APLAC INTERLABORATORY COMPARISON

PROFICIENCY TESTING PROGRAM

M026

Calibration of Square

MEASUREMENT INSTRUCTIONS TO

LABORATORIES

A. INSTRUCTIONS TO LABORATORIES
for Circulation Group: A

1. EQUIPMENT

Equipment Description:

Item	Manufacturer	Specification	Serial No.
Square	Ocean	300mm x 200 mm (I-Section)	2555 2556

On receipt, unpack the artifacts and inspect them for any defects. Contact your accreditation body if there is any damage.

2. MEASUREMENTS TO BE CARRIED OUT

The participants calibrate the artifact according to their routine procedure.

The calibration should be done for each range of the outside and inside of the square. Calibration of the square is to measure the deviation from the vertical line which passes through the zero point, at the same time, is vertical from the horizontal line between the two leveling points. **The leveling points have been marked on the square.** The squareness is the deviation at the measurement point. The sign is positive (+) when the measured angle of the square is greater than 90 degrees.

Outside Measurement Point [mm]			Inside Measurement Point [mm]	
100	**200**	**280**	**150**	**250**

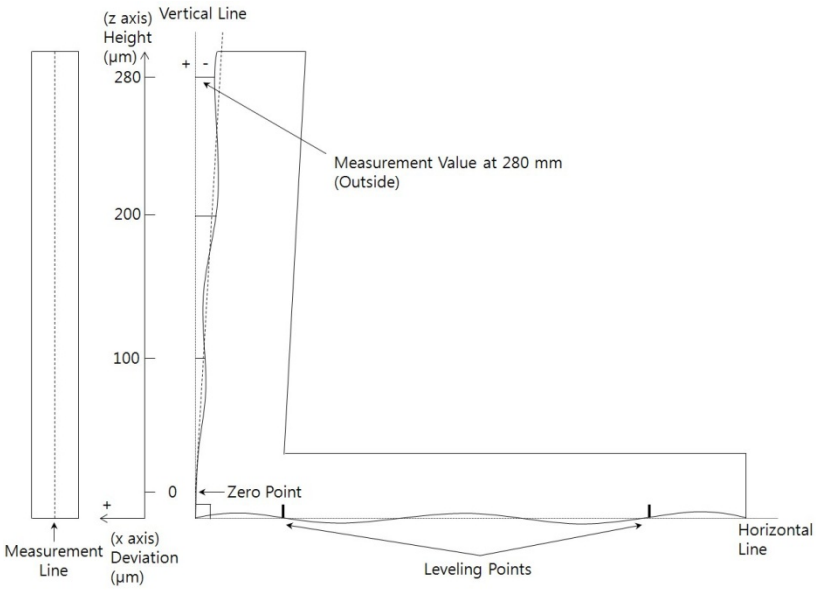


Fig. 1 Outside Measurement Points

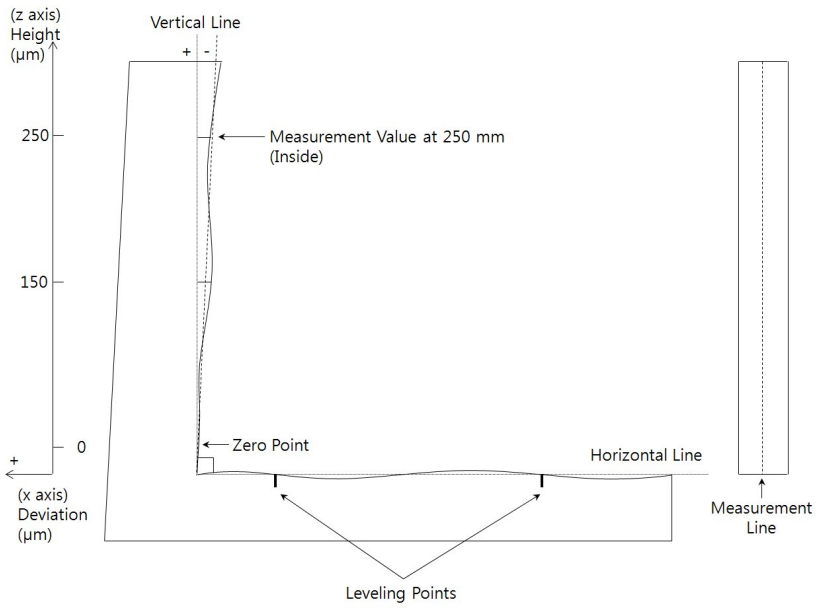


Fig. 2 Inside Measurement Points

3. DOCUMENTS TO BE SUBMITTED

Within one week of the completion of the measurements, participating laboratories are required to fax or send the Results Sheet, the Report of Uncertainty, Surface Condition Report of Square, and their Calibration Certificate to their accreditation body. No other documentation is required.

Uncertainties shall be calculated using the method in or the ISO Guide to the Expression of Uncertainty in Measurement or the EA-4/02 Expression the Uncertainty of Measurement in Calibration.

4. GENERAL INFORMATION

For general queries, please contact your accreditation body.
Additional information may be obtained from the program coordinator below:

Mr. Maeng, Geunho
KTL(Korea Testing Laboratory)
723, Haean-ro, Sa-dong, Sangnok-gu, Ansan-si, Gyeonggi-do, KOREA(426-910)
Phone No.: +82-31-500-0213
E-mail: pt@ktl.re.kr / sterra78@ktl.re.kr

B. SURFACE CONDITION REPORT OF SQUARE

Date:

Name of participant:

Circulation group:

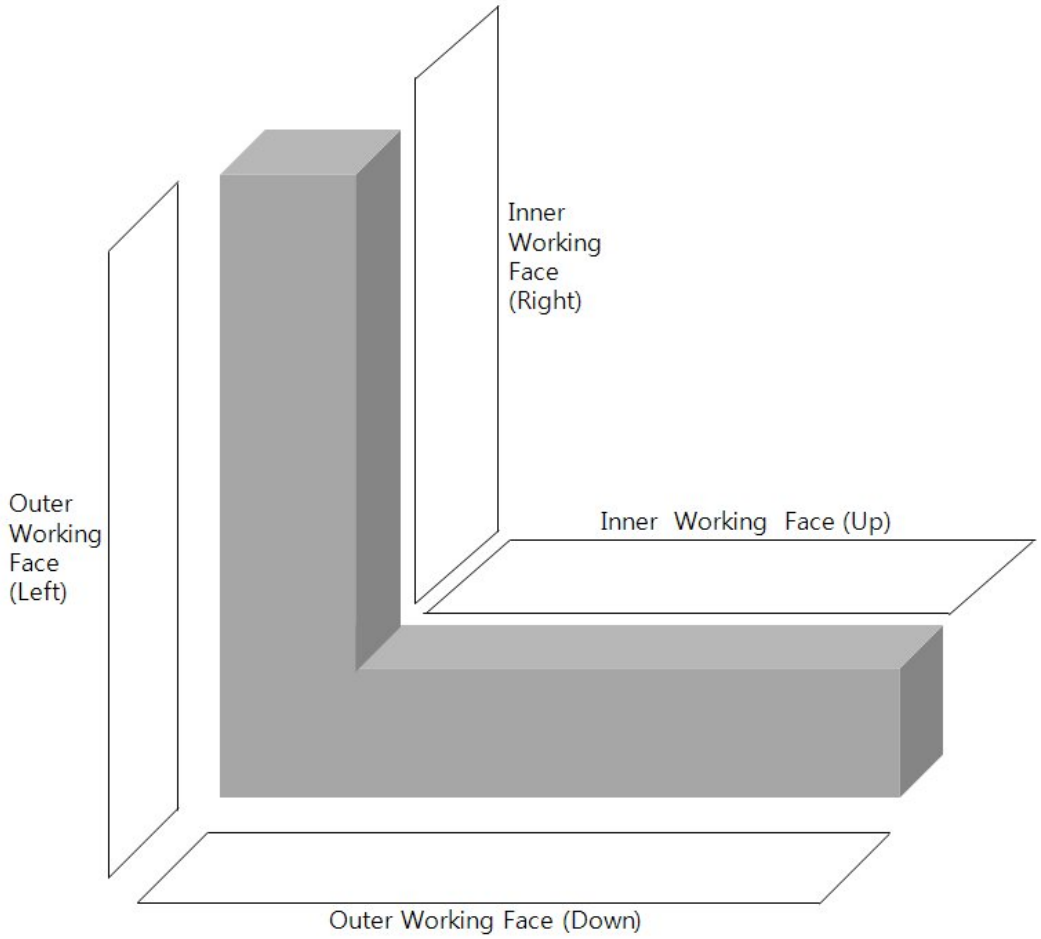
Name of responsible person:

Name of accreditation body:

Please mark: ☐ on receipt ☐ after mesurement

S/N: _____

Please sketch the damage (such as scratches or rusts) and describe it in detail.



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NOTE: Photograph may be helpful to describe damages well.

C. RESULTS SHEET

Laboratory name : _____

Circulation group: _____

Date of measurement: _____

Environment: 1. Temperature _____ 2. Humidity _____

Accredited by accreditation body: ☐ Yes ☐ No

Name of accreditation body: _____

Results:

Classification	Measurement Point [mm]	Measurement Value [μm]	Measurement uncertainty [μm]	Coverage factor *k*	CMC [μm]
Outside	100				
	200				
	280				
Inside	150				
	250				

NOTE:

1.The reference temperature is 20 °C.

2. Measurement uncertainty (*U*) shall be reported by using expanded uncertainty.

3. Coverage factor shall be a value which defines an interval having a level of confidence of approximately 95 %.

4. Use SI unit only.

5. Laboratories are encouraged to report the reason if the uncertainty reported is larger than their CMC:-

_____

_____

Signature of responsible person: _____

Date: _____ / _____ / _____

dd mm yyyy