

# 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

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

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

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: <a href="www.pjlabs.com">www.pjlabs.com</a>



## 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

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	Head Drop Test Stand	"Procedure for Head Drop Test	Resultant
	Devices ATD	(TS-1)	(TS-1) CL-PR-10039N(J)"	Acceleration (g)
	(including impactors)			0 to 300
	` ' '		On the basis of:	Lateral
			49 CFR	Acceleration (g)
			Including, but not limited to, the	-20 to 20
			related documents mentioned	Unimodal
			above	Oscillation (%)
				0 to 17
			Accelerometer	Temperature (°C)
		A	Data Acquisition System (DAS)	18 to 26
		200		Humidity (%)
				10 to 70
		Neck Pendulum Test	"Procedure for Neck, Lumbar	Velocity (m/s)
		Stand (TS-2)	Spine Pendulum Impact Test	2,40 to 7.77
		2	(TS-2) CL-PR-10040N(J)"	Acceleration (g)
		/3/2/	(55,5) 52 535 565	0 to 30.0
		45-100	On the basis of:	Rotation (deg)
		A CONTRACT OF A	49 CFR	27.0 to 114.0
		A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Including, but not limited to, the	Force (N)
			related documents mentioned	774.0 to 3210.0
			above	Angular Velocity
	A S			(deg/s)
	, and a		Accelerometer	1226.0 to 2267.0
	A		Goniometer	Temperature (°C)
	Anna		Load meter	18 to 26
	/ /	Real Property of	Angular rate	Humidity (%)
	/ -	The second second	Data Acquisition System (DAS)	10 to 70
	4,000	Knee Impact Test Stand	"Procedure for Knee Impact and	Velocity (m/s)
		(TS-3)	Shearing Test	2.0 to 3.0
		(18-3)	(TS-3) CL-PR-10041N(J)"	Force (N)
			(13-3) CL-FR-10041N(3)	2.0 to 7.3
			On the basis of:	Temperature (°C)
			49 CFR	18 to 26
			Including, but not limited to, the	Humidity (%)
			related documents mentioned	10 to 70
				101070
			above	
			Accelementation	
			Accelerometer	
		,	Data Acquisition System (DAS)	



Issue: 03/2024

## 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

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	Knee Slider Test	"Procedure for Knee Impact	Velocity (m/s)
	Devices ATD	Stand (TS-3)	and Shearing Test (TS-3)	1.1 to 3.0
	(including impactors)	, ,	CL-PR-10041N(J)"	Displacement (mm)
				9.3 to 22.2
			On the basis of:	Force (KN)
			SAE J2856	1.2 to 10.0
			Including, but not limited to,	Unimodal Oscillation
			the related documents	(%)
			mentioned above	0 to 10
				Temperature (°C)
			Load meter	18 to 26
		A TON	Displacement gauge	Humidity (%)
		A LOS	Data Acquisition System (DAS)	10 to 70
		Thorax Impact Test	"Procedure for Thorax Impact	Velocity (m/s)
		Stand (TS-4)	Test (TS-4)	1.50 to 6.83
			CL-PR-10042N(J)"	Displacement (mm)
			"Procedures for Thorax Impact	0 to 91.3
		/- /- /	Test – Body Type, and	Hysteresis (%)
			CG Measurement"	0 to 85
			(TS-4) CL-PR-10064N(J)	Acceleration (g)
	Section 1		VIII -	7.5 to 152
			On the basis of:	Force (kN)
			49 CFR	0.65 to 11.1
			Including, but not limited to,	Moment (Nm)
	A81		the related documents	-23.5 to 17.8
	Acces		mentioned above	Rotation (deg)
		Mark to the second		-41.0 to 15.1
	A 1 2 3 4 1		Accelerometer	Measurement (mm)
	6.5		Displacement gauge	17.8 to 1155.7
			Load meter	CG Measurement (mm)
			Goniometer	87.0 to 212.0
			Measurement Stand	Weight (kg)
			CG Measurement Stand	0.0 to 31.0
			Ruler	Temperature (°C)
			Tape measure	18 to 26
			T-square	Humidity (%)
			Balance	10 to 70
			Level	
			Data Acquisition System (DAS)	



Issue: 03/2024

## 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

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	Torso Flexion Test	"Procedure for Torso Flexion	Velocity (°/s)
	Devices ATD	Stand (TS-5)	Test (TS-5)	0.5 to 1.5
	(including impactors)		CL-PR-10043N(J)"	Force (N)
				90 to 550
			On the basis of:	Angle (°)
			49 CFR	0 to 50
			Including, but not limited to,	Temperature (°C)
			the related documents	18.9 to 25.6
			mentioned above	Humidity (%)
				10 to 70
		Δ.	Load meter	10 10 10
		/III).	Goniometer	
			Data Acquisition System (DAS)	
		Hip Calibration Test	"Procedure for H-ROM Test	Velocity (°/s)
		Stand (TS-6)	(TS-6) CL-PR-10044N(J)"	5.0 to 10.0
		Staliu (13-0)	(13-0) CL-1 K-10044N(3)	Angle (°)
		A second	On the basis of:	0 to 50
			49 CFR	Torque (Nm)
		1200	Including, but not limited to,	0 to 203
			the related documents	l .
				Temperature (°C) 18 to 26
	La Carte de La Car		mentioned above	l .
			Commence of the Commence of th	Humidity (%)
	All		Load meter	10 to 70
			Goniometer	
	.00000		Data Acquisition System (DAS)	
		EuroSID Thorax	"Procedure for EuroSID Thorax	Displacement (mm)
		Certification Test	Test (TS-7)	23.5 to 51.0
	ATTAL	Stand (TS-7)	CL-PR-10045N(J)"	Temperature (°C) 18 to 26
	2 2 2		On the basis of:	Humidity (%)
			49 CFR	10 to 70
			Including, but not limited to,	
			the related documents	
			mentioned above	
			Displacement gauge	
			Data Acquisition System (DAS)	



Issue: 03/2024

## 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

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	Q-Dummy	"Procedure for Q-Dummy	Deformation (mm)
	Devices ATD	Abdominal	Abdominal Compression Test	6.0 to 17.0
	(including impactors)	Compression Stand	(TS-8) CL-PR-10046N(J)"	Temperature (°C)
		(TS-8)		18 to 26
			On the basis of:	Humidity (%)
			UN R129	10 to 70
			Including, but not limited to,	
			the related documents	
			mentioned above	
			Dial gauge	
		Foot Impact Test	"Procedure for Foot Impact	Velocity (m/s)
		Stand (TS-9)	Test (TS-9)	1.9 to 6.8
			CL-PR-10047N(J)"	Force (kN)
		A	Om	0.4 to 3.8
			On the basis of:	Moment (Nm)
		ACCUMENT	UN R94	352 to 145.0
		ALIEN	Including, but not limited to,	Acceleration (g)
			the related documents	245.0 to 345.0
		1	mentioned above	Rotation (deg)
			200 -	26.6 to 37.9
	A		Accelerometer	Temperature (°C)
	All		Load meter	18 to 26
			Goniometer  Deta A association Southern (DAS)	Humidity (%) 10 to 70
	Attach	FLEX ZERT	Data Acquisition System (DAS) "Procedure for FLEX ZERT	Moment (Nm)
	4.00	Pendulum Test Stand	Pendulum, Inverse Test	90.0 to 272.0
	////	(TS-10)	(TS-10) (CL-PR-10048N(J)"	Displacement (mm)
	ALC: Y	(13-10)	(13-10) (CL-1 K-10046N(3)	0 to 24.0
	A		On the basis of:	Temperature (°C)
			UN R127	18 to 26
			Including, but not limited to,	Humidity (%)
			the related documents	10 to 70
			mentioned above	
			Accelerometer	
			Load meter	
			Displacement gauge	
			Data Acquisition System (DAS)	



#### 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

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	FLEX ZERT Inverse	"Procedure for FLEX ZERT	Velocity (m/s)
	Devices ATD	Test Stand	Pendulum, Inverse Test	10.9 to 11.3
	(including impactors)	(TS-10)	(TS-10) (CL-PR-10048N(J)"	Moment (Nm)
				63.0 to 334.0
			On the basis of:	Displacement (mm)
			UN R127	0 to 21.0
			Including, but not limited to,	Temperature (°C)
			the related documents	18 to 26
			mentioned above	Humidity (%)
				10 to 70
			Accelerometer	
		A 100	Load meter	
		Augus	Displacement gauge	
		4.54.3	Data Acquisition System (DAS)	
		FLEX STATIC Test	"Procedure for FLEX STATIC	Load Cell (N)
		Stand (TS-11)	Test (TS-11)	0 to 5000
		Alley	CL-PR-10054N(J)"	Moment (Nm)
		ART		0 to 500
		ATTE	On the basis of:	Linear Potentiometer
		A STATE OF	UN R127	(mm)
			Including, but not limited to,	0 to 30
	4	1000	the related documents	Strain Gauge (mV/V)
		40000	mentioned above	0 to 15
	,400			String Potentiometer
	400		FLEX Static Bending Tester	(mm)
	Andrea		STRAIN/BRIDGE Input	0 to 50
	Accessed	Marie Company	Module	Rotary Potentiometer
			Linear Potentiometer	(deg)
	25 3 1 1 1 1		Load Cell	0 to 30
	4		Rotary Potentiometer	Temperature (°C)
			String Potentiometer	18 to 24
			Strain Gauge	Humidity (%RH)
				10 to 70

<sup>1.</sup> 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.