



PRECISION CUT-OFF MACHINE

QCUT 150 A

The Qcut 150 A is a flexible precision cut-off machine which is used with cut-off wheels up to a diameter of 203 mm/8".

The compact benchtop model performs automatic as well as manual cuts with the ergonomic lever. The optional sample holder arm with built-in force sensor ensures low-deformation cuts due to a precise force-controlled feed rate.

PRODUCT ADVANTAGES

- | Up to 5 different modes: manual, automatic feed, force-controlled feed, grinding mode, cutting with table attachment (depending on machine configuration)
- | Manual cross feed
- | Zone cutting function
- | 4 different cooling systems available
- | Dressing device
- | Intuitive QATM software with integrated database



[Click to view video](#)

THIS INSTRUMENT IS IDEALLY
SUITED FOR GEOLOGY AND
MINERALOGY APPLICATIONS

PRECISION CUT-OFF MACHINE QCUT 150 A

FEATURES



FORCE-CONTROLLED CUTTING

- | Integrated force sensor in the sample holder arm precisely regulates the feed rate via the set cutting force
- | Constant cutting force throughout the process for clean cutting even of edge-hardened components and composite materials

TABLE ATTACHMENT

- | Table attachment can be mounted without tools
- | Quick and manual sectioning of large samples, PCBs, or plate material

NEW: ZONE-CUTTING

- | Individual adjustment of feed rate or cutting force for single sections of the sample
- | Reduced material deformation and heating
- | Accelerated cutting process

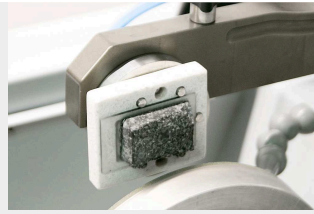
ALL PARAMETERS AT A GLANCE

- | Robust 4.3" industrial touchscreen
- | Intuitive software with modern interface displaying all important cutting parameters
- | Extensive program storage and user account control



GRINDING MODE

- | Target preparation: In grinding mode, samples can be ground manually or semi-automatically using a cup wheel
- | Ideal for thin sections and microelectronics



VACUUM CLAMPING UNIT

- | Glass slides for thin sections can be fixed easily and without slipping

REDUCES SUBSEQUENT GRINDING PROCESSES

The use of the adaptive rotation axis leads to an even more uniform cutting pattern and reduces the risk of the cut-off wheel runout. This reduces the effort required for later plane-parallel grinding of the sample.



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SUPERIORITY IN DETAIL

1. Sample holder arm

- | Tool-free quick-clamping system for mounting :
- | Precision clamping devices
- | Rotation device
- | Vacuum clamping unit
- | Max. sample size: \emptyset

5. Transparent hood

- | Swivel hood with free access to the cutting chamber
- | Integrated safety switch

6. Z-axis

- | Manual cross feed

40 mm

2. Y-axis

- | Manual or automatic feed
- | Travel: 120 mm
- | Feed rate: 0.01–20 mm/s (automatic)
- | Cutting force variably adjustable: 0–10 N (optional)

3. Dressing device

- | For sharpening diamond cutting and grinding wheels
- | Can be operated manually from the outside

4. Robust machine body

- | Sturdy and corrosion-resistant stainless steel housing
- | Powder-coated, for easier cleaning

- | Travel: 25 mm
- | Position shown on the display
- | Positioning accuracy: 0.005 mm

7. Cut-off Wheel drive

- | Cut-off wheel size: Ø 75–203 mm / 8"
- | Drive power: 0.37 kW (SI)

8. Ergonomic Control panel

- | 4.3" industrial touchscreen
- | Intuitive interface displaying process data
- | Storage of up to 200 user-defined cutting methods
- | User account management





**EXTENSIVE RANGE OF
CLAMPING TOOLS**

With the help of a suitable clamping tool from the extensive range of accessories, mounted or non-mounted samples up to a size of \varnothing 40 mm can be clamped in the cut-off machine comfortably

OPTIMAL ACCESSORIES FOR QCUT 150 A AND 200 A

COOLING SYSTEMS

Optimal cooling is essential during sectioning. Excessive heat generation during the sectioning process damages the specimen and increases the wear of the cut-off wheel. The cooling and corrosion protection agent dissipates the heat and simultaneously removes the chips from the cut-off chamber.



15L RECIRCULATION COOLING SYSTEM

- | Portable system with filter cartridge and lid
- | Small footprint required
- | Easy to integrate into existing laboratory furniture
- | Two-chamber system for filtration



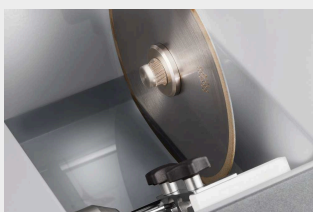
45L RECIRCULATION COOLING SYSTEM (MOBILE)

- | Mobile unit with inlet strainer, filter bag and overflow
- | Can be placed under a lab bench or floor-to-ceiling cabinet
- | Expandable with optional pump module for cut-off chamber flushing
- | Two-chamber system for filtration with removable separating slide



45L RECIRCULATION COOLING SYSTEM (SYSTEM LAB)

- | Mobile unit with retractable mechanism
- | Can be conveniently integrated into QATM system laboratory cabinets and cabinets with undershelves
- | Expandable with optional pump module for cut-off chamber flushing
- | Inlet strainer, filter bag and overflow
- | Two-chamber system for filtration with removable separating slide



CUT-OFF WHEEL IMMERSION COOLING

- | Equipment to seal and fill cutting chamber with coolant

- | Incl. drain hose and shut-off valve for easy emptying
- | Sample collector

PERFECT CUTTING - CUT-OFF WHEELS FROM QATM

Cutting is more reliable, safe and efficient when processed with the right ingredients: knowledge, care and the right choice of consumables and instruments. The Qprep range includes specially developed cut-off wheels for a wide variety of materials and requirements.

- | Low thermal influence on the specimen during the cutting process
- | Wet abrasive cutting achieves very fine surface finishes after cutting
- | Optimal cutting shortens the further preparation process



PRECISION CLAMPING DEVICES

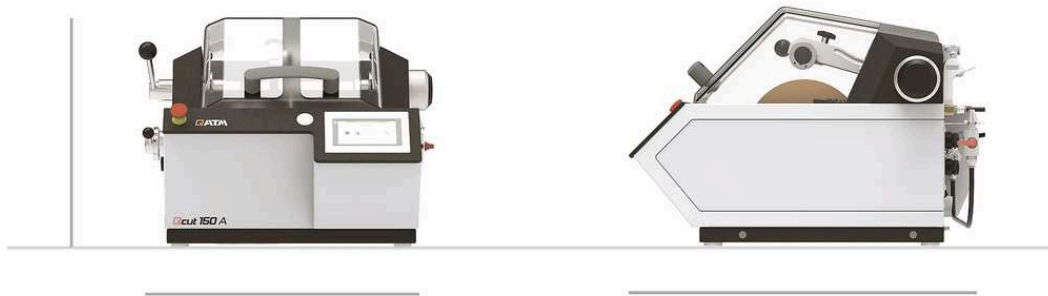
The Precision Series from QATM offers versatile clamping for both regular and irregularly shaped samples, designed for the most demanding and precise materialographic applications.

- | Handles Irregular and Complex Geometries
- | Varied and Versatile Product Range
- | Works with Rotating Device Integration (Qcut 150 A)
- | Horizontal and Vertical Adaptation Available



PRECISION CUT-OFF MACHINE QCUT 150 A

TECHNICAL DATA




Cut-off wheel	ø 75 - 203 mm/8"
Variable speed	150 - 3000 rpm
Max. cutting capacity	ø 40 mm
Arbour size	ø 12.7 mm
Variable adjustable cutting force	0 - 10 N
Feed	0,01 - 20 mm/s (automatic)
Y-axis (vertical movement)	120 mm (manual /automatic)
Precision Y-axis	0.1 mm
Z-axis manual (parallel cut)	25 mm (manual)
Precision Z-axis	0.005 mm
Motor power	0.37 kW (S1)
Connection power	0.75 kVA
W x H x D	545 x 391 x 566 mm
Weight	~ 45 kg (depends on equipment)


www.qatm.com/qcut-150-a

ORDER DATA

BASIC EQUIPMENT

MACHINE (1 ITEM REQUIRED)

M1870020  Qcut 150 A (Brillant 210 A) Base machine 200-240V, 50/60Hz

M1870021  Qcut 150 A (Brillant 210 A) Base machine 100-120V, 50/60Hz

RECIRCULATION SYSTEM (1 ITEM REQUIRED)

A1870022 Qcut 150 A cutting wheel immersion cooling

A1870023 Qcut 150 A recirculation cooling system 15 Ltr.

A1870024 Qcut 150 A recirculation cooling system 45 Ltr., mobile

A1870025 Qcut 150 A recirculation cooling system 45 Ltr., for system lab

A1870026 Fresh water cooling system

OPTIONS (TO BE ORDERED WITH MACHINE)

A1870027 Dressing device

A1870028 Qcut 150 A preparation rotation device

OPTIONS (CAN BE ORDERED SEPARATELY)

Z1870031 Sample holder arm L standard

Z1870033 Sample holder arm L incl. cutting-force control

Z1870059 Rotation device type RD1

Z1870020 Table attachment

Z1870021 Qcut 150 A splash guard large angled

Z1870023 Parallel cutting guide

Z1870024 Angle cutting guide

Z1870022 Cutting guide fixed 90°

Z1870050 Flange set Ø 59 mm

Z1870051 Flange set Ø 99 mm

Z1870052	Flange set Ø 139 mm
Z1870035	Sample holder L standard Ø 40 mm open, Clamping_devices, Precision_clamping_devices
Z1870037	Sample holder L standard Ø 40 mm closed, Clamping_devices, Precision_clamping_devices
Z1870039	Sample holder L Flex Ø 40 mm, Clamping_devices, Precision_clamping_devices
Z1870043	Sample holder L parallel clamping vice open, Clamping_devices, Precision_clamping_devices
Z1870041	Sample holder L parallel clamping vice closed, Clamping_devices, Precision_clamping_devices
Z1870045	Drop shape sample holder L Ø 40 mm, Clamping_devices, Precision_clamping_devices
Z1870047	Universal clamping vice L, Clamping_devices, Precision_clamping_devices
Z1870049	Matrix clamping vice L, Clamping_devices, Precision_clamping_devices
Z1870054	Mini vice L, Clamping_devices, Precision_clamping_devices
Z1870056	Double parallel vice L, Clamping_devices, Precision_clamping_devices
Z1870058	Adaptor with ball joint L, Clamping_devices, Precision_clamping_devices
Z1870064	Reduction ring Ø 25 mm, Clamping_devices, Precision_clamping_devices
Z1870063	Reduction ring Ø 30 mm, Clamping_devices, Precision_clamping_devices
Z1870071	Reduction ring Ø 40 mm, Clamping_devices, Precision_clamping_devices
Z1870067	Reduction ring 1", Clamping_devices, Precision_clamping_devices
Z1870066	Reduction ring 1 1/4", Clamping_devices, Precision_clamping_devices
Z1870065	Reduction ring 1 1/2", Clamping_devices, Precision_clamping_devices
Z1870068	Manual chuck Ø 32 mm, Clamping_devices, Precision_clamping_devices
Z1870069	Manual chuck Ø 44 mm, Clamping_devices, Precision_clamping_devices

VACUUM CLAMPING VICES, CLAMPING_DEVICES, PRECISION_CLAMPING_DEVICES

Z1870028	Vacuum sample holder, Clamping_devices, Precision_clamping_devices
01870288	Vacuum holder (sacrificial plate), Clamping_devices, Precision_clamping_devices
Z1304600	Vacuum pump 230V/50Hz for vacuum sample holder, Clamping_devices, Precision_clamping_devices
Z1304634	Vacuum pump 110V/60Hz for vacuum sample holder, Clamping_devices, Precision_clamping_devices

EASY-CLAMPING PLATES, CLAMPING_DEVICES, EASY_CLAMPING_PLATES

UNIVERSAL VICES AND ACCESSORIES, CLAMPING_DEVICES, UNIVERSAL_VICES_AND_ACCESSORIES

92005796	Longitudinal v-shoe, Clamping_devices, Universal_vices_and_accessories
92005797	Traverse v-shoe, Clamping_devices, Universal_vices_and_accessories
92005799	Longitudinal bridge, Clamping_devices, Universal_vices_and_accessories
92005800	Traverse bridge, Clamping_devices, Universal_vices_and_accessories
92005798	Standard clamping shoe, Clamping_devices, Universal_vices_and_accessories
Z1350007	Height adapter 60mm Piccolo, Clamping_devices, Universal_vices_and_accessories
Z1350003	Height adapter 74mm Mono, Clamping_devices, Universal_vices_and_accessories
95003172	Clamping arm extension Piccolo 54 and Mono 61, Clamping_devices, Universal_vices_and_accessories
Z1304591	Fixing screw M6 x 25, Clamping_devices, Universal_vices_and_accessories
95003169	Fixing screw Piccolo M8 x 25, Clamping_devices, Universal_vices_and_accessories
95003170	Fixing screw Piccolo M10 x 25, Clamping_devices, Universal_vices_and_accessories
95003168	Fixing screw Mono M10 x 32, Clamping_devices, Universal_vices_and_accessories
91001157	T-slot nut - stainless M6 x 8, Clamping_devices, Universal_vices_and_accessories
91001161	T-slot nut - stainless M8 x 10, Clamping_devices, Universal_vices_and_accessories
91001159	T-slot nut - stainless M8 x 12, Clamping_devices, Universal_vices_and_accessories
91001158	T-slot nut - stainless M10 x 12, Clamping_devices, Universal_vices_and_accessories