

Calibration Charges: D1.06a, Pressure, Vacuum and Ultrasonic Metrology (w.e.f. 01.04.2023)

Pressure, Vacuum and Ultrasonic Devices

Sl. No.	Parameter	Item Type / Group	Item Name	Alias Name	Range	No. of Points for Calibration	Charges per Item Rs.	Additional Charges Rs.	Description for Additional Charges	Remarks, if any
1	Absolute Pressure	Vacuum Devices	Pirani Gauge	Thermocouple Gauge/Convectron Gauge	1000 to 1.0E-3 Torr		35500			
2	Absolute Pressure	Vacuum Devices	Pirani Gauge	Thermocouple Gauge/Convectron Gauge	1000 to 1 Torr / 0.001 to 1Torr		23760			
3	Absolute Pressure	Vacuum Devices	Penning Gauge	Cold Cathode Gauge	1.0E-2 to 1.0E-6 Torr		50710			
4	Absolute Pressure	Vacuum Devices	Penning Gauge	Cold Cathode Gauge	1.0E-2 to 1.0E-7 Torr		67650			
5	Absolute Pressure	Vacuum Devices	Penning Gauge	Cold Cathode Gauge	1.0E-2 to 1.0E-8 Torr		76900			
6	Absolute Pressure	Vacuum Devices	Ionization Gauge	Hot Cathode Gauge	1.0E-3 to 1.0E-7 Torr		47700			
7	Absolute Pressure	Vacuum Devices	Spinning Rotor Gauge	SRG	1.0E-2 to 1.0E-5 mbar		53900			
8	Absolute Pressure	Vacuum Leaks	Helium Standard Leak	Standard Leak	Above 1.0E-8 std.cc/s and below 0.03 std.cc/s		53900	5400		
9	Absolute Pressure	Vacuum Leaks	Helium Standard Leak	Standard Leak	Below 1.0E-8 std.cc/s and above 3.0E-9 std.cc/s		61500			
10	Pneumatic Pressure	Vacuum Devices	Dead Weight Tester / Differential DWT	Piston Gauge / Pressure Balance	6.5 to 360 kPa (abs. gauge and diff)	Single Range (10 pints)	53900	5400	For each additional point	Charges are per range
11	Pneumatic Pressure	Vacuum Devices	Liquid Manobarometer	U-Tube / Single Limb / Inclined / Sphygmo Manometer	1 to 130 kPa (abs. gauge and diff)	Single Range (10 pints)	18500	1900	For each additional point	Charges are per range
12	Pneumatic Pressure	Vacuum Devices	Dial Gauge	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	0 to 500 kPa (abs and gauge)	Single Range (10 pints)	13640	1400	For each additional point	Charges are per range
13	Pneumatic Pressure	Vacuum Devices	Pressure Calibrator		0 to 500 kPa Accuracy 0.5% or coarser (abs and gauge)	Single Range (10 pints)	23300	2400	For each additional point	Charges are per range
14	Pneumatic Pressure	Vacuum Devices	Aneroid Barometer		Atmospheric Pressure Range	Single Range (10 pints)	13640	1400	For each additional point	Charges are per range
15	Pneumatic Pressure	Vacuum Devices	Quartz Bourdon Gauge		0 to 500 kPa (abs and gauge)	Single Range (10 pints)	47100	4700	For each additional point	Charges are per range
16	Pneumatic Pressure	Vacuum Devices	Capacitance Diaphragm Gauge	Capacitance Manometer / Baratron	0-133Pa 0-1333Pa 0-13kPa 0-133 kPa (abs and gauge)		52000		For each additional point	Charges are per range
17	Pneumatic Pressure	Vacuum Devices	Digital Pressure Transducer / Transmitter	Digital Pressure Indicator / Digital Pressure Gauge	0 to 500 kPa Accuracy better than 0.5% (abs and gauge)	Single Range (10 pints)	47100	4700	For each additional point	Charges are per range
18	Pneumatic Pressure	Vacuum Devices	Altimeter		0 to 100 kPa (abs)	Single Range (10 pints)	53900	5400	For each additional point	Charges are per range

19	Pneumatic Pressure	Vacuum Devices	Digital Manometer	Digital Pressure Gauge	0 to 133 kPa (abs and gauge)	Single Range (10 pints)	46100	4600	For each additional point	Charges are per range
20	Pneumatic Pressure	Vacuum Devices	Digital Barometer		70 to 110 kPa (abs)	Single Range (10 pints)	23300	2400	For each additional point	Charges are per range
21	Pneumatic Pressure	Pressure Devices	Dead Weight Tester	Piston Gauge / Pressure Balance	100 kPa to 8 MPa (abs. and gauge)	Single Range	38000	3800	For each additional point	Charges are per range
22	Pneumatic Pressure	Pressure Devices	Dead Weight Tester	Piston Gauge / Pressure Balance	100 kPa to 12 MPa (abs. and gauge)	Single Range	42000	4200	For each additional point	Charges are per range
23	Pneumatic Pressure	Pressure Devices	Dead Weight Tester	Piston Gauge / Pressure Balance	100 kPa to 20 MPa (abs. and gauge)	Single Range	45000	4500	For each additional point	Charges are per range
24	Pneumatic Pressure	Pressure Devices	Dead Weight Tester	Piston Gauge / Pressure Balance	0.2 MPa to 40 MPa (abs. and gauge)	Single Range	50000	5000	For each additional point	Charges are per range
25	Pneumatic Pressure	Pressure Devices	Differential Dead Weight Tester	Piston Gauge / Pressure Balance	0.04 MPa to 12 MPa (differential)	Single Range	52000	5200	For each additional point	Charges are per range
26	Pneumatic Pressure	Pressure Devices	Differential Dead Weight Tester	Piston Gauge / Pressure Balance	0.2 MPa to 20 MPa (differential)	Single Range	57000	5700	For each additional point	Charges are per range
27	Pneumatic Pressure	Pressure Devices	Dial Gauge (Accuracy < 1.0 %)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	50 kPa to 8 MPa (gauge)	Single Range	9000	900	For each additional point	Charges are per range
28	Pneumatic Pressure	Pressure Devices	Dial Gauge (Accuracy >= 1.0 %)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	50 kPa to 8 MPa (gauge)	Single Range	5700	570	For each additional point	Charges are per range
29	Pneumatic Pressure	Pressure Devices	Dial Gauge (Accuracy < 1.0 %)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	50 kPa to 12 MPa (gauge)	Single Range	12000	1200	For each additional point	Charges are per range
30	Pneumatic Pressure	Pressure Devices	Dial Gauge (Accuracy >= 1.0 %)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	50 kPa to 12 MPa (gauge)	Single Range	7500	800	For each additional point	Charges are per range
31	Pneumatic Pressure	Pressure Devices	Dial Gauge (Accuracy < 1.0 %)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	50 kPa to 20 MPa (gauge)	Single Range	16000	1600	For each additional point	Charges are per range
32	Pneumatic Pressure	Pressure Devices	Dial Gauge (Accuracy >= 1.0 %)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	50 kPa to 20 MPa (gauge)	Single Range	10000	1000	For each additional point	Charges are per range
33	Pneumatic Pressure	Pressure Devices	Dial Gauge (Accuracy < 1.0 %)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	0.2 MPa to 40 MPa (gauge)	Single Range	20000	2000	For each additional point	Charges are per range
34	Pneumatic Pressure	Pressure Devices	Dial Gauge (Accuracy > 1.0 %)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	0.2 MPa to 40 MPa (gauge)	Single Range	13500	1400	For each additional point	Charges are per range
35	Pneumatic Pressure	Pressure Devices	Pressure Calibrator		100 kPa to 12 MPa (gauge and diff)		20500	2050	For each additional point	
36	Pneumatic Pressure	Pressure Devices	Digital Pressure Transducer / Transmitter	Digital Pressure Indicator / Digital Pressure Gauge	100 kPa to 8 MPa (abs. and gauge)	Single Range	35000	3500	For each additional point	Charges are per range
37	Pneumatic Pressure	Pressure Devices	Digital Pressure Transducer / Transmitter	Digital Pressure Indicator / Digital Pressure Gauge	100 kPa to 12 MPa (abs. and gauge)	Single Range	40000	4000	For each additional point	Charges are per range
38	Pneumatic Pressure	Pressure Devices	Digital Pressure Transducer / Transmitter	Digital Pressure Indicator / Digital Pressure Gauge	0.2 MPa to 20 MPa (abs. and gauge)	Single Range	42000	4200	For each additional point	Charges are per range
39	Pneumatic Pressure	Pressure Devices	Digital Pressure Transducer / Transmitter	Digital Pressure Indicator / Digital Pressure Gauge	0.2 MPa to 40 MPa (abs. and gauge)	Single Range	44000	4400	For each additional point	Charges are per range
40	Pneumatic Pressure	Pressure Devices	Digital Pressure Transducer / Transmitter	Digital Pressure Indicator / Digital Pressure Gauge	100 kPa to 12 MPa (diff)	Single Range	40000	4000	For each additional point	Charges are per range
41	Pneumatic Pressure	Pressure Devices	Digital Pressure Transducer / Transmitter	Digital Pressure Indicator / Digital Pressure Gauge	0.2 MPa to 20 MPa (differential)	Single Range	48000	4800	For each additional point	Charges are per range
42	Hydraulic Pressure	Hydraulic Devices	Dead Weight Tester	Piston Gauge / Pressure Balance / Piston Manometer	0.07 to 100 MPa (gauge)	Single Range (10 points)	55000	5500	For each additional point	

43	Hydraulic Pressure	Hydraulic Devices	Dead Weight Tester	Piston Gauge / Pressure Balance / Piston Manometer	0.07 to 200 MPa (gauge)	Single Range (10 points)	56000	5600	For each additional point	
44	Hydraulic Pressure	Hydraulic Devices	Dead Weight Tester	Piston Gauge / Pressure Balance / Piston Manometer	0.07 to 300 MPa (gauge)	Single Range (10 points)	60000	6000	For each additional point	
45	Hydraulic Pressure	Hydraulic Devices	Dead Weight Tester	Piston Gauge / Pressure Balance / Piston Manometer	0.07 to 500 MPa (gauge)	Single Range (10 points)	65000	6500	For each additional point	
46	Hydraulic Pressure	Hydraulic Devices	Dead Weight Tester	Piston Gauge / Pressure Balance / Piston Manometer	0.07 to 100 MPa (gauge)	Double range (10 points each)	80000	8000	For each additional point	
47	Hydraulic Pressure	Hydraulic Devices	Dead Weight Tester	Piston Gauge / Pressure Balance / Piston Manometer	0.07 to 200 MPa (gauge)	Double range (10 points each)	85000	8500	For each additional point	
48	Hydraulic Pressure	Hydraulic Devices	Dead Weight Tester	Piston Gauge / Pressure Balance / Piston Manometer	0.07 to 300 MPa (gauge)	Double range (10 points each)	88000	8800	For each additional point	
49	Hydraulic Pressure	Hydraulic Devices	Dead Weight Tester	Piston Gauge / Pressure Balance / Piston Manometer	0.07 to 500 MPa (gauge)	Double range (10 points each)	100000	10000	For each additional point	
50	Hydraulic Pressure	Hydraulic Devices	Dead Weight Tester	Piston Gauge / Pressure Balance / Piston Manometer	20 MPa to 1.0 GPa	Single Range (10 points)	130000	13000	For each additional point	
51	Hydraulic Pressure	Hydraulic Devices	Dead Weight Tester	Piston Gauge / Pressure Balance / Piston Manometer	20 MPa to 1.0 GPa	Double range (10 points each)	190000	19000	For each additional point	
52	Hydraulic Pressure	Hydraulic Devices	Pressure Dial Gauge (Accuracy > 0.25%)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	0.07 to 100 MPa (gauge)	10	10000	1000	For each additional point	
53	Hydraulic Pressure	Hydraulic Devices	Pressure Dial Gauge (Accuracy > 0.25%)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	0.07 to 200 MPa (gauge)	10	12000	1200	For each additional point	
54	Hydraulic Pressure	Hydraulic Devices	Pressure Dial Gauge (Accuracy > 0.25%)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	0.07 to 300 MPa (gauge)	10	14000	1400	For each additional point	

55	Hydraulic Pressure	Hydraulic Devices	Pressure Dial Gauge (Accuracy > 0.25%)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	0.07 to 500 MPa (gauge)	10	16000	1600	For each additional point	
56	Hydraulic Pressure	Hydraulic Devices	Pressure Dial Gauge (Accuracy =<0.25%)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	0.07 to 100 MPa (gauge)	10	12000	1200	For each additional point	
57	Hydraulic Pressure	Hydraulic Devices	Pressure Dial Gauge (Accuracy =<0.25%)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	0.07 to 200 MPa (gauge)	10	15000	1500	For each additional point	
58	Hydraulic Pressure	Hydraulic Devices	Pressure Dial Gauge (Accuracy =<0.25%)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	0.07 to 300 MPa (gauge)	10	18000	1800	For each additional point	
59	Hydraulic Pressure	Hydraulic Devices	Pressure Dial Gauge (Accuracy =<0.25%)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	0.07 to 500 MPa (gauge)	10	24000	2400	For each additional point	
60	Hydraulic Pressure	Hydraulic Devices	Pressure Dial Gauge (Accuracy > 0.25%)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	20 MPa to 1.0 GPa	10	33000	3300	For each additional point	
61	Hydraulic Pressure	Hydraulic Devices	Pressure Dial Gauge (Accuracy =<0.25%)	Bourdon Gauge / Diaphragm Gauge / Spiral Gauge	20 MPa to 1.0 GPa	10	46000	4600	For each additional point	
62	Hydraulic Pressure	Hydraulic Devices	Digital Pressure Transducer / Transmitter	Digital Pressure Gauge / Digital Pressure Calibrator	0.07 to 100 MPa (gauge)	10	40000	4000	For each additional point	
63	Hydraulic Pressure	Hydraulic Devices	Digital Pressure Transducer / Transmitter	Digital Pressure Gauge / Digital Pressure Calibrator	0.07 to 200 MPa (gauge)	10	45000	4500	For each additional point	
64	Hydraulic Pressure	Hydraulic Devices	Digital Pressure Transducer / Transmitter	Digital Pressure Gauge / Digital Pressure Calibrator	0.07 to 300 MPa (gauge)	10	50000	5000	For each additional point	
65	Hydraulic Pressure	Hydraulic Devices	Digital Pressure Transducer / Transmitter	Digital Pressure Gauge / Digital Pressure Calibrator	0.07 to 500 MPa (gauge)	10	60000	6000	For each additional point	
66	Hydraulic Pressure	Hydraulic Devices	Digital Pressure Transducer / Transmitter	Digital Pressure Gauge / Digital Pressure Calibrator	20 to 800 MPa (gauge)	10	100000	10000	For each additional point	
67	Hydraulic Pressure	Hydraulic Devices	Digital Pressure Transducer / Transmitter	Digital Pressure Gauge / Digital Pressure Calibrator	20 MPa to 1.0 GPa	10	120000	12000	For each additional point	
68	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Ultrasonic Flaw Detector	BS: 4331-II / ASTM E-317		36300		-	
69	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Ultrasonic Flaw Detector	IS: 12666 Clauses 4 & 5		14000		-	
70	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Calibration Block A2 (IIW-VI)	IS: 4904: Clauses 3 & 4		25300		-	
71	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Calibration Block A2 (IIW-VI)	IS: 4904: Clause 3		14000		-	
72	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Calibration Block A4 (IIW-V2)	IS: 4904: Clauses 3 & 4		17500		-	
73	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Calibration Block A4 (IIW-V2)	IS: 4904: Clause 3		10700		-	
74	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Calibration Block A5	IS: 4904: Clauses 3 & 4		25300		-	

75	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Calibration Block A5	IS: 4904: Clause 3		14000		-	
76	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Calibration Block A6	IS: 4904: Clauses 3 & 4		17500		-	
77	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Calibration Block A6	IS: 4904: Clause 3		10700		-	
78	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Calibration Block A7	IS: 4904: Clauses 3 & 4		17500		-	
79	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Calibration Block A7	IS: 4904: Clause 3		10700		-	
80	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Calibration Block A8	IS: 4904: Clauses 3 & 4		25300		-	

81	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Calibration Block A8	IS: 4904: Clause 3		14000		-	
82	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Step Wedge			9000		-	
83	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Cylindrical FBH	ASTM E-127		19300		-	
84	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Ultrasonic NDT Transducer / probe	ASTM E-1065		31900	14900	For each additional point	
85	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Ultrasonic Thickness Gauge			9000		-	
86	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic NDT Equipment	Test rail	All Holes and Notches		69300			need clean surfaces
87	Ultrasonic	Ultrasonic Power Transducer	Ultrasonic Power Transducer	Ultrasonic Power Source	Frequency : 0.5 MHz to 20 MHz Power : 10 mV to 20 W		31000			
88	Ultrasonic	UPV Reference block			Complete Range		8000			clean and flat surfaces
89	Ultrasonic	Ultrasonic NDT Equipment	Ultrasonic Adapter	Ultrasonic Transducer with block			16500			
90	Ultrasonic	Ultrasonic NDT Equipment	Distance Amplitude Block	DA Block			15000			