



CUT-OFF MACHINE

QCUT 500 A

The Qcut 500 A is the powerhouse of the large cut-off machine family. Equipped with a highly dynamic axis drive and automatic travel cut/chop cut functions, the system cuts large components with exceptional precision, minimal contact, and outstanding speed.

- | Fast, powerful cuts: The highly dynamic axis drive allows rapid traverses of up to 80 mm/s and greatly reduces cutting time
- | Versatile applications: Cutting of particularly long samples is easily possible thanks to side openings on both sides
- | Multi-Position Process (MPP): Simultaneous positioning and automatic cutting of different components on the machine table



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SUPERIORITY IN DETAIL

1. Ergonomic control panel

- | Large 12.1" industrial touchscreen with intuitive QATM software
- | Quick setup, control of all axes with joystick

2. Robust machine body

- | Sturdy powder-coated aluminum construction
- | Integrable recirculating cooling unit
- | Automatic central lubrication of the axes

3. Large machine table

- | Made of stainless steel with integrated longitudinal and cross T-slots
- | Secure clamping of complex workpiece shapes using the T-slot table or Easy clamping system

4. Large cutting chamber

- | Large sliding door provides easy access and visibility
- | Side swing door for convenient access to cutting chamber
- | Side openings on the right and left for long samples
- | Break-resistant LED interior lighting

5. Optimized swivel arm

- | Highly efficient cooling system
- | Increased cutting capacity thanks to parallel guided cut-off wheel guard
- | Laser alignment aid for easy workpiece positioning



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FEATURES



STAINLESS STEEL MACHINE TABLE

Spacious machine table enables precise work even under heavy loads.

- | Integrated T-slots for the Easy clamping system for quick mounting of clamping tools
- | Efficient and reliable fixation of complex geometries using clamping devices
- | Load capacity up to 120 kg (including clamping devices)



LASER ALIGNMENT

Optional laser alignment projects the cutting line directly onto the workpiece, enabling precise positioning and exact cut placement.

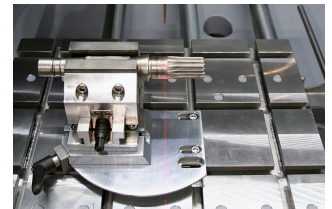
- | Easy positioning of workpieces
- | Precise clamping without much effort



ROBUST MACHINE WITH LARGE CUTTING CHAMBER

Robust, powder-coated aluminum machine body features a large sliding door with scratch-resistant laminated safety glass and convenient side access door.

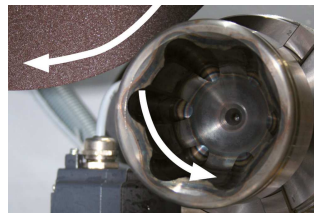
- | Machine body with integrable recirculating cooling unit and automatic central lubrication
- | Large cutting chamber access with safety interlock — doors open only



PRECISION CROSS FEED

The table-integrated Z-axis maintains consistent cutting height while the automatic cross feed with serial cutting function delivers precise parallel cuts.

- | Simple and intuitive serial cutting
- | The multi-position process (MPP) allows more complex serial cutting to be carried out



ROTATION TOOL

The optional rotation tool features a vertical rotary feed parallel to the wheel with software-controlled angle input.

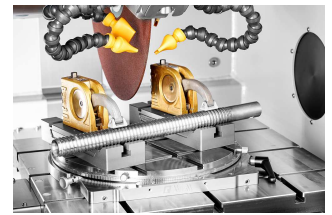
- | More uniform cutting surfaces and cutting quality
- | Cutting time is halved for rotationally symmetrical parts
- | Protects against cut-off wheel run-out



INTUITIVE AND EASY OPERATION

Large 12.1" industrial touchscreen with intuitive QATM user software and joystick.

- | Easily manage process parameters and create customer-specific maintenance tasks (200 user programs can be saved)
- | Parameters such as feed rate, travel distance, and cutting force can be changed during automatic operation



PULSED CUTTING

For thick and difficult-to-cut materials, the adjustable automatic pulsed cutting provides gentle sectioning with optimal cooling of the cut interface.

- | Enhanced cutting results for larger components
- | Superior cooling of contact surfaces



CUTTING FORCE DEPENDENT FEED CONTROL (X- AND Y-AXIS)

The feed rate automatically decreases when cutting force reaches a preset limit, protecting the machine, sample, and clamping tools from overloading.

- | Time savings thanks to variable feed rate

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ACCESSORIES



RECIRCULATION COOLING UNIT

Compact, integrable cooling system for standard applications.

- | Can be integrated into the housing and extended
- | Multi-chamber filtration
- | Inlet sieve with filter bag (see consumables)



BELT FILTER SYSTEM

Large cooling and filter system for continuous operation, e.g. in serial applications.

- | Tank size: 285 l
- | Filtering capacity: 100 l/min (referring emulsion)
- | Pump capacity: 100 l/min



CENTRIFUGAL SEPARATOR

Work safety: Working environment with improved air quality.

- | Removes coolant mist
- | Purifies the air and increases visibility
- | Exhaust power 452 or 500 m³/h depending on voltage

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.

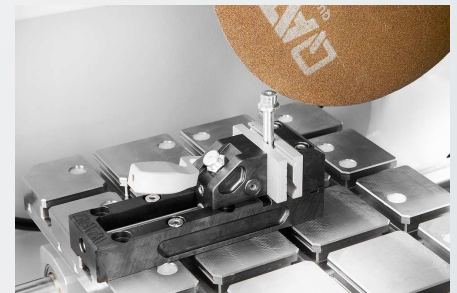
- | Low thermal influence on the specimen during the cutting process
- | Wet abrasive cutting achieves very fine surface finishes after cutting
- | Optimal cutting shortens the further preparation process



FAST, POWERFUL, FLEXIBLE - QTOOL CLAMPING DEVICES

Our innovative clamping devices are used to clamp workpieces securely and precisely to ensure exact cutting and grinding processes. There is a wide range of different clamping devices that have been developed for specific applications and workpiece sizes.

- | Suitable for regular and irregularly shaped samples
- | Fast, repeat-accurate clamping of regularly shaped samples
- | Large range of different clamping tools and systems available



CUT-OFF MACHINE QCUT 500 A

TECHNICAL DATA



FEATURES

Cutting wheel	up to $\varnothing$ 508 mm/20"
Max. cutting capacity	$\varnothing$ 190 mm
Wheel flange size	$\varnothing$ 32/40 mm
X-axis automatic	420 mm
Y-axis automatic	280 mm
Z-axis automatic (option)	200 mm
Precision Z-axis	0.1 mm
Table with Z-axis WxD	550 x 500 mm, stainless
Table without Z-axis WxD	700 x 500 mm, stainless
T-slot	12 mm
Speed	variable 1000-2800 /1000-2400 rpm
Connection power	30 KVA
Drive power (main drive)	15 kW, SI operation
W x H x D	1300 x 1820 x 1250 mm

Weight

~ 1000 kg (depends on equipment)

www.qatm.com/qcut-500-a

ORDER DATA

BASIC EQUIPMENT

MACHINE (ALL ITEMS REQUIRED)

M1832000		Qcut 500 A (Brillant 275) Base machine
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POWER SUPPLY (1 ITEM REQUIRED)

A1832000	Qcut 500 A power supply 400V/50Hz (3Ph/N/PE)
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A1832002	Qcut 500 A power supply 480V/60Hz (3Ph/PE)
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WHEEL GUARD (1 ITEM REQUIRED)

A1832001	Qcut 500 A wheel guard 432mm 17"
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A1832010	Qcut 500 A wheel guard 508mm 20"
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CROSS FEED (1 ITEM REQUIRED)

A1832008	Qcut 500 A table with X-axis
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A1832011	Qcut 500 A table with X/Z-axis
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RECIRCULATION SYSTEM (1 ITEM REQUIRED)

A1832005		Qcut 500 A recirculation system 400V/50Hz (3Ph/PE)
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A1832006		Qcut 500 A recirculation system 480V/60Hz (3Ph/PE)
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A6501000		Belt filter 285 400V/50Hz (3Ph/PE)
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A6501002		Belt filter 285 480V/60Hz (3Ph/PE)
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Z6501000	Connection set belt filter 285
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PRECISION CLAMPING DEVICES

Z1870063	Reduction ring Ø 30 mm
Z1870069	Manual chuck Ø 44 mm

QUICK CLAMPING TOOLS

QTOOL 80

Z2231203	Qtool 80 - 100mm
Z2231204	Qtool 80 - 150mm
02231243	Clamping jaw 40 mm
Z2231215	Clamping jaws 70 mm
02231245	Clamping jaw 40 mm bevelled
02231246	Clamping jaw 40 mm cross prism
Z2231216	Clamping jaws 70 mm slotted
Z2231217	Clamping jaws 70 mm slotted prism

QTOOL 80 VARIO

Z2231200	Qtool 80 Vario - 100 mm
Z2231201	Qtool 80 Vario - 150 mm
Z2231202	Qtool 80 Vario - 250 mm
Z2231210	Workpiece stop
02231200	Clamping jaw, 40 mm - for Qtool 80 Vario
Z2231211	Clamping jaws, 70 mm
02231213	Prism jaw, 40 mm
02231229	Bevelled jaw, 40 mm
02231230	Cross prism jaw, 40 mm
Z2231212	Round bar jaws, 70 mm slotted
Z2231213	Prism jaws, 70 mm slotted
Z2231214	Clamping jaws, 70 mm slotted

POWER CLAMPING SYSTEMS

POWER CLAMPING SYSTEM 100-540

Z2234016	Power clamping system 100-540
Z2234018	Prism clamping jaw
Z2234017	Clamping jaw flat
Z2234019	Angular drive

POWER CLAMPING SYSTEM LC 90

Z2234001	Power clamping system LC 90
Z2234003	Carrier jaws LC 90
Z2234004	V-groove jaw 100
Z2234005	Clamping jaw flat
Z2234009	Quick-change adapter
Z2234008	Step jaw 100
Z2234002	Clamping system X-Clamp 100
Z2234006	Socket 90°

EASY-CLAMPING PLATES

CLAMPING ACCESSORIES FOR ROTATING, SWIVELING AND SPECIAL APPLICATIONS

Z1304636	Expansion clamping device
Z1340000	Cross vice 80 - 100
Z1340001	Cross vice 80 - 150



ANGLE AND ROTATING VICES

Z1304001	Angle vice 60
01304008	Prism jaw angle vice 60
Z1302000	Angle vice 80
01302016	Prism jaw angle vice 80

ROTATIG DEVICES

Z1870059	Rotation device type RD1
Z1891001	Rotation device type RD2.1

UNIVERSAL VICES AND ACCESSORIES

Z1350025	Clamping rail
01350022	Prism 120°
01350023	Prism slim
01350024	Prism 90°
01350025	Prism 90° high
Z1350002	 Universal vice Mono 61
Z1350004	 Suitcase set universal vice Mono 61
Z1350011	 Universal vice Mono 132
Z1350005	Universal vice Duo
Z1350006	Chain vice set
92005796	Longitudinal v-shoe
92005797	Traverse v-shoe
92005799	Longitudinal bridge
92005800	Traverse bridge
92005798	Standard clamping shoe
Z1350007	Height adapter 60mm Piccolo
Z1350003	Height adapter 74mm Mono
95003172	Clamping arm extension Piccolo 54 and Mono 61
Z1304591	Fixing screw M6 x 25
95003169	Fixing screw Piccolo M8 x 25
95003170	Fixing screw Piccolo M10 x 25
95003168	Fixing screw Mono M10 x 32
91001157	T-slot nut - stainless M6 x 8

91001161	T-slot nut - stainless M8 x 10
91001159	T-slot nut - stainless M8 x 12
91001158	T-slot nut - stainless M10 x 12