

Tender No. 65.11.8045**Specification for supply & commissioning of Vickers cum brinell Hardness testing machine.**

Sr No.	Parameters	Parameters value/ Range etc.	Tolerance allowed	Firms offered remark
	Major Parameters			
1	Load stage adjustable push buttons for Brinell hardness	250 kgs, 187.5kgs, 62.5 kgs, 31.25 kgs, 15.625 kgs	Nil	
2	Load stage adjustable push buttons for vickers hardness	150 kgs, 100 kgs, 60kgs, 50 kgs, 40 kgs, 30 kgs, 20 kgs, 15 kgs, 10 kgs, 5 kgs	Nil	
3	Maximum test height	250 mm approx.	± 10 mm	
4	Depth of throat	150 mm approx	±5 mm	
5	Size of Base	330 x 660 mm approx.	±3%	
6	Machine height	990 mm approx.	±25 mm	
7	Weight of machine	Less than 200 kgs	180 – 200 kgs	
	Minor Parameters			
1	Clarity of Optical system	High Accuracy	± 0.001 mm	
	Standard accessories			
1	Vickers Hardness test Block for high hardness, medium hardness & low hardness		01 no each	
2	Brinell Hardness test Block for high hardness, medium hardness & low hardness		01 no each	
3	2.5 mm T.C. Ball		05 Nos	
4	5 mm T.C. Ball		05 Nos	
5	V block table		01 No	
6	Flat table 100 mm dia		01 no	
7	Vicker Indenter		01 No	
8	Brinell Indenter		01 No	
9	Clamping core for clamping of work pieces		01 set	
10	Objectives 35X, 70X, 140X with high quality lenses		01 each	
11	Attachment for measuring impression by means of scale micrometer		01 set	
12	Connection lead of 220 volts, 1 phase, AC 50Hz to be supplied by firm		01 No	

The hardness testing machine shall be used for determination of hardness of ferrous & non ferrous components in Vickers & Brinell unit by in built optical system with graduated read- out with micrometer.

(1) Warranty & other conditions: – As per IRS conditions of contract.

(2) The Installation/commissioning charges, if any to be given in “other charges amount” in offer.

- (a) Technical literature:** The supplier has to supply 02 copies of technical literature/ operating manual.
- (b) Training:** The supplier shall provide training for operating/maintenance and trouble shooting of problems generally arises in handling of equipment.
- (c) A.M.C. Requirement:** The supplier shall confirmed after sale service & to enter into AMC on expiry of warranty period for five years on payment basis.