



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

METAL INDUSTRIES RESEARCH & DEVELOPMENT CENTRE (MIRDC)

Testing Laboratory

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MECHANICAL

Valid until: June 30, 2019

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 metals and fastener tests:

Test(s):

Test Method(s):

Hardness

Brinell (3000 kgf)

ASTM E10, F606/F606M; ISO 898-1, 898-2, 6506-(1-4);
JIS Z2243

Rockwell (HRBW, HRC)

ASTM E18, F606/F606M; ISO 898-1, 898-2, 6508-1;
JIS Z2245

Vickers (0.1/0.3/0.5/10/30 kgf)

ASTM E384; ISO 898-1, 898-2, 6507-1;
JIS B1051, B1052, Z2244

Impact (Charpy)

ASTM E23

Proof (Up to 1000 kN)

(Internally and Externally Threaded,
Cone Method Included)

ASTM F606/F606M; ISO 898-1, 898-2

Tensile (Up to 1000 kN)

Machined Specimen

(Elongation, Reduction of Area,
Yield Strength, Tensile Strength)

ASTM E8/E8M, F606/F606M; ISO 898-1;
JIS Z2201

Wedge & Axial - Full Size

ASTM F606/F606M; ISO 898-1

<u>Test(s):</u>	<u>Test Method(s):</u>
Metallographic Evaluation	
Case Depth	JIS G0557, G0559, G0562; SAE J78, J423
Depth of Decarburization	ASTM E1077, F835M, F912M, F2328, F2328M; ISO 898-1; JIS B1051, B1053; SAE J121 (Apr. 1997) ¹ , J121M (Apr. 1997) ¹
Grain Size (Comparison)	ASTM E112; JIS G0551, H0501
Macroetch	ASTM E340, E381
Plating and Coating Thickness	
Optical	ASTM B487
Weight	ASTM A90/A90M
X-Ray (Absorption) (Zn/Fe, Cd/Fe, Cr/Fe, Ni/Fe)	ASTM B568
Salt Spray	ASTM B117; ISO 9227
Chemical Testing	
Determination of Carbon and Sulfur	ASTM E1019
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, E1086

¹*This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn.*



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 17025:2005 *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 8 January 2009*).



Presented this 23rd day of June 2017.

A handwritten signature in black ink, written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 0589.01
Valid to June 30, 2019

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