

LaboForce



**Specimen movers
for semi-automatic
preparation of
materialographic
specimens on LaboPol
grinding and polishing
machines**



The LaboForce specimen movers offer you:

- **Semi-automatic fine grinding and polishing of single specimens**
- **Quick and easy operation**
- **High quality finished specimens**
- **Adjustable drip lubricator**

The LaboForce specimen movers are perfect for small laboratories with modest specimen throughput and equally ideal for large labs, where the need to prepare single specimens occurs from time to time.

Integration with LaboPol

LaboForce-3 and LaboForce-1 are prepared for use with the Struers grinding, lapping and polishing machines LaboPol-1, LaboPol-2, LaboPol-4, LaboPol-5, LaboPol-6 and LaboPol-21.

Quick and easy operation

As both LaboPol and LaboForce are designed for maximum compatibility a very user-friendly operation is obtained. LaboForce is connected directly to the LaboPol, and all start and stop functions are controlled via the LaboPol, resulting in a fast and safe operation.

Preparation of single specimens results in consumable and time savings

Both LaboForce-3 and LaboForce-1 are designed for the preparation of single specimens. The load on each specimen is applied individually. That makes

it possible to run 1, 2 or 3 specimens at a time without any need for blank or "dummy" specimens. It is also not necessary to plane grind the specimens as they are levelled individually. Both the preparation of single specimens and the exclusion of the plane grinding step results in considerable savings of consumables and preparation time.

LaboForce-3

LaboForce-3 is running with a speed of 250 rpm and designed for fine grinding and polishing of 1-3 single specimens. The specimens are easily placed in the specimen mover plate and the force is set individually, adjustable from 5-40 N. Fine grinding can be carried out using MD-Allegro, MD-Largo or a single step on a fine grained SiC-Paper or diamond grinding disc. For polishing, Struers offers a wide range of cloths.

The specimen mover plates can be exchanged quickly to accommodate 25 mm (1"), 30 mm, 1¼", 1½" and 40 mm dia. specimens.

LaboForce-1

LaboForce-1 is the economic choice. It is running with 8 rpm and suitable for fine grinding and polishing of 1-3 single specimens. Specimen sizes from 25 mm (1"), 30 mm, 1¼", 1½", and 40 mm dia. are accommodated. The force can be set to between 2 - 20 N. Like with LaboForce-3, MD-Allegro, MD-Largo, fine grained SiC-paper or diamond grinding discs can be used for



fine grinding. The large range of Struers polishing cloths can be used.

Adjustable drip lubricator

Part of the standard equipment for both LaboForce-3 and LaboForce-1 is an adjustable and exchangeable drip lubricator. This enables quick changes between different lubricants.

The dosing level can be accurately adjusted by a screw, ensuring reproducible preparation results and optimal use of lubricant.



LaboForce can also be used on the two disc grinding and polishing machine LaboPol-21



With LaboPol/LaboForce, the operator may lap, grind or polish as required by a quick and simple exchange of discs



Struers A/S
Valhojs Allé 176
DK-2610 Rødovre
Phone +45 36 70 35 00
Fax +45 38 27 27 01
e-mail: struers@struers.dk
www.struers.com



DEUTSCHLAND
Struers GmbH
Karl-Arnold-Strasse 13 B
D - 47877 Willich
Telefon +49(0) 21 54/4 86-0
Telefax +49(0) 21 54/4 86-222
e-mail: verkauf.struers@struers.de

ÖSTERREICH
Struers GmbH
Zweigniederlassung Österreich
Ginzkeyplatz 10
5020 Salzburg
Telefon (0662) 625711
Telefax (0662) 625711-78
e-mail: stefan.lintschinger@struers.de

SCHWEIZ
Struers GmbH
Zweigniederlassung Schweiz
Weissenbrunnstrasse 41
CH-8903 Birmsensdorf
Telefon (01) 77763-07
Telefax (01) 77763-09
e-mail: rudolf.weber@struers.de

HOLLAND
Struers GmbH Nederland
Electraweg 5
NL-3144 CB Maassluis
Tel.: +31 (0) 10 599 72 09
Fax: +31 (0) 10 599 72 01
e-mail: glen.van.vugt@struers.de

FRANCE
Struers S.A.S.
370, rue du Marché Rollay
F- 94507 Champigny
sur Marne Cedex
Téléphone +33 1 55 09 14 30/31
Télécopie +33 1 55 09 14 49
e-mail: struers@struers.fr

BELGIQUE
Struers S.A.S.
370, rue du Marché Rollay
F- 94507 Champigny
sur Marne Cedex
Téléphone +32 43 70 93 18
Télécopie +32 43 70 93 19
e-mail: struers@struers.fr

JAPAN
Marumoto Struers K.K.
Takara 3rd Building
18-6, Higashi Ueno 1-chome
Taito-ku, Tokyo 110-0015,
Phone: +81 3 5688-2914
Fax: +81 3 5688-2927
e-mail: struers@struers.co.jp

SINGAPORE
Struers A/S
10 Eunos Road 8
#12-06 North Lobby
Singapore Post Centre
Singapore 408600
Phone +65 6299 2268
Fax +65 6299 2661
e-mail: struers.sg@struers.dk

UNITED KINGDOM
Struers Ltd.
Erskine Ferry Road
Old Kilpatrick
Glasgow, G60 5EU
Phone 01 389 877 222
Fax 01 389 877 600
e-mail: info@struers.co.uk

USA
Struers Inc.
810 Sharon Drive
Westlake, OH 44145
Phone (888) 787-8377
Fax (440) 871 8188
e-mail: info@struers.com

Technical Data

	LaboForce-3	LaboForce-1
Motor	1 Phase	1 Phase
Output	25 W	0.5 W
Amperage	220 - 240 V, 0.27 A 100 - 120 V, 0.55 A Motor with thermal switch	220 - 240 V, 16 mA 100 - 120 V, 32 mA
Rotational speed	250 rpm at 50/60 Hz	8/9.5 rpm at 50/60 Hz
Force per specimen	Min./max. approximately 5 N / 40 N	Min./max. approximately 2 N / 20 N
Dimensions:		
Height	320 mm/12.6" (above grinding/polishing disc)	295 mm/116" (above grinding/polishing disc)
Width	185 mm/7.5" (including drip lubricator)	185 mm/7.5" (including drip lubricator)
Depth	325 mm/12.8"	265 mm/10.5"
Weight	9.5 kg/21 lbs	5.9 kg/13 lbs
Safety standards	General: 89/392/EEC & 91/386/EEC & 93/44/EEC EN292.1, EN292-2, ENB60204-1 (IEC204-1) EMC: 89/336/EEC & 92/231EECEN50081-1, EN50082-1 FCC part 15, subpart B	

Specifications

	Code
LaboForce-3 Semi-automatic specimen mover for the preparation of 1-3 specimens. Is mounted on and operated from LaboPol-21, LaboPol-6, LaboPol-5, LaboPol-2 or LaboPol-1. Complete with one drip lubricator. Specimen mover plates and additional drip lubricators are ordered separately	LAFO3
Specimen mover plates for LaboForce-3 for 3 x Ø 25 mm or 1" specimens	LAFTY
for 3 x Ø 30 mm specimens	LAFET
for 3 x Ø 1 ¼" specimens	LAFQU
for 3 x Ø 1 ½" specimens	LAFHA
for 3 x Ø 40 mm specimens	LAFYF
LaboForce-1 Semi-automatic specimen mover for the preparation of 1 - 3 specimens. Is mounted on and operated from LaboPol-21, LaboPol-5, LaboPol-4, LaboPol-2 or LaboPol-1. Complete with one drip lubricator. Specimen mover plates and additional drip lubricators are ordered separately	LAFO1
Specimen mover plates for LaboForce-1 for 3 x Ø 25 mm or 1" specimens	PEMFI
for 3 x Ø 30 mm specimens	PEMTE
for 3 x Ø 1 ¼" specimens	PEMQU
for 3 x Ø 1 ½" specimens	PEMNA
for 3 x Ø 40 mm specimens	PEMYF
Drip lubricator for LaboForce-3 and LaboForce-1 Additional drip lubricator for quick changing between different lubricant types Adjustable drip lubricator for DP-Lubricant Adjustable dosing unit for DiaDuo or DP-Lubricant	PEDRI DRILU

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