

Lab Instruments for Engineering Metallurgy

Sr. No.	Name of equipment or instrument	Use/Purpose (Specification: capacity, range, accuracy etc)	Qty.
1	Metallurgical Microscope with image analysis	To observe various micro constituents of steel and their morphology, topography, crystallographic arrangement and elemental composition.	1
2	Wall charts <ul style="list-style-type: none"> • Iron carbon phase diagram • Iron carbon diagram • TTT diagram • Micro-constituents of steel • Various heat treatment processes • Powder metallurgy 	To easily understand diagram, process or technique briefly.	1 no. of each
3	Coordinate Measuring Machine	3dimensional inspection of work piece.Should be connected to a computer having a 64Kb RAM and a 20mb hard disk.	1
4	Profile Projector	Magnifies An object and enables to measure its linear dimensions Magnification :10X,20X,50X Field Dia of View : 25mm Accuracy :+ 0.1 % to + 0.15%	1
5	Gear Rolling Tester	To check the interference occurring between two mating gears	1
6	Micrometer Screw Gauges	0-25mm	1
7		25-50mm	1
8	Digital Vernier Calliper	0-15cm. L.C. 0.01mm.	1
9	Slip Gauge Set	87pcs	1
10	Telescopic Gauge	Use to measure bore size.	1
11	Electronic Comparator	Range : ± 3 - ± 1000 micrometer Magnification : 50 - 16000 Repeatability : 0.02 micrometer Standard contact point: Ruby ball	1
12	Sine Bar	length : 254mm	1
13	Dial Gauge	Range 0-10mm	1
14	Surface measuring instrument		1
15	Dial Bore Gauge	50-150mm Dial series	1
16	Vernier Height Gauge	0-300mm	1
17	Vernier Depth Gauge	0-200mm	1
18	Bevel Protector	0-180° Graduation 1°	1
19	Metric filler gauge	0.05-1.0mm 28pcs	1
20	Plain plug gauge double end	Go & No go 30mm	1
21	Vernier calliper	0-200mm	3
23	Taper ring gauge		1
24	Taper plug gauge		1
25	Steel wire gauge round neck	Indian make	1
26	Radius gauge	1-7mm	1
27	Plain ring gauge	10mm	1
28	Temperature measurement pyrometer		1
29	Temperature calibration equipment		1
30	Mechanical force gauge	20 kg	1
31	Mechanical torque gauge	50- 224 Nm	1