

## Certificate of Accreditation

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

Accreditation Identification: JCSS 0066 Calibration

Name of Conformity Assessment Body:

Murakami Koki Co., Ltd.

Name of Legal Entity:

same as above

Location of Conformity Assessment Body:

2-10-31 Akagawa, Asahi-ku, Osaka 535-0005, Japan

Scope of Accreditation: Mass (as attached)

Accreditation Requirement:

ISO/IEC 170<mark>25:</mark> 201<mark>7</mark>

Accreditation Requirements in the Section 6 of Accreditation Scheme (JCSS) 2nd Edition

Effective Date of Accreditation: 2019-12-27 Expiry Date of Accreditation: 2023-12-26 (Date of Initial Accreditation: 1996-06-18)

> Kenichi Yamamoto Chief Executive, IAJapan National Institute of Technology and Evaluation

<sup>-</sup> 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.

<sup>-</sup> 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).

## General Field of Calibration: Mass

## <u>Date of Initial Accreditation as a Calibration Laboratory: 1996-06-18</u>

Permanent Laboratory/On-site Calibration: Permanent Laboratory

Calibration Procedures# and Type of Instruments/Materials to be calibrated		Range	CMC (Level of Confidence Approximately 95 %)
Weight Weight		1000 kg	16 g
	,, organ	500 kg	8.3 g
		200 kg	4.3 g
		100 kg	0.36 g
		50 kg	0.18 g
		20 kg	3.8 mg
		10 kg	2.2 mg
		5 kg	1.2 mg
		2 kg	0.45 mg
		1 kg	0.18 mg
		500 g	0.093 mg
		200 g	0.044 mg
		100 g	0.019 mg
		50 g	0.013 mg
		20 g	0.012 mg
		10 g	0.0080 mg
		5 g	0.0062 mg
		2 g	0.0050 mg
		1 g	0.0038 mg
		500 mg	0.0036 mg
		200 mg	0.0030 mg
		100 mg	0.0024 mg
		50 mg	0.0019 mg
		20 mg	0.0017 mg
		10 mg	0.0015 mg
		5 mg	0.0014 mg
		2 mg	0.0014 mg
		1 mg	0.0013 mg
		0.5 mg	0.00067 mg
		0.2 mg	0.00039 mg
		0.1 mg	0.00033 mg
	Deadweight	From 1000 kg up to 1100 kg	17 g
		From 500 kg less than 1000 kg	15 g
		From 200 kg less than 500 kg	7.6 g
		From 140 kg less than 200 kg	3.4 g
		From 100 kg less than 140 kg	0.46 g
		From 50 kg less than 100 kg	0.32 g

Weight	Deadweight	More than 26 kg less than 50 kg	0.15 g
(Continue)	(Continue)	More than 20 kg up to 26 kg	26 mg
		From 10 kg up to 20 kg	23 mg
		From 5 kg less than 10 kg	13 mg
		From 2 kg less than 5 kg	7.0 mg
	-	From 1 kg less than 2 kg	3.4 mg
		From 500 g less than 1 kg	1.3 mg
		From 200 g less than 500 g	0.73 mg
		From 100 g less than 200 g	0.41 mg
		From 50 g less than 100 g	0.30 mg
·		From 20 g less than 50 g	0.23 mg
		From 10 g less than 20 g	,0.17 mg
		From 5 g less than 10 g	0.13 mg
		From 2 g less than 5 g	0.11 mg
		From 1 g less than 2 g	0.080 mg
		From 500 mg less than 1 g	0.062 mg
		From 200 mg less than 500 mg	0.045 mg
		From 100 mg less than 200 mg	0.031 mg
		From 50 mg less than 100 mg	0.021 mg
		From 20 mg less than 50 mg	0.013 mg
		From 10 mg less than 20 mg	0.006 mg
		From 5 mg less than 10 mg	0.005 mg
		From 2 mg less than 5 mg	0.005 mg
		From 1 mg less than 2 mg	0.005 mg

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

remainent Laboratory On-site Candration . Permanent Laboratory and On-site Candration					
Calibration Procedures# and Type of		Range	CMC (Level of Confidence Approximately 95 %)		
Instruments/Materials			Permanent Laboratory	On-site	
to be calibrated				Calibration	
Scale	Non-Automatic	More than 0 g up to 10 g	0.04 mg	0.06 mg	
	Electronic	More than 10 g up to 20 g	0.07 mg	0.11 mg	
	Weighing	More than 20 g up to 30 g	0.10 mg	0.16 mg	
	Instruments	More than 30 g up to 50 g	0.12 mg	0.21 mg	
		More than 50 g up to 100 g	0.14 mg	0.25 mg	
		More than 100 g up to 150 g	0.21 mg	0.37 mg	
		More than 150 g up to 220 g	0.31 mg	0.54 mg	
		More than 220 g up to 250 g	0.7 mg	0.9 mg	
		More than 250 g up to 300 g	0.8 mg	1.0 mg	
		More than 300 g up to 400 g	1.0 mg	1.3 mg	
		More than 400 g up to 410 g	1.1 mg	1.4 mg	
		More than 410 g up to 450 g	1.2 mg	1.5 mg	
		More than 450 g up to 510 g	1.4 mg	1.8 mg	
		More than 510 g up to 610 g	1.6 mg	2.1 mg	
		More than 610 g up to 1000 g	3 mg	4 mg	
		More than 1000 g up to 1200 g	4 mg	5 mg	

Scale	Non-Automatic	More than 1200 g up to 1500 g	5 mg	6 mg
(Continue)	Electronic	More than 1500 g up to 2300 g	6 mg	8 mg
(Continue)	Weighing	More than 2300 g up to 2500 g	7 mg	9 mg
	Instruments	More than 2500 g up to 3000 g	8 mg	10 mg
	(Continue)	More than 3000 g up to 4000 g	10 mg	13 mg
		More than 4000 g up to 5100 g	13 mg	17 mg
		More than 5100 g up to 6000 g	15 mg	20 mg
		More than 6000 g up to 8000 g	20 mg	26 mg
		More than 8000 g up to 9000 g	22 mg	29 mg
		More than 9000 g up to 12000 g	30 mg	38 mg
		More than 12000 g up to 12100 g	30 mg	39 mg
		More than 12100 g up to 15 kg	37 mg	48 mg
		More than 15 kg up to 22 kg	70 mg	0.12 g
		More than 22 kg up to 30 kg	94 mg	0.16 g
		More than 30 kg up to 40 kg	0.30 g	0.34 g
		More than 40 kg up to 52 kg	0.33 g	0.39 g
		More than 52 kg up to 80 kg	0.60 g	0.70 g
		More than 80 kg up to 120 kg	0.90 g	1.1 g
		More than 120 kg up to 150 kg	1.1 g	1.3 g
		More than 150 kg up to 200 kg	1.6 g	2.0 g
		More than 200 kg up to 250 kg	2.5 g	2.5 g
		More than 250 kg up to 380 kg	3.5 g	4.0 g
		More than 380 kg up to 500 kg	4.0 g	5.0 g
		More than 500 kg up to 800 kg	7 g	8 g
		More than 800 kg up to 1200 kg	10 g	11 g
		More than 1200 kg up to 1600 kg	12 g	14 g
	NT 4 / - 13	More than 0 g up to 20 g	0.07 mg	0.08 mg
	Non-Automatic Mechanical	More than 20 g up to 40 g	0.10 mg	0.08 mg
	Weighing	More than 40 g up to 60 g	0.10 mg	0.10 mg
	Instruments	More than 60 g up to 80 g	0.11 mg	0.12 mg
		More than 80 g up to 120 g	0.13 mg	0.14 mg
		More than 120 g up to 160 g	0.17 mg	
		More than 160 g up to 200 g		0.19 mg
			0.17 mg	0.20 mg
		More than 200 g up to 220 g	1.2 mg	1.6 mg
		More than 220 g up to 400 g	3.5 mg	4.0 mg
		More than 400 g up to 600 g	4.0 mg	5.0 mg
		More than 600 g up to 800 g	4.5 mg	6.0 mg
		More than 800 g up to 1000 g	5.5 mg	7.0 mg
		More than 1000 g up to 2000 g	70 mg	90 mg
		More than 2000 g up to 3000 g	80 mg	0.11 g
	-	More than 3000 g up to 4000 g	0.10 g	0.14 g
		More than 4000 g up to 5000 g	0.12 g	0.16 g
		More than 5000 g up to 6000 g	1.0 g	1.4 g
		More than 6000 g up to 8000 g	1.2 g	1.7 g
		More than 8000 g up to 10 kg	1.4 g	2.1 g
		More than 10 kg up to 15 kg	9 g	11 g

Scale	Non-Automatic	More than 15 kg up to 20 kg	10 g	14 g
(Continue)	Mechanical	More than 20 kg up to 25 kg	12 g	16 g
	Weighing	More than 25 kg up to 30 kg	18 g	22 g
	Instruments	More than 30 kg up to 40 kg	20 g	28 g
	(Continue)	More than 40 kg up to 50 kg	24 g	32 g
		More than 50 kg up to 60 kg	50 g	70 g
		More than 60 kg up to 80 kg	60 g	85 g
		More than 80 kg up to 100 kg	75 g	0.11 kg
		More than 100 kg up to 150 kg	0.10 kg	0.14 kg
		More than 150 kg up to 200 kg	0.12 kg	0.17 kg
		More than 200 kg up to 250 kg	0.15 kg	0.21 kg
		More than 250 kg up to 300 kg	0.20 kg	0.28 kg
		More than 300 kg up to 400 kg	0.24 kg	0.34 kg
		More than 400 kg up to 500 kg	0.30 kg	0.42 kg
		More than 500 kg up to 600 kg	0.50 kg	0.70 kg
		More than 600 kg up to 800 kg	0.60 kg	0.85 kg
		More than 800 kg up to 1000 kg	0.75 kg	1.1 kg
		More than 1000 kg up to 1280 kg	1.2 kg	1.7 kg
		More than 1280 kg up to 1600 kg	1.5 kg	2.1 kg

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

