



## Related Products

**Cam Followers**  
**Roller Followers**



# Performance and Quality Assured by Proven Track Record

## Reliable IKO Cam Followers and Roller Followers

Cam Followers and Roller Followers have structures of needle rollers embedded in thick outer rings. These bearings are designed for rotation of the outer ring, with small friction coefficient and excellent rotation performance. Because radial clearance for these bearings are designed to be small to effectively enlarge the loading area, they mitigate the shock load when the outer ring outer diameter guides in direct contact with the mating cam guide surface, and ensure stable and long life. Providing wide variety of models as series for both Cam Followers with studs and Roller Followers with inner rings, suitable bearings can be selected for various use conditions. They are hence widely used for cam mechanisms and linear motion of transfer machines.



Cam Follower Series



Roller Follower Series

Even the mating guide surfaces are maintenance free!!  
"C-Lube Unit", external lubrication parts for Cam Followers



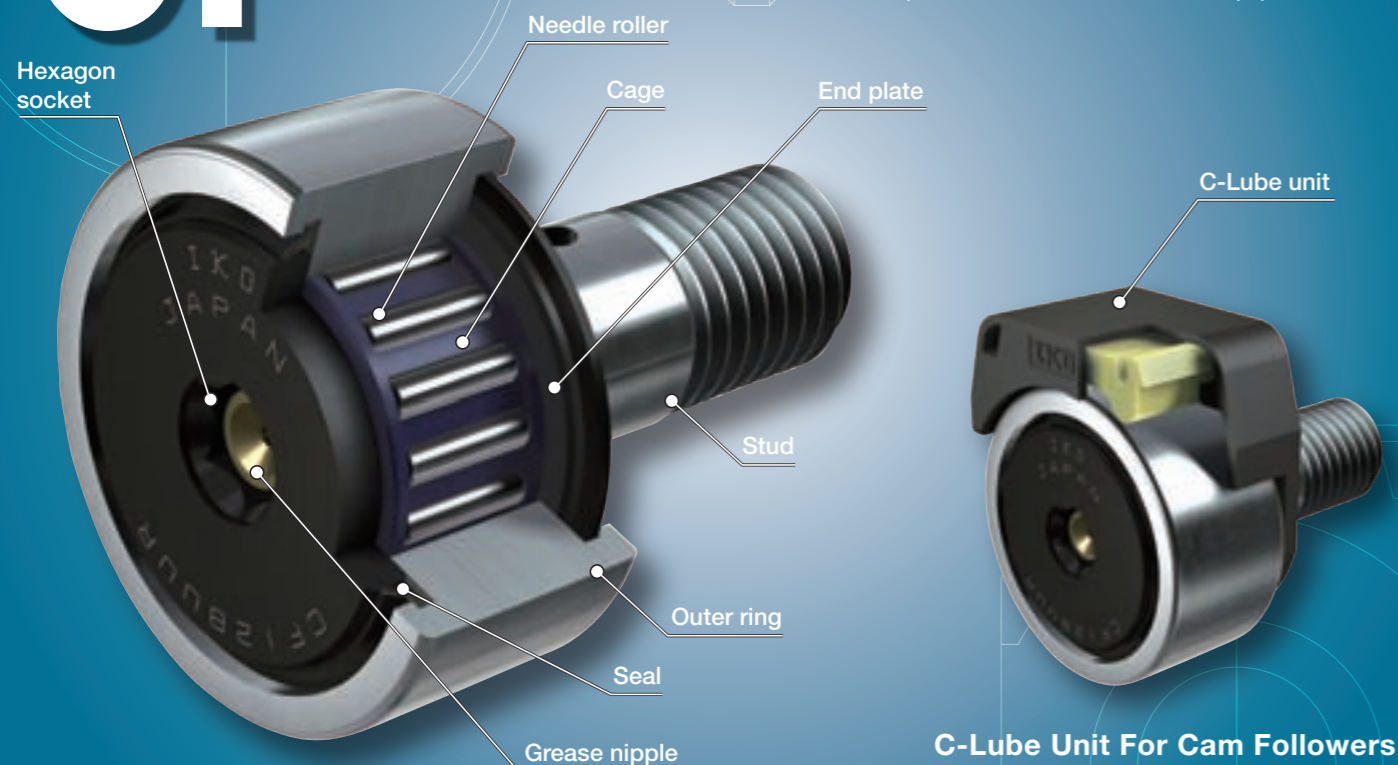
Related Products



# Cam Followers

# CF

Cam Followers are studded bearings with needle rollers in the thick outer ring. The friction coefficient designed for rotation of the outer ring is small and the bearing offers excellent rotation performance. Cam Followers have high rigidity and accuracy as follower bearings of various cam mechanisms and guide rollers for linear motion and are used for a wide range of uses such as machine tools, industrial robots, electronic parts, and office automation equipment.



C-Lube Unit For Cam Followers

# CL

C-Lube Unit for Cam Followers is a lubrication part to mount into Cam Followers. This supplies necessary lubrication oil to the outer ring outer diameter surface and the cam guide surface of Cam Followers and eliminates the need for routine grease feed.

## Points

- 1 Substantial product lineup**  
 Our substantial product lineup offers an extremely-small-sized miniature type, a good type for installation errors with a built-in thrust washer, a maintenance free type with pre-packed solid lubricant, and other types.
- 2 Wide selection of product specifications for your use**  
 The material type, the roller guide type, the seal structure, and the shape of outer ring outer diameter surface are selectable for an optimal product specification according to your use.
- 3 The socket with hexagon hole for easy mounting**  
 The socket with hexagon hole on the stud head allows easy mounting with a hexagon wrench.
- 4 IKO's original structure allowing grease feed from stud head**  
 The socket with hexagon hole does not limit grease feed directions and even allows grease up from the stud head.
- 5 New concept of C-Lube Unit For Cam Followers**  
 The C-Lube unit supplies lubrication oil to the outer ring outer diameter surface and the cam guide surface of Cam Followers. Combining Cam Followers eliminates the need for routine grease feed to the cam guide surface and reduces friction and wear.

## Identification Number and Specification

### Example of an Identification Number

The specification of Cam Followers series is indicated by the identification number. In addition, for application of material type, roller guide type, seal structure and shape of outer ring outer diameter surface to each models, refer to the dimension table.

	1	2	3	1	4	1	5	6	7	1
Arrangement example 1	CFS	3	F		V					P6
Arrangement example 2	CF	10			V	B	UU	R		
Arrangement example 3	CF	5	F	W		B	UU	R		
Arrangement example 4	CF	8		W		B	UU	R		/SG

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- 4 Roller guide type** Page II - 241
- 5 Seal structure** Page II - 241
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- 7 Accuracy class** Page II - 242

# Identification Number and Specification —Model · Dimensions—

1 Model		
Miniature Type Cam Followers	: CFS	
Thrust Disk Type Miniature Cam Followers	: CFS··W	
Standard Type Cam Followers	: CF··B	
Cam Followers G	: CF··G	
Thrust Disk Type Cam Followers	: CF··WB	
C-Lube Cam Followers	: CF··WB··/SG	
Solid Eccentric Stud Type Cam Followers	: CFES··B	
Eccentric Type Cam Followers	: CFE··B	
Centralized Lubrication Type Cam Followers (cylindrical outer ring)	: CF-RU1	
Centralized Lubrication Type Cam Followers (cylindrical outer ring)	: CF-FU1	
Easy Mounting Type Cam Followers	: CF-SFU··B	
Cylindrical Roller Cam Followers	: NUCF··B	
Inch series Cam Followers (With hexagon hole)	: CR··B	
Inch series Cam Followers (With driver slot)	: CR	
Inch series Cam Followers (With hexagon hole)	: CRH··B	
Inch series Cam Followers (With driver slot)	: CRH	
For applicable models and dimensions, see Table 1.1 and Table 1.2.		

2 Dimensions	
	Represents stud diameter. (unit: mm) For inch series Cam Followers, outer ring outer diameter dimensions are indicated in 1/16 inch.

Table 1.1 Models and dimensions













Shape	Model	Characteristics	Stud diameter
	CFS	Ultrafine needle roller is incorporated to the outer ring of bearing so the compact design is realized with outer ring outer diameter which is small relative to the stud diameter. This is used for electronic parts device, office automation equipment and small type index device.	2 to 6 mm
	CFS··W	Miniature Type Cam Followers incorporated with special synthetic resin thrust washers excellent in abrasion and heat resistance. It receives axial load of outer ring generated due to installation errors to prevent friction and wear on the sliding surface.	1.4 to 6 mm
	CF	This is a basic Cam Followers model. Size variations from 3 to 30 mm in stud diameter are available.	3 to 30 mm
	CF··G	Cam Followers with pre-packed grease at reasonable price.	6 to 20 mm
	CF··WB	As it is incorporated with special synthetic resin thrust washers excellent in abrasion and heat resistance, it receives axial load of outer ring generated due to installation errors to prevent friction and wear on the sliding surface.	3 to 20 mm
	CF··WB··/SG	Maintenance free product with thermoset solid lubricant "C-Lube" pre-packed in the bearing space. "C-Lube" is heat-treated and solidified lubricant composed of an amount of lubrication oil and particulate ultra-high molecular polyethylene resin. Rotation of the bearing allows a moderate amount of lubricant to always exude from "C-Lube" onto the raceway to maintain lubrication performance of the bearing for long time.	5 to 20 mm

Table 1.2 Models and dimensions

Shape	Model	Characteristics	Stud diameter
	CFES··B	Rotation of eccentric stud can align height of outer ring outer diameter when multiple rings are used. Eccentricity is from 0.25 to 0.6 mm and it can be mounted to the same mounting hole as the standard Cam Followers.	6 to 18 mm
	CFE··B	As the eccentric collar is fixed to the stud, positioning in the radial direction relative to the mating cam guide surface is easy. Eccentricity is from 0.4 to 1.5 mm.	6 to 30 mm
	CF-RU1 CF-FU1	As a tap hole is prepared for the centralized piping on the stud head, this is optimal for applications where centralized oil piping is necessary.	6 to 30 mm
	CF-SFU··B	As the stud is stepped so that fixing of the stepped section from the upper face with set screw becomes easy, this is optimal for applications such as pallet changer.	6 to 20 mm
	NUCF··B	The full complement roller bearing with double row cylindrical rollers incorporated in the outer ring can receive large radial load and some axial load.	10 to 30 mm
	CR··B CR CRH··B CRH	2 types of inch series Cam Followers are available: CR and CRH. CRH is a heavy load type for large load rating with black oxide film treatment.	4.826 to 50.800 mm

—Material Type · Roller Guide Type · Seal Structure · Shape of External Ring Outer Diameter Surface—

**3 Material type**

High carbon steel made	: No symbol	Specify the component part material. For applicable models and dimensions, see dimension table.
Stainless steel made	: F	

In addition to high carbon steel products, stainless steel products are also available. Stainless steel products are suited for applications where oil should be avoided, water is splattering, or it is used in a clean room.

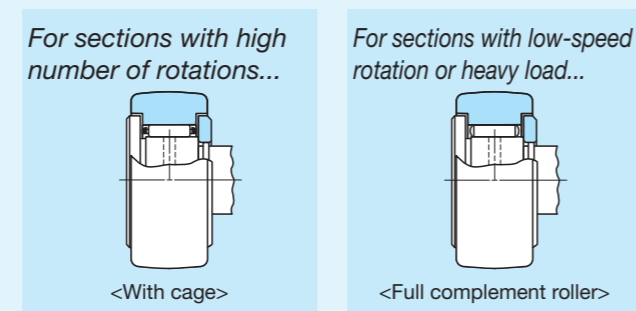


**4 Roller guide type (1)**

With cage	: No symbol	Specify the roller guide type. For applicable models and dimensions, see dimension table.
Full complement roller	: V	

Note (1) Cylindrical Roller Cam Followers are full complement rollers with no symbol.

As roller cage has smaller friction coefficient, it is suited for high-speed rotation. Full complement roller is suited for sections where low-speed rotation, oscillatory movement or heavy load exists.

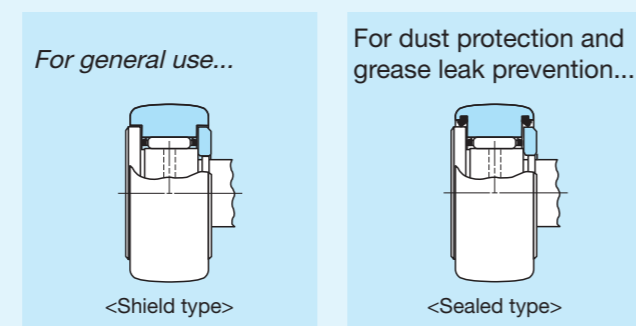


**5 Seal structure (1)**

Shield type	: No symbol	Specify the seal structure. For applicable models and dimensions, see dimension table.
Sealed type	: UU	

Note (1) Centralized Lubrication Type and Easy mounting Type Cam Followers are sealed type with no symbol.

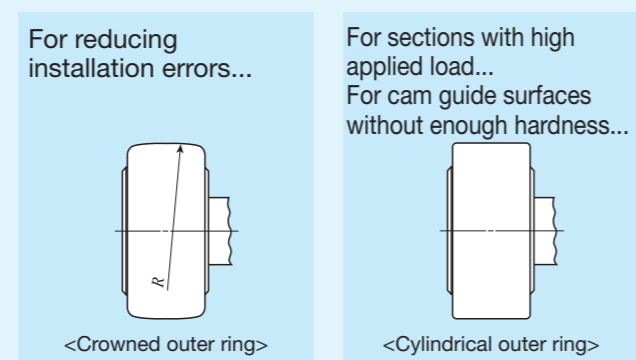
Shield is shaped so that clearance between the outer ring and stud collar element and between the outer ring and end plate become smaller and labyrinth is formed. The sealed type incorporates the seal structure, which can prevent foreign substances from entering.



**6 Shape of outer ring outer diameter surface**

Cylindrical outer ring	: No symbol	Specify the shape of outer ring outer diameter surface. For applicable models and dimensions, see dimension table.
Crowned outer ring	: R	

Crowned outer ring is effective for mitigation of end load generated due to installation errors. Cylindrical outer ring is suited if the applied load is large or hardness of cam guide surface is low.



—Accuracy Class—

**7 Accuracy class**

Accuracy class 0	: No symbol	For details of accuracy, see Table 2, Table 3.1, Table 3.2, and 3.3. We also provide special accuracy class product. For details, please contact <b>IKO</b> .
Accuracy class 6 (1)	: P6	
Accuracy class 5 (1)	: P5	
Accuracy class 4 (1)	: P4	

Note (1) Applied for miniature Cam Followers CFS and CFS--W.

**Table 2 Tolerance** unit:  $\mu\text{m}$

Name	Class	Miniature Cam Followers CFS, CFS--W		Standard Cam Followers (1)		Inch series Cam Followers	
				Crowned outer ring	Cylindrical outer ring	Crowned outer ring	Cylindrical outer ring
Dim. $D$ tolerance of outer ring outer diameter		See Table 3.1		0 -50	See Table 3.2	0 -50	See Table 3.3
Dim. $d_1$ tolerance of stud diameter		h6		h7		+ 25 0	
Dim. $C$ tolerance of outer ring width		0 -120		0 -120		0 -130	

Note (1) Applied for Cam Followers other than miniature Cam Followers and inch series Cam Followers.

**Table 3.1 Tolerance and allowance of outer ring (miniature Cam Followers CFS and CFS--W)** unit:  $\mu\text{m}$

$\Delta D_{mp}$								$K_{ea}$			
Dim. tolerance of mean outer diameter within a single surface								Radial deflection (Maximum)			
Class 0		Class 6		Class 5		Class 4		Class 0	Class 6	Class 5	Class 4
H	L	H	L	H	L	H	L				
0	-8	0	-7	0	-5	0	-4	15	8	5	4

**Table 3.2 Tolerance and allowance of outer ring (standard Cam Followers cylindrical outer ring)** unit:  $\mu\text{m}$

$D$ Nominal outer ring outer diameter	$\Delta D_{mp}$		$V_{Dsp}$ Outer diameter variation within the surface (Maximum)	$V_{Dmp}$ Mean outer diameter variation within a single surface (Maximum)	$K_{ea}$ Radial runout (Maximum)
	Above	Below			
6	0	-8	10	6	15
18	0	-9	12	7	15
30	0	-11	14	8	20
50	0	-13	16	10	25
80	0	-15	19	11	35

**Table 3.3 Tolerance and allowance of outer ring (inch series Cam Followers cylindrical outer ring)** unit:  $\mu\text{m}$

$D$ Nominal outer ring outer diameter	$\Delta D_{mp}$		$V_{Dsp}$ Outer diameter variation within the surface (Maximum)	$V_{Dmp}$ Mean outer diameter variation within a single surface (Maximum)	$K_{ea}$ Radial runout (Maximum)
	Above	Below			
6	0	-25	10	6	15
18	0	-25	12	7	15
30	0	-25	14	8	20
50	0	-25	16	10	25
80	0	-25	19	11	35



# Load Rating and Life

## Basic dynamic load rating $C$

Basic dynamic load rating refers to a static radial load with a certain direction and size with which 90% of a group of the same Cam Followers can run one million rotations without material damages due to rolling contact fatigue when they are operated in the same conditions.

## Basic static load rating $C_0$

Basic static load rating refers to a static radial load with a certain direction and size with a certain contact stress at the center of contact parts of the rolling elements and a raceway under maximum load.

## Life

The basic rating life calculation formulas are shown below.

$$L_{10} = \left(\frac{C}{P_r}\right)^{10/3} \dots\dots\dots(1)$$

where,  $L_{10}$  : Basic rating life,  $10^6$ rev.

$C$  : Basic dynamic load rating, N

$P_r$  : Dynamic equivalent radial load, N

Therefore, life time can be calculated by applying the rotation speed to the formula below.

$$L_h = \frac{10^6 L_{10}}{60n} \dots\dots\dots(2)$$

where,  $L_h$  : Basic rating life represented as time h

$n$  : Rotation speed  $\text{min}^{-1}$

## Static safety factor

Static safety factor can be obtained by the following equation and typical values are indicated in Table 4.

$$f_s = \frac{C_0}{P_{or}} \dots\dots\dots(3)$$

where,  $f_s$  : Static safety factor

$C_0$  : Basic static load rating N

$P_{or}$  : Static equivalent radial load (maximum load) N

**Table 4 Static safety factor**

Bearing use conditions	$f_s$
When high rotation accuracy is required	$\geq 3$
Normal operating conditions	$\geq 1.5$
When smooth operations are not required with a high priority under normal operating conditions When it is rarely rotated	$\geq 1$

## Load factor

Load actually applied on the Cam Followers becomes larger than load theoretically calculated from vibration and shock. Therefore, multiply the load by the load factor indicated in the Table 5.

**Table 5 Load factor**

Operating condition	$f_w$
Smooth operation free from shock	1 ~1.2
Normal operation	1.2~1.5
Operation with shock load	1.5~3

## Maximum Allowable Static Load

Load that can be applied to the Cam Followers may in some cases be defined based on flexural and shearing strength of the stud and outer ring strength, instead of load rating as needle roller bearing. For this reason, the maximum allowable static load is defined.

# Internal Radial Clearance

Internal radial clearance of Cam Followers is indicated in the Table 6.

**Table 6 Internal radial clearance value**

unit:  $\mu\text{m}$

Identification number				Internal radial clearance	
Miniature Cam Followers CFS, CFS··W	Standard Cam Followers (1)	Cylindrical Roller Cam Followers	Inch series Cam Followers	Minimum	Maximum
CFS1.4 to CFS5	CF 3B to CF 5B	—	CR 8, CR 8-1, CRH 8-1, CRH 9	3	17
CFS6	CF 6B	—	CR10, CR10-1, CRH10-1, CRH11	5	20
—	CF 8B to CF12-1B	—	CR12 to CR22, CRH12 to CRH22	5	25
—	CF16B to CF20-1B	—	CR24 to CR36, CRH24 to CRH36	10	30
—	CF24B to CF30-2B	—	CR48, CRH40 to CRH56	10	40
—	—	—	CRH64	15	50
—	—	NUCF10 B to NUCF24 B	—	20	45
—	—	NUCF24-1B to NUCF30-2B	—	25	50

Note (1) Applied for all Cam Followers other than miniature Cam Followers, Cylindrical Roller Cam Followers and inch series Cam Followers.

## Fit

Recommended fit of the Cam Followers stud and mounting hole and tolerances of dimensions of mounting hole are indicated in the Table 7 and Table 8, respectively. As it is used as mounted by a cantilever, process the mounting hole not to let any play in the fitting section where a large shock load is applied especially.

**Table 7 Recommended fit**

Model of bearing	Tolerance class of mounting hole
Miniature Cam Followers CFS, CFS··W	H6
Standard Cam Followers (1)	H7
Inch series Cam Followers	F7

Note (1) Applied for Cam Followers other than miniature Cam Followers and inch series Cam Followers.

**Table 8 Tolerances of dimensions of mounting hole**

unit:  $\mu\text{m}$

Classification of diameter mm		F7		H6		H7	
Above	Below	H	L	H	L	H	L
—	3	+16	+ 6	+ 6	0	+10	0
3	6	+22	+10	+ 8	0	+12	0
6	10	+28	+13	+ 9	0	+15	0
10	18	+34	+16	+11	0	+18	0
18	30	+41	+20	+13	0	+21	0
30	40	+50	+25	+16	0	+25	0
40	50						

# Track Load Capacity

Track load capacity refers to allowable load with which the mating member material can continuously endure the contact between Cam Followers outer ring and steel mating cam guide surface (plane) without generating deformation or indentation. Track load capacities indicated in the Table 9.1, Table 9.2 and Table 9.3 are values on the assumption that hardness of the mating member material is 40HRC (tensile strength: 1250 N/mm<sup>2</sup>) and if hardness is not 40HRC, these values must be multiplied by track load capacity factors indicated in the Table 10.

If the lubrication between outer ring and mating cam guide surface is not sufficient, seizure and wear may be generated depending on use conditions. Special care is required for lubrication and surface roughness at high rotation speed of the cam mechanism, etc.

**Table 9.1 Track load capacity for miniature Cam Followers CFS, CFS...W** unit: N

Identification number (Cylindrical outer ring)	Track load capacity
CFS1.4	128
CFS2	220
CFS2.5	298
CFS3	485
CFS4	799
CFS5	1 210
CFS6	1 680

**Table 9.2 Track load capacity for standard Cam Followers** (1) unit: N

Identification number (Crowned outer ring)	Track load capacity	Identification number (Cylindrical outer ring)	Track load capacity
CF 3 BR	542	CF 3 B	1 360
CF 4 BR	712	CF 4 B	1 790
CF 5 BR	794	CF 5 B	2 210
CF 6 BR	1 040	CF 6 B	3 400
CF 8 BR	1 330	CF 8 B	4 040
CF10 BR	1 610	CF10 B	4 680
CF10-1BR	2 030	CF10-1B	5 530
CF12 BR	2 470	CF12 B	7 010
CF12-1BR	2 710	CF12-1B	7 480
CF16 BR	3 060	CF16 B	11 200
CF18 BR	3 660	CF18 B	14 500
CF20 BR	5 190	CF20 B	23 200
CF20-1BR	4 530	CF20-1B	21 000
CF24 BR	6 580	CF24 B	34 300
CF24-1BR	8 020	CF24-1B	39 800
CF30 BR	9 220	CF30 B	52 700
CF30-1BR	9 990	CF30-1B	56 000
CF30-2BR	10 800	CF30-2B	59 300

Note (1) Applied for Cam Followers other than miniature Cam Followers and inch series Cam Followers.

**Table 9.3 Track load capacity for inch series Cam Followers** unit: N

Identification number (Crowned outer ring)	Track load capacity	Identification number (Cylindrical outer ring)	Track load capacity	Identification number (Crowned outer ring)	Track load capacity	Identification number (Cylindrical outer ring)	Track load capacity
CR 8 R	770	CR 8	2 140	—	—	—	—
CR 8-1R	770	CR 8-1	2 360	CRH 8-1R	401	CRH 8-1	2 360
—	—	—	—	CRH 9 R	469	CRH 9	2 650
CR10 R	1 030	CR10	3 210	—	—	—	—
CR10-1R	1 030	CR10-1	3 480	CRH10-1R	579	CRH10-1	3 480
—	—	—	—	CRH11- R	658	CRH11	3 830
CR12 R	1 340	CR12	4 500	CRH12- R	853	CRH12	4 500
CR14 R	1 630	CR14	5 250	CRH14- R	1 050	CRH14	5 250
CR16 R	1 970	CR16	7 280	CRH16- R	1 420	CRH16	7 280
CR18 R	2 300	CR18	7 710	CRH18- R	1 660	CRH18	7 710
CR20 R	2 680	CR20	10 700	CRH20- R	2 160	CRH20	10 700
CR22 R	3 050	CR22	11 800	CRH22- R	2 450	CRH22	11 800
CR24 R	3 410	CR24	15 400	CRH24- R	3 410	CRH24	15 400
CR26 R	3 820	CR26	16 700	CRH26- R	3 820	CRH26	16 700
CR28 R	4 210	CR28	21 000	CRH28- R	4 210	CRH28	21 000
CR30 R	4 610	CR30	22 500	CRH30- R	4 610	CRH30	22 500
CR32 R	5 050	CR32	30 900	CRH32- R	5 690	CRH32	30 900
CR36 R	5 900	CR36	34 700	CRH36- R	6 640	CRH36	34 700
—	—	—	—	CRH40- R	8 970	CRH40	45 000
—	—	—	—	CRH44- R	10 200	CRH44	49 500
—	—	CR48	64 300	CRH48- R	11 400	CRH48	64 300
—	—	—	—	CRH52- R	12 700	CRH52	69 600
—	—	—	—	CRH56- R	14 100	CRH56	87 000
—	—	—	—	CRH64- R	16 800	CRH64	113 000

**Table 10 Track load capacity factor**

Hardness HRC	Tensile strength N/mm <sup>2</sup>	Track load capacity factor	
		Crowned outer ring	Cylindrical outer ring
20	760	0.22	0.37
25	840	0.31	0.46
30	950	0.45	0.58
35	1 080	0.65	0.75
38	1 180	0.85	0.89
40	1 250	1.00	1.00
42	1 340	1.23	1.15
44	1 435	1.52	1.32
46	1 530	1.85	1.51
48	1 635	2.27	1.73
50	1 760	2.80	1.99
52	1 880	3.46	2.29
54	2 015	4.21	2.61
56	2 150	5.13	2.97
58	2 290	6.26	3.39

## Allowable Number of Rotations

The allowable number of rotation for Cam Followers is affected by mounting and use conditions. For  $d_1n$  value with only pure radial load applied, use values in Table 11 or lower as references. Under actual use conditions, it is recommended to use  $d_1n$ , one tenth of indicated values, taking into account the effect of axial load.

C-Lube Cam Followers and Cam Followers with C-Lube unit mounted, use 10,000 or lower as reference for the  $d_1n$  value.

$$d_1n \text{ value} = d_1 \times n$$

where,  $d_1$  : Cam Followers stud diameter mm  
 $n$  : Rotation speed min<sup>-1</sup>

**Table 11  $d_1n$  value of Cam Followers**

Model of bearing	Lubrication	Grease lubrication	Oil lubrication
	With cage	84 000	140 000
Full complement roller	42 000	70 000	
Cylindrical Roller Cam Followers	66 000	110 000	

# Lubrication

For bearing with pre-packed grease, refer to the Table 12. Alvania Grease S2 of SHOWA SHELL SEKIYU K. K. is pre-packed as lubrication grease. Fill grease from the stud oil hole before using any bearing without pre-packed grease. Otherwise, increased wear on the rolling contact surface and/or short life time may be resulted.

**Table 12 Cam Followers with pre-packed grease** O: With grease X: Without grease

Model of bearing Stud diameter $d_1$ (1) mm	Class	With cage		Full complement roller
		Shield type	Sealed type	
Miniature Type Cam Followers CFS Thrust Disk Type Miniature Cam Followers CFS...W		○	—	○
Standard Type Cam Followers CF...B	$d_1 \leq 5$	○	○	—
Thrust Disk Type Cam Followers CF...WB				
Solid Eccentric Stud Type Cam Followers CFES...B	$6 \leq d_1 \leq 10$	○	○	○
Eccentric Type Cam Followers CFE...B				
Cam Followers G CF...G		○	—	—
C-Lube Cam Followers CF...WB.../SG(2)		—	×	—
Centralized Lubrication Type Cam Followers (cylindrical outer ring) CF—RU1 CF—FU1		—	○	—
Easy Mounting Type Cam Followers CF-SFU...B		—	○	—
Cylindrical Roller Cam Followers NUCF...B		—	—	○
Inch series Cam Followers CR...B (With hexagon hole) CR (With driver groove)		○	○	○
Inch series Cam Followers CRH...B (With hexagon hole) CRH (With driver groove)		—	—	○

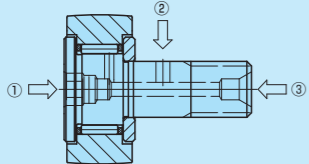
Note (1) For Eccentric Type Cam Followers (CFE), screw diameter G specified in the dimension table.

(2) Thermoset solid lubricant C-Lube is pre-packed in the bearing space.

# Oil Hole

Oil hole position for the Cam Followers is according to the Table 13. Fill grease by installing a supply nozzle indicated in the Table 14 to the JIS B 9808.1991 straight type grease gun and pressing the supply nozzle onto the grease nipple and grease feed plug softly. When the NPT type grease nipple of the special specifications indicated in the Table 19 and NPB type grease nipple indicated in the Table 17 are mounted, you may also fill grease by pressing the grease gun without using a supply nozzle specified in the Table 14. In addition, oil cannot be fed for those without oil hole described in the Table 13.

**Table 13 Location of oil hole**



Model of bearing Stud diameter $d_1$ (1) mm	Class	① ② ③ Head Stud outer diameter section Stud end		
		①	②	③
Miniature Type Cam Followers	CFS			
Thrust Disk Type Miniature Cam Followers	CFS...W			
Standard Type Cam Followers CF...B	$d_1 \leq 4$			
Thrust Disk Type Miniature Cam Followers		CFS...W		
Standard Type Cam Followers CF...B	$5 \leq d_1 \leq 10$			
Thrust Disk Type Miniature Cam Followers		CF...WB		
Solid Eccentric Stud Type Cam Followers	CFES...B	○ <sup>(2)</sup>		
Eccentric Type Cam Followers	CFE...B			
Cylindrical Roller Cam Followers	NUCF...B	○ <sup>(3)</sup>	○	○
Cam Followers G	CF...G			
C-Lube Cam Followers	CF...WB.../SG			
Centralized Lubrication Type Cam Followers	$d_1 \leq 12$	○		
CF-RU1, CF-FU1 <sup>(4)</sup>		○	○	○
Easy Mounting Type Cam Followers	$d_1 \leq 10$	○ <sup>(2)</sup>		
		○ <sup>(5)</sup>		
Inch series Cam Followers	$d_1 \leq 6.35$			
		6.35 < $d_1$		○
Inch series Cam Followers	$d_1 \leq 6.35$	○		
		6.35 < $d_1$	○	○
Inch series Cam Followers	$d_1 \leq 7.938$			
		7.938 < $d_1$		○
Inch series Cam Followers	$d_1 \leq 7.938$	○		
		7.938 < $d_1$	○	○

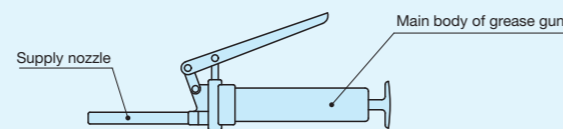
○: With oil hole

Note (1) For Eccentric Type Cam Followers (CFE), screw diameter G specified in the dimension table. However, oil hole on the stud outer diameter surface cannot be used.  
 (2) Grease can be fed from the Re-grease fitting located inside the hexagon socket on the head.  
 (3) The grease nipple is integrated in the hexagon socket on the head. Grease can be fed from the head and stud end by spiking the supplied grease nipple into the oil hole on the stud end.  
 (4) Head and stud end have a tap hole for piping.  
 (5) Grease can be fed from the grease nipple located inside the hexagon socket on the head.

**Table 14 Models and dimensions of supply nozzle**

Model	Dimensions and shape	Compatible grease nipple and Regrease fitting
A-5126T		NPF4-1 <sup>(1)</sup> NPF6-1 <sup>(1)</sup> Re-grease fitting
A-5120R		NPF4-1 <sup>(1)</sup> NPF6-1 <sup>(1)</sup>
B-5120R		NPF4-1 <sup>(1)</sup> NPF6-1 <sup>(1)</sup>
A-5120V		NPF4-1 <sup>(1)</sup> NPF6-1 <sup>(1)</sup>
A-5240V		NPT4-1 NPT6-1 NPB2 NPB3 NPB3-1 NPB4
B-5120V		NPF4-1 <sup>(1)</sup> NPF6-1 <sup>(1)</sup>
B-5240V		NPT4-1 NPT6-1 NPB2 NPB3 NPB3-1 NPB4

Note (1) HSP-3 of YAMADA CORPORATION can also be used.  
 Remark: The supply nozzles shown in the table can be mounted on the main body of a common grease gun available on the market shown below.  
 If needed, specify the supply nozzle model and contact **IKO**.



# Accessory

Accessories for Cam Followers are indicated in Fig. 15. Dimensions of grease nipple supplied as a standard accessory and dimensions of caps for rail mounting holes and jigs for oil hole on the no-feeding side are specified in the Table 16, Table 17, and Table 18, respectively.

**Table 15 Accessories**

Model of bearing Stud diameter $d_1$ (1) mm	Class	Grease nipple	Caps for rail mounting holes	Nut	Spring washer
Miniature Type Cam Followers	CFS			○	
Thrust Disk Type Miniature Cam Followers	CFS...W			○	
Standard Type Cam Followers	CF...B	$d_1 \leq 10$		○	
Thrust Disk Type Cam Followers	CF...WB			○	
Solid Eccentric Stud Type Cam Followers	CFES...B	$12 \leq d_1$	○		
Cylindrical Roller Cam Followers	NUCF...B			○	
Cam Followers G	CF...G			○	
C-Lube Cam Followers	CF...WB.../SG			○	
Eccentric Type Cam Followers	CFE...B	$d_1 \leq 10$		○	○
		$12 \leq d_1$	○		○
Centralized Lubrication Type Cam Followers (cylindrical outer ring)	CF-RU1, CF-FU1			○	
Easy Mounting Type Cam Followers	CF-SFU...B				
Inch series Cam Followers	CR...B (With hexagon hole)	$d_1 \leq 6.35$		○	
		$9.525 \leq d_1$	○	○	
Inch series Cam Followers	CR (With driver groove)			○	
Inch series Cam Followers	CRH...B (With hexagon hole)	$d_1 \leq 7.938$		○	
		$11.112 \leq d_1$	○	○	
Inch series Cam Followers	CRH (With driver groove)			○	

Note (1) For Eccentric Type Cam Followers (CFE), screw diameter G specified in the dimension table.

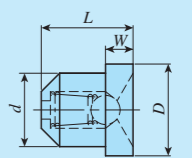
**Table 17 Dimensions of grease nipple for Inch series Cam Followers**

Identification number	Dimensions of grease nipple mm						Applicable bearing
	d	D	D <sub>1</sub>	L	L <sub>1</sub>	W	
NPB2	3.18	7.5	6	9	5.5	1.5	CR8 to CR10-1, CRH8-1 to CRH11
NPB3	4.76	7.5	6	10	5.5	1.5	CR12 to CR22, CRH12 to CRH22
NPB3-1	4.76	7.5	6	12.5	5.5	1.55	CR24 to CR36, CRH24 to CRH44
NPB4	6.35	8	6	13	6	2	CR48, CRH48 to CRH64

**Table 18 Dimensions of caps for rail mounting holes on Inch series Cam Followers**

Identification number	Dimensions of caps for rail mounting holes mm			Jig dimensions mm	Applicable bearing
	D	t	B		
USB2F	3.18	0.3	3.3	2.3	CR 8 to CR10-1
USB3F	4.76	0.4	4.3	3.7	CR12 to CR36, CRH12 to CRH44
USB4F	6.35	0.5	4.8	5.2	CR48, CRH48 to CRH64

**Table 16 Dimensions of grease nipple for standard Cam Followers (1)**



Identification number	Dimensions of grease nipple mm				Stud diameter $d_1$ (2) mm
	d	D	L	W	
NPF4-1	4	5	5	1.5	12~16
NPF6-1	6	7	8	2	18~30

Note (1) Applied for Cam Followers other than Inch series Cam Followers.

(2) For Eccentric Type Cam Followers, screw diameter G specified in the dimension table.

Remark The same grease nipple as the accessory is integrated in the hexagon socket on the head.

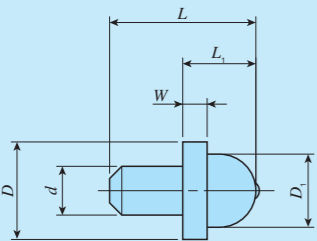


# Special Specification — Operating Temperature Range

Grease nipple supplied as an accessory can be replaced with the grease nipple indicated in the Table 19 upon request. With this grease nipple, you may fill grease by pressing the JIS B 9808:1991 straight type grease gun directly onto it without using the the supply nozzle in the Table 14. When you request it, indicate the identification number with "/NP" at the end.

Example of an Identification Number  
**CF 12 BUUR / NP**

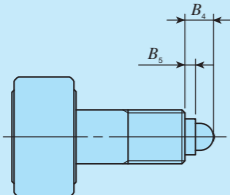
Table 19 Dimensions of NPT type grease nipple



Identification number	Dimensions of grease nipple mm						Stud diameter $d_1^{(1)}$ mm
	$d$	$D$	$D_1$	$L$	$L_1$	$W$	
NPT4-1	4	8	6	12	6	2	12~16
NPT6-1	6	8	6	14	8	4	18~30

Note (1) For Eccentric Type Cam Followers, screw diameter G specified in the dimension table.

Table 20 Dimensions with NPT type grease nipple mounted



Identification number	Dimensions mm		Stud diameter $d_1^{(1)}$ mm
	$B_4$	$B_5$	
NPT4-1	6	2	12~16
NPT6-1	6	2	18~30

Note (1) For Eccentric Type Cam Followers, screw diameter G specified in the dimension table.

Operating temperature range of Cam Followers is  $-20^{\circ}\text{C}$  to  $120^{\circ}\text{C}$ . However, note that the maximum allowable temperature varies in models indicated in the Table 21.

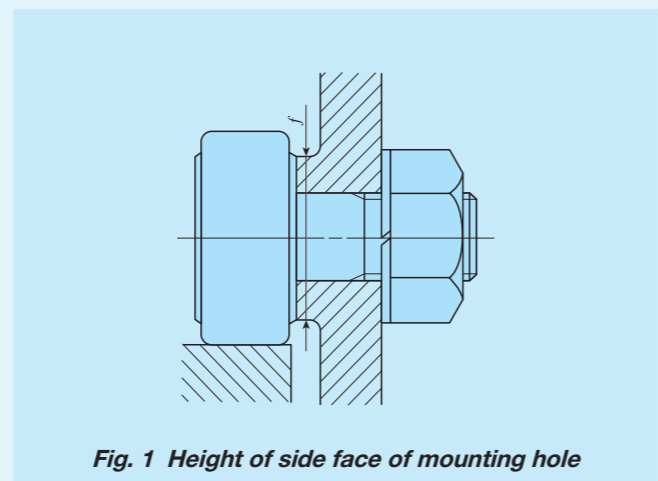
Table 21 Limitation of operating temperature range

Model Stud diameter $d_1$ mm	Class	With cage	
		Shield type	Sealed type
Miniature Type Cam Followers CFS Thrust Disk Type Miniature Cam Followers CFS...W	$d_1=2$	$-20^{\circ}\text{C}\sim 110^{\circ}\text{C}^{(1)}$	—
Standard Type Cam Followers CF...B Thrust Disk Type Cam Followers CF...WB	$d_1=3, 4$ $d_1=5$	$-20^{\circ}\text{C}\sim 110^{\circ}\text{C}^{(1)}$ $-20^{\circ}\text{C}\sim 120^{\circ}\text{C}$	$-20^{\circ}\text{C}\sim 80^{\circ}\text{C}$ $-20^{\circ}\text{C}\sim 80^{\circ}\text{C}$
Standard Type Cam Followers made of stainless steel CF...FB Thrust Disk Type Cam Followers made of stainless steel CF...FWB	$3\leq d_1\leq 5$	$-20^{\circ}\text{C}\sim 110^{\circ}\text{C}^{(1)}$	$-20^{\circ}\text{C}\sim 80^{\circ}\text{C}$
C-Lube Cam Followers CF...WB.../SG	$5\leq d_1\leq 20$	—	$-15^{\circ}\text{C}\sim 80^{\circ}\text{C}^{(2)}$

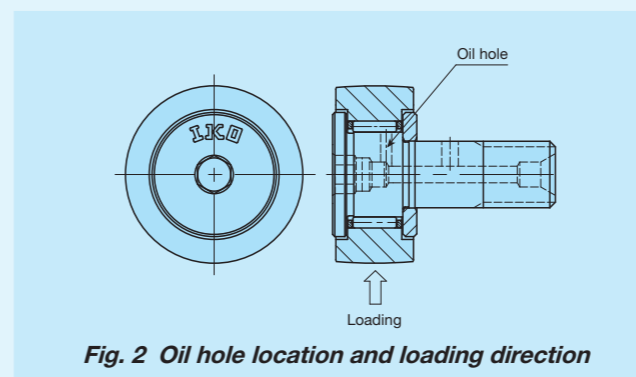
Note (1)  $100^{\circ}\text{C}$  when used continuously.  
(2) Below  $60^{\circ}\text{C}$  is recommended for long use.

## Mounting

1 Make the center line of the mounting hole perpendicular to the Cam Followers movement direction and accurately position and fix it on the side face of the mounting hole with a nut in accordance with the  $f$  dimensions in the dimension table. (See Fig. 1) At this point, do not strike the collar element of the Cam Followers directly with a hammer or the like. It may lead to rotation failure or crack.



2 The **IKO** mark at the side face of stud collar indicates the oil hole location on the raceway. You need to pay attention to this mark so that this oil hole never gets into the loading area when mounting it. Otherwise, product life may become shorter. (See Fig. 2) The vertical hole at the stud center is used for oil feeding or as a baffle.



3 Tighten the nut to the extent not to exceed the maximum tightening torque specified in the dimension table. With excessive tightening torque, the stud screw may be broken. In addition, use a lock nut, spring washer or special stop nut as necessary to prevent looseness depending on use conditions.

4 For Solid Eccentric Stud Type Cam Followers and Eccentric Type Cam Followers, a reference position for adjustment is defined as the **IKO** mark at the side face of stud collar located in the position specified in the Fig. 3. Use this as a reference. Adjust the outer ring position by rotating it using the hexagon socket on the stud head. Use a nut and a spring washer or the like for fixing of the stud. Be sure to tighten the nut to the extent not to exceed the maximum tightening torque specified in the dimension table.

If it is necessary to maintain exact eccentric adjustment quantity when shock load is applied, it is recommended to make a hole on each stud and eccentric collar through the housing to fix it with a dowel pin as indicated in the Fig. 4. However, the stud with diameter 8 mm or less (eccentric collar diameter: 11 mm) is quench-hardened.

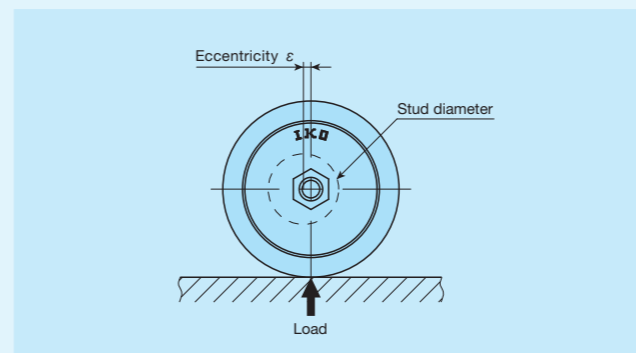


Fig. 3 Reference position for adjustment of Solid Eccentric Stud Type Cam Followers and Eccentric Type Cam Followers

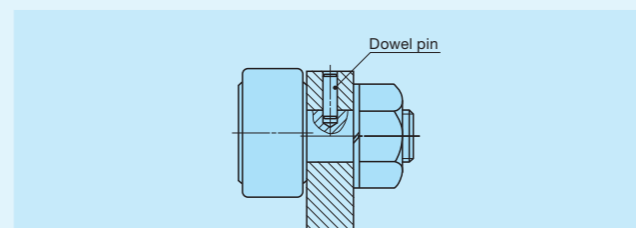


Fig. 4 Mounting examples of Solid Eccentric Stud Type Cam Followers

5 The length of a mounting hole for Eccentric Type Cam Followers must be 0.5 mm or more longer than the  $B_3$  dimensions (eccentric collar width) specified in the dimension table. (See Fig. 5)

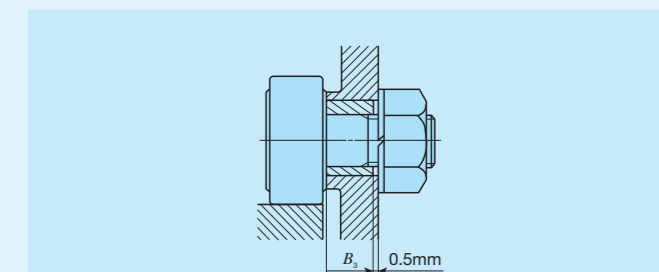


Fig. 5 Length of a mounting hole for Eccentric Type Cam Followers

6 Eccentric collar is available for Inch series Cam Followers. Eccentric Type Cam Followers, CRE are also available. If required, please consult with **IKO**.

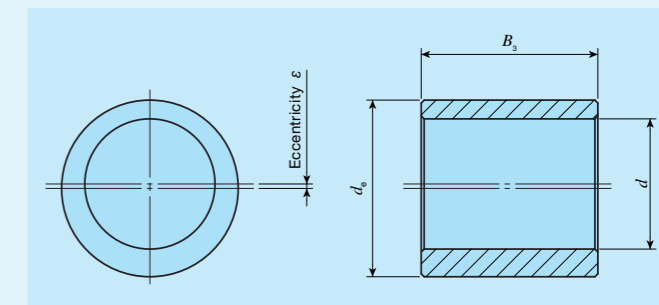


Table 21 Eccentric collars for Inch series Cam Followers

Identical number of collar	Outer diameter of collar $d_e$	Length of collar $B_3$	Eccentricity $\epsilon$	Stud dia. $d$	Applicable Cam Followers
EB 8	6.350 ( $\frac{1}{4}$ )	6.350 ( $\frac{1}{4}$ )	0.250	4.826	CR 8 CR 8-1 (M)(B)(R)(UU)
EB10	9.525 ( $\frac{3}{8}$ )	9.525 ( $\frac{3}{8}$ )	0.380	6.350 ( $\frac{1}{4}$ )	CR10 CR10-1 (M)(B)(R)(UU)
EB12	12.700 ( $\frac{1}{2}$ )	12.700 ( $\frac{1}{2}$ )	0.380	9.525 ( $\frac{3}{8}$ )	CR12 CR14 (M)(B)(R)(UU)
EB16	15.875 ( $\frac{5}{8}$ )	15.875 ( $\frac{5}{8}$ )	0.760	11.112 ( $\frac{7}{16}$ )	CR16 CR18 (M)(B)(R)(UU)
EB20	17.450	17.450	0.760	12.700 ( $\frac{1}{2}$ )	CR20 CR22 (M)(B)(R)(UU)
EB24	22.225 ( $\frac{7}{8}$ )	22.225 ( $\frac{7}{8}$ )	0.760	15.875 ( $\frac{5}{8}$ )	CR24 CR26 (M)(B)(R)(UU)
EB28	25.400 ( 1 )	25.400 ( 1 )	0.760	19.050 ( 1 $\frac{3}{4}$ )	CR28 CR30 (M)(B)(R)(UU)
EB32	30.150	30.150	0.760	22.225 ( $\frac{7}{8}$ )	CR32 CR36 (M)(B)(R)(UU)
EB48	44.450 ( 1 $\frac{3}{4}$ )	44.450 ( 1 $\frac{3}{4}$ )	1.520	31.750 ( 1 $\frac{1}{4}$ )	CR48 VUU

7 Fixing by screw from the upper surface is recommended for mounting of Easy Mounting Type Cam Followers. (See Fig. 6)

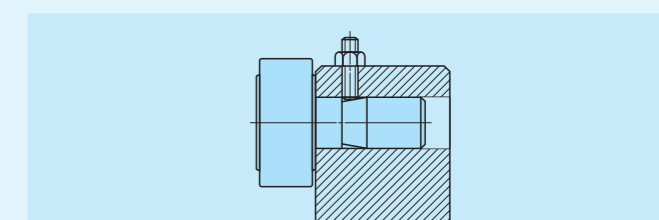


Fig. 6 Mounting examples of Easy Mounting Type Cam Followers

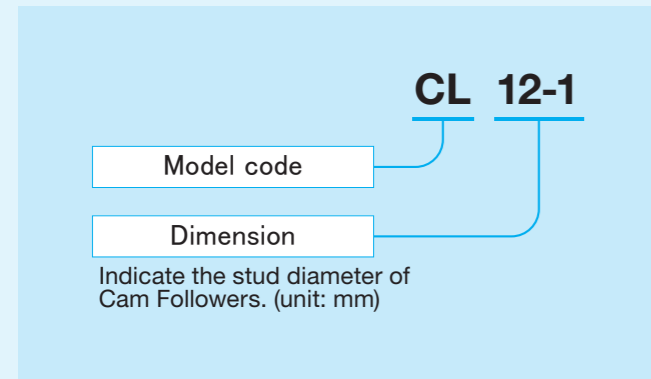
# Precaution for Use

- 1 Never clean up a C-Lube Cam Followers with organic solvent or white kerosene with property of removing fat.
- 2 To rotate the C-Lube Cam Followers normally, apply load of 1% or more of the basic dynamic load rating.

# C-Lube Unit For Cam Followers

## 1 Identification number

Described below is an example of an identification number of C-Lube Unit For Cam Followers.



## 2 Allowable number of rotations

Cam Followers with C-Lube unit mounted, use 10,000 or lower as reference for the  $d_1 n$  value.

$$d_1 n \text{ value} = d_1 \times n$$

where,  $d_1$  : Cam Followers stud diameter mm  
 $n$  : Rotation speed  $\text{min}^{-1}$

## 3 Minimum rotation angle

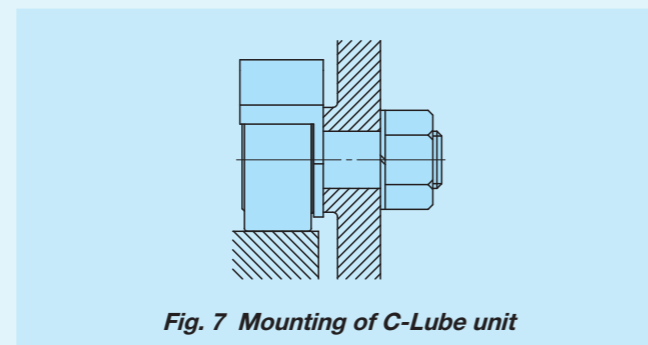
To supply lubrication oil to whole surface of the outer ring outer diameter of Cam Followers, use it under a condition where the Cam Followers outer ring is rotated at least by a turn when the C-Lube unit is mounted.

## 4 Operating temperature range

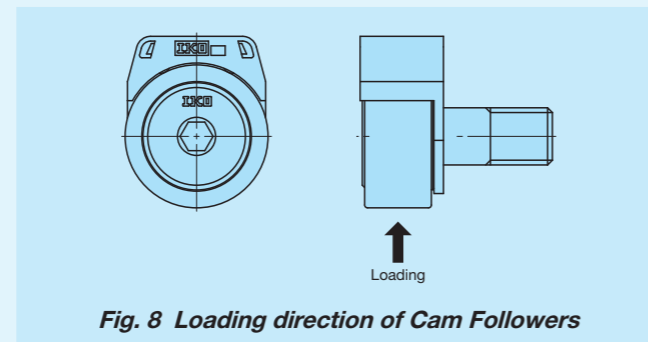
Use the C-Lube unit within the temperature range between  $-15^\circ\text{C}$  and  $80^\circ\text{C}$ .

## 5 Mounting

- Set the C-Lube unit perpendicularly to a center line of the Cam Followers stud and fix it along with the Cam Followers with a nut. (See Fig. 7)



- Mount the C-Lube unit in direction other than the direction of loading to the Cam Followers. In addition, the C-Lube unit has no baffle, so fix it while adjusting the C-Lube unit position in mounting. (See Fig. 8)



- Tighten the nut to fix the C-Lube unit and Cam Followers together to the extent not to exceed the maximum tightening torque specified in the Cam Followers dimension table.
- Use a lock nut, spring washer or special stop nut as necessary to prevent looseness depending on use conditions.

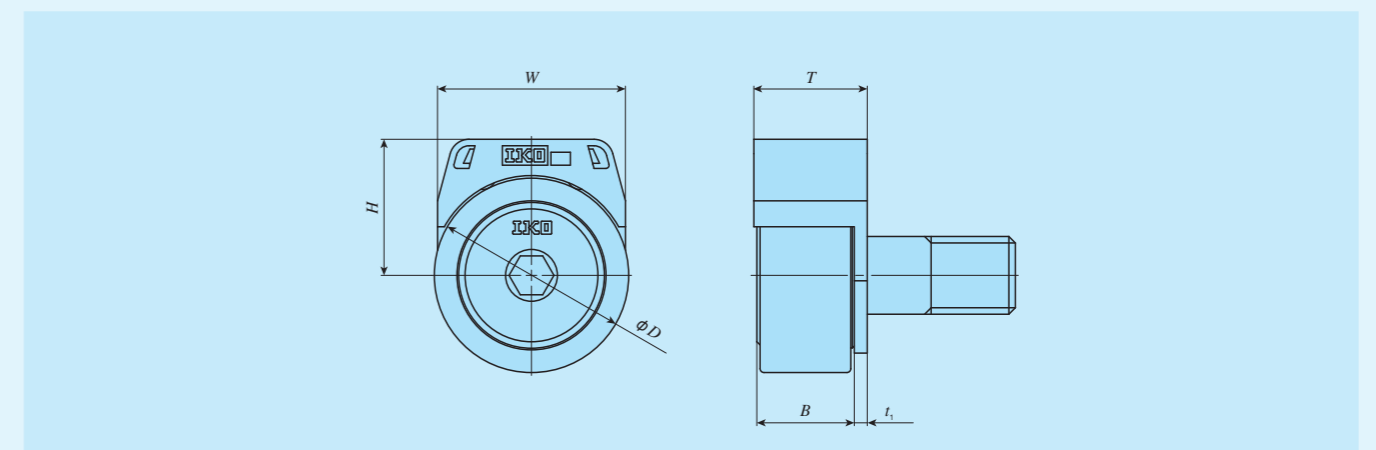
## 6 Precaution for use

- Never clean up a C-Lube unit with organic solvent or white kerosene with property of removing fat.
- To avoid damage and lubrication function failure, do not directly apply load onto the C-Lube unit.
- To rotate the Cam Followers normally with the C-Lube unit mounted, apply load of 1% or more of the basic dynamic load rating to the Cam Followers.
- Load applied to the Cam Followers when the C-Lube unit is mounted must be 80% or lower of the maximum allowable static load of the Cam Followers used. Excessive load will deform the C-Lube unit mounting washer, which will loose the Cam Followers fixing nut and shift the

C-Lube unit, preventing normal operations.

- Before operations, ensure that lubrication oil is supplied between the Cam Followers outer ring outer diameter surface and the cam guide surface. Lubrication performance of the C-Lube unit is largely affected by conditions of the cam guide surface.
- Avoid operating the C-Lube unit in any environment where capillary lubricating element may be damaged or foreign substances or liquid substance may enter into it.
- As additional oil feeding to the C-Lube unit is not allowed, replace it with new one when lubrication effect is lost.

## 7 Dimension table



Identification number	Nominal dimensions mm				Applicable C-Lube Cam Followers		
	W	H	T	$t_1$	Identification number	Nominal dimensions mm	
						D	B
CL 5	12.4	10.7	12.1	1.5	CF 5 B	13	10
CL 6	15.4	12.6	14	1.5	CF 6 B	16	12.2 max
CL 8	18.4	14.2	14	1.5	CF 8 B	19	12.2 max
CL 10	21	17	15.5	2	CF 10 B	22	13.2 max
CL 10-1	21	19.2	15.5	2	CF 10-1 B	26	13.2 max
CL 12	29	21	17.5	2	CF 12 B	30	15.2 max
CL 12-1	29	22	17.5	2	CF 12-1 B	32	15.2 max
CL 16	33.8	27.4	23.4	2.5	CF 16 B	35	19.6 max
CL 18	38.8	30.4	25.4	2.5	CF 18 B	40	21.6 max
CL 20	45.8	38.4	29.9	3	CF 20 B	52	25.6 max
CL 20-1	45.8	35.4	29.9	3	CF 20-1 B	47	25.6 max

Note (1) A typical identification number is indicated, but is applied to all Standard Type Cam Followers, Thrust Disk Type Cam Followers, C-Lube Cam Followers, Centralized Lubrication Type Cam Followers, and Cylindrical Roller Cam Followers of the same size. To bring out the maintenance free effect more efficiently, it is recommended to use it combined with the C-Lube Cam Followers.

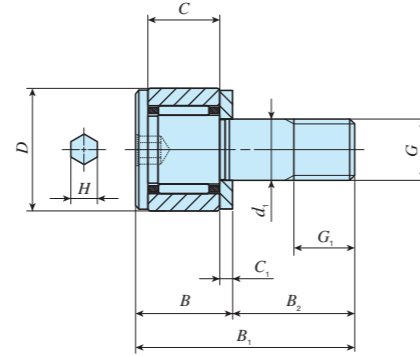
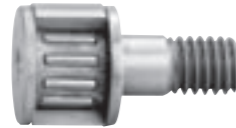
Remark: Load applied to the Cam Followers when the C-Lube unit is mounted must be 80% or lower of the maximum allowable static load of the Cam Followers used. For the maximum allowable static load of each Cam Followers, see the dimension table for each model.



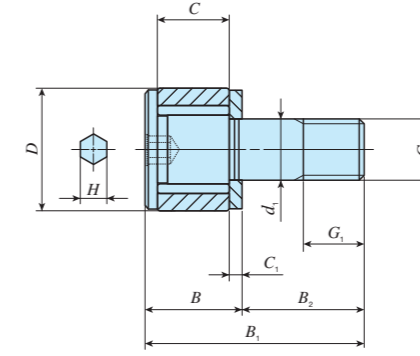
# IKO Miniature Type Cam Followers

## Selectable product specifications

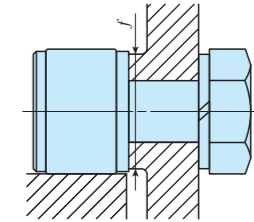
Material type	No symbol	High carbon steel
	F	Stainless steel
Roller guide type	No symbol	With cage
	V	Full complement roller
Seal structure	No symbol	Shield type
	UU	Sealed type
Shape of outer ring outer diameter surface	No symbol	Cylindrical outer ring
	R	Crowned outer ring



CFS  
CFS...F



CFS...V  
CFS...FV



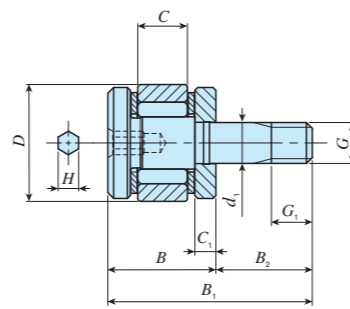
Stud diameter mm	Identification number		Mass (Ref.) g	Nominal dimensions mm											Mounting dimensions <i>f</i> Minimum mm	Maximum tightening torque N · cm	Basic dynamic load rating <i>C</i> N	Basic static load rating <i>C</i> <sub>0</sub> N	Maximum static allowable load N
	With cage	Full complement roller		<i>D</i>	<i>C</i>	<i>d</i> <sub>1</sub>	<i>G</i>	<i>G</i> <sub>1</sub>	<i>B</i>	<i>B</i> <sub>1</sub>	<i>B</i> <sub>2</sub>	<i>C</i> <sub>1</sub>	<i>H</i>						
2	CFS 2 —	— CFS 2 V	0.6	4.5	2.5	2	M2 × 0.4	2	4	8	4	0.7	0.9	4.3	9.1	288 768	202 734	202 229	
	CFS 2 F —	— CFS 2 FV																	230 614
2.5	CFS 2.5 —	— CFS 2.5 V	1	5	3	2.5	M2.5 × 0.45	2.5	4.5	9.5	5	0.7	0.9	4.8	18.7	428 1 000	351 1 080	351 360	
	CFS 2.5 F —	— CFS 2.5 FV																	342 800
3	CFS 3 —	— CFS 3 V	2	6	4	3	M3 × 0.5	3	5.5	11.5	6	0.7	1.3	5.8	33.5	629 1 420	611 1 790	484 484	
	CFS 3 F —	— CFS 3 FV																	504 1 140
4	CFS 4 —	— CFS 4 V	4	8	5	4	M4 × 0.7	4	7	15	8	1.0	1.5	7.7	77.7	1 120 2 370	1 120 3 000	919 919	
	CFS 4 F —	— CFS 4 FV																	897 1 900
5	CFS 5 —	— CFS 5 V	7	10	6	5	M5 × 0.8	5	8	18	10	1.0	2	9.6	158	1 570 3 180	1 850 4 700	1 570 1 570	
	CFS 5 F —	— CFS 5 FV																	1 250 2 540
6	CFS 6 —	— CFS 6 V	13	12	7	6	M6 × 1	6	9.5	21.5	12	1.2	2.5	11.6	268	2 090 4 610	2 200 6 250	2 150 2 150	
	CFS 6 F —	— CFS 6 FV																	1 670 3 690

- Remarks 1. No oil hole is provided.  
2. Grease is pre-packed.  
3. A nut is supplied with the stud.

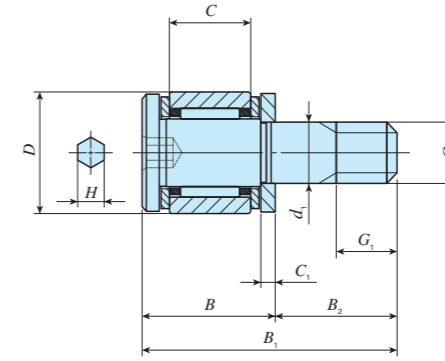
# IKO Thrust Disk Type Miniature Cam Followers

## Selectable product specifications

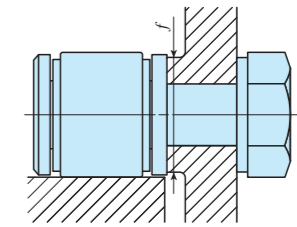
Material type	No symbol	High carbon steel
	F	Stainless steel
Roller guide type	No symbol	With cage
	V	Full complement roller
Seal structure	No symbol	Shield type
	UU	Sealed type
Shape of outer ring outer diameter surface	No symbol	Cylindrical outer ring
	R	Crowned outer ring



CFS1.4 WW



CFS... W  
CFS... FW



Stud diameter mm	Identification number		Mass (Ref.) g	Nominal dimensions mm											Mounting dimensions f Minimum mm	Maximum tightening torque N · cm	Basic dynamic load rating C N	Basic static load rating C <sub>0</sub> N	Maximum static allowable load N
	With cage	Full complement roller		D	C	d <sub>1</sub>	G	G <sub>1</sub>	B	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub>	H						
1.4	—	CFS 1.4 WW	0.35	4	1.7	1.4	M1.4 × 0.3	1.4	3.7	7	3.3	0.7	0.9	3.8	3.0	481	385	105	
2	CFS 2 W	—	0.6	4.5	2.5	2	M2 × 0.4	2	4.5	8.5	4	0.7	0.9	4.3	9.1	288	202	194	
	CFS 2 FW	—														230	161	161	
2.5	CFS 2.5 W	—	1	5	3	2.5	M2.5 × 0.45	2.5	5	10	5	0.7	0.9	4.8	18.7	428	351	313	
	CFS 2.5 FW	—														342	281	281	
3	CFS 3 W	—	2	6	4	3	M3 × 0.5	3	6.5	12.5	6	0.7	1.3	5.8	33.5	629	611	399	
	CFS 3 FW	—														504	488	399	
4	CFS 4 W	—	4	8	5	4	M4 × 0.7	4	8	16	8	1.0	1.5	7.7	77.7	1 120	1 120	785	
	CFS 4 FW	—														897	894	785	
5	CFS 5 W	—	7	10	6	5	M5 × 0.8	5	9	19	10	1.0	2	9.6	158	1 570	1 850	1 370	
	CFS 5 FW	—														1 250	1 480	1 370	
6	CFS 6 W	—	13	12	7	6	M6 × 1	6	10.5	22.5	12	1.2	2.5	11.6	268	2 090	2 200	1 920	
	CFS 6 FW	—														1 670	1 760	1 760	

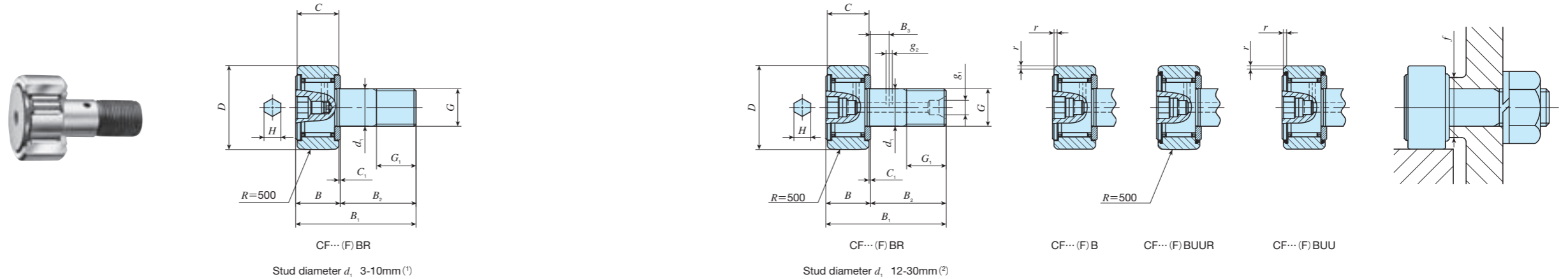
- Remarks 1. No oil hole is provided.  
2. Grease is pre-packed.  
3. A nut is supplied with the stud.



# IKO Standard Type Cam Followers • With Cage

## Selectable product specifications

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



Stud diameter mm	Identification number				Mass (Ref.) g	Nominal dimensions mm																Mounting dimensions f Minimum mm	Maximum tightening torque N · cm	Basic dynamic load rating C N	Basic static load rating C <sub>0</sub> N	Maximum static allowable load N
	Shield type		Sealed type			D	C	d <sub>1</sub>	G	G <sub>1</sub>	B	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	g <sub>1</sub>	g <sub>2</sub>	H	r <sub>s min</sub> <sup>(3)</sup>							
	Crowned outer ring	Cylindrical outer ring	Crowned outer ring	Cylindrical outer ring																						
3	CF 3 BR	CF 3 B	CF 3 BUUR	CF 3 BUU	4.3	10	7	3	M 3×0.5	5	8	17	9	—	0.5	—	—	2	0.2	6.8	0.34	1 500	1 020	384		
	CF 3 FBR	CF 3 FB	CF 3 FBUUR	CF 3 FBUU	4.3	10	7	3	M 3×0.5	5	8	17	9	—	0.5	—	—	2	0.2	6.8	0.34	1 200	813	384		
4	CF 4 BR	CF 4 B	CF 4 BUUR	CF 4 BUU	7.4	12	8	4	M 4×0.7	6	9	20	11	—	0.5	—	—	2.5	0.3	8.3	0.78	2 070	1 590	834		
	CF 4 FBR	CF 4 FB	CF 4 FBUUR	CF 4 FBUU	7.4	12	8	4	M 4×0.7	6	9	20	11	—	0.5	—	—	2.5	0.3	8.3	0.78	1 650	1 270	834		
5	CF 5 BR	CF 5 B	CF 5 BUUR	CF 5 BUU	10.3	13	9	5	M 5×0.8	7.5	10	23	13	—	0.5	—	—	3	0.3	9.3	1.6	2 520	2 140	1 260		
	CF 5 FBR	CF 5 FB	CF 5 FBUUR	CF 5 FBUU	10.3	13	9	5	M 5×0.8	7.5	10	23	13	—	0.5	—	—	3	0.3	9.3	1.6	1 930	1 730	1 260		
6	CF 6 BR	CF 6 B	CF 6 BUUR	CF 6 BUU	18.5	16	11	6	M 6×1	8	12.2max	28.2max	16	—	0.6	—	—	3	0.3	11	2.7	3 660	3 650	1 950		
	CF 6 FBR	CF 6 FB	CF 6 FBUUR	CF 6 FBUU	18.5	16	11	6	M 6×1	8	12.2max	28.2max	16	—	0.6	—	—	3	0.3	11	2.7	2 930	2 920	1 950		
8	CF 8 BR	CF 8 B	CF 8 BUUR	CF 8 BUU	28.5	19	11	8	M 8×1.25	10	12.2max	32.2max	20	—	0.6	—	—	4	0.3	13	6.5	4 250	4 740	4 620		
	CF 8 FBR	CF 8 FB	CF 8 FBUUR	CF 8 FBUU	28.5	19	11	8	M 8×1.25	10	12.2max	32.2max	20	—	0.6	—	—	4	0.3	13	6.5	3 400	3 790	3 790		
10	CF 10 BR	CF 10 B	CF 10 BUUR	CF 10 BUU	45	22	12	10	M10×1.25	12	13.2max	36.2max	23	—	0.6	—	—	4	0.3	16	13.8	5 430	6 890	6 890		
	CF 10 FBR	CF 10 FB	CF 10 FBUUR	CF 10 FBUU	45	22	12	10	M10×1.25	12	13.2max	36.2max	23	—	0.6	—	—	5	0.3	16	13.8	4 340	5 510	5 510		
	CF 10-1 BR	CF 10-1 B	CF 10-1 BUUR	CF 10-1 BUU	60	26	12	10	M10×1.25	12	13.2max	36.2max	23	—	0.6	—	—	4	0.3	16	13.8	5 430	6 890	6 890		
	CF 10-1FBR	CF 10-1FB	CF 10-1FBUUR	CF 10-1FBUU	60	26	12	10	M10×1.25	12	13.2max	36.2max	23	—	0.6	—	—	5	0.3	16	13.8	4 340	5 510	5 510		
12	CF 12 BR	CF 12 B	CF 12 BUUR	CF 12 BUU	95	30	14	12	M12×1.5	13	15.2max	40.2max	25	6	0.6	4	3	6	0.6	21	21.9	7 910	9 790	9 790		
	CF 12 FBR	CF 12 FB	CF 12 FBUUR	CF 12 FBUU	95	30	14	12	M12×1.5	13	15.2max	40.2max	25	6	0.6	4	3	6	0.6	21	21.9	6 330	7 830	7 830		
	CF 12-1 BR	CF 12-1 B	CF 12-1 BUUR	CF 12-1 BUU	105	32	14	12	M12×1.5	13	15.2max	40.2max	25	6	0.6	4	3	6	0.6	21	21.9	7 910	9 790	9 790		
	CF 12-1FBR	CF 12-1FB	CF 12-1FBUUR	CF 12-1FBUU	105	32	14	12	M12×1.5	13	15.2max	40.2max	25	6	0.6	4	3	6	0.6	21	21.9	6 330	7 830	7 830		
16	CF 16 BR	CF 16 B	CF 16 BUUR	CF 16 BUU	170	35	18	16	M16×1.5	17	19.6max	52.1max	32.5	8	0.8	4	3	6	0.6	26	58.5	12 000	18 300	18 300		
	CF 16 FBR	CF 16 FB	CF 16 FBUUR	CF 16 FBUU	170	35	18	16	M16×1.5	17	19.6max	52.1max	32.5	8	0.8	4	3	6	0.6	26	58.5	9 620	14 700	14 700		
18	CF 18 BR	CF 18 B	CF 18 BUUR	CF 18 BUU	250	40	20	18	M18×1.5	19	21.6max	58.1max	36.5	8	0.8	6	3	8	1	29	86.2	14 800	25 200	25 200		
	CF 18 FBR	CF 18 FB	CF 18 FBUUR	CF 18 FBUU	250	40	20	18	M18×1.5	19	21.6max	58.1max	36.5	8	0.8	6	3	8	1	29	86.2	11 800	20 200	20 200		
20	CF 20 BR	CF 20 B	CF 20 BUUR	CF 20 BUU	460	52	24	20	M20×1.5	21	25.6max	66.1max	40.5	9	0.8	6	4	8	1	34	119	20 700	34 600	34 600		
	CF 20 FBR	CF 20 FB	CF 20 FBUUR	CF 20 FBUU	460	52	24	20	M20×1.5	21	25.6max	66.1max	40.5	9	0.8	6	4	8	1	34	119	16 500	27 700	27 700		
	CF 20-1 BR	CF 20-1 B	CF 20-1 BUUR	CF 20-1 BUU	385	47	24	20	M20×1.5	21	25.6max	66.1max	40.5	9	0.8	6	4	8	1	34	119	20 700	34 600	34 600		
	CF 20-1FBR	CF 20-1FB	CF 20-1FBUUR	CF 20-1FBUU	385	47	24	20	M20×1.5	21	25.6max	66.1max	40.5	9	0.8	6	4	8	1	34	119	16 500	27 700	27 700		
24	CF 24 BR	CF 24 B	CF 24 BUUR	CF 24 BUU	815	62	29	24	M24×1.5	25	30.6max	80.1max	49.5	11	0.8	6	4	12	1	40	215	30 500	52 600	52 000		
	CF 24-1 BR	CF 24-1 B	CF 24-1 BUUR	CF 24-1 BUU	1 140	72	29	24	M24×1.5	25	30.6max	80.1max	49.5	11	0.8	6	4	12	1	40	215	30 500	52 600	52 000		
30	CF 30 BR	CF 30 B	CF 30 BUUR	CF 30 BUU	1 870	80	35	30	M30×1.5	32	37 max	100 max	63	15	1	6	4	17	1	49	438	45 400	85 100	85 100		
	CF 30-1 BR	CF 30-1 B	CF 30-1 BUUR	CF 30-1 BUU	2 030	85	35	30	M30×1.5	32	37 max	100 max	63	15	1	6	4	17	1	49	438	45 400	85 100	85 100		
	CF 30-2 BR	CF 30-2 B	CF 30-2 BUUR	CF 30-2 BUU	2 220	90	35	30	M30×1.5	32	37 max	100 max	63	15	1	6	4	17	1	49	438	45 400	85 100	85 100		

Note (1) No oil hole is provided if the stud diameter  $d_1$  is 4 mm or less. An oil hole (grease feed plug) is provided for the head if the stud diameter  $d_1$  is between 5 and 10 mm.

(2) An oil hole (grease nipple) is provided for the stud head and an oil hole is provided for the outer diameter and the end.

(3) This represents the minimum tolerance dimensions of the chamfer dimensions  $r$ .

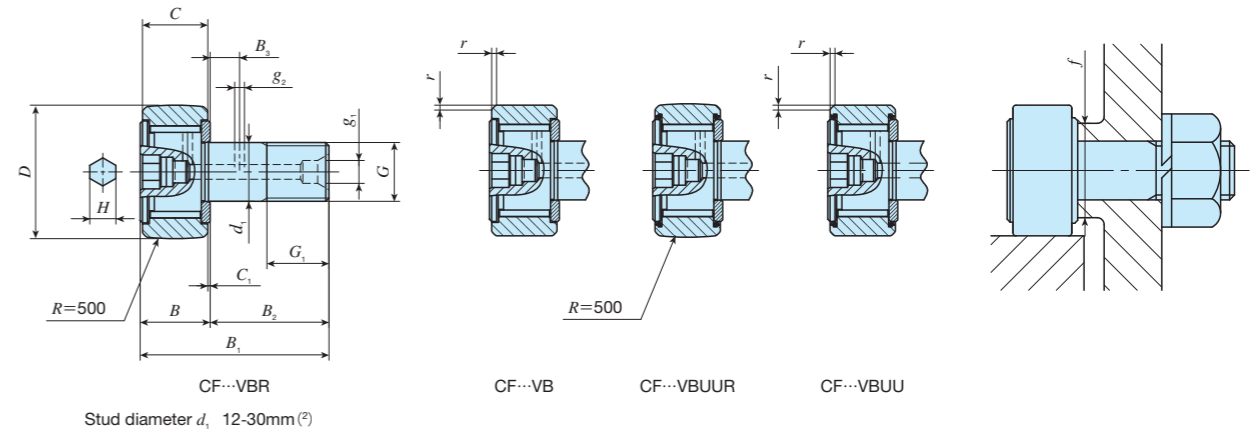
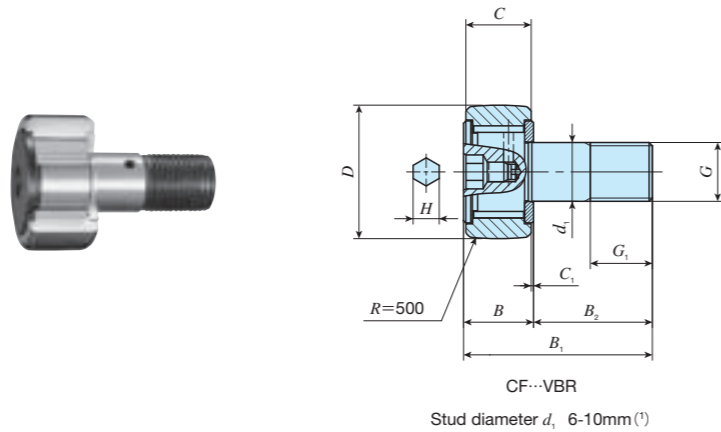
Remark: 1. Grease is pre-packed if the stud diameter  $d_1$  of the shield type is 10 mm or less or if the seal structure is the sealed type. As for the others, grease is not pre-packed. Use the product with appropriate lubrication.

2. A nut is supplied with the stud.

# IKO Standard Type Cam Followers • Full Complement Roller

## Selectable product specifications

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



Stud diameter mm	Identification number				Mass (Ref.) g	Nominal dimensions mm															Mounting dimensions $f$ Minimum mm	Maximum tightening torque N · cm	Basic dynamic load rating $C$ N	Basic static load rating $C_0$ N	Maximum static allowable load N
	Shield type		Sealed type			$D$	$C$	$d_1$	$G$	$G_1$	$B_{max}$	$B_{max}$	$B_2$	$B_3$	$C_1$	$g_1$	$g_2$	$H$	$r_{smin}^{(3)}$						
	Crowned outer ring	Cylindrical outer ring	Crowned outer ring	Cylindrical outer ring																					
6	CF 6 VBR	CF 6 VB	CF 6 VBUUR	CF 6 VBUU	19	16	11	6	M 6 × 1	8	12.2	28.2	16	—	0.6	—	—	3	0.3	11	2.7	6 980	8 500	1 950	
8	CF 8 VBR	CF 8 VB	CF 8 VBUUR	CF 8 VBUU	29	19	11	8	M 8 × 1.25	10	12.2	32.2	20	—	0.6	—	—	4	0.3	13	6.5	8 170	11 200	4 620	
10	CF 10 VBR	CF 10 VB	CF 10 VBUUR	CF 10 VBUU	46	22	12	10	M10 × 1.25	12	13.2	36.2	23	—	0.6	—	—	4	0.3	16	13.8	9 570	14 500	8 650	
	CF 10-1 VBR	CF 10-1 VB	CF 10-1 VBUUR	CF 10-1 VBUU	61	26	12	10	M10 × 1.25	12	13.2	36.2	23	—	0.6	—	—	4	0.3	16	13.8	9 570	14 500	8 650	
12	CF 12 VBR	CF 12 VB	CF 12 VBUUR	CF 12 VBUU	97	30	14	12	M12 × 1.5	13	15.2	40.2	25	6	0.6	4	3	6	0.6	21	21.9	13 500	19 700	13 200	
	CF 12-1 VBR	CF 12-1 VB	CF 12-1 VBUUR	CF 12-1 VBUU	107	32	14	12	M12 × 1.5	13	15.2	40.2	25	6	0.6	4	3	6	0.6	21	21.9	13 500	19 700	13 200	
16	CF 16 VBR	CF 16 VB	CF 16 VBUUR	CF 16 VBUU	173	35	18	16	M16 × 1.5	17	19.6	52.1	32.5	8	0.8	4	3	6	0.6	26	58.5	20 700	37 600	23 200	
18	CF 18 VBR	CF 18 VB	CF 18 VBUUR	CF 18 VBUU	255	40	20	18	M18 × 1.5	19	21.6	58.1	36.5	8	0.8	6	3	8	1	29	86.2	25 300	51 300	31 100	
20	CF 20 VBR	CF 20 VB	CF 20 VBUUR	CF 20 VBUU	465	52	24	20	M20 × 1.5	21	25.6	66.1	40.5	9	0.8	6	4	8	1	34	119	33 200	64 500	37 500	
	CF 20-1 VBR	CF 20-1 VB	CF 20-1 VBUUR	CF 20-1 VBUU	390	47	24	20	M20 × 1.5	21	25.6	66.1	40.5	9	0.8	6	4	8	1	34	119	33 200	64 500	37 500	
24	CF 24 VBR	CF 24 VB	CF 24 VBUUR	CF 24 VBUU	820	62	29	24	M24 × 1.5	25	30.6	80.1	49.5	11	0.8	6	4	12	1	40	215	46 600	92 000	52 000	
	CF 24-1 VBR	CF 24-1 VB	CF 24-1 VBUUR	CF 24-1 VBUU	1 140	72	29	24	M24 × 1.5	25	30.6	80.1	49.5	11	0.8	6	4	12	1	40	215	46 600	92 000	52 000	
30	CF 30 VBR	CF 30 VB	CF 30 VBUUR	CF 30 VBUU	1 870	80	35	30	M30 × 1.5	32	37	100	63	15	1	6	4	17	1	49	438	67 700	144 000	85 900	
	CF 30-1 VBR	CF 30-1 VB	CF 30-1 VBUUR	CF 30-1 VBUU	2 030	85	35	30	M30 × 1.5	32	37	100	63	15	1	6	4	17	1	49	438	67 700	144 000	85 900	
	CF 30-2 VBR	CF 30-2 VB	CF 30-2 VBUUR	CF 30-2 VBUU	2 220	90	35	30	M30 × 1.5	32	37	100	63	15	1	6	4	17	1	49	438	67 700	144 000	85 900	

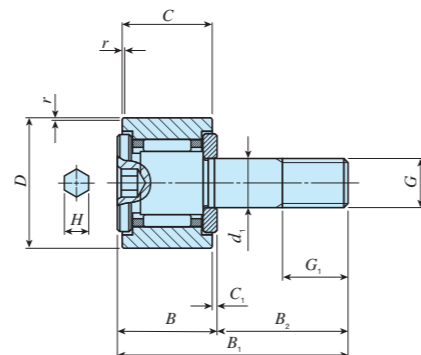
- Note <sup>(1)</sup> An oil hole (grease feed plug) is provided for the stud head.  
<sup>(2)</sup> An oil hole (grease nipple) is provided for the stud head and an oil hole is provided for the outer diameter and the end.  
<sup>(3)</sup> This represents the minimum tolerance dimensions of the chamfer dimensions  $r$ .
- Remark: 1. Grease is pre-packed.  
 2. A nut is supplied with the stud.



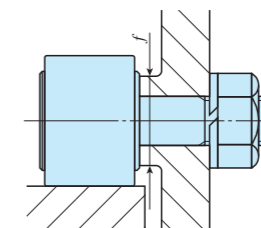
# IKO Cam Followers G

## Selectable product specifications

Material type	No symbol	High carbon steel
	F	Stainless steel
Roller guide type	No symbol	With cage
	V	Full complement roller
Seal structure	No symbol	Shield type
	UU	Sealed type
Shape of external ring outer diameter surface	No symbol	Cylindrical outer ring
	R	Crowned outer ring



CF...G



Stud diameter mm	Identification number With cage	Mass (Ref.) g	Nominal dimensions mm											Mounting related dimensions f Minimum mm	Internal radial clearance $\mu\text{m}$		Maximum tightening torque N · cm	Basic dynamic load rating C N	Basic static load rating C <sub>0</sub> N	Maximum Static allowable Load N	
			D	C	d <sub>1</sub>	G	G <sub>1</sub>	B <sub>max</sub>	B <sub>1max</sub>	B <sub>2</sub>	C <sub>1</sub>	H	r <sub>smin</sub> <sup>(1)</sup>		Minimum	Maximum					
6	CF 6 G	19.5	16	11	6	M 6 × 1	8	12.2	28.2		16	0.6	3	0.3	11	5	20	2.7	3 660	3 650	1 950
8	CF 8 G	29.5	19	11	8	M 8 × 1.25	10	12.2	32.2		20	0.6	4	0.3	13	5	25	6.5	4 250	4 740	4 620
10	CF 10 G	47.5	22	12	10	M10 × 1.25	12	13.2	36.2		23	0.6	4	0.3	16	5	25	13.8	5 430	6 890	6 890
	CF 10-1 G	61.5	26	12	10	M10 × 1.25	12	13.2	36.2		23	0.6	4	0.3	16	5	25	13.8	5 430	6 890	6 890
12	CF 12 G	95.0	30	14	12	M12 × 1.5	13	15.2	40.2		25	0.6	6	0.6	21	5	25	23.9	7 910	9 790	9 790
	CF 12-1 G	105	32	14	12	M12 × 1.5	13	15.2	40.2		25	0.6	6	0.6	21	5	25	23.9	7 910	9 790	9 790
16	CF 16 G	175	35	18	16	M16 × 1.5	17	19.6	52.1		32.5	0.8	6	0.6	26	10	30	61.1	12 000	18 300	18 300
18	CF 18 G	255	40	20	18	M18 × 1.5	19	21.6	58.1		36.5	0.8	8	1	29	10	30	89.2	14 800	25 200	25 200
20	CF 20 G	470	52	24	20	M20 × 1.5	21	25.6	66.1		40.5	0.8	8	1	34	10	30	125	20 700	34 600	34 600
	CF 20-1 G	400	47	24	20	M20 × 1.5	21	25.6	66.1		40.5	0.8	8	1	34	10	30	125	20 700	34 600	34 600

Note (1) This represents the minimum tolerance dimensions of the chamfer dimensions r.

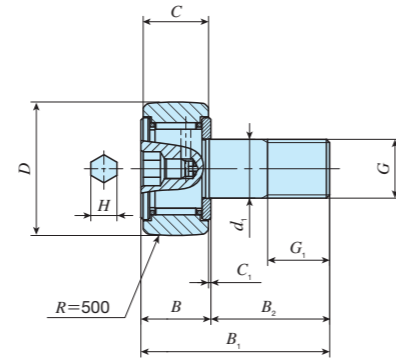
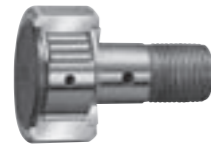
Remark: 1. Oil can not be re-fed to this bearing for structural reasons. When oil re-feeding is necessary, use IKO Standard Cam Followers.  
2. Grease is pre-packed.

1N=0.102kgf

# IKO Thrust Disk Type Cam Followers

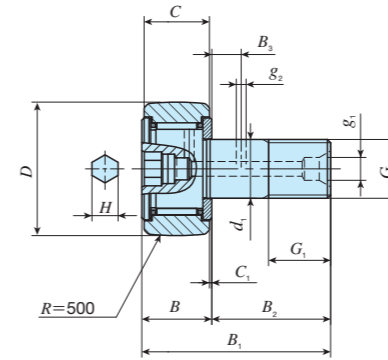
## Selectable product specifications

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



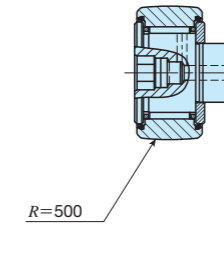
CF... (F) WBR

Stud diameter  $d_1$ , 3-10mm<sup>(1)</sup>

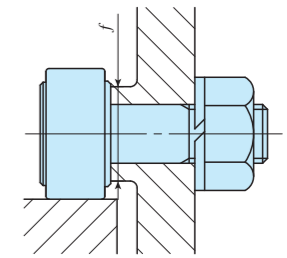


CF... WBR

Stud diameter  $d_1$ , 12-20mm<sup>(2)</sup>



CF... (F) WBUUR



Stud diameter mm	Identification number		Mass (Ref.) g	Nominal dimensions mm														Mounting dimensions $f$ Minimum mm	Maximum tightening torque N · cm	Basic dynamic load rating $C$ N	Basic static load rating $C_0$ N	Maximum static allowable load N
	Shield type	Sealed type		$D$	$C$	$d_1$	$G$	$G_1$	$B$	$B_1$	$B_2$	$B_3$	$C_1$	$g_1$	$g_2$	$H$						
3	CF 3 WBR	CF 3 WBUUR	4.3	10	7	3	M 3 × 0.5	5	8	17	9	—	0.5	—	—	2	6.8	0.34	1 500	1 020	384	
	CF 3 FWBR	CF 3 FWBUUR	4.3	10	7	3	M 3 × 0.5	5	8	17	9	—	0.5	—	—	2	6.8	0.34	1 200	813	384	
4	CF 4 WBR	CF 3 WBUUR	7.4	12	8	4	M 4 × 0.7	6	9	20	11	—	0.5	—	—	2.5	8.3	0.78	2 070	1 590	834	
	CF 4 FWBR	CF 3 FWBUUR	7.4	12	8	4	M 4 × 0.7	6	9	20	11	—	0.5	—	—	2.5	8.3	0.78	1 650	1 270	834	
5	CF 5 WBR	CF 5 WBUUR	10.3	13	9	5	M 5 × 0.8	7.5	10	23	13	—	0.5	—	—	3	9.3	1.6	2 520	2 140	1 260	
	CF 5 FWBR	CF 5 FWBUUR	10.3	13	9	5	M 5 × 0.8	7.5	10	23	13	—	0.5	—	—	3	9.3	1.6	1 930	1 730	1 260	
6	CF 6 WBR	CF 6 WBUUR	18.5	16	11	6	M 6 × 1	8	12.2 max	28.2 max	16	—	0.6	—	—	3	11	2.7	3 660	3 650	1 950	
8	CF 8 WBR	CF 8 WBUUR	28.5	19	11	8	M 8 × 1.25	10	12.2 max	32.2 max	20	—	0.6	—	—	4	13	6.5	4 250	4 740	4 620	
10	CF 10 WBR	CF 10 WBUUR	45	22	12	10	M10 × 1.25	12	13.2 max	36.2 max	23	—	0.6	—	—	4	16	13.8	5 430	6 890	6 890	
	CF 10-1 WBR	CF 10-1 WBUUR	60	26	12	10	M10 × 1.25	12	13.2 max	36.2 max	23	—	0.6	—	—	4	16	13.8	5 430	6 890	6 890	
12	CF 12 WBR	CF 12 WBUUR	95	30	14	12	M12 × 1.5	13	15.2 max	40.2 max	25	6	0.6	4	3	6	21	21.9	7 910	9 790	9 790	
	CF 12-1 WBR	CF 12-1 WBUUR	105	32	14	12	M12 × 1.5	13	15.2 max	40.2 max	25	6	0.6	4	3	6	21	21.9	7 910	9 790	9 790	
16	CF 16 WBR	CF 16 WBUUR	170	35	18	16	M16 × 1.5	17	19.6 max	52.1 max	32.5	8	0.8	4	3	6	26	58.5	12 000	18 300	18 300	
18	CF 18 WBR	CF 18 WBUUR	250	40	20	18	M18 × 1.5	19	21.6 max	58.1 max	36.5	8	0.8	6	3	8	29	86.2	14 800	25 200	25 200	
20	CF 20 WBR	CF 20 WBUUR	460	52	24	20	M20 × 1.5	21	25.6 max	66.1 max	40.5	9	0.8	6	4	8	34	119	20 700	34 600	34 600	
	CF 20-1 WBR	CF 20-1 WBUUR	385	47	24	20	M20 × 1.5	21	25.6 max	66.1 max	40.5	9	0.8	6	4	8	34	119	20 700	34 600	34 600	

Note <sup>(1)</sup> No oil hole is provided if the stud diameter  $d_1$  is 4 mm or less. An oil hole (grease feed plug) is provided for the head if the stud diameter  $d_1$  is between 5 and 10 mm.

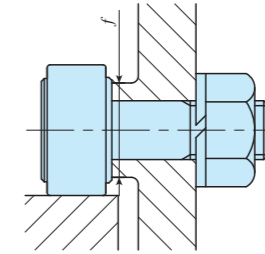
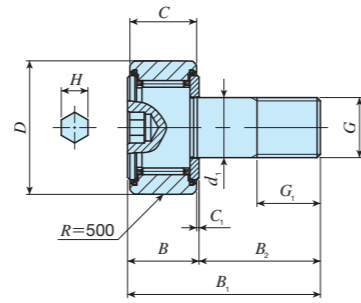
<sup>(2)</sup> An oil hole (grease nipple) is provided for the stud head and an oil hole is provided for the outer diameter and the end.

Remark: 1. Grease is pre-packed if the stud diameter  $d_1$  of the shield type is 10 mm or less or if the seal structure is the sealed type. As for the others, grease is not pre-packed. Use the product with appropriate lubrication.  
2. A nut is supplied with the stud.

# IKO C-Lube Cam Followers

## Selectable product specifications

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



Stud diameter mm	Identification number	Mass (Ref.) g	Nominal dimensions mm											Mounting dimensions <i>f</i> Minimum mm	Maximum tightening torque N · cm	Basic dynamic load rating <i>C</i> N	Basic static load rating <i>C</i> <sub>0</sub> N	Maximum static allowable load N	
			<i>D</i>	<i>C</i>	<i>d</i> <sub>1</sub>	<i>G</i>	<i>G</i> <sub>1</sub>	<i>B</i>	<i>B</i> <sub>1</sub>	<i>B</i> <sub>2</sub>	<i>C</i> <sub>1</sub>	<i>H</i>							
5	CF 5 WBUUR/SG	10.3	13	9	5	M 5 × 0.8	7.5	10	23						9.3	1.6	2 520	2 140	1 260
6	CF 6 WBUUR/SG	18.5	16	11	6	M 6 × 1	8	12.2 max	28.2 max						11	2.7	3 660	3 650	1 950
8	CF 8 WBUUR/SG	28.5	19	11	8	M 8 × 1.25	10	12.2 max	32.2 max						13	6.5	4 250	4 740	4 620
10	CF 10 WBUUR/SG	45	22	12	10	M10 × 1.25	12	13.2 max	36.2 max						16	13.8	5 430	6 890	6 890
	CF 10-1 WBUUR/SG	60	26	12	10	M10 × 1.25	12	13.2 max	36.2 max						16	13.8	5 430	6 890	6 890
12	CF 12 WBUUR/SG	95	30	14	12	M12 × 1.5	13	15.2 max	40.2 max						21	21.9	7 910	9 790	9 790
	CF 12-1 WBUUR/SG	105	32	14	12	M12 × 1.5	13	15.2 max	40.2 max						21	21.9	7 910	9 790	9 790
16	CF 16 WBUUR/SG	170	35	18	16	M16 × 1.5	17	19.6 max	52.1 max						26	58.5	12 000	18 300	18 300
18	CF 18 WBUUR/SG	250	40	20	18	M18 × 1.5	19	21.6 max	58.1 max						29	86.2	14 800	25 200	25 200
20	CF 20 WBUUR/SG	460	52	24	20	M20 × 1.5	21	25.6 max	66.1 max						34	119	20 700	34 600	34 600
	CF 20-1 WBUUR/SG	385	47	24	20	M20 × 1.5	21	25.6 max	66.1 max						34	119	20 700	34 600	34 600

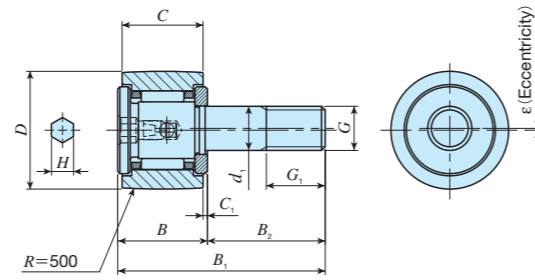
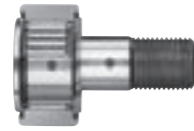
Remark: 1. No oil hole is provided.  
2. A nut is supplied with the stud.



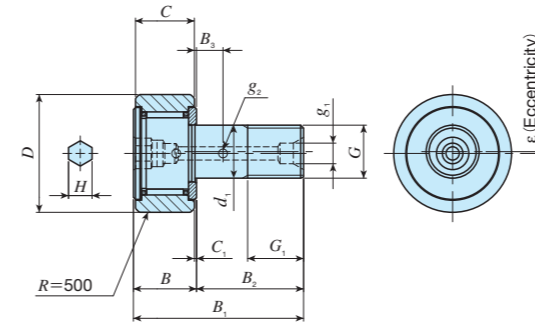
# IKO Solid Eccentric Stud Type Cam Followers

## Selectable product specifications

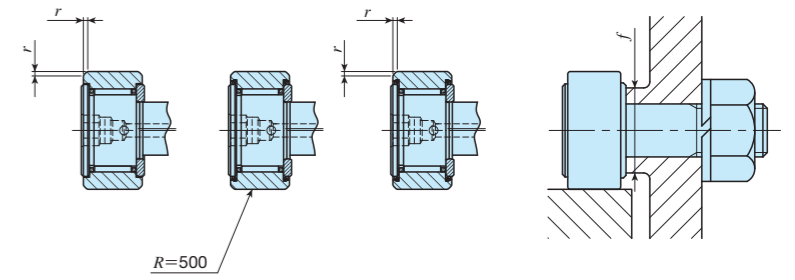
Material type	No symbol	High carbon steel
	F	Stainless steel
Roller guide type	No symbol	With cage
	V	Full complement roller
Seal structure	No symbol	Shield type
	UU	Sealed type
Shape of outer ring outer diameter surface	No symbol	Cylindrical outer ring
	R	Crowned outer ring



CFES...BR  
Stud diameter  $d_1$ , 6-10mm<sup>(1)</sup>



CFES...BR  
Stud diameter  $d_1$ , 12-18mm<sup>(2)</sup>



CFES...B    CFES...BUUR    CFES...BUU

Stud diameter mm	Identification number				Mass (Ref.) g	Nominal dimensions mm																Eccentricity $\epsilon$	Mounting dimensions $f$ Minimum mm	Maximum tightening torque N · cm	Basic dynamic load rating $C$ N	Basic static load rating $C_0$ N	Maximum static allowable load N
	Shield type		Sealed type			$D$	$C$	$d_1$	$G$	$G_1$	$B_{\max}$	$B_{1\max}$	$B_2$	$B_3$	$C_1$	$g_1$	$g_2$	$H$	$r_{s\min}^{(3)}$								
	Crowned outer ring	Cylindrical outer ring	Crowned outer ring	Cylindrical outer ring																							
6	CFES 6 BR	CFES 6 B	CFES 6 BUUR	CFES 6 BUU	18.5	16	11	6	M 6 × 1	8	12.2	28.2	16	—	0.6	—	—	3	0.3	0.25	11	2.7	3 660	3 650	1 980		
8	CFES 8 BR	CFES 8 B	CFES 8 BUUR	CFES 8 BUU	28.5	19	11	8	M 8 × 1.25	10	12.2	32.2	20	—	0.6	—	—	4	0.3	0.25	13	6.5	4 250	4 740	4 670		
10	CFES 10 BR	CFES 10 B	CFES 10 BUUR	CFES 10 BUU	45	22	12	10	M10 × 1.25	12	13.2	36.2	23	—	0.6	—	—	4	0.3	0.3	16	13.8	5 430	6 890	6 890		
	CFES 10-1 BR	CFES 10-1 B	CFES 10-1 BUUR	CFES 10-1 BUU	60	26	12	10	M10 × 1.25	12	13.2	36.2	23	—	0.6	—	—	4	0.3	0.3	16	13.8	5 430	6 890	6 890		
12	CFES 12 BR	CFES 12 B	CFES 12 BUUR	CFES 12 BUU	95	30	14	12	M12 × 1.5	13	15.2	40.2	25	6	0.6	4	3	6	0.6	0.4	21	21.9	7 910	9 790	9 790		
	CFES 12-1 BR	CFES 12-1 B	CFES 12-1 BUUR	CFES 12-1 BUU	105	32	14	12	M12 × 1.5	13	15.2	40.2	25	6	0.6	4	3	6	0.6	0.4	21	21.9	7 910	9 790	9 790		
16	CFES 16 BR	CFES 16 B	CFES 16 BUUR	CFES 16 BUU	170	35	18	16	M16 × 1.5	17	19.6	52.1	32.5	8	0.8	4	3	6	0.6	0.5	26	58.5	12 000	18 300	18 300		
18	CFES 18 BR	CFES 18 B	CFES 18 BUUR	CFES 18 BUU	250	40	20	18	M18 × 1.5	19	21.6	58.1	36.5	8	0.8	6	3	8	1	0.6	29	86.2	14 800	25 200	25 200		

Note (1) An oil hole (grease feed plug) is provided for the stud head.

(2) An oil hole (grease nipple) is provided for the stud head and an oil hole is provided for the outer diameter and the end.

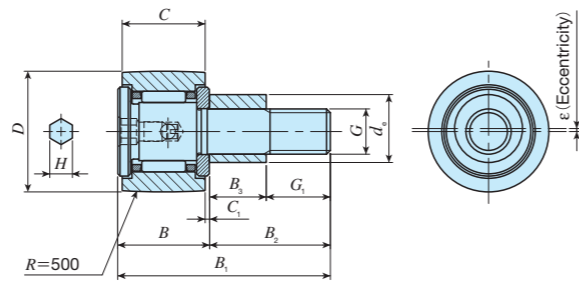
(3) This represents the minimum tolerance dimensions of the chamfer dimensions  $r$ .

Remark: 1. Grease is pre-packed if the stud diameter  $d_1$  of the shield type is 10 mm or less or if the seal structure is the sealed type. As for the others, grease is not pre-packed. Use the product with appropriate lubrication.  
2. A nut is supplied with the stud.

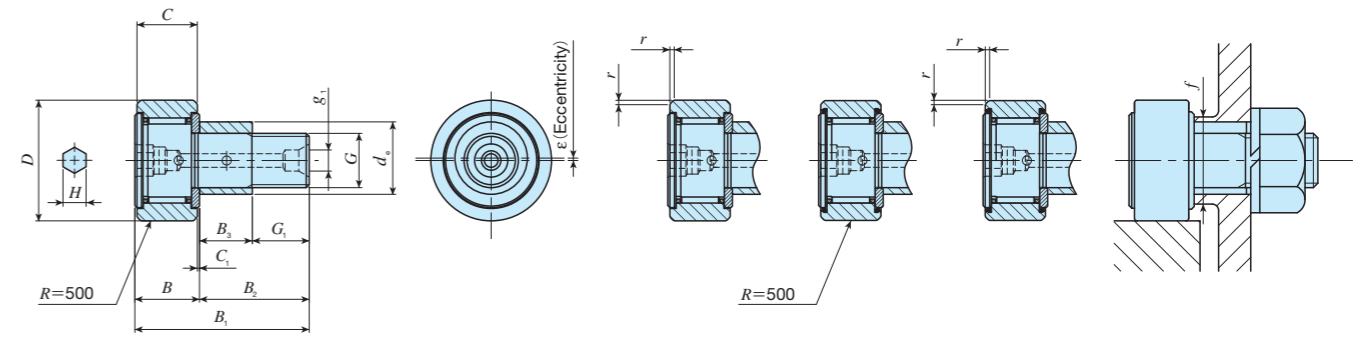
# IKO Eccentric Type Cam Followers • With Cage

## Selectable product specifications

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



CFE...BR  
Eccentric collar diameter  $d_e$  9-13mm<sup>(1)</sup>



CFE...BR  
Eccentric collar diameter  $d_e$  16-41mm<sup>(2)</sup>

CFE...B CFE...BUUR CFE...BUU

Eccentric collar outer diameter mm	Identification number				Mass (Ref.) g	Nominal dimensions mm															Eccentricity $\epsilon$	Mounting dimensions $f$ Minimum mm	Maximum tightening torque N · cm	Basic dynamic load rating $C$ N	Basic static load rating $C_0$ N	Maximum static allowable load N
	Shield type		Sealed type			$D$	$C$	$d_e$	$G$	$B_3$	$B_{max}$	$B_{1max}$	$B_2$	$C_1$	$g_1$	$G_1$	$H$	$r_{smin}^{(3)}$								
	Crowned outer ring	Cylindrical outer ring	Crowned outer ring	Cylindrical outer ring																						
9	CFE 6 BR	CFE 6 B	CFE 6 BUUR	CFE 6 BUU	20.5	16	11	9	M 6 × 1	7.5	12.2	28.2	16	0.6	—	8.5	3	0.3	0.4	11	2.7	3 660	3 650	1 950		
11	CFE 8 BR	CFE 8 B	CFE 8 BUUR	CFE 8 BUU	32	19	11	11	M 8 × 1.25	9.5	12.2	32.2	20	0.6	—	10.5	4	0.3	0.4	13	6.5	4 250	4 740	4 620		
13	CFE 10 BR	CFE 10 B	CFE 10 BUUR	CFE 10 BUU	49.5	22	12	13	M10 × 1.25	10.5	13.2	36.2	23	0.6	—	12.5	4	0.3	0.4	16	13.8	5 430	6 890	6 890		
	CFE 10-1 BR	CFE 10-1 B	CFE 10-1 BUUR	CFE 10-1 BUU	65	26	12	13	M10 × 1.25	10.5	13.2	36.2	23	0.6	—	12.5	4	0.3	0.4	16	13.8	5 430	6 890	6 890		
16	CFE 12 BR	CFE 12 B	CFE 12 BUUR	CFE 12 BUU	105	30	14	16	M12 × 1.5	11.5	15.2	40.2	25	0.6	4	13.5	6	0.6	0.8	21	21.9	7 910	9 790	9 790		
	CFE 12-1 BR	CFE 12-1 B	CFE 12-1 BUUR	CFE 12-1 BUU	115	32	14	16	M12 × 1.5	11.5	15.2	40.2	25	0.6	4	13.5	6	0.6	0.8	21	21.9	7 910	9 790	9 790		
22	CFE 16 BR	CFE 16 B	CFE 16 BUUR	CFE 16 BUU	190	35	18	22	M16 × 1.5	15.5	19.6	52.1	32.5	0.8	4	17	6	0.6	0.8	26	58.5	12 000	18 300	18 300		
24	CFE 18 BR	CFE 18 B	CFE 18 BUUR	CFE 18 BUU	280	40	20	24	M18 × 1.5	17.5	21.6	58.1	36.5	0.8	6	19	8	1	0.8	29	86.2	14 800	25 200	25 200		
27	CFE 20 BR	CFE 20 B	CFE 20 BUUR	CFE 20 BUU	500	52	24	27	M20 × 1.5	19.5	25.6	66.1	40.5	0.8	6	21	8	1	0.8	34	119	20 700	34 600	34 600		
	CFE 20-1 BR	CFE 20-1 B	CFE 20-1 BUUR	CFE 20-1 BUU	425	47	24	27	M20 × 1.5	19.5	25.6	66.1	40.5	0.8	6	21	8	1	0.8	34	119	20 700	34 600	34 600		
33	CFE 24 BR	CFE 24 B	CFE 24 BUUR	CFE 24 BUU	895	62	29	33	M24 × 1.5	25.5	30.6	80.1	49.5	0.8	6	24	12	1	0.8	40	215	30 500	52 600	52 000		
	CFE 24-1 BR	CFE 24-1 B	CFE 24-1 BUUR	CFE 24-1 BUU	1 220	72	29	33	M24 × 1.5	25.5	30.6	80.1	49.5	0.8	6	24	12	1	0.8	40	215	30 500	52 600	52 000		
41	CFE 30 BR	CFE 30 B	CFE 30 BUUR	CFE 30 BUU	2 030	80	35	41	M30 × 1.5	32.5	37	100	63	1	6	30.5	17	1	1.5	49	438	45 400	85 100	85 100		
	CFE 30-1 BR	CFE 30-1 B	CFE 30-1 BUUR	CFE 30-1 BUU	2 190	85	35	41	M30 × 1.5	32.5	37	100	63	1	6	30.5	17	1	1.5	49	438	45 400	85 100	85 100		
	CFE 30-2 BR	CFE 30-2 B	CFE 30-2 BUUR	CFE 30-2 BUU	2 380	90	35	41	M30 × 1.5	32.5	37	100	63	1	6	30.5	17	1	1.5	49	438	45 400	85 100	85 100		

Note (1) An oil hole (grease feed plug) is provided for the stud head.

(2) An oil hole (grease nipple) is provided for the stud head and an oil hole is provided for the outer diameter and the end.

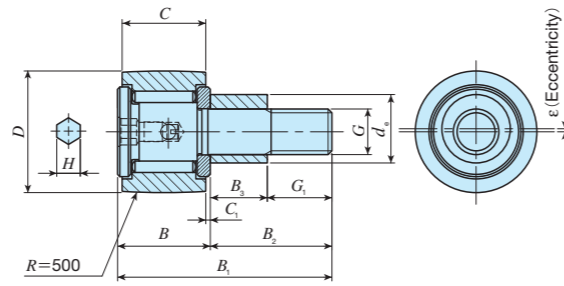
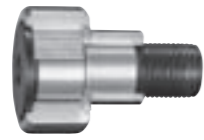
(3) This represents the minimum tolerance dimensions of the chamfer dimensions  $r$ .

Remark: 1. Grease is pre-packed if the stud screw diameter  $G$  of the shield type is 10 mm or less or if the seal structure is the sealed type. As for the others, grease is not pre-packed. Use the product with appropriate lubrication.  
2. A nut is supplied with the stud.

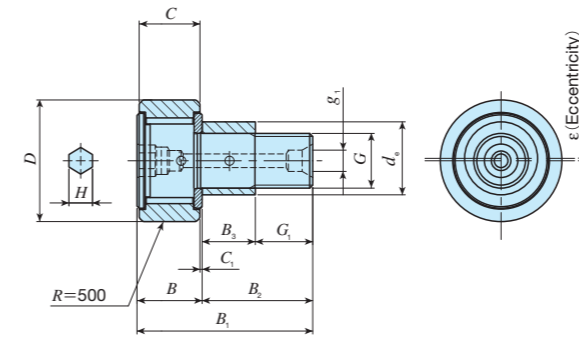
# IKO Eccentric Type Cam Followers • Full Complement Roller

## Selectable product specifications

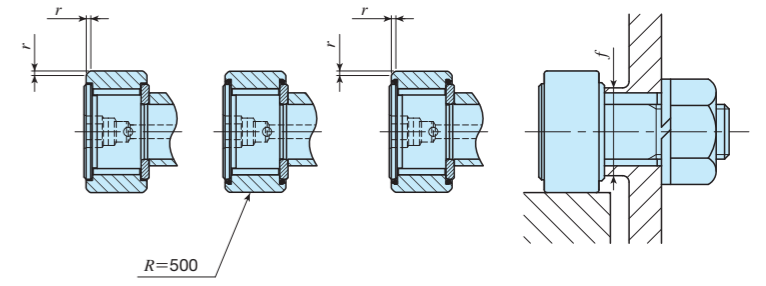
Material type	No symbol	High carbon steel
	F	Stainless steel
Roller guide type	No symbol	With cage
	V	Full complement roller
Seal structure	No symbol	Shield type
	UU	Sealed type
Shape of outer ring outer diameter surface	No symbol	Cylindrical outer ring
	R	Crowned outer ring



CFE...VBR  
Eccentric collar diameter  $d_e$  9-13mm<sup>(1)</sup>



CFE...VBR  
Eccentric collar diameter  $d_e$  16-41mm<sup>(2)</sup>



CFE...VB CFE...VBUUR CFE...VBUU

Eccentric collar outer diameter mm	Identification number				Mass (Ref.) g	Nominal dimensions mm															Eccentricity $\epsilon$	Mounting dimensions $f$ Minimum mm	Maximum tightening torque N · cm	Basic dynamic load rating $C$ N	Basic static load rating $C_0$ N	Maximum static allowable load N
	Shield type		Sealed type			$D$	$C$	$d_e$	$G$	$B_3$	$B_{max}$	$B_{1max}$	$B_2$	$C_1$	$g_1$	$G_1$	$H$	$r_{smin}^{(3)}$								
	Crowned outer ring	Cylindrical outer ring	Crowned outer ring	Cylindrical outer ring																						
9	CFE 6 VBR	CFE 6 VB	CFE 6 VBUUR	CFE 6 VBUU	21	16	11	9	M 6 × 1	7.5	12.2	28.2	16	0.6	—	8.5	3	0.3	0.4	11	2.7	6 980	8 500	1 950		
11	CFE 8 VBR	CFE 8 VB	CFE 8 VBUUR	CFE 8 VBUU	32.5	19	11	11	M 8 × 1.25	9.5	12.2	32.2	20	0.6	—	10.5	4	0.3	0.4	13	6.5	8 170	11 200	4 620		
13	CFE 10 VBR	CFE 10 VB	CFE 10 VBUUR	CFE 10 VBUU	50.5	22	12	13	M10 × 1.25	10.5	13.2	36.2	23	0.6	—	12.5	4	0.3	0.4	16	13.8	9 570	14 500	8 650		
	CFE 10-1 VBR	CFE 10-1 VB	CFE 10-1 VBUUR	CFE 10-1 VBUU	66	26	12	13	M10 × 1.25	10.5	13.2	36.2	23	0.6	—	12.5	4	0.3	0.4	16	13.8	9 570	14 500	8 650		
16	CFE 12 VBR	CFE 12 VB	CFE 12 VBUUR	CFE 12 VBUU	107	30	14	16	M12 × 1.5	11.5	15.2	40.2	25	0.6	4	13.5	6	0.6	0.4	21	21.9	13 500	19 700	13 200		
	CFE 12-1 VBR	CFE 12-1 VB	CFE 12-1 VBUUR	CFE 12-1 VBUU	117	32	14	16	M12 × 1.5	11.5	15.2	40.2	25	0.6	4	13.5	6	0.6	0.4	21	21.9	13 500	19 700	13 200		
22	CFE 16 VBR	CFE 16 VB	CFE 16 VBUUR	CFE 16 VBUU	193	35	18	22	M16 × 1.5	15.5	19.6	52.1	32.5	0.8	4	17	6	0.6	0.8	26	58.5	20 700	37 600	23 200		
24	CFE 18 VBR	CFE 18 VB	CFE 18 VBUUR	CFE 18 VBUU	285	40	20	24	M18 × 1.5	17.5	21.6	58.1	36.5	0.8	6	19	8	1	0.8	29	86.2	25 300	51 300	31 100		
27	CFE 20 VBR	CFE 20 VB	CFE 20 VBUUR	CFE 20 VBUU	505	52	24	27	M20 × 1.5	19.5	25.6	66.1	40.5	0.8	6	21	8	1	0.8	34	119	33 200	64 500	37 500		
	CFE 20-1 VBR	CFE 20-1 VB	CFE 20-1 VBUUR	CFE 20-1 VBUU	430	47	24	27	M20 × 1.5	19.5	25.6	66.1	40.5	0.8	6	21	8	1	0.8	34	119	33 200	64 500	37 500		
33	CFE 24 VBR	CFE 24 VB	CFE 24 VBUUR	CFE 24 VBUU	900	62	29	33	M24 × 1.5	25.5	30.6	80.1	49.5	0.8	6	24	12	1	0.8	40	215	46 600	92 000	52 000		
	CFE 24-1 VBR	CFE 24-1 VB	CFE 24-1 VBUUR	CFE 24-1 VBUU	1 220	72	29	33	M24 × 1.5	25.5	30.6	80.1	49.5	0.8	6	24	12	1	0.8	40	215	46 600	92 000	52 000		
41	CFE 30 VBR	CFE 30 VB	CFE 30 VBUUR	CFE 30 VBUU	2 030	80	35	41	M30 × 1.5	32.5	37	100	63	1	6	30.5	17	1	1.5	49	438	67 700	144 000	85 900		
	CFE 30-1 VBR	CFE 30-1 VB	CFE 30-1 VBUUR	CFE 30-1 VBUU	2 190	85	35	41	M30 × 1.5	32.5	37	100	63	1	6	30.5	17	1	1.5	49	438	67 700	144 000	85 900		
	CFE 30-2 VBR	CFE 30-2 VB	CFE 30-2 VBUUR	CFE 30-2 VBUU	2 380	90	35	41	M30 × 1.5	32.5	37	100	63	1	6	30.5	17	1	1.5	49	438	67 700	144 000	85 900		

Note (1) An oil hole (grease feed plug) is provided for the stud head.

(2) An oil hole (grease nipple) is provided for the stud head and an oil hole is provided for the outer diameter and the end.

(3) This represents the minimum tolerance dimensions of the chamfer dimensions  $r$ .

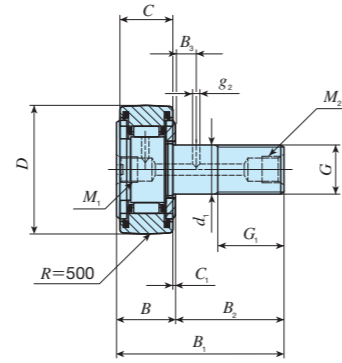
Remark: 1. Grease is pre-packed.  
2. A nut is supplied with the stud.



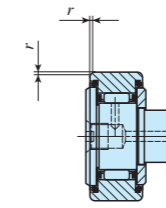
# IKO Centralized Lubrication Type Cam Followers

## Selectable product specifications

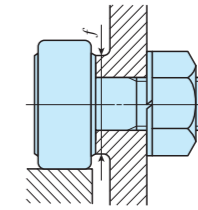
Material type	No symbol	High carbon steel
	F	Stainless steel
Roller guide type	No symbol	With cage
	V	Full complement roller
Seal structure	No symbol	Sealed type
Shape of outer ring outer diameter surface	FU1	Cylindrical outer ring
	RU1	Crowned outer ring



CF-RU1



CF-FU1



Stud diameter mm	Identification number		Mass (Ref.) g	Nominal dimensions mm															Mounting dimensions <i>f</i> Minimum mm	Maximum tightening torque N · cm	Basic dynamic load rating <i>C</i> N	Basic static load rating <i>C</i> <sub>0</sub> N	Maximum static allowable load N
	Crowned outer ring	Cylindrical outer ring		<i>D</i>	<i>C</i>	<i>d</i> <sub>1</sub>	<i>G</i>	<i>G</i> <sub>1</sub>	<i>B</i> <sub>max</sub>	<i>B</i> <sub>1max</sub>	<i>B</i> <sub>2</sub>	<i>B</i> <sub>3</sub>	<i>C</i> <sub>1</sub>	<i>g</i> <sub>2</sub>	<i>M</i> <sub>1</sub>	<i>M</i> <sub>2</sub>	<i>r</i> <sub>s min</sub> <sup>(1)</sup>						
6	CF-RU1- 6	CF-FU1- 6	18.5	16	11	6	M 6 × 1	8		12.2	28.2	16	—	0.6	—	M6 × 0.75	—	0.3	11	2.7	3 660	3 650	1 950
8	CF-RU1- 8	CF-FU1- 8	28.5	19	11	8	M 8 × 1.25	10		12.2	32.2	20	—	0.6	—			0.3	13	6.5	4 250	4 740	4 620
10	CF-RU1-10	CF-FU1-10	45	22	12	10	M10 × 1.25	12		13.2	36.2	23	—	0.6	—	M6 × 0.75	—	0.3	16	13.8	5 430	6 890	6 890
	CF-RU1-10-1	CF-FU1-10-1	60	26	12	10	M10 × 1.25	12		13.2	36.2	23	—	0.6	—			0.3	16	13.8	5 430	6 890	6 890
12	CF-RU1-12	CF-FU1-12	95	30	14	12	M12 × 1.5	13		15.2	40.2	25	—	0.6	—	M6 × 0.75	—	0.6	21	23.9	7 910	9 790	9 790
	CF-RU1-12-1	CF-FU1-12-1	105	32	14	12	M12 × 1.5	13		15.2	40.2	25	—	0.6	—			0.6	21	23.9	7 910	9 790	9 790
16	CF-RU1-16	CF-FU1-16	170	35	18	16	M16 × 1.5	17		19.6	52.1	32.5	8	0.8	3	PT 1/8	PT 1/8	0.6	26	58.5	12 000	18 300	18 300
18	CF-RU1-18	CF-FU1-18	250	40	20	18	M18 × 1.5	19		21.6	58.1	36.5	8	0.8	3			1	29	86.2	14 800	25 200	25 200
20	CF-RU1-20	CF-FU1-20	460	52	24	20	M20 × 1.5	21		25.6	66.1	40.5	9	0.8	4	PT 1/8	PT 1/8	1	34	119.0	20 700	34 600	34 600
	CF-RU1-20-1	CF-FU1-20-1	385	47	24	20	M20 × 1.5	21		25.6	66.1	40.5	9	0.8	4			1	34	119	20 700	34 600	34 600
24	CF-RU1-24	CF-FU1-24	815	62	29	24	M24 × 1.5	25		30.6	80.1	49.5	11	0.8	4	PT 1/8	PT 1/8	1	40	215	30 500	52 600	52 000
	CF-RU1-24-1	CF-FU1-24-1	1 140	72	29	24	M24 × 1.5	25		30.6	80.1	49.5	11	0.8	4			1	40	215	30 500	52 600	52 000
30	CF-RU1-30	CF-FU1-30	1 870	80	35	30	M30 × 1.5	32		37	100	63	15	1	4	PT 1/8	PT 1/8	1	49	438	45 400	85 100	85 100
	CF-RU1-30-1	CF-FU1-30-1	2 030	85	35	30	M30 × 1.5	32		37	100	63	15	1	4			1	49	438	45 400	85 100	85 100
	CF-RU1-30-2	CF-FU1-30-2	2 220	90	35	30	M30 × 1.5	32		37	100	63	15	1	4			1	49	438	45 400	85 100	85 100

Note (1) This represents the minimum tolerance dimensions of the chamfer dimensions *r*.

Remarks 1. A tap hole for piping is provided only for the stud head if the stud diameter *d*<sub>1</sub> is 12 mm or less. As for the others, a tap hole for piping is provided for the stud head and the end.

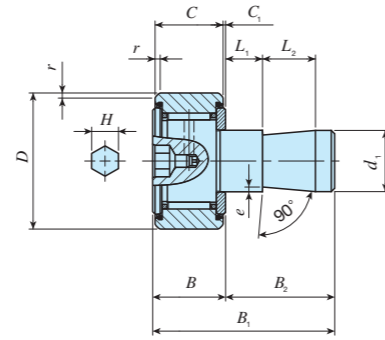
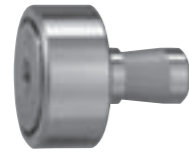
2. Grease is pre-packed.

3. A nut is supplied with the stud.

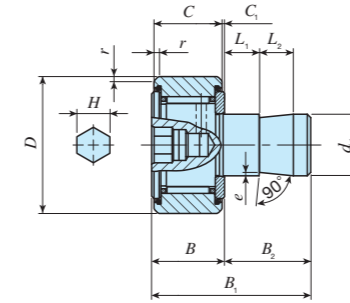
# IKO Easy Mounting Type Cam Followers

## Selectable product specifications

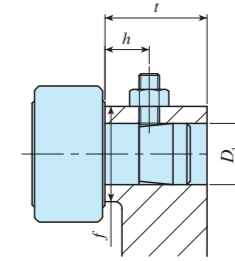
Material type	No symbol	High carbon steel
	F	Stainless steel
Roller guide type	No symbol	With cage
	V	Full complement roller
Seal structure	No symbol	Sealed type
Shape of outer ring outer diameter surface	No symbol	Cylindrical outer ring



Stud diameter  $d_1$  6-10mm<sup>(1)</sup>



Stud diameter  $d_1$  12-20mm<sup>(2)</sup>



Stud diameter mm	Identification number With cage	Mass (Ref.) g	Nominal dimensions mm													Mounting dimensions mm					Basic dynamic load rating $C$ N	Basic static load rating $C_0$ N	Maximum static allowable load N	
			$D$	$C$	$d_1$	$B_{max}$	$B_{1max}$	$B_2$	$C_1$	$L_1$	$L_2$	$H$	$e$	$r_{smin}^{(3)}$	$D_2$	Tolerance	$t$ Minimum	$f$ Minimum	$h$ (Ref.)					
6	CF-SFU- 6 B	19.5	16	11	6	12.2	32	19.8	0.6	5			10	3	0.3	0.3	6	+0.012 0	20	11	10	3 660	3 650	1 950
8	CF-SFU- 8 B	29	19	11	8	12.2	32	19.8	0.6	5			10	4	0.5	0.3	8	+0.015 0	20	13	10	4 250	4 740	4 620
10	CF-SFU- 10 B CF-SFU- 10-1 B	44 59	22 26	12 12	10 10	13.2 13.2	33 33	19.8 19.8	0.6 0.6	5 5			10 10	4 4	0.5 0.5	0.3 0.3	10 10		20	16	10	5 430	6 890	6 890
12	CF-SFU- 12 B CF-SFU- 12-1 B	94 104	30 32	14 14	12 12	15.2 15.2	35 35	19.8 19.8	0.6 0.6	5 5			10 10	6 6	1 1	0.6 0.6	12 12	+0.018 0	20	21	10	7 910	9 790	9 790
16	CF-SFU- 16 B	164	35	18	16	19.6	44.5	24.9	0.8	10			10	6	1	0.6	16		25	26	15	12 000	18 300	18 300
18	CF-SFU- 18 B	235	40	20	18	21.6	46.5	24.9	0.8	10			10	8	1	1	18	25	29	15	14 800	25 200	25 200	
20	CF-SFU- 20 B CF-SFU- 20-1 B	435 360	52 47	24 24	20 20	25.6 25.6	50.5 50.5	24.9 24.9	0.8 0.8	10 10			10 10	8 8	1 1	1 1	20 20	+0.021 0	25	34	15	20 700	34 600	34 600
																			25	34	15	20 700	34 600	34 600

Note (1) An oil hole (grease feed plug) is provided for the stud head.

(2) An oil hole (grease nipple) is provided for the stud head.

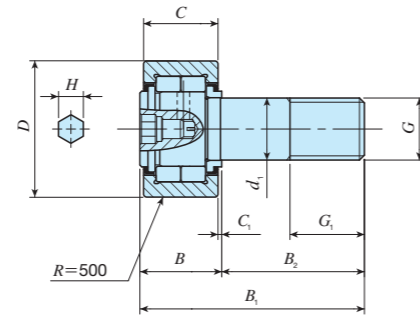
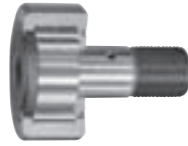
(3) This represents the minimum tolerance dimensions of the chamfer dimensions  $r$ .

Remark: Grease is pre-packed.

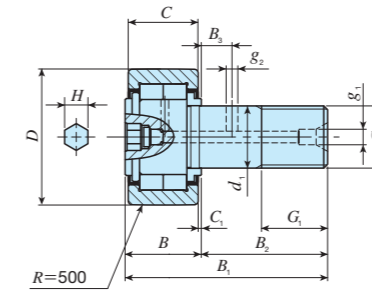
# IKO Cylindrical Roller Cam Followers

## Selectable product specifications

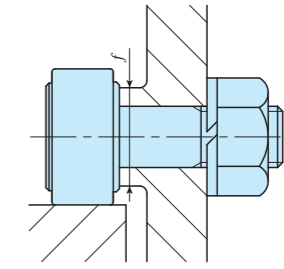
Material type	No symbol	High carbon steel
	F	Stainless steel
Roller guide type	No symbol	Full complement roller
Seal structure	No symbol	Shield type
	UU	Sealed type
Shape of outer ring outer diameter surface	No symbol	Cylindrical outer ring
	R	Crowned outer ring



Stud diameter  $d_1$  10mm<sup>(1)</sup>



Stud diameter  $d_1$  12-30mm<sup>(2)</sup>



Stud diameter mm	Identification number	Mass (Ref.) g	Nominal dimensions mm														Mounting dimensions $f$ Minimum mm	Maximum tightening torque N · cm	Basic dynamic load rating $C$ N	Basic static load rating $C_0$ N	Maximum static allowable load N
			$D$	$C$	$d_1$	$G$	$G_1$	$B_{max}$	$B_{max}$	$B_2$	$B_3$	$C_1$	$g_1$	$g_2$	$H$						
10	NUCF 10 BR	44	22	12	10	M10 × 1.25	12	13.2	36.2	23	—	0.6	—	—	4	12	13.8	10 400	11 500	5 300	
	NUCF 10-1 BR	58	26	12	10	M10 × 1.25	12	13.2	36.2	23	—	0.6	—	—	4	12	13.8	10 400	11 500	9 210	
12	NUCF 12 BR	86	30	14	12	M12 × 1.5	13	15.2	40.2	25	6	0.6	4	3	6	17	21.9	14 000	13 400	5 650	
	NUCF 12-1 BR	97	32	14	12	M12 × 1.5	13	15.2	40.2	25	6	0.6	4	3	6	17	21.9	14 000	13 400	9 040	
16	NUCF 16 BR	167	35	18	16	M16 × 1.5	17	19.6	52.1	32.5	8	0.8	4	3	6	20	58.5	23 400	27 300	11 800	
18	NUCF 18 BR	244	40	20	18	M18 × 1.5	19	21.6	58.1	36.5	8	0.8	6	3	8	22	86.2	25 200	30 900	20 300	
20	NUCF 20 BR	457	52	24	20	M20 × 1.5	21	25.6	66.1	40.5	9	0.8	6	4	8	31	119	43 100	58 100	30 000	
	NUCF 20-1 BR	384	47	24	20	M20 × 1.5	21	25.6	66.1	40.5	9	0.8	6	4	8	27	119	38 900	49 000	27 200	
24	NUCF 24 BR	789	62	29	24	M24 × 1.5	25	30.6	80.1	49.5	11	0.8	6	4	12	38	215	58 200	75 300	35 200	
	NUCF 24-1 BR	1 020	72	29	24	M24 × 1.5	25	30.6	80.1	49.5	11	0.8	6	4	12	44	215	63 900	88 800	57 000	
30	NUCF 30 BR	1 600	80	35	30	M30 × 1.5	32	37	100	63	15	1	6	4	17	45	438	90 300	121 000	98 300	
	NUCF 30-2 BR	1 970	90	35	30	M30 × 1.5	32	37	100	63	15	1	6	4	17	45	438	90 300	121 000	98 300	

Note (1) An oil hole (grease feed plug) is provided for the stud head.

(2) An oil hole (grease nipple) is provided for the stud head and an oil hole is provided for the outer diameter and the end.

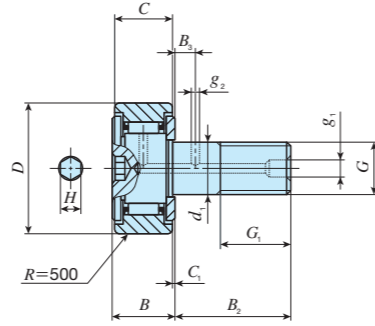
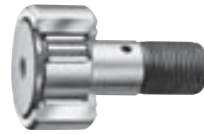
Remark: 1. Grease is pre-packed.  
2. A nut is supplied with the stud.



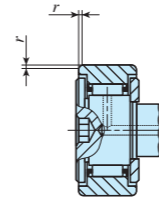
# IKO Inch Series Cam Followers CR • With Cage • With Hexagon Hole

## Selectable product specifications

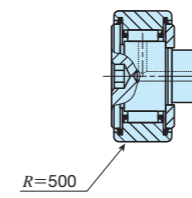
Material type	No symbol	High carbon steel
	F	Stainless steel
Roller guide type	No symbol	With cage
	V	Full complement roller
Seal structure	No symbol	Shield type
	UU	Sealed type
Shape of outer ring outer diameter surface	No symbol	Cylindrical outer ring
	R	Crowned outer ring



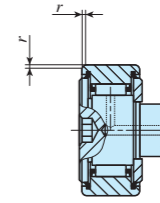
CR...BR



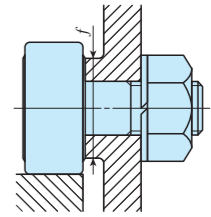
CR...B



CR...BUUR



CR...BUU



Stud diameter mm (inch)	Identification number				Mass (Ref.) g	Nominal dimensions mm (inch)													Mounting dimensions f Minimum mm (inch)	Maximum tightening torque N · cm	Basic dynamic load rating C N	Basic static load rating C <sub>0</sub> N
	Shield type		Sealed type			D	C	d <sub>1</sub>	G UNF	G <sub>1</sub>	B max	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	g <sub>1</sub>	g <sub>2</sub>	H	r				
	Crowned outer ring	Cylindrical outer ring	Crowned outer ring	Cylindrica outer ring																		
4.826	CR 8 BR	CR 8 B	CR 8 BUUR	CR 8 BUU	9	12.700( 1/2 )	8.731( 1/32 )	4.826	No.10-32	6.350( 1/4 )	10.2(0.40)	12.700( 1/2 )	— (—)	0.794( 1/32 )	— (—)	— (—)	3.175( 1/8 )	0.397( 1/64 )	8.334( 21/64 )	1.4	2 520	2 140
	CR 8-1 BR	CR 8-1 B	CR 8-1 BUUR	CR 8-1 BUU	10	12.700( 1/2 )	8.525( 3/8 )	4.826	No.10-32	6.350( 1/4 )	10.9(0.43)	15.875( 5/8 )	— (—)	0.794( 1/32 )	— (—)	— (—)	3.175( 1/8 )	0.397( 1/64 )	8.334( 21/64 )	1.4	2 520	2 140
6.350 ( 1/4 )	CR 10 BR	CR 10 B	CR 10 BUUR	CR 10 BUU	19	15.875( 5/8 )	10.319( 13/32 )	6.350( 1/4 )	1/4 - 28	7.938( 5/16 )	11.8(0.46)	15.875( 5/8 )	— (—)	0.794( 1/32 )	— (—)	— (—)	3.175( 1/8 )	0.397( 1/64 )	11.509( 29/64 )	3.4	3 650	3 670
	CR 10-1 BR	CR 10-1 B	CR 10-1 BUUR	CR 10-1 BUU	21	15.875( 5/8 )	11.112( 7/16 )	6.350( 1/4 )	1/4 - 28	7.938( 5/16 )	12.5(0.49)	19.050( 3/4 )	— (—)	0.794( 1/32 )	— (—)	— (—)	3.175( 1/8 )	0.397( 1/64 )	11.509( 29/64 )	3.4	3 650	3 670
9.525 ( 3/8 )	CR 12 BR	CR 12 B	CR 12 BUUR	CR 12 BUU	35	19.050( 3/4 )	12.700( 1/2 )	9.525( 3/8 )	3/8 - 24	9.525( 3/8 )	14.2(0.56)	22.225( 7/8 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	2.381( 3/32 )	4.762( 3/16 )	0.794( 1/32 )	13.494( 17/32 )	10.8	4 420	5 110
	CR 14 BR	CR 14 B	CR 14 BUUR	CR 14 BUU	46	22.225( 7/8 )	12.700( 1/2 )	9.525( 3/8 )	3/8 - 24	9.525( 3/8 )	14.2(0.56)	22.225( 7/8 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	2.381( 3/32 )	4.762( 3/16 )	0.794( 1/32 )	15.081( 19/32 )	10.8	4 790	5 810
11.112 ( 7/16 )	CR 16 BR	CR 16 B	CR 16 BUUR	CR 16 BUU	73	25.400( 1 )	15.875( 5/8 )	11.112( 7/16 )	7/16 - 20	12.700( 1/2 )	17.3(0.68)	25.400( 1 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	6.350( 1/4 )	1.191( 3/64 )	17.859( 45/64 )	17.4	8 810	10 800
	CR 18 BR	CR 18 B	CR 18 BUUR	CR 18 BUU	88	28.575( 1 1/8 )	15.875( 5/8 )	11.112( 7/16 )	7/16 - 20	12.700( 1/2 )	17.3(0.68)	25.400( 1 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	6.350( 1/4 )	1.588( 1/16 )	19.050( 3/4 )	17.4	9 180	11 600
12.700 ( 1/2 )	CR 20 BR	CR 20 B	CR 20 BUUR	CR 20 BUU	132	31.750( 1 1/4 )	19.050( 3/4 )	12.700( 1/2 )	1/2 - 20	15.875( 5/8 )	20.4(0.80)	31.750( 1 1/4 )	7.938( 5/16 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	6.350( 1/4 )	1.588( 1/16 )	21.828( 55/64 )	27.7	14 200	16 000
	CR 22 BR	CR 22 B	CR 22 BUUR	CR 22 BUU	157	34.925( 1 3/8 )	19.050( 3/4 )	12.700( 1/2 )	1/2 - 20	15.875( 5/8 )	20.4(0.80)	31.750( 1 1/4 )	7.938( 5/16 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	6.350( 1/4 )	1.588( 1/16 )	21.828( 55/64 )	27.7	14 200	16 000
15.875 ( 5/8 )	CR 24 BR	CR 24 B	CR 24 BUUR	CR 24 BUU	225	38.100( 1 1/2 )	22.225( 7/8 )	15.875( 5/8 )	5/8 - 18	19.050( 3/4 )	23.6(0.93)	38.100( 1 1/2 )	9.525( 3/8 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	7.938( 5/16 )	1.588( 1/16 )	26.196( 13/64 )	55.7	18 600	24 300
	CR 26 BR	CR 26 B	CR 26 BUUR	CR 26 BUU	260	41.275( 1 5/8 )	22.225( 7/8 )	15.875( 5/8 )	5/8 - 18	19.050( 3/4 )	23.6(0.93)	38.100( 1 1/2 )	9.525( 3/8 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	7.938( 5/16 )	1.588( 1/16 )	26.196( 13/64 )	55.7	18 900	24 300
19.050 ( 3/4 )	CR 28 BR	CR 28 B	CR 28 BUUR	CR 28 BUU	365	44.450( 1 3/4 )	25.400( 1 )	19.050( 3/4 )	3/4 - 16	22.225( 7/8 )	26.8(1.06)	44.450( 1 3/4 )	11.112( 7/16 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	7.938( 5/16 )	1.588( 1/16 )	32.543( 19/32 )	100	25 100	38 200
	CR 30 BR	CR 30 B	CR 30 BUUR	CR 30 BUU	410	47.625( 1 7/8 )	25.400( 1 )	19.050( 3/4 )	3/4 - 16	22.225( 7/8 )	26.8(1.06)	44.450( 1 3/4 )	11.112( 7/16 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	7.938( 5/16 )	1.588( 1/16 )	32.543( 19/32 )	100	25 100	38 200
22.225 ( 7/8 )	CR 32 BR	CR 32 B	CR 32 BUUR	CR 32 BUU	615	50.800( 2 )	31.750( 1 1/4 )	22.225( 7/8 )	7/8 - 14	25.400( 1 )	33.5(1.32)	50.800( 2 )	12.700( 1/2 )	0.794( 1/32 )	4.762( 3/16 )	4.762( 3/16 )	11.112( 7/16 )	1.588( 1/16 )	37.306( 115/32 )	162	32 500	63 900
	CR 36 BR	CR 36 B	CR 36 BUUR	CR 36 BUU	750	57.150( 2 1/4 )	31.750( 1 1/4 )	22.225( 7/8 )	7/8 - 14	25.400( 1 )	33.5(1.32)	50.800( 2 )	12.700( 1/2 )	0.794( 1/32 )	4.762( 3/16 )	4.762( 3/16 )	11.112( 7/16 )	1.588( 1/16 )	37.306( 115/32 )	162	32 500	63 900

Remarks 1. No oil hole is provided if the stud diameter  $d_1$  is 6.35 mm or less. As for the others, an oil hole is provided for the outer diameter and the end of the stud.

2. Grease is pre-packed.

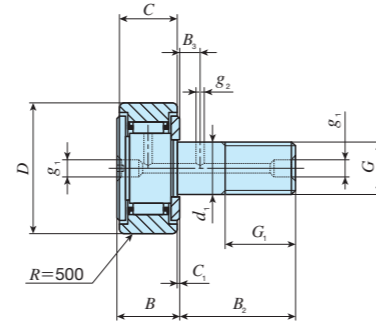
3. Contact **IKO** for the information on the maximum static allowable load.

4. A nut is supplied with the stud.

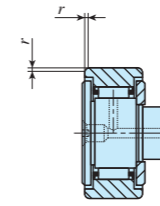
# IKO Inch Series Cam Followers CR • With Cage • With Driver Slot

## Selectable product specifications

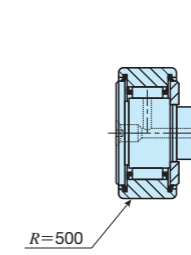
Material type	No symbol	High carbon steel
	F	Stainless steel
Roller guide type	No symbol	With cage
	V	Full complement roller
Seal structure	No symbol	Shield type
	UU	Sealed type
Shape of outer ring outer diameter surface	No symbol	Cylindrical outer ring
	R	Crowned outer ring



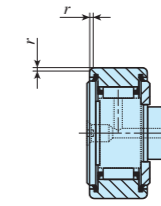
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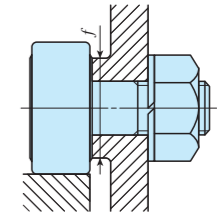
CR



CR...UUR



CR...UU



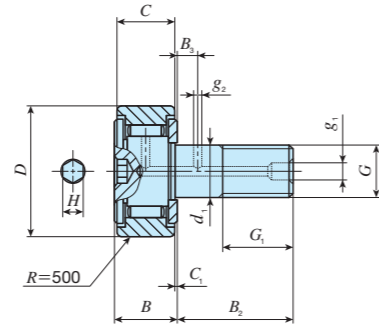
Stud diameter mm (inch)	Identification number				Mass (Ref.) g	Nominal dimensions mm (inch)													Mounting dimensions f Minimum mm (inch)	Maximum tightening torque N · cm	Basic dynamic load rating C N	Basic static load rating C <sub>0</sub> N
	Shield type		Sealed type			D	C	d <sub>1</sub>	G UNF	G <sub>1</sub>	B max	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	g <sub>1</sub>	g <sub>2</sub>	r					
	Crowned outer ring	Cylindrical outer ring	Crowned outer ring	Cylindrical outer ring																		
4.826	CR 8 R	CR 8	CR 8 UUR	CR 8 UU	9	12.700( 1/2 )	8.731( 1/32 )	4.826	No.10-32	6.350( 1/4 )	10.2 (0.40)	12.700( 1/2 )	— (—)	0.794( 1/32 )	*3.175( 1/8 )	— (—)	0.397( 1/64 )	8.334( 2/64 )	1.4	2 520	2 140	
	CR 8-1 R	CR 8-1	CR 8-1 UUR	CR 8-1 UU	10	12.700( 1/2 )	9.525( 3/8 )	4.826	No.10-32	6.350( 1/4 )	10.9 (0.43)	15.875( 5/8 )	— (—)	0.794( 1/32 )	*3.175( 1/8 )	— (—)	0.397( 1/64 )	8.334( 2/64 )	1.4	2 520	2 140	
6.350 ( 1/4 )	CR 10 R	CR 10	CR 10 UUR	CR 10 UU	19	15.875( 5/8 )	10.319( 1/32 )	6.350( 1/4 )	1/4 - 28	7.938( 5/16 )	11.8 (0.46)	15.875( 5/8 )	— (—)	0.794( 1/32 )	*3.175( 1/8 )	— (—)	0.397( 1/64 )	11.509( 2/64 )	3.4	3 650	3 670	
	CR 10-1 R	CR 10-1	CR 10-1 UUR	CR 10-1 UU	21	15.875( 5/8 )	11.112( 7/16 )	6.350( 1/4 )	1/4 - 28	7.938( 5/16 )	12.5 (0.49)	19.050( 3/4 )	— (—)	0.794( 1/32 )	*3.175( 1/8 )	— (—)	0.397( 1/64 )	11.509( 2/64 )	3.4	3 650	3 670	
9.525 ( 3/8 )	CR 12 R	CR 12	CR 12 UUR	CR 12 UU	35	19.050( 3/4 )	12.700( 1/2 )	9.525( 3/8 )	3/8 - 24	9.525( 3/8 )	14.2 (0.56)	22.225( 7/8 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	2.381( 3/32 )	0.794( 1/32 )	13.494( 1/32 )	10.8	4 420	5 110	
	CR 14 R	CR 14	CR 14 UUR	CR 14 UU	46	22.225( 7/8 )	12.700( 1/2 )	9.525( 3/8 )	3/8 - 24	9.525( 3/8 )	14.2 (0.56)	22.225( 7/8 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	2.381( 3/32 )	0.794( 1/32 )	15.081( 1/32 )	10.8	4 420	5 810	
11.112 ( 7/16 )	CR 16 R	CR 16	CR 16 UUR	CR 16 UU	73	25.400( 1 )	15.875( 5/8 )	11.112( 7/16 )	7/16 - 20	12.700( 1/2 )	17.3 (0.68)	25.400( 1 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	1.191( 3/64 )	17.859( 5/64 )	17.4	8 810	10 800	
	CR 18 R	CR 18	CR 18 UUR	CR 18 UU	88	28.575( 1 1/8 )	15.875( 5/8 )	11.112( 7/16 )	7/16 - 20	12.700( 1/2 )	17.3 (0.68)	25.400( 1 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	1.588( 1/16 )	19.050( 3/4 )	17.4	9 180	11 600	
12.700 ( 1/2 )	CR 20 R	CR 20	CR 20 UUR	CR 20 UU	132	31.750( 1 1/4 )	19.050( 3/4 )	12.700( 1/2 )	1/2 - 20	15.875( 5/8 )	20.4 (0.80)	31.750( 1 1/4 )	7.938( 5/16 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	1.588( 1/16 )	21.828( 5/64 )	27.7	14 200	16 000	
	CR 22 R	CR 22	CR 22 UUR	CR 22 UU	157	34.925( 1 3/8 )	19.050( 3/4 )	12.700( 1/2 )	1/2 - 20	15.875( 5/8 )	20.4 (0.80)	31.750( 1 1/4 )	7.938( 5/16 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	1.588( 1/16 )	21.828( 5/64 )	27.7	14 200	16 000	
15.875 ( 5/8 )	CR 24 R	CR 24	CR 24 UUR	CR 24 UU	225	38.100( 1 1/2 )	22.225( 7/8 )	15.875( 5/8 )	5/8 - 18	19.050( 3/4 )	23.6 (0.93)	38.100( 1 1/2 )	9.525( 3/8 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	1.588( 1/16 )	26.196( 1 1/64 )	55.7	18 600	24 300	
	CR 26 R	CR 26	CR 26 UUR	CR 26 UU	260	41.275( 1 5/8 )	22.225( 7/8 )	15.875( 5/8 )	5/8 - 18	19.050( 3/4 )	23.6 (0.93)	38.100( 1 1/2 )	9.525( 3/8 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	1.588( 1/16 )	26.196( 1 1/64 )	55.7	18 900	24 300	
19.050 ( 3/4 )	CR 28 R	CR 28	CR 28 UUR	CR 28 UU	365	44.450( 1 3/4 )	25.400( 1 )	19.050( 3/4 )	3/4 - 16	22.225( 7/8 )	26.8 (1.06)	44.450( 1 3/4 )	11.112( 7/16 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	1.588( 1/16 )	32.543( 1 1/32 )	100	25 100	38 200	
	CR 30 R	CR 30	CR 30 UUR	CR 30 UU	410	47.625( 1 7/8 )	25.400( 1 )	19.050( 3/4 )	3/4 - 16	22.225( 7/8 )	26.8 (1.06)	44.450( 1 3/4 )	11.112( 7/16 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	1.588( 1/16 )	32.543( 1 1/32 )	100	25 100	38 200	
22.225 ( 7/8 )	CR 32 R	CR 32	CR 32 UUR	CR 32 UU	615	50.800( 2 )	31.750( 1 1/4 )	22.225( 7/8 )	7/8 - 14	25.400( 1 )	33.5 (1.32)	50.800( 2 )	12.700( 1/2 )	0.794( 1/32 )	4.762( 3/16 )	4.762( 3/16 )	1.588( 1/16 )	37.306( 1 1/32 )	162	32 500	63 900	
	CR 36 R	CR 36	CR 36 UUR	CR 36 UU	750	57.150( 2 1/4 )	31.750( 1 1/4 )	22.225( 7/8 )	7/8 - 14	25.400( 1 )	33.5 (1.32)	50.800( 2 )	12.700( 1/2 )	0.794( 1/32 )	4.762( 3/16 )	4.762( 3/16 )	1.588( 1/16 )	37.306( 1 1/32 )	162	32 500	63 900	

- Remarks 1. An oil hole is provided only for the stud head if the stud diameter  $d_1$  is 6.35 mm or less (marked with \*). As for the others, an oil hole is provided for the head, the outer diameter, and the end of the stud.  
 2. Grease is pre-packed.  
 3. Contact IKO for the information on the maximum static allowable load.  
 4. A nut is supplied with the stud.

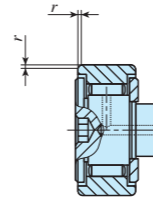
# IKO Inch Series Cam Followers CR • Full Complement Roller • With Hexagon Hole

## Selectable product specifications

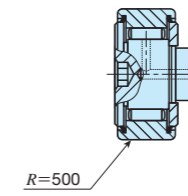
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Roller guide type	No symbol	With cage
	V	Full complement roller
Seal structure	No symbol	Shield type
	UU	Sealed type
Shape of outer ring outer diameter surface	No symbol	Cylindrical outer ring
	R	Crowned outer ring



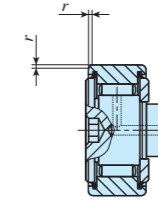
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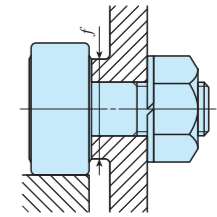
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CR...VBUUR



CR...VBUU



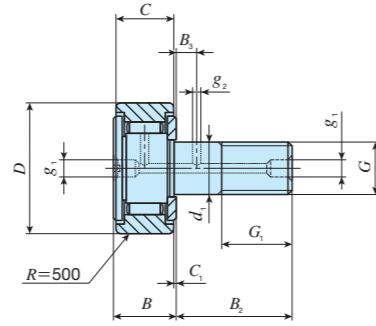
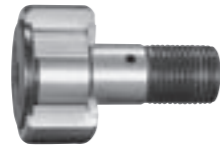
Stud diameter mm (inch)	Identification number				Mass (Ref.) g	Nominal dimensions mm (inch)													Mounting dimensions f Minimum mm (inch)	Maximum tightening torque N · cm	Basic dynamic load rating C N	Basic static load rating C <sub>0</sub> N
	Shield type		Sealed type			D	C	d <sub>1</sub>	G UNF	G <sub>1</sub>	B max	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	g <sub>1</sub>	g <sub>2</sub>	H	r				
	Crowned outer ring	Cylindrical outer ring	Crowned outer ring	Cylindrical outer ring																		
4.826	CR 8 VBR	CR 8 VB	CR 8 VBUUR	CR 8 VBUU	9	12.700( 1/2 )	8.731( 1/32 )	4.826	No.10-32	6.350( 1/4 )	10.2(0.40)	12.700( 1/2 )	— (—)	0.794( 1/32 )	— (—)	— (—)	3.175( 1/8 )	0.397( 1/64 )	8.334( 2/64 )	1.4	4 260	4 750
	CR 8-1 VBR	CR 8-1 VB	CR 8-1 VBUUR	CR 8-1 VBUU	10	12.700( 1/2 )	8.525( 3/8 )	4.826	No.10-32	6.350( 1/4 )	10.9(0.43)	15.875( 5/8 )	— (—)	0.794( 1/32 )	— (—)	— (—)	3.175( 1/8 )	0.397( 1/64 )	8.334( 2/64 )	1.4	4 710	5 410
6.350 ( 1/4 )	CR 10 VBR	CR 10 VB	CR 10 VBUUR	CR 10 VBUU	19	15.875( 5/8 )	10.319( 1/32 )	6.350( 1/4 )	1/4 - 28	7.938( 5/16 )	11.8(0.46)	15.875( 5/8 )	— (—)	0.794( 1/32 )	— (—)	— (—)	3.175( 1/8 )	0.397( 1/64 )	11.509( 29/64 )	3.4	5 830	7 660
	CR 10-1 VBR	CR 10-1 VB	CR 10-1 VBUUR	CR 10-1 VBUU	21	15.875( 5/8 )	11.112( 7/16 )	6.350( 1/4 )	1/4 - 28	7.938( 5/16 )	12.5(0.49)	19.050( 3/4 )	— (—)	0.794( 1/32 )	— (—)	— (—)	3.175( 1/8 )	0.397( 1/64 )	11.509( 29/64 )	3.4	6 340	8 530
9.525 ( 3/8 )	CR 12 VBR	CR 12 VB	CR 12 VBUUR	CR 12 VBUU	36	19.050( 3/4 )	12.700( 1/2 )	9.525( 3/8 )	3/8 - 24	9.525( 3/8 )	14.2(0.56)	22.225( 7/8 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	2.381( 3/32 )	4.762( 3/16 )	0.794( 1/32 )	13.494( 1/32 )	10.8	8 710	12 300
	CR 14 VBR	CR 14 VB	CR 14 VBUUR	CR 14 VBUU	47	22.225( 7/8 )	12.700( 1/2 )	9.525( 3/8 )	3/8 - 24	9.525( 3/8 )	14.2(0.56)	22.225( 7/8 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	2.381( 3/32 )	4.762( 3/16 )	0.794( 1/32 )	15.081( 1/32 )	10.8	8 710	12 300
11.112 ( 7/16 )	CR 16 VBR	CR 16 VB	CR 16 VBUUR	CR 16 VBUU	74	25.400( 1 )	15.875( 5/8 )	11.112( 7/16 )	7/16 - 20	12.700( 1/2 )	17.3(0.68)	25.400( 1 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	6.350( 1/4 )	1.191( 3/64 )	17.859( 45/64 )	17.4	13 100	22 700
	CR 18 VBR	CR 18 VB	CR 18 VBUUR	CR 18 VBUU	85	28.575( 1 1/8 )	15.875( 5/8 )	11.112( 7/16 )	7/16 - 20	12.700( 1/2 )	17.3(0.68)	25.400( 1 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	6.350( 1/4 )	1.588( 1/16 )	19.050( 3/4 )	17.4	13 100	22 700
12.700 ( 1/2 )	CR 20 VBR	CR 20 VB	CR 20 VBUUR	CR 20 VBUU	137	31.750( 1 1/4 )	19.050( 3/4 )	12.700( 1/2 )	1/2 - 20	15.875( 5/8 )	20.4(0.80)	31.750( 1 1/4 )	7.938( 5/16 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	6.350( 1/4 )	1.588( 1/16 )	21.828( 55/64 )	27.7	23 600	31 700
	CR 22 VBR	CR 22 VB	CR 22 VBUUR	CR 22 VBUU	160	34.925( 1 3/8 )	19.050( 3/4 )	12.700( 1/2 )	1/2 - 20	15.875( 5/8 )	20.4(0.80)	31.750( 1 1/4 )	7.938( 5/16 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	6.350( 1/4 )	1.588( 1/16 )	21.828( 55/64 )	27.7	23 600	31 700
15.875 ( 5/8 )	CR 24 VBR	CR 24 VB	CR 24 VBUUR	CR 24 VBUU	230	38.100( 1 1/2 )	22.225( 7/8 )	15.875( 5/8 )	5/8 - 18	19.050( 3/4 )	23.6(0.93)	38.100( 1 1/2 )	9.525( 3/8 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	7.938( 5/16 )	1.588( 1/16 )	26.196( 1 3/64 )	55.7	28 200	40 100
	CR 26 VBR	CR 26 VB	CR 26 VBUUR	CR 26 VBUU	265	41.275( 1 5/8 )	22.225( 7/8 )	15.875( 5/8 )	5/8 - 18	19.050( 3/4 )	23.6(0.93)	38.100( 1 1/2 )	9.525( 3/8 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	7.938( 5/16 )	1.588( 1/16 )	26.196( 1 3/64 )	55.7	28 200	40 100
19.050 ( 3/4 )	CR 28 VBR	CR 28 VB	CR 28 VBUUR	CR 28 VBUU	372	44.450( 1 3/4 )	25.400( 1 )	19.050( 3/4 )	3/4 - 16	22.225( 7/8 )	26.8(1.06)	44.450( 1 3/4 )	11.112( 7/16 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	7.938( 5/16 )	1.588( 1/16 )	32.543( 1 1/32 )	100	35 300	55 600
	CR 30 VBR	CR 30 VB	CR 30 VBUUR	CR 30 VBUU	418	47.625( 1 7/8 )	25.400( 1 )	19.050( 3/4 )	3/4 - 16	22.225( 7/8 )	26.8(1.06)	44.450( 1 3/4 )	11.112( 7/16 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	7.938( 5/16 )	1.588( 1/16 )	32.543( 1 1/32 )	100	35 300	55 600
22.225 ( 7/8 )	CR 32 VBR	CR 32 VB	CR 32 VBUUR	CR 32 VBUU	627	50.800( 2 )	31.750( 1 1/4 )	22.225( 7/8 )	7/8 - 14	25.400( 1 )	33.5(1.32)	50.800( 2 )	12.700( 1/2 )	0.794( 1/32 )	4.762( 3/16 )	4.762( 3/16 )	11.112( 7/16 )	1.588( 1/16 )	37.306( 1 1/32 )	162	45 700	80 600
	CR 36 VBR	CR 36 VB	CR 36 VBUUR	CR 36 VBUU	759	57.150( 2 1/4 )	31.750( 1 1/4 )	22.225( 7/8 )	7/8 - 14	25.400( 1 )	33.5(1.32)	50.800( 2 )	12.700( 1/2 )	0.794( 1/32 )	4.762( 3/16 )	4.762( 3/16 )	11.112( 7/16 )	1.588( 1/16 )	37.306( 1 1/32 )	162	45 700	80 600

- Remarks 1. No oil hole is provided if the stud diameter  $d_1$  is 6.35 mm or less. As for the others, an oil hole is provided for the outer diameter and the end of the stud.  
 2. Grease is pre-packed.  
 3. Contact **IKO** for the information on the maximum static allowable load.  
 4. A nut is supplied with the stud.

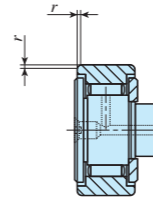
# IKO Inch Series Cam Followers CR • Full Complement Roller • With Driver Slot

## Selectable product specifications

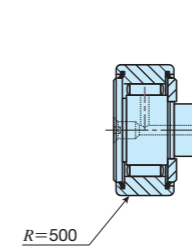
Material type	No symbol	High carbon steel
	F	Stainless steel
Roller guide type	No symbol	With cage
	V	Full complement roller
Seal structure	No symbol	Shield type
	UU	Sealed type
Shape of outer ring outer diameter surface	No symbol	Cylindrical outer ring
	R	Crowned outer ring



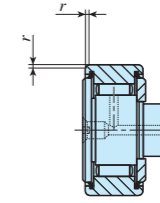
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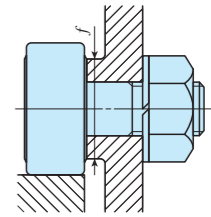
CR...V



CR...VUUR



CR...VUU



Stud diameter mm (inch)	Identification number				Mass (Ref.) g	Nominal dimensions mm (inch)													Mounting dimensions f Minimum mm (inch)	Maximum tightening torque N · cm	Basic dynamic load rating C N	Basic static load rating C <sub>0</sub> N
	Shield type		Sealed type			D	C	d <sub>1</sub>	G UNF	G <sub>1</sub>	B max	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	g <sub>1</sub>	g <sub>2</sub>	r					
	Crowned outer ring	Cylindrical outer ring	Crowned outer ring	Cylindrical outer ring																		
4.826	CR 8 VR	CR 8 V	CR 8 VUUR	CR 8 VUU	9	12.700( 1/2 )	8.731( 1/32 )	4.826	No.10-32	6.350( 1/4 )	10.2(0.40)	12.700( 1/2 )	— (—)	0.794( 1/32 )	*3.175( 1/8 )	— (—)	0.397( 1/64 )	8.334( 2/64 )	1.4	4 260	4 750	
	CR 8-1 VR	CR 8-1 V	CR 8-1 VUUR	CR 8-1 VUU	10	12.700( 1/2 )	9.525( 3/8 )	4.826	No.10-32	6.350( 1/4 )	10.9(0.43)	15.875( 5/8 )	— (—)	0.794( 1/32 )	*3.175( 1/8 )	— (—)	0.397( 1/64 )	8.334( 2/64 )	1.4	4 710	5 410	
6.350 ( 1/4 )	CR 10 VR	CR 10 V	CR 10 VUUR	CR 10 VUU	19	15.875( 5/8 )	10.319( 1/32 )	6.350( 1/4 )	1/4 - 28	7.938( 5/16 )	11.8(0.46)	15.875( 5/8 )	— (—)	0.794( 1/32 )	*3.175( 1/8 )	— (—)	0.397( 1/64 )	11.509( 2/64 )	3.4	5 830	7 660	
	CR 10-1 VR	CR 10-1 V	CR 10-1 VUUR	CR 10-1 VUU	21	15.875( 5/8 )	11.112( 7/16 )	6.350( 1/4 )	1/4 - 28	7.938( 5/16 )	12.5(0.49)	19.050( 3/4 )	— (—)	0.794( 1/32 )	*3.175( 1/8 )	— (—)	0.397( 1/64 )	11.509( 2/64 )	3.4	6 340	8 530	
9.525 ( 3/8 )	CR 12 VR	CR 12 V	CR 12 VUUR	CR 12 VUU	36	19.050( 3/4 )	12.700( 1/2 )	9.525( 3/8 )	3/8 - 24	9.525( 3/8 )	14.2(0.56)	22.225( 7/8 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	2.381( 3/32 )	0.794( 1/32 )	13.494( 1/32 )	10.8	8 710	12 300	
	CR 14 VR	CR 14 V	CR 14 VUUR	CR 14 VUU	47	22.225( 7/8 )	12.700( 1/2 )	9.525( 3/8 )	3/8 - 24	9.525( 3/8 )	14.2(0.56)	22.225( 7/8 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	2.381( 3/32 )	0.794( 1/32 )	15.081( 1/32 )	10.8	8 710	12 300	
11.112 ( 7/16 )	CR 16 VR	CR 16 V	CR 16 VUUR	CR 16 VUU	74	25.400( 1 )	15.875( 5/8 )	11.112( 7/16 )	7/16 - 20	12.700( 1/2 )	17.3(0.68)	25.400( 1 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	1.191( 1/64 )	17.859( 5/64 )	17.4	13 100	22 700	
	CR 18 VR	CR 18 V	CR 18 VUUR	CR 18 VUU	85	28.575( 1 1/8 )	15.875( 5/8 )	11.112( 7/16 )	7/16 - 20	12.700( 1/2 )	17.3(0.68)	25.400( 1 )	6.350( 1/4 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	1.588( 1/16 )	19.050( 3/4 )	17.4	13 100	22 700	
12.700 ( 1/2 )	CR 20 VR	CR 20 V	CR 20 VUUR	CR 20 VUU	137	31.750( 1 1/4 )	19.050( 3/4 )	12.700( 1/2 )	1/2 - 20	15.875( 5/8 )	20.4(0.80)	31.750( 1 1/4 )	7.938( 5/16 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	1.588( 1/16 )	21.828( 5/64 )	27.7	23 600	31 700	
	CR 22 VR	CR 22 V	CR 22 VUUR	CR 22 VUU	160	34.925( 1 3/8 )	19.050( 3/4 )	12.700( 1/2 )	1/2 - 20	15.875( 5/8 )	20.4(0.80)	31.750( 1 1/4 )	7.938( 5/16 )	0.794( 1/32 )	4.762( 3/16 )	3.175( 1/8 )	1.588( 1/16 )	21.828( 5/64 )	27.7	23 600	31 700	
15.875 ( 5/8 )	CR 24 VR	CR 24 V	CR 24 VUUR	CR 24 VUU	230	38.100( 1 1/2 )	22.225( 7/8 )	15.875( 5/8 )	5/8 - 18	19.050( 3/4 )	23.6(0.93)	38.100( 1 1/2 )	9.525( 3/8 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	1.588( 1/16 )	26.196( 1 3/64 )	55.7	28 200	40 100	
	CR 26 VR	CR 26 V	CR 26 VUUR	CR 26 VUU	265	41.275( 1 5/8 )	22.225( 7/8 )	15.875( 5/8 )	5/8 - 18	19.050( 3/4 )	23.6(0.93)	38.100( 1 1/2 )	9.525( 3/8 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	1.588( 1/16 )	26.196( 1 3/64 )	55.7	28 200	40 100	
19.050 ( 3/4 )	CR 28 VR	CR 28 V	CR 28 VUUR	CR 28 VUU	372	44.450( 1 3/4 )	25.400( 1 )	19.050( 3/4 )	3/4 - 16	22.225( 7/8 )	26.8(1.06)	44.450( 1 3/4 )	11.112( 7/16 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	1.588( 1/16 )	32.543( 1 1/32 )	100	35 300	55 600	
	CR 30 VR	CR 30 V	CR 30 VUUR	CR 30 VUU	418	47.625( 1 7/8 )	25.400( 1 )	19.050( 3/4 )	3/4 - 16	22.225( 7/8 )	26.8(1.06)	44.450( 1 3/4 )	11.112( 7/16 )	0.794( 1/32 )	4.762( 3/16 )	3.969( 5/32 )	1.588( 1/16 )	32.543( 1 1/32 )	100	35 300	55 600	
22.225 ( 7/8 )	CR 32 VR	CR 32 V	CR 32 VUUR	CR 32 VUU	627	50.800( 2 )	31.750( 1 1/4 )	22.225( 7/8 )	7/8 - 14	25.400( 1 )	33.5(1.32)	50.800( 2 )	12.700( 1/2 )	0.794( 1/32 )	4.762( 3/16 )	4.762( 3/16 )	1.588( 1/16 )	37.306( 1 1/32 )	162	45 700	80 600	
	CR 36 VR	CR 36 V	CR 36 VUUR	CR 36 VUU	759	57.150( 2 1/4 )	31.750( 1 1/4 )	22.225( 7/8 )	7/8 - 14	25.400( 1 )	33.5(1.32)	50.800( 2 )	12.700( 1/2 )	0.794( 1/32 )	4.762( 3/16 )	4.762( 3/16 )	1.588( 1/16 )	37.306( 1 1/32 )	162	45 700	80 600	
31.750 ( 1 1/4 )	—	—	—	CR 48 VUU	1 960	76.200( 3 )	44.450( 1 3/4 )	31.750( 1 1/4 )	1 3/4 - 12	31.750( 1 1/4 )	46.4(1.83)	63.500( 2 1/2 )	15.875( 5/8 )	1.588( 1/16 )	6.350( 1/4 )	4.762( 3/16 )	2.381( 3/32 )	51.991( 2 3/64 )	500	77 600	172 000	

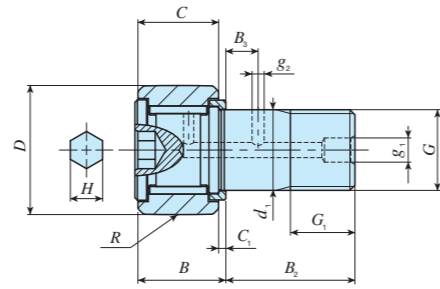
- Remarks 1. An oil hole is provided only for the stud head if the stud diameter  $d_1$  is 6.35 mm or less (marked with \*). As for the others, an oil hole is provided for the head, the outer diameter, and the end of the stud.  
 2. Grease is pre-packed.  
 3. Contact IKO for the information on the maximum static allowable load.  
 4. A nut is supplied with the stud.



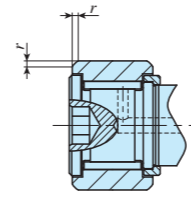
# IKO Inch Series Cam Followers CRH • Full Complement Roller • With Hexagon Hole

## Selectable product specifications

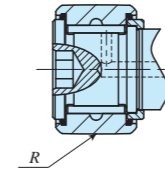
Material type	No symbol	High carbon steel
	F	Stainless steel
Roller guide type	No symbol	With cage
	V	Full complement roller
Seal structure	No symbol	Shield type
	UU	Sealed type
Shape of outer ring outer diameter surface	No symbol	Cylindrical outer ring
	R	Crowned outer ring



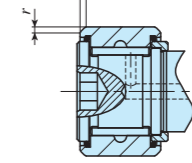
CRH...VBR



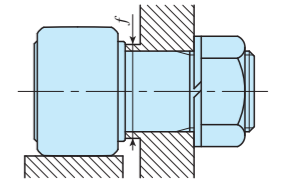
CRH...VB



CRH...VBUUR



CRH...VBUU



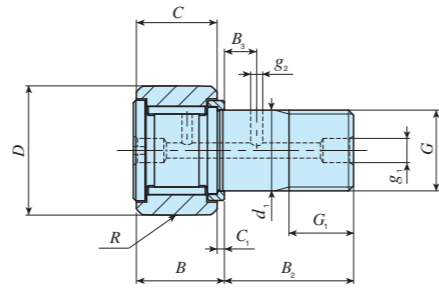
Stud diameter mm (inch)	Identification number				Mass (Ref.) g	Nominal dimensions mm (inch)															Mounting dimensions f Minimum mm (inch)	Maximum tightening torque N · cm	Basic dynamic load rating C N	Basic static load rating C <sub>0</sub> N
	Shield type		Sealed type			D	C	d <sub>1</sub>	G UNF	G <sub>1</sub>	B max	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	g <sub>1</sub>	g <sub>2</sub>	H	R	r					
	Crowned outer ring	Cylindrical outer ring	Crowned outer ring	Cylindrical outer ring																				
6.350 (1/4)	CRH 8-1 VBR	CRH 8-1 VB	CRH 8-1 VBUUR	CRH 8-1 VBUU	12	12.700( 1/2)	9.525( 3/8)	6.350( 1/4)	1/4 - 28	6.350( 1/4)	11.0(0.44)	15.875( 5/8)	— (—)	0.794( 1/32)	— (—)	— (—)	3.175( 1/8)	180( 7)	0.397( 1/64)	8.334( 23/64)	3.4	4 710	5 410	
	CRH 9 VBR	CRH 9 VB	CRH 9 VBUUR	CRH 9 VBUU	15	14.288( 9/16)	9.525( 3/8)	6.350( 1/4)	1/4 - 28	6.350( 1/4)	11.1(0.44)	15.875( 5/8)	— (—)	0.794( 1/32)	— (—)	— (—)	3.175( 1/8)	180( 7)	0.397( 1/64)	8.334( 23/64)	3.4	4 710	5 410	
7.938 (5/16)	CRH 10-1 VBR	CRH 10-1 VB	CRH 10-1 VBUUR	CRH 10-1 VBUU	23	15.875( 5/8)	11.112( 7/16)	7.938( 5/16)	5/16 - 24	7.938( 5/16)	12.8(0.50)	19.050( 3/4)	— (—)	0.794( 1/32)	— (—)	— (—)	3.175( 1/8)	200( 8)	0.397( 1/64)	11.112( 7/16)	6.8	6 340	8 530	
	CRH 11 VBR	CRH 11 VB	CRH 11 VBUUR	CRH 11 VBUU	27	17.462( 11/16)	11.112( 7/16)	7.938( 5/16)	5/16 - 24	7.938( 5/16)	12.8(0.50)	19.050( 3/4)	— (—)	0.794( 1/32)	— (—)	— (—)	3.175( 1/8)	200( 8)	0.397( 1/64)	11.112( 7/16)	6.8	6 340	8 530	
11.112 (7/16)	CRH 12 VBR	CRH 12 VB	CRH 12 VBUUR	CRH 12 VBUU	39	19.050( 3/4)	12.700( 1/2)	11.112( 7/16)	7/16 - 20	9.525( 3/8)	14.6(0.57)	22.225( 7/8)	6.350( 1/4)	0.794( 1/32)	4.762( 3/16)	2.381( 3/32)	4.762( 3/16)	250(10)	0.794( 1/32)	13.494( 11/32)	17.6	8 710	12 300	
	CRH 14 VBR	CRH 14 VB	CRH 14 VBUUR	CRH 14 VBUU	49	22.225( 7/8)	12.700( 1/2)	11.112( 7/16)	7/16 - 20	9.525( 3/8)	14.6(0.57)	22.225( 7/8)	6.350( 1/4)	0.794( 1/32)	4.762( 3/16)	2.381( 3/32)	4.762( 3/16)	250(10)	0.794( 1/32)	13.494( 11/32)	17.6	8 710	12 300	
15.875 (5/8)	CRH 16 VBR	CRH 16 VB	CRH 16 VBUUR	CRH 16 VBUU	93	25.400(1 )	15.875( 5/8)	15.875( 5/8)	5/8 - 18	12.700( 1/2)	17.9(0.70)	25.400(1 )	6.350( 1/4)	1.588( 1/16)	4.762( 3/16)	2.381( 3/32)	6.350( 1/4)	300(12)	1.191( 3/64)	18.256( 23/32)	57.8	13 100	22 700	
	CRH 18 VBR	CRH 18 VB	CRH 18 VBUUR	CRH 18 VBUU	109	28.575(1 1/8)	15.875( 5/8)	15.875( 5/8)	5/8 - 18	12.700( 1/2)	17.9(0.70)	25.400(1 )	6.350( 1/4)	1.588( 1/16)	4.762( 3/16)	2.381( 3/32)	6.350( 1/4)	300(12)	1.588( 1/16)	18.256( 23/32)	57.8	13 100	22 700	
19.050 (3/4)	CRH 20 VBR	CRH 20 VB	CRH 20 VBUUR	CRH 20 VBUU	176	31.750(1 1/4)	19.050( 3/4)	19.050( 3/4)	3/4 - 16	15.875( 5/8)	21.0(0.83)	31.750(1 1/4)	7.938( 5/16)	1.588( 1/16)	4.762( 3/16)	2.381( 3/32)	6.350( 1/4)	360(14)	1.588( 1/16)	24.209( 61/64)	103	23 600	31 700	
	CRH 22 VBR	CRH 22 VB	CRH 22 VBUUR	CRH 22 VBUU	200	34.925(1 3/8)	19.050( 3/4)	19.050( 3/4)	3/4 - 16	15.875( 5/8)	21.0(0.83)	31.750(1 1/4)	7.938( 5/16)	1.588( 1/16)	4.762( 3/16)	2.381( 3/32)	6.350( 1/4)	360(14)	1.588( 1/16)	24.209( 61/64)	103	23 600	31 700	
22.225 (7/8)	CRH 24 VBR	CRH 24 VB	CRH 24 VBUUR	CRH 24 VBUU	296	38.100(1 1/2)	22.225( 7/8)	22.225( 7/8)	7/8 - 14	19.050( 3/4)	24.3(0.96)	38.100(1 1/2)	9.525( 3/8)	1.588( 1/16)	4.762( 3/16)	2.381( 3/32)	7.938( 5/16)	500(20)	1.588( 1/16)	26.988(1 1/16)	162	28 200	40 100	
	CRH 26 VBR	CRH 26 VB	CRH 26 VBUUR	CRH 26 VBUU	329	41.275(1 5/8)	22.225( 7/8)	22.225( 7/8)	7/8 - 14	19.050( 3/4)	24.3(0.96)	38.100(1 1/2)	9.525( 3/8)	1.588( 1/16)	4.762( 3/16)	2.381( 3/32)	7.938( 5/16)	500(20)	1.588( 1/16)	26.988(1 1/16)	162	28 200	40 100	
25.400 (1)	CRH 28 VBR	CRH 28 VB	CRH 28 VBUUR	CRH 28 VBUU	463	44.450(1 3/4)	25.400(1 )	25.400(1 )	1 - 14UNS	22.225( 7/8)	27.4(1.08)	44.450(1 3/4)	11.112( 7/16)	1.588( 1/16)	4.762( 3/16)	2.381( 3/32)	7.938( 5/16)	500(20)	1.588( 1/16)	32.941(1 19/64)	258	35 300	55 600	
	CRH 30 VBR	CRH 30 VB	CRH 30 VBUUR	CRH 30 VBUU	508	47.625(1 7/8)	25.400(1 )	25.400(1 )	1 - 14UNS	22.225( 7/8)	27.4(1.08)	44.450(1 3/4)	11.112( 7/16)	1.588( 1/16)	4.762( 3/16)	2.381( 3/32)	7.938( 5/16)	500(20)	1.588( 1/16)	32.941(1 19/64)	258	35 300	55 600	
28.575 (1 1/8)	CRH 32 VBR	CRH 32 VB	CRH 32 VBUUR	CRH 32 VBUU	722	50.800(2 )	31.750(1 1/4)	28.575(1 1/8)	1 1/8 - 12	25.400(1 )	34.2(1.35)	50.800(2 )	12.700( 1/2)	1.588( 1/16)	4.762( 3/16)	3.175( 1/8)	11.112( 7/16)	600(24)	1.588( 1/16)	37.306(1 15/32)	356	45 700	80 600	
	CRH 36 VBR	CRH 36 VB	CRH 36 VBUUR	CRH 36 VBUU	858	57.150(2 1/4)	31.750(1 1/4)	28.575(1 1/8)	1 1/8 - 12	25.400(1 )	34.2(1.35)	50.800(2 )	12.700( 1/2)	1.588( 1/16)	4.762( 3/16)	3.175( 1/8)	11.112( 7/16)	600(24)	1.588( 1/16)	37.306(1 15/32)	356	45 700	80 600	
31.750 (1 1/4)	CRH 40 VBR	CRH 40 VB	CRH 40 VBUUR	CRH 40 VBUU	1 260	63.500(2 1/2)	38.100(1 1/2)	31.750(1 1/4)	1 1/4 - 12	28.575(1 1/8)	40.0(1.57)	57.150(2 1/4)	14.288( 5/8)	1.588( 1/16)	4.762( 3/16)	3.175( 1/8)	12.700( 1/2)	760(30)	2.381( 3/32)	40.878(1 39/64)	500	61 400	116 000	
	CRH 44 VBR	CRH 44 VB	CRH 44 VBUUR	CRH 44 VBUU	1 460	69.850(2 3/4)	38.100(1 1/2)	31.750(1 1/4)	1 1/4 - 12	28.575(1 1/8)	40.0(1.57)	57.150(2 1/4)	14.288( 5/8)	1.588( 1/16)	4.762( 3/16)	3.175( 1/8)	12.700( 1/2)	760(30)	2.381( 3/32)	40.878(1 39/64)	500	61 400	116 000	
38.100 (1 1/2)	CRH 48 VBR	CRH 48 VB	CRH 48 VBUUR	CRH 48 VBUU	2 100	76.200(3 )	44.450(1 3/4)	38.100(1 1/2)	1 1/2 - 12	31.750(1 1/4)	46.4(1.83)	63.500(2 1/2)	15.875( 5/8)	1.588( 1/16)	6.350( 1/4)	3.175( 1/8)	19.050( 3/4)	760(30)	2.381( 3/32)	51.991(2 3/4)	892	77 600	172 000	
	CRH 52 VBR	CRH 52 VB	CRH 52 VBUUR	CRH 52 VBUU	2 380	82.500(3 1/4)	44.450(1 3/4)	38.100(1 1/2)	1 1/2 - 12	31.750(1 1/4)	46.4(1.83)	63.500(2 1/2)	15.875( 5/8)	1.588( 1/16)	6.350( 1/4)	3.175( 1/8)	19.050( 3/4)	760(30)	2.381( 3/32)	51.991(2 3/4)	892	77 600	172 000	
44.450 (1 3/4)	CRH 56 VBR	CRH 56 VB	CRH 56 VBUUR	CRH 56 VBUU	3 240	88.900(3 1/2)	50.800(2 )	44.450(1 3/4)	1 3/4 - 12UN	34.925(1 3/8)	52.8(2.08)	69.850(2 3/4)	17.462( 11/16)	1.588( 1/16)	6.350( 1/4)	3.175( 1/8)	19.050( 3/4)	760(30)	2.381( 3/32)	59.928(2 23/64)	1 450	111 000	239 000	
50.800 (2)	CRH 64 VBR	CRH 64 VB	CRH 64 VBUUR	CRH 64 VBUU	4 960	101.600(4 )	57.150(2 1/4)	50.800(2 )	2 - 12UN	38.100(1 1/2)	59.4(2.34)	88.900(3 1/2)	19.050( 3/4)	1.588( 1/16)	6.350( 1/4)	3.175( 1/8)	19.050( 3/4)	760(30)	2.381( 3/32)	64.691(2 35/64)	2 190	142 000	317 000	

- Remarks 1. No oil hole is provided if the stud diameter  $d_1$  is 7.938 mm or less. As for the others, an oil hole is provided for the outer diameter and the end of the stud.  
 2. Grease is pre-packed.  
 3. Contact **IKO** for the information on the maximum static allowable load.  
 4. A nut is supplied with the stud.

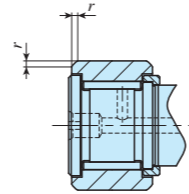
# IKO Inch Series Cam Followers CRH • Full Complement Roller • With Driver Slot

## Selectable product specifications

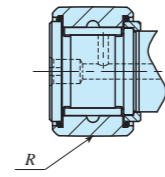
Material type	No symbol	High carbon steel
	F	Stainless steel
Roller guide type	No symbol	With cage
	V	Full complement roller
Seal structure	No symbol	Shield type
	UU	Sealed type
Shape of outer ring outer diameter surface	No symbol	Cylindrical outer ring
	R	Crowned outer ring



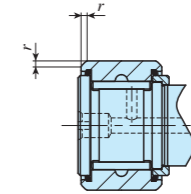
CRH...VR



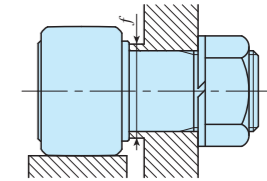
CRH...V



CRH...VUUR



CRH...VUU



Stud diameter mm (inch)	Identification number				Mass (Ref.) g	Nominal dimensions mm (inch)														Mounting dimensions f Minimum mm (inch)	Maximum tightening torque N · cm	Basic dynamic load rating C N	Basic static load rating C <sub>s</sub> N
	Shield type		Sealed type			D	C	d <sub>1</sub>	G UNF	G <sub>1</sub>	B max	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	g <sub>1</sub>	g <sub>2</sub>	R	r					
	Crowned outer ring	Cylindrical outer ring	Crowned outer ring	Cylindrical outer ring																			
6.350 (1/4)	CRH 8-1 VR	CRH 8-1 V	CRH 8-1 VUUR	CRH 8-1 VUU	12	12.700(1/2)	9.525(3/8)	6.350(1/4)	1/4 - 28	6.350(1/4)	11.0(0.44)	15.875(5/8)	— (—)	0.794(1/32)	*3.175(1/8)	— (—)	180(7)	0.397(1/64)	8.334(2/64)	3.4	4 710	5 410	
	CRH 9 VR	CRH 9 V	CRH 9 VUUR	CRH 9 VUU	15	14.288(9/16)	9.525(3/8)	6.350(1/4)	1/4 - 28	6.350(1/4)	11.1(0.44)	15.875(5/8)	— (—)	0.794(1/32)	*3.175(1/8)	— (—)	180(7)	0.397(1/64)	8.334(2/64)	3.4	4 710	5 410	
7.938 (5/16)	CRH 10-1 VR	CRH 10-1 V	CRH 10-1 VUUR	CRH 10-1 VUU	23	15.875(5/8)	11.112(7/16)	7.938(5/16)	5/16 - 24	7.938(5/16)	12.8(0.50)	19.050(3/4)	— (—)	0.794(1/32)	*3.175(1/8)	— (—)	200(8)	0.397(1/64)	11.112(7/16)	6.8	6 340	8 530	
	CRH 11 VR	CRH 11 V	CRH 11 VUUR	CRH 11 VUU	27	17.462(11/16)	11.112(7/16)	7.938(5/16)	5/16 - 24	7.938(5/16)	12.8(0.50)	19.050(3/4)	— (—)	0.794(1/32)	*3.175(1/8)	— (—)	200(8)	0.397(1/64)	11.112(7/16)	6.8	6 340	8 530	
11.112 (7/16)	CRH 12 VR	CRH 12 V	CRH 12 VUUR	CRH 12 VUU	39	19.050(3/4)	12.700(1/2)	11.112(7/16)	7/16 - 20	9.525(3/8)	14.6(0.57)	22.225(7/8)	6.350(1/4)	0.794(1/32)	4.762(3/16)	2.381(3/32)	250(10)	0.794(1/32)	13.494(11/32)	17.6	8 710	12 300	
	CRH 14 VR	CRH 14 V	CRH 14 VUUR	CRH 14 VUU	49	22.225(7/8)	12.700(1/2)	11.112(7/16)	7/16 - 20	9.525(3/8)	14.6(0.57)	22.225(7/8)	6.350(1/4)	0.794(1/32)	4.762(3/16)	2.381(3/32)	250(10)	0.794(1/32)	13.494(11/32)	17.6	8 710	12 300	
15.875 (5/8)	CRH 16 VR	CRH 16 V	CRH 16 VUUR	CRH 16 VUU	93	25.400(1)	15.875(5/8)	15.875(5/8)	5/8 - 18	12.700(1/2)	17.9(0.70)	25.400(1)	6.350(1/4)	1.588(1/16)	4.762(3/16)	2.381(3/32)	300(12)	1.191(3/64)	18.256(23/32)	57.8	13 100	22 700	
	CRH 18 VR	CRH 18 V	CRH 18 VUUR	CRH 18 VUU	109	28.575(1 1/8)	15.875(5/8)	15.875(5/8)	5/8 - 18	12.700(1/2)	17.9(0.70)	25.400(1)	6.350(1/4)	1.588(1/16)	4.762(3/16)	2.381(3/32)	300(12)	1.588(1/16)	18.256(23/32)	57.8	13 100	22 700	
19.050 (3/4)	CRH 20 VR	CRH 20 V	CRH 20 VUUR	CRH 20 VUU	176	31.750(1 1/4)	19.050(3/4)	19.050(3/4)	3/4 - 16	15.875(5/8)	21.0(0.83)	31.750(1 1/4)	7.938(5/16)	1.588(1/16)	4.762(3/16)	2.381(3/32)	360(14)	1.588(1/16)	24.209(61/64)	103	23 600	31 700	
	CRH 22 VR	CRH 22 V	CRH 22 VUUR	CRH 22 VUU	200	34.925(1 3/8)	19.050(3/4)	19.050(3/4)	3/4 - 16	15.875(5/8)	21.0(0.83)	31.750(1 1/4)	7.938(5/16)	1.588(1/16)	4.762(3/16)	2.381(3/32)	360(14)	1.588(1/16)	24.209(61/64)	103	23 600	31 700	
22.225 (7/8)	CRH 24 VR	CRH 24 V	CRH 24 VUUR	CRH 24 VUU	296	38.100(1 1/2)	22.225(7/8)	22.225(7/8)	7/8 - 14	19.050(3/4)	24.3(0.96)	38.100(1 1/2)	9.525(3/8)	1.588(1/16)	4.762(3/16)	2.381(3/32)	500(20)	1.588(1/16)	26.988(1 1/16)	162	28 200	40 100	
	CRH 26 VR	CRH 26 V	CRH 26 VUUR	CRH 26 VUU	329	41.275(1 5/8)	22.225(7/8)	22.225(7/8)	7/8 - 14	19.050(3/4)	24.3(0.96)	38.100(1 1/2)	9.525(3/8)	1.588(1/16)	4.762(3/16)	2.381(3/32)	500(20)	1.588(1/16)	26.988(1 1/16)	162	28 200	40 100	
25.400 (1)	CRH 28 VR	CRH 28 V	CRH 28 VUUR	CRH 28 VUU	463	44.450(1 3/4)	25.400(1)	25.400(1)	1 - 14UNS	22.225(7/8)	27.4(1.08)	44.450(1 3/4)	11.112(7/16)	1.588(1/16)	4.762(3/16)	2.381(3/32)	500(20)	1.588(1/16)	32.941(1 1/4)	258	35 300	55 600	
	CRH 30 VR	CRH 30 V	CRH 30 VUUR	CRH 30 VUU	508	47.625(1 7/8)	25.400(1)	25.400(1)	1 - 14UNS	22.225(7/8)	27.4(1.08)	44.450(1 3/4)	11.112(7/16)	1.588(1/16)	4.762(3/16)	2.381(3/32)	500(20)	1.588(1/16)	32.941(1 1/4)	258	35 300	55 600	
28.575 (1 1/8)	CRH 32 VR	CRH 32 V	CRH 32 VUUR	CRH 32 VUU	722	50.800(2)	31.750(1 1/4)	28.575(1 1/8)	1 1/8 - 12	25.400(1)	34.2(1.35)	50.800(2)	12.700(1/2)	1.588(1/16)	4.762(3/16)	3.175(1/8)	600(24)	1.588(1/16)	37.306(1 1/32)	356	45 700	80 600	
	CRH 36 VR	CRH 36 V	CRH 36 VUUR	CRH 36 VUU	858	57.150(2 1/4)	31.750(1 1/4)	28.575(1 1/8)	1 1/8 - 12	25.400(1)	34.2(1.35)	50.800(2)	12.700(1/2)	1.588(1/16)	4.762(3/16)	3.175(1/8)	600(24)	1.588(1/16)	37.306(1 1/32)	356	45 700	80 600	
31.750 (1 1/4)	CRH 40 VR	CRH 40 V	CRH 40 VUUR	CRH 40 VUU	1 260	63.500(2 1/2)	38.100(1 1/2)	31.750(1 1/4)	1 1/4 - 12	28.575(1 1/8)	40.0(1.57)	57.150(2 1/4)	14.288(9/16)	1.588(1/16)	4.762(3/16)	3.175(1/8)	760(30)	2.381(3/32)	40.878(1 3/64)	500	61 400	116 000	
	CRH 44 VR	CRH 44 V	CRH 44 VUUR	CRH 44 VUU	1 460	69.850(2 3/4)	38.100(1 1/2)	31.750(1 1/4)	1 1/4 - 12	28.575(1 1/8)	40.0(1.57)	57.150(2 1/4)	14.288(9/16)	1.588(1/16)	4.762(3/16)	3.175(1/8)	760(30)	2.381(3/32)	40.878(1 3/64)	500	61 400	116 000	
38.100 (1 1/2)	CRH 48 VR	CRH 48 V	CRH 48 VUUR	CRH 48 VUU	2 100	76.200(3)	44.450(1 3/4)	38.100(1 1/2)	1 1/2 - 12	31.750(1 1/8)	46.4(1.83)	63.500(2 1/2)	15.875(5/8)	1.588(1/16)	6.350(1/4)	3.175(1/8)	760(30)	2.381(3/32)	51.991(2 3/64)	892	77 600	172 000	
	CRH 52 VR	CRH 52 V	CRH 52 VUUR	CRH 52 VUU	2 380	82.500(3 1/4)	44.450(1 3/4)	38.100(1 1/2)	1 1/2 - 12	31.750(1 1/8)	46.4(1.83)	63.500(2 1/2)	15.875(5/8)	1.588(1/16)	6.350(1/4)	3.175(1/8)	760(30)	2.381(3/32)	51.991(2 3/64)	892	77 600	172 000	
44.450 (1 3/4)	CRH 56 VR	CRH 56 V	CRH 56 VUUR	CRH 56 VUU	3 240	88.900(3 1/2)	50.800(2)	44.450(1 3/4)	1 3/4 - 12UN	34.925(1 3/8)	52.8(2.08)	69.850(2 3/4)	17.462(11/16)	1.588(1/16)	6.350(1/4)	3.175(1/8)	760(30)	2.381(3/32)	59.928(2 3/64)	1 450	111 000	239 000	
50.800 (2)	CRH 64 VR	CRH 64 V	CRH 64 VUUR	CRH 64 VUU	4 960	101.600(4)	57.150(2 1/4)	50.800(2)	2 - 12UN	38.100(1 1/2)	59.4(2.34)	88.900(3 1/2)	19.050(3/4)	1.588(1/16)	6.350(1/4)	3.175(1/8)	760(30)	2.381(3/32)	64.691(2 3/64)	2 190	142 000	317 000	

- Remarks 1. An oil hole is provided only for the stud head if the stud diameter  $d_1$  is 7.938 mm or less (marked with \*). As for the others, an oil hole is provided for the head, the outer diameter, and the end of the stud.  
 2. Grease is pre-packed.  
 3. Contact **IKO** for the information on the maximum static allowable load.  
 4. A nut is supplied with the stud.