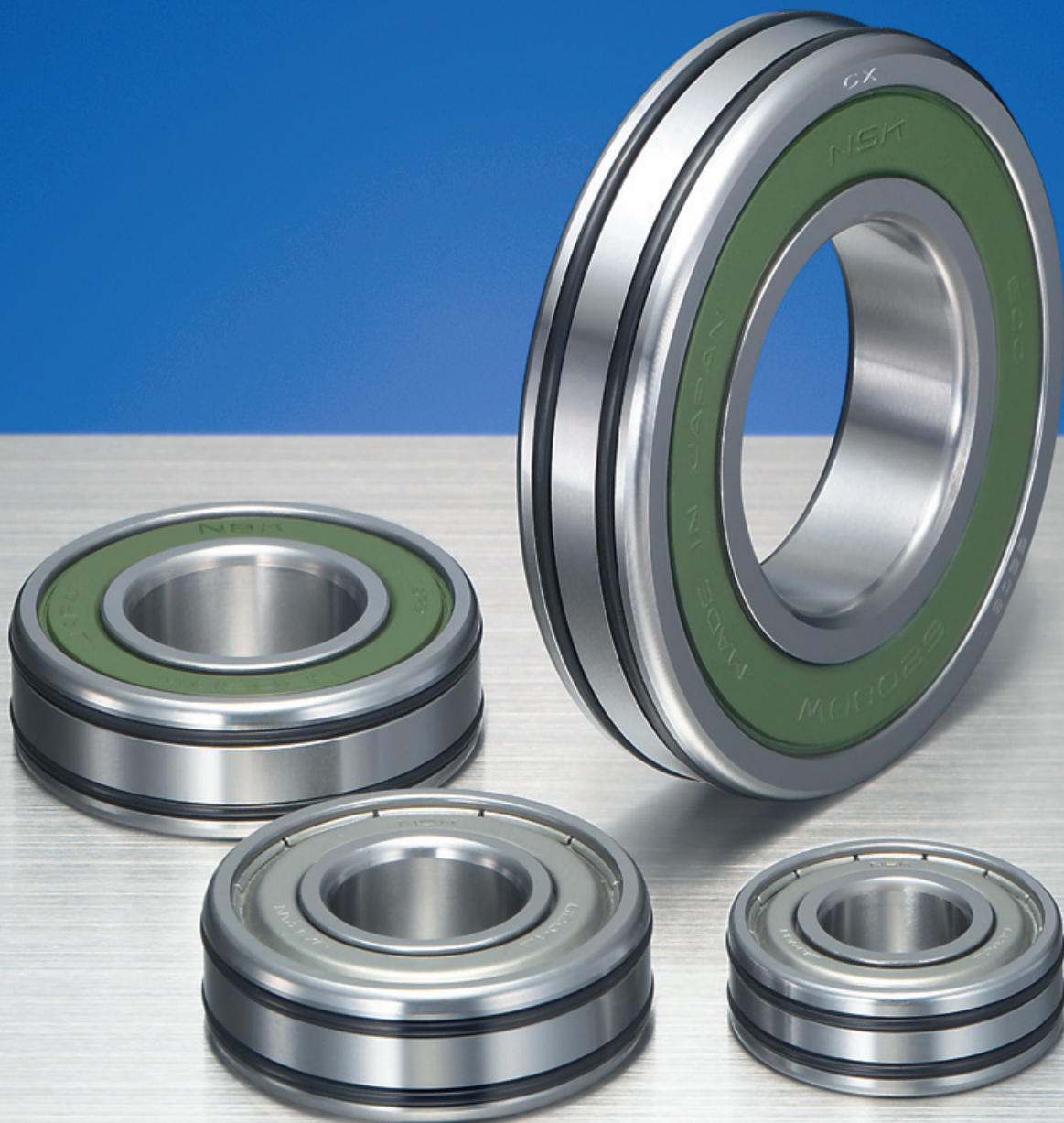


Creep-Free Bearings™ CX Series

A new bearing series that is indispensable for drive units in equipment such as motors for general use. Prevents creep when used with rotating loads, plus offers a reusable housing and easy assembling.



Creep prevention due to O-ring tension is dramatically enhanced. Also, since boundary dimensions are identical to standard bearings, the housing does not need to be reworked when replacing the bearing, contributing to reduced costs.

1. Structure and performance of CX Series bearings

Tension of the O-rings, which are mounted in the two grooves of the outer ring, improves creep prevention. No special machining is required; bearings can be used with the same housing as standard bearings. In creep limit load tests, the more housing clearance is reduced, the greater the improvement in creep prevention, due to the tension of the O-ring mounted in the outer ring.

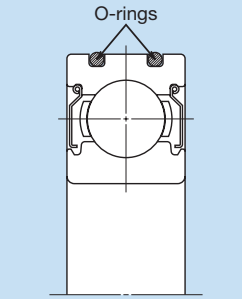
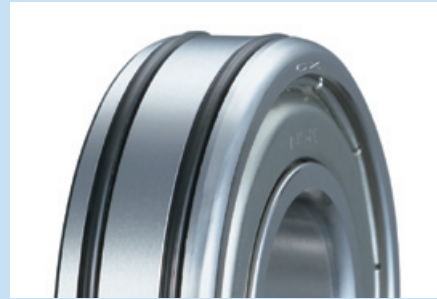


Fig. 1 Structure of the Creep-Free Bearing

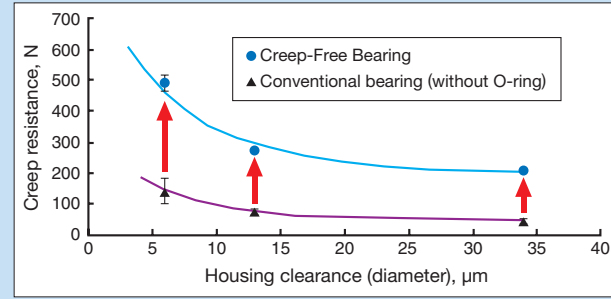


Fig. 2 Creep limit load test (example: 6204)

2. Features and applications of CX Series bearings

Features

Prevents creep

O-ring tension prevents creep.

Reusable housing

Very little abrasion occurs on the bore surface of the housing, making reuse possible.

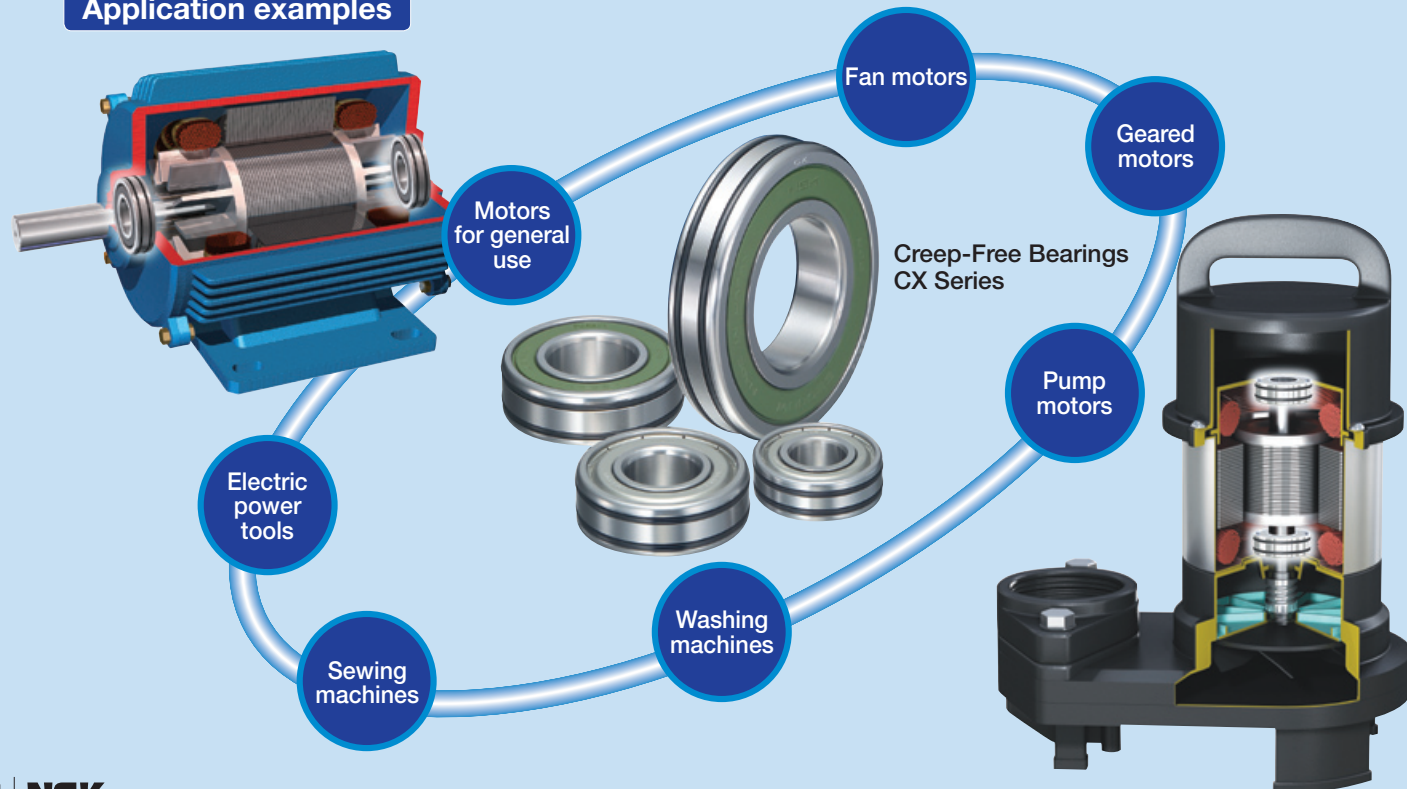
Easy to assemble

Assembly is easy since bearings can be fitted with a loose tolerance.

No special machining of the housing is required

Bearings can be replaced since boundary dimensions are identical to standard bearings. No reworking of the housing is required.

Application examples



3. CX Series

Bearing nomenclature

Example: **CX** - **6203** **ZZ** **C3** **NS7S**

Creep-Free Bearing (with O-ring)

Basic bearing number

Radial clearance

Seal type

6203ZZNX50C3+Y2 NS7S (conventional example)

Table 1 CX Series List

Bearing bore diameter <i>d</i> mm	Bearing outer diameter <i>D</i> mm	Bearing width <i>B</i> mm	Basic load ratings		Recommended fits*	Bearing number			
			<i>C_r</i> (N)	<i>C_{0r}</i> (N)		Open type	Shield type	Contact seal type**	Non-contact seal type
10	26	8	4 550	1 970	G6 or H7	CX-6000			
	30	9	5 100	2 390		CX-6200	ZZ	DDU	VV
	35	11	8 100	3 450		CX-6300			
12	28	8	5 100	2 370		CX-6001			
	32	10	6 800	3 050		CX-6201	ZZ	DDU	VV
	37	12	9 700	4 200		CX-6301			
15	32	9	5 600	2 830		CX-6002			
	35	11	7 650	3 750		CX-6202	ZZ	DDU	VV
	42	13	11 400	5 450		CX-6302			
17	35	10	6 000	3 250		CX-6003			
	40	12	9 550	4 800		CX-6203	ZZ	DDU	VV
	47	14	13 600	6 650		CX-6303			
20	42	12	9 400	5 000		CX-6004			
	47	14	12 800	6 600		CX-6204	ZZ	DDU	VV
	52	15	15 900	7 900		CX-6304			
25	47	12	10 100	5 850	CX-6005				
	52	15	14 000	7 850	CX-6205	ZZ	DDU	VV	
	62	17	20 600	11 200	CX-6305				
30	55	13	13 200	8 300	CX-6006				
	62	16	19 500	11 300	CX-6206	ZZ	DDU	VV	
	72	19	26 700	15 000	CX-6306				
35	62	14	16 000	10 300	CX-6007				
	72	17	25 700	15 300	CX-6207	ZZ	DDU	VV	
	80	21	33 500	19 200	CX-6307				
40	68	15	16 800	11 500	CX-6008				
	80	18	29 100	17 900	CX-6208	ZZ	DDU	VV	
	90	23	40 500	24 000	CX-6308				
45	75	16	20 900	15 200	CX-6009				
	85	19	31 500	20 400	CX-6209	ZZ	DDU	VV	
	100	25	53 000	32 000	CX-6309				

* Although recommended fits are G6 or H7, G6 is recommended when used under conditions that prioritize insertion under light pre-load.
** Low-contact seal available for seal type bearings. Contact NSK for details.

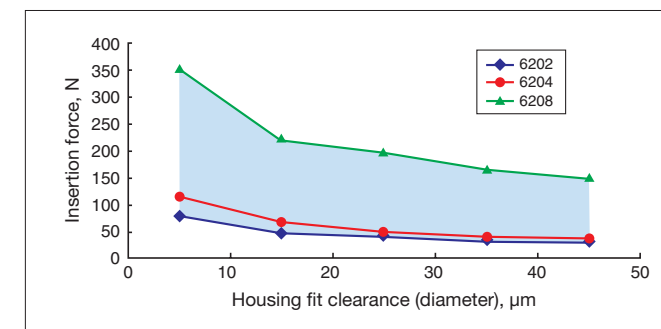


Fig. 3 Fit and insertion force

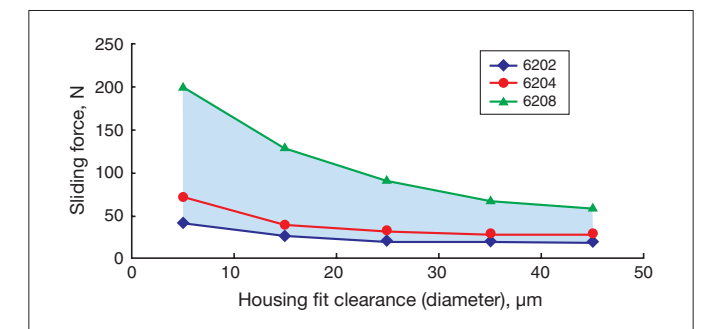


Fig. 4 Fit and sliding force



Note on mounting Creep-Free Bearings

- When oil or grease is applied to the outer diameter of the bearing, use a mineral oil or a synthetic hydrocarbon oil (NSK's EA2, etc.).
- O-ring material is nitrile rubber (operating temperature range: -30 to 120°C) as a standard specification. Please contact NSK for use under special environments such as high temperatures.

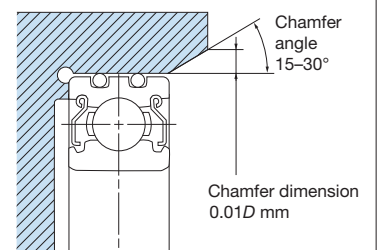


Fig. 5 Housing shape and dimension

Note on the product name "Creep-Free Bearings": The term "free" should not be construed to mean that creep is nonexistent.

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