



DISKTRON

BEARING SYSTEM

Penobscot Narrows Bridge, Maine



RJ Watson Inc
making bridges better



Hoover Dam Bridge

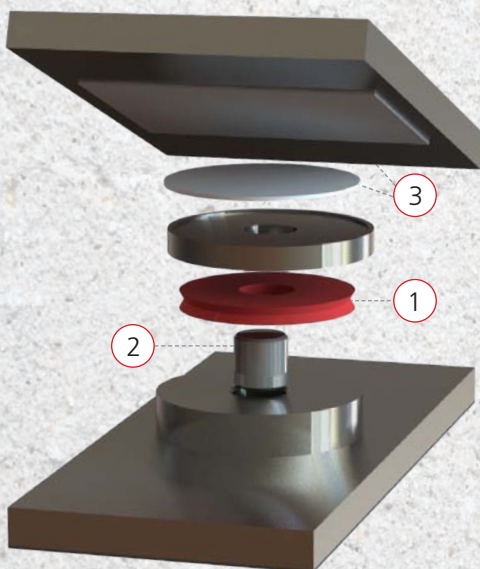
INNOVATIVE DESIGN

RJ Watson specializes in the design, manufacture and testing of high load multirotational bearings for civil engineering structures.

The engineers at RJ Watson have extensive experience in solving complex structural problems with their innovative bearing devices and systems. RJ Watson offers a no cost or obligation design service in order to assist engineers in the design and detailing of bearing devices. Standard bearing design details are available on the website at www.RJWatson.com.

DISKTRON
BEARING SYSTEM

The custom designed Disktron Bearing system by RJ Watson is the preferred bearing for bridges of all types and sizes. They are maintenance free, durable, aesthetically pleasing and cost effective.



① **Polytron Disc**

By utilizing a polyether urethane load element, the Disktron Bearing accommodates vertical design loads of 10 - 15,000 kips or more while maintaining its ability to provide rotation in all directions.

② **SRM (Shear Resisting Mechanism)**

A high strength machined shear pin transfers horizontal loads from the upper bearing plate to the lower bearing plate and isolates shear loads from the Polytron Disc while allowing rotation.

③ **PTFE/Polished Stainless Steel**

PTFE mated with polished stainless steel results in a sliding interface with a very low coefficient of friction.



Margaret Hunt Hill Bridge - Dallas, TX

Utilized high rotation POD bearings to accommodate this unique structure's rotational requirements



Sound Transit Line - Seattle, WA

RJ Watson Disktron Uplift Bearings were installed on the Sound Transit Line near Sea-Tac Airport



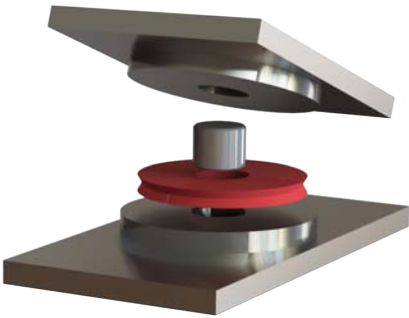
Crooked River Bridge - Terrebonne, OR

Only 8 Diskton Bearings were required for this picturesque bridge in Oregon

DISKTRON

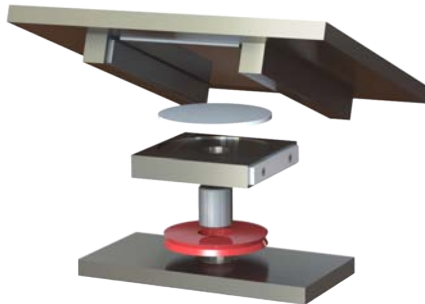
BEARING SYSTEM

STANDARD TYPES OF DISKTRON BEARINGS



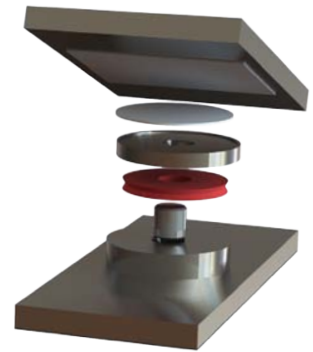
Fixed

Fixed bearings allow rotation in any direction and prevent lateral displacement.



Unidirectional

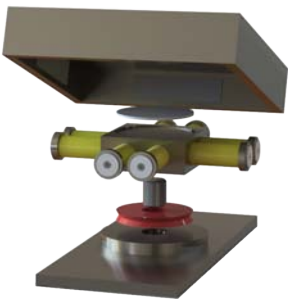
Unidirectional bearings allow rotation in any direction and displacement in a single direction



Multidirectional

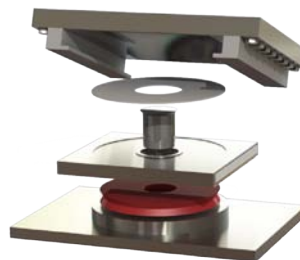
Multidirectional bearings allow rotation and displacement in any direction

ADDITIONAL FEATURES AVAILABLE



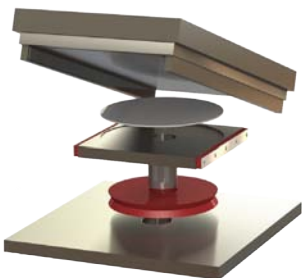
Sliding Isolation

The EradiQuake Bearing is designed to withstand the forces and displacements incurred during an earthquake



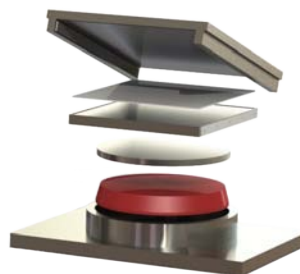
Guided Uplift

Uplift-resisting Expansion bearings are used in seismic areas, on curved girders and on flood prone structures



Flexible Guided

Flexible Guided Disktron Bearing for curved girder bridges



High Rotation

Disktron Bearings can be designed for extreme rotation conditions exceeding .04 radians.



RJ Watson owns one of the largest certified test presses in the USA. In total, RJ Watson has three bearing test machines with various loading capabilities. Contact RJ Watson for information on testing services.

Disktron Features:

- The Polytron Disc Rotational Element is not confined so it can accommodate large, low load rotations which can be experienced temporarily during erection
- Vertical load capacity is up to 15,000 kips or more
- Can accommodate all live to dead load ratios
- Rotation capacity in excess of 0.04 radians
- Minimum horizontal load capacity is 10% of the vertical load; much higher loads can be accommodated
- A high allowable compressive stress on the Polytron Disc results in a more compact bearing design
- Separate sole and masonry plates can be attached to bearing plates by bolted, welded or recessed connections



RJ Watson offers a no cost or obligation custom bearing design service which assists engineers in their structural design objectives.

Simply complete the Disktron Design Questionnaire available on our website at www.rjwatson.com to initiate the design process.



Shenandoah River Bridge

DISKTRON

BEARING SYSTEM

Disktron Bearings have been used on a variety of structures including steel and concrete bridges, highway and rail bridges, stadiums, convention centers and many other structures. Additional features include uplift restraint, flexible guiding for curved structures, and sliding isolation capabilities.



11035 Walden Ave | Alden, NY 14004 USA | 716.901.7020 | sales@rjwatson.com

RJWatson.com