

**Shandon Finesse®
Microtome Series**



**A solid benchmark
in microtome technology.**

a leader in anatomical pathology

Thermo
ELECTRON CORPORATION

- Ergonomic design**
- Cuts wax or resin**
- Safe precision cutting**
- High-quality sections**
- No routine maintenance**

Shandon Finesse® Microtome Series

The Shandon Finesse Microtome Series features 4 models ranging from fully automated to precision manual.

Shandon Finesse® ME Motorized Electronic Microtome

Sophisticated Components for Simple Handling.

- Choose set-ups for standard wax or resin sectioning
- Display monitors a range of functions including cutting speed, section count, section thickness and advance distance.
- Arrow keys control specimen advance and rewind.
- Retraction feature is selectable.
- Instantly switch between TRIM and SECTION settings.
- Trim and section speeds are independently selectable.
- AUTOLOAD option automatically resets specimen head to a ready position for quickly changing blocks on high-throughput projects.
- ROCK option: specimen head advances by a set amount to trim small specimens without turning the handwheel through full turns.
- Standby Key allows the unit to go into "sleep" mode which saves the customized commands in memory.
- User selected CUTTING SECTOR control maximizes throughput by allowing the return stroke to be faster than the optimized cut stroke.
- 3 cutting modes include continuous cutting.
- View commands in 11 languages

Ergonomically Advanced means "easy to live with".

An ergonomic specialist worked with our engineering team to refine the Finesse design while enhancing operator comfort.

- Wide, Curved Arm Rests
- Precision Response, Free-running, Balanced Flywheel
- Operational From Front or Side Positions





Ice-cooled Tray



Dry-cooled Tray

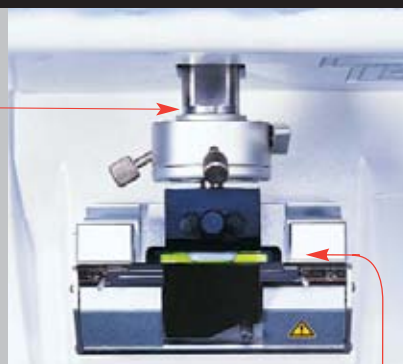
Organizer Cold Trays

The top of the unit holds an ample organizer tray. Two types of removable cold trays are available. (Sold separately. See page 9.)

View From Above

Specimen Advance

incorporates a unique shaft design which stabilizes the specimen holder through its full extension.



Specimen Orientation Backlight is a cool, green light in the base to assist in aligning the specimen with the knife.



Fixed Base Uses A Variety of Knife Holders

Stage accepts disposable blades, solid knives and triangular or Ralph glass knives. (See holders on page 9.)



Debris Tray

Deep, removable tray cleans easily.

Finesse ME Descriptions

Finesse ME Descriptions		Order No.
Finesse ME Motorized Electronic	110-120V, 50/60 Hz	77500002
	220-240V, 50/60 Hz	77500001

⚡ A low voltage kit is available separately. See accessories on page 9.

Finesse ME Features

Motorized Cutting	Standard
Total Specimen Advance	35 mm
Cutting Stroke	65 mm
Maximum Advance Speed	2,400 µm / s
Section Thickness Range	0.5 - 100 µm
Trim Thickness Range	2 - 100 µm
Retraction Range	0 - 125 µm
Section Counter	Standard
Distance Display	Standard
Multi-Lingual Display	Standard
Knife Angle Position Locator	Standard
3 Cutting Modes	Standard
Specimen Orientation Light	Standard
Cassette Organizer Tray	Standard

Finesse ME Physical Specifications

Overall Dimensions (W x D X H)*	19" x 23" x 13" (480 x 590 x 330 mm)
* Dimensions include Width with handle up and Depth with connectors at rear.	
Weight	88 lbs. (40 kg)
Power	150VA

Included with Product

Fine Orienting Head (see page 9)	77510166
Standard Quick Release Specimen Clamp (see page 8)	A78110200
Operator Manual	77510250

Specify Knife Holder at the time of order. NOT INCLUDED WITH MICROTOME.
See page 9.

Agency Approvals

IEC 1010, CSA, NRTL/C, CE (IVDD Compliant)

Warranty

One Year Parts and Labor

Motor Speed

Adjusts the speed of the stroke.

Coarse Advance Wheel

Allows the user the option of manually advancing the block to the knife edge.



Brake and Cutting Action Selector

User may brake at any position on the wheel or select MANUAL cutting action.



Folding Handle

Handle folds down for convenience when operating in automatic mode.



Knife Locking Pin

Secures the blade holder to the fixed knife stage.



Emergency Stop

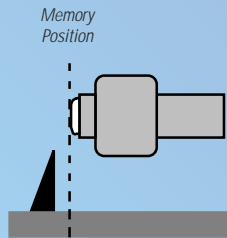
Immediately cuts power to the motor.

Innovative, Practical Features

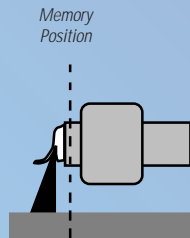
Autoload Streamlines Repetitive Jobs

The autoload feature greatly reduces repetitive movements by the operator. With a press of the autoload button, the block quickly advances to a preset trim position without cranking a wheel.

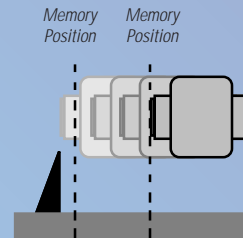
When trimming and sectioning are complete, the operator touches the autoload button to move the specimen head back to the unload position where the operator may safely change to a fresh block.



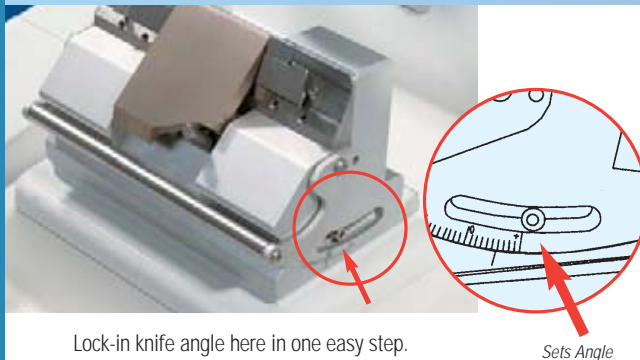
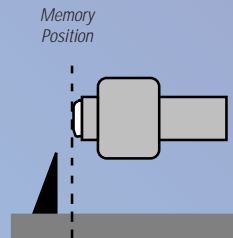
1. Set the "Memory Position" for the AUTOLOAD.



2. Trim and section as usual.



3. Press AUTO to make the specimen head rewind 5 mm.



Lock-in knife angle here in one easy step.

Sets Angle

Find The Correct Knife Angle Time After Time

The Knife Angle Position Locator allows the user to precisely select an angle for a disposable or solid knife. Once the angle is set and locked, the holder may be removed for cleaning and replaced at the same angle without further adjustment.



Stable Specimen Advance System

New design incorporates a unique undercarriage support on the drive shaft which stabilizes the specimen holder through its full extension.

Meets The Thermo Electron Corporation Reliability Test

Shandon Finesse® has passed a thorough series of tests to ensure that it will withstand the constant, high-volume workload of today's busy laboratories. Finesse also met strict accuracy standards by consistently cutting 0.5 µm sections which were verified through electron microscopy.

Finally, laboratory professionals challenged the unit under real laboratory conditions, and the Finesse handled the workload with ease.

The Finesse meets all applicable sections of international safety standard IEC 1010. It is CE marked (including IVD) and CSA, NRTL/C approved.



Shandon Finesse® E Electronic Microtome

The Finesse E is a precision rotary microtome that provides automated specimen advance with manual cutting. The precision response, light, balanced flywheel is easy to operate.



Debris Tray

Deep, removable tray cleans easily.



Coarse Advance Wheel

Allows the user the option of manually advancing the block to the knife edge.

Knife Locking Pin

Secures the blade holder to the fixed knife stage.

Emergency Stop

Immediately cuts power to the motor.



Finesse E Descriptions

Finesse E Descriptions	Order No.
Finesse E Electronic	110-120V, 50/60 Hz ✕ 77500012
	220-240V, 50/60 Hz 77500011

✕ A low voltage kit is available separately. See accessories on page 9.

Finesse E Features

Total Specimen Advance	35 mm
Cutting Stroke	65 mm
Maximum Advance Speed	2,400 $\mu\text{m} / \text{s}$
Section Thickness Range	0.5 - 100 μm
Trim Thickness Range	2 - 100 μm
Retraction Range	0 - 125 μm
Section Counter	Standard
Distance Display	Standard
Multi-Lingual Display	Standard
Knife Angle Position Locator	Standard
Specimen Orientation Light	Standard
Cassette Organizer Tray	Standard

Finesse E Physical Specifications

Overall Dimensions (W x D X H)*	19" x 23" x 13" (480 x 590 x 330 mm)
* Dimensions include Width with handle up and Depth with connectors at rear.	
Weight	88 lbs. (40 kg)
Power	150VA

Included with Product

Fine Orienting Head (see page 8)	77510166
Standard Quick Release Specimen Clamp (see page 8)	A78110200
Operator Manual	77510250

Specify Knife Holder at the time of order. NOT INCLUDED WITH MICROTOME.
See page 9.

Agency Approvals

IEC 1010, CSA, NRTL/C, CE (IVDD Compliant)

Warranty

One Year Parts and Labor





Shandon Finesse® 325 Manual Rotary Microtome

The Finesse 325 is a manual rotary microtome for routine paraffin sectioning. It has a lightly balanced flywheel with a handle designed to address repetitive stress injury. The Finesse 325 includes an integral debris tray, organizer storage tray and a resettable section counter. The retraction feature is standard and may be disengaged at the user's request. The unit is supplied with a quick release cassette clamp and "x-y" orientation head as standard. Disposable blades or standard microtome knives may be used with this unit.

Features

- Accu-Feed system providing high quality reproducible sections throughout the length of specimen travel.
- Removable deep debris tray for ease of cleaning.
- The top of the instrument has removable organizer tray for cassette organization.
- Precision response, free-running flywheel with ergonomic handle.
- Brake may be activated at any position of the flywheel.

Blade Holders for Finesse 325

Order Blade/Knife Holder separately

Universal

- Accepts standard "C" or "D" profile knife up to 185 mm.
- May be used with standard steel knives or with disposable blade holder. Order No. 40 or 47.



High-Profile

- This holder will accept either standard or heavy-duty high-profile blades, providing a wide range of tissue sectioning.



Low-Profile

- Use with low-profile disposable blades.



Finesse 325 Descriptions

Finesse 325 Rotary

Order No.

A78100001

Finesse 325 Features

Retraction may be disengaged at the user's discretion.

Total specimen advance is 18 mm.

Supplied with orientation head, quick-release clamp, microtome oil, dust cover, and operator's manual.

Audible and visual specimen travel alarm/indicator.

Specimen adjustment is +/- 5 degrees using X-Y micro adjustment.

Finesse 325 Optional Accessories

A variety of specimen holders/vices available. See page 9.

Broad range of premium disposable blades and solid knives available.

Finesse 325 Physical Specifications

Overall Dimensions (W x D x H)* 410 x 500 x 290 mm

Weight 88 lbs. (40 kg)

Warranty One Year Parts and Labor

Agency Approvals

CE (IVDD Compliant)



Shandon Finesse™ 315 Low-Cost Precision Microtome

The Finesse 315 low-cost precision microtome is ergonomically designed to consistently produce high quality routine paraffin sections without user strain or fatigue.

The Finesse 315 is supplied complete with a simple knife holder (#A78110103), a steel knife (C-profile, 160 x 34 x 10 mm) and Vise (#0201).

The modern design incorporates the unique Accu-Feed System

which provides support throughout the full length of the specimen travel. This ensures high quality and reproducible sections.



Finesse 315 Descriptions

Finesse 315 Low-Cost Precision

Order No.

A78100011

Finesse 315 Features

Accu-Feed specimen advance is selectable in 1 micron steps from 1 to 30 microns.

Coarse specimen advance is 200 microns per revolution.

Total specimen advance is 18 mm.

Visual indicator of specimen advance.

Supplied with fixed head, knife holder, steel knife, and vise as standard.

Knife guards are fitted for user safety.

Included with Finesse 315

Finesse 315 Precision Rotary Microtome

Simple knife holder (one piece)

Steel knife (C-profile, 160 x 24 x 10 mm)

Vise (0201)

Finesse 315 Optional Accessories

Specimen holders, quick-release cassette holders, and vises as options.

A full range of additional accessories are available, including blade holders, for solid knives and disposable blades, all with built-in blade guards for safety.

Finesse 315 Physical Specifications

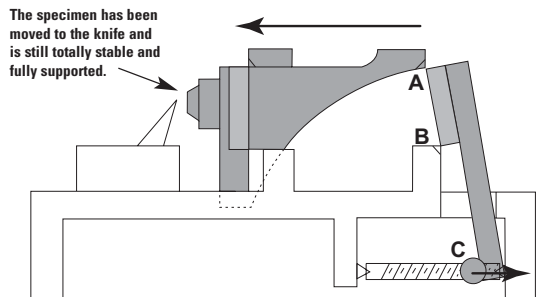
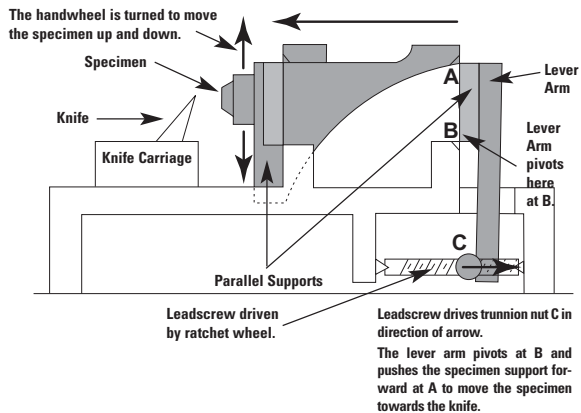
Overall Dimensions (W x D x H) 410 x 500 x 290 mm

Weight 88 lbs. (40 kg)

Warranty One Year Parts and Labor

Agency Approvals

CE (IVDD Compliant)



AVAILABLE OUTSIDE OF NORTH AMERICA ONLY.





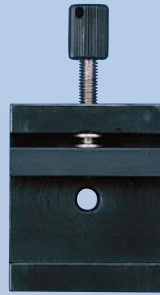
60 x 55 Vise
(77510167)

Max Open: 55
Finesse ME and E only
Fits Knife Holders
77510171 → 77510173



50 x 45 Vise
(0201)

Max Open: 45
Min Open: 28



50 x 30 Vise
(0214)

Max Open: 30
Min Open: 13



25 x 30 Vise
(0313)

Max Open: 30
Min Open: 16



Standard Quick Release Clamp +
(A78110200)

+ Included with Unit
CE IVD



10 mm Spacer Bar
(0215)



Large V Spacer
(0216)



Small V Spacer
(0220)



Thin Foil Specimen Holder
(0223)



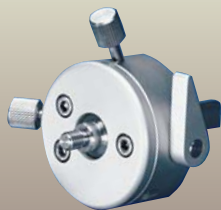
JB4 Resin Clamp
(77510178)



EBH-2 Resin Clamp
(A77510181)



Specimen Orienting Heads



The Fine Orienting Head +
is included with the microtome. It allows x-y orientation of the specimen.



The Fixed Orienting Head
Provides rigid support when sectioning hard tissues and resins. *(Sold separately).*

Orienting Heads (Finesse ME and E Only)	Order No.
Fine Orienting Head+	77510166
Fixed Orienting Head	77510164

+ Item 77510166 is included with microtome.

Specimen Vices and Clamps	Order No.
Standard Quick Release Specimen Clamp+	A78110200
Vise	60 x 55 mm (Finesse ME and E Only) 77510167
Standard Vise	50 x 45 mm 0201
	50 x 30 mm 0214
	25 x 30 mm 0313

+ Item A78110200 is included with microtome.

Vise Accessories	Order No.
10 mm Spacer Bar	10 x 50 mm 0215
V Spacer	Large Fits 0201 and 0214 0216
	Small Fits 0201 and 0214 0220
Thin Foil Specimen Holder	Fits 0214 0223
JB4 Resin Clamp	Fits 0201 77510178
EBH-2 Resin Clamp	Fits 0201 A77510181

Vise Accessories sold separately. Not included with microtome.





NEW

Disposable Blade Holder ◀▶

NEW Synergistic Design gives superior blade stability while sectioning to eliminate vibration and chatter.

Blade Guard flips up to cover edge of blade when changing blocks. Has Knife Angle Position Locator.

CE IVD



Wide Clamp Plate Disposable Blade Holder ◀▶

Large specimens can be cut on the Finesse ME and Finesse E using the Wide Clamp plate knife holder and the 60 x 55 mm Vise.

CE IVD

◀▶ Solid Knife Holder



CE IVD



Accepts commonly used knives. Knife Guard covers unused parts of blade edge. May be fully closed to cover entire edge. Has Knife Angle Position Locator.

◀▶ Glass Knife Holders



Triangular Glass Knife Holder

CE IVD



Ralph Glass Knife Holder
accommodates 25 mm and 38 mm knives.

Knife Holders	Order No.
Disposable Blade Holders	
Low Profile	A77510263
High Profile	A77510265
Wide Clamp Plate Disposable Blade Holder	
With insert to accommodate both High and Low Profile Blades.	77510173
Solid Knife Holder	77510171
Glass Knife Holder	
Triangular	77510170
Ralph 38 mm (includes 25 mm insert)	77510168

◀▶ Knife Holders sold separately. Not included with Microtome. Order one when ordering Finesse unit.

Extended Warranty Service is available on all Finesse Microtomes.

Contact your Thermo Electron Anatomical Pathology representative for details.

Optional Accessories



Cold Light Source

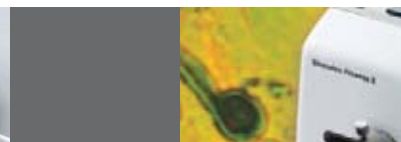
Directs two powerful beams of light to the specimen. Fiber optic lights do not affect specimen temperature and are mounted at the tip of gooseneck shafts for maximum flexibility.

Optional Accessories	Order No.
Cold Point Light Source	
110V	77510262
230V Euro Version	77510252
230V U.K. Version	77510261
Service Manual	77510162
Organizer Cold Trays	
Ice-Cooled Trays See Page 3.	77510174
Dry-Cooled Trays See Page 3.	77510175

Low Voltage Adapter Kit ✕

Specify at time of order.
Must be installed by a qualified technician.

77510179



Disposable Blades

Low Profile

Description	Special Use
<p>Shandon MX35 Premier + Low Profile Disposable Blade</p> <p>80 x 8 x 0.25 mm 30° Cutting Angle</p>	<p>NEW</p> <p>Sharper edge with increased durability. Provides improved performance for sectioning hard tissues and high-quality thin sections. Tests show 10-20% increase in blade life.</p> <p>CE IVD</p>
<p>Shandon MX35 Premier Low Profile Disposable Blade</p> <p>80 x 8 x 0.25 mm 35° Cutting Angle</p>	<p>Routine applications with a high proportion of harder tissue. Increased durability.</p> <p>CE IVD</p>
<p>Shandon MB35 Premier Low Profile Disposable Blade</p> <p>80 x 8 x 0.25 mm 35° Cutting Angle</p>	<p>Routine applications. Has consistent edge sharpness for high quality thin sections. Superior edge stability.</p> <p>CE IVD</p>
<p>Shandon MB22 Premier Low Profile Disposable Blade</p> <p>80 x 8 x 0.25 mm 22° Cutting Angle</p>	<p>Use for applications where extremely thin, high-quality sections are required such as renal biopsies and lymph nodes.</p> <p>CE IVD</p>

High Profile

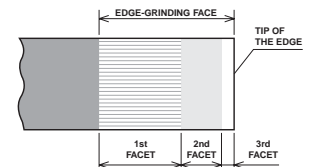
Description	Special Use
<p>Shandon HP35 High Profile Disposable Blade with PTFE Coating</p> <p>75 x 14 x 0.31 mm 35° Cutting Angle</p>	<p>NEW and IMPROVED</p> <p>Routine applications with a high proportion of harder tissue. Increased durability with easier ribboning.</p> <p>CE IVD</p>
<p>Shandon HP35n High Profile Disposable Blade without PTFE Coating</p> <p>75 x 14 x 0.31 mm 35° Cutting Angle</p>	<p>Routine applications with a high proportion of harder tissue. Increased durability.</p> <p>CE IVD</p>



Structure of a Blade Edge

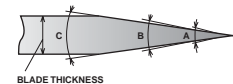
Superior Edge Profile

The shape of the blade edge is optimized to provide excellent sectioning performance, ensuring easier ribboning and improved sharpness.



Coating

Coating is optimized to provide durability and easy ribboning.



Disposable Blades Description	Packaging	Reorder No.
Shandon MX-35 Premier + Low Profile 30° Cutting Angle	50/Pack	NEW 3052835
Shandon MX-35 Premier Low Profile 35° Cutting Angle	50/Pack	3051835
Shandon MB-35 Premier Low Profile 35° Cutting Angle	50/Pack	3050835
Shandon MB-22 Premier Low-Profile 22° Cutting Angle	50/Pack	3050822
Shandon HP-35 High Profile 35° Cutting Angle	50/Pack	3150734
Shandon HP-35n High Profile 35° Cutting Angle	50/Pack	3152735





Microtome Knives CE IVD

Tungsten Carbide Microtome Knife

- D-profile has tungsten carbide tip for extra strength and support to the cutting edge.

Standard Microtome Knife

- Superior quality surgical steel is thoroughly tempered and individually tested for hardness.
- Round back design is precisely balanced and shaped.

Premium Microtome Knife

- Each knife individually tested for the proper hardness.
- The highest quality microtome knife made of superb quality, fine-grain tool steel.
- Facet is precisely honed then stropped carefully to make it ready-to-use when received.
- Flat-back design is exactly balanced and shaped.
- Knife is made to fit all makes of rotary microtomes and sliding microtomes.

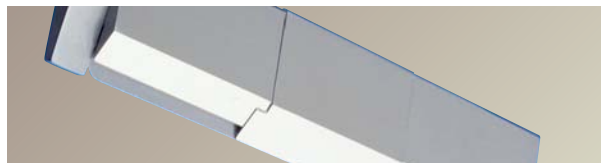
Stainless Steel Microtome Knives

- Ideal for cryostats. Round-back design.
- Replaces carbon steel wherever moisture is a problem to prevent minute oxidation which may occur on ordinary microtome knife edges.
- Resists corrosive action.
- Hardened throughout to the exact temper for the best quality in edge efficiency, and tested for hardness.

Microtome Knife Description	Packaging	Reorder No.
D-Profile Microtome Knife Tungsten Carbide Tip, Blade Length: 160 mm	Each	5601006
Standard Microtome Knife Round Back, Blade Length: 125 mm	Each	7702
Stainless Steel Back For 125 mm Standard Microtome Knife 7702	Each	77022
Standard Microtome Knife Round Back, Blade Length: 185 mm	Each	7703
Stainless Steel Back For 185 mm Standard Microtome Knife 7703	Each	77023
Standard Microtome Knife Round Back, Blade Length: 250 mm	Each	7704
Stainless Steel Back For 250 mm Standard Microtome Knife 7704	Each	77024
Premium Microtome Knife Flat-back, Blade Length: 120 mm	Each	770120
Premium Microtome Knife Flat-back, Blade Length: 180 mm	Each	770180
Stainless Steel Microtome Knife Round-back, Blade Length: 125 mm	Each	7619
Stainless Steel Microtome Knife Round-back, Blade Length: 185 mm	Each	7719

Disposable Blade Holders

CE IVD



Stainless Steel

- All stainless steel construction.
- Holds most standard high- and low-profile blades.
- Fits most standard microtomes and cryostats.



Spring-Loaded

- Spring loaded clamp enables easy knife changes.
- Shaped like standard microtome knife to fit most standard microtomes and cryostats.
- Holds the following disposable microtome blades: 1001259 (thin), 1702 (heavy duty) and 49 (standard).

Description	Length	Order Number
Stainless Steel Disposable Blade Holder	170 mm	40
Spring-Loaded Disposable Blade Holder	130 mm	47

High-Profile Disposable Blades CE IVD



Description	Size (mm)	Cut Angle	Order Number
Premium with PTFE Coating	75 x 12.5 x 0.12	35°	1001593
Premium	75 x 12.5 x 0.12	35°	1001259
Premium Heavy-Duty	75 x 12.5 x 1.0		1702
Standard	76 x 14 x 0.5		49

Shandon Sectioning Accessories



Shandon Flotation Baths

Paraffin Section Flotation Bath

- The Paraffin Section Flotation Bath holds water at a constant temperature to flatten paraffin wax or resin sections, which are lifted onto a microscope slide.
- Controls have been recessed. A drop-on stainless steel lid is provided to cover the bowl when not in use.
- The deep tapered bowl is made from stainless steel to offer maximum resistance against corrosion. Both the bowl and the upper casing have a matte-black PTFE coating providing visual contrast against wax sections. The lower steel casing has a resistant epoxy coating.

Circular Paraffin Section Flotation Bath

- The Circular Paraffin Section Flotation Bath is a compact unit, which keeps water at a constant temperature to flatten paraffin wax or resin sections which are lifted onto a microscope slide.
- The bath is made from aluminum with an anodized matte-black finish. It has a wide rim with ample space for slide drying.

Description		Order No.
Paraffin Section Flotation Bath	110-120V 50/60Hz	3120070
	220-240V 50/60Hz	3120058

Description		Order No.
Circular Paraffin Section Flotation Bath	110-120V 50/60Hz	3120071
	220-240V 50/60Hz	3120059

Shandon PARA TRIMMER®

The Shandon PARA TRIMMER is designed to remove excess wax from the outside of a tissue cassette after embedding. Paraffin should be removed to properly seat the block in the quick-release clamp or vise to achieve the best section quality from your microtome. The Shandon PARA TRIMMER has a heated surface with ridges. The outside of the block is slid across the heated surface scraping the softened wax from the cassette. Multiple blocks may be passed across the surface at one time.

Patented, compact, dual voltage unit is 110-220V 50/60Hz (120VA) and is designed to meet international electrical standards. The Shandon PARA TRIMMER measures 6.75" x 8.5" x 5.25" (17.2cm x 21.6cm x 13.3cm) weighing 2 pounds (1kg).

Description	Order No.
Shandon PARA TRIMMER, Dual Voltage 110-240V 50/60Hz	B3120205



Leading the world in high-tech instruments, Thermo Electron Corporation helps life science, laboratory and industrial customers advance scientific knowledge, enable drug discovery, improve manufacturing processes, and protect people and the environment with instruments, scientific equipment, and sample-in/knowledge-out solutions. Based in Waltham, Massachusetts, Thermo Electron Corporation has revenues of more than \$2 billion, and employs approximately 11,000 people in 30 countries worldwide.