

Question

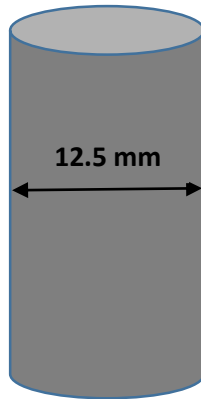


Figure 1

The above steel rod (Figure 1) is tested to fracture using tensile test machine. It was found that the steel rod ruptured at 300 MPa and achieved maximum stress at 380 MPa. Tensile test observation shows that the cross-sectional diameter at fracture for the specimen is 10.0 mm.

- (a) Determine the ductility of the steel rod specimen (in terms of percent reduction in area)
- (b) Sketch the possible stress-strain curve for the steel rod