

Name of Accreditation Program	JCSS Accreditation Program
Accreditation Identification	JCSS 0022 Calibration
Name of Conformity Assessment Body	Laboratory, Japan Bearing Inspection Institute
Name of Legal Entity	Japan Bearing Inspection Institute JCN 8010705001292
Inquiry Point	Japan Bearing Inspection Institute Laboratory TEL: +81-72-238-0641 FAX: +81-72-229-5853

*JCN: Japan Corporate Number



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Certificate of Accreditation

International Accreditation Japan (IAJapan) hereby accredits the following conformity assessment body as a calibration laboratory of Japan Calibration Service System.

Accreditation Identification: JCSS 0022 Calibration

Name of Conformity Assessment Body: Laboratory, Japan Bearing Inspection Institute

Name of Legal Entity: Japan Bearing Inspection Institute

Location of Conformity Assessment Body: 2-1-7 Minamishimizu-cho, Sakai-ku, Sakai-shi,
Osaka 590-0005, JAPAN

Scope of Accreditation: Length, Hardness (as the following pages)

Accreditation Requirement: ISO/IEC 17025:2017*

* The relevant accreditation requirements described in the JCSS Accreditation Scheme Document are also applied.

Effective Date of Accreditation: 2020-05-15

Expiry Date of Accreditation: 2024-05-14

Date of Initial Accreditation: 1994-03-01

SAITO Kazunori

Chief Executive, International Accreditation Japan (IAJapan)

National Institute of Technology and Evaluation

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- International Accreditation Japan (IAJapan) is a laboratory accreditation body which has signed MRAs of ILAC (International Laboratory Accreditation Cooperation) and APAC (Asia Pacific Accreditation Cooperation).
 - MRA requirements are, in addition to relevant international standards and guides, requirements for participation in proficiency testing programs, surveillance and reassessment, and the policy for the traceability of measurement for MRA purpose.
 - This laboratory fulfills ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation means this laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).
 - The latest accreditation information is publicly available on IAJapan Website as an accreditation certificate.

General Field of Calibration: LengthDate of Initial Accreditation of the Field: 1994-03-01Laboratory's permanent facility/On-site Calibration: Laboratory's permanent facilityCalibration and Measurement Capabilities

Calibration Procedures# and Type of Instruments/Materials to be calibrated		Range	Expanded Uncertainty (Level of Confidence Approximately 95 %) (L(mm): Nominal length)
Length Measuring Instrument	Gauge Blocks (Interferometry method)	From 0.1 mm up to 100 mm	0.04 μm
		More than 100 mm up to 250 mm	$(0.011+2.8 \times 10^{-4} L) \mu\text{m}$
	Gauge Blocks (Comparison Method)	From 0.1 mm up to 100 mm	0.08 μm
		More than 100 mm up to 250 mm	$(0.048+3.44 \times 10^{-4} L) \mu\text{m}$
		More than 250 mm up to 500 mm	$(0.034+3.65 \times 10^{-4} L) \mu\text{m}$
	End Gauges with Flat Ends (Comparison Method)	From 0.1 mm up to 600 mm	$(0.88+2.78 \times 10^{-3} L) \mu\text{m}$
	Ring gauges	From 2 mm less than 10 mm	1.6 μm
		From 10 mm less than 30 mm	1.4 μm
		From 30 mm up to 50 mm	1.1 μm
		More than 50 mm up to 100 mm	1.0 μm
More than 100 mm up to 200 mm		1.2 μm	

#All Calibration Procedures are in-house procedures developed by this laboratory.

General Field of Calibration: HardnessDate of Initial Accreditation of the Field: 2004-03-15Laboratory's permanent facility/On-site Calibration: Laboratory's permanent facility, On-site CalibrationCalibration and Measurement Capabilities

Calibration Procedures# and Type of Instruments/Materials to be calibrated		Range	Expanded Uncertainty (Level of Confidence Approximately 95 %)	
			Permanent Laboratory	On-site Calibration
Rockwell Hardness Testing Machines, etc.	Rockwell Hardness Reference Blocks	From 20 HRC up to 25 HRC	0.49 HRC	-
		More than 25 HRC less than 35 HRC	0.41 HRC	-
		From 35 HRC up to 45 HRC	0.43 HRC	-
		More than 45 HRC less than 55 HRC	0.39 HRC	-
		From 55 HRC up to 65 HRC	0.38 HRC	-
	Rockwell Hardness Testing Machines	From 20 HRC up to 25 HRC	0.36 HRC	0.36 HRC
		More than 25 HRC less than 35 HRC	0.36 HRC	0.36 HRC
		From 35 HRC up to 45 HRC	0.32 HRC	0.32 HRC
		More than 45 HRC less than 55 HRC	0.32 HRC	0.32 HRC
		From 55 HRC up to 65 HRC	0.31 HRC	0.31 HRC

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Calibration Procedures# and Type of Instruments/Materials to be calibrated		Range		Expanded Uncertainty (Level of Confidence Approximately 95 %)	
				Permanent Laboratory	On-site Calibration
Vickers Hardness Testing Machines, etc.	Vickers Hardness Testing Machines	200 HV *	Test force 9.807 N	3.6 %	3.6 %
			Test force 98.07 N	2.1 %	2.1 %
			Test force 294.2 N	2.1 %	2.1 %
		600 HV *	Test force 9.807 N	5.5 %	5.5 %
			Test force 98.07 N	2.4 %	2.4 %
			Test force 294.2 N	2.1 %	2.1 %
		900 HV *	Test force 9.807 N	6.5 %	6.5 %
			Test force 98.07 N	2.7 %	2.7 %
			Test force 294.2 N	2.1 %	2.1 %
	From 100 HV up to 900 HV except for * marked points above. (Test force from 0.09807 N up to 490.3 N)		a) $d < 130 \mu\text{m}$ $390 / d \%$ b) $d \geq 130 \mu\text{m}$ $2 \times (2.25 + (40.4 / d)^2)^{1/2} \%$ Where: d is the length of a diagonal line of the indentation(μm)	a) $d < 130 \mu\text{m}$ $390 / d \%$ b) $d \geq 130 \mu\text{m}$ $2 \times (2.25 + (40.4 / d)^2)^{1/2} \%$ Where: d is the length of a diagonal line of the indentation(μm)	
	Vickers Hardness Reference Blocks	From 85 HV up to 930 HV (Test force from 0.09807 N up to 490.3 N)	a) $d < 130 \mu\text{m}$ $382 / d \%$ b) $d \geq 130 \mu\text{m}$ 3.0 % Where: d is the length of a diagonal line of the indentation(μm)	-	

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Calibration Procedures# and Type of Instruments/Materials to be calibrated		Range		Expanded Uncertainty (Level of Confidence Approximately 95 %)	
				Permanent Laboratory	On-site Calibration
Brinell Hardness Testing Machines, etc.	Brinell Hardness Reference Blocks	100 HBW	5/750	1.6 %	-
			10/500	1.6 %	-
			10/1000	1.5 %	-
			10/1500	1.5 %	-
			10/3000	1.5 %	-
		200 HBW	5/750	1.7 %	-
			10/1000	1.6 %	-
			10/1500	1.5 %	-
			10/3000	1.5 %	-
		300 HBW	5/750	1.8 %	-
			10/1500	1.6 %	-
			10/3000	1.5 %	-
		400 HBW	5/750	1.9 %	-
			10/3000	1.5 %	-
		500 HBW	5/750	2.0 %	-
			10/3000	1.5 %	-
		600 HBW	5/750	2.1 %	-
			10/3000	1.6 %	-
	Brinell Hardness Testing Machines	100 HBW	5/750	2.6 %	2.6 %
			10/500	2.6 %	2.6 %
			10/1000	2.6 %	2.6 %
			10/1500	2.4 %	2.4 %
			10/3000	2.4 %	2.4 %
		200 HBW	5/750	2.8 %	2.8 %
			10/1000	2.7 %	2.7 %
			10/1500	2.4 %	2.4 %
			10/3000	2.4 %	2.4 %
		300 HBW	5/750	2.9 %	2.9 %
			10/1500	2.6 %	2.6 %
			10/3000	2.4 %	2.4 %
		400 HBW	5/750	3.1 %	3.1 %
			10/3000	2.4 %	2.4 %
500 HBW		5/750	3.3 %	3.3 %	
		10/3000	2.5 %	2.5 %	
600 HBW		5/750	3.5 %	3.5 %	
		10/3000	2.6 %	2.6 %	

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