
Autodesk Products Tip & Tricks

Product: Autodesk Inventor 2009
Topic: Use the Split Tool to Control Welds
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The Groove Weld allows users to place welds between two faces, or two sets of faces. While this is a great feature and extends the functionality of Inventor, it will sometimes give you undesirable results. In Figure 1 and Figure 2, you see a prime example. A Groove Weld is needed to fill the gap between the flat end of the threaded part, and the curved face it is mated to.

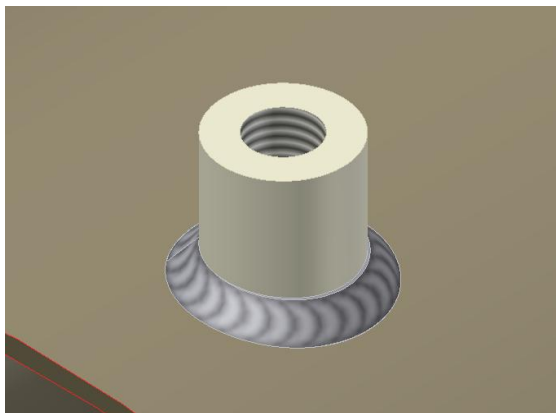


Figure 1

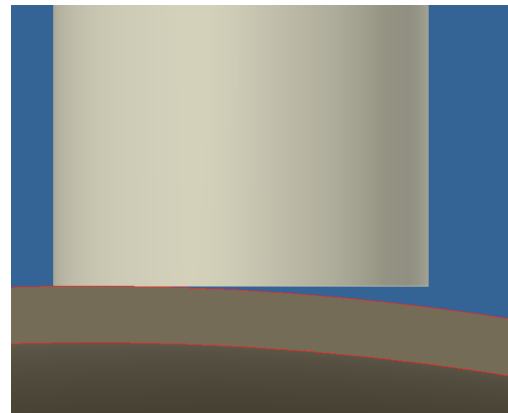


Figure 2

If we look at a section of the weld, Figure 3, and a detail drawing of that section, Figure 4. It appears as that the weld penetrate the entire gap between the parts. It is impractical, maybe impossible, to this amount of weld penetration. A welder may take it upon themselves to place heavy chamfers on the threaded part and perhaps even drill the lower part to get the weld penetration shown. This will also affect Weld Reports.

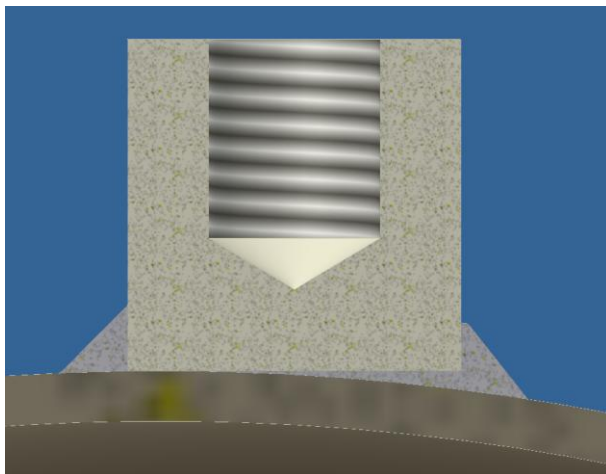


Figure 3

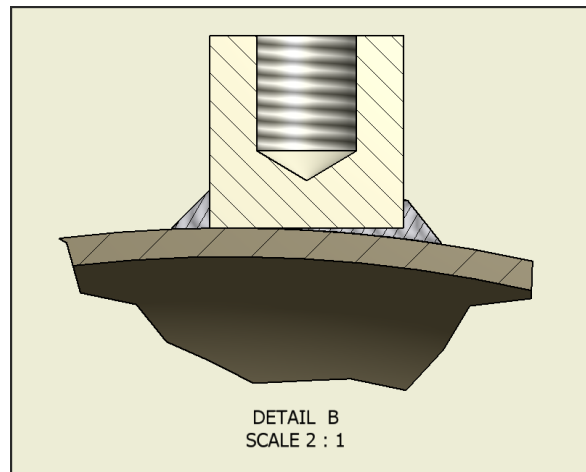


Figure 4

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By splitting the lower face of the tapped part, Figure 5, this gives a much smaller face to apply the Groove Weld to, Figure 6.

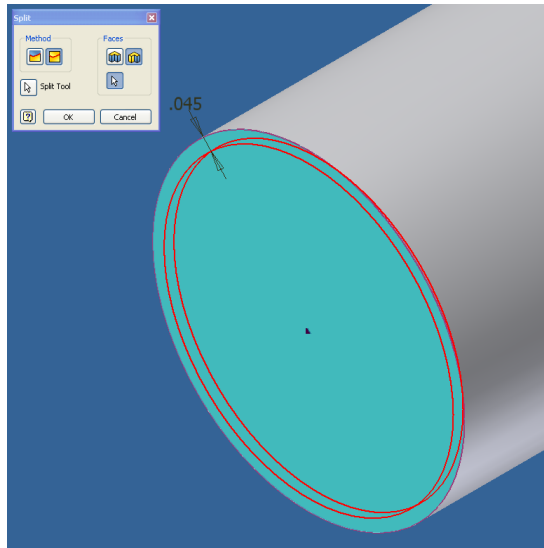


Figure 5

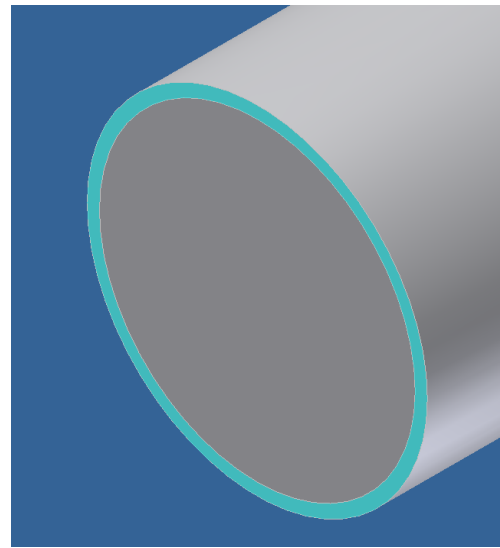


Figure 6

This results in better drawings and more accurate weld reports.

