

ELECTRONIC PERFORMANCE CONTROL

The feed rate is reduced upon reaching the preset maximum power. This protects the machine and its cutting components from overloading.

**ELECTRONIC CONTROL**

Cutting parameters for the automatic traverse cuts can be saved in the electronic control, and then loaded later. The position of the manual traverse cut is also shown on the display.

All parameters such as feed rate, travel and cutting force can be altered during automatic cycles.

**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.

**BRILLANT 250.3**

The BRILLANT 250.3 is an automatic wet abrasive cut-off machine for samples up to max. Ø 135 mm.

It cuts gentle with low contact cutting (lcc) different type of samples in various geometries, sizes and materials.

The machine is commonly used in Materialography, Mineralogy, as well as for cutting of composite materials (CFC/PMC/MMC)

or electronic devices such as PCB's. The large scale cutting chamber, the stainless steel table as well as other software based functions of the large abrasive machines such as automatic touch detection, MPP and parallel setting of the wheel guard during vertical cutting, make operation comfortable and processes reproducable and flexible.

PULSED CUTTING

In cases where there are heavy sections and materials which are difficult to cut, the variable pulsed cutting system gives decisive advantages.

**AUTOMATIC TOUCH DETECTION**

After automatic start of the cutting process the sample is approached in rapid run. By touching the cut-off wheel the sample is cut efficiently and safely with preset cutting parameters.

**NEW DIMENSIONS**

The enlarged cutting chamber and worktable combined with parallel setting of wheel guard increases cutting capacity and travel for all axes. The side door ensures optimum access to the cutting chamber and the additional opening for supplying long sample parts opens up much possibilities.

PRECISION CROSS FEED

The optional, automatic cross-feed with series cut function is suitable for exact parallel cuts. Operational handling takes place via electronic control. The electronic cross-feed can also be applied as feeder axis when working with pot wheel.



with automatic traverse cut

with automatic cross-feed



BASIC MODULE



BRILLANT 250.3



Order No.: M1821001

- » automatic table (X-axis)
- » cutting wheel movement (Y-axis)
- » equipment: automatic cross feed (Z-axis) - note equipment version
- » manual control of X-/Y-/Z-axis via an industrial joystick
- » high dynamic drive up to 40 mm/sec.
- » automatic touch detection
- » parallel setting of wheel guard during vertical cutting sequences increases cutting capacity
- » variable speed
- » incl. cutting wheel arbour with wear ring
- » Easy-nut – for easy change of cutting wheel
- » Touch-Screen display and ATM-Software control
- » optical menu navigation for drawing up precise program sequences with position steps and cutting modes (horizontal, vertical, diagonal and step cut)
- » variable pulsed cutting
- » storage of programs with password; update and backup via USB
- » remote service/support is available via controller
- » robust aluminium construction, powder-coated
- » large sliding and side door for optimal access to cutting chamber; with safety lock when machine is running
- » sliding door with large window
- » optimal chamber illumination
- » options: laser alignment aid, centrifugal separator

EQUIPMENT

POWER SUPPLY



Equipment 1

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

Order No.: A1821015

Equipment 2

480 V/60 Hz (3Ph/PE)

Order No.: A1821016

Equipment 3

220 V/60 Hz (3Ph/PE)

Order No.: A1821017

WHEEL GUARD



Equipment 1

Cut-off wheel Ø 305/12"

Order No.: A1821018

Max. cutting capacity Ø 110 mm

Equipment 2

Cut-off wheel Ø 356/14"

Order No.: A1821019

Max. cutting capacity Ø 135 mm



EQUIPMENT

CROSS-FEED AXIS

Equipment 1
without Z-axis

Order No.: A1821020

Equipment 2

Z-axis manual (handle)

Order No.: A1821021

» made of stainless steel

Travel 140 mm

Precision 0.1 mm

Equipment 3

Z-axis automatic

Order No.: A1821022

» made of stainless steel

Travel 140 mm

Precision 0.1 mm



ROTATION TOOL

on request

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

LASER ALIGNMENT AID

Order No.: A1821023

» laser line to visualize the cutting line

ACCESSORIES

RECIRCULATION COOLING SYSTEM

» 2-chamber-pvc-compartment 45 ltr.
» inlet sieve and filter bag

» incl. connection set
» controlled by cut-off machine



Mobile with insertion mechanism for System Lab cabinets

400 V/50 Hz (3Ph/PE)

Order No.: A5800484

480 V/60 Hz (3Ph/PE)

Order No.: A5800485

220 V/60 Hz (3Ph/PE)

Order No.: A5800486

WxHxD 366x540 (640)
x610 mm



Mobile

400 V/50 Hz (3Ph/PE)

Order No.: A5800487

480 V/60 Hz (3Ph/PE)

Order No.: A5800488

220 V/60 Hz (3Ph/PE)

Order No.: A5800489

WxHxD 366x550x600mm

BELT FILTER SYSTEM 130

» Incl. filter roll

400 V/50 Hz (3Ph/PE)

Order No.: A6501009

480 V/60 Hz (3Ph/PE)

Order No.: A6501011

220 V/60 Hz (3Ph/PE)

Order No.: A6501010

Connection set 230/250

Order No.: Z6501004

» for belt filter system please order connection set

1,21

Tank 130 ltr.

Filter capacity 30 ltr./min
(referring emulsion)

Pump 15 ltr./min

WxHxD 607x632x1308 mm

Weight ~ 90 kg



ACCESSORIES

ZCENTRIFUGAL SEPARATOR



- » to remove coolant mist
- » increases quality of illumination
- » exhauster power 180 or 215 m³/h depends on power supply

400 V/50 Hz (3Ph/PE)

Order No.: A1821024

480 V/60 Hz (3Ph/PE)

Order No.: A1821025

220 V/60 Hz (3Ph/PE)

Order No.: A1821026

SPECIFICATIONS

Max. cutting capacity	1	Ø 110 mm (Ø 305 mm cut-off wheel)
	2	Ø 135 mm (Ø 356 mm cut-off wheel)
Cut-off wheel	1	Ø 305 mm/12"
	2	Ø 356 mm/14"
Arbour size	Ø 32 mm	
Y-axis automatic	180 mm	
Z-axis automatic (parallel cut) (option)	140 mm	
X-axis automatic	260 mm	
Feed rate	0.1 bis 40 mm/sec	
Table WxD	1	400x300 mm (with Z-axis)
	2	500x300 mm (without Z-axis)
T-slot	12 mm	

Motor cut-off wheel	4 kW (S1), 5.5 kW (S3)
Connected load	9.5 kVA
Power supply	variable speed 800-3400 rpm
	1 400 V/50 Hz (3/N/PE)
	2 480 V/60 Hz (3/PE)
	3 220 V/60 Hz (3/PE)

WxHxD ~ 1,015 x 760 x 810 mm

Weight ~ 200 kg

