

# MDS-2008

## Drug stripping sampling system

To be the leader of high-end drug testing instruments!



**SCIENTZ TECHNOLOGY CO., LTD**

T. 031.8027.6770 E. [scientz@scientz.co.kr](mailto:scientz@scientz.co.kr)

경기도 남양주시 다산동 6144, 다산진건블루웨일 지식산업센터 1차 F734호

# MDS-2008DS

## Drug Dissolution Instrument

The design of dissolution testers is regulated by pharmacopeias in various countries, and laboratory operations should adhere to Good Manufacturing Practice (GMP) guidelines for pharmaceutical production quality management. Scientz Biotech has developed dissolution testers and samplers that are designed for operation in GMP-compliant environments. We provide compliant performance, installation, mechanical verification, and operational training to ensure that the use of the instruments aligns with the intended objectives.

Scientz Biotech also provides customers with various information, documentation and mechanical validation services for the certification of instruments for different types of samples such as tablets, capsules, semi-solids, transdermal patches, microspheres, implants, and so on.



# COMPLIANCE AND INNOVATION OF COMPONENTS



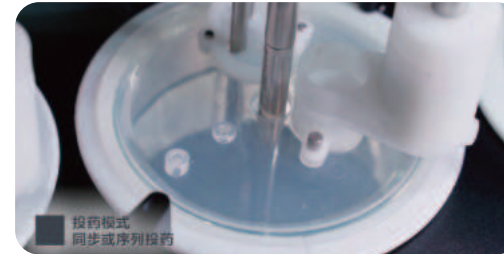
## Cup

Embedded retention hoops prevent collisions, reduce evaporation and provide better centering and verticality. Indicator strips on the rim of the cups and diagonal mounts minimize variation between dissolution processes. Dissolution cups are available in 1000mL and 250mL sizes, with the 1000mL size available in a brown, light-proof dissolution cup.



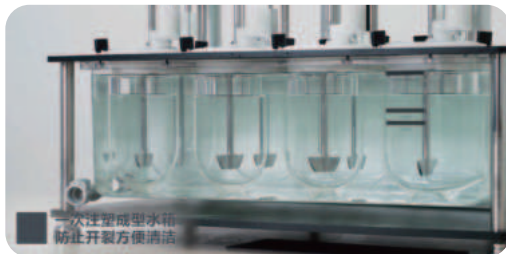
## Evaporation Cover Plate

Considering the impact of solvent evaporation on the experimental results, the MDS-2008DS is designed with a V-shaped lid that fits perfectly with the dissolution cup to minimize solvent evaporation.



## Automatic Dosing Module

The ingenious design of the automatic dosing module avoids the sticking of tablets, and can realize eight cups dosing at the same time, and also can take into account the sequence of dosing, which can effectively improve the accuracy of dosing.



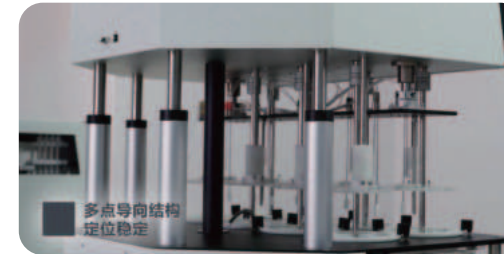
## Water bath

One-piece injection-molded water baths with quick-connect fittings: Quick-connect fittings and rounded corners that allow the circulating water to be completely emptied save time in cleaning the instrument, preventing dirt and bacteria from being trapped in the seams of conventional water baths.



## Segmented paddle shafts

Using a segmented 316L stainless steel paddle shaft design that includes paddles, rotating baskets, rotating barrels and small volume options allows for the attachment of interchangeable baskets and paddles and eliminates the need for height readjustment before and after conversion, saving significant time.



## Stainless steel guide rods

The use of multi-point stainless steel guide bar, excellent to ensure the stability of the machine head, for the dissolution of the cup and the center of the rotary axis of the positioning of the stability to provide strong support for the effective prolongation of the mechanical properties of the stabilization time.

MDS-2008DS

Drug dissolution  
instrument components

# PARTS TO INTRODUCE



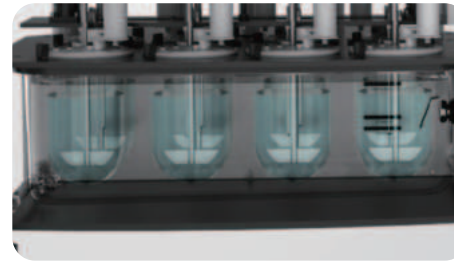
## Color touchscreen

Featuring a 10-inch color touch screen, the touch panel can be easily manipulated to set up, store and run up to 100 methods. The intuitive interface with screen-lock safety feature also offers Chinese and English as language options.



## Administrative authority

The MDS-2008DS provides three levels of administrative privileges that meet audit trail requirements, controlling access and blocking unnecessary changes to instrument settings or methods.



## Heating Circulation System

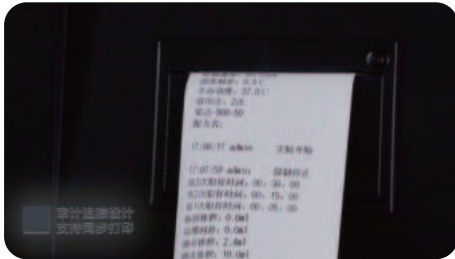
Relying on the company's many years of experience in the field of temperature control, MDS-2008DS is equipped with an independently controlled heating circulation system, which can minimize vibration under the condition of saving the volume of the experimental table. The unattended reservation function can realize unmanned automatic thermostatic water bath, saving experiment time.



## Temperature probe

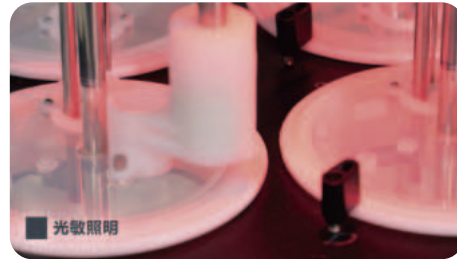
Eight cups of independent temperature probe, can realize eight cups of solvent temperature independent monitoring, real-time display, and the temperature probe can be raised during the dissolution experiment, will not interfere with the dissolution experiment. Adopting PID+ fuzzy control, the temperature control accuracy reaches  $\pm 0.2^{\circ}\text{C}$ , and the temperature resolution reaches  $0.1^{\circ}\text{C}$ .

## PARTS TO INTRODUCE



### Built-in printer

The instrument is equipped with a built-in printer, real-time printing log records, the experimental process data records can be audited query; logs can be exported to consult (need to use the company's special software to open the exported documents)



### Photosensitive lighting

The instrument has built-in photosensitive illumination, together with the brown dissolution cup, to better realize the experiment of avoiding light.



### One Click Import

100 experimental methods storage space, USB can realize one-key import and export operation, avoiding the tedious steps of method transfer between different instruments.



### Certification and Technical Support

Certification and Technical Support: We also provide standards-compliant AIQ certification services, mechanical validation services, and technical and application-related support services such as instrument training and on-site installation training.



# TECHNICAL PARAMETERS



## Technical Parameter

Instrument performance indicators	Heating range of water bath : room temperature-45.0℃	Instrument Functions	Compatible with basket method, paddle method, small cup method, paddle dish method, rotating cylinder method
	Temperature resolution: 0.1℃		Dissolving cups: 6/8 cups
	Temperature control accuracy: $\pm 0.2^{\circ}\text{C}$ .		Segmented swivel design, no need to readjust the height for switching between basket, paddle and swivel methods
	Stirring speed range: 10.0-300.0RPM		Automatic synchronized dosing/sequential dosing
	Speed resolution: 0.1RPM		Photosensitive illumination: white/red three-stage illumination
Instrument Mechanical Indicators	Speed accuracy: $\pm 0.5\text{RPM}$		More than 100 experimental methods can be stored and imported and exported by USB.
	Basket (paddle) shaft swing: $\leq 0.5\text{mm}$		39 login accounts and passwords can be stored, and operating privileges can be controlled at 3 levels.
	Swing of rotating basket: $\leq 1.0\text{mm}$		With operation record printing and logging function, and can audit trail
	Deviation between rotating shaft and dissolving cup shaft: $\leq \pm 1.5\text{mm}$		Input power supply 220VAC $\pm 10\%$ 1300w
	Dissolution meter level: $\leq 0.2^{\circ}$		Dimensions $\approx 670 \times 565 \times 640\text{mm}$
	Verticality of basket (paddle) shaft: $90 \pm 0.5^{\circ}$	Overall weight $\approx 65\text{kg}$	
Working humidity	(20~80)% RH	Operation temperature	(10~30) °C
Storage humidity	(5~95)% RH	Storage Temperature	(-20~60) °C

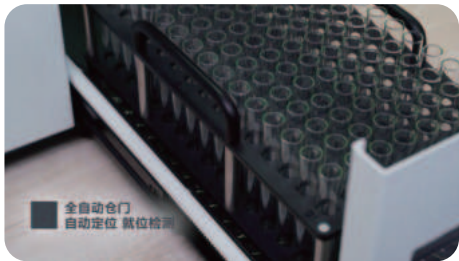
## product accessories

- Main Unit
- Built-in Printer
- Basket Shaft (8)
- Baskets (8)
- Large Cup Assemblies (8)
- Paddle assembly ( 8 )
- 10 $\mu$  Column Filters (100)
- 30 $\mu$  Column Filters (100)
- Quick Connectors
- Waterproof Hose (1 meter)
- Water Collection Tray ( 1 )
- Thin Film Pads (10)
- national standard power cord ( 1 )
- Ruhr joint(8)
- Dissolution instrument suitcase component(1)
- 25mm diameter solid plastic cushion ball(1)

## Options

- Small Cup Assemblies
- Small Paddle Assemblies
- Small Disk Assemblies
- Settling Basket Assemblies
- Rotating Cylinder Assemblies
- Light-Protected Large Cup Accessory Assemblies
- Luer Adapter
- Solid Plastic Pad with a Diameter of 25mm

# SAMPLER UNIT



- Equipped with automatic door opener to realize one-touch in and out of the warehouse
- Automatic positioning detection function for test tube racks.



- Automatically calculates the sampling height, at the moment of sampling can be based on the volume of solvent in accordance with the pharmacopoeia in the position of accurate sampling
- Equipped with a secondary filter interface, more adequate solvent filtration.



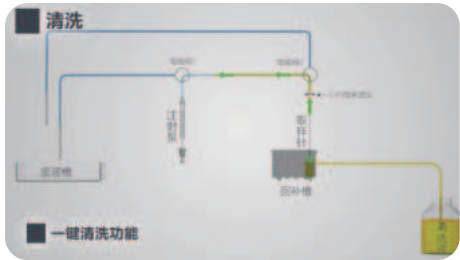
- Adopting imported syringes, automatic rinsing, filling, waste liquid disposal, sampling, backfilling, emptying and other steps to ensure the sampling accuracy, while ensuring that the pipeline residue as little as possible.



Imported PTFE micro-transparent piping with excellent corrosion and adsorption resistance.



- Continuous sampling, dual sample sampling, automatic sample dilution and other functions
- Automatically lubricates piping and sampling pumps before sampling to ensure sample accuracy.



- One-touch automatic cleaning of the liquid tank and pipeline after the completion of the experiment to ensure no cross-contamination.

MDS-2008

Drug dissolution

sampling system

Sampler components



## TECHNICAL PARAMETERS

Performance Parameters	Single sampling volume: 0.1-15mL (single); 0.2-30mL (double)	Size of the whole machine	≈515x660x460mm
	Number of samples: 1-16 (single); 1-8 (double)	Weight	≈53Kg
	Sampling accuracy: ±0.8% (10mL)	Operating temperature	(10~30) °C
Instrument Functions	Fully automatic rinsing, filling, dropping, sampling, backfilling, diluting, emptying, cleaning	Storage temperature	(-20~60) °C
	Precise sampling by syringe pump with programmable suction stop time	Operating humidity	(20~80)% RH
Input Power	220VAC±10% 200W	Storage humidity	(5~95)% RH