

Student Projects

Student Project 1

In this project, you will create the Butterfly Valve assembly shown in Figure 1. The dimensions of the components are given in Figures 2 through 7. (Note: All dimensions are in millimeters)

(Expected time: 3 hr)

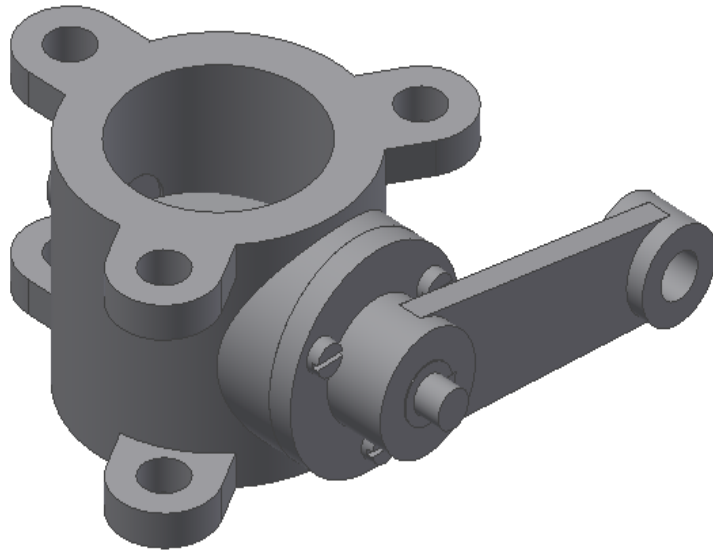
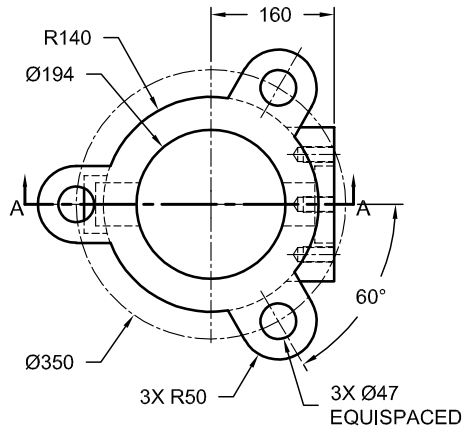


Figure 1 Butterfly Valve Assembly



NOTE :
HIDDEN LINES ARE
SUPPRESSED
FOR CLARITY

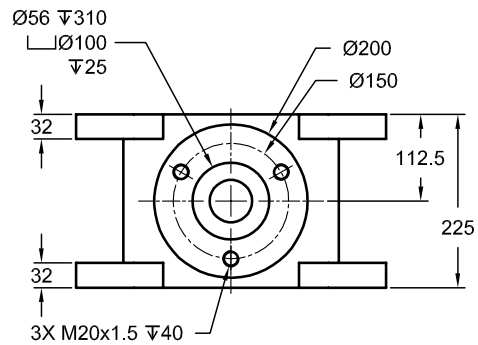
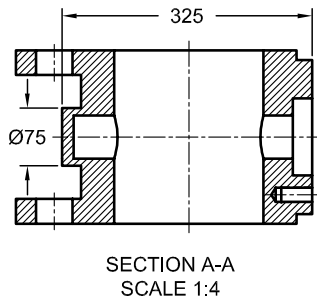


Figure 2 Views and dimensions of the Body

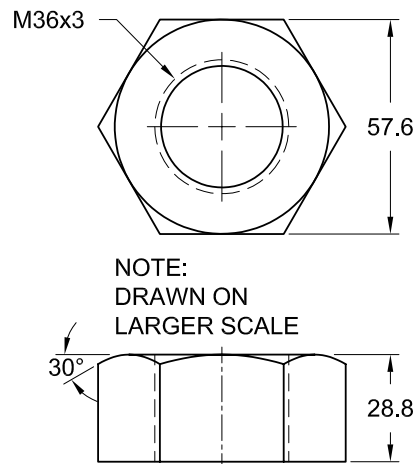
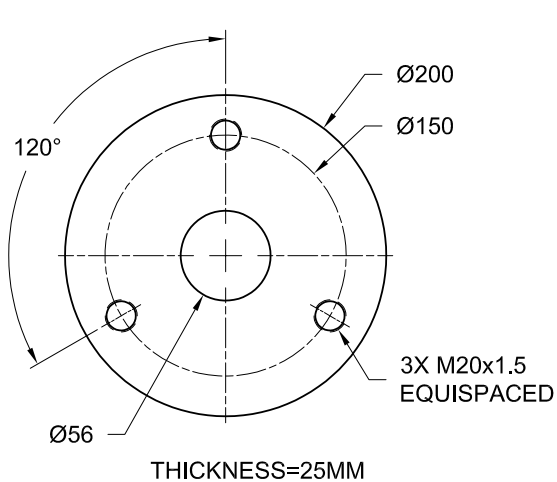


Figure 3 Dimensions of the Retainer and Nut

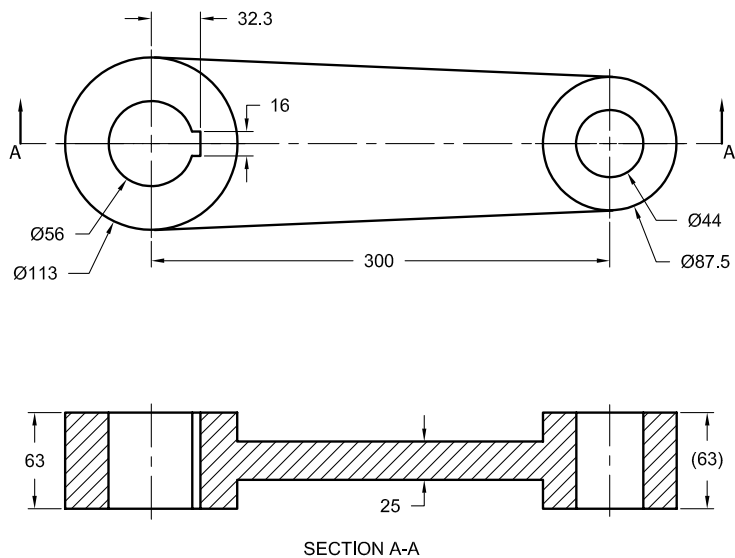


Figure 4 Dimensions of the Arm

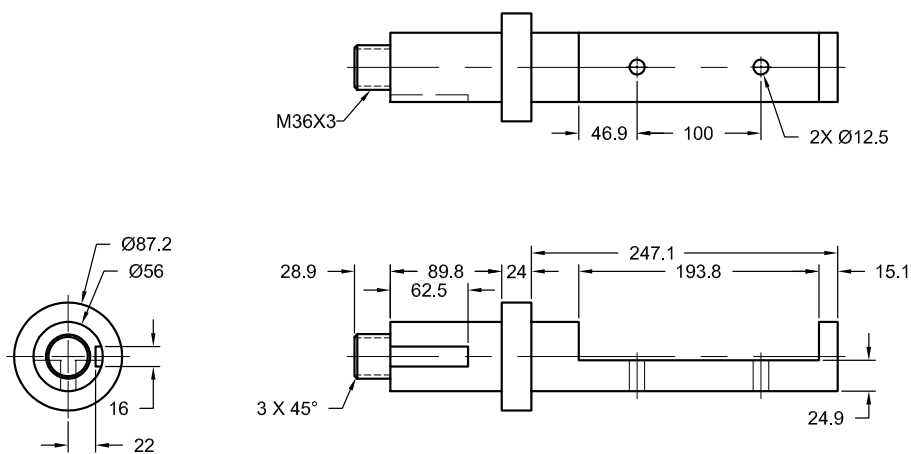


Figure 5 Dimensions of the Shaft

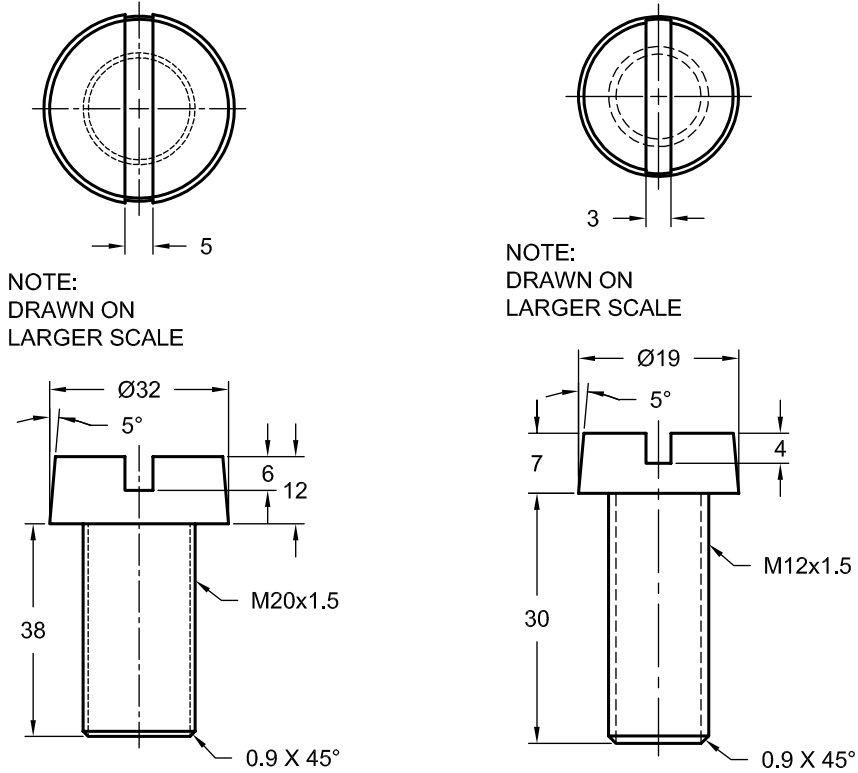


Figure 6 Dimensions of the Screws

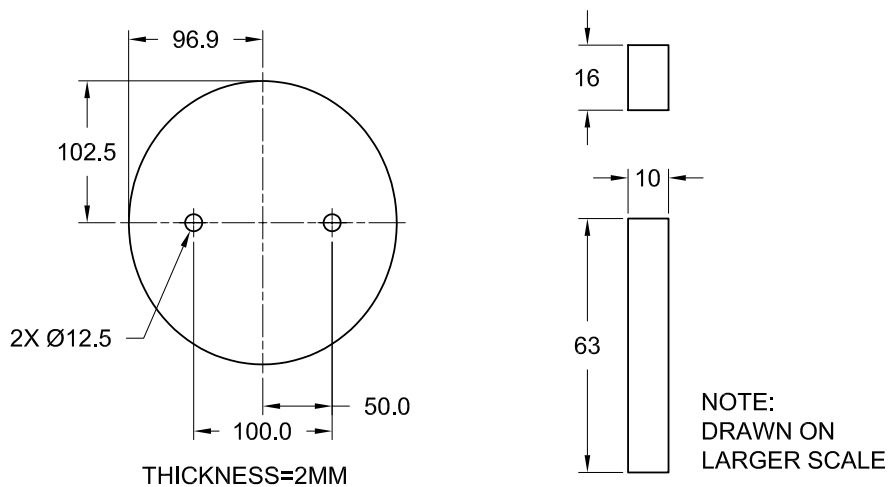


Figure 7 Dimensions of the Plate and Pin

Student Project 2

Create all components of the Crosshead assembly and then assemble them, as shown in Figure 8. The exploded view of the assembly is shown in Figure 9. The dimension of the components are shown in Figures 10 through 15. (Note: All dimensions are in millimeters)
(Expected time: 2 hrs)

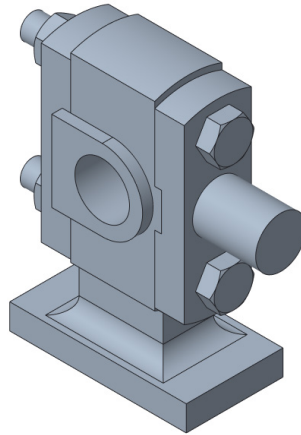


Figure 8 The Crosshead assembly

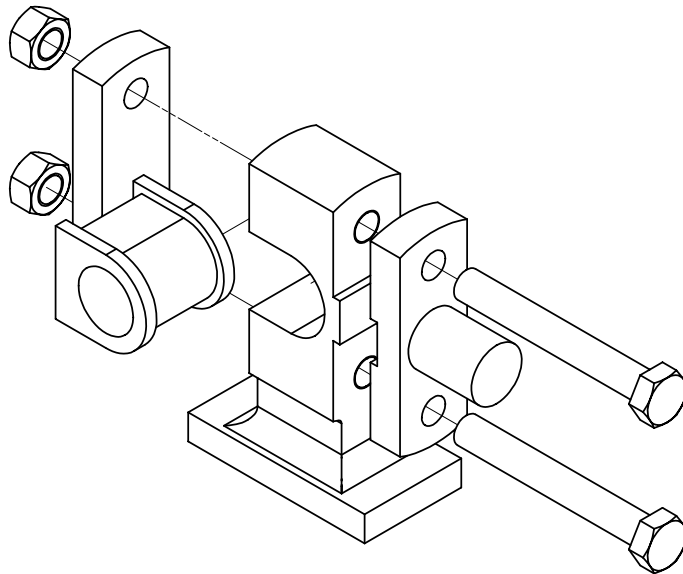
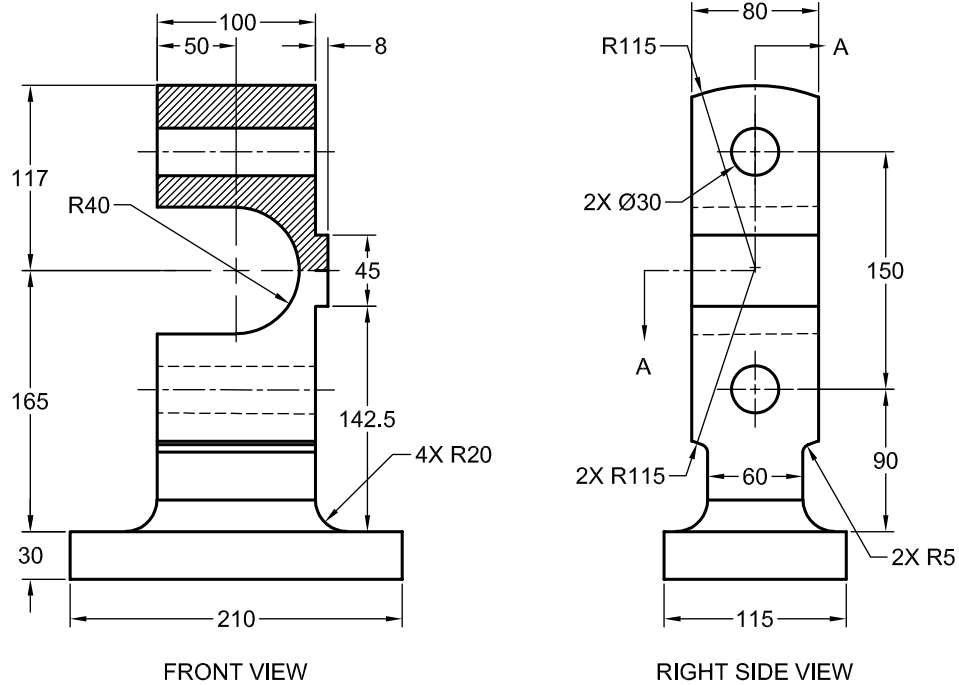


Figure 9 The exploded state of the Crosshead assembly



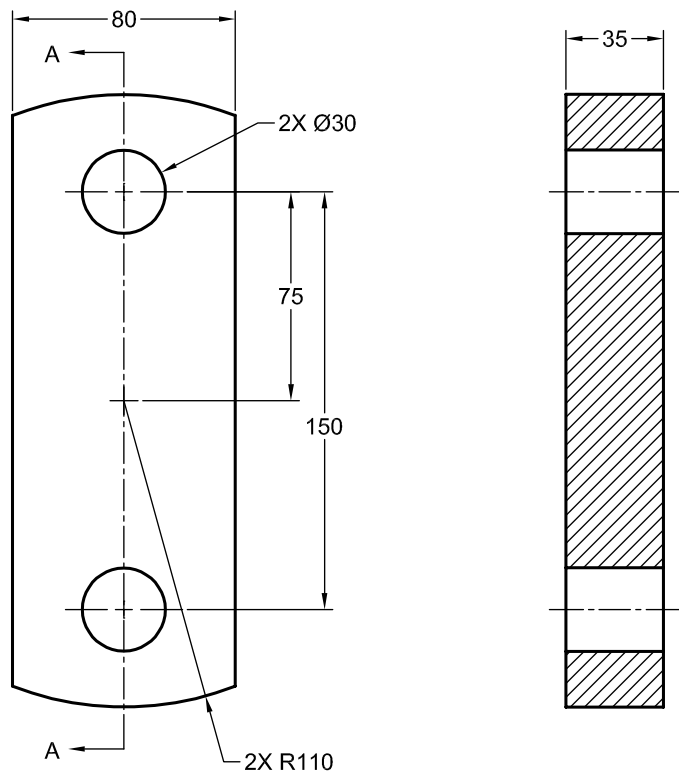


Figure 11 Dimensions of the Keep Plate

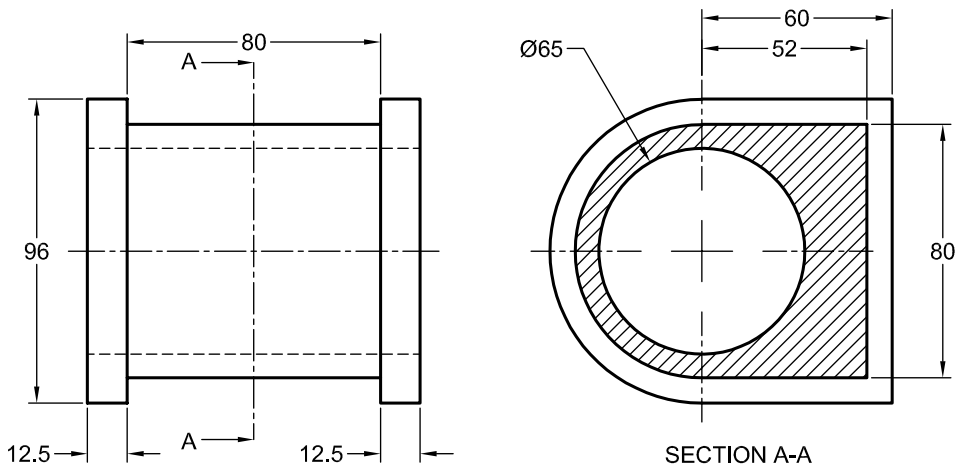


Figure 12 Dimensions of the Brass

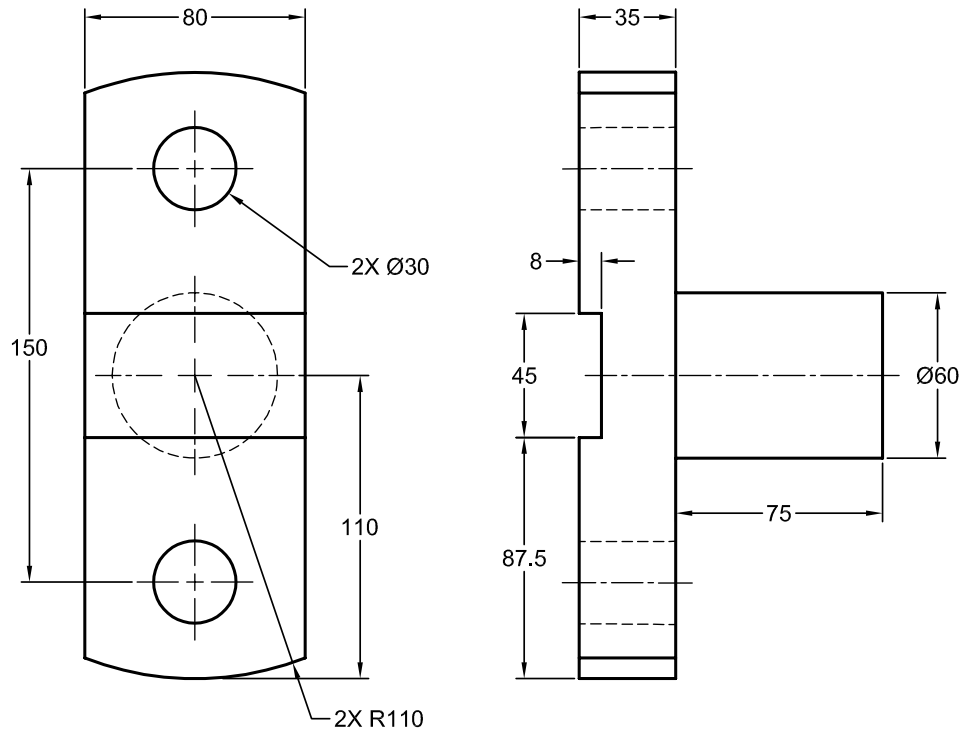


Figure 13 Dimensions of the Piston Rod

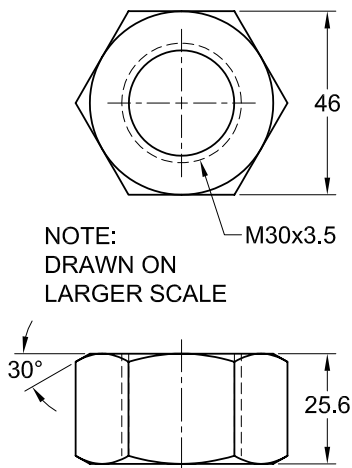


Figure 14 Dimensions of the Nut

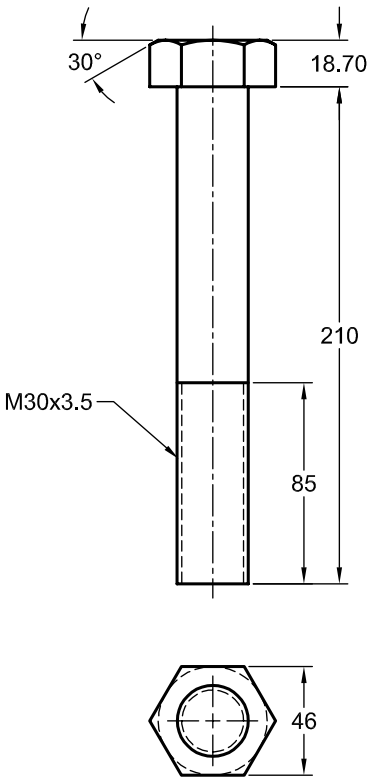


Figure 15 Dimensions of the Bolt