How to choose INA rolling bearing configuration

Analysis of the selection method of INA rolling bearing configuration. Usually, the shaft is supported radially and axially by two INA bearings, and the rolling bearing on one side is called a fixed end bearing, which bears both radial and axial loads, between the fixed shaft and the bearing housing. The effect of relative axial displacement. The other side is called the free end, only the radial load is applied, and the axial direction can be relatively moved.

The fixed end bearing must be fixed at the same time to the shaft and the bearing housing. The suitable INA bearing is a radial bearing capable of withstanding composite loads, for example, deep groove ball bearings, spherical roller bearings and double row or mating angular contact ball bearings or cones. Roller bearings. Radial bearing combinations subjected to simple radial loads, such as cylindrical roller bearings with inner and outer rings without ribs, can be used as fixed-end bearings in combination with deep groove ball bearings or four-point contact ball bearings or two-way thrust bearings. At this time, the second bearing provides bidirectional axial positioning, but must be installed with a radial spacing from the bearing housing. The free end bearing does not squeezing in the bearing when the shaft is thermally expanded and the length changes. Axial displacement can occur inside the bearing, as well as bearing rings and housings.

"Cross-fixed" refers to an INA bearing arrangement in which each rolling bearing is unidirectionally positioned in the direction and in the opposite direction. This combination is mainly used for short axes. All radial bearings that can withstand at least one axial load are suitable, including deep groove and angular contact ball bearings, tapered roller bearings and NJ cylindrical roller bearings. When using angular contact ball bearings or tapered roller bearings, In some cases, a preload must be applied.