

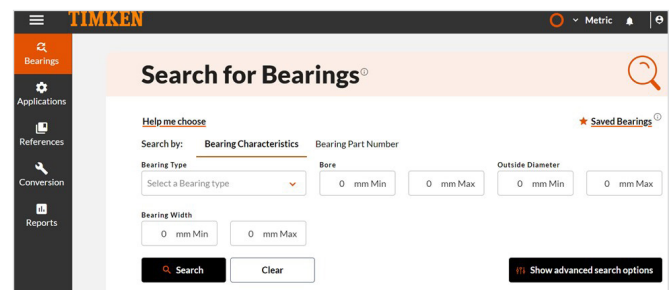


# Timken® Syber® Bearing System Designer



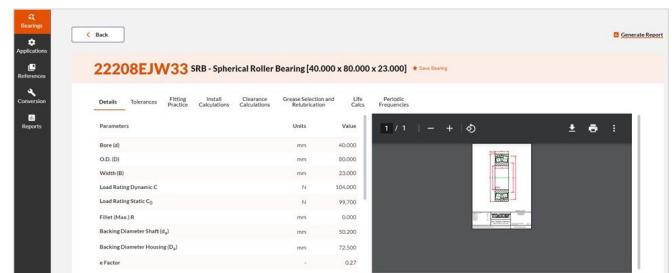
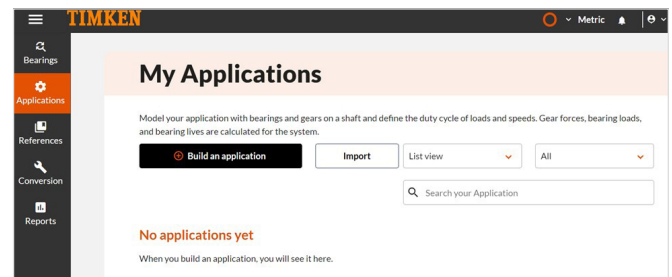
## Understanding Timken® Syber® Bearing System Designer

Timken® Syber® Bearing System Designer is a multi-functional software tool that helps you select and analyze bearings within an application. One of the most powerful features of the tool is the application system analysis function, where multi-bearing systems can be modeled and analyzed for performance. To assist in system analysis, Syber includes a portfolio of calculators and configurators – such as installation calculations, clearance calculations, tolerances, fitting practices, single-bearing life calculations, lubrication calculations, speed ratings and bearing searches – to assist customers with application design, bearing selection, installation and troubleshooting.



## Timken Syber Bearing System Designer Features

- An expansive bearing database with more than 30,000 part numbers and powerful search capabilities
- Tools (or calculations) for all popular bearing types including tapered, cylindrical, spherical, ball and thrust bearings
- Access to two-dimensional (2D) bearing drawings and detailed measurements
- Application analysis of the bearing in the system
- Analysis results that provide modified catalog life prediction, rolling contact, stress, torque and many other operating parameters
- Bearing selection options based on life requirements or envelope dimensions
- Easily exported files to save for design records or to be shared with Timken engineers for additional in-depth analysis





## Why use Timken Syber Bearing System Designer?

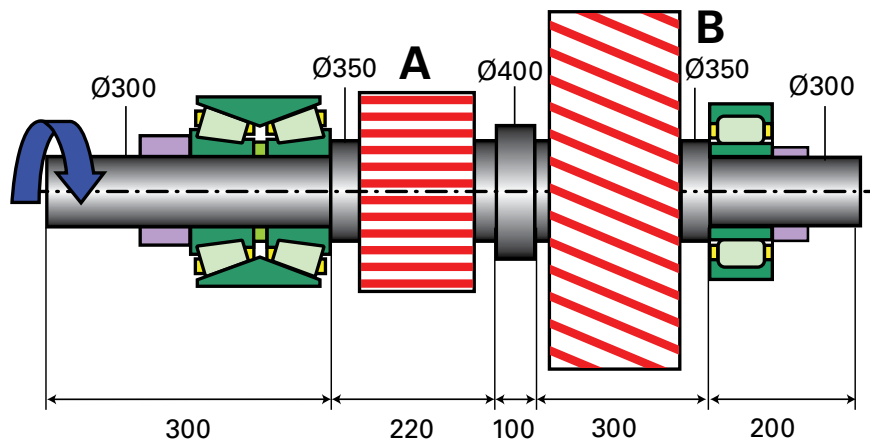
**Speed.** The system is easy to use and produces results quickly.

**Efficiency.** All bearing selections, system analyses and supporting calculations are integrated in a single software tool.

**Accuracy.** Bearing system analysis is more accurate than catalog or hand calculations and users can vary data inputs to simulate changes in operating conditions.

**Trust.** Syber calculations are developed and approved by Timken, a worldwide leader in bearings and power transmission technology. Results have been tested and validated for reliability and repeatability.

**Support.** Users can share Syber output data with Timken engineers who can offer additional evaluation and validation.



This is an example of an application that can be analyzed in Syber Bearing System Designer. This sample application shows a two-row tapered roller bearing (TDO) in the fixed positions and a single-row cylindrical roller bearing (NU-style) in the float position on a shaft with different gear types.

**IMPORTANT NOTE:** The accuracy of the technical information supplied through this engineering tool is dependent upon the accuracy and completeness of information supplied to Timken. Actual product performance is affected by many factors beyond the control of Timken, and which cannot be modeled through this engineering tool. Therefore, you must validate the suitability and feasibility of all designs and product selection. The technical information is presented solely to provide you, a customer of Timken or its affiliates, with data to assist you in your design. No warranty, expressed or implied, including any warranty of fitness for a particular purpose, is made by Timken through the provision of this information.

The Timken team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets bearings, gear drives, automated lubrication systems, belts, brakes, clutches, chain, couplings, linear motion products and related industrial motion rebuild and repair services.