



# JOINT CUT IMPROVEMENTS

3DXpert 15

Tutorial\_V1 - 15,0201,1774,804( SP2P1 )



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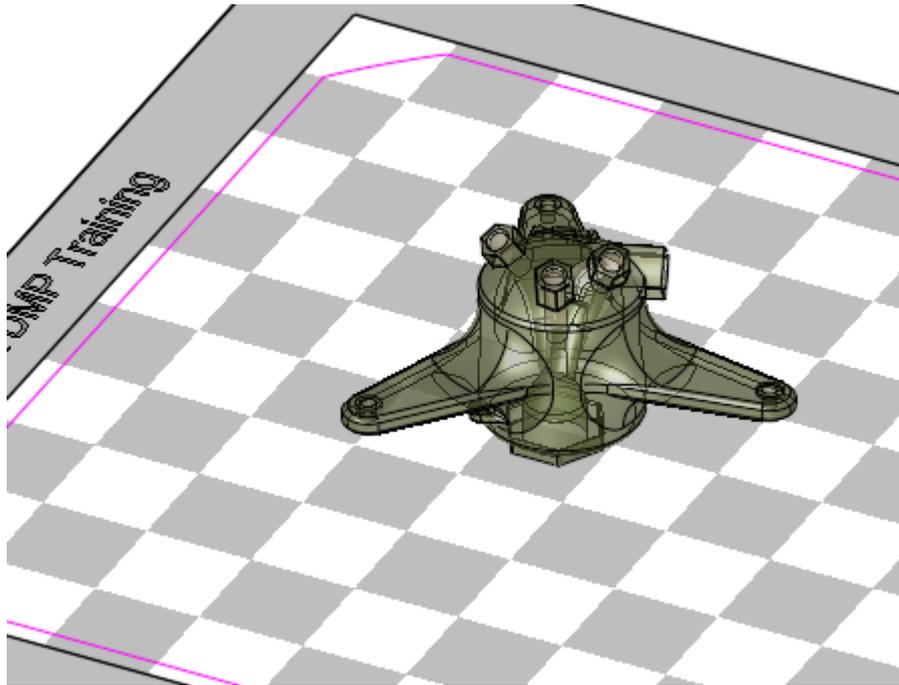


## Introduction

The Joint Cut tool is an important functionality when there is a need to print large parts that extend the printer chamber dimensions. Version 15.0 introduces two new options that provide more design flexibility, especially when handling parts that require more advanced cut options.

### Part 1 – Cut Mode – By Sketch

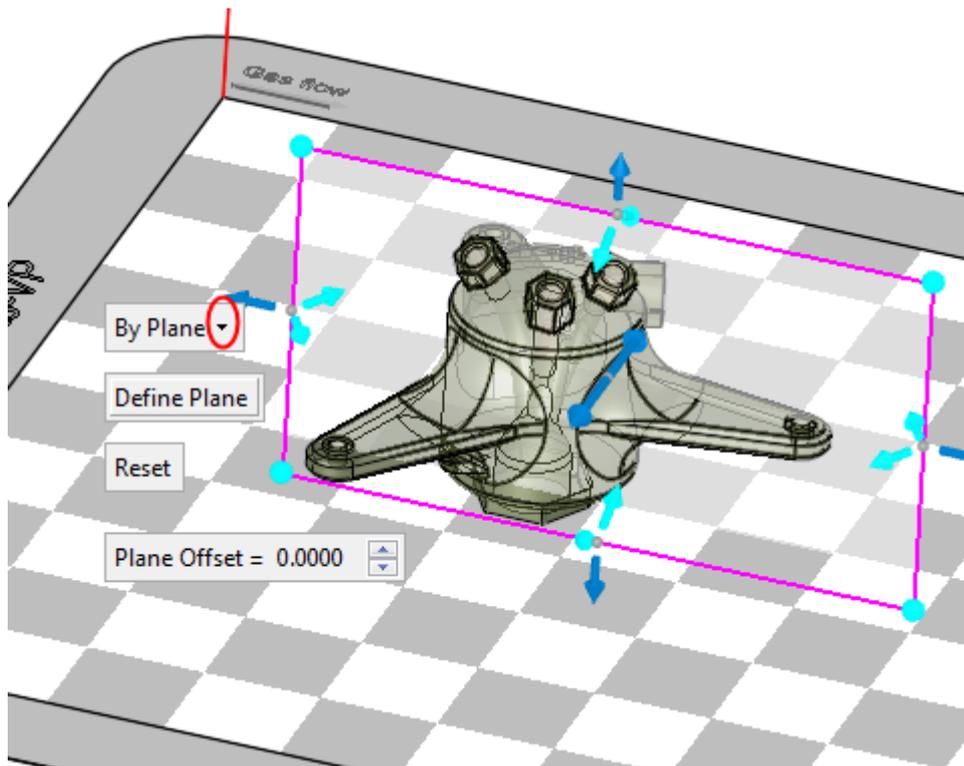
1. Unpack the file 'jointcut.ctf' and load 'jointcut.elt'.



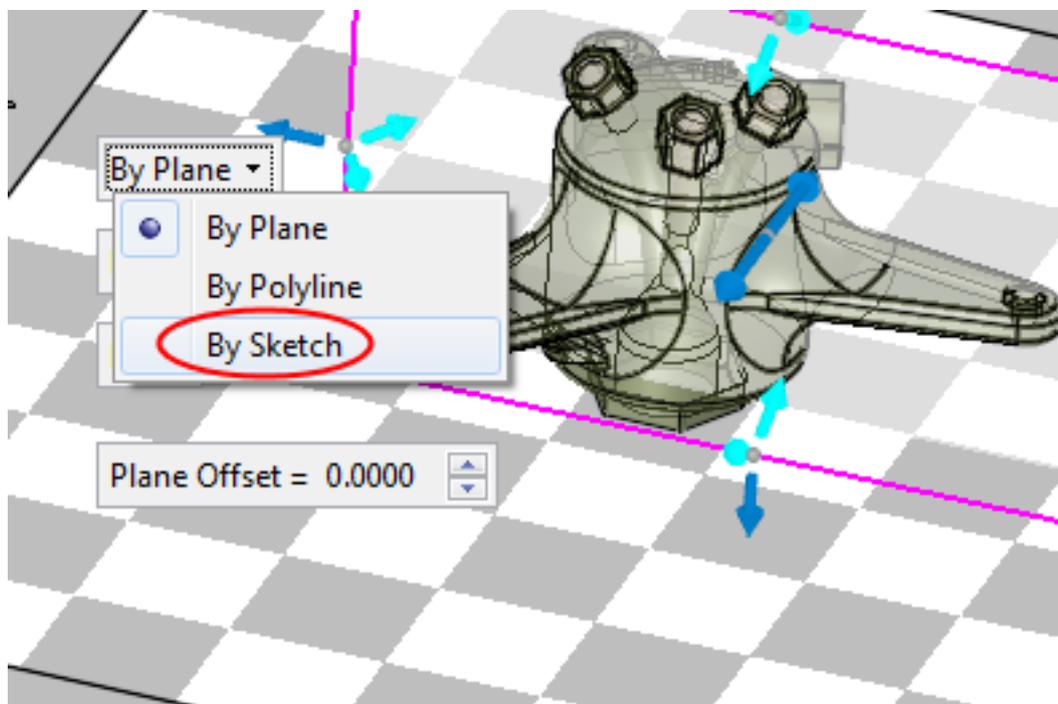
2. Invoke the **Joint Cut** function.



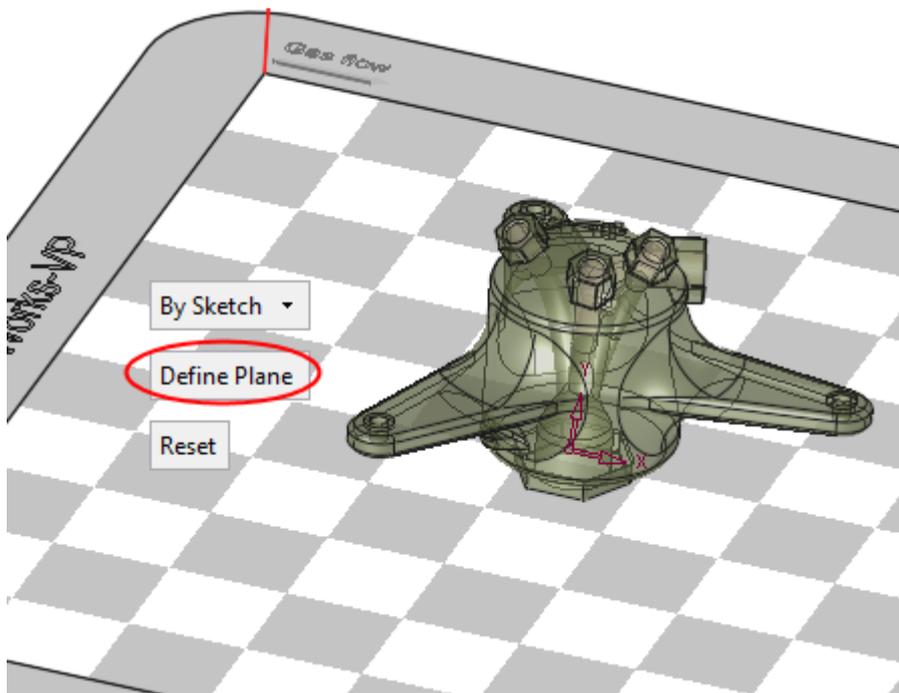
3. Click the arrow next to the **By Plane** option.



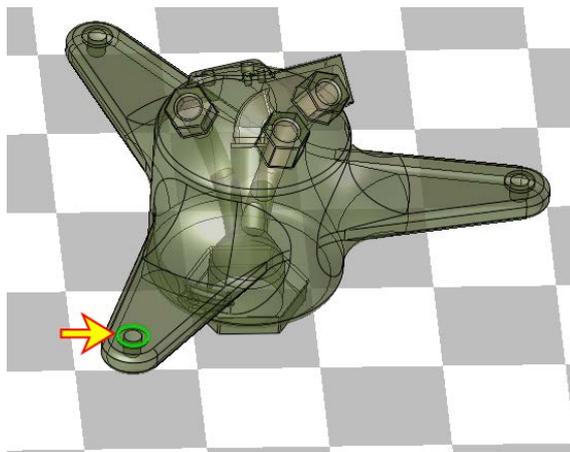
4. Select the **By Sketch** option. This option enables additional flexibility to define the geometry of the Joint Cut for more complex use cases.



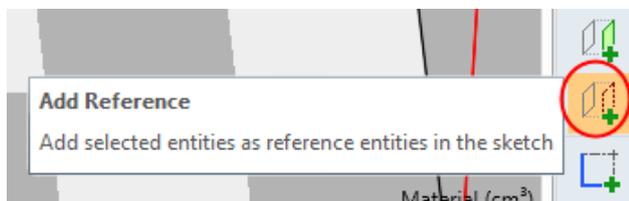
5. Select the **Define Plane** option.



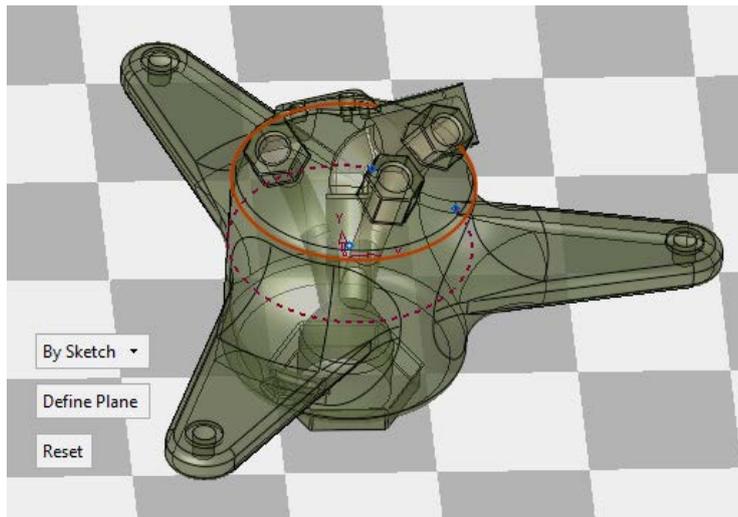
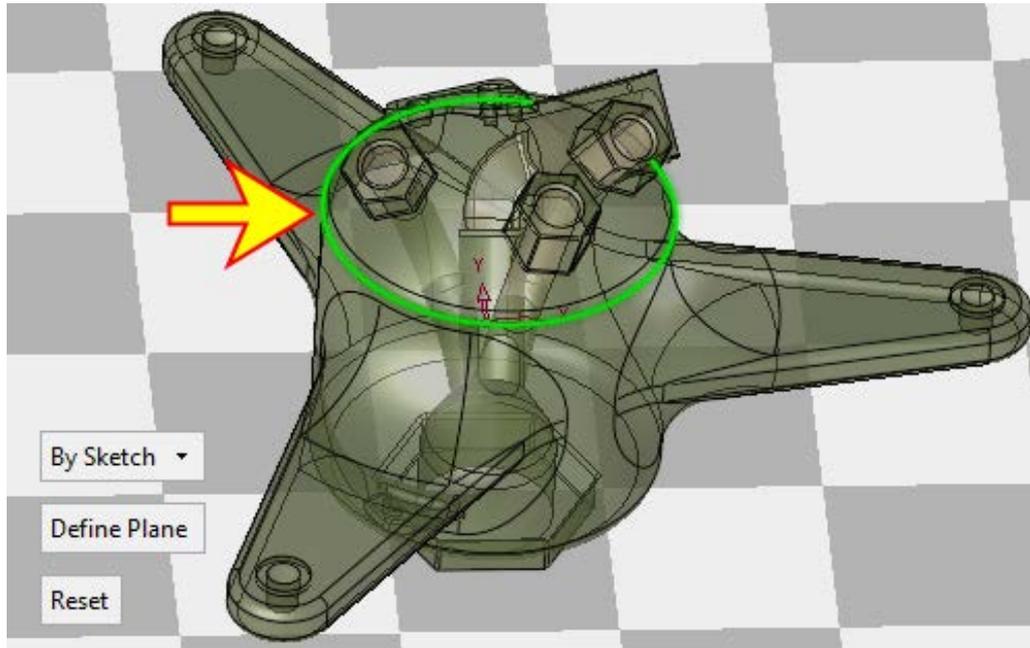
6. Select the curve to define the plane as indicated by the arrow, and Exit.



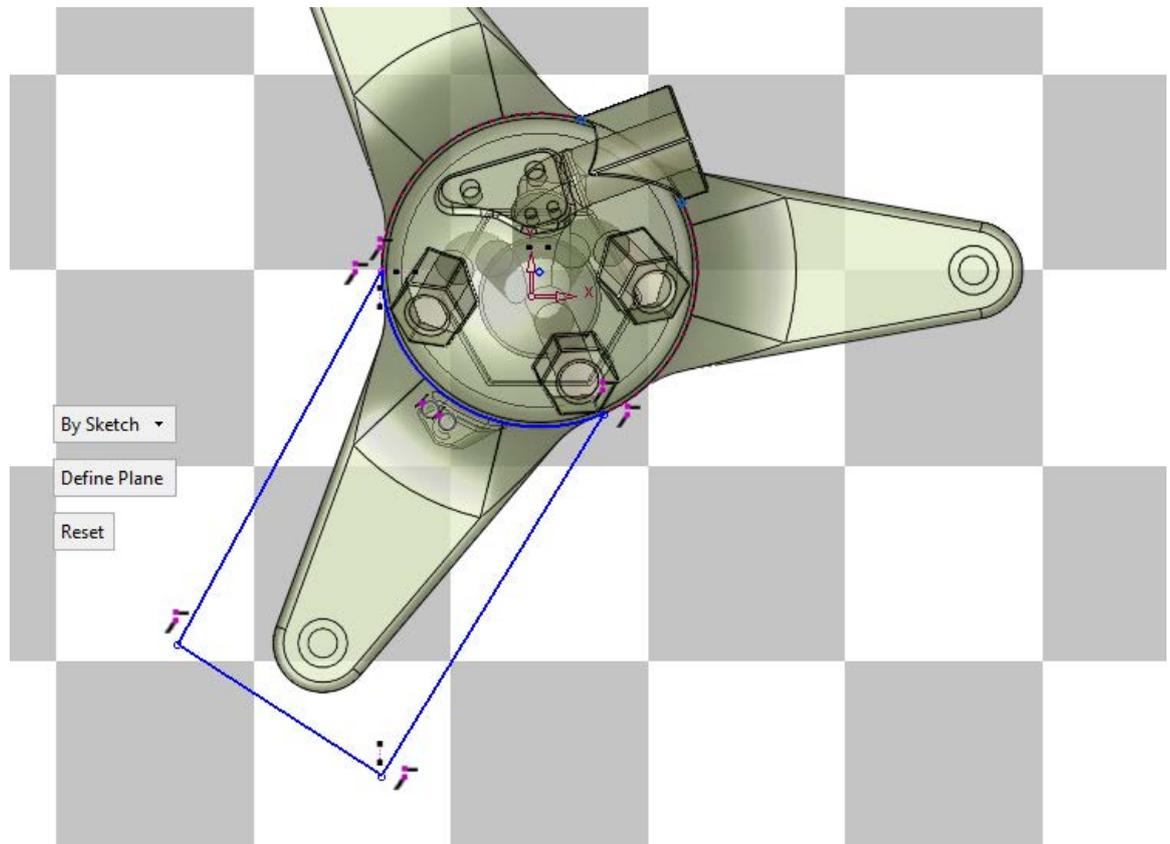
7. Select **Add Reference** to add reference entities.



- Select the circular curve as indicated by the arrow in the picture below as a reference entity:



9. Create the following sketch. Note that the selected sketch projection must fully intersect the target body.

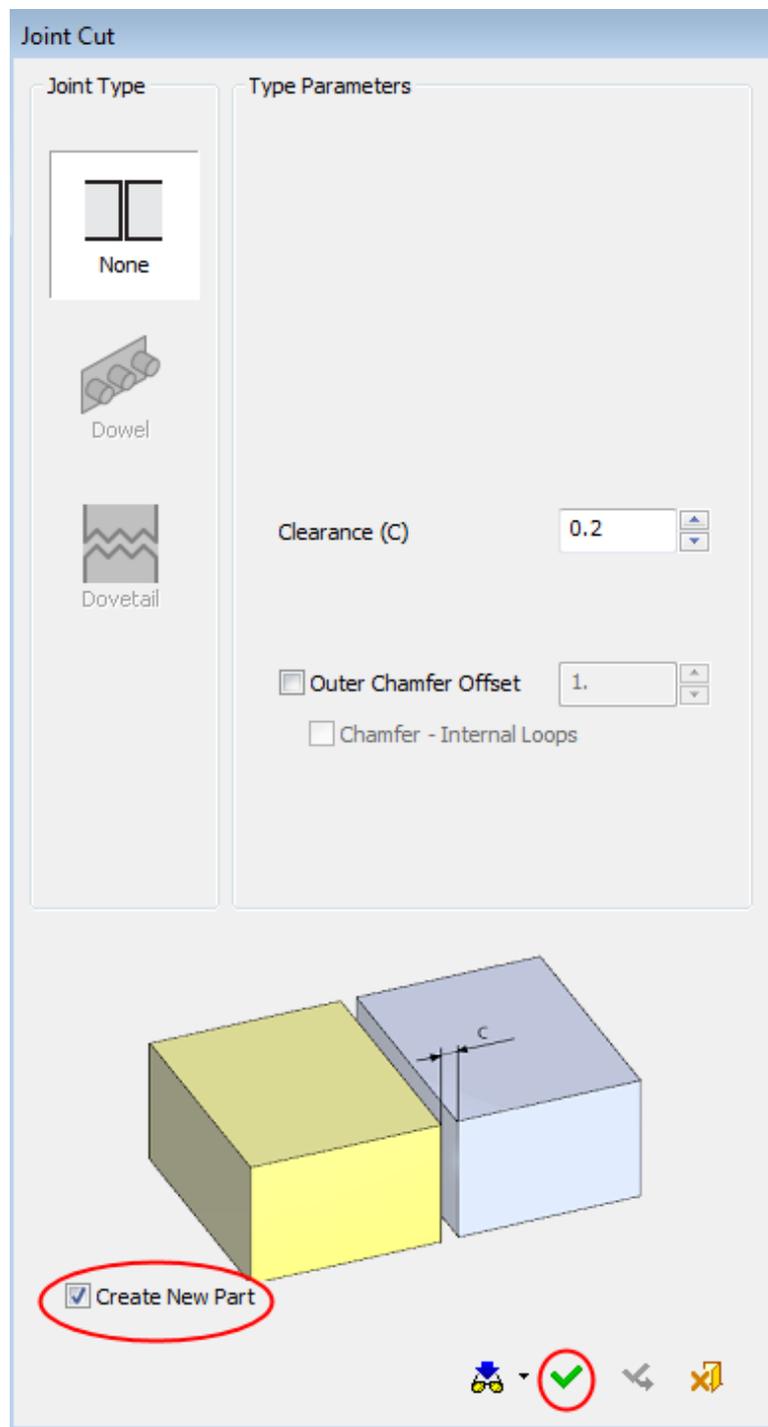


10. Right-click and select the **OK** command to enter the 3<sup>rd</sup> required stage of the Joint Cut function.

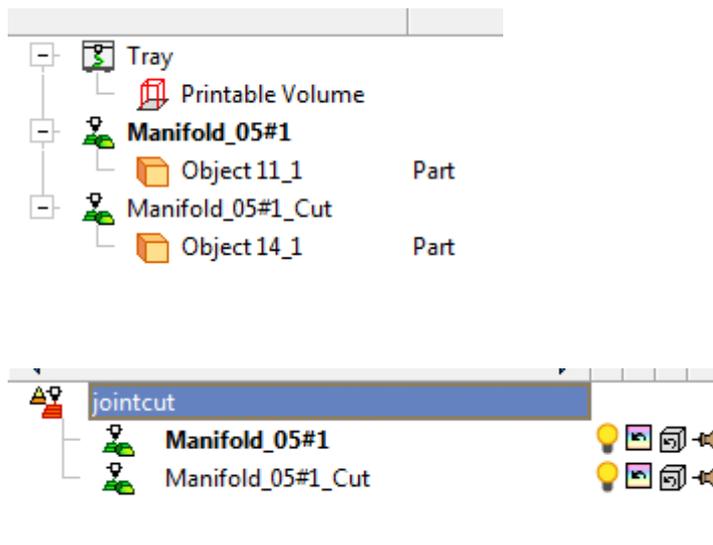
When the **By Sketch** option is used, the third stage of the function (defining the types of joints) is automatically defined as '**None**' and all other options are grayed out (disabled).

## Part 2 – Two Modes of Output

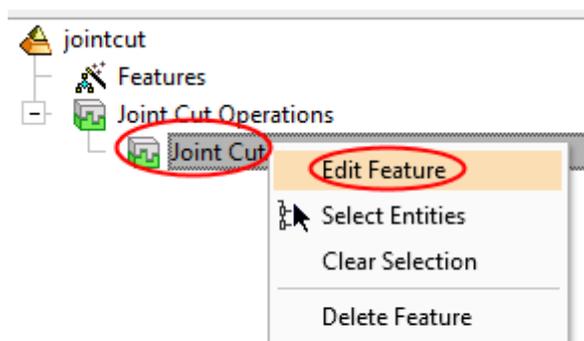
1. Ensure that the **Create New Part** checkbox is **ON**.
2. Select **OK**.



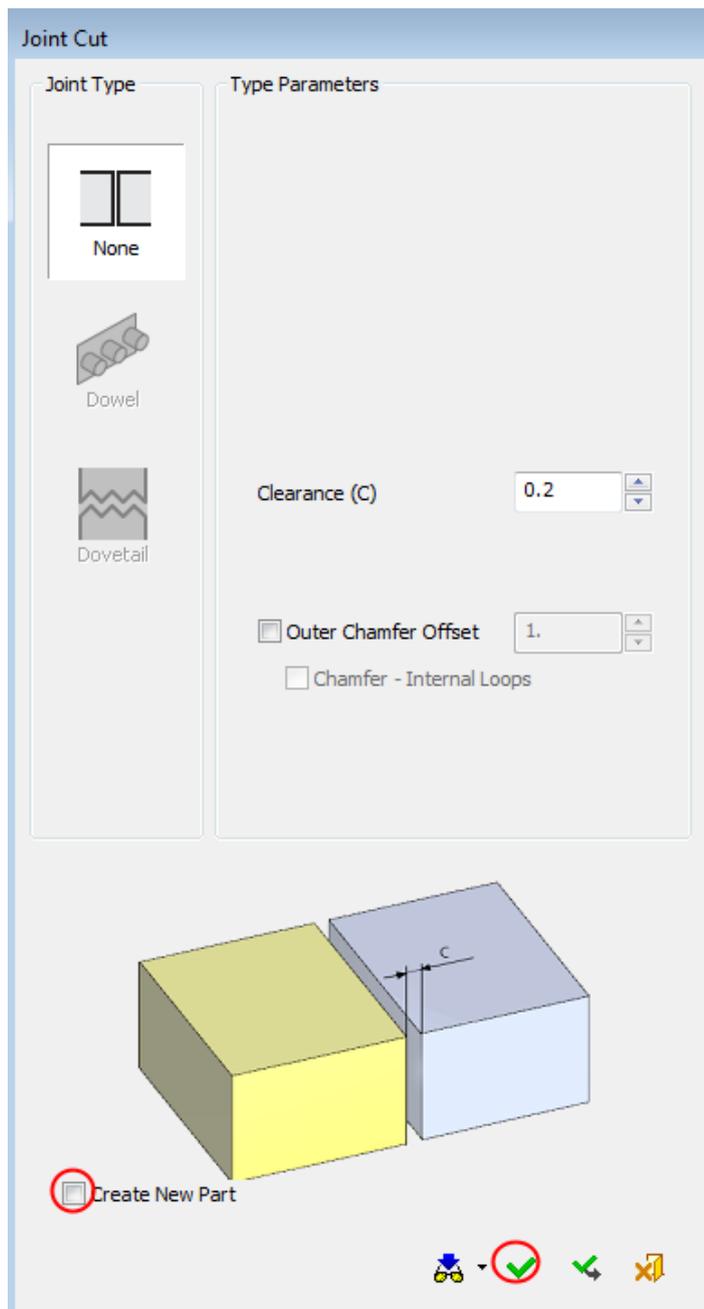
- The output of the Joint Cut are two separate parts.



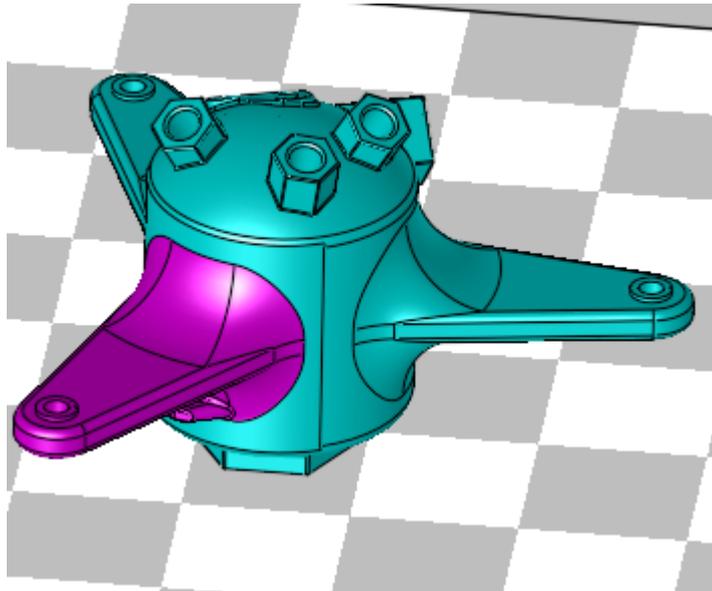
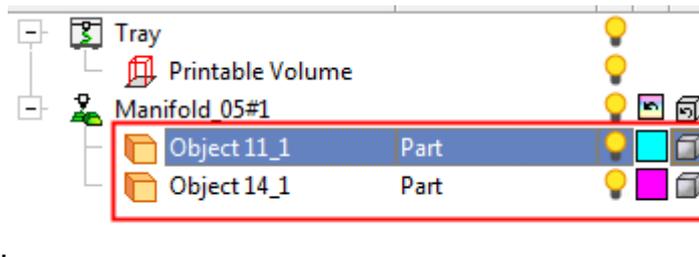
- Edit the **Joint Cut** feature.



5. Uncheck the **Create New Part** checkbox and select **OK**.



- An additional object was added to the parent part. Change the colors of the objects.



- Exit without Save.

End of Exercise