PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

HUMANETICS INNOVATIVE SOLUTIONS JAPAN NAGOYA TECHNICAL CENTER

93 Terano-Motomachi Kiyosu, Aichi 452-0908

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system
(as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Mechanical Testing
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President

Perry Johnson Laboratory Accreditation, Inc. (PJLA)
755 W. Big Beaver Rd., Suite 1325
Troy, Michigan 48084

Initial Accreditation Date:	*Issue Date:*	*Expiration Date:*
January 17, 2022	March 18, 2024	March 31, 2026
Revision Date:	*Accreditation No.:*	*Certificate No.:*
February 7, 2025	94011	L24-204-R1

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjlabs.com

Certificate of Accreditation: Supplement

HUMANETICS INNOVATIVE SOLUTIONS JAPAN
NAGOYA TECHNICAL CENTER

93 Terano-Motomachi Kiyosu, Aichi 452-0908
Contact Name: Takuya Iwamura Phone: 052-401-7501

Accreditation is granted to the facility to perform the following testing:

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Mechanical [F]	Anthropomorphic Test Devices ATD (including impactors)	Head Drop Test Stand (TS-1)	"Procedure for Head Drop Test (TS-1) CL-PR-10039N(J)" On the basis of: 49 CFR Including, but not limited to, the related documents mentioned above Accelerometer Data Acquisition System (DAS)	Resultant Acceleration (g) 0 to 300 Lateral Acceleration (g) -20 to 20 Unimodal Oscillation (%) 0 to 17 Temperature (°C) 18 to 26 Humidity (%) 10 to 70
		Neck Pendulum Test Stand (TS-2)	"Procedure for Neck, Lumbar Spine Pendulum Impact Test (TS-2) CL-PR-10040N(J)" On the basis of: 49 CFR Including, but not limited to, the related documents mentioned above Accelerometer Goniometer Load meter Angular rate Data Acquisition System (DAS)	Velocity (m/s) 2.40 to 7.77 Acceleration (g) 0 to 30.0 Rotation (deg) 27.0 to 114.0 Force (N) 774.0 to 3210.0 Angular Velocity (deg/s) 1226.0 to 2267.0 Temperature (°C) 18 to 26 Humidity (%) 10 to 70
		Knee Impact Test Stand (TS-3)	"Procedure for Knee Impact and Shearing Test (TS-3) CL-PR-10041N(J)" On the basis of: 49 CFR Including, but not limited to, the related documents mentioned above Accelerometer Data Acquisition System (DAS)	Velocity (m/s) 2.0 to 3.0 Force (N) 2.0 to 7.3 Temperature (°C) 18 to 26 Humidity (%) 10 to 70

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Mechanical [F]	Anthropomorphic Test Devices ATD (including impactors)	Knee Slider Test Stand (TS-3)	"Procedure for Knee Impact and Shearing Test (TS-3) CL-PR-10041N(J)" On the basis of: SAE J2856 Including, but not limited to, the related documents mentioned above Load meter Displacement gauge Data Acquisition System (DAS)	Velocity (m/s) 1.1 to 3.0 Displacement (mm) 9.3 to 22.2 Force (KN) 1.2 to 10.0 Unimodal Oscillation (%) 0 to 10 Temperature (°C) 18 to 26 Humidity (%) 10 to 70
		Thorax Impact Test Stand (TS-4)	"Procedure for Thorax Impact Test (TS-4) CL-PR-10042N(J)" "Procedures for Thorax Impact Test – Body Type, and CG Measurement" (TS-4) CL-PR-10064N(J) On the basis of: 49 CFR Including, but not limited to, the related documents mentioned above Accelerometer Displacement gauge Load meter Goniometer Measurement Stand CG Measurement Stand Ruler Tape measure T-square Balance Level Data Acquisition System (DAS)	Velocity (m/s) 1.50 to 6.83 Displacement (mm) 0 to 91.3 Hysteresis (%) 0 to 85 Acceleration (g) 7.5 to 152 Force (kN) 0.65 to 11.1 Moment (Nm) -23.5 to 17.8 Rotation (deg) -41.0 to 15.1 Measurement (mm) 17.8 to 1155.7 CG Measurement (mm) 87.0 to 212.0 Weight (kg) 0.0 to 31.0 Temperature (°C) 18 to 26 Humidity (%) 10 to 70

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Mechanical [F]	Anthropomorphic Test Devices ATD (including impactors)	Torso Flexion Test Stand (TS-5)	"Procedure for Torso Flexion Test (TS-5) CL-PR-10043N(J)" On the basis of: 49 CFR Including, but not limited to, the related documents mentioned above Load meter Goniometer Data Acquisition System (DAS)	Velocity (°/s) 0.5 to 1.5 Force (N) 90 to 550 Angle (°) 0 to 50 Temperature (°C) 18.9 to 25.6 Humidity (%) 10 to 70
		Hip Calibration Test Stand (TS-6)	"Procedure for H-ROM Test (TS-6) CL-PR-10044N(J)" On the basis of: 49 CFR Including, but not limited to, the related documents mentioned above Load meter Goniometer Data Acquisition System (DAS)	Velocity (°/s) 5.0 to 10.0 Angle (°) 0 to 50 Torque (Nm) 0 to 203 Temperature (°C) 18 to 26 Humidity (%) 10 to 70
		EuroSID Thorax Certification Test Stand (TS-7)	"Procedure for EuroSID Thorax Test (TS-7) CL-PR-10045N(J)" On the basis of: 49 CFR Including, but not limited to, the related documents mentioned above Displacement gauge Data Acquisition System (DAS)	Displacement (mm) 23.5 to 51.0 Temperature (°C) 18 to 26 Humidity (%) 10 to 70

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Mechanical [F]	Anthropomorphic Test Devices ATD (including impactors)	Q-Dummy Abdominal Compression Stand (TS-8)	"Procedure for Q-Dummy Abdominal Compression Test (TS-8) CL-PR-10046N(J)" On the basis of: UN R129 Including, but not limited to, the related documents mentioned above Dial gauge	Deformation (mm) 6.0 to 17.0 Temperature (°C) 18 to 26 Humidity (%) 10 to 70
		Foot Impact Test Stand (TS-9)	"Procedure for Foot Impact Test (TS-9) CL-PR-10047N(J)" On the basis of: UN R94 Including, but not limited to, the related documents mentioned above Accelerometer Load meter Goniometer Data Acquisition System (DAS)	Velocity (m/s) 1.9 to 6.8 Force (kN) 0.4 to 3.8 Moment (Nm) 35..2 to 145.0 Acceleration (g) 245.0 to 345.0 Rotation (deg) 26.6 to 37.9 Temperature (°C) 18 to 26 Humidity (%) 10 to 70
		FLEX ZERT Pendulum Test Stand (TS-10)	"Procedure for FLEX ZERT Pendulum, Inverse Test (TS-10) (CL-PR-10048N(J)" On the basis of: UN R127 Including, but not limited to, the related documents mentioned above Accelerometer Load meter Displacement gauge Data Acquisition System (DAS)	Moment (Nm) 90.0 to 272.0 Displacement (mm) 0 to 24.0 Temperature (°C) 18 to 26 Humidity (%) 10 to 70

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Mechanical [F]	Anthropomorphic Test Devices ATD (including impactors)	FLEX ZERT Inverse Test Stand (TS-10)	"Procedure for FLEX ZERT Pendulum, Inverse Test (TS-10) (CL-PR-10048N(J)" On the basis of: UN R127 Including, but not limited to, the related documents mentioned above Accelerometer Load meter Displacement gauge Data Acquisition System (DAS)	Velocity (m/s) 10.9 to 11.3 Moment (Nm) 63.0 to 334.0 Displacement (mm) 0 to 21.0 Temperature (°C) 18 to 26 Humidity (%) 10 to 70
		FLEX STATIC Test Stand (TS-11)	"Procedure for FLEX STATIC Test (TS-11) CL-PR-10054N(J)" On the basis of: UN R127 Including, but not limited to, the related documents mentioned above FLEX Static Bending Tester STRAIN/BRIDGE Input Module Linear Potentiometer Load Cell Rotary Potentiometer String Potentiometer Strain Gauge	Load Cell (N) 0 to 5000 Moment (Nm) 0 to 500 Linear Potentiometer (mm) 0 to 30 Strain Gauge (mV/V) 0 to 15 String Potentiometer (mm) 0 to 50 Rotary Potentiometer (deg) 0 to 30 Temperature (°C) 18 to 24 Humidity (%RH) 10 to 70

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer [F] would mean that the laboratory performs this testing at its fixed location.