

Automated Tissue Processor, Mini-type

TSP-1



Features



APS-coated, streamline-design, sturdy housing with high resistance to corrosion



Economical, reagent saving, practical design with small footprint and low cost



Single-chip computer control technology allows a complete set of functions



Well-sealed plexiglass cover with gas-effluxion mechanism, environmentally friendly and safe



Not affected by short blackouts or power outages during operation



Manual adjustment can be conducted anytime during the programmed automatic operation; afterwards, the system automatically enters the programmed operation



Internal dry heating mechanism with high-precision temperature control



Two-dimensional, flexible transmission system, low noise, wear-resistant



High-precision photoelectric positioning control system to ensure reliable operation and precise positioning



Fully intelligent design, enabling timely determination and recovery from an abnormal event

Specification

Model	TSP-1
Number of Cups	12 (9 for reagents, 3 for paraffin)
Capacity of Each Cup	750 ml
Dehydration basket capacity	168*30*80 (mm) (40 dehydration cassettes)
Single tank processing time	First tank: Adjustable from 0~99 hours 59 minutes Other tanks: Adjustable from 0~23 hours 59 minutes
Wax tank temperature control range	RT - 80 C
Programmable settings	20 sets.
Temperature Control Precision	±1 C
Drainage time	Adjustable from 10~60 seconds, increment of 10 seconds.shake/drip above cup
Stirring frequency	Adjustable from 0-6 times/minute
Tissue protection tanks	Adjustable from 1-7 tanks
Working Voltage	AC220V±10% 50Hz (standard model) AC110V±10% 60Hz
Power Requirements	500 W
Dimensions	795×435×415 mm (W×D×H)
Weight	50kg
Package Dimension	940*550*660

Automated Tissue Processor

TSP-3



Features



Fully intelligent design, enabling timely automatic determination and recovery from an abnormal event



Imported LCD display, real-time display of working status, clear display



Green inner-cycling air purification system to efficiently adsorb, and remove, poisonous gas



Manual adjustment can be conducted anytime during the programmed automatic operation; afterwards, the system automatically enters the programmed operation. Convenient for mid-operation inspection or adding specimens.



Imported high-quality parts, smooth operation, low noise, ergonomic design



Waterless intelligent heating control, reduces standby power consumption, high temperature control accuracy

Specification

Model	TSP-3
Number of Cups	12 (nine cups for reagents and three cups for paraffin)
Dehydration basket capacity	150*48*82 (mm) (60 dehydration cassettes)
Capacity of Single Cup	1000ml
Single tank processing time	First tank: Adjustable from 0~99 hours 59 minutes Other tanks: Adjustable from 0~23 hours 59 minutes
Wax tank temperature control range	RT ~80°C adjustable
Programmable settings	20 sets.
Temperature Control Precision	±1°C
Drainage time	Adjustable from 10~60 seconds, increment of 10 seconds; shake/drip above cup
Stirring frequency	Adjustable from 0~6 times/minute
Tissue protection tanks	Adjustable from 1~7 tanks
Acceptable Temperature Range of Operation Environment	0 ~ 40°C
Working Voltage	AC 220V±10% 50Hz (standard model); AC110V±10% 60Hz
Power	500W
Dimensions	1010×420×450 mm (W×D×H)
Net weight	67 kg

Automated Tissue Processor

TSP-3A



Features



APS-coated, streamlined-designed, easy-to-clean, sturdy housing with high resistance to corrosion



Imported high-quality parts, smooth operation, low noise, ergonomic design



Fully intelligent computer program with protection tank, automatically judges and handles abnormal conditions



Fully intelligent design enables timely determination and automatic recovery from an abnormal event



Integrated high-quality LCD screen with intuitive bilingual (Chinese/English) software offers clear display and simple operation; window-scrolling/flipping human-machine conversation interface provides clear instructions for each step (online help)



Operation status simulated animation with synchronized graphical display, working progress clear at a glance



Green inner-cycling air purification system to efficiently adsorb, remove poisonous gas; gas-effluxion mechanism, environmentally friendly and safe



This system can be automatically started at any time as programmed



Processing duration is automatically calculated and displayed on the screen, allowing user to make a more efficient work plan



Manual adjustment can be conducted anytime during the programmed automatic operation; afterwards, the system automatically enters the programmed operation



Automatic fan control: fully open when moving to upper tank, opens once every minute when moving to lower tank, each time for 10 seconds



Automated light control:

- stays 'on' all the time during programming;
- stays 'off' during the automatic operation and can be automatically turned 'on' anytime by touching the screen or any key and stays 'on' for 2 minutes.



Internal dry heating mechanism with high-precision temperature control



Low-energy-consuming control circuit with power protection function.

Specification

Model	TSP-3A
Number of Cups	12 (9 for reagents, and the cups at the 10th, 11th, and 12th stations are used for paraffin melting)
Capacity of Each Cup	1500ml
Dehydration basket capacity	160*52*112 (mm) (100 dehydration cassettes)
Single tank processing time	First tank: Adjustable from 0~99 hours 59 minutes Other tanks: Adjustable from 0~23 hours 59 minutes
Wax tank temperature control range	RT - 80 °C
Programmable settings	20 sets.
Temperature Control Precision	±1 °C
Drainage time	Adjustable from 10~60 seconds, increment of 10 seconds.shake/drip above cup
Frequency of Agitation	Adjustable within 0~6 times/minute
Tissue protection tanks	Adjustable from 1~7 tanks
Working Voltage	AC220V±10% 50Hz (standard model); AC110V±10% 60Hz
Power: 500 W	500 W
Dimensions	1055×480×495 mm (W×D×H)
Net weight	75 kg

Automated Tissue Processor

TSP-3C



Features



Imported high-quality parts, smooth operation, low noise, ergonomic design



Real-time visual simulation with icons displays working status dynamically, clearly and intuitively



Fully intelligent design, enabling timely determination and automatic recovery from an abnormal event



Equipped with 7-inch intelligent color touch LCD display, real-time display of working status, clear display



Green inner-cycling air purification system to efficiently adsorb and remove poisonous gas; well-sealed gas-effluxion mechanism to effectively improve the operational environment, environmentally-friendly and safe



Manual adjustment can be conducted anytime during the programmed automatic operation; afterwards, the system automatically enters the programmed operation



Processing duration is automatically calculated and displayed on the screen, allowing user to make a more efficient work plan



Full automatic stirring throughout the process, enables more thorough and complete tissue immersion, optimal dehydration effect



This system can be automatically started at any time as programmed



Automatic fan control: fully open when moving to upper tank, opens once every minute when moving to lower tank, each time for 10 seconds



Drainage mimics manual shaking, thorough drainage, reduces reagent mixing, extends reagent usage cycle



Low-energy-consuming control circuit with power protection function



Automated light control:

- stays 'on' all the time during programming;
- stays 'off' during the automatic operation and can be automatically turned 'on' anytime by touching the screen or any key and stays 'on' for 2 minutes.



Internal dry heating mechanism with high-precision temperature control

Automatically determines the time of heating for energy efficiency

Specification

Model	TSP-3C
Number of Cups	12 (The 1st to 9th stations for reagents and the 10th to 12th stations for paraffin melting)
Capacity of Each Cup	2000 ml
Dehydration basket capacity	162*62*129 (mm) (125 dehydration cassettes)
Single tank processing time	First tank: Adjustable from 0~99 hours 59 minutes Other tanks: Adjustable from 0~23 hours 59 minutes
Wax tank temperature control range	RT - 80°C
Programmable settings	20 sets.
Temperature Control Precision	±1°C
Drainage time	Adjustable from 10~60 seconds, increment of 10 seconds.shake/drip above cup
Frequency of Agitation	Adjustable within 0 - 6 times/minute
Tissue protection tanks	Adjustable from 1~7 tanks
Working Voltage	AC220V±10% 50Hz (standard model)AC110V±10% 60Hz
Power	500 W
Dimensions	1170×465×535mm (W×D×H)
Net weight	85kg

Fully Automated Tissue Processor

TSP-3E



Features



Two sets of operation mechanisms doubles the processing capacity. Tissue specimens can be separately placed into different baskets according to size, texture, and origin, thus improving processing performance

- Optional single-mechanism mode for processing a small number of tissue specimens easing the operation



Flexible transmission system, low noise, wear-resistant



7-inch intelligent touch color LCD display, real-time display of working status, clear display



This system can be automatically started at any time as programmed (Setting Rang 0-99 hours and 0-59 minutes)

- Processing duration is automatically calculated and displayed on the screen, allowing the user to make a more efficient work plan



Power Protection Station: Station 7 for A basket and Station 5 for B basket, ensuring continued operation during a power outage.



Operation status simulated animation with synchronized graphical display, working progress clear at a glance



Internal precision cast waterless heating, imported components with triple overheat protection, safe and reliable



Automated light control:
 • stays 'on' all the time during programming;



Gradient fully automatic temperature control system, automatically determines heating requirements, high temperature control accuracy



Green inner-cycling air purification system to highly efficiently adsorb and remove poisonous gas; well-sealed gas-effluxion mechanism to effectively improve the operation environment, environmentally friendly and safe



Automated fan control: Stays 'on' all the time when the specimens are not submerged in cup and 10 seconds every minute when the specimens are submerged in cup and in processing



Manual operation can be conducted anytime during the programmed automatic operation, allowing user to check or add tissue specimens during the operation



Low-energy-consuming control circuit with power protection function



Scrolling processing mode multiplies the processing capacity of the system – one device can do the amount of work equal to multiple single-basket machines.

- A processed basket can be continuously used following another basket that is in processing without interruption, thus achieving a continuous cycling operation and maximizing the processing capacity of the system

Specification

Model	TSP-3E
Number of Cups	14(10 for reagents, and the cups at the 11th, 12th, 13th, and 14th stations are used for paraffin melting)
Two baskets	
Capacity of Each Cup	2000ml
Dehydration basket capacity	162*62*129 (mm) (125 dehydration cassettes/each)
Single tank processing time	Any length between 0 and 99 hours 59 minutes for the 1st and 2nd cup Any length between 0 and 23 hours 59 minutes for the 3rd to 14th cup
Wax tank temperature control range	RT - 80 °C
Temperature Control Precision	±1 °C
Programmable settings	Mechanism A: 20 sets. Mechanism B: 20 sets
Drainage time	Adjustable from 10~60 seconds, increment of 10 seconds. shake/drip above cup
Frequency of Agitation	0 - 6 times/min adjustable
Tissue protection tank	Mechanism A: 7th tank. Mechanism B: 5th tank
Dehydration basket is divided into three layers to ease the categorization of tissue.	
Working Voltage	AC 220V±10% 50Hz (standard model); AC110V±10% 60Hz
Power	550W
Dimensions	1370×440×525 mm (W×D×H)
Weight	102kg
Package Dimension (W*D*H) (mm)	1520*610*770
G.W.(kg)	155Kg

Automated Tissue Processor

TSP-6A



TSP-6A Automated Tissue Processor is an advanced microprocessor-controlled tissue-processing device. With an ideal ergonomic design, reasonable structure, easy operation, prompt processing, and high QPR, this device is an ideal choice for human or animal/plant tissue dehydration in the pathology laboratory of hospitals, colleges/universities, and research institutes.

Features



Entire operation process controlled by PLC through 7-inch color LCD touch screen, sensitive touch response, clear display, simple operation, reliable and stable



Tissue specimen basket can be placed in a cup at any station by a mechanical arm, flexible and easy to operate



Multiple safety protection mechanisms including power failure alert and operation error protection



One-button intelligent automatic tank finding, allows placing tissue in any tank position



Stirring during the dehydration process ensures adequate contact of tissue with reagents and paraffin to improve dehydration performance



Temperature of paraffin cup is precisely controlled by a constant temperature control system and the inner surface of the cup is TEFLON-coated, contamination-resistant, and corrosion-resistant



Nine 2.3L medical glass beakers are used as processing cups, allowing clear observation of tissue changes during the operation

Specification

Model	TSP-6A
Tissue Processing Steps	12 steps
Number of Reagent Cups	9, with a volume of 2.3L
Number of Paraffin Cups	3, with a volume of 1.8L
Temperature Range	56-86 C (±1C)
Dehydration basket capacity	about 80 dehydration boxes
Duration in each cup	0-10 hours (10 programs)
Maximal turn-on delay	1 month
Minimum time interval setting	1 min
Frequency of basket stirring	≥10 times/hour, 30 sec for each time
Power	1000W
Size of Basket	Φ95×80mm;
Dimensions	670 (Diameter)× 550 (Height, 680 mm at the highest point)
Package Dimension (W*D*H)(mm)	1210*920*820mm
Working Voltage	AC 220V±10% 50Hz (standard model), an additional converter is needed for 110V
Net Weight	60kg
G.W.(kg)	175Kg

Automated Tissue Processor

TSP-6B



TSP-6B Automated Tissue Processor is an advanced microprocessor-controlled tissue-processing device. Due to its ideal ergonomic design, reasonable structure, easy operation, prompt processing, and high QPR, this device is an ideal choice for human or animal/plant tissue dehydration in pathology laboratory of hospitals, colleges/universities, and research institutes.

Features



Entire operation process controlled by PLC through 7-inch color LCD touch screen, sensitive touch response, clear display, simple operation, reliable and stable



Tissue specimen basket can be placed in a cup at any station by a mechanical arm, flexible and easy to operate



Multiple safety protection mechanisms including power failure alert and operation error protection



One-button intelligent automatic tank finding, allows placing tissue in any tank position



Stirring during dehydration process ensures adequate contact of tissue with reagents and paraffin to improve dehydration performance



Temperature of paraffin cup is precisely controlled by a constant temperature control system and the inner surface of the cup is TEFLON-coated, contamination-resistant, and corrosion-resistant



There are nine 2.3-L medical glass beakers are used as processing cups, allowing clear observation of tissue changes during the operation



To enhance dehydration strength, this device is equipped with a vacuum pump. Other than paraffin cups, optional vacuum-assisted dehydration of all cups can be individually preset

Specification

Model	TSP-6B
Tissue Processing Steps	12 steps
Number of Reagent Cups	9, with a volume of 2.3L
Number of Paraffin Cups	3, with a volume of 1.8L
Temperature Range	56-86°C (±1°C)
Dehydration basket capacity	about 80 dehydration boxes
Program	0-10 hours (10 programs)
Maximal turn-on delay	1 month
Minimum time interval setting	1 min
Vacuum Degree	0.053MPa
Frequency of basket stirring	≥10 times/hour, 30 sec for each time
Size of Basket	Φ95×80mm;
Dimensions	670 (Diameter)× 550 (Height, 680 mm at the highest point)
Working Voltage	AC 220V±10% 50Hz (standard model), an additional converter is needed for 110V
Power	1000W
Net weight	60kg
Package Dimension (W*D*H) (mm)	1210*910*820mm
G.W.(kg)	174Kg

Fully Automatic Enclosed Tissue Processor

TSP-CV1



Features



Operator Interface of 15 inch color LCD touch screen



Enclosed Tissue treatment system with no pollution of gas leakage, to meet requirement of environmental protection.



Mode of Sample processing: Sample not move, Reagent move.



It can avoid the risk of power failure of machine, or other mechanical failure.



Timing Mode: Finishing time of tissue processing any day in the week can be set



Function of Protection System of Power Failure. Once main power restored, the previous protocols is automatically resumed and continue to work in order.



Special design of Reagent Station makes the liquid totally back-flow to avoid any mixture and to extend using time of reagent.



Patented design of cassette holder makes reagent and samples thoroughly contact with each other, it improves effect of tissue processing and reduce working time.

- Dual Purpose of processing: one key switch normal processing motion and Rapid processing motion
- Rapid Processing motion stirred in day time finished in 3 hours, Normal Processing Motion stirred in the evening.
- Device for Air pressure transfer: Formal air pressure transfer of several solenoid valves replaced by one single mechanical structure replace formal in order to avoid high fault error.
- Function for changing wax automatically:
- Wax in No.1 Container wash into waste container, then, wax in NO.2 container goes into No.1 Container, then, No.3 goes into No.2, and so on
- Function of over temperature protection occurred by accidental heating
- Function for magnetic stirring which shorten time of tissue processing and make good processing effect.
- Alarm and Screen display when finishing work.
- Capacity of tissue processing: 300pcs cassette at most.

Specification

Model	TSP-CV1	
Numbers of Reagent Station	12	
Tissue Processing Station	NO.1 to No.9 Station	
Washing Station	No.14 to No.16 Station	
Numbers of Wax Tank	3 (No.10,12 and 13)	
Numbers of Working Station	1	
Capacity of Processing Station	9Liters	
Capacity of Reagent Station	6L	
Single wax tank capacity	6L	
Dehydration basket capacity	163*163*198 (mm) (300 dehydration cassettes)	
Temperature of Processing Station	Medium is the solvent	RT - 45 C
	Medium is the Wax	58 C -80 C
Operation pressure	<0.1Mpa	
Single reagent processing time	Tanks 1 & 2: 0~6000 minutes, others: 0~300 minutes	
Programmable settings	10 sets.	
Wax melt time not more than 3 hours		
Power input	<1500VA+10%	
Working Voltage	220VAC±10%,50/60HZ	
Time for Inflow Liquid	no more than 5Min	
Time for Exclude Liquid	no more than 5Min	
Stirring time	0~9 minutes	
Interval time for Stirring	0~12 minutes	
Operation mode	manual and automatic	
Overall Dimension	650×650×1350mm(W×D×H)	
Net Weight	115kg	
Package Dimension (W*D*H)(mm)	770*770*1480	