

Name of Accreditation Program	JCSS Accreditation Program
Accreditation No.	JCSS0109
Date of Initial Accreditation	2002-04-11
Latest Date of Issue	2018-07-03
Name and Address of Accredited Organization	Hiroshima Calibration Center, Techno Services Business Division, Mitutoyo Corporation 10626-62, Ichinomakkoyama, Gouhara-cho, Kure-City, Hiroshima-Pref 737-0161, Japan JCN 7020001067105
Inquiry Point	Hiroshima Calibration Center Tel: +81- 823-70-3820 FAX: +81- 823-70-3833
Accreditation Standards	ISO/IEC 17025:2005 (Calibration)
Accreditation Scope	As attached

*JCN : Japan Corporate Number

General Field of Calibration : Length

Date of Initial Accreditation of the Field : 2002-04-11

Permanent Laboratory/On-site Calibration : Permanent Laboratory

Type of Service		Calibration Scope	CMC (Level of Confidence Approximately 95 %) (L(mm):Nominal length)
Length Measuring Instrument	Dial Gauges	Up to 5 mm	1.0 μm
		Up to 10 mm	1.3 μm
		Up to 100 mm	2.1 μm
	Dial Test Indicators	Up to 0.6 mm	0.8 μm
		Up to 1.6 mm	1.2 μm
	Calibration Testers for Dial Gauges	Up to 5 mm	0.18 μm
		Up to 25 mm	0.3 μm
	Callipers	Up to 600 mm	0.02 mm
		More than 600 mm Up to 1000 mm	0.03 mm
	Height Gauges	Up to 600 mm	0.02 mm
		More than 600 mm Up to 1000 mm	0.03 mm
	Micrometers	Up to 25 mm	0.6 μm
		Up to 500 mm	$(1.2 + L/175) \mu\text{m}$
	Depth Gauges	Up to 600 mm	0.02 mm
		More than 600 mm Up to 1000 mm	0.03 mm
	End gauges with Flat ends (Comparison method)	From 25 mm Up to 1000 mm	$(0.5 + 1.2 L/1000) \mu\text{m}$
Ring Gauges	From 6 mm Up to 80 mm	0.7 μm	
	More than 80 mm Up to 120 mm	0.8 μm	
Indicating Micrometers	Micrometer Up to 100 mm	$(0.9 + L/250) \mu\text{m}$	
	Indicator ± 0.06 mm	$(0.3 + L/125) \mu\text{m}$	
Dimensional Measuring Instrument	Surface Texture	Depth From 0.3 μm up to 20 μm	$2 \times \sqrt{6.70^2 + (2.74 \times d)^2}$ nm d (μm): Depth
		Arithmetical mean deviation of the roughness profile From 0.1 μm up to 5 μm	$2 \times \sqrt{6.82^2 + (2.74 \times Ra)^2}$ nm Ra (μm): Arithmetical mean deviation of the roughness profile
		Maximum height of the roughness profile From 0.3 μm up to 20 μm	$2 \times \sqrt{35.8^2 + (2.74 \times Rz)^2}$ nm Rz (μm): Maximum height of the roughness profile

General Field of Calibration : Hardness

Date of Initial Accreditation of the Field : 2007-02-21

Permanent Laboratory/On-site Calibration : Permanent Laboratory, On-site Calibration

Type of Service		Calibration Scope	CMC (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	0.43 HRC	-
		More than 25 HRC less than 35 HRC	0.44 HRC	-
		From 35 HRC up to 45 HRC	0.42 HRC	-
		More than 45 HRC less than 55 HRC	0.39 HRC	-
		From 55 HRC up to 65 HRC	0.35 HRC	-
	Rockwell Hardness Testing Machines	From 20 HRC up to 25 HRC	-	0.41 HRC
		More than 25 HRC less than 35 HRC	-	0.41 HRC
		From 35 HRC up to 45 HRC	-	0.39 HRC
		More than 45 HRC less than 55 HRC	-	0.37 HRC
		From 55 HRC up to 65 HRC	-	0.34 HRC

Permanent Laboratory/On-site Calibration : Permanent Laboratory

Type of Service		Calibration Scope	CMC (Level of Confidence Approximately 95 %)
Vickers Hardness Testing Machines, etc.	Vickers Hardness Reference Blocks	From 85 HV up to 1050 HV (Test force From 0.9807 N up to 490.3 N)	$d > 193 \mu\text{m}$ 2.2 % $d \leq 193 \mu\text{m}$ $(228 / d) + 1.02 \%$ Where: d is the length of a diagonal line of the indentation (μm)