

MIDLAND METROLOGY LTD

iPoli-D

Metallographic Manual Grinding Polishing Machine



Product Features and Application

- This grinding polishing machine is a single-disc/dual-disc desktop machine, suitable for the preliminary grinding and polishing of metallographic samples.
- It is an essential device for users to prepare metallographic specimens.
- The machine is equipped with a cooling system that allows the sample to be cooled during the grinding process, preventing damage to the metallographic structure due to overheating.
- It is easy to use, safe, and reliable, making it an ideal specimen preparation device for factories, research institutions, and laboratory settings in academic institutions.

Product Features

- Equipped with two independent grinding and polishing discs, allowing different processes or handling of different samples simultaneously, improving work efficiency.
- The polishing disc has a diameter of 203mm, capable of grinding and polishing most samples available on the market.
- The machine features a water cooling system that cools the samples during grinding and polishing, preventing damage to the metallographic structure due to overheating, thus ensuring the quality and performance of the samples.
- Including stepless and multi-stage speed control, enabling users to select the appropriate speed based on the sample material, process requirements, and the stage of grinding or polishing to achieve optimal results.
- The structure is reasonably designed for easy daily maintenance and upkeep.
- Consumables such as grinding paper and polishing cloth used in the grinding and polishing process are easy to replace.

Product Application

- Used for the preparation of metallographic samples of various metal materials, such as steel, aluminum alloys, copper alloys, and more.
- Applied in the wafer grinding and polishing processes within chip manufacturing, enhancing chip performance and reliability.
- Used for grinding and polishing the surfaces of rock and mineral specimens to observe internal structures, mineral composition, and other details.
- Applied to the surface treatment of automotive components, improving the wear resistance, sealing properties, and durability of parts.
- Used for teaching demonstrations and scientific research.



Instrument Details

The equipment includes an external pressure aluminum ring, which can secure polishing cloth without pressure-sensitive adhesive.



The movable spray pipe can control the water flow through the knob on the panel.



The plastic molded water shield can prevent water splashing during the grinding and polishing process.



Control Interface



1. Forward Rotation Start **4. Multi-Stage Reverse Rotation Start** **3. Stop Button**
Speed Control Button **6. Stepless Speed Control Acceleration**
Speed Control Deceleration



1. Status Indicator **2. Real-Time Running Speed** **3. Set Speed**
4. Running Time **5. Set Time** **6. Time Display**

Control Interface

Time Setting



Set Running Time (0-1000s)



Ordering Information



iPoli-1D-200M (203mm Diameter) Single Disc Manual Grinding Polishing Machine
iPoli-1D-230M (230mm Diameter) Single Disc Manual Grinding Polishing Machine
iPoli-1D-250M (250mm Diameter) Single Disc Manual Grinding Polishing Machine










iPoli-2D-200M (203mm Diameter) Dual Discs Manual Grinding Polishing Machine
iPoli-2D-230M (230mm Diameter) Dual Discs Manual Grinding Polishing Machine
iPoli-2D-250M (250mm Diameter) Dual Discs Manual Grinding Polishing Machine

Technical Specification

Product Name	Metallographic Manual Grinding Polishing Machine	
Model	iPoli-1D-200M	iPoli-2D-200M
Disc Type	Single Disc	Dual Discs
Polishing Disc Diameter	Φ203mm (Customized Φ230mm, Φ250mm)	
Polishing Disc Rotation Speed	50-1000 rpm stepless speed regulation	150/300/600/800 rpm four constant speed
Control Method	Single disc/Single control	Dual disc/Single control
Voltage Supply	220V 50HZ	
Power Supply	550W	
Motor	YSS7124,550W	
Machine Dimension	500*910*475mm	860*660*355mm
Net Weight	41kg	70Kg
Gross Weight	47kg	84kg

Standard Delivery

Name	Qty	
Machine Mainframe	iPoli-1D-200M	
	iPoli-2D-200M	
Water Shield	1	
Velvet Polishing Cloth Φ 203mm(Non-adhesive)	2	
Abrasive Paper Φ203mm	2	
Plastic Cover	iPoli-1D-200M: 1 pc /iPoli-2D-200M: 2 pcs	
Inlet Pipe	1	
Outlet Pipe	1	
Ground Screw	2	
Aluminum Buckle Ring Φ203mm	iPoli-1D-200M: 1 pc /iPoli-2D-200M: 2 pcs	
Polishing Disc Φ203mm	iPoli-1D-200M: 1 pc /iPoli-2D-200M: 2 pcs	
Instruction Manual, Product Certificate, Warranty Card	1 copy ea.	