Special Application Conditions

Bearing position in drive design

Some drive designs are easier on bearings than others. Many systems are designed with a cantilevered drive, but this type of design loads the bearing unevenly. Whenever possible, drives should be placed BETWEEN a pair of bearings. If a cantilevered design is required, the pair of bearings supporting that drive shaft should be separated as far apart as practical.

Whenever possible, shaft mounted gear reducers should have some support that relieves the cantilevered shaft as the sole support.

Restricted spaces

In an attempt to continually make things smaller and compact, designers have to find ways to either buy smaller components, or to manage the orientation of components into smaller spaces. In some cases, this involves retrofits that reduce or eliminate the need for other design changes. EDT has designed this versatility into all of our bearing products.

EDT self-aligning bearings are not symmetrical around the major O.D. so they can be reversed in the housing which changes a design dimension without compromising the design load or requiring redesign of the product. This allows EDT bearings to retrofit into locations where other bearings will not physically fit without design changes to the rest of the equipment. EDT Locking Sleeves can also be installed from either the right or the left of every bearing which gives added flexibility to the installer. The combination of parts flexibility results in a total of four installation options that can be readily adjusted in the field (see Fig 22-2).

General maintenance and lubrication are growing problems as the equipment density of floor space increases in processing and manufacturing plants. EDT products reduce or eliminate lubrication and eliminate the catastrophic failure that often occurs with rolling element bearings in harsh environments. EDT bearings can reduce the unplanned maintenance that is required under extreme environments, which in turn reduces the overall cost of operations. Elimination of lubrication can reduce machine clutter because central lubrication systems can be eliminated.