

**READY FOR
INSPECTION!**

- **Reliable – robust materials and design**
- **Fast – easy setup and preparation**
- **Adaptable – flexibility for changing needs**



RELIABLE

Designed for reliability and speed for manual grinding and polishing in the lab or next to the production line, the new LaboSystem is now ready for your inspection. A choice of robust modules gives you adaptability for your changing needs in demanding production environments. Struers' LaboSystem also has the endurance and speed you need to keep up with 24/7 throughput, enabling faster and more reliable preparation of specimens.

"During a three month trial we were impressed by the reliability, speed and simplicity of the new LaboSystem from Struers. The new LaboPol-60 was nearly 50% faster than our old polisher, enabling us to prepare specimens in half the time."

*R. Dubois, Process inspection A8,
Audi AG, Neckarsulm*

By the way...

The LaboSystem has undergone more than **40,000 cycles of durability testing** and has been subject to six months of field tests in Germany, the USA, the Czech Republic and Norway.

6 MONTHS TEST



Fast and reliable specimen preparation

The LaboSystem is a modular grinding and polishing system offering a choice of three LaboPol polishers, three LaboForce specimen movers, and two LaboDoser dosing units. Designed for reliability and speed, the LaboSystem is a highly adaptable polishing solution for the lab and production environment.

Reliable

Reliability means constant availability and performance. This is why the LaboPol is made from overall corrosion resistant and impact proof materials suitable for demanding environments. A cast aluminium block serves as a rigid backbone for the preparation disc, control panel and the optional specimen mover.

Fast

Speed is about productivity and standards compliant quality. The fast setup and simple design of the LaboSystem, including the disc size option of 300 mm dia. with a 44% increase in surface area*, means a significant reduction of processing time and less time standing at the polisher.

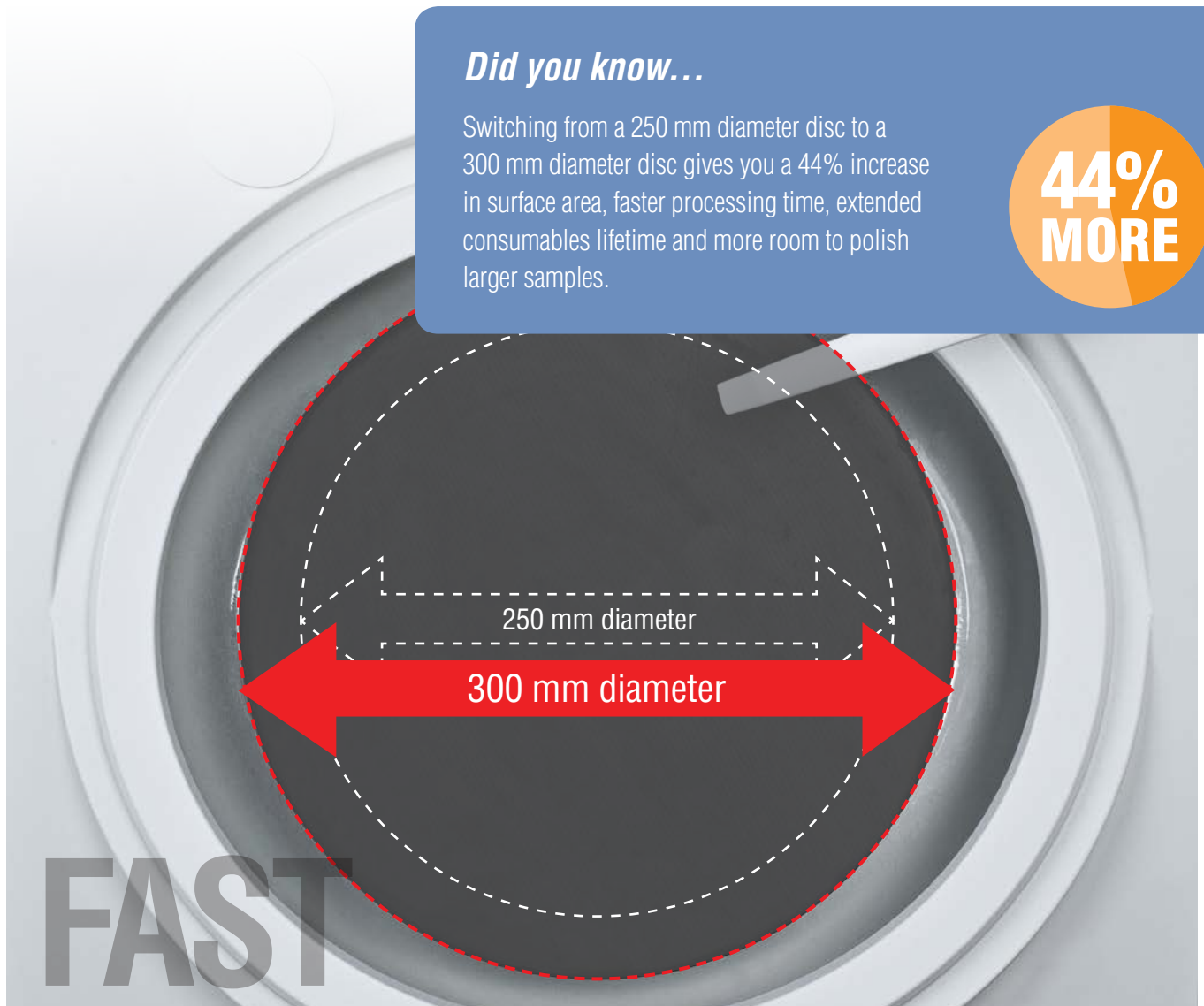
Adaptable

The modular design of the LaboSystem gives you the reassurance of being able to meet evolving needs by changing or upgrading your LaboPol with a semi-automatic LaboForce specimen mover and an automatic LaboDoser.

Did you know...

Switching from a 250 mm diameter disc to a 300 mm diameter disc gives you a 44% increase in surface area, faster processing time, extended consumables lifetime and more room to polish larger samples.

**44%
MORE**



* compared to 250 mm disc.

Basic system

Single disc, manual system that can be upgraded with a specimen mover and a dosing unit



LaboPol-20 polishing machine with 200 mm dia. disc + Labo UI control panel + LaboDoser-10 dosing unit

Benefits for all LaboSystem configurations

Cone disc system

Save time with fast removal of the disc for cleaning. The high mass of the cone disc ensures a lower preparation temperature to reduce consumption of consumables.

Durability

Use the Struers' LaboSystem wherever you need it. Overall corrosion-resistant and impact-proof materials make it suitable for demanding environments.

Elliptical splash ring and bowl

Shorten preparation time with easy access to the preparation disc.

Operator convenience

Save time and effort with the bowl liner (standard on all LaboPols) for easier cleaning of the bowl.

Semi-automatic system

Single disc system that can be upgraded with a choice of specimen movers and dosing units



*LaboPol-30 polishing machine with 300 mm dia. disc +
LaboForce-100 specimen mover + LaboDoser-100 dosing unit*

Longer machine life-time

Soft start ensures less wear and a longer service life for the LaboPol.

Control panel protection

The elevated control panel is entirely free from water splashes and damage from heavy, loose samples, and avoids accidental changing of the rpm setting.

Operator safety

When pressed, the emergency button immediately stops all moving parts. The small gap between the splash ring and bowl prevents injury to fingers.

Convenient storage

You can use the storage pad to keep unused specimen mover plates, for example, within easy reach when you need them.

Full size system

Dual disc system that can be upgraded with a choice of specimen movers and dosing units



LaboPol-60 polishing machine with 2 x 300 mm dia. disc + LaboForce-50 specimen mover + LaboDoser-10 dosing unit

Stable sample preparation

Constant speed regardless of load ensures more uniform and higher reproducibility of specimens.

Clear view

A long-life LED lamp illuminates the preparation area to give you a clear view.

Easy drying and cleaning

The unique spin function saves you time and effort by removing all water or moisture from the disc surface.

Automatic water on/off

A magnetic valve automatically opens the water flow when needed.

Adaptable for your changing needs

The modular design of the Struers' LaboSystem gives you the assurance of compliance with evolving needs. You can upgrade later on with an automatic LaboForce specimen mover and an automatic LaboDoser.

3 types of polishing machines



LaboPol-20 - 200 mm dia. disc

3 types of specimen movers



LaboForce-50* - 4 x 40 mm

2 types of dosing units



LaboDoser-10 - 1 x bottle (man.)



LaboPol-30 - 250/300 mm dia. disc

LaboForce-50* - 4 x 40 mm

LaboDoser-10 - 1 x bottle (man.)

LaboForce-Mi** - 8 x 30 mm

LaboDoser-10 - 1 x bottle (man.)

LaboForce-100 - 6 x 40 mm

LaboDoser-10 - 1 x bottle (man.)
LaboDoser-100 - 4 x bottles (aut.)



LaboPol-60 - 2 x 250/300 mm dia. disc

LaboForce-50* - 4 x 40 mm

LaboDoser-10 - 1 x bottle (man.)

LaboForce-Mi** - 8 x 30 mm

LaboDoser-10 - 1 x bottle (man.)

LaboForce-100 - 6 x 40 mm

LaboDoser-10 - 1 x bottle (man.)
LaboDoser-100 - 4 x bottles (aut.)

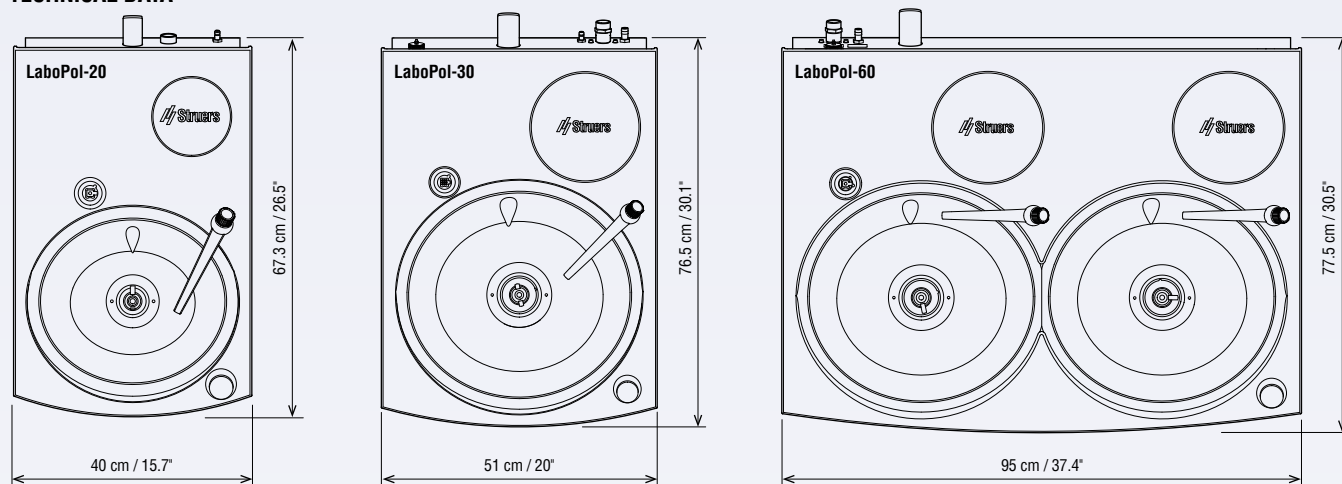


ADAPTABLE

* Patent pending (LaboForce-50 with release system).

** For mineralogical preparation. For more information, see the Mineralogical Specimen Preparation brochure.

TECHNICAL DATA



Technical data		LaboPol-20	LaboPol-30	LaboPol-60
Disc	Diameter	200 mm / 8"	250 mm / 10" or 300 mm / 12"	
	Speed	50 - 500 rpm		
	Rotational direction	Counter-clockwise		
	Motor power, continuous (S1)	370 W / 0.5 HP	750 W / 1 HP	
	Torque, @300 rpm	>12 Nm	>24 Nm	
Safety	Please refer to the Declaration of Conformity			
Emergency stop	Designed to comply with:	EN60204-1, Stop Category 0. EN954-1, Category 2		
Noise level	At idle running, at a distance of 1.0 m / 39.4" from the machine	51 dBA	52 dBA	52 dBA
Surrounding temperature	5 - 40 °C / 41 - 104 °F			
Humidity	Non condensing	0 - 95 % RH		
Supply	Voltage / frequency	200 - 240 V / 50 - 60 Hz		
	Power inlet	1-phase (N+L1+PE) or 2-phase (L1+L2+PE)		
	Power, nominal load	550 W	900 W	
	Power, idle	15 W	16 W	
	Current, nom.	2.4 A	4 A	
	Current, max.	6.3 A	10 A	
	Pressure for tap water	1-10 bar / 14.5 - 145 psi		
	Water inlet	½" or ¾"		
	Water outlet	ø 30 mm / 1¼" ø 40 mm / 1½"		
	Recirculation Cooling System (option)	-	Cooling System 3 (50 l)	
	Air inlet (LaboForce-100)	ø 6 mm / ¼"		
Air pressure (LaboForce-100)	6 - 10 bar / 87-145 psi			
Dimensions and weight	Width	40 cm / 15.7"	51 cm / 20"	95 cm / 37.4"
	Depth	67.3 cm / 26.5"	76.5 cm / 30.1"	77.5 cm / 30.5"
	Height (with LaboForce)	28 cm / 11.0" (58 cm / 22.8")	32 cm / 12.6" (64.5 cm / 25.4")	32 cm / 12.6" (64.5 cm / 25.4")
	Weight (with LaboForce)	22 kg / 49 lbs (36.5 kg / 80.5 lbs)	33 kg / 73 lbs (53.5 kg / 118 lbs)	50 kg / 110 lbs (70.5 kg / 156 lbs)

Recommended dosing unit		LaboDoser-10	LaboDoser-100
Dosing (option)	Pumps / Bottles	1 suspension / lubricant	4 suspensions / lubricants
Dimensions and weight	Width	-	15 cm / 5.9"
	Depth	-	30.6 cm / 12"
	Height	-	11.5 cm / 4.5"
	Weight	0.4 kg / 0.8 lbs	1.9 kg / 4.2 lbs

SPECIFICATIONS**Cat.no****LaboPol-20**

Grinding/polishing machine with variable speed (50-500 rpm) for 200 mm dia. disc. Supplied with manual splash guard and bowl liner. LaboUI control panel and discs are ordered separately. Specimen mover LaboForce-50 can be mounted.

06326127

**LaboPol-30**

Grinding/polishing machine with variable speed (50-500 rpm) for 230, 250 or 300 mm dia. disc. Supplied with manual splash guard and bowl liner. LaboUI control panel and discs are ordered separately. Specimen mover LaboForce-50/-100/Mi can be mounted.

06336127

**LaboPol-60**

Grinding/polishing machine with variable speed (50-500 rpm) for 2 discs, 250 or 300 mm dia. Each disc with automatic water valve, manual splash guard and bowl liner. LaboUI control panel and discs are ordered separately. One specimen mover LaboForce-50/-100 can be mounted.

06346127

**LaboUI**

Control panel for LaboPol-20/-30/-60.

06206901

**LaboForce-50**

Semi-automatic specimen mover for preparation of 1-4 specimens. For use with LaboPol-20/-30/-60. Specimen mover plates and dosing unit (LaboDoser-10) are ordered separately.

06356127

**LaboForce-100**

Semi-automatic specimen mover for preparation of 1-6 specimens. For use with LaboPol-30/-60. Specimen mover plates/specimen holders and dosing unit (LaboDoser-10/-100) are ordered separately.

06366127

**LaboForce-Mi**

Semi-automatic specimen mover for the preparation of mineralogical specimens. For use with LaboPol-30. Specimen mover plates and dosing unit (LaboDoser-10) are ordered separately.

06386130

**LaboDoser-10**

Dosing unit with adjustable drip mechanism. For use with Struers' standard 500 ml/1000 ml bottles with diamond suspension, lubricant and all-in-one products. Includes empty 1000 ml bottle and support bracket for LaboForce-50/-Mi.

06376901

**LaboDoser-100**

Dosing unit for use with LaboPol-30/-60. With 4 peristaltic pumps for dosing of diamond suspension, lubricant and all-in-one products. Controlled from LaboForce-100, which is ordered separately. Includes four empty 500 ml bottles.

06376902

**Lid for LaboPol-20**

For protection of LaboPol-20 disc during non-use.

06206912

**Lid for LaboPol-30/-60**

For protection of LaboPol-30/-60 disc during non-use.

06206913

**Cap for LaboDoser-10**

For use with LaboDoser-10 (06376901) and Struers' standard 500 ml/1000 ml bottles with diamond suspension, lubricant and all-in-one products. With adjustable drip mechanism.

06376903

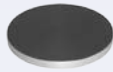
**Table stand for LaboDoser-10**

Stand for use with Struers' standard 500 ml/1000 ml bottles with diamond suspension, lubricant and all-in-one products. Includes cap with adjustable drip mechanism (06376903).

06376904

SPECIFICATIONS

Cat.no

**Preparation discs****MD-Disc – Magnetic fixation disc for MD-System products**

with cone, 200 mm dia.
with cone, 250 mm dia.
with cone, 300 mm dia.

06086401
06086402
06086403

**Aluminium disc – For use with adhesive backed consumables**

with cone, 200 mm dia.
with cone, 250 mm dia.
with cone, 300 mm dia.

06086404
06086405
06086406

Wet grinding disc – Aluminium disc with retention ring for grinding with plain back silicon carbide paper

with cone, 200 mm dia.

For LaboPol-20. LaboForce-50 can be used as specimen mover but be aware that the specimens run over the centre which can result in unplane specimens.

06206924



with cone, 230 mm dia.

For manual grinding on LaboPol-30/-60.

06206932

with cone, 250 mm dia.

For grinding on LaboPol-30/-60. LaboForce-50 can be used as specimen mover.

06206918

with cone, 305 mm dia.

For grinding on LaboPol-30/-60. LaboForce-50 and LaboForce-100 with max 140 mm dia. specimen mover plate/holder can be used.

06206919

**Cast Iron disc**

with cone, 300 mm dia.

Concentrically grooved for lapping mineralogical specimens on LaboPol-30/-60. Made of special SiC-resistant cast iron alloy.

06206917

**Splash guards****Manual preparation***

For manual preparation on LaboPol-30/-60 with 250 mm disc.

06206921

Semi-automatic preparation

For semi-automatic preparation on LaboPol-20 with 200 mm dia. disc.

06206923



For semi-automatic preparation on LaboPol-30/-60 with 250 mm dia. disc.

06206929

For semi-automatic preparation on LaboPol-30/-60 with 300 mm dia. disc.

06206925

Grinding with wet grinding disc

For use with 200 mm dia. wet grinding disc (06206924) on LaboPol-20

06206926



For use with 230 mm dia. wet grinding disc (06206932) on LaboPol-30/-60

06206927

For use with 250 mm dia. wet grinding disc (06206918) on LaboPol-30/-60

06206928

For use with 305 mm dia. wet grinding disc (06206919) on LaboPol-30/-60

06206929

**LaboPol comes standard with a splash guard for manual preparation, with a small gap to prevent stuck specimens. For 200 mm dia. disc on LaboPol-20 and 300 mm dia. disc on LaboPol-30/-60.*

**Bowl liner, LaboPol-20**

Disposable bowl liner for LaboPol-20. 5 pcs.

49900061

Bowl liner, LaboPol-30/-60

Disposable bowl liner for LaboPol-30/-60. 5 pcs.

49900062

Cooling System 3

Optional recirculation cooling system. Please see brochure Cooling Systems for more information.

Lavamin

Specimen cleaning unit for cleaning of specimen holders up to 160 mm dia. and for individual specimens in specimen mover plates for Tegramin-25/-30, LaboForce-50/-100, TegraForce-5 and RotoForce-4.

06236133

Struers' equipment conforms with the provisions of the applicable International Directives and their appurtenant Standards. (Please contact your local supplier for details).

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

Technical data		LaboForce-50	LaboForce-100	LaboForce-Mi
	Motor output	40 W	180 W	15 W
	Torque, @ 300 rpm	>2.6 Nm	-	> 49 Nm
	Rotational speed	150 rpm at 50 / 60 Hz	50 - 500 rpm at 50 / 60 Hz	3 rpm at 50/60 Hz
	Rotational direction	Counter-clockwise	Clockwise / Counter-clockwise	Clockwise
	Force, Individual specimens	5 - 30 N	10 - 50 N	2.5 - 20 N
	Force, Specimen holder	-	30 - 300 N	-
	Methods	1	3	-
Specimen mover plates	Specimens (max)	4 x 40 mm dia.	6 x 40 mm dia.	8 x 30 mm dia.
	Max sample height, individual	-	10 - 35 mm	-
	Max. diameter	110 mm	140 mm	160 mm
Sample holders	Max sample height	-	40 mm	-
	Max. diameter	-	140 mm (250 mm disc) 160 mm (300 mm disc)	-
Safety Standards		Please refer to the Declaration of Conformity		
Noise level	Running at idle, at a distance of 0.25 m / 10" from the machine	48 dB (A)	57 dB (A)	48 dB (A)
Power supply	Power connection	LaboForce-50 is connected directly to LaboPol-20/-30 or 60	LaboForce-100 is connected directly to LaboPol-30 or LaboPol-60	LaboForce-Mi is connected directly to LaboPol-30
	Controls	-	Touch pad and push/turn knob	-
	Memory	-	FLASH-ROM / RAM / NV-RAM	-
	LC display	-	TFT-colour 320 x 240 dots with LED back light	-
Operating environment	Surrounding temperature	5 - 40 °C / 41 - 104 °F	5 - 40 °C / 41 - 104 °F	5 - 40 °C / 41 - 104 °F
	Humidity (Non condensing)	0 - 95% RH RH non condensing		
Supply	Air inlet	-	ø 6 mm / ¼"	-
	Air pressure	-	6 - 9.9 bar / 87-143 psi	-
	Air quality	Recommended quality: ISO 8573-1, class 5.6.4		
Dimensions and weight	Width	18.3 cm / 7.2"	20.3 cm / 8"	18.3 cm / 7.2"
	Depth	43.5 cm / 17.1"	43.3 cm / 17"	43.5 cm / 17.1"
	Height above MD-Disc	51.6 cm / 20.3"	57.4 cm / 22.6"	44.8 cm / 17.6"
	Weight	14.5 kg / 32 lbs	20.5 kg / 45.2 lbs	13 kg / 29 lbs

Specimen mover plates and specimen holders

SPECIFICATIONS

Cat.no

Specimen mover plates for LaboForce-50, for individual specimens

For 4 specimens, 25 mm dia.	06086912
For 4 specimens, 30 mm dia.	06086913
For 4 specimens, 40 mm dia.	06086914
For 4 specimens, 1" dia.	06086915
For 4 specimens, 1¼" dia.	06086916
For 4 specimens, 1½" dia.	06086917
Without holes	06086918

Specimen mover plates for LaboForce-100, for individual specimens

For 6 specimens, 25 mm dia.	06086902
For 6 specimens, 30 mm dia.	06086903
For 6 specimens, 40 mm dia.	06086904
For 3 specimens, 50 mm dia.	06086905
For 6 specimens, 1" dia.	06086909
For 6 specimens, 1¼" dia.	06086910
For 6 specimens, 1½" dia.	06086911
For 3 specimens, 2" dia.	06086943
For AccuStop 30	06086907
Without holes	06086906

All specimen mover plates are made from stainless steel.



SPECIFICATIONS

Cat.no

Specimen holders for LaboForce-100, 140 mm dia. (250 mm disc)

For 6 specimens, 29-32 mm (1¼") dia., aluminium	02606952
For 6 specimens, 10-32 mm dia., stainless steel	02606935
For 6 specimens, 10-32 mm dia., aluminium	02606936
For 4 specimens, 10-40 mm dia., stainless steel	02606933
For 4 specimens, 10-40 mm dia., aluminium	02606934
Without holes, aluminium	02606950

Specimen holders for LaboForce-100, 160 mm dia. (300 mm disc)

For 8 specimens, 29 - 32 mm (1¼") dia., aluminium	02606954
For 6 specimens, 38 - 40 mm (1½") dia., aluminium	02606955
For 6 specimens, 10 - 40 mm dia., stainless steel	02606916
For 6 specimens, 10 - 40 mm dia., aluminium	02606915
For 12 specimens, 10 - 25.5 mm dia., stainless steel	02606917
For 6 specimens, 25 x 34 mm., stainless steel	02606918
For 3 specimens, 68 x 40 mm., stainless steel	02606920
For 3 specimens, 24 x 50 mm., stainless steel	02606924
Without holes, stainless steel	02606926
Without holes, aluminium	02606928

Aluminium specimen holders for use with mounted specimens only.





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Ensuring Certainty

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