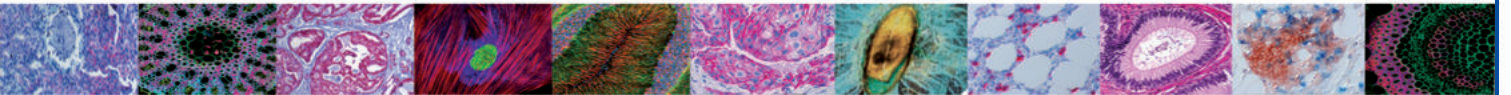
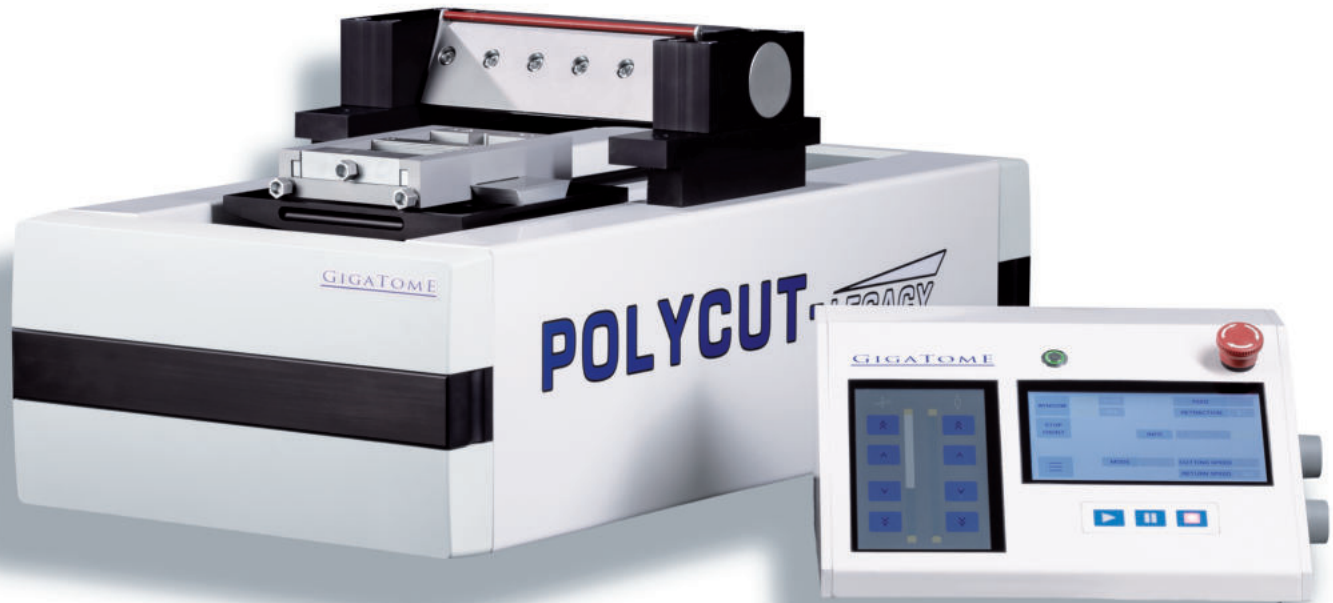
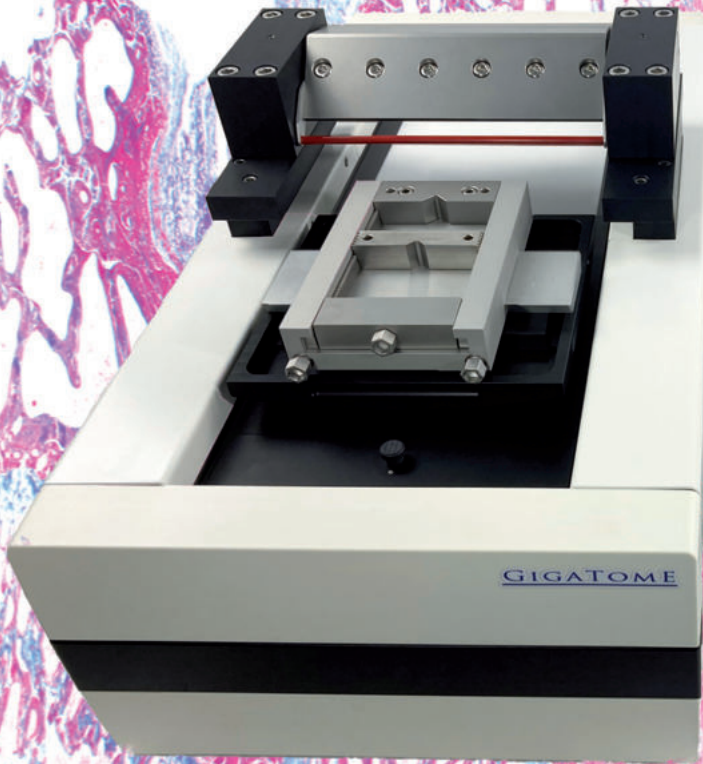


GIGATOME



POLY-CUT-LEGACY

The Gold standard in microtomy for histology life sciences and material sciences is back



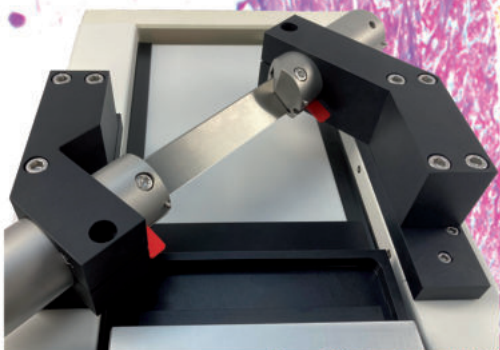
The knifeholder KH-P for parallel-sided full tungsten carbide knives



The knifeholder KH-P with declination blocks for long pulling cuts at 45° to section even the hardest materials



The knifeholder KH-S for all standard knives or like seen in this picture with our insert D-I for all disposable low profile blades up to 22 cm width



The knifeholder KH-S for all standard knives with 45° declination blocks for more tricky paraffin sections

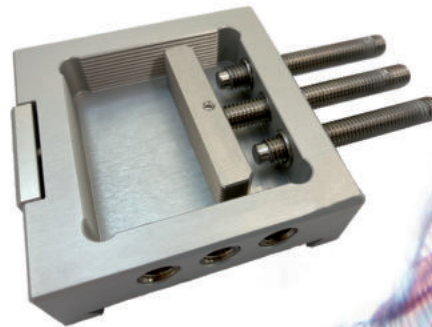


The basic clamp with vise for specimen up to 80 x 100mm with top jaws for high specimen

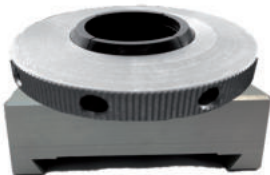
- equipped with V-inserts for round specimen for different diameters
- it is the base to clamp all paraffin tables
- lateral movement to benefit from the whole width of the knife
- X/Y- orientation in every direction

The object clamp for specimen up to 44 x 58 mm

- lateral movement to benefit from the whole width of the knife
- X/Y- orientation in every direction



Round clamp with inserts for 6, 15 and 25 mm

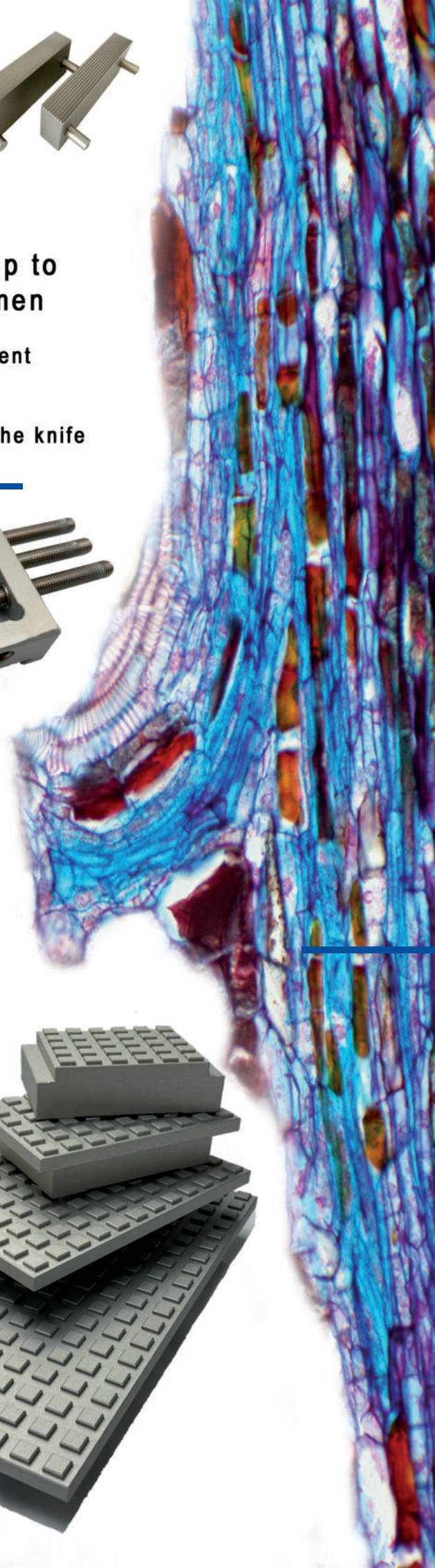
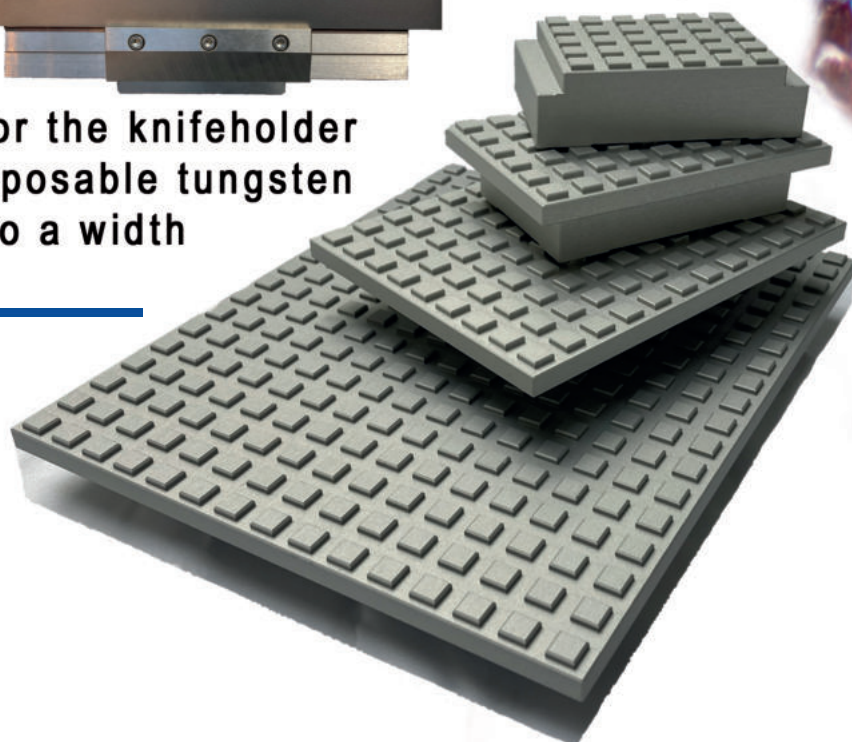


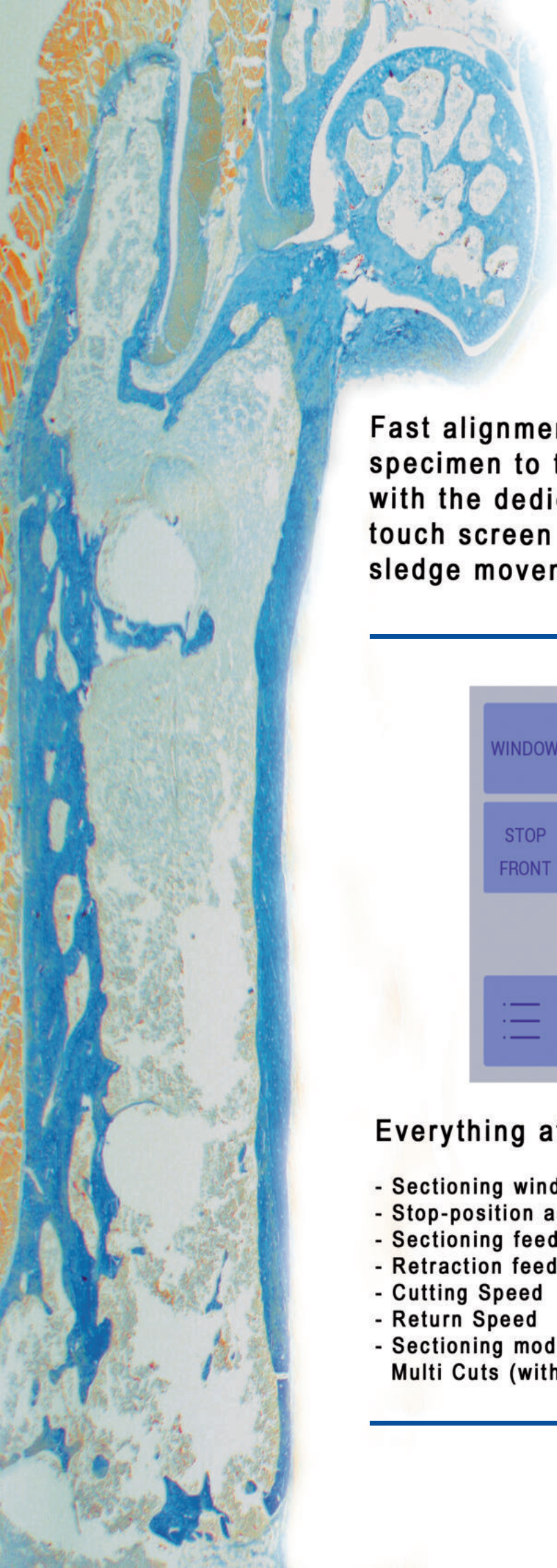
The insert D-TC for the knifeholder KH-P to clamp disposable tungsten carbide knives up to a width of 8 cm



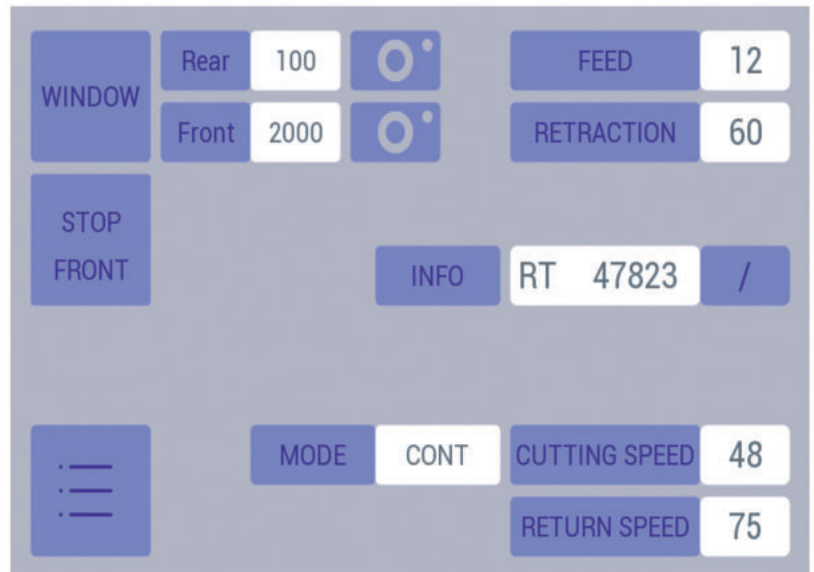
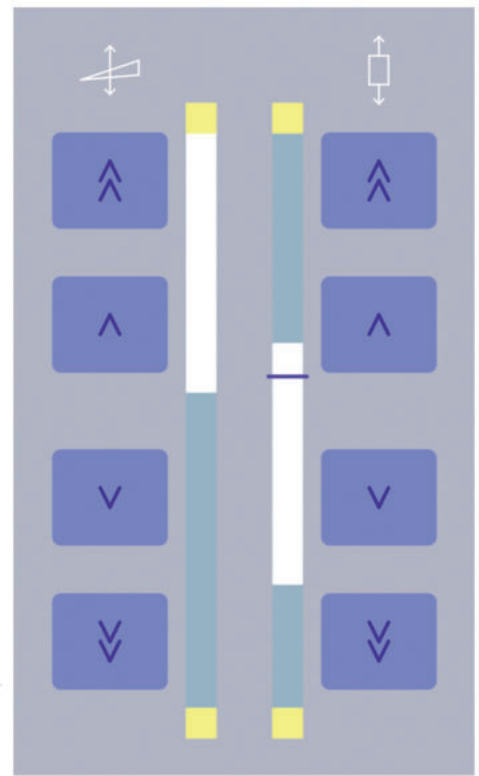
Paraffin tables in the sizes:

- 65 x 80 mm
- 80 x 120 mm
- 120 x 160 mm
- 200 x 250 mm





Fast alignment of the specimen to the knife with the dedicated touch screen for knife/sledge movements



Everything at a glance on the second screen

- Sectioning window
- Stop-position as selected
- Sectioning feed
- Retraction feed
- Cutting Speed
- Return Speed
- Sectioning modes: Single, Continuous, Interval or Multi Cuts (with a preselected amount of sections)



Everything at a glance on the control unit

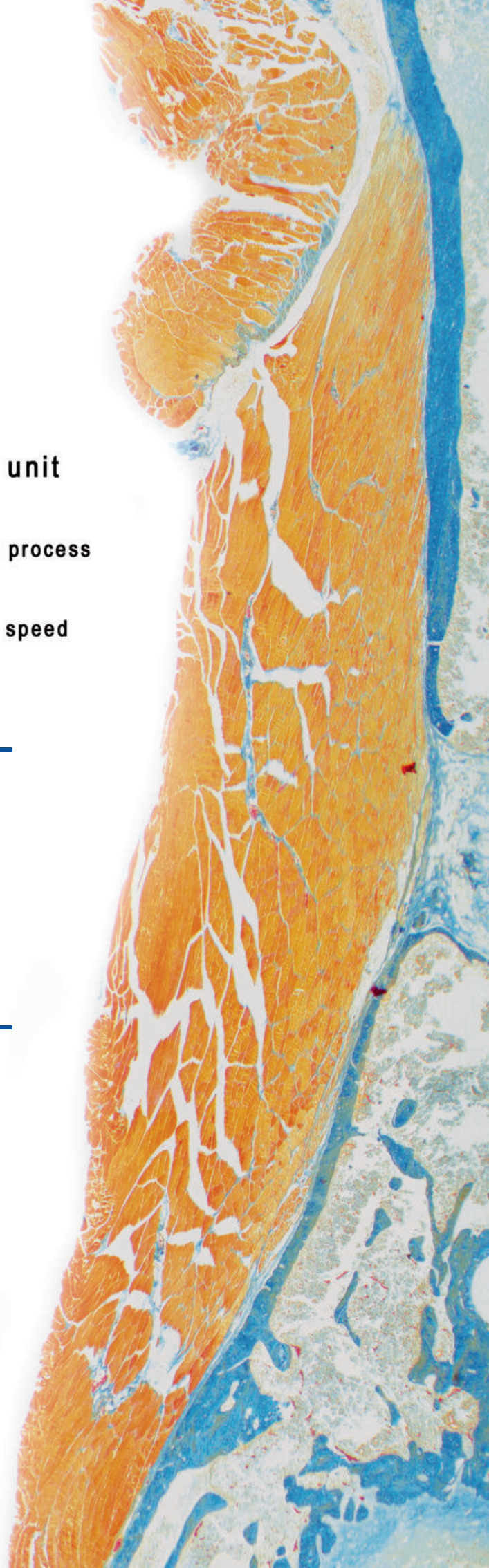
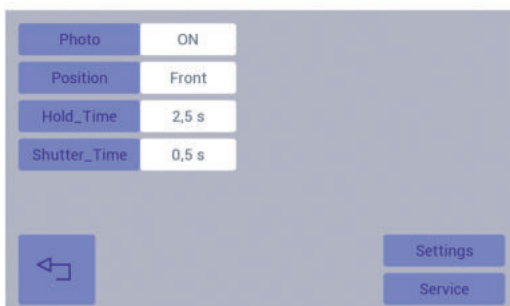
- Illuminated buttons for Start, Pause and Stop that symbolize the actual state in the sectioning process
- a dedicated turnbutton for the sectioning feed for a quick change of values
- a dedicated turnbutton to change the sectioning speed
- a big emergency-stop button for your safety

- working optional with the footswitch with integrated emergency-stop function



Professional photo-position

Acquire microscope pictures or surface photographs of oversectioned specimen by mounting some optional equipment on top
Plug-in a 6,3 mm jackplug and control it through the software



LN2 Liquid Nitrogen Customized Solutions

We can turn paraffintables into cryostages so you can section fresh biological native specimen at an ambient surrounding temperature

We can turn each of our clamps into cryostages so you can section e.g. foam or leather or other materials right at their glasspoint

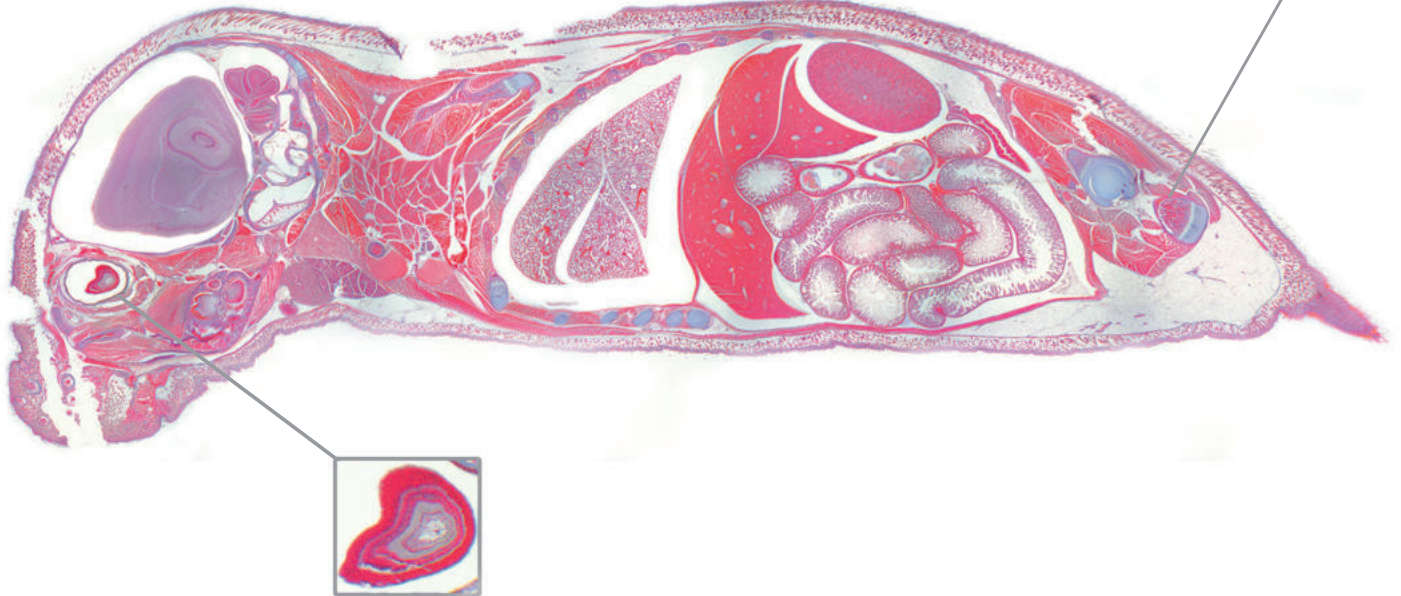


- Automatic advanced programmable LN2 microdosing system with PC controlled software
- Pressure-less flowing LN2, without spilling, noise, vibrations, etc.
- 35 L dewar included
- microdosing pump with flow-control from some drops up to 1 L/min
- all connectors and cables included
- your customized cryostage

The whole thing is of interest...

Whole body sections

Whole body section of a mouse from a paraffin block
multi acquisition picture from a microscope slidescan
specimen up to 200 x 250 x 70 mm



...but the details should stay in focus!

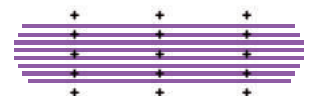
Sections of complete organs

Cross section a of complete eye bulb
microscope picture from a slidescn of
multi acquisition positions

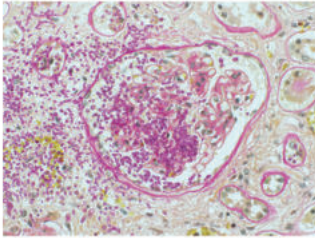


Whole brain section from a paraffin block for a later
3D stacking of microscope pictures for an organ reconstruction

3D Rekonstruktion of whole organs with any
number of serial sections

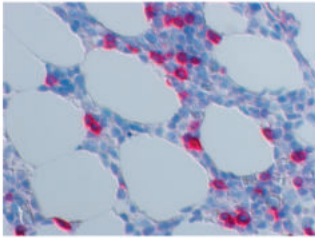


Biological Specimen



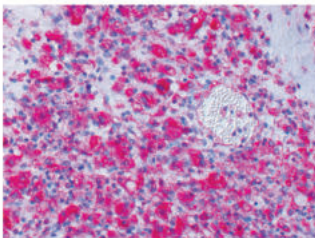
Human kidney

Whole organ section from a paraffin block, stained Tri-PAS



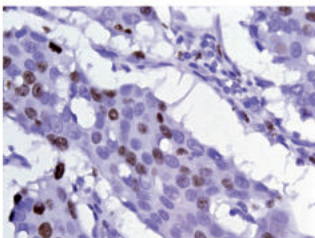
Human iliac crest

Section from an iliac crest embedded in MMA, stained CD79a



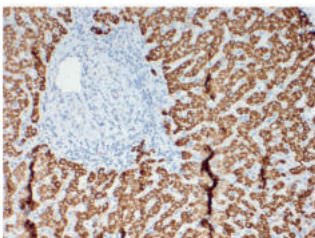
Human kidney

Whole organ section from a paraffin block for cancer research, stained Vimentin



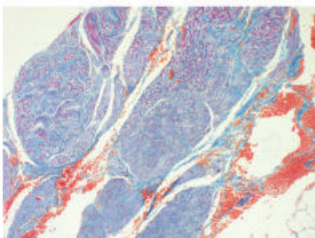
Human mamma

Whole organ section from a paraffin block for cancer research, stained Ki67



Human liver

Whole organ section from a paraffin block for cancer research, stained HBVsAG

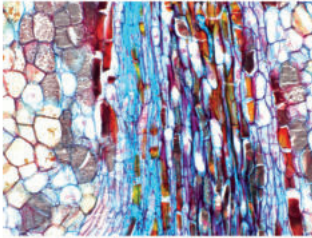


Human prostate gland

Section from a whole human prostate gland in one paraffin block
While complete organ sections are primarily interesting in research, so even in routine diagnostics they can play an important role as you need to process less cassettes, have less sections and a quicker diagnosis

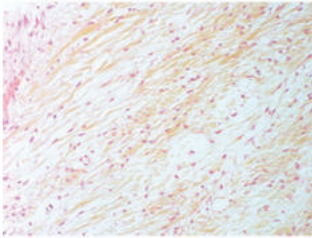
When oversized or even hard tissues should be sectioned in one piece from paraffin, methyl-methacrylate or native like wood or bones with perfect sectioning results
...it is time for the ...
“Gigatome Polycut-Legacy”

Tricky and hard



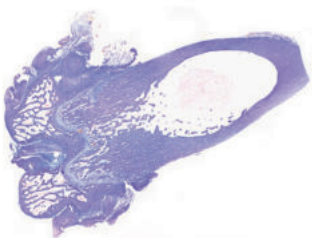
Wood

Native section of an adult grapevine wood with a declined section angle of 45°



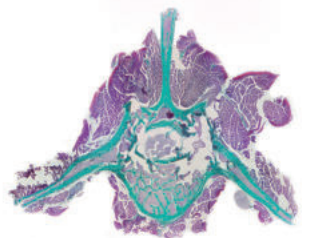
Bone

Bone section from a methyl-methacrylate embedded block stained Movat Pentachrom *



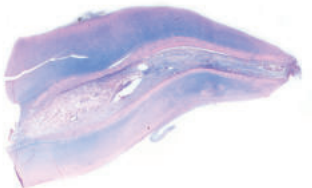
Thigh bone

Complete in paraffin embedded femur, thigh bone, sectioned and stained Alcian Blue for slidescan of multiple microscope pictures *



Vertebrae

Section through a complete vertebrae bone with muscles, stained Masson Goldner from a methyl-methacrylate embedding, microscopic slidescan from multiple pictures *



Tooth

Whole longitudinally tooth section in a Goldner Anilinblue stain for a microscopic slidescan of the whole section *

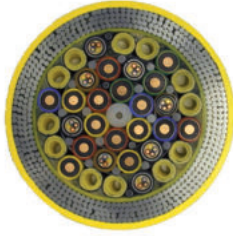


Implants

Cross section of a shinbone (tibia lat.) with implants in it, in a Goldner stain for a scan of the whole section area under the microscope - of course the implants moved out of the block within the section, but the 4µm section was perfect *

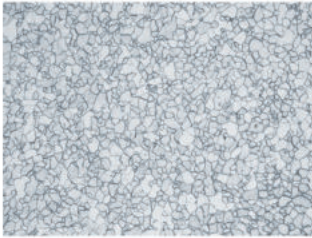
When undersized microtomes are far beyond their limits,
your research, your analysis and your target and goal
is yet far away from being reached
...then it is time for the next dimension of microtome...
"Gigatome Polycut-Legacy"

Material sciences



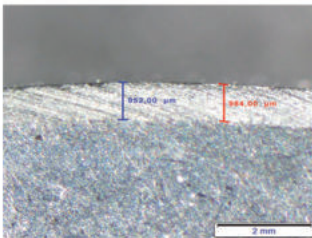
Undersea cable

Cross section of an undersea cable with a diameter of 8 cm (different metals & polymers combination) for inspection in a bright field microscope



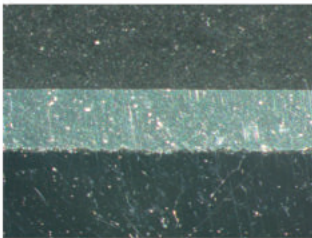
Aerospace

Oversectioned aerospace metal component to control the grain size distribution in the grid network



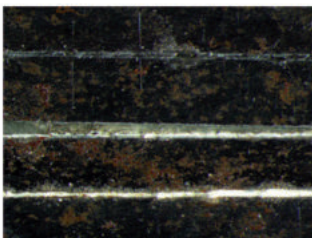
Metall-oder Kunststoffbauteile

Cross section through a two component material. Here two metals are merged together to form one piece. Coating thickness seems to vary in the production process as the measurements differ so it evidences insufficient quality tolerances



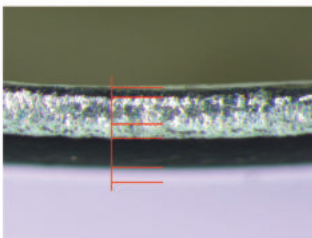
Tubes

Cross section through a tube which contains a metallic body and a plastic coating. The bonding quality of the synthetic coating is of interest by measuring the layer thickness



Automotive

Corrosion analytics and weld seam testing on an automotive component with multiple pressed layers



Coating layers

Coating layer measurements from a component put into MMA for sectioning. Microscopic picture from quality control process to validate production requirements

Every industrially manufactured component differs, as it comes from countless materials and substances forged together to one new thing. We know best that you are not sectioning paraffin like in hospitals! You need a microtome with much more capacity, more power, more flexibility and especially more volume for your very demanding preparations when other instruments are simply limited. Your solution has a name: „Gigatome Polycut-Legacy“

Material sciences



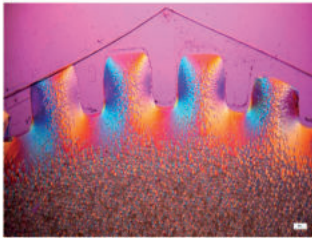
Power cable

Oversection of a 7 cm in diameter (\varnothing) copper/plastic composite cable with V-inserts clamped to investigate the surface



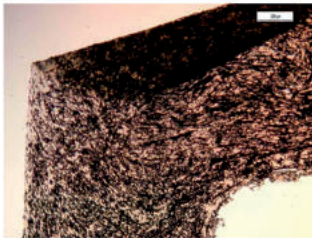
Power cable

Cross section of the above power cable with 250 μm when the copper leaves the composite while sectioning, but now one can investigate the pigment distribution in the now transparent plastic



Gears

Cross section through a gear made from polyoxymethylen



Carbon fibres

Cross section through a polyphenylenesulfide component with a high percentage of carbon fibres



Glass fibres

Cross section of a polyamide component with a high percentage of glass fibres

Knives & Resharpening service



Full tungsten carbide knives parallel 16 cm 40° or 50°
Full tungsten carbide knives rotary 16cm D-edge or C-edge



Standard knives from surgery steel 16, 22 and 30 cm
D-edge or C-edge



Disposable tungsten carbide blades TC65 with 65 mm width
(5 pieces per box)

Technical Data & Contact

Microtome

Section thickness range:.....0 - 1,000 μm , adustable in 1 μm -steps
Total horizontal specimen stroke:..... max. 275 mm
Total vertical knife feed:.....max. 70 mm
Knife retraction (during specimen return stroke):....0-1,000 μm , adustable
Clearance angle adustment:.....0° - 17°
Knife declination (declination blocks = optional equipment):45°, feststehend
Maximum specimen size (L x W x H):.....250 x 200 x 70 mm
Specimen orientation (along X/Y-axis):.....approx.5° along each axis
Specimen orientation (rotation):..... approx. +/- 3 and 90°
Sectioning speed:.....0,5-100 mm/s, adustable in 0,1 mm-steps
Return speed:.....0,5-100 mm/s, adustable in 0,1 mm-steps
Manual knife movement
(slow/fast):.....37 mm/s and 74 mm/s
Manual specimen movement
(slow/fast):.....37 mm/s and 74 mm/s
Four motorized sectioning modes:.... Single, Continous, Interval and Multi
Selectable either to be used via the control panel or the footswitch



Electrical connections

Nominal voltage: 110 - 240 V
Nominal frequency: 50 Hz - 60 Hz
Power rating: max. 900 VA
Ampacity: 4A with 230-240 V / 10A with 100 - 120 V
Protective class: I
Overvoltage category: II



Dimensions and weights

Microtome (H x W x L): 250 x 390 x 750 mm
Control panel (H x W x L): 180 x 350 x 320 mm
Required space for operating the machine: 1.000 x 950 mm
Microtom: approx. 80 kg
Control panel: approx. 10 kg



Technical specifications subject to change.

Contact

Gigatome
Begonienweg 30
D - 89297 Roggenburg
Germany

Tel.: +49 (0) 7300 / 458 4035
Fax: +49 (0) 7300 / 458 4036
Email: info@gigatome.de
Web: www.gigatome.de

