EXPERIMENT – 4

AIM : To create a Plummer Block

SOFTWARE USED : Solidworks 2020

THEORY :

A Plummer block is a pedestal used to provide support for a rotating shaft with the help of compatible bearings & various accessories. Housing material for a pillow block is typically made of cast iron or cast steel. This type of bearing consists of :

I) a cast iron pedestal,
II) gun metal, or brass bush split into two halves called "brasses", and
III) a cast iron cap and two mild steel bolts.

The detailed drawing of a pedestal bearing is shown in image below. The rotation of the bush inside the bearing housing is arrested by a snug at the bottom of the lower brass. The cap is tightened on the pedestal block by means of bolts and nuts.

COMMANDS USED :

1. Sketch

2. Mirror

3. Boss extrude

4. Extrude cut

5. Mate

PROCEDURE :

1. First separately make the different parts of the assembly like base part, bearing and the cap.

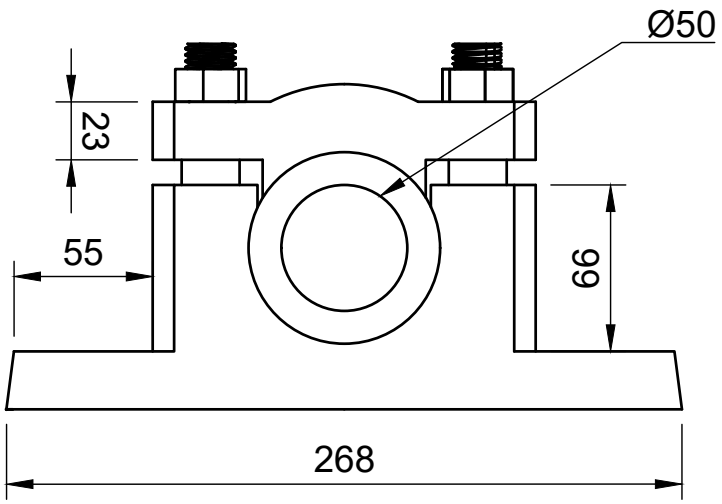
2. Take proper dimensions for boss extrude and extruded cut in the base part and finish the drawing.

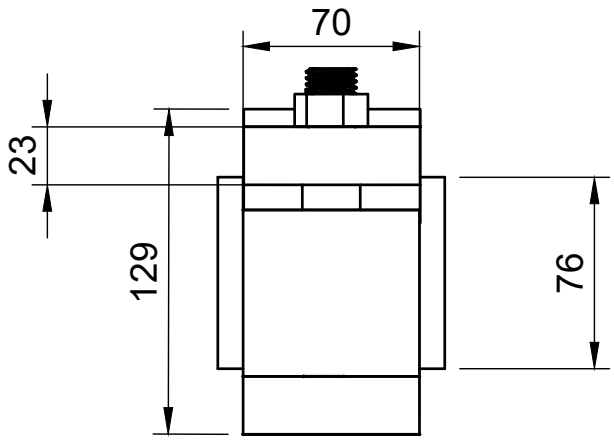
3. Then move on to drawing the bearing and make it as per the dimensions that can be housed between the cap and the base part.

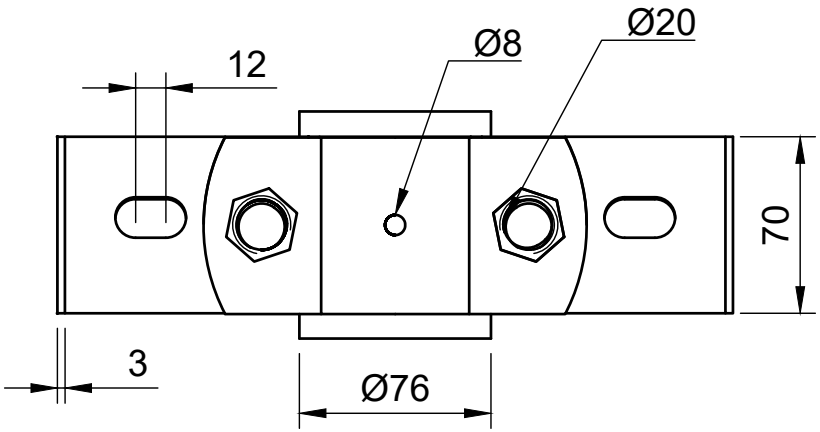
4. Then finally draw the cap part using exact and correct dimensions.

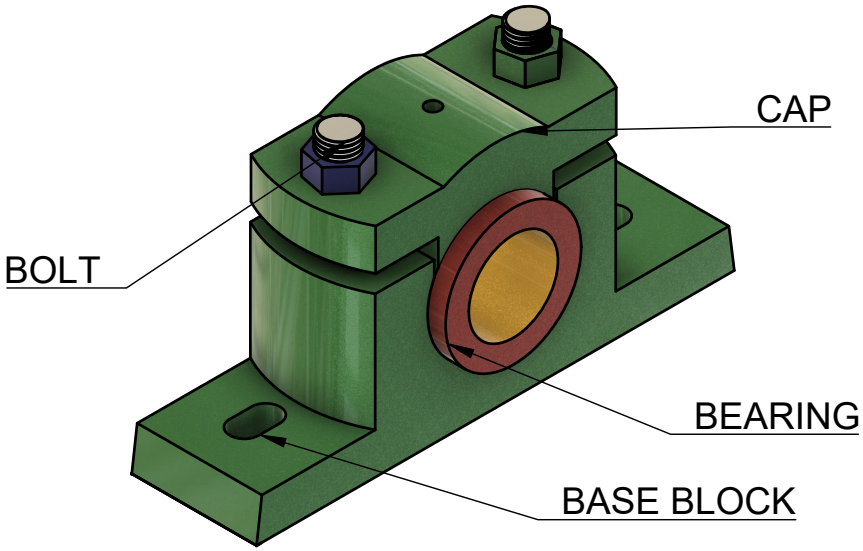
5. Open assembly and mate the three drawn parts one by one.

6. Mark the dimensions accordingly and the Plummer Block is ready.









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