



CUTTING ROBOT

QCUT 600 BOT

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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 two joysticks
- | The sliding control panel enables unobstructed working conditions

2. Robust machine body

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

3. Large round machine table

- | Made of stainless steel with integrated longitudinal and cross T-slots

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 (option)

6. Rotation axis, B-axis

- | Rotation range 360°, with combined C-axis 200°
- | Positioning accuracy: $\pm 0.1^\circ$

7. Optional rotation axis, C-axis

- | Rotation range: max. 360°
- | Removable modular rotation axis
- | Clamping capabilities can be expanded with a lathe chuck or other clamping devices



FREE ACCESSIBILITY

FOR LARGE WORKPIECES

Large workpieces can be placed directly on the machine table by a forklift or crane via the wide sliding door.



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IN 5 DIMENSIONS, SECTIONING THE SMALL FROM THE LARGE

With the patented 5-axis technology, workpieces can be cut at any angle precisely, repeatably, quickly, and easily. All axes are finely adjustable and remain vibration-free during the cut-off process – precise work is easier than ever. The positioning capabilities/movement of the various axes in combination with the clamping systems enables precise cutting of the workpiece without time-consuming re-clamping of the workpiece. All necessary cut-offs can be performed sequentially and automatically – even with large workpieces.

1. Y-AXIS (Chop cut)

- | Cutting range: 360 mm, automatic
- | Rapid traverse up to 80 mm/s.

2. Z-AXIS (Cross feed)

- | Travel: 550 mm, automatic
- | Cross feed for precise parallel cuts in series

3. B-AXIS (Rotation axis)

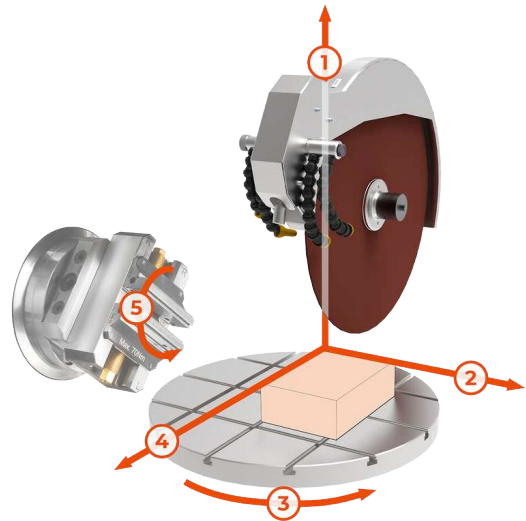
- | Rotation range: max. 360°, with combined C-axis 200°, automatic
- | Positioning accuracy: $\pm 0.1^\circ$

4. X-AXIS (Travel cut)

- | Cutting range: 550 mm, automatic
- | Rapid traverse up to 80 mm/s.

5. C-AXIS (Rotation axis)

- | Rotation range: max. 360°, automatic
- | Removeable modular rotation axis



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FEATURES



STAINLESS STEEL ROTARY TABLE

Spacious rotary table (Ø 600 mm) enables precise work even under heavy loads.

- | Rotation of the machine table (max. 360°) eliminates the need for time-consuming re-clamping of workpieces
- | Can be expanded with a modular adaptable rotation axis (C-axis)
- | Integrated T-slots for the Easy clamping system for quick mounting of clamping tools



AUTOMATIC CUT-OFF WHEEL MEASUREMENT

Dynamic cut-off wheel measurement leads to reproducible cutting results with consistent quality.

- | Automatic monitoring of the current cut-off wheel diameter
- | Adjustment of cutting parameters after each cut
- | Enables consistent cutting speed and cutting depth



ROBUST MACHINE WITH LARGE CUTTING CHAMBER

Robust, powder-coated steel machine body with large sliding door made of scratch-resistant laminated safety glass and large side door.

- | Machine body with integrable recirculating cooling unit and automatic central lubrication
- | Optimal access to the large cutting chamber with safety interlock that prevents door opening when the cut-off wheel is operating
- | Large side door for easy cut-off wheel replacement



CUTTING OPTIMIZATION

To optimize the cutting quality, the machine automatically detects local material characteristics, such as hardened areas.

- | Cutting force-dependent feed control
- | Cut detection: When starting a new cut, the workpiece is automatically detected and approached at reduced speed
- | Parallel-guided cut-off wheel guard increases the cutting capacity of the cut-off wheel during chop cuts



POWERFUL CUT-OFF WHEEL DRIVE

Precise swivel arm guidance and cut-off wheel cooling.

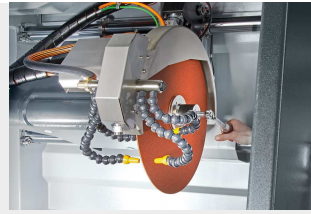
- | Water-cooled main drive with 15 kW drive power
- | Optimal cooling thanks to flexibly adjustable cooling hoses
- | Parallel guided cut-off wheel guard for increased cutting capacity when making cross cuts



INTUITIVE AND EASY OPERATION

Large 12.1" industrial touchscreen with intuitive QATM user software, joysticks, and emergency stop switch.

- | The teach function enables user-friendly programming of cutting positions by manually positioning the machine at each desired location
- | Simultaneous positioning and automatic cutting of different workpieces without re-clamping (Multi-Position Process MPP)



CLEVER DESIGN

Easy cut-off wheel replacement and simple clamping allow you to focus on cutting.

- | Laser alignment for easy workpiece positioning (option)
- | Power clamping nut: easy clamping and loosening of the cut-off wheel



MAXIMUM EASE OF USE

The control panel is movable and can be freely positioned for ergonomic operation during setup and operation of the machine.

- | Programming in close proximity to the workpiece
- | During series operation, the control panel can be moved to the side

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ACCESSORIES



RECIRCULATION



BELT FILTER SYSTEM



CENTRIFUGAL

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)

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

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.

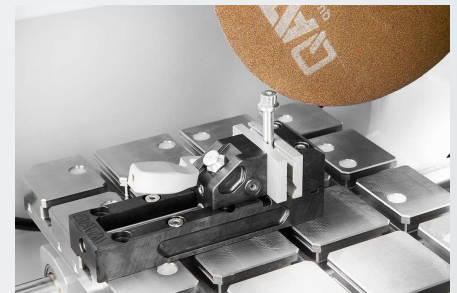
- | Low thermal influence on the specimen during the cutting process
- | Wet abrasive cutting achieves very fine surface finishes after cutting
- | Optimal cutting shortens the further preparation process



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



CUTTING ROBOT QCUT 600 BOT

TECHNICAL DATA



Machine configurable with 4 (X/Y/Z/B) or 5 axes (X/Y/Z/B/C)

www.qatm.com/qcut-600-bot

ORDER DATA

BASIC EQUIPMENT

MACHINE (ALL ITEMS REQUIRED)

M1831001		Qcut 600 BOT (4-axis) base machine 400V 50Hz (3Ph/N/PE)
M1831003		Qcut 600 BOT (5-axis) base machine 400V 50Hz (3Ph/N/PE)
M1831002		Qcut 600 BOT (4-axis) base machine 480V 60Hz (3Ph/PE)
M1831004		Qcut 600 BOT (5-axis) base machine 480V 60Hz (3Ph/PE)

WHEEL GUARD (1 ITEM REQUIRED)

A1831001	Wheel guard 500mm
A1831010	Wheel guard 600mm

RECIRCULATION SYSTEM (1 ITEM REQUIRED)

A1831005		Recirculation cooling system 400V 50Hz (3Ph/PE)
A1831006		Recirculation cooling system 480V 60Hz (3Ph/PE)
A6501000		Belt filter 285 400V 50Hz (3Ph/PE)
A6501002		Belt filter 285 480V 60Hz (3Ph/PE)
Z6501007		Connection set belt filter 285

OPTIONS (TO BE ORDERED WITH MACHINE)

A1831004		Laser alignment aid
A1831007		Centrifugal separator 400V 50Hz (3Ph/PE)
A1831009		Centrifugal separator 480V 60Hz (3Ph/PE)

PRECISION CLAMPING DEVICES

Z1870063 Reduction ring Ø 30 mm

Z1870069 Manual chuck Ø 44 mm

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°

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

ROTATING 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