Custom WireX[®] Wire-Race Bearings

Kaydon WireX[®] bearings were originally designed for military turret applications, where space and weight are at a premium and corrosion resistance is essential. They consist of wire raceways inserted in lightweight support rings, allowing for a high load capacity and large diameter in a bearing that can be 60% lighter than one made entirely of steel.

Design Features

The bearing's support rings are typically aluminum, with contoured grooves for supporting, positioning, and alignment of steel wire raceways. The rolling elements are typically stainless steel, with up to three rows of rollers to fit individual requirements. This internal configuration allows WireX[®] bearings to be more tolerant of non-rigid and out-of-flat mounting structures. Irregularities can be accommodated by the relative movement of the wire inserts in their supporting grooves.

Gear teeth or other drive mechanisms can be provided on the inner or outer support ring, and a variety of hole patterns can be added for bearing retention.

WireX[®] bearings can often be rebuilt – a substantial savings when compared to complete bearing replacement.

Availability

WireX[®] bearings are custom manufactured to fit your design and specification.

Applications

WireX[®] bearings have been used successfully in applications requiring a lightweight, corrosion-resistant bearing including:

- Turrets
- Radar
- Sonar

