



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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MECHANICAL

Valid To: July 31, 2027

Certificate Number: 4106.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following types of tests on metallic and non-metallic materials and products, and unmanned aircraft systems:

Test:

Test Methods:

Metallic Materials

Tensile (≤ 2000 kN)
Yield Strength
Elongation
Reduction of Area

GB/T 228.1; ISO 6892-1, 4136;
EN 2002-1; ASTM E8/E8M, A370

Tensile at Elevated temperature (≤ 50 KN)
Yield Strength
Elongation
Reduction of Area

ASTM E21

Creep and Stress Rupture

ASTM E139
ASTM E292

Rockwell Hardness (HRA, HRBW, HRC Scales)

GB/T 230.1; ISO 6508-1, 9015-1;
ASTM E18, A370

High Cycle Fatigue

ASTM E466; EN 6072

Brinell Hardness (HBW 10/3000, 10/1500, 10/500, 5/750)

GB/T 231.1; ISO 6506-1, 9015-1;
ASTM A370

Vickers Hardness (HV1, HV5, HV10, HV30)

GB/T 4340.1; ISO 6507-1, 9015-1;
ASTM E92, A370

Vickers Micro-Hardness (HV0.1, HV0.5, HV1)

GB/T 4340.1; ISO 6507-1, 9015-2;
ASTM E92, E384, A370

Charpy Impact (Room Temperature to -60) °C

GB/T 229; ISO 148-1;
ASTM A370, E23

Test:

Bend Test

Coating or Plating Thickness

Magnetic or Eddy Current

Optical Method

Weight Method

Salt Spray

Case Depth

Grain Size

Microstructure

Alpha case

IGA/IGO

Oxidation/corrosion or reheat layer

Macro Metallography

Welding

Macro/Micro examination of welds

Chemical Composition (OES)

B, C, Cr, Cu, Mn, Mo, Nb, Ni, P, S, Si, V

Non-Metallic Materials

Tensile

≤ 300 kN

Compression

≤ 300 kN

Shear

≤ 300 kN

Flexural

≤ 300 kN

Density

Adhesion

≤ 300 kN

Fracture Toughness

≤ 300 kN

Test Methods:

GB/T 232; ISO 7438, 5173; ASTM A370

GB/T 4956; ISO 2178; ASTM E376

GB/T 6462; ISO 1463

GB/T 13825; ISO 1460;

ASTM A90/A90M

GB/T 10125; ISO 9227; ASTM B117

GB/T 9450, 9451; ISO 18203

ASTM E112; ASTM E930

ASTM E407

ASTM E340

AWS D1.1; ASME BPVC Section IX;
ISO 15614-1 (Sec 7.1, 7.2, 7.4, 7.5, 7.6)

ISO 17639

ASTM E415, E3047, E1086

ISO 527-1, 527-4, 527-5; BS EN 2597

ISO 14126; EN 2850; ASTM D6641

ISO 14129, 14130; ASTM D5379,
D7078, D3518, D2344

ISO 14125, ASTM D790

ISO 1183-1; ASTM D3171, D792;
EN 2564

ASTM C297, D3528, D1002

ASTM D5528

Unmanned Aircraft Systems (UAS)¹

<u>Test:</u>	<u>Test Methods:</u>	<u>Applicable classes:</u>
Flight Tests		
Speed Tests	Internal procedures C8030001, C8030002 and C8030003	C0, C1
Maximum Speed (GNSS and frame count)		
Low-speed		C2, C5
Max. Ground Speed		C6
Maximum Attainable Height	Internal procedure C8030008, C8030007 and C8030006	C0, C1, C2, C3
GNSS		
Barometer		
Dual Drones		
Safely Controllable	Internal procedure C8030014 and C8030015	C0, C1, C2, C3, C4, C5, C6
Minimize Injury to People	Internal procedure C8030010	C0, C1, C2
Crashworthiness		
Follow-me	Internal procedure C8030004	C0, C1
Loss of Data Link and Quality Monitoring	Internal procedure C8030023	C1, C2, C3, C5, C6
	ISO/IEC 18045 SAR ATE IND.1	
DRI	EN 4709-002 Chapter 6	C1, C2, C3, Add-on, C5, C6
	ASTM F3586 Including indoor evaluation	C1, C2, C3, C4
	ISO/IEC 18045 SAR ATE IND.1	
Geo-awareness	Internal procedure C8030011 and C8030014	C1, C2, C3, C5, C6
Airspace Limitation Functions		
	ISO/IEC 18045 SAR ATE IND.1	
Battery Low Level	Internal procedure C8030009	C1, C2, C3, C5, C6
Automatic Control Modes Conditions	Internal procedure C8030016	C4
Geographical Position, Speed, and Height of the UA	Internal procedure C8030017	C5, C6

<u>Test:</u>	<u>Test Methods:</u>	<u>Applicable classes:</u>
Programming the UA Trajectory	Internal procedure C8030020	C6
Flight Termination System	Internal procedure C8030018	C5, C6
Geocaging	Internal procedure C8030019	C6
Lights Minimum effective luminous intensity – Visual Inspection	Internal procedure C8030012	C1, C2, C3, C5, C6
General Product Requirements		
MTOM	Internal procedure C8030022	C0, C1, C2, C3, C4, C5, C6
Minimize Injury to People Sharp Edges Propeller Design	Internal procedure C8030022	C0, C1, C2
Manufacturer’s Instructions	Internal procedure C8030022	C0, C1, C2, C3, C4, C5, C6
Ground Impact Energy Transmitted	Internal procedure C8030022	C1
Maximum Characteristic Dimension	Internal procedure C8030022	C3, C5, C6
Mechanical Tests		
Loads Parachute Deployment Landing Impact Propellers Tethered UA	Internal procedure C8030026	C1, C2 C2, C3, C5

Test:

Test Methods:

**Applicable
classes:**

Basic inspection

Completeness
Appearance
Size
Weight and centre of gravity
Moving and rotating parts check
Connectors

ISO 4358

Functional inspection and testing

Identification
Route loading
Self-test
Information display
Data record
Return to home
Automatic obstacle avoidance
Typical failure protection
Take-off/launch and
landing/recovery
Warning
Locking and starting of motor
Control mode switching

Flight performance

Maximum take-off mass
Maximum flight range
Maximum flight altitude
Maximum horizontal flight speed
Maximum steady climb rate
Altitude hold performance
Speed hold performance
Flight endurance
Fixed-point hovering
Positioning navigation
Trajectory tracking accuracy
Capability of wind resistance

Navigation system

Static attitude accuracy
Static positioning accuracy

Data link system test

Remote control distance and
telemetry distance
Information transmission distance

¹This laboratory performs field testing activities for these tests.



Accredited Laboratory

A2LA has accredited

APPLUS (SHANGHAI) QUALITY INSPECTION CO., LTD.

Shanghai, People's Republic of China

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 19th day of June 2025.

A blue ink signature of Mr. Trace McInturff, written in a cursive style.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 4106.01
Valid to July 31, 2027

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