

General overview of bearing Housings

1, Function

As a close partner of bearings, [bearing housings](#) play an important role in the whole shafting. It is generally located at both ends of the shaft, the main role is to support and fix bearings, so that the shaft and its connecting parts have a positioning relationship. In addition, bearing housing generally has a sealing device, thereby reducing the pollution of bearings.

2 Material

Major materials for bearing seat are cast steel (such as ZG45), gray cast iron (such as HT200), ductile iron (such as QT400-17) or stainless steel. The main bearing housing of casting mill is cast steel.

The choice of bearing block blank is related to its material, structure and size. Bearing holes with smaller apertures are generally cast by steel mold or solid casting; large apertures are cast by sand mold; and large-scale production is generally cast by steel mold, which can improve productivity and save materials.

3. Classification

According to its structure, bearing seat can be divided into split bearing seat, integral bearing seat, flange bearing seat, external spherical bearing seat and so on. The main bearings used in rolling mills are integral bearing housings.

4, [Technical points](#)

(1) inner hole

The inner hole is the most important surface of the bearing seat supporting and positioning, and it matches with the bearing outer ring. The dimension precision of the inner hole diameter is generally 7, and the precision requirement is 6. The shape precision of the inner hole is generally controlled within the tolerance range of the bore diameter. For the bearing seat with high precision requirement, the shape tolerance is controlled within 1/3~1/2 of the aperture tolerance. In addition to cylindricity and coaxiality, the straightness of the hole axis should also be considered.

In order to ensure the function of parts and improve their wear resistance, the surface roughness of inner holes is usually Ra3.2~Ra1.6.

(2) the distance from the axis of the hole to the ground.

Ensure the parallelism and size requirements of the base and the upper cover.

5, Maintenance and maintenance of bearing block

Bearing seats, like bearings, should be regularly maintained so that problems can be found and solved as soon as possible, and productivity and economy can be improved. Bearing seat is cleaned after removal to remove impurities; then observe whether there is wear and tear on its aperture surface; then check the shape and dimensional accuracy of its aperture surface to see if it meets the current requirements, if necessary, repair or scrap.