

# Bushed Journal Bearing - Project Overview

## What is a Bushed Journal Bearing?

A bushed journal bearing is a type of plain bearing that supports a rotating shaft within a stationary housing using a replaceable bronze or similar material bush. It reduces friction between moving parts and supports radial loads, commonly used in machinery, automotive, and industrial equipment.

## Design Process

### 1. Research & References:

Studied mechanical engineering textbook and online resources for standard dimensions and tolerances.

### 2. 2D Drafting:

Created base sketches in AutoCAD including oil holes, H7 fits, and surface finish.

### 3. 3D Modeling:

Converted 2D sketches into a 3D model to validate fitment.

### 4. Final Drafting:

Used VIEWBASE in AutoCAD to generate views and produced the final A3 technical sheet.

## Materials Used

- Body: Mild Steel
- Bush: Bronze

## Learnings

- Applied standard tolerances and fit systems (H7).
- Created a proper technical drawing with bill of materials.
- Gained experience in 3D modeling and AutoCAD drafting workflows.

