

## 5-AXIS-CUTTING ROBOT QCUT 430 BOT



### OPERATION

Touch-Screen display for the QATM-Software control is easy to read thanks to smart phone technology and even easier to operate. Compact program sequences are easy to compile and therefore enable automated program sequences. Update and backed-up possible via USB.

### MULTI-POSITION-PROCESS MPP

With the "Multi-Position-Process" (MPP) you can place multiple specimens on the table and cut them in one sequence. The teach-in function enables a simple and user-friendly setting of various cutting positions.

The 5-axis cutting robot Qcut 430 BOT has 2 additional axes (D, E-axis). This allows the specimen to be positioned and cut automatically in a single operation in nearly any position to the cutting wheel. The device has all the features of the proven Qcut 500 A universal wet abrasive cut-off machine and meets the highest demands on space available and cutting operations.

The cuts can be precisely positioned without reclamping, so complicated instructions for cutting as well as the number of clamping tools and cutting failures are minimized. Full automation makes the entire process effectively and efficiently.



### REMOTE MAINTENANCE

Using your existing broadband Internet connection, QATM provides an online fault diagnosis and operator support.

### CUT OPTIMIZATION

In addition to the type of cut, variable pulse-cut feed can also be selected. Rhythmic pulsed feed ensures regular cooling and removal of cutting debris from the sample.



**BASIC MODULE**

**Qcut 430 BOT**



- | automatic table (X-axis)
- | automatic cutting wheel movement (Y-axis)
- | automatic touchdetection
- | automatic cross feed (Z-axis)
- | highly dynamic drive up to 80 mm/sec.
- | parallel setting of wheel guard during vertical cutting sequences increases cutting capacity
- | economical cutting feed by control of the cutting speed and soft start control
- | variable pulse-cut feed
- | variable speed
- | incl. cutting wheel about with wear ring
- | optimal chamber illumination
- | manual control of X-/Y-/Z-axis via an industrial joystick
- | automatic central lubrication (6 bar compressed air required)
- | Touch-Screen display and QATM-Software control
- | optical menu navigation for drawing up precise program sequences with position steps and cutting modes (horizontal, vertical, diagonal, step and segment cut)
- | storage of programs with password; update and backup via USB
- | remote service/support is available via controller
- | large sliding and side door for optimal access to cutting chamber; with safety lock when machine is running
- | opening on the right for long parts
- | Easy-nut – for easy change of cutting wheel
- | sliding door with large window made of scratchproof safety glass
- | options: laser alignment aid, centrifugal separator
- | robust aluminium construction, powder-coated

Order No.: M1832001

**EQUIPMENT**

**POWER SUPPLY**

**Equipment 1**

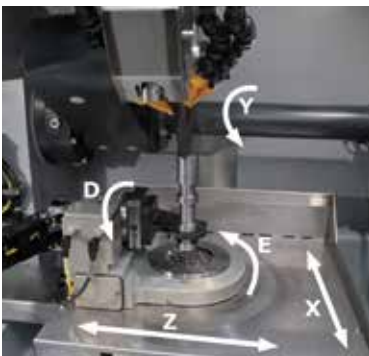
400 V/50 Hz (3Ph/N/PE)

Order No.: A1832000

**Equipment 2**

480 V/60 Hz (3Ph/PE)

Order No.: A1832002



**TABLE DRIVE**

- | all axis integrated in machine control
- | innovative operation with teach-in programming
- | made of stainless steel

**Equipment 1**

Table with X/Z/E-axis

Travel X-axis 340 mm

Travel Z-axis 200 mm

Precision 0.1 mm

Swivel range E-axis 200°

Order No.: A1832012

**Equipment 2**

Table with X/Z/E/D-axis

Travel X-axis 340 mm


Travel Z-axis 200 mm



Precision 0.1 mm



Swivel range E-axis 200°

Swivel range D-axis 360°

Order No.: A1832013

EQUIPMENT	
<b>WHEEL GUARD</b>	
Cut-off wheel	Ø 432 mm/17"
<b>Order No.: A1832001</b>	
<b>AUTOMATIC WHEEL MEASUREMENT - LASER</b>	
	<ul style="list-style-type: none"> <li>  determination of cut-off wheel diameter before each cutting process with a laser</li> <li>  automatic control of cutting speed and cutting depth</li> </ul>
<b>Order No.: A1832014</b>	

COOLING AND FILTER SYSTEMS	
<b>Equipment 1</b>	
<b>Recirculation cooling unit</b>	
	<ul style="list-style-type: none"> <li>  integrated, mobile</li> <li>  multi chamber filtration (see consumables)</li> </ul>
Tank	~ 200 ltr.
Pump	~ 100 ltr./min
WxHxD	810 x 608 x 1008 mm
400 V/50 Hz (3Ph/PE)	
<b>Order No.: A1832005</b>	
480 V/60 Hz (3Ph/PE)	
<b>Order No.: A1832006</b>	
<b>Equipment 2</b>	
<b>Belt filter system 285</b>	
	incl. filter roll
Tank	285 ltr.
Filter capacity	100 ltr./min (referring emulsion)
Pump	100 ltr./min
Filter area	0.85 m <sup>2</sup>
Filter fleece width	710 mm
WxHxD	929 x 790 x 1745 mm
Weight	~ 120 kg
400 V/50 Hz (3Ph/PE)	
<b>Order No.: A6501000</b>	
480 V/60 Hz (3Ph/PE)	
<b>Order No.: A6501002</b>	
<b>Anschluss-Set 275</b>	
for belt filter system please order connection set	
<b>Order No.: Z6501000</b>	

OPTION	
<b>CENTRIFUGAL SEPARATOR</b>	
	<ul style="list-style-type: none"> <li>  to remove coolant mist</li> <li>  increases quality of illumination</li> <li>  suction output 425 or 500 m<sup>3</sup>/h depends on power supply</li> </ul>
400 V/50 Hz (3Ph/PE)	
<b>Order No.: A1832007</b>	
480 V/60 Hz (3Ph/PE)	
<b>Order No.: A1832009</b>	
<b>LASER ALIGNMENT AID</b>	
	<ul style="list-style-type: none"> <li>  laser line to visualize the cutting line</li> <li>  laser class 1</li> </ul>
<b>Order No.: A1832004</b>	



Clamping example

**ACCESSORIES**
**BASIC SET QCUT 430 BOT**

Order No.: Z1832002

**SPECIFICATIONS**

Cut-off wheel	Ø 432 mm/17"
Max. sample size	Ø 156 mm
Arbour size	Ø 32 + 40 mm
Vertical movement	280 mm
X-axis automatic (horiz. movement)	340 mm
Y-axis automatic (vertical cut)	280 mm
Z-axis automatic (parallel cut) (Option)	200 mm
D-axis automatic (option)	360°
E-axis automatic	200°
Precision	± 0.2-1.0 mm / ± 0.1°-1.0°
Table WxD	550 x 500 mm (with Z-axis)
T-slot	12 mm
Motor cut-off wheel	15 kW, SI-mode
Connected load	30 kVA
Variable speed	1000-2800 rpm
Power supply	1 400 V 50 Hz (3/N/PE) 2 480 V 60 Hz (3/PE)
WxHxD	~ 1,325 x 1,820 x 1,250 mm
Weight	~ 1000 kg (depends on equipment)

