



切断ロボット

Qcut 600 BOT

qatm.com/jp/products/cutting/large-cut-off-machines/qcut-600-bot/

Qcut 600 BOT

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Cutting in 5 dimensions – the Qcut 600 BOT is a fully automatic cut-off robot. Equipped with patented cutting-edge technology, it opens up new possibilities in the cutting process for materialographic sample preparation.

長所

- | **Patented technology:** Complex cutting sequences can be performed using 5-axis technology (X, Y, Z, B, C axes) without time-consuming re-clamping of the workpiece.
- | **Highest degree of automation:** Dynamic cut-off wheel measurement and automatic adjustment of cutting parameters. Multiple cuts on different workpieces can be made in one process.
- | **High reproducibility:** Repeatable cutting operations are easy to program and perform.
- | **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 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

- | Stainless steel, integrated longitudinal and cross T-slots
- | Secure clamping using the T-slot table or Easy clamping system
- | Ø 600 mm; load capacity: up to 150 kg
- | Travel X: 550 mm, Y: 360 mm, Z: 550 mm

4 | LARGE CUTTING CHAMBER

- | Large sliding door provides easy access and visibility
- | Side swing door for convenient access
- | Large side door for easy wheel replacement
- | Break-resistant LED interior lighting

5 | OPTIMIZED SWIVEL ARM

- | Highly efficient cooling system
- | Increased capacity thanks to parallel guided cut-off wheel guard
- | Laser alignment aid for 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
- | Expandable clamping with a lathe chuck or other devices



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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 of the various axes in combination with the clamping systems enable precise cutting without time-consuming re-clamping. 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)

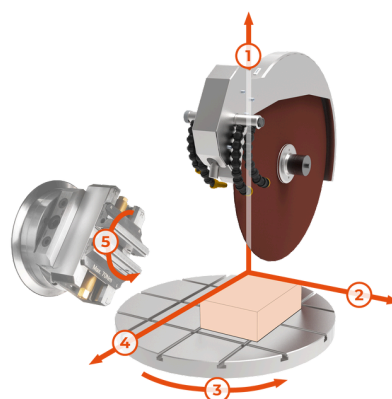
Max. 360°; with C-axis 200°, automatic
Positioning accuracy: $\pm 0.1^\circ$

4 | X-AXIS (TRAVEL CUT)

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

5 | C-AXIS (ROTATION)

Rotation range: max. 360°, automatic
Removable modular rotation axis



フリーアクセス

大型サンプル用

大型の部品は、広いスライドドアを介してフォークリフトやクレーンで直接置くことができます。



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特長

**STAINLESS STEEL ROTARY TABLE**

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

- | Rotation (max. 360°) eliminates time-consuming re-clamping
- | Expandable with a modular rotation axis (C-axis)
- | Integrated T-slots for the Easy clamping system

**AUTOMATIC CUT-OFF WHEEL MEASUREMENT**

Dynamic measurement leads to reproducible results with consistent quality.

- | Automatic monitoring of current wheel diameter
- | Adjustment of cutting parameters after each cut
- | Consistent cutting speed and cutting depth

**ROBUST MACHINE WITH LARGE CUTTING CHAMBER**

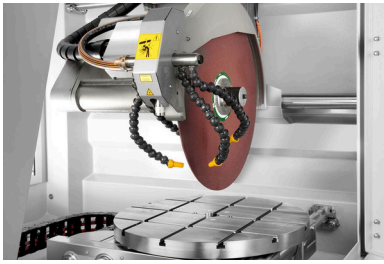
- | Powder-coated steel body, large sliding door of scratch-resistant laminated safety glass and large side door
- | Integrable cooling unit and automatic central lubrication
- | Safety interlock prevents door opening during operation
- | Large side door for easy wheel replacement

**CUTTING OPTIMIZATION**

- | Automatic detection of local material characteristics, such as hardened areas
- | Cutting force-dependent feed control
- | Cut detection: automatic approach at reduced speed
- | Parallel-guided wheel guard increases capacity in chop cuts

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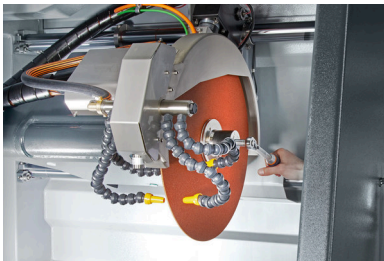
特長・操作

**POWERFUL CUT-OFF WHEEL DRIVE**

- | Precise swivel arm guidance and wheel cooling
- | Water-cooled main drive with 15 kW drive power
- | Flexibly adjustable cooling hoses
- | Parallel-guided guard increases capacity for cross cuts

**INTUITIVE AND EASY OPERATION**

- | 12.1" touchscreen with QATM software, joysticks and emergency stop switch
- | Teach function for programming cutting positions by manually positioning the machine
- | Multi-Position Process (MPP) for different workpieces without re-clamping

**CLEVER DESIGN**

- | Easy wheel replacement and simple clamping
- | Laser alignment for workpiece positioning (option)
- | Power clamping nut for easy clamping and loosening of the wheel

**MAXIMUM EASE OF USE**

- | Movable panel for ergonomic operation during setup and use
- | Programming in close proximity to the workpiece
- | Control panel moves aside during series operation

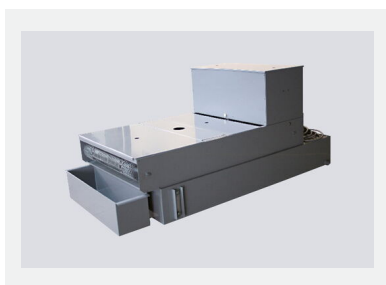
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アクセサリ



循環冷却ユニット

- | 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 environment with improved air quality
- | Removes coolant mist; purifies air and increases visibility
- | Exhaust power 452 or 500 m³/h depending on voltage

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高速、パワフル、フレキシブル - Qtoolsのクランプ装置

当社の革新的なクランプ装置は、ワークを確実にかつ正確にクランプし、正確な切断・研磨加工を実現します。特定の用途やワークサイズに合わせて開発された様々なクランプ装置があります。

QTOOLシリーズ → qatm.com/jp/products/cutting/clamping-tools/qtool-series/

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パーフェクトカット - Qprepの消耗品

加工要件（知識、慎重な加工、消耗品と機器の正しい選択）を充足することで、信頼性、安全性、効率性の高い切断が実現します。

製品ラインナップ → qatm.com/jp/products/consumables/cutting/



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ワークの位置決め

回転軸、ステンレス製の機械テーブル、クランプ装置を組み合わせること、連続する自動切断のためにワークを位置決めできます。

- 特定用途向けクランプ工具
- 旋盤チャックなどのクランプ装置を追加可能
- オプションのレーザー位置合わせ補助装置

クランプアクセサリー → qatm.com/jp/products/cutting/clamping-tools/clamping-tools-for-special-applications/



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製品仕様

切断ホイール径	Ø 610 mm / 24インチまで
切断ホイールの最大切断 深さ	244mm(カッティングホイールØ610mm)
切断砥石のフランジ	Ø 32 / 40 mm
自動X-軸	550mm
自動Y-軸	360mm
自動Z-軸	550mm
精度	±0.1ミリメートル/±0.1°
B軸	4軸 360° 5軸 : 200°
C軸	4軸: - 5軸: 360°
テーブル	Ø 600 mm、ステンレス
T-スロット	12 mm
回転速度	可変 1000 - 2400 rpm
駆動電力 (メイン駆動)	15 kW、S1
接続ロード	30 KVA
WxHxD	1640×2200×1480mm
重量	~1600kg (装置による)



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注文データ

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

Precision clamping devices

注文データ

Qtool 80 Vario (continued)

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

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

Universal vices and accessories

注文データ

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

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お問い合わせ →

qatm.com/jp/contact/contact-form/?prefilltext=contact_form.request&product=A01A14A

見積依頼 →

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