MOPEC USER MANUAL

MOPEC PARAFFIN WAX DISPENSER, 7.5 L - BK575

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PARAFFIN WAX DISPENSER, 7.5 L

BK575

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INTRODUCTION

The Mopec Paraffin Wax Dispenser is designed to take up minimal bench-top space while providing a rapid heating system that produces melted paraffin wax in only 30 minutes. The dispenser features a non-drip lever, a dedicated heating system for the tap to prevent wax blockages, and is available in 7.5L and 15L capacities.

GENERAL NOTES

1. This product is designed for laboratory use only. Always follow good laboratory practice.
2. If this product is not used in accordance with these instructions then basic safety protection may be affected.
3. The main supply cord fitted to this product is heat resistant and should be replaced with an equivalent type.

4. Before using any cleaning or decontamination method please refer to the Maintenance and Cleaning section to ensure the proposed method will not damage the unit.
5. Connect only to a power supply with the corresponding voltage to that specified on the rating label positioned on the rear of the unit.
6. Ensure that the power supply has a ground terminal.

SPECIMEN SAFETY

It is the users responsibility, to ensure that the temperature set on the instrument, is at a level where no damage is caused to diagnostic specimens used with the equip-ment. In the event of this instrument malfunctioning, all specimens within the device should be checked to ensure no harm or damage to the specimen has been caused.

Amendments:

Issue 5: September 2018

Symbols:

This symbol appears in documents and on equipment to warn the user that there are hot surfaces on the equipment.

This symbol appears in documents and on equipment to warn the user that instructions must be followed to ensure correct or safe operation.

USER SAFETY

The equipment you have purchased complies with the following European Directives and Low Voltage Directive as indicated in the EC Declaration of Conformity included in the document. This instrument has been designed and constructed in a manner which minimizes the risk of electrical shock to the operator, offers maximum protection from overheating and provides clear and adequate labeling of instrument controls.

The instrument requires no regular servicing, but Mopec does recommend an annual inspection, as detailed in the manual, which will prolong the life of the instrument to ensure continued safety.

Do not touch any electrical contacts or open any closure plates. RISK OF ELECTRIC SHOCK!

DO NOT:

1. Allow molten wax to accumulate on the surface of the wax dispenser.
2. Use without pelletized wax placed in the internal tank.
3. Operate the tap while the wax is cold as this may dislodge the piston from the seal recess.
4. Use metal instruments or scouring agents to clean the surface of the wax dis-penser or the internal tank.
5. Immerse in water.
6. Touch the inside of the tank, it can be hot!
7. Use without appropriate training.

DO:

1. Maintain the instrument in a reasonably clean condition.
2. Switch off before removing the plug.
3. Ensure that replacement fuses are of the correct specification.
4. Use in a safe and stable location, where the tap cannot be knocked by accident.
5. Position tap in locked position when not in use to avoid accidental dispensing of molten wax.
6. Position the unit so it can be disconnected from the power supply with ease.
7. Retain the original packaging over the warranty period.

POWER LEAD & CONNECTION TO ELECTRICAL SUPPLY

Check the electrical supply is compatible with the rating label. IF IN DOUBT CONSULT AND ELECTRICIAN. THE PRODUCT MUST BE EARTHED! Where the mains supply or plug connection differs refer to local regulations or consult an electrician. Before use, check voltage is compatible with supply.

SPECIFICATION

The Mopec Paraffin Wax Dispenser is designed for on-demand delivery of molten wax. The novel design of the instrument ensures that it takes up a minimum bench space in the laboratory, whilst still maintaining a large 7.5L capacity tank, for melting up to 6kg of pelletized wax at a time. The Paraffin Wax Dispenser has digital temperature control which provides accurate temperature control of the molten wax, and is coupled with an ultra fast heating system for rapid melting of pelletized wax. Delivery of molten wax is via a non-drip lever tap , which is heated via a dedicated heating system, which prevents blockages due to solidified wax and ensures an even flow of wax. The inner tank has a filter screen (0.5mm mesh) fitted to prevent

coarse particles from block-ing the delivery tap. The tank is also fully insulated to prevent heat loss from the tank and to ensure that the outer surfaces of the tank are safe to touch.

Dimensions: Width 181mm x Depth 420.5mm x Height 435.5mm
Tap Height (from bench): 153.0mm
Weight: 7.0Kg (15.4 lbs)

Temperature range: ambient to 70˚C (+/- 1˚C) at 20˚C ambient.
Display: Digital Display with 1.0˚ accuracy.
Safety: Class 1 cut out
Heater power: 480 watts
Power Supply: 110V/230V a.c 50-60Hz

LOCATION

The product must be placed on a smooth, level and sturdy work surface. Suitable for use in ambient temperatures 5°C to 40°C with a maximum humidity 80% (tempera-ture 31˚C) decreasing to 50% (temperature 40˚C).

OPERATING INSTRUCTIONS

1. Place the paraffin wax dispenser on a smooth, level and sturdy work surface.
2. Ensure that the power cable is pushed fully into the power supply socket of the wax dispenser.
3. Connect the mains plug to the electrical supply and switch on (ensure the power supply is properly earthed).
4. Pour the desired quantity of wax into the internal tank. The tank has a maximum capacity of 7.5L which is large enough to melt 6.0Kg of pelletized histology wax.
5. Turn on the paraffin wax dispenser.
6. Set the desired temperature. Users are recommended to set the temperature 3-4˚C above the melting point being used.
    a. Press button P then release it (do not hold down button P for 5 seconds).
    b. The display will show SP alternating with the current set temperature.
    c. To change the set temperature press the UP key to increase the value or DOWN to decrease it. These keys increase or decrease the value one digit at a time, but if the button is pressed for more than one second the value increases or decreases rapidly, and after two seconds pressed, the speed increases even more to allow the desired value to be reached rapidly.
    d. Exiting the Set mode is achieved by pressing the P key or automatically if no key is pressed for 15 seconds. After that time the display returns to the normal func-tion mode.

7. The heater indicator will illuminate to show heater activity.
8. The instrument will then warm up to the desired temperature, you will observe the temperature rise on the display.
9. The paraffin wax dispenser is designed to melt bulk quantities of pelletized wax in as quick a time as possible. When set at 65˚C the instrument will take roughly 90 minutes to fully melt 5Kg of pelletized wax, with significant quantities of mol-ten wax available for use after as little as 30 minutes.
10. Wax is delivered by pulling the tap lever. This tap has two positions:
    a. On demand push dispense
    b. Continuous flow - tap locked open.

WARNING:

THE DISPENSING TAP LEVER SHOULD NOT BE OPERATED WHILE THE SLIMLINE WAX DISPENSER IS COLD AS THIS MAY DISLODGE THE PISTON FROM THE SEAL RECESS.

CLEANING INSTRUCTIONS

Regular cleaning of the instrument according to the cleaning instructions enclosed in this user manual will ensure that the instrument continues to operate efficiently and safely in normal everyday use. Cleaning or decontamination methods, other than those recommended in this guide, should be checked with your instrument supplier to ensure that the proposed method will not damage the instrument.

1. The lower case work of the Paraffin Wax Dispenser, including the control panel, may be wiped using small quantities of mild detergent or polishes applied with a soft cloth.
2. The internal tank can be emptied by locking the delivery tap into the continuous flow position. Any residual wax at the bottom of the tank can be removed using absorbent tissues and wiped clean.
3. The filter (0.5mm mesh) situated at the bottom of the tank can be cleaned in-situ using a toothbrush or similar brush, or lifted out once the bolts are removed for more thorough cleaning using solvents. (If removing the filter it is recommended that protective gloves are worn).

WARNING:

SCOURING PADS OR DESCALING AGENTS MUST NOT BE USED TO CLEAN THIS INSTRUMENT.

MINIATURE CIRCUIT BREAKERS

Located on the rear of the instrument. In the event of a fault, push back in to reset. If the fault situation continues, please contact your Service Engineer or Mopec.

LATCHING SAFETY CUT OUT

Disconnect from electrical supply before continuing.
Always investigate the cause for safety device operation.

Located on the underside of the unit is a small hole labeled “push to reset”. Insert a small diameter screwdriver into the hole until it touches. Press to reset the device.

PORTABLE APPLIANCE TESTING

Portable appliance testing should be carried out by a qualified person.

THIS EQUIPMENT MUST NOT BE FLASH TESTED!

WARRANTY TERMS AND CONDITIONS

1. Mopec warrants to the Customer that the product purchased is free from defects in materials and workmanship.
2. Provided the terms of payment are duly complied with, Mopec undertakes to remedy any original defects arising from faulty materials or workmanship, in any goods manufactured/supplied by Mopec, which under proper and normal conditions of use, may develop within a period of twelve months from the date of delivery.
3. In the case of components which by their nature of application have an unpredictable life, this guarantee shall only be to the extent of the guarantee given by the manufacturers of these articles.
4. Mopec will accept no liability, where in the opinion of the company the defect has been caused by damage due to the Customers failure to follow operating instructions, correct installation, wear and tear, or damage due to the use of spare parts other than those spare parts of Mopec or which are recommended by Mopec, the defect has been caused by alterations or repairs being undertaken by a person(s) other than an authorized representative of Mopec.

5. Any damage claim must be in writing, and give the serial number and description of the goods, order number and date of delivery, and will not apply where any names or serial numbers or other information which may be attached to or inscribed upon the goods have been removed, covered up or defaced in any way.
6. Any goods or parts thereof, which may require repair or replacement, shall be repaired or replaced (at the election of Mopec) at the works of Mopec. The product to be repaired shall be delivered to Mopec by the customer at the Customer's risk and expense. Any such goods or parts will be delivered by Mopec to the Customer free within the United States but if required to be borne by the Customer. All faulty parts removed from the equipment will become Mopec's property. Any other repairs or work by Mopec will be carried out under the terms and conditions for specialist engineers currently in force.
7. In the event of replacement with a new or reconditioned model, the replacement unit will continue the warranty period of the original equipment.
8. If any goods or parts thereof are returned unnecessarily all cost involved, including a charge for inspection, handling and the return carriage must be paid by the sender.
9. Please retain the original packaging over the warranty period.
10. Mopec offers an Extended Warranty Option for instruments in the Mopec equipment range. This includes all parts and labor (exceptions may apply dependent upon the type of equipment) and supply a swap out instrument whilst the customers equipment is repaired.

    The extended warranty is only available at the date of purchase of the equipment. The warranty is immediately upgraded to a "swap out" service and is increased to 24 or 36 months depending on how long the warranty is extended for.

    The "swap out" service covers a loan unit being sent to the customer whilst the faulty unit is returned for repair (or replacement if necessary). A response to a customer request will normally be within 24 hours.

    If equipment is returned and the fault is found to be due to misuse or abuse, this falls outside the terms of the extended warranty and therefore a quotation for the inspection and repair of the equipment will be issued prior to any work being carried out.

    On return of the repaired equipment to the customer, it is the customer's responsibility to ensure that the loan equipment is returned in the same condition as it was received and if required decontaminated with a signed decontamination sheet enclosed with the instrument.

    It is the customers responsibility to ensure that the loan equipment is packed in the packaging provided by Mopec, in order that Mopec can arrange collection of the loan instrument. If the loan instrument is not packed and ready for collection within 48 hours of a repaired instrument being returned to the customer, costs for collection and equipment rental fee will be applied.

NON-WARRANTY INFORMATION

Spare parts shall be made available for a period of 5 years after a piece of equipment is discontinued.

Mopec
800 Tech Row
Madison Heights, MI 48071

EC DECLARATION OF CONFORMITY

We herewith confirm the following products:

Paraffin Wax Dispenser, 7.5L - BK575

Conforms with requirements outlined by the following European Directives:

Low Voltage Directive 2014/35/EU
EMC Directive 2014/30/EU

We confirm the declaration:

Mopec
800 Tech Row
Madison Heights, MI 48071

Conforms with the requirements of the following standards:

BS EN 61010-1:2010
BS EN 61010-2-010:2014
Safety requirements for electrical equipment for measurement, control and laboratory use.
BS EN 61326-1:2013
Electrical equipment for measurement control and laboratory use - EMC requirements.

ROUTINE INSPECTION RECOMMENDATIONS

Mopec recommends that a simple annual inspection be made for all Mopec laboratory appliances in order that any malfunction can be identified and rectified as early as possible. This is to ensure user safety and prolong instrument lifespan.

Recommended checks to be made:

1. Condition of Power Lead: A visual inspection to ensure the insulation is not damaged and that the correct fuse is fitted.
2. Functioning of Heater On Lamp: Heater lamp should be on when the instrument is warming up.
3. Condition of the wax dispenser tank and filter (0.5mm mesh): Both tank and filter should be in good condition with no evidence of corrosion and no damage visible to the filter screen.
4. Dispensing Tap Seal: The dispensing tap should seal correctly, with no occurrence of constantly dripping wax when the tap is not in use.

Note: It is normal for a small quantity of molten wax to remain in the tap after it is closed. This residual wax will drip out, however it will be short lived and will be in very small quantities.

CALIBRATION AND OFFSET INSTRUCTIONS

Wax dispensers have a factory offset value programmed into the temperature controller, this aligns the set temperature with actual factory setting 70˚C +/-1˚C. To calibrate the instrument for your application:

1. Fill the tank with 7Kg pelletized histology wax to the ridge in the tank.
2. Turn on the Wax Dispenser.
3. Set the desired temperature following the Operating Instructions.
4. Allow the instrument to warm up and melt the wax pellets fully.
5. Remove one screw securing the handle on the lid. This allows the handle to be twisted aside revealing a hole in the lid. Refit the lid. This hole allows the insertion of the calibrated measuring probe into the molten wax. At least half your measuring probe length should be immersed in molten wax. We recommend the measuring probe is now left immersed during the following steps to gain uniform probe readings because wax responds slowly to temperature change.
6. Allow the instrument to settle at least 8 hours or overnight with lid on and probe in place to ensure the molten wax is uniformly heated throughout the tank.
7. Take a temperature reading from your probe just as the heater indicator illuminates ON at set temperature, this is the lowest reading and then wait to record a maximum reading. The “calibration temperature” is the value mid-point between these two readings.

There are two ways to adjust the set temperature of the molten wax being heated in the tank:

1. Adjust the set temperature to a new value by reducing or increasing this value until molten wax aligns with your desired temperature.
2. Entering the difference between current set temperature and calibration value to adjust the offset in the controller. For example if actual measured reading 72˚C and set temperature 70˚C, the offset value should be increased by 2˚C. To adjust the controller offset please follow these instructions.

*Please refit the handle when complete.

SETTING CONTROLLER OFFSET PARAMETERS:

1. Press and hold the P button until 0 is displayed.
2. Use the UP arrow button to increase the number to 146.
3. When 146 is displayed press the P button. SPLL is now displayed.
4. Press the DOWN arrow button to cycle through the sub menus until OFS is displayed.
5. When OFS is displayed, press the P button.
6. Using the UP/DOWN arrow buttons enter the new offset and then press the P button.
7. Press the P button again the press and hold the UP arrow to return to the main menu.