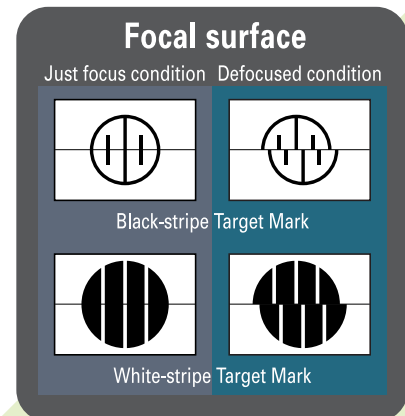
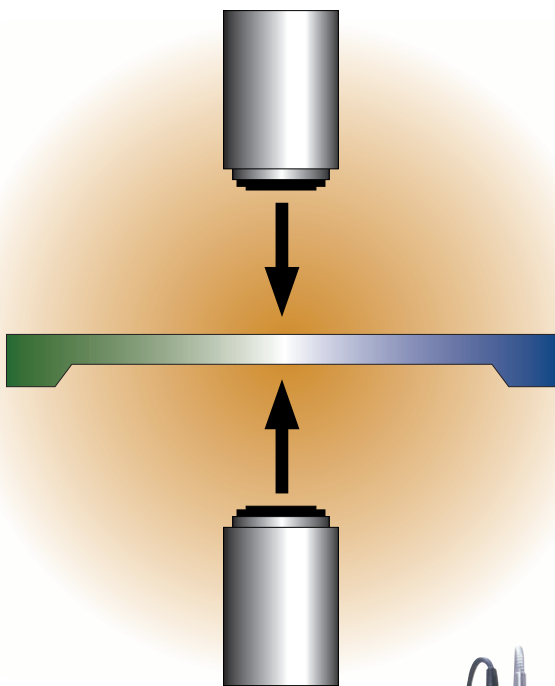


Non-Contact Thickness Measuring Microscope System

THS Series

Specially designed focus indicator (Target Mark) facilitates focusing operation greatly. Highly accurate and repeatable measurement is possible. No discrepancies between operators occur.

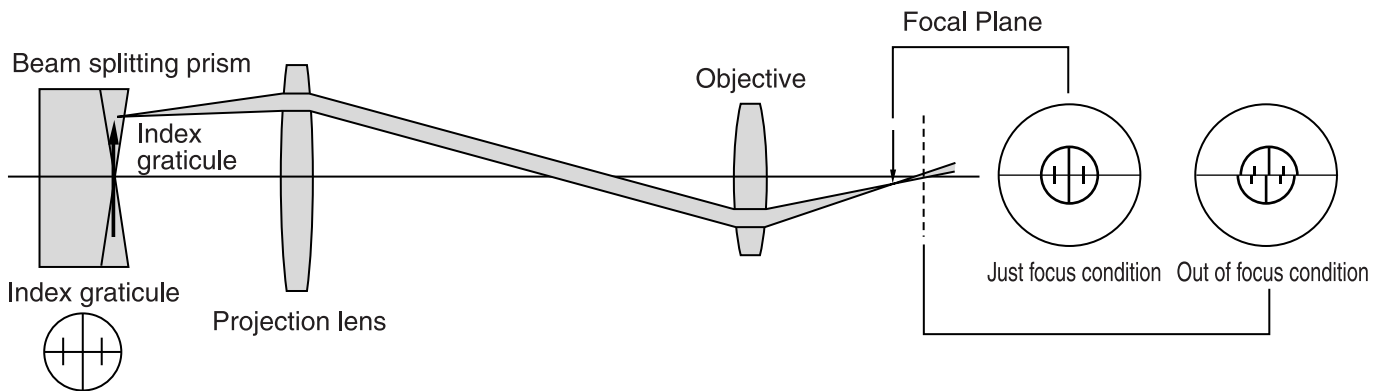


Profile

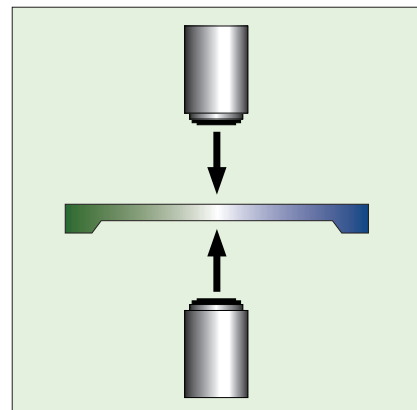
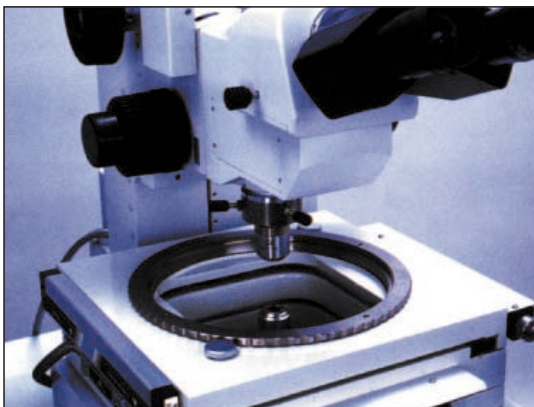
Features

- Able to measure minuscule part with non-contact measuring system
- Excellent high accuracy by precise focus mechanism with split target mark system
- Have wide application ; able to measure thickness up to 10 mm
- Able to measure thickness while look-seeing precise position and configuration of the measuring object
- Besides thickness, able to detect depth and X · Y
- Easy to operate with optical method

Principle



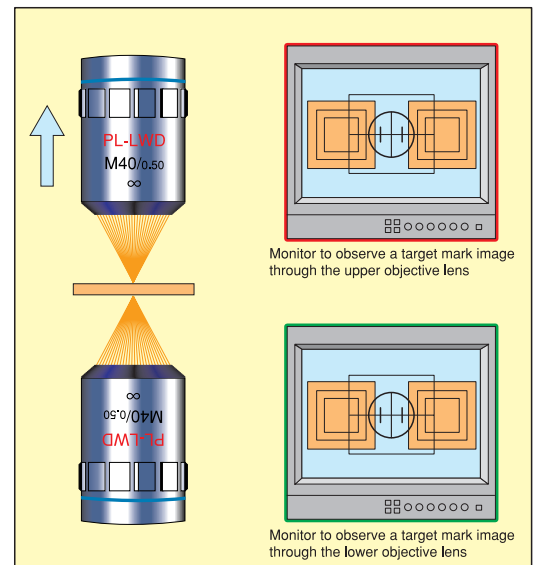
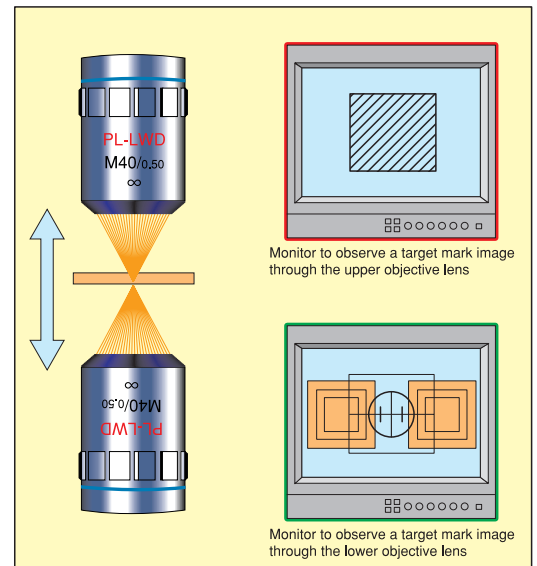
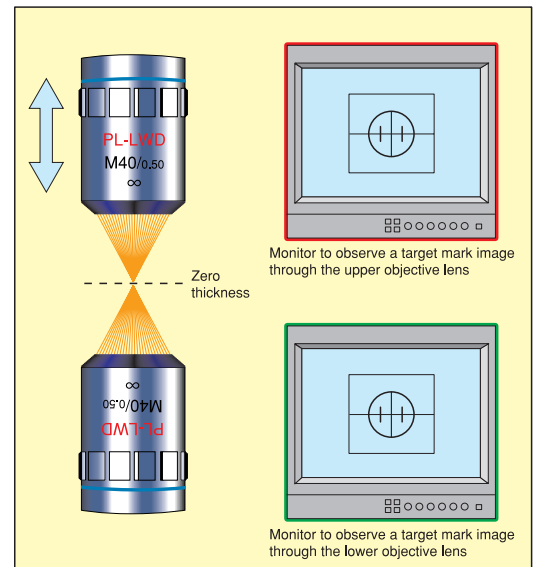
The THS is non-contact thickness measuring system that has been designed based on the optical focal-point detection method. This method was developed by combining the upper and lower microscope optical systems with the precise focus units that incorporate an individual focus indicator (Target Mark) respectively. As the THS is an optical system, the user can operate it easily. Furthermore, the target marks are clearly displayed on the monitors as the focus is sharpened.



Thickness Measurement

Method

1. First bring the target mark into focus by moving the upper optical system vertically without placing an object on the stage, and identify the target mark on the two separate TV monitors. Then, zero reset the Z-axis digital counter.
2. Place a specimen on the microscope stage, and move the lower optical system to focus on the bottom side of the specimen.
3. Focus on the upper surface of a specimen by moving the upper optical system. The quantity of the movement of the upper optical system is measured as a thickness of the specimen.

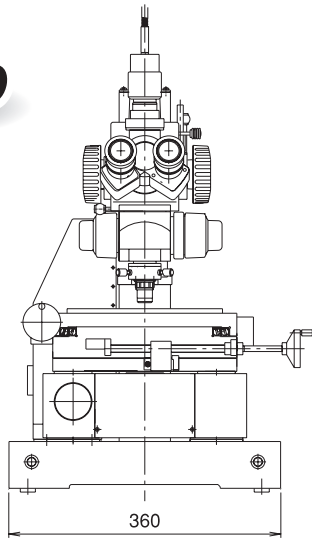


Applications

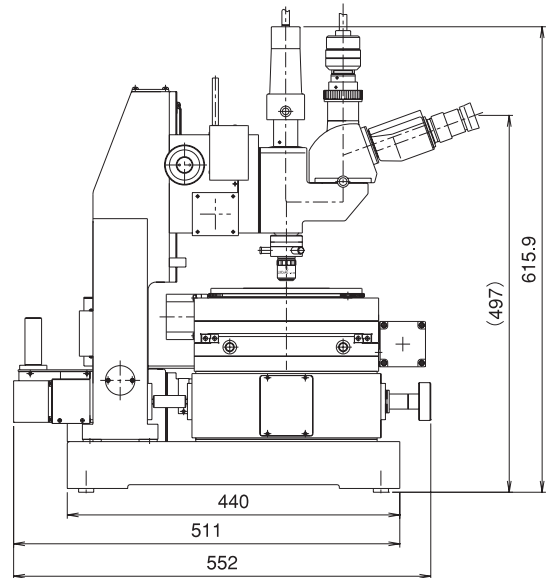
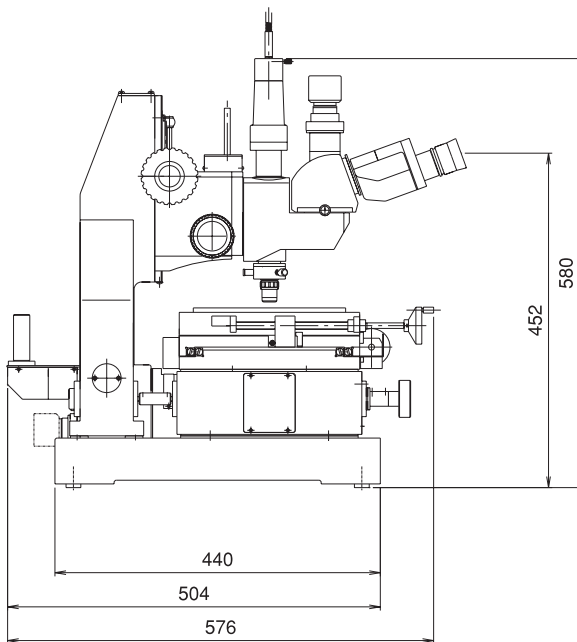
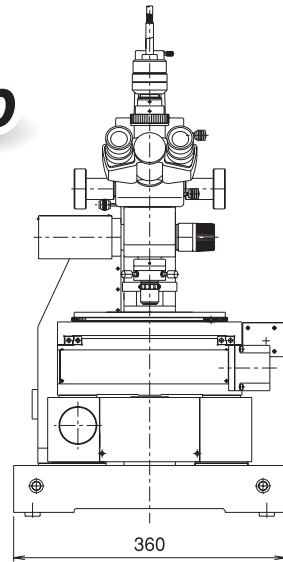
Semiconductor parts	Silicon wafers, lead frame fingers, etc.
Electronic parts	Printed circuit boards, Hybrid IC steps, etc.
Others	Lid of can, aluminum sheet, magnetic tapes, photographic films, etc.

External Dimensions

THS-10



THS-20



Specifications

Model	THS-10	THS-20	THS-206	THS-208
Measuring Method	Manual	Auto		
Size of specimen	4 inches		6 inches	8 inches
Measuring area	X : 100 mm Y : 100 mm		X : 150 mm Y : 150 mm	X : 200 mm Y : 200 mm
Resolution	1 μm	0.1 μm		
Repeatability	-	1 σ = 0.5 μm (testing block gauge)		

●All specifications are subject to change without prior notice.

UNION OPTICAL CO., LTD.

2-22-4, Shingashi, Itabashi-Ku, Tokyo 175-0081, Japan
 Tel: 81-3-5997-8531 Fax: 81-3-5997-8532

URL; <http://www.union.co.jp> E-mail; new-union@union.co.jp