

# *POWER*TOME ≡ 3D™

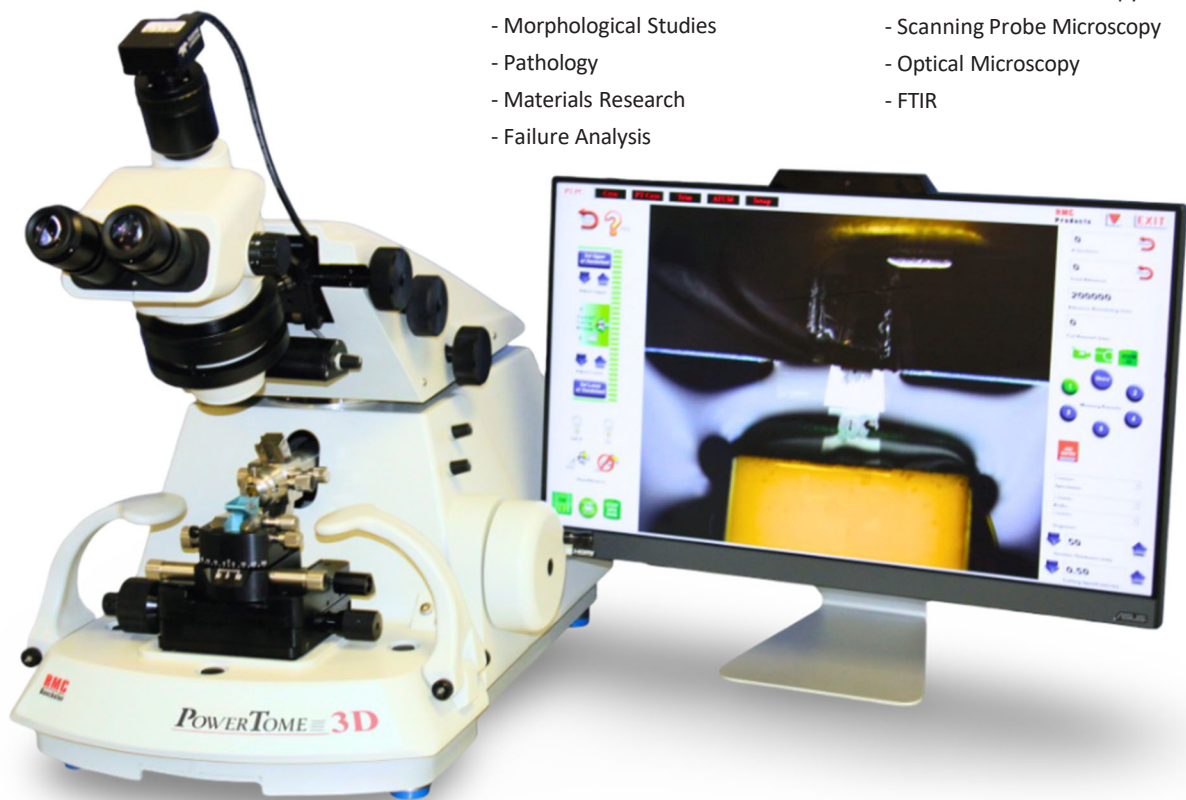
ALSO AVAILABLE AS AMBI-3D WITH  
DUAL HANDWHEEL CONTROLS

**Ideal for Application In:**

- 3D Array Tomography
- Brain Science
- Connectomics
- Morphological Studies
- Pathology
- Materials Research
- Failure Analysis

**Designed for:**

- Transmission Electron Microscopy
- Scanning Electron Microscopy
- Atomic Force Microscopy
- Scanning Probe Microscopy
- Optical Microscopy
- FTIR



## The Million-Nanometer Ultramicrotome

The PT3D features a full 1 mm of advance, permitting uninterrupted, ultra thin, sectioning to a depth of one millimeter. This unique advantage is especially beneficial for 3D reconstruction work, array tomography, and any situation where high amounts of precision specimen trimming are involved.

The all-in-one computer controller features a slim design, touch screen control monitor, including wireless mouse & keyboard, interconnect cables & accessories. All control functions can be activated by touching the control monitor screen, or by mouse, while maintaining use of the tactile digital controller. The color monitor displays a bright and user-friendly control interface with intuitive control icons logically arranged around the video display.

Various add-on components for array tomography are available.

## FEATURES

- Produce high quality semi- and ultra-thin sections for TEM, SEM, block facing for AFM, TOFSIMS, LM, and CEMOVIS.
- Hybrid control system includes touch screen monitor with Visutrac™ cutting zone control, plus digital tactile controller
- High-definition video package showing work area with built-in video measuring system
- Record & save video clips & still images
- Built-in report generator, database, & diagnostic routines for automatic documentation of sectioning parameters
- Ergonomic stereo microscope system with unique lateral viewing control
- Four Types of LED illumination are provided. All are independently adjustable.

Overhead bright diffuse LED Illumination

Backlighting for careful approach of the knife to the specimen

Transillumination through the specimen holder for viewing details of the specimen within the block

(Transillumination LED can also be used for spot illumination by pointing it towards the specimen or knife edge)

- Patented Power Drive© cutting stroke for large blocks & hard materials
- Electronic step advance for final specimen approach to the knife edge
- High stability mechanical advance system for reproducible section thickness
- Built-in calibration & service diagnostics instantly confirm functionality & simplify maintenance procedures

## SPECIFICATIONS

- Specimen auto feed: 1 mm (1,000 μm; 1,000,000 nm)
- Section thickness: 0nm to 15μm
- Cutting speed: 0.1 to 100mm/sec in 0.1mm/sec increments  
Variable return speed over entire cutting speed range
- Knife stage movement: 50mm gross advance  
25mm E-W travel  
12mm N-S advance

## ACCEPTS THE FOLLOWING KNIVES

- Glass knives up to 12mm wide
- Triangular tungsten carbide knives
- Any commercial brand of diamond knives

## ACCESSORY KIT

- Universal Specimen Holder
- 8mm Stepped Specimen Holder
- 7mm Flat Specimen Holder
- Arc Segment Holder
- Arc Mounting Stub
- Trimming Block
- Trimming Post
- Cable, fuses, wrenches

## INCLUDES

### Teledyne 2.1 megapixel USB-C 3.1 color camera

- with Sony IMX327 Rolling Shutter Sensor

### STEREOMICROSCOPE OPTIONS

#### Stereomicroscope Trinoculars ACCU-SCOPE 3075 Series

- 7:1 zoom
- 6.7x to 45x magnification
- 10x WF (22mm) eyepieces
- Phototube with 50/50% right path
- C-mount camera adaptor

#### Stereomicroscope Trinocular ZEISS Stemi 508 Series

- 8:1 zoom
- 6.3x to 50x magnification
- 10 WF (23mm) eyepieces
- Phototube with 50/50% right path
- C-mount camera adaptor

#### Upgrade Available for Purchase

- ZEISS Stemi 16x eyepieces, increases magnification to 80x



AUTOMATED WATER LEVEL CONTROL SYSTEM  
(for use with PTPCZ, PT3D, and ATUMtome)

### ADDITIONAL ACCESSORIES AVAILABLE FOR PURCHASE

#### Room Temperature Specimen Holders

- Vise type flat specimen holder
- Universal transilluminated specimen holder
- 7mm flat specimen transilluminated holder
- 5.6mm flat specimen transilluminated holder

#### Other PowerTome Accessories

- Static Line Ionizer  
Ionization depolarization device, 115VAC or 220 - 240VAC
- Breath shield, for knife stage
- Water trough filler  
Includes reservoir/pump, tubing and filler tube
- Specimen viewing mirror  
Mounts on upper stage for straight-on viewing of specimen
- Easy-Lift glass knife spacer and post
- PowerTome dust cover
- Stereomicroscope mounted breath shield
- Automated water level control system  
Maintains constant water level in knife boat, automatically adjusting as required. For use with PTPCZ, PT3D, and ATUMtome



STATIC LINE IONIZER, 110VAC or 220 - 240VAC



WATER TROUGH FILLER  
(PERISTALTIC WATER PUMP)