



The Qcut 600 BOT is a fully automatic cutting robot with max. 5 axes for the use of cut-off wheels with a size of up to 610 mm / 24".

With its 5 axes and generous machine table (Ø 600 mm), the Qcut 600 BOT opens up new possibilities in application. The automatic travel and cross-cutting unit reaches speeds of up to 80 mm/sec in high-speed travel thanks to its highly dynamic drives.



AUTOMATIC CUT-OFF WHEEL MEASUREMENT

The dynamic cut-off wheel measurement leads to reproducible cutting results with consistent quality. By automatically monitoring the current cut-off wheel diameter, the cutting parameters are adjusted after each cut so that the cutting speed and cutting depth remain constant.

INTUITIVE AND EASY OPERATION



The teach-in function enables user-friendly programming of the of the cutting positions by approaching the individual positions. The multi-position process MPP allows the simultaneous positioning and automatic start-up of different components on the clamping table. This eliminates the need for time-consuming reclamping of the components.

REMOTE MAINTENANCE

Direct fault diagnosis and online support from QATM can be provided via a VPN connection using an existing broadband internet connection.

The rotary table (B-axis) has a swiveling range of 360° and can be modularly extended with an additional rotary axis (C-axis). The rotary axes enable cutting without additional reclamping. The cut-off wheel guard is guided in parallel during cross-cutting to increase the cutting capacity of the cut-off wheel. Circulation cooling and automatic central lubrication are integrated in the machine body of the robust steel construction.



CUTTING OPTIMISATION

In order to optimise the cutting quality, the machine automatically detects local material singularities, such as hardened areas, and regulates the feed rate depending on the cutting force. When starting a new cut, the component is automatically detected and approached at reduced speed (soft start-up control).

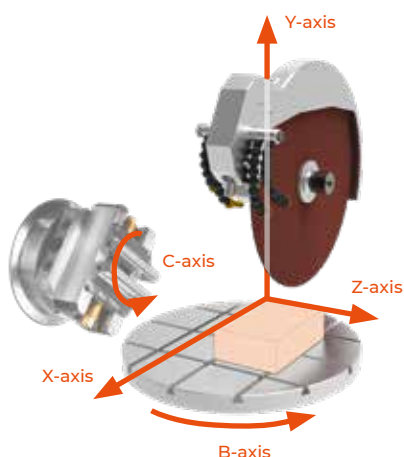


BASIC MODULE

Qcut 600 BOT (4-AXES AND 5-AXES)

- | automatic horizontal movement (X-axis) and vertical movement (Y-axis) up to 80 mm/sec through highly dynamic axis drives in rapid run.
- | automatic cross feed (Z-axis)
- | automatic horizontal turntable (B-axis)
- | manual control of the axes possible via joystick
- | user-friendly and visual menu navigation for easy compilation of compact program sequences with position steps and cutting modes (travel-, cut-off-, diagonal-, step- and segment cut)
- | cut-offs in a wide range of positions automatically and without reclamping
- | intuitive programming of the cutting positions by positioning the cut-off wheel directly on the component
- | automatic touch detection
- | Multi-Position Process MPP allows positioning of different components on the table simultaneously and adding into an automatic cutting process
- | any number of cutting positions can be approached in the programme e.g. for serial cuts or different approach positions
- | cutting force-related feeder regulation and soft-approach control
- | determination of cut-off wheel diameter after each cutting process and automatic control of cutting speed and cutting depth
- | variable speed
- | variable pulse-cut feed
- | touch-screen display with QATM-software control
- | an unlimited number of password-secured program sequences can be stored and updated
- | file exchange and backup via USB
- | remote service/support is available via controller (requires ISDN connection with router on site)
- | machine table Ø 600 mm made of stainless steel with longitudinal and cross T-slots
- | increased cutting capacity of the disc due to parallel guiding of the cutting disc protection
- | incl. wear ring to protect the cutting disc holder and optimal chamber illumination
- | housing in robust, powdercoated steel construction
- | sliding and side door with safety lock during wheel movement
- | sliding door with large window made of scratchproof safety glass
- | cutting discs can be changed through the side door
- | water-cooled, energy efficient 15 kW-main motor integrated into the swivel arm
- | automatic central lubrication (6 bar compressed air required)
- | easy-nut for quick and easy clamping and releasing of the cut-off wheel

COORDINATE AXES



Qcut 600 BOT (5-AXES) – EXTRA FEATURES

- | automatic horizontal rotation axis (C-axis)
- | rotary axis removable (placed on machine table Ø 600 mm)
- | rotary axis can be individually equipped (e.g. with a 3-jaw chuck or customer-specific clamping systems)

Qcut 600 BOT (4-AXES)

Machine with X/Y/Z/B-axis
Swivel range 360°
B-axis

400 V/50 Hz (3Ph/N/PE)

Order No.: M1831001

480 V/60 Hz (3Ph/PE)

Order No.: M1831002

Qcut 600 BOT (5-AXES)

Machine with X/Y/Z/B/C-axis
Swivel range 200°
B-axis

Swivel range 360°
C-axis

400 V/50 Hz (3Ph/N/PE)

Order No.: M1831003

480 V/60 Hz (3Ph/PE)

Order No.: M1831004

EQUIPMENT

WHEEL GUARD

Equipment 1

Cut-off wheel Ø 508 mm /20"

Order No. A1831001

Equipment 2

Cut-off wheel Ø 610 mm /24"

Order No.: A1831010

COOLING AND FILTER SYSTEMS

Equipment 1

Recirculation cooling unit



- | integrated, mobile
- | multi chamber filtration
- | exchangeable filter fleece, filter performance up to 90% (see consumables)

Tank ~ 170 ltr.

Pump ~ 100 ltr./min

WxHxD 810 x 528 x 1113 mm

400 V/50 Hz (3Ph/PE)

Order No.: A1831005

480 V/60 Hz (3Ph/PE)

Order No.: A1831006

Equipment 2

Belt filter system 285



- | incl. filter roll

Tank 285 ltr.

Filter capacity 100 ltr./min (referring emulsion)

Pump 100 ltr./min

Filter area 0.85 m²

Filter fleece width 710 mm

WxHxD 929 x 790 x 1745 mm

Weight ~ 120 kg

400 V/50 Hz (3Ph/PE)

Order No.: A6501000

480 V/60 Hz (3Ph/PE)

Order No.: A6501002

Connection set 285

- | for belt filter systems please order connection set

Order No.: Z6501007

OPTION

CENTRIFUGAL SEPARATOR



- | to remove coolant mist
- | increases quality of illumination
- | exhauster power 425 or 500 m³/h, depends on power supply

400 V/50 Hz (3Ph/PE)

Order No.: A1831007

480 V/60 Hz (3Ph/PE)

Order No.: A1831009

LASER ALIGNMENT AID



- | laser line to visualize the cutting line
- | laser class 1

Order No.: A1832004

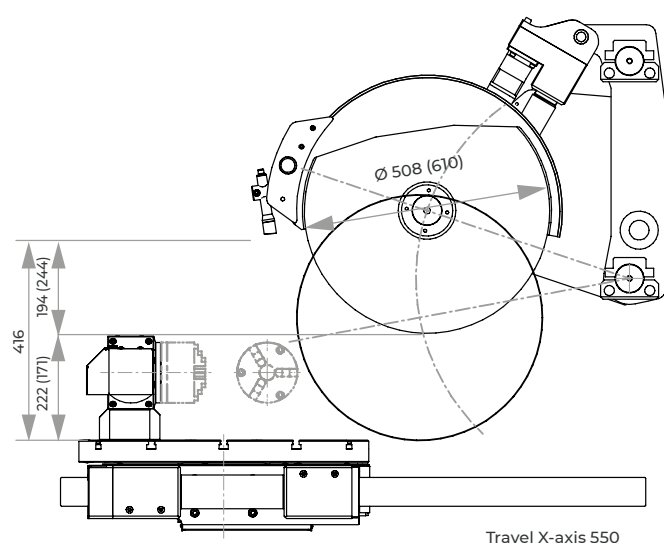
ACCESSORIES

BASIC SET QCUT 600 BOT

Order No.: Z1831000



Clamping example



Travel X-axis 550

SPECIFICATIONS

Cut-off wheel	Ø 508 mm/20" Ø 610 mm/24"
Max. way of cutting wheel into sample	Ø 195 mm* Ø 244 mm**
Arbour size	Ø 32 / 40 mm
X-axis automatic (horizontal movement)	550 mm
Y-axis automatic (vertical cut)	360 mm
Z-axis automatic (parallel cut)	550 mm
C-axis automatic (option)	360°
B-axis automatic	360° / 200°
Precision	± 0.1 mm / ± 0.1°
Table	Ø 600 mm
T-slot	12 mm
Motor cut-off wheel	15 kW, S1-mode
Connected load	30 kVA
Variable speed	1000-2400 rpm* 1000-2000 rpm**
Power supply	1 400 V 50 Hz (3/N/PE) 2 480 V 60 Hz (3/PE)
WxHxD	~ 1640 x 2200 x 1480 mm
Weight	~ 1600 kg (depends on equipment)

use with cut-off wheel

* Ø 508 mm or

** Ø 610 mm

We offer a free consultation and execution of feasibility studies with your applications in CAD. Please send us STP model data of the workpieces to be cut, with details of the desired cutting positions. We simulate and check the feasibility for you on the basis of up to 5 workpieces and give further recommendations on possible clamping tools.

