Exercise: SHELLING AND RIBBING

Exercise: Blow Dryer

Create this part by following the steps as shown.

This lab uses the following skills:
- Analyzing and Adding Draft
- Shelling
- Planes
- Rib
- Full Round Fillets

Optional Sketching

If you would like to use the existing geometry, skip to Procedure. If you would like to create the sketch, open a new mm part and use the dimensions below. The sketch is on the Right Plane.

Procedure

Open an existing part in the Exercises folder.
1. Open the part Blow Dryer.
Extrude, Draft and Rounds

Starting with the sketch, the base feature is created, drafted and rounded.

2 Extrude.
Extrude the sketch 25mm as shown.

3 Draft.
Add draft of 2° to all outer faces except the outlet face, using the back face of the model as the neutral plane. This is a partial Front view, looking into the outlet face.

Tip

There is no draft on outlet face.

4 Rounds.
Add rounds (R16mm and R11mm), using the size and sequence shown, to the solid body.

Other features

Use the following guidelines and drawing to add other features, including shells and ribs, to complete the model.
5 Complete the part.
Complete the part using the following guidelines.
- Wall thickness is constant.
- Vents and ribs are the same size.
- All fillets and rounds 1mm except full rounds on ribs.

SECTION A
Thru both ribs

SECTION B

DETAIL C
SCALE 2X
6 Shell and ribs.
Shell the solid using a 2mm wall thickness. Leave some faces open as shown.
Insert a plane 3mm below the edge of the solid and add two ribs using the dimensions shown.

Use the option to create rib on Both Sides of sketch.

7 Create boss and fillet.
Create a new plane 2.5mm below the edge. Use that plane to sketch the circular boss as shown. Extrude the boss Up to Next with 2° of draft.
8 Full Rounds.
Create **Full Round** fillets on both ribs.

9 Fillets.
Add **1mm** fillets to the edges of the ribs and the edge of the tapered boss.

10 Mounting hole.
Create the mounting hole in the ribs by sketching and extruding a circle through both ribs. Relate the center of the circle **Coincident** to the model edge. The **Front view** is shown.
13 **Create the first vent.**
Choose a planar face and sketch the vent profile. Relate the vent to the rest of the solid as shown.

Tip

Use the **Parallelogram** tool to make sketching the shape easier. Check the online Help for more information.

13 **Copy the vent.**
Copy the vent using a linear pattern. Move them vertically to set the copies **6mm** apart.

14 **Save and close the part.**