

LaboPol



Machines for grinding, lapping and polishing



The LaboPol machines have the following features:

- User-friendly and easy operation
- Quick exchange of grinding, lapping and polishing discs
- Table-top design in corrosion-resistant material
- Automation with the specimen movers LaboForce-3 or LaboForce-1

The LaboPol grinding, lapping and polishing machines for preparation discs with 200, 230 or 250 mm dia. are produced in different versions:

LaboPol-1

LaboPol-1 is the single speed basic version in the LaboPol series. The 250 rpm speed is appropriate for both manual preparation and automatic fine grinding and polishing.

LaboPol-2

LaboPol-2 is the two speed version with 250 and 500 rpm. 500 rpm is used for manual plane grinding and 250 rpm for automatic fine grinding and polishing with the specimen mover LaboForce-3.

LaboPol-4

With low, variable speed of between 0-150 rpm LaboPol-4 is suited for the gentle preparation of sensitive materials.

LaboPol-5

The variable rotational speed of between 50 - 500 rpm is controlled by an electronic servo system that keeps the selected speed constant, independent of the load. LaboPol-5 is suitable for laboratories handling a wide variety of materials.

LaboPol-6

with a variable speed of between 100 - 1200 rpm, LaboPol-6 is the perfect choice when polishing with alumina. The very high speed guarantees fast material removal and short polishing times.

LaboPol-21

LaboPol-21 is a two disc, single speed machine with 300 rpm. LaboPol-21 is the successor of the well-known Knuth-Rotor which has been used in many laboratories since the Fifties. LaboPol-21 can be used for manual grinding or polishing on either disc. However, also one specimen mover can be mounted on LaboPol-21. This makes it possible to use one disc for manual preparation and the other for semi-automatic fine grinding or polishing.

User-friendly and easy operation

The machines in the LaboPol series are designed to provide all the necessary functions to make them easy to

operate and extremely user friendly. The LaboPol machines are ideal for the small volume materialographic laboratory, or in a high volume lab as supplementary equipment for preparation requirements outside the daily routine. Especially LaboPol-1, -2, -4, -5 and 6 take up little space in your lab and can be placed where it is most convenient for the operator, on standard laboratory furniture.

Quick exchange of lapping, grinding and polishing discs

The LaboPol machines can be used to fulfil all kinds of materialographic preparation requirements. They can be used for grinding, lapping and polishing with all different types of consumables. All preparation discs can be exchanged easily. Therefore, when only a moderate preparation capacity is required, all processes may be carried out with just one LaboPol and a number of discs, depending on the number and type of preparation steps required.

Since non-adhesive papers can be used, only one disc is necessary for manual grinding on SiC paper. The papers are held on the disc by the vacuum created when water is expelled during rotation.

LaboPol can be used for grinding with all the consumables available in the MD-System, with SiC paper and for



LaboForce-1 the economic specimen mover for 1-3 specimens

LaboForce-1

LaboForce-1 is the basic specimen mover, running at a speed of 8 rpm and the force on each individual sample can be adjusted between 2 and 20 N. LaboForce-1 is the correct, economic choice when there are only limited requirements to the preparation time. Both specimen movers have a capacity of 1 - 3 specimens and are equipped with an adjustable drip lubricator.

High level of reproducibility

A complete line of accessories and consumables allow the use of all the most recent preparation techniques on LaboPol which ensures that the highest specimen quality can be achieved.

polishing with diamonds, oxide polishing suspensions OP-S, OP-U, OP-A or alumina.

Table-top design in corrosion-resistant material

The LaboPol series is produced in identical, stylish, functional, easy-to-clean cabinets of tough, corrosion-resistant material. They are equipped with a water tap and drain outlet.

Automation through specimen movers

If the number of specimens increase or if, for other reasons, the need for automation should arise, LaboPol can be automated by mounting a specimen mover, (see special brochure). With this combination, up to 3 specimens can be fine ground or polished simultaneously. An investment in LaboPol enables future upgrading to automation to meet the growing demands. Two different specimen movers are available.

LaboForce-3

LaboForce-3 is a specimen mover running at a speed of 250 rpm. With LaboForce-3, the LaboPol becomes a versatile semi-automatic preparation system. The force on each individual sample can be adjusted between 5 and 40 N. The speed of 250 rpm results in a short preparation time.

LaboForce-3 for semi-automatic fine grinding and polishing on all LaboPol machines



Technical Data	Code	LaboPol-1 LAPO1	LaboPol-2 LAPO2	LaboPol-4 LAPO4	LaboPol-5 LAPO5	LaboPol-6 LAPO6	LaboPol-21 LAP21
Motor		1 Phase					
Output		180 W	90/180 W	120 W	370 W	550 W	180 W
Speed		250 rpm	250/500rpm	0-150 rpm	50-500 rpm	100-1200 rpm	300 rpm
Grinding/ polishing disc	Dia	200-230 mm/ 8-9"					200-250mm/ 8-10"
	No. of discs	1					2
Fittings	No. of water taps	1					2
	Splash rings	1					2
Connected specimen movers	LaboForce-1	possible	possible	recommend	possible	possible	possible
	LaboForce-3	recommend	recommend	possible	recommend	recommend	recommend
Accessories	Lid	LAD					ROLID
Safety Standards	General	89/392/EEC & 91/386/EEC & 93/44/EEC					
	EMC	89/336/EEC & 92/231/EEC					
Dimensions	Width	410 mm / 16.1"				700 mm/28.6"	
	Depth	670 mm / 26.4"				690 mm/27.2"	
	Height	315 mm / 12.4"				220 mm/8.7"	
	Weight	22 kg / 48.5 lbs				28 kg/62 lbs	

Struers' products are subject to constant product development. Therefore, we reserve the right to introduce changes in our products without notice.



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