


# Schedule of Accreditation

issued by

## United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

 <p><b>0503</b></p> <p>Accredited to <b>ISO/IEC 17025:2017</b></p>	<p><b>BAE Systems Global Combat Systems Munitions Limited</b></p> <p>Issue No: 029    Issue date: 22 February 2021</p>	
	<p><b>Environmental Test Facility</b></p> <p>Bishopton Houston Road Johnstone Renfrewshire PA6 7BG</p>	<p><b>Contact: Brian Cairney</b></p> <p>Tel: 0330 0499780 E-Mail: brian.cairney2@baesystems.com</p>
<p><b>Testing performed at the above address only</b></p>		

### DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
ADHESIVES AEROSPACE EQUIPMENT AEROSPACE MATERIALS AEROSPACE STRUCTURES AMMUNITION CELLS AND BATTERIES CIRCUIT BREAKERS AND SWITCHES COATINGS: METALLIC COATINGS: NON-METALLIC COMPOSITE MATERIALS COMPUTERS AND PERIPHERALS CONSTRUCTION MATERIALS CONSTRUCTION PRODUCTS DOMESTIC APPLIANCES: ELECTRICAL DOMESTIC APPLIANCES: NON-ELECTRICAL ELECTRICAL/ELECTRONIC COMPONENTS ELECTRICAL/ELECTRONIC CONNECTORS ELECTRICAL/ELECTRONIC PRODUCTS ELECTRICAL CABLES ELECTROMECHANICAL DEVICES ENGINE COMPONENTS EXPLOSIVES AND PROPELLANTS FANS FIREARMS FIRE PREVENTION AND DETECTION EQUIPMENT FORGINGS	<p><u>Environmental Tests - Dynamic</u></p> <p><b>Vibration - Sinusoidal</b></p> <p>High/Low Temperature Constant/Cycling Frequency Range: 5 - 2500 Hz Temp Range: -55 °C to +90 °C Peak Thrust: 250 kN Max Mass: 3.5 tonnes Max acceleration: 100g</p> <p>Explosive limit: 600 kg of HD 1.1 Max size: 3 m x 1.4 m x 2.2 m (limited by headroom over vibrator 2.2 m and chamber)</p>	<p>DEF STAN 00-035:2017 Part 3, Issue 5, Test M1 and M19</p> <p>DEF STAN 00-35:2006 Part 3, Issue 4, Test M1 and M19</p> <p>BS EN 60068-2-6:2008 Part 2-6, Test Fc</p> <p>MIL-STAN 810H:2019 Method 514.8 and 525.2</p> <p>MIL-STAN 810G:2010 Method 514.8 and 525.2</p> <p>NATO AECTP-400:2019 Edition D, Ver 1, Method 401</p> <p>UN ST/SG/AC.10/11 Sixth Edition, section 38.3 Test T3 Vibration</p> <p>UN E/ECE/324 Revision 2 2013 Test Annex 8A Vibration</p>
ELECTRICAL/ELECTRONIC PRODUCTS ELECTRICAL CABLES ELECTROMECHANICAL DEVICES ENGINE COMPONENTS EXPLOSIVES AND PROPELLANTS FANS FIREARMS FIRE PREVENTION AND DETECTION EQUIPMENT FORGINGS	<p><b>Vibration - Random, Sine/Random on Random</b></p> <p>High/Low Temperature Constant/Cycling Frequency Range: 5 - 2500 Hz Temp Range: -55°C to +90°C Peak Thrust: 250 kN RMS Max Mass: 3.5 tonnes</p>	<p>DEF STAN 00-035:2017 Part 3, Issue 5, Tests M2, M19</p> <p>DEF STAN 00-35:2006 Part 3, Issue 4, Tests M2, M19</p> <p>BS EN 60068-2-64:2008+A1:2019 Part 2-64, Test Fh</p>



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Continued from Page 1  FUZES: WEAPONS GENERATORS: POWER GENERATORS: WELDING HYDRAULIC EQUIPMENT AND FITTINGS INSTRUMENTS: INDICATING/ RECORDING LAMINATES AND FIBRE COMPOSITES LAMPS: ELECTRICAL LUMINAIRES MARINE EQUIPMENT MECHANICAL PRODUCTS AND PLANT MICRO-ELECTRONIC CIRCUIT AND COMPONENTS MINING EQUIPMENT MISSILES: GUIDED MISSILES: UNGUIDED MOTOR VEHICLE ACCESSORIES AND COMPONENTS MOTORS AND GENERATORS: ELECTRICAL OFFICE EQUIPMENT: ELECTRICAL OFFICE EQUIPMENT: MECHANICAL OPTICAL AND PHOTOMETRIC EQUIPMENT PACKAGES AND PACKAGING MATERIAL PLUGS AND SOCKETS: ELECTRICAL POWER SUPPLIES PRINTED CIRCUIT BOARDS PUMPS STRUCTURES SWITCHBOARDS: ELECTRICAL TELECOMMUNICATION EQUIPMENT	Max acceleration: 100g  Explosive limit: 600 kg of HD 1.1 Max size: 3 m x 1.4 m x 2.2 m (limited by headroom over vibrator, 2.2 m and chamber)	MIL-STAN 810H:2019 Method 514.8 and 525.2  MIL-STAN 810G:2010 Method 514.8 and 525.2  NATO AECTP-400:2019 Edition D, Ver 1, Method 401
	<b>Shock/Bump</b>  High/Low Temperature Max displacement: 80 mm (p/p) Max velocity: 2 m/s Max accel: 250 g Max duration: 100 ms Peak thrust: 250 Kn Temp range: -55 °C to +90 °C Max mass: 3.5 tonnes  Explosive limit: 600 kg of HD 1.1 Max size: 3 m x 1.4 m x 2.2 m (limited by headroom over vibrator, 2.2 m and chamber)	DEF STAN 00-035:2017 Part 3, Issue 5, Test M3  DEF STAN 00-35:2006 Part 3, Issue 4, Tests M3, M6, M7 and M12  BS EN 60068-2-27:2009 Part 2-27, Test Ea  MIL-STAN 810H:2019 Method 516.8  MIL-STAN 810G:2010 Method 516.8  NATO AECTP-400:2019 Edition D, Ver 1, Method 403  UN ST/SG/AC.10/11 Sixth Edition, section 38.3 Test T4 Shock  UN E/ECE/324 Revision 2 2013 Test Annex 8C Mechanical Shock
	<b>Drop/Topple/Horizontal Impact/Free Fall</b>  High/Low Temperature Temp range: -55 °C to +90 °C Max height: 12 m Max mass: 1.25 tonnes Explosive limit: 600 kg of HD 1.1	DEF STAN 00-035:2017 Part 3, Issue 5, Tests M4 and M5  DEF STAN 00-35:2006 Part 3, Issue 4, Tests M4 and M5  BS EN 60068-2-31:2008 Part 2-31, Tests Ec



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Continued from Page 1 to 2	Dropping Surface: 20 mm steel plate independently mounted seismic mass of 25 tonnes	MIL-STAN 810H:2019 Method 516.8  MIL-STAN 810G:2010 Method 516.8  NATO AECTP-400:2019 Edition D, Ver 1, Method 403
	<b>Bounce</b>  Max mass: 2000 kg Explosive limit: 600 kg of HD 1.1	DEF STAN 00-035:2017 Part 3, Issue 5, Tests M11  DEF STAN 00-35:2006 Part 3, Issue 4, Test M11  NATO AECTP-400:2019 Edition D, Ver 1 Method 406
	<b>Constant Acceleration</b>  Max Acceleration: 75 g Max mass: 75 kg Explosive limit: 600 kg of HD 1.1	DEF STAN 00-035:2017 Part 3, Issue 5, Test M13  DEF STAN 00-35:2006 Part 3, Issue 4, Test M13  MIL-STAN 810H:2019 Method 513.8  MIL-STAN 810G:2010 Method 513.8



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Continued from Page 1 to 2	<p><u>Environmental Tests - Climatic</u></p> <p><b>High/Low Temperature High/Low Humidity</b></p> <p>Constant/Cyclic Thermal Shock and Rapid rate of change Temp Range: -55 °C to +90°C Relative Humidity: up to 93%rh (depending on temperature) Max mass: 5000 kg Explosive limit: 5000 kg of HD 1.1</p>	<p>DEF STAN 00-035:2017 Part 3, Issue 5, Tests CL2, CL5, CL6, CL14</p> <p>DEF STAN 00-35:2006 Part 3, Issue 4, Tests CL2, CL5, CL6, CL14</p> <p>BS EN 60068-2-1:2007 Part 2-1, Test A</p> <p>BS EN 60068-2-1:2007 Part 2-1, Test B</p> <p>BS EN 60068-2-78:2013 Part 2-1, Test Cab</p> <p>BS EN 60068-2-30:2005 Part 2-30, Test Db</p> <p>MIL-STAN 810H:2019 Methods 501.7, 502.7, 507.6</p> <p>MIL-STAN 810G:2010 Methods 501.7, 502.7, 507.6</p> <p>NATO AECTP-300:2019 Edition D, Ver 1 Methods 302, 303, 306</p> <p>UN ST/SG/AC.10/11 Sixth Edition, section 38.3 Test T2 Thermal</p> <p>UN E/ECE/324 Revision 2 2013 Test Annex 8B Thermal Shock and cycling</p>



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Continued from Page 1 to 2	<u>Environmental Tests – Climatic (Cont)</u>	
	<b>Pressure - Altitude</b> Max temperature: +90 °C Min temperature: -55 °C Min pressure (abs): 40 mbar Max pressure (abs): 3000 mbar	
	<b>Rapid decompression</b>	DEF STAN 00-035:2017 Part 3, Issue 5, Test CL9  DEF STAN 00-35:2006 Part 3, Issue 4, Test CL9
	<b>High temperature - low pressure</b>	DEF STAN 00-035:2017 Part 3, Issue 5, Test CL11  DEF STAN 00-35:2006 Part 3, Issue 4, Test CL11  MIL-STAN 810H:2019 Method 500.6  MIL-STAN 810G:2010 Method 500.6  NATO AECTP-300:2019 Edition D, Ver 1, Method 301
	<b>Low temperature - low pressure</b>	DEF STAN 00-035:2017 Part 3, Issue 5, Test CL11  DEF STAN 00-35:2006 Part 3, Issue 4, Test CL12  MIL-STAN 810H:2019 Method 500.6  MIL-STAN 810G:2010 Method 500.6  NATO AECTP-300:2019 Edition D, Ver 1, Method 301



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Continued from Page 1 to 2	<u>Environmental Tests – Climatic (Cont)</u>  <b>Low temperature – low pressure high humidity</b>	DEF STAN 00-035:2017 Part 3, Issue 5, Test CL13  DEF STAN 00-35:2006 Part 3, Issue 4, Test CL13  MIL-STAN 810H:2019 Method 500.6  MIL-STAN 810H:2019 Method 500.6  NATO AECTP-300:2019 Edition D, Ver 1, Method 301
	<b>Air pressure – above standard atmospheric</b>	DEF STAN 00-035:2017 Part 3, Issue 5, Test CL11  DEF STAN 00-35:2006 Part 3, Issue 4, Test CL15
	<b>Rapid change of pressure</b>	DEF STAN 00-035:2017 Part 3, Issue 5, Test CL11  DEF STAN 00-35:2006 Part 3, Issue 4, Test CL20
	<b>Low air pressure and Air transportation</b>	DEF STAN 00-035:2017 Part 3, Issue 5, Test CL11  DEF STAN 00-35:2006 Part 3, Issue 4, Test CL21  MIL-STAN 810H:2019 Method 500.6  MIL-STAN 810G:2010 Method 500.6  NATO AECTP-300:2019 Edition D, Ver 1, Method 301



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Continued from Page 1 to 2	<u>Environmental Tests – Climatic (Cont)</u>  <b>Low air pressure and Air transportation (cont)</b>	UN ST/SG/AC.10/11 Sixth Edition, section 38.3 Test T1 Altitude
END		