

Safety Sheet

Midas® III-Plus Automated Stainer

IVD 64000H-94

Intended Use

The Midas® III-Plus Automated Stainer is an automated slide stainer used for staining specimen slides of human origin to aid in diagnosis.

Specifications

External Power Supply

Input voltage	115/230 Vac
Input current	5 A max for 115 Vac input; 5 A max for 230 Vac input
Fuse rating	5 A x 250 V Slo-Blo or Time delay fuse (115 V and 230 V)

Device

Heater	375 W, AC Voltage
Blower	Less than 15 W, AC Voltage (CB1 fan)
Water Valve	24 Vdc
Internal Circuit	5 A circuit breaker (CB2 heater) 1A
Display	5 Vdc, max 0.5 A, vacuum fluorescent

Physical Characteristics

Length	21 inches (53 cm)
Width	18 inches (45 cm)
Height	15 inches (38 cm)
Weight	28 lb (13 kg)

Accessory Specifications

Water Bath	Application range 500-2,000 MI/minute
Output ratings	GFI protected outlet for external water bath pump ONLY, 120 Vac



Environmental Conditions

For indoor use in a clean room or laboratory environment.

	Operation	Storage/Transport
Temperature	15 °C – 35°C 59 °F to 95 °F	10 °C – 40°C 50 °F to 102 °F
Relative Humidity	<75% non-condensing	15% - 80% non-condensing
Ambient Pressure	70-80 mm Hg 28-32 in.	70-80 mm Hg 28-32 in.
Altitude	<2,000 meters 6,000 ft	<2,000 meters 6,000 ft

Installation Category II and Pollution Degree 2

Warnings and Precautions

- **WARNING:** READ THIS SAFETY SHEET AND THE OPERATOR'S MANUAL CAREFULLY BEFORE USING the Midas® III-Plus Automated Stainer.
 - Upon receipt of the Midas® III-Plus Automated Stainer, inspect the shipping carton. Notify the shipping carrier and our Technical Service department immediately of any damage.
 - For continued protection against fire hazard, replace fuse with a fuse of the same type and rating.
-  • **Caution! Electric Shock Hazard.** Disconnect line cord before servicing. Refer servicing to qualified service personnel.
- If you need assistance in adjusting the water pressure regulator, please contact our technical service department. Do not dispose of stain into the overflow basin and drain. Remove the stain vessel and dispose of the stain in compliance with all current local, state and federal regulations.
 - Maximum water flow rate should not exceed 2,000 mL/min.
 - Heat intensity can be increased and decreased by operation (Service Mode 10). Care should be taken to make gradual changes so as not to risk damage to the slide sample
-  • For infectious materials, heat-fix specimens over a flame prior to staining.

Hazardous Reagents

Obtain, review, and retain the SDS for the reagents used from the manufacturers of the reagents. Follow the safety precautions and disposal recommendations provided in SDS.

Cleaning: Sterilization of Midas® III-Plus Automated Stainer or its individual components is not required. Do not autoclave reagent containers. Prior to each maintenance and/or cleaning, switch the system off and disconnect main power. No liquid may be spilled into the internal components of the system—neither during operation nor cleaning.

Apply aqueous solutions to a clean cloth for cleaning of all working and non-working surfaces. When working with cleaning detergents, comply with all safety instruction by the manufacturer of the product and the laboratory management policy. To clean the enclosure, use mild household detergents; see safety instruction below for non-appropriate ingredients!

For disinfection, use a 1:10 dilution of Clorox® bleach solution (or equivalent) on an absorbent cloth as recommended by the manufacturer's label instructions. Do not clean the system with solvents containing acetone or xylene. Cleaning the slide carrier in a solvent such as acetone or methanol may result in damage to the slide carrier. Spilled solvents (reagents) must be wiped away immediately! In case of long-term exposure, the plastic hood enclosure is only conditionally resistant to solvents!



Spillage: Avoid spillage while filling and/or changing the reagents. In the event of spillage of any fluid or reagent, the system must be disconnected from the main power supply immediately and not reconnected nor used until examined and tested by an Authorized Service Engineer. Failure to do this may result in a fire hazard. Wipe away any spilled reagents immediately. In case of long-term exposure, the system surfaces are only conditionally resistant to solvents.

Additional Safety Instructions

- Turn the power off while changing or replenishing the reagents
- Keep the stainer and the reagents away from the open flames and any other ignition source.
- To minimize the exposure to the toxic fumes of the reagents, place the stainer under a fume hood.
- While the stainer is not in use, keep the reagent containers covered with the Reagent Container Lids provided with the stainer.
- Do not eat, drink or smoke near the stainer or reagents.
- Follow general laboratory safety procedures and practices for handling organic solvents.



Flammable Liquids! Use caution when handling solvents! Make sure the premises are adequately ventilated! Explosion hazard!



Biohazard! Before shipping the stainer for any purpose, always decontaminate following general laboratory safety procedures and practices for handling samples to process from Biohazard handling perspective.



Flammable Liquids! Follow general laboratory safety procedures and practices for handling and disposal of the flammable reagents used in processing of the slides and used for cleaning the system.

Transport and Installation



Attention! The system may only be transported in an upright position.

Install the system on an even surface which must be absolutely level and can support 100 lb (46 kg) weight.

Do not expose the system to direct sunlight (windows).

The system **MUST** be connected to an earthed mains power outlet socket. The system must not be connected to an extension cord without protective earth conductor.

Operating the System



Attention! The Midas® III-Plus Automated Stainer may only be operated by trained laboratory personnel, according to its designated use and as per the present instruction manual. In case of emergency, switch off mains and unplug the power cord.

Servicing: Midas® III-Plus Automated Stainer contains no user serviceable components. Contact our Technical Service department or an authorized service engineer for all service requirements. Do not attempt to service the equipment, as it may expose you to electrical shock hazard. Do not remove any protective devices or accessories as they may pose a hazard to the user.

Inspection and Safeguards

- Carefully inspect the outer carton for any visible damage. If any damage is noticed, contact the shipping carrier and file damage before unpacking the stainer.
- Inspect the system for any visible damage. If any shipping damage is visible, retain all packing material intact with the stainer and file a claim with the final carrier.
- Retain all the packaging material for the duration of the warranty period. Do not use any attachments or accessories not approved by the product manufacturer as they may cause hazards, damage the system and void the warranty.
- This system must be operated from the type of power source indicated on the marking label and the instructions. This system is equipped with a grounded three-wire plug. The system must be connected to a grounded outlet for safety. Be sure to use the correct power supply cord as it pertains to the mains voltage output of your region.
- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs, receptacles, and the point where they exit the system.
- Situate the stainer in well-ventilated area and away from the wall.
- Situate the stainer such that the Power Inlet and the Power Off switches are easily accessible at all times while the stainer power is turned on.
- Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
- Do not obstruct the mechanism with hand, arm or any other body parts while the unit is powered on. Do not place or remove any sample slide racks into any processing reagent stations. Always load the slide racks at Station 5, the Home Station.
- In addition to the above measures, the installation of the optional plastic hood enclosure and keeping it closed during the processing runs will provide additional protection against accidental injury by the moving mechanism.

Accessory Connections



1. Water bath inlet
2. Water supply inlet
3. Regulator adjust
4. Drain
5. Water bath plug outlet

Symbol Definitions



Attention: This symbol on the system and in the manual showing the warning triangle indicate that the correct operating instructions (as defined in this manual) must be followed when operating or replacing the item marked. Failure to adhere to these instructions may result in an accident, personal injury, damage to the system or accessory equipment. ISO 7000 (2004)



Hot Surface: Surfaces may be very hot to the touch. Some instrument surfaces, which become hot during operation are marked with this warning label. DO NOT TOUCH THESE SURFACES. Touching these surfaces may cause burns. IEC 60417 (2002)



Protective Conductor Terminal Symbol: For the safety of the operator, ensure that the earth ground is always connected at this terminal. IEC 60417 (2006)



Caution: Electric Shock Hazard Disconnect line cord before servicing. Refer servicing to qualified service personnel. To avoid the risk of injury from electric shock, do not open this enclosure. IEC 60417 (2002)



Flammable Liquids: Handle flammable liquids with care. Ensure that there are no open flames or sources of sparks or flames near these liquids. Ensure that they do not get hot such that they can emit noxious fumes. Handle and dispose of these liquids based on the manufacturer's recommendations and follow the local regulations for disposal. DOT-15004



Biohazard: Samples processed on this instrument may be biohazard. Use proper procedures and safety procedures to handle biohazard. ISO 7000 (2004)



End of Life Instructions – WEEE directive (2012)

In accordance with the European Union directive on the management of waste from electrical and electronic equipment (WEEE), this product must not be disposed of in unsorted municipal waste at the end of its life. It must be taken to a collection and recycling center. For further information, go to SigmaAldrich.com/weee. This product utilizes consumable materials for its intended use. Any safety critical information regarding the consumable materials is in the Precaution section of this document.

Notice

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Standard Warranty

The applicable warranty for the products listed in this publication may be found at SigmaAldrich.com/terms.

Contact Information

For the location of the office nearest you, go to SigmaAldrich.com/offices.

Symbol Definitions



Manufacturer*



Catalogue Number*



Consult Instructions for use*



In vitro diagnostic medical device*



Temperature Limit*



Serial number*



Date of manufacture*



Humidity limitation*



Atmospheric pressure limitation*

*Symbols per ISO 15223-1 2016
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