METBD 111  
Activity 3 – Aligned Sections  

The intent of this activity is to provide you the opportunity to practice your skills at preparing detail drawings while learning the techniques for creating aligned sections.

Create a detail drawing of the **Special Bearing** shown in the figure below. Your model and drawing should conform to the following specifications:

1. Model the part using a REVOLVE feature as the base feature.
2. Use a B-size format when creating this drawing. Print the drawing on A-size paper.
3. Use as large a scale as is practical.
4. You need two full views: the front view and the right side view which will be an aligned section through two of the three holes.
5. Make the diameter of the hole at the center of the part $\varnothing 1.438$.
6. Use two-place dimensions throughout, except for the hole at the center of the part, which should be given to three places.
7. Use proper dimensioning techniques with respect to spacing, location, and conventions.

**Challenges:**

1. Use the page setup drawing options to:
   a. Set the text height to .125 inches,
   b. The length of arrows to .09 and width to .03 and the length of the arrow line to .375.
   c. Set the arrow style to filled.
2. You may want to create a detail view of the .20 wide by .12 deep groove in order to better dimension the feature.

**Evaluation Criteria:**

To earn 8/10 points,  
1. Front view is the round view and the side view is an aligned section.  
2. The views are properly dimensioned.

To earn 9/10 points,  
1. Complete 1 and 2 above plus the first challenge problem.

To earn 10/10 points,  
1. Properly complete the full assignment including both challenge problems.