Importing / Opening a part file in Inventor and finding a Surface body can be confusing. You expected to get a Solid part that you can work with, but instead, all you see is this transparent shape in your viewport.

No need to panic. Let’s clarify what a “Surface” really is.

A Surface body is an object that has no volume, only surface area. Meaning that you wouldn’t be able to fill that object with water. There is a missing/non-existent surface somewhere and your object is leaking water.

A Solid body is an object that has a volume. It’s a closed shape, meaning that it would contain an exact amount of water (depending on the Volume of the shape).

Converting a Surface into a Solid means giving the object a Volume, “closing” the shape.

This short tutorial will demonstrate a few ways of how you can turn you Surface body into a Solid body.

When you first import/open a surface object in Inventor it will be displayed as a transparent, coloured thin-body part.
What I prefer to do first is make the surface object opaque. Right-click on the surface object in the **Browser** and untick **Translucent**

Now, to the important part – getting the surface converted to a solid body.

One of the ways of doing that is using the **Thicken / Offset** tool. Select all faces (more options in the **More** tab), select the thickness and hit **OK**.
Now because your surface has a thickness, it becomes a solid, as it now has some volume.
Going back to the surface stage, another way of turning your object into a solid is by using the **Patch** and **Stitch** commands.

Select the boundary edge of the area that you want to “close”, and hit **OK**. **Automatic Edge Chain** should help you select all the connecting edges.
Now that you have a closed shape, all you need to do is make it “water-tight”. Use the **Stitch** command to combine your newly created patch with the remaining surface to create a new solid.