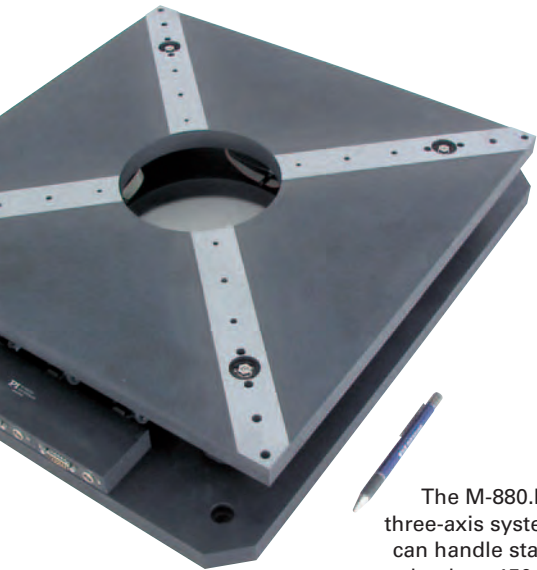


PI News & Applications

Parallel-Kinematics XYθZ Stage (Tripod) for LCD and Semiconductor Inspection



The M-880.PD three-axis system can handle static loads to 150 kg

Parallel kinematics features low profile as well as high load capacity and accuracy

The new M-880.PD micropositioning stage offers three degrees of freedom with all the advantages of a parallel-kinematics multi-axis system for dynamic positioning of loads to 20 kg in a plane. The 500 x 500 mm moving platform with a 160 mm clear aperture is ideal for transmitted-light applications.

The low profile of just 105 mm is possible because all actuators are connected directly to the same moving platform—a principle taken from PI's extensive experience with the design of Hexapod systems.

Three ActiveDrive™ DC motors provide linear velocities up to 20 mm/s. Travel to ± 10 mm from the centerpoint and

rotation around Z to $\pm 4^\circ$ are possible, with a minimum step size of 0.25 μm .

Precision bearings ensure high stiffness and limit the out-of-plane tilt of the stage to ± 10 arcseconds.

Very high static load capacity

The stage is designed to withstand static loads to 150 kg. This allows, for example, performing manufacturing steps with the stage at rest between inspections without transferring the workpiece to another support.

The system includes the translation stage and a high-performance, PC-based controller which performs coordinate transformation necessary to command the three actuators.



M-840 HexaLight 6D-Micropositioning System

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- Hexapods
- Micropositioners
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- Motor Controllers
- PLine® High-Speed Ceramic Linear Motors

Headquarters

GERMANY

Physik Instrumente (PI) GmbH & Co. KG

Auf der Römerstr. 1
D-76228 Karlsruhe/Palmbach
Tel: +49 (721) 4846-0
Fax: +49 (721) 4846-100
info@pi.ws · www.pi.ws

PI Ceramic GmbH

Lindenstr.
D-07589 Lederhose
Tel: +49 (36604) 882-0
Fax: +49 (36604) 882-25
info@piceramic.com
www.piceramic.com

Subsidiaries

USA (East) & CANADA

PI (Physik Instrumente) L.P.

16 Albert St.
Auburn, MA 01501
Tel: +1 (508) 832 3456
Fax: +1 (508) 832 0506
info@pi-usa.us
www.pi-usa.us

USA (West) & MEXICO

PI (Physik Instrumente) L.P.

5420 Trabuco Rd., Suite 100
Irvine, CA 92620
Tel: +1 (949) 679 9191
Fax: +1 (949) 679 9292
info@pi-usa.us
www.pi-usa.us

JAPAN

PI Japan Co., Ltd.

Akebono-cho 2-38-5
Tachikawa-shi
J-Tokyo 190
Tel: +81 (42) 526 7300
Fax: +81 (42) 526 7301
info@pi-japan.jp
www.pi-japan.jp

PI Japan Co., Ltd.

Hanahara Dai-ni Building, #703
4-11-27 Nishinakajima,
Yodogawa-ku, Osaka-shi
J-Osaka 532
Tel: +81 (6) 6304 5605
Fax: +81 (6) 6304 5606
info@pi-japan.jp
www.pi-japan.jp

CHINA

Physik Instrumente (PI Shanghai) Co., Ltd.

Building No. 7-301
Longdong Avenue 3000
201203 Shanghai, China
Tel: +86 (21) 687 900 08
Fax: +86 (21) 687 900 98
info@pi-china.cn
www.pi-china.cn

GREAT BRITAIN

PI (Physik Instrumente) Ltd

Lambda House
Batford Mill
GB-Harpenden, Hertfordshire
AL5 5BZ
Tel: +44 (1582) 764 334
Fax: +44 (1582) 712 084
pi@lambdaphoto.co.uk
www.physikinstrumente.co.uk

FRANCE

Polytec PI/RMP S.A.

32 rue Delizy
F-93694 Pantin Cedex
Tel: +33 (1) 481 039 30
Fax: +33 (1) 481 009 66
pi.pic@polytec-pi.fr
www.polytec-pi.fr

ITALY

Physik Instrumente (PI) S.r.l.

Via G. Marconi, 28
I-20091 Bresso (MI)
Tel: +39 (02) 665 011 01
Fax: +39 (02) 665 014 56
info@pionline.it
www.pionline.it