



# Spherical Bearing

## Data Sheet

### Description

The RJ Watson Spherical Bearings consist of a concave bearing plate, a convex mating plate, an upper sole plate, and a lower masonry plate. Sliding surfaces consist of bonded PTFE mated to highly polished stainless steel which allows for a near zero coefficient of friction.

### Uses

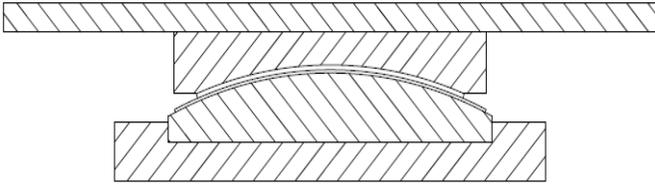
RJ Watson Spherical Bearings are used to accommodate thermal, seismic, and mechanical expansion and contraction. They also provide multidirectional rotation for highway bridges, railway bridges, and other civil engineering structures.



### Features

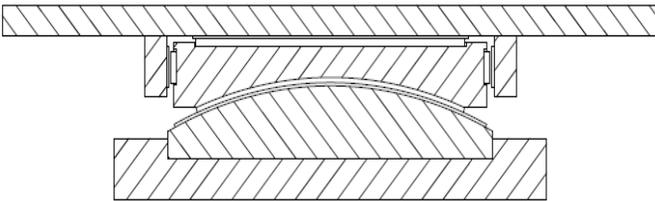
- Spherical Bearings accommodate large rotations.
- Spherical Bearings can be designed to accommodate high vertical loads with virtually no vertical displacement.
- Spherical Bearings can be designed using either woven PTFE or sheet PTFE depending on the properties required.
- Spherical Bearings use a PTFE to Polished Stainless Steel sliding surface to accommodate movements with low forces transmitted to the structure.
- Spherical Bearings are all custom engineered to provide the most efficient design to meet the specified requirements of the structure.
- Spherical Bearings are designed, fabricated, tested, and inspected to meet ASTM, AASHTO or other standards detailed in the structural plans and specifications.





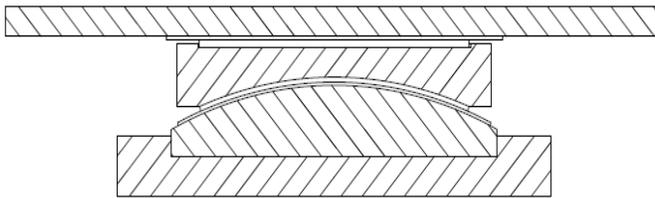
## Fixed

Our Fixed Spherical Bearings allow rotation and the transmission of horizontal forces in any direction.



## Guided Expansion

Our Guided Spherical Bearings allow rotation in any direction, and the sliding plate with guide bars permit movement in only one direction.



## Non-Guided Expansion

Our Non-Guided Spherical Bearings allow rotation in any direction. The sliding plate without guide bars allow movement in any direction as well.

## Design

RJ Watson can provide dimensioning for any design criteria. This is a no cost, no obligation service for engineers and consultants interested in examining the feasibility of using RJ Watson's Bridge and Structural Engineered Systems on their projects. Please refer to our Disktron Design Questionnaire on our website under the Services tab or scan the QR Code at the bottom of this page to bring you directly to our Spherical Bearing page.

