

## **HIGH SPEED TISSUE GRINDING MACHINE LOW TEMPERATURE -50 DEG C MODEL SWE-FP**

SWE-FP high-speed low-temperature tissue homogenizer is a special instrument for one-time rapid processing of multiple samples, which adopts vertical shock system with high-speed reciprocating motion, making the frozen samples and grinding beads in grinding tube collides with each other; the grinding shear force and impact force caused, make the cells and tissues completely broken, which meets requirement of research institute, university, agricultural, biomedical, food testing and other fields.



Traditional mortar grinding can only grind one sample at one time, and the treatment efficiency is low. Moreover, tools such as mortar must be cleaned and sterilized each time, which greatly increases the workload of sample processing.

The sample treatment efficiency can be sharply improved by using High-speed low-temperature tissue homogenizer:

## FEATURES

- Dry grinding, wet grinding and homogenization treatment can be done for samples
- Maximum up to 2\*96 samples can be processed simultaneously to complete sample preparation in a rapid and high-throughput manner.
- A wide range of samples can be processed, see as follows:
  - a. It is suitable for lysing Cells like bacteria, Yeast, Fungi,
  - b. It is suitable for grinding all kinds of plant tissues, including roots, stems, leaves, flowers, fruits, seeds and other samples.
  - b. It is suitable for grinding and crushing all kinds of animal tissues, including brain, heart, lung, stomach, liver, thymus, kidney, intestine, lymph node, muscle, bone and other samples.
  - c. It is suitable for grinding and crushing of food and drug composition analysis and detection.
- Adoption of closed disposable centrifugal tubes effectively helps to avoid cross-contamination of samples.
- The experiment has strong repeatability. Same grinding effect can be obtained by setting the same grinding frequency and time.
- Refrigeration function: -50°C to room temperature; Control accuracy:  $\pm 1^{\circ}\text{C}$
- Add a freezing table -40° C, samples can be pre-cold inside and storage, maximum x2 Gel running tank can work here
- Patent beads Pen and accessories part design conveniently.



## Protein extraction

Tissue	SPEC of Beads	Frequency	Time	Extraction
Plant	3mm Bead*2 or 4mm, Bead*1	60Hz	60 Seconds	Protein Lysis Buffer
Heart, Kidney, Brain, Liver, Spleen, Lung of Rat & Mouse	4mm Bead*1+3mm, Bead*2	60Hz	60 Seconds	Protein Lysis Buffer
Colon, Stomach, Muscle, Fat of Rat & Mouse	4mm Bead*1+3mm, Bead*2	70Hz	120 -180 Seconds (Pause for 30 seconds in every 60 seconds)	Protein Lysis Buffer
Skin, Ear, Tail, Vessel of Rat & Mouse	4mm Bead*2+3mm, Bead*3	70 Hz	180 - 300 Seconds (Pause for 30 seconds in every 60 seconds)	Protein Lysis Buffer

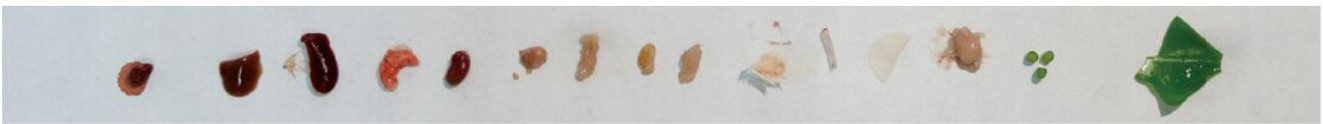
## RNA extraction

Tissue	SPEC of Beads	Frequency	Time	Extraction
Plant	3mm Bead*2 or 4mm, Bead*1	60Hz	60 Seconds	RNA Lysis Buffer
Heart, Kidney, Brain, Liver, Spleen, Lung of Rat & Mouse	4mm Bead*1+3mm, Bead*2	70Hz	70 Seconds	RNA Lysis Buffer
Colon, Stomach, Muscle, Fat of Rat & Mouse	4mm Bead*2+3mm, Bead*3	70Hz	120 -180 Seconds (Pause for 30 seconds in every 60 seconds)	RNA Lysis Buffer
Skin, Ear, Tail, Vessel of Rat & Mouse	4mm Bead*3+3mm, Bead*5	70 Hz	180 - 300 Seconds (Pause for 30 seconds in every 60 seconds)	RNA Lysis Buffer

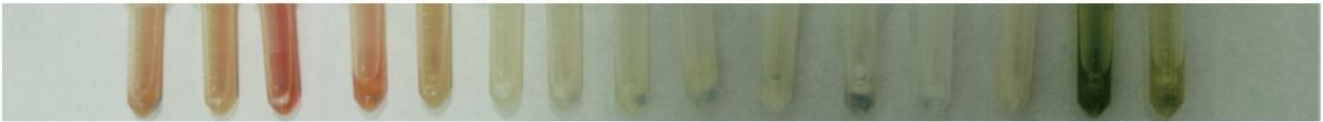
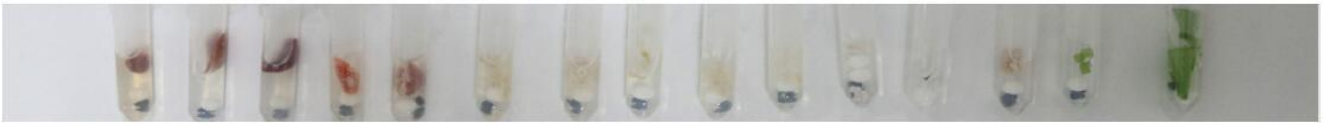
## SPECIFICATIONS

- Wide range of accessories for any sample size - 24 x 0.5 mL, 24 x 2 mL, 32 x 2 mL , 48 x 2 mL, 60 x 2 mL , 12 x 5 mL, 10 x 10 mL, 2 x 50 mL ( In SS Jars), 6 x 5 mL( in SS jars), 4 x 30 mL (in SS jars), 8 x 15 mL(in SS jars)
- It can process up to 192 samples at the same time within 1 minute, completing sample grinding quickly, efficiently and with high throughput;
- Very powerful bead mill on the market – homogenize the most challenging samples
- New 4.5” touch screen interface for entering parameters.
- No cool down required between runs: process hundreds of samples per day.
- Convenient front-loading design, 10 programs can be stored default.
- Features an integrated lid lock to prevent lid opening during run
- The ideal homogenizer for preparing samples when extracting DNA, RNA, proteins, and small molecules from Cells/Animal & Plant Tissues
- Optimized tube motion ensures very high performance.
- Transparent lid for viewing samples while lysis processes
- Touch screen 4.5’ Display for speed and time and for entering parameters
- **Sample Volume:** 25 micro-liters to 50ML
- **Power :** 800 Watts
- **Power Rating:** 100-230 VAC/ 50-60Hz
- **Dimensions:** 500X365X370mm
- **Product Weight:** 55Kgs Net
- **Compliance:** CE Compliance
- **Run Time:** 1 second to 100 minutes
- **Pulse ON/OFF time :** 600 seconds
- **Performance Range:** 0 m/s – 4.5 m/s in increments of 0.1 m/s OR 2100 RPM
- **Programs:** 99 programs can be stored ( 10 Programs ready made)
- **Number of Cycles:** 1-99
- **User Interface:** Touchscreen with user defined programs, tube configuration and parameter control
- **Safety:** Integrated lid lock to prevent lid opening during operation
- **Warranty:** One Year

**Before homogenation**



**After homogenation**



Heart Liver Spleen Lung Kidney Pancreas Colon Small intestine Muscle Skin Tail Ear Brain Stem Leaf