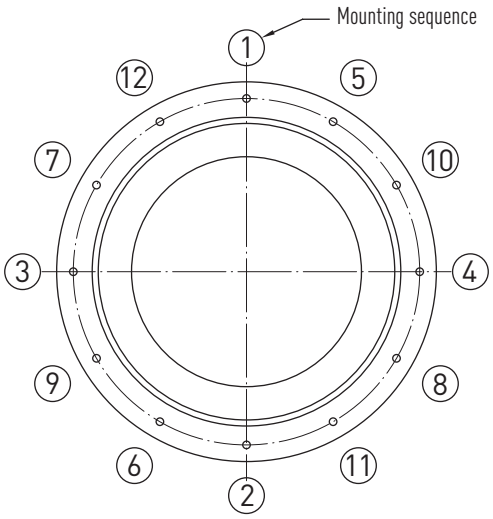
3.5 Assembly

When mounting the crossed roller bearing, observe the following sequence:

1. Before mounting, check all parts: Clean the bearing housing, the main axis, and other parts so that they are free of dirt and grease.

2. Place the bearing in its housing and on the main axis: Owing to the tolerances, you should hold the bearing horizontal when you insert it into the housing or axis. If mounting proves difficult, you may use a rubber hammer to strike the bearing lightly and uniformly into the housing or axis. A changing sound indicates that the bearing has reached its seat. Press fit parts can be heated or cooled to facilitate their mounting. In these cases, the bearing temperature may not exceed 80 °C. In addition, note the force applied to press in the bearing: too large a force may damage the bearing. If the inner or outer ring of split bearings is not centred, their screws can be loosened slightly.

3. Fitting the mounting flange: Place the mounting flange on the bearing, and align the flange's and housing's holes so that they can be secured with the screws. Tighten the screws in a crosswise fashion as shown in the figure.



3.6 Further information

3.6.1 Lubrication

1. The bases of all crossed roller bearings are greased with HIWIN G05 (lithium soap grease). So the bearings can be installed directly after delivery. Reduced lubrication increases the frictional resistance, leading to a reduction in service life. Open bearings (without seal) should be relubricated regularly every one to six months. The lubrication intervals depend on the intensity of use. Important: After lubricating, turn the bearing to distribute the lubricant evenly inside the bearing.

2. There must be no mixing of different lubricants.

3. A special lubricant is required for special applications like clean rooms, vacuum, high vibrations, temperatures < 10 °C or > 80 °C, etc. Please contact HIWIN.

3.6.2 Safety notices for operation

1. The bearing's normal operating temperature is between 10 °C and 80 °C.

2. Foreign bodies entering inside the bearing can cause damage to the track and rollers. In extreme cases, the bearing may fail. Foreign bodies must therefore be prevented from entering the bearing.

3. If, however, foreign bodies should enter inside the bearing, you must first clean the bearing and then refill it with lubricant.

4. The split bearing's bolt and nut may not be removed. When mounting, do not apply any force to the bolt and nut.