

# POWER TOME XL™

ALSO AVAILABLE AS AMBI-XL WITH  
DUAL HANDWHEEL CONTROLS

**Ideal for Applications In:**

- Materials Research
- Life Sciences
- Forensic Science
- Quality Control
- Failure Analysis

**Designed for:**

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



## Precision & Performance For The Efficient EM Lab

The PowerTome is the only fully upgradeable ultramicrotome, with the ability to take a PTXL, the routine workhorse, and build it up to the PTPCZ research level system with computer control and HD video options. The customer has the choice of upgrading to a PC based controller with or without the high-definition video package.

The PTXL is controlled via a digital tactile controller, eminently suitable for routine work. The PowerTome is capable of accommodating glass knives up to 12mm wide, triangular tungsten carbide knives, and any commercial brand of diamond knife.

The PTXL can be upgraded to the PTPC and PTPCZ, for use with a computer based controller with HD video options or in a dual handwheel version, the Ambi-XL. Various add-on components for array tomography and cryo applications are also available.

**FEATURES**

- Produce high quality semi- and ultra-thin sections for TEM, SEM, block facing for AFM, TOFSIMS, LM, and CEMOVIS
- Control system includes digital tactile controller
- Ergonomic stereo microscope system with unique lateral viewing control
- Three 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: 0.2 mm (200 µm; 200,000 nm)
- Section thickness: 5nm to 10µm
- Cutting speed: 0.1 to 99.9mm/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

**STEREOMICROSCOPE OPTIONS****Steromicroscope Binoculars ACCU-SCOPE 3075 Series**

- 7:1 zoom
- 6.7x to 45x magnification
- 10x WF (22mm) eyepieces

## Stereomicroscope Binoculars ZEISS Stemi 508 Series

- 8:1 zoom
- 6.3x to 50x magnification
- 10 WF (23mm) eyepieces

## Upgrade Available for Purchase

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

## 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

### Upgrades Available for Purchase

- Computer with PowerTome control software and touch screen monitor
- ACCU-SCOPE 3075 Series trinocular stereomicroscope with 7:1 zoom, 6.7x to 45x magnification, 10x WF (22mm) eyepieces, phototube with 50/50% right path and c-mount camera adapter
- ZEISS Stemi 508 trinocular stereo microscope with 50/50% beam splitter, 8:1 zoom, 6.3x to 50x magnification, with 10x WF (23mm) eyepieces, phototube with 50/50% right path and c-mount camera adapter
- Teledyne 2.1 megapixel USB-C 3.1 color camera with Sony IMX327 Rolling Shutter Sensor



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



STATIC LINE IONIZER, 110VAC or 220 - 240VAC



WATER TROUGH FILLER  
(PERISTALTIC WATER PUMP)