



The bearing

technology and its' development is the result of a single age old problem, that is, friction.

The Problem:

In various equipment, there are various components moving relative to each other. Often, this relative motion involves contact between two different components. Obviously, this creates friction.

The force required to impart desired motion and heat created due to the contact increases exponentially with the area of contact. The problem becomes quite critical if the parts are moving at high speed.

Hence, the solution would be reducing the area of contact between moving components. It would be great if we could reduce contact area to few points. Bearings enter the scene here.

Ball bearings are some of the most commonly used bearings in rotary movement applications. They comprise a row or multiple rows of balls between inner and outer raceways. This design capitalizes on the concept that rolling elements produce less friction than sliding elements. One ring is normally attached to the rotating assembly, or shaft, and as it rotates the balls roll around the inner raceway, while the other ring remains stationary. This allows for rotational movement with an extremely low friction coefficient, making it great for applications with high speeds and low friction requirements.

