 Large
Cryogenic Grinder



CG-200 Compact
Cryogenic Grinder

Before and Sample Samples – Bottle Caps



Specifications

Specification	CG-500	CG-450 & CG-400	CG-200
Type of mill	Dual Chamber Cryogenic Impact Mill	Large Cryogenic Impact Mill	Compact Cryogenic Impact Mill
Display	Touchscreen	Touchscreen	Touchscreen
Data transfer	Dual USB port	Dual USB port	Dual USB port
Number of chambers	2	1	1
Grinding/cooling capacity	Up to 100 g of sample (50 g per chamber)	Up to 50 g of sample	0.1 to 5.0 g of sample
CE Approved	Yes	Yes	Yes
Voltage	115 VAC, 60 Hz or 230 VAC, 50 Hz	115 VAC, 60 Hz or 230 VAC, 50 Hz	115 VAC, 60 Hz or 230 VAC, 50 Hz
Power cord	3-prong grounded plug for 115 VAC or 2-prong European plug for 230 VAC	3-prong grounded plug for 115 VAC or 2-prong European plug for 230 VAC	3-prong grounded plug for 115 VAC or 2-prong European plug for 230 VAC
Dimensions (W x D x H)	55.0 x 50.8 x 64.8 cm (21.5 x 20.0 x 25.5 in)	55.0 x 52.0 x 46.0 cm (21.5 x 20.5 x 18.0 in)	27.0 x 48.0 x 32.0 cm (10.5 x 19.0 x 12.75 in)
Net weight	35.4 kg (78 lb) empty, without vial or coolant	20 kg (44 lb) empty, without vial or coolant	8.6 kg (18.9 lb)

Ordering Information

Description	SamplePrep Part Number	Cole-Parmer Item Number
CG-500 Freezer/Mill, Dual Chamber Cryogenic Grinder, 115 VAC, 60 Hz	6875D-115	04500-42
CG-500 Freezer/Mill, Dual Chamber Cryogenic Grinder, 230 VAC, 50 Hz	6875D-230	04577-94
CG-450 Freezer/Mill, Large Cryogenic Grinder with Auto-Fill, 115 VAC, 60 Hz	6875A-115	04500-41
CG-450 Freezer/Mill, Large Cryogenic Grinder with Auto-Fill, 230 VAC, 50 Hz	6875A-230	04577-93
CG-400 Freezer/Mill, Large Cryogenic Grinder, 115 VAC, 60 Hz	6875-115	04500-40
CG-400 Freezer/Mill, Large Cryogenic Grinder, 230 VAC, 50 Hz	6875-230	04577-92
CG-200 Freezer/Mill, Compact Cryogenic Grinder, 115 VAC, 60 Hz	6775-115	04500-39
CG-200 Freezer/Mill, Compact Cryogenic Grinder, 230 VAC, 50 Hz	6775-230	04577-77

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Physical sample processing – physical testing of your sample with shared results

Physical equipment testing – a demo unit can be sent to your facility to test before purchasing

Contact us today at sampleprep@coleparmer.com for details.



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The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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