

CERTIFICATE OF ACCREDITATION

HYUNDAI WIA Corporation

Accreditation No. : KC02-088

Corporation Registration No. : 194211-0000125

Address of Laboratory : 153, Jeongdong-ro Changwon-si Gyeongsangnam-do,
Republic of Korea

Date of Initial Accreditation : January 30, 2002.

Validity of Accreditation : July 30, 2023. ~ July 29, 2027.

Scope of Accreditation : Attached Annex

Date of issue : July 25, 2023.

This calibration laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to Joint ISO-ILAC-IAF Communiqué).



CHIN CHONGWOOK

Head

Korea Laboratory Accreditation Scheme

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017 & KS Q ISO/IEC 17025:2017

Hyundai-Wia

154, Jeongdongro, Seongsan-gu, Changwon, Gyeongnam, 51537, Korea
 Phone : 010-4875-0035 , Fax : - , e-mail: kjahn@hyundai-wia.com

CALIBRATION

Valid To : Jul. 29, 2027.

Accreditation No : KC02-088

In recognition of the successful completion of the KOLAS evaluation process,
 accreditation is granted to this laboratory to perform the following calibrations

Field Code	Item of Calibration	on-site	Field Code	Item of Calibration	on-site	Field Code	Item of Calibration	on-site
102. Linear dimension								
10214	Gauge blocks, by comparison	N						
10216	Height gauges/measuring machines	N						
10228	Cylindrical plug/pin gauges, Thread measuring wire gauges	N						
106. Various dimensional								
10601	Inside/Outside/ calipers	N						
10603	Cylinder/Bore gauges	N						
10605	Dial/Digital gauges	N						
10619	Micro indicators, Test indicators	N						
10612	Inside micrometers	N						
10613	Outside micrometers	N						
203. Torque								
20303	Torque wrenches/drivers	N						

Note

1. This laboratory provides calibration services in permanent standard laboratory and at on-site.
2. Laboratory conducts on-site calibration should meet requirements of KOLAS-SR-007.
3. On-site calibration is allowed to items with marking 'Y', not allowed to items with marking 'N'.
4. Measurement uncertainty normally is quoted as an expanded uncertainty at a coverage probability of 95 %, which usually requires the use of a coverage factor of $k=2$. It expresses the lowest uncertainty of measurement that can be provided by accredited calibration laboratories in normal conditions.
5. Due to the calibration environment such as reference standards or customers' facilities, it is note that uncertainty of measurement on a calibration certificate may be expressed larger than measurement uncertainty on scope of accreditation in general.

102. Linear dimension

Measured Quantity Instrument or Gauge	Field Code	Range	CMC (The Confidence Level is about 95 %)	Comments
Gauge blocks, by comparison	10214	(0 ~ 100) mm	$\sqrt{0.11^2 + 0.0015 \times l_0^2}$ μm	Comparators, gauge block /WCQG-01-EJ-001
Height gauges/measuring machines	10216	(0 ~ 600) mm	$\sqrt{10^2 + (0.006 \times l_0)^2}$ μm	calipers tester /WCQG-01-EJ-003
Cylindrical plug/pin gauges, Thread measuring wire gauges	10228	(0 ~ 100) mm	0.6 μm	Measuring machines, standard /WCQG-01-EJ-009

Notes) l_0 UNIT : mm

106. Various dimensional

Measured Quantity Instrument or Gauge	Field Code	Range	CMC (The Confidence Level is about 95 %)	Comments
Inside/Outside/ calipers	10601	(0 ~ 600) mm	$\sqrt{14^2 + (0.006 \times l_0)^2}$ μm	calipers tester /WCQG-01-EJ-007
Cylinder/Bore gauges	10603	(0 ~ 400) mm	0.9 μm	Dial gauges Tester /WCQG-01-EJ-010
Dial/Digital gauges	10605	(0 ~ 25) mm	0.9 μm	Dial gauges Tester /WCQG-01-EJ-004
Micro indicators, Test indicators	10619	(0 ~ 1) mm	0.9 μm	Dial gauges Tester /WCQG-01-EJ-012
Inside micrometers	10612	(5 ~ 200) mm	$\sqrt{0.8^2 + (0.003 \times l_0)^2}$ μm	Gauges blocks /WCQG-01-EJ-006
Outside micrometers	10613	(0 ~ 500) mm	$\sqrt{0.9^2 + (0.003 \times l_0)^2}$ μm	Gauges blocks /WCQG-01-EJ-005

Notes) l_0 UNIT : mm

203. Torque

Measured Quantity Instrument or Gauge	Field Code	Range	CMC (The Confidence Level is about 95 %)	Comments
Torque wrenches/drivers	20303	(0.5 ~ 5) N·m	7.7×10^{-3}	Torque testers, electrical /WCQG-01-EJ-026
		(5 ~ 10) N·m	4.6×10^{-3}	
		(10 ~ 25) N·m	1.8×10^{-3}	
		(25 ~ 50) N·m	4.2×10^{-3}	
		(50 ~ 100) N·m	7.7×10^{-3}	
		(100 ~ 250) N·m	9.6×10^{-3}	
		(250 ~ 500) N·m	11×10^{-3}	
		(500 ~ 1 000) N·m	5.5×10^{-3}	