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)

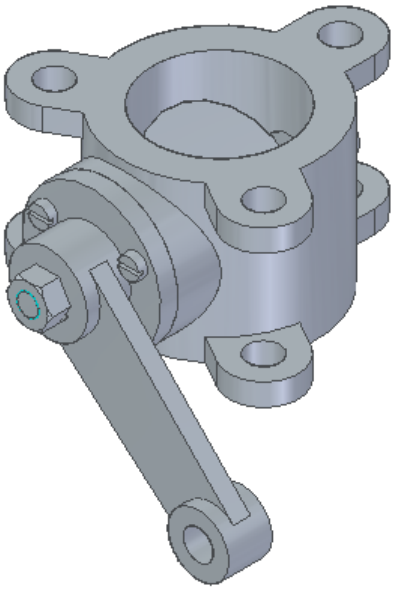


Figure 1 *Butterfly Valve assembly*

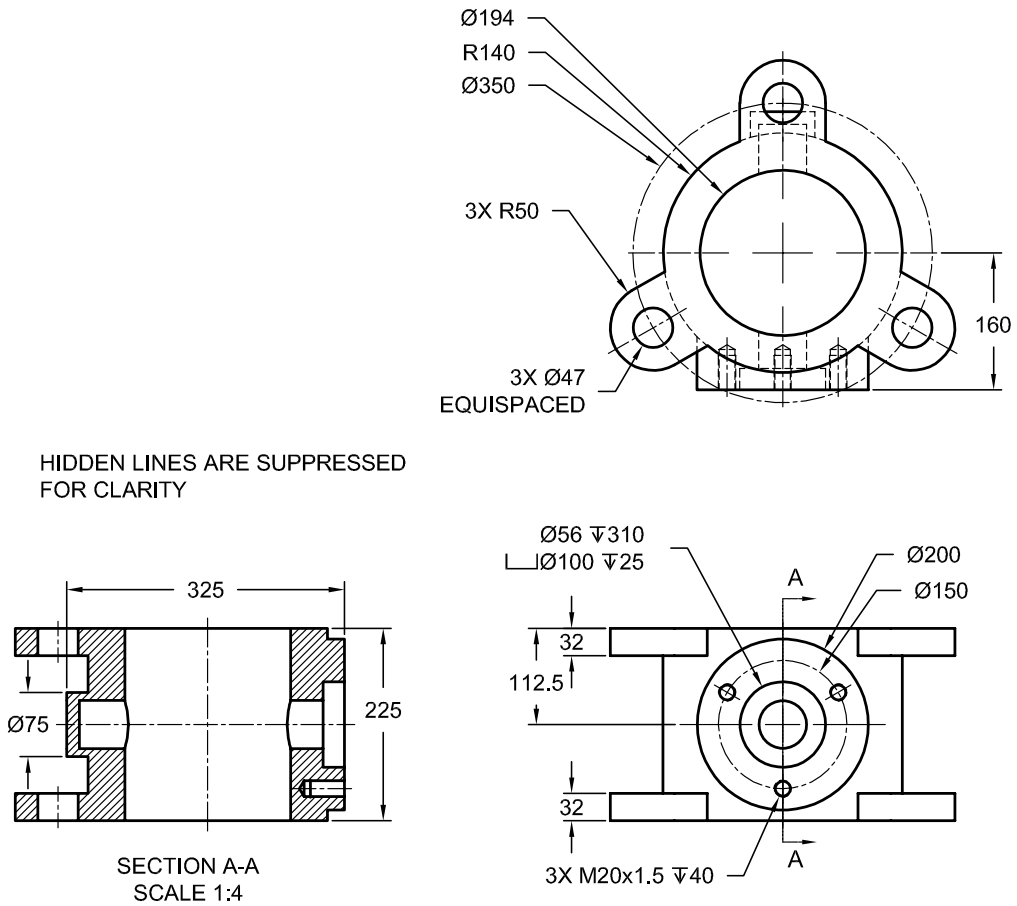


Figure 2 *Dimensions of the Body*

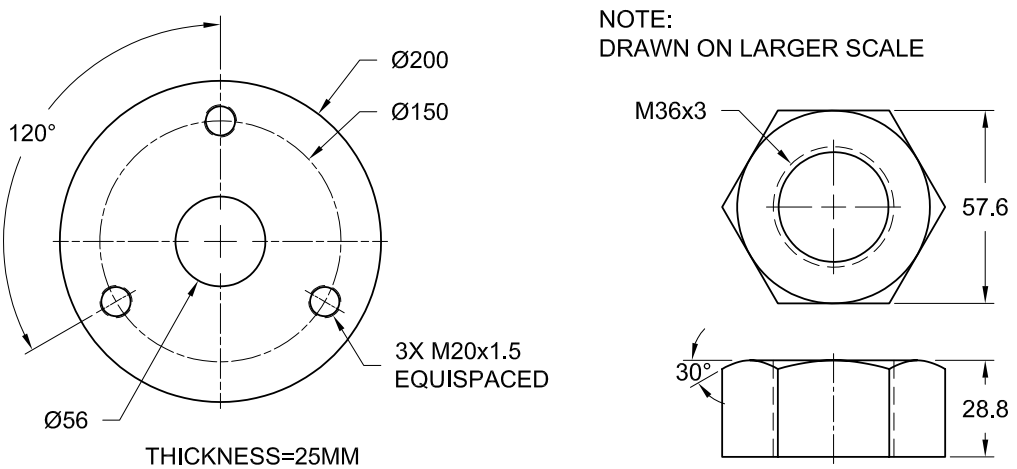


Figure 3 *Dimensions of the Retainer and Nut*

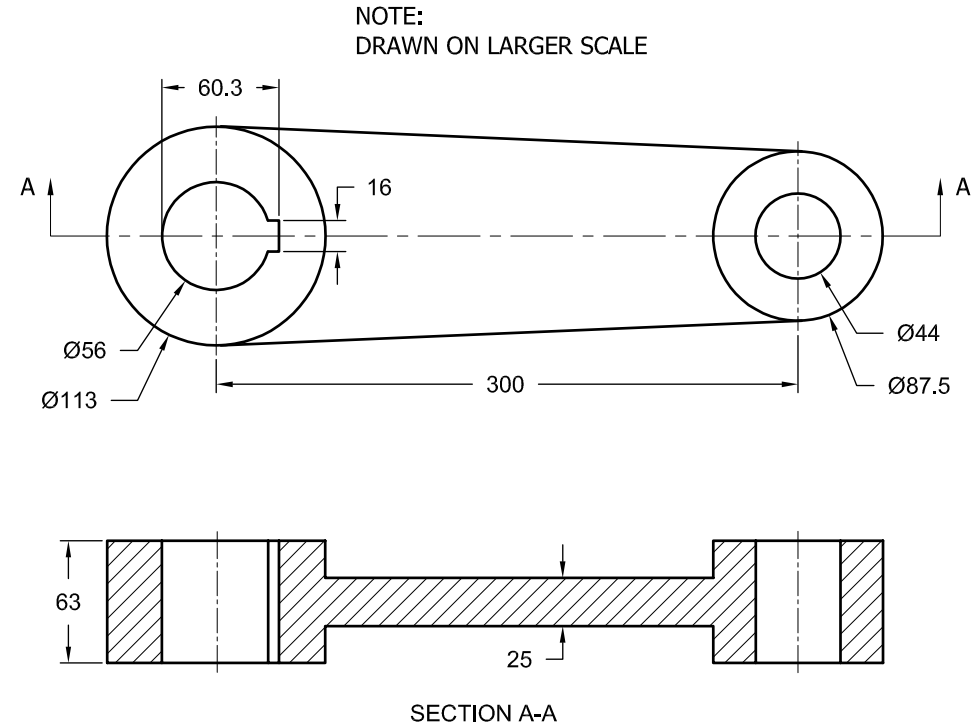


Figure 4 *Dimensions of the Arm*

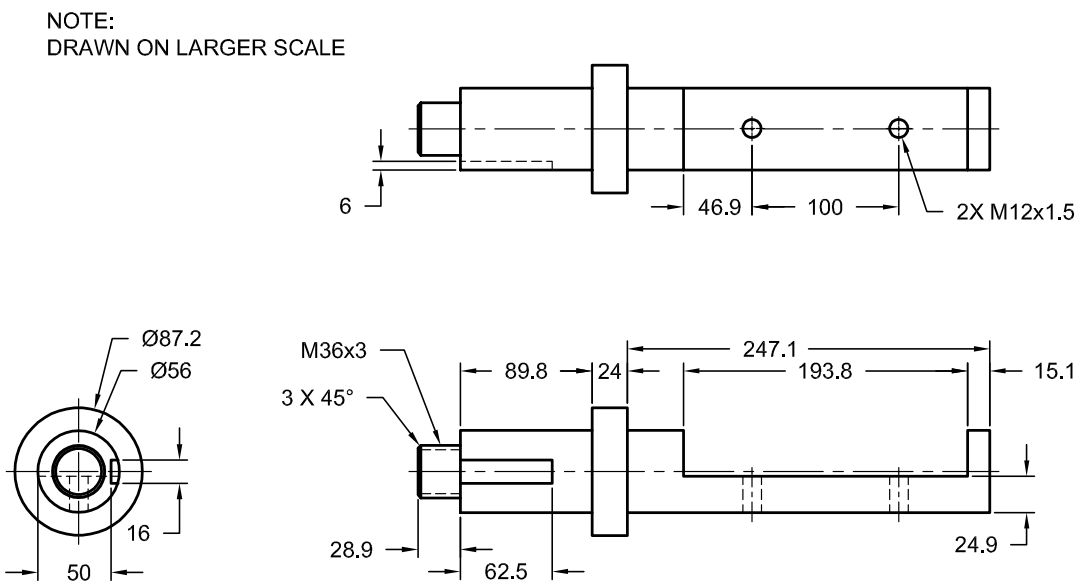


Figure 5 *Dimensions of the Shaft*

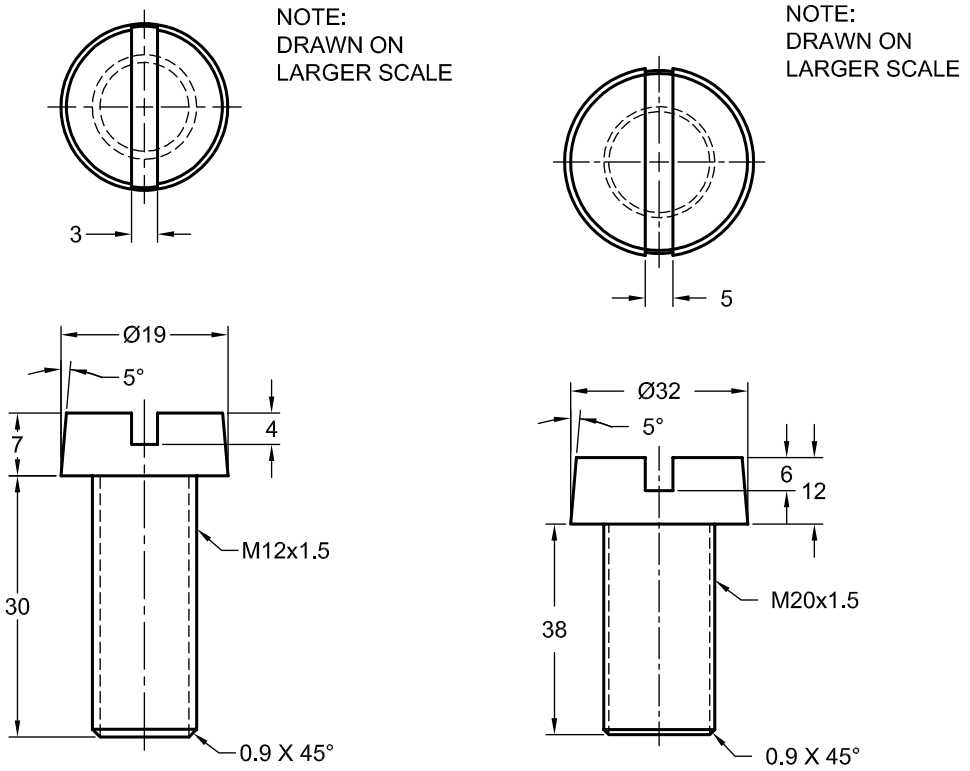


Figure 6 *Dimensions of the Screws*

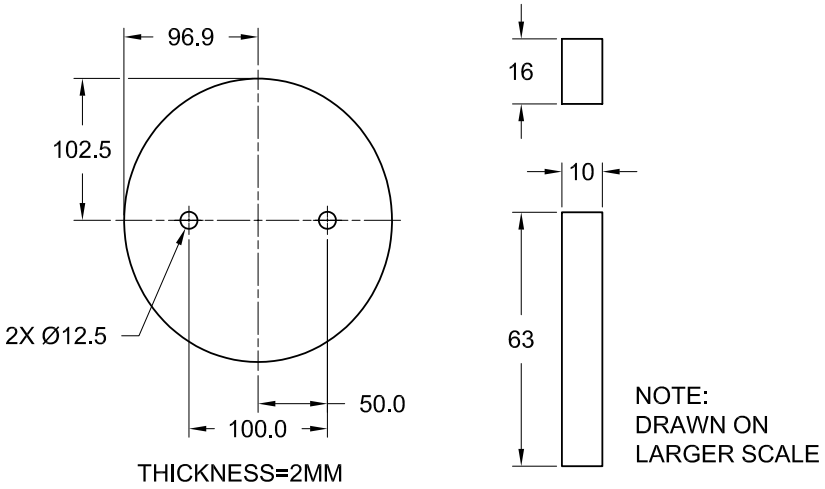


Figure 7 *Dimensions of the Plate and Pin*

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 hr)

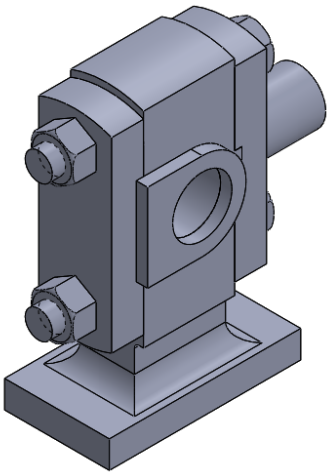


Figure 8 *Crosshead assembly*

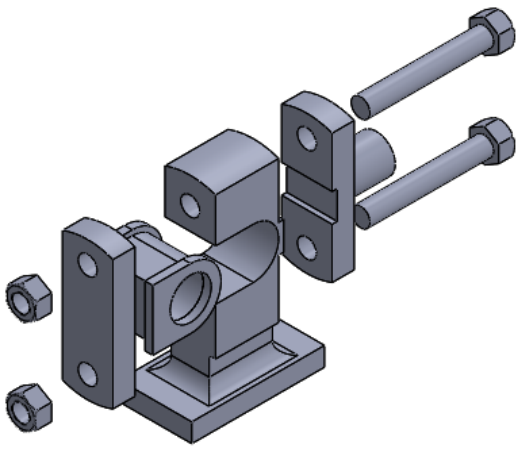


Figure 9 *Exploded view of the Crosshead assembly*

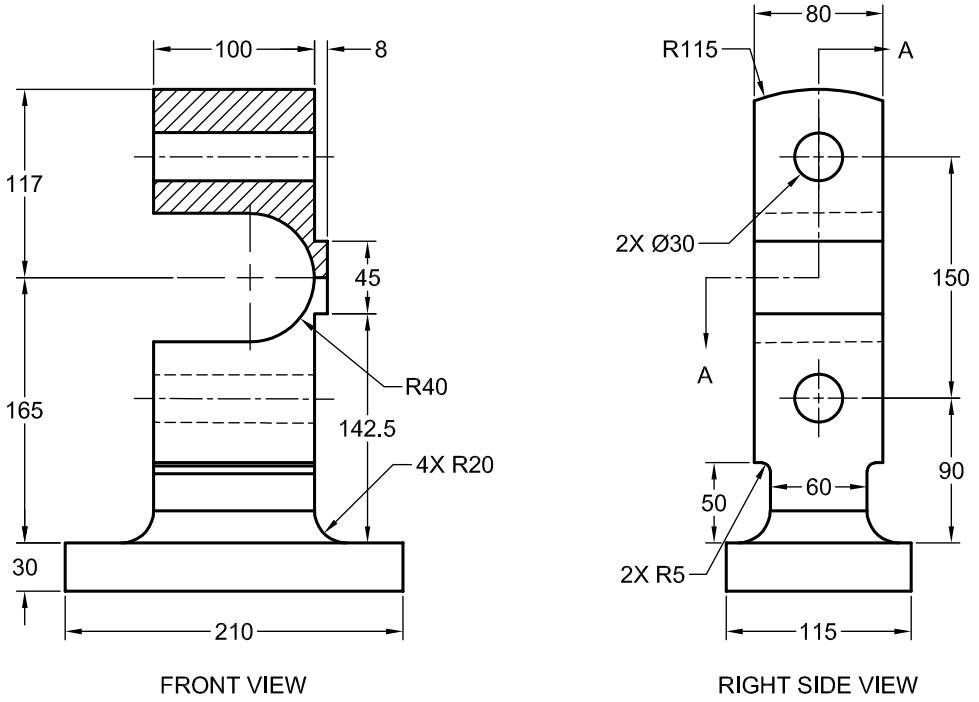


Figure 10 *Front view and right-side views of the Body*

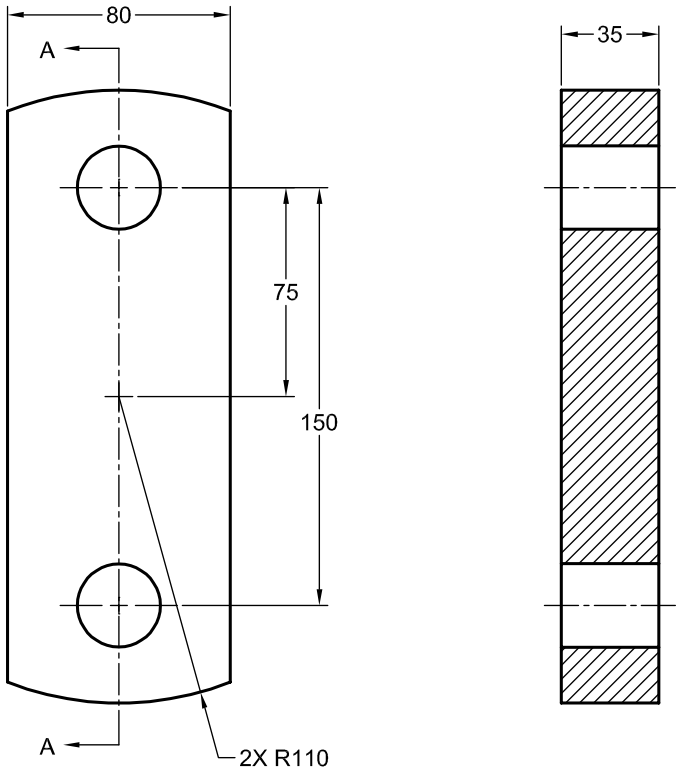


Figure 11 *Dimensions of the Keep Plate*

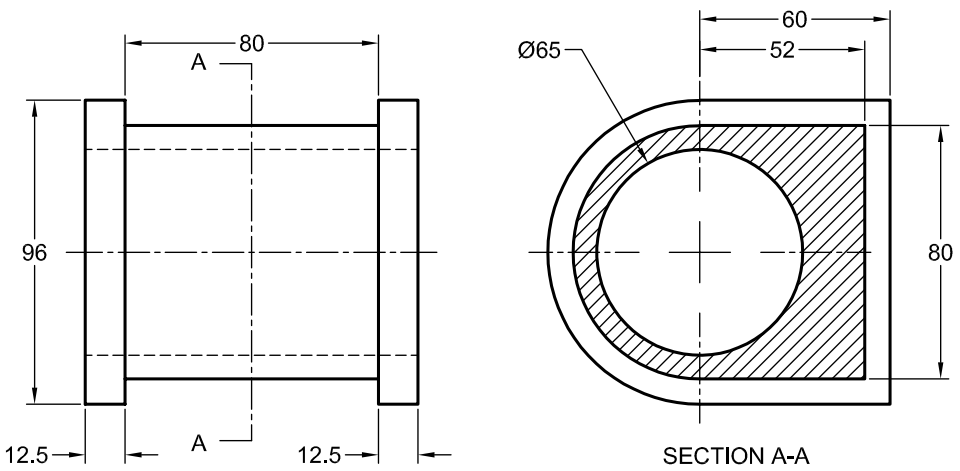


Figure 12 *Dimensions of the Brass*

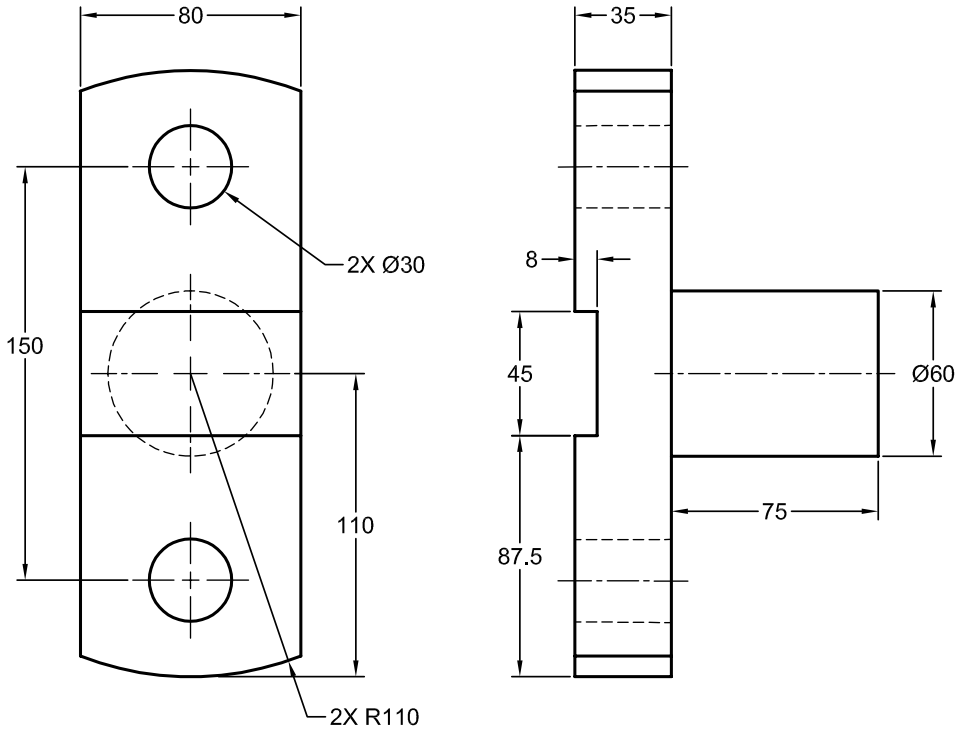


Figure 13 *Dimensions of the Piston Rod*

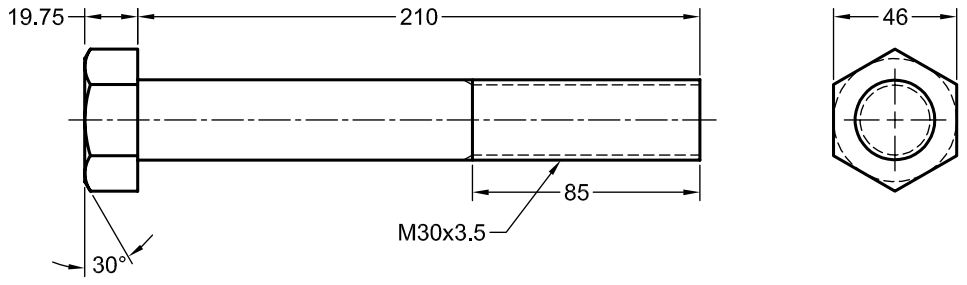


Figure 14 *Dimensions of the Bolt*

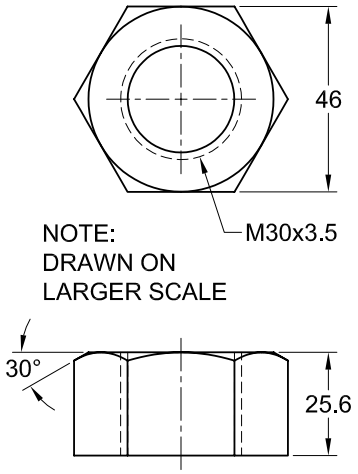


Figure 15 *Dimensions of the Nut*