

# Reference Gages

Length Standards Brought to You by Mitutoyo

## High Precision Square SERIES 311

- The High Precision Square is a gage used for inspecting the travel straightness and axial perpendicularity of moving elements on equipment such as machine tools, CMMs, form measuring machines and semiconductor-related equipment.
- All four surfaces, finished using ultra-precision technology built on our experience in gauge blocks and other products, can be used as reference surfaces.
- Better than  $1\ \mu\text{m}/300\ \text{mm}$  straightness and perpendicularity of each (four) reference surface. In addition, front and back faces are accurate to better than  $5\ \mu\text{m}/300\ \text{mm}$ .
- Three nominal sizes are available (90×110, 160×210 and 260×310 mm) so that you can select the size that best suits the application.



311-111



311-112



311-113

## SPECIFICATIONS

Metric		
Order No.	Dimension (W×L×T) (mm)	Mass (kg)
311-111	90×110×25	1.5
311-112	160×210×25	5.0
311-113*	260×310×30	14.0

\* Supplied with a removable handle.



An inspection certificate is supplied as standard. Refer to page U-11 for details.

## Technical Data

- Reference surface  
Perpendicularity tolerance:  $1\ \mu\text{m}$   
Straightness tolerance:  $1\ \mu\text{m}$
- Front/back faces  
Perpendicularity tolerance:  $5\ \mu\text{m}$   
Straightness tolerance:  $5\ \mu\text{m}$
- Dedicated wooden case is provided.