

## NIPPON THOMPSON CO., LTD. (JAPAN)

Head Office : 19-19, Takanawa 2-chome, Minato-ku,  
Tokyo, 108-8586, Japan  
Phone : +81 (0)3-3448-5850  
Fax : +81 (0)3-3447-7637  
E-mail : ntt@ikonet.co.jp  
URL : <https://www.ikont.co.jp/eg/>  
Plant : Gifu, Kamakura



## IKO INTERNATIONAL, INC. (U.S.A.)

### East Coast Operation (Sales Head Office)

91 Walsh Drive,  
Parsippany, NJ, 07054,  
U.S.A.  
Phone : +1-973-402-0254  
Toll Free : +1-800-922-0337  
Fax : +1-973-402-0441  
E-mail : eco@ikonet.co.jp



### Midwest Operation

101 Mark Street, Unit-G,  
Wood Dale, IL, 60191,  
U.S.A.  
Phone : +1-630-766-6464  
Toll Free : +1-800-323-6694  
Fax : +1-630-766-6869  
E-mail : mwo@ikonet.co.jp

### West Coast Operation

9830 Norwalk Boulevard, Suite 198,  
Santa Fe Springs, CA, 90670,  
U.S.A.  
Phone : +1-562-941-1019  
Toll Free : +1-800-252-3665  
Fax : +1-562-941-4027  
E-mail : wco@ikonet.co.jp

### Silicon Valley Sales Office

1500 Wyatt Drive, Suite 10,  
Santa Clara, CA, 95054,  
U.S.A.  
Phone : +1-408-492-0240  
Toll Free : +1-800-252-3665  
Fax : +1-408-492-0245  
E-mail : wco@ikonet.co.jp

### Southeast Operation

3235 Satellite Boulevard Building 400, Suite 230,  
Duluth, GA, 30096,  
U.S.A.  
Phone : +1-770-418-1904  
Toll Free : +1-800-874-6445  
Fax : +1-770-418-9403  
E-mail : seo@ikonet.co.jp

### Southwest Operation

6191 N STATE HIGHWAY 161, STE 440,  
IRVING, TX 75038-2264,  
U.S.A.  
Phone : +1-972-925-0444  
Toll Free : +1-800-295-7886  
Fax : +1-972-707-0385  
E-mail : swo@ikonet.co.jp

## IKO THOMPSON BEARINGS CANADA, INC.(CANADA)

731-2425, Matheson Boulevard East, 7th floor,  
Mississauga, Ontario, L4W 5K4, Canada  
Phone : +1-905-361-2872  
Fax : +1-905-361-6401  
E-mail : itc@ikonet.co.jp

## IKO BRASIL SERVIÇOS EMPRESARIAIS EIRELI (BRAZIL)

Rua Frei Caneca 1407,  
Condominio Edifício Barão de Monte Cedro,  
Cjs. 801/802, Consolação, São Paulo- SP  
Cep: 01307-909  
Phone : +55 (0)11-2366-3033  
E-mail : itb@ikonet.co.jp

## NIPPON THOMPSON EUROPE B.V. (EUROPE)

### The Netherlands (Sales Head Office)

Keersopstraat 35,  
3044 EX, Rotterdam,  
The Netherlands  
Phone : +31 (0)10-462 68 68  
E-mail : nte@ikonet.co.jp



### Germany Branch

Mündelheimer Weg 54,  
40472 Düsseldorf,  
Germany  
Phone : +49 (0)211-41 40 61  
Fax : +49 (0)211-42 76 93  
E-mail : ntd@ikonet.co.jp

### Regensburg Sales Office

Im Gewerbepark D 30,  
93059 Regensburg,  
Germany  
Phone : +49 (0)941-20 60 70  
Fax : +49 (0)941-20 60 719  
E-mail : ntdr@iko-nt.de

### U.K. Branch

2 Vincent Avenue, Crownhill,  
Milton Keynes, Bucks, MK8 0AB,  
United Kingdom  
Phone : +44 (0)1908-566144  
E-mail : sales@iko.co.uk

### Spain Branch

Autovia Madrid-Barcelona, Km. 43,700  
Polig. Ind. AIDA - Nove A-8, Ofic. 2-1<sup>a</sup>  
19200-Azuqueca de Henares,  
(Guadalajara) Spain  
Phone : +34 949-26 33 90  
Fax : +34 949-26 31 13  
E-mail : nts@ikonet.co.jp

### France Branch

Bâtiment le Raphaël-Paris, Nord 2,  
22 avenue des Nations  
BP54394 Villepinte  
95943 ROISSY C.D.G Cedex  
France  
Phone : +33 (0)1-48 16 57 39  
Fax : +33 (0)1-48 16 57 46  
E-mail : ntf@ikont.eu

## IKO THOMPSON ASIA CO., LTD. (THAILAND)

1-7 Zuellig House, 3rd Floor,  
Silom Road, Silom, Bangrak,  
Bangkok 10500, Thailand  
Phone : +66 (0)2-637-5115  
Fax : +66 (0)2-637-5116  
E-mail : ita@ikonet.co.jp

## IKO THOMPSON KOREA CO.,LTD. (KOREA)

201, Worldvision Bldg., 77-1, Yeouinaru-ro,  
Yeongdeungpo-gu, Seoul, Korea  
Phone : +82 (0)2-6337-5851  
Fax : +82 (0)2-6337-5852  
E-mail : itk@ikonet.co.jp

## IKO-THOMPSON (SHANGHAI) LTD. (CHINA)

### Shanghai (Sales Head Office)

2301-02, 2301, MetroPlaza No.555, LouShanGuan  
Road, ChangNing District, Shanghai,  
People's Republic of China, 200051  
Phone : +86 (0)21-3250-5525  
Fax : +86 (0)21-3250-5526  
E-mail : ntc@ikonet.co.jp

### Beijing Branch

Room 1909, Tower C Oriental Media Center,  
Guanghua Road No. 4 Chaoyang District, Beijing,  
People's Republic of China, 100026  
Phone : +86 (0)10-6515-7681  
Fax : +86 (0)10-6515-7689  
E-mail : ntc@ikonet.co.jp

### Guangzhou Branch

Room 834, Garden Tower, Garden Hotel  
368 Huanshi East Road, Yuexiu District, Guangzhou,  
Guangdong  
People's Republic of China, 510064  
Phone : +86 (0)20-8384-0797  
Fax : +86 (0)20-8381-2863  
E-mail : ntc@ikonet.co.jp

### Wuhan Branch

Room 2300, Truroll Plaza No.72, Wusheng Road,  
Qiao kou District, Wuhan, Hubei,  
People's Republic of China, 430033  
Phone : +86 (0)27-8556-1610  
Fax : +86 (0)27-8556-1630  
E-mail : ntc@ikonet.co.jp

### Shenzhen Branch

Room1808, KEENSTAR Building 18,  
Chuangye 2nd Rd 248, Bao'an, Shenzhen, Guangdong,  
People's Republic of China, 518081  
Phone : +86 (0)755-2265-0553  
Fax : +86 (0)755-2298-0665  
E-mail : ntc@ikonet.co.jp

### Xian Branch

Room 2010, Block B, Chaoyang International Plaza,  
No. 166,  
Changle West Road, Xincheng District Xi'an, Shanxi,  
People's Republic of China, 710032  
Phone : +86 (0)29-8323-5915  
E-mail : ntc@ikonet.co.jp

### Qingdao Branch

Room 608, Building 47, Huarun City,  
No. 101 Shenzhen Road, Laoshan District,  
Qingdao City, Shandong  
People's Republic of China, 266100  
Phone : +86 (0)532-8670-2246  
Fax : +86 (0)532-8670-2242  
E-mail : ntc@ikonet.co.jp

### Ningbo Office

Room 3406, Zhongnongxin Building, No.181,  
Zhongshan East Road, Haishu Ward, Ningbo,  
Zhejiang  
People's Republic of China, 315000  
Phone : +86 (0)574-8718-9535  
Fax : +86 (0)574-8718-9533  
E-mail : ntc@ikonet.co.jp

### Shenyang Office

2-1203 Tower I, City Plaza Shenyang NO.206,  
Nanjing North Street, Heping District, Shenyang,  
People's Republic of China, 110001  
Phone : +86 (0)24-2334-2662  
Fax : +86 (0)24-2334-2442  
E-mail : ntc@ikonet.co.jp

# IKO

New

Short Stud Type Cam Followers

# CFC...B

Compact Cam Followers with  
a Newly Developed Mounting Structure!



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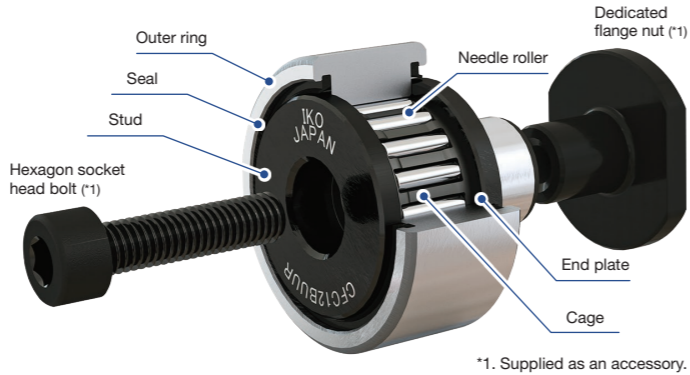


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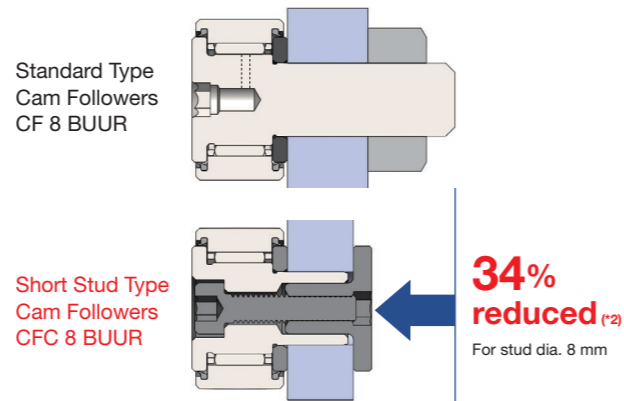
# Freedom in Cam Mechanism Design

IKO's Short Stud Cam Followers CFC...B have a new mounting structure using a hexagon socket head bolt and a dedicated flange nut. This new structure maintains the performance of the cam follower while making it more compact and mountable.

Since CFC...B needs far less mounting space than conventional cam followers, it enables greater freedom in design, improving production efficiency in a wide range of industries.



\*1. Supplied as an accessory.

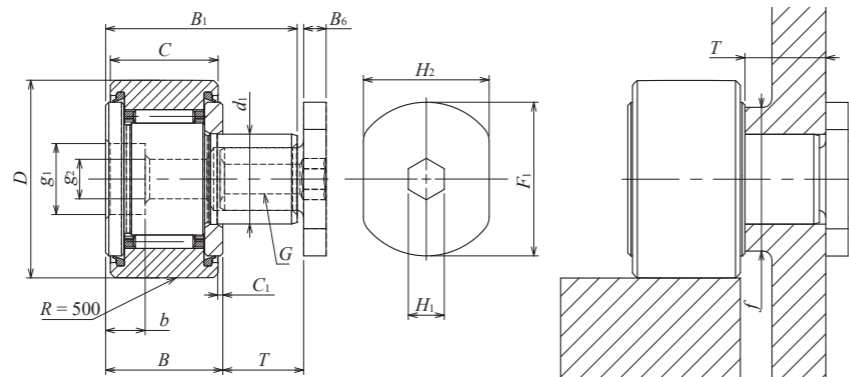


Stud diameter mm	Overall length (min.) mm		Overall length reduction ratio
	Standard Type Cam Followers CF...B	Short Stud Type Cam Followers CFC...B <sup>(2)</sup>	
8	32.2	21.4	-34%
10	36.2	24.9	-31%
12	40.2	28.4	-29%

<sup>(2)</sup> Length when mounting member material thickness is set at the minimum value.

## Dimensions

Type of material	No symbol	High carbon steel
	F	Stainless steel
Roller guide method	No symbol	With cage
	V	Full complement
Seal structure	No symbol	Shield type
	UU	Sealed type
Shape of outer ring outside surface	No symbol	Cylindrical outer ring
	R	Crowned outer ring



Roller guide method	Stud diameter mm	Identification number	Mass (Ref.) g	Boundary dimensions mm															Mounting related dimensions f Min. mm	Maximum tightening torque N·m	Basic dynamic load rating C N	Basic static load rating C <sub>s</sub> N	Maximum allowable static load N	Track capacity <sup>(2)</sup> N
				D	C	d <sub>1</sub>	B <sub>max</sub>	B <sub>1</sub>	C <sub>1</sub>	T <sup>(1)</sup>	B <sub>2</sub> max	G	b	g <sub>1</sub>	g <sub>2</sub>	H <sub>1</sub>	H <sub>2</sub>	F <sub>1</sub>						
With cage	8	CFC 8 BUUR	27	19	11	8	12.2	18.3	0.6	7 - 11(13)	2.2	M3×0.5	3.3	6.4	3.3	3	12	13.9	13	1.7	4 250	4 740	3 860	1330
		CFC 10 BUUR	42	22	12	10	13.2	21.3	0.6	9 - 14(17)	2.7	M4×0.7	4.4	7.9	4.4	4	14	17.1	16	4.0	5 430	6 890	6 890	1610
	10	CFC 10-1 BUUR	56	26	12	10	13.2	21.3	0.6	9 - 14(17)	2.7	M4×0.7	4.4	7.9	4.4	4	14	17.1	16	4.0	5 430	6 890	6 890	2030
		CFC 12 BUUR	88	30	14	12	15.2	24.3	0.6	10 - 15(19)	3.2	M5×0.8	5.4	9.4	5.4	5	19	22.4	21	7.9	7 910	9 790	9 790	2470
Full complement	8	CFC 12-1 BUUR	99	32	14	12	15.2	24.3	0.6	10 - 15(19)	3.2	M5×0.8	5.4	9.4	5.4	5	19	22.4	21	7.9	7 910	9 790	9 790	2710
		CFC 8 VBUUR	28	19	11	8	12.2	18.3	0.6	7 - 11(13)	2.2	M3×0.5	3.3	6.4	3.3	3	12	13.9	13	1.7	8 170	11 200	3 860	1330
	10	CFC 10 VBUUR	43	22	12	10	13.2	21.3	0.6	9 - 14(17)	2.7	M4×0.7	4.4	7.9	4.4	4	14	17.1	16	4.0	9 570	14 500	7 060	1610
		CFC 10-1 VBUUR	57	26	12	10	13.2	21.3	0.6	9 - 14(17)	2.7	M4×0.7	4.4	7.9	4.4	4	14	17.1	16	4.0	9 570	14 500	7 060	2030
12	CFC 12 VBUUR	90	30	14	12	15.2	24.3	0.6	10 - 15(19)	3.2	M5×0.8	5.4	9.4	5.4	5	19	22.4	21	7.9	13 500	19 700	11300	2470	
	CFC 12-1 VBUUR	100	32	14	12	15.2	24.3	0.6	10 - 15(19)	3.2	M5×0.8	5.4	9.4	5.4	5	19	22.4	21	7.9	13 500	19 700	11300	2710	

Notes:  
<sup>(1)</sup> This is the mounting range possible with the supplied bolt. Regarding the dimensions in parentheses, the customer should use a separate hexagon socket head bolt (strength division 12.9).  
<sup>(2)</sup> Value when the mating surface (steel/flat) hardness is 40HRC.

Remarks 1. This bearing cannot be re-lubricated due to its structure. If the environment requires re-lubrication, please use Standard Type Cam Followers.  
 2. Shell Lubricants Japan K.K. ALVANIA GREASE S2 is prepacked.  
 3. The hexagon socket head bolt and dedicated flange nut are supplied as accessories.

1N = 0.102 kgf

## Detailed specifications

### Accuracy

Name	Tolerance	unit: μm
Outside dia. of outer ring <i>D</i>	-50 - 0	
Stud dia. <i>d</i> <sub>1</sub>	8, 10 mm	-15 - 0
	12 mm	-18 - 0
Width of outer ring <i>C</i>	-120 - 0	

### Allowable rotational speed

For *d<sub>1</sub>n* value with only pure radial load applied, use the maximum value or lower as a guideline.

Under actual operating conditions, use the recommended *d<sub>1</sub>n* values or lower as a guideline in consideration of the effect of axial loads.

Model of bearing	Maximum value	Recommended value
With cage	84 000	8 400
Full complement	42 000	4 200

*d<sub>1</sub>n* value = *d<sub>1</sub>* × *n* Here, *d<sub>1</sub>*: stud dia. mm *n*: rotation speed min<sup>-1</sup>

## Selecting the hexagon socket head bolt for mounting

For Short Stud Cam Followers, the cam follower mounting member material thickness range (*T* dimension in the dimension table) is determined by the hexagon socket head bolt length.

When the designed mounting member material exceeds the tolerance range of the bolt supplied, the customer should use a hexagon socket head bolt (strength division 12.9) as indicated in the table at right.

When considering mounting member material with thickness outside the range in the table at right, please contact IKO.

## Mounting

When mounting Short Stud Cam Followers, fix the dedicated flange nut as a rotation stopper with a wrench or hex wrench, and then tighten the hexagon socket head bolt by rotating with a hex wrench. For tightening torque, see the maximum tightening torque in the dimension table.

### Radial internal clearance

Identification number	Radial internal clearance		unit: μm
	Min.	Maximum	
CFC8 - CFC12-1	5	25	

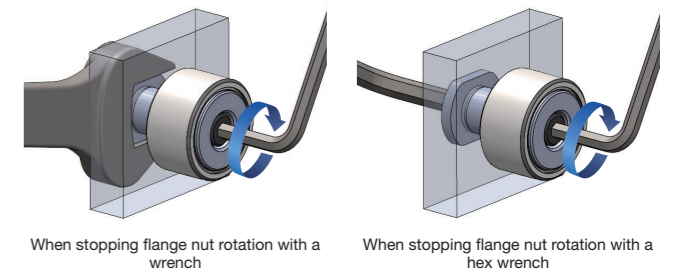
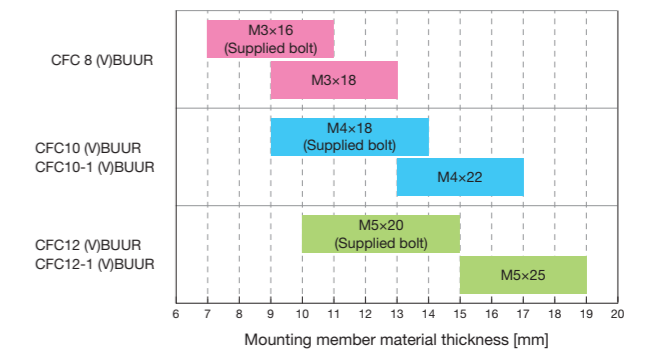
### Recommended fits

Since the Cam Follower is supported in a cantilever position, the mounting hole diameter should be prepared without play between the stud and the hole especially when heavy shock loads are applied.

Stud diameter	Tolerance class of mounting hole dia. H7	unit: μm
8, 10 mm	0 - +15	
12 mm	0 - +18	

### Operating Temperature Range

Operating temperature range of Short Stud Type Cam Followers is -20°C to 120°C.



### Overall length of dedicated flange nut

Stud diameter mm	<i>L</i> max mm
8	9.2
10	12.0
12	13.6

Note: Depending on the mounting method, the space indicated above is required behind the mounting member material.