Mikrosize®

MProjec-2010/1550
Vertical Profile Projector



Contact us

Mikrosize Precision Instrument Co.,Ltd
A-4035 RuiFeng Business Expo, Wuhu City, China , 241000.
Web:www.mikrosize.com
Email: mikrosize@mikrosize.com

Mikrosize®

Feature and Application

The JT300 Vertical Profile Projector offers significant advantages. Its high-quality optical system delivers clear objective lens imaging and accurate magnification. Under transmitted illumination, the contour measurement error is less than 0.08%. It provides exceptionally high measurement accuracy, with a coordinate measurement indication error of (3 + L/75) μm. The X- and Y-axis digital display resolution is 0.001 mm, ensuring precise data readings. The Z-axis is driven by a linear guideway, providing a stable and durable machine structure. Equipped with the DS600 data processing system, the instrument is easy to operate and also supports RS-232 data output.

Product Feature

- The instrument features a streamlined arc-shaped design that conforms to ergonomic principles, offering an attractive appearance and convenient operation.
- The lifting system adopts linear guideways and non-interference nuts, ensuring smoother and more stable lifting transmission.
- The transmitted illumination brightness is adjustable between two levels, high and low, to accommodate the measurement requirements of workpieces with different materials, shapes, and dimensions.
- The reflector features a specialized coating process that effectively reduces dust adhesion, providing enhanced dust resistance and superior optical performance.
- Equipped with an advanced optical system and high-quality optical components, the instrument delivers clear imaging and accurate magnification, making comparative measurements convenient.
- The bidirectional heat dissipation system with an axial-flow fan optimizes airflow paths and pressure distribution to achieve outstanding cooling performance, making it particularly suitable for production environments requiring high-density heat dissipation.
- Equipped with a multifunctional digital readout (DRO), the instrument is primarily used for graphical element acquisition, measurement and construction, coordinate processing, and data communication in industrial metrology.





Feature and Application

Product Application

- Mechanical Manufacturing: Precisely measures complex mechanical components, such as cam and gear profiles, ensuring machining accuracy and assembly quality.
- Electronics Industry: Accurately inspects the dimensions of miniature electronic components, supporting the miniaturization of electronic products and high-precision manufacturing.
- Mold Manufacturing: Measures mold cavities, cores, and other features to ensure mold manufacturing accuracy and extend mold service life.
- Metrology and Calibration: Provides high-precision measurements for metrology departments, enabling measurement traceability and ensuring measurement accuracy across industries.
- Education and Scientific Research: Used by universities, colleges, and research institutes for teaching demonstrations and scientific experiments, supporting research in precision measurement.



Product Detail



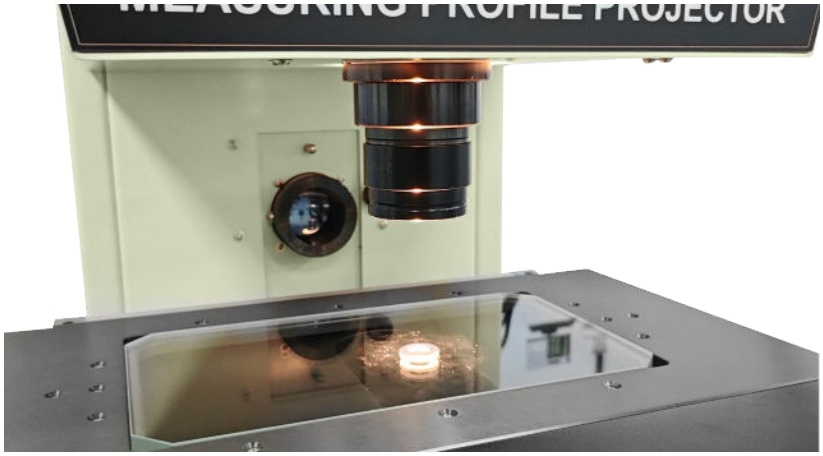
1.Projector Housing **2.Projection Screen** **3.Rotation Handwheel**
4.Locking Handwheel **5.Reflective Illumination Height Adjustment Handle**
6.Locking Screw **7.Reflective Condenser** **8.Power Outlet Panel**
9.Worktable Height Adjustment Handwheel **10.Housing** **11.Control Panel**
12.Worktable **13.Objective Lens** **14.Zero Position Indicator Plate**
15.Reflective Illumination Switch **16.Transmitted Illumination High/Low Switch**
17.Transmitted Illumination Switch **18.Power Switch**

Product Detail

Hardware Advantages



- Well-configured projection screen: The screen has a diameter of Φ300 mm, with a usable range of more than Φ300 mm. It supports 0°–360° rotation and is equipped with crosshair lines, facilitating observation and measurement from multiple angles.
- Excellent color reproduction: Accurately reproduces a wide range of colors.



- Flexible transmitted illumination: The transmitted illumination intensity features continuously adjustable high and low settings. The light intensity can be precisely adjusted according to the material, color, and measurement requirements of different workpieces to obtain clear projected images and facilitate accurate measurements.
- Reflective illumination uses fiber-optic transmission, offering a compact design and high illuminance for convenient observation and measurement.
- Uses a halogen-tungsten lamp or other light sources to provide sufficiently intense, uniform, and stable illumination.
- The light source system is equipped with a forced-air cooling device, effectively reducing the heat generated during operation and extending the service life of the light source.

Product Detail

Hardware Advantages



- A surface mirror is included as standard, allowing users to directly observe workpiece surfaces. Details such as fine scratches, wear marks, and surface textures can be clearly displayed.



- The handwheel adopts ergonomic design, delivering a comfortable touch and stable rotation.
- Equipped with a precision fine-adjustment function. Even minor positional adjustments can be easily achieved by slowly turning the handwheel, meeting the fine-adjustment requirements of high-precision measurements.
- Manufactured from high-quality materials, with a sturdy structure and excellent wear resistance.
- The X- and Y-axis digital readout resolution reaches 0.001 mm.

Product Detail

Operational Advantages



- **DS600 Digital Readout System**:
- Supports the measurement, presetting, and construction of geometric elements such as points, lines, circles, angles, and distances. Up to 50 sets of sampling points can be collected for each type of measurement, making it suitable for the inspection of complex workpieces.
- Equipped with coordinate alignment and coordinate translation functions. The workpiece coordinate system can be adjusted by rotation, simplifying workpiece alignment and effectively reducing the time required for preliminary adjustments before measurement.
- Provides two compensation modes for the grating scale: linear compensation and segment compensation. It supports multiple resolution settings, corrects scale errors, and further improves the overall measurement accuracy of the instrument.
- Supports switching between metric and imperial units, as well as Cartesian and polar coordinate systems. Three language options are available: Simplified Chinese, Traditional Chinese, and English, accommodating the operating habits of different users.
- Equipped with an RS-232 communication interface and a printer output interface for transmitting measurement data. It also supports the storage of up to 100 sets of geometric elements, as well as recalling and deleting stored geometric elements and recording and running user programs.
- The Z-axis supports connection to either a grating scale or a rotary encoder. Password-based access control is provided, and authorization is required to modify key parameters, preventing unauthorized alteration of instrument settings.

Technical Specification

Model	MProjec-2010	MProjec-1550
Screen Diameter	Φ300mm	Φ300mm
Projection Screen Rotation Range	0°-360°	0°-360°
Rotational Angular Resolution	1″	1″
Rotational Angular Accuracy	6′	6′
Tabletop Dimensions (mm)	400*225	340*152
Measuring Range (mm)	200*100	150*50
Focusing Range (mm)	0-90	
Resolution (mm)	0.001	
Instrument Accuracy	(3 + L/75) μm, where L is the measuring length in mm	

Technical Specification

Maximum Worktable Load (kg)	5		10	
Magnification	10X	20X	50X	100X
Object-side Field of View	Φ30mm	Φ15mm	Φ6mm	Φ3mm
Working Distance	75mm	69mm	44mm	26mm
Probe Types	0.08%			
Illumination	Transmitted Illumination: 12 V, 100 W Halogen-Tungsten Lamp			
	Reflective Illumination: 24 V, 150 W Halogen-Tungsten Lamp			
Power Supply	AC 220V 50Hz			
Operating Environment	Ambient Temperature: 20°C ± 5°C; Relative Humidity: 40%–70% RH			
Dimensions and Weight(mm)	380*694*1058			
Instrument Weight (kg)	180		135	

Standard Delivery

Name	Qty	Photo
Main Unit	1pc	
10× Objective Lens	1pc	
Surface Mirror	1pc	
Clamps	4pcs	
Clamp Screws	4pcs	

Standard Delivery

Name	Qty	Photo
Fuses	1pc	
Transmitted Illumination Halogen Lamp	1pc	
Reflective Illumination Halogen Lamp	1pc	
Power Cord	1pc	
Dust Cover	1pc	

Optional Delivery

Optional	20× Objective Lens
	50× Objective Lens
	100× Objective Lens

Mikrosize Precision Instrument Co.,Ltd

Add: A-4035 RuiFeng Business Expo , Wuhu City, China , 241000.

Tel: 0553-2836939 Fax:0553-2836938 Web: www.mikrosize.com

