

## Scope Of Calibration

	Dimension	Range	Methods	Inlab	Onsite	
>	1	Micrometer (In/Out side)	up to 1000 mm	JIB B 7502	/	
	2	Bore Gauge , Cylinder Gauge	6 mm to 150 mm	Direct. ULM	/	
>	3	Caliper Gauge	up to 50 mm	JIS B 7507	/	
	4	Dept Gauge	up to 500 mm	JIS B 7518	/	
	5	Dept Micrometer	up to 300 mm	JIB B 7544	/	
	6	Dial Gauge	up to 100 mm	JIS B 7503	/	
	7	Dial Gauge tester	up to 25 mm	JIS B 7503	/	
	8	Dial Test Indicator	up to 10 mm	JIS B 7533	/	
	9	Digital Indicator	up to 100 mm	JIS B 7503	/	
	10	Electronic comparator with probe	up to 1 mm	Direct. ULM	/	
	11	Feeler Gauge	up to 50 mm	Direct. ULM	/	
	12	Gauge Block , grade 0 , 1 , 2	0.5 to 100 mm	ISO 3650	/	
>	13	Height Gauge	up to 1000 mm	In.H JIS B 7517	/	
	14	Height Master	up to 500 mm	33K6-4-673-1	/	
	15	Micrometer Head	up to 25 mm	Direct. ULM	/	
	16	Pin Gauge	0.1 to 100 mm	Direct. ULM	/	
	17	Precision Level	0.020 mm/m	JIS B 7510	/	
	18	Pulq Gauge	0.1 to 100 mm	Direct. ULM	/	
	19	Ring Gauge	2 mm to 90 mm	Direct. ULM	/	
	20	Setting Rod , Extension rod	up to 1000 mm	Direct. ULM	/	
	21	Square	300 mm	JIS B 7526	/	
	22	Standard foil	all size	Direct. ULM	/	
	23	Steel ruler	up to 1000 mm	JIS B7516	/	
	24	Steel tape , Textile tape	up to 50 m	JIS B 7512	/	
	25	Straight edge	all range	33K6-4-144-1	/	
	26	Surface plate (Granite , Iron)	250 to 2000 mm	33K6-4-137-1	/	/
	27	Taper gauge	up to 100 mm	17-20MD-15	/	
	28	Taper gauge (scale)	all range	17-20MD-15	/	
	29	Thickness gauge	up to 50 mm	Com. Gage Block	/	
	30	Thread measuring wires (3 wire)	0.1 to 100 mm	33K6-4-121-1	/	
	31	Thread plug gauge	M 3 to M64	33K6-4-118-1	/	
	32	Thread ring gauge	M 3.5 to M50	33K6-4-203-1	/	
	33	Three point micrometer , Holtest	7 mm to 300 mm	33K6-4-992-1	/	

	Dimension	Range	Methods	Inlab	Onsite	
	35	Arm , Butterfly wheel	up to 1000 mm	17-20MU-24	/	
	36	Bench Center	1 micrometer	33K6-4-1219-1	/	
	37	Bevel Protector	all range	17-20MD-15	/	
	38	Caliper Checker	up to 500 mm	17-20MD-07	/	
	39	Counter meter	count	Compare	/	/
	40	Fixture	up to 1000 mm	Direct Maeaure	/	
	41	Length Meter	100,000 m	Compare	/	/
	42	Liner Scale (0.01 mm)	up to 1000 mm	Direcr Measure	/	/
	44	Measuring Microscope	up to 1 mm	JIS B 7153	/	/
	45	Objective Microscope X , Y	1 mm	JIS B 7153	/	/
	46	Precision Sine Bar	up to 600 mm	JIS B 7523	/	
	47	Profile Projector	up to 300 mm	JIS B 7184	/	/
	48	Radius gauge	all range	17-20MD-43	/	
	49	Riser Block	up to 500 mm	17-20MD-26	/	
	50	Rotor Table	360 °	33K6-4-2462-1	/	/
	51	Snap gauge , Gap gauge	up to 90 mm	17-20MD-11	/	
	52	Speed meter	700 m/min	33K6-4-869-1	/	/
	53	Universal Bevel Protector	all range	17-20MD-19	/	
	54	Video Microscope	up to 1 mm	JIS B 7184	/	/
	<b>Pressure (In-Lab , On-site)</b>		<b>Range</b>	<b>Methods</b>	<b>Inlab</b>	<b>Onsite</b>
>	1	Pressure gauge (Hydraulic)	o to 15000 psi	DKD R6-1	/	/
>	2	Pressure indicator, recorder	o to 15000 psi	DKD R6-1	/	/
>	3	Pressure switchr, transmitter	o to 15000 psi	DKD R6-1	/	/
	4	Vacuum Gauge (Pneumatic)	-12 to 14.5 psi	DKD R6-1	/	/
	5	Manometer	0 to 2.5 kPa	DKD R6-1	/	/
	6	Barometer	up to 207 kPa	33K6-4-6-1	/	
	<b>Torque</b>		<b>Range</b>	<b>Methods</b>	<b>Inlab</b>	<b>Onsite</b>
	1	Screw Torque	up 10 Nm	ISO 6789	/	/
>	2	Torque Wrench	1000 Nm	ISO 6789	/	/
	3	Torque Meter , Tester	500 Nm	BS 7882	/	
	4	Torque Calibrator	500 Nm	BS 7882	/	
	5	Torqur Transducer	1000 Nm	BS 7882	/	/
	6	Torqur Nut Runner	1000 Nm	ISO 5393	/	/

34	Vernier Caliper (In/Out Side)	up to 1000 mm	In.H JIS B 7507	/	
<b>Force</b>		<b>Range</b>	<b>Methods</b>	<b>Inlab</b>	<b>Onsite</b>
1	Push Pull (Com & Tension)	500 Nm	Com. Weight	/	/
2	Durometer	A,B,O,C,D,S	ASTM D2240	/	/
3	Load cell (Com & Tension)	250 kN	ISO 376	/	/
4	UTM (Compress & Tension)	450 kN	ISO 7500	/	/
5	Tension Meter	10 kN	ISO 7500	/	/
6	Force Indicator	0 to 5 mv/v	Euramet CG15	/	/
<b>Analysical</b>		<b>Range</b>	<b>Methods</b>	<b>Inlab</b>	<b>Onsite</b>
1	pH Meter	2, 4, 7,9,10 pH	CRM Material	/	/
2	Conductivity meter 84 , 1413	12880 us	CRM Material	/	/
3	Salt meter	10 , 30 %	CRM Material	/	/
4	Refecto Meter	2 , 29 Brix	CRM Material	/	/
5	EC Meter	100 ppm	CRM Material	/	/
<b>Vibration &amp; Sound</b>		<b>Range</b>	<b>Methods</b>	<b>Inlab</b>	<b>Onsite</b>
1	Vibration Meter	up to 7 g	33K3-4-313-1	/	
2	Vibration Indicator	up to 10 mv/g	33K3-4-313-1	/	
3	Vibration Excitor	up to 7 g	33K3-4-313-1	/	
4	Vivration Sensor	up to 7 g	33K3-4-313-1	/	
5	Sound Level Meter 74 , 84	104,114,124 db	17-20SA-25	/	/
6	Sound Level Calibrator	all range	17-20SA-22	/	
7	Techno meter (Non ,Contect)	60 to 20000 rpm	33K3-4-869-1	/	
<b>Flow</b>		<b>Range</b>	<b>Methods</b>	<b>Inlab</b>	<b>Onsite</b>
1	Liquid flow meter	400 m3/h	JIS B 7554	/	/
2	Rota Flow meter	up 50 l/m	33K6-4-26-1	/	
3	Mass Flow meter	up 50 l/m	33K6-4-26-1	/	
4	Air Flow	up 50 l/m	33K6-4-26-1	/	
5	Anemometer	up to 20m/s	33K6-4-1769-1	/	
6	Gas Flow meter , Gas detector	N , O2	33K6-4-1769-1	/	
7	Aie Leak Tester	1 to 500 kpa	33K6-4-1769-1	/	
8	Leak Standard	0.1 to 20 ml/m	33K6-4-1769-1	/	
<b>Mass</b>		<b>Range</b>	<b>Methods</b>	<b>Inlab</b>	<b>Onsite</b>
1	Electronic & mechanic balance	1000 kgs	UKAS Lab14	/	/
2	Tank scale	1000 kgs	Compare Weight		/
3	Crain Scale	5000 kgs	33K6-4-306-1	/	

<b>Volumetric</b>		<b>Range</b>	<b>Methods</b>	<b>Inlab</b>	<b>Onsite</b>
1	Volumetric flask	5 ml to 1000 ml	ASTM E969	/	
2	Volumetric pipet	1 ml to 200 ml	ASTM E969	/	
3	Cylinder	5 ml to 1000 ml	ASTM E969	/	
4	Buret	10 ml to 200 ml	ASTM E969	/	
5	Measuring pipet	0.1 ml to 50 ml	ASTM E969	/	
6	Beaker , Conical Flask	up to 5000 ml	ASTM E969	/	
7	Micro pipet	all range	ASTM E969	/	
8	Digital buret , Dispenser	all range	ASTM E969	/	
<b>Lux</b>		<b>Range</b>	<b>Methods</b>	<b>Inlab</b>	<b>Onsite</b>
	Light , Lux meter	5000 Lux		/	
<b>Temperature &amp; Humidity (InLab-Onsite)</b>		<b>Range</b>	<b>Methods</b>	<b>Inlab</b>	<b>Onsite</b>
1	Liquip in glass thermeter	-10 to 200 c	17-20ST-179	/	
2	Digital thermometer	-10 to 1200 c	NIMT TT01	/	/
3	Temperature controller with Probe	-10 to 1200 c	NIMT TT01	/	/
4	Recorder	-10 to 1200 c	Euramet CG15	/	/
5	Indicator with probe	-10 to 1200 c	NIMT TT01	/	/
6	Dial thermometer	-10 to 1200 c	NIMT TT01	/	/
7	Dry Well Calibrator	-10 to 1200 c	Euramet CG13	/	
8	Water bath	ambient 100 c	ASTM E715-80	/	/
9	Air Chamber (Over,Incubator)	-10 to 200 c	TISI G20	/	/
10	Salt spray	-10 to 200 c	Direct Measure	/	/
11	Autoclave	105 to 135 c	BS 2646	/	/
12	Furance	up to 1200 c	33K6-4-329-1	/	/
13	Thermocouple all type	-10 to 1200 c	ASTM E77	/	/
14	RTD (2 , 3 , 4 wire)	-10 to 400 c	ASTM E77	/	/
15	Temp Transmitter	-10 to 1200 c	ASTM E77	/	/
16	Data logger 20 c to 60	30 to 90 %rh	NIMT TMC01	/	
17	Thermo-Hygreometer	30 to 90 %rh	NIMT TMC01	/	
18	Hygrogaph 20 to 60 c	30 to 90 %rh	NIMT TMC01	/	
19	Chamber -10 to 80 c	30 to 90 %rh	TISI G20	/	/
20	Infarate Thermometer	-10 to 400 c	NIMT TMTR01	/	/
21	Temperature Indicators	All Type	Euramet CG11	/	/

>	4	Standard Weight F2 , M1 , M2 , M3	1mg to 20 kgs	OIML R111	/	
	5	Moisture Balance	200 g 120 c	UKAS LAb14	/	
	<b>Testing Machine</b>		<b>Range</b>	<b>Methods</b>	<b>Inlab</b>	<b>Onsite</b>
	1	Hardness Tester		ASTM D2240-03	/	/
	2	Rockwell scal HRA, HRB , HRC ,	HV ,15T ,30 T	ISO 6508	/	/
	3	Surface Roughness RA 0.05.0.1	,0.2,0.4,0.8,1.6 um	JIS B 0651	/	
	4	Surface Roughness speciment	all range	JIS B 0651	/	
	5	Spring tester	500 N	JIS B 7738	/	/
	6	Viscometer	15-6000000 cp	Manufacture	/	
	7	Ford cup	all range	Compare	/	
	8	Impact testing	50 J	ISO 13802	/	/
	9	Melt Flow Tester time , Diam	temp , mass ,	ISO 1133	/	/
	10	Moisture wood meter	10 to 16%	JIS P8127	/	
	<b>Electrical Measure &amp; Source (In-lab , On-site)</b>			<b>Methods</b>	<b>Inlab</b>	<b>Onsite</b>
>	1	Multimeter (Measure & Source)	<b>Range</b>		/	/
>		DCV	0 to $\pm 1000$ v	Euramet CG15	/	/
>		ACV	$\pm 1000$ v	Euramet CG15	/	/
>		DCA	$\pm 10$ A	Euramet CG15	/	/
>		ACA	$\pm 10$ A	Euramet CG15	/	/
>		Resistance	300 M ohm	Euramet CG15	/	/
>	2	Clampmeter DC Current	500 A	Euramet CG15	/	/
>		AC Current	500 A	Euramet CG15	/	/
	3	Capacitance	0.33 - 1.1 mF	Euramet CG15	/	/
	4	Frequency 120 Hz	to 100kHz	33K6-4-2877-1	/	/
	5	Wattmeter DC & AC Power	10 kw	33K6-4-444-1	/	/
	6	Insulation Tester	1 G ohm	17-20AR-66	/	/
	7	Oscilloscope	100 Mhz	33K6-4-848-1	/	
	8	Whitstanding Voltage tester		17-20AR-66	/	/
	9	Wrist Trap		17-20AR-66	/	/
	10	Static meter	1 kV		/	/
	11	Power Hi tester		33K6-4-444-1	/	/
	12	AC low ohm tester		Direct by DMM	/	/
	13	AD/DC Power Supply	1 kV	Direct by DMM	/	/
>	14	Ohmmeter	200 Mohm	Direct by DMM	/	/
	15	Eart Tester	1 G ohm	33K1-4-2257-1	/	/

Electrical Instruments		Range	Methods	Inlab	Onsite	
1	Battery Tester		Euramet CG15	/		
2	Brake Dowe Voltage		Euramet CG15	/		
3	Chart record calibration		Euramet CG15	/		
4	Document Process Calibrator		Euramet CG15	/	/	
5	Electrostatic Field Meter			/	/	
6	Enamel Rater		Manufacture	/	/	
7	Frequency Counter		33K6-4-2877-1	/		
8	Function Generator		33K3-4-2906-1	/		
9	Function Waveform Generator		33K3-4-2906-1	/		
10	High Voltage Insulation Tester		Euramet CG15	/	/	
11	Hypot Tester		Euramet CG15	/		
12	Industrial Scopemeter		33K6-4-848-1	/		
13	Insulation Multimeter		17-20AR-66	/		
14	Leveled Sine Wave Generator		17-20AG-291	/		
15	Megaohm Meter		Direct by DMM	/		
16	Micro Ohm Meter		Direct by DMM	/		
17	Milliamp Process Meter		Euramet CG15	/		
18	Multifunction Tester		Euramet CG15	/		
19	Power Meter		33K6-4-444-1	/	/	
20	Process Calibrator		Euramet CG15	/		
21	Process Loops		Euramet CG15	/		
22	Programmable Calibrator		Euramet CG15	/		
23	Resistivity meter		33K 2-4-107-1	/	/	
24	Signal Generator		33K6-4-4723-1	/		
25	Stroboscopes		33K6-4-520-1	/		
26	Surface Resistivity Meter		33K 2-4-107-1	/		
>	27	Thermocouple Calibration		Euramet CG11	/	/
	28	Unimeter		Euramet CG15	/	