



- ✓ Strong supply chain and short time of delivery
- ✓ Solutions developed together with our customers
- ✓ High-quality products produced in Denmark

Video of
how to install
bearing
houses



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Note! Other language versions of this installation guide can be found on our website!



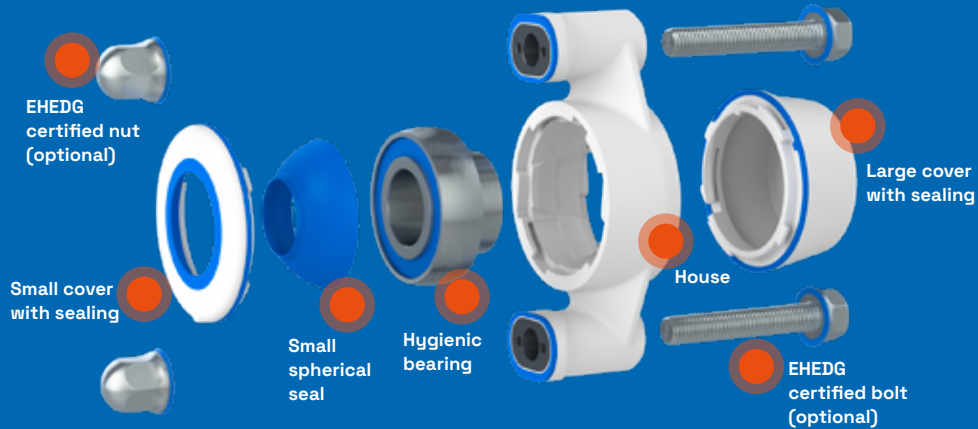
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Installation Guide

Certified Hygienic Bearing Houses

Product Part names

NGI bearing houses



Nm for grub screws on our bearing houses:



SSB

Stainless Steel Bearing with two grub screws:
Size: 47, 52, 62 mm = 4 Nm
Size: 72, 80 mm = 12 Nm







SSA

Stainless steel bearing with eccentric locking collar:
Size: 47, 52 mm = 4 Nm
Size: 62, 72 mm = 6 Nm
Size: 80 mm = 12 Nm

Good bearings deserve great houses!

Choosing a triple certified hygienic component ensures that the foundation of your production equipment complies with the strictest demands for hygiene, environmental impact and durability.

-  Triple certified components
-  Enhanced food safety
-  Minimized cleaning time
-  Resource saving

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Preparations prior to mounting

NGI Bearing houses

Prior to mounting a bearing house, follow the below instructions:

- Make sure that the shaft is clean and free of any burrs. If not, remove the burrs and chamfer the shaft end with an emery cloth or a fine file. Wipe the shaft clean.
- Especially for bearings that use grub (set) screws, we always recommend to use a solid lubricating paste to reduce risk of fretting corrosion* applied on the inside of the inner ring in the bearing house before mounting.
- Clean the support surface for the unit and check that the recommended flatness is within IT7 tolerance grade.
- If the unit is used again after removal, make sure that the bearing bore, shaft and contact areas between machine and bearing are clean.
- As for tightening torque of bolts and nuts, please follow our recommendation in our product catalogue where we have stated the tightening torque for the various models.
- Bearing units should not be removed from their original packaging until immediately before they are to be mounted; this protects the units from contaminants, especially in harsh environments.

*Fretting corrosion

Fretting corrosion is movements between two metal surfaces. In this way, metal particles are worn free and oxidize immediately. Oxidized iron particles can destroy shape tolerances on the shaft or housing, which can lead to serious damage to the bearing.

To ensure that the bearing assembly is carried out optimally in the first instance, NGI recommends that before assembly you must be very careful with cleaning the shaft, avoid dirt on the bearing itself and to use an assembly paste between the shaft and the bearing.

Appropriate tools

NGI Bearing houses

To mount NGI bearings, the only tools required are:

- An Allen key in the right size is enclosed in every shipment so that you can tighten the bearing in the best possible way! Tighten the grub (set) screws in the inner ring or the locking collar. ! It is important that the Allen key is fully engaged when you are tightening the screw.
- A torque wrench or hexagonal key to tighten the attachment screws, bolts or nuts.
- A bearing puller can be necessary, if the bearing is stuck on the shaft!
- Assembly paste - anti-fretting agent to protect against fretting corrosion
- A bearing cover tool. The cover hand tool is a tool which makes the replacement of covers and spherical seals much easier. The tool is included in all shipments and orders for bearing houses.



Installation

Remove the existing

Step 1

First remove the existing bearing house from the shaft by following these steps.

If it is an NGI bearing house first mount the tool on the cover. The tool is included in our spare part kit.



Step 2

Tighten the screw on the tool, once tightened, rotate the tool with the cover counterclockwise to loosen and remove.

Remove the cover and the spherical seal.



Step 3

For model **SSB**, loosen both screws in the bearing. For model **SSA**, loosen the grub screw and place the mandrel in the hole in the locking collar and give it a light blow with a hammer. Make sure that it is in the opposite direction than the bearing is turning and the mandrel does not hit the bearing.



Step 4

If you have trouble loosening the bearing and it is stuck on the shaft, use a bearing puller to remove the bearing.

Gently remove the bearing house from the shaft.



Step 5

Make sure that the shaft is clean and without any burrs or crevices. We recommend to use a solid lubricating paste applied on the inside of the inner ring in the bearing house before mounting to reduce risk of fretting corrosion between the inner ring and the shaft. Please also see page 5 - preparations prior to mounting.



Step 6

When preparations prior to mounting is secured, gently apply the bearing house on the shaft in an angled position in order to avoid damage to the spherical seal.



Installation

Install the new

Step 7

For model **SSB**, mount the bearing house by tightening the two screws.

For model **SSA**, turning the locking collar on the inner ring extension in the direction of rotation, locks the collar and the bearing on the shaft. A single grub screw further secures the collar to the shaft.



Step 8

Mount the new spherical seal on the shaft.



Step 9

Mount the open cover on the shaft and fit the pin (rotation stop) in the cover with the pin hole in the seal.



Step 10

When the pin in the cover fits with the pin hole in the seal, attach both items on the house.



Step 11

Mount the tool in order to tighten the cover and when mounted, rotate the cover clockwise until it clicks.



Step 12

When the cover is fitted on the house, loosen the tool and remove it from the cover.

The replacement is done.



Replacement

Closed top cover

Step A

The top cover is seldom necessary to replace, however, when the bearing is installed we recommend to tighten the screws on the bearing with the following intervals: 24 hours after installation, 1 week later and every month after installation.



Step B

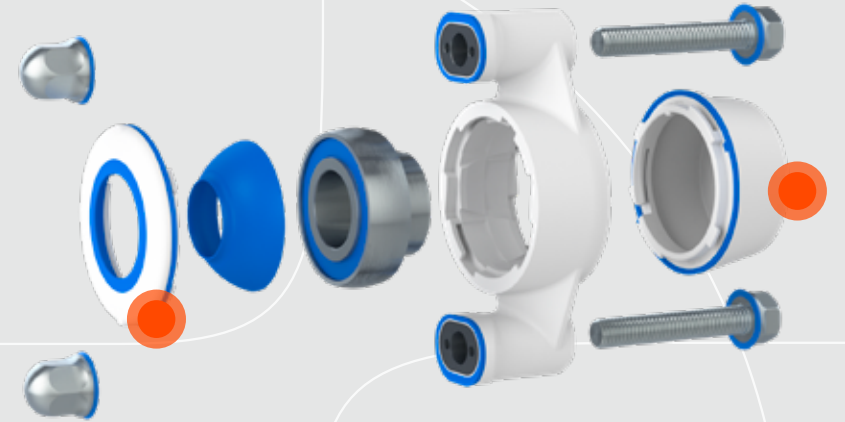
Unlock the top cover by turning it counterclockwise and loosen it from the house.

Pick a new closed cover from the spare part bag, if you need to replace it.



Step C

Align the pin (rotation stop) with the housing. Rotate the cover clockwise until it clicks and the replacement is complete.



Covers

Our covers for the front and back of the bearing house are not wearing parts but can, however, be subject to damages.

The covers on the bearing house can be customized with customer logo.

We offer open and closed covers in a large range of sizes and colors. The covers are produced in a high-strength, high-performance PA12/sturdy grilamid and optimized for food and pharmaceutical industries.

Replacement

Small cover & Spherical seal

Step A

Follow step 1 - 4 on pages 7 - 8 and remove the bearing house from the shaft.



Step B

Mount the tool on the small cover. The tool is included in our spare part kit.

Make sure that the arrow on the tool fits correctly on the tap of the cover when mounting it.



Step C

Tighten the screw on the tool, once tightened rotate the tool with the cover counterclockwise to loosen and remove.



Step D

When the cover is loose remove it from the house together with the spherical seal.



Step E

Select a new spherical seal from the spare part bag and a new small cover, if necessary.



Step F

Mount the tool on the new small cover by tightening the screw. Make sure that the arrow on the tool fits correctly on the tap of the cover.



Replacement

Small cover & spherical seal

Step G

When assembling the bearing house again, make sure that the pin hole on the spherical seal fits correctly in the pin of the cover.



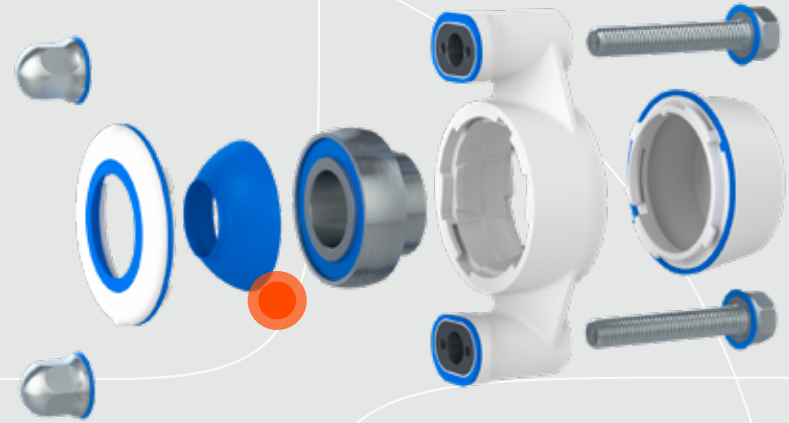
Step H

Mount the small spherical seal and small cover with the tool and make sure that they stay in the right position when mounting them on the house.



Step I

Rotate clockwise until the cover clicks. When mounted, loosen the screw from the tool and remove it from the cover. Follow step 5 - 12 on pages 8 - 10 in order to mount the bearing house on the shaft again.



Spherical seals

All according to use, we recommend replacing the spherical seal as needed, depending on local conditions and applications.

Our spherical seal is unique and patented and follows the shaft and bearing. It is sealed even when misaligned up to 3 degrees.

Even though our spherical seal has a longer lifetime than equivalent products, this is a wearing part and eventually this part will need to be changed. Please note that our spherical seals are lubrication-free. We have two types of spherical seals, a small seal and a medium seal, and a range of sizes.

The small seal is used for small open covers and the medium seal is used for open medium covers.



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All models can be supplied with certified hygienic nuts and bolts for maximum hygienic safety

Assortment Bearing Houses



Certified hygienic



Minimized cleaning time

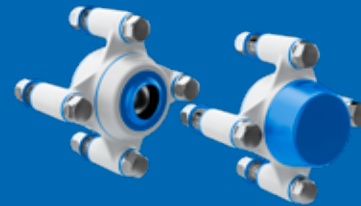


Minimized water usage

2-hole flange - type XB2FC
Shaft \varnothing 20 mm - 40 mm
/ 3/4 in - 1 1/2 in



4-hole flange - type XB4FC
Shaft \varnothing 20 mm - 40 mm
/ 3/4 in - 1 1/2 in



3-hole flange - type XB3FC
Shaft \varnothing 20 mm - 30 mm
/ 3/4 in - 1 1/4 in



Tapped base - type XBTBC
Shaft \varnothing 20 mm - 35 mm
/ 3/4 in - 1 3/8 in



Pillow block - type XBPBC
Shaft \varnothing 25 mm - 30 mm
/ 1 in - 1 1/4 in



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Cleaning

NGI Bearing houses

- Rinse with water, (max. temp. ~40°C on proteins).
- Distribute and cover all surfaces with foaming alkaline detergent for minimum 10 min. All usual products within the industry can be used. Follow suppliers recommendations for temperature and concentration (max. 100°C and concentration depending on foaming product).
- Rinse with hot water (max. 100°C) with low-medium pressure (approx. 8-12 bar) until visible cleanability is obtained. Cleaning of the foot assembly including sealings and domed nuts can normally be done with a spraying nozzle pointing in a downwards direction approx. 45° from above. For more heavy polluted surfaces, a more direct oriented nozzle can be necessary.
- NB: Be careful not to damage sealings if high pressure cleaning is used. Keep nozzle at min. 200-300 mm distance.
- If mechanical cleaning is necessary because of severe dirt, cleaning must be executed by a soft brush or soft plastic scraper together with a more direct pointing nozzle spray.
- NB: Steel scraper, steel brush or other sharp metallic tools are strictly prohibited, since rubber sealings can be severe damaged and the steel surfaces will be scratched.

Maintenance

NGI Bearing houses

Materials

The complete hygienic bearing houses are to be considered non-toxic, non-absorbent and migration-free.

All materials are food graded and compliant with the stringent requirements of FDA, 3-A, USDA and European Food Contact regulations and EHEDG.

Maintenance

There is no ongoing service on the bearing houses, however we recommend to tighten the screws on the bearing with the following intervals: 24 hours after installation, 1 week later and every month after installation as well as and during service and replacement until a suitable interval is found for sealing performance.

The Allen key which is enclosed in every shipment ensures the correct locking of the bearing on the shaft. It is important that the Allen key is fully engaged when you are

tightening the screw. If the set screws are not fully tightened, fretting can occur!

- There are two wear parts in an NGI bearing housing, the bearing itself and the spherical seal. They can both be changed relatively easily, but as this happens significantly less often than for standard bearing houses, you can also change the whole house.
- If the sealings are damaged, the product involved must be replaced. Always use original spare parts from NGI.
- If replacement of hygienic bolts, nuts or sealings is necessary. Always use original spare parts from NGI.

Also see pages 11 - 15 where you can find information regarding replacement of spare parts such as spherical seals and covers of our bearing houses.