

Scope of Accreditation For B83 Testing & Engineering, Inc.

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In recognition of a successful assessment to ISO/IEC 17025:2005, accreditation is granted to **B83 Testing & Engineering, Inc.** to perform the following tests:

Accreditation granted through: **February 24, 2019**

Testing - Mechanical

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Tensile	(0 to 300 000) lbf	SAE J684; SAE J2638 VESC V-5; Customer Specifications.	Components, Sub Assemblies, Full Assemblies, Structures (welded, bolted, cast), Electrical & Electronic Devices	Automotive, Heavy Truck, Construction, Railroad, Medical, Aerospace, Agriculture, Government Defense, Petroleum, Marine, Industrial & Consumer Product Industries
Compression	(0 to 300 000) lbf	SAE J684; SAE J2638 VESC V-5; Customer Specifications.		
Shear	(0 to 300 000) lbf	SAE J684; SAE J2638 VESC V-5; Customer Specifications.		
Torsion	(0 to 500 000) in · lbf	Customer Specifications.		
Axial Fatigue	(0 to 300 000) lbf	Customer Specifications.		
Torsional Fatigue	(0 to 500 000) in · lbf	Customer Specifications.		
Durability Simulation	(0 to 300 000) lbf	Customer Specifications, Customer Provided Road / Load Profiles.		

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Acceleration	Up to 80 g @ 24 in (Dependent on specimen measurements and physical size)	FAR 23.561; FAR 25.561; FAR 27.561; MIL-STD-810 (Method 513); MIL-STD-883 (Method 2001); MIL-STD-202 (Method 212); Customer specifications.	Components, subassemblies, full assemblies, structures (welded, bolted, cast), electrical & electronic devices	Aerospace, Automotive, Defense & Medical Industries

Testing – Mechanical / Environmental Simulation

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Temperature	(-100 to 500) °F	GMW3172 CS-11982 Bellcore GR63 CORE (sect. 5.1) MIL-STD-810 (Method 501) MIL-STD-810 (Method 502) MIL-STD-883 (Method 1008) MIL-STD-883 (Method 1010) ETSI EN300 019-2-1 v.2.1.2 ETSI EN300 019-2-2 v.2.1.2 ETSI EN300 019-2-3 v.2.2.2 RTCA DO 160 (sect. 5) SAE J1211 (sect. 4.1) SAE J1455 (sect. 4.1) Customer Specifications	Components, Sub Assemblies, Full Assemblies, Structures (welded, bolted, cast), Electrical & Electronic Devices	Automotive, Heavy Truck, Construction, Railroad, Medical, Aerospace, Agriculture, Government Defense, Petroleum, Marine, Industrial, Consumer Product Industries
Humidity	(20 to 95) % RH	GMW3172 CS-11982 Bellcore GR63 CORE (sect. 5.1) MIL-STD-810 (Method 507) MIL-STD-202 (Method 103B) MIL-STD-883 (Method 1004) ETSI EN300 019-2-1 v.2.1.2 ETSI EN300 019-2-2 v.2.1.2 ETSI EN300 019-2-3 v.2.2.2 RTCA DO 160 (sect. 6) SAE J1211 (sect. 4.2) SAE J1455 (sect. 4.2) Customer Specifications	Components, Sub Assemblies, Full Assemblies, Structures (welded, bolted, cast), Electrical & Electronic Devices	Automotive, Heavy Truck, Construction, Railroad, Medical, Aerospace, Agriculture, Government Defense, Petroleum, Marine, Industrial & Consumer Product Industries

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Thermal Shock	(-100 to 500) °F	MIL-STD-833 (Method 1011) MIL-STD-810 (Method 107); MIL-STD-810 (Method 503) GMW3172 CS-11982 202stomer Specifications	Components, Sub Assemblies, Full Assemblies, Structures (welded, bolted, cast), Electrical & Electronic Devices	Automotive, Medical, Aerospace, Agriculture, Government Defense, Petroleum, Marine, Industrial & Consumer Product Industries

Testing - Vibration


Technology	Range, when necessary	Methods Used	Product Types	Remarks
Vibration (Sine & Random)	(DC to 3 000) Hz (0 to 18 000) lbf	GMW3172 CS-11982 MIL-STD-810 (Method 514); MIL-STD-810 (Method 519); MIL-STD-167-1A; MIL-STD-202 (Methods 201A, 204D, 214A); MIL-STD-883 (Method 2005); MIL-STD-883 (Method 2007); ETSI EN300 019-2-1 v.2.1.2; ETSI EN300 019-2-2 v.2.1.2; ETSI EN300 019-2-3 v.2.2.2; ANSI C136.31-2001 IEC 60068-2-64; IEC 60068-2-6; RTCA DO 160 (sect. 8); SAE J1211 (sect. 4.7); SAE J1455 (sect. 4.9); Customer Specifications, Customer Provided Road / Load Profiles.	Components, Sub Assemblies, Full Assemblies, Structures (welded, bolted, cast), Electrical &	Electronic Devices Automotive, Heavy Truck, Construction, Railroad, Medical, Aerospace, Agriculture, Government Defense, Petroleum, Marine, Industrial & Consumer Product Industries



Technology	Range, when necessary	Methods Used	Product Types	Remarks
Mechanical Shock	Up to 500 g (Dependent on specimen mass and shock pulse width)	GMW3172 CS-11982 MIL-STD-810 (Method 516); MIL-STD-202 (Method 213B); MIL-STD-883 (Method 2002); ETSI EN300 019-2-1 v.2.1.2; ETSI EN300 019-2-2 v.2.1.2; ETSI EN300 019-2-3 v.2.2.2; IEC 60068-2-27; RTCA DO 160 (sect. 7); SAE J1211 (sect. 4.8); SAE J1455 (sect. 4.10); Customer Specifications, Customer Provided Road / Load Profiles.	Components, Sub Assemblies, Full Assemblies, Structures (welded, bolted, cast), Electrical &	Electronic Devices Automotive, Heavy Truck, Construction, Railroad, Medical, Aerospace, Agriculture, Government Defense, Petroleum, Marine, Industrial & Consumer Product Industries

Notes:

- 1) This laboratory offers commercial testing service.

Approved by: 
R. Douglas Leonard
Chief Technical Officer

Date: November 15, 2016