

ZONE-CUTTING

The feed rate or cutting force can be adjusted individually to different areas of the samples. It reduces deformation and warming of the material thus shortens the preparation process.

**FORCE-CONTROLLED CUTTING**

The cutting force gets precisely controlled by an integrated force-sensor. It keeps the cutting force constant by adjusting the feed rate automatically throughout the cutting process.

**TABLE ATTACHMENT**

With the tool-free mountable table attachment PCBs, plate material or large samples can be quickly sectioned manually.

BRILLANT 210 A

The Brillant 210 A is a compact automatic precision cutting machine with manual cross feed. With its different operation modes and cooling systems it covers a wide range of applications and materials. The user-friendly system of clamping arm, sample

holder and table attachment is designed to change it tool-free.

The proven ATM-software on the 4.3" touchscreen contains a consumable and program database which allows also to create individually set user profiles.

**GRINDING MODE**

In grinding mode, samples can be grinded down with a cup wheel manually or semi-automatically (Target preparation).

CROSS FEED

With a precision of 5 µm the manual Z-axis can be monitored via display for parallel cuts or defined grinding of samples.



BASIC MODULE

BRILLANT 210 A



- » Automatic Y-axis
- » Manual Z-axis
- » Automatic travel measurement (Y-/Z-axis)
- » Variable speed
- » Table attachment (accessory)
- » Dressing device (option)

Up to 5 different operation modes (depending on equipment)

- » Feed-controlled cutting
- » Force-controlled cutting (option)
- » Cutting on table attachment
- » Cutting with lever
- » Grinding mode (defined material removal with grinding cup)

- » 4.3" Touch-Screen with intuitive ATM user software
- » Zone-cutting feature
- » LED illumination of cutting chamber
- » Solid stainless steel housing, powder coated.
- » Soft-closing hood
- » Connection to external exhausting system on request
- » 200 customized cutting programs storable
- » Consumables data base
- » Individual setting of user access rights
- » Setting of care and maintenance tasks incl. automatic reminder
- » USB plug for data exchange and software updates
- » Ethernet plug for online-diagnostics and user support

200 - 240V 50/60Hz (1Ph/N/PE)

100 - 120V 50/60Hz (1Ph/N/PE)

Order No.: M1870020

Order No.: M1870021

EQUIPMENT

COOLING SYSTEMS (no voltage selection required)



Equipment 1

Cut-off wheel immersion cooling (integrated)

Order No.: A1870022

- » Equipment to seal and fill cutting chamber with coolant
- » Incl. drain hose and shut-off valve for easy emptying
- » Sample collector



Equipment 2

Recirculation cooling system 15 L incl. filter

Order No.: A1870023

- » External two-chamber PVC tank
- » Portable, incl. filter insert and lid
- » Rinsing hose



Flow rate (pump)	12 ltr./min.
Filling capacity	15 liters
WxHxD	330x398x449 mm

Equipment 3

Recirculation cooling system 45 L

Order No.: A1870024

- » PVC tank with removable separating slide
- » Inlet sieve with filter bag and overflow
- » Mobile, without folding wheels
- » Rinsing hose included



Flow rate (pump)	15 ltr./min.
Filling capacity	45 liters
WxHxD	366x550x600 mm

EQUIPMENT

COOLING SYSTEMS (no voltage selection required)



Equipment 4

Recirculation cooling system 45 L Systemlab



Order No.: A1870025

- » PVC tank with removable separating slide
- » Inlet sieve with filter bag and overflow
- » Mobile, with insertion mechanism for System Lab cabinets
- » Rinsing hose included

Flow rate (pump)	15 ltr./min.
Filling capacity	45 liters
WxHxD	366x540(640)x610 mm

Equipment 5

Fresh water cooling system

Order No.: A1870026

- » Automatic water valve
- » Waterflow manually adjustable
- » Rinsing hose included

OPTION



BRILLANT 210 DRESSING DEVICE



Order No.: A1870027

- » For dressing of diamond cut-off wheels or cup wheels
- » Operation by manual lever

ACCESSORIES



BRILLANT 210 TABLE ATTACHMENT



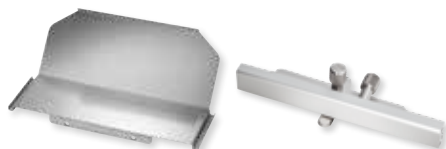
Order No.: Z1870020

- » Incl. Cutting guide fixed 90°, parallel cutting guide and small splash guard

SPLASH GUARD LARGE



PARALLEL CUTTING GUIDE



Order No.: Z1870021

- » Accessory for table attachment

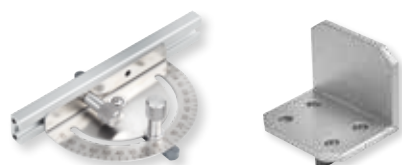
Order No.: Z1870023

- » Accessory for table attachment

ANGLE CUTTING GUIDE



ANGLE CUTTING GUIDE FIXED 90°



Order No.: Z1870024

- » Angular adjustable stop
- » Accessory for table attachment

Order No.: Z1870022

- » Laterally-adjustable, fixable stop
- » Guide for parallel cuts
- » Accessory for table attachment

ACCESSORIES

CLAMPING ARM



» Tool-free attachment of arm and sample holder



STANDARD M

Order No.: Z1870030

STANDARD L

Order No.: Z1870031



INCL. CUTTING-FORCE CONTROL M

Order No.: Z1870032

INCL. CUTTING-FORCE CONTROL L

Order No.: Z1870033

SAMPLE HOLDER STANDARD (open)



» For round or irregular shaped samples
» 3-point clamping
» Up to 6 fixing screws



M

» For clamping arm M
» Diameter Ø 30 mm
Order No.: Z1870034

L

» For clamping arm L
» Diameter Ø 40 mm
Order No.: Z1870035

SAMPLE HOLDER STANDARD (closed)



» For round or irregular shaped samples
» 3-point clamping
» Up to 6 fixing screws



M

» For clamping arm M
» Diameter Ø 30 mm, depth 15 mm
Order No.: Z1870036

L

» For clamping arm L
» Diameter Ø 40 mm, depth 15 mm
Order No.: Z1870037

SAMPLE HOLDER FLEX (closed)



» To insert in grinding and polishing machines
» For round or irregular shaped samples
» 3-point clamping
» Up to 6 fixing screws



M

» For clamping arm M
» Diameter Ø 30 mm, depth 21 mm
Order No.: Z1870038

L

» For clamping arm L
» Diameter Ø 40 mm, depth 21 mm
Order No.: Z1870039

ACCESSORIES

SAMPLE HOLDER PARALLEL CLAMPING VICE (closed)



- » Parallel clamping jaws
- » Clamping range variable, dependent on screws

M

- » For clamping arm M
- » Diameter Ø 30 mm, depth 27 mm
- Order No.: Z1870040

L

- » For clamping arm L
- » Diameter Ø 40 mm, depth 27 mm
- Order No.: Z1870041

SAMPLE HOLDER PARALLEL CLAMPING VICE (open)



- » Parallel clamping jaws
- » Clamping range variable, dependent on screws

M

- » For clamping arm M
- » Diameter Ø 30 mm
- Order No.: Z1870042

L

- » For clamping arm L
- » Diameter Ø 40 mm
- Order No.: Z1870043

EXTRA FLANGES



- » Counteracts offset of the cut-off wheel during cutting

Flange Set Ø 59 mm

Order No.: Z1870050

Flange Set Ø 99 mm

Order No.: Z1870051

Flange Set Ø 139 mm

Order No.: Z1870052



TECHNISCHE DATEN

Cut-off wheel	Ø 75 - 203 mm/8"
Max. sample size	Ø 40 mm
Arbour size	Ø 12.7 mm

Variable speed	300 – 3000 rpm
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Y-axis (vertical) manual/automatic	120 mm
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Feed Y-axis	0.01 - 20 mm/s
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Precision Y-axis	0.1 mm
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Z-axis manual (cross feed)	25 mm
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Precision Z-axis	0.005 mm
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Motor cut-off wheel	0.37 kW, S1-mode
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Connected load	0.75 kVA
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Power supply	1	230 V/50 Hz (1Ph/N/PE)
	2	110 V/60 Hz (1Ph/N/PE)

WxHxD	545 x 391 x 566 mm
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Weight	45 kg (dep. on equipment)
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