

Sr.#	Specification/Description of Items	Qty Req.	Remarks
01	Main Equipment		
	<p>A. Universal Hardness Tester</p> <p>Standardization Procedure for Vickers, Brinell, Rockwell and Ball Indentation Test Load;</p> <p>Vickers: 1,2,3,4,5,10,20,30,40,50,60,80,100,120, Kg</p> <p>Brinell: 1, 2.5, 5,6,25,10, 15.625, 25, 31.25, 100, 125, 187.5,250Kgf</p> <p>Load: 15, 30, 45, 60,100, 150 Kg.</p> <p>Rockwell and superficial Rockwell: Pre-load 3~10Kgf Load: 15,30,45,60,100,150</p> <p>Indenters:</p> <p>Vickers Diamond Pyramidal Indenter 136°</p> <p>Brinell Ball Indenters 1mm,2.5mm,5mm,10mm</p> <p>Rockwell Diamond Conical Indenter120°</p> <p>Ball Penetrators: 1/16", 1/8", ¼", ½"</p> <p>Optical measurement system: 4X, 10X, 35X, 133X with interchangeable Objectives</p> <p>High Resolution (minimum 6 megapixels) USB camera with LED lighting Source.</p> <p>Turret able to carry upto 4lenses and upto 4 indenters' simultaneously.</p> <p>Motorized X, Y table.</p> <p>Motorized spindle</p> <p>Dimensions:</p> <p>Max. Vertical Capacity: 290mm</p> <p>Throat depth 250mm</p> <p>Weight 250kg</p> <p>Test Load Application:</p> <p>DC Motor via closed loop by means of force transducer (load cell)</p> <p>Test load selection via Touch Screen.</p> <p>Display of the Result:</p> <p>Results are displayed on Touch Screen / separate PC.</p> <p>Graphic capacity for result analysis with variable scale.</p> <p>Connection and Power Supply:</p> <p>Interface RS232 and standard USB</p> <p>Power Supply 230V, 50Hz</p> <p>CE conformity Accordance</p> <p>B. Basic Accessories:</p> <p>Integrated PC with Core i-7, Hard Disk 1TB Operated By WINDOWS7, 10 and Touch Screen / separate PC.</p> <p>Software for Universal Hardness Tester for automatic scanning/automatic reading of Brinell and Vickers Indentation. Software is capable of storing test results, carrying out automatic correction for curved surfaces according to DIN/EN/ISO/ASTM performing statistical calculations, conversion into Rockwell A,B,C,D,E,F,G,H,R brinell and Vickers scales according to ISO 18625, protocol printout with data and logo of the operator.(the system should be capable of upgrade) Brinell and Vickers scales according to ISO 18625, protocol printout with data and logo of the operator.</p> <p>Standard:</p> <p>ISO 6506, 6507, 6508,</p> <p>ASTM E10, E18, E92.</p>	01No	

C. Standard Accessories:

- a) Rockwell Diamond Conical Indenters 120°.
- b) Vickers Diamond Pyramidal Indenters 136°.
- c) Brinell Ball indenter 2.5mm.
- d) Rockwell Ball penetrator: 1/16".
- e) 35X Objectives.
- f) 133X Objectives.
- g) Flat Anvil 120mm dia.
- h) Flat Anvil 60mm dia.
- i) V shaped Anvil for rounds 3-12mm dia.
- j) V shaped Anvil for rounds 12-90mm dia.
- k) Special key for easy indenter removal.
- l) Accessory wooden case.
- m) Plastic Cover.

D. Optional Accessories

- OBJECTIVE 001 Objective lens 400X.
- Penetrator 050 Rockwell diamond indenter HRC
- Penetrator 015 Ball indenter 1mm
- Penetrator 040 Ball indenter 2.5mm
- Penetrator 029 Ball indenter 5 mm
- Penetrator 075 Ball indenter 10 mm
- Penetrator 030 Ball indenter 1/16"
- Penetrator 031 Ball indenter 1/8"
- Penetrator 032 Ball indenter 1/8"
- Penetrator 070Hv indenter
- Gruppo 269 V - Anvil 200mm for rounds 10 - 150mm ϕ
- Gruppo 025 Flat Anvil 200mm dia
- Banco 008 support table
- SHI0344-17737 thin specimen attachment Type3 (0.02-8 mm)
- SHI0344-13217 leveling for vice
- 14000090 Printer cable
- Brinell test block with official certificate
- Vickers Test block with official certificate
- Rockwell Test block with official certificate

E. Installation, commissioning, operational and maintenance manual and objective lens selection guide in English will be provided with the Universal Hardness Tester free of cost.

F. Pre-Shipment Inspection and training

Free of cost pre-shipment inspection and training to technical staff will be provided by the supplier. However boarding, Lodging and return air tickets will be borne by the buyer.