



ШЛИФОВАЛЬНО-ПОЛИРОВАЛЬНАЯ МАШИНА

QPOL PLUS 1 / PLUS 2

MAKE IT EASY. MAKE IT AUTOMATED.

The Qpol PLUS 1 and PLUS 2 are automatic, single wheel or twin wheel grinding and polishing machines that can operate using either single or central pressure. They are suitable for working wheels with a diameter of 200/250/300 mm. The high-performance PLUS head also allows the use of large sample holders with diameters up to 185 mm (central pressure).



[Смотреть видео](#)

ПРЕИМУЩЕСТВА ОБОРУДОВАНИЯ

- | **Automated processes:** High-removal grinding/polishing, variable dosing of diamond suspensions/lubricants, contact pressure, speed control, and the direction of rotation (in-phase/out-of-phase) for the polishing head and working wheel are all variable and freely adjustable.
- | **High flexibility:** The L sample holder allows for the use of very large samples.
- | **High reproducibility:** Automatic sample preparation methods can be customized, and up to 200 preparation methods—protected by user account management—can be edited and saved. Grinding and polishing results remain consistent even when the process is repeated.

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ОСОБЕННОСТИ



DURABLE AND RELIABLE

Machine body made of a sturdy welded aluminum construction with a high-quality, durable powder coating

- | Extremely smooth operation thanks to a low-vibration design
- | Powerful speed-controlled drive with optimal performance, suitable even for larger samples
- | The impact-resistant plastic tub offers impressive durability, corrosion resistance, and easy cleaning



GRINDING/POLISHING HEAD WITH SWIVEL BEARINGS

High level of user-friendliness and flexibility: The grinding/polishing head is equipped with adjustable swivel stops for easy swiveling

- | Recessed handles on both sides with integrated push buttons for unlocking, ensuring convenient operation
- | Easy sample holder replacement thanks to the large gap between the grinding/polishing head and the work surface



SIMPLE CLEANING SYSTEM

Single-Disc-Design:
Easy removal of all components and easy access

- | The splash guard ring and working wheel can be removed with minimal effort, thereby reducing setup and cleaning times
- | The tub insert (plastic inlay) is easy to replace or clean to remove abrasion and residue from the Suspension



STURDY, PULL-OUT FAUCET

Easy and thorough cleaning of the work area and the grinding tray

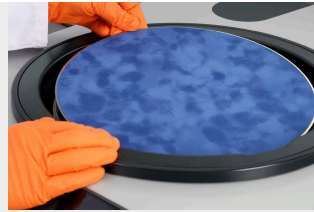
- | Cleaning Boost function: removes residual liquid from the grinding/polishing media (dries at 750 rpm in 3 seconds)
- | The water valve is activated automatically at the start and end of the preparation process
- | Sturdy faucet with a flexible hose extension



OPTION: QDOSER DOSING SYSTEMS

Can be optionally equipped with software-controlled dosing systems for high process flexibility

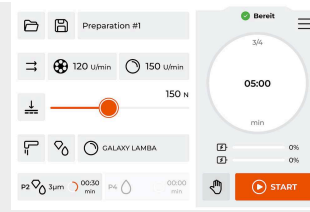
- | Qdoser GO: Fully automatic, software-controlled dispensing system with 4 easily removable and refillable dispensing bottles for reproducible results (magnetic stirring function available as an option)
- | Qdoser PLUS: Also allows for fine polishing (optional upgrade to a 1-liter bottle for fine polishing suspension)



ERGONOMICALLY SHAPED SPLASH GUARD

User-friendly design and the ability to quickly replace consumables

- | The ergonomically shaped splash guard significantly reduces splashing and can be used as a comfortable hand rest during longer procedures
- | Grip recesses allow for the replacement of grinding/ polishing media even when the ring is in place



INTUITIVE AND EASY TO USE

Ergonomically integrated 7-inch industrial touchscreen with QATM user software

- | Intuitive menu structure and easy configuration
- | Progress indicator for the current procedure via a status bar and an audible signal at the end of the grinding/ polishing process
- | Built-in timer and direct display of torque/contact pressure for high reproducibility

**HIGH THROUGHPUT, LARGE SAMPLES AND
EXCELLENT REPRODUCIBILITY**

**PLUS GRINDING / POLISHING
HEAD**

The PLUS grinding and polishing head delivers a contact pressure of 5–80 N in single pressure mode and 20–350 N in central pressure mode. Up to 6 samples with a diameter of 50 mm can be prepared at variable speeds using sample holders with a diameter of 160 mm, either in the same or opposite directions. In addition, thanks to the L-type sample holders, central-pressure sample holders with a diameter of up to 185 mm can also be used.

- | Reproducible results through automatic grinding and polishing
- | Easy to move thanks to recessed handles with integrated push buttons
- | Easy sample holder replacement thanks to ample clearance from the work surface



ШЛИФОВАЛЬНО-ПОЛИРОВАЛЬНАЯ МАШИНА QPOL PLUS 1 / PLUS 2

SUPERIORITY IN DETAIL

1. Ergonomic Control panel

- | Compact 7-inch industrial touchscreen with intuitive QATM user software

2. Robust machine body

- | Sturdy powder-coated aluminum construction
- | USB port for data transfer (updates also possible)

3. Single disc design

- | Ergonomically shaped splash guard
- | Impact-resistant plastic tub

4. Faucet

- | Stainless steel faucet with a pull-out, flexible hose extension

5. Smart grinding/polishing heads

- | Supports both single pressure and central pressure
- | Two-hand operation for operator safety

6. Emergency stop switch

- | Stop all running processes and moving parts

7. Qdoser Plus Dosing unit

- | Automatic dosing of diamond suspensions/ lubricants
- | Suspension storage bottles can be refilled and removed during operation
- | Enables automatic fine polishing of samples



HIGH PROCESS FLEXIBILITY

QDOSER DOSING SYSTEMS

The fully automatic, software-controlled Qdoser dosing system speeds up the grinding and polishing processes in the materialographic laboratory and is compatible with the QPol M, GO, and PLUS series, as well as the QPol PRO. Four screw-top 500-ml glass bottles can be filled with QPREP diamond suspensions, QPREP lubricants (diamond lubricants), and/or QPREP fine-polishing suspensions through a separate opening in the lid. The suspension storage bottles are easily removable, making them simple to clean. A backflush function keeps the connecting hoses clean.

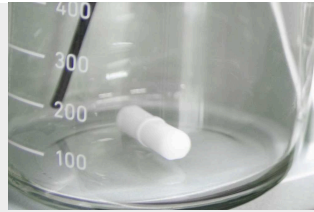




OPTIMIZED FILLING AND DOSING

The suspension storage bottles can be removed at any time and refilled in a way that is optimized for application, e.g., with:

- | Qdoser PLUS: 3x diamond suspensions/ lubricant and 1x fine polishing suspension (optional upgrade to a 1-liter bottle for fine polishing suspension)
- | Qdoser GO: 4x Dia-COMplete diamond suspensions



OPTION: MAGNETIC STIRRER

A magnetic stirrer is available as an option for stirring the polishing agents to achieve excellent preparation results

- | The integrated magnetic stirrer prevents the suspension from settling
- | Optimal distribution of polishing particles through automatic stirring of the suspensions



DOSAGE

High flexibility and ease of use thanks to simple polishing agent dispensing

- | Easy installation of the dispensing nozzles into the designat-ed mount in the grinding and polishing head
- | Fully automatic, software-controlled dosing via the industrial touchscreen on Qpol machines
- | Dosing interval can be adjusted as needed
- | Including backflush function for easy cleaning



QDOSER ONE

Dropper bottle for easy and continuous dosing

- | Easy to use – Standard QATM suspension and lubricant bottles can be quickly and easily screwed onto the dispenser
- | Continuously variable dosing rate – The dosing rate is precisely controlled using an adjustment screw
- | Can be used with a stand or mounted on polishing head

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.



ШЛИФОВАЛЬНО-ПОЛИРОВАЛЬНАЯ МАШИНА QPOL PLUS 1 / PLUS 2

ХАРАКТЕРИСТИКИ



ШЛИФОВАЛЬНО-ПОЛИРОВАЛЬНАЯ МАШИНА QPOL PLUS 1

Однодисковый станок

Рабочие диски	$\varnothing$ 200/250/300 mm (recommended size: $\varnothing$ 300 mm)
Inner diameter of the tub	$\varnothing$ 350 mm
Держатель образцов	Single pressure: $\varnothing$ 160 mm Central pressure: up to $\varnothing$ 185 mm
Number of samples	Single pressure: 1 - 6 samples, $\varnothing$ 50 mm Central pressure: 1 - 5 samples, $\varnothing$ 50 mm
Contact force	Single pressure: variable, 5 - 80 N Central pressure: variable, 20 - 350 N
Speed (grinding machine)	30 - 600 rpm, continuously variable

ШЛИФОВАЛЬНО-ПОЛИРОВАЛЬНАЯ МАШИНА QPOL PLUS 2

Двухдисковый станок

Рабочие диски	$\varnothing$ 200/250/300 mm (recommended size: $\varnothing$ 300 mm)
Inner diameter of the tub	$\varnothing$ 350 mm
Держатель образцов	Single pressure: $\varnothing$ 160 mm Central pressure: up to $\varnothing$ 185 mm
Number of samples	Single pressure: 1 - 6 samples, $\varnothing$ 50 mm Central pressure: 1 - 5 samples, $\varnothing$ 50 mm
Contact force	Single pressure: variable, 5 - 80 N Central pressure: variable, 20 - 350 N
Speed (grinding machine)	30 - 600 rpm, continuously variable

Rotational speed (grinding head)	30 - 160 об/мин
Подключение воды	1x Fresh water G ½" max. 6 bar
Подключение сжатого воздуха	6-8 bar, coupling connector NG 8
Dosing device (optional)	Qdoser GO, Qdoser PLUS, Qdoser ONE
Температура окружающей среды	10 - 40 °C
Мощность привода (шлифовальный круг)	Working wheel: 0.75 kW (S1) / 1.1 kW (S3) Grinding head: 0.37 kW (S1)
Connected load	1,4 кВА
Power connection	220 - 240 V, 50/60 Hz (1 Ph/ N/PE) 100 - 120 V, 50/60 Hz (1 Ph/ N/PE)
Внешние интерфейсы	USB
В x Н x Т	511 x 610 x 756 mm
Вес (в зависимости от комплектации)	approx. 65 kg

Rotational speed (grinding head)	30 - 160 об/мин
Подключение воды	1x Fresh water G ½" max. 6 bar
Подключение сжатого воздуха	6-8 bar, coupling connector NG 8
Dosing device (optional)	Qdoser GO, Qdoser PLUS, Qdoser ONE
Температура окружающей среды	10 - 40 °C
Мощность привода (шлифовальный круг)	Working wheel: 0.75 kW (S1) / 1.1 kW (S3) Grinding head: 0.37 kW (S1)
Connected load	1,4 кВА
Power connection	220 - 240 V, 50/60 Hz (1 Ph/ N/PE) 100 - 120 V, 50/60 Hz (1 Ph/ N/PE)
Внешние интерфейсы	USB
В x Н x Т	901 x 610 x 749 mm
Вес (в зависимости от комплектации)	approx. 80 kg

www.qatm.com/qpol-plus-series

ИНФОРМАЦИЯ ДЛЯ ЗАКАЗА

BASIC EQUIPMENT QPOL PLUS 1

МАШИНА (НЕОБХОДИМА - 1 ШТ.)

M5631640  Qpol PLUS 1 200-240 V 50/60 Hz

M5631645  Qpol PLUS 1 100-120 V 50/60 Hz

КОМПЛЕКТ ДЛЯ ПОДКЛЮЧЕНИЯ

Z5631604 Connection set for Qpol PLUS 1, PLUS 2

РАБОЧИЙ ДИСК (1 ШТ. НЕОБХОДИМА)

Z5631002 Диск рабочий Ø 250 мм

Z5631007 Диск рабочий Ø 300 мм

Z5631017 Рабочий диск Ø 250 мм ПВХ

Z5631018 Working wheel Ø 300 mm PVC

OPTIONS QPOL PLUS 1 (CAN BE ORDERED SEPARATELY)

MAGNETIC FOIL ANISOTROPIC

95016346  Magnetic foil anisotropic Ø 250 x 1.0 mm PSA

95012161  Magnetic foil anisotropic Ø 300 x 1.0 mm PSA

SPLASHING GUARD (1 ITEM REQUIRED)

Z5631602 Splashing guard Ø 200/250 mm

Z5631607 Splashing guard Ø 300 mm

CLAMPING AND PROTECTION RING

Z5631004	Кольцо прижимное Ø 250 мм
Z5631009	Кольцо прижимное Ø 300 мм
Z5631022	Защитное кольцо Ø 250 мм

Grinding bowl inlay

95018173	Qpol grinding bowl inlay (5-pack)
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SAMPLE HOLDER QPOL PLUS 1 (1 ITEM REQUIRED)

Z5446020	Sample holder L-160-6-Ø-25 single pressure
Z5446022	Sample holder L-160-6-Ø-30 single pressure
Z5446025	Sample holder L-160-6-Ø-40 single pressure
Z5446026	Sample holder L-160-6-Ø-50 single pressure
Z5446021	Sample holder L-160-6-Ø-1" single pressure
Z5446023	Sample holder L-160-6-Ø-1 1/4" single pressure
Z5446024	Sample holder L-160-6-Ø-1 1/2" single pressure
Z5446027	Sample holder L-160-6-Ø-2" single pressure
Z5446028	Sample holder L-160-3-RE-55x30 single pressure
Z5446029	Sample holder L-160-3-RE-60x40 single pressure
Z5446030	Sample holder L-160-12-Ø-25 central pressure
Z5446031	Sample holder L-160-8-Ø-30 central pressure
Z5446034	Sample holder L-160-6-Ø-40 central pressure
Z5446035	Sample holder L-160-5-Ø-50 central pressure
Z5446042	Sample holder L-185-3-Ø-60 central pressure
Z5446044	Sample holder L-204-5-Ø-70 central pressure
Z5446030	Sample holder L-160-12-Ø-1" central pressure
Z5446032	Sample holder L-160-8-Ø-1 1/4" central pressure
Z5446033	Sample holder L-160-6-Ø-1 1/2" central pressure
Z5446035	Sample holder L-160-5-Ø-2" central pressure
Z5446036	Sample holder L-160-3-RE-55x30 central pressure
Z5446037	Sample holder L-160-3-RE-60x40 central pressure

Z5446043	Sample holder L-185-3-RE-70x40 central pressure
Z5446045	Sample holder L-204-3-RE-100x50 central pressure
Z5446038	Sample holder L-160-6-Ø-20-40 central pressure

DISTANCE RING

05446012	Distance ring-50-25
05446015	Distance ring-2"-1"
05446011	Distance ring-50-30
05446014	Distance ring-2"-1 1/4"
05446010	Distance ring-50-40
05446013	Distance ring-2"-1 1/2"

LEVELLING PLATE

05400114	 Levelling plate Ø 160 mm 2 mm
05400246	Levelling plate Ø 160 mm 4 mm

DOSING UNIT QPOL PLUS 1

M6300110	Qdoser PLUS
M6300115	Qdoser PLUS with magnetic stirrer
Z6300070	1 l extension final polish suspension

QDOSER GO

M6300105	Qdoser GO with magnetic stirrer
A6300051	Holder dosing nozzles for manual usage

QDOSER ONE

Z5631014	 Holder for Qdoser ONE
Z5631016	 Подставка для Qdoser ONE

SETTLING TANK / RECIRCULATION UNIT

A5810261  Settling tank 45 L insertable 800

A5810237  Settling tank 45 L insertable 900

A5800496  Settling tank 45 L movable

A5631600 Preparation for recirculation unit for Qpol PLUS 1

Z5800012 Recirculation tank 45 L movable

Z5800013 Recirculation tank 45 L insertable

Z5800014 Pump module recirculation cooling

Z5631605 Qpol control unit for recirculation unit

Z5631610 Qpol shift valve for recirculation unit

GRINDING & POLISHING MACHINE QPOL PLUS 2

BASIC EQUIPMENT QPOL PLUS 2

МАШИНА (НЕОБХОДИМА - 1 ШТ.)

M5631650  Qpol PLUS 2 200-240 V 50/60 Hz

M5631655  Qpol PLUS 2 100-120 V 50/60 Hz

КОМПЛЕКТ ДЛЯ ПОДКЛЮЧЕНИЯ

Z5631604 Connection set for Qpol PLUS 1, PLUS 2

РАБОЧИЙ ДИСК (ТРЕБУЕТСЯ 2 ШТ.)

Z5631002 Диск рабочий Ø 250 мм

Z5631007 Диск рабочий Ø 300 мм

Z5631017 Рабочий диск Ø 250 мм ПВХ

Z5631018 Working wheel Ø 300 mm PVC

OPTIONS QPOL PLUS 2 (CAN BE ORDERED SEPARATELY)

MAGNETIC FOIL ANISOTROPIC

95016346		Magnetic foil anisotropic Ø 250 x 1.0 mm PSA
95012161		Magnetic foil anisotropic Ø 300 x 1.0 mm PSA

SPLASHING GUARD (1 ITEM REQUIRED)

Z5631602	Splashing guard Ø 200/250 mm
Z5631607	Splashing guard Ø 300 mm

CLAMPING AND PROTECTION RING

Z5631004	Кольцо прижимное Ø 250 мм
Z5631009	Кольцо прижимное Ø 300 мм
Z5631022	Защитное кольцо Ø 250 мм

Grinding bowl inlay

95018173	Qpol grinding bowl inlay (5-pack)
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SAMPLE HOLDER QPOL PLUS 2 (1 ITEM REQUIRED)

Z5446020	Sample holder L-160-6-Ø-25 single pressure
Z5446022	Sample holder L-160-6-Ø-30 single pressure
Z5446025	Sample holder L-160-6-Ø-40 single pressure
Z5446026	Sample holder L-160-6-Ø-50 single pressure
Z5446021	Sample holder L-160-6-Ø-1" single pressure
Z5446023	Sample holder L-160-6-Ø-1 1/4" single pressure
Z5446024	Sample holder L-160-6-Ø-1 1/2" single pressure
Z5446027	Sample holder L-160-6-Ø-2" single pressure
Z5446028	Sample holder L-160-3-RE-55x30 single pressure

Z5446029	Sample holder L-160-3-RE-60x40 single pressure
Z5446030	Sample holder L-160-12-Ø-25 central pressure
Z5446031	Sample holder L-160-8-Ø-30 central pressure
Z5446034	Sample holder L-160-6-Ø-40 central pressure
Z5446035	Sample holder L-160-5-Ø-50 central pressure
Z5446042	Sample holder L-185-3-Ø-60 central pressure
Z5446044	Sample holder L-204-5-Ø-70 central pressure
Z5446030	Sample holder L-160-12-Ø-1" central pressure
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Z5446036	Sample holder L-160-3-RE-55x30 central pressure
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Z5446043	Sample holder L-185-3-RE-70x40 central pressure
Z5446045	Sample holder L-204-3-RE-100x50 central pressure
Z5446038	Sample holder L-160-6-Ø-20-40 central pressure

DISTANCE RING

05446012	Distance ring-50-25
05446015	Distance ring-2"-1"
05446011	Distance ring-50-30
05446014	Distance ring-2"-1 1/4"
05446010	Distance ring-50-40
05446013	Distance ring-2"-1 1/2"

LEVELLING PLATE

05400114		Levelling plate Ø 160 mm 2 mm
05400246		Levelling plate Ø 160 mm 4 mm

DOSING UNIT QPOL PLUS 2

M6300110	Qdoser PLUS
M6300115	Qdoser PLUS with magnetic stirrer
Z6300070	1 l extension final polish suspension

QDOSER GO

M6300105	Qdoser GO with magnetic stirrer
A6300051	Holder dosing nozzles for manual usage

QDOSER ONE

Z5631014		Holder for Qdoser ONE
Z5631016		Подставка для Qdoser ONE

SETTLING TANK / RECIRCULATION UNIT

A5810261		Settling tank 45 L insertable 800
A5810237		Settling tank 45 L insertable 900
A5800496		Settling tank 45 L movable
A5631601		Preparation for recirculation unit for Qpol PLUS 2
Z5800012		Recirculation tank 45 L movable
Z5800013		Recirculation tank 45 L insertable
Z5800014		Pump module recirculation cooling
Z5631605		Qpol control unit for recirculation unit
Z5631610		Qpol shift valve for recirculation unit