



UNIVERSAL MATERIAL TESTING MACHINE

RS 145 {20 KN}
RS 146 {50 KN}

Description:

When a specimen is under a tensile load, its length increases with respect to the applied load on the object's cross section. This is called the linear phase in the strain-stress diagram, because the slope of the diagram is approximately linear. The end of this phase is the beginning of yield, the phase in which a piece's length increases without applying extra load, and is called plastic phase. The peak of the curve in this phase is the maximum load which can be applied to this piece because it is ruptured after that. Due to multiple boundary support conditions, this device allows users to test tension, determine shear force and analyze Brinell hardness in metals. The device makes it possible to observe the details of the test in all phases for users.

Specifications:

- Movable and fixed end support pins to install the piece
- Brass, aluminum and carbon steel specimen for tensile test
- Copper specimen for shearing test
- Suitable actuation system for displacing the specimen
- The standard load cell to measure the applied load
- The system for measuring the change in the length of the specimen
- The relevant professional software
- Suitable electronic data acquisition system
- Installation and training video included
- Instructions manual included
- 10-year warranty
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Note: Direct contact with the sales department is required to confirm the last updated technical specifications and pictures.

Applications:

1. Determining the tensile strength of metals
2. Determining the yield stress, ultimate stress and the percentage of increase in the length of the sample
3. Drawing the stress-strain curve of metals
4. Calculating the Young's modulus for different metals
5. Determine shear force and analyze Brinell hardness in metals.

Required For Operation:

- 220 v Single Phase Electricity
- Desirable Temperature (°C): 10-30
- Relative Humidity: 15% - 80% www.radmansanatco.com
- Computer system to display data (if data logger is used)



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Dimensions (L*W*H) mm:1500 x 800 x 1400

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