



Classifications of Mechanical tests



- **Destructive tests**- In this type of testing, the component or specimen to be tested is *destroyed* and *cannot be reused*
- **Examples:**
 - Tensile test, Impact test, bend test, Fatigue test, Torsion test, Creep test
- **Non-Destructive tests**- In this type of testing, the component or specimen to be tested is *not destroyed* and *can be reused* after the test
- **Examples:**
 - Radiography, Ultrasonic inspection etc.



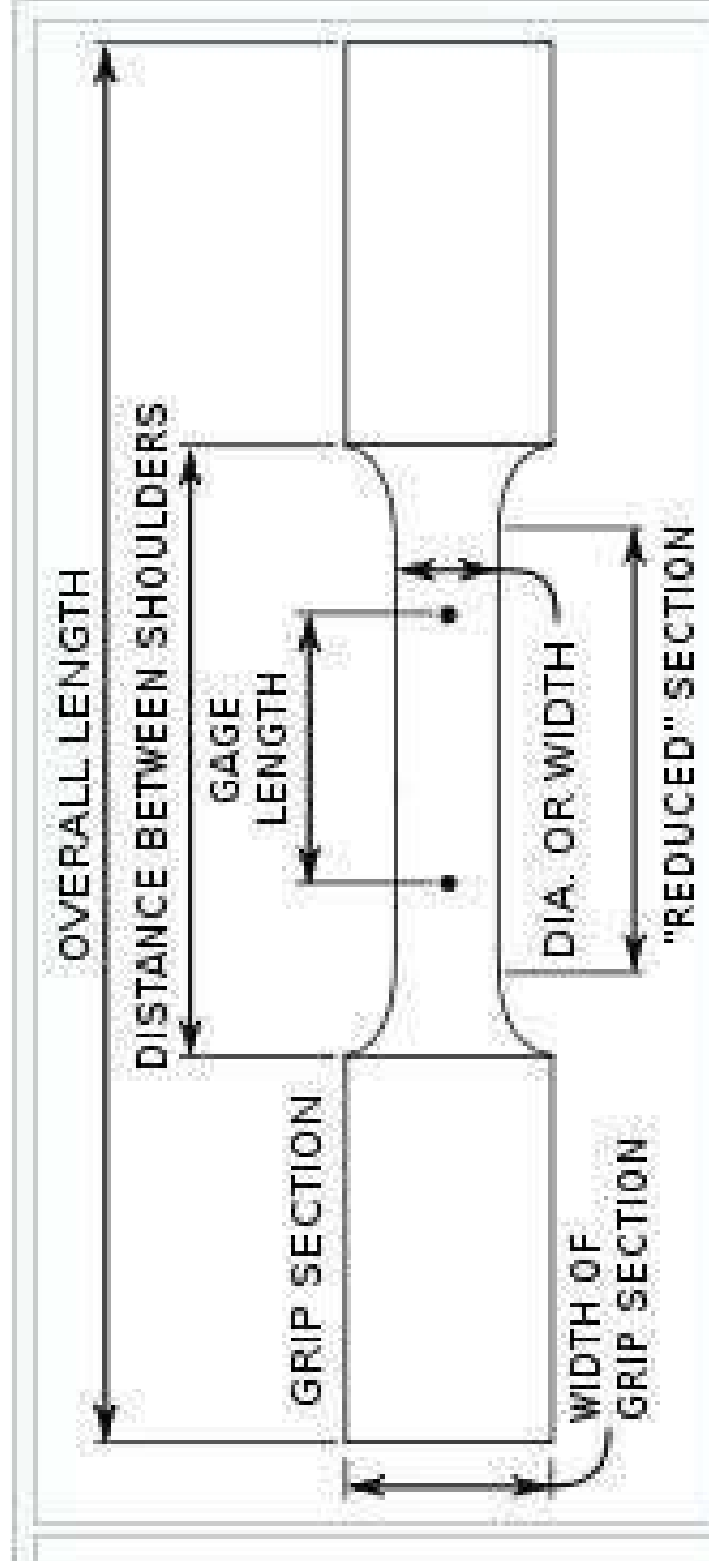
Tensile Test



- A tensile test of a material is performed on ductile materials to determine tensile properties such as,
 - Yield point
 - Maximum tensile strength
 - Breaking strength
 - Percentage elongation
 - Percentage reduction in area
- The tensile test is usually carried out with the help of a “universal Testing Machine” (UTM)

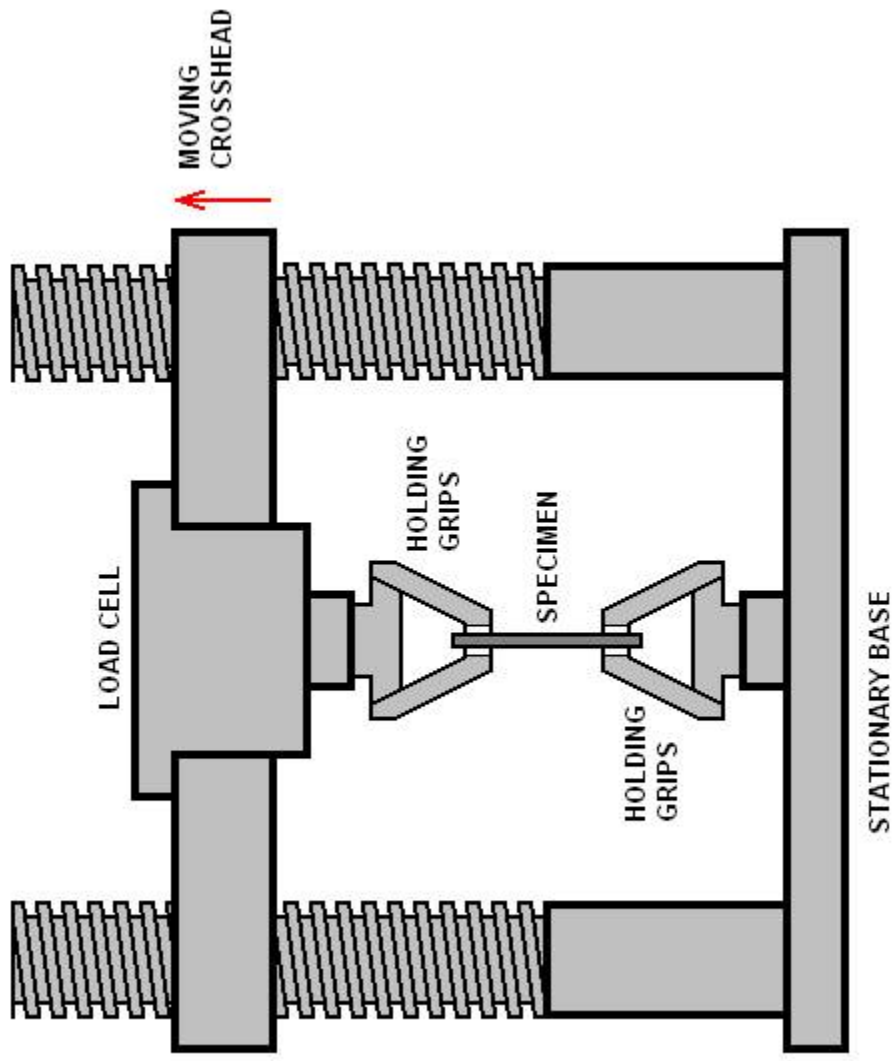


Tensile Test- Specimen





Tensile Test-UTM





Stress-Strain Curve

