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Go to ngi-global.com/products/bearing-houses/

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ngi-global.com

# Certified hygienic Bearing houses





# **NGI Innovation** - the Sustainable Way

# Product Innovation

Innovating for tomorrow Investing in research & development



### **Stainless steel - Recyclable materials**

80% of our products can be recycled. We are working on initiatives to make this percentage even higher.

### Hygienic seals - Resource saving

consumption.

### High Quality - Longer lifetime

components.



### **Hygienic design - Protecting consumers**

We make sure that the components do not constitute a hygiene risk through innovative and uncompromising design.

Permit easy cleaning and reduce water

Our products are very high quality which means they have a longer lifetime than corresponding













# CERTIFIED HYGIENIC BEARING HOUSES





















# Bearinc Houses

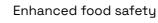
# Innovative & Reliable

# We provide the optimal solution for your application

The bearing houses are certfied and designed to comply with EHEDG, 3-A and USDA rules and guidelines and are specifically designed to minimize risks of contamination and enhance food safety.

The bearing house has a patented waterproof encasement that seals the bearing blocking out dirt and bacteria as well as extending the lifetime of the bearing. The bearings are lubricated for life eliminating the risk of spreading contaminated grease during highpressure cleaning.

The shaft insertion in to 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. Easy installation on differently designed conveyors





A complete hygienic design minimizing risks of cross-contamination



Reduce energy consumption

 Reduce usage of water and cleaning detergents

Go to ngi-global.com/products/bearing-houses/ to read more and see our product range.







#### reddot winner 2022



# Quote

"We are in the food processing industry where hygiene and sanitation matter most and the high-quality parts from NGI really point towards that providing our customers the possibility of an easy-clean, low maintenance, and high-durability components.

All qualities which customers in the food processing industry are looking for."

#### Ulrich Krümpelmann International Sales Manager, Alco-food-machines GmbH & Co. KG, Germany

# Gain a competitive advantages with hygienic components

The hygienic standard of your production equipment is a crucial competitive parameter when it comes to winning an order or being authorized as a new supplier. Scan the below QR code an watch a video from Alcofood-machines, Mr. Ulrich Krümpelmann, who explains how a component on a food processing machine can have influence on your competitiveness. nibi

alco







# **Chose NGI hygienic** components due to the many features

We have interviewed one of our Italian customers in order to learn more about how our customers experience today's challenges in regard to food safety and higher hygiene. MORC2 is a machine builder and constructs and manufactures conveyors.

You can see the whole testimonial from MORC2 on our website by scanning the QR code below.



# Quote

"The reasons why we chose NGI bearing houses are mainly their characteristics such as the good quality of the materials, the strength and stability. Another important feature is that they are lubrication free, which is crucial for minimizing the risk of contaminating the machinery.

> NGI proves to be a reliable partner in price and performance of their products".

> > Lucia Ulinici MORC2 s.r.l. Italy

# The investment pays off

Below is a conservative example of the Return on Investment of using NGI lubrication-free bearing houses compared to lubricated bearing houses 20 EUR surcharge per bearing house for 400 units and lubrication every two weeks.

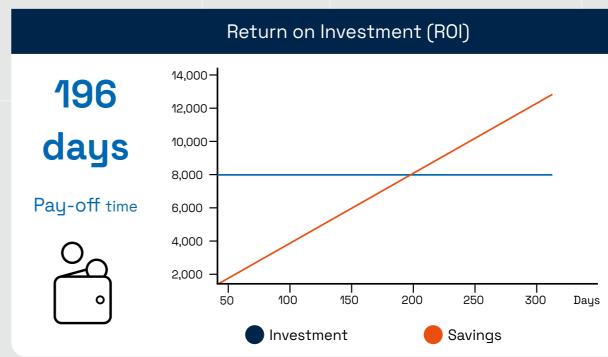
Please note that the surcharge will rarely be 20 EUR, and most end-users lubricate more frequently than every two weeks.

> 6 RO r one

The investment	
Surcharge per bearing house [EUR]	20
Number of bearing houses [quantity]	400
Total extra investment (competitor vs. NGI) (EUR]	8,000
The cost savings related to lubrication	
Amount of grease per lubrication [kg]	0,015
Number of lubrications per year [quantity]	26
Cost of grease per kg [EUR]	40
Total costs for grease per year [EUR]	6,240
Cost per man hour [EUR]	25
Time for each lubrication [Minutes]	2
Cost of manpower per year [EUR]	8,667
Total lubrication costs [EUR]	14,907

The savings	
Total investment (competitor vs. NGI) [EUR]	8,000
Savings of lubrication costs [EUR]	14,907
Profit after 12 months [EUR]	6,907
Pay-back after 12 months [%]	186%
Return on Investment [time]	196 days

# Hygiene will save your customer money



# Sustainability and reduced risk of bearing failure





• 2/3 of bearing failures are caused by lack of or faulty lubrication. Since the NGI bearings are lubrication-free, the risk of failure is considerably reduced.

• The hygienic design contributes to reducing the emission of water and detergents in the cleaning process thus reducing the environmental impact.

• The lubrication-free bearings eliminate the emission of grease spreading from the bearing to both wastewater and to other parts of the production environment.

# Specific market Consultants

Invitation to innovation Investing in knowledge-sharing

# Locally based Area Sales Managers

### Gain a competitive advantage with hygienic components

NGI has grown to become the global market leader for hygienic components due to our continously high involvement in our customer's businesses and needs.

Our deep insight into the various sectors within the machine manu-facturing and food processing industries makes us a value-adding partner with focus on consulting and knowledge sharing.

Today, NGI is represented in more than 50 countries and is rapidly expanding. As an NGI customer you will always be able to talk to a country-specific consultant with local language skills.



# Do you want us to calculate your savings?

Contact us if you want a free sample or if you want us to help calculate your savings?

# Certified hygienic Bearing houses

The only patented bearing house in the world hygienically designed and certified by EHEDG, 3-A and USDA standards with extreme easy access for cleaning from all angles.

The bearing house provide a patented waterproof sealing that allows 3 degrees misalignment and can be equipped with a high-performance ceramic bearing lubricated for life with 4-8 times extended lifetime



IP69k



Minimized cleaning time

<sup>0</sup> Minimized water usage

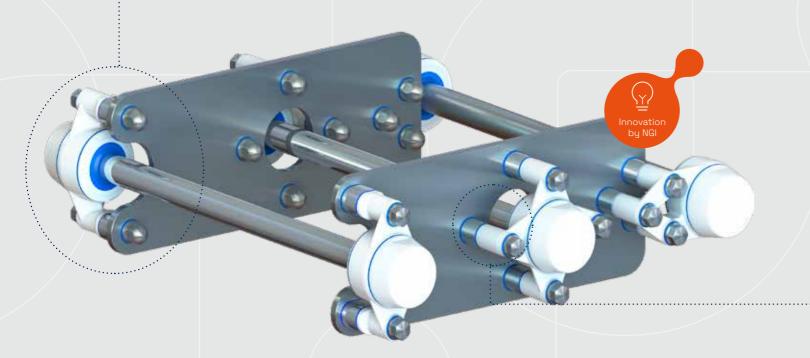


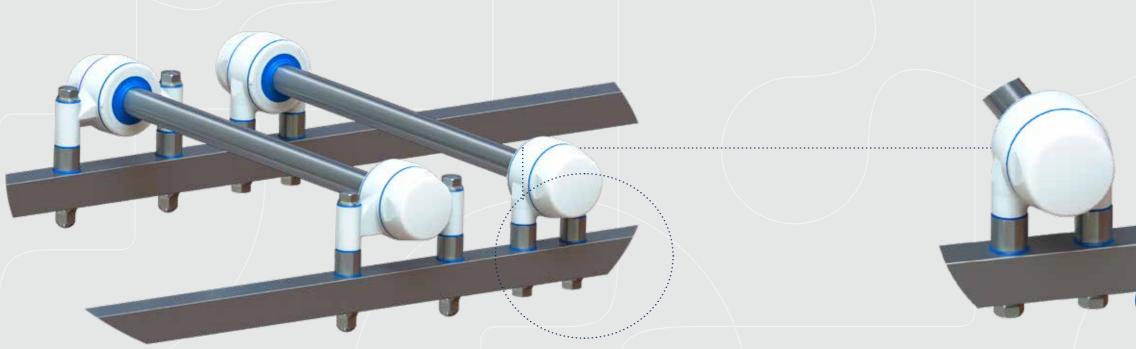
## Certified hygienic Bearing houses with spacers

Certified hygienic

Minimized cleaning time

Minimized water usage













#### Easy cleaning from all angles

NGI has created a bearing house that is extremely easy to clean fom all angles as water can easily reach all surfaces. All transitions and connections between materials are hygienically sealed with blue sealings.

#### Hygienic spacers

A high focus on hygienic design ensures that the bearing house can be cleaned behind and around the shaft and furthermore, NGI offers hygienic spacers to increase the distance to machines and equipment to over an inch as recommended by USDA.

#### Installation

Installation is easy and you will be able to use your usual procedure, however, as the bearing can be turned inside the house and covers are replaceable, the bearing house from NGI is far more flexible and can be mounted in more ways than traditional bearing houses.



# **Certified hygienic Bearing houses**

NGI is the only manufacturer in the world of certified hygienic bearing houses designed to comply and certified by EHEDG, 3-A and USDA standards. The product group consists of five different types of bearing houses fitted with ceramic or as standard stainless steel bearings. The bearing houses are designed according to IS03228\_2013 and fit insert bearings that meet IS09628\_2006. This also applies to outside dimensions and it is therefore, a perfect hygienic substitution for an unhygienic solution.

Choosing bearing houses from NGI optimized with ceramic spherical ball bearings you will be able to reach optimal quality, robustness and stability. The bearing houses are lubrication free which minimizes maintenance and the need for grease, thereby, minimizing the risk of contaminating the product. Our bearing houses are IP69K-certified.



### XB2FC

**Special Features** 

- 2-hole flange bearing house
- Mounted parallel to shaft direction
- Shaft diameter 20 mm 40 mm
- Can be supplied with certified hygienic nuts and bolts for maximum hygienic safety



23

25



### **XB3FC**

#### **Special Features**

- 3-hole flange bearing house
- Mounted parallel to shaft direction
- Shaft diameter 20 mm 30 mm
- Can be supplied with certified hygienic nuts and bolts for maximum hygienic safety

#### **Product Group Features**

- Easy access for cleaning from all angles •
- Flexible mounting can accomodate initial misalignment •
- Fitted with stainless steel bearing or ceramic bearing. •
- Tested and conforms to ISO9628 2006 & ISO3228 2013
- Can be supplied with hygienic bolts and nuts as standard. More sizes available upon request. .
- Can accomodate temperatures -20°C to +110°C depending on insert bearing •
- Unique patented seal system, waterproof at more than 3° misalignment
- Produced in sturdy grilamid with co-moulded FDA-approved TPS seals •
- The housing is able to withstand the same dynamic and static radial load as insert bearings •
- Housing made from grilamid, a high strength High-performance PA12 and optimized for detection in the food and pharmaceutical industries
- Suitable for heavier or alternating axial load depending on the way it is locked onto the shaft •
- For further information on load capacities look at bearing data sheet or contact NGI





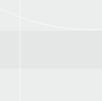
- Shaft diameter 25 mm - Can be supplied with certified hygienic nuts

This declaration of conformity lists all the directives and standards that NGI adheres to. This ensures that products from NGI are always in compliance with currently valid requirements.

### XB4FC

- **Special Features**
- 4-hole flange bearing house
- Mounted parallel to shaft direction
- Shaft diameter 20 mm 40 mm
- Can be supplied with certified hygienic nuts and bolts for maximum hygienic safety















reddot winner 2022

#### **Special Features**

- Pillow block bearing house
- Mounted perpendicularly to shaft direction
- Shaft diameter 20 mm 35 mm
- Can be supplied with certified hygienic nuts
- and bolts for maximum hygienic safety



### **XBTBC**

#### **Special Features**

- Tapped base bearing house
- Mounted perpendicularly to shaft direction
- and bolts for maximum hygienic safety

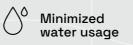
### **Declaration of** conformity

39

# **Certified hygienic Bearing houses - XB2FC**



Minimized cleaning time



# **Certified hygienic Bearing houses - XB2FC**

Product code			
Example			
Size A [mm]	Shaft diameter D [mm]	<b>V1</b> [mm]	<b>J</b> [mm]
47	20	7,5	90
52	25	6,4	99
62	30	6,6	116,5
72	35	7,1	130
80	40	7,4	143,5

Bearing type

Cover

Bearing

house

Bearing ball material diameter D [mm] Stainless steel w. screws 20 Stainless steel w. screws 25 Stainless steel w. screws 30 35 Stainless steel w. screws

Stainless steel w. screws

The above bearing is the most common bearing - stainless steel with screws. We have, however, four types of bearings stainless steel or ceramic hybrid with screws or with locking collar. Find our complete assortment of bearings on page 28.

Size	Shaft diameter		<b>om</b> [Open Medium]	CM [Closed Medium]	CL [Closed Large]	🗲 Item code
А	D	[open small]	[open medium]		[Closed Laige]	Color code
[mm]	[mm]	A2	A2	A2	A2	- See below
47	20	4,5	14,6	16,7	-	
52	25	4,6	14,6	17,2	27,5	
62	30	5,9	20,4	23,3	35,7	
72	35	6,4	19,5	23,2	-	
80	40	6,6	22,3	26,2	-	

Nut and Bolt



Color code

Shaft

40

Color bearing house

WHITE (W) BLUE (B) BLACK (S)

Color

<u>/!</u>\

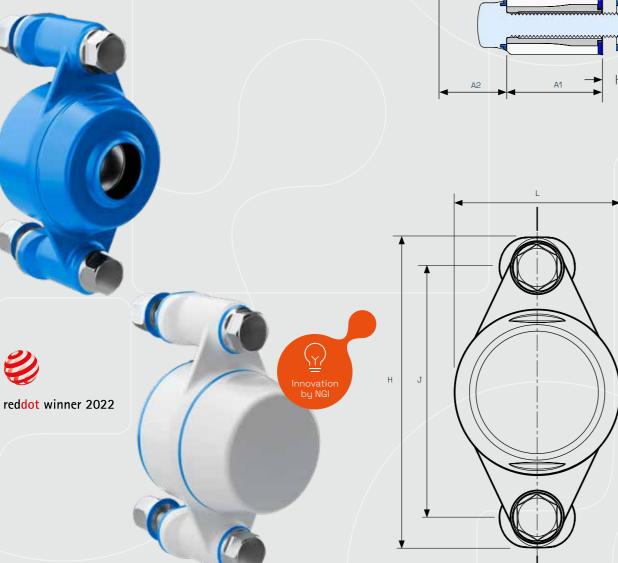
0.8 µm and 1.6 Ram Ra with a tolerance not exceeding h9, preferably lower Misalignment angle  $= +/-3^{\circ}$ 

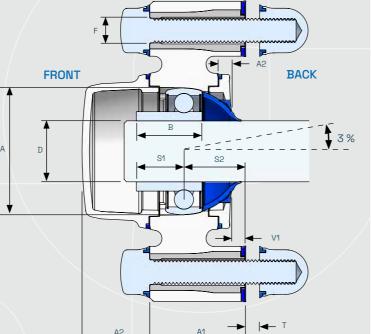
The design and patent protected XB2FC 2-hole flange bearing house is the optimal choice for machinery and equipment that has to comply with strict hygiene requirements.

The XB2FC bearing house is mounted parallel to shaft direction

The XB2FC is designed to provide easy access for cleaning from all angles. We recommend that you choose a bearing house with NGI's hygienic nuts and bolts for maximum hygienic safety.

The XB2FC meets the requirements of EC 1935/2004, EC 10/2011,EC 2023/2006 and FDA.







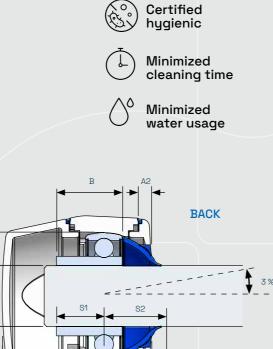


			Ibpak		TYPE EL
	Bearing hous	e Bearii tyj		Back B cover	olt (optional)
	XB2FC5	52- SSB250	00- CL(W)-	OS(W)-	BXHM1050
<b>F</b> [mm]		l [mm]	<b>A1</b> [mm]	<b>S2</b> [mm]	ltem code
10,2	114,2	57,8	36	24	XB2FC47
10,2	123	65,8	39	25	XB2FC52
10,2	144,9	79,7	41,5	27	XB2FC62
12,2	160,4	91,7	46,5	30	XB2FC72
12,2	175,9	101,6	50	32	XB2FC80

Width B [mm]	Distance S1 [mm]	Maximum speed sealing* [R/MIN.]	Static load rating Co [N]	Dynamic load rating C [N]	ltem code
25	18	1875	5040	10370	SSB2000
27	19,5	1500	5970	11310	SSB2500
30	22	1250	8640	15730	SSB3000
34	24,5	1070	11680	20830	SSB3500
37	26,5	940	13600	23550	SSB4000

Our bearing houses can be supplied with certified hygienic bolts and nuts. More bolt lengths are available. Find the relevant assortment of bolts and nuts for bearing houses on page 29.

# **Certified hygienic Bearing houses - XB3FC**



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FRONT

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# **Certified hygienic Bearing houses - XB3FC**

									ÍP69	RPSCQC	i i i i i i i i i i i i i i i i i i i	CLASS LAUX
Product c	ode					Bearing	house	Bearing type	Front cover	Back cover	Bolt (oj	ptional)
Example						XB3	FC52- 3	SSB2500-	CL(W)-	OS(W)-	BXHM	11050
Size A [mm]	Shaft diameter D [mm]	<b>V1</b> [mm]	<b>J</b> [mm]	<b>J1</b> [mm]	<b>F</b> [mm]	<b>H</b> [mm]	<b>H1</b> [mm]	ן [mm]	<b>l1</b> [mm]	<b>A1</b> [mm]	<b>S2</b> [mm]	ltem code
47	20	7,5	38	22	10,2	104,8	43	57,7	60	36	24	XB3FC47
52	25	6,4	41,5	28,5	10,2	118,3	46	65,6	63,5	39	25	XB3FC52
62	30	6,6	47,5	32	10,2	137,3	52,5	79,6	72,3	41,5	27	XB3FC62
72	35	-	-	-	-	-	-	-	-	-	-	XB3FC72
80	40	-	-	-	-	-	-	-	-	-	-	XB3FC80

Bearing type

Cover

Bearing

house

Bearing ball material	Shaft diameter D [mm]	Width B [mm]	Distance S1 [mm]	Maximum speed sealing* [R/MIN.]	Static load rating Co [N]	Dynamic load rating C [N]	ltem code
Stainless steel w. screws	20	25	18	1875	5040	10370	SSB2000
Stainless steel w. screws	25	27	19,5	1500	5970	11310	SSB2500
Stainless steel w. screws	30	30	22	1250	8640	15730	SSB3000
Stainless steel w. screws	-	-	-	-	-	-	SSB3500
Stainless steel w. screws	-	-	-	-	-	-	SSB4000

The above bearing is the most common bearing - stainless steel with screws. We have, however, four types of bearings stainless steel or ceramic hybrid with screws or with locking collar. Find our complete assortment of bearings on page 28.

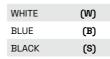
Size A [mm]	Shaft diameter D [mm]	OS [Open small] A2	om [Open Medium] A2	CM [Closed Medium] A2	CL [Closed Large] A2	<ul> <li>Item code</li> <li>Color code</li> <li>See below</li> </ul>
47	20	4,5	14,6	16,7	-	
52	25	4,6	14,6	17,2	27,5	
62	30	5,9	20,4	23,3	35,7	
72	35	6,4	19,5	23,2	-	
80	40	6,6	22,3	26,2	-	

Nut and Bolt



Our bearing houses can be supplied with certified hygienic bolts and nuts. More bolt lengths are available. Find the relevant assortment of bolts and nuts for bearing houses on page 29.

Color bearing house



Color code

<u>/!</u>\

Color

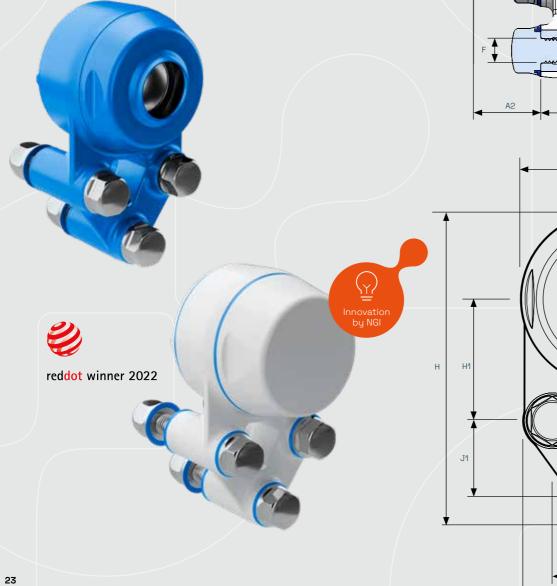
0.8 µm and 1.6 Ram Ra with a tolerance not exceeding h9, preferably lower Misalignment angle  $= +/-3^{\circ}$ 

The design and patent protected XB3FC 3-hole flange bearing house is the optimal choice for machinery and equipment that has to comply with strict hygiene requirements.

The XB3FC bearing house is mounted parallel to shaft direction.

The XB3FC is designed to provide easy access for cleaning from all angles. We recommend that you choose a bearing house with NGI's hygienic nuts and bolts for maximum hygienic safety.

The XB3FC meets the requirements of EC 1935/2004, EC 10/2011,EC 2023/2006 and FDA.



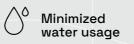




# **Certified hygienic Bearing houses - XB4FC**



Minimized Ļ cleaning time



BACK

1 3%

# **Certified hygienic Bearing houses - XB4FC**

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Bearing house



							IPPAK	RPSCQC	TYPE EL CLASSI AUX
Product cod	e				Bearing house	Bearing type	Front cover	Back cover	Bolt (optional)
Example					XB4FC52-	SSB2500-	- CL(W)-	OS(W)-	BXHM1050
Size A [mm]	Shaft diameter d [mm]	<b>V1</b> [mm]	<b>J</b> [mm]	<b>F</b> [mm]	<b>L</b> [mm]	<b>A1</b> [mm]	<b>S2</b> [mm]		Item code
47	20	7,5	63,5	10,2	84,7	36	24		XB4FC47
52	25	6,4	70	10,2	92	39	25		XB4FC52
62	30	6,6	82,5	10,2	109,1	41,5	27		XB4FC62
72	35	7,1	92	12,2	119,2	46,5	30		XB4FC72
80	40	7,4	101,5	12,2	130,8	50	32		XB4FC80

Bearing type



Cover

Bearing ball material	Shaft diameter D [mm]	Width B [mm]	Distance S1 [mm]	Maximum speed sealing* [R/MIN.]	Static load rating Co [N]	Dynamic load rating C [N]	ltem code
Stainless steel w. screws	20	25	18	1875	5040	10370	SSB2000
Stainless steel w. screws	25	27	19,5	1500	5970	11310	SSB2500
Stainless steel w. screws	30	30	22	1250	8640	15730	SSB3000
Stainless steel w. screws	35	34	24,5	1070	11680	20830	SSB3500
Stainless steel w. screws	40	37	26,5	940	13600	23550	SSB4000

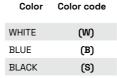
The above bearing is the most common bearing - stainless steel with screws. We have, however, four types of bearings stainless steel or ceramic hybrid with screws or with locking collar. Find our complete assortment of bearings on page 28.

Size A [mm]	Shaft diameter D [mm]	OS [Open small] A2	om [Open Medium] A2	CM [Closed Medium] A2	CL [Closed Large] A2	<ul> <li>Item code</li> <li>Color code</li> <li>See below</li> </ul>
47	20	4,5	14,6	16,7	-	
52	25	4,6	14,6	17,2	27,5	
62	30	5,9	20,4	23,3	35,7	
72	35	6,4	19,5	23,2	-	
80	40	6,6	22,3	26,2	-	

Nut and Bolt



Color bearing house



<u>/!</u>\

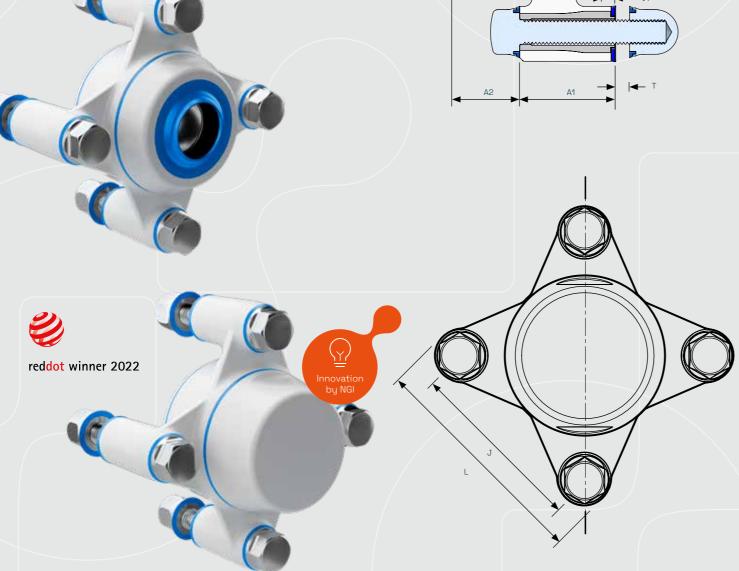
0.8 µm and 1.6 Ram Ra with a tolerance not exceeding h9, preferably lower

The design and patent protected XB4FC 4-hole flange bearing house is the optimal choice for machinery and equipment that has to comply with strict hygiene requirements.

The XB4FC bearing house is mounted parallel to shaft direction.

The XB4FC is designed to provide easy access for cleaning from all angles. We recommend that you choose a bearing house with NGI's hygienic nuts and bolts for maximum hygienic safety.

The XB4FC meets the requirements of EC 1935/2004, EC 10/2011,EC 2023/2006 and FDA.



FRONT







Our bearing houses can be supplied with certified hygienic bolts and nuts. More bolt lengths are available. Find the relevant assortment of bolts and nuts for bearing houses on page 29.

# **Certified hygienic Bearing houses - XBPBC**



Ļ cleaning time

> Minimized water usage

# **Certified hygienic Bearing houses - XBPBC**

Product code

Example

Size

[mm]

47

52

62

72

80

Shaft

[mm]

20

25

30

35

40

diameter

V1

[mm]

4.4

3,6

3

1.8

.T

96

105

121

126

[mn

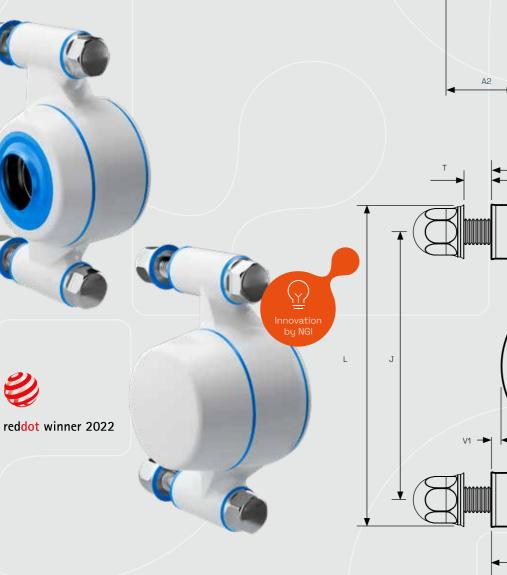
[mm]

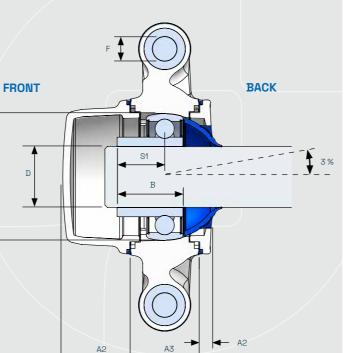
The design and patent protected XBPBC 2-hole block full bearing house is the optimal choice for machinery and equipment that has to comply with strict hygiene requirements.

The XBPBC bearing house is mounted perpendicularly to shaft direction

The XBPBC is designed to provide easy access for cleaning from all angles. We recommend that you choose a bearing house with NGI's hygienic nuts and bolts for maximum hygienic safety.

The XBPBC meets the requirements of EC 1935/2004, EC 10/2011, EC 2023/2006 and FDA.





Η1



Bearing house



Bearing type



Cover

Bearing ball material	Shaft diameter D [mm]	Width B [mm]	Distance S1 [mm]	Maximum speed sealing* [R/MIN.]	Static load rating Co [N]	Dynamic load rating C [N]	ltem code
Stainless steel w. screws	20	25	18	1875	5040	10370	SSB2000
Stainless steel w. screws	25	27	19,5	1500	5970	11310	SSB2500
Stainless steel w. screws	30	30	22	1250	8640	15730	SSB3000
Stainless steel w. screws	35	34	24,5	1070	11680	20830	SSB3500
Stainless steel w. screws	-	-	-	-	-	-	SSB4000

The above bearing is the most common bearing - stainless steel with screws. We have, however, four types of bearings stainless steel or ceramic hybrid with screws or with locking collar. Find our complete assortment of bearings on page 28.

Size A [mm]	Shaft diameter D [mm]	OS [Open small] A2	om [Open Medium] A2	CM [Closed Medium] A2	CL [Closed Large] A2	<ul> <li>Item code</li> <li>Color code</li> <li>See below</li> </ul>
47	20	4,5	14,6	16,7	-	
52	25	4,6	14,6	17,2	27,5	
62	30	5,9	20,4	23,3	35,7	
72	35	6,4	19,5	23,2	-	
80	40	6,6	22,3	26,2	-	

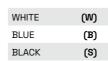
Nut and Bolt





Our bearing houses can be supplied with certified hygienic bolts and nuts. More bolt lengths are available. Find the relevant assortment of bolts and nuts for bearing houses on page 29.

Color bearing house



Color

Color code



0.8 µm and 1.6 Ram Ra with a tolerance not exceeding h9, preferably lower Misalignment angle  $= +/-3^{\circ}$ 





			Í	P69k	RPSCQC	
	Bearir	ng house	Bearing type	Front cover	Back cover	Bolt (optional)
	XI	3PBC25-	SSB2500-0	CL(W)- (	)S(W)-	BXHM1060
<b>F</b> [mm]	<b>H</b> [mm]	<b>H1</b> [mm]	<b>H2</b> [mm]	<b>L</b> [mm]	<b>A3</b> [mm]	Item code
10,2	62,2	33,3	36	117	24	XBPBC47
10,2	69,4	36,5	39	126	28	XBPBC52
10,2	82,8	42,9	41,5	146	29	XBPBC62
12,2	93,4	47,6	46,5	152	33	XBPBC72
-	-	-	-	-	-	XBPBC80

# **Certified hygienic Bearing houses - XBTBC**

Certified hygienic

Minimized cleaning time

Minimized water usage

BACK

3%

# **Certified hygienic Bearing houses - XBTBC**

Produc	t code				
Exampl	e				
		Shaft	_		
	Size A	diameter D	<b>J</b> [mm]	H [mm]	
	[mm]	[mm]	[]	[]	
	47	20	-	-	
	52	25	51	69,4	
	62	30	-	-	
	72	35	-	-	
	80	40	-	-	
Be	aring bal	ll material	Sha		lidth
			diamet		<b>B</b> [mm]
			[m		[11111]
Stainles	s steel w.	screws	-		-
Stainles	s steel w.	screws	2	5	27
Stainles	s steel w.	screws	-		-

The above bearing is the most common bearing - stainless steel with screws. We have, however, four types of bearings stainless steel or ceramic hybrid with screws or with locking collar. Find our complete assortment of bearings on page 28.

Size A [mm]	Shaft diameter D [mm]	OS [Open small] A2	om [Open Medium] A2	CM [Closed Medium] A2	CL [Closed Large] A2	<ul> <li>Item code</li> <li>Color code</li> <li>See below</li> </ul>
. ,					n E	
47	20	4,5	14,6	16,7	-	
52	25	4,6	14,6	17,2	27,5	
62	30	5,9	20,4	23,3	-	
72	35	6,4	19,5	23,2	-	
80	40	6,6	22,3	26,2	-	

Nut and Bolt





Stainless steel w. screws Stainless steel w. screws

> Our bearing houses can be supplied with certified hygienic bolts and nuts. More bolt lengths are available. Find the relevant assortment of bolts and nuts for bearing houses on page 29.

Color bearing house

WHITE (W) BLUE (B) BLACK (S)

Color code

Color

<u>/!\</u>

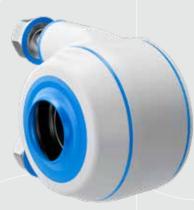
0.8 µm and 1.6 Ram Ra with a tolerance not exceeding h9, preferably lower Misalignment angle  $= +/-3^{\circ}$ 

The design and patent protected XBTBC block short-base bearing house is the optimal choice for machinery and equipment that has to comply with strict hygiene requirements.

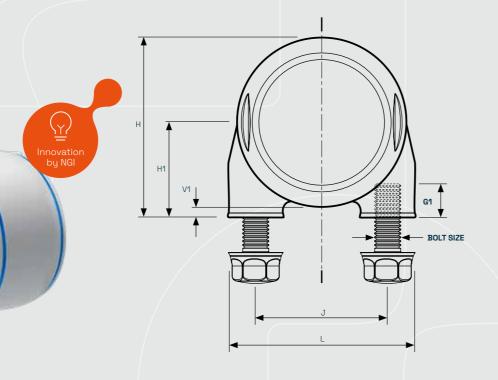
The XBTBC bearing house is mounted perpendicularly to shaft direction

The XBTBC is designed to provide easy access for cleaning from all angles. We recommend that you choose a bearing house with NGI's hygienic nuts and bolts for maximum hygienic safety.

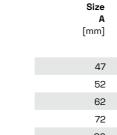
The XBTBC meets the requirements of EC 1935/2004, EC 10/2011, EC 2023/2006 and FDA.



reddot winner 2022



FRONT



Bearing type

Bearing

house



Cover





			ÍP69			TYPE EL CLASS I AUX
	Bearing h		ring From type cove		Bolt (op	tional)
	XBTB	C25- SSB2	500-CL(W)	- OS(W)-	BXHM,	1060
<b>H1</b> [mm]		<b>G1</b> [mm]	<b>A3</b> [mm]		Iter	n code
-		-	-		:	XBTBC47
36,5	72,3	13	28		:	XBTBC52
-		-	-		1	XBTBC62
-		-	-			XBTBC72
-		-	-		2	KBTBC80
idth B mm]	Distance S1 [mm]	Maximum speed sealing* [R/MIN.]			Dynamic Id rating C [N]	ltem code
-	-	-		-	-	SSB2000
27	19,5	1500	597	0	11310	SSB2500
-	-	-		-	-	SSB3000
-	-	-		-	-	SSB3500
-	-	-		-	-	SSB4000

# **Hygienic Bearings** stainless steel or ceramic hybrid

We produce stainless steel and ceramic hybrid high performance insert bearings of the highest quality. Seals are made from FDA blue NBR.

Research based on the analysis of 1.000 bearings shows that 99,6% of ceramic bearings last at least 4 times longer than standard bearings.

In 50% of the cases, the service life of the bearing was between 8-20 times longer than the bearings they replaced.

In 30% of the cases, it is expected that the ceramic bearings will never need to be replaced for the entire service life of the machine.



Minimized cleaning time

$\land \diamond$	Minimized
$\mathcal{I}$	water usag

## **Hygienic Bearings** stainless steel or ceramic hybrid



### **SSB**





















**Special Features** - Stainless Steel Bearing - Stainless steel balls - AISI 440 rings

**Special Features** - Ceramic Bearing - Hybrid with ceramic balls - AISI 440 rings

**Special Features** - Stainless Steel Bearing - Stainless steel balls - AISI 440 rings - Eccentric locking collar

**Special Features** - Ceramic Bearing - Hybrid with ceramic balls - AISI 440 rings

- Eccentric locking collar

# **Hygienic Bearings** stainless steel or ceramic hybrid

Our bearings are pre-installed in the bearing houses and we currently offer 4 types - stainless steel or ceramic hybrid bearing with screws or locking collar.

Our certified hygienic bearing houses with IP69K sealing provide the ideal environment for the bearing and are therefore suitable for maintenance-free operation.

The main operating parameters that determine the lifetime of the bearing are bearing type and size, load, speed, operating temperature, shaft tolerances.

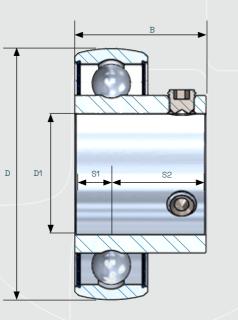
Our ball bearings are greased-for-life with high-performance multi-purpose grease designed specifically for the lubrication of food processing machinery all sealed-for-life by seals made from FDA-approved blue NBR.

The locking method with screws is the most common locking function.

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.



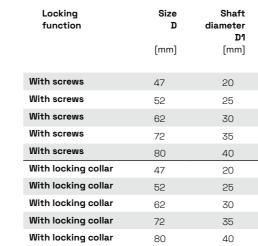






# Hygienic Bearings stainless steel or ceramic hybrid

**Bearing ball** Stainless steel



**Bearing ball** Ceramic hybrid



Locking function	Size D [mm]	Shaft diameter D1 [mm]	Width B [mm]	Distance S1 [mm]	Max. speed bearing* [R/MIN.]	Static load rating Co [N]	Dynamic load rating C [N]	ltem code
With screws	47	20	25	18	4800	4032	10370	CSB2000
With screws	52	25	27	19.5	4200	4776	11310	CSB2500
With screws	62	30	30	22	3780	6912	15730	CSB3000
With screws	72	35	34	24,5	3150	9344	20830	CSB3500
With screws	80	40	37	26,5	2750	10880	23550	CSB4000
With locking collar	47	20	25	18	4800	4032	10370	CSA2000
With locking collar	52	25	27	19.5	4200	4776	11310	CSA2500
With locking collar	62	30	30	22	3780	6912	15730	CSA3000
With locking collar	72	35	34	24,5	3150	9344	20830	CSA3500
With locking collar	80	40	37	26,5	2750	10880	23550	CSA4000



Grease for bearing balls in stainless steel:

Our bearing balls in stainless steel are lubricated-for-life with Mobilgrease FM 222 a high performance multi-purpose products designed specifically for the lubrication of food processing machinery. FM 222 are Agriculture and Agri-Food Canada category n lubricant (incidental food contact) and are formulated with components meeting the requirements of CFR 178.3570, Chapter 21, and NSF registered as H1 classified lubricants. DIN 51825 KPF2K-20 - Kosher/Parve - Halal.

#### Grease for bearing balls in ceramic hybrid:

Our bearing ball in ceramic hybrid are lubricated-for-life with ROCOL® FOODLUBE Premier 1 a soft, white, non-toxic lubricant containing PTFE for the effective lubrication and protection of ball, roller and plain bearings, slides and bushes particularly those operating in food, pharmaceutical and other clean environments. FOODLUBE Premier 1 is temperature resistance of -20°C to +180°C and it is manufactured from only FDA listed ingredients: FDA Group 21 CFR 178.3570.

FOODLUBE Premier 1 is NSF registered, NSF H1 registered – 141084 and ISO 21469 certified.



\* The hygienic bearing house is typically used on conveyors rotating at relatively low speeds (below 2000 rpm), the housing creates a hygienic environment for the bearing, and it would be optimal to mount it on an AISI hard surface between 0.8 µm and 1.6 Ram Ra with a tolerance not exceeding h9, preferably lower.



Width	Distance	Max. speed	Static load rating	Dynamic load rating	ltem code
<b>B</b> [mm]	<b>S1</b> [mm]	bearing* [R/MIN.]	<b>Co</b> [N]	<b>C</b> [N]	
25	18	4800	5040	10370	SSB2000
27	19,5	4200	5970	11310	SSB2500
30	22	3780	8640	15730	SSB3000
34	24,5	3150	11680	20830	SSB3500
37	26,5	2750	13600	23550	SSB4000
25	18	4800	5040	10370	SSA2000
27	19,5	4200	5970	11310	SSA2500
30	22	3780	8640	15730	SSA3000
34	24,5	3150	11680	20830	SSA3500
37	26,5	2750	13600	23550	SSA4000

# **Certified hygienic** bolts & nuts



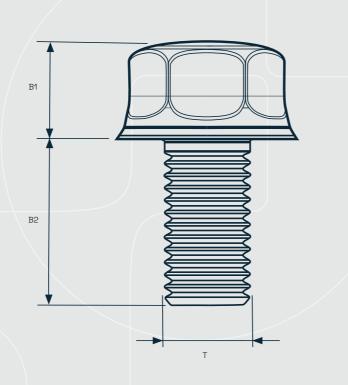
# **Certified hygienic** bolts & nuts

NGI is able to offer certified hygienic bolts and nuts with blue NBR rubber seals. The NBR rubber seal blocks out water and bacteria and also prevents a non-hygienic metal-to-metal assembly.

The bolts and nuts have self-draining surfaces with a maximal roughness of 0.8 µm Ra. The design of the bolts and nuts does not deviate from the sizes of current standard bolts and nuts. Therefore, wrench sizes, thread heights etc. all remains the same making it very easy to upgrade and replace standard bolts.

This is the right choice of accessories to be used on all machinery in all certified hygienic wash-down environments.

- Certified in accordance with 3-A (RPSCQC)
- Certified in accordance with EHEDG hygienic standard TYPE EL - CLASS I AUX
- Minimizes cleaning time and water consumption
- Surfaces with a maximal roughness of 0,8 µm Ra
- Available in sizes M5-M24



Certified hygienic bolts - BXH	
T	

Α	size T	height B1	length* B2
[mm]		[mm]	[mm]
47	M10	12	50
47	M10	12	55
52	M10	12	50
52	M10	12	55
62	M10	12	55
62	M10	12	60
72	M12	14	60
72	M12	14	65
80	M12	14	65
80	M12	14	70

Head

Bolt

Certified
hygienic
dome-headed
nut - NDXH

Thread T1	Tightening torque	Total height B1
	[Nm]	[mm]
M10	38	19,9
M12	68	24,5



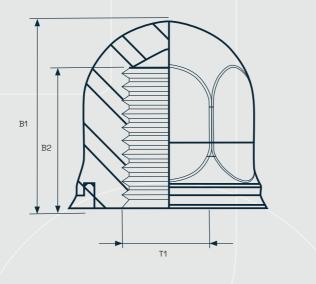








Plate thickness	7	Tightening torque	Outer nut diameter	Item code
[mm]	[mm]	[Nm]	[mm]	
1-5	16	38	21,1	BXHM1050
5-10	16	38	21,1	BXHM1055
1-5	16	38	21,1	BXHM1050
5-10	16	38	21,1	BXHM1055
1-5	16	38	21,1	BXHM1055
5-10	16	38	21,1	BXHM1060
1-5	18	68	25,8	BXHM1260
5-10	18	68	25,8	BXHM1265
1-5	18	68	25,8	BXHM1265
5-10	18	68	25,8	BXHM1270

Thread length	3	Outer nut diameter	Item code
<b>B2</b> [mm]	<b>W</b> [mm]	[mm]	
15	16	21,1	NDXH-M10
18	18	25,8	NDXH-M12

\* Bearing can be supplied with certified hygienic bolts. More bolt lengths are available, contact NGI for other options.

# **Certified hygienic** spacers

Certified hygienic Minimized Ļ cleaning time

 $\wedge$ Minimized water usage

V2

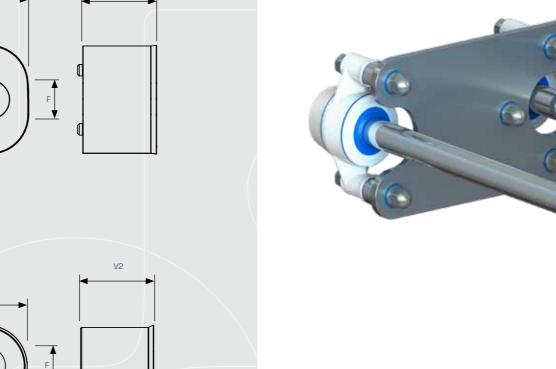
# **Certified hygienic** spacers

Bearing house size **Oval Spacer** ٧2 [mm] ſmn [mm] 47 19 52 19 62 19 72 19 1 80 19 1

Bearing house size A [mm]	<b>V2</b> [mm]
47	22
52	22
62	22,5
72	22
80	22

 $\bigcirc$ 

**Round Spacer** 



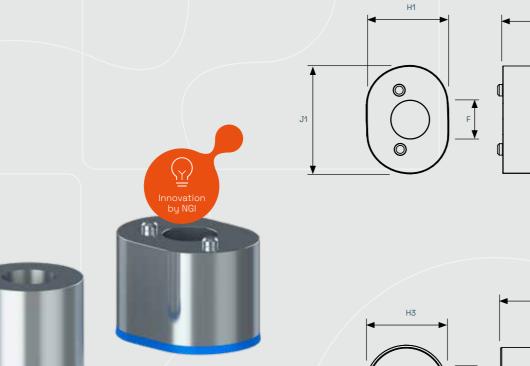
NGI can offer certified hygienic spacers with blue NBR rubber seals. The NBR rubber seal blocks out water and bacteria and prevents a non-hygienic metal-to-metal assembly.

A high focus on hygienic design ensures that the bearing house can be cleaned behind and around the shaft and furthermore, NGI offers hygienic spacers to increase the distance to machines and equipment to over an inch as recommended by USDA.

NGI bearing houses are USDA certifed.

When USDA laws are to be followed use the hygienic spacers from NGI to secure the approved distance to the support surface. For hygienic components from NGI which are already 3-A RPSCQC approved, USDA has mostly been about protection against visible threads and 1" spacers for bearing housings.

To attach NGI hygienic bearing houses to the support surface always use NGI certified hygienic bolts or nuts to secure the overall hygienic design.

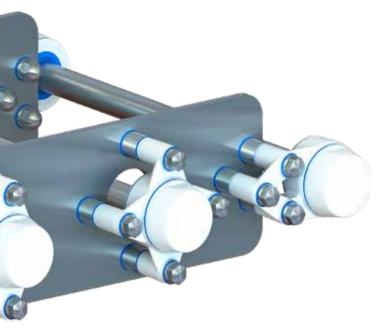






<b>F</b> n]	<b>H1</b> [mm]	<b>J1</b> [mm]	Item code
3	23,2	30,8	8000200
1	23,5	31,2	HF95462
11	27,5	37,2	HF95463
5	28,4	48,8	HF95696
5	30,4	52,8	HF95705

<b>F</b> [mm]	<b>H3</b> [mm]	Item code
12	22	HF95464
12	22	HF95464
12	26	HF95461
15	28,5	HF95697
15	30	HF95702









# A safer and more effective cleaning of your equipment?

### - try our CIP Unit!

NG

The new easy-to-fit hygienic CIP unit is a simple and efficient solution, where nozzles are positioned on the two spray bars. This is to effectively remove the accumulated organic residues from both sides of a process and conveyor belting.

The CIP unit can easily be installed with no use of complicated engineering and conveyor frame modifications. The device is highly efficient, hygienically designed, and makes cleaning more environmentally friendly.

The installation of the new CIP unit minimizes the operator's manual cleaning and contributes to reduce the resource utilization such as water, labor and detergents. See more at www.ngi-global.com

- Reduce the cleaning time and manual labor and increase your production time
- Reduce the consumption of water, chemicals and energy
- Minimize the wear on conveyor belt surfaces by avoiding manual cleaning
- Low maintenance and service required
- State-of-the-art hygienic design. Inspired by EHEDG and 3-A design guidelines