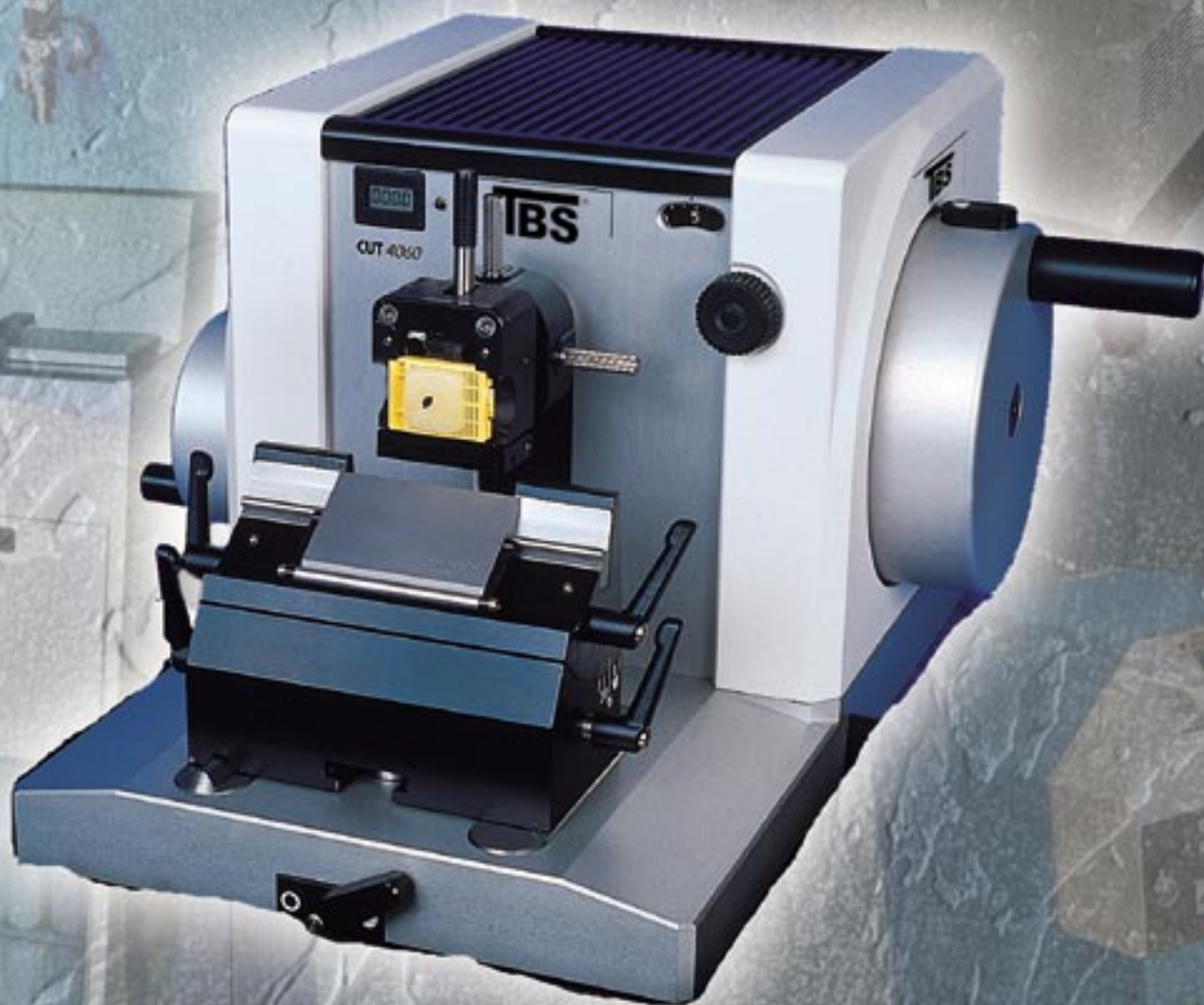


CUT™ Microtomes



TBS®

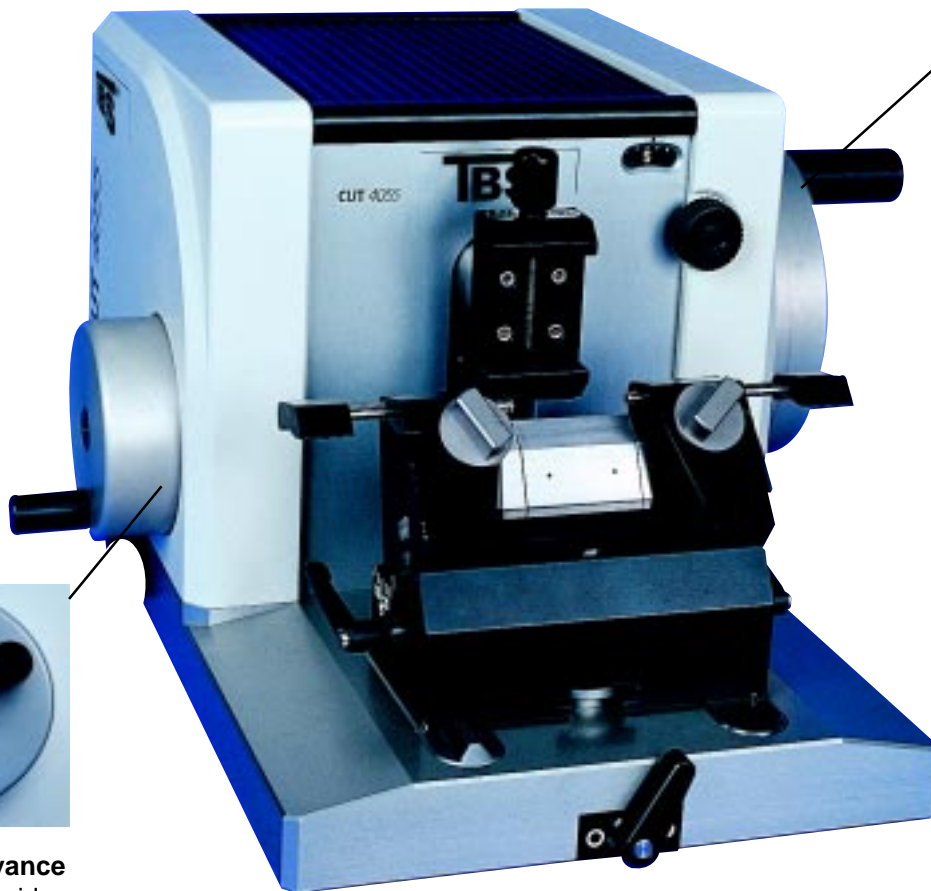
SOLID CONSTRUCTION

CUT4055 Rotary Microtome

The CUT4055's **basic design** creates a user-friendly microtome that is built to last and ideal for use in a high production laboratory setting. The solid construction and precision engineering make it a true work-horse.



Rotation of the **fine advance hand-wheel** simultaneously provides both vertical movement of the specimen arm past the cutting surface and precise horizontal movement for specimen advance.



The **coarse advance hand-wheel** provides precise and efficient horizontal specimen advance and return. It can be ordered to provide forward movement of the specimen arm when turned in either a clockwise (forward) or counter-clockwise (reverse) direction.

CUT4055 Microtome shown with a Fixed Adapter Piece, Standard Object Clamp, Universal Knife Holder Base, Standard Knife Holder and **SHUR/Sharp™** Disposable Blade Holder

Customize any CUT™ Microtome to optimize the performance of one specific function or an array of disciplines. Use the same base unit and select specific accessories to meet the demands of the application.

ADVANCED TECHNOLOGY

CUT4060 Retracting Microtome

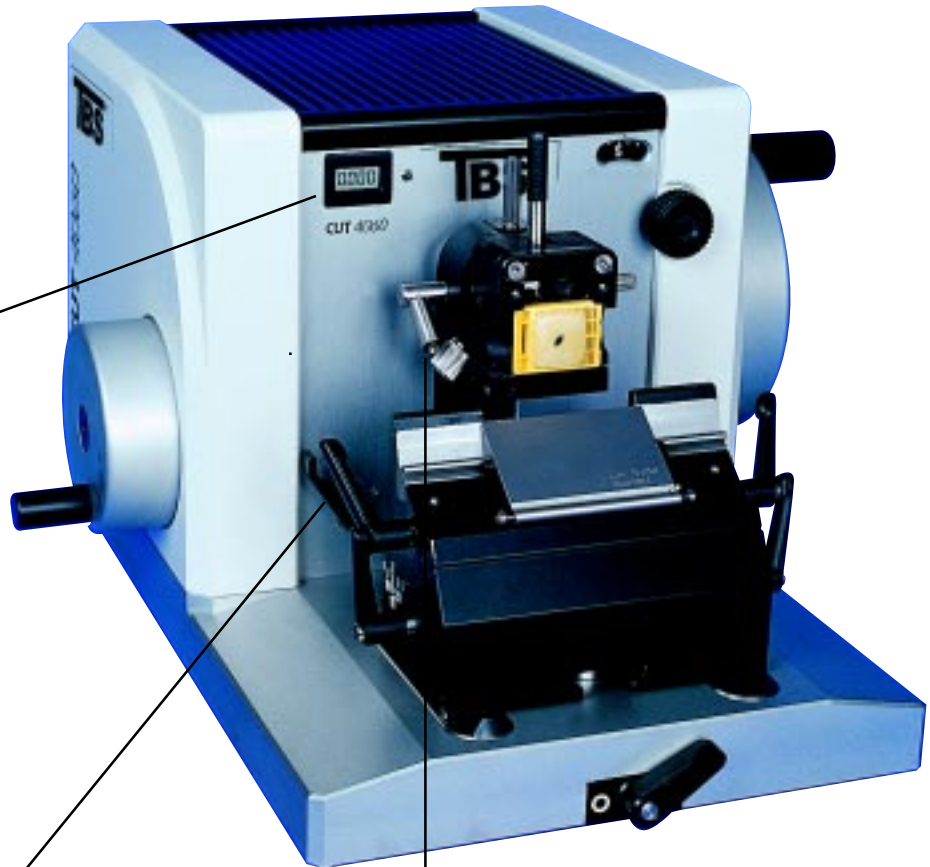
All of the design features of the CUT4055 plus . . .



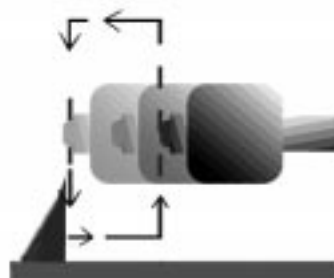
Integrated **LCD Information Display** counts the number of revolutions of the fine advance hand-wheel and resets instantly with the push of a button.



The **Autotrim** feature accelerates trimming by providing three pre-set positions for controlled coarse advance of 10 μ m, 20 μ m, and 30 μ m.



CUT4060 Microtome shown with x-y object orientation set, Universal Cassette Clamp (Quick Release), Universal Holder Base, Disposable Blade Holder and Disposable Blade Clamping Plate



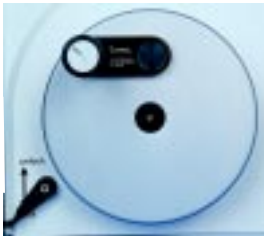
Mechanical Retraction of the specimen arm prevents contact between the specimen and blade during the return stroke. This eliminates the accumulation of debris on the back edge of the blade, extends blade life and improves sectioning consistency.

ERGONOMICALLY DESIGNED

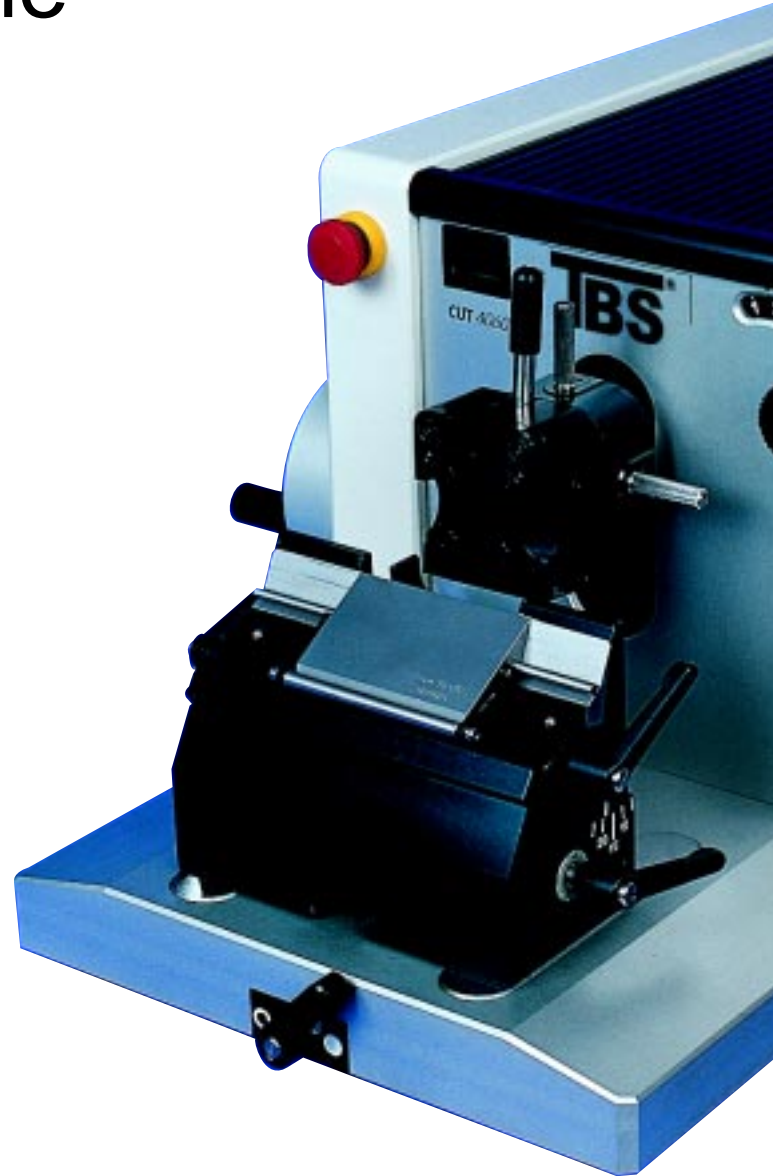
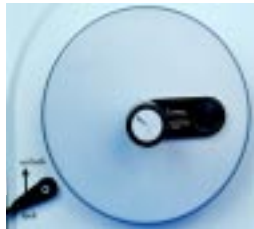
CUT4060RE Electronic Microtome

Built with the user and specimen in mind, the motorized CUT4060RE sections automatically for operator comfort and protection, or can be operated manually for the specimen that requires a special touch.

For **manual** operation, the handle of the hand-wheel remains in the normal position. The motor drive is disengaged allowing friction-free movement. The hand-wheel can be locked in any position.



For **motorized** operation, the handle is rotated to the center of the hand-wheel to activate the motor. The hand-wheel is secured in position to allow safe exchange of specimens.



SAFETY/QUALITY STANDARDS

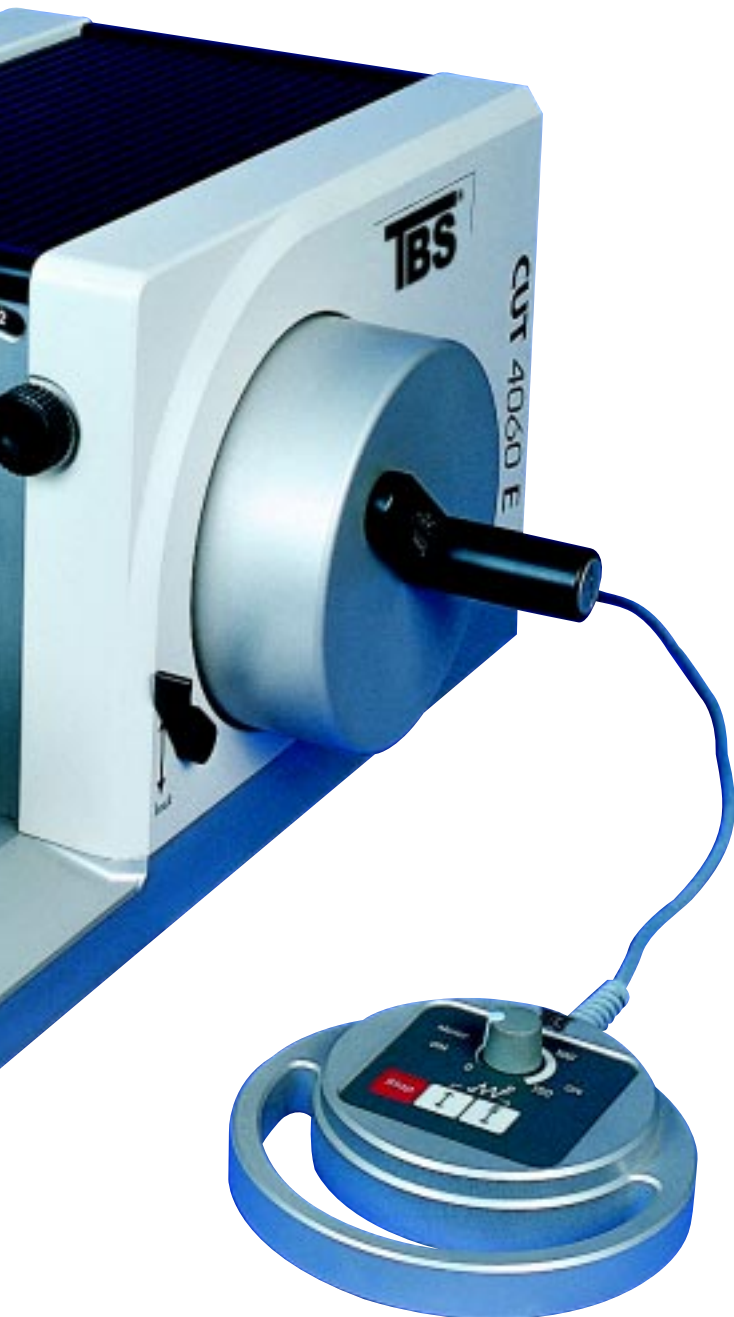
The CUT™ Microtomes have been tested by a registered independent body to rigorous international quality and safety standards and has been found to be in compliance with the following regulations/specifications:



INDEPENDENTLY CERTIFIED TO:
CE • IEC 1010-1 • UL 3101-1 • CSA C22.2, No. 1010-1



To Reduce Motions That Contribute To Work-Related Musculoskeletal Disorders



CUT4060RE Microtome shown with x-y object orientation set, Universal Cassette Clamp (Quick Release), Universal Knife Holder Base, Disposable Blade Holder and Disposable Blade Clamping Plate for Low-Profile Blades

The **CUT4060RE** combines the design features of the CUT4060 with a motorized cutting stroke that can be customized to simulate a manual motion, leaving the operator's hands free to manipulate and guide the sections. The motor drive was engineered to provide the utmost in accuracy, efficiency and precise sectioning. The fine advance hand-wheel provides easy switchover between manual and motorized operation.

A readily accessible **emergency stop button** instantly halts the motor drive when activated. For safety, reactivation is possible only after resetting the instrument to ensure that the corrections were completed.



The motor drive is controlled by a detachable, chemical resistant **handpad** that provides start/stop, speed control from 0 to 150 rpm and selection of intermittent, single stroke or continuous sectioning modes. The extra long cable allows placement selection for user comfort.



The motorized operations can also be actuated by the optional **footpedal** to provide single stroke or continuous sectioning modes, or it can be used to stop the motor drive. Metal housing helps to eliminate accidental activation.



PRECISION ENGINEERING

CUT™ Microtomes offer outstanding control and precision when sectioning biological specimens embedded in either paraffin or plastic, and materials for industry. Comfortably accessible controls and a selection of optional features and accessories combine to enhance productivity with the least amount of effort.

Each **precision-engineered microtome** is mounted on a one piece metal base and enclosed in a polycarbonate housing. A debris protector shields the internal mechanisms. A comprehensive line of knife and accessory options can adapt any CUT™ model to produce sections for a wide variety of applications.

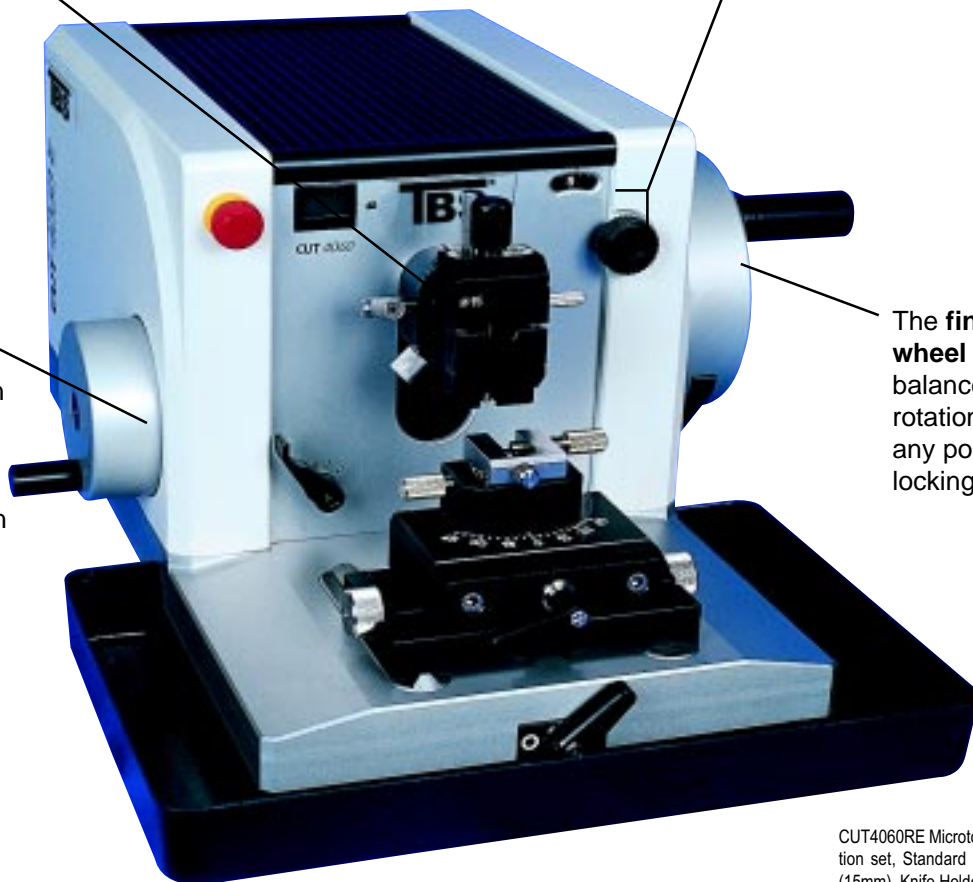


The **specimen arm** has a 70mm vertical stroke and a 40mm horizontal extension. Powerful over-dimensional cross roller-bearing guide-ways provide exceptional stability.



The **section thickness indicator**, which can be set from 0.5 to 60µm, indicates the fine advance of the specimen arm with each complete revolution of the hand-wheel.

The **coarse advance mechanism** is protected from over-extension when the specimen arm has reached the full extent of its travel in either direction. The **hand-wheel** can be ordered to provide forward movement of the specimen arm when turned in either a clockwise (forward) or counter-clockwise (reverse) direction.

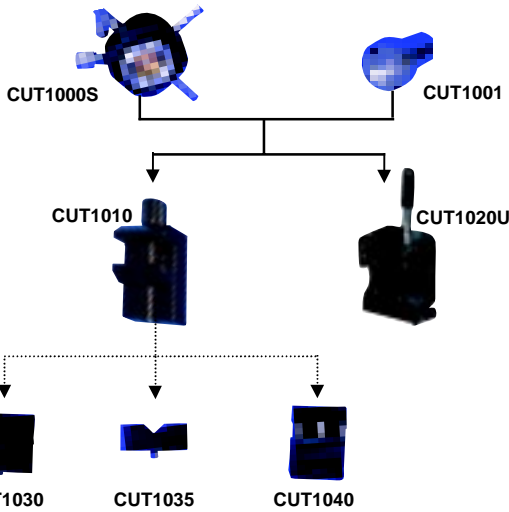


The **fine advance hand-wheel** is perfectly counter-balanced for smooth rotation. It can be locked in any position with a positive locking mechanism.

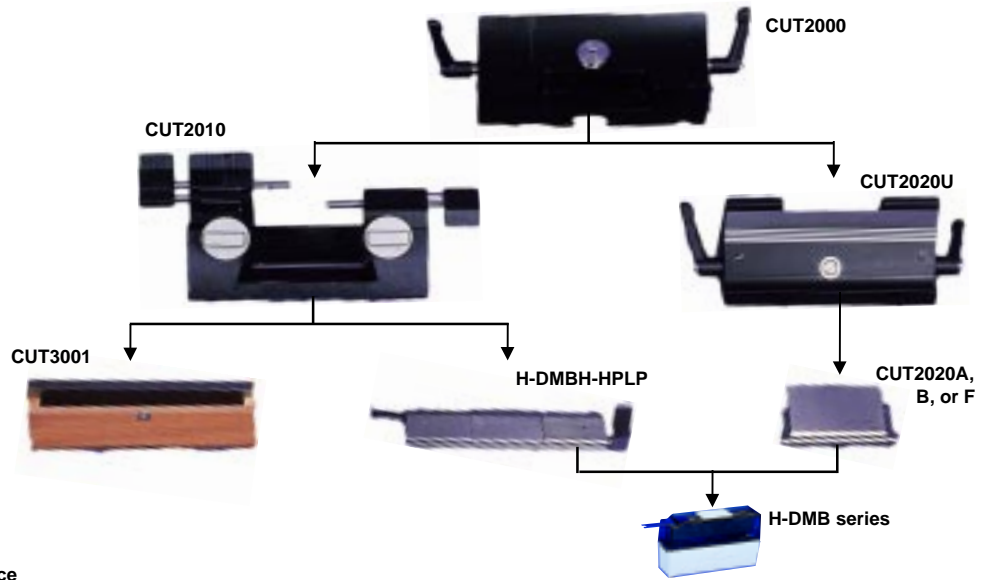
CUT4060RE Microtome shown with x-y object orientation set, Standard Object Clamp with Round Insert (15mm), Knife Holder G and Waste Collection Tray

COMPLETE VERSATILITY

Specimen Accessories



Routine Knife & Blade Accessories



Microtomes (Select at least one)

- CUT4055 Rotary microtome, clockwise coarse advance
- CUT4055R Rotary microtome, reverse (counter-clockwise) coarse advance
- CUT4060 Retracting microtome, clockwise coarse advance
- CUT4060R Retracting microtome, reverse (counter-clockwise) coarse advance
- CUT4060RE Electronic microtome, reverse (counter-clockwise) coarse advance

Specimen Orientation Use with CUT1010 or CUT1020U (Select at least one)

- CUT1000S Object Orientation Set, for x-y specimen orientation, w/left side clamping lever
- CUT1000R Object Orientation Set, for x-y specimen orientation, w/right side clamping lever
- CUT1001 Fixed Adapter Piece, use if applications do not require x-y specimen orientation

Specimen Holders (Select at least one)

- CUT1010 Standard Object Clamp, for square or rectangular blocks. Also holds special adapters for non-routine specimens
- CUT1020U Universal Cassette Clamp, quick release type for all types of commercially available cassettes

Knife and Blade Holder Base (Required unless using CUT2040)

- CUT2000 Universal Knife Holder Base, use w/CUT2010 and CUT2020U

Knife and Disposable Blade Holders (Select one of CUT2010 or CUT2020U)

- CUT2010 Knife Holder R, for conventional steel or tungsten-carbide tipped knives or disposable blade holders (Requires CUT2000)
- CUT2020U Disposable Blade Holder, use w/CUT2020A through F (Requires CUT2000)
- H-DMBH-HPLP SHUR/SHARP™ Blade Holder for interchangeable use of low and high profile blades (Requires CUT2010)
- H-DMBH Disposable Microtome Blade Holder for TBS SHUR/SHARP™ heavy duty (H-DMBH-HD) disposable blades (Requires CUT2010)
- H-DMBH-LP Disposable Microtome Blade Holder, for any low profile disposable blade
- H-DMBH-HP Disposable Microtome Blade Holder, for any high profile disposable blade

Disposable Blade Clamping Plates (Select one or more for use w/CUT2020U)

- CUT2020A Low Profile Clamping Plate for all common low profile blades (Requires CUT2020U)
- CUT2020B High Profile Clamping Plate for most common high profile blades (Requires CUT2020U)
- CUT2020F High Profile Clamping Plate for TBS H-DMBH-HD heavy duty disposable blades

Disposable Blades

- DMB-LP Disposable Microtome Blades, Low Profile, coated, use w/CUT2020A & all low profile blade holders, 60/pk, 10pk/cs
- DMB-HP Disposable Microtome Blades, High Profile, coated, use w/CUT2020B & all high profile blade holders, 60/pk, 10pk/cs
- H-DMBH-AO Disposable Microtome Blades, High Profile, uncoated, use w/H-DMBH-HP, H-DMBH-HPLP & all high profile blade holders, 60/pk, 10pk/cs
- H-DMBH-HD Disposable Microtome Blades, Heavy Duty, uncoated, use w/H-DMBH SHUR/SHARP™ disposable blade holders, 35/pk, 10pk/cs

Reuseable Knives

- CUT3001 Conventional Steel Knife, 16cm, "C" profile, w/storage case
- CUT3011 Conventional Steel Knife, 16cm, "D" profile, w/storage case
- CUT3020 Tungsten-Carbide Edged Knife, 16cm, "D" profile, w/storage case

Non-Routine Accessories

- CUT1030 Insert for 6mm diameter round specimen chuck (Requires CUT1010); CUT1030A for 9mm; CUT1031 for 15mm; CUT1032 for 19mm; CUT1033 for 33mm
- CUT1035 Prism Insert for three point clamping of round specimens (Requires CUT1010)
- CUT1040 Foil Clamp for clamping thin materials (Requires CUT1010)
- CUT2030 Knife Holder RS heavy duty holder for steel or tungsten-carbide tipped knives (Requires CUT2000)
- CUT2040 Knife Holder G for triangular glass or diamond knives (Does not require CUT2000)
- CUT4060FS Foot Pedal, provides hands-free control, (Use with CUT4060RE)

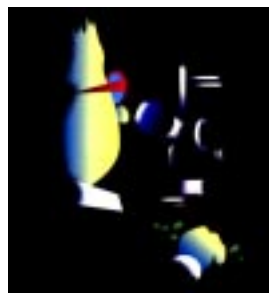
Additional Accessories

- H-PG PARA/GARD™, liquid paraffin repellent, (4 oz. pump bottle)/ea, 6ea/cs
- CUT3400 Oil, multi-purpose for high precision machined sliding surfaces, 100ml/ea
- CUT-LUBE Lubrication Kit, 1 oz. each of Non-Trop Grease, Isoflex CX1000 and Isoflex LDS 18 Special A microtome grease, 30ml of Isoflex PDP 38, and a Preventive Maintenance and Lubrication Guideline manual
- H-BR Brushes, 1/8", 1/4" and 3/8" width bristles, (one of each)/pk

Specifications

		CUT4055	CUT4060	CUT4060RE
Section Counter:	LCD read-out, battery powered		X	X
Performance:	Range of section thickness			
	0.5µm increments from 0.5µm to 2.0µm	X	X	X
	1.0µm increments from 2.0µm to 10µm	X	X	X
	2.0µm increments from 10µm to 20µm	X	X	X
	5.0µm increments from 20µm to 60µm	X	X	X
Horizontal Object Advance:	Maximum 40mm	X	X	X
Vertical Cutting Stroke:	Maximum 70mm	X	X	X
Automatic retraction:	80µm		X	X
Autotrim:	Step 1: 10µm		X	X
	Step 2: 20µm		X	X
	Step 3: 30µm		X	X
Specimen Size:	Standard Object Clamp, Max. size (55x55)mm	X	X	X
	Universal Cassette Clamp for standard cassettes	X	X	X
Specimen Orientation:	X and Y Axes 8° (w/CUT1000S & CUT1000R)	X	X	X
	Z Axis 360°	X	X	X
Fine Advance:	Manual via counter-balanced hand-wheel	X	X	X
	Safety lock on hand-wheel	X	X	X
Coarse Advance:	Manual via hand-wheel	X	X	X
	Side mounted, forward or reverse feed	X	X	X
	Front mounted, forward feed	X	X	
Permissible Storage:	Temp. range 20°C to 50°C	X	X	X
Dimensions: mm (inches)	Length	460 (18)	460 (18)	550 (22)
	Width	460 (18)	460 (18)	460 (18)
	Height	280 (11)	280 (11)	280 (11)
Weight: kg (lbs)	Microtome, only	36 (79)	36 (79)	45 (99)
	Microtome, crated	57 (124)	57 (124)	66 (144)
Motorized/Manual Switchover:	Up for Manual, Down for Motorized			X
Motorized Operation:	Handpad control for hand-wheel speed of 0-150rpm, with intermittent, single stroke and continuous operating modes, On/Off Indicator Lamp, Stop Action (Any button) and Detachable plug in cable			X
Footpedal Control:	For single stroke and continuous operation, Stop Action (Single tap) and Detachable plug in cable			X
Specimen Arm Home Position:	Selectable top or bottom of stroke			X
Electrical Requirements:	115VAC, 60Hz, 77W			X
Included Accessories:	Section Waste Tray, Dust Cover, Tool Kit, Lubrication Kit, Operator Manual and a sample bottle of PARA/GARD™	X	X	X

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