

MIDLAND METROLOGY LTD

uPoli-200/230/250/300A

Auto Metallographic Grinder Polisher



Product Feature & Application

Product Feature

Six pieces samples can be polished independently or simultaneously with central force or single force.

- One or two working plates, plate dimension Φ 200mm/ Φ 203mm/ Φ 230mm/ Φ 254mm customized.

PLC controlled grinding disc and working plate independently, rotating speed, polishing time, rotating direction, water valve and liquid dropper closing etc. all the parameters can be saved.

Touch screen interface, easy to set polishing parameters, intuitive display, simple operation.

Adjustable speed for polishing disc and working plate, rotating direction can be changed.

Grinding and polishing procedure (rough and fine) are continuously done, no machine transition, one machine realizes the whole process of rough grinding, fine grinding, rough polishing and fine polishing.

- Solenoid valve to control the water on and off, automatic spray cleaning device under grinding disc can clean the inner wall of the tank.

Easy replacement of magnetic anti-stick disk, user can complete a variety of sample coarse, fine grinding and coarse, fine polishing and other processes. One plate is equivalent to N plates.

Auto electromagnetism locking grinding head instead of manual locking mode.

The automatic mode of grinding disc has ten sections of speed programming, which can set ten sections of speed and corresponding running time.

Each section of speed can be automatically shut down at the corresponding time to facilitate users to replace sandpaper and polishing tissue.

- Working parameters can be saved in USB, easily input & output

Optional grinding quantity control fixture, with thickness resolution 0.01mm.

Optional four-channel automatic dropper device can be configured to complete the grinding and polishing process automatically.

- Optional mobile remote control



Single Plate



Dual Plates



Optional Auto Dropper

Product Application

Automatic grinder polisher is used for metallographic labs sample preparation work; Auto-matic grinding head with touch screen programmable control, easy operation; Sample holder can hold 6 pieces of samples each time, greatly improved working efficiency; Stepless motor 100-1000 r/min rotating, direction support clockwise and anticlockwise; With water cooling system and urgent stop button.

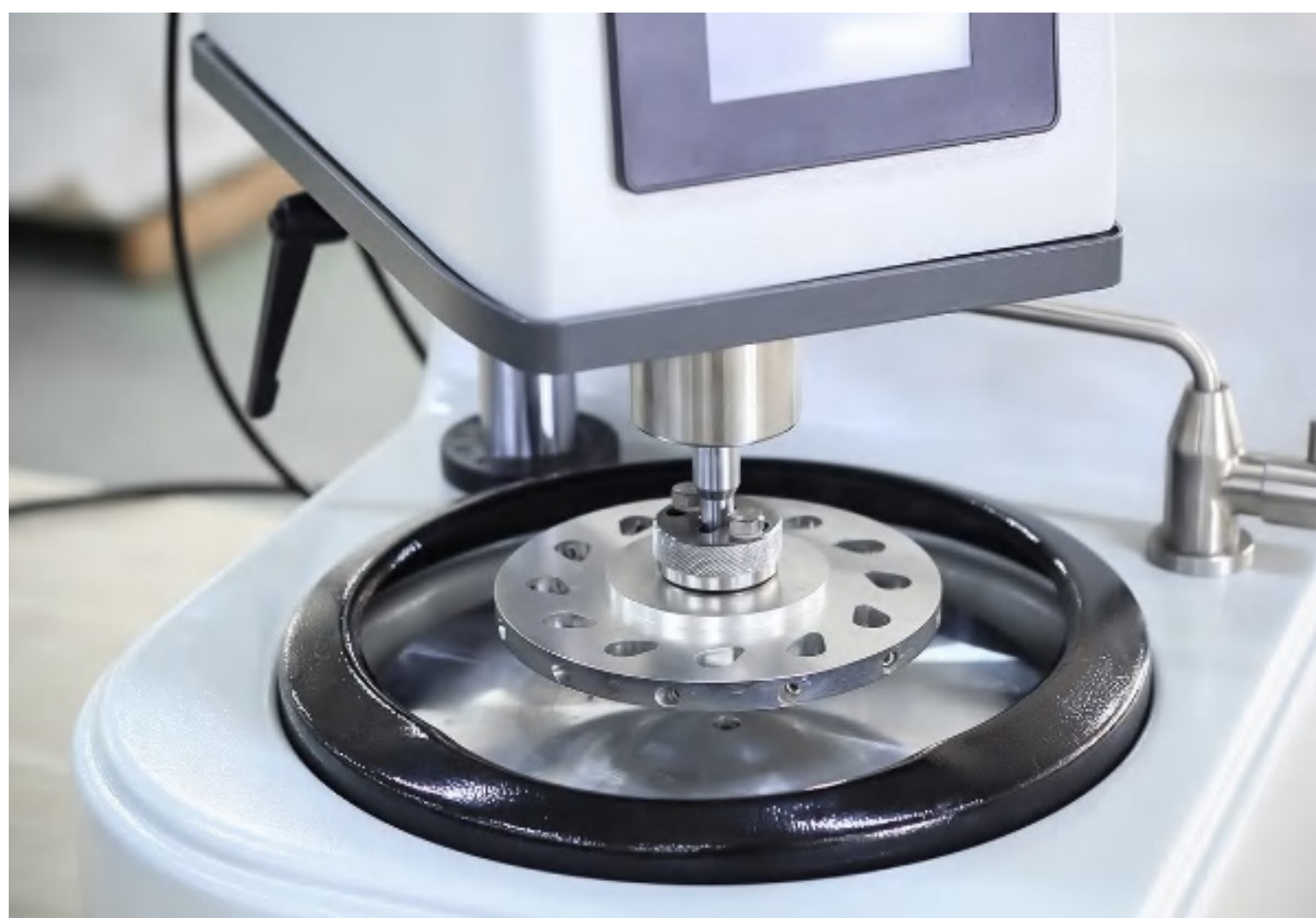
User Friendly



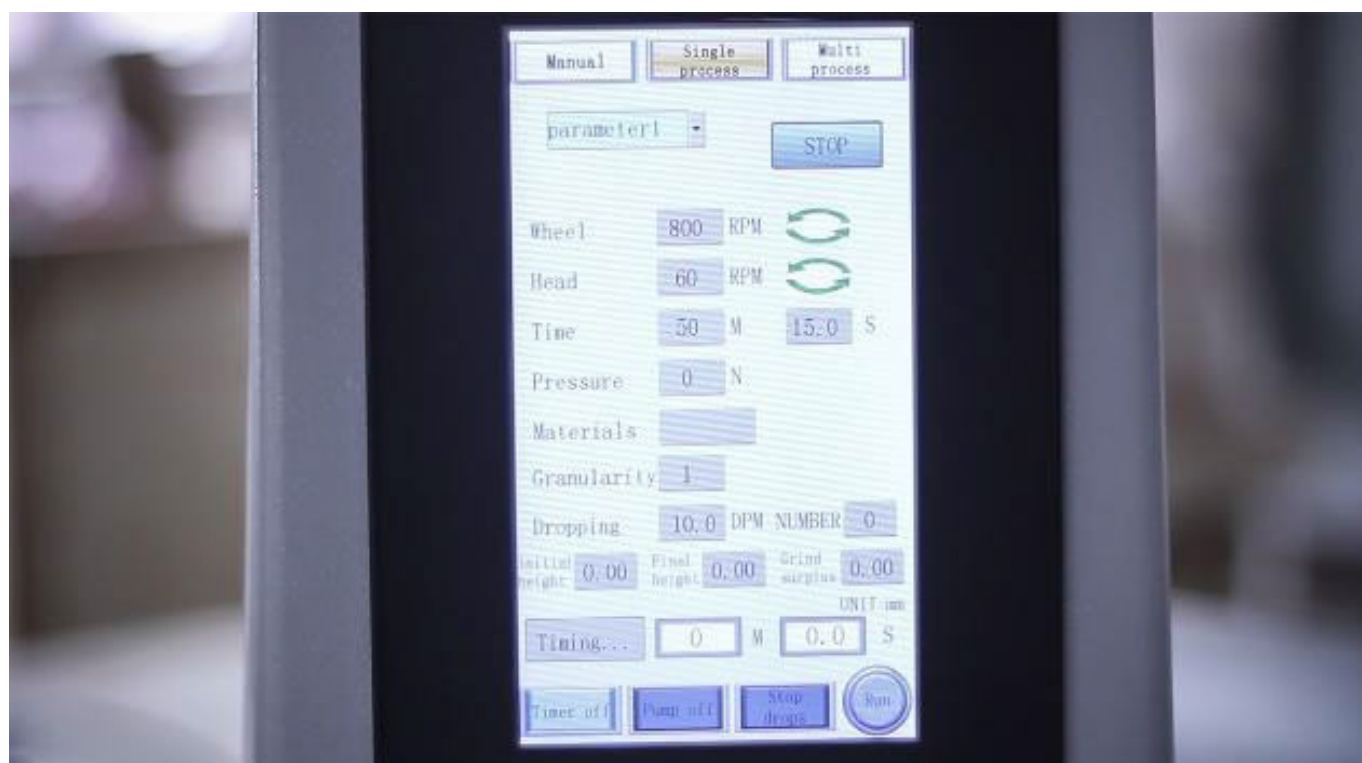
Standard 6 Sample Holders



Customized Sample Holder



Customized Sample Holder



Touch Screen Operation

User Friendly



Single Plate



Dual Plates

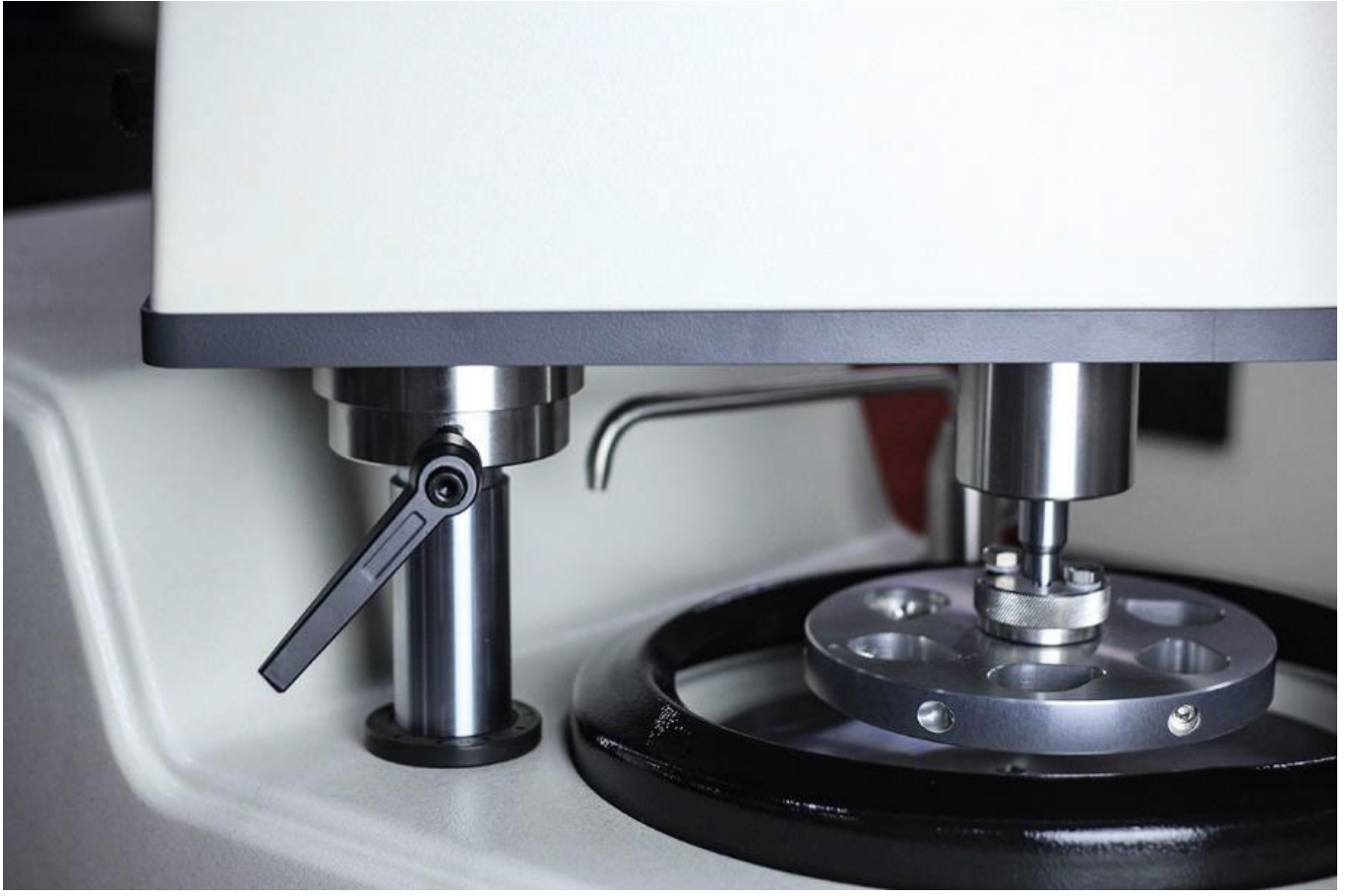


Emergency Button



Air Pressure Adjusting

User Friendly



Auto Locking



Auto Locking



Water Dropper

User Friendly



Heat Radiating



USB Data Save



Water Cooling/ Electric / Air Pressure System



Air pressure Meter



Electric Control

Optional Grinding Quantity Control Fixture

Grinding polishing sample thickness resolution is 0.01mm, fixture diameter can be customized ,standard diameter is 30mm.



Optional Four-channel automatic dropper PD-4

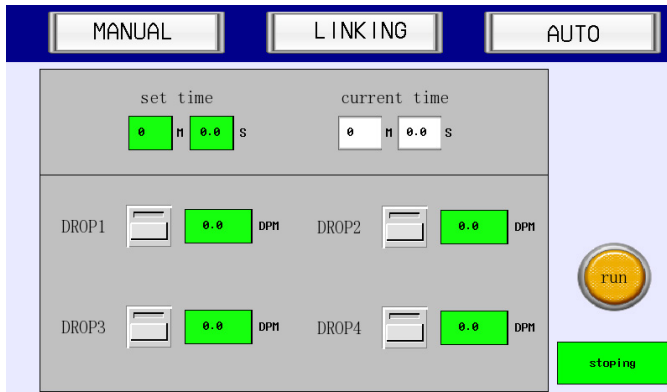


Product Feature:

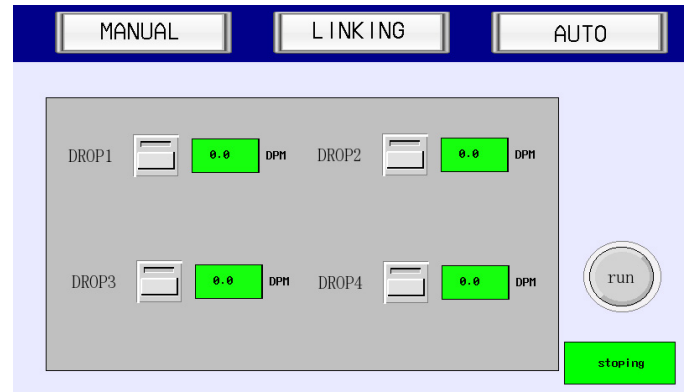
PD-4 Automatic polishing dropper can be used in various grinding and polishing machines. The dropper can automatically drop the polishing fluid onto the grinding disc or polishing disc at the required speed to achieve the purpose of polishing. The PD-4 Automatic Polishing Dipper provides four channels for simultaneous addition of different polishing media at different speeds.

- Four channels are set separately and work at the same time.
- Connecting polishing machine, drops liquid according to polishing parameters setting.
- Three working modes: Manual, Linking, Fully automatic.
- Each mode can be set independently: dropping speed, dropping time.
- Automatically clean the dropping tube.
- Dropping speed can be customized.
- can be expanded into 6 channels or 8 channels.
- The Linking start-stop mode needs to be connected with the automatic grinding & polishing machine. When the machine starts to work, the dropping starts to run automatically. After the machine stops working, the dropping will stop working automatically.
- The automatic mode accepts and drops according to the process parameters from the grinding & polishing machine.

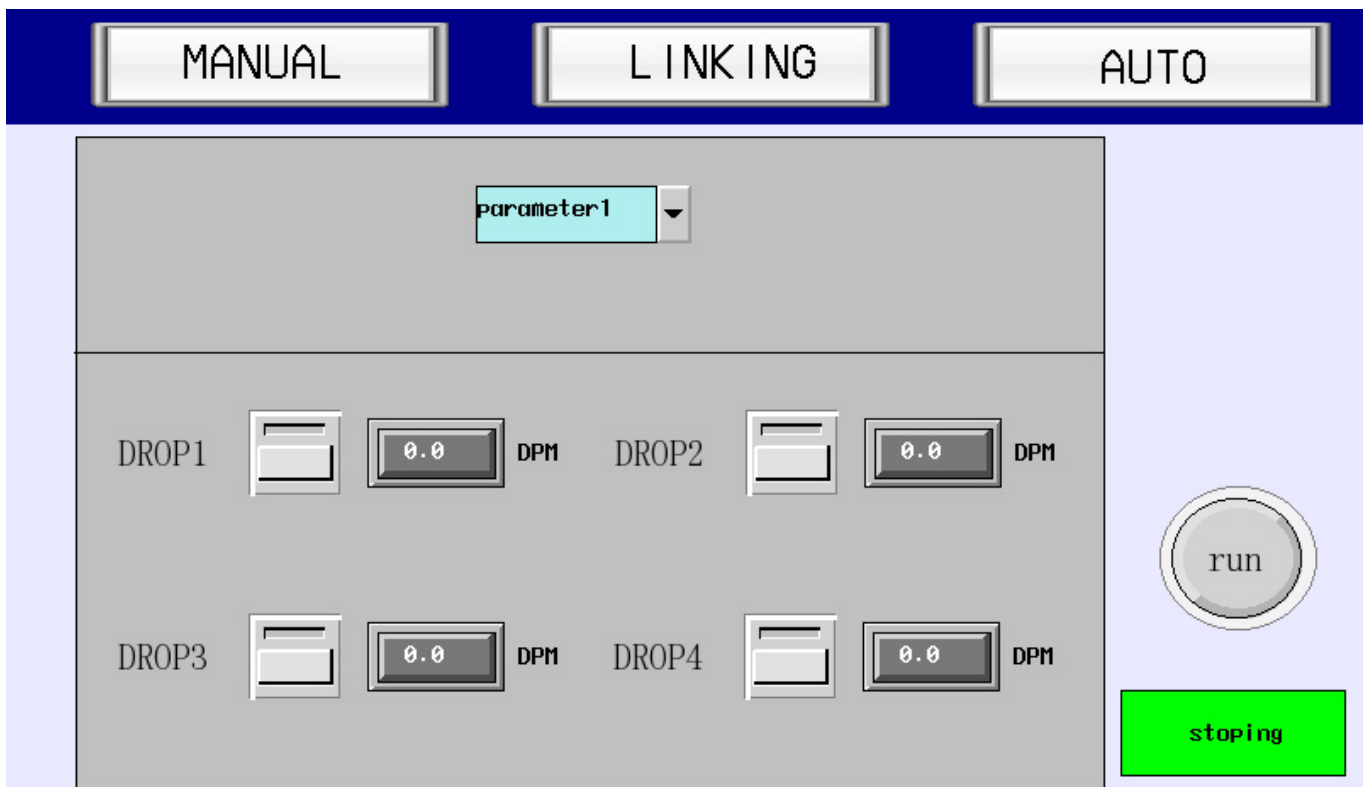
Operation Interface



Manual Mode



Linking Mode



Auto Mode

Main Parameters

- Dropping Speed: stepless 6 drops/min -280 drops/min
- Maximum flow: 18 ml/min
- Power source: AC 220V, 10W

Packing list

- Dropping host 1pc
- Dropping bottle base 1pc
- Dropping bottles 4 pcs
- Dropping tubes 4pcs
- Instruction Manual: 1 copy
- Product Certificate: 1 copy

Technical Specification

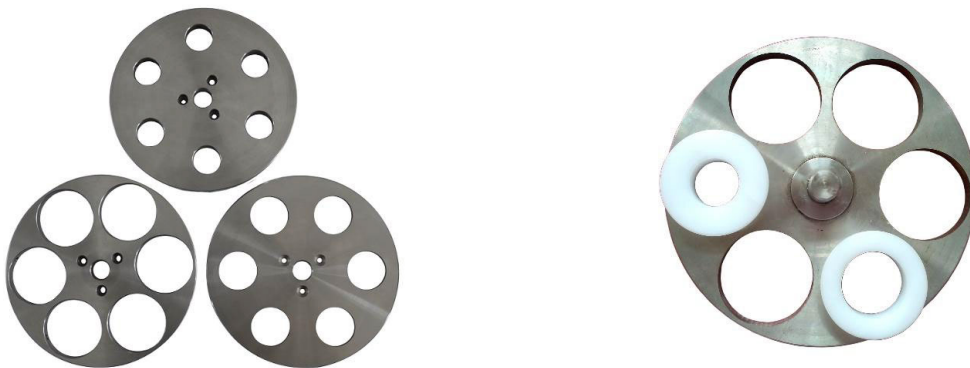
Product Name	Auto Metallographic Grinder Polisher			
Model	uPoli -1-200A	uPoli -1-230A	uPoli-1-250A	uPoli-1-300A
Model	uPoli -2-200A	uPoli -2-230A	uPoli -2-250A	uPoli -2-300A
Platen Disc	Single disc (uPoli-1)		Single disc (uPoli-1)	
Working Disc Diameter	203mm	234mm	254mm	304mm
Polishing Speed	Stepless 5~1500 rpm , Both Clockwise and Anti-clockwise			
Sample Plate Speed	30-200 rpm , Both Clockwise and Anti-clockwise			
Manual Mode	30 Goups of Parameters, Each Group Can Be Set and Invoked Separately			
Automatic Mode	30 Sets of Process, Each Set of Process Contains 10 Steps of Process Parameters			
Sample Holder	~25/30/40mm,6 Holders as Standard, Customized Different Shapes and Sizes,8 Holders			
Grinding Head Locking	Electromagnetic Automatic			
Water Outlet	Automatic			
Air Source Pressure	More than 0.6MPa			
Pressure Method	Single Force, Central Force or Both (choose one)			
Control Panel	Touch Screen			
Motor Power	0.75 Kw			
Power Supply	AC220V, 50/60Hz, 2KW			
Overall Dimensions	760 x 470 x 700mm(uPoli-1)		760 x 730 x 700mm(uPoli-2)	
Weight	63kg(uPoli-1)		74kg(uPoli-2)	

Variable Sample Holders

Sample holders are designed to facilitate process automation and optimization. Many options for different sample sizes and shapes are available depending on the shapes, sizes, and capacities required. Customized plastic retaining rings for user to make different sizes.

Standard Single Force Sample Holders

Size	Style	Capacity	Additional Accessories
Φ 25mm(Standard)	○	6	Plastic Retaining Rings
Φ 30mm(Standard)	○	6	Plastic Retaining Rings
Φ 40mm(Standard)	○	6	Plastic Retaining Rings



Reading microscope with light source Reading microscope with light source

Standard Single Force Sample Holders

Size	Style	Capacity	Additional Accessories
Φ 25mm(Standard)	○	6	Plastic Retaining Rings
Φ 30mm(Standard)	○	6	Plastic Retaining Rings
Φ 40mm(Standard)	○	6	Plastic Retaining Rings



Standard Central Force Sample Holder

Customized sample holders of different sample sizes and shapes



Ordering Information



Model	Pressure Method	Platen Disc	Platen Disc Diameter
uPoli-1-200A	Single Force Pressure	Single Disc	Φ 203mm
uPoli-1-200A	Central Force Pressure	Single Disc	Φ 203mm
uPoli-1-200A	Single+ Central Force Pressure	Single Disc	Φ 203mm
uPoli-2-200A	Single Force Pressure	Dual Discs	Φ 203mm
uPoli-2-200A	Central Force Pressure	Dual Discs	Φ 203mm
uPoli-2-200A	Single+ Central Force Pressure	Dual Discs	Φ 203mm
uPoli-1-230A	Single Force Pressure	Single Disc	Φ 234mm
uPoli-1-230A	Central Force Pressure	Single Disc	Φ 234mm
uPoli-1-230A	Single+ Central Force Pressure	Single Disc	Φ 234mm
uPoli-2-230A	Single Force Pressure	Dual Discs	Φ 234mm
uPoli-2-230A	Central Force Pressure	Dual Discs	Φ 234mm
uPoli-2-230A	Single+ Central Force Pressure	Dual Discs	Φ 234mm
uPoli-1-250A	Single Force Pressure	Single Disc	Φ 254mm
uPoli-1-250A	Central Force Pressure	Single Disc	Φ 254mm
uPoli-1-250A	Single+ Central Force Pressure	Single Disc	Φ 254mm
uPoli-2-250A	Single Force Pressure	Dual Discs	Φ 254mm
uPoli-2-250A	Central Force Pressure	Dual Discs	Φ 254mm
uPoli-2-250A	Single+ Central Force Pressure	Dual Discs	Φ 254mm
uPoli-1-300A	Single Force Pressure	Single Disc	Φ 304mm
uPoli-1-300A	Central Force Pressure	Single Disc	Φ 304mm
uPoli-1-300A	Single+ Central Force Pressure	Single Disc	Φ 304mm
uPoli-2-300A	Single Force Pressure	Dual Discs	Φ 304mm
uPoli-2-300A	Central Force Pressure	Dual Discs	Φ 304mm
uPoli-2-300A	Single+ Central Force Pressure	Dual Discs	Φ 304mm

Standard Delivery

Item	Qty
Machine Mainframe	1 pc
Grinding Head	1 pc
Sample Holder	1 pc
Grinding Polishing Disc	1 pc
Magnetic Plate	1 pc
Teflon Pad	2 pcs
1 Micro Diamond Suspension	1 bottle
6 Micro Diamond Suspension	1 bottle
Item	Qty
180# Adhesive Sand Paper	2 pcs
600# Adhesive Sand Paper	2 pcs
1000# Adhesive Sand Paper	2 pcs
Inlet & Outlet Pipe	1 set
Adhesive Polishing Cloth Velvet	1 pc
Adhesive Polishing Cloth Canvas	1 pc
Instruction Manual	1 copy
Product Certificate	1 copy

Adhesive abrasive paper or polishing cloth
(which is attached on the lower iron plate)

Iron plate (it is not magnetic but could suck on the lower magnetic plate;
and it is coated with Teflon)



Magnetic plate (it is adhesive to attach the lower disc)

Grinding and polishing disc

Optional Delivery

Item	Item
Four Channel Automatic Dropper	Mobile Terminal Remote Control
Air pump	Huawei FLAT-panel M6 10.8in Kirin 980 4GB+64GB WiFi
Teflon Pad	Sand Paper
Diamond Suspension	Polishing Cloth

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