

The logo for Revvity, featuring the word "revvity" in a white, lowercase, sans-serif font on a black background. The background of the entire page is a vibrant, abstract graphic of overlapping, translucent spheres in shades of yellow, orange, and green, resembling a molecular or cellular structure.

revvity

USER MANUAL

Tissue Master 125

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This product has been engineered for safety; however, basic safety precautions and common sense must always be demonstrated when using any electrical product.

- Use this product only for its intended purpose.
- Keep this product away from heated surfaces.
- **DO NOT** attempt to modify any part of this product.
- **DO NOT** allow the machine to be submerged in any liquid.
- **DO NOT** use in any setting other than an indoor laboratory.
- **DO NOT** use attachments not recommended by the manufacturer.
- **DO NOT** operate the product if it is damaged in any way.
- **DO NOT** operate the product with the safety ground disconnected.
- **DO NOT** modify the plug or cord that is provided.

WARNING: Reduce the risk of unintentional starting; make sure the machine is OFF before plugging into a power supply.

WARNING: Damaged or worn power cords should be repaired or replaced immediately by a qualified electrician.

WARNING: Improper connection of the equipment can result in a risk of electric shock.

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Proper Equipment Operation

To reduce the risk of electric shock, do not remove the cover. No user serviceable parts are inside. Refer to qualified service personnel if help is required. Use this product only in the manner described in this manual. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

FCC

This device complies with part 15 of the FCC (United States Federal Communications Commission) Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference
- This device must accept any interference received, including interference that may cause undesired operation.

CE/UKCA

This device complies with all CE and UKCA rules and requirements. Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment is marked with the crossed-out wheeled bin symbol, to indicate that this equipment may not be disposed of as unsorted municipal waste.

It's your responsibility to correctly dispose of your equipment at life-cycle end, by handing it over to an authorized facility for separate collection and recycling of waste equipment. It's also your responsibility to decontaminate your equipment in case of biological, chemical or radiological contamination, and so protect the persons involved in the disposal and recycling of the equipment from health hazards.

For more information about where you can dispose of your waste equipment, please contact your local dealer, from whom you purchased the equipment.

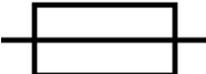
By doing so, you will help to preserve natural and environmental resources and you will ensure that your equipment is recycled in a manner that protects human health.



Table of Contents

Table of Symbols.....	5
Specifications.....	6
Site Requirements.....	6
System Overview.....	7
General Operation.....	8
Stand Mounting the Tissue Master.....	8
Generator Probe Options.....	9
Maintenence.....	9
Disassembly.....	9
Reassembly.....	10
Bearing Removal.....	10
Bearing Run-In.....	10
Troubleshooting.....	11

Table of Symbols

Symbol	Description	Symbol	Description
	Caution. Refer to the User documentation (ISO 7000-0434B)		On (power). (IEC 60417-5007)
	Hazardous voltage; risk of electric shock. (IEC 60417-6042)		Off (power). (IEC 60417-5008)
	Fuse. (IEC 60417-5016)		Consult Instructions for Use. (ISO 7000-1641)
	Alternating current. (IEC 60417-5032)		CE Compliance Mark
	UKCA Certification Mark		WEEE symbol (EN50419:2005)
	RoHS Certification Mark		KC Certification Mark

Specifications

Part Number	TM125-115 and TM125-220
Input Voltage	TM125-115 - 100-115V, 50/60 Hz and TM125-220 - 220-230V, 50/60 Hz
Weight	1.17 lbs. (535 g)
Dimensions	W: 5.47" (13.9 cm), H: 11.5" (29.2 cm)
Power	125 Watts
Speed	Variable from 5,000 - 35,000 rpm (120V) Variable from 10,000 - 33,000 rpm (230V)
Fuse	6 x 30 mm / 4A max
Standards Approval	CE and UKCA Approved

Site Requirements

Operating Environment

4°C to 40°C / 39°F to 104°F, Humidity: 5% to 95% RH

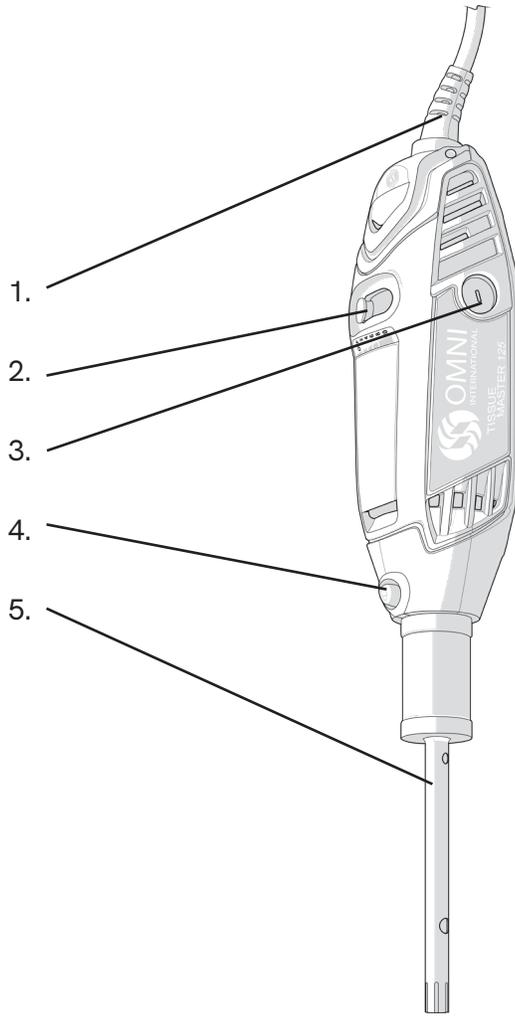
Ambient Air

The system must be located in an area where the ambient air is clean. No emission of solid particles or smoke in the air by adjacent equipment is allowed. The level of dust should be comparable to that of normal laboratory spaces.

External Fire Protection

External fire protection should be installed according to local regulations for equipment operating unattended.

System Overview



- | | |
|---------------------------|----------------------|
| 1. Power Cord | 4. Shaft Lock Button |
| 2. Variable Speed Control | 5. Generator Probe |
| 3. Motor Brushes | |

The Tissue Master 125 consists of the following:

Description	Part Number	Quantity
Motor Drive Unit	TM125 (115V or 230V)	1
Collet Wrench	F2109	1
Probe Cleaning Brush	10327-1	1
Generator Probe	5, 7, or 10 mm Probes Available	1
User Manual	03-203	1

Optional Stand Available (sold separately) - Order No. F22000

General Operation

The unit must be placed on a solid work surface. The work surface also requires a 15 amp circuit and only two units can be placed on this circuit at one time.

- Plug in the power cord.
- Adjust the speed control switch on the front of the unit away from the Off position.
- Set speed using the variable speed control. To increase rpm, move control from left to right.
- **Variable from 5,000 - 35,000 rpm (120V)**
- **Variable from 10,000 - 33,000 rpm (230V)**
- To stop the unit, return the speed control switch to the Off position.

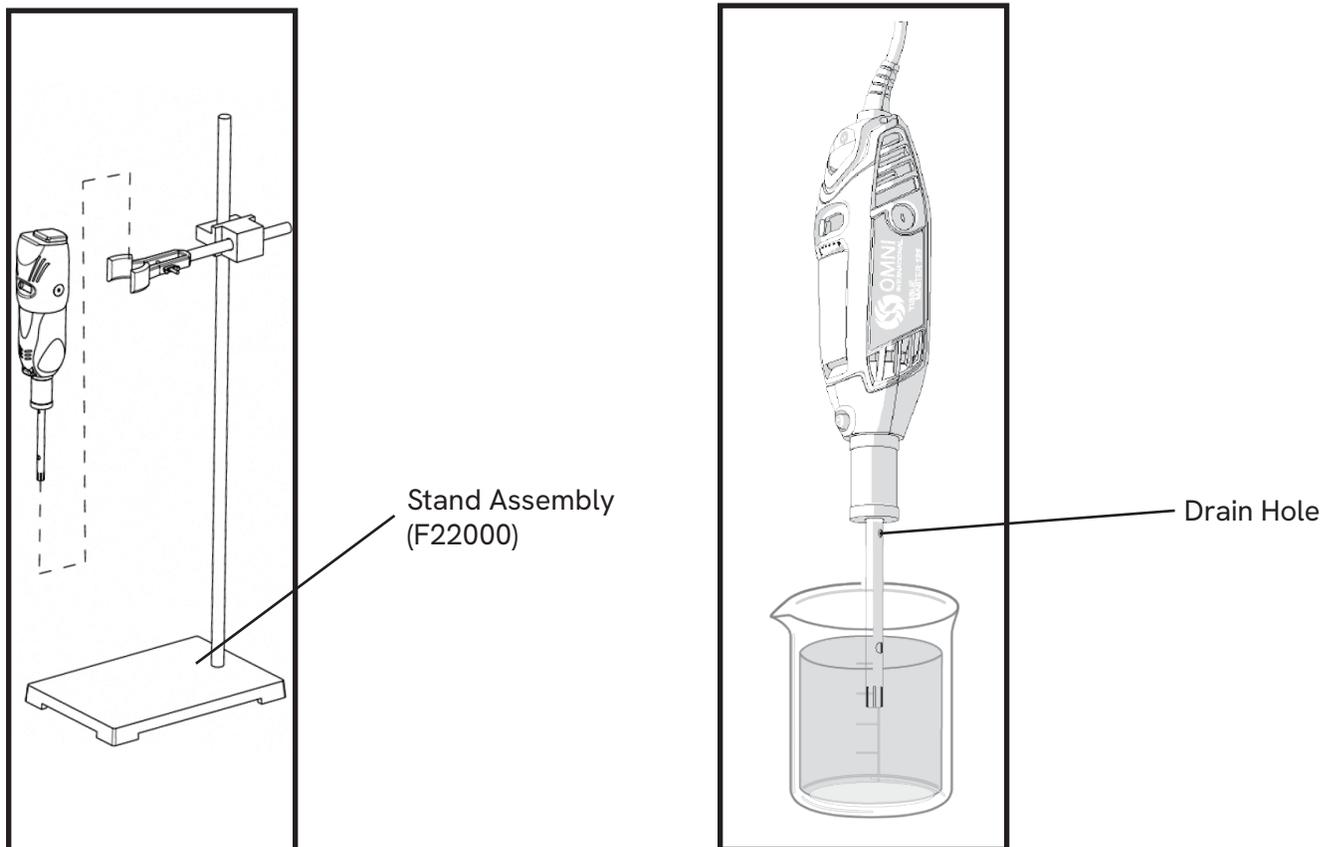
Stand Mounting the Tissue Master

The Stand Assembly (F22000) is sold separately.

- Thread the larger rod onto the base plate.
- Thread the cross-rod into the motor cradle.
- Assemble the clamp to the vertical rod.
- Assemble the cross-rod to the clamp.
- Insert the motor unit into the motor cradle and tighten the thumb screws.

NOTE: Always submerge probe in liquid before starting, never run dry.

NOTE: Do not submerge drain hole or leave probe submerged for an extended time period. Doing so can cause rust to build up on the shaft.



Generator Probe Options

Diameter	Part Number	Type	Particle Size	Processing Range
5 mm	F2107-05	Flat Bottom	Fine	<200 μ L - 5 mL
7 mm	F2107	Flat Bottom	Fine	250 μ L - 30 mL
10 mm	F2107-10	Flat Bottom	Fine	1.5 - 100 mL

Maintenance

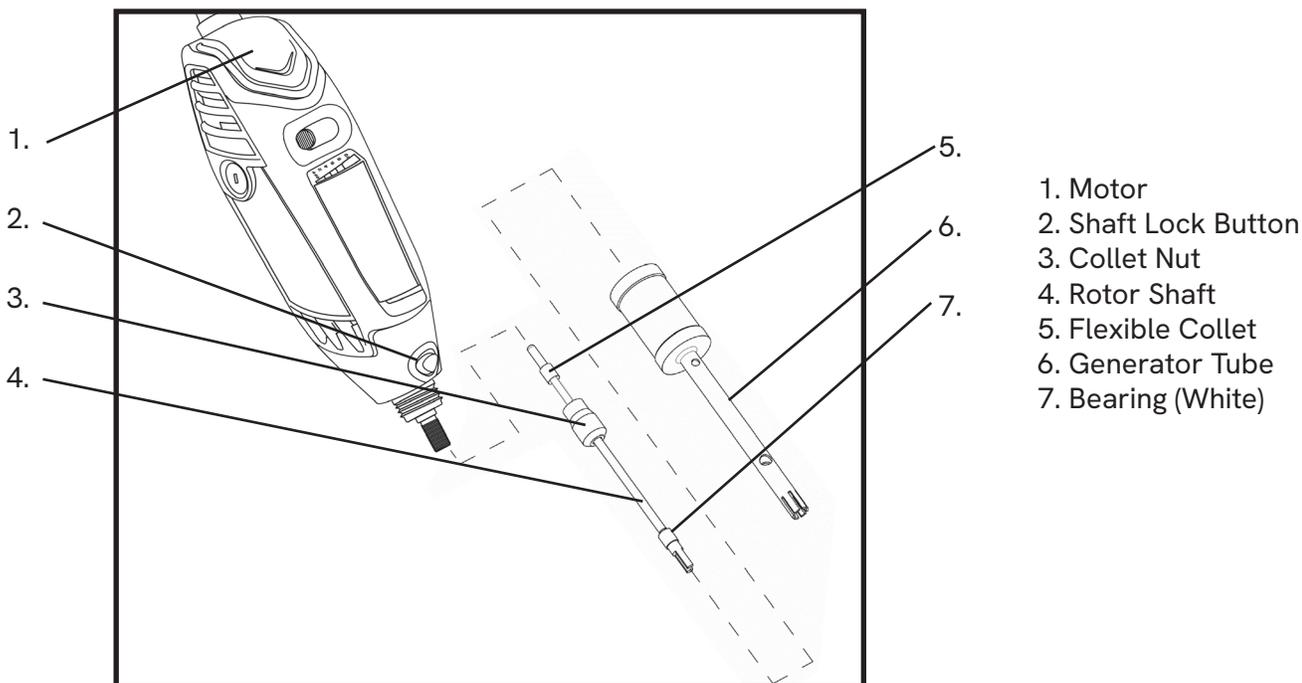
Disassembly

In order to thoroughly clean the components of the Tissue Master, it must be disassembled.

1. Disconnect the MOTOR from the power source.
2. Unthread the GENERATOR TUBE from the motor unit.
3. Hold down the SHAFT LOCK BUTTON. Use the collet wrench to loosen (counterclockwise) and remove the COLLET NUT.
4. Remove the steel ROTOR SHAFT from the COLLET NUT and FLEXIBLE COLLET.
5. If the BEARING is worn, it needs to be replaced (see "Bearing Removal").
6. If the BEARING does not need replacing, wipe the rotor shaft with a cloth or paper towel. Use the included brush to clean inside the generator tube.

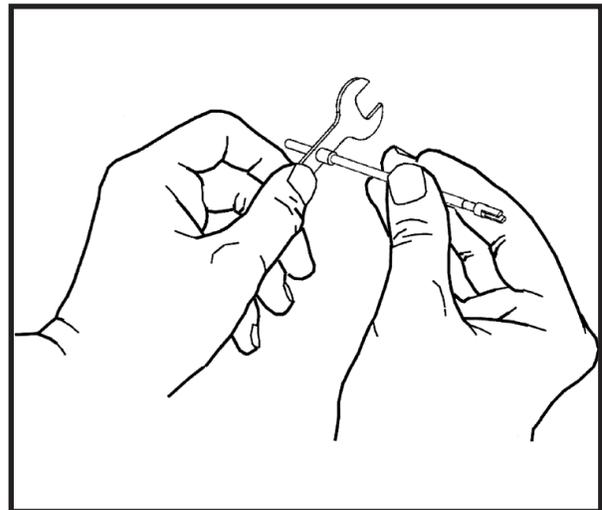
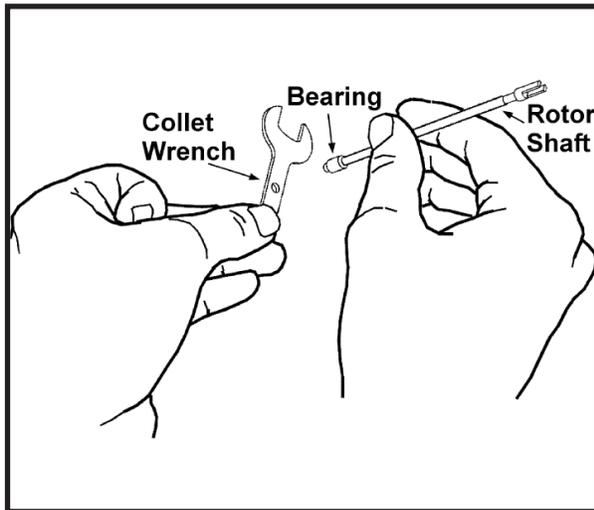
NOTE: To help prevent rusting, wipe down the shaft with dilute (5%) bleach and immediately follow up with 70% ethanol to remove the residue.

NOTE: FluidFilm product is added to the collet nut and threaded motor shaft to prevent rusting.



Reassembly

1. Stand the new BEARING flat on a table surface and press the smaller end of the ROTOR SHAFT through the BEARING.
2. Holding the ROTOR SHAFT off the table, push the ROTOR SHAFT through the hole in the center of the collet wrench and use the wrench to press the BEARING down the shaft until it snaps into place (the bearing should feel loose in the bearing seat). (see figures below)
3. Slide the COLLET NUT onto the ROTOR SHAFT.
4. Slide the FLEXIBLE COLLET about one centimeter onto the ROTOR SHAFT.
5. Check that the unit is disconnected from the power source.
6. Insert the ROTOR SHAFT into the MOTOR unit until it stops. Ensure that the shaft is all the way in the motor unit.
7. Slide the COLLET NUT down the ROTOR SHAFT and thread it onto the MOTOR unit.
8. Hold down the SHAFT LOCK BUTTON and hand tighten the collet nut as much as possible. DO NOT use the collet wrench.
9. Slide the GENERATOR TUBE over the ROTOR SHAFT and thread it onto the MOTOR unit. Firmly hand tighten the tube.
10. See next section for instructions to run-in the new BEARING. (if the bearing was not replaced, the Tissue Master is ready for use)



Bearing Removal

1. Hold the BEARING/ROTOR SHAFT with a pair of pliers.
2. Use a sharp knife to cut the BEARING lengthwise.
3. Peel the BEARING off of the shaft and discard.

WARNING: DO NOT hold the bearing/rotor shaft with bare hands while cutting.

Bearing Run-In

1. If the BEARING was replaced, it must be run-in before use.
2. Immerse 1/3 of the GENERATOR in water and run the MOTOR at a low speed for one minute.
NOTE: DO NOT run unit without tube attached.
3. Increase speed at one minute intervals for three minutes
4. Run at full speed for one minute.
5. Disconnect the unit from the power source.
NOTE: If the probe is excessively noisy, turn the motor off and return to step 1.
6. Remove the GENERATOR TUBE and clean the BEARING with the brush. (DO NOT remove the bearing or collet nut)
7. Re-install the GENERATOR TUBE. The Tissue Master is now ready for use.

Troubleshooting

Problem	Possible Solution
The Tissue Master is plugged in and turned on but is not functioning.	<ul style="list-style-type: none"> - Check power cord connectors. - Check wall socket for power to the outlet.
Motor is turned ON and makes a “buzzing” sound, but is not spinning.	<ul style="list-style-type: none"> - Check that the brushes are not worn and are correctly installed. Replace if necessary.
Motor unit operating speed declines, stalls intermittently, or stops completely.	<ul style="list-style-type: none"> - Check that the brushes are not worn and are correctly installed. Replace if necessary. - Check the condition of the flexible collet and replace if needed.
Excessive noise during normal operation.	<ul style="list-style-type: none"> - Check the condition of the PTFE bearing (white) and replace if needed . - Check the condition of the flexible collet and replace if needed.
Rotor shaft slides out of the bottom of the tube.	<ul style="list-style-type: none"> - Check the condition of the flexible collet and replace if needed.
Excessive noise during run-in of a new bearing.	<ul style="list-style-type: none"> - Turn the Tissue Master OFF and return to step 1 of Bearing Run-In in the Generator Probe and Accessory Maintenance Section.
Teflon bearing wears quickly.	<ul style="list-style-type: none"> - Fluid level may be too low in the tube. - Immerse the probe deeper into the fluid.
Excessive splashing in sample tube.	<ul style="list-style-type: none"> - Fluid level too low for tube size.

WARNING: Any service must be performed by a qualified service technician. This can be either an Revvity Technician or an end user resource.

All parts need to be sourced from the Revvity service department.



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