



**National Institute of Metrology (Thailand)**

3/4-5 Moo 3, Klong 5, Klong Luang, Pathumthani, 12120, Thailand

Tel. +66 2577 5100 (Please contact : Customer Service Section Ext. 3101, 3102) Fax. +66 2577 3659 E-mail : cs@nimt.or.th Website : http://www.nimt.or.th

**Price List**

Item No.	Description	Range	Accuracy / Uncertainty	Price (THB)	Remark	Code				
<b>Calibration Fee</b>										
<b>Mechanical Metrology</b>										
1	Mass Standard	1 kg	class E0	18,750/piece	Trace to BIPM (Mass standard 1 kg ;Stainless Steel ) in air	10011 - 10001				
2	Weight or Weight set	1 mg to 1 kg	Class E1	4,500/piece	Mass and Conventional mass	10011 - 10101				
		2 kg		5,070/piece		10011 - 10102				
		5 kg		5,630/piece		10011 - 10103				
		10 kg		5,940/piece		10011 - 10104				
		20 kg		6,250/piece		10011 - 10105				
3	Weight or Weight Set	1 mg to 1 kg	Class E2	1,800/piece	Conventional mass	10011 - 10201				
		2 kg		2,250/piece		10011 - 10202				
		5 kg		2,750/piece		10011 - 10203				
		10 kg		3,130/piece		10011 - 10204				
		20 kg		3,940/piece		10011 - 10205				
		50 kg		8,000/piece		10011 - 10206				
		1 mg to 1 kg	Class F1 and lower	1,350/piece		10011 - 10301				
		2 kg		1,800/piece		10011 - 10302				
		5 kg		2,250/piece		10011 - 10303				
		10 kg		2,750/piece		10011 - 10304				
		20 kg		3,130/piece		10011 - 10305				
		50 kg		6,250/piece		10011 - 10306				
		100 kg		8,130/piece		10011 - 10307				
		200 kg		12,500/piece		10011 - 10308				
		500 kg		Class F2 and lower		13,750/piece	10011 - 10401			
		1000 kg				16,250/piece	10011 - 10402			
		2000 kg		Class M1 and lower		20,000/piece	10011 - 10501			
		4		Volume magnetic susceptibility of weight		1 g to 20 kg	In the range of 10% to 20%	2,250/piece	By the susceptometer method	10012 - 10101



**National Institute of Metrology (Thailand)**

3/4-5 Moo 3, Klong 5, Klong Luang, Pathumthani, 12120, Thailand

Tel. +66 2577 5100 (Please contact : Customer Service Section Ext. 3101, 3102) Fax. +66 2577 3659 E-mail : cs@nimt.or.th Website : http://www.nimt.or.th

**Price List**

Item No.	Description	Range	Accuracy / Uncertainty	Price (THB)	Remark	Code
5	Surface roughness (Ra,Rz) of weight	Up to 5 μm	$Ra = \sqrt{(7.490)^2 + (1.021 \cdot Z_m)^2}$ $Rz = \sqrt{(110.116)^2 + (1.422 \cdot Z_m)^2}$ where Zm (unit nm) being measured value of weight	6,250/piece	Nominal weight range 1 g to 1 kg	10013 - 10101
6	Density and volume of weight	1 g to 1 kg		3,130/piece	Any class which no cavity by hydrostatic weighing method	10021 - 10101
		1 g	120 kg/m <sup>3</sup> , 0.002 cm <sup>3</sup>			
		2 g	60 kg/m <sup>3</sup> , 0.002 cm <sup>3</sup>			
		5 g	20 kg/m <sup>3</sup> , 0.002 cm <sup>3</sup>			
		10 g	15 kg/m <sup>3</sup> , 0.002 cm <sup>3</sup>			
		20 g	10 kg/m <sup>3</sup> , 0.004 cm <sup>3</sup>			
		50 g	5.6 kg/m <sup>3</sup> , 0.004 cm <sup>3</sup>			
		100 g	4.4 kg/m <sup>3</sup> , 0.004 cm <sup>3</sup>			
		200 g	3.8 kg/m <sup>3</sup> , 0.007 cm <sup>3</sup>			
		500 g	2.7 kg/m <sup>3</sup> , 0.018 cm <sup>3</sup>			
		1 kg	2.6 kg/m <sup>3</sup> , 0.036 cm <sup>3</sup>			
		2 kg	6.8 kg/m <sup>3</sup> , 0.21 cm <sup>3</sup>			
		5 kg	3.3 kg/m <sup>3</sup> , 0.25 cm <sup>3</sup>			
		10 kg	2.4 kg/m <sup>3</sup> , 0.4 cm <sup>3</sup>			
20 kg	2 kg/m <sup>3</sup> , 0.7 cm <sup>3</sup>					
7	Density and volume of solid artifact	2700 kg/m <sup>3</sup> to 9000 kg/m <sup>3</sup> 1.25 cm <sup>3</sup> to 110 cm <sup>3</sup>	0.6 to 120 kg/m <sup>3</sup> 0.0020 to 0.25 cm <sup>3</sup>	7,500/piece	Traceable to SI units via Silicon Cylinder	10021 - 10102



**National Institute of Metrology (Thailand)**

3/4-5 Moo 3, Klong 5, Klong Luang, Pathumthani, 12120, Thailand

Tel. +66 2577 5100 (Please contact : Customer Service Section Ext. 3101, 3102) Fax. +66 2577 3659 E-mail : cs@nimt.or.th Website : http://www.nimt.or.th

**Price List**

Item No.	Description	Range	Accuracy / Uncertainty	Price (THB)	Remark	Code
8	Density Hydrometer	600 to 2000 kg/m <sup>3</sup>	0.100 kg/m <sup>3</sup>	5,630/3 points + 1130 next point	scale division 0.2 kg/m <sup>3</sup> (or less than 0.5 kg/m <sup>3</sup> )	10021 - 10301
			0.125 kg/m <sup>3</sup>	4,500/3 points + 1130 next point	scale division 0.5 kg/m <sup>3</sup>	10021 - 10302
			0.25 kg/m <sup>3</sup>	3,380/3 points + 1130 next point	scale division more than 0.5 kg/m <sup>3</sup>	10021 - 10303
9	Specific Gravity Hydrometer	0.590 sp/gr to 2.025 sp/gr	0.00010 sp/gr	3,380/3 points + 1130 next point		10021 - 10304
10	API Hydrometer	-1 °API to 101 °API	0.030 °API	3,380/3 points + 1130 next point		10021 - 10305
11	Brix Hydrometer	0 °Brix to 90 °Brix	0.30 °Brix	3,380/3 points + 1130 next point		10021 - 10306
12	Baumé Hydrometer	0 Bé to 100 Bé	0.030 Bé	3,380/3 points + 1130 next point		10021 - 10307
13	Glass Volume Alcoholometer	0 %vol to 100 %vol	0.10 %vol	3,380/3 points + 1130 next point		10021 - 10308
14	Density of liquid at ambient temperature and pressure	600 to 1500 kg/m <sup>3</sup>	0.2 to 2.0 kg/m <sup>3</sup>	5,400/piece	By hydrostatic weighing method	10021 - 10401
15	Density Meter, Benchtop oscillation type	700 to 1000 kg/m <sup>3</sup>	0.05 kg/m <sup>3</sup>	22,000/piece	By direct comparison with reference fluids	10021 - 10501
16	Force-proving instrument	1 kN to 110* kN	Accroding to ISO 376:2011 Class 00 to 2	11,630/direction	Calibrated by deadweight force standard machine. Digital indicator shall be provided by customer.	10030 - 10101
		0.1 kN to 1.5 kN		10,130/direction		10030 - 10102
		0.2 kN to 5 kN		10,130/direction		10030 - 10103
		16 kN to 500 kN		16,880/direction		10030 - 10104
		50 N to 500 N		7,500/direction		10030 - 10105
		20 kN to 100 kN	Accroding to ISO 376:2011 Class 0.5 to 2	8,130/direction	Calibrated by force-comparator machine.	10030 - 10201
		> 100 kN to 500 kN		10,630/direction	Digital indicator shall be provided by customer.	10030 - 10202
17	Static Torque Measuring Devices (Torque Transducer)	0.1 N·m to 1 N·m 1 N·m to 10 N·m 10 N·m to 1,000 N·m	DIN 51309, 0.015% DIN 51309, 0.01%, 0.03% DIN 51309, 0.01%	8,400/range		10040 - 10101



**National Institute of Metrology (Thailand)**

3/4-5 Moo 3, Klong 5, Klong Luang, Pathumthani, 12120, Thailand

Tel. +66 2577 5100 (Please contact : Customer Service Section Ext. 3101, 3102) Fax. +66 2577 3659 E-mail : cs@nimt.or.th Website : http://www.nimt.or.th

**Price List**

Item No.	Description	Range	Accuracy / Uncertainty	Price (THB)	Remark	Code
18	Static Torque Transfer Wrenches	1 N·m to 10 N·m 10 N·m to 2,000 N·m	DAkKS-DKD-R 3-7, 0.04% DAkKS-DKD-R 3-7, 0.03%	8,400/range		10040 - 10202
19	Static Torque Calibration Devices - Torque Wrench Calibration Devices	1 N·m to 2,000 N·m	DAkKS-DKD-R 3-8 0.2%	4,200/range		10040 - 10303
	- Torque Screwdriver Calibration Devices	1 N·m to 10 N·m	Based on DAkKS-DKD-R 3-8 1%	4,200/range		10040 - 10302
20	Hand Torque Tools - Wrench, Torsion or Flexion Bar	1 N·m to 1,000 N·m	ISO 6789, 1%	2,800/range		10040 - 10401
	- Screwdriver, with Scale or Dial or Display	1 N·m to 10 N·m	ISO 6789, 1%	2,800/range		10040 - 10402
21	Adjustment charge of torque device for permanent laboratory calibration			100% of the calibration cost of each item and each range		10040 - 10601
22	Recalibration of Reference Block	20 HRA to 88 HRA	0.40 HRA	4,200/piece	Reference Block shall be provided by client.	10050 - 10101
	Rockwell Scale : HRA, HRB, HRC	20 HRB to 100 HRB	0.40 HRB			
		20 HRC to 70 HRC	0.40 HRC			
	Vickers : HV	HV5, HV10, HV20, HV30, HV50	$\pm \left( 2 + \frac{1400}{d^2} \right) \% \text{ of } HV$	4,650/piece		10050 - 10201
	Vickers : HV	HV0.1	$\pm \sqrt{4 + \frac{19300}{d^2}} \% \text{ of } HV$	4,650/piece		10050 - 10501
Brinell Scale: HB	HB10/3000	0.6 % of HB	5,000/piece		10050 - 10401	
23	Elastomer Hardness Testing Machine	IRHD-N IRHD Pocket IRHD-M Durometer Type A Durometer Type D Durometer Type AO	According ISO 18898	5,475/machine		10050 - 10302



**National Institute of Metrology (Thailand)**

3/4-5 Moo 3, Klong 5, Klong Luang, Pathumthani, 12120, Thailand

Tel. +66 2577 5100 (Please contact : Customer Service Section Ext. 3101, 3102) Fax. +66 2577 3659 E-mail : cs@nimt.or.th Website : http://www.nimt.or.th

**Price List**

Item No.	Description	Range	Accuracy / Uncertainty	Price (THB)	Remark	Code	
24	Gas Pressure Balances	Up to 7 MPa	$> 5 \times 10^{-4} \times P_e$ to $1 \times 10^{-4} \times P_e$	27,000	1. Price per 1 piston & cylinder assembly 2. Calibration of weight set is included.	10060 - 10101	
			$< 1 \times 10^{-4} \times P_e$	40,500		10060 - 10102	
		$> 7$ MPa to 40 MPa	$> 5 \times 10^{-4} \times P_e$	27,000		10060 - 10103	
			$5 \times 10^{-4} \times P_e$ to $1 \times 10^{-4} \times P_e$	40,500		10060 - 10104	
			$< 1 \times 10^{-4} \times P_e$	49,500		10060 - 10105	
25	Hydraulic Pressure Balances	Up to 200 MPa	$> 5 \times 10^{-4} \times P_e$ to $1 \times 10^{-4} \times P_e$	27,000	1. Price per 1 piston & cylinder assembly 2. Calibration of weight set is included.	10060 - 10201	
			$< 1 \times 10^{-4} \times P_e$	40,500		10060 - 10202	
		$> 200$ MPa to 500 MPa	$> 5 \times 10^{-4} \times P_e$ to $2 \times 10^{-4} \times P_e$	52,500		10060 - 10203	
			$< 2 \times 10^{-4} \times P_e$	60,000		10060 - 10204	
26	Gas Pressure Measuring Instruments (gauge pressure, $P_e$ )	0 kPa to -100 kPa	Not smaller than 0.2 mbar	8,750/range		10060 - 10313	
			Not smaller than 1 mbar	3,250/range		10060 - 10314	
			Smaller than 0.2 mbar	11,250/range		10061 - 10319	
		0 kPa to -15 kPa	$> 1 \times 10^{-3} \times P_e$	8,750/range		10060 - 10315	
			$\leq 1 \times 10^{-3} \times P_e$	11,250/range		10060 - 10316	
		- 1 kPa to 0 kPa	$> 6 \times 10^{-3} \times P_e$	3,750/range		10060 - 10301	
			$6 \times 10^{-3} \times P_e$ to $1 \times 10^{-3} \times P_e$	5,000/range		10060 - 10302	
			$< 1 \times 10^{-3} \times P_e$ , but not smaller than 0,003 mbar	6,250/range		10060 - 10303	
		0 kPa to 3 kPa	$> 6 \times 10^{-3} \times P_e$	3,750/range		10060 - 10304	
			$6 \times 10^{-3} \times P_e$ to $1 \times 10^{-3} \times P_e$	5,000/range		10060 - 10305	
			$< 1 \times 10^{-3} \times P_e$ , but not smaller than 0,003 mbar	6,300/range		10060 - 10306	
		0 kPa to 15 kPa	$> 1 \times 10^{-3} \times P_e$	8,750/range		10060 - 10317	
			$\leq 1 \times 10^{-3} \times P_e$	11,250/range		10060 - 10318	
		10 kPa to 7 MPa	$> 6 \times 10^{-3} \times P_e$	3,250/range		10060 - 10307	
		1,5 kPa to 7 MPa	$6 \times 10^{-3} \times P_e$ to $1 \times 10^{-3} \times P_e$	5,000/range		10060 - 10308	
			$< 1 \times 10^{-3} \times P_e$	6,250/range		10060 - 10309	
		$> 7$ MPa to 100 MPa	$> 6 \times 10^{-3} \times P_e$	5,630/range		10060 - 10310	
			$6 \times 10^{-3} \times P_e$ to $1 \times 10^{-3} \times P_e$	7,880/range		10060 - 10311	
			$< 1 \times 10^{-3} \times P_e$	10,130/range		10060 - 10312	



**National Institute of Metrology (Thailand)**

3/4-5 Moo 3, Klong 5, Klong Luang, Pathumthani, 12120, Thailand

Tel. +66 2577 5100 (Please contact : Customer Service Section Ext. 3101, 3102) Fax. +66 2577 3659 E-mail : cs@nimt.or.th Website : http://www.nimt.or.th

**Price List**

Item No.	Description	Range	Accuracy / Uncertainty	Price (THB)	Remark	Code
27	Gas Pressure Measuring Instruments (absolute pressure, Pabs)	80 kPa to 115 kPa	< $1 \times 10^{-3}$ x Pabs	7,880/range		10060 - 10401
			Not smaller than 0.35 mbar	3,380/range		10060 - 10402
		0 kPa to 15 kPa	> $1 \times 10^{-3}$ x Pabs	10,000/range		10060 - 10405
			$\leq 1 \times 10^{-3}$ x Pabs	12,500/range		10060 - 10406
		2 kPa to 7 MPa	Not smaller than 0.35 mbar	3,380/range		10060 - 10403
		1,5 kPa to 40 MPa	$\geq 1 \times 10^{-4}$ x Pabs	8,750/range		10060 - 10404
28	Mercury Barometers	85 kPa to 105 kPa	Not smaller than 0.35 mbar	5,630/range	Cistern type	10060 - 10501
				6,750/range	Fortin type	10060 - 10502
29	Hydraulic Pressure Measuring Instruments (gauge pressure, Pe)	up to 200 MPa	> $6 \times 10^{-3}$ x Pe	4,500/range		10060 - 10601
			$6 \times 10^{-3}$ x Pe to $1 \times 10^{-3}$ x Pe	7,500/range		10060 - 10602
			< $1 \times 10^{-3}$ x Pe	10,000/range		10060 - 10603
		> 200 MPa to 500 MPa	$\geq 1 \times 10^{-3}$ x Pe	7,500/range		10060 - 10604
			< $1 \times 10^{-3}$ x Pe	10,000/range		10060 - 10605
30	Hydraulic Pressure Measuring Instruments (absolute pressure, Pabs)	0,1 MPa to 200 MPa	> $6 \times 10^{-3}$ x Pabs	5,630/range		10060 - 10801
			$6 \times 10^{-3}$ x Pabs to $1 \times 10^{-3}$ x Pabs	8,750/range		10060 - 10802
			< $1 \times 10^{-3}$ x Pabs	11,250/range		10060 - 10803
		> 200 MPa to 500 MPa	$\geq 1 \times 10^{-3}$ x Pabs	8,750/range		10060 - 10804
			< $1 \times 10^{-3}$ x Pabs	11,250/range		10060 - 10805
31	Gas Differential Pressure at High Static Line Pressure (not higher than 40 MPa), $\Delta P$	350 kPa maximum differential pressure	$3.5 \times 10^{-5}$ x $\Delta P$ , but not less than 2.9 Pa	15,750/sensor head	Price per 1 range of differential pressure and 1 range of high static line pressure	10060 - 10701
32	Vacuum Gauges (absolute pressure : pirani gauge, thermal conductivity gauge)	$10^5$ Pa to $10^{-1}$ Pa	0.3% rdg to 1% rdg	5,630/sensor head	Calibration 10 points minimum	10070 - 10101
33	Vacuum Gauges (absolute pressure : capacitance diaphragm gauge)	$10^5$ Pa to $10^{-1}$ Pa	0.2% rdg to 0.45% rdg	10,130/sensor head	Calibration 3 decades for the head range (1000, 100,10, 1) torr Calibration 2 decades for the head range 0.1 torr	10070 - 10201
34	Vacuum Gauges (absolute pressure : hot cathode ion gauge, cold cathode ion gauge)	$10^{-1}$ Pa to $10^{-5}$ Pa	0.5% rdg to 6% rdg	8,870/for first decade +2,250 for next decade		10070 - 10301



**National Institute of Metrology (Thailand)**

3/4-5 Moo 3, Klong 5, Klong Luang, Pathumthani, 12120, Thailand

Tel. +66 2577 5100 (Please contact : Customer Service Section Ext. 3101, 3102) Fax. +66 2577 3659 E-mail : cs@nimt.or.th Website : http://www.nimt.or.th

**Price List**

Item No.	Description	Range	Accuracy / Uncertainty	Price (THB)	Remark	Code
35	Vacuum Gauge (absolute pressure : spinning rotor gauge)	10 Pa to 10 <sup>-3</sup> Pa	0.6% rdg to 4.5% rdg	to be determined		10070 - 10401
36	Additional cost for electrical calibration (which the accuracy is not better than +/-0.01% rdg)			2,250/item		10070 - 10501
37	Adjustment charge of pressure and vacuum devices for permanent laboratory calibration			50% of the calibration cost of each range		10070 - 10502
38	Liquid Flowmeter (Turbine Flowmeter)	0.19 L/min to 150* L/min	0.2%**	13,750/ 5 points	Calibration Fluid : Water	10080 - 10101
	Liquid Flowmeter (with indicator)	0.19 L/min to 150* L/min	2%	7,880/ 5 points		10080 - 10102
	Coriolis Flowmeter (Volumetric method)	0.2 L/min to 150 L/min	0.075%	13,750/5 points		10080 - 10103
39	Gas Flowmeter with display in standard flow (molbloc-L)	100 cm <sup>3</sup> /min to 24000 cm <sup>3</sup> /min	0.25%	30,000/range	Calibration Gas: Dry Air Reference Conditions @ 0°C, 101.325 kPa	10080 - 10202
40	Gas Flowmeter with display in standard flow (molbloc-S)	1 m <sup>3</sup> /h to 65 m <sup>3</sup> /h	0.23%	30,000/range	Calibration Gas: Dry Air Reference Conditions @ 0°C, 101.325 kPa	10080 - 10204
41	Sonic Nozzle at ambient pressure	1 m <sup>3</sup> /h to 100 m <sup>3</sup> /h	0.22%	25,000/range	Calibration Gas: Ambient Air	10080 - 10205
42	Gas Flow rate (Gas meter with impulse output)	1 m <sup>3</sup> /h to 100 m <sup>3</sup> /h	0.20%	30,000/piece (5 points)	Comparison Method	10080 - 10203
43	Gas Flow rate (Gas meter with flow rate output)	1.2 kg/h to 117 kg/h	0.20%	30,000/piece (5 points)	Comparison Method	10080 - 10403
44	Liquid Volume (Proving tank: Neck scale type, Weir neck type)	1 L to 10 L	0.02% to 0.03%	6,250/piece	Gravimetric Method	10080 - 10501
		<10 L to 20 L	0.02% to 0.03%	10,000/piece	Gravimetric Method	10080 - 10502
45	Gas Flowmeter (Volume gas flow rate)	2 (cm <sup>3</sup> /min) to 24000 (cm <sup>3</sup> /min)	0.23%	17,250/range	Calibration Fluid : Nitrogen Reference Conditions @ 0 degree C, 101.325 kPa	10081 - 10101
		2 (cm <sup>3</sup> /min) to 1 (m <sup>3</sup> /min)	0.23%	17,250/range	Calibration Fluid : Dry Air Reference Conditions @ 0 degree C, 101.325 kPa	10081 - 10102
46	Gas Flowmeter (Mass gas flow rate)	0.043 (mg/s) to 500 (mg/s)	0.23%	17,250/range	Calibration Fluid : Nitrogen	10081 - 10201
		0.043 (mg/s) to 21545 (mg/s)	0.23%	17,250/range	Calibration Fluid : Dry Air	10081 - 10202



**National Institute of Metrology (Thailand)**

3/4-5 Moo 3, Klong 5, Klong Luang, Pathumthani, 12120, Thailand

Tel. +66 2577 5100 (Please contact : Customer Service Section Ext. 3101, 3102) Fax. +66 2577 3659 E-mail : cs@nimt.or.th Website : http://www.nimt.or.th

**Price List**

Item No.	Description	Range	Accuracy / Uncertainty	Price (THB)	Remark	Code
<b>Reference Materials For Sale</b>						
47	Standard Torque Transducer	≤ 2,000 N·m	DIN 51309 Class 0.2, 0.1, 0.05	93,750/piece		10040 - 20501
		≤ 1,000 N·m		82,500/piece		10040 - 20502
		≤ 500 N·m		71,000/piece		
		≤ 200 N·m		60,630/piece		
		≤ 50 N·m		36,250/piece		
		≤ 20 N·m		31,250/piece		10040 - 20503
48	Standard Torque Transfer Wrench	≤ 2,000 N·m	DAkKS-DKD-R 3-7 Class 0.2	100,000/piece		10040 - 20601
		≤ 1,000 N·m		92,000/piece		10040 - 20602
		≤ 500 N·m		70,000/piece		
		≤ 200 N·m		62,500/piece		
		≤ 50 N·m		45,000/piece		
		≤ 20 N·m		40,000/piece		10040 - 20603
49	Standard Torque Transfer Wrench Model: TW-MCS01	≤ 2,000 N·m	DAkKS-DKD-R 3-7 Class 0.2	209,321/piece	<u>Standard Option</u> 1. Temperature compensation on zero signal 2. Temperature compensation on span signal 3. Zero balance 4. Measurement and check signals	10040-20604
		≤ 1,000 N·m		129,155/piece		
		≤ 500 N·m		103,000/piece		
		≤ 200 N·m		89,144/piece		
		≤ 50 N·m		68,738/piece		
		≤ 20 N·m		63,789/piece		
50	V-notch Charpy Impact CRM	30 J ± 10 J	According to ISO148-3	14,820.-/set		10050 - 20301
		100 J ± 10 J		14,820.-/set		10050 - 20302
51	Certified Reference Block	20 HRA to 88 HRA	0.40 HRA	8,750/piece		10050 - 20101
	Rockwell Scale : HRA, HRB, HRC	20 HRB to 100 HRB	0.40 HRB			
		20 HRC to 65 HRC	0.40 HRC			
	Vickers : HV	HV5, HV10, HV20, HV30, HV50	$\pm \left( 2 + \frac{1400}{d^2} \right) \% \text{ of } HV$	16,250/piece		10050 - 20201
	Vickers : HV	HV0.1	$\pm \sqrt{4 + \frac{19300}{d^2}} \% \text{ of } HV$	21,000/piece		10050 - 20501
Brinell Scale: HB	HB10/3000	0.6 % of HB	15,000/piece	10050 - 20401		





**National Institute of Metrology (Thailand)**

3/4-5 Moo 3, Klong 5, Klong Luang, Pathumthani, 12120, Thailand

Tel. +66 2577 5100 (Please contact : Customer Service Section Ext. 3101, 3102) Fax. +66 2577 3659 E-mail : cs@nimt.or.th Website : http://www.nimt.or.th

**Price List**

Item No.	Description	Range	Accuracy / Uncertainty	Price (THB)	Remark	Code
<b>On-site Calibration</b>						
52	Universal Testing Machine	Up to 500 kN	According to ISO 7500-1 : 2004	8,130/force scale	Calibrated by force-measuring device and accessories shall be provided by customer	10030 - 30201
53	Static Torque Calibration devices - Torque Wrench Calibration Devices	1 N·m to 2,000 N·m	DAkkS-DKD-R 3-8 0.2%	4,200/range		10040 - 30303
	- Torque Screwdriver Calibration Devices	1 N·m to 10 N·m	Based on DAkkS-DKD-R 3-8 1%	4,200/range		10040 - 30302
54	Adjustment charge of torque device for on-site calibration			100% of the calibration cost of each item and each range		10040 - 30601
55	Inter-laboratory comparison on torque with cross force					
	- Artifact: Torque wrench	40 N·m to 400 N·m	MT 01/2550	7,800		10040 - 30501
	- Artifact: Torque wrench	8 N·m to 40 N·m	MT 01.1/2551	7,800		10040 - 30502
	- Artifact: Torque wrench calibrator	10 N·m to 200 N·m	MT 02/2551	7,800		10040 - 30503
	- Artifact: Setting torque wrench	20 N·m to 330 N·m	MT 03/2553	7,800		10040 - 30504
56	Extensometer	Gauge length up to 200 mm	According to ISO 9513	3,125/scale		10050 - 30001
57	Callibration of Testing Machine Rockwell Hardness Testing Machine	20 HRA to 88 HRA	According to ISO 6508-2	6,750/machine/scale*  2,800/scale/only for indirect verification  3,900/only for diamond indenter verification  800/only for ball indenter	Note * not including indenter calibration	10050 - 30102
		20 HRB to 100 HRB				
		20 HRC to 65 HRC				
		70 HR15N to 94 HR15N				
		42 HR30N to 86 HR30N				
		67 HR15T to 93 HR15T				
		29 HR30T to 82 HR30T				
		70 HRE to 100 HRE				



**National Institute of Metrology (Thailand)**

3/4-5 Moo 3, Klong 5, Klong Luang, Pathumthani, 12120, Thailand

Tel. +66 2577 5100 (Please contact : Customer Service Section Ext. 3101, 3102) Fax. +66 2577 3659 E-mail : cs@nimt.or.th Website : http://www.nimt.or.th

**Price List**

Item No.	Description	Range	Accuracy / Uncertainty	Price (THB)	Remark	Code
58	Callibration of Testing Machine Vickers Hardness Testing Machine	HV0.2, HV0.3, HV0.5, HV5, HV10, HV20, HV30, HV50	According to ISO 6507-2	6,750/ machine/scale*  2,800/scale/only for indirect verification  3,900/only for indenter verification	Note * not including indenter calibration	10050 - 30202
59	Callibration of Testing Machine Brinell Hardness testing machine	HB10/3000, HB10/500, HB10/100	According to ISO 6506-2	6,750/machine/scale*  + 1,550/addition scale 2,800/scale/only for indirect verification  800/only for ball indenter	Note * not including indenter calibration	10050 - 30402
		HB5/750, HB5/125, HB5/62.5				
		HB2.5/62.5, HB2.5/31.25, HB2.5/15.625				
		HB1/30				
60	Inter-laboratory comparison on hardness measurement					
	- Artifact hardness specimen	Scale B	MH01	7,800		10050 - 30103
	- Artifact hardness specimen	Scale C	MH02	7,800		10050 - 30203
	- Artifact hardness testing machine	Rockwell Scale A, B and C	MH03	7,800		10050 - 30303
	- Artifact hardness specimen	HV5, HV10	MH04	6,250		10050 - 30403
61	Absolute Gravity	9.75 m/s <sup>2</sup> to 9.85 m/s <sup>2</sup>	Not smaller than 10 µGal (0.01 ppm)	240,000 for the first measurement location + 120,000 for each additional location	This price is for overseas customer; for domestic customer the price to be discussed	10060 - 30101
62	Local Gravity	9.75 m/s <sup>2</sup> to 9.85 m/s <sup>2</sup>	Not smaller than 180 µGal (0.18 ppm)	40,000/location	Using relative method	10060 - 30102