

Student Project

Student Project 1

Create different components of the Double Bearing assembly and then assemble them as shown in Figure 1. Figure 2 shows the exploded view of the assembly. The dimensions of various components are given in Figure 3 to Figure 7.

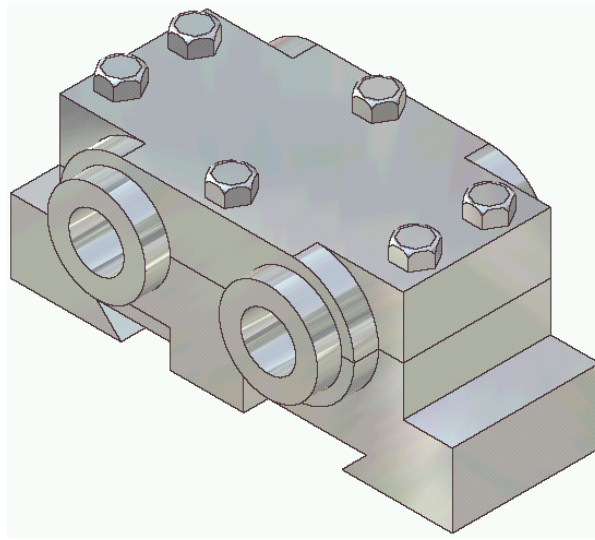


Figure 1 Double Bearing assembly

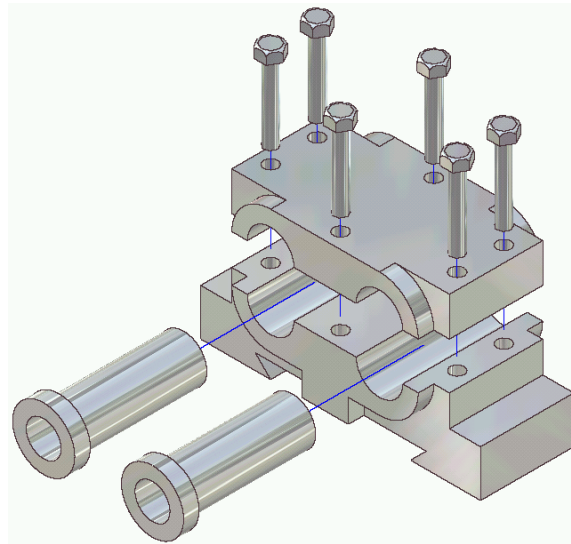


Figure 2 Exploded view of the Double Bearing assembly

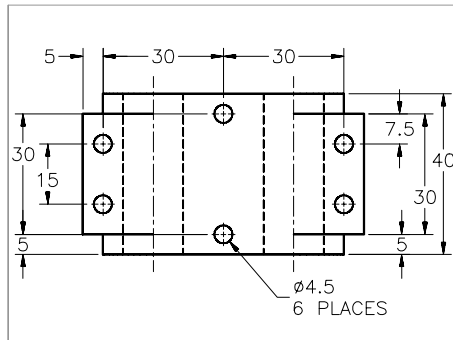


Figure 3 Top view of the Cap

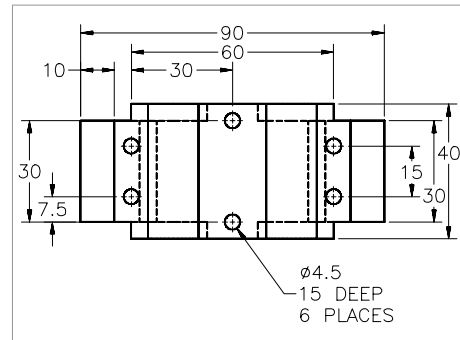


Figure 5 Top view of the Base

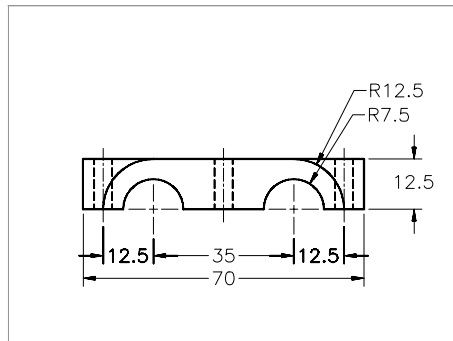


Figure 4 Front view of the Cap

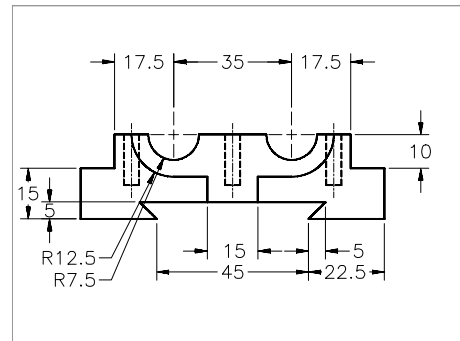


Figure 6 Front view of the Base

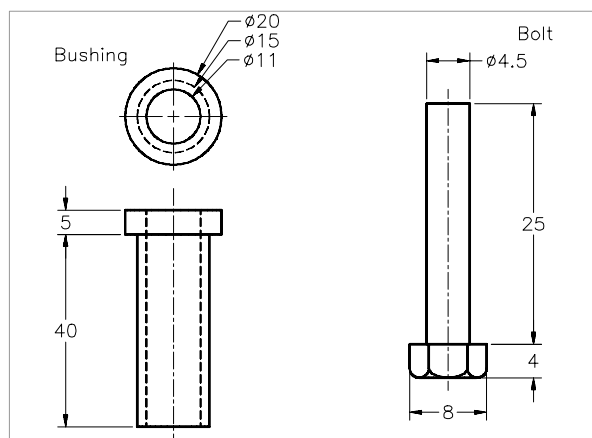


Figure 7 Dimensions of the Bushing and the Bolt

Student Project 2

In this tutorial you will create all the components of the Wheel Support assembly and then assemble them as shown in Figure 8. The exploded view of the assembly is shown in Figure 9. The dimensions of the components are shown in Figure 10, to Figure 14.

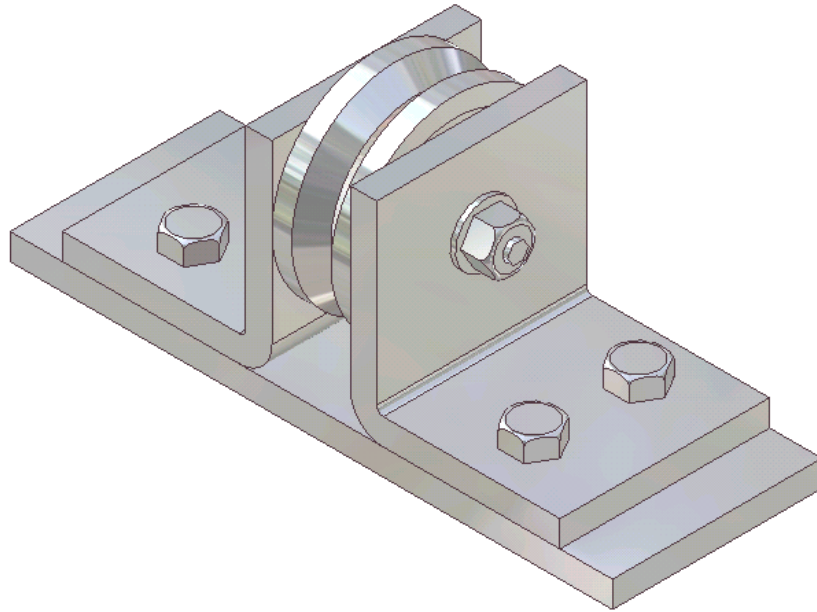


Figure 8 Wheel Support assembly

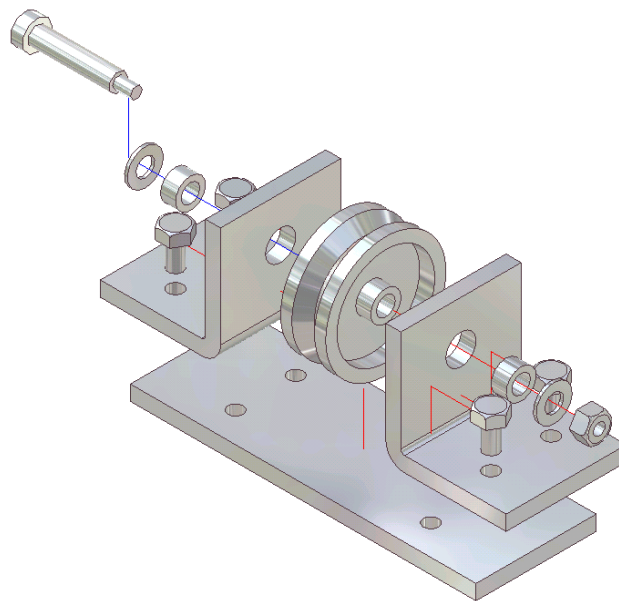


Figure 9 Exploded view of the Wheel Support assembly

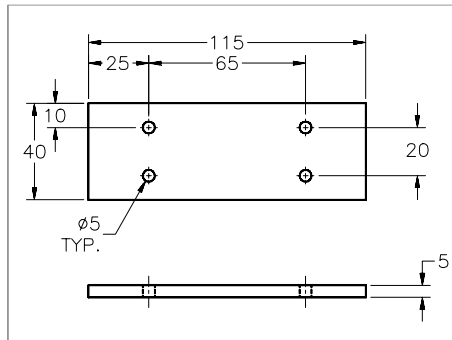


Figure 10 Dimensions of the Base

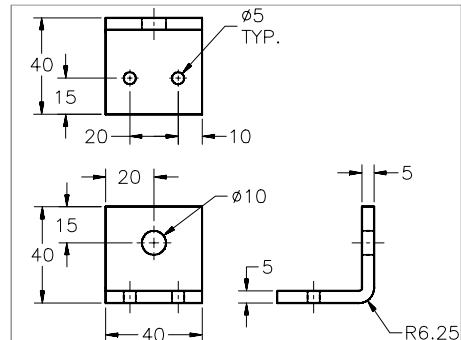


Figure 11 Dimensions of the Support

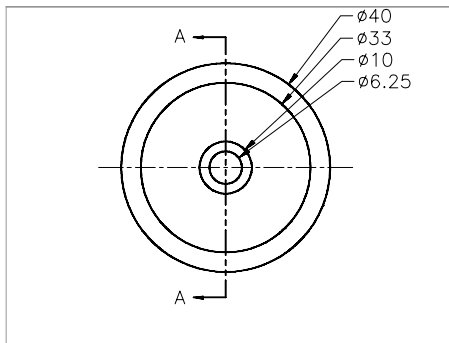


Figure 12 Front view of the Wheel

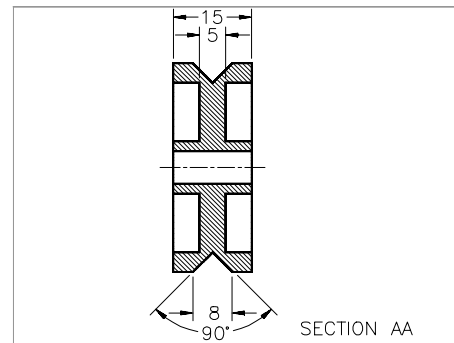


Figure 13 Sectioned side view of the Wheel

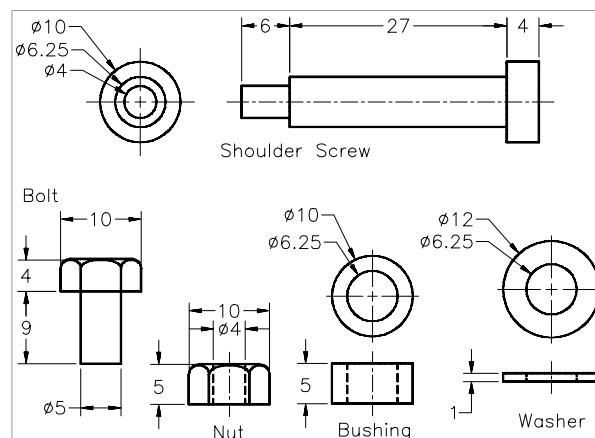


Figure 14 Dimensions of the Shoulder Screw, Bolt, Nut, Bushing, and Washer

Student Project 3

Create the components of the Drill Press Vice assembly and then assemble them, as shown in Figures 15 and 16. The dimensions for the components are shown in Figures 17 through 22. You will use the bottom-up approach for creating this assembly.

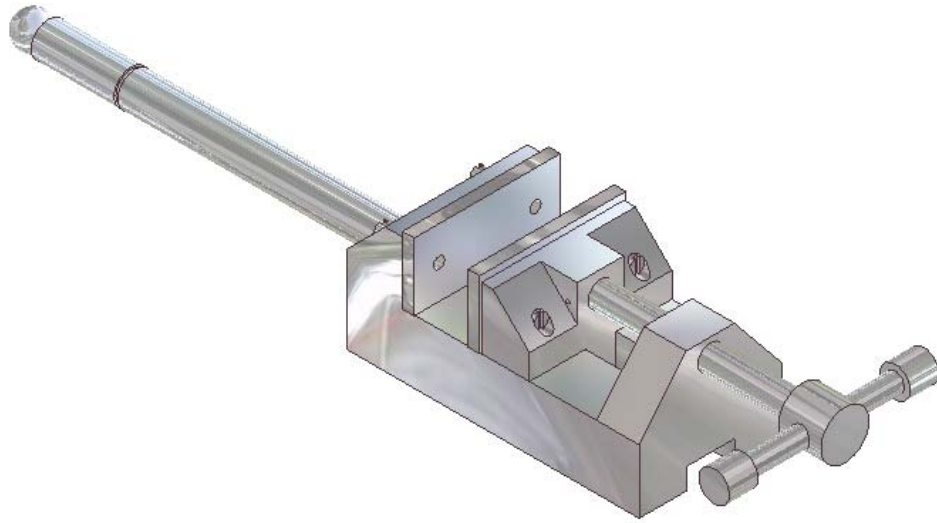


Figure 15 Drill Press Vice assembly

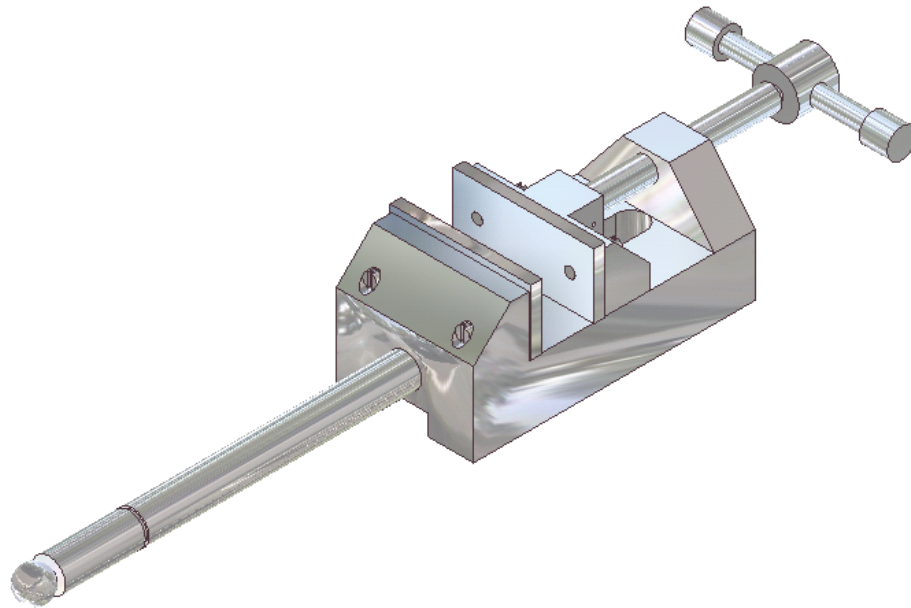


Figure 16 Drill Press Vice assembly

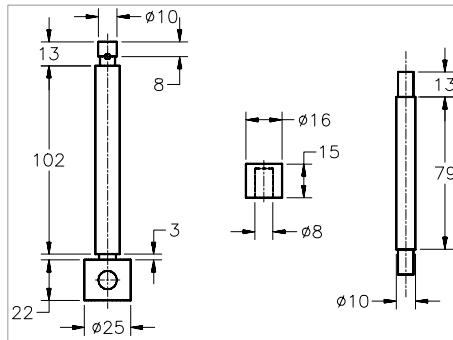


Figure 17 Dimensions of the Clamp Screw, the Handle Stop, and the Clamp Screw Handle

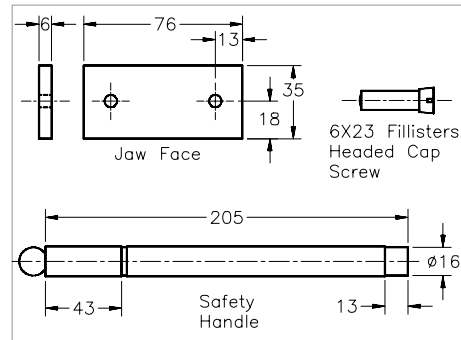


Figure 18 Dimensions of the Jaw Face, the Cap Screw, and the Safety Handle

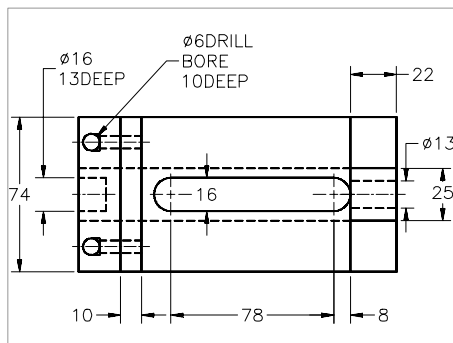


Figure 19 Top view of the Base

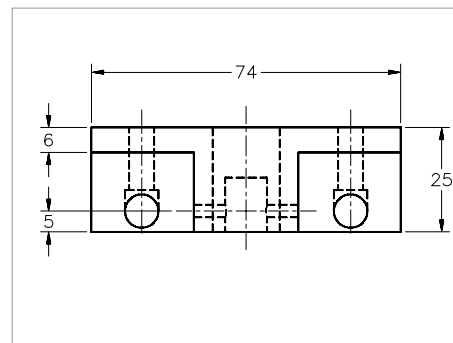


Figure 21 Top view of the Movable Jaw

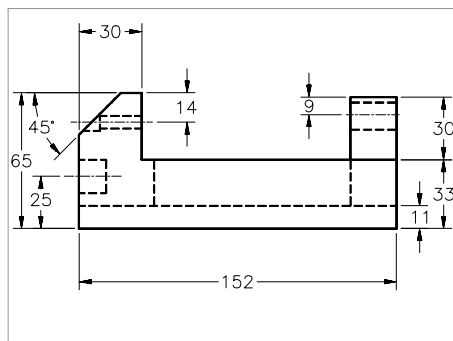


Figure 20 Front view of the Base

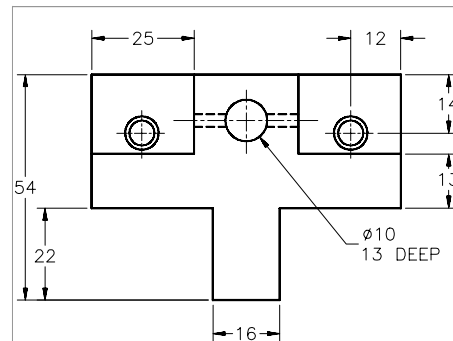


Figure 22 Front view of the Movable Jaw

Student Project 4

Create the components of the Pipe Vice assembly shown in Figures 23 and 24. The dimensions of the components are shown in Figures 25 and 26. You will use the bottom-up approach for creating this assembly.

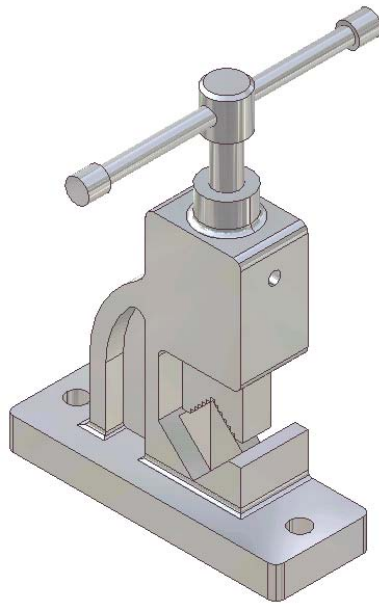


Figure 23 Pipe Vice assembly

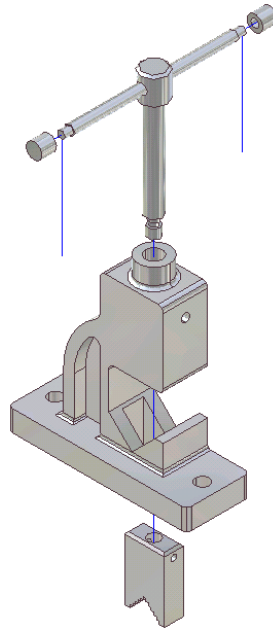


Figure 24 Exploded view of the Pipe Vice assembly

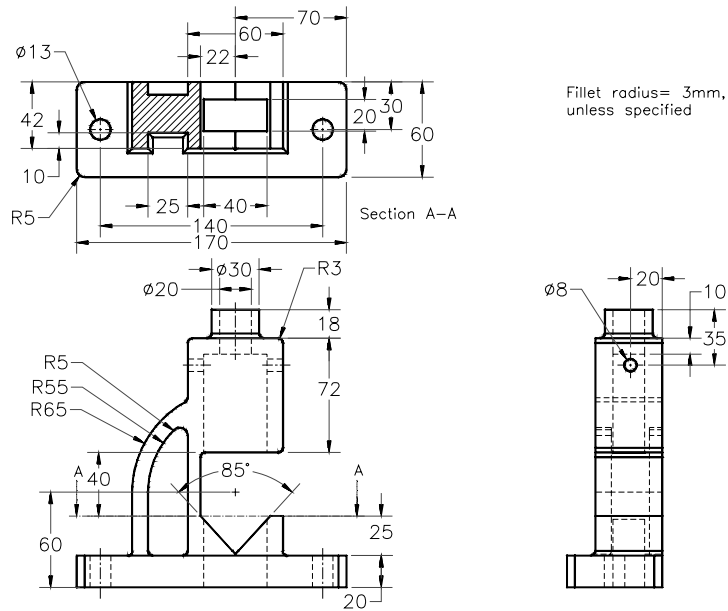


Figure 25 Dimensions of the Base

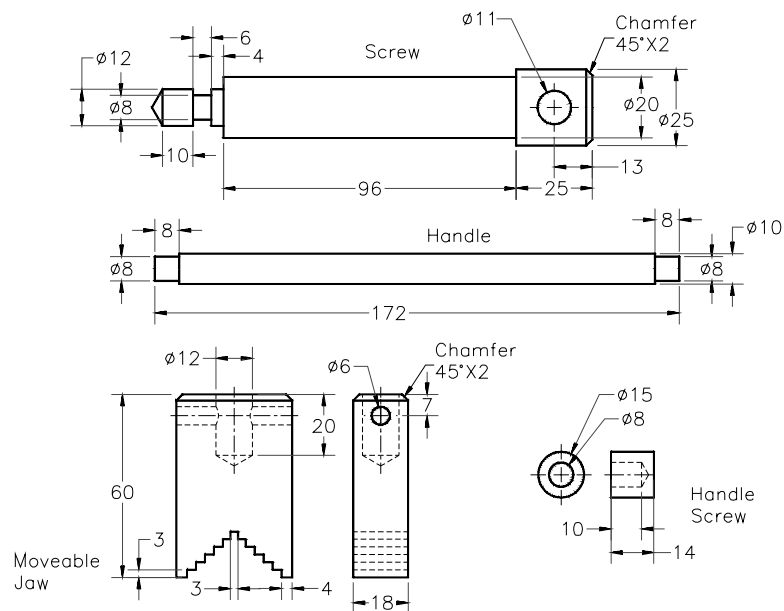


Figure 26 Dimensions of the other components

Student Project 5

Create the components of the Butterfly Valve assembly shown in Figures 27 and 28. The dimensions of the components are shown in Figures 29 and 37. Use the bottom-up approach for creating this assembly.

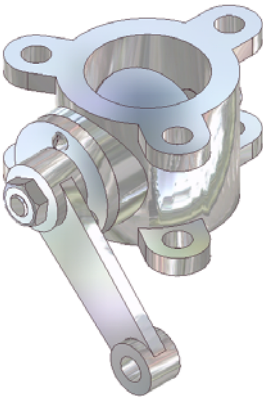


Figure 27 Butterfly Valve assembly

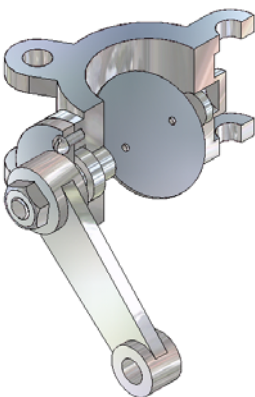


Figure 28 Inside view of the Butterfly Valve

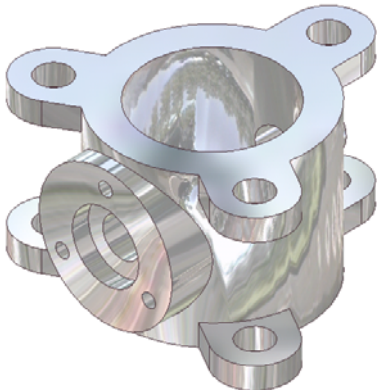


Figure 29 Solid model of the Body

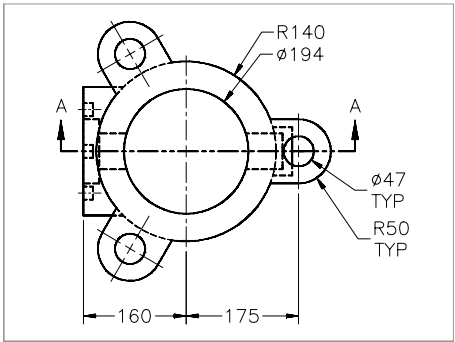


Figure 30 Top view of the Body

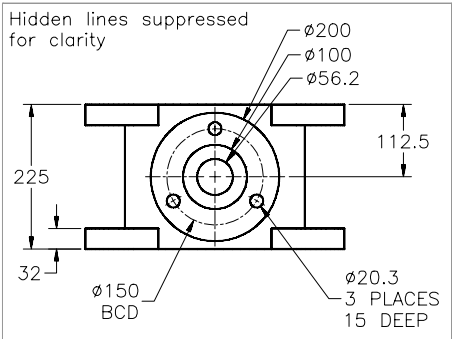


Figure 31 Left-side view of the Body

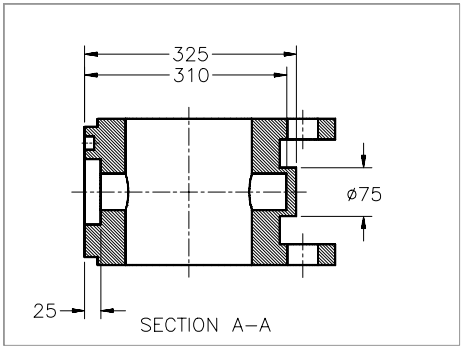


Figure 32 Sectioned front view of the Body

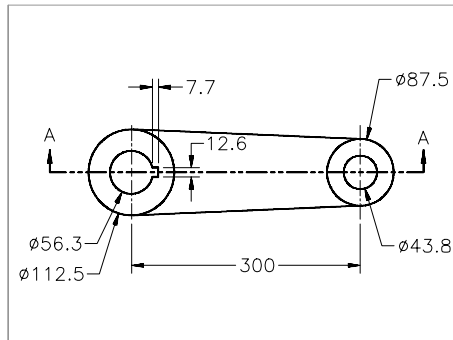


Figure 33 Top view of the Arm

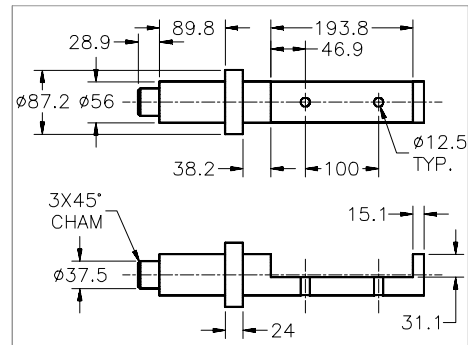


Figure 35 Dimensions of the Shaft

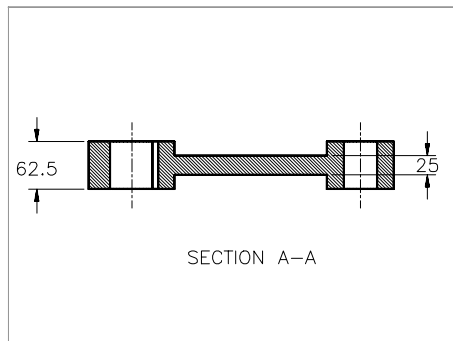


Figure 34 Sectioned front view of the Arm

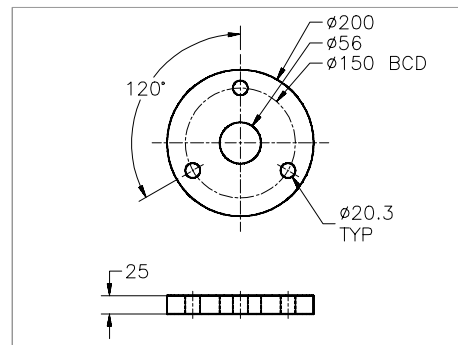


Figure 36 Dimensions of the Retainer

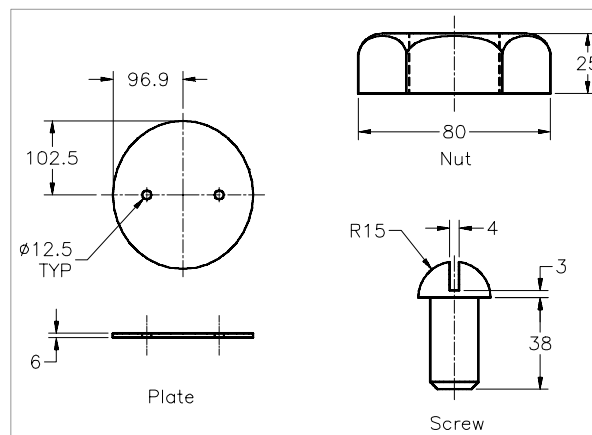


Figure 37 Dimensions of the Plate, Nut, and Screw