

Calibration Charges: D1.05, Force and Hardness Standards (w.e.f. 01.04.2021)											
Force, Torque & Hardness											
Sl. No.	Parameter	Item Type / Group	Item Name	Alias Name	Range	No. of Points for Calibration	Limitation / Condition	Charges per Item Rs.	Additional Charges Rs.	Description for Additional Charges	Remarks, if any
1	Force	Force Proving Instruments	Proving Ring/ Load cell	Integral Ring / Load Column / Dynamometer	Capacity upto 100 kN, As per IS 4169:2014	10 (Compression / Tension Mode)	Compression Pads/Tension Shackles required*	19000	1900	For each additional point	1.5 times for reversibility measurements. 1.5 times extra charges if calibration is to be done on 100kN/1MN primary Mahine *Rs 1500 extra if NPL pads used.
2	Force	Force Proving Instruments	Proving Ring/ Load cell	Integral Ring / Load Column / Dynamometer	Capacity upto 1000 kN, As per IS 4169:2014	10 (Compression / Tension Mode)	Compression Pads/Tension Shackles required*	36000	3600	For each additional point	1.5 times for reversibility measurements. 1.5 times extra charges if calibration is to be done on 100kN/1MN primary Mahine *Rs 1500 extra if NPL pads used.
3	Force	Force Proving Instruments	Proving Ring/ Load cell	Integral Ring / Load Column / Dynamometer	Capacity upto 2000 kN, As per IS 4169:2014	10 (Compression mode only)	Compression Pads required	55000	5500	For each additional point	
4	Force	Force Proving Instruments	Proving Ring/ Load cell	Integral Ring / Load Column / Dynamometer	Capacity upto 3000 kN, As per IS 4169:2014	10 (Compression mode only)	Compression Pads required	80000	8000	For each additional point	
5	Force	Force Calibrators	Force Calibration machines	Deadweight, hydraulic multiplication, Comparator Force machine	upto 100 kN	10 (per range 10% to 100%)	Site Calibration	88000	8800	For each additional point	On request only
6	Force	Force Calibrators	Force Calibration machines	Deadweight, hydraulic multiplication, Comparator Force machine	upto 1000 kN	10 (per range 10% to 100%)	Site Calibration	154000	15400	For each additional point	On request only
7	Force	Testing Machines	Universal Testing Machine (UTM)	Compression Testing Machine or Tension Testing Machine	upto 100 kN	One Scale	Site Calibration	88000	8800	For each additional scale	On request only
8	Force	Testing Machines	Compression Testing Machine	Universal Testing Machine (UTM) (Compression Only)	upto 250 kN	One Scale	Site Calibration	154000	15400	For each additional scale	On request only
9	Force	Testing Machines	Compression Testing Machine	Universal Testing Machine (UTM) (Compression Only)	upto 1000 kN	One Scale	Site Calibration	154000	15400	For each additional scale	On request only
10	Force	Testing Machines	Compression Testing Machine	Universal Testing Machine (UTM) (Compression Only)	upto 3000 kN	One Scale	Site Calibration	275000	27500	For each additional scale	On request only
11	Torque	Torque Measuring Devices	Torque Meter	Torque Tester / Torque Wrench Tester / Torque Transducer	Capacity upto 20 Nm	10 (Clockwise / Anti-clockwise direction)	Using flange type coupling	12500	1300	For each additional point	Charges are 1.5 times for devices requiring shaft type coupling
12	Torque	Torque Measuring Devices	Torque Meter	Torque Tester / Torque Wrench Tester / Torque Transducer	Capacity upto 2000 Nm	10 (Clockwise / Anti-clockwise direction)	Using flange type coupling	26000	2600	For each additional point	Charges are 1.5 times for devices requiring shaft type coupling
13	Torque	Torque Calibrators	Torque Calibration machines	Deadweight, Comparator Torque machine	2000 Nm	10 (per range 10% to 100%)	Site Calibration using flange type coupling	90000	9000	For each additional point	On request only
14	Torque	Torque Calibrators	Torque Calibration machines	Deadweight, Comparator Torque machine	2000 Nm	10 (per range 10% to 100%)	Site Calibration using shaft type coupling	130000	13000	For each additional point	On request only
15	Hardness	Hardness Blocks	Rockwell Hardness Block		Rockwell Scales: A, B, C, D, E, F, G, H, K, N, T	Value assignment at 5 points		3200			
16	Hardness	Hardness Block	Vickers Hardness Block			Value assignment in any single range		4800			
17	Hardness	Hardness Block	Brinell Hardness Block			Value assignment in any single range		4800			

18	Force	Force Calibrators	Force Calibration machines	hydraulic multiplication, Comparator Force machine	upto 3000 kN	10 (per range 10% to 100%)	Site Calibration	275000	27500	For each additional point	On request only
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