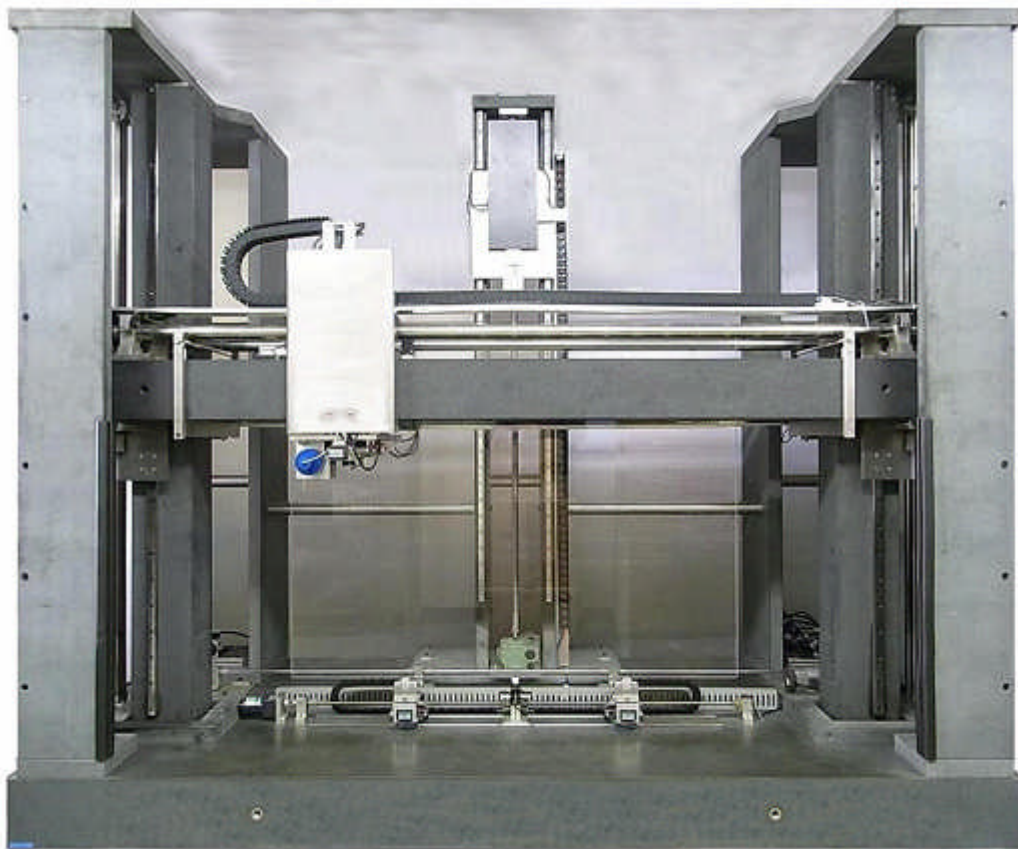


フォトマスク基板検査装置
Flatness Tester for Photomask

Model: Torin G8

Model: Torin G10



MICRO GRANITE®

All the sensors carried in MICRO GRANITE equipment are standard goods marketed.

If you specify the characteristics to be inspected and the sensor which a customer needs, it will include in MICRO GRANITE equipment (XYZ and turn axis) and a program will be manufactured.

土井精密ラップ株式会社
Doi Precision Lapping Co., Ltd.

5-3-18 Omori-Minami Ota-Ku, Tokyo 143-0013 JAPAN

TEL : +81-03-5735-1337 FAX : +81-03-5735-1357

<http://www.micro-granite.co.jp>

本装置はフォトマスク基板にストレスをかけずに垂直に立てて、基板の厚み、平面度を対向する2基の半導体レーザが高精度に計測します。

主定盤、コラム、スライド部はすべてインド産黒ミカゲ石を使用し、計測に重要な計測軸にはエアベアリングが採用されています。

1基の光学プローブは鏡面基板のみに使用され、絶対厚みと両平面度得られます。粗面及び鏡面基板には2基の半導体レーザが使用されます。

パソコンにてサーボモータの速度と位置決めをしています。

測定範囲は最大2100×2000mmまで可能です。

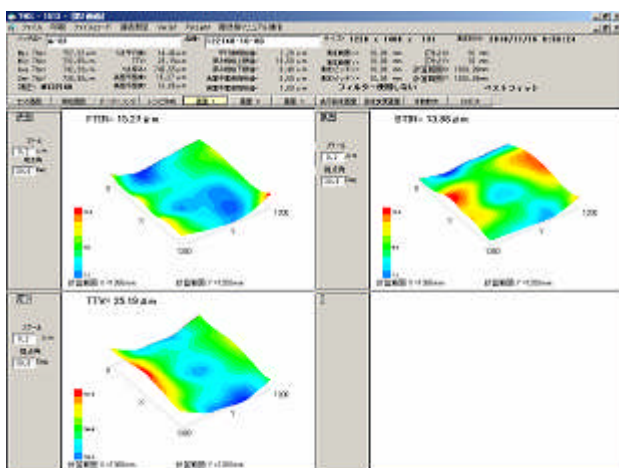
This measuring instrument has been developed to analyze the ground surface of large surfaces of quartz masks display at a natural 90 degree angle setting and consists of two, non-contact, high accuracy laser sensors.

The main base and slides are manufactured from Indian Black Granite and employ air bearings to the X axis which maintain high levels of accuracy over a long period of time.

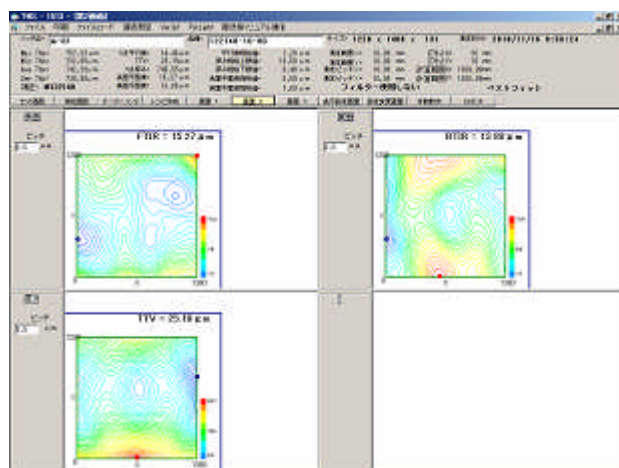
One of an optical probe is used only for mirror surface display, object thickness and both plane are obtained two of semiconductor lasers are used for the rough and mirror surface display.

A servo motor controlled by computer is provided for speed selection and positioning.

The maximum measuring capacity is 2100 x 2000mm.



Exsample of Analysis 1



Exsample of Analysis 2

《計測の定義 Parameter》

FTIR BTIR TTV TV5

Cen. Thk Max. Thk Min. Thk Ave. Thk

仕様	Specifications	G8	G10
最大計測サイズ	Max Measuring size	Y1400×1600mm	Y2000×2100mm
計測厚み	Measuring thickness	5～20mm	5～20mm
検出器 1 (鏡面)	Sensor 1 (Mirror surface)	CHR E	CHR E
検出範囲	Range	5～25mm	5～25mm
分解能	Resolution	0.8 μ m	0.8 μ m
検出器 2 (粗面)	Sensor 2 (Rough surface)	LK-G85	LK-G85
検出範囲	Range	28mm	28mm
分解能	Resolution	0.2 μ m	0.2 μ m
装置の大きさ	Dimension	W2900×D1500×H2500mm	W3600×D1600×H3500mm
重量	Weight	8 ton	12 ton