

<u>Test Description</u>	<u>Test Method</u>
<p><u>Charge / Discharge Testing (Cont..)</u></p> <p><u>Resistance measure</u> 100 $\mu\Omega$ to 100 MΩ</p> <p><u>Voltage measure</u> (0.0001 to 1000) VDC (0.0001 to 1000) VAC</p>	
<p><u>Short Circuit Testing</u> Down to 0.01Ω circuit resistance</p>	<p>United Nations 3090/3091 T5; ST/SG/ac.10/27/Add.2; UL 1642, UL 2054; SAE J2464 section 4.4.1 and 4.4.2</p>
<p><u>Force Deflection (Tensile/Compression)</u> Cylinder stroke: 12 inches Compression Load: 50,000 lbs Tension Load: 50,000 lbs</p>	
<p><u>Humidity Testing</u> Humidity Range: 10% to 95% Temperature Range: +4°C to 93°C Chamber Size (max): 3x3x3 Feet</p>	<p>MIL-STD-202G (Method 103, 106), MIL-STD-810F (Method 507); RTCA/DO/160D</p>
<p><u>Mass Measure</u> (0.02 to 100) lbs (10 to 45,359 grams)</p>	



<u>Test Description</u>	<u>Test Method</u>
<p><u>Pressure Testing</u> Static / Cyclic (0-10,000) PSI Pneumatic, Hydraulic, Stoddard Solvent, etc. *Can be conducted in conjunction with Vibration and Temperature Testing</p>	
<p><u>Salt Fog (Corrosion)</u> Chamber size (max): 2x3x4 Feet Modified Gas</p>	<p>ASTM B117, ASTM B685, ASTM-G85, A4; IEC 60529; JIS-D-0203, S2; MIL-STD-202D (Method 101), MIL-STD-810F (Method 509); RTCA/DO/160D</p>
<p><u>Shock Testing</u></p> <p><u>Mechanical Shock</u> Up to 3500g Peak Minimum duration: 0.5 milliseconds</p> <p><u>Pyrotechnic (Pyro) Shock</u> Up to 10,000 g Frequency: 20 to 10000 Hz</p> <p><u>Impact</u></p>	<p>United Nations 3090/3091 T4; IST A-1A2001; MIL-STD-202G (Method 213), MIL-STD-810F (Method 516), RTCA/DO/160D (Section 7); ST/SG/ac.10/27/Add.2</p> <p>MIL-STD-202G (Method 213), MIL-STD-810 (Procedure VII)</p> <p>United Nations 3090/3091 T6; ST/SG/ac.10/27/Add.2; UL 1642, UL 2054</p>



<u>Test Description</u>	<u>Test Method</u>
<p><u>Temperature Testing</u></p> <p><u>Temperature Measure</u> (-80c to +500)°C</p> <p><u>Temperature Testing</u> Temperature Range: (-80°C to +300)°C Ramp Rate: 10°C /minute</p> <p>Remote chamber available *Can be conducted in addition to Vacuum Testing, Vibration Testing</p> <p><u>Thermal Cycling (Thermal Shock)</u> Temperature Range: (-70°C to +200)°C Chamber Size (max): 16"x16"x16"</p>	<p>United Nations 3090/3091 T2; MIL-STD-202G (Method 108 up to +177°C), MIL-STD-810F (Method 501, 503); NAVMAT-P-9492; RTCA/DO/160D (Section 4 & 5); ST/SG/ac.10/27/Add.2; SAE J2464 section 4.3.2</p> <p>MIL-STD-202G (Method 107), MIL-STD-810F (Method 503); NAVMAT-P-9492; RTCA/DO/160D; ST/SG/ac.10/27/Add.2</p>
<p><u>Vibration</u> *Can be conducted in conjunction with Temperature Testing</p> <p><u>Random Vibration</u> Up to 45 Grms Frequency: 1 to 4000 Hz Peak-Peak: 1 inch Pounds Force: 9,000 lbs</p> <p><u>Sine Vibration</u> Up to 90g Frequency: 1 to 4000 Hz Peak-Peak: 1 inch Pounds Force: 12,000 lbs</p> <p><u>Sine on Random Vibration</u> Up to 45 Grms Frequency: 5 to 2000 Hz Peak-Peak: 1 inch</p> <p><u>Random on Random Vibration</u> Up to 45 Grms Frequency: 5 to 2000 Hz Peak to Peak: 1 inch</p>	<p>United Nations 3090/3091 T3; IST A-1A2001; MIL-STD-202G (Method 214), MIL-STD-810F, 514; NAVMAT-P-9492; ST/SG/ac.10/27/Add.2; RTCA/DO/160D</p> <p>MIL-STD-202G (Method 201, 204, 214), MIL-STD-810F (Method 514); NAVMAT-P-9492; ST/SG/ac.10/27/Add.2 38.3.4.2; RTCA/DO/160D</p> <p>MIL-STD-202G (Method 201, 204, 214), MIL-STD-810F (Method 514), NAVMAT-P-9492; ST/SG/ac.10/27/Add.2 38.3.4.2; RTCA/DO/160D</p> <p>MIL-STD-810E (Method 514.4 Procedure I, Category 8)</p>



<u>Test Description</u>	<u>Test Method</u>
<u>Waterproof Ness</u> <u>Blowing Rain</u> <u>Water Spray</u> <u>Immersion</u> Depth up to 500 feet	MIL-STD-810F (Method 506.4) MIL-STD-810F (Method 506.4); SAE J 1455 MIL-STD-810F (Method 512.4)
<u>Drop Test</u>	MIL-STD-810F (Method 516.5)
<u>Vacuum Testing</u> 1 ⁻⁵ Torr Connections during test: electrical/pressure *Can be conducted in conjunction with Temperature Testing	ST/SG/ac.10/27/Add.2
<u>Crush Testing</u> Upto 60,000 lbs Variable platens	SAE J2464 section 4.2.6
<u>Nail Penetration</u> Speed up to 3 in/sec Variable nail diameter	SAE J2464 section 4.2.3
<u>Thermal Hot Exhaust Simulation</u> Hot Gas Simulation up to 900°C	





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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 31st day of March 2009.





Peter Abney

President & CEO
For the Accreditation Council
Certificate Number 1762.01
Valid to April 30, 2011

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