

Student Project 1

Create the components of the Screw Clamp (Medium Size) and then assemble them as shown in Figure 1 and Figure 2. Figures 3 through Figure 6 displays dimensions of all the components of the Screw Clamp assembly. For missing dimensions, refer to the other components of the assembly.

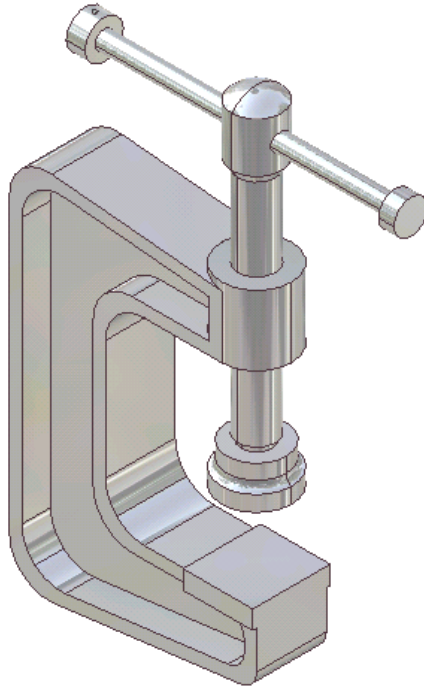


Figure 1 Screw Clamp assembly

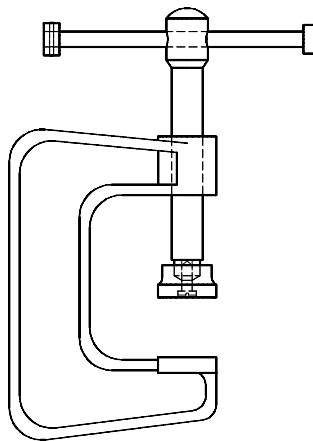


Figure 2 Screw Clamp assembly

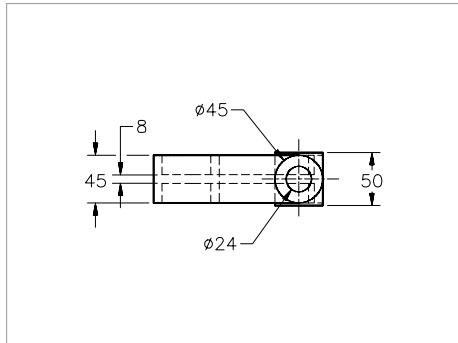


Figure 3 Top view of the body

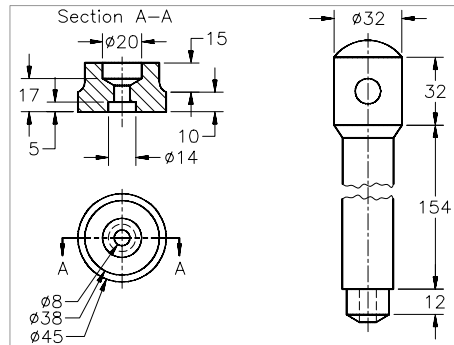


Figure 5 Dimensions of the components

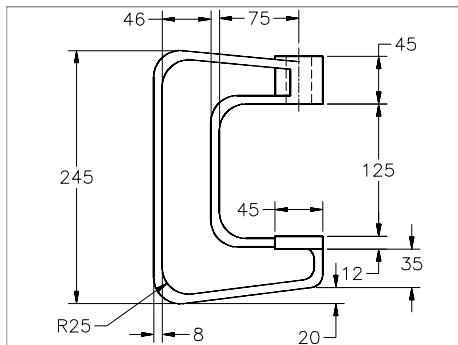


Figure 4 Front view of the body

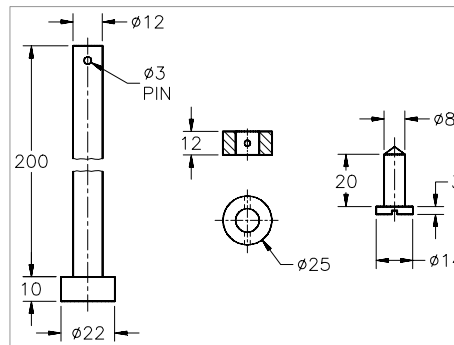


Figure 6 Dimensions of the components

Student Project 2

Create and twisted pencil shown in Figure 7. Assume the dimensions of the pencil.

Hints:

1. Create some points in three different planes.
2. Invoke the 3D sketching environment and draw lines using the points in different planes.
3. Add bends to the 3D sketch.
4. Create a new work plane at the start point of the 3D sketch.
5. Draw an octagon as the sketch on the new plane.
6. Sweep the hexagon along the 3D sketch.
7. Create a revolved cut at the end of the sweep feature.
8. Split the upper part of the revolve cut and apply black color to it so that it appears like lead.
9. Add the remaining features to the pencil.

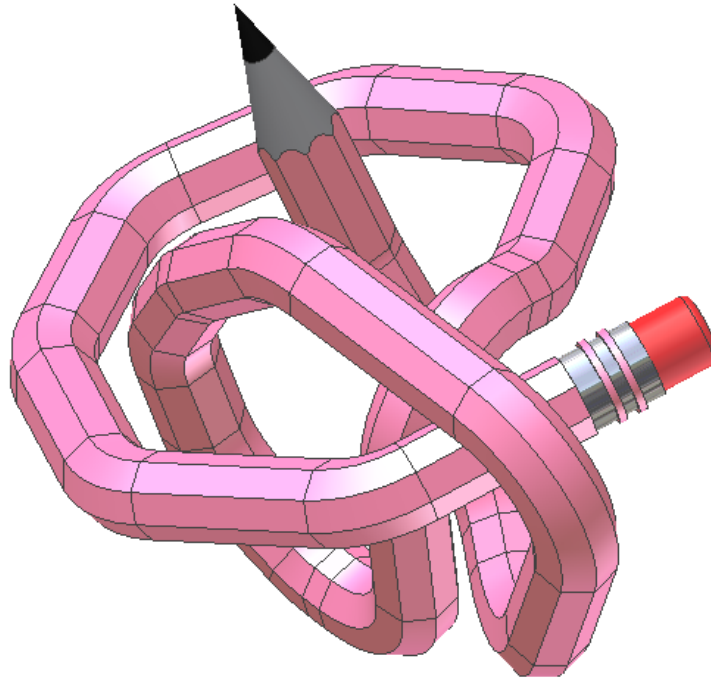


Figure 1-7 Twisted pencil