

## CUT-OFF MACHINE QCUT 400 A



### ELECTRONIC CONTROL

With the electronic control, all cutting parameters can be saved and loaded again. Maintenance tasks can also be stored in a customer-specific manner. During the automatic cutting process, all parameters such as feed speed, cutting force etc. can be modified.

### PROGRAM CYCLE

By pressing the start button, the main motor and the feed are activated. The integrated cut detection ensures a constant cutting behavior, even when the cutting disk wears during sectioning. The feed speed is automatically decreased when an overload occurs during the cutting process.

The universal wet-abrasive cut-off machine Qcut 400 A with automatic travel and cut-off allows precise, soft touch cutting with 2 axes in arbitrary directions (Y/X axis) and can be equipped with an automatic or manual Z-axis for parallel serial-cuts (option).

The newly developed intuitive user software with graphical LCD interface makes the automatic process sequence easy and clear.

The large cutting chamber of solid, powder coated aluminum construction is easily accessible through sliding door and side doors. Complex geometric shaped samples can be fixed securely on the T-slot table using our reliable clamping systems. The innovative Quick-Change system facilitates maintenance and replacement of the cutting disc. Our approved LED illumination of the cutting chamber is energy saving, damage resistant and guarantees optimum illumination of the cutting chamber.

### PULSED CUTTING

Especially when the material is thick and difficult to cut, the adjustable automatic pulsed-cut offers advantages such as gentle cutting and optimal cooling of the intersection area.

### CUTTING FORCE DEPENDENT FEED CONTROL

The feed speed automatically decreases when the cutting force reaches a pre-defined limit. This protects the machine, sample and clamping tools from overloading.



### PRECISION CROSS FEED

The Z-axis is integrated in the table. This allows keeping the cutting height at the same level. The automatic cross feed with serial cutting function produces precise parallel cuts.

### JOYSTICK CONTROL

To reduce times for setting up, all axes can be controlled with a joystick.



**SAFETY**

Integrated safety protection only allows the automatic doors to be opened when the cutting wheel has stopped rotating.



**LASER ALIGNMENT**

With the optional line laser the cutting line can be projected on the sample. This helps to define the exact cutting position.



**BASIC MODULE**

**Qcut 400 A**

- | automatic horizontal and vertical movement (X- and Y-axis)
- | variable speed
- | 10.1" Touch-Screen user interface with intuitive QATM user software
- | superior LED illumination of cutting chamber
- | parallel setting of wheel guard during cutting sequences increases cutting capacity
- | opening on the right for long parts
- | automatic touch detection
- | cutting-force dependent feed control (X- and Y-axis)
- | 200 customized programs storable
- | solid aluminum design



**Order No.: M1842000**

**EQUIPMENT**

**POWER SUPPLY**

| Equipment 1                | Equipment 2                | Equipment 3                |
|----------------------------|----------------------------|----------------------------|
| Variable speed             | Variable speed             | Variable speed             |
| 400 V/50 Hz (3Ph/N/PE)     | 480 V/60 Hz (3Ph/PE)       | 220 V/60 Hz (3Ph/PE)       |
| <b>Order No.: A1842000</b> | <b>Order No.: A1842001</b> | <b>Order No.: A1842002</b> |

**Table drive**

| Equipment 1                       | Equipment 2  | Equipment 3  |
|-----------------------------------|--|--|
| X-axis automatic (without Z-axis) | X-axis automatic<br>Z-axis (cross feed)<br>manual (hand wheel) | X-axis automatic<br>Z-axis (cross feed)<br>automatic |
| included in basic unit            | made of stainless steel  | made of stainless steel                              |
|                                   | Travel Z-axis      150 mm                                      | Travel Z-axis      150 mm                            |
|                                   | Precision            0.1 mm                                    | Precision            0.1 mm                          |
| <b>Order No.: A1842003</b>        | <b>Order No.: A1842004</b>                                     | <b>Order No.: A1842005</b>                           |

**EQUIPMENT**
**COOLING AND FILTER SYSTEMS**
**Equipment 1**
**Recirculation cooling unit**


- | integrated, mobile
- | multi-chamber filtration
- | inlet sieve with filter bag (see consumables)

Tank ~ 130 ltr.

Pump ~ 100 ltr./min

WxHxD 625 x 608 x 810 mm

Order No.: A1842008

**Equipment 2**
**Belt filter system 285**


- | incl. filter roll

Tank 285 ltr.

Filtering 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

Order No.: A1842011

**Connection set 285**

- | for belt filter system please order connection set

Order No.: Z6501003

**OPTION**
**CENTRIFUGAL SEPARATOR**


- | removes coolant mist
- | purifies the air and increases visibility
- | exhaust power 425 m<sup>3</sup>/h

Order No.: A1842010

**LASER ALIGNMENT AID**

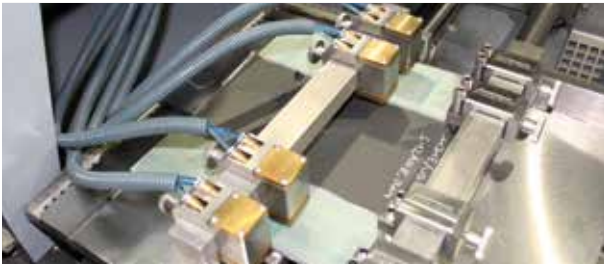

- | laser line to visualize the cutting line
- | laser class 1

Order No.: A1842009

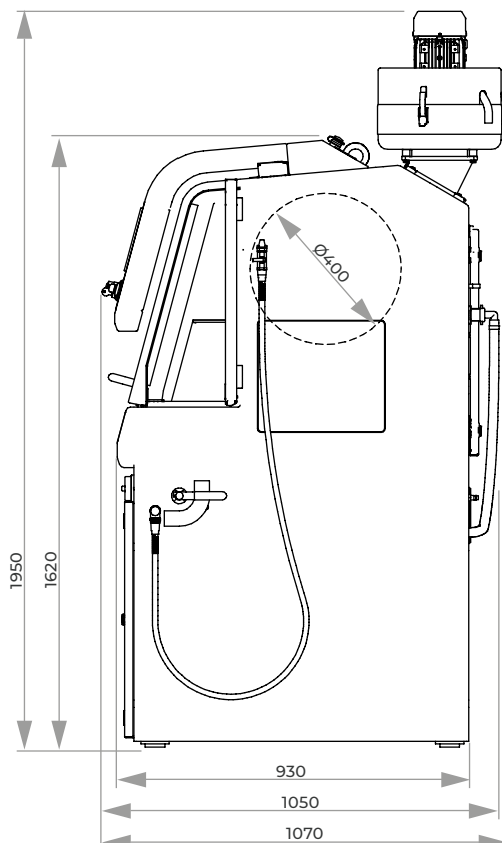
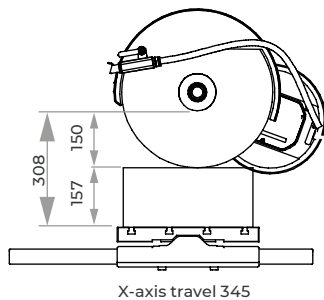
**ROTATION TOOL**


- | tool with vertical rotary feed, parallel to wheel
- | angle input via software control

on request

**OPTION**
**AUTOMATIC PULSED CLAMPING SYSTEM  
FOR Qcut 400 A**


- | For automatic Z-Axis
- | For parallel cuts of variable thickness of 5–130 mm
- | Max. cutting length: 285 mm (for sample of 20 mm thickness)
- | Max. cross feed 150 mm (for one clamping)
- | Cross feed realized by automatic standard Z-axis of Qcut 400 A
- | Assembled on automatic standard Z-axis of Qcut 400 A (detachable)
- | Fixation and cross feed realized by 4 adjustable manual clamps with pressure screws
- | Additional. fixation by 4 adjustable, pneumatic clamps each with 100 N clamping force

**Order No.: A1842013**

**ACCESSORIES**
**BASIC SET QCUT 400 A**
**Order No.: Z1842002**
**SPECIFICATIONS**

|                                   |  |
|-----------------------------------|--|
| Max. theoretical cutting capacity | Ø 150 mm   |
| Cut-off wheel                     | Ø 406/16" mm   |
| Arbour size                       | Ø 32 mm  |
| Horizontal movement               | 345 mm   |
| Vertical movement                 | 200 mm   |
| Cross feed                        | 150 mm   |
| Feed rate                         | 0.001-40.0 mm/sec  |
| Table WxD                         | 1 550 x 375 mm (without Z-axis)<br>2 420 x 375 mm (with Z-axis)              |
| T-slot                            | 12 mm  |
| Motor cut-off wheel               | 7 kW, S1-mode  |
| Connected load                    | 17 kVA   |
| Variable speed                    | 1000-2900 rpm  |
| Power supply                      | 1 400 V/50 Hz (3Ph/N/PE)<br>2 480 V/60 Hz (3Ph/PE)<br>3 220 V/60 Hz (3Ph/PE) |
| WxHxD                             | ~ 1,115 x 1,620 x 1,050 mm   |
| Weight                            | ~ 480 kg (depends on equipment)  |

