

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

METAL INDUSTRIES RESEARCH & DEVELOPMENT CENTRE (MIRDC) Testing Laboratory 1001 Kaonan Highway, Nantzu 81160, Kaohsiung, Taiwan, R.O.C. Ms. I-Hua Wang Phone: 011 886 7 351 3121 FAX: 011 886 7 353 3581 Email: siohwa@mail.mirdc.org.tw

MECHANICAL

Valid To: June 30, 2025

Certificate Number: 0589.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following <u>metals and fastener tests</u>:

$\underline{\text{Test}(s)}$:	<u>Test Method(s):</u>
Hardness	
Rockwell (HRBW, HRC)	ASTM E18, ASTM F606/F606M; ISO 898-1, ISO 898-2, ISO 6508-1; JIS Z2245
Vickers Microhardness (0.3 kgf)	ASTM E384; ISO 898-1, ISO 898-2, ISO 6507-1; JIS B1051, JIS Z2244
Impact (Charpy) Room Temperature to lowest -50 °C	ASTM E23
Proof (Up to 1000 kN) (Internally and Externally Threaded, Cone Method Included)	ASTM F606/F606M; ISO 898-1, ISO 898-2
Tensile (Up to 1000 kN)	
Machined Specimen (Elongation, Reduction of Area, Yield Strength, Tensile Strength)	ASTM E8/E8M, ASTM F606/F606M; ISO 898-1; JIS Z2241
Wedge & Axial - Full Size	ASTM F606/F606M; ISO 898-1

Page 1 of 2

(A2LA Cert. No. 0589.01) 05/31/2023

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Test(s):	Test Method(s):
Metallographic Evaluation	
Case Depth	JIS G0557, JIS G0559, JIS G0562; SAE J78, SAE J423
Depth of Decarburization	ASTM E1077, ASTM F835, ASTM F912, ASTM F2328, ASTM F2328M; ISO 898-1; JIS B1051, JIS B1053; SAE J121 (Apr. 1997) ¹ , SAE J121M (Apr. 1997) ¹
Plating and Coating Thickness	
Optical	ASTM B487
X-Ray (Absorption) (Zn/Fe, Cd/Fe, Cr/Fe, Ni/Fe)	ASTM B568
Salt Spray	ASTM B117; ISO 9227
Chemical Testing	
Vacuum Optical Emission Spectroscopy on Carbon, Low Alloy, and Stainless Steel (B, C, Cr, Cu, Mn, Mo, Nb, Ni, P, S, Si, V, W)	ASTM E415, ASTM E1086

¹This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn.

Page 2 of 2

(A2LA Cert. No. 0589.01) 05/31/2023



Accredited Laboratory

A2LA has accredited

METAL INDUSTRIES RESEARCH & DEVELOPMENT CENTRE (MIRDC)

Kaohsiung, Taiwan, R.O.C.

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. 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 dated April 2017).



Presented this 31st day of May 2023.

Mr. Trace McInturff, Vice President, Accreditation Services For the Accreditation Council Certificate Number 0589.01 Valid to June 30, 2025

For the tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.