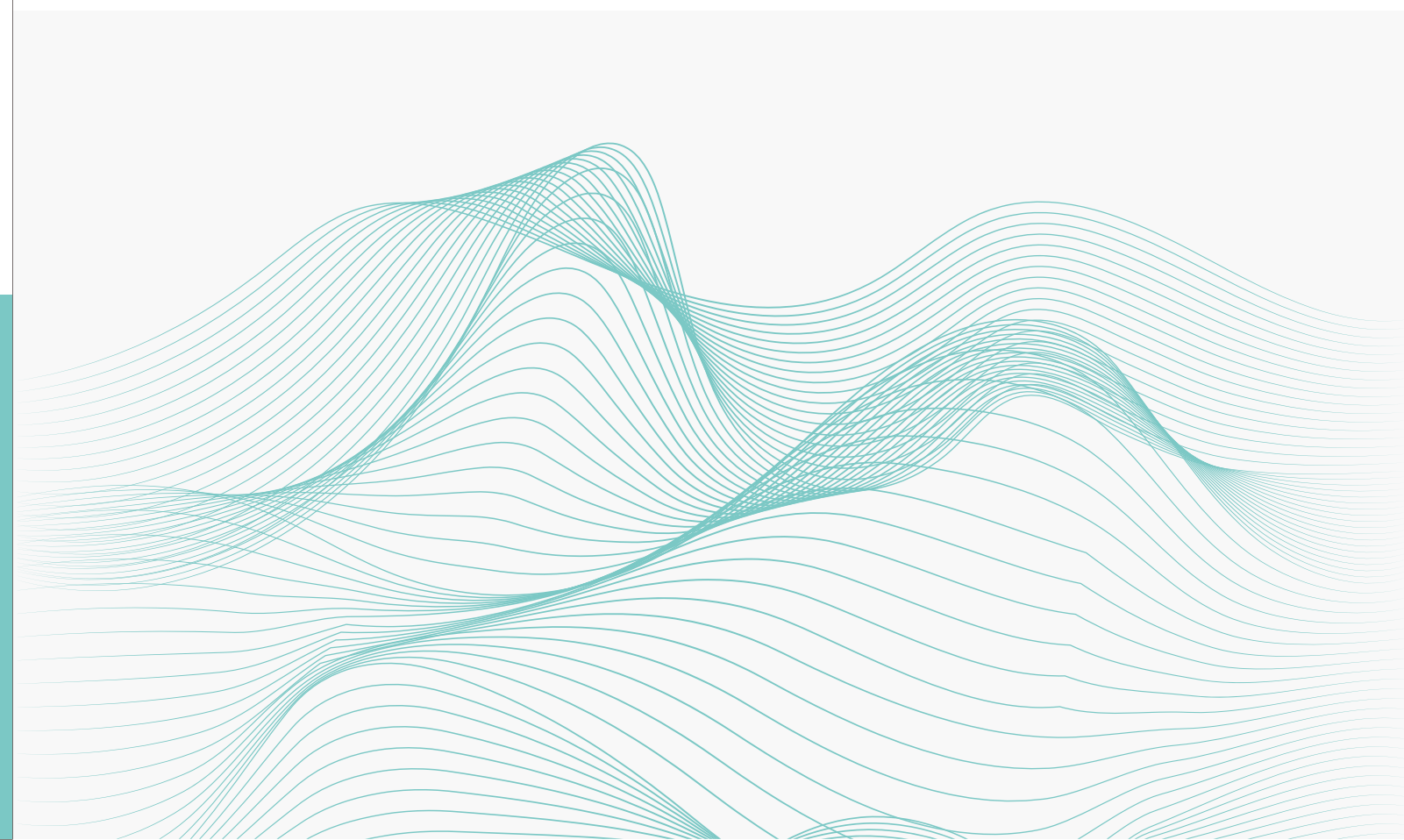




Automatic scan frequency  
ultrasonic cavitation

## Fast tissue dehydrator

SHENZHEN MARGE TECHNOLOGY SHARING CO.,LTD.  
Marge Science and Technology Industrial Park,Shanghenglang Community,  
Dalang Street, Longhua District, Shenzhen City,China  
Tel: +86-755-23219066 23113313 Fax: +86-755-23219033  
Email:sales@margemed.com tong.chan@margemed.com  
www.margemed.com



## Automatic ultrasonic fast tissue

# Dehydrator

MAG- TS1200



## Product Characteristics

- Frequency conversion ultrasonic technology is perfectly combined with special reagents
- The 2-step tissue treatment is completed within 90 minutes
- It can handle a large number of different tissue specimens at the same time and meet the requirements of different levels of pathology
- The 2-step tissue treatment is completed within 90 minutes
- Adopt automatic lifting door, with intelligent anti-pressure protection function
- The working area is closed, safe and environmental protection
- Environmental protection design with built-in condensation and reagent recovery, caring for the health of the operator
- Reagent fully realize automatic addition, automatic discharge
- Intelligent digital display (temperature, time, reagent stock)
- High and low level safety control and automatic fault detection and alarm system
- HD touch screen operation, data collection, storage, data port can be realized and alarm system
- Working data can be stored for more than 3 years

## Product Advantage

- |                            |                                                                                                                                                                                                                                |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| - Technological level      | Fast environmental protection reagent for ultrasonic cavitation technology of automatic frequency sweep and frequency chase                                                                                                    |
| - Safety                   | Automatic alarm prompt after completion of operation, safe and assured emergency control patent system, reagent automatic addition, replacement and discharge system, reagent zero contact has full protection of human health |
| - Efficiency               | It can be used continuously in cycle operation and does not affect the specimen handling capacity                                                                                                                              |
| - Difference               | Built-in condensation cycle patent technology activated carbon adsorption filter system automatic lifting door, with intelligent anti-pressure protection function, with power emergency drive function                        |
| - Flexibility              | For different specimen types, there are corresponding processing programs UI beautiful interface, simple operation, real-time dynamic monitoring, running data can be automatically stored, easy to trace                      |
| - The effect on the output | Good section quality did not affect subsequent immunohistochemical and molecular pathology diagnosis                                                                                                                           |

## Technology Parameter

- Overall size: A Type: 800 (L)x650(W)x1800 (H) mm  
B Type: 680 (L)x800(W)x1800 (H) mm
- Dehydration groove inner size: 120x150x140mm 2.5L
- Waxdip groove inner size: 120x150x140mm 2.5L
- Max treatment quantity: 32 tissues/Cycle
- Working cycle :1 hour (optional)
- Heating power :660w
- Total power :1700W, maximum single-step power: 1450w or less
- Working noise: <70dB
- Product structure: Vertical double cylinder type
- Power supply: AC220v, 50Hz
- Drainage pipe size :18# (imported silicone hose: ( Φ11.2x Φ8)
- Wax discharge tube size: 4/8"
- Exhaust pipe size: 9cm exhaust pipe



More than 30 original patent protection, worthy of your trust

## Fast tissue dehydrator structure features

1. This equipment is fully automatic intelligent equipment
2. Operations include:
  - Reagents are automatically added and discharged;
  - The production process of small tissue, endoscopic tissue and large tissue is automatically set, including ultrasonic power, frequency, working temperature and working time, to avoid human influence;
  - Temperature control adopts PID precision control, the temperature is too high with automatic cooling system precision control; When a beat is over, there is a buzzer. - The automatic door is closed, with its own exhaust system, to avoid contact with reagents.

## Comparison of dehydration time between Marge and tissues in some areas (Small sample)

|         |                  | Xian Standard | Guangzhou Standard | Guangdong Standard | Beijing Standard | Zhejiang Standard | Hongkong Standard | Shanghai Standard | Marge Standard        |                |
|---------|------------------|---------------|--------------------|--------------------|------------------|-------------------|-------------------|-------------------|-----------------------|----------------|
|         |                  | synthesis     | synthesis          | synthesis          | Small specimen   | Small specimen    | Small specimen    | Small specimen    | Small specimen        | Small specimen |
|         | Neutral formalin | 3h            | 4h                 | 3h                 | 3h               | 4h                | 4h                |                   | 1                     |                |
| 1       | 75%Aacohol       | 1h            | 1-2h               | 1h30min            | 1h               | 1h30min           | 1-2h              | 2-3h              | Fixation, Dehydration | 30- 90 min     |
| 2       | 85%Aacohol       | 1h            | 45min              | 1h30min            | 1h               | 2h                | 45min             | 1h30min           | 2                     | 5- 10 min      |
| 3       | 95%Aacohol       | 1h            | 45min              | 1h                 | 1h               | 1h30min           | 45min             | 1h30min           |                       |                |
| 4       | 95%Aacohol       | 1h            | 45min              | 45min              | 1h               | 1h30min           | 30min             | 1h                | 3                     | 20min          |
| 5       | 95%Aacohol       | 1h            | 45min              | 45min              | 1h               | 1h                | 30min             | 1h                |                       |                |
| 6       | 100%Aacohol      | 50min         | 30min              | 45min              | 1h               | 1h                | 30min             | 1h                | Total :               | 55min - 2h     |
| 7       | 100%Aacohol      | 50min         | 30min              | 30min              | 1h               | 30min             | 30min             | 1h                |                       |                |
| 8       | xylene 1         | 30min         | 30min              | 34min              | 30min            | 30min             | 30min             | 30min             |                       |                |
| 9       | xylene 2         | 30min         | 30min              | 40min              | 30min            | 30min             | 30min             | 30min             |                       |                |
| 10      | waxdip 1         | 1h            | 30min              | 1h                 | 1h               | 15min             | 30min             | 15min             |                       |                |
| 11      | waxdip 2         | 1h            | 1h                 | 1h                 | 1h               | 30min             | 1h                | 1h                |                       |                |
| 12      | waxdip 3         | 1h            | 30min              | 1h                 | 1h               | 1h30min           | 1h                | 1h                |                       |                |
| Total : |                  | 13h40min      | 12h45min           | 14h14min           | 14h              | 16h15min          | 13h               | 13h15min          |                       |                |

## Operation process of the fast tissue dehydrator

### Working Process

Load basket → Load specimen → Fixation → Dehydration  
→ Transparentizing → Waxdip → Discharge specimen

- Fixation, 10-30 Mins
- Dehydration,30-90 Mins
- Tansparentizing,5-10 Mins
- Waxdip,5-10 Mins

**On the basis of maintaining the same quality as traditional sections, the pathological sections made by the local machine can accelerate the speed of tissue fixation, protect antigen, and maintain the integrity of small molecule RNA, which provides a good histological basis for immunohistochemical and molecular biology studies**

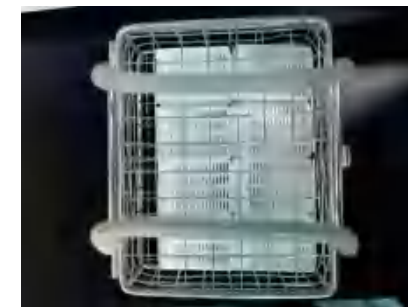


This machine has two working grooves | :  
- fixation, dehydration, transparentizing groove  
- Waxdip groove

Fixation,dehydration,transparentizing groove | :  
- Place the tissue dehydration basket in the groove smoothly, start the program, and the equipment automatically adds reagents; The three steps of fixation, dehydration and transparency are carried out automatically in a groove;  
- After the treatment is completed, the tissue dehydration basket is moved to the wax dipping groove;

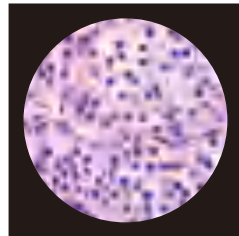


Waxdip groove | :  
- Put the tissue dehydration basket into the wax dipping groove head and start the wax dipping procedure;  
- After the procedure is over, the dehydration basket is removed and the tissue dehydration is finished

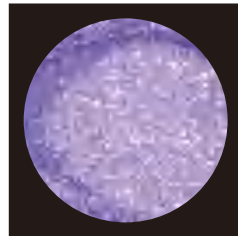


Note: The materials are even  
The sample dose corresponding to the tissue type was selected. Each basket contained 32 tissue blocks, divided into four layers with 8 tissue blocks per layer

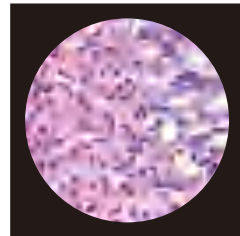
## Comparison of the effect of partial rapid examination section and conventional treatment



Adrenal biopsy section



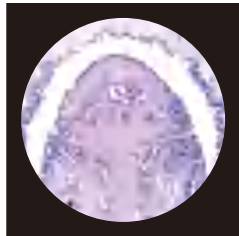
Biopsy section of lymph nodule



Adrenal biopsy section



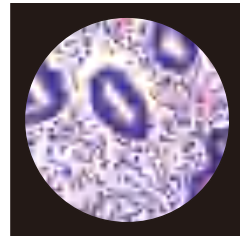
Adrenal biopsy section



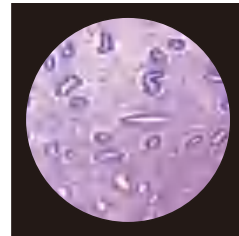
Prostate biopsy section



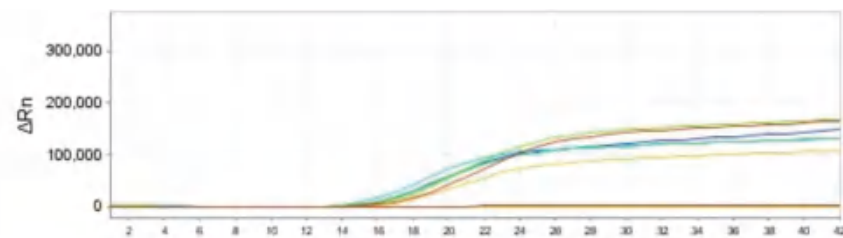
Bronchia biopsy section



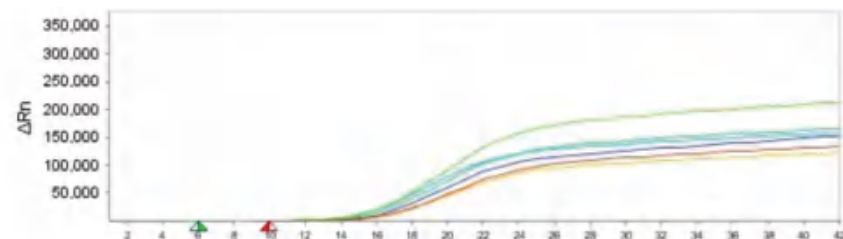
Endometrial biopsy section



Endometrial biopsy section



Conventional amplification of DNA

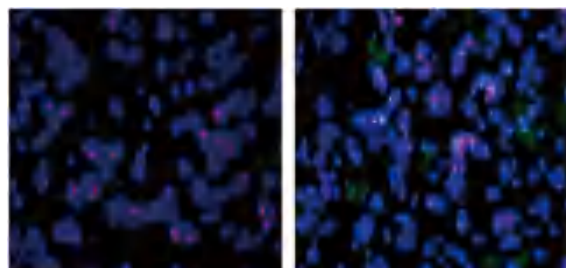


The rapid dehydrating DNA amplification of Marge

The amplification curves from top to bottom are respectively

- (1) invasive adenocarcinoma of the lung
- (2) invasive ductal carcinoma of the breast,
- (3) clear cell carcinoma of the kidney
- (4) gastric highly differentiated papillary carcinoma
- (5) moderately differentiated hepatocellular carcinoma, ultrasonic rapid DNA amplification effect

Department of Pathology, Nanfang Hospital,  
Southern Medical University



HER2 gene amplification was detected by FISH in breast cancer tissue treated by ultrasound



The results of LCA immunoassay were excellent

## Fast tissue dehydrator

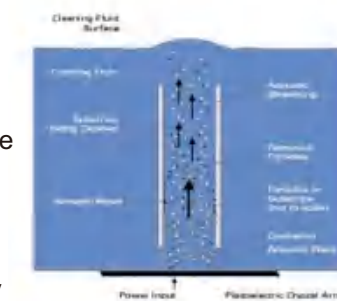


1. After repeated comparison with conventional tissue sections of traditional international brands, the speed of our products is maintained at 30 minutes to 2 hours. If the subsequent embedding, section, dyeing and film reading are completed, it can be completed within 1-3 hours.

2. At present, the equipment has launched two products, one of which can produce 32 tissue blocks per cycle, and the other one can produce 128 tissue blocks per groove

## Adhere to the original development and international cooperation in parallel

Ultrasonic waves in Germany have an automatic frequency sweep function for continuous transfer of sound pressure maxima, which means a uniform distribution of sound field advantages: greatly improved fluid permeability and exchange



高频超声波能够加速细胞膜两侧液体的互换  
High-frequency ultrasound accelerates the exchange of fluid between the two sides of the cell membrane



## Tissue dehydration Three In One Compound reagent



### Biopsy tissue

55 mins finish  
fixation, dehydration  
transparentizing, waxdip

### small tissue

75 mins finish  
fixation, dehydration  
transparentizing, waxdip

### big tissue

90 mins finish  
fixation, dehydration  
transparentizing, waxdip

## Equipment safety



Automatic exhaust system  
on top of working cabin

## Compound reagent

- Automatic door closed working environment, isolated from the operator
- The top of the equipment is equipped with automatic exhaust system
- Equipped with activated carbon to absorb odors
- Only after the reagent in the cylinder is drained can the lid be opened and operated

# Multi-chamber automatic ultrasonic rapid tissue dehydrator MAG-TS6000



**flow line type**  
Continuous mass  
processing



**automatic**  
automatic load  
and discharge



**mass**  
batch process



**30Mins**  
biopsy tissue



**45Mins**  
small tissue



**90Mins**  
small tissue



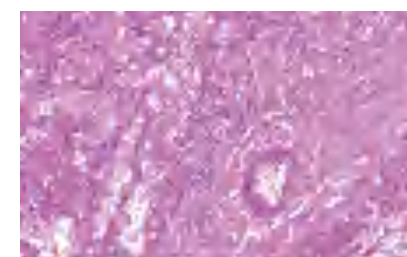
**closure system**  
Isolate operate



**environment**  
environmental reagent

## The world's first critical case of novel coronavirus pneumonia Biopsy pathologic digital slice

Provided by the National Clinical Research Center for Infectious Diseases,  
Department of Pathology, Shenzhen Hospital (the Second Affiliated Hospital  
of Southern University of Science and Technology)



The fast dehydrator  
is provided by Marge

## product characteristics

- Scope of application: Rapid dehydration of all kinds of endoscopic tissues, small tissues, large tissues, etc
- Automatic, accurate, fast fixed, dehydrated, transparent, wax dipping
- Using object recognition technology, the dehydration basket of feeding and unloading on the material table can automatically identify various tissue specimens in large quantities at the same time to meet the needs of different levels of pathology
- Automatic lifting door and intelligent anti-pressure protection design, easy to operate and safer
- HD touch screen operation, intelligent digital display, the whole process can be precise control
- Multiple types of process control programs run synchronously
- Reagents can be automatically added, replaced, discharged and classified for recycling
- High and low level safety control and fault from high and low level safety control and fault automatic detection and alarm system
- Fully enclosed work area, safety and environmental protection
- Traceability management, can open data port traceability management, can open data port, data collection and storage, can be stored for more than 3 years

## technology parameters

- Overall size : 945\*840\*1750mm
- Groove size : 200\*145\*140mm 4L
- Dehydration basket loading capacity : 85 tissues /cycle
- Work cycle:30mins/basket(set is optional)
- Total power:4KW
- Work noise:<70dB
- Product structure:Fully automatic vertical four grooves type
- Power supply : 220V 50Hz
- Reagent drain pipe : (12-row wax pipe: 4-connector exhaust pipe size: 9 cm)

## TS 6000

Nature color



Dark color



# Matched Reagent

## Three-in-one compound reagent for tissue dehydration

**Application:** It is used for dewatering, fixing and transparency of human tissue biopsies

**[Main components]** : This product is colorless transparent liquid, composed of acetone, ethanol, isopropyl alcohol, tert-butanol



### 【 Test principle 】 :

1. This reagent is a new type of multi-effect compound reagent, which can complete the three processes of fixation, dehydration and transparency together in only 0.5 hours, which greatly reduces the time of pathological diagnosis. Subsequent steps such as wax dipping, embedding, section, dyeing and film reading need to be completed, which requires a short time. Therefore, the diagnostic report can be made in 1-2 hours by using this reagent;
2. This reagent is an auxiliary process in the pathological diagnosis process. At present, there are many kinds of conventional dehydrator reagents, up to 12 kinds, and the dehydration time is long, generally more than 12 hours, resulting in a long pathological diagnosis, which generally takes 2-3 days to report.
3. This reagent does not contain formaldehyde, xylene, only some ketones, alcohols and biological additives
4. This reagent does not contain formaldehyde, xylene, only some ketones, alcohols and biological additives

**【 Packing specification 】** :M-DFTA,4L/ bottle