

RJW SPHERICAL BEARING

PRODUCT DESCRIPTION

RJW 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.

USES

RJW Spherical Bearings are used to accommodate thermal, seismic and mechanical expansion and contraction and also provide multi-directional rotation for highway bridges, railway bridges and other civil engineering structures

FEATURES

RJ Watson Spherical Bearings accommodate large rotations.

RJ Watson Spherical Bearings can be designed to accommodate high vertical loads with virtually no vertical displacement.

RJ Watson Spherical Bearings can be designed using either woven PTFE or sheet PTFE depending on the properties required.

RJ Watson Spherical Bearings use a PTFE to Polished Stainless Steel sliding surface to accommodate movements with low forces transmitted to the structure.

RJ Watson Spherical Bearings are all custom engineered to provide the most efficient design to meet the specified requirements of the structure.

FEATURES con't

RJ Watson Spherical Bearings are designed, fabricated, tested and inspected to meet ASTM, AASHTO or other standards detailed in the structural plans and specifications.



Metro North Railroad over US Route 1
Darien, Connecticut - Connecticut DOT



North Arm Bridge, Vancouver, BC Canada



FIXED

Allowed to rotate and transmit horizontal forces in any direction.



GUIDED EXPANSION

Allowed to rotate in any direction. Sliding plate with guide bars permit movement in only one direction.



NON-GUIDED EXPANSION

Allowed to rotate in any direction. Sliding plate permits movement in any direction.



DATA SHEET

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DESIGN

R. J Watson, Inc. can provide dimensioning for any design criteria. The following variables are pertinent to obtaining a proper bearing design:

Specifications (including date/editions):

FORWARD THE FOLLOWING INFORMATION TO RJ WATSON FOR A NO OBLIGATION DESIGN SERVICE

- AASHTO:
- State Standard:
- Design Manual:

Specify Units	Force: Dimension/Displacement: Rotation:	Bearing Type	Bearing Type	Bearing Type
Quantity				
Location(s)				
Seating Material	Upper Surface			
	Lower Surface			
Allowable contact pressure	Average			
	Edge Load			
Load (Denote: unfactored or factored)	Vertical	Maximum Dead		
		Minimum Dead		
		Live		
		Total		
	Horizontal	Longitudinal		
		Transverse		
		Controlling load case		
	Uplift (if applicable)			
Rotation	Due to all applicable loads			
	Due to fab. & constr. tolerance			
	Total			
Maximum Bearing Dimensions	Upper Surface	Transverse		
		Longitudinal		
	Lower Surface	Transverse		
		Longitudinal		
Overall Height				
Movement	Longitudinal	RST		
		Seismic		
		Const. tol.		
		Total		
	Transverse	RST		
		Seismic		
		Const. tol.		
		Total		
Allowable resistance to translation under service load	Transverse			
	Longitudinal			
Allowable resistance to rotation under service load	Transverse			
	Longitudinal			
Type of attachment to super structure				
Type of attachment to sub structure				

