



# Cryogenic Mill "IQ MILL-2070"

~ Intelligent Quick-Mill ~

## Perfect for pre-treatment of hard-to-grind polymers

In sample pretreatment, grinding samples into fine powders is time-consuming and labor intensive. The newly developed IQ MILL-2070 is a device that makes grinding a simple task. Especially in microanalysis, pulverizing samples is a required pretreatment for sample uniformity, homogeneity, and reproducibility.

Various methods have been devised, but they have problems such as the use of a large amount of liquid nitrogen, annoying noise and long grinding time. The "IQ MILL-2070" is a revolutionary grinding device that uses a special High elasticity belt to achieve a three-dimensional figure-eight motion to solve these problems.

### Features of IQ MILL-2070



**IQ MILL-2070**

### 1. Easy to use and simple to operate

● **Grinding samples by simple operation**

Required settings are only: grinding speed, grinding time, number of cycles, and waiting time. The settings can be easily done with the rotary knob and touch panel.

### 2. Fast and efficient grinding

● **Milling up to three samples at a time in the same program**

Equipped with a holder that holds up to three sample containers for efficient grinding.

● **Powerful impact and shear crushing capabilities bring significant reduction in grinding time**

An innovative grinding method reduces the sample grinding times (typical grinding program: 2000 rpm, grinding time 60 seconds)

### 3. Liquid nitrogen cooling kit for cryo-milling

● **A compact design in which only the sample container can be precooled with liquid nitrogen before grinding.**

The liquid nitrogen consumption is only about 500 mL for energy saving. The kit contains a Dewar flask 600 mL and a Sample container holder.

● **Grinding at room temperature for most of materials.**

### Specifications

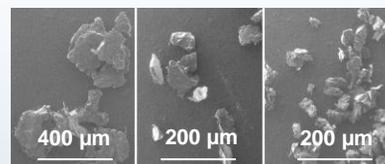
Main specifications of IQ MILL-2070		
Operating temperatures	Room temperature or below using a refrigerant (liquid nitrogen, etc.)	
Setting parameters	Rotation speed (rpm)	50 up to 3000 (stepless)
	Rotation time (sec)	1 up to 60 (1 second step)
	Pause time between cycles (sec)	10 up to 600 (10 second step)
	Rotation cycle	1 up to 10 (1 cycle step)
Safety function	Combination of double micro switch and manual lock	
Main unit dimension and weight	Width 270 x Depth 350 x Height 300 (mm), 12 kg	
Power (50/60 Hz)	100/120 VAC or 200/240 VAC (400 VA)	

### Polystyrene (20 pellets)

2000 rpm x 60 sec x 1 cycle

Precondition temperature

25 °C      0 °C      -196 °C



Grinding temperature at 25 °C