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 15% 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.

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.
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.

STANDARD TYPES OF DISKTRON BEARINGS

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.

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.

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

INNOCATIVE DESIGN

Margaret Hunt Hill Bridge - Dallas, TX
Utilized high rotation POD bearings to accommodate the 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 Disktron Bearings were required for this picturesque bridge in Oregon.

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.

ADDITIONAL FEATURES AVAILABLE

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.

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

Flexible Guided
Flexible Guided Disktron Bearing for curved girder bridges.

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

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

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.

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