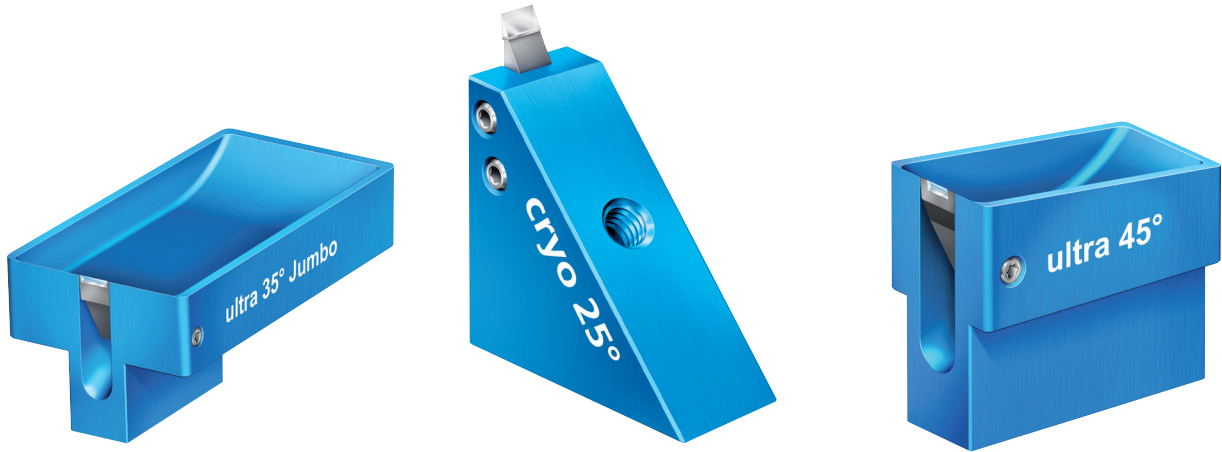


DIATOME® DIAMOND KNIVES

FOR PRODUCT DETAILS AND COMPLETE SELECTIONS
www.tedpella.com

Now available from Ted Pella, Inc.



DiATOME® knives are compatible with all ultramicrotomes

The boat is designed in such a manner that the water is horizontal when the clearance angle is set. This results in a stationary water surface and good reflection. The shape of the boat offers you the advantage of an easy pick-up of the floating sections.

The surfaces of the DiATOME® diamond knives are hydrophilic. This property allows an easy wetting of the cutting edge, even with a very low water level (important for sectioning Lowicryls and other hydrophilic embedding media, as well as for water sensitive samples).

The diamond is high vacuum brazed onto a metal shank which is securely screwed into the boat. The cementing material seals the boat and knife. It is hydrophilic and aids the easy wetting of the cutting edge.

DiATOME® Resharpener & Exchange Service

Resharpener DiATOME® knives undergo the same stringent optical checking and sectioning test as new knives. A diamond knife resharpener by DiATOME® is the same high quality as a new one!

When your knife needs to be resharpener, you may choose to either exchange your knife for a new knife of the same size or you may have your knife resharpener and returned to you.

We guarantee a fast resharpener service for all our knives including the oldest knives ever purchased!

DiATOME® Quality Guarantee

Before delivery, each knife, new or resharpener, is subject to extensive testing. We can therefore guarantee perfect sectioning (in the respective thickness range) over the entire cutting edge.

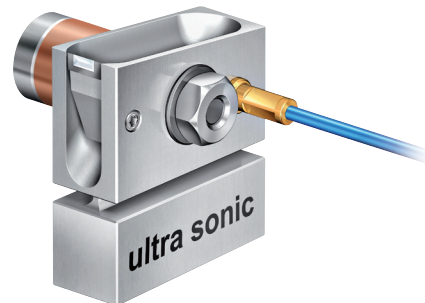
Should a knife not fulfill your expectations, please kindly send it back with a short note of the problem.

DiATOME® ultra sonic Diamond Knives

DiATOME® ultra sonic Diamond Knives

ultra sonic Oscillating Diamond Knife 35°

Patented piezo actuated ultra sonic oscillating diamond knife can produce compression free, ultra-thin sections with state of the art preservation of structure. Oscillation frequency can be set between 25 and 45 kHz and amplitude is adjustable by setting the voltage between 0 and 30 volts. Using these two adjustments, the oscillation produced parallel to the cutting edge can be varied to match the cutting characteristics of the material being sectioned. Section thicknesses range from 15 to 100nm. Blade width is 3.0mm. 110V power requirement.



ultra sonic Maxi Diamond Knife 35°

The ultra sonic Maxi diamond knife is similar to the ultra sonic but with a wider boat. It is designed specifically for biological serial sectioning. Oscillation frequency can be set between 25 and 45 kHz and amplitude is adjustable by setting the voltage between 0 and 30 volts. Using these two adjustments, the oscillation produced parallel to the cutting edge can be varied to match the cutting characteristics of the material being sectioned. Section thicknesses range from 15 to 100nm. 3.0 and 4.0mm blade widths. 110V power requirement.

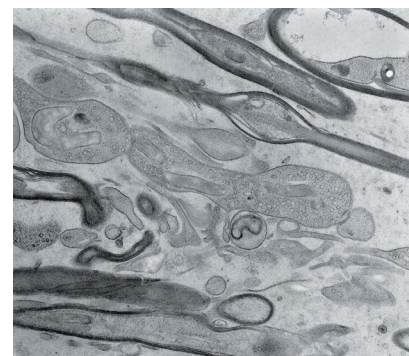


Knife Specifications

- Knife angle: 35°
- Section thickness range: 15 to 100nm
- Knife cutting edge length: 3.0mm

Control Unit

- Frequency: 25 to 45kHz, or automatic setting of the resonance
- Amplitude: variable (voltage 0 to 30V)
- Mains voltage: 110V



Neuropil of a HP frozen / freeze substituted hippocampus slice culture, Daniel Studer and Werner Graber, Inst. of Anatomy, University of Bern. Sectioned with the ultra sonic knife.

The theoretical considerations and first results of this invention were presented in the Journal of Microscopy. Results with polymers using the oscillating knife were shown at the M&M 2002 meeting in Quebec.

The following materials were tested using the oscillating knife:

- Biological samples in Epon, Araldite, EM Bed, etc.
- Biological samples in acrylic resins (Lowicryl, LR White).
- Rigid polymers such as PS, PMMA, ABS, HIPS, modified PP, etc.

DiATOME® ultra sonic Diamond Knives

123-US3-C3	ultra sonic Diamond Knife and Control Unit, Angle 35°, Knife 3.0mm	each
123-US3-K3	ultra sonic Diamond Knife, Angle 35°, Knife 3.0mm	each
123-US3-K3R	ultra sonic Diamond Knife, Angle 35°, Knife 3.0mm, Resharpen	each
123-USM3-C3R	ultra sonic Maxi Diamond Knife and Control Unit, Angle 35°, Knife 3.0mm	each
123-USM3-K3	ultra sonic Maxi Diamond Knife, Angle 35°, Knife 3.0mm	each
123-USM3-K3R	ultra sonic Maxi Diamond Knife, Angle 35°, Knife 3.0mm, Resharpen	each
123-USM3-C4	ultra sonic Maxi Diamond Knife and Control Unit, Angle 35°, Knife 4.0mm	each
123-USM3-K4	ultra sonic Maxi Diamond Knife, Angle 35°, Knife 4.0mm	each
123-USM3-K4R	ultra sonic Maxi Diamond Knife, Angle 35°, Knife 4.0mm, Resharpen	each

DIATOME® DIAMOND KNIVES

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DiATOME® ultra Diamond Knives

DiATOME® ultra Diamond Knives

Highest quality diamonds and optimal crystal orientation guarantee perfect ultrathin sections and a durable cutting edge.

Section pick-up is facilitated as the boat is horizontal allowing the water to completely fill the boat all the way round.

A hydrophilic surface makes it easy to wet the cutting edge, even with low water level.

ultra 35° Wet

The ultra 35° knife is the standard knife for the majority of applications in both biological and materials research. The 35° blade angle is ideal for sectioning biological specimens ranging from organ tissues to un-decalcified bone and dental material. In the field of Materials Science, the ultra 35° excels at sectioning relatively soft metals and polymers, as well as nano-particle filled polymers, brittle metals such as catalysts, crystals and semiconductors. Section thicknesses range from 30 to 200nm. Standard boat. Available in blade widths from 1.5 to 4.0mm.

ultra 45°

Like the ultra 35°, this is a general use knife with good sectioning and durability characteristics. The 45° blade angle knife replaces the old 55° and allows for better sectioning of ceramics and other hard, brittle materials. Section thicknesses range from 30nm to 200nm. Standard boat. Available in blade widths from 1.5 to 4.0mm.

ultra semi 35°

Designed with 35° blade angle for alternating between ultra-thin and semi-thin sectioning. Section thicknesses range from 50 to 500nm. Standard boat. 3mm blade width.

ultra Maxi 35°

3.0mm ultra 35° diamond knife with wider boat. Section thicknesses range from 30 to 200nm. Wide boat available in 3.0mm blade width only.

ultra Jumbo 35° and 45°

Recommended for serial sections for 3D reconstruction and STEM. Section thicknesses range from 50 to 200nm. Jumbo boat, 2.0 and 3.0mm blade widths. Available with 35° and 45° blade angles.



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Microscopy Products for Science and Industry

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DiATOME® ultra Diamond Knives

DiATOME® ultra Diamond Knives (continued)

ultra 35° Dry

The ultra 35° knife (in the triangular holder) with a thickness range of 30-200nm is used for dry sectioning of epoxy or acrylic resin embedded biological samples, which need to be investigated by element analysis (Ref. Edelmann) and SIMS (Ref. Guerquin-Kern).



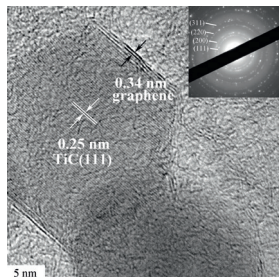
ultra ats 35°

The ultra ats diamond knife is designed for ease of placing sections onto wafers for SEM examination. Large uniquely sized boat. 3.0mm blade width only.

DiATOME® ultra Diamond Knives

123-UDK3-W15	ultra Diamond Knife, Wet, Angle 35°, Knife 1.5mm	each
123-UDK3-W15E	ultra Diamond Knife, Wet, Angle 35°, Knife 1.5mm, Exchange.....	each
123-UDK3-W15R	ultra Diamond Knife, Wet, Angle 35°, Knife 1.5mm, Resharpen	each
123-UDK3-D15	ultra Diamond Knife, Dry, Angle 35°, Knife 1.5mm.....	each
123-UDK3-D15E	ultra Diamond Knife, Dry, Angle 35°, Knife 1.5mm, Exchange	each
123-UDK3-W18R	ultra Diamond Knife, Wet, Angle 35°, Knife 1.8mm, Resharpen	each
123-UDK3-D18R	ultra Diamond Knife, Dry, Angle 35°, Knife 1.8mm, Resharpen	each
123-UDK3-J20	ultra Jumbo Diamond Knife, Angle 35°, Knife 2.0mm.....	each
123-UDK3-J20R	ultra Jumbo Diamond Knife, Angle 35°, Knife 2.0mm, Resharpen.....	each
123-UDK3-W20	ultra Diamond Knife, Wet, Angle 35°, Knife 2.0mm	each
123-UDK3-W20E	ultra Diamond Knife, Wet, Angle 35°, Knife 2.0mm, Exchange.....	each
123-UDK3-W20R	ultra Diamond Knife, Wet, Angle 35°, Knife 2.0mm, Resharpen	each
123-UDK3-W21R	ultra Diamond Knife, Wet, Angle 35°, Knife 2.1mm, Resharpen	each
123-UDK3-D21R	ultra Diamond Knife, Dry, Angle 35°, Knife 2.0mm, Resharpen	each
123-UDK3-W24R	ultra Diamond Knife, Wet, Angle 35°, Knife 2.4mm, Resharpen	each
123-UDK3-D24R	ultra Diamond Knife, Dry, Angle 35°, Knife 2.4mm, Resharpen	each
123-UDK3-W25	ultra Diamond Knife, Wet, Angle 35°, Knife 2.5mm	each
123-UDK3-W25E	ultra Diamond Knife, Wet, Angle 35°, Knife 2.5mm, Exchange.....	each
123-UDK3-W25R	ultra Diamond Knife, Wet, Angle 35°, Knife 2.5mm, Resharpen	each
123-UDK3-D25	ultra Diamond Knife, Dry, Angle 35°, Knife 2.5mm.....	each
123-UDK3-D25E	ultra Diamond Knife, Dry, Angle 35°, Knife 2.5mm, Exchange.....	each
123-UDK3-D25R	ultra Diamond Knife, Dry, Angle 35°, Knife 2.5mm, Resharpen	each
123-UDK3-D30	ultra Diamond Knife, Dry, Angle 35°, Knife 3.0mm.....	each
123-UDK3-D30E	ultra Diamond Knife, Dry, Angle 35°, Knife 3.0mm, Exchange	each
123-UDK3-D30R	ultra Diamond Knife, Dry, Angle 35°, Knife 3.0mm, Resharpen	each
123-UDK3-J30	ultra Jumbo Diamond Knife, Angle 35°, Knife 3.0mm.....	each
123-UDK3-J30R	ultra Jumbo Diamond Knife, Angle 35°, Knife 3.0mm, Resharpen.....	each
123-UDK3-W30	ultra Jumbo Diamond Knife, Angle 35°, Knife 3.0mm.....	each
123-UDK3-W30E	ultra Jumbo Diamond Knife, Angle 35°, Knife 3.0mm, Exchange.....	each
123-UDK3-W30R	ultra Jumbo Diamond Knife, Angle 35°, Knife 3.0mm, Resharpen.....	each
123-UDK3-S30	ultra semi Diamond Knife, Angle 35°, Knife 3.0mm.....	each
123-UDK3-S30E	ultra semi Diamond Knife, Angle 35°, Knife 3.0mm, Exchange.....	each

DiATOME® ultra Diamond Knives



*HRTEM image of a TiC
 microsphere showing nanocrystalline carbon coating on the TiC grain
 (confirmed by the electron diffraction pattern).
 J. Zhong et al, Journal of the European Ceramic
 Society 32, pp. 3407 – 3414, 2012.*

123-UDK3-S30R	ultra semi Diamond Knife, Angle 35°, Knife 3.0mm, Resharpen.....	each
123-ATS3-30	ultra ats Diamond Knife, Angle 35°, Knife 3.0mm	each
123-UDK3-W35	ultra Diamond Knife, Wet, Angle 35°, Knife 3.5mm	each
123-UDK3-W35E	ultra Diamond Knife, Wet, Angle 35°, Knife 3.5mm, Exchange.....	each
123-UDK3-W35R	ultra Diamond Knife, Wet, Angle 35°, Knife 3.5mm, Resharpen	each
123-UDK3-D35	ultra Diamond Knife, Dry, Angle 35°, Knife 3.5mm.....	each
123-UDK3-D35E	ultra Diamond Knife, Dry, Angle 35°, Knife 3.5mm, Exchange.....	each
123-UDK3-D35R	ultra Diamond Knife, Dry, Angle 35°, Knife 3.5mm, Resharpen	each
123-UDK3-W40	ultra Diamond Knife, Wet, Angle 35°, Knife 4.0mm	each
123-UDK3-W40E	ultra Diamond Knife, Wet, Angle 35°, Knife 4.0mm, Exchange.....	each
123-UDK3-W40R	ultra Diamond Knife, Wet, Angle 35°, Knife 4.0mm, Resharpen	each
123-UDK3-D40	ultra Diamond Knife, Dry, Angle 35°, Knife 4.0mm.....	each
123-UDK3-D40E	ultra Diamond Knife, Dry, Angle 35°, Knife 4.0mm, Exchange.....	each
123-UDK3-D40R	ultra Diamond Knife, Dry, Angle 35°, Knife 4.0mm, Resharpen	each
123-UMD3-40	ultra Maxi Diamond Knife, Angle 35°, Knife 4.0mm	each
123-UMD3-40R	ultra Maxi Diamond Knife, Angle 35°, Knife 4.0mm, Resharpen	each
123-UDK4-W15	ultra Diamond Knife, Wet, Angle 45°, Knife 1.5mm	each
123-UDK4-W15R	ultra Diamond Knife, Wet, Angle 45°, Knife 1.5mm, Resharpen	each
123-UDK4-W18R	ultra Diamond Knife-Wet, Angle 45°, Knife 1.8mm, Resharpen	each
123-UDK4-J20	ultra Jumbo Diamond Knife, Angle 45°, Knife 2.0mm.....	each
123-UDK4-J20R	ultra Jumbo Diamond Knife, Angle 45°, Knife 2.0mm, Resharpen.....	each
123-UDK4-W20	ultra Diamond Knife, Wet, Angle 45°, Knife 2.0mm	each
123-UDK4-W20E	ultra Diamond Knife, Wet, Angle 45°, Knife 2.0mm, Exchange.....	each
123-UDK4-W20R	ultra Diamond Knife, Wet, Angle 45°, Knife 2.0mm, Resharpen	each
123-UDK4-W21R	ultra Diamond Knife, Wet, Angle 45°, Knife 2.1mm, Resharpen	each
123-UDK4-W24R	ultra Diamond Knife, Wet, Angle 45°, Knife 2.4mm, Resharpen	each
123-UDK4-W25	ultra Diamond Knife, Wet, Angle 45°, Knife 2.5mm	each
123-UDK4-W25E	ultra Diamond Knife, Wet, Angle 45°, Knife 2.5mm, Exchange.....	each
123-UDK4-W25R	ultra Diamond Knife, Wet, Angle 45°, Knife 2.5mm, Resharpen	each
123-UDK4-J30	ultra Jumbo Diamond Knife, Angle 45°, Knife 3.0mm.....	each
123-UDK4-J30R	ultra Jumbo Diamond Knife, Angle 45°, Knife 3.0mm, Resharpen.....	each
123-UDK4-W30	ultra Diamond Knife, Wet, Angle 45°, Knife 3.0mm	each
123-UDK4-W30E	ultra Diamond Knife, Wet, Angle 45°, Knife 3.0mm, Exchange.....	each
123-UDK4-W30R	ultra Diamond Knife, Wet, Angle 45°, Knife 3.0mm, Resharpen	each
123-UDK4-W35	ultra Diamond Knife, Wet, Angle 45°, Knife 3.5mm	each
123-UDK4-W35E	ultra Diamond Knife, Wet, Angle 45°, Knife 3.5mm, Exchange.....	each
123-UDK4-W35R	ultra Diamond Knife, Wet, Angle 45°, Knife 3.5mm, Resharpen	each
123-UDK4-W40	ultra Diamond Knife, Wet, Angle 45°, Knife 4.0mm	each
123-UDK4-W40E	ultra Diamond Knife, Wet, Angle 45°, Knife 4.0mm, Exchange.....	each
123-UDK4-W40R	ultra Diamond Knife, Wet, Angle 45°, Knife 4.0mm, Resharpen	each

DIATOME® DIAMOND KNIVES

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www.tedpella.com

DiATOME® cryo Diamond Knives

DiATOME® cryo Diamond Knives

Diamond knives for low temperature EM and LM applications

cryo 25°

The 25° angle of the cryo 25° diamond knife produces sections of frozen hydrated specimens with the least compression and the best structural preservation possible. It is recommended that sectioning be done in a low humidity glove box and the sections should be attached by electrostatic force. Section thicknesses range from 30 to 150nm. Triangular holder. Blade width, 3.0mm.



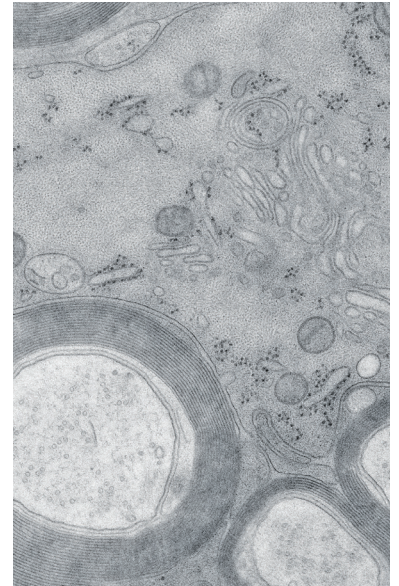
cryo 35°

The cryo 35° knife has demonstrated its usefulness as a standard knife for the low temperature sectioning of polymers, rubber, paints, etc. The 35° angle represents a balanced compromise between section quality and durability. Two styles (wet and dry) are available. Mounted in the triangular holder cryo 35° is suitable for dry cryo sectioning. The 35° knife mounted in the trough are used for sectioning with fluids such as a DMSO/water mixture. Section thicknesses range 30 – 300nm. Triangular holder (dry) or small boat (wet). Blade widths 1.5 to 4.0mm.



cryo 45°

The cryo 45° knife is well suited for routine cryo sectioning. Like the cryo 35° it is available in two styles (wet and dry). Mounted in the triangular holder cryo 45° is suitable for dry cryo sectioning. The 45° knife mounted in the trough are used for sectioning with fluids such as a DMSO/water mixture. Section thicknesses range 30 to 300nm. Triangular holder (dry) or small boat (wet). Blade widths 1.5 to 4.0mm.



Ultrastructure of an astrocyte in the mouse optic nerve, high-pressure frozen. In the astrocyte the glial fibrillary acidic protein is visible. Wiebke Moebius, Dept. of Neurogenetics, EM Core Facility, MPI of Experimental Medicine, Göttingen.

DiATOME® cryo Dry Diamond Knives

123-DK2-CD30	cryo Dry Diamond Knife, Angle 25°, Knife 3.0mm	.....each
123-DK2-CD30R	cryo Dry Diamond Knife, Angle 25°, Knife 3.0mm, Resharpen	.....each
123-DK3-CD15	cryo Dry Diamond Knife, Angle 35°, Knife 1.5mm	.....each
123-DK3-CD15E	cryo Dry Diamond Knife, Angle 35°, Knife 1.5mm, Exchange	.....each
123-DK3-CD15R	cryo Dry Diamond Knife, Angle 35°, Knife 1.5mm, Resharpen	.....each
123-DK3-CD18R	cryo Dry Diamond Knife, Angle 35°, Knife 1.8mm, Resharpen	.....each
123-DK3-CD20	cryo Dry Diamond Knife, Angle 35°, Knife 2.0mm	.....each
123-DK3-CD20E	cryo Dry Diamond Knife, Angle 35°, Knife 2.0mm, Exchange	.....each
123-DK3-CD20R	cryo Dry Diamond Knife, Angle 35°, Knife 2.0mm, Resharpen	.....each
123-DK3-CD21R	cryo Dry Diamond Knife, Angle 35°, Knife 2.1mm, Resharpen	.....each
123-DK3-CD24R	cryo Dry Diamond Knife, Angle 35°, Knife 2.4mm, Resharpen	.....each
123-DK3-CD25	cryo Dry Diamond Knife, Angle 35°, Knife 2.5mmeach

DIATOME® DIAMOND KNIVES

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DiATOME® cryo Dry Diamond Knives

123-DK3-CD25E	cryo Dry Diamond Knife, Angle 35°, Knife 2.5mm, Exchange	each
123-DK3-CD25R	cryo Dry Diamond Knife, Angle 35°, Knife 2.5mm, Resharpen	each
123-DK3-CD30	cryo Dry Diamond Knife, Angle 35°, Knife 3.0mm	each
123-DK3-CD30E	cryo Dry Diamond Knife, Angle 35°, Knife 3.0mm, Exchange	each
123-DK3-CD30R	cryo Dry Diamond Knife, Angle 35°, Knife 3.0mm, Resharpen	each
123-DK3-CD35	cryo Dry Diamond Knife, Angle 35°, Knife 3.5mm	each
123-DK3-CD35E	cryo Dry Diamond Knife, Angle 35°, Knife 3.5mm, Exchange	each
123-DK3-CD35R	cryo Dry Diamond Knife, Angle 35°, Knife 3.5mm, Resharpen	each
123-DK3-CD40	cryo Dry Diamond Knife, Angle 35°, Knife 4.0mm	each
123-DK3-CD40E	cryo Dry Diamond Knife, Angle 35°, Knife 4.0mm, Exchange	each
123-DK3-CD40R	cryo Dry Diamond Knife, Angle 35°, Knife 4.0mm, Resharpen	each
123-DK4-CD15	cryo Dry Diamond Knife, Angle 45°, Knife 1.5mm	each
123-DK4-CD15E	cryo Dry Diamond Knife, Angle 45°, Knife 1.5mm, Exchange	each
123-DK4-CD15R	cryo Dry Diamond Knife, Angle 45°, Knife 1.5mm, Resharpen	each
123-DK4-CD18R	cryo Dry Diamond Knife, Angle 45°, Knife 1.8mm, Resharpen	each
123-DK4-CD20	cryo Dry Diamond Knife, Angle 45°, Knife 2.0mm	each
123-DK4-CD20E	cryo Dry Diamond Knife, Angle 45°, Knife 2.0mm, Exchange	each
123-DK4-CD20R	cryo Dry Diamond Knife, Angle 45°, Knife 2.0mm, Resharpen	each
123-DK4-CD21R	cryo Dry Diamond Knife, Angle 45°, Knife 2.1mm, Resharpen	each
123-DK4-CD24R	cryo Dry Diamond Knife, Angle 45°, Knife 2.4mm, Resharpen	each
123-DK4-CD25	cryo Dry Diamond Knife, Angle 45°, Knife 2.5mm	each
123-DK4-CD25E	cryo Dry Diamond Knife, Angle 45°, Knife 2.5mm, Exchange	each
123-DK4-CD25R	cryo Dry Diamond Knife, Angle 45°, Knife 2.5mm, Resharpen	each
123-DK4-CD30	cryo Dry Diamond Knife, Angle 45°, Knife 3.0mm	each
123-DK4-CD30E	cryo Dry Diamond Knife, Angle 45°, Knife 3.0mm, Exchange	each
123-DK4-CD30R	cryo Dry Diamond Knife, Angle 45°, Knife 3.0mm, Resharpen	each
123-DK4-CD35	cryo Dry Diamond Knife, Angle 45°, Knife 3.5mm	each
123-DK4-CD35E	cryo Dry Diamond Knife, Angle 45°, Knife 3.5mm, Exchange	each
123-DK4-CD35R	cryo Dry Diamond Knife, Angle 45°, Knife 3.5mm, Resharpen	each
123-DK4-CD40	cryo Dry Diamond Knife, Angle 45°, Knife 4.0mm	each
123-DK4-CD40E	cryo Dry Diamond Knife, Angle 45°, Knife 4.0mm, Exchange	each
123-DK4-CD40R	cryo Dry Diamond Knife, Angle 45°, Knife 4.0mm, Resharpen	each



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DiATOME® cryo Wet Diamond Knives

DiATOME® cryo Wet Diamond Knives

123-DK3-CW15	cryo Wet Diamond Knife, Angle 35°, Knife 1.5mm	each
123-DK3-CW15E	cryo Wet Diamond Knife, Angle 35°, Knife 1.5mm, Exchange	each
123-DK3-CW15R	cryo Wet Diamond Knife, Angle 35°, Knife 1.5mm, Resharpener	each
123-DK3-CW18R	cryo Wet Diamond Knife, Angle 35°, Knife 1.8mm, Resharpener	each
123-DK3-CW20	cryo Wet Diamond Knife, Angle 35°, Knife 2.0mm	each
123-DK3-CW20E	cryo Wet Diamond Knife, Angle 35°, Knife 2.0mm, Exchange	each
123-DK3-CW20R	cryo Wet Diamond Knife, Angle 35°, Knife 2.0mm, Resharpener	each
123-DK3-CW21R	cryo Wet Diamond Knife, Angle 35°, Knife 2.1mm, Resharpener	each
123-DK3-CW24R	cryo Wet Diamond Knife, Angle 35°, Knife 2.4mm, Resharpener	each
123-DK3-CW25	cryo Wet Diamond Knife, Angle 35°, Knife 2.5mm	each
123-DK3-CW25E	cryo Wet Diamond Knife, Angle 35°, Knife 2.5mm, Exchange	each
123-DK3-CW25R	cryo Wet Diamond Knife, Angle 35°, Knife 2.5mm, Resharpener	each
123-DK3-CW30	cryo Wet Diamond Knife, Angle 35°, Knife 3.0mm	each
123-DK3-CW30E	cryo Wet Diamond Knife, Angle 35°, Knife 3.0mm, Exchange	each
123-DK3-CW30R	cryo Wet Diamond Knife, Angle 35°, Knife 3.0mm, Resharpener	each
123-DK3-CW35	cryo Wet Diamond Knife, Angle 35°, Knife 3.5mm	each
123-DK3-CW35E	cryo Wet Diamond Knife, Angle 35°, Knife 3.5mm, Exchange	each
123-DK3-CW35R	cryo Wet Diamond Knife, Angle 35°, Knife 3.5mm, Resharpener	each
123-DK3-CW40	cryo Wet Diamond Knife, Angle 35°, Knife 4.0mm	each
123-DK3-CW40E	cryo Wet Diamond Knife, Angle 35°, Knife 4.0mm, Exchange	each
123-DK3-CW40R	cryo Wet Diamond Knife, Angle 35°, Knife 4.0mm, Resharpener	each
123-DK4-CW15	cryo Wet Diamond Knife, Angle 45°, Knife 1.5mm	each
123-DK4-CW15E	cryo Wet Diamond Knife, Angle 45°, Knife 1.5mm, Exchange	each
123-DK4-CW15R	cryo Wet Diamond Knife, Angle 45°, Knife 1.5mm, Resharpener	each
123-DK4-CW18R	cryo Wet Diamond Knife, Angle 45°, Knife 1.8mm, Resharpener	each
123-DK4-CW20	cryo Wet Diamond Knife, Angle 45°, Knife 2.0mm	each
123-DK4-CW20E	cryo Wet Diamond Knife, Angle 45°, Knife 2.0mm, Exchange	each
123-DK4-CW20R	cryo Wet Diamond Knife, Angle 45°, Knife 2.0mm, Resharpener	each
123-DK4-CW21R	cryo Wet Diamond Knife, Angle 45°, Knife 2.1mm, Resharpener	each
123-DK4-CW24R	cryo Wet Diamond Knife, Angle 45°, Knife 2.4mm, Resharpener	each
123-DK4-CW25	cryo Wet Diamond Knife, Angle 45°, Knife 2.5mm	each
123-DK4-CW25E	cryo Wet Diamond Knife, Angle 45°, Knife 2.5mm, Exchange	each
123-DK4-CW25R	cryo Wet Diamond Knife, Angle 45°, Knife 2.5mm, Resharpener	each
123-DK4-CW30	cryo Wet Diamond Knife, Angle 45°, Knife 3.0mm	each
123-DK4-CW30E	cryo Wet Diamond Knife, Angle 45°, Knife 3.0mm, Exchange	each
123-DK4-CW30R	cryo Wet Diamond Knife, Angle 45°, Knife 3.0mm, Resharpener	each
123-DK4-CW35	cryo Wet Diamond Knife, Angle 45°, Knife 3.5mm	each
123-DK4-CW35E	cryo Wet Diamond Knife, Angle 45°, Knife 3.5mm, Exchange	each
123-DK4-CW35R	cryo Wet Diamond Knife, Angle 45°, Knife 3.5mm, Resharpener	each
123-DK4-CW40	cryo Wet Diamond Knife, Angle 45°, Knife 4.0mm	each
123-DK4-CW40E	cryo Wet Diamond Knife, Angle 45°, Knife 4.0mm, Exchange	each
123-DK4-CW40R	cryo Wet Diamond Knife, Angle 45°, Knife 4.0mm, Resharpener	each

DiATOME® cryo immunochemistry Diamond Knives, DiATOME® AFM Diamond Knives

DiATOME® cryo immunochemistry Diamond Knives

The first cryo knife with a diamond platform, guarantees the best possible sectioning for cryo immunochemistry.

The diamond platform provides for easy and gentle section collection. Sections are collected directly from the diamond surface using a loop and a sucrose/methylcellulose droplet (Refs. Liou, Peters).

The cryo immuno diamond knife is also recommended for sectioning frozen hydrated samples. The 35° cutting angle leads to a considerable reduction in mechanical stresses and therefore to improved structure preservation in sucrose-protected samples.



DiATOME® cryo immunochemistry Diamond Knives:

123-DK3-CI20	cryo immuno Diamond Knife, Angle 35°, Knife 2.0mm.....	each
123-DK3-CI20R	cryo immuno Diamond Knife, Angle 35°, Knife 2.0mm, Resharpen	each
123-DK3-CI30	cryo immuno Diamond Knife, Angle 35°, Knife 3.0mm.....	each
123-DK3-CI30R	cryo immuno Diamond Knife, Angle 35°, Knife 3.0mm, Resharpen	each

DiATOME® AFM Diamond Knives

The AFM Diamond Knives for ultra and cryo are made of highest quality to ensure the increased quality requirements of AFM investigation. The 35° blade produces extremely smooth sample surfaces and guarantee the best possible structure preservation. Section thicknesses range 15 to 100nm. Triangular holder. Blade widths 2.0 and 3.0mm. Small boat available in 2.0 and 3.0mm blade widths.



DiATOME® AFM Diamond Knives

123-DK3-CA20	cryo AFM Diamond Knife, Angle 35°, Knife 2.0mm	each
123-DK3-CA20R	cryo AFM Diamond Knife, Angle 35°, Knife 2.0mm, Resharpen	each
123-DK3-UA20R	ultra AFM Diamond Knife, Angle 35°, Knife 2.0mm.....	each
123-DK3-CI30R	ultra AFM Diamond Knife, Angle 35°, Knife 2.0mm, Resharpen	each
123-DK3-CA30	cryo AFM Diamond Knife, Angle 35°, Knife 3.0mm	each
123-DK3-CA30R	cryo AFM Diamond Knife, Angle 35°, Knife 3.0mm, Resharpen	each
123-DK3-UA30	ultra AFM Diamond Knife, Angle 35°, Knife 3.0mm.....	each
123-DK3-UA30R	ultra AFM Diamond Knife, Angle 35°, Knife 3.0mm, Resharpen	each

DIATOME® DIAMOND KNIVES

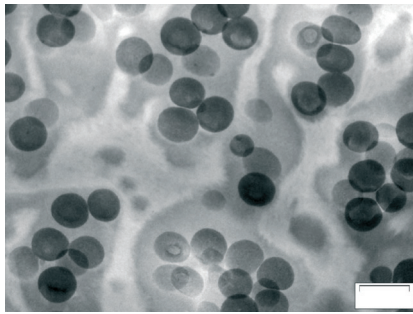
FOR PRODUCT DETAILS AND COMPLETE SELECTIONS
www.tedpella.com

DiATOME® Diamond trim tools

DiATOME® trim tools

Precise trimming is mandatory for successful ultramicrotomy of biological and material samples. The trim series of diamond blades allow for quick and accurate trimming. Due to the extreme sharpness of our diamond blades, less mechanical damage occurs to the sample during trimming. Very shiny sample faces and precise sides are the result. The trim 45 produces pyramidal sides with an inclined angle of 45°, the trim 20 pyramidal sides with an inclined angle of 20°, and the trim 90 pyramidal sides with an inclined angle of 90°. Triangular holder.

The DiATOME® EM Trim Diamond Cutters are used exclusively in the Leica® EM TRIM and EM TRIM2 and are available in either 6 or 12mm diameter. These blades allow for parallel edges of the complete block which is mandatory for successful sectioning.



Polycarbonate modified with rubber
 Jens Sicking, Bayer Technology
 Services, Leverkusen.

DiATOME® trim tools

123-TT-90	trim 90	.....each
123-TTR-90	trim 90, Resharpen	.....each
123-TT-45	trim 45	.....each
123-TTR-45	trim 45, Resharpen	.....each
123-TT-20	trim 20	.....each
123-TTR-20	trim 20, Resharpen	.....each
123-CTTR	cryotrim, Angle 45°, Resharpen	.....each
123-CTT-20R	cryotrim, Angle 20°, Resharpen	.....each
123-UTT-R	ultratrium Dry, Room Temperature, 3.0mm, Resharpen	.....each
123-UTT-40-R	ultratrium Dry, Room Temperature, 4.0mm, Resharpen	.....each
123-UWTT-R	ultratrium Wet, Room Temperature	.....each
123-DUTB45-R	ultratrium Angle 45°, Resharpen	.....each
123-UWTT-40-R	ultratrium Wet, Room Temperature, 4.0mm, Resharpen	.....each
123-DEMT	EM Trim Diamond Cutter, 6.0mm	.....each
123-DEMT-R	EM Trim Diamond Cutter, 6.0mm, Resharpen	.....each
123-DEMT-12	EM Trim Diamond Cutter, 12.0mm	.....each
123-DEMT-12R	EM Trim Diamond Cutter, 12.0mm, Resharpen	.....each

DIATOME® DIAMOND KNIVES

FOR PRODUCT DETAILS AND COMPLETE SELECTIONS
www.tedpella.com

DiATOME® histology Diamond Knives

DiATOME® histology Diamond Knives

histo

The histo knife is designed for the sectioning of hard and soft biological and material research specimens, non-embedded or embedded in acrylic or epoxy resins. The Histo knives can be used on all ultramicrotomes as well as on microtomes with a retraction of the specimen arm in the return phase. Section thicknesses range 0.2 to 2µm. Standard histo boat. Blade widths, 4.0, 6.0 and 8.0mm.



histo cryo

The histo cryo knives are delivered with a boat for wet sectioning using a DMSO/water mixture or with a triangular holder for dry sectioning. Section thicknesses range 0.2 to 2µm. Triangular holder (dry) or small histo boat (wet). Blade widths, 4.0, 6.0 and 8.0mm.



histo Jumbo

For 3D reconstruction, it is imperative not to lose a single section. The Jumbo boat into which a glass slide can be dipped as well as the contact adhesive (Pattex contact cement by Henkel)*, applied to the leading face of the pyramid, increases the advantages of our histo knives. They allow sections to stick together to form section ribbons (0.5 – 2µm), ensuring no section loss, no folding, the same orientation of all sections, easy collection of section ribbons, and multiple ribbons on one glass slide. The perfect knife for immunohistochemistry. Section thicknesses range 0.5 to 2µm. Jumbo histo boat. Blade widths, 4.0, 6.0 and 8.0mm.



*(M. J. F. Blumer et al., Journal of Neuroscience Methods 120, pp. 11 – 16, 2002).

DiATOME® histology Diamond Knives

123-DK4-H40	histo Diamond Knife, Angle 45°, Knife 4.0mm	each
123-DK4-H40E	histo Diamond Knife, Angle 45°, Knife 4.0mm, Exchange.....	each
123-DK4-H40R	histo Diamond Knife, Angle 45°, Knife 4.0mm, Resharpen	each
123-DK4-H60	histo Diamond Knife, Angle 45°, Knife 6.0mm	each
123-DK4-H60E	histo Diamond Knife, Angle 45°, Knife 6.0mm, Exchange.....	each
123-DK4-H60R	histo Diamond Knife, Angle 45°, Knife 6.0mm, Resharpen	each
123-DK4-H80	histo Diamond Knife, Angle 45°, Knife 8.0mm	each
123-DK4-H80E	histo Diamond Knife, Angle 45°, Knife 8.0mm, Exchange.....	each
123-DK4-H80R	histo Diamond Knife, Angle 45°, Knife 8.0mm, Resharpen	each
123-DK4-HCD40	histo cryo Dry Diamond Knife, Angle 45°, Knife 4.0mm.....	each
123-DK4-HCD40R	histo cryo Dry Diamond Knife, Angle 45°, Knife 4.0mm, Resharpen	each
123-DK4-HCW40	histo cryo Wet Diamond Knife, Angle 45°, Knife 4.0mm	each
123-DK4-HCW40R	histo cryo Wet Diamond Knife, Angle 45°, Knife 4.0mm, Resharpen	each
123-DK4-HCD60	histo cryo Dry Diamond Knife, Angle 45°, Knife 6.0mm.....	each
123-DK4-HCD60E	histo cryo Dry Diamond Knife, Angle 45°, Knife 6.0mm, Exchange.....	each
123-DK4-HCD60R	histo cryo Dry Diamond Knife, Angle 45°, Knife 6.0mm, Resharpen	each
123-DK4-HCW60	histo cryo Wet Diamond Knife, Angle 45°, Knife 6.0mm	each
123-DK4-HCW60E	histo cryo Wet Diamond Knife, Angle 45°, Knife 6.0mm, Exchange.....	each

DiATOME® histology Diamond Knives, DiATOME® Thermo Scientific/FEI Diamond Knives, Diamond Knife Cleaning Tools

DiATOME® histology Diamond Knives (continued)

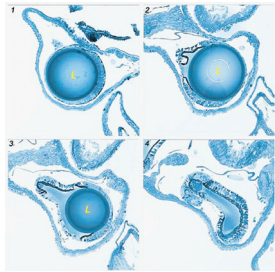
123-DK4-HCW60R	histo cryo Wet Diamond Knife, Angle 45°, Knife 6.0mm, Resharpen	each
123-DK4-HCD80	histo cryo Dry Diamond Knife, Angle 45°, Knife 8.0mm.....	each
123-DK4-HCD80E	histo cryo Dry Diamond Knife, Angle 45°, Knife 8.0mm, Exchange.....	each
123-DK4-HCD80R	histo cryo Dry Diamond Knife, Angle 45°, Knife 8.0mm, Resharpen	each
123-DK4-HCW80R	histo cryo Wet Diamond Knife, Angle 45°, Knife 8.0mm	each
123-DK4-HCW80E	histo cryo Wet Diamond Knife, Angle 45°, Knife 8.0mm, Exchange.....	each
123-DK4-HCW80R	histo cryo Wet Diamond Knife, Angle 45°, Knife 8.0mm, Resharpen	each
123-DK4-JH60	histo Jumbo Diamond Knife, Angle 45°, Knife 6.0mm	each
123-DK4-JH60E	histo Jumbo Diamond Knife, Angle 45°, Knife 6.0mm, Exchange	each
123-DK4-JH60R	histo Jumbo Diamond Knife, Angle 45°, Knife 6.0mm, Resharpen	each
123-DK4-JH80	histo Jumbo Diamond Knife, Angle 45°, Knife 8.0mm	each
123-DK4-JH80E	histo Jumbo Diamond Knife, Angle 45°, Knife 8.0mm, Exchange	each
123-DK4-JH80R	histo Jumbo Diamond Knife, Angle 45°, Knife 8.0mm, Resharpen	each

DiATOME® Thermo Scientific/FEI Diamond Knives for Volumescape®

New knife and resharpening services are available for the Thermo Scientific/FEI Volumescape® from the experts at DiATOME®. New knives are delivered in a Volumescape®-compatible holder. Send in an existing knife and holder for the resharpening service to be performed and returned to you.

Thermo Scientific/FEI Diamond Knives for Volumescape®:

123-FEI-N	Thermo Scientific/FEI Volumescape® Knife.....	each
123-FEI-R	Thermo Scientific/FEI Volumescape® Knife, Resharpen.....	each



Eye of A. peroni: photographic sequence of some semithin sections of a complete serial sectioning of the eye

L = lens; RE = retina.

Michael J. F. Blumer, Institut für Zoologie, Universität Wien.

Reprinted from: Ribbons of semithin sections: an advanced method with a new type of diamond knife. Journal of Neuroscience Methods 120, pp. 11 – 16, 2002, with permission from Elsevier.

Diamond Knife Cleaning Rods

4 rods for cleaning the knife edge

The preferred and recommended cleaning rods for DiATOME® Diamond Knives. Shown with blade (not included).



Diamond Knife Cleaning Tools for DiATOME® Knives

123-2	Cleaning Rods, Box of 4	each
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