

Multi-beads Shocker®

Rapid Pulverizer (3D Figure-Eight Rotation Movement Technology)

MADE

IN

JP

MBS3200USY(S)

Maximum rotation
speed of motor

3000 rpm

Programs

Can store
up to 20

Timer

0-999 sec

Airborne Noise

less than or equal
to 40 dBA

An advanced pulverizer / tissue homogenizer designed for rapid processing of up to 24 samples simultaneously, including yeast, bacteria, molds, and tough animal and plant tissues. Utilizing the 3D figure-eight motion principle, along with various tubes, rods and beads, it can pulverize samples from diverse fields within seconds.



Programmable controls allow instantaneous freeze, low-temperature, and room-temperature pulverizing, as well as stirring and mixing in a wide range of fields.

■ Features

- Different program controls enhance analytical sensitivity and ensure consistent reproducibility
 - Multiple samples can be pulverized simultaneously under identical conditions, and individual samples can be pulverized without the need for balancing
 - Equipped with a selection of pulverizing temperature conditions such as freezing, low temperature, and room temperature
 - Low liquid nitrogen usage during freeze pulverizing (0.2L/sample)
 - A variety of materials are available for sample tubs, including resin, titanium, stainless steel, alumina, agate, and tungsten carbide
 - Cost-effective disposable plastic containers, available in sizes ranging from 2ml to 100ml, can be used as pulvering containers, saving both time and expense
- This tabletop model features an exceptionally quiet design, making
- it suitable for use in laboratories

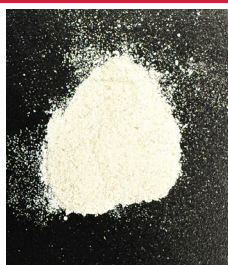
PULVERIZATION IN SECONDS!

Human Tooth

BEFORE

AFTER

10
SEC



Room Temperature

Pork Femur

BEFORE

AFTER

10
SEC



Room Temperature

Horse Mane

BEFORE

AFTER

10
SEC



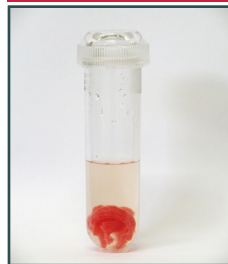
Liquid Nitrogen

Virus Infected Pig Tonsils

BEFORE

AFTER

15
SEC



4°C

■ Specifications

PARAMETERS	MBS3200USY(S)
Programmable controller	Back-lighted touch panel. Can store up to 20 programs
Maximum rotation speed of motor	3000 rpm
Airborne noise	≤40 dBA (operated at 3000 rpm w/o specimens, measured at 60 cm from machine)
Ambient temperature	4°C ~ 30°C
Ambient relative humidity	20% ~ 60%
Atmospheric pressure	70 ~ 100 kPa
Continuous timer	0-999 sec or continuous setting
INTERMITTENT OPERATION	
Timer	ON time 0-999 sec OFF time 0-999 sec cycle 999
Dimensions (mm)	422W x 468D x 451H
Weight (kg)	32
Power source	Single phase AC110~115V 50/60Hz 10A (with transformer) Single phase AC200~230V 50/60Hz 5A
Frequency	50/60Hz ±5%
Multi-sample holder	2/3 ml x 8, 10/22/50 ml x 4 container holders
MBS SET	MBS-3200USY(S)A composed of MBS-3200USY(S) and YK-MSH004(S)UY sample holder with accessories

■ Accessories

Dedicated sample tubes

- Tough and reliable tubes for freezing, cooling, and room temp. pulverizing
- Low temperature controlled pulverizing, such as 0°C to 4°C is possible
- Disposable plastic tubes that can be used even under liquid nitrogen conditions
- Optimal pulverizing for each sample volume from 2ml to a maximum of 100ml tubes
- Wide variety of materials (resin, PTFE, alumina, agate, zirconia, silicon nitride, iron, tungsten carbide, stainless steel, titanium, etc.)

Sample holders

- A variety of sample holders available with shapes that match the dedicated sample tube
- Freeze and cooling pulverizing of 24 samples are also possible.
- Large-capacity instantaneous freezing and cooling pulverizing is possible with simultaneous pulverizing of 4 x 50ml and 2 x 100ml disposable containers.
- Wide variety of materials (resin, PTFE, alumina, agate, zirconia, silicon nitride, iron, tungsten carbide, stainless steel, titanium, etc.)



Custom-made products are also available with specific materials

TARGET MARKETS

BIO TECHNOLOGY

Instantly crushes everything from yeast to animal and plant tissues and bones in a frozen disposable tube

VIRUS INFECTED ORGAN



Low temperature

15 sec

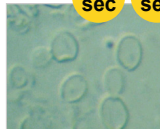
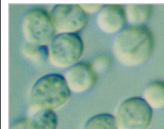
MOUSE FEMUR



10 sec

Liquid nitrogen

YEAST



4°C / Liquid nitrogen

90 sec

10 sec

FRESH PLANT LEAF



10 sec

Liquid nitrogen

Application

- Elucidation of the pathology of COVID-19 and vaccine development
- Regenerative medicine research (stem cell extraction)
- Sample preparation for omics analysis
- DNA identification
- Nucleic acid extraction of pathogenic viruses and microorganisms
- Extraction of active viruses and microorganisms
- Detection of pathogens in seafood
- High-purity RNA extraction from clinical specimens
- Sample preparation for analysis of trace elements in food
- ChIP-Seq analysis
- Plant quarantine
- Freezing and pulverizing of animal tissues, plant tissues, and microorganisms

GEO SCIENCE

Accelerate preparation of precise analytical samples, including rocks and minerals!

PERIDOTITE



Room temperature

30 sec

CHART



Room temperature

20 sec

CORE



Room temperature

45 sec

AGATE



Room temperature

10 sec

Application

- Isotope ratio analysis
- ICP-MS analysis
- X-ray fluorescence analysis
- Zircon separation
- Nanoparticle preparation

ANALYTICAL SCIENCE

From rocks, rubber, and plastics to biological tissue, this greatly reduces sample preparation time and cost

SLATE



Room temperature

10 sec

FILM COATED TABLETS



Liquid nitrogen

30 sec

Application

- X-ray fluorescence analysis
- Preparation of materials for ICP-MS analysis
- Analysis of asbestos-containing building materials
- Soil nutrient analysis (collection of samples under 2mm)
- Creation of nanoparticles from pharmaceutical and industrial dye stuff (cold crushing)
- Analysis of harmful substances contained in resins (formaldehyde, etc.)
- Analysis of RoHS regulations

MATERIAL SCIENCE

Proven track record in accelerating research and development of next generation ceramic and energy materials

GEOCEMENT



Room Temperature

20 sec

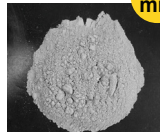
CERAMIC



Room temperature

3 min

HARDENED CONCRETE



Room temperature

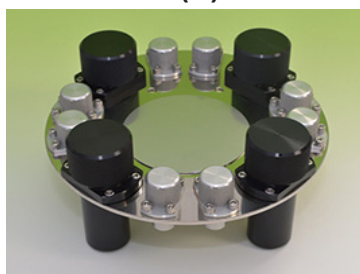
1 min

Application

- Development of next-generation battery materials
- Reaction development
- Other next generation material development

Sample Holders and Accessories

■ YK-MSH004(S)UY Multi- Sample Holder



for 8 x 2ml/3ml pulverizing tubes, 4 x 22ml/50ml pulverizing tubes

● Operational Accessories included with YK-MSH004(S)UY Sample Holder

Pulverizing tube adapters			Pulverizing media (metal rods)		
Product code	Description		Product code	Description	
YK-ADP03F2UY 1 pc.	50ml pulverizing tube adapter for 3ml and 2ml pulverizing tubes. Inserted into the 50ml tube hole. 3ml tubes fit directly inside, but 2ml tubes need be fitted with a 2ml adapter. One or two samples can be pulverized simultaneously.		YK-MC0218R(S)UY 10 pcs.	metal rod used with 2ml pulverizing tubes	
YK-ADP023(S)UY 8 pcs.	for holding 2ml tubes and is inserted into the 3ml tube holes		YK-MC0316(S)UY 10 pcs.	metal rod used with 3ml pulverizing tubes	
YK-ADP10UY 4 pcs.	for holding 10ml tubes and is inserted into the 50ml tube holes		YK-MC1020RUY 4 pcs.	metal rod used with 10ml pulverizing tubes	
YK-ADP22UY 4 pcs.	for holding 22ml tubes and is inserted into the 50ml tube holes		YK-MC1025RUY 4 pcs.	metal rod used with 10ml pulverizing tubes	
Transparent pulverizing tubes (used w/ liquid nitrogen)			YK-MC2225RUY 4 pcs.	metal rod (short) used with 22ml pulverizing tubes	
Product code	Description		YK-MC2235RUY 4 pcs.	metal rod (long) used with 22ml pulverizing tubes	
YK-ST0220PC(S)UY 100 pcs.	2ml transparent PC tubes used for freeze pulverizing		YK-MC5028RUY 4 pcs.	metal rod (short) used with 50ml pulverizing tubes	
YK-ST0320PCFUY 100 pcs.	3ml transparent PC tubes used for freeze pulverizing		YK-MC5038RUY 4 pcs.	metal rod used (long) with 50ml pulverizing tubes	
YK-ST1010PCUY 10 pcs.	10ml transparent PC tubes used for freeze pulverizing		YK-MC5055RUY 4 pcs.	metal rod used with 22ml and 50ml pulverizing tubes	
YK-ST2210PCUY 10 pcs.	22ml transparent PC tubes used for freeze pulverizing				
YK-ST5010PCRUY 10 pcs.	50ml transparent PC tubes used for freeze pulverizing				

Sample Holders and Accessories

● Included Accessories with YK-MSH004(S)UY Sample Holder

Opaque pulverizing tubes (used w/ liquid nitrogen)

Product code	Description	
YK-ST0220FC(S)UY 100 pcs.	2ml opaque PE pulverizing tubes	
YK-ST0320FCUY 100 pcs.	3ml opaque PE pulverizing tubes	
YK-ST1010CUY 10 pcs.	10ml opaque PE pulverizing tubes	
YK-ST2210CUY 10 pcs.	22ml opaque PE pulverizing tubes	
YK-ST5010CUY 10 pcs.	50ml opaque PE pulverizing tubes	

Magnets

Product code	Description	
YK-MG136UY 1 pc.	small (for removal of metal rod)	
YK-MG2810UY 1 pc.	large (for removal of metal rod)	

Translucent pulverizing tubes used within an approximate temperature range of -10°C ~ 20°C.

Product code	Description	
YK-ST0250F(S)UY 100 pcs.	2ml translucent PP pulverizing tubes	
YK-ST0350FOUY 100 pcs.	3ml translucent PP pulverizing tubes	
YK-ST1010PPUY 10 pcs.	10ml translucent PP pulverizing tubes	
YK-ST2210PPUY 10 pcs.	22ml translucent PP pulverizing tubes	
YK-ST5010PPRUY 10 pcs.	50ml translucent PP pulverizing tubes	

Sample Holders and Accessories

■ YK-SHAL224F(S)UY (2ml x 24) Sample Holder



● Included Accessories with YK-SHAL224F(S)UY Sample Holder

Pulverizing media (metal rod)

Product code	Description	
YK-MC0218R(S)UY 10 pcs.	metal rod used with 2ml pulverizing tubes	

Transparent pulverizing tube (used w/ liquid nitrogen)

Product code	Description	
YK-ST0220PC(S)UY 100 pcs.	2ml transparent PC tubes used for freeze pulverizing	

Opaque pulverizing tube (used with liquid nitrogen)

Product code	Description	
YK-ST0220FC(S)UY 100 pcs.	2ml opaque PE pulverizing tubes	

Translucent pulverizing tube used within an approximate temperature range of -10°C ~ 20°C.

Product code	Description	
YK-ST0250F(S)UY 100 pcs.	2ml translucent PP pulverizing tubes	

Magnets

Product code	Description	
YK-MG136UY 1 pc.	small (for removal of metal rod)	
YK-MG2810UY 1 pc.	large (for removal of metal rod)	