



GRINDING & POLISHING MACHINE
QPOL 250 A1 / A2 ECO

The Qpol 250 A1/A2-ECO are single or twin wheel grinding and polishing machines for the materialographic laboratory, suitable for working wheels Ø 200/250 mm.

The machines are conveniently operated by a 4.3 „touch screen. The new holder for the working wheel (single-disc design) enables materialographic sample preparation without carrier disc without compromising performance. The control software allows to edit and save up to 200 preparation methods, protected by a user account management. The process of the current preparation is visualized by a status bar. It is possible to select an additional acoustic signal at the end of each preparation step in the service menu.

Pressure, speed and direction of rotation (head and working disc) are adjustable. A spin cycle function (Cleaning Boost) helps to spin dry the grinding and polishing medium at 750 rpm at the end of the preparation process within 3 seconds.



Left: Single wheel model: Qpol 250 A1-ECO+
Right: Twin wheel model Qpol 250 A2-ECO+

PRODUCT ADVANTAGES

- | Single or double wheel grinder / polisher for metallographic sample preparation
- | Spin cycle feature (Cleaning Boost)
- | 4.3" Touch-Screen with intuitive QATM user software
- | 200 customized programs storable
- | Easy cleaning/rinsing of bowl by lifting the working wheel (single-disc design)
- | Variable speed of working wheel and polishing head
- | Working wheel and polishing head: clockwise / counter-clockwise rotation
- | Impact-proof plastic bowl
- | Aluminium case, powder coated
- | Economic LED illumination



[Click to view video](#)

Product Video

GRINDING & POLISHING MACHINE QPOL 250 A1 / A2 ECO

CONVINCING BENEFITS



OPERATING COMFORT

The ECO grinding & polishing head with adjustable swivelling limits is equipped with recessed grips on both sides and integrated buttons for easy swivelling and adjustment. A large gap between the working surface and the polishing head ensures convenient changing of the sample holder.



SINGLE-DISC DESIGN

After removal of the splash protection ring, the working wheel is freely accessible. The wheel is automatically arrested when placed on the new mounting system. On lifting the wheel, all parts below are accessible for easy cleaning.



ECO POLISHING HEAD

The ECO polishing head is equipped with LED illumination of the working area and a holder for the nozzles of the Qdoser ECO dosing system. Water is supplied automatically via the head.



SAMPLE HOLDERS

QATM offers a wide selection of standard sample holders in various diameters and for different applications and machines. Samples with unusual dimensions can be clamped with the help of special design sample holders.



ELECTRONIC CONTROL SYSTEM

The machine is operated and programmed via the 4.3" touch screen. Preparation methods for sample preparation may be edited and saved. It is also possible to prepare samples manually.



OPTIONAL DOSING UNIT QDOSER ECO / ONE

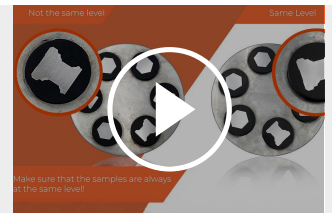
The automatic grinders and polishers can be combined with the fully automatic dosing system Qdoser ECO or the manual dosing solution Qdoser One, thus offering a high degree of flexibility for sample preparation and ease of use.



PROTECTIVE HOOD (AI ONLY)

The optional protective hood for grinding and polishing machines of the Qpol 250/300 series is available in 2 versions:

- | Variant 1: transparent hood for access and splash protection with connection for external exhaust system.
- | Variant 2: with additional automatic locking during the grinding and polishing process



[Click to view video](#)

Video: The correct way to work with central pressure

PERFORMANCE

The grinding & polishing head ECO+ exerts 5 - 80 N in single pressure and 20 - 350 N in central pressure mode. Up to 6 samples Ø 50 mm can be moved at variable speed with sample holders Ø 185 mm.

GRINDING & POLISHING MACHINE QPOL 250 A1 / A2 ECO

PERFECT COMBINATION OF PERFORMANCE AND DESIGN

1. Polishing head ECO / ECO+

- | Two-handed operation for operator safety
- | Grip recesses on both sides for easy swivelling and movement
- | Integrated buttons for unlocking
- | Adjustable swivel limits
- | Automatic water supply
- | Energy-saving LED illumination of the working area
- | Variable speed control for the polishing head
- | Polishing head with clockwise / counterclockwise rotation
- | Holder for 4x dosing unit Qdoser Eco integrable



- | For sample holders with Ø 130 mm and up to 6 samples Ø 40 mm

2. Dosing Unit Qdoser ECO

- | Automatic dosing of 3x diamond suspensions and 1x lubricant or 4x diamond suspension Dia-Complete
- | Dosing interval adjustable
- | Reverse rinsing function
- | Controlled by software of grinder & polisher
- | Glass bottles for suspensions refillable and removable
- | Incl. dosing nozzles

3. Control

- | 4.3" Touch screen with intuitive QATM user software
- | 200 customized programs storable
- | Spin cycle feature (Cleaning Boost)
- | USB plug for data transfer and software updates
- | Ethernet plug for online-diagnostics and user support

4. Working wheel

- | working wheels Ø 200/250 mm
- | Variable speed control
- | Clockwise / counter-clockwise rotation
- | Easy, fast and tool-free change of working wheel

4. Basic unit

- | Basin rinsing tube
- | Aluminium case, powder-coated
- | Impact proof plastic bowl
- | Incl. ergonomically shaped splash ring and cover
- | Online operator support

FULLY AUTOMATIC DOSING UNITS

QDOSER ECO / ECO+

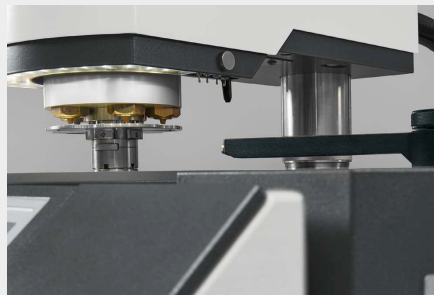
The Qdoser ECO and Qdoser ECO+ fully automatic dosing units speed up grinding and polishing processes in the materialographic laboratory and are designed for use with the automatic grinding machines of the Qpol 250/300 A series. 4 screwable 500 ml glass bottles can hold diamond suspensions, lubricant or final polishing suspensions and can be filled through a separate lid, even during operation. They are quickly removed for easy cleaning. A backflushing function keeps the hoses clean.

- | Fully automatic dosing of
 - | 3x diamond suspensions and 1x lubricant or
 - | 4x diamond suspension Dia-Complete
 - | ECO+: additionally also 3x Dia-Complete and 1x final polishing suspension can be dosed
 - | ECO+: extension for final polishing suspension to 1 L-suspension supply bottle available
- | Dosing intervall adjustable
- | Reverse rinsing function
- | Controlled by software of Qpol 250/300 A grinders & polishers
- | For grinders & polishers Qpol 250/300 A series
- | Glass bottles for suspensions refillable and removable



MAGNETIC STIRRER (OPTIONAL)

The magnetic stirrer integrated in the control unit of the Qpol 250/300 A series prevents the suspension from settling. The automatic stirring of the suspensions ensures a good preparation result due to the optimal distribution of the polishing particles before use.



DOSING

The dosing nozzles are easily attached to the grinding and polishing head. The dosing is controlled fully automatically by the software of the Qpol devices.



[Click to view video](#)

Video: Application & Cleaning

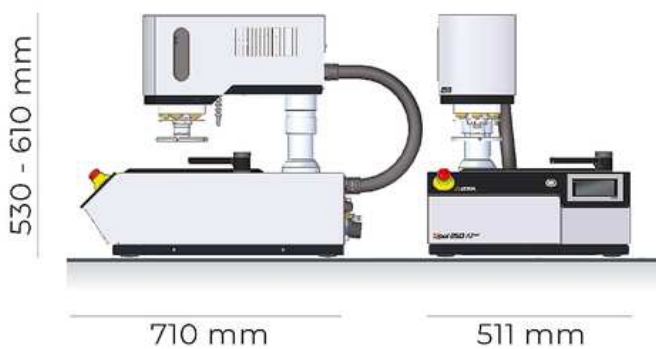
PERFECT GRINDING AND POLISHING – CONSUMABLES BY QATM

Grinding and polishing is more reliable, safe and efficient when processed with the right ingredients: knowledge, care and the right choice of consumables and instruments.



GRINDING & POLISHING MACHINE QPOL 250 A1 / A2 ECO

TECHNICAL DATA



GRINDING & POLISHING MACHINE QPOL 250 A1 ECO

Model variant	Single wheel
Working wheels	ø 200/250 mm
No. of samples (single pressure)	1-6 samples ø 40 mm
Single pressing force	variable, 5-80 N
Central pressing force	variable, 20-350 N



GRINDING & POLISHING MACHINE QPOL 250 A2 ECO

Model variant	Twin wheel
Working wheels	ø 200/250 mm
No. of samples (single pressure)	1-6 samples ø 40 mm
Single pressing force	variable, 5-80 N
Central pressing force	variable, 20-350 N

Connection power	2.3 kVA
Drive power (grinder)	0.55 kW (S1)
Drive power (head)	0.18 kW (S1)
Speed (grinder)	30 - 600 min-1
Speed (head)	30 - 160 min-1
W x H x D	511 x 530-610 x 710 mm
Weight	~ 64 - 72 kg
Water connection	1x fresh water connection R½" max. 6 bars
Dosing system (option)	Qdoser ECO

Connection power	2.3 kVA
Drive power (grinder)	0.55 kW (S1)
Drive power (head)	0.18 kW (S1)
Speed (grinder)	30 - 600 min-1
Speed (head)	30 - 160 min-1
W x H x D	901 x 530-610 x 710 mm
Weight	~ 78 - 85 kg
Water connection	1x fresh water connection R½" max. 6 bars
Dosing system (option)	Qdoser ECO

www.qatm.com/qpol-250-A1-eco

ORDER DATA

BASIC EQUIPMENT

QPOL 250 A1-ECO

M5631041  Qpol 250 A1-Eco 230V/50Hz (1Ph/N/PE)

M5631046  Qpol 250 A1-Eco 110V/60Hz (1Ph/N/PE)

PROTECTIVE COVER FOR QPOL 250 A1-ECO (TO BE ORDERED WITH THE MACHINE)

A5631008 Preparation protective cover with safety switch

Z5631025 Protective cover

Z5631026 Protective cover with safety switch

QPOL 250 A2-ECO

M5631051  Qpol 250 A2-ECO 230V/50Hz (1Ph/N/PE)

M5631056  Qpol 250 A2-ECO 110V/60Hz (1Ph/N/PE)

WORKING WHEEL

1 item required for Qpol 250 A1-Eco

2 items required for Qpol 250 A2-Eco

Z5631001 Working wheel Ø 200 mm

Z5631002 Working wheel Ø 250 mm

Z5631019 Working wheel Ø 200 mm PVC

Z5631017 Working wheel Ø 250 mm PVC

SAMPLE HOLDER (1 ITEM REQUIRED)

Z5445020 Sample holder M-130-6-Ø-25 single pressure

Z5445021 Sample holder M-130-6-Ø-1" single pressure

Z5445022 Sample holder M-130-6-Ø-30 single pressure

Z5445023	Sample holder M-130-6-Ø-1 1/4" single pressure
Z5445024	Sample holder M-130-6-Ø-1 1/2" single pressure
Z5445025	Sample holder M-130-6-Ø-40 single pressure
Z5445026	Sample holder M-130-3-RE-55x30 single pressure
Z5445030	Sample holder M-130-8-Ø-25(1") central pressure
Z5445031	Sample holder M-130-8-Ø-30 central pressure
Z5445032	Sample holder M-130-8-Ø-1 1/4" central pressure
Z5445033	Sample holder M-130-6-Ø-1 1/2" central pressure
Z5445034	Sample holder M-130-5-Ø-40 central pressure
Z5445035	Sample holder M-130-3-RE-55x30 central pressure
Z5445036	Sample holder M-130-5-Ø-20/40 central pressure

OPTIONS (CAN BE ORDERED SEPARATELY)

Z5631003	Clamping ring Ø 200 mm
Z5631004	Clamping ring Ø 250 mm
Z5631020	Qpol 250 Protection ring Ø 200 mm
Z5631021	Qpol 250 Protection ring Ø 250 mm
92008528	 Magnetic Foil Ø 200 x 1,0 mm PSA
92005820	 Magnetic Foil Ø 250 x 1,0 mm PSA
05445010	Distance ring-40-30
05445011	Distance ring-40-25
05445012	Distance ring-1 1/2"-1 1/4"
05445013	Distance ring-1 1/2"-1"
05400356	Levelling plate Ø 130 mm 2 mm
05400372	Levelling plate Ø 130 mm 4 mm
A5810261	 Settling tank 45L for System Lab 2, mobile, with insertion mechanism for cabinet 800
A5810237	 Settling tank 45L for System Lab 2, mobile, with insertion mechanism for cabinet 900

A5800496



Settling tank 45L for System Lab, mobile, without folding wheels

DOSING UNIT

M6300060

Qdoser ECO Base Unit

A6300050

Holder for dosing nozzles for Eco

Z5631015



Qdoser ONE

Z5631014



Qdoser ONE holder

OPTIONS (CAN BE ORDERED SEPARATELY)

A6300052

Magnetic stirrer