# Flange Bearing Design Worksheet

## General Information
- **Company**
- **Contact**
- **Address**
- **Phone**
- **Email**
- **Date**

## Technical Specifications
<table>
<thead>
<tr>
<th>Parameter</th>
<th>ID (in/mm)</th>
<th>Nominal OD (in/mm)</th>
<th>Length (in/mm)</th>
<th>Shaft Diameter (in/mm)</th>
<th>Shaft RPM</th>
<th>Shaft Finish</th>
<th>Shaft Material and Hardness</th>
<th>Load (in lbs/kg)</th>
<th>Housing Size and Tolerance</th>
<th>Temp of Operating Environment</th>
<th>What is being used now?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plus</td>
<td>Minus</td>
<td>Plus</td>
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</tbody>
</table>

## Flange Specifications
- **Flange Thickness**
- **Flange Diameter**
- **Thrust Load (in lbs/kg)**
- **Mating Material**

## Questions
- If the bearing is linear, what is the length of stroke and the cycles per minute?
- What is the primary load factor: radial or axial or both?
- Does the bearing experience shock or excessive vibration?
- If the bearing is oscillating, what is the angle of rotation, cycles per minute, and dwell time?
- Are the temperature variations (if any) gradual or rapid?
- Type of Media: air, gas, or liquid? Intermittent or Constant?
- Is the environment abrasive in nature?
- Does the environment call for electrical: dissipation or insulation?
- Does the environment call for thermal: insulation or transfer?
- Does the application require: FDA, NSF, USDA, 3A or USP?
- Is the shaft running: vertically, horizontally, or diagonally?
- Is shaft misalignment anticipated?
- Are there special shaft treatments: Hardcoat, ENP, chrome, TFE?
- Notes about the hardware (housing material, etc.):
- Chemicals in contact with the bearing:

## Reference
- **Bearing Load (P value)** is LBS / (ID x Length)
- **Relative Velocity (V)** is Shaft Dia x 1.314/12 x RPM
- **PV Value**

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**Performance Materials, Application Experts**

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