



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



CUT-OFF MACHINE QCUT 500 A
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)



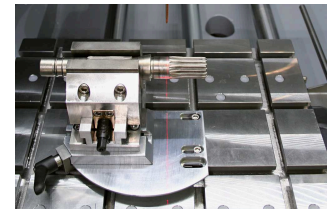
LASER ALIGNMENT

- | 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



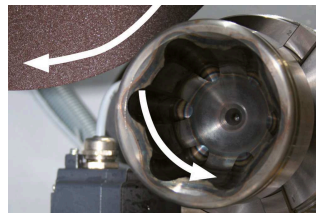
ROBUST MACHINE WITH LARGE CUTTING CHAMBER

- | 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 —



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

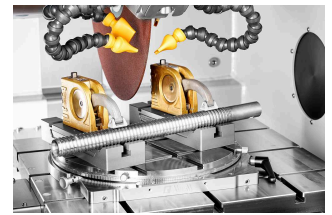
- | The optional rotation tool features a vertical rotary feed parallel to the wheel with software-controlled angle input.
- | More uniform cutting surfaces and cutting quality
- | Cutting time is halved for rotationally symmetrical parts
- | Protects against cut-off wheel run-out



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.

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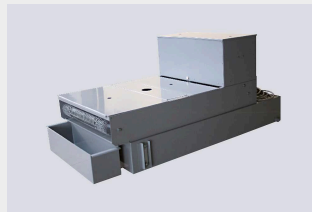
ACCESSORIES



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.

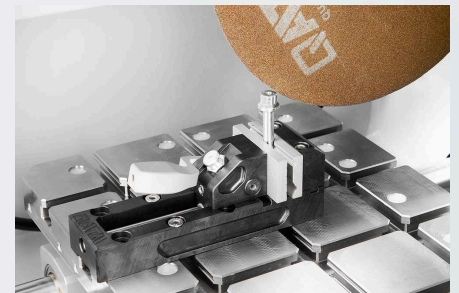
- | Low thermal influence on the specimen during the cutting process
- | Wet abrasive cutting achieves very fine surface finishes after cutting
- | Optimal cutting shortens the further preparation process



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
Feed rate	0.001 - 50 mm/sec
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

POWER SUPPLY (1 ITEM REQUIRED)

A1832000 Qcut 500 A power supply 400V/50Hz (3Ph/N/PE)

A1832002 Qcut 500 A power supply 480V/60Hz (3Ph/PE)

WHEEL GUARD (1 ITEM REQUIRED)

A1832001 Qcut 500 A wheel guard 432mm 17"

A1832010 Qcut 500 A wheel guard 508mm 20"


CROSS FEED (1 ITEM REQUIRED)

A1832008 Qcut 500 A table with X-axis


A1832011 Qcut 500 A table with X/Z-axis

RECIRCULATION SYSTEM (1 ITEM REQUIRED)

A1832005  Qcut 500 A recirculation system 400V/50Hz (3Ph/PE)

A1832006  Qcut 500 A recirculation system 480V/60Hz (3Ph/PE)


A6501000  Belt filter 285 400V/50Hz (3Ph/PE)

A6501002  Belt filter 285 480V/60Hz (3Ph/PE)

Z6501000 Connection set belt filter 285

OPTIONS (TO BE ORDERED WITH MACHINE)

A1832004 Qcut 500 A laser alignment aid

A1832007  Qcut 500 A centrifugal separator 400V 50Hz (3Ph/PE)

A1832009  Qcut 500 A centrifugal separator 480V 60Hz (3Ph/PE)

PRECISION CLAMPING DEVICES, CLAMPING_DEVICES, PRECISION_CLAMPING_DEVICES

Z1870063 Reduction ring Ø 30 mm, Clamping_devices, Precision_clamping_devices

Z1870069 Manual chuck Ø 44 mm, Clamping_devices, Precision_clamping_devices

QUICK CLAMPING TOOLS, CLAMPING_DEVICES

QTOOL 80, CLAMPING_DEVICES, QTOOL_SERIES

Z2231203 Qtool 80 - 100mm, Clamping_devices, Qtool_series

Z2231204 Qtool 80 - 150mm, Clamping_devices, Qtool_series

02231243 Clamping jaw 40 mm, Clamping_devices, Qtool_series

Z2231215 Clamping jaws 70 mm, Clamping_devices, Qtool_series

02231245 Clamping jaw 40 mm bevelled, Clamping_devices, Qtool_series

02231246 Clamping jaw 40 mm cross prism, Clamping_devices, Qtool_series

Z2231216 Clamping jaws 70 mm slotted, Clamping_devices, Qtool_series

Z2231217 Clamping jaws 70 mm slotted prism, Clamping_devices, Qtool_series

QTOOL 80 VARIO, CLAMPING_DEVICES, QTOOL_SERIES

Z2231200 Qtool 80 Vario - 100 mm, Clamping_devices, Qtool_series

Z2231201 Qtool 80 Vario - 150 mm, Clamping_devices, Qtool_series

Z2231202 Qtool 80 Vario - 250 mm, Clamping_devices, Qtool_series

Z2231210 Workpiece stop, Clamping_devices, Qtool_series

02231200 Clamping jaw, 40 mm - for Qtool 80 Vario, Clamping_devices, Qtool_series

Z2231211 Clamping jaws, 70 mm, Clamping_devices, Qtool_series

02231213 Prism jaw, 40 mm, Clamping_devices, Qtool_series

02231229 Bevelled jaw, 40 mm, Clamping_devices, Qtool_series

02231230 Cross prism jaw, 40 mm, Clamping_devices, Qtool_series

Z2231212 Round bar jaws, 70 mm slotted, Clamping_devices, Qtool_series

Z2231213 Prism jaws, 70 mm slotted, Clamping_devices, Qtool_series

Z2231214 Clamping jaws, 70 mm slotted, Clamping_devices, Qtool_series

POWER CLAMPING SYSTEMS, CLAMPING_DEVICES, POWER_CLAMPING_SYSTEMS

POWER CLAMPING SYSTEM 100-540, CLAMPING_DEVICES, POWER_CLAMPING_SYSTEMS

Z2234016 Power clamping system 100-540, Clamping_devices, Power_clamping_systems

Z2234018 Prism clamping jaw, Clamping_devices, Power_clamping_systems

Z2234017 Clamping jaw flat, Clamping_devices, Power_clamping_systems

Z2234019 Angular drive, Clamping_devices, Power_clamping_systems

POWER CLAMPING SYSTEM LC 90, CLAMPING_DEVICES, POWER_CLAMPING_SYSTEMS

Z2234001 Power clamping system LC 90, Clamping_devices, Power_clamping_systems

Z2234003 Carrier jaws LC 90, Clamping_devices, Power_clamping_systems

Z2234004 V-groove jaw 100, Clamping_devices, Power_clamping_systems

Z2234005 Clamping jaw flat, Clamping_devices, Power_clamping_systems

Z2234009 Quick-change adapter, Clamping_devices, Power_clamping_systems

Z2234008 Step jaw 100, Clamping_devices, Power_clamping_systems

Z2234002 Clamping system X-Clamp 100, Clamping_devices, Power_clamping_systems

Z2234006 Socket 90°, Clamping_devices, Power_clamping_systems

EASY-CLAMPING PLATES, CLAMPING_DEVICES, EASY_CLAMPING_PLATES

CLAMPING ACCESSORIES FOR ROTATING, SWIVELING AND SPECIAL APPLICATIONS, CLAMPING_DEVICES, CLAMPING_ACCESSORIES_SPECIALS

Z1304636 Expansion clamping device, Clamping_devices, Clamping_accessories_specials

Z1340000 Cross vice 80 - 100, Clamping_devices, Clamping_accessories_specials



Z1340001 Cross vice 80 - 150, Clamping_devices, Clamping_accessories_specials




ANGLE AND ROTATING VICES, CLAMPING_DEVICES, CLAMPING_ACCESSORIES_SPECIALS

Z1304001 Angle vice 60, Clamping_devices, Clamping_accessories_specials
 01304008 Prism jaw angle vice 60, Clamping_devices, Clamping_accessories_specials
 Z1302000 Angle vice 80, Clamping_devices, Clamping_accessories_specials
 01302016 Prism jaw angle vice 80, Clamping_devices, Clamping_accessories_specials

ROTATING DEVICES, CLAMPING_DEVICES, ROTATION_DEVICES

Z1870059 Rotation device type RD1, Clamping_devices, Rotation_devices
 Z1891001 Rotation device type RD2.1, Clamping_devices, Rotation_devices

UNIVERSAL VICES AND ACCESSORIES, CLAMPING_DEVICES, UNIVERSAL_VICES_AND_ACCESSORIES

Z1350025 Clamping rail, Clamping_devices, Universal_vices_and_accessories
 01350022 Prism 120°, Clamping_devices, Universal_vices_and_accessories
 01350023 Prism slim, Clamping_devices, Universal_vices_and_accessories
 01350024 Prism 90°, Clamping_devices, Universal_vices_and_accessories
 01350025 Prism 90° high, Clamping_devices, Universal_vices_and_accessories
 Z1350002  Universal vice Mono 6l, Clamping_devices, Universal_vices_and_accessories
 Z1350004  Suitcase set universal vice Mono 6l, Clamping_devices, Universal_vices_and_accessories
 Z1350011  Universal vice Mono 132, Clamping_devices, Universal_vices_and_accessories
 Z1350005 Universal vice Duo, Clamping_devices, Universal_vices_and_accessories
 Z1350006 Chain vice set, 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