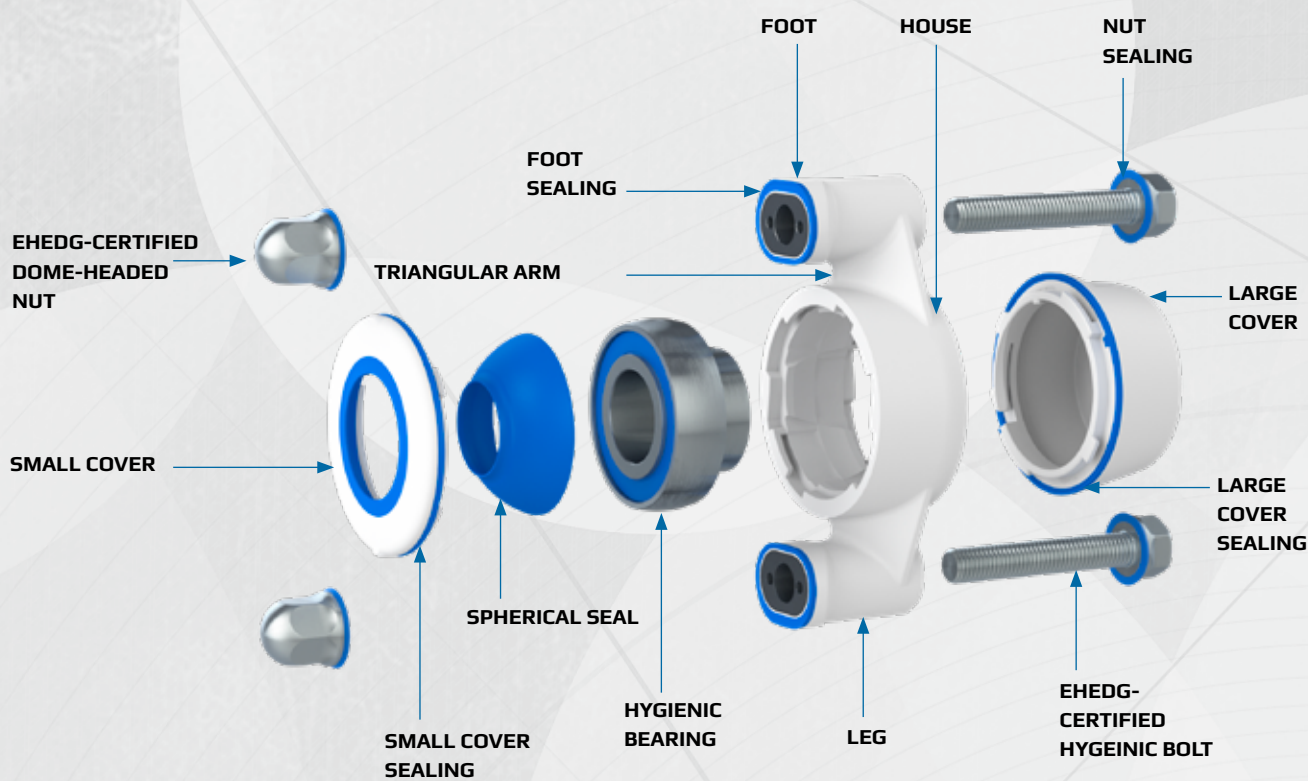


# PRODUCT PART NAMES

## BEARING HOUSES



The bearing houses are designed to comply with EHEDG, 3-A and USDA rules and guidelines and has a patented waterproof encasement that seals the bearing blocking out dirt and bacteria as well as extending the lifetime of the bearing.

To provide proper bearing performance and prevent premature failure, skill and cleanliness are necessary when mounting the bearing houses. As precision components, they should be handled carefully when mounting. It is also important to choose the appropriate method of mounting and to use the correct tools.

The method used for mounting a bearing houses depends on the:

- Overall machine design
- Housing design
- Method used to attach the bearing to the shaft

Detailed mounting instructions can be found on the following pages.

NGI bearing houses should not be removed from their original packaging until immediately before they are mounted.

### Tools

To mount or dismount the bearing houses, the following tools are required:

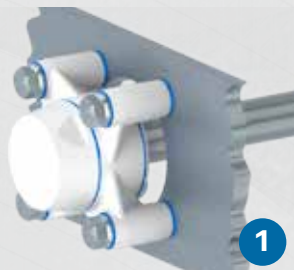
A hexagonal key (hex wrench) to tighten or loosen grub (set) screws

A spanner or hexagonal key to tighten or loosen the fasteners.

# MAINTENANCE OF NGI BEARING HOUSES XB2FC, XB3FC, XB4FC, XBPBC, XBTBC

It is important to follow the below instructions in order to ensure the certified hygienic design and functionality.

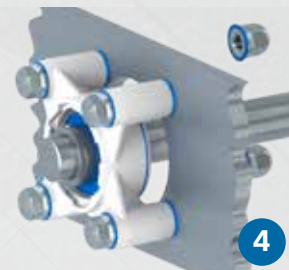
With a house from NGI you have to go through the steps shown on this page.



1

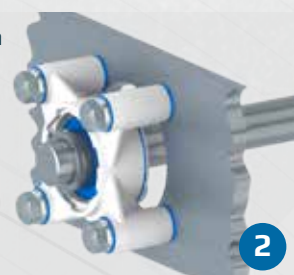
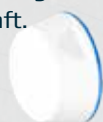
Unscrew the nuts, if any.

Take out the bearing house.



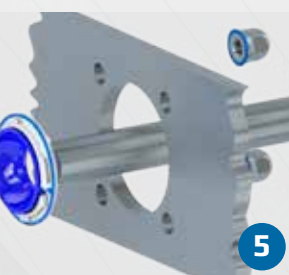
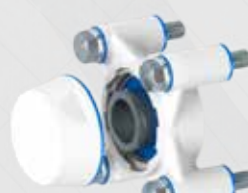
4

Unscrew the large or medium cover to gain access to the fastening screws in the bearing inner ring and to the shaft.



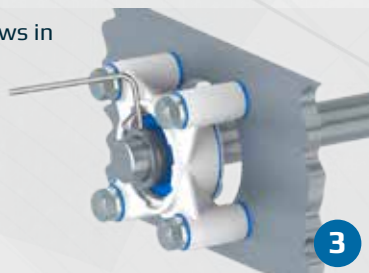
2

Unscrew the cover.



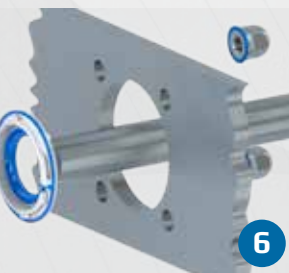
5

Loosen fastening screws in the bearing inner ring.



3

Remove and replace the spherical sealing.



6



# TECHNICAL SPECIFICATIONS

## BEARING HOUSES

### Locking on the shaft

There is a choice of two different methods by which an NGI bearing unit can be locked onto the shaft:

#### Eccentric locking collar (CODE A)

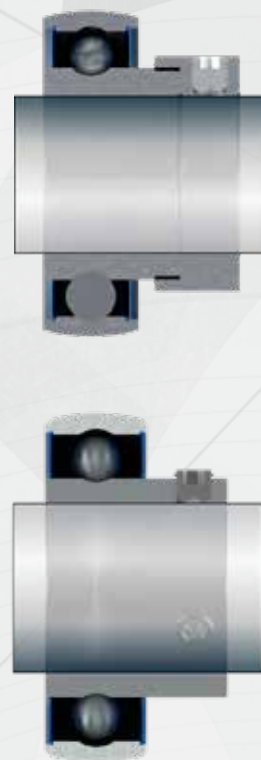
This locking method is typically used for applications where the shaft rotates in one direction only. It can be used for alternating directions when loads and speeds are low.

Bearings with an eccentric locking collar are intended primarily for use in applications where the direction of rotation is constant. On one side of the bearing inner ring is an eccentric extension that fits the locking collar. Turning the locking collar on the inner ring extension in the direction of rotation locks the collar and bearing on the shaft. A single grub screw further secures the collar to the shaft.

When mounting the bearing to the shaft, place the eccentric locking collars on the inner ring extension of the bearing and snug tighten them in the main direction of rotation. Tighten the locking collars to their final position using a hook spanner with a stud engaging the hole in the circumference of the collar.

#### Grub screws (CODE B)

This method enables very easy mounting and dismounting, even if space is limited. This locking method is typically used in applications where the shaft alternates direction of rotation. The bearing inner ring is extended on one side and is locked on the shaft with two stainless steel grub screws that are positioned at 120°, minimizing inner ring distortion while maintaining good gripping strength.

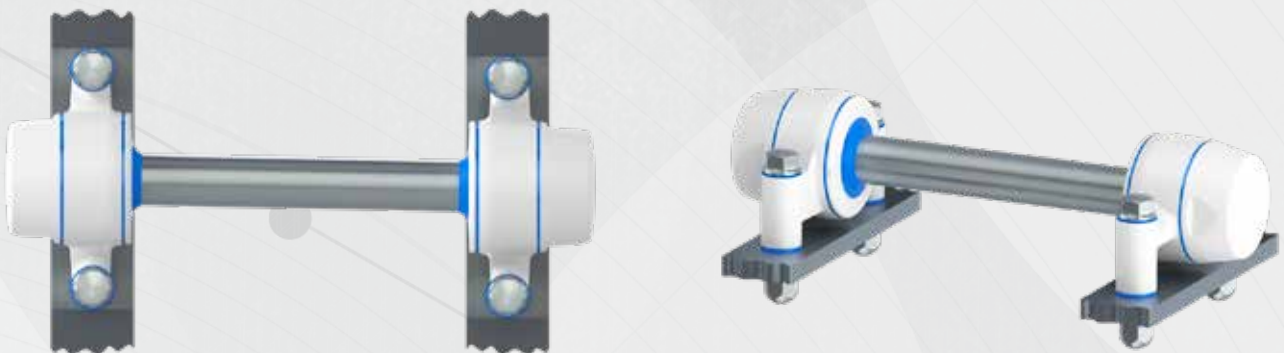


# TECHNICAL SPECIFICATIONS

## MISALIGNMENT UNDER 4 MM

### Adjustment and misalignment

The shaft insertion into the bearing house has a new groundbreaking patented design that enables a waterproof seal to the shaft despite an installation angle of up to 3 degrees misalignment. The sealing simply moves with the shaft.





# TECHNICAL SPECIFICATIONS

## SPHERICAL SEALING

The Spherical Seal is unique in the way that it always moves together with the spherical bearing and shaft. Outwardly its held in place and sealed with a spherical cover. The design allows for large angular misalignment without sealing and sliding resistance is being affected. The material is compliant with FDA and EU regulations for chemicals and food:

- Compliant with EU regulation 10/2011
- FDA-compliant
- High media resistance
- Lubrication- and maintenance-free

The bearings are characterized by extreme media resistance and are tribologically optimized, the material can be used in the below temperatures and conforms to demands of the food processing sector.

### SEALING TEMPERATURE:

|  |       |
|--|-------|
| Highest long-term service temperature  | 90°C  |
| Highest short-term service temperature | 100°C |
| Highest short-term ambient temperature | 120°C |
| Lowest service temperature             | -50°C |

The range of properties is completed by the material's optical detectability or blue color, often required in the industry.



The hygienic bearing house is typically used for conveyors with relatively low speed (under 2000 rpm) in clean surroundings and with a standard 304 Stainless shaft with a surface roughness Ra between 0,8 µm and 1,6 µm and h9 tolerance or lower.

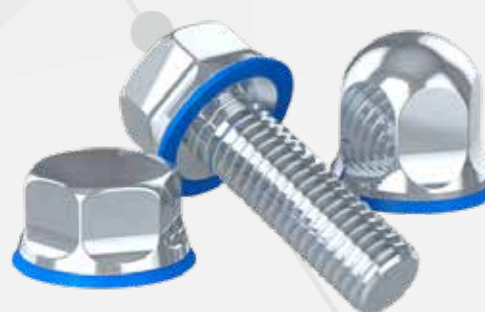
## REPLACEMENT PARTS

### ACCESSORIES

If replacement of hygienic bolts, nuts or sealings is necessary. Always use original spare parts from NGI. NGI is able to deliver all necessary accessories, which ensures a quick and easy installation of the bearing house.

NGI is now able to offer certified hygienic nuts with blue silicone sealings. This is the right choice of nuts to be used on all machinery in all certified hygienic wash-down environments. The silicone seal blocks out water and bacteria and also prevents a non-hygienic metal-to-metal assembly. Round-headed and self-draining surfaces with a maximal roughness of 0.8 µm Ra.

The nuts are available in high and low. The nuts are available in sizes M5-M20. M24 is available upon request.



# TECHNICAL SPECIFICATIONS

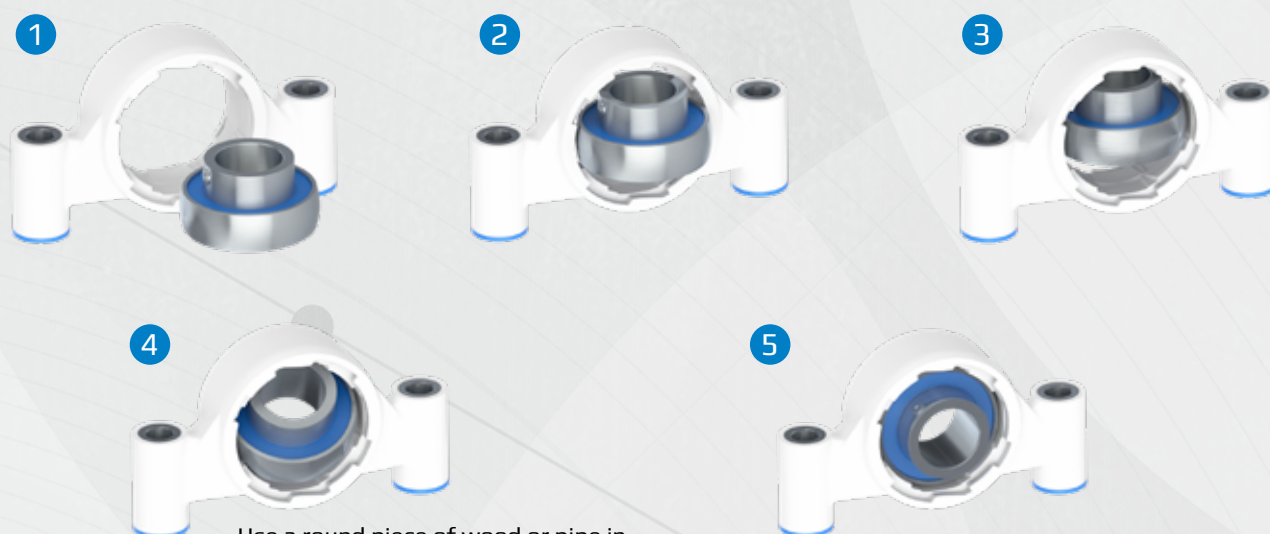
## BEARINGS

In cases where NGI hygienic bearing housings are not supplied as a unit, the first step is to assemble the bearing into the housing.

To do this, insert the bearing into one of the filling slots in the housing bore and use a round piece of wood or pipe in order to swivel the bearing into position. Please also see the below illustrations 1 - 5.

For NGI hygienic bearing housings, where there is no re-lubrication and you can freely decide in what direction the locking device should face.

Remember that a medium or high cover is needed in the direction of the locking device.



Use a round piece of wood or pipe in order to swivel the bearing into position.



### SSB

**Special Features**

- Stainless Steel Bearing
- AISI 440 balls
- AISI 440 rings



### SSA

**Special Features**

- Stainless Steel Bearing
- AISI 440 balls
- AISI 440 rings
- Eccentric locking collar



### CSB

**Special Features**

- Ceramic Bearing
- Hybrid with ceramic balls
- AISI 440 rings



### CSA

**Special Features**

- Ceramic Bearing
- Hybrid with ceramic balls
- AISI 440 rings
- Eccentric locking collar