Cat. No. BE01-27

ISO 9001
ISO 14001
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IQNET
RECOGNIZED CERTIFICATION

ASAHI

INSERT BEARING UNITS

ASAHI SEIKO CO., LTD.

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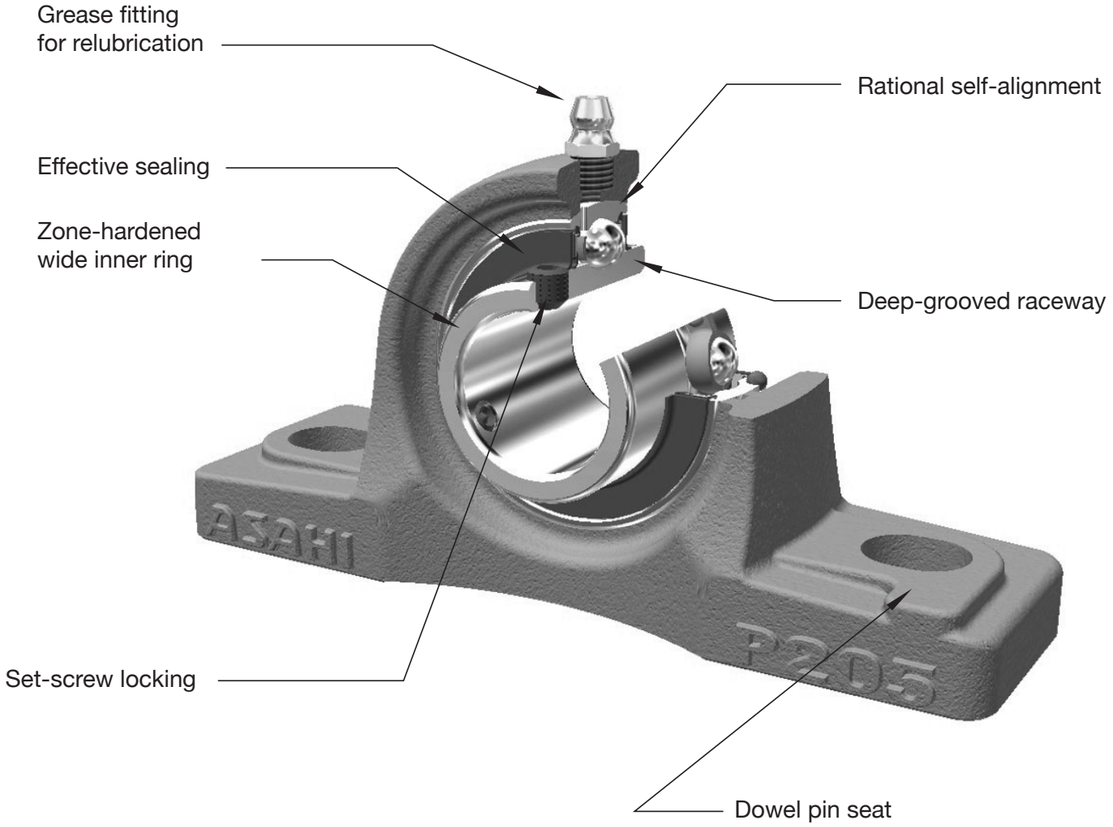
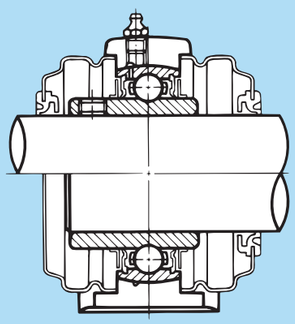
Structure and Features of Cast Iron Insert Bearing Units

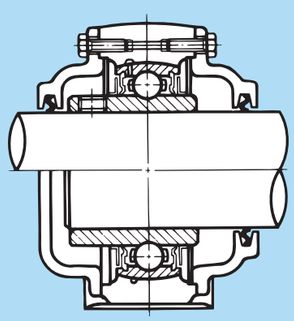
Pillow Block Unit Cutaway



Structure of pillow block unit with pressed steel covers



Structure of pillow block unit with cast iron covers



Rational self-alignment

The spherically ground outside diameter of the bearing outer ring mates with the corresponding spherical inside diameter of the housing to provide self-alignment for compensation for misalignment due to mounting errors or poor mounting surfaces, thereby protecting the bearing from unreasonable force caused.

Larger load carrying capacity

Bearing units can withstand radial and axial loads because bearing inserts have the same internal structure as deep groove ball bearings 6000, 6200 and 6300 series. This structure also ensures the quiet operation of bearing units.

Easy installation

Bearing inserts are pre-lubricated at the factory with an adequate amount of high-quality grease and mounted in housings for easy installation and immediate operation after unpacking, resulting in a lower possibility of ingress of foreign matters into the bearing chamber during mounting procedures.

Relubrication

Bearing units are often used in severe operating conditions where they are exposed to dirt, moisture or high temperature, and in such conditions, the grease inside the bearing deteriorates in a short period of time. It is, therefore, required to purge the bearing chamber of the deteriorated grease by a scheduled relubrication with new grease at appropriate intervals for the maintenance of healthy lubrication.

ASAHI Cast Iron series is equipped with grease fittings for relubrication in order to achieve long-term use even under harsh conditions.

Excellent sealing performance

The bearing insert is double-sealed with a combination of heat-resistant oil-proof synthetic rubber seals and steel slingers. The slinger fixed to the inner ring rotates while keeping a slight clearance with the outer ring so as to prevent foreign matters from entering the inside of the bearing. The steel-backed rubber seal is lightly in contact with the inner ring to minimize the friction torque, and its contact pressure remains the same even if a shaft is tilted. The combination of these two sealing elements serves to retain the grease within the bearing chamber and to exclude dirt and moisture, which helps the bearing perform properly even in severe operating conditions.

Bearing units with covers are developed for applications in places where surroundings and atmospheric conditions are extremely severe such as steel mills, flour mills, cement factories, foundries, etc. A bearing unit with cover(s) consists of a bearing unit and pressed steel or cast iron cover(s) attached to the housing and has higher dust-proof performance owing to a double sealing structure with bearing seals and cover(s).

Structure and Features of Cast Iron Insert Bearing Units

Solid housing

The solid one-piece structure of the housing enables itself to be rigid enough and resistant to distortion and deformation in mounting.

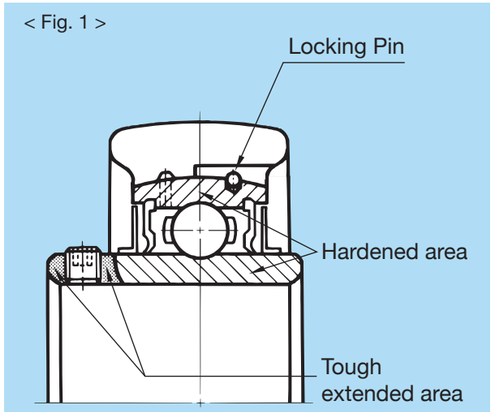
Easy and positive locking to shaft

There are three methods of locking bearing inserts onto shafts: set-screw locking, eccentric collar locking and adapter sleeve locking. Set-screw locking by means of two hexagon socket set-screws on the extended area of the inner ring is the most common style. All these locking methods offer easy installation of bearing units.

Special heat-treatment on bearing inner ring

As shown in Fig. 1, the bearing inner ring is zone-hardened in the raceway and surrounding areas where it is needed while the extended area around the set-screws is left metallurgically soft and tough. This special heat treatment significantly reduces the chances of cracking the inner ring due to over-tightening of the set-screws and also prevents loosening of the set-screws during operation as the set-screws can be tightened hard enough without causing destructive inner ring cracking.

< Fig. 1 >



Locking pin

The standard spherical bore diameter of ASAHI housings is “H7” for clearance fit for smooth self-alignment of bearing units.

The bearing outer ring is equipped with a unique locking pin in order to prevent the outer ring from co-rotating with the inner ring and wear on both bearing and housing fit surfaces during operation while allowing for free self-alignment of the bearing in the corresponding spherical housing seat.

Bearing interchangeability

Bearing inserts are interchangeable with each other and can be easily replaced when required.

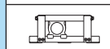
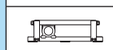
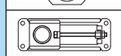
Dowel pin seats

Pillow block and flange type cast iron housings have two dowel pin seats near mounting bolt holes for easy and accurate positioning of bearing units during the installation. For machining positions of dowel pin holes and recommended pin diameters, see Section 6.7 on the Engineering Page.

Beautiful paint with excellent adhesion

Melamine resin baking paint is used to color the housing surface, which allows the paint film to adhere well and retain its beautiful luster for a long time. ASAHI adopts light blue color paint that blends well with any apparatus.

Product Quick Reference Guide — Cast Iron & Pressed Steel Series

Series	Unit Type	Housing Material (JIS Grade)	Housing & Accessory		Set-Screw Locking: UC200 Normal Duty Bearing Steel Type No.	Page	Set-Screw Locking: UCX00 Medium Duty Bearing Steel Type No.	Page	Set-Screw Locking: UC300 Heavy Duty Bearing Steel Type No.	Page	Set-Screw Locking: B Normal Duty Bearing Steel Type No.	Page
Cast Iron Series	Pillow Block Units	Gray Cast Iron (FC200)		**P**	＊ UCP200	12	＊ UCPX00	14	＊ UCP300	16		
		Gray Cast Iron (FC150)		**LLP**							BLLP	26
		Gray Cast Iron (FC200)		**IP**	＊ UCIP200	28			＊ UCIP300	30		
				**PH**	UCPH200	36						
				**PA**	UCPA200	37						
				**EP**	UCEP200	38						
	Flange Units	Gray Cast Iron (FC200)		**F**	＊ UCF200	40	＊ UCFX00	42	＊ UCF300	44		
				**FC**	＊UCFC200	54	＊UCFCX00	56				
				**FS**					＊ UCFS300	64		
				**FL**	＊ UCFL200	68	＊ UCFLX00	70	＊ UCFL300	72		
		Gray Cast Iron (FC150)		**LFL**							BLFL	82
		Gray Cast Iron (FC200)		**FA**	UCFA200	84						
				**FK**	UCFK200	85						
	Take-Up Units	Gray Cast Iron (FC200)		**T**	＊ UCT200	86	＊ UCTX00	88	＊ UCT300	90		
				**T+WB**	UCT200+WB	100						
				**TL+WL**	UCTL200+WL	102						
				**TU+WU**	UCTU200+WU	104			UCTU300+WU	106		
	Cartridge & Hanger Units	Gray Cast Iron (FC200)		**C**	UCC200	108			UCC300	109		
				**ECH**	UCECH200	112						
Pressed Steel Series	Pillow Block Units	Pressed Steel (SPCC)		**PP**							BPP	114
	Flange Units			**PFL**							BPFL	116
				**PF**							BPF	118
				**PFT**							BPFT	120
	Take-Up Units			**TAW**							BTAW	122

Eccentric Collar Locking: UG200+ER Normal Duty Bearing Steel Type No.	Page	Eccentric Collar Locking: KH200 Normal Duty Bearing Steel Type No.	Page	Adapter Sleeve Locking: UK200+H Normal Duty Bearing Steel Type No.	Page	Adapter Sleeve Locking: UKX00+H Medium Duty Bearing Steel Type No.	Page	Adapter Sleeve Locking: UK300+H Heavy Duty Bearing Steel Type No.	Page
UGP200	18			＊ UKP200+H	20	＊ UKPX00+H	22	＊ UKP300+H	24
		KHLLP200	27						
				＊ UKIP200+H	32			＊ UKIP300+H	34
UGF200	46			＊ UKF200+H	48	＊ UKFX00+H	50	＊ UKF300+H	52
UGFC200	58			＊UKFC200+H	60	＊UKFCX00+H	62		
								＊ UKFS300+H	66
UGFL200	74			＊UKFL200+H	76	＊UKFLX00+H	78	＊ UKFL300+H	80
		KHLFL200	83						
UGT200	92			＊ UKT200+H	94	＊ UKTX00+H	96	＊ UKT300+H	98
				UKC200+H	110			UKC300+H	111
		KHPP200	115						
		KHPFL200	117						
		KHPF200	119						
		KHPFT200	121						

Note: Models marked with an asterisk (＊) are available with optional covers.
Details are on the same page as the standard type.

Product Quick Reference Guide — Other Series

Series	Unit Type	Housing Material (JIS Grade)	Housing		Set-Screw Locking: MUC200 Normal Duty Stainless Steel Type No.	Page	Set-Screw Locking: MB Normal Duty Stainless Steel Type No.	Page	Set-Screw Locking: K000 Light Duty Bearing Steel Type No.	Page	Eccentric Collar Locking: U000+ER Light Duty Bearing Steel Type No.	Page	Eccentric Collar Locking: MU000+ER Light Duty Stainless Steel Type No.	Page	Eccentric Collar Locking: MU000+ER-MSG Light Duty Stainless Steel Type No.	Page
Stainless Series	Pillow Block Units	Cast Stainless Steel (SCS13)		**MP**	MUCP200	124										
				MPA	MUCPA200	126										
	Flange Units			**MF**	MUCF200	128										
				MFC	MUCFC200	130										
				MFL	MUCFL200	132										
	Take-Up Units			**MT**	MUCT200	134										
Aluminum Series	Pillow Block Units	Cast Aluminum Alloy (AC7A)		**AP**	MUCAP200	136										
	Flange Units			**AF**	MUCAF200	138										
				AFL	MUCAFL200	140										
Plastic Series	Pillow Block Units	Thermoplastic Polyester Resin		**PPL**	MUCPPL200	142	MBPPL200	142								
				TBL	MUCTBL200	144	MBTBL200	144								
	Flange Units			**FPL**	MUCFPL200	146	MBFPL200	146								
				NFL	MUCNFL200	148	MBNFL200	148								
				FBL	MUCFBL200	150	MBFBL200	150								
	Take-Up Units			**TPL**	MUCTPL200	152	MBTPL200	152								
	Hanger Units			**HPL**	MUCHPL200	154	MBHPL200	154								
Silver Series	Pillow Block Units	Die-Cast Zinc Alloy (ZDC2)		**P**					KP000	156	UP000	158				
	Flange Units			**FL**					KFL000	160	UFL000	162				
Stainless Silver Series	Pillow Block Units	Die-Cast Zinc Alloy (ZDC2) w/ Nickel Chrome Plating		**P-Z3**									MUP000	164	MUP000 +ER-MSG	164
	Flange Units			**FL-Z3**									MUFL000	166	MUFL000 +ER-MSG	166
ECO Series	Pillow Block Units	Cast Stainless Steel (SCS13)		**SP**											MUSP000	168
	Flange Units			**SFL**											MUSFL000	170

Note: 1. All the above models are available with optional covers.
2. MBFPL, MBNFL and MBFBL types are available with optional back seals.

Product Quick Reference Guide — Bearing Inserts

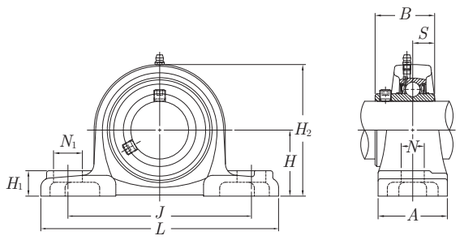
Locking Style (Bore type)	O.D. Type	Bearing Type		Diameter Series (Duty) 0 (Light) Type No.	Page	2 (Normal) Type No.	Page	X (Medium) Type No.	Page	3 (Heavy) Type No.	Page
Set-Screw Locking (Cylindrical Bore)	Spherical O.D.		**UC** (Bearing Steel)			UC200	172	UCX00	173	UC300	174
			MUC (Stainless Steel)			MUC200	175				
			B (Bearing Steel)			B	176				
			MB (Stainless Steel)			MB	177				
			K (Bearing Steel)	K000	178						
	Cylindrical O.D.		**UR** (Bearing Steel)			UR200	179				
			BR (Bearing Steel)			BR	180				
	Cylindrical O.D. w/ Snap Ring		**SER** (Bearing Steel)			SER200	181				
Eccentric Collar Locking (Cylindrical Bore)	Spherical O.D.		**UG+ER** (Bearing Steel) w/ Black Oxide Finished Steel Collar			UG200+ER	182				
			KH (Bearing Steel) w/ Black Oxide Finished Steel Collar			KH200GAE GBE	183				
			U+ER (Bearing Steel) w/ Black Oxide Finished Steel Collar	U000+ER	184						
			MU+ER (Stainless Steel) w/ Nickel Chrome Plated Steel Collar	MU000+ER	185						
			MU+ER-MSG (Stainless Steel) w/ Stainless Steel Collar	MU000 +ER-MSG	185						
	Cylindrical O.D.		**KHR** (Bearing Steel) w/ Black Oxide Finished Steel Collar			KHR200AE BE	186				
Adapter Sleeve Locking (Tapered Bore)	Spherical O.D.		**UK+H** (Bearing Steel)			UK200+H	187	UKX00+H	188	UK300+H	189

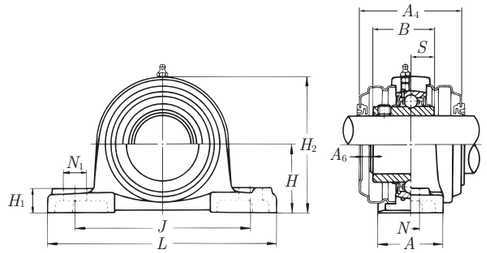
Dimension Table Contents

Note: Models marked with an asterisk (∗) are available with optional covers.

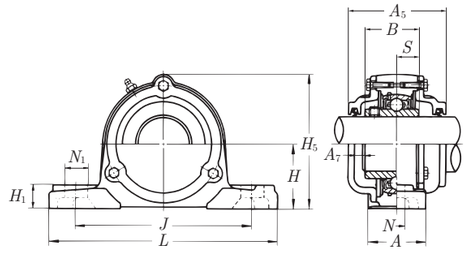
Pillow Block Units
UCP200 Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Covers



With Cast Iron Covers

Metric Size

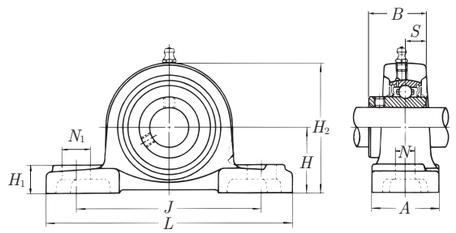
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	N_1	H_1	H_2	*B*	*S*			C_r	C_{0r}
12	**UCP201**	30.2	127	38	95	13	19	15	62	31	12.7	M10	UC201	12.8	6.6
15	**UCP202**	30.2	127	38	95	13	19	15	62	31	12.7	M10	UC202	12.8	6.6
17	**UCP203**	30.2	127	38	95	13	19	15	62	31	12.7	M10	UC203	12.8	6.6
20	**UCP204**	33.3	127	38	95	13	19	15	65	31	12.7	M10	UC204	12.8	6.6
25	**UCP205**	36.5	140	38	105	13	16	16	70	34.1	14.3	M10	UC205	14	7.9
30	**UCP206**	42.9	165	48	121	17	21	18	83	38.1	15.9	M14	UC206	19.6	11.3
35	**UCP207**	47.6	167	48	127	17	21	19	94	42.9	17.5	M14	UC207	25.9	15.4
40	**UCP208**	49.2	184	54	137	17	25	19	100	49.2	19	M14	UC208	29.3	17.9
45	**UCP209**	54	190	54	146	17	22	20	108	49.2	19	M14	UC209	33	20.5
50	**UCP210**	57.2	206	60	159	20	25	22	114	51.6	19	M16	UC210	35.5	23.2
55	**UCP211**	63.5	219	60	171	20	25	22	126	55.6	22.2	M16	UC211	43	29.4
60	**UCP212**	69.8	241	70	184	20	25	25	138	65.1	25.4	M16	UC212	52.5	36.1
65	**UCP213**	76.2	265	70	203	25	29	27	150	65.1	25.4	M20	UC213	57.5	40
70	**UCP214**	79.4	266	72	210	25	31	27	156	74.6	30.2	M20	UC214	62	44
75	**UCP215**	82.6	275	74	217	25	31	28	163	77.8	33.3	M20	UC215	66	48.2
80	**UCP216**	88.9	292	78	232	25	31	30	175	82.6	33.3	M20	UC216	72.5	53
85	**UCP217**	95.2	310	83	247	25	31	32	187	85.7	34.1	M20	UC217	83.5	61.8
90	**UCP218**	101.6	327	88	262	27	33	34	200	96	39.7	M22	UC218	95.5	71.4

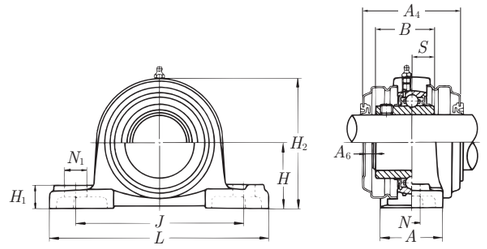
Note: For grease fitting tap size, see Table 7.1 on page 250.

Standard		With Pressed Steel Covers					With Cast Iron Covers					
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)	Unit No.		Cover Dimensions			Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)		Open	Closed	H_5 (mm)	A_5 (mm)	A_7 (mm)	
P203	0.65	**UCP201C**	**UCP201E**	56	8	0.71	**CUCP201C**	**CUCP201CE**	66	62	6	1.1
P203	0.63	**UCP202C**	**UCP202E**	56	8	0.69	**CUCP202C**	**CUCP202CE**	66	62	6	1.1
P203	0.62	**UCP203C**	**UCP203E**	56	8	0.68	**CUCP203C**	**CUCP203CE**	66	62	6	1.1
P204	0.65	**UCP204C**	**UCP204E**	56	8	0.71	**CUCP204C**	**CUCP204CE**	69	62	6	1.1
P205	0.79	**UCP205C**	**UCP205E**	63	10	0.86	**CUCP205C**	**CUCP205CE**	76	70	9	1.4
P206	1.26	**UCP206C**	**UCP206E**	65	9	1.36	**CUCP206C**	**CUCP206CE**	87	74	8	2.0
P207	1.59	**UCP207C**	**UCP207E**	70	8	1.69	**CUCP207C**	**CUCP207CE**	97	80	8	2.5
P208	1.92	**UCP208C**	**UCP208E**	82	10	2.12	**CUCP208C**	**CUCP208CE**	104	90	8	3.0
P209	2.19	**UCP209C**	**UCP209E**	82	10	2.39	**CUCP209C**	**CUCP209CE**	114	90	8	3.4
P210	2.59	**UCP210C**	**UCP210E**	87	9	2.89	**CUCP210C**	**CUCP210CE**	120	98	10	3.51
P211	3.3	**UCP211C**	**UCP211E**	91	11	3.7	**CUCP211C**	**CUCP211CE**	133	100	10	5.0
P212	4.7	**UCP212C**	**UCP212E**	102	10	5.1	**CUCP212C**	**CUCP212CE**	145	114	11	6.7
P213	5.6	**UCP213C**	**UCP213E**	102	10	6.1	**CUCP213C**	**CUCP213CE**	156	118	13	7.8
P214	7.3	**–**	**–**	–	–	–	**CUCP214C**	**CUCP214CE**	162	134	16	9.3
P215	7.9	**–**	**–**	–	–	–	**CUCP215C**	**CUCP215CE**	167	136	17	9.6
P216	10.0	**–**	**–**	–	–	–	**CUCP216C**	**CUCP216CE**	188	146	15	12.2
P217	12.2	**–**	**–**	–	–	–	**CUCP217C**	**CUCP217CE**	199	150	16	14.2
P218	14.7	**–**	**–**	–	–	–	**CUCP218C**	**CUCP218CE**	211	164	17	18.2

Pillow Block Units
UCPX00 Type

Medium Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Covers

Metric Size

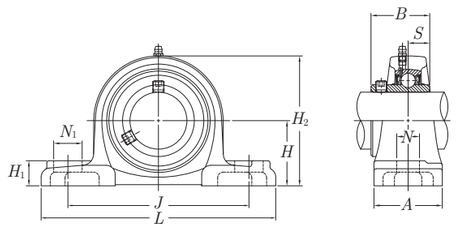
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	N_1	H_1	H_2	*B*	*S*			C_r	C_{0r}
25	**UCPX05**	44.4	159	51	119	17	25	18	85	38.1	15.9	M14	UCX05	19.6	11.3
30	**UCPX06**	47.6	175	57	127	17	25	20	94	42.9	17.5	M14	UCX06	25.9	15.4
35	**UCPX07**	54	203	57	144	17	30	22	105	49.2	19	M14	UCX07	29.3	17.9
40	**UCPX08**	58.7	222	67	156	20	32	26	113	49.2	19	M16	UCX08	33	20.5
45	**UCPX09**	58.7	222	67	156	20	33	26	116	51.6	19	M16	UCX09	35.5	23.2
50	**UCPX10**	63.5	241	73	171	20	36	27	126	55.6	22.2	M16	UCX10	43	29.4
55	**UCPX11**	69.8	260	79	184	25	36	30	139	65.1	25.4	M20	UCX11	52.5	36.1
60	**UCPX12**	76.2	286	83	203	25	41	32	151	65.1	25.4	M20	UCX12	57.5	40
65	**UCPX13**	76.2	286	83	203	25	41	32	154	74.6	30.2	M20	UCX13	62	44
70	**UCPX14**	88.9	330	89	229	27	51	35	172	77.8	33.3	M22	UCX14	66	48.2
75	**UCPX15**	88.9	330	89	229	27	51	35	177	82.6	33.3	M22	UCX15	72.5	53
80	**UCPX16**	101.6	381	102	283	27	59	42	197	85.7	34.1	M22	UCX16	83.5	61.8
85	**UCPX17**	101.6	381	102	283	27	59	42	202	96	39.7	M22	UCX17	95.5	71.4
90	**UCPX18**	101.6	381	111	283	27	60	45	206	104	42.9	M22	UCX18	109	81.6
100	**UCPX20**	127	432	121	337	33	64	52	250	117.5	49.2	M27	UCX20	134	104.7

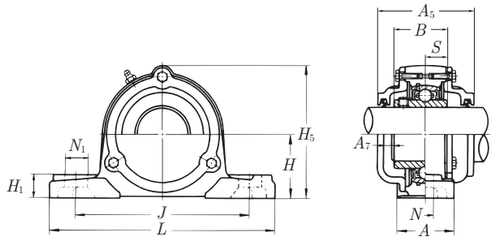
Standard		With Pressed Steel Covers				
		Unit No.		Cover Dimensions		
Housing No.	Mass (kg)	Open	Closed	A_4 (mm)	A_6 (mm)	Mass (kg)
PX05	1.5	※***UCPX05C***	※***UCPX05E***	65	9	1.6
PX06	2.0	※***UCPX06C***	※***UCPX06E***	70	8	2.1
PX07	2.7	※***UCPX07C***	※***UCPX07E***	83	10	2.8
PX08	3.5	※***UCPX08C***	※***UCPX08E***	82	10	3.7
PX09	3.5	※***UCPX09C***	※***UCPX09E***	87	9	3.8
PX10	4.2	※***UCPX10C***	※***UCPX10E***	88	9	4.6
PX11	5.53	※***UCPX11C***	※***UCPX11E***	100	9	5.93
PX12	7.2	※***UCPX12C***	※***UCPX12E***	104	11	7.7
PX13	7.07	–	–	–	–	–
PX14	11.1	–	–	–	–	–
PX15	11.4	–	–	–	–	–
PX16	17.4	–	–	–	–	–
PX17	17.1	–	–	–	–	–
PX18	17.0	–	–	–	–	–
PX20	33.0	–	–	–	–	–

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Pillow Block Units
UCP300 Type

Heavy Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Cast Iron Covers

Metric Size

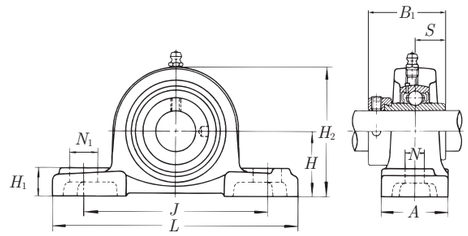
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	N_1	H_1	H_2	*B*	*S*			C_r	C_{0r}
25	**UCP305**	45	175	45	132	17	20	16	84	38	15	M14	UC305	21.3	10.9
30	**UCP306**	50	180	50	140	17	20	19	94	43	17	M14	UC306	26.8	15
35	**UCP307**	56	210	56	160	17	25	21	105	48	19	M14	UC307	33.5	19.2
40	**UCP308**	60	220	60	170	17	27	23	116	52	19	M14	UC308	40.5	23.9
45	**UCP309**	67	245	67	190	20	30	25	128	57	22	M16	UC309	51.5	29.5
50	**UCP310**	75	275	75	212	20	35	28	143	61	22	M16	UC310	61.5	38.2
55	**UCP311**	80	310	80	236	20	38	31	154	66	25	M16	UC311	71.5	44.8
60	**UCP312**	85	330	85	250	25	38	33	165	71	26	M20	UC312	81.5	52
65	**UCP313**	90	340	90	260	25	38	36	174	75	30	M20	UC313	92.5	59.7
70	**UCP314**	95	360	90	280	27	40	40	186	78	33	M22	UC314	104	68
75	**UCP315**	100	380	100	290	27	40	40	197	82	32	M22	UC315	114	76.9
80	**UCP316**	106	400	110	300	27	40	45	209	86	34	M22	UC316	123	86.4
85	**UCP317**	112	420	110	320	33	45	45	221	96	40	M27	UC317	132	96.5
90	**UCP318**	118	430	110	330	33	45	50	233	96	40	M27	UC318	143	107.2
95	**UCP319**	125	470	120	360	36	50	50	250	103	41	M30	UC319	153	118.4
100	**UCP320**	140	490	120	380	36	50	55	275	108	42	M30	UC320	173	140.4
105	**UCP321**	140	490	120	380	36	50	55	278	112	44	M30	UC321	183	153.1
110	**UCP322**	150	520	140	400	40	55	60	295	117	46	M33	UC322	205	178.8
120	**UCP324**	160	570	140	450	40	55	70	321	126	51	M33	UC324	207	184.8
130	**UCP326**	180	600	140	480	40	55	80	354	135	54	M33	UC326	229	214.3
140	**UCP328**	200	620	140	500	40	55	80	388	145	59	M33	UC328	255	246

Standard		With Cast Iron Covers					
Housing No.	Mass (kg)	Unit No.		Cover Dimensions			Mass (kg)
		Open	Closed	H_5 (mm)	A_5 (mm)	A_7 (mm)	
P305	1.6	※***CUCP305C***	※***CUCP305CE***	89	78	10	2.1
P306	1.9	**CUCP306C**	**CUCP306CE**	99	84	10	2.6
P307	2.7	**CUCP307C**	**CUCP307CE**	110	90	10	3.4
P308	3.12	**CUCP308C**	**CUCP308CE**	122	100	11	4.4
P309	4.13	**CUCP309C**	**CUCP309CE**	136	106	12	5.8
P310	5.68	**CUCP310C**	**CUCP310CE**	149	114	12	7.6
P311	6.9	**CUCP311C**	**CUCP311CE**	159	120	13	9.6
P312	8.87	**CUCP312C**	**CUCP312CE**	169	130	14	11.0
P313	9.8	**CUCP313C**	**CUCP313CE**	188	140	17	14.3
P314	11.4	**CUCP314C**	**CUCP314CE**	198	140	17	16.7
P315	13.6	**CUCP315C**	**CUCP315CE**	208	150	17	19.6
P316	16.4	**CUCP316C**	**CUCP316CE**	219	154	17	20.55
P317	18.6	**CUCP317C**	**CUCP317CE**	234	164	18	23.6
P318	20.9	**CUCP318C**	**CUCP318CE**	245	168	20	30.4
P319	26.5	**CUCP319C**	**CUCP319CE**	257	180	20	36.8
P320	34.3	**CUCP320C**	**CUCP320CE**	282	190	21	44.9
P321	36.6	**CUCP321C**	**CUCP321CE**	287	194	21	45.2
P322	42.5	**CUCP322C**	**CUCP322CE**	305	210	26	54.7
P324	53.5	**CUCP324C**	**CUCP324CE**	328	220	25	73.8
P326	72.1	**CUCP326C**	**CUCP326CE**	358	230	24	92.2
P328	89.1	**CUCP328C**	**CUCP328CE**	388	240	24	110

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Pillow Block Units
UGP200 Type

Normal Duty
Eccentric Collar Locking
Steel Collar w/ Black Oxide Finish
Gray Cast Iron Housing
Relube



Metric Size

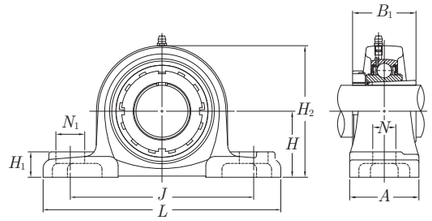
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)
		H	L	A	J	N	N_1	H_1	H_2	B_1	S	
20	**UGP204**	33.3	127	38	95	13	19	15	65	43.7	17.1	M10
25	**UGP205**	36.5	140	38	105	13	16	16	70	44.4	17.5	M10
30	**UGP206**	42.9	165	48	121	17	21	18	83	48.4	18.3	M14
35	**UGP207**	47.6	167	48	127	17	21	19	94	51.1	18.8	M14
40	**UGP208**	49.2	184	54	137	17	25	19	100	56.3	21.4	M14
45	**UGP209**	54	190	54	146	17	22	20	108	56.3	21.4	M14
50	**UGP210**	57.2	206	60	159	20	25	22	114	62.7	24.6	M16
55	**UGP211**	63.5	219	60	171	20	25	22	126	71.4	27.8	M16
60	**UGP212**	69.8	241	70	184	20	25	25	138	77.8	31	M16
65	**UGP213**	76.2	265	70	203	25	29	27	150	85.7	34.1	M20

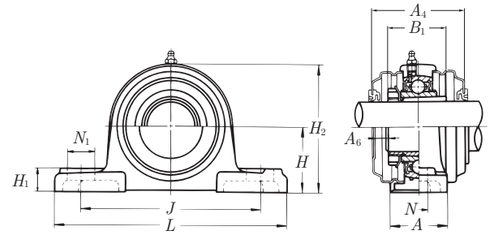
Note: For grease fitting tap size, see Table 7.1 on page 250.

Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
	C_r	C_{0r}		
UG204+ER	12.8	6.6	P204	0.7
UG205+ER	14	7.9	P205	0.83
UG206+ER	19.6	11.3	P206	1.3
UG207+ER	25.9	15.4	P207	1.7
UG208+ER	29.3	17.9	P208	2.1
UG209+ER	33	20.5	P209	2.3
UG210+ER	35.5	23.2	P210	2.7
UG211+ER	43	29.4	P211	3.5
UG212+ER	52.5	36.1	P212	5.0
UG213+ER	57.5	40	P213	6.2

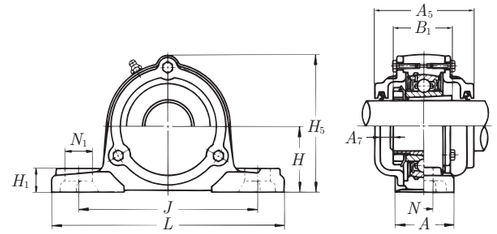
Pillow Block Units
UKP200+H Type

Normal Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Covers



With Cast Iron Covers

Metric Size

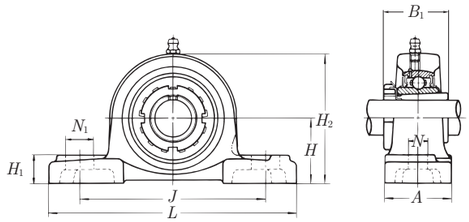
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	N_1	H_1	H_2	B_1			C_r	C_{0r}
20	**UKP205+H2305**	36.5	140	38	105	13	16	16	70	35	M10	UK205+H2305	14	7.9
25	**UKP206+H2306**	42.9	165	48	121	17	21	18	83	38	M14	UK206+H2306	19.6	11.3
30	**UKP207+H2307**	47.6	167	48	127	17	21	19	94	43	M14	UK207+H2307	25.9	15.4
35	**UKP208+H2308**	49.2	184	54	137	17	25	19	100	46	M14	UK208+H2308	29.3	17.9
40	**UKP209+H2309**	54	190	54	146	17	22	20	108	50	M14	UK209+H2309	33	20.5
45	**UKP210+H2310**	57.2	206	60	159	20	25	22	114	55	M16	UK210+H2310	35.5	23.2
50	**UKP211+H2311**	63.5	219	60	171	20	25	22	126	59	M16	UK211+H2311	43	29.4
55	**UKP212+H2312**	69.8	241	70	184	20	25	25	138	62	M16	UK212+H2312	52.5	36.1
60	**UKP213+H2313**	76.2	265	70	203	25	29	27	150	65	M20	UK213+H2313	57.5	40
65	**UKP215+H2315**	82.6	275	74	217	25	31	28	163	73	M20	UK215+H2315	66	48.2
70	**UKP216+H2316**	88.9	292	78	232	25	31	30	175	78	M20	UK216+H2316	72.5	53
75	**UKP217+H2317**	95.2	310	83	247	25	31	32	187	82	M20	UK217+H2317	83.5	61.8
80	**UKP218+H2318**	101.6	327	88	262	27	33	34	200	86	M22	UK218+H2318	95.5	71.4

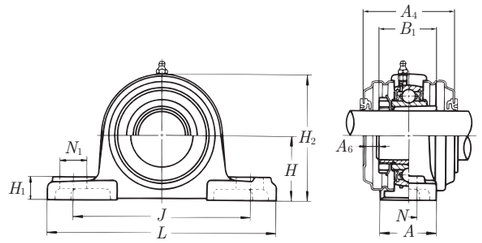
Standard		With Pressed Steel Covers					With Cast Iron Covers					
		Unit No.		Cover Dimensions			Unit No.		Cover Dimensions			
Housing No.	Mass (kg)	Open	Closed	A_4 (mm)	A_6 (mm)	Mass (kg)	Open	Closed	H_5 (mm)	A_5 (mm)	A_7 (mm)	Mass (kg)
P205	0.84	**UKP205C+H2305**	**UKP205E+H2305**	63	11	0.91	**CUKP205C+H2305**	**CUKP205CE+H2305**	76	70	9	1.4
P206	1.4	**UKP206C+H2306**	**UKP206E+H2306**	65	10	1.5	**CUKP206C+H2306**	**CUKP206CE+H2306**	87	74	10	2.1
P207	1.6	**UKP207C+H2307**	**UKP207E+H2307**	70	11	1.8	**CUKP207C+H2307**	**CUKP207CE+H2307**	97	80	11	2.6
P208	2.1	**UKP208C+H2308**	**UKP208E+H2308**	82	15	2.3	**CUKP208C+H2308**	**CUKP208CE+H2308**	104	90	14	3.1
P209	2.4	**UKP209C+H2309**	**UKP209E+H2309**	82	14	2.6	**CUKP209C+H2309**	**CUKP209CE+H2309**	114	90	13	3.5
P210	2.8	**UKP210C+H2310**	**UKP210E+H2310**	87	15	3.2	**CUKP210C+H2310**	**CUKP210CE+H2310**	120	98	15	3.66
P211	3.4	**UKP211C+H2311**	**UKP211E+H2311**	91	16	3.8	**CUKP211C+H2311**	**CUKP211CE+H2311**	133	100	15	5.1
P212	4.8	**UKP212C+H2312**	**UKP212E+H2312**	102	19	5.2	**CUKP212C+H2312**	**CUKP212CE+H2312**	145	114	20	6.8
P213	5.7	**UKP213C+H2313**	**UKP213E+H2313**	102	17	6.2	**CUKP213C+H2313**	**CUKP213CE+H2313**	156	118	20	7.9
P215	8.3	–	–	–	–	–	**CUKP215C+H2315**	**CUKP215CE+H2315**	167	136	26	10.0
P216	10.4	–	–	–	–	–	**CUKP216C+H2316**	**CUKP216CE+H2316**	188	146	26	12.7
P217	12.8	–	–	–	–	–	**CUKP217C+H2317**	**CUKP217CE+H2317**	199	150	27	14.8
P218	15.1	–	–	–	–	–	**CUKP218C+H2318**	**CUKP218CE+H2318**	211	164	31	18.6

Note: For grease fitting tap size, see Table 7.1 on page 250.

Pillow Block Units
UKPX00+H Type

Medium Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Covers

Metric Size

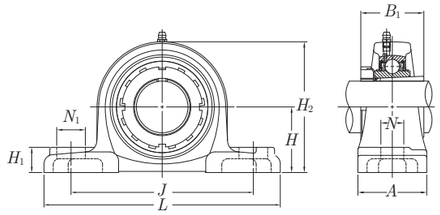
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	L	A	J	N	N_1	H_1	H_2	B_1			C_r	C_{0r}
20	**UKPX05+H2305**	44.4	159	51	119	17	25	18	85	35	M14	UKX05+H2305	19.6	11.3
25	**UKPX06+H2306**	47.6	175	57	127	17	25	20	94	38	M14	UKX06+H2306	25.9	15.4
30	**UKPX07+H2307**	54	203	57	144	17	30	22	105	43	M14	UKX07+H2307	29.3	17.9
35	**UKPX08+H2308**	58.7	222	67	156	20	32	26	113	46	M16	UKX08+H2308	33	20.5
40	**UKPX09+H2309**	58.7	222	67	156	20	33	26	116	50	M16	UKX09+H2309	35.5	23.2
45	**UKPX10+H2310**	63.5	241	73	171	20	36	27	126	55	M16	UKX10+H2310	43	29.4
50	**UKPX11+H2311**	69.8	260	79	184	25	36	30	139	59	M20	UKX11+H2311	52.5	36.1
55	**UKPX12+H2312**	76.2	286	83	203	25	41	32	151	62	M20	UKX12+H2312	57.5	40
60	**UKPX13+H2313**	76.2	286	83	203	25	41	32	154	65	M20	UKX13+H2313	62	44
65	**UKPX15+H2315**	88.9	330	89	229	27	51	35	177	73	M22	UKX15+H2315	72.5	53
70	**UKPX16+H2316**	101.6	381	102	283	27	59	42	197	78	M22	UKX16+H2316	83.5	61.8
75	**UKPX17+H2317**	101.6	381	102	283	27	59	42	202	82	M22	UKX17+H2317	95.5	71.4
80	**UKPX18+H2318**	101.6	381	111	283	27	60	45	206	86	M22	UKX18+H2318	109	81.6
90	**UKPX20+H2320**	127	432	121	337	33	64	52	250	97	M27	UKX20+H2320	134	104.7

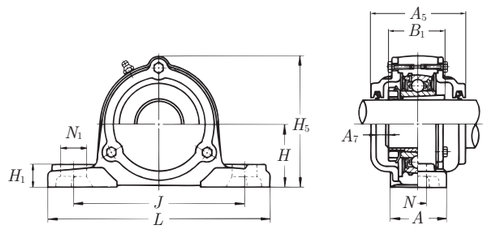
Standard		With Pressed Steel Covers				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
PX05	1.5	※ ***UKPX05C+H2305***	※ ***UKPX05E+H2305***	65	10	1.6
PX06	2.0	※ ***UKPX06C+H2306***	※ ***UKPX06E+H2306***	70	12	2.1
PX07	2.7	※ ***UKPX07C+H2307***	※ ***UKPX07E+H2307***	83	17	2.8
PX08	3.5	※ ***UKPX08C+H2308***	※ ***UKPX08E+H2308***	82	15	3.7
PX09	3.5	※ ***UKPX09C+H2309***	※ ***UKPX09E+H2309***	87	16	3.8
PX10	4.3	※ ***UKPX10C+H2310***	※ ***UKPX10E+H2310***	88	14	4.7
PX11	5.35	※ ***UKPX11C+H2311***	※ ***UKPX11E+H2311***	100	19	5.75
PX12	7.1	※ ***UKPX12C+H2312***	※ ***UKPX12E+H2312***	104	19	7.6
PX13	6.83	–	–	–	–	–
PX15	11.5	–	–	–	–	–
PX16	17.4	–	–	–	–	–
PX17	17.0	–	–	–	–	–
PX18	16.7	–	–	–	–	–
PX20	32.1	–	–	–	–	–

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Pillow Block Units
UKP300+H Type

Heavy Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Cast Iron Covers

Metric Size

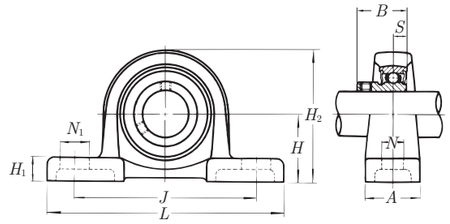
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	L	A	J	N	N_1	H_1	H_2	B_1			C_r	C_{0r}
20	**UKP305+H2305**	45	175	45	132	17	20	16	84	35	M14	UK305+H2305	21.3	10.9
25	**UKP306+H2306**	50	180	50	140	17	20	19	94	38	M14	UK306+H2306	26.8	15
30	**UKP307+H2307**	56	210	56	160	17	25	21	105	43	M14	UK307+H2307	33.5	19.2
35	**UKP308+H2308**	60	220	60	170	17	27	23	116	46	M14	UK308+H2308	40.5	23.9
40	**UKP309+H2309**	67	245	67	190	20	30	25	128	50	M16	UK309+H2309	51.5	29.5
45	**UKP310+H2310**	75	275	75	212	20	35	28	143	55	M16	UK310+H2310	61.5	38.2
50	**UKP311+H2311**	80	310	80	236	20	38	31	154	59	M16	UK311+H2311	71.5	44.8
55	**UKP312+H2312**	85	330	85	250	25	38	33	165	62	M20	UK312+H2312	81.5	52
60	**UKP313+H2313**	90	340	90	260	25	38	36	174	65	M20	UK313+H2313	92.5	59.7
65	**UKP315+H2315**	100	380	100	290	27	40	40	197	73	M22	UK315+H2315	114	76.9
70	**UKP316+H2316**	106	400	110	300	27	40	45	209	78	M22	UK316+H2316	123	86.4
75	**UKP317+H2317**	112	420	110	320	33	45	45	221	82	M27	UK317+H2317	132	96.5
80	**UKP318+H2318**	118	430	110	330	33	45	50	233	86	M27	UK318+H2318	143	107.2
85	**UKP319+H2319**	125	470	120	360	36	50	50	250	90	M30	UK319+H2319	153	118.4
90	**UKP320+H2320**	140	490	120	380	36	50	55	275	97	M30	UK320+H2320	173	140.4
100	**UKP322+H2322**	150	520	140	400	40	55	60	295	105	M33	UK322+H2322	205	178.8
110	**UKP324+H2324**	160	570	140	450	40	55	70	321	112	M33	UK324+H2324	207	184.8
115	**UKP326+H2326**	180	600	140	480	40	55	80	354	121	M33	UK326+H2326	229	214.3
125	**UKP328+H2328**	200	620	140	500	40	55	80	388	131	M33	UK328+H2328	255	246

Standard		With Cast Iron Covers					
Housing No.	Mass (kg)	Unit No.		Cover Dimensions			Mass (kg)
		Open	Closed	H_5 (mm)	A_5 (mm)	A_7 (mm)	
P305	1.6	※***CUKP305C+H2305***	※***CUKP305CE+H2305***	89	78	12	2.1
P306	1.9	**CUKP306C+H2306**	**CUKP306CE+H2306**	99	84	13	2.6
P307	2.7	**CUKP307C+H2307**	**CUKP307CE+H2307**	110	90	14	3.5
P308	3.13	**CUKP308C+H2308**	**CUKP308CE+H2308**	122	100	17	4.4
P309	4.16	**CUKP309C+H2309**	**CUKP309CE+H2309**	136	106	17	5.9
P310	5.71	**CUKP310C+H2310**	**CUKP310CE+H2310**	149	114	19	7.8
P311	6.89	**CUKP311C+H2311**	**CUKP311CE+H2311**	159	120	20	9.6
P312	8.81	**CUKP312C+H2312**	**CUKP312CE+H2312**	169	130	23	11.7
P313	9.8	**CUKP313C+H2313**	**CUKP313CE+H2313**	188	140	24	14.2
P315	13.7	**CUKP315C+H2315**	**CUKP315CE+H2315**	208	150	25	19.9
P316	16.6	**CUKP316C+H2316**	**CUKP316CE+H2316**	219	154	23	21.03
P317	18.6	**CUKP317C+H2317**	**CUKP317CE+H2317**	234	164	26	23.87
P318	21.1	**CUKP318C+H2318**	**CUKP318CE+H2318**	245	168	26	30.9
P319	26.5	**CUKP319C+H2319**	**CUKP319CE+H2319**	257	180	30	37.1
P320	34.3	**CUKP320C+H2320**	**CUKP320CE+H2320**	282	190	31	45.2
P322	42.6	**CUKP322C+H2322**	**CUKP322CE+H2322**	305	210	36	55.1
P324	53.0	**CUKP324C+H2324**	**CUKP324CE+H2324**	328	220	35	73.8
P326	72.4	**CUKP326C+H2326**	**CUKP326CE+H2326**	358	230	36	93.3
P328	89.4	**CUKP328C+H2328**	**CUKP328CE+H2328**	388	240	37	111

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult **ASAHI** for availability.

Light Pillow Block Units
BLLP Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Non-Relube



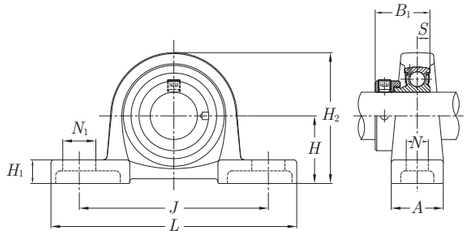
Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
		H	*L*	*A*	*J*	*N*	N_1	H_1	H_2	*B*	*S*			C_r	C_{0r}		
12	**BLLP1J**	30.2	114	25	87	12	16	12	57	22	6	M10	B1	9.55	4.8	LLP3J	0.39
15	**BLLP2J**	30.2	114	25	87	12	16	12	57	22	6	M10	B2	9.55	4.8	LLP3J	0.38
17	**BLLP3J**	30.2	114	25	87	12	16	12	57	22	6	M10	B3	9.55	4.8	LLP3J	0.36
20	**BLLP4J**	33.3	125	27	97	12	16	13	64	24.7	7	M10	B4	12.8	6.6	LLP4J	0.48
25	**BLLP5J**	36.5	130	29	100	12	16	13	70	27	7.5	M10	B5	14	7.9	LLP5J	0.59
30	**BLLP6J**	42.9	156	33	120	14	21	15	83	30.3	8	M12	B6	19.6	11.3	LLP6J	0.92
35	**BLLP7J**	47.6	165	35	127	14	21	16	93	32.9	8.5	M12	B7	25.9	15.4	LLP7J	1.20

Note: 1. Tolerance class “J7” applies to spherical bore diameter of housing.
2. Consult ASAHI for housing strength.

Light Pillow Block Units
KHLLP200 Type

Normal Duty
Eccentric Collar Locking
Steel Collar w/ Black Oxide Finish
Gray Cast Iron Housing
Non-Relube



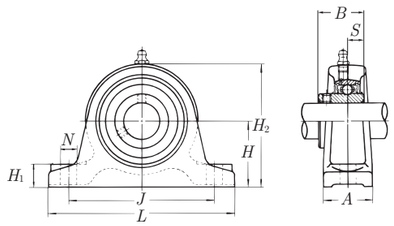
Metric Size

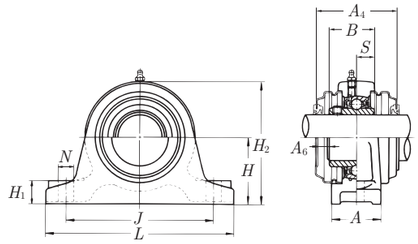
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
		H	*L*	*A*	*J*	*N*	N_1	H_1	H_2	B_1	*S*			C_r	C_{0r}		
12	**KHLLP201GAJ**	30.2	114	25	87	12	16	12	57	28.6	6.5	M10	KH201GAE	9.55	4.8	LLP3J	0.41
15	**KHLLP202GAJ**	30.2	114	25	87	12	16	12	57	28.6	6.5	M10	KH202GAE	9.55	4.8	LLP3J	0.40
17	**KHLLP203GAJ**	30.2	114	25	87	12	16	12	57	28.6	6.5	M10	KH203GAE	9.55	4.8	LLP3J	0.39
20	**KHLLP204GAJ**	33.3	125	27	97	12	16	13	64	31	7.5	M10	KH204GAE	12.8	6.6	LLP4J	0.52
25	**KHLLP205GAJ**	36.5	130	29	100	12	16	13	70	31	7.5	M10	KH205GAE	14	7.9	LLP5J	0.63
30	**KHLLP206GAJ**	42.9	156	33	120	14	21	15	83	35.7	9	M12	KH206GAE	19.6	11.3	LLP6J	0.98
35	**KHLLP207GAJ**	47.6	165	35	127	14	21	16	93	38.9	9.5	M12	KH207GAE	25.9	15.4	LLP7J	1.31

Note: 1. Tolerance class “J7” applies to spherical bore diameter of housing.
2. Consult ASAHI for housing strength.

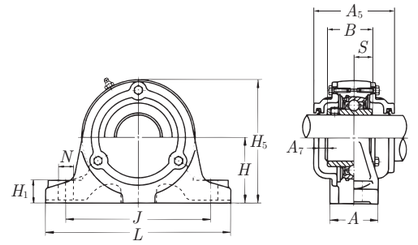
Thick Pillow Block Units
UCIP200 Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Covers



With Cast Iron Covers

Metric Size

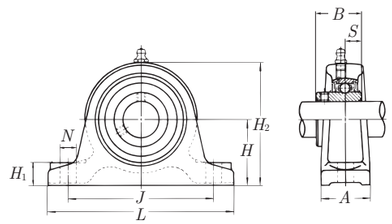
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	H_1	H_2	*B*	*S*			C_r	C_{0r}
40	**UCIP208**	60	200	60	150	19	25	115	49.2	19	M16	UC208	29.3	17.9
45	**UCIP209**	70	210	60	160	19	25	128	49.2	19	M16	UC209	33	20.5
50	**UCIP210**	70	220	60	170	19	28	132	51.6	19	M16	UC210	35.5	23.2
55	**UCIP211**	80	230	60	180	19	28	148	55.6	22.2	M16	UC211	43	29.4
60	**UCIP212**	80	260	70	200	22	30	155	65.1	25.4	M20	UC212	52.5	36.1
65	**UCIP213**	90	280	70	220	22	30	172	65.1	25.4	M20	UC213	57.5	40

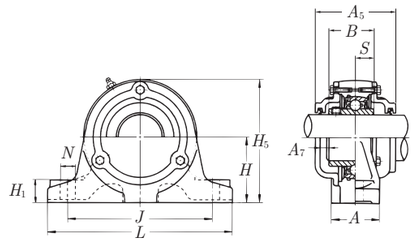
Standard		With Pressed Steel Covers					With Cast Iron Covers					
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)	Unit No.		Cover Dimensions			Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)		Open	Closed	H_5 (mm)	A_5 (mm)	A_7 (mm)	
IP208	3.6	※***UCIP208C***	※***UCIP208E***	86	12	3.8	※***CUCIP208C***	※***CUCIP208CE***	115	90	8	4.0
IP209	3.8	※***UCIP209C***	※***UCIP209E***	92	15	4.1	※***CUCIP209C***	※***CUCIP209CE***	130	90	8	4.5
IP210	4.4	※***UCIP210C***	※***UCIP210E***	92	12	4.7	※***CUCIP210C***	※***CUCIP210CE***	133	98	10	5.0
IP211	5.5	※***UCIP211C***	※***UCIP211E***	97	14	5.8	※***CUCIP211C***	※***CUCIP211CE***	150	100	10	6.2
IP212	5.9	※***UCIP212C***	※***UCIP212E***	113	15	6.3	※***CUCIP212C***	※***CUCIP212CE***	155	114	11	8.0
IP213	7.5	※***UCIP213C***	※***UCIP213E***	111	14	8.0	※***CUCIP213C***	※***CUCIP213CE***	172	118	13	10.1

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Thick Pillow Block Units
UCIP300 Type

Heavy Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Cast Iron Covers

Metric Size

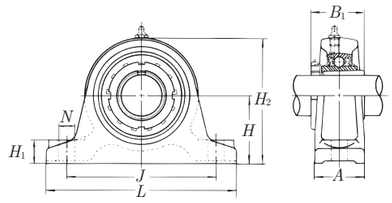
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	H_1	H_2	*B*	*S*			C_r	C_{0r}
65	**UCIP313**	110	310	70	250	22	30	208	75	30	M20	UC313	92.5	59.7
70	**UCIP314**	110	330	75	270	25	35	215	78	33	M22	UC314	104	68
75	**UCIP315**	120	340	75	280	25	35	230	82	32	M22	UC315	114	76.9
80	**UCIP316**	120	350	85	290	25	40	235	86	34	M22	UC316	123	86.4
85	**UCIP317**	130	370	85	310	25	40	255	96	40	M22	UC317	132	96.5
90	**UCIP318**	130	400	85	330	29	45	260	96	40	M24	UC318	143	107.2
95	**UCIP319**	150	410	85	340	29	45	285	103	41	M24	UC319	153	118.4
100	**UCIP320**	150	430	85	360	29	45	295	108	42	M24	UC320	173	140.4
110	**UCIP322**	170	490	100	410	32	50	335	117	46	M27	UC322	205	178.8
120	**UCIP324**	170	510	100	430	32	50	345	126	51	M27	UC324	207	184.8
130	**UCIP326**	200	550	110	470	32	50	390	135	54	M27	UC326	229	214.3
140	**UCIP328**	200	590	110	500	35	55	400	145	59	M30	UC328	255	246

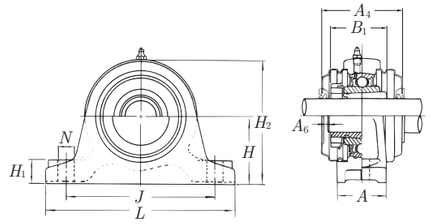
Standard		With Cast Iron Covers					
Housing No.	Mass (kg)	Unit No.		Cover Dimensions			Mass (kg)
		Open	Closed	H_5 (mm)	A_5 (mm)	A_7 (mm)	
IP313	12.64	**CUCIP313C**	**CUCIP313CE**	208	140	17	15.12
IP314	15.07	**CUCIP314C**	**CUCIP314CE**	215	140	17	19.2
IP315	16.2	**CUCIP315C**	**CUCIP315CE**	230	150	17	21.8
IP316	20.8	**CUCIP316C**	**CUCIP316CE**	235	154	17	24.8
IP317	23.1	**CUCIP317C**	**CUCIP317CE**	255	164	18	27.86
IP318	25.7	**CUCIP318C**	**CUCIP318CE**	260	168	20	33.2
IP319	29.7	**CUCIP319C**	**CUCIP319CE**	285	180	20	38.5
IP320	33.4	**CUCIP320C**	**CUCIP320CE**	295	190	21	44.2
IP322	50.4	**CUCIP322C**	**CUCIP322CE**	335	210	26	61.2
IP324	56.8	**CUCIP324C**	**CUCIP324CE**	345	220	25	72.3
IP326	73.2	※***CUCIP326C***	※***CUCIP326CE***	390	230	24	94.3
IP328	83.5	※***CUCIP328C***	※***CUCIP328CE***	400	240	24	105

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

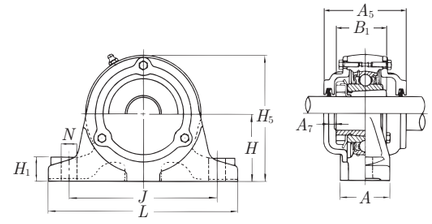
Thick Pillow Block Units
UKIP200+H Type

Normal Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Covers



With Cast Iron Covers

Metric Size

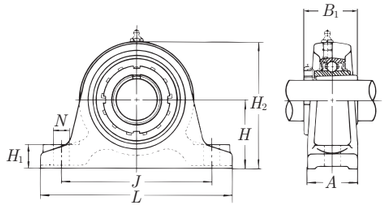
Shaft Dia. (mm)	Unit No.	Dimensions (mm)								Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	H_1	H_2	B_1			C_r	C_{0r}
35	**UKIP208+H2308**	60	200	60	150	19	25	115	46	M16	UK208+H2308	29.3	17.9
40	**UKIP209+H2309**	70	210	60	160	19	25	128	50	M16	UK209+H2309	33	20.5
45	**UKIP210+H2310**	70	220	60	170	19	28	132	55	M16	UK210+H2310	35.5	23.2
50	**UKIP211+H2311**	80	230	60	180	19	28	148	59	M16	UK211+H2311	43	29.4
55	**UKIP212+H2312**	80	260	70	200	22	30	155	62	M20	UK212+H2312	52.5	36.1
60	**UKIP213+H2313**	90	280	70	220	22	30	172	65	M20	UK213+H2313	57.5	40

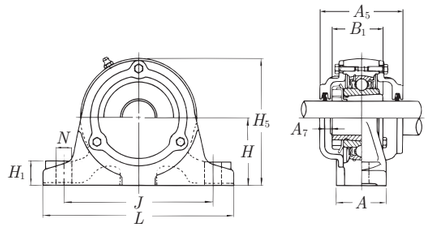
Standard		With Pressed Steel Covers					With Cast Iron Covers					
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)	Unit No.		Cover Dimensions			Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)		Open	Closed	H_5 (mm)	A_5 (mm)	A_7 (mm)	
IP208	3.7	※***UKIP208C+H2308***	※***UKIP208E+H2308***	86	17	3.9	※***CUKIP208C+H2308***	※***CUKIP208CE+H2308***	115	90	14	4.1
IP209	3.9	※***UKIP209C+H2309***	※***UKIP209E+H2309***	92	19	4.2	※***CUKIP209C+H2309***	※***CUKIP209CE+H2309***	130	90	13	4.7
IP210	4.6	※***UKIP210C+H2310***	※***UKIP210E+H2310***	92	17	4.9	※***CUKIP210C+H2310***	※***CUKIP210CE+H2310***	133	98	15	5.2
IP211	5.6	※***UKIP211C+H2311***	※***UKIP211E+H2311***	97	19	6.0	※***CUKIP211C+H2311***	※***CUKIP211CE+H2311***	150	100	15	6.4
IP212	5.9	※***UKIP212C+H2312***	※***UKIP212E+H2312***	113	24	6.4	※***CUKIP212C+H2312***	※***CUKIP212CE+H2312***	155	114	20	8.2
IP213	7.7	※***UKIP213C+H2313***	※***UKIP213E+H2313***	111	21	8.2	※***CUKIP213C+H2313***	※***CUKIP213CE+H2313***	172	118	20	10.4

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Thick Pillow Block Units
UKIP300+H Type

Heavy Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Cast Iron Covers

Metric Size

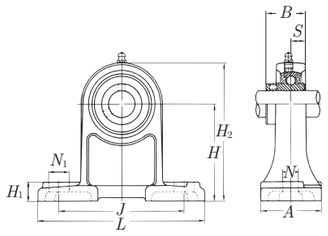
Shaft Dia. (mm)	Unit No.	Dimensions (mm)								Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	L	A	J	N	H_1	H_2	B_1			C_r	C_{0r}
60	**UKIP313+H2313**	110	310	70	250	22	30	208	65	M20	UK313+H2313	92.5	59.7
65	**UKIP315+H2315**	120	340	75	280	25	35	230	73	M22	UK315+H2315	114	76.9
70	**UKIP316+H2316**	120	350	85	290	25	40	235	78	M22	UK316+H2316	123	86.4
75	**UKIP317+H2317**	130	370	85	310	25	40	255	82	M22	UK317+H2317	132	96.5
80	**UKIP318+H2318**	130	400	85	330	29	45	260	86	M24	UK318+H2318	143	107.2
85	**UKIP319+H2319**	150	410	85	340	29	45	285	90	M24	UK319+H2319	153	118.4
90	**UKIP320+H2320**	150	430	85	360	29	45	295	97	M24	UK320+H2320	173	140.4
100	**UKIP322+H2322**	170	490	100	410	32	50	335	105	M27	UK322+H2322	205	178.8
110	**UKIP324+H2324**	170	510	100	430	32	50	345	112	M27	UK324+H2324	207	184.8
115	**UKIP326+H2326**	200	550	110	470	32	50	390	121	M27	UK326+H2326	229	214.3
125	**UKIP328+H2328**	200	590	110	500	35	55	400	131	M30	UK328+H2328	255	246

Standard		With Cast Iron Covers					
Housing No.	Mass (kg)	Unit No.		Cover Dimensions			Mass (kg)
		Open	Closed	H_5 (mm)	A_5 (mm)	A_7 (mm)	
IP313	12.56	**CUKIP313C+H2313**	**CUKIP313CE+H2313**	208	140	24	15.06
IP315	16.3	**CUKIP315C+H2315**	**CUKIP315CE+H2315**	230	150	25	22.2
IP316	21.0	**CUKIP316C+H2316**	**CUKIP316CE+H2316**	235	154	23	25.2
IP317	23.1	**CUKIP317C+H2317**	**CUKIP317CE+H2317**	255	164	26	28.13
IP318	25.9	**CUKIP318C+H2318**	**CUKIP318CE+H2318**	260	168	26	34.2
IP319	29.7	**CUKIP319C+H2319**	**CUKIP319CE+H2319**	285	180	30	38.7
IP320	33.4	**CUKIP320C+H2320**	**CUKIP320CE+H2320**	295	190	31	44.8
IP322	50.5	**CUKIP322C+H2322**	**CUKIP322CE+H2322**	335	210	36	61.9
IP324	56.3	**CUKIP324C+H2324**	**CUKIP324CE+H2324**	345	220	35	72.5
IP326	73.5	※***CUKIP326C+H2326***	※***CUKIP326CE+H2326***	390	230	36	95.8
IP328	83.8	※***CUKIP328C+H2328***	※***CUKIP328CE+H2328***	400	240	37	106

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult **ASAHI** for availability.

Pedestal Base Pillow Block Units
UCPH200 Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube



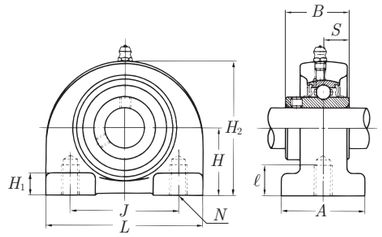
Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Weight (kg)
		H	*L*	*A*	*J*	*N*	N_1	H_1	H_2	*B*	*S*			C_r	C_{0r}		
12	**UCPH201**	70	127	40	95	13	19	15	101	31	12.7	M10	UC201	12.8	6.6	PH204	0.76
15	**UCPH202**	70	127	40	95	13	19	15	101	31	12.7	M10	UC202	12.8	6.6	PH204	0.74
17	**UCPH203**	70	127	40	95	13	19	15	101	31	12.7	M10	UC203	12.8	6.6	PH204	0.73
20	**UCPH204**	70	127	40	95	13	19	15	101	31	12.7	M10	UC204	12.8	6.6	PH204	0.71
25	**UCPH205**	80	140	50	105	13	19	16	114	34.1	14.3	M10	UC205	14	7.9	PH205	1.05
30	**UCPH206**	90	165	50	121	17	21	18	130	38.1	15.9	M14	UC206	19.6	11.3	PH206	1.57
35	**UCPH207**	95	167	60	127	17	21	19	140	42.9	17.5	M14	UC207	25.9	15.4	PH207	2.01
40	**UCPH208**	100	184	70	137	17	25	19	149	49.2	19	M14	UC208	29.3	17.9	PH208	2.56
45	**UCPH209**	105	190	70	146	17	25	20	157	49.2	19	M14	UC209	33	20.5	PH209	3.2
50	**UCPH210**	110	206	70	159	20	25	22	165	51.6	19	M16	UC210	35.5	23.2	PH210	3.6

Note: For grease fitting tap size, see Table 7.1 on page 250.

Tapped Base Pillow Block Units
UCPA200 Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube



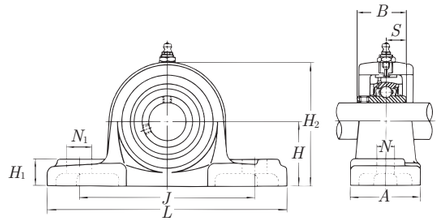
Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
		H	*L*	*A*	*J*	*N*	ℓ	H_1	H_2	*B*	*S*		C_r	C_{0r}		
12	**UCPA201**	30.2	76	38	52	M10×1.5	12	8	62	31	12.7	UC201	12.8	6.6	PA204	0.55
15	**UCPA202**	30.2	76	38	52	M10×1.5	12	8	62	31	12.7	UC202	12.8	6.6	PA204	0.53
17	**UCPA203**	30.2	76	38	52	M10×1.5	12	8	62	31	12.7	UC203	12.8	6.6	PA204	0.52
20	**UCPA204**	30.2	76	38	52	M10×1.5	12	8	62	31	12.7	UC204	12.8	6.6	PA204	0.50
25	**UCPA205**	36.5	84	38	56	M10×1.5	15	10	72	34.1	14.3	UC205	14	7.9	PA205	0.72
30	**UCPA206**	42.9	94	48	66	M14×2	18	10	84	38.1	15.9	UC206	19.6	11.3	PA206	1.02
35	**UCPA207**	47.6	110	48	80	M14×2	20	12	95	42.9	17.5	UC207	25.9	15.4	PA207	1.58
40	**UCPA208**	49.2	116	54	84	M14×2	20	12	100	49.2	19	UC208	29.3	17.9	PA208	1.84
45	**UCPA209**	54.2	120	54	90	M14×2	25	12	108	49.2	19	UC209	33	20.5	PA209	2.06
50	**UCPA210**	57.2	130	60	94	M16×2	25	14	116	51.6	19	UC210	35.5	23.2	PA210	2.44

Note: For grease fitting tap size, see Table 7.1 on page 250.

Expansion Type Pillow Block Units
UCEP200 Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube



Metric Size

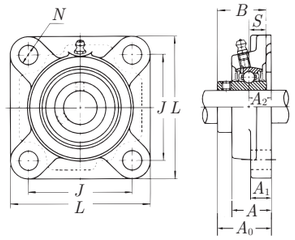
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Axial Travel (mm)	Bolt Size (mm)
		H	*L*	*A*	*J*	*N*	N_1	H_1	H_2	*B*	*S*		
20	**UCEP204**	36.5	140	38	105	13	16	16	73	31	12.7	10	M10
25	**UCEP205**	44.4	159	51	119	17	20	18	85	34.1	14.3	10	M14
30	**UCEP206**	47.6	175	57	127	17	20	20	94	38.1	15.9	10	M14
35	**UCEP207**	54	203	57	144	17	20	22	108	42.9	17.5	10	M14
40	**UCEP208**	58.7	222	67	156	20	24	26	116	49.2	19	10	M16
45	**UCEP209**	58.7	222	67	156	20	24	26	116	49.2	19	10	M16
50	**UCEP210**	63.5	241	73	171	20	26	27	126	51.6	19	10	M16
55	**UCEP211**	69.8	260	79	184	25	28	30	139	55.6	22.2	10	M20
60	**UCEP212**	76.2	286	83	203	25	30	32	151	65.1	25.4	10	M20
65	**UCEP213**	76.2	286	83	203	25	30	32	154	65.1	25.4	10	M20
70	**UCEP214**	88.9	330	89	229	27	31	35	177	74.6	30.2	10	M22
75	**UCEP215**	88.9	330	89	229	27	31	35	177	77.8	33.3	10	M22
80	**UCEP216**	101.6	381	102	283	27	40	42	205	82.6	33.3	15	M22
85	**UCEP217**	101.6	381	102	283	27	40	42	205	85.7	34.1	15	M22

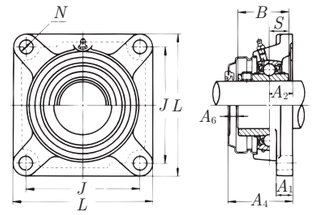
Bearing No.	Basic Load Rating (kN)		Housing No.		Mass (kg)
	C_r	C_{0r}	Pillow Housing	Cartridge Housing	
UC204	12.8	6.6	EP204	EC204	1.1
UC205	14	7.9	EP205	EC205	1.5
UC206	19.6	11.3	EP206	EC206	2.0
UC207	25.9	15.4	EP207	EC207	2.7
UC208	29.3	17.9	EP209	EC208	3.5
UC209	33	20.5	EP209	EC209	3.4
UC210	35.5	23.2	EP210	EC210	4.1
UC211	43	29.4	EP211	EC211	5.6
UC212	52.5	36.1	EP212	EC212	7.1
UC213	57.5	40	EP213	EC213	7.0
UC214	62	44	EP215	EC214	10.8
UC215	66	48.2	EP215	EC215	10.9
UC216	72.5	53	EP217	EC216	17.1
UC217	83.5	61.8	EP217	EC217	16.4

Note: For grease fitting tap size, see Table 7.1 on page 250.

4-Bolt Square Flange Units
UCF200 Type

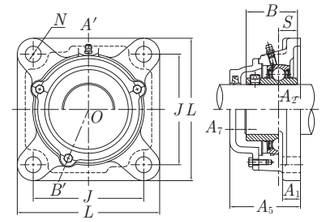
Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Cover

Section A'-O-B'



With Cast Iron Cover

Metric Size

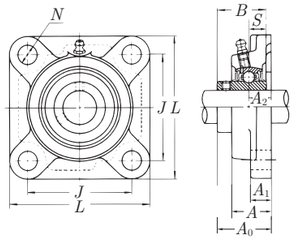
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		L	A	J	N	A_1	A_2	A_0	B	S			C_r	C_{0r}
12	**UCF201**	86	25.5	64	12	12	15	33.3	31	12.7	M10	UC201	12.8	6.6
15	**UCF202**	86	25.5	64	12	12	15	33.3	31	12.7	M10	UC202	12.8	6.6
17	**UCF203**	86	25.5	64	12	12	15	33.3	31	12.7	M10	UC203	12.8	6.6
20	**UCF204**	86	25.5	64	12	12	15	33.3	31	12.7	M10	UC204	12.8	6.6
25	**UCF205**	95	27	70	12	14	16	35.8	34.1	14.3	M10	UC205	14	7.9
30	**UCF206**	108	31	83	12	14	18	40.2	38.1	15.9	M10	UC206	19.6	11.3
35	**UCF207**	117	34	92	14	16	19	44.4	42.9	17.5	M12	UC207	25.9	15.4
40	**UCF208**	130	36	102	16	16	21	51.2	49.2	19	M14	UC208	29.3	17.9
45	**UCF209**	137	38	105	16	18	22	52.2	49.2	19	M14	UC209	33	20.5
50	**UCF210**	143	40	111	16	18	22	54.6	51.6	19	M14	UC210	35.5	23.2
55	**UCF211**	162	43	130	19	20	25	58.4	55.6	22.2	M16	UC211	43	29.4
60	**UCF212**	175	48	143	19	20	29	68.7	65.1	25.4	M16	UC212	52.5	36.1
65	**UCF213**	187	50	149	19	20	30	69.7	65.1	25.4	M16	UC213	57.5	40
70	**UCF214**	193	54	152	19	24	31	75.4	74.6	30.2	M16	UC214	62	44
75	**UCF215**	200	56	159	19	24	34	78.5	77.8	33.3	M16	UC215	66	48.2
80	**UCF216**	208	58	165	23	24	34	83.3	82.6	33.3	M20	UC216	72.5	53
85	**UCF217**	220	63	175	23	26	36	87.6	85.7	34.1	M20	UC217	83.5	61.8
90	**UCF218**	235	68	187	23	26	40	96.3	96	39.7	M20	UC218	95.5	71.4

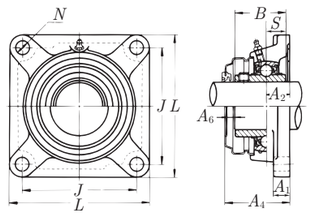
Note: For grease fitting tap size, see Table 7.1 on page 250.

Standard		With Pressed Steel Cover					With Cast Iron Cover				
		Unit No.		Cover Dimensions			Unit No.		Cover Dimensions		
Housing No.	Mass (kg)	Open	Closed	A_4 (mm)	A_6 (mm)	Mass (kg)	Open	Closed	A_5 (mm)	A_7 (mm)	Mass (kg)
F204	0.63	**UCF201C**	**UCF201E**	43	8	0.66	**CUCF201C**	**CUCF201CE**	46	6	1.0
F204	0.61	**UCF202C**	**UCF202E**	43	8	0.64	**CUCF202C**	**CUCF202CE**	46	6	1.0
F204	0.60	**UCF203C**	**UCF203E**	43	8	0.63	**CUCF203C**	**CUCF203CE**	46	6	1.0
F204	0.58	**UCF204C**	**UCF204E**	43	8	0.61	**CUCF204C**	**CUCF204CE**	46	6	1.0
F205	0.72	**UCF205C**	**UCF205E**	47	9	0.76	**CUCF205C**	**CUCF205CE**	51	9	0.93
F206	1.01	**UCF206C**	**UCF206E**	51	9	1.11	**CUCF206C**	**CUCF206CE**	55	8	1.6
F207	1.38	**UCF207C**	**UCF207E**	54	8	1.48	**CUCF207C**	**CUCF207CE**	59	8	1.82
F208	1.77	**UCF208C**	**UCF208E**	62	10	1.87	**CUCF208C**	**CUCF208CE**	66	8	2.7
F209	2.07	**UCF209C**	**UCF209E**	63	10	2.17	**CUCF209C**	**CUCF209CE**	67	8	2.65
F210	2.36	**UCF210C**	**UCF210E**	66	9	2.46	**CUCF210C**	**CUCF210CE**	71	10	2.87
F211	3.4	**UCF211C**	**UCF211E**	69	9	3.6	**CUCF211C**	**CUCF211CE**	75	10	4.6
F212	4.02	**UCF212C**	**UCF212E**	80	10	4.22	**CUCF212C**	**CUCF212CE**	86	11	5.9
F213	4.98	**UCF213C**	**UCF213E**	81	10	5.28	**CUCF213C**	**CUCF213CE**	89	13	6.34
F214	5.56	**–**	**–**	–	–	–	**CUCF214C**	**CUCF214CE**	98	16	7.8
F215	6.22	**–**	**–**	–	–	–	**CUCF215C**	**CUCF215CE**	102	17	8.06
F216	7.48	**–**	**–**	–	–	–	**CUCF216C**	**CUCF216CE**	107	15	9.48
F217	8.77	**–**	**–**	–	–	–	**CUCF217C**	**CUCF217CE**	111	16	11.8
F218	10.74	**–**	**–**	–	–	–	**CUCF218C**	**CUCF218CE**	122	17	14.9

4-Bolt Square Flange Units
UCFX00 Type

Medium Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Cover

Metric Size

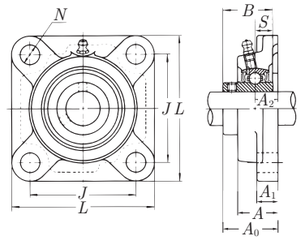
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		L	A	J	N	A_1	A_2	A_0	B	S			C_r	C_{0r}
25	**UCFX05**	108	30	83	12	13	18	40.2	38.1	15.9	M10	UCX05	19.6	11.3
30	**UCFX06**	117	34	92	16	14	19	44.4	42.9	17.5	M14	UCX06	25.9	15.4
35	**UCFX07**	130	38	102	16	14	21	51.2	49.2	19	M14	UCX07	29.3	17.9
40	**UCFX08**	137	40	105	19	14	22	52.2	49.2	19	M16	UCX08	33	20.5
45	**UCFX09**	143	40	111	19	14	23	55.6	51.6	19	M16	UCX09	35.5	23.2
50	**UCFX10**	162	44	130	19	20	26	59.4	55.6	22.2	M16	UCX10	43	29.4
55	**UCFX11**	175	49	143	19	20	29	68.7	65.1	25.4	M16	UCX11	52.5	36.1
60	**UCFX12**	187	59	149	19	21	34	73.7	65.1	25.4	M16	UCX12	57.5	40
65	**UCFX13**	187	59	149	19	21	34	78.4	74.6	30.2	M16	UCX13	62	44
70	**UCFX14**	197	60	152	23	24	37	81.5	77.8	33.3	M20	UCX14	66	48.2
75	**UCFX15**	197	68	152	23	24	40	89.3	82.6	33.3	M20	UCX15	72.5	53
80	**UCFX16**	214	70	171	23	24	40	91.6	85.7	34.1	M20	UCX16	83.5	61.8
85	**UCFX17**	214	70	171	23	24	40	96.3	96	39.7	M20	UCX17	95.5	71.4
90	**UCFX18**	214	76	171	23	24	45	106.1	104	42.9	M20	UCX18	109	81.6
100	**UCFX20**	268	97	211	31	31	59	127.3	117.5	49.2	M27	UCX20	134	104.7

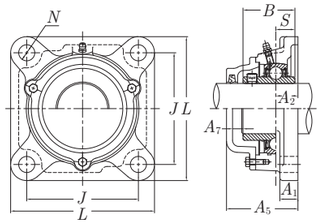
Standard		With Pressed Steel Cover				
		Unit No.		Cover Dimensions		
Housing No.	Mass (kg)	Open	Closed	A_4 (mm)	A_6 (mm)	Mass (kg)
FX05	1.1	※***UCFX05C***	※***UCFX05E***	50	8	1.2
FX06	1.4	※***UCFX06C***	※***UCFX06E***	54	8	1.5
FX07	1.8	※***UCFX07C***	※***UCFX07E***	63	10	1.9
FX08	1.8	※***UCFX08C***	※***UCFX08E***	63	10	1.9
FX09	2.4	※***UCFX09C***	※***UCFX09E***	67	9	2.5
FX10	3.6	※***UCFX10C***	※***UCFX10E***	70	9	3.8
FX11	4.5	※***UCFX11C***	※***UCFX11E***	79	9	4.7
FX12	5.3	※***UCFX12C***	※***UCFX12E***	86	11	5.6
FX13	5.77	—	—	—	—	—
FX14	7.06	—	—	—	—	—
FX15	7.64	—	—	—	—	—
FX16	10.2	—	—	—	—	—
FX17	10.68	—	—	—	—	—
FX18	10.6	—	—	—	—	—
FX20	16.8	—	—	—	—	—

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

4-Bolt Square Flange Units
UCF300 Type

Heavy Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Cast Iron Cover

Metric Size

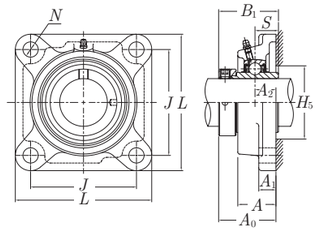
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		L	A	J	N	A_1	A_2	A_0	B	S			C_r	C_{0r}
25	**UCF305**	110	29	80	16	13	16	39	38	15	M14	UC305	21.3	10.9
30	**UCF306**	125	32	95	16	15	18	44	43	17	M14	UC306	26.8	15
35	**UCF307**	135	36	100	19	16	20	49	48	19	M16	UC307	33.5	19.2
40	**UCF308**	150	40	112	19	17	23	56	52	19	M16	UC308	40.5	23.9
45	**UCF309**	160	44	125	19	18	25	60	57	22	M16	UC309	51.5	29.5
50	**UCF310**	175	48	132	23	19	28	67	61	22	M20	UC310	61.5	38.2
55	**UCF311**	185	52	140	23	20	30	71	66	25	M20	UC311	71.5	44.8
60	**UCF312**	195	56	150	23	22	33	78	71	26	M20	UC312	81.5	52
65	**UCF313**	208	58	166	23	22	33	78	75	30	M20	UC313	92.5	59.7
70	**UCF314**	226	61	178	25	25	36	81	78	33	M22	UC314	104	68
75	**UCF315**	236	66	184	25	25	39	89	82	32	M22	UC315	114	76.9
80	**UCF316**	250	68	196	31	27	38	90	86	34	M27	UC316	123	86.4
85	**UCF317**	260	74	204	31	27	44	100	96	40	M27	UC317	132	96.5
90	**UCF318**	280	76	216	35	30	44	100	96	40	M30	UC318	143	107.2
95	**UCF319**	290	94	228	35	30	59	121	103	41	M30	UC319	153	118.4
100	**UCF320**	310	94	242	38	32	59	125	108	42	M33	UC320	173	140.4
105	**UCF321**	310	94	242	38	32	59	127	112	44	M33	UC321	183	153.1
110	**UCF322**	340	96	266	41	35	60	131	117	46	M36	UC322	205	178.8
120	**UCF324**	370	110	290	41	40	65	140	126	51	M36	UC324	207	184.8
130	**UCF326**	410	115	320	41	45	65	146	135	54	M36	UC326	229	214.3
140	**UCF328**	450	125	350	41	55	75	161	145	59	M36	UC328	255	246

Standard		With Cast Iron Cover				
		Unit No.		Cover Dimensions		
Housing No.	Mass (kg)	Open	Closed	A_5 (mm)	A_7 (mm)	Mass (kg)
F305	1.2	※***CUCF305C***	※***CUCF305CE***	55	10	1.6
F306	1.7	**CUCF306C**	**CUCF306CE**	60	10	2.1
F307	2.1	**CUCF307C**	**CUCF307CE**	65	10	2.6
F308	2.89	**CUCF308C**	**CUCF308CE**	73	11	3.4
F309	3.6	**CUCF309C**	**CUCF309CE**	78	12	4.3
F310	4.7	**CUCF310C**	**CUCF310CE**	85	12	5.5
F311	5.05	**CUCF311C**	**CUCF311CE**	90	13	6.7
F312	6.54	**CUCF312C**	**CUCF312CE**	98	14	7.7
F313	7.54	**CUCF313C**	**CUCF313CE**	103	17	11.5
F314	9.32	**CUCF314C**	**CUCF314CE**	106	17	12.1
F315	11.39	**CUCF315C**	**CUCF315CE**	114	17	13.6
F316	12.62	**CUCF316C**	**CUCF316CE**	115	17	15.9
F317	15.2	**CUCF317C**	**CUCF317CE**	126	18	18.4
F318	18.29	**CUCF318C**	**CUCF318CE**	128	20	21.5
F319	20.7	**CUCF319C**	**CUCF319CE**	149	20	24.2
F320	23.68	**CUCF320C**	**CUCF320CE**	154	21	29.6
F321	25.6	**CUCF321C**	**CUCF321CE**	156	21	32.2
F322	33.73	**CUCF322C**	**CUCF322CE**	165	26	38.7
F324	45.33	**CUCF324C**	**CUCF324CE**	175	25	52.3
F326	58.74	**CUCF326C**	**CUCF326CE**	180	24	67.3
F328	87.0	**CUCF328C**	**CUCF328CE**	195	24	89.4

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

4-Bolt Square Flange Units
UGF200 Type

Normal Duty
Eccentric Collar Locking
Steel Collar w/ Black Oxide Finish
Gray Cast Iron Housing
Relube



Metric Size

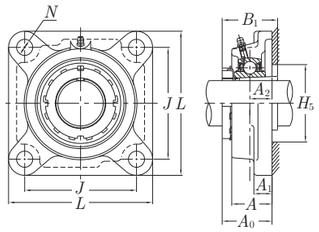
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)
		L	A	J	N	A_1	A_2	A_0	H_5 (min.)	B_1	S	
20	**UGF204**	86	25.5	64	12	12	15	41.6	31	43.7	17.1	M10
25	**UGF205**	95	27	70	12	14	16	42.9	36	44.4	17.5	M10
30	**UGF206**	108	31	83	12	14	18	48.1	42	48.4	18.3	M10
35	**UGF207**	117	34	92	14	16	19	51.3	—	51.1	18.8	M12
40	**UGF208**	130	36	102	16	16	21	55.9	55	56.3	21.4	M14
45	**UGF209**	137	38	105	16	18	22	56.9	—	56.3	21.4	M14
50	**UGF210**	143	40	111	16	18	22	60.1	65	62.7	24.6	M14
55	**UGF211**	162	43	130	19	20	25	68.6	72	71.4	27.8	M16
60	**UGF212**	175	48	143	19	20	29	75.8	79	77.8	31	M16
65	**UGF213**	187	50	149	19	20	30	81.6	84	85.7	34.1	M16

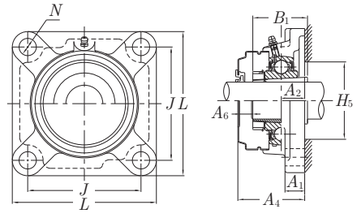
Note: For grease fitting tap size, see Table 7.1 on page 250.

Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
	C_r	C_{0r}		
UG204+ER	12.8	6.6	F204	0.63
UG205+ER	14	7.9	F205	0.76
UG206+ER	19.6	11.3	F206	1.1
UG207+ER	25.9	15.4	F207	1.5
UG208+ER	29.3	17.9	F208	1.9
UG209+ER	33	20.5	F209	2.19
UG210+ER	35.5	23.2	F210	2.5
UG211+ER	43	29.4	F211	3.6
UG212+ER	52.5	36.1	F212	4.3
UG213+ER	57.5	40	F213	5.59

4-Bolt Square Flange Units
UKF200+H Type

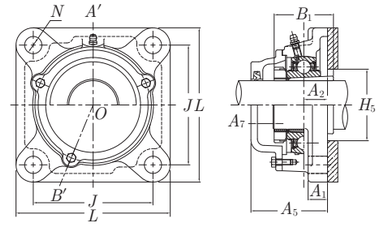
Normal Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Cover

Section A'-O-B'



With Cast Iron Cover

Metric Size

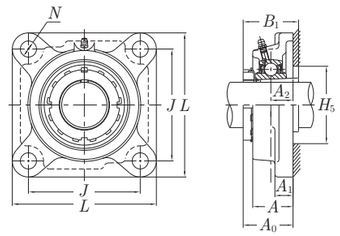
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		L	A	J	N	A_1	A_2	A_0	H_5 (min.)	B_1			C_r	C_{0r}
20	**UKF205+H2305**	95	27	70	12	14	16	35.5	–	35	M10	UK205+H2305	14	7.9
25	**UKF206+H2306**	108	31	83	12	14	18	39	–	38	M10	UK206+H2306	19.6	11.3
30	**UKF207+H2307**	117	34	92	14	16	19	41.5	40	43	M12	UK207+H2307	25.9	15.4
35	**UKF208+H2308**	130	36	102	16	16	21	45.5	45	46	M14	UK208+H2308	29.3	17.9
40	**UKF209+H2309**	137	38	105	16	18	22	48	51	50	M14	UK209+H2309	33	20.5
45	**UKF210+H2310**	143	40	111	16	18	22	49.5	56	55	M14	UK210+H2310	35.5	23.2
50	**UKF211+H2311**	162	43	130	19	20	25	53.5	61	59	M16	UK211+H2311	43	29.4
55	**UKF212+H2312**	175	48	143	19	20	29	60	67	62	M16	UK212+H2312	52.5	36.1
60	**UKF213+H2313**	187	50	149	19	20	30	63	72	65	M16	UK213+H2313	57.5	40
65	**UKF215+H2315**	200	56	159	19	24	34	69.5	82	73	M16	UK215+H2315	66	48.2
70	**UKF216+H2316**	208	58	165	23	24	34	73	88	78	M20	UK216+H2316	72.5	53
75	**UKF217+H2317**	220	63	175	23	26	36	77	93	82	M20	UK217+H2317	83.5	61.8
80	**UKF218+H2318**	235	68	187	23	26	40	82.5	98	86	M20	UK218+H2318	95.5	71.4

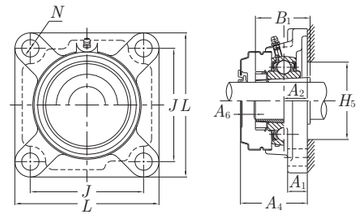
Standard		With Pressed Steel Cover					With Cast Iron Cover				
		Unit No.		Cover Dimensions			Unit No.		Cover Dimensions		
Housing No.	Mass (kg)	Open	Closed	A_4 (mm)	A_6 (mm)	Mass (kg)	Open	Closed	A_5 (mm)	A_7 (mm)	Mass (kg)
F205	0.77	**UKF205C+H2305**	**UKF205E+H2305**	47	10	0.81	**CUKF205C+H2305**	**CUKF205CE+H2305**	51	9	0.98
F206	1.1	**UKF206C+H2306**	**UKF206E+H2306**	51	10	1.2	**CUKF206C+H2306**	**CUKF206CE+H2306**	55	10	1.7
F207	1.43	**UKF207C+H2307**	**UKF207E+H2307**	54	11	1.63	**CUKF207C+H2307**	**CUKF207CE+H2307**	59	11	1.88
F208	1.84	**UKF208C+H2308**	**UKF208E+H2308**	62	15	1.94	**CUKF208C+H2308**	**CUKF208CE+H2308**	66	14	2.8
F209	2.17	**UKF209C+H2309**	**UKF209E+H2309**	63	14	2.27	**CUKF209C+H2309**	**CUKF209CE+H2309**	67	13	2.77
F210	2.51	**UKF210C+H2310**	**UKF210E+H2310**	66	15	2.61	**CUKF210C+H2310**	**CUKF210CE+H2310**	71	15	3.02
F211	3.6	**UKF211C+H2311**	**UKF211E+H2311**	69	14	3.8	**CUKF211C+H2311**	**CUKF211CE+H2311**	75	15	4.8
F212	4.04	**UKF212C+H2312**	**UKF212E+H2312**	80	19	4.34	**CUKF212C+H2312**	**CUKF212CE+H2312**	86	20	6.0
F213	5.09	**UKF213C+H2313**	**UKF213E+H2313**	81	17	5.39	**CUKF213C+H2313**	**CUKF213CE+H2313**	89	20	6.52
F215	6.63	–	–	–	–	–	**CUKF215C+H2315**	**CUKF215CE+H2315**	102	26	8.58
F216	7.93	–	–	–	–	–	**CUKF216C+H2316**	**CUKF216CE+H2316**	107	26	9.93
F217	9.35	–	–	–	–	–	**CUKF217C+H2317**	**CUKF217CE+H2317**	111	27	12.4
F218	11.08	–	–	–	–	–	**CUKF218C+H2318**	**CUKF218CE+H2318**	122	31	15.3

Note: For grease fitting tap size, see Table 7.1 on page 250.

4-Bolt Square Flange Units
UKFX00+H Type

Medium Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Cover

Metric Size

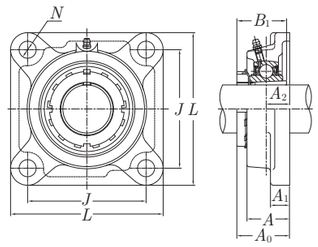
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		L	A	J	N	A_1	A_2	A_0	H_5 (min.)	B_1			C_r	C_{0r}
20	**UKFX05+H2305**	108	30	83	12	13	18	39	–	35	M10	UKX05+H2305	19.6	11.3
25	**UKFX06+H2306**	117	34	92	16	14	19	40.5	–	38	M14	UKX06+H2306	25.9	15.4
30	**UKFX07+H2307**	130	38	102	16	14	21	44.5	–	43	M14	UKX07+H2307	29.3	17.9
35	**UKFX08+H2308**	137	40	105	19	14	22	47	–	46	M16	UKX08+H2308	33	20.5
40	**UKFX09+H2309**	143	40	111	19	14	23	49.5	51	50	M16	UKX09+H2309	35.5	23.2
45	**UKFX10+H2310**	162	44	130	19	20	26	54.5	56	55	M16	UKX10+H2310	43	29.4
50	**UKFX11+H2311**	175	49	143	19	20	29	59	61	59	M16	UKX11+H2311	52.5	36.1
55	**UKFX12+H2312**	187	59	149	19	21	34	66	–	62	M16	UKX12+H2312	57.5	40
60	**UKFX13+H2313**	187	59	149	19	21	34	68	–	65	M16	UKX13+H2313	62	44
65	**UKFX15+H2315**	197	68	152	23	24	40	77	–	73	M20	UKX15+H2315	72.5	53
70	**UKFX16+H2316**	214	70	171	23	24	40	80	–	78	M20	UKX16+H2316	83.5	61.8
75	**UKFX17+H2317**	214	70	171	23	24	40	82.5	–	82	M20	UKX17+H2317	95.5	71.4
80	**UKFX18+H2318**	214	76	171	23	24	45	89	–	86	M20	UKX18+H2318	109	81.6
90	**UKFX20+H2320**	268	97	211	31	31	59	108	–	97	M27	UKX20+H2320	134	104.7

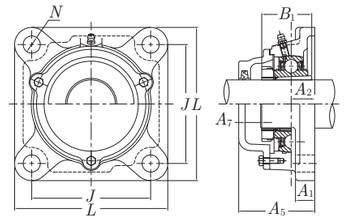
Standard		With Pressed Steel Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
FX05	1.1	※***UKFX05C+H2305***	※***UKFX05E+H2305***	50	9	1.2
FX06	1.4	※***UKFX06C+H2306***	※***UKFX06E+H2306***	54	12	1.5
FX07	1.8	※***UKFX07C+H2307***	※***UKFX07E+H2307***	63	17	1.9
FX08	1.8	※***UKFX08C+H2308***	※***UKFX08E+H2308***	63	15	1.9
FX09	2.4	※***UKFX09C+H2309***	※***UKFX09E+H2309***	67	16	2.5
FX10	3.6	※***UKFX10C+H2310***	※***UKFX10E+H2310***	70	14	3.8
FX11	4.3	※***UKFX11C+H2311***	※***UKFX11E+H2311***	79	19	4.5
FX12	5.3	※***UKFX12C+H2312***	※***UKFX12E+H2312***	86	19	5.6
FX13	5.53	–	–	–	–	–
FX15	7.67	–	–	–	–	–
FX16	10.2	–	–	–	–	–
FX17	10.57	–	–	–	–	–
FX18	10.2	–	–	–	–	–
FX20	15.9	–	–	–	–	–

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

4-Bolt Square Flange Units
UKF300+H Type

Heavy Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Cast Iron Cover

Metric Size

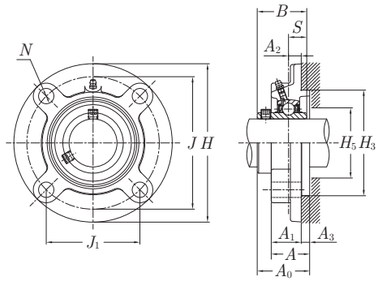
Shaft Dia. (mm)	Unit No.	Dimensions (mm)								Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		L	A	J	N	A_1	A_2	A_0	B_1			C_r	C_{0r}
20	**UKF305+H2305**	110	29	80	16	13	16	37	35	M14	UK305+H2305	21.3	10.9
25	**UKF306+H2306**	125	32	95	16	15	18	40.5	38	M14	UK306+H2306	26.8	15
30	**UKF307+H2307**	135	36	100	19	16	20	44.5	43	M16	UK307+H2307	33.5	19.2
35	**UKF308+H2308**	150	40	112	19	17	23	50	46	M16	UK308+H2308	40.5	23.9
40	**UKF309+H2309**	160	44	125	19	18	25	54.5	50	M16	UK309+H2309	51.5	29.5
45	**UKF310+H2310**	175	48	132	23	19	28	60	55	M20	UK310+H2310	61.5	38.2
50	**UKF311+H2311**	185	52	140	23	20	30	63.5	59	M20	UK311+H2311	71.5	44.8
55	**UKF312+H2312**	195	56	150	23	22	33	69	62	M20	UK312+H2312	81.5	52
60	**UKF313+H2313**	208	58	166	23	22	33	71	65	M20	UK313+H2313	92.5	59.7
65	**UKF315+H2315**	236	66	184	25	25	39	81	73	M22	UK315+H2315	114	76.9
70	**UKF316+H2316**	250	68	196	31	27	38	83.5	78	M27	UK316+H2316	123	86.4
75	**UKF317+H2317**	260	74	204	31	27	44	92	82	M27	UK317+H2317	132	96.5
80	**UKF318+H2318**	280	76	216	35	30	44	93.5	86	M30	UK318+H2318	143	107.2
85	**UKF319+H2319**	290	94	228	35	30	59	111	90	M30	UK319+H2319	153	118.4
90	**UKF320+H2320**	310	94	242	38	32	59	115	97	M33	UK320+H2320	173	140.4
100	**UKF322+H2322**	340	96	266	41	35	60	121	105	M36	UK322+H2322	205	178.8
110	**UKF324+H2324**	370	110	290	41	40	65	130	112	M36	UK324+H2324	207	184.8
115	**UKF326+H2326**	410	115	320	41	45	65	134	121	M36	UK326+H2326	229	214.3
125	**UKF328+H2328**	450	125	350	41	55	75	148	131	M36	UK328+H2328	255	246

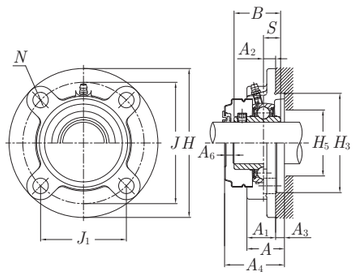
Standard		With Cast Iron Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_5 (mm)	A_7 (mm)	
F305	1.2	※***CUKF305C+H2305***	※***CUKF305CE+H2305***	55	12	1.7
F306	1.7	**CUKF306C+H2306**	**CUKF306CE+H2306**	60	13	2.2
F307	2.1	**CUKF307C+H2307**	**CUKF307CE+H2307**	65	14	2.7
F308	2.9	**CUKF308C+H2308**	**CUKF308CE+H2308**	73	17	3.5
F309	3.6	**CUKF309C+H2309**	**CUKF309CE+H2309**	78	17	4.4
F310	4.8	**CUKF310C+H2310**	**CUKF310CE+H2310**	85	19	5.8
F311	5.04	**CUKF311C+H2311**	**CUKF311CE+H2311**	90	20	6.8
F312	6.48	**CUKF312C+H2312**	**CUKF312CE+H2312**	98	23	7.8
F313	7.46	**CUKF313C+H2313**	**CUKF313CE+H2313**	103	24	11.5
F315	11.54	**CUKF315C+H2315**	**CUKF315CE+H2315**	114	25	14.0
F316	12.84	**CUKF316C+H2316**	**CUKF316CE+H2316**	115	23	16.3
F317	15.1	**CUKF317C+H2317**	**CUKF317CE+H2317**	126	26	18.6
F318	19.0	**CUKF318C+H2318**	**CUKF318CE+H2318**	128	26	22.5
F319	18.47	**CUKF319C+H2319**	**CUKF319CE+H2319**	149	30	24.4
F320	23.68	**CUKF320C+H2320**	**CUKF320CE+H2320**	154	31	30.2
F322	33.83	**CUKF322C+H2322**	**CUKF322CE+H2322**	165	36	39.4
F324	44.83	**CUKF324C+H2324**	**CUKF324CE+H2324**	175	35	52.5
F326	59.04	**CUKF326C+H2326**	**CUKF326CE+H2326**	180	36	68.8
F328	87.3	**CUKF328C+H2328**	**CUKF328CE+H2328**	195	37	90.9

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Piloted 4-Bolt Round Flange Units
UCFC200 Type

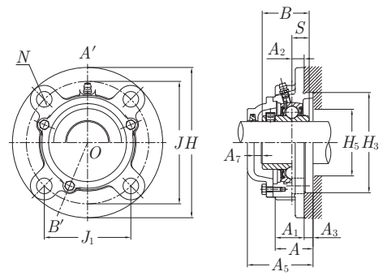
Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Cover

Section A′-O-B′



With Cast Iron Cover

Metric Size

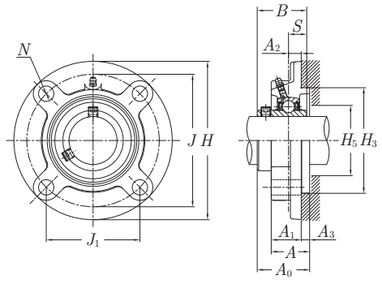
Shaft Dia. (mm)	Unit No.	Dimensions (mm)													Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	A_1	J	J_1	N	A_2	A_3	A	H_5 (min.)	H_3	A_0	B	S			C_r	C_{0r}
12	**UCFC201**	100	20.5	78	55.1	12	10	5	25.5	–	62	33.3	31	12.7	M10	UC201	12.8	6.6
15	**UCFC202**	100	20.5	78	55.1	12	10	5	25.5	–	62	33.3	31	12.7	M10	UC202	12.8	6.6
17	**UCFC203**	100	20.5	78	55.1	12	10	5	25.5	–	62	33.3	31	12.7	M10	UC203	12.8	6.6
20	**UCFC204**	100	20.5	78	55.1	12	10	5	25.5	–	62	33.3	31	12.7	M10	UC204	12.8	6.6
25	**UCFC205**	115	21	90	63.6	12	10	6	27	–	70	35.8	34.1	14.3	M10	UC205	14	7.9
30	**UCFC206**	125	23	100	70.7	12	10	8	31	–	80	40.2	38.1	15.9	M10	UC206	19.6	11.3
35	**UCFC207**	135	26	110	77.8	14	11	8	34	48	90	44.4	42.9	17.5	M12	UC207	25.9	15.4
40	**UCFC208**	145	26	120	84.8	14	11	10	36	52	100	51.2	49.2	19	M12	UC208	29.3	17.9
45	**UCFC209**	160	26	132	93.3	16	10	12	38	–	105	52.2	49.2	19	M14	UC209	33	20.5
50	**UCFC210**	165	28	138	97.6	16	10	12	40	–	110	54.6	51.6	19	M14	UC210	35.5	23.2
55	**UCFC211**	185	31	150	106.1	19	13	12	43	69	125	58.4	55.6	22.2	M16	UC211	43	29.4
60	**UCFC212**	195	36	160	113.1	19	17	12	48	–	135	68.7	65.1	25.4	M16	UC212	52.5	36.1
65	**UCFC213**	205	36	170	120.2	19	16	14	50	–	145	69.7	65.1	25.4	M16	UC213	57.5	40
70	**UCFC214**	215	40	177	125.1	19	17	14	54	88	150	75.4	74.6	30.2	M16	UC214	62	44
75	**UCFC215**	220	40	184	130.1	19	18	16	56	93	160	78.5	77.8	33.3	M16	UC215	66	48.2
80	**UCFC216**	240	42	200	141.4	23	18	16	58	100	170	83.3	82.6	33.3	M20	UC216	72.5	53
85	**UCFC217**	250	45	208	147.1	23	18	18	63	105	180	87.6	85.7	34.1	M20	UC217	83.5	61.8
90	**UCFC218**	265	50	220	155.5	23	22	18	68	114	190	96.3	96	39.7	M20	UC218	95.5	71.4

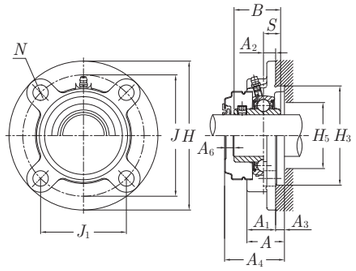
Note: For grease fitting tap size, see Table 7.1 on page 250.

Standard		With Pressed Steel Cover					With Cast Iron Cover				
		Unit No.		Cover Dimensions			Unit No.		Cover Dimensions		
Housing No.	Mass (kg)	Open	Closed	A_4 (mm)	A_6 (mm)	Mass (kg)	Open	Closed	A_5 (mm)	A_7 (mm)	Mass (kg)
FC204	0.89	**UCFC201C**	**UCFC201E**	43	8	0.92	**CUCFC201C**	**CUCFC201CE**	46	6	1.2
FC204	0.87	**UCFC202C**	**UCFC202E**	43	8	0.90	**CUCFC202C**	**CUCFC202CE**	46	6	1.2
FC204	0.86	**UCFC203C**	**UCFC203E**	43	8	0.89	**CUCFC203C**	**CUCFC203CE**	46	6	1.2
FC204	0.84	**UCFC204C**	**UCFC204E**	43	8	0.87	**CUCFC204C**	**CUCFC204CE**	46	6	1.2
FC205	0.97	**UCFC205C**	**UCFC205E**	47	9	0.97	**CUCFC205C**	**CUCFC205CE**	51	9	1.5
FC206	1.18	**UCFC206C**	**UCFC206E**	51	9	1.18	**CUCFC206C**	**CUCFC206CE**	55	8	2.0
FC207	1.55	**UCFC207C**	**UCFC207E**	54	8	1.65	**CUCFC207C**	**CUCFC207CE**	59	8	2.4
FC208	1.85	**UCFC208C**	**UCFC208E**	62	10	1.85	**CUCFC208C**	**CUCFC208CE**	66	8	2.8
FC209	2.42	**UCFC209C**	**UCFC209E**	63	10	2.52	**CUCFC209C**	**CUCFC209CE**	67	8	3.1
FC210	2.71	**UCFC210C**	**UCFC210E**	66	9	2.91	**CUCFC210C**	**CUCFC210CE**	71	10	4.2
FC211	3.9	**UCFC211C**	**UCFC211E**	69	9	4.0	**CUCFC211C**	**CUCFC211CE**	75	10	5.0
FC212	4.55	**UCFC212C**	**UCFC212E**	80	10	4.75	**CUCFC212C**	**CUCFC212CE**	86	11	6.0
FC213	5.11	**UCFC213C**	**UCFC213E**	81	10	5.31	**CUCFC213C**	**CUCFC213CE**	89	13	7.0
FC214	6.4	**–**	**–**	–	–	–	**CUCFC214C**	**CUCFC214CE**	98	16	8.2
FC215	6.92	**–**	**–**	–	–	–	**CUCFC215C**	**CUCFC215CE**	102	17	8.8
FC216	8.6	**–**	**–**	–	–	–	**CUCFC216C**	**CUCFC216CE**	107	15	11.3
FC217	9.83	**–**	**–**	–	–	–	**CUCFC217C**	**CUCFC217CE**	111	16	12.8
FC218	12.24	**–**	**–**	–	–	–	**CUCFC218C**	**CUCFC218CE**	122	17	15.9

Piloted 4-Bolt Round Flange Units
UCFCX00 Type

Medium Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Cover

Metric Size

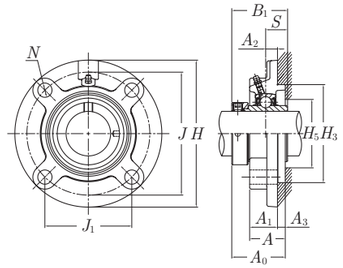
Shaft Dia. (mm)	Unit No.	Dimensions (mm)													Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	A_1	J	J_1	N	A_2	A_3	A	H_5 (min.)	H_3	A_0	B	S			C_r	C_{0r}
25	**UCFCX05**	111	24	92	65	9.5	10	6	30	43	76	38.2	38.1	15.9	M 8	UCX05	19.6	11.3
30	**UCFCX06**	127	22.5	105	74.2	12	8	9.5	32	50	85	42.9	42.9	17.5	M10	UCX06	25.9	15.4
35	**UCFCX07**	133	26	111	78.5	12	9	11	37	54	92	50.2	49.2	19	M10	UCX07	29.3	17.9
40	**UCFCX08**	133	26	111	78.5	12	9	11	37	58	92	50.2	49.2	19	M10	UCX08	33	20.5
45	**UCFCX09**	155	25	130	91.9	14	8	12	37	64	108	52.6	51.6	19	M12	UCX09	35.5	23.2
50	**UCFCX10**	162	25	136	96.2	14	7	16	41	71	118	56.4	55.6	22.2	M12	UCX10	43	29.4
55	**UCFCX11**	180	26	152	107.5	16	4	22	48	79	127	65.7	65.1	25.4	M14	UCX11	52.5	36.1
60	**UCFCX12**	194	33	165	116.7	16	11	20	53	–	140	70.7	65.1	25.4	M14	UCX12	57.5	40
65	**UCFCX13**	194	33	165	116.7	16	11	20	53	88	140	75.4	74.6	30.2	M14	UCX13	62	44
70	**UCFCX14**	222	36	190	134.3	19	14	20	56	93	164	78.5	77.8	33.3	M16	UCX14	66	48.2
75	**UCFCX15**	222	35	190	134.3	19	12	22	57	100	164	83.3	82.6	33.3	M16	UCX15	72.5	53
80	**UCFCX16**	260	36	219	154.8	23	10	25	61	106	186	86.6	85.7	34.1	M20	UCX16	83.5	61.8
85	**UCFCX17**	260	36	219	154.8	23	10	25	61	120	186	91.3	96	39.7	M20	UCX17	95.5	71.4
90	**UCFCX18**	260	43	219	154.8	23	12	28	71	125	186	101.1	104	42.9	M20	UCX18	109	81.6
100	**UCFCX20**	276	66	238	168.3	23	22	28	94	134	206	118.3	117.5	49.2	M20	UCX20	134	104.7

Standard		With Pressed Steel Cover				
		Unit No.		Cover Dimensions		
Housing No.	Mass (kg)	Open	Closed	A_4 (mm)	A_6 (mm)	Mass (kg)
FCX05	1.1	※***UCFCX05C***	※***UCFCX05E***	51	9	1.2
FCX06	1.5	※***UCFCX06C***	※***UCFCX06E***	53	8	1.6
FCX07	1.8	※***UCFCX07C***	※***UCFCX07E***	59	7	1.9
FCX08	1.8	※***UCFCX08C***	※***UCFCX08E***	61	10	1.9
FCX09	2.5	※***UCFCX09C***	※***UCFCX09E***	64	10	2.6
FCX10	2.86	※***UCFCX10C***	※***UCFCX10E***	67	9	3.06
FCX11	4.0	※***UCFCX11C***	※***UCFCX11E***	76	9	4.2
FCX12	4.6	※***UCFCX12C***	※***UCFCX12E***	83	11	4.9
FCX13	5.08	-	-	-	-	-
FCX14	7.4	-	-	-	-	-
FCX15	7.4	-	-	-	-	-
FCX16	11.5	-	-	-	-	-
FCX17	11.1	-	-	-	-	-
FCX18	11.3	-	-	-	-	-
FCX20	18.19	-	-	-	-	-

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Piloted 4-Bolt Round Flange Units
UGFC200 Type

Normal Duty
Eccentric Collar Locking
Steel Collar w/ Black Oxide Finish
Gray Cast Iron Housing
Relube



Metric Size

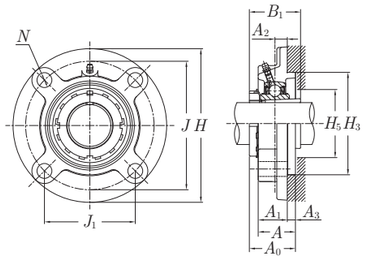
Shaft Dia. (mm)	Unit No.	Dimensions (mm)													Bolt Size (mm)
		H	A_1	J	J_1	N	A_2	A_3	A	H_5 (min.)	H_3	A_0	B_1	S	
20	**UGFC204**	100	20.5	78	55.1	12	10	5	25.5	31	62	41.6	43.7	17.1	M10
25	**UGFC205**	115	21	90	63.6	12	10	6	27	36	70	42.9	44.4	17.5	M10
30	**UGFC206**	125	23	100	70.7	12	10	8	31	42	80	48.1	48.4	18.3	M10
35	**UGFC207**	135	26	110	77.8	14	11	8	34	–	90	51.3	51.1	18.8	M12
40	**UGFC208**	145	26	120	84.8	14	11	10	36	55	100	55.9	56.3	21.4	M12
45	**UGFC209**	160	26	132	93.3	16	10	12	38	–	105	56.9	56.3	21.4	M14
50	**UGFC210**	165	28	138	97.6	16	10	12	40	65	110	60.1	62.7	24.6	M14
55	**UGFC211**	185	31	150	106.1	19	13	12	43	72	125	68.6	71.4	27.8	M16
60	**UGFC212**	195	36	160	113.1	19	17	12	48	79	135	75.8	77.8	31	M16
65	**UGFC213**	205	36	170	120.2	19	16	14	50	84	145	81.6	85.7	34.1	M16

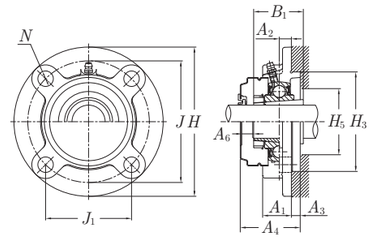
Note: For grease fitting tap size, see Table 7.1 on page 250.

Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
	C_r	C_{0r}		
UG204+ER	12.8	6.6	FC204	0.89
UG205+ER	14	7.9	FC205	1.0
UG206+ER	19.6	11.3	FC206	1.2
UG207+ER	25.9	15.4	FC207	1.7
UG208+ER	29.3	17.9	FC208	2.0
UG209+ER	33	20.5	FC209	2.5
UG210+ER	35.5	23.2	FC210	2.8
UG211+ER	43	29.4	FC211	4.1
UG212+ER	52.5	36.1	FC212	4.8
UG213+ER	57.5	40	FC213	5.72

Piloted 4-Bolt Round Flange Units
UKFC200+H Type

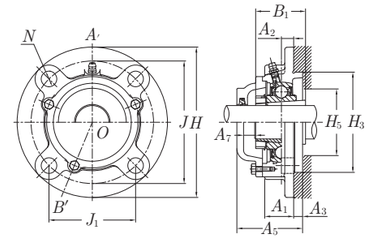
Normal Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Cover

Section A'-O-B'



With Cast Iron Cover

Metric Size

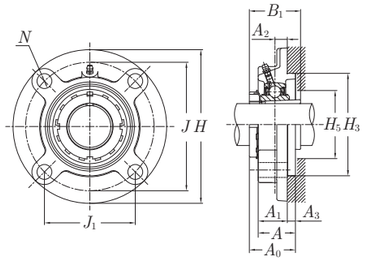
Shaft Dia. (mm)	Unit No.	Dimensions (mm)												Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	A_1	J	J_1	N	A_2	A_3	A	H_5 (min.)	H_3	A_0	B_1			C_r	C_{0r}
20	**UKFC205+H2305**	115	21	90	63.6	12	10	6	27	–	70	35.5	35	M10	UK205+H2305	14	7.9
25	**UKFC206+H2306**	125	23	100	70.7	12	10	8	31	–	80	39	38	M10	UK206+H2306	19.6	11.3
30	**UKFC207+H2307**	135	26	110	77.8	14	11	8	34	40	90	41.5	43	M12	UK207+H2307	25.9	15.4
35	**UKFC208+H2308**	145	26	120	84.8	14	11	10	36	45	100	45.5	46	M12	UK208+H2308	29.3	17.9
40	**UKFC209+H2309**	160	26	132	93.3	16	10	12	38	51	105	48	50	M14	UK209+H2309	33	20.5
45	**UKFC210+H2310**	165	28	138	97.6	16	10	12	40	56	110	49.5	55	M14	UK210+H2310	35.5	23.2
50	**UKFC211+H2311**	185	31	150	106.1	19	13	12	43	61	125	53.5	59	M16	UK211+H2311	43	29.4
55	**UKFC212+H2312**	195	36	160	113.1	19	17	12	48	67	135	60	62	M16	UK212+H2312	52.5	36.1
60	**UKFC213+H2313**	205	36	170	120.2	19	16	14	50	72	145	63	65	M16	UK213+H2313	57.5	40
65	**UKFC215+H2315**	220	40	184	130.1	19	18	16	56	82	160	69.5	73	M16	UK215+H2315	66	48.2
70	**UKFC216+H2316**	240	42	200	141.4	23	18	16	58	88	170	73	78	M20	UK216+H2316	72.5	53
75	**UKFC217+H2317**	250	45	208	147.1	23	18	18	63	93	180	77	82	M20	UK217+H2317	83.5	61.8
80	**UKFC218+H2318**	265	50	220	155.5	23	22	18	68	98	190	82.5	86	M20	UK218+H2318	95.5	71.4

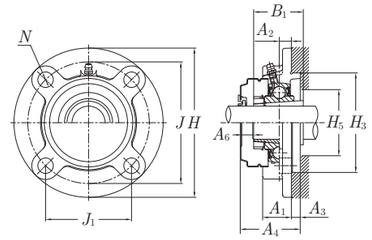
Standard		With Pressed Steel Cover					With Cast Iron Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)		Open	Closed	A_5 (mm)	A_7 (mm)	
FC205	1.02	**UKFC205C+H2305**	**UKFC205E+H2305**	47	10	1.12	**CUKFC205C+H2305**	**CUKFC205CE+H2305**	51	9	1.6
FC206	1.27	**UKFC206C+H2306**	**UKFC206E+H2306**	51	10	1.27	**CUKFC206C+H2306**	**CUKFC206CE+H2306**	55	10	2.1
FC207	1.6	**UKFC207C+H2307**	**UKFC207E+H2307**	54	11	1.7	**CUKFC207C+H2307**	**CUKFC207CE+H2307**	59	11	2.5
FC208	1.92	**UKFC208C+H2308**	**UKFC208E+H2308**	62	15	1.92	**CUKFC208C+H2308**	**CUKFC208CE+H2308**	66	14	2.9
FC209	2.52	**UKFC209C+H2309**	**UKFC209E+H2309**	63	14	2.62	**CUKFC209C+H2309**	**CUKFC209CE+H2309**	67	13	3.2
FC210	2.86	**UKFC210C+H2310**	**UKFC210E+H2310**	66	15	3.06	**CUKFC210C+H2310**	**CUKFC210CE+H2310**	71	15	4.4
FC211	4.0	**UKFC211C+H2311**	**UKFC211E+H2311**	69	14	4.2	**CUKFC211C+H2311**	**CUKFC211CE+H2311**	75	15	5.2
FC212	4.57	**UKFC212C+H2312**	**UKFC212E+H2312**	80	19	4.87	**CUKFC212C+H2312**	**CUKFC212CE+H2312**	86	20	6.1
FC213	5.22	**UKFC213C+H2313**	**UKFC213E+H2313**	81	17	5.52	**CUKFC213C+H2313**	**CUKFC213CE+H2313**	89	20	7.2
FC215	7.33	–	–	–	–	–	**CUKFC215C+H2315**	**CUKFC215CE+H2315**	102	26	9.2
FC216	9.05	–	–	–	–	–	**CUKFC216C+H2316**	**CUKFC216CE+H2316**	107	26	11.7
FC217	10.41	–	–	–	–	–	**CUKFC217C+H2317**	**CUKFC217CE+H2317**	111	27	13.4
FC218	12.58	–	–	–	–	–	**CUKFC218C+H2318**	**CUKFC218CE+H2318**	112	31	16.3

Note: For grease fitting tap size, see Table 7.1 on page 250.

Piloted 4-Bolt Round Flange Units
UKFCX00+H Type

Medium Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Cover

Metric Size

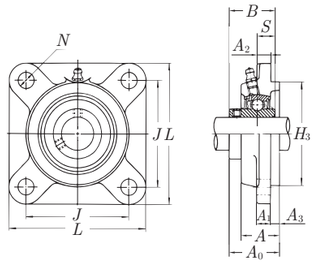
Shaft Dia. (mm)	Unit No.	Dimensions (mm)												Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	A_1	J	J_1	N	A_2	A_3	A	H_5 (min.)	H_3	A_0	B_1			C_r	C_{0r}
20	**UKFCX05+H2305**	111	24	92	65	9.5	10	6	30	–	76	37	35	M 8	UKX05+H2305	19.6	11.3
25	**UKFCX06+H2306**	127	22.5	105	74.2	12	8	9.5	32	–	85	39	38	M10	UKX06+H2306	25.9	15.4
30	**UKFCX07+H2307**	133	26	111	78.5	12	9	11	37	–	92	43.5	43	M10	UKX07+H2307	29.3	17.9
35	**UKFCX08+H2308**	133	26	111	78.5	12	9	11	37	45	92	45	46	M10	UKX08+H2308	33	20.5
40	**UKFCX09+H2309**	155	25	130	91.9	14	8	12	37	51	108	46.5	50	M12	UKX09+H2309	35.5	23.2
45	**UKFCX10+H2310**	162	25	136	96.2	14	7	16	41	56	118	51.5	55	M12	UKX10+H2310	43	29.4
50	**UKFCX11+H2311**	180	26	152	107.5	16	4	22	48	61	127	56	59	M14	UKX11+H2311	52.5	36.1
55	**UKFCX12+H2312**	194	33	165	116.7	16	11	20	53	–	140	63	62	M14	UKX12+H2312	57.5	40
60	**UKFCX13+H2313**	194	33	165	116.7	16	11	20	53	72	140	65	65	M14	UKX13+H2313	62	44
65	**UKFCX15+H2315**	222	35	190	134.3	19	12	22	57	82	164	71	73	M16	UKX15+H2315	72.5	53
70	**UKFCX16+H2316**	260	36	219	154.8	23	10	25	61	88	186	75	78	M20	UKX16+H2316	83.5	61.8
75	**UKFCX17+H2317**	260	36	219	154.8	23	10	25	61	93	186	77.5	82	M20	UKX17+H2317	95.5	71.4
80	**UKFCX18+H2318**	260	43	219	154.8	23	12	28	71	98	186	84	86	M20	UKX18+H2318	109	81.6
90	**UKFCX20+H2320**	276	66	238	168.3	23	22	28	94	–	206	99	97	M20	UKX20+H2320	134	104.7

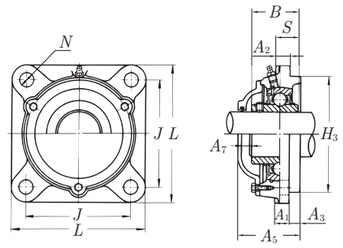
Standard		With Pressed Steel Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
FCX05	1.1	※***UKFCX05C+H2305***	※***UKFCX05E+H2306***	51	10	1.2
FCX06	1.5	※***UKFCX06C+H2306***	※***UKFCX06E+H2306***	53	12	1.6
FCX07	1.8	※***UKFCX07C+H2307***	※***UKFCX07E+H2307***	59	14	1.9
FCX08	1.8	※***UKFCX08C+H2308***	※***UKFCX08E+H2308***	61	15	1.9
FCX09	2.5	※***UKFCX09C+H2309***	※***UKFCX09E+H2309***	64	16	2.6
FCX10	2.87	※***UKFCX10C+H2310***	※***UKFCX10E+H2310***	67	14	3.07
FCX11	3.9	※***UKFCX11C+H2311***	※***UKFCX11E+H2311***	76	19	4.1
FCX12	4.6	※***UKFCX12C+H2312***	※***UKFCX12E+H2312***	83	19	4.9
FCX13	4.84	–	–	–	–	–
FCX15	7.4	–	–	–	–	–
FCX16	11.6	–	–	–	–	–
FCX17	11.0	–	–	–	–	–
FCX18	11.0	–	–	–	–	–
FCX20	17.25	–	–	–	–	–

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Piloted 4-Bolt Square Flange Units
UCFS300 Type

Heavy Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Cast Iron Cover

Metric Size

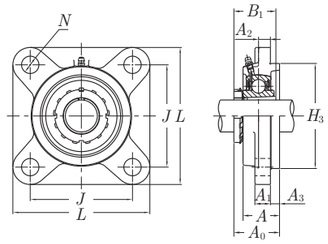
Shaft Dia. (mm)	Unit No.	Dimensions (mm)											Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		L	A	J	N	A_1	A_2	A_3	H_3	A_0	B	S			C_r	C_{0r}
25	**UCFS305**	110	29	80	16	13	9	7	80	39	38	15	M14	UC305	21.3	10.9
30	**UCFS306**	125	32	95	16	15	10	8	90	44	43	17	M14	UC306	26.8	15
35	**UCFS307**	135	36	100	19	16	11	9	100	49	48	19	M16	UC307	33.5	19.2
40	**UCFS308**	150	40	112	19	17	13	10	115	56	52	19	M16	UC308	40.5	23.9
45	**UCFS309**	160	44	125	19	18	14	11	125	60	57	22	M16	UC309	51.5	29.5
50	**UCFS310**	175	48	132	23	19	16	12	140	67	61	22	M20	UC310	61.5	38.2
55	**UCFS311**	185	52	140	23	20	17	13	150	71	66	25	M20	UC311	71.5	44.8
60	**UCFS312**	195	56	150	23	22	19	14	160	78	71	26	M20	UC312	81.5	52
65	**UCFS313**	208	58	166	23	22	15	18	175	78	75	30	M20	UC313	92.5	59.7
70	**UCFS314**	226	61	178	25	25	18	18	185	81	78	33	M22	UC314	104	68
75	**UCFS315**	236	66	184	25	25	21	18	200	89	82	32	M22	UC315	114	76.9
80	**UCFS316**	250	68	196	31	27	18	20	210	90	86	34	M27	UC316	123	86.4
85	**UCFS317**	260	74	204	31	27	24	20	220	100	96	40	M27	UC317	132	96.5
90	**UCFS318**	280	76	216	35	30	24	20	240	100	96	40	M30	UC318	143	107.2
95	**UCFS319**	290	94	228	35	30	39	20	250	121	103	41	M30	UC319	153	118.4
100	**UCFS320**	310	94	242	38	32	39	20	260	125	108	42	M33	UC320	173	140.4
105	**UCFS321**	310	94	242	38	32	39	20	260	127	112	44	M33	UC321	183	153.1
110	**UCFS322**	340	96	266	41	35	35	25	300	131	117	46	M36	UC322	205	178.8
120	**UCFS324**	370	110	290	41	40	35	30	330	140	126	51	M36	UC324	207	184.8
130	**UCFS326**	410	115	320	41	45	35	30	360	146	135	54	M36	UC326	229	214.3
140	**UCFS328**	450	125	350	41	55	45	30	400	161	145	59	M36	UC328	255	246

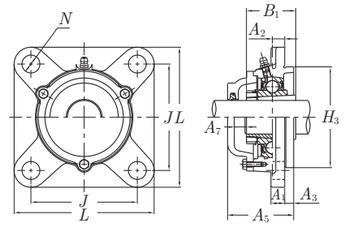
Standard		With Cast Iron Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_5 (mm)	A_7 (mm)	
FS305	1.4	※***CUCFS305C***	※***CUCFS305CE***	55	10	1.7
FS306	1.9	**CUCFS306C**	**CUCFS306CE**	60	10	2.3
FS307	2.4	**CUCFS307C**	**CUCFS307CE**	65	10	2.8
FS308	3.3	**CUCFS308C**	**CUCFS308CE**	73	11	3.8
FS309	4.0	**CUCFS309C**	**CUCFS309CE**	78	12	4.8
FS310	5.3	**CUCFS310C**	**CUCFS310CE**	85	12	6.1
FS311	5.53	**CUCFS311C**	**CUCFS311CE**	90	13	8.2
FS312	6.82	**CUCFS312C**	**CUCFS312CE**	98	14	8.5
FS313	8.24	**CUCFS313C**	**CUCFS313CE**	103	17	10.6
FS314	10.12	**CUCFS314C**	**CUCFS314CE**	106	17	13.0
FS315	12.08	**CUCFS315C**	**CUCFS315CE**	114	17	15.5
FS316	14.00	**CUCFS316C**	**CUCFS316CE**	115	17	17.6
FS317	15.98	**CUCFS317C**	**CUCFS317CE**	126	18	20.7
FS318	19.85	**CUCFS318C**	**CUCFS318CE**	128	20	24.9
FS319	23.9	**CUCFS319C**	**CUCFS319CE**	149	20	27.4
FS320	26.79	**CUCFS320C**	**CUCFS320CE**	154	21	33.9
FS321	28.5	**CUCFS321C**	**CUCFS321CE**	156	21	35.7
FS322	36.35	**CUCFS322C**	**CUCFS322CE**	165	26	43.6
FS324	50.6	**CUCFS324C**	**CUCFS324CE**	175	25	58.6
FS326	67.8	**CUCFS326C**	**CUCFS326CE**	180	24	75.7
FS328	96.3	**CUCFS328C**	**CUCFS328CE**	195	24	100

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Piloted 4-Bolt Square Flange Units
UKFS300+H Type

Heavy Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Cast Iron Cover

Metric Size

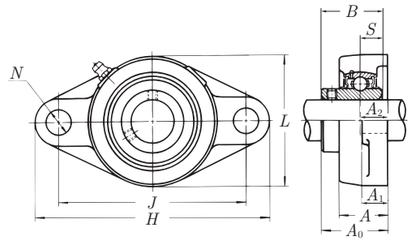
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		L	A	J	N	A_1	A_2	A_3	H_3	A_0	B_1			C_r	C_{0r}
20	**UKFS305+H2305**	110	29	80	16	13	9	7	80	37	35	M14	UK305+H2305	21.3	10.9
25	**UKFS306+H2306**	125	32	95	16	15	10	8	90	40.5	38	M14	UK306+H2306	26.8	15
30	**UKFS307+H2307**	135	36	100	19	16	11	9	100	44.5	43	M16	UK307+H2307	33.5	19.2
35	**UKFS308+H2308**	150	40	112	19	17	13	10	115	50	46	M16	UK308+H2308	40.5	23.9
40	**UKFS309+H2309**	160	44	125	19	18	14	11	125	54.5	50	M16	UK309+H2309	51.5	29.5
45	**UKFS310+H2310**	175	48	132	23	19	16	12	140	60	55	M20	UK310+H2310	61.5	38.2
50	**UKFS311+H2311**	185	52	140	23	20	17	13	150	63.5	59	M20	UK311+H2311	71.5	44.8
55	**UKFS312+H2312**	195	56	150	23	22	19	14	160	69	62	M20	UK312+H2312	81.5	52
60	**UKFS313+H2313**	208	58	166	23	22	15	18	175	71	65	M20	UK313+H2313	92.5	59.7
65	**UKFS315+H2315**	236	66	184	25	25	21	18	200	81	73	M22	UK315+H2315	114	76.9
70	**UKFS316+H2316**	250	68	196	31	27	18	20	210	83.5	78	M27	UK316+H2316	123	86.4
75	**UKFS317+H2317**	260	74	204	31	27	24	20	220	92	82	M27	UK317+H2317	132	96.5
80	**UKFS318+H2318**	280	76	216	35	30	24	20	240	93.5	86	M30	UK318+H2318	143	107.2
85	**UKFS319+H2319**	290	94	228	35	30	39	20	250	111	90	M30	UK319+H2319	153	118.4
90	**UKFS320+H2320**	310	94	242	38	32	39	20	260	115	97	M33	UK320+H2320	173	140.4
100	**UKFS322+H2322**	340	96	266	41	35	35	25	300	121	105	M36	UK322+H2322	205	178.8
110	**UKFS324+H2324**	370	110	290	41	40	35	30	330	130	112	M36	UK324+H2324	207	184.8
115	**UKFS326+H2326**	410	115	320	41	45	35	30	360	134	121	M36	UK326+H2326	229	214.3
125	**UKFS328+H2328**	450	125	350	41	55	45	30	400	148	131	M36	UK328+H2328	255	246

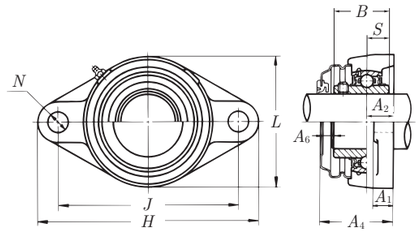
Standard		With Cast Iron Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_5 (mm)	A_7 (mm)	
FS305	1.4	※***CUKFS305C+H2305***	※***CUKFS305CE+H2305***	55	12	1.8
FS306	1.9	**CUKFS306C+H2306**	**CUKFS306CE+H2306**	60	13	2.4
FS307	2.4	**CUKFS307C+H2307**	**CUKFS307CE+H2307**	65	14	2.9
FS308	3.3	**CUKFS308C+H2308**	**CUKFS308CE+H2308**	73	17	3.9
FS309	4.0	**CUKFS309C+H2309**	**CUKFS309CE+H2309**	78	17	4.9
FS310	5.3	**CUKFS310C+H2310**	**CUKFS310CE+H2310**	85	19	6.4
FS311	5.52	**CUKFS311C+H2311**	**CUKFS311CE+H2311**	90	20	8.3
FS312	6.76	**CUKFS312C+H2312**	**CUKFS312CE+H2312**	98	23	8.6
FS313	8.16	**CUKFS313C+H2313**	**CUKFS313CE+H2313**	103	24	10.6
FS315	12.23	**CUKFS315C+H2315**	**CUKFS315CE+H2315**	114	25	15.9
FS316	14.22	**CUKFS316C+H2316**	**CUKFS316CE+H2316**	115	23	18.0
FS317	15.96	**CUKFS317C+H2317**	**CUKFS317CE+H2317**	126	26	20.9
FS318	20.03	**CUKFS318C+H2318**	**CUKFS318CE+H2318**	128	26	25.9
FS319	23.9	**CUKFS319C+H2319**	**CUKFS319CE+H2319**	149	30	27.6
FS320	27.79	**CUKFS320C+H2320**	**CUKFS320CE+H2320**	154	31	34.5
FS322	36.45	**CUKFS322C+H2322**	**CUKFS322CE+H2322**	165	36	44.3
FS324	50.1	**CUKFS324C+H2324**	**CUKFS324CE+H2324**	175	35	58.8
FS326	68.1	**CUKFS326C+H2326**	**CUKFS326CE+H2326**	180	36	77.2
FS328	96.6	**CUKFS328C+H2328**	**CUKFS328CE+H2328**	195	37	102

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

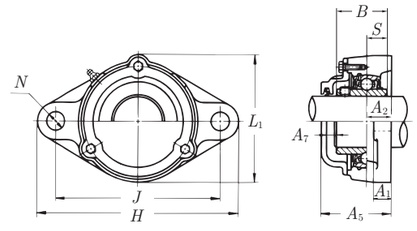
2-Bolt Oval Flange Units
UCFL200 Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Cover



With Cast Iron Cover

Metric Size

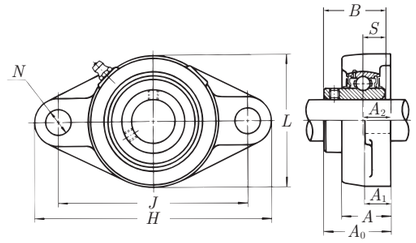
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	A_1	A_2	A_0	*B*	*S*			C_r	C_{0r}
12	**UCFL201**	113	60	25.5	90	12	12	15	33.3	31	12.7	M10	UC201	12.8	6.6
15	**UCFL202**	113	60	25.5	90	12	12	15	33.3	31	12.7	M10	UC202	12.8	6.6
17	**UCFL203**	113	60	25.5	90	12	12	15	33.3	31	12.7	M10	UC203	12.8	6.6
20	**UCFL204**	113	60	25.5	90	12	12	15	33.3	31	12.7	M10	UC204	12.8	6.6
25	**UCFL205**	130	68	27	99	16	14	16	35.8	34.1	14.3	M14	UC205	14	7.9
30	**UCFL206**	148	80	31	117	16	14	18	40.2	38.1	15.9	M14	UC206	19.6	11.3
35	**UCFL207**	161	90	34	130	16	16	19	44.4	42.9	17.5	M14	UC207	25.9	15.4
40	**UCFL208**	175	100	36	144	16	16	21	51.2	49.2	19	M14	UC208	29.3	17.9
45	**UCFL209**	188	108	38	148	19	18	22	52.2	49.2	19	M16	UC209	33	20.5
50	**UCFL210**	197	115	40	157	19	18	22	54.6	51.6	19	M16	UC210	35.5	23.2
55	**UCFL211**	224	130	43	184	19	20	25	58.4	55.6	22.2	M16	UC211	43	29.4
60	**UCFL212**	250	140	48	202	23	20	29	68.7	65.1	25.4	M20	UC212	52.5	36.1
65	**UCFL213**	258	155	50	210	23	24	30	69.7	65.1	25.4	M20	UC213	57.5	40
70	**UCFL214**	265	160	54	216	23	24	31	75.4	74.6	30.2	M20	UC214	62	44
75	**UCFL215**	275	165	56	225	23	24	34	78.5	77.8	33.3	M20	UC215	66	48.2
80	**UCFL216**	290	180	58	233	25	24	34	83.3	82.6	33.3	M22	UC216	72.5	53
85	**UCFL217**	305	190	63	248	25	26	36	87.6	85.7	34.1	M22	UC217	83.5	61.8
90	**UCFL218**	320	205	68	265	25	26	40	96.3	96	39.7	M22	UC218	95.5	71.4

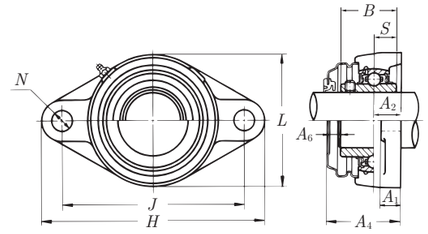
Note: For grease fitting tap size, see Table 7.1 on page 250.

Standard		With Pressed Steel Cover					With Cast Iron Cover					
		Unit No.		Cover Dimensions			Unit No.		Cover Dimensions			
Housing No.	Mass (kg)	Open	Closed	A_4 (mm)	A_6 (mm)	Mass (kg)	Open	Closed	L_1 (mm)	A_5 (mm)	A_7 (mm)	Mass (kg)
FL204	0.47	**UCFL201C**	**UCFL201E**	43	8	0.50	**CUCFL201C**	**CUCFL201CE**	66	46	6	0.8
FL204	0.45	**UCFL202C**	**UCFL202E**	43	8	0.48	**CUCFL202C**	**CUCFL202CE**	66	46	6	0.8
FL204	0.44	**UCFL203C**	**UCFL203E**	43	8	0.47	**CUCFL203C**	**CUCFL203CE**	66	46	6	0.8
FL204	0.42	**UCFL204C**	**UCFL204E**	43	8	0.45	**CUCFL204C**	**CUCFL204CE**	66	46	6	0.8
FL205	0.59	**UCFL205C**	**UCFL205E**	47	9	0.63	**CUCFL205C**	**CUCFL205CE**	73	51	9	1.0
FL206	0.90	**UCFL206C**	**UCFL206E**	51	9	0.94	**CUCFL206C**	**CUCFL206CE**	84	55	8	1.5
FL207	1.2	**UCFL207C**	**UCFL207E**	54	8	1.3	**CUCFL207C**	**CUCFL207CE**	94	59	8	1.9
FL208	1.51	**UCFL208C**	**UCFL208E**	62	10	1.61	**CUCFL208C**	**CUCFL208CE**	104	66	8	2.3
FL209	1.9	**UCFL209C**	**UCFL209E**	63	10	2.0	**CUCFL209C**	**CUCFL209CE**	113	67	8	2.7
FL210	2.2	**UCFL210C**	**UCFL210E**	66	9	2.3	**CUCFL210C**	**CUCFL210CE**	120	71	10	3.2
FL211	3.2	**UCFL211C**	**UCFL211E**	69	9	3.3	**CUCFL211C**	**CUCFL211CE**	134	75	10	4.3
FL212	4.1	**UCFL212C**	**UCFL212E**	80	10	4.3	**CUCFL212C**	**CUCFL212CE**	144	86	11	5.4
FL213	5.1	**UCFL213C**	**UCFL213E**	81	10	5.3	**CUCFL213C**	**CUCFL213CE**	157	89	13	6.7
FL214	6.0	**–**	**–**	–	–	–	**CUCFL214C**	**CUCFL214CE**	163	98	16	7.4
FL215	6.5	**–**	**–**	–	–	–	**CUCFL215C**	**CUCFL215CE**	168	102	17	7.9
FL216	8.0	**–**	**–**	–	–	–	**CUCFL216C**	**CUCFL216CE**	188	107	15	10.2
FL217	9.5	**–**	**–**	–	–	–	**CUCFL217C**	**CUCFL217CE**	198	111	16	11.8
FL218	11.9	**–**	**–**	–	–	–	**CUCFL218C**	**CUCFL218CE**	211	122	17	15.0

2-Bolt Oval Flange Units
UCFLX00 Type

Medium Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Cover

Metric Size

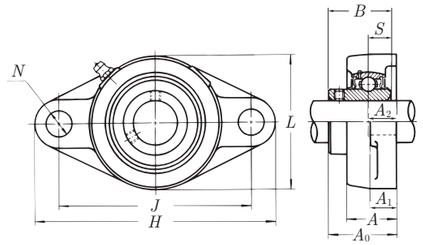
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	A_1	A_2	A_0	*B*	*S*			C_r	C_{0r}
25	**UCFLX05**	141	83	30	117	12	13	18	40.2	38.1	15.9	M10	UCX05	19.6	11.3
30	**UCFLX06**	156	95	34	130	16	14	19	44.4	42.9	17.5	M14	UCX06	25.9	15.4
35	**UCFLX07**	171	105	38	144	16	14	21	51.2	49.2	19	M14	UCX07	29.3	17.9
40	**UCFLX08**	179	111	40	148	16	14	22	52.2	49.2	19	M14	UCX08	33	20.5
45	**UCFLX09**	189	116	40	157	16	14	23	55.6	51.6	19	M14	UCX09	35.5	23.2
50	**UCFLX10**	216	133	44	184	19	20	26	59.4	55.6	22.2	M16	UCX10	43	29.4

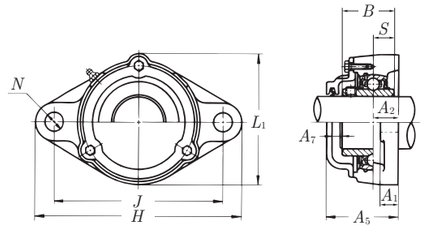
Standard		With Pressed Steel Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
FLX05	1.0	※***UCFLX05C***	※***UCFLX05E***	50	8	1.1
FLX06	1.5	※***UCFLX06C***	※***UCFLX06E***	54	8	1.6
FLX07	1.9	※***UCFLX07C***	※***UCFLX07E***	63	10	2.0
FLX08	2.0	※***UCFLX08C***	※***UCFLX08E***	63	10	2.1
FLX09	2.4	※***UCFLX09C***	※***UCFLX09E***	67	9	2.5
FLX10	3.6	※***UCFLX10C***	※***UCFLX10E***	70	9	3.8

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

2-Bolt Oval Flange Units
UCFL300 Type

Heavy Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Cast Iron Cover

Metric Size

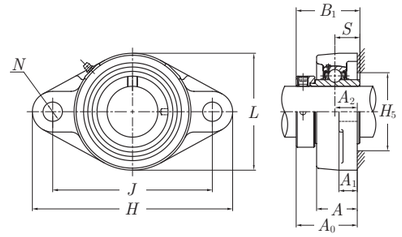
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	A_1	A_2	A_0	*B*	*S*			C_r	C_{0r}
25	**UCFL305**	150	80	29	113	19	13	16	39	38	15	M16	UC305	21.3	10.9
30	**UCFL306**	180	90	32	134	23	15	18	44	43	17	M20	UC306	26.8	15
35	**UCFL307**	185	100	36	141	23	16	20	49	48	19	M20	UC307	33.5	19.2
40	**UCFL308**	200	112	40	158	23	17	23	56	52	19	M20	UC308	40.5	23.9
45	**UCFL309**	230	125	44	177	25	18	25	60	57	22	M22	UC309	51.5	29.5
50	**UCFL310**	240	140	48	187	25	19	28	67	61	22	M22	UC310	61.5	38.2
55	**UCFL311**	250	150	52	198	25	20	30	71	66	25	M22	UC311	71.5	44.8
60	**UCFL312**	270	160	56	212	31	22	33	78	71	26	M27	UC312	81.5	52
65	**UCFL313**	295	175	58	240	31	25	33	78	75	30	M27	UC313	92.5	59.7
70	**UCFL314**	315	185	61	250	35	28	36	81	78	33	M30	UC314	104	68
75	**UCFL315**	320	195	66	260	35	30	39	89	82	32	M30	UC315	114	76.9
80	**UCFL316**	355	210	68	285	38	32	38	90	86	34	M33	UC316	123	86.4
85	※***UCFL317***	370	220	74	300	38	32	44	100	96	40	M33	UC317	132	96.5
90	※***UCFL318***	385	235	76	315	38	36	44	100	96	40	M33	UC318	143	107.2
95	※***UCFL319***	405	250	94	330	41	40	59	121	103	41	M36	UC319	153	118.4
100	※***UCFL320***	440	270	94	360	44	40	59	125	108	42	M39	UC320	173	140.4
105	※***UCFL321***	440	270	94	360	44	40	59	127	112	44	M39	UC321	183	153.1
110	※***UCFL322***	470	300	96	390	44	42	60	131	117	46	M39	UC322	205	178.8
120	※***UCFL324***	520	330	110	430	47	48	65	140	126	51	M42	UC324	207	184.8
130	※***UCFL326***	550	360	115	460	47	50	65	146	135	54	M42	UC326	229	214.3
140	※***UCFL328***	600	400	125	500	51	60	75	161	145	59	M45	UC328	255	246

Standard		With Cast Iron Cover					
		Unit No.		Cover Dimensions			
Housing No.	Mass (kg)	Open	Closed	L_1 (mm)	A_5 (mm)	A_7 (mm)	Mass (kg)
FL305	1.1	※***CUCFL305C***	※***CUCFL305CE***	84	55	10	1.4
FL306	1.5	※***CUCFL306C***	※***CUCFL306CE***	94	60	10	1.9
FL307	1.8	※***CUCFL307C***	※***CUCFL307CE***	104	65	10	2.3
FL308	2.4	※***CUCFL308C***	※***CUCFL308CE***	118	73	11	2.9
FL309	3.4	※***CUCFL309C***	※***CUCFL309CE***	132	78	12	4.2
FL310	4.3	※***CUCFL310C***	※***CUCFL310CE***	144	85	12	5.2
FL311	5.1	※***CUCFL311C***	※***CUCFL311CE***	154	90	13	6.0
FL312	6.2	※***CUCFL312C***	※***CUCFL312CE***	164	98	14	7.3
FL313	7.4	※***CUCFL313C***	※***CUCFL313CE***	186	103	17	9.4
FL314	9.0	※***CUCFL314C***	※***CUCFL314CE***	196	106	17	11.8
FL315	10.0	※***CUCFL315C***	※***CUCFL315CE***	206	114	17	12.2
FL316	12.6	※***CUCFL316C***	※***CUCFL316CE***	218	115	17	15.5
FL317	14.5	※***CUCFL317C***	※***CUCFL317CE***	232	126	18	18.2
FL318	17.1	※***CUCFL318C***	※***CUCFL318CE***	245	128	20	20.7
FL319	21.8	※***CUCFL319C***	※***CUCFL319CE***	257	149	20	25.8
FL320	26.5	※***CUCFL320C***	※***CUCFL320CE***	277	154	21	30.6
FL321	28.2	※***CUCFL321C***	※***CUCFL321CE***	282	156	21	31.9
FL322	33.1	※***CUCFL322C***	※***CUCFL322CE***	305	165	26	38.7
FL324	45.7	※***CUCFL324C***	※***CUCFL324CE***	333	175	25	52.4
FL326	57.5	※***CUCFL326C***	※***CUCFL326CE***	360	180	24	64.4
FL328	79.7	※***CUCFL328C***	※***CUCFL328CE***	400	195	24	86.3

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

2-Bolt Oval Flange Units
UGFL200 Type

Normal Duty
Eccentric Collar Locking
Steel Collar w/ Black Oxide Finish
Gray Cast Iron Housing
Relube



Metric Size

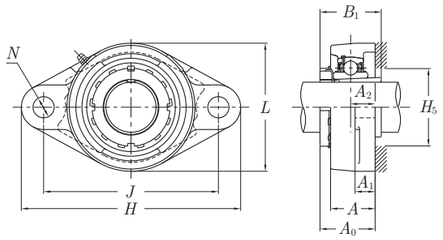
Shaft Dia. (mm)	Unit No.	Dimensions (mm)											Bolt Size (mm)
		H	*L*	*A*	*J*	*N*	A_1	A_2	A_0	H_5	B_1	*S*	
20	**UGFL204**	113	60	25.5	90	12	12	15	41.6	31	43.7	17.1	M10
25	**UGFL205**	130	68	27	99	16	14	16	42.9	36	44.4	17.5	M14
30	**UGFL206**	148	80	31	117	16	14	18	48.1	42	48.4	18.3	M14
35	**UGFL207**	161	90	34	130	16	16	19	51.3	–	51.1	18.8	M14
40	**UGFL208**	175	100	36	144	16	16	21	55.9	55	56.3	21.4	M14
45	**UGFL209**	188	108	38	148	19	18	22	56.9	–	56.3	21.4	M16
50	**UGFL210**	197	115	40	157	19	18	22	60.1	65	62.7	24.6	M16
55	**UGFL211**	224	130	43	184	19	20	25	68.6	72	71.4	27.8	M16
60	**UGFL212**	250	140	48	202	23	20	29	75.8	79	77.8	31	M20
65	**UGFL213**	258	155	50	210	23	24	30	81.6	84	85.7	34.1	M20

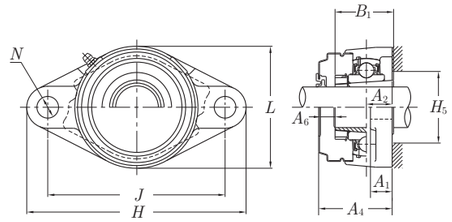
Note: For grease fitting tap size, see Table 7.1 on page 250.

Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
	C_r	C_{0r}		
UG204+ER	12.8	6.6	FL204	0.47
UG205+ER	14	7.9	FL205	0.63
UG206+ER	19.6	11.3	FL206	0.96
UG207+ER	25.9	15.4	FL207	1.3
UG208+ER	29.3	17.9	FL208	1.7
UG209+ER	33	20.5	FL209	2.0
UG210+ER	35.5	23.2	FL210	2.3
UG211+ER	43	29.4	FL211	3.4
UG212+ER	52.5	36.1	FL212	4.4
UG213+ER	57.5	40	FL213	5.71

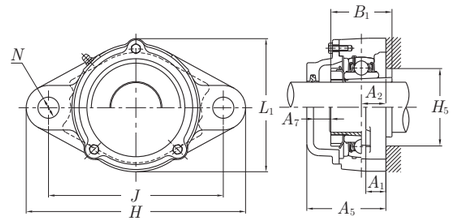
2-Bolt Oval Flange Units
UKFL200+H Type

Normal Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Cover



With Cast Iron Cover

Metric Size

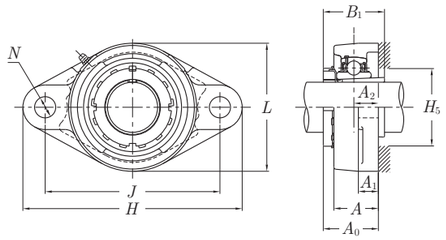
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	L	A	J	N	A_1	A_2	A_0	B_1	H_5 (min.)			C_r	C_{0r}
20	**UKFL205+H2305**	130	68	27	99	16	14	16	35.5	35	–	M14	UK205+H2305	14	7.9
25	**UKFL206+H2306**	148	80	31	117	16	14	18	39	38	–	M14	UK206+H2306	19.6	11.3
30	**UKFL207+H2307**	161	90	34	130	16	16	19	41.5	43	40	M14	UK207+H2307	25.9	15.4
35	**UKFL208+H2308**	175	100	36	144	16	16	21	45.5	46	45	M14	UK208+H2308	29.3	17.9
40	**UKFL209+H2309**	188	108	38	148	19	18	22	48	50	51	M16	UK209+H2309	33	20.5
45	**UKFL210+H2310**	197	115	40	157	19	18	22	49.5	55	56	M16	UK210+H2310	35.5	23.2
50	**UKFL211+H2311**	224	130	43	184	19	20	25	53.5	59	61	M16	UK211+H2311	43	29.4
55	**UKFL212+H2312**	250	140	48	202	23	20	29	60	62	67	M20	UK212+H2312	52.5	36.1
60	**UKFL213+H2313**	258	155	50	210	23	24	30	63	65	72	M20	UK213+H2313	57.5	40
65	**UKFL215+H2315**	275	165	56	225	23	24	34	69.5	73	82	M20	UK215+H2315	66	48.2
70	**UKFL216+H2316**	290	180	58	233	25	24	34	73	78	88	M22	UK216+H2316	72.5	53
75	**UKFL217+H2317**	305	190	63	248	25	26	36	77	82	93	M22	UK217+H2317	83.5	61.8
80	**UKFL218+H2318**	320	205	68	265	25	26	40	82.5	86	98	M22	UK218+H2318	95.5	71.4

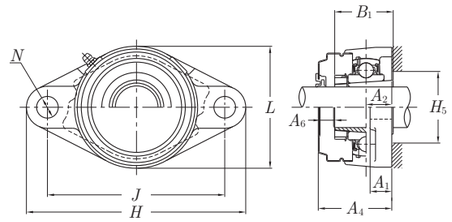
Standard		With Pressed Steel Cover					With Cast Iron Cover					
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)	Unit No.		Cover Dimensions			Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)		Open	Closed	L_1 (mm)	A_5 (mm)	A_7 (mm)	
FL205	0.64	**UKFL205C+H2305**	**UKFL205E+H2305**	47	10	0.68	**CUKFL205C+H2305**	**CUKFL205CE+H2305**	73	51	9	1.1
FL206	0.99	**UKFL206C+H2306**	**UKFL206E+H2306**	51	10	1.09	**CUKFL206C+H2306**	**CUKFL206CE+H2306**	84	55	10	1.6
FL207	1.3	**UKFL207C+H2307**	**UKFL207E+H2307**	54	11	1.4	**CUKFL207C+H2307**	**CUKFL207CE+H2307**	94	59	11	2.0
FL208	1.58	**UKFL208C+H2308**	**UKFL208E+H2308**	62	15	1.68	**CUKFL208C+H2308**	**CUKFL208CE+H2308**	104	66	14	2.4
FL209	2.0	**UKFL209C+H2309**	**UKFL209E+H2309**	63	14	2.1	**CUKFL209C+H2309**	**CUKFL209CE+H2309**	113	67	13	2.8
FL210	2.3	**UKFL210C+H2310**	**UKFL210E+H2310**	66	15	2.5	**CUKFL210C+H2310**	**CUKFL210CE+H2310**	120	71	15	3.4
FL211	3.3	**UKFL211C+H2311**	**UKFL211E+H2311**	69	14	3.5	**CUKFL211C+H2311**	**CUKFL211CE+H2311**	134	75	15	4.5
FL212	4.1	**UKFL212C+H2312**	**UKFL212E+H2312**	80	19	4.4	**CUKFL212C+H2312**	**CUKFL212CE+H2312**	144	86	20	5.5
FL213	5.2	**UKFL213C+H2313**	**UKFL213E+H2313**	81	17	5.5	**CUKFL213C+H2313**	**CUKFL213CE+H2313**	157	89	20	6.9
FL215	6.8	–	–	–	–	–	**CUKFL215C+H2315**	**CUKFL215CE+H2315**	168	102	26	8.3
FL216	8.4	–	–	–	–	–	**CUKFL216C+H2316**	**CUKFL216CE+H2316**	188	107	26	10.6
FL217	10.0	–	–	–	–	–	**CUKFL217C+H2317**	**CUKFL217CE+H2317**	198	111	27	12.4
FL218	12.3	–	–	–	–	–	**CUKFL218C+H2318**	**CUKFL218CE+H2318**	211	122	31	15.4

Note: For grease fitting tap size, see Table 7.1 on page 250.

2-Bolt Oval Flange Units
UKFLX00+H Type

Medium Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Cover

Metric Size

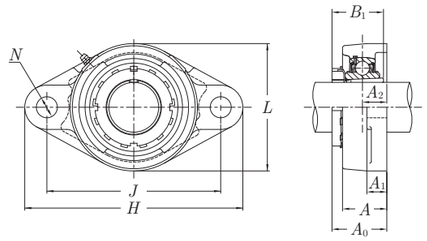
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	L	A	J	N	A_1	A_2	A_0	B_1	H_5 (min.)			C_r	C_{0r}
20	**UKFLX05+H2305**	141	83	30	117	12	13	18	39	35	–	M10	UKX05+H2305	19.6	11.3
25	**UKFLX06+H2306**	156	95	34	130	16	14	19	40.5	38	–	M14	UKX06+H2306	25.9	15.4
30	**UKFLX07+H2307**	171	105	38	144	16	14	21	44.5	43	–	M14	UKX07+H2307	29.3	17.9
35	**UKFLX08+H2308**	179	111	40	148	16	14	22	47	46	–	M14	UKX08+H2308	33	20.5
40	**UKFLX09+H2309**	189	116	40	157	16	14	23	49.5	50	51	M14	UKX09+H2309	35.5	23.2
45	**UKFLX10+H2310**	216	133	44	184	19	20	26	54.5	55	56	M16	UKX10+H2310	43	29.4

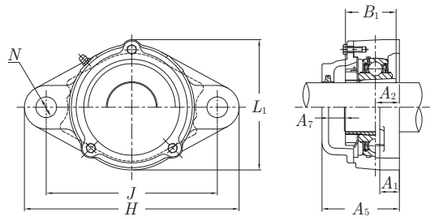
Standard		With Pressed Steel Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
FLX05	1.0	※***UKFLX05C+H2305***	※***UKFLX05E+H2305***	50	9	1.1
FLX06	1.5	※***UKFLX06C+H2306***	※***UKFLX06E+H2306***	54	12	1.6
FLX07	1.9	※***UKFLX07C+H2307***	※***UKFLX07E+H2307***	63	17	2.0
FLX08	2.1	※***UKFLX08C+H2308***	※***UKFLX08E+H2308***	63	15	2.2
FLX09	2.4	※***UKFLX09C+H2309***	※***UKFLX09E+H2309***	67	16	2.5
FLX10	3.6	※***UKFLX10C+H2310***	※***UKFLX10E+H2310***	70	14	3.8

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

2-Bolt Oval Flange Units
UKFL300+H Type

Heavy Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Cast Iron Cover

Metric Size

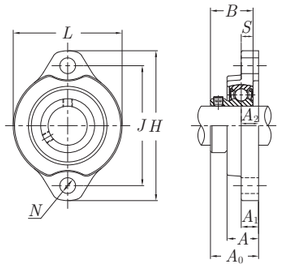
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	A_1	A_2	A_0	B_1			C_r	C_{0r}
20	**UKFL305+H2305**	150	80	29	113	19	13	16	37	35	M16	UK305+H2305	21.3	10.9
25	**UKFL306+H2306**	180	90	32	134	23	15	18	40.5	38	M20	UK306+H2306	26.8	15
30	**UKFL307+H2307**	185	100	36	141	23	16	20	44.5	43	M20	UK307+H2307	33.5	19.2
35	**UKFL308+H2308**	200	112	40	158	23	17	23	50	46	M20	UK308+H2308	40.5	23.9
40	**UKFL309+H2309**	230	125	44	177	25	18	25	54.5	50	M22	UK309+H2309	51.5	29.5
45	**UKFL310+H2310**	240	140	48	187	25	19	28	60	55	M22	UK310+H2310	61.5	38.2
50	**UKFL311+H2311**	250	150	52	198	25	20	30	63.5	59	M22	UK311+H2311	71.5	44.8
55	**UKFL312+H2312**	270	160	56	212	31	22	33	69	62	M27	UK312+H2312	81.5	52
60	**UKFL313+H2313**	295	175	58	240	31	25	33	71	65	M27	UK313+H2313	92.5	59.7
65	**UKFL315+H2315**	320	195	66	260	35	30	39	81	73	M30	UK315+H2315	114	76.9
70	**UKFL316+H2316**	355	210	68	285	38	32	38	83.5	78	M33	UK316+H2316	123	86.4
75	※***UKFL317+H2317***	370	220	74	300	38	32	44	92	82	M33	UK317+H2317	132	96.5
80	※***UKFL318+H2318***	385	235	76	315	38	36	44	93.5	86	M33	UK318+H2318	143	107.2
85	※***UKFL319+H2319***	405	250	94	330	41	40	59	111	90	M36	UK319+H2319	153	118.4
90	※***UKFL320+H2320***	440	270	94	360	44	40	59	115	97	M39	UK320+H2320	173	140.4
100	※***UKFL322+H2322***	470	300	96	390	44	42	60	121	105	M39	UK322+H2322	205	178.8
110	※***UKFL324+H2324***	520	330	110	430	47	48	65	130	112	M42	UK324+H2324	207	184.8
115	※***UKFL326+H2326***	550	360	115	460	47	50	65	134	121	M42	UK326+H2326	229	214.3
125	※***UKFL328+H2328***	600	400	125	500	51	60	75	148	131	M45	UK328+H2328	255	246

Standard		With Cast Iron Cover					
Housing No.	Mass (kg)	Unit No.		Cover Dimensions			Mass (kg)
		Open	Closed	L_1 (mm)	A_5 (mm)	A_7 (mm)	
FL305	1.1	※***CUKFL305C+H2305***	※***CUKFL305CE+H2305***	84	55	12	1.5
FL306	1.5	※***CUKFL306C+H2306***	※***CUKFL306CE+H2306***	94	60	13	2.0
FL307	1.9	※***CUKFL307C+H2307***	※***CUKFL307CE+H2307***	104	65	14	2.4
FL308	2.5	※***CUKFL308C+H2308***	※***CUKFL308CE+H2308***	118	73	17	3.0
FL309	3.4	※***CUKFL309C+H2309***	※***CUKFL309CE+H2309***	132	78	17	4.3
FL310	4.4	※***CUKFL310C+H2310***	※***CUKFL310CE+H2310***	144	85	19	5.5
FL311	5.1	※***CUKFL311C+H2311***	※***CUKFL311CE+H2311***	154	90	20	6.1
FL312	6.1	※***CUKFL312C+H2312***	※***CUKFL312CE+H2312***	164	98	23	7.4
FL313	7.4	※***CUKFL313C+H2313***	※***CUKFL313CE+H2313***	186	103	24	9.4
FL315	10.2	※***CUKFL315C+H2315***	※***CUKFL315CE+H2315***	206	114	25	12.6
FL316	12.8	※***CUKFL316C+H2316***	※***CUKFL316CE+H2316***	218	115	23	15.9
FL317	14.5	※***CUKFL317C+H2317***	※***CUKFL317CE+H2317***	232	126	26	18.4
FL318	17.2	※***CUKFL318C+H2318***	※***CUKFL318CE+H2318***	245	128	26	21.7
FL319	21.8	※***CUKFL319C+H2319***	※***CUKFL319CE+H2319***	257	149	30	26.0
FL320	26.5	※***CUKFL320C+H2320***	※***CUKFL320CE+H2320***	277	154	31	31.2
FL322	33.2	※***CUKFL322C+H2322***	※***CUKFL322CE+H2322***	305	165	36	39.4
FL324	45.2	※***CUKFL324C+H2324***	※***CUKFL324CE+H2324***	333	175	35	52.6
FL326	57.8	※***CUKFL326C+H2326***	※***CUKFL326CE+H2326***	360	180	36	65.9
FL328	80.0	※***CUKFL328C+H2328***	※***CUKFL328CE+H2328***	400	195	37	87.8

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Light 2-Bolt Oval Flange Units
BLFL Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Non-Relube



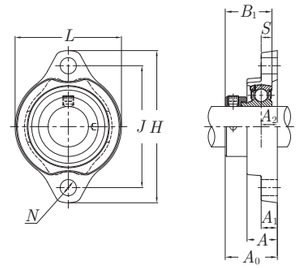
Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
		H	L	A	J	N	A_1	A_2	A_0	B	S			C_r	C_{0r}		
12	**BLFL1J**	81	56	18	63.5	7	9.5	9.5	25.5	22	6	M 6	B1	9.55	4.8	LFL3J	0.28
15	**BLFL2J**	81	56	18	63.5	7	9.5	9.5	25.5	22	6	M 6	B2	9.55	4.8	LFL3J	0.27
17	**BLFL3J**	81	56	18	63.5	7	9.5	9.5	25.5	22	6	M 6	B3	9.55	4.8	LFL3J	0.25
20	**BLFL4J**	90	63	20	71.5	10	11	11	28.7	24.7	7	M 8	B4	12.8	6.6	LFL4J	0.30
25	**BLFL5J**	95	69	20	76	10	11	11	30.5	27	7.5	M 8	B5	14	7.9	LFL5J	0.40
30	**BLFL6J**	113	79	22.5	90.5	12	12	12	34.3	30.3	8	M10	B6	19.6	11.3	LFL6J	0.58
35	**BLFL7J**	122	89	24	100	12	13	13	37.4	32.9	8.5	M10	B7	25.9	15.4	LFL7J	0.74

Note: 1. Tolerance class “J7” applies to spherical bore diameter of housing.
2. Consult ASAHI for housing strength.

Light 2-Bolt Oval Flange Units
KHLFL200 Type

Normal Duty
Eccentric Collar Locking
Steel Collar w/ Black Oxide Finish
Gray Cast Iron Housing
Non-Relube



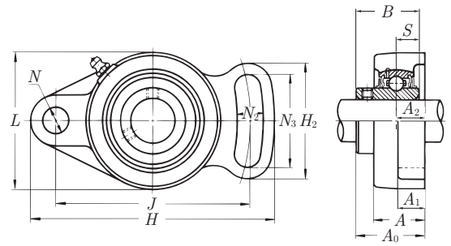
Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
		H	L	A	J	N	A_1	A_2	A_0	B_1	S			C_r	C_{0r}		
12	**KHLFL201GAJ**	81	56	18	63.5	7	9.5	9.5	31.6	28.6	6.5	M 6	KH201GAE	9.55	4.8	LFL3J	0.30
15	**KHLFL202GAJ**	81	56	18	63.5	7	9.5	9.5	31.6	28.6	6.5	M 6	KH202GAE	9.55	4.8	LFL3J	0.29
17	**KHLFL203GAJ**	81	56	18	63.5	7	9.5	9.5	31.6	28.6	6.5	M 6	KH203GAE	9.55	4.8	LFL3J	0.28
20	**KHLFL204GAJ**	90	63	20	71.5	10	11	11	34.5	31	7.5	M 8	KH204GAE	12.8	6.6	LFL4J	0.34
25	**KHLFL205GAJ**	95	69	20	76	10	11	11	34.5	31	7.5	M 8	KH205GAE	14	7.9	LFL5J	0.44
30	**KHLFL206GAJ**	113	79	22.5	90.5	12	12	12	38.7	35.7	9	M10	KH206GAE	19.6	11.3	LFL6J	0.64
35	**KHLFL207GAJ**	122	89	24	100	12	13	13	42.4	38.9	9.5	M10	KH207GAE	25.9	15.4	LFL7J	0.85

Note: 1. Tolerance class “J7” applies to spherical bore diameter of housing.
2. Consult ASAHI for housing strength.

2-Bolt Adjustable Flange Units
UCFA200 Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube



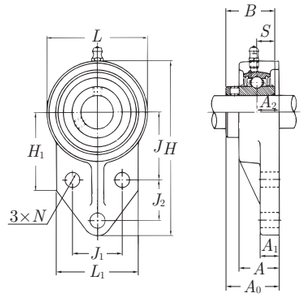
Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)													Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
		L	H_2	H	A	J	N	N_2	N_3	A_1	A_2	A_0	B	S			C_r	C_{0r}		
12	**UCFA201**	60	54	102	25.5	78	10	10	40	12	15	33.3	31	12.7	M 8	UC201	12.8	6.6	FA204	0.50
15	**UCFA202**	60	54	102	25.5	78	10	10	40	12	15	33.3	31	12.7	M 8	UC202	12.8	6.6	FA204	0.49
17	**UCFA203**	60	54	102	25.5	78	10	10	40	12	15	33.3	31	12.7	M 8	UC203	12.8	6.6	FA204	0.48
20	**UCFA204**	60	54	102	25.5	78	10	10	40	12	15	33.3	31	12.7	M 8	UC204	12.8	6.6	FA204	0.46
25	**UCFA205**	68	65	125	27	98	12	13	51	14	16	35.8	34.1	14.3	M10	UC205	14	7.9	FA205	0.66
30	**UCFA206**	80	72	144	31	117	12	13	58	14	18	40.2	38.1	15.9	M10	UC206	19.6	11.3	FA206	1.0
35	**UCFA207**	90	82	161	34	130	14	15	66	16	19	44.4	42.9	17.5	M12	UC207	25.9	15.4	FA207	1.4
40	**UCFA208**	100	87	175	36	144	14	15	71	16	21	51.2	49.2	19	M12	UC208	29.3	17.9	FA208	1.7
45	**UCFA209**	108	90	181	38	148	16	17	72	18	22	52.2	49.2	19	M14	UC209	33	20.5	FA209	2.0
50	**UCFA210**	115	94	190	40	157	16	17	76	18	22	54.6	51.6	19	M14	UC210	35.5	23.2	FA210	2.4
55	※***UCFA211***	130	104	219	43	184	16	17	86	20	25	58.4	55.6	22.2	M14	UC211	43	29.4	FA211	3.4

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult **ASAHI** for availability.

3-Bolt Flange Bracket Units
UCFK200 Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube



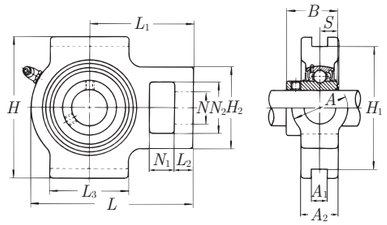
Metric Size

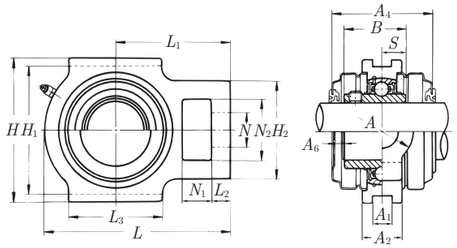
Shaft Dia. (mm)	Unit No.	Dimensions (mm)													Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
		H	H_1	L	L_1	A	J	J_1	J_2	N	A_1	A_2	A_0	B	S			C_r	C_{0r}		
12	**UCFK201**	110	52	62	52	25.5	42	32	27	10	13	15	33.3	31	12.7	M 8	UC201	12.8	6.6	FK204	0.60
15	**UCFK202**	110	52	62	52	25.5	42	32	27	10	13	15	33.3	31	12.7	M 8	UC202	12.8	6.6	FK204	0.58
17	**UCFK203**	110	52	62	52	25.5	42	32	27	10	13	15	33.3	31	12.7	M 8	UC203	12.8	6.6	FK204	0.57
20	**UCFK204**	110	52	62	52	25.5	42	32	27	10	13	15	33.3	31	12.7	M 8	UC204	12.8	6.6	FK204	0.55
25	**UCFK205**	116	52	68	56	27	45	34	27	10	13	16	35.8	34.1	14.3	M 8	UC205	14	7.9	FK205	0.66
30	**UCFK206**	130	55	78	65	31	50	40	29	10	13	18	40.2	38.1	15.9	M 8	UC206	19.6	11.3	FK206	0.93
35	**UCFK207**	144	62	90	70	34	55	46	32	10	15	19	44.4	42.9	17.5	M 8	UC207	25.9	15.4	FK207	1.3
40	**UCFK208**	164	72	100	78	36	60	50	41	12	16	21	51.2	49.2	19	M10	UC208	29.3	17.9	FK208	1.7
45	**UCFK209**	174	76	106	80	38	65	54	43	12	18	22	52.2	49.2	19	M10	UC209	33	20.5	FK209	1.9
50	**UCFK210**	184	82	112	86	40	68	58	46	12	18	22	54.6	51.6	19	M10	UC210	35.5	23.2	FK210	2.2

Note: For grease fitting tap size, see Table 7.1 on page 250.

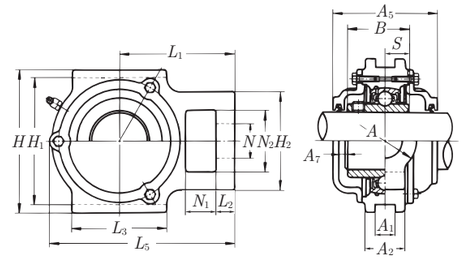
Take-Up Units
UCT200 Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Covers



With Cast Iron Covers

Metric Size

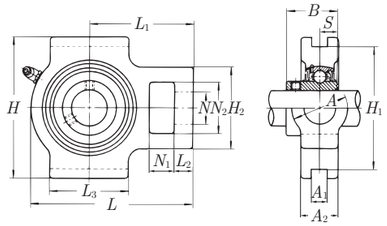
Shaft Dia. (mm)	Unit No.	Dimensions (mm)															Bearing No.	Basic Load Rating (kN)	
		A	A_1	A_2	*H*	H_1	H_2	*L*	L_1	L_2	L_3	*N*	N_1	N_2	*B*	*S*		C_r	C_{0r}
12	**UCT201**	32	12	21	89	76	51	94	61	10	51	19	16	32	31	12.7	UC201	12.8	6.6
15	**UCT202**	32	12	21	89	76	51	94	61	10	51	19	16	32	31	12.7	UC202	12.8	6.6
17	**UCT203**	32	12	21	89	76	51	94	61	10	51	19	16	32	31	12.7	UC203	12.8	6.6
20	**UCT204**	32	12	21	89	76	51	94	61	10	51	19	16	32	31	12.7	UC204	12.8	6.6
25	**UCT205**	32	12	24	89	76	51	97	62	10	51	19	16	32	34.1	14.3	UC205	14	7.9
30	**UCT206**	37	12	28	102	89	56	113	70	10	57	22	16	37	38.1	15.9	UC206	19.6	11.3
35	**UCT207**	37	12	30	102	89	64	129	78	13	64	22	16	37	42.9	17.5	UC207	25.9	15.4
40	**UCT208**	49	16	33	114	102	83	144	88	16	83	29	19	49	49.2	19	UC208	29.3	17.9
45	**UCT209**	49	16	35	117	102	83	144	87	16	83	29	19	49	49.2	19	UC209	33	20.5
50	**UCT210**	49	16	37	117	102	83	149	90	16	86	29	19	49	51.6	19	UC210	35.5	23.2
55	**UCT211**	64	22	38	146	130	102	171	106	19	95	35	25	64	55.6	22.2	UC211	43	29.4
60	**UCT212**	64	22	42	146	130	102	194	119	19	102	35	32	64	65.1	25.4	UC212	52.5	36.1
65	**UCT213**	70	26	44	167	151	111	224	137	21	121	41	32	70	65.1	25.4	UC213	57.5	40
70	**UCT214**	70	26	46	167	151	111	224	137	21	121	41	32	70	74.6	30.2	UC214	62	44
75	**UCT215**	70	26	48	167	151	111	232	140	21	121	41	32	70	77.8	33.3	UC215	66	48.2
80	**UCT216**	70	26	51	184	165	111	235	140	21	121	41	32	70	82.6	33.3	UC216	72.5	53
85	**UCT217**	73	30	54	198	173	124	260	162	29	157	48	38	73	85.7	34.1	UC217	83.5	61.8

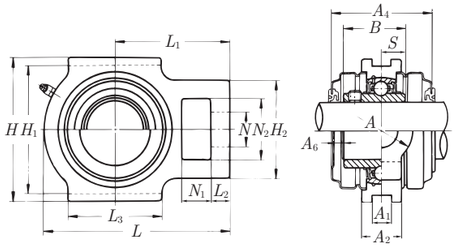
Note: For grease fitting tap size, see Table 7.1 on page 250.

Standard		With Pressed Steel Covers					With Cast Iron Covers					
		Unit No.		Cover Dimensions			Unit No.		Cover Dimensions			
Housing No.	Mass (kg)	Open	Closed	A_4 (mm)	A_6 (mm)	Mass (kg)	Open	Closed	L_5 (mm)	A_5 (mm)	A_7 (mm)	Mass (kg)
T204	0.79	**UCT201C**	**UCT201E**	55	8	0.85	**CUCT201C**	**CUCT201CE**	96	62	6	1.2
T204	0.77	**UCT202C**	**UCT202E**	55	8	0.83	**CUCT202C**	**CUCT202CE**	96	62	6	1.2
T204	0.76	**UCT203C**	**UCT203E**	55	8	0.82	**CUCT203C**	**CUCT203CE**	96	62	6	1.2
T204	0.74	**UCT204C**	**UCT204E**	55	8	0.80	**CUCT204C**	**CUCT204CE**	96	62	6	1.2
T205	0.82	**UCT205C**	**UCT205E**	63	10	0.89	**CUCT205C**	**CUCT205CE**	100	70	9	1.5
T206	1.3	**UCT206C**	**UCT206E**	65	9	1.4	**CUCT206C**	**CUCT206CE**	113	74	8	2.0
T207	1.6	**UCT207C**	**UCT207E**	70	8	1.8	**CUCT207C**	**CUCT207CE**	129	80	8	2.6
T208	2.4	**UCT208C**	**UCT208E**	82	10	2.5	**CUCT208C**	**CUCT208CE**	144	90	8	3.4
T209	2.4	**UCT209C**	**UCT209E**	82	10	2.6	**CUCT209C**	**CUCT209CE**	145	90	8	3.6
T210	2.5	**UCT210C**	**UCT210E**	87	9	2.8	**CUCT210C**	**CUCT210CE**	151	98	10	4.1
T211	4.0	**UCT211C**	**UCT211E**	88	9	4.3	**CUCT211C**	**CUCT211CE**	174	100	10	5.6
T212	5.1	**UCT212C**	**UCT212E**	102	10	5.5	**CUCT212C**	**CUCT212CE**	194	114	11	7.0
T213	7.0	**UCT213C**	**UCT213E**	102	10	7.5	**CUCT213C**	**CUCT213CE**	224	118	13	9.2
T214	7.1	**–**	**–**	–	–	–	**CUCT214C**	**CUCT214CE**	224	134	16	9.8
T215	7.5	**–**	**–**	–	–	–	**CUCT215C**	**CUCT215CE**	232	136	17	10.2
T216	8.5	**–**	**–**	–	–	–	**CUCT216C**	**CUCT216CE**	236	146	15	12.4
T217	11.2	**–**	**–**	–	–	–	**CUCT217C**	**CUCT217CE**	264	150	16	15.4

Take-Up Units
UCTX00 Type

Medium Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Covers

Metric Size

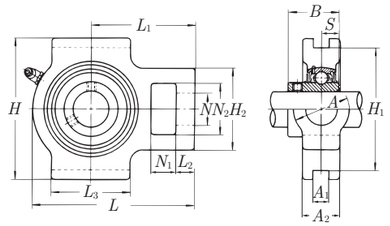
Shaft Dia. (mm)	Unit No.	Dimensions (mm)															Bearing No.	Basic Load Rating (kN)	
		A	A_1	A_2	H	H_1	H_2	L	L_1	L_2	L_3	N	N_1	N_2	B	S		C_r	C_{0r}
25	※***UCTX05***	37	12	28	102	89	56	113	70	10	57	22	16	37	38.1	15.9	UCX05	19.6	11.3
30	※***UCTX06***	37	12	30	102	89	64	129	78	13	64	22	16	37	42.9	17.5	UCX06	25.9	15.4
35	**UCTX07**	49	16	36	114	102	83	144	88	15	83	29	19	49	49.2	19	UCX07	29.3	17.9
40	**UCTX08**	49	16	36	117	102	83	144	87	15	83	29	19	49	49.2	19	UCX08	33	20.5
45	**UCTX09**	49	16	38	117	102	83	149	90	16	86	29	19	49	51.6	19	UCX09	35.5	23.2
50	**UCTX10**	64	22	42	146	130	102	171	106	19	95	35	25	64	55.6	22.2	UCX10	43	29.4
55	**UCTX11**	64	22	44	146	130	102	194	119	19	102	35	32	64	65.1	25.4	UCX11	52.5	36.1
60	**UCTX12**	70	26	48	167	151	111	224	137	21	121	41	32	70	65.1	25.4	UCX12	57.5	40
65	**UCTX13**	70	26	48	167	151	111	224	137	21	121	41	32	70	74.6	30.2	UCX13	62	44
70	**UCTX14**	70	26	48	167	151	111	232	140	21	121	41	32	70	77.8	33.3	UCX14	66	48.5
75	**UCTX15**	70	28	48	184	165	111	235	140	21	121	41	32	70	82.6	33.3	UCX15	72.5	53
80	**UCTX16**	73	28	54	198	173	124	260	162	28	157	48	38	73	85.7	34.1	UCX16	83.5	61.8
85	**UCTX17**	73	28	54	198	173	124	260	162	28	157	48	38	73	96	39.7	UCX17	95.5	71.4

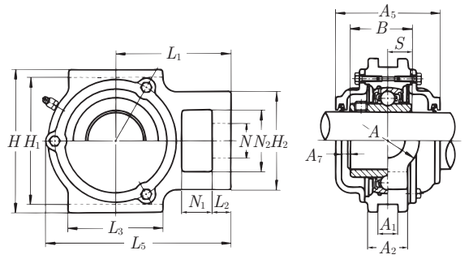
Standard		With Pressed Steel Covers				
		Unit No.		Cover Dimensions		
Housing No.	Mass (kg)	Open	Closed	A_4 (mm)	A_6 (mm)	Mass (kg)
TX05	1.3	※***UCTX05C***	※***UCTX05E***	65	9	1.4
TX06	1.7	※***UCTX06C***	※***UCTX06E***	70	8	1.8
TX07	2.6	※***UCTX07C***	※***UCTX07E***	83	10	2.7
TX08	2.6	※***UCTX08C***	※***UCTX08E***	82	10	2.8
TX09	2.8	※***UCTX09C***	※***UCTX09E***	87	9	3.1
TX10	4.4	※***UCTX10C***	※***UCTX10E***	88	9	4.8
TX11	5.2	※***UCTX11C***	※***UCTX11E***	100	9	5.6
TX12	7.2	※***UCTX12C***	※***UCTX12E***	104	11	7.7
TX13	7.4	–	–	–	–	–
TX14	7.7	–	–	–	–	–
TX15	8.4	–	–	–	–	–
TX16	11.3	–	–	–	–	–
TX17	11.0	–	–	–	–	–

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Take-Up Units
UCT300 Type

Heavy Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube





With Cast Iron Covers

Metric Size

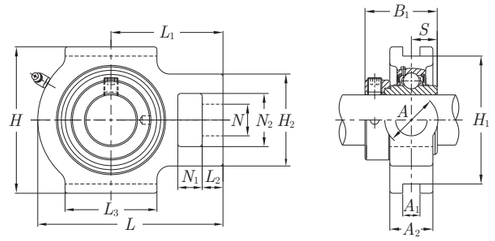
Shaft Dia. (mm)	Unit No.	Dimensions (mm)															Bearing No.	Basic Load Rating (kN)	
		A	A_1	A_2	H	H_1	H_2	L	L_1	L_2	L_3	N	N_1	N_2	B	S		C_r	C_{0r}
25	※***UCT305***	36	12	26	89	80	62	122	76	12	65	26	16	36	38	15	UC305	21.3	10.9
30	※***UCT306***	41	16	28	100	90	70	137	85	14	74	28	18	41	43	17	UC306	26.8	15
35	**UCT307**	45	16	32	111	100	75	150	94	15	80	30	20	45	48	19	UC307	33.5	19.2
40	**UCT308**	50	18	34	124	112	83	162	100	17	89	32	22	50	52	19	UC308	40.5	23.9
45	**UCT309**	55	18	38	138	125	90	178	110	18	97	34	24	55	57	22	UC309	51.5	29.5
50	**UCT310**	61	20	40	151	140	98	191	117	20	106	37	27	61	61	22	UC310	61.5	38.2
55	**UCT311**	66	22	44	163	150	105	207	127	21	115	39	29	66	66	25	UC311	71.5	44.8
60	**UCT312**	71	22	46	178	160	113	220	135	23	123	41	31	71	71	26	UC312	81.5	52
65	**UCT313**	80	26	50	190	170	116	238	146	25	134	43	32	70	75	30	UC313	92.5	59.7
70	**UCT314**	90	26	52	202	180	130	252	155	25	140	46	36	85	78	33	UC314	104	68
75	**UCT315**	90	26	55	216	192	132	262	160	25	150	46	36	85	82	32	UC315	114	76.9
80	**UCT316**	102	30	60	230	204	150	282	174	28	160	53	42	98	86	34	UC316	123	86.4
85	**UCT317**	102	32	64	240	214	152	298	183	30	170	53	42	98	96	40	UC317	132	96.5
90	**UCT318**	110	32	66	255	228	160	312	192	30	175	57	46	106	96	40	UC318	143	107.2
95	**UCT319**	110	35	72	270	240	165	322	197	31	180	57	46	106	103	41	UC319	153	118.4
100	**UCT320**	120	35	75	290	260	175	345	210	32	200	59	48	115	108	42	UC320	173	140.4
105	**UCT321**	120	35	75	290	260	175	345	210	32	200	59	48	115	112	44	UC321	183	153.1
110	**UCT322**	130	38	80	320	285	185	385	235	38	215	65	52	125	117	46	UC322	205	178.8
120	**UCT324**	140	45	90	355	320	210	432	267	42	230	70	60	140	126	51	UC324	207	184.8
130	**UCT326**	150	50	100	385	350	220	465	285	45	240	75	65	150	135	54	UC326	229	214.3
140	**UCT328**	155	50	100	415	380	230	515	315	50	255	80	70	160	145	59	UC328	255	246

Standard		With Cast Iron Covers					
Housing No.	Mass (kg)	Unit No.		Cover Dimensions			Mass (kg)
		Open	Closed	L_5 (mm)	A_5 (mm)	A_7 (mm)	
T305	1.4	※***CUCT305C***	※***CUCT305CE***	122	78	10	2.0
T306	1.8	※***CUCT306C***	※***CUCT306CE***	137	84	10	2.5
T307	2.4	※***CUCT307C***	※***CUCT307CE***	150	90	10	3.3
T308	3.0	※***CUCT308C***	※***CUCT308CE***	162	100	11	4.0
T309	4.1	※***CUCT309C***	※***CUCT309CE***	178	106	12	5.5
T310	5.2	**CUCT310C**	**CUCT310CE**	191	114	12	6.8
T311	6.4	**CUCT311C**	**CUCT311CE**	207	120	13	8.3
T312	7.6	**CUCT312C**	**CUCT312CE**	220	130	14	10.7
T313	9.18	**CUCT313C**	**CUCT313CE**	242	140	17	12.9
T314	11.2	**CUCT314C**	**CUCT314CE**	256	140	17	15.0
T315	13.0	**CUCT315C**	**CUCT315CE**	266	150	17	17.2
T316	15.6	**CUCT316C**	**CUCT316CE**	285	154	17	20.7
T317	18.63	**CUCT317C**	**CUCT317CE**	302	164	18	24.4
T318	21.2	**CUCT318C**	**CUCT318CE**	316	168	20	27.4
T319	24.4	**CUCT319C**	**CUCT319CE**	326	180	20	31.3
T320	30.6	**CUCT320C**	**CUCT320CE**	349	190	21	37.9
T321	30.2	**CUCT321C**	**CUCT321CE**	354	194	21	38.2
T322	38.8	**CUCT322C**	**CUCT322CE**	387	210	26	48.2
T324	54.6	**CUCT324C**	**CUCT324CE**	432	220	25	67.3
T326	68.4	**CUCT326C**	**CUCT326CE**	465	230	24	83.5
T328	83.2	**CUCT328C**	**CUCT328CE**	515	240	24	101

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Take-Up Units
UGT200 Type

Normal Duty
Eccentric Collar Locking
Steel Collar w/ Black Oxide Finish
Gray Cast Iron Housing
Relube



Metric Size

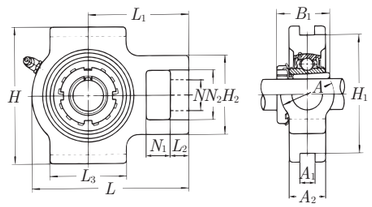
Shaft Dia. (mm)	Unit No.	Dimensions (mm)														
		A	A_1	A_2	H	H_1	H_2	L	L_1	L_2	L_3	N	N_1	N_2	B_1	S
20	**UGT204**	32	12	21	89	76	51	94	61	10	51	19	16	32	43.7	17.1
25	**UGT205**	32	12	24	89	76	51	97	62	10	51	19	16	32	44.4	17.5
30	**UGT206**	37	12	28	102	89	56	113	70	10	57	22	16	37	48.4	18.3
35	**UGT207**	37	12	30	102	89	64	129	78	13	64	22	16	37	51.1	18.8
40	**UGT208**	49	16	33	114	102	83	144	88	16	83	29	19	49	56.3	21.4
45	**UGT209**	49	16	35	117	102	83	144	87	16	83	29	19	49	56.3	21.4
50	**UGT210**	49	16	37	117	102	83	149	90	16	86	29	19	49	62.7	24.6
55	**UGT211**	64	22	38	146	130	102	171	106	19	95	35	25	64	71.4	27.8
60	**UGT212**	64	22	42	146	130	102	194	119	19	102	35	32	64	77.8	31
65	**UGT213**	70	26	44	167	151	111	224	137	21	121	41	32	70	85.7	34.1

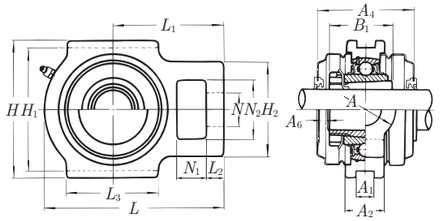
Note: For grease fitting tap size, see Table 7.1 on page 250.

Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
	C_r	C_{0r}		
UG204+ER	12.8	6.6	T204	0.79
UG205+ER	14	7.9	T205	0.86
UG206+ER	19.6	11.3	T206	1.4
UG207+ER	25.9	15.4	T207	1.8
UG208+ER	29.3	17.9	T208	2.5
UG209+ER	33	20.5	T209	2.6
UG210+ER	35.5	23.2	T210	2.6
UG211+ER	43	29.4	T211	4.2
UG212+ER	52.5	36.1	T212	5.4
UG213+ER	57.5	40	T213	7.61

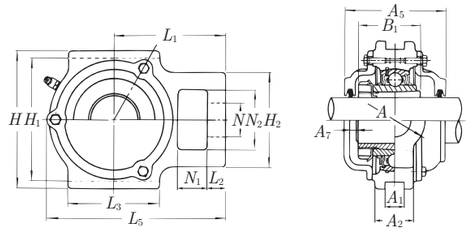
Take-Up Units
UKT200+H Type

Normal Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Covers



With Cast Iron Covers

Metric Size

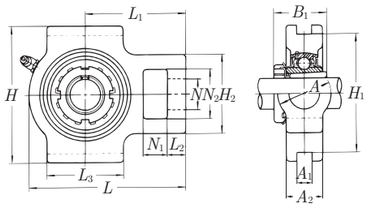
Shaft Dia. (mm)	Unit No.	Dimensions (mm)														Bearing No.	Basic Load Rating (kN)	
		A	A_1	A_2	H	H_1	H_2	L	L_1	L_2	L_3	N	N_1	N_2	B_1		C_r	C_{0r}
20	**UKT205+H2305**	32	12	24	89	76	51	97	62	10	51	19	16	32	35	UK205+H2305	14	7.9
25	**UKT206+H2306**	37	12	28	102	89	56	113	70	10	57	22	16	37	38	UK206+H2306	19.6	11.3
30	**UKT207+H2307**	37	12	30	102	89	64	129	78	13	64	22	16	37	43	UK207+H2307	25.9	15.4
35	**UKT208+H2308**	49	16	33	114	102	83	144	88	16	83	29	19	49	46	UK208+H2308	29.3	17.9
40	**UKT209+H2309**	49	16	35	117	102	83	144	87	16	83	29	19	49	50	UK209+H2309	33	20.5
45	**UKT210+H2310**	49	16	37	117	102	83	149	90	16	86	29	19	49	55	UK210+H2310	35.5	23.2
50	**UKT211+H2311**	64	22	38	146	130	102	171	106	19	95	35	25	64	59	UK211+H2311	43	29.4
55	**UKT212+H2312**	64	22	42	146	130	102	194	119	19	102	35	32	64	62	UK212+H2312	52.5	36.1
60	**UKT213+H2313**	70	26	44	167	151	111	224	137	21	121	41	32	70	65	UK213+H2313	57.5	40
65	**UKT215+H2315**	70	26	48	167	151	111	232	140	21	121	41	32	70	73	UK215+H2315	66	48.2
70	**UKT216+H2316**	70	26	51	184	165	111	235	140	21	121	41	32	70	78	UK216+H2316	72.5	53
75	**UKT217+H2317**	73	30	54	198	173	124	260	162	29	157	48	38	73	82	UK217+H2317	83.5	61.8

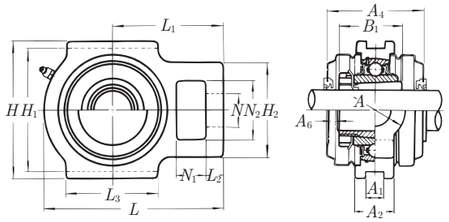
Standard		With Pressed Steel Covers					With Cast Iron Covers					
		Unit No.		Cover Dimensions			Unit No.		Cover Dimensions			
Housing No.	Mass (kg)	Open	Closed	A_4 (mm)	A_6 (mm)	Mass (kg)	Open	Closed	L_5 (mm)	A_5 (mm)	A_7 (mm)	Mass (kg)
T205	0.83	**UKT205C+H2305**	**UKT205E+H2305**	63	11	0.94	**CUKT205C+H2305**	**CUKT205CE+H2305**	100	70	9	1.6
T206	1.4	**UKT206C+H2306**	**UKT206E+H2306**	65	10	1.5	**CUKT206C+H2306**	**CUKT206CE+H2306**	113	74	10	2.1
T207	1.7	**UKT207C+H2307**	**UKT207E+H2307**	70	11	1.9	**CUKT207C+H2307**	**CUKT207CE+H2307**	129	80	11	2.7
T208	2.5	**UKT208C+H2308**	**UKT208E+H2308**	82	15	2.6	**CUKT208C+H2308**	**CUKT208CE+H2308**	144	90	14	3.5
T209	2.5	**UKT209C+H2309**	**UKT209E+H2309**	82	14	2.7	**CUKT209C+H2309**	**CUKT209CE+H2309**	145	90	13	3.8
T210	2.7	**UKT210C+H2310**	**UKT210E+H2310**	87	15	3.0	**CUKT210C+H2310**	**CUKT210CE+H2310**	151	98	15	4.3
T211	4.1	**UKT211C+H2311**	**UKT211E+H2311**	88	14	4.5	**CUKT211C+H2311**	**CUKT211CE+H2311**	174	100	15	5.8
T212	5.1	**UKT212C+H2312**	**UKT212E+H2312**	102	19	5.6	**CUKT212C+H2312**	**CUKT212CE+H2312**	194	114	20	7.2
T213	7.1	**UKT213C+H2313**	**UKT213E+H2313**	102	17	7.6	**CUKT213C+H2313**	**CUKT213CE+H2313**	224	118	20	9.5
T215	7.9	–	–	–	–	–	**CUKT215C+H2315**	**CUKT215CE+H2315**	232	136	26	10.7
T216	8.9	–	–	–	–	–	**CUKT216C+H2316**	**CUKT216CE+H2316**	236	146	26	12.9
T217	11.7	–	–	–	–	–	**CUKT217C+H2317**	**CUKT217CE+H2317**	264	150	27	16.1

Note: For grease fitting tap size, see Table 7.1 on page 250.

Take-Up Units
UKTX00+H Type

Medium Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Pressed Steel Covers

Metric Size

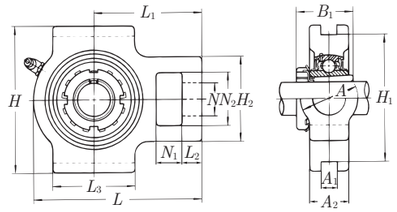
Shaft Dia. (mm)	Unit No.	Dimensions (mm)														Bearing No.	Basic Load Rating (kN)	
		A	A_1	A_2	H	H_1	H_2	L	L_1	L_2	L_3	N	N_1	N_2	B_1		C_r	C_{0r}
20	※***UKTX05+H2305***	37	12	28	102	89	56	113	70	10	57	22	16	37	35	UKX05+H2305	19.6	11.3
25	※***UKTX06+H2306***	37	12	30	102	89	64	129	78	13	64	22	16	37	38	UKX06+H2306	25.9	15.4
30	**UKTX07+H2307**	49	16	36	114	102	83	144	88	15	83	29	19	49	43	UKX07+H2307	29.3	17.9
35	**UKTX08+H2308**	49	16	36	117	102	83	144	87	15	83	29	19	49	46	UKX08+H2308	33	20.5
40	**UKTX09+H2309**	49	16	38	117	102	83	149	90	16	86	29	19	49	50	UKX09+H2309	35.5	23.2
45	**UKTX10+H2310**	64	22	42	146	130	102	171	106	19	95	35	25	64	55	UKX10+H2310	43	29.4
50	**UKTX11+H2311**	64	22	44	146	130	102	194	119	19	102	35	32	64	59	UKX11+H2311	52.5	36.1
55	**UKTX12+H2312**	70	26	48	167	151	111	224	137	21	121	41	32	70	62	UKX12+H2312	57.5	40
60	**UKTX13+H2313**	70	26	48	167	151	111	224	137	21	121	41	32	70	65	UKX13+H2313	62	44
65	**UKTX15+H2315**	70	28	48	184	165	111	235	140	21	121	41	32	70	73	UKX15+H2315	72.5	53
70	**UKTX16+H2316**	73	28	54	198	173	124	260	162	28	157	48	38	73	78	UKX16+H2316	83.5	61.8
75	**UKTX17+H2317**	73	28	54	198	173	124	260	162	28	157	48	38	73	82	UKX17+H2317	95.5	71.4

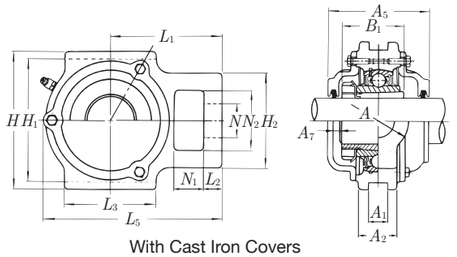
Standard		With Pressed Steel Covers				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
TX05	1.3	※ ***UKTX05C+H2305***	※ ***UKTX05E+H2305***	65	10	1.4
TX06	1.7	※ ***UKTX06C+H2306***	※ ***UKTX06E+H2306***	70	12	1.8
TX07	2.6	※ ***UKTX07C+H2307***	※ ***UKTX07E+H2307***	83	17	2.7
TX08	2.6	※ ***UKTX08C+H2308***	※ ***UKTX08E+H2308***	82	15	2.8
TX09	2.8	※ ***UKTX09C+H2309***	※ ***UKTX09E+H2309***	87	16	3.1
TX10	4.4	※ ***UKTX10C+H2310***	※ ***UKTX10E+H2310***	88	14	4.8
TX11	5.1	※ ***UKTX11C+H2311***	※ ***UKTX11E+H2311***	100	19	5.5
TX12	7.1	※ ***UKTX12C+H2312***	※ ***UKTX12E+H2312***	104	19	7.6
TX13	7.2	–	–	–	–	–
TX15	8.4	–	–	–	–	–
TX16	11.4	–	–	–	–	–
TX17	10.9	–	–	–	–	–

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Take-Up Units
UKT300+H Type

Heavy Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube





With Cast Iron Covers

Metric Size

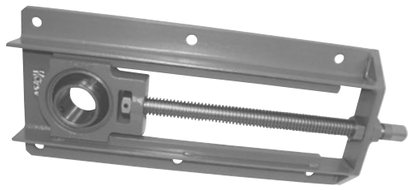
Shaft Dia. (mm)	Unit No.	Dimensions (mm)														Bearing No.	Basic Load Rating (kN)	
		A	A_1	A_2	H	H_1	H_2	L	L_1	L_2	L_3	N	N_1	N_2	B_1		C_r	C_{0r}
20	※***UKT305+H2305***	36	12	26	89	80	62	122	76	12	65	26	16	36	35	UK305+H2305	21.3	10.9
25	※***UKT306+H2306***	41	16	28	100	90	70	137	85	14	74	28	18	41	38	UK306+H2306	26.8	15
30	**UKT307+H2307**	45	16	32	111	100	75	150	94	15	80	30	20	45	43	UK307+H2307	33.5	19.2
35	**UKT308+H2308**	50	18	34	124	112	83	162	100	17	89	32	22	50	46	UK308+H2308	40.5	23.9
40	**UKT309+H2309**	55	18	38	138	125	90	178	110	18	97	34	24	55	50	UK309+H2309	51.5	29.5
45	**UKT310+H2310**	61	20	40	151	140	98	191	117	20	106	37	27	61	55	UK310+H2310	61.5	38.2
50	**UKT311+H2311**	66	22	44	163	150	105	207	127	21	115	39	29	66	59	UK311+H2311	71.5	44.8
55	**UKT312+H2312**	71	22	46	178	160	113	220	135	23	123	41	31	71	62	UK312+H2312	81.5	52
60	**UKT313+H2313**	80	26	50	190	170	116	238	146	25	134	43	32	70	65	UK313+H2313	92.5	59.7
65	**UKT315+H2315**	90	26	55	216	192	132	262	160	25	150	46	36	85	73	UK315+H2315	114	76.9
70	**UKT316+H2316**	102	30	60	230	204	150	282	174	28	160	53	42	98	78	UK316+H2316	123	86.4
75	**UKT317+H2317**	102	32	64	240	214	152	298	183	30	170	53	42	98	82	UK317+H2317	132	96.5
80	**UKT318+H2318**	110	32	66	255	228	160	312	192	30	175	57	46	106	86	UK318+H2318	143	107.2
85	**UKT319+H2319**	110	35	72	270	240	165	322	197	31	180	57	46	106	90	UK319+H2319	153	118.4
90	**UKT320+H2320**	120	35	75	290	260	175	345	210	32	200	59	48	115	97	UK320+H2320	173	140.4
100	**UKT322+H2322**	130	38	80	320	285	185	385	235	38	215	65	52	125	105	UK322+H2322	205	178.8
110	**UKT324+H2324**	140	45	90	355	320	210	432	267	42	230	70	60	140	112	UK324+H2324	207	184.8
115	**UKT326+H2326**	150	50	100	385	350	220	465	285	45	240	75	65	150	121	UK326+H2326	229	214.3
125	**UKT328+H2328**	155	50	100	415	380	230	515	315	50	255	80	70	160	131	UK328+H2328	255	246

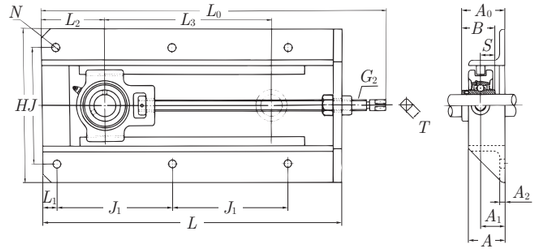
Standard		With Cast Iron Covers					
Housing No.	Mass (kg)	Unit No.		Cover Dimensions			Mass (kg)
		Open	Closed	L_5 (mm)	A_5 (mm)	A_7 (mm)	
T305	1.4	※***CUKT305C+H2305***	※***CUKT305CE+H2305***	122	78	12	2.1
T306	1.8	※***CUKT306C+H2306***	※***CUKT306CE+H2306***	137	84	13	2.6
T307	2.5	※***CUKT307C+H2307***	※***CUKT307CE+H2307***	150	90	14	3.4
T308	3.1	※***CUKT308C+H2308***	※***CUKT308CE+H2308***	162	100	17	4.1
T309	4.1	※***CUKT309C+H2309***	※***CUKT309CE+H2309***	178	106	17	5.6
T310	5.3	**CUKT310C+H2310**	**CUKT310CE+H2310**	191	114	19	7.1
T311	6.4	**CUKT311C+H2311**	**CUKT311CE+H2311**	207	120	20	8.4
T312	7.6	**CUKT312C+H2312**	**CUKT312CE+H2312**	220	130	23	10.8
T313	9.1	**CUKT313C+H2313**	**CUKT313CE+H2313**	242	140	24	12.9
T315	13.1	**CUKT315C+H2315**	**CUKT315CE+H2315**	266	150	25	17.6
T316	15.9	**CUKT316C+H2316**	**CUKT316CE+H2316**	285	154	23	21.1
T317	18.61	**CUKT317C+H2317**	**CUKT317CE+H2317**	302	164	26	24.6
T318	21.4	**CUKT318C+H2318**	**CUKT318CE+H2318**	316	168	26	28.4
T319	24.4	**CUKT319C+H2319**	**CUKT319CE+H2319**	326	180	30	31.5
T320	30.6	**CUKT320C+H2320**	**CUKT320CE+H2320**	349	190	31	38.5
T322	38.9	**CUKT322C+H2322**	**CUKT322CE+H2322**	387	210	36	48.9
T324	54.1	**CUKT324C+H2324**	**CUKT324CE+H2324**	432	220	35	67.5
T326	68.7	**CUKT326C+H2326**	**CUKT326CE+H2326**	465	230	36	85
T328	83.5	**CUKT328C+H2328**	**CUKT328CE+H2328**	515	240	37	103

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Take-Up Units with Frames
UCT200+WB Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Angle Steel Frame
Relube





Metric Size

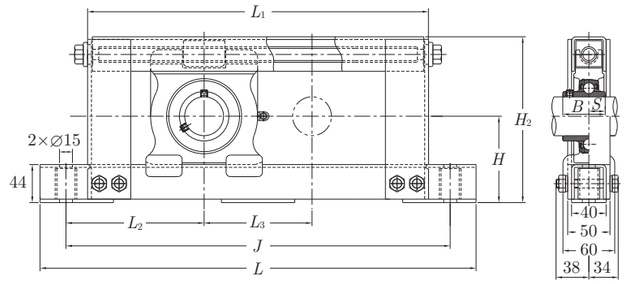
Shaft Dia. (mm)	Unit No.	Dimensions (mm)																	Bolt Size (mm)
		H	*L*	*J*	J_1	*N*	L_1	L_2	L_3	G_2	L_0	*A*	A_1	A_2	A_0	*B*	*S*	*T*	
12	**UCT201+WB**	199	317	154	117	12	19	83	150	TM16×3	367	50	29	6	47.3	31	12.7	12	M10
15	**UCT202+WB**	199	317	154	117	12	19	83	150	TM16×3	367	50	29	6	47.3	31	12.7	12	M10
17	**UCT203+WB**	199	317	154	117	12	19	83	150	TM16×3	367	50	29	6	47.3	31	12.7	12	M10
20	**UCT204+WB**	199	317	154	117	12	19	83	150	TM16×3	367	50	29	6	47.3	31	12.7	12	M10
25	**UCT205+WB**	199	317	154	117	12	19	83	150	TM16×3	368	50	29	6	48.8	34.1	14.3	12	M10
30	**UCT206+WB**	212	337	166	127	12	19	95	150	Tr18×4	396	50	30	6	52.2	38.1	15.9	14	M10
35	**UCT207+WB**	212	429	166	173	12	19	99	230	Tr18×4	490	50	30	6	55.4	42.9	17.5	14	M10
40	**UCT208+WB**	233	520	192	219	15	22	108	295	Tr26×5	591	50	30	6	60.2	49.2	19	22	M12
45	**UCT209+WB**	233	520	192	219	15	22	108	295	Tr26×5	590	50	30	6	60.2	49.2	19	22	M12
50	**UCT210+WB**	233	520	192	219	15	22	108	295	Tr26×5	593	50	30	6	62.6	51.6	19	22	M12
55	**UCT211+WB**	301	542	240	230	15	22	114	285	Tr30×6	631	65	38	6	71.4	55.6	22.2	24	M12
60	**UCT212+WB**	301	568	240	243	15	22	127	285	Tr30×6	657	65	38	6	77.7	65.1	25.4	24	M12
65	**UCT213+WB**	322	606	260	260	15	22	144	280	Tr36×6	699	65	38	6	77.7	65.1	25.4	27	M12

Bearing No.	Basic Load Rating (kN)		Housing No.	Frame No.	Mass (kg)
	C_r	C_{0r}			
UC201	12.8	6.6	T204	WB205	5.0
UC202	12.8	6.6	T204	WB205	5.0
UC203	12.8	6.6	T204	WB205	5.0
UC204	12.8	6.6	T204	WB205	5.0
UC205	14	7.9	T205	WB205	5.0
UC206	19.6	11.3	T206	WB206	5.9
UC207	25.9	15.4	T207	WB207	7.9
UC208	29.3	17.9	T208	WB210	11.1
UC209	33	20.5	T209	WB210	11.1
UC210	35.5	23.2	T210	WB210	11.2
UC211	43	29.4	T211	WB211	17.3
UC212	52.5	36.1	T212	WB212	18.7
UC213	57.5	40	T213	WB213	23.4

Note: For grease fitting tap size, see Table 7.1 on page 250.

Take-Up Units with Frames
UCTL200+WL Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Light Gauge Channel Steel Frame
Relube



Metric Size

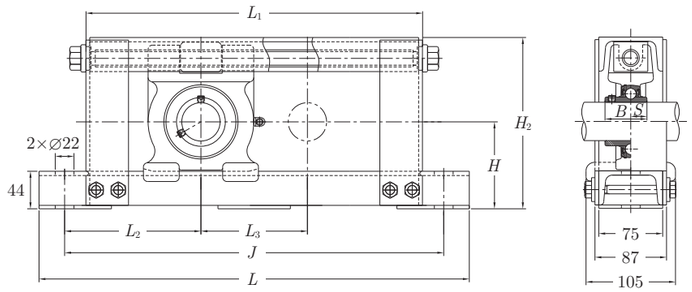
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)
		H	H_2	L	J	L_1	L_2	L_3	B	S	
20	**UCTL204+WL100**	77	146	430	370	320	135	100	31	12.7	M12
	UCTL204+WL200			530	470	420		200			
	UCTL204+WL300			630	570	520		300			
	※***UCTL204+WL400***			730	670	620		400			
25	**UCTL205+WL100**	82	156	440	380	330	140	100	34.1	14.3	M12
	UCTL205+WL200			540	480	430		200			
	UCTL205+WL300			640	580	530		300			
	※***UCTL205+WL400***			740	680	630		400			
30	**UCTL206+WL100**	87	166	450	390	340	145	100	38.1	15.9	M12
	UCTL206+WL200			550	490	440		200			
	UCTL206+WL300			650	590	540		300			
	UCTL206+WL400			750	690	640		400			
35	**UCTL207+WL100**	92	176	460	400	350	150	100	42.9	17.5	M12
	UCTL207+WL200			560	500	450		200			
	UCTL207+WL300			660	600	550		300			
	UCTL207+WL400			760	700	650		400			
40	**UCTL208+WL100**	97	186	470	410	360	155	100	49.2	19	M12
	UCTL208+WL200			570	510	460		200			
	UCTL208+WL300			670	610	560		300			
	UCTL208+WL400			770	710	660		400			
45	**UCTL209+WL100**	100	192	480	420	370	160	100	49.2	19	M12
	UCTL209+WL200			580	520	470		200			
	UCTL209+WL300			680	620	570		300			
	UCTL209+WL400			780	720	670		400			

Bearing No.	Basic Load Rating (kN)		Housing No.	Frame No.	Mass (kg)
	C_r	C_{0r}			
UC204	12.8	6.6	TL204	WL204-100	5.6
				WL204-200	6.3
				WL204-300	7.0
				※*WL204-400*	7.7
UC205	14	7.9	TL205	WL205-100	6.0
				WL205-200	6.7
				WL205-300	7.4
				※*WL205-400*	8.1
UC206	19.6	11.3	TL206	WL206-100	6.5
				WL206-200	7.2
				WL206-300	7.9
				WL206-400	8.6
UC207	25.9	15.4	TL207	WL207-100	7.1
				WL207-200	7.8
				WL207-300	8.5
				WL207-400	9.2
UC208	29.3	17.9	TL208	WL208-100	7.8
				WL208-200	8.5
				WL208-300	9.2
				WL208-400	9.9
UC209	33	20.5	TL209	WL209-100	8.2
				WL209-200	8.9
				WL209-300	9.6
				WL209-400	10.3

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Thread size of lead screw nut = Tr18×4
3. For those marked with ※, consult ASAHI for availability.

Take-Up Units with Frames
UCTU200+WU Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Channel Steel Frame
Relube



Metric Size

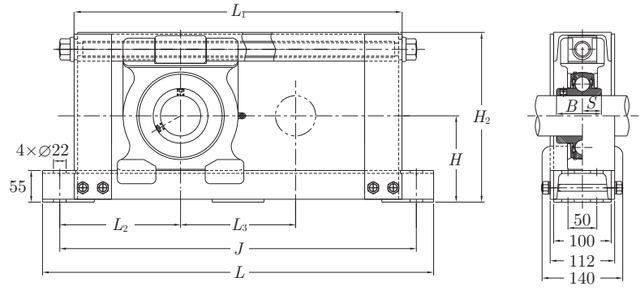
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)
		H	H_2	L	J	L_1	L_2	L_3	B	S	
40	**UCTU208+WU500**	97	192	870	810	760	155	500	49.2	19	M18
	※***UCTU208+WU600***			970	910	860		600			
	※***UCTU208+WU700***			1070	1010	960		700			
	※***UCTU208+WU800***			1170	1110	1060		800			
	※***UCTU208+WU900***			1270	1210	1160		900			
45	**UCTU209+WU500**	102	201	880	820	770	160	500	49.2	19	M18
	※***UCTU209+WU600***			980	920	870		600			
	※***UCTU209+WU700***			1080	1020	970		700			
	※***UCTU209+WU800***			1180	1120	1070		800			
	※***UCTU209+WU900***			1280	1220	1170		900			
50	**UCTU210+WU500**	107	211	890	830	780	165	500	51.6	19	M18
	※***UCTU210+WU600***			990	930	880		600			
	※***UCTU210+WU700***			1090	1030	980		700			
	※***UCTU210+WU800***			1190	1130	1080		800			
	※***UCTU210+WU900***			1290	1230	1180		900			
55	**UCTU211+WU500**	115	232	910	850	800	175	500	55.6	22.2	M18
	※***UCTU211+WU600***			1010	950	900		600			
	※***UCTU211+WU700***			1110	1050	1000		700			
	※***UCTU211+WU800***			1210	1150	1100		800			
	※***UCTU211+WU900***			1310	1250	1200		900			
60	**UCTU212+WU500**	120	242	920	860	810	180	500	65.1	25.4	M18
	※***UCTU212+WU600***			1020	960	910		600			
	※***UCTU212+WU700***			1120	1060	1010		700			
	※***UCTU212+WU800***			1220	1160	1110		800			
	※***UCTU212+WU900***			1320	1260	1210		900			

Bearing No.	Basic Load Rating (kN)		Housing No.	Frame No.	Mass (kg)
	C_r	C_{0r}			
UC208	29.3	17.9	TU208	WU208-500	19.0
				※*WU208-600*	20.6
				※*WU208-700*	22.2
				※*WU208-800*	23.8
				※*WU208-900*	25.3
UC209	33	20.5	TU209	WU209-500	19.7
				※*WU209-600*	21.3
				※*WU209-700*	22.9
				※*WU209-800*	24.5
				※*WU209-900*	26.1
UC210	35.5	23.2	TU210	WU210-500	20.5
				※*WU210-600*	22.2
				※*WU210-700*	23.8
				※*WU210-800*	25.4
				※*WU210-900*	27.0
UC211	43	29.4	TU211	WU211-500	22.4
				※*WU211-600*	23.7
				※*WU211-700*	25.8
				※*WU211-800*	27.4
				※*WU211-900*	29.1
UC212	52.5	36.1	TU212	WU212-500	23.9
				※*WU212-600*	25.6
				※*WU212-700*	27.2
				※*WU212-800*	28.9
				※*WU212-900*	30.6

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Thread size of lead screw nut:
Tr20×4 for UCTU208 to UCTU210
Tr26×5 for UCTU211 and UCTU212
3. For those marked with ※, consult ASAHI for availability.

Take-Up Units with Frames
UCTU300+WU Type

Heavy Duty
Set-Screw Locking
Gray Cast Iron Housing
Channel Steel Frame
Relube



Metric Size

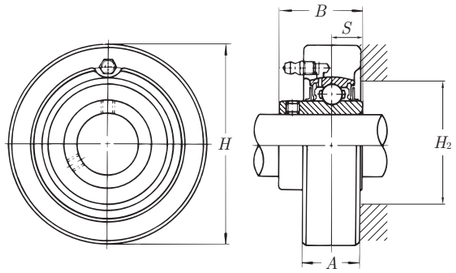
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)
		H	H_2	L	J	L_1	L_2	L_3	B	S	
	UCTU313+WU500			940	880	830		490			
	※***UCTU313+WU600***			1040	980	930		590			
65	※***UCTU313+WU700***	145	285	1140	1080	1030	195	690	75	30	M18
	※***UCTU313+WU800***			1240	1180	1130		790			
	※***UCTU313+WU900***			1340	1280	1230		890			
	UCTU314+WU500			960	900	850		500			
	※***UCTU314+WU600***			1060	1000	950		600			
70	※***UCTU314+WU700***	150	295	1160	1100	1050	200	700	78	33	M18
	※***UCTU314+WU800***			1260	1200	1150		800			
	※***UCTU314+WU900***			1360	1300	1250		900			
	UCTU315+WU500			980	920	870		500			
	※***UCTU315+WU600***			1080	1020	970		600			
75	※***UCTU315+WU700***	155	305	1180	1120	1070	210	700	82	32	M18
	※***UCTU315+WU800***			1280	1220	1170		800			
	※***UCTU315+WU900***			1380	1320	1270		900			
	UCTU316+WU500			1000	940	890		500			
	※***UCTU316+WU600***			1100	1040	990		600			
80	※***UCTU316+WU700***	160	315	1200	1140	1090	220	700	86	34	M18
	※***UCTU316+WU800***			1300	1240	1190		800			
	※***UCTU316+WU900***			1400	1340	1290		900			
	UCTU317+WU500			1020	960	910		500			
	※***UCTU317+WU600***			1120	1060	1010		600			
85	※***UCTU317+WU700***	165	325	1220	1160	1110	230	700	96	40	M18
	※***UCTU317+WU800***			1320	1260	1210		800			
	※***UCTU317+WU900***			1420	1360	1310		900			
	UCTU318+WU500			1050	990	940		500			
	※***UCTU318+WU600***			1150	1090	1040		600			
90	※***UCTU318+WU700***	170	335	1250	1190	1140	245	700	96	40	M18
	※***UCTU318+WU800***			1350	1290	1240		800			
	※***UCTU318+WU900***			1450	1390	1340		900			

Bearing No.	Basic Load Rating (kN)		Housing No.	Frame No.	Mass (kg)
	C_r	C_{0r}			
				WU313-500	38.3
				※*WU313-600*	40.6
UC313	92.5	59.7	TU313	※*WU313-700*	42.9
				※*WU313-800*	45.3
				※*WU313-900*	47.6
				WU314-500	40.8
				※*WU314-600*	43.1
UC314	104	68	TU314	※*WU314-700*	45.4
				※*WU314-800*	47.8
				※*WU314-900*	50.1
				WU315-500	43.6
				※*WU315-600*	45.9
UC315	114	76.9	TU315	※*WU315-700*	48.3
				※*WU315-800*	50.6
				※*WU315-900*	52.9
				WU316-500	45.1
				※*WU316-600*	47.4
UC316	123	86.4	TU316	※*WU316-700*	49.7
				※*WU316-800*	52.0
				※*WU316-900*	54.4
				WU317-500	49.8
				※*WU317-600*	52.1
UC317	132	96.5	TU317	※*WU317-700*	54.4
				※*WU317-800*	56.7
				※*WU317-900*	59.0
				WU318-500	53.1
				※*WU318-600*	55.4
UC318	143	107.2	TU318	※*WU318-700*	57.7
				※*WU318-800*	60.1
				※*WU318-900*	62.4

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Thread size of lead screw nut = Tr28×5
3. For those marked with ※, consult ASAHI for availability.

Cartridge Units
UCC200 Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube



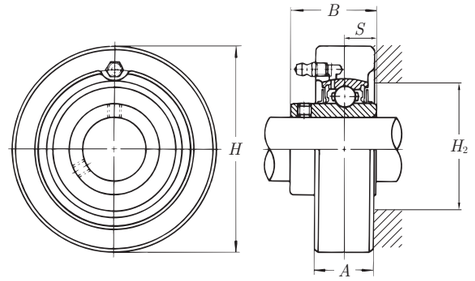
Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)					Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
		H	*A*	H_2	*B*	*S*		C_r	C_{0r}		
12	**UCC201**	72	20	31	31	12.7	UC201	12.8	6.6	C204	0.54
15	**UCC202**	72	20	31	31	12.7	UC202	12.8	6.6	C204	0.52
17	**UCC203**	72	20	31	31	12.7	UC203	12.8	6.6	C204	0.51
20	**UCC204**	72	20	31	31	12.7	UC204	12.8	6.6	C204	0.49
25	**UCC205**	80	22	36	34.1	14.3	UC205	14	7.9	C205	0.65
30	**UCC206**	85	27	43	38.1	15.9	UC206	19.6	11.3	C206	0.82
35	**UCC207**	90	28	50	42.9	17.5	UC207	25.9	15.4	C207	0.91
40	**UCC208**	100	30	55	49.2	19	UC208	29.3	17.9	C208	1.2
45	**UCC209**	110	31	59	49.2	19	UC209	33	20.5	C209	1.47
50	**UCC210**	120	33	65	51.6	19	UC210	35.5	23.2	C210	1.9
55	**UCC211**	125	35	72	55.6	22.2	UC211	43	29.4	C211	2.1
60	**UCC212**	130	38	79	65.1	25.4	UC212	52.5	36.1	C212	2.5
65	**UCC213**	140	40	84	65.1	25.4	UC213	57.5	40	C213	3.0

Note: For grease fitting tap size, see Table 7.1 on page 250.

Cartridge Units
UCC300 Type

Heavy Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube



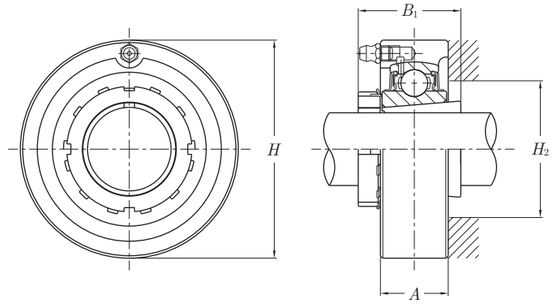
Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)					Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
		H	*A*	H_2	*B*	*S*		C_r	C_{0r}		
25	※***UCC305***	90	26	39	38	15	UC305	21.3	10.9	C305	1.1
30	※***UCC306***	100	28	47	43	17	UC306	26.8	15	C306	1.3
35	※***UCC307***	110	32	53	48	19	UC307	33.5	19.2	C307	1.8
40	※***UCC308***	120	34	58	52	19	UC308	40.5	23.9	C308	2.2
45	※***UCC309***	130	38	65	57	22	UC309	51.5	29.5	C309	2.7
50	※***UCC310***	140	40	73	61	22	UC310	61.5	38.2	C310	3.3
55	※***UCC311***	150	44	78	66	25	UC311	71.5	44.8	C311	3.9
60	※***UCC312***	160	46	84	71	26	UC312	81.5	52	C312	4.8
65	※***UCC313***	170	50	91	75	30	UC313	92.5	59.7	C313	5.7
70	※***UCC314***	180	52	97	78	33	UC314	104	68	C314	6.6
75	※***UCC315***	190	55	104	82	32	UC315	114	76.9	C315	7.7
80	※***UCC316***	200	60	110	86	34	UC316	123	86.4	C316	8.9
85	※***UCC317***	215	64	117	96	40	UC317	132	96.5	C317	11.2
90	※***UCC318***	225	66	123	96	40	UC318	143	107.2	C318	12.3
95	※***UCC319***	240	72	130	103	41	UC319	153	118.4	C319	15.2
100	※***UCC320***	260	75	138	108	42	UC320	173	140.4	C320	19.2
105	※***UCC321***	260	75	144	112	44	UC321	183	153.1	C321	18.9
110	※***UCC322***	300	80	154	117	46	UC322	205	178.8	C322	28.1
120	※***UCC324***	320	90	167	126	51	UC324	207	184.8	C324	35.0
130	※***UCC326***	340	100	180	135	54	UC326	229	214.3	C326	42.2
140	※***UCC328***	360	100	194	145	59	UC328	255	246	C328	48.9

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Cartridge Units
UKC200+H Type

Normal Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube



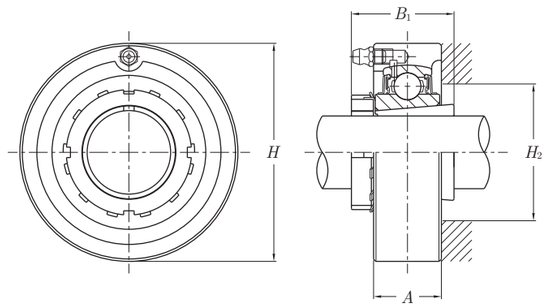
Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)				Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
		H	A	H_2	B_1		C_r	C_{0r}		
20	**UKC205+H2305**	80	22	36	35	UK205+H2305	14	7.9	C205	0.7
25	**UKC206+H2306**	85	27	35	38	UK206+H2306	19.6	11.3	C206	0.9
30	**UKC207+H2307**	90	28	40	43	UK207+H2307	25.9	15.4	C207	0.96
35	**UKC208+H2308**	100	30	45	46	UK208+H2308	29.3	17.9	C208	1.3
40	**UKC209+H2309**	110	31	51	50	UK209+H2309	33	20.5	C209	1.57
45	**UKC210+H2310**	120	33	56	55	UK210+H2310	35.5	23.2	C210	2.1
50	**UKC211+H2311**	125	35	61	59	UK211+H2311	43	29.4	C211	2.3
55	**UKC212+H2312**	130	38	67	62	UK212+H2312	52.5	36.1	C212	2.6
60	**UKC213+H2313**	140	40	72	65	UK213+H2313	57.5	40	C213	3.1

Note: For grease fitting tap size, see Table 7.1 on page 250.

Cartridge Units
UKC300+H Type

Heavy Duty
Adapter Sleeve Locking
Gray Cast Iron Housing
Relube



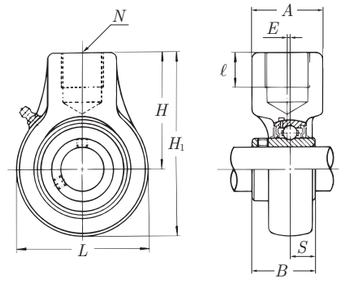
Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)				Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
		H	A	H_2	B_1		C_r	C_{0r}		
20	※***UKC305+H2305***	90	26	39	35	UK305+H2305	21.3	10.9	C305	1.1
25	※***UKC306+H2306***	100	28	47	38	UK306+H2306	26.8	15	C306	1.4
30	※***UKC307+H2307***	110	32	40	43	UK307+H2307	33.5	19.2	C307	1.8
35	※***UKC308+H2308***	120	34	58	46	UK308+H2308	40.5	23.9	C308	2.2
40	※***UKC309+H2309***	130	38	51	50	UK309+H2309	51.5	29.5	C309	2.7
45	※***UKC310+H2310***	140	40	73	55	UK310+H2310	61.5	38.2	C310	3.3
50	※***UKC311+H2311***	150	44	61	59	UK311+H2311	71.5	44.8	C311	3.9
55	※***UKC312+H2312***	160	46	85	62	UK312+H2312	81.5	52	C312	4.7
60	※***UKC313+H2313***	170	50	72	65	UK313+H2313	92.5	59.7	C313	5.6
65	※***UKC315+H2315***	190	55	82	73	UK315+H2315	114	76.9	C315	7.8
70	※***UKC316+H2316***	200	60	88	78	UK316+H2316	123	86.4	C316	9.1
75	※***UKC317+H2317***	215	64	93	82	UK317+H2317	132	96.5	C317	11.2
80	※***UKC318+H2318***	225	66	98	86	UK318+H2318	143	107.2	C318	12.5
85	※***UKC319+H2319***	240	72	103	90	UK319+H2319	153	118.4	C319	15.2
90	※***UKC320+H2320***	260	75	109	97	UK320+H2320	173	140.4	C320	19.2
100	※***UKC322+H2322***	300	80	154	105	UK322+H2322	205	178.8	C322	28.2
110	※***UKC324+H2324***	320	90	130	112	UK324+H2324	207	184.8	C324	34.5
115	※***UKC326+H2326***	340	100	141	121	UK326+H2326	229	214.3	C326	42.5
125	※***UKC328+H2328***	360	100	151	131	UK328+H2328	255	246	C328	49.2

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. For those marked with ※, consult ASAHI for availability.

Hanger Units
UCECH200 Type

Normal Duty
Set-Screw Locking
Gray Cast Iron Housing
Relube



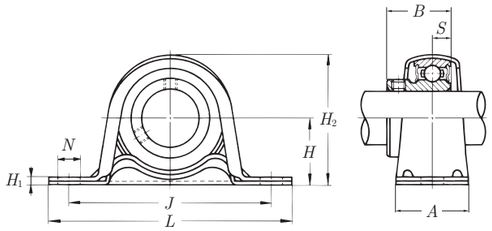
Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)
		H_1	L	H	A	N	ℓ	B	S	E		C_r	C_{0r}		
12	**UCECH201**	96	64	64	40	PF3/4	19	31	12.7	0	UC201	12.8	6.6	ECH204	0.85
15	**UCECH202**	96	64	64	40	PF3/4	19	31	12.7	0	UC202	12.8	6.6	ECH204	0.83
17	**UCECH203**	96	64	64	40	PF3/4	19	31	12.7	0	UC203	12.8	6.6	ECH204	0.82
20	**UCECH204**	96	64	64	40	PF3/4	19	31	12.7	0	UC204	12.8	6.6	ECH204	0.8
25	**UCECH205**	99	70	64	40	PF3/4	19	34.1	14.3	0	UC205	14	7.9	ECH205	0.74
30	**UCECH206**	104	80	64	40	PF3/4	19	38.1	15.9	0	UC206	19.6	11.3	ECH206	0.91
35	**UCECH207**	116	92	70	40	PF3/4	19	42.9	17.5	0	UC207	25.9	15.4	ECH207	1.2
40	**UCECH208**	121	96	73	40	PF3/4	19	49.2	19	2	UC208	29.3	17.9	ECH208	1.4
45	**UCECH209**	136	108	82	48	PF1	21	49.2	19	4	UC209	33	20.5	ECH209	1.8
50	**UCECH210**	140	114	83	48	PF1	21	51.6	19	5	UC210	35.5	23.2	ECH210	1.9
55	**UCECH211**	160	126	97	60	PF1 1/4	28	55.6	22.2	6	UC211	43	29.4	ECH211	2.3
60	※***UCECH212***	173	142	102	60	PF1 1/4	28	65.1	25.4	9	UC212	52.5	36.1	ECH212	4.2
65	※***UCECH213***	194	154	117	70	PF1 1/2	32	65.1	25.4	9.5	UC213	57.5	40	ECH213	4.8
75	※***UCECH215***	200	166	117	70	PF1 1/2	32	77.8	33.3	9.5	UC215	66	48.2	ECH215	5.6

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Thread N cannot fit a taper external pipe thread as its dimensions follow JIS B 0202 (parallel pipe threads).
3. For those marked with ※, consult ASAHI for availability.

Pillow Block Units
BPP Type

Normal Duty
Set-Screw Locking
Pressed Steel Housing
Non-Relube

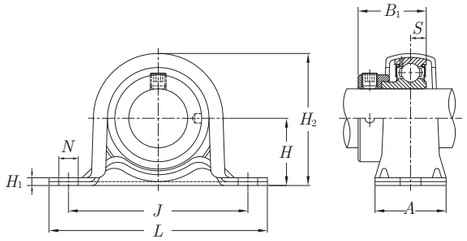


Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)	Allowable Load (kN)	
		H	L	A	J	N	H_1	H_2	B	S			C_r	C_{0r}			Radial	Axial
12	**BPP1**	22.2	86	25	68	9.5	3.2	44	22	6	M8	B1	9.55	4.8	PP3	0.16	2.15	0.83
15	**BPP2**	22.2	86	25	68	9.5	3.2	44	22	6	M8	B2	9.55	4.8	PP3	0.15	2.15	0.83
17	**BPP3**	22.2	86	25	68	9.5	3.2	44	22	6	M8	B3	9.55	4.8	PP3	0.13	2.15	0.83
20	**BPP4**	25.4	98	32	76	9.5	3.2	50	24.7	7	M8	B4	12.8	6.6	PP4	0.21	2.65	1.03
25	**BPP5**	28.6	108	32	86	11.5	4	56	27	7.5	M10	B5	14	7.9	PP5	0.29	3.7	1.47
30	**BPP6**	33.3	117	38	95	11.5	4	66	30.3	8	M10	B6	19.6	11.3	PP6	0.42	4.4	1.67
35	**BPP7**	39.7	129	42	106	11.5	4.6	78	32.9	8.5	M10	B7	25.9	15.4	PP7	0.61	4.9	1.86

Pillow Block Units
KHPP200 Type

Normal Duty
Eccentric Collar Locking
Steel Collar w/ Black Oxide Finish
Pressed Steel Housing
Non-Relube

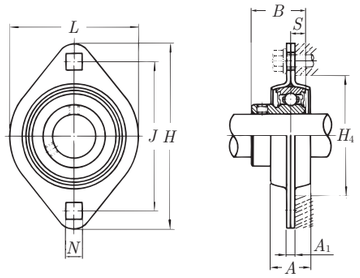


Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)	Allowable Load (kN)	
		H	L	A	J	N	H_1	H_2	B_1	S			C_r	C_{0r}			Radial	Axial
12	**KHPP201GA**	22.2	86	25	68	9.5	3.2	44	28.6	6.5	M8	KH201GAE	9.55	4.8	PP3	0.18	2.15	0.83
15	**KHPP202GA**	22.2	86	25	68	9.5	3.2	44	28.6	6.5	M8	KH202GAE	9.55	4.8	PP3	0.17	2.15	0.83
17	**KHPP203GA**	22.2	86	25	68	9.5	3.2	44	28.6	6.5	M8	KH203GAE	9.55	4.8	PP3	0.16	2.15	0.83
20	**KHPP204GA**	25.4	98	32	76	9.5	3.2	50	31	7.5	M8	KH204GAE	12.8	6.6	PP4	0.25	2.65	1.03
25	**KHPP205GA**	28.6	108	32	86	11.5	4	56	31	7.5	M10	KH205GAE	14	7.9	PP5	0.33	3.7	1.47
30	**KHPP206GA**	33.3	117	38	95	11.5	4	66	35.7	9	M10	KH206GAE	19.6	11.3	PP6	0.48	4.4	1.67
35	**KHPP207GA**	39.7	129	42	106	11.5	4.6	78	38.9	9.5	M10	KH207GAE	25.9	15.4	PP7	0.72	4.9	1.86

2-Bolt Oval Flange Units
BPFL Type

Normal Duty
Set-Screw Locking
Pressed Steel Housing
Non-Relube

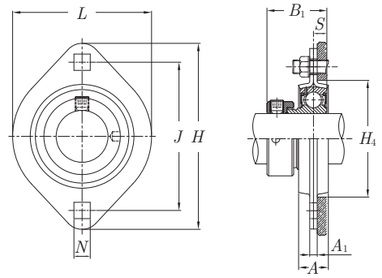


Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)	Allowable Load (kN)	
		H	L	A	J	N	A_1	H_1 (min.)	B	S			C_r	C_{0r}			Radial	Axial
12	**BPFL1**	81	59	14	63.5	7	4	49	22	6	M 6	B1	9.55	4.8	PFL3	0.25	2.65	0.64
15	**BPFL2**	81	59	14	63.5	7	4	49	22	6	M 6	B2	9.55	4.8	PFL3	0.24	2.65	0.64
17	**BPFL3**	81	59	14	63.5	7	4	49	22	6	M 6	B3	9.55	4.8	PFL3	0.22	2.65	0.64
20	**BPFL4**	90	67	16	71.5	9	4	56	24.7	7	M 8	B4	12.8	6.6	PFL4	0.29	3.09	0.74
25	**BPFL5**	95	71	18	76	9	4	60	27	7.5	M 8	B5	14	7.9	PFL5	0.36	3.53	0.9
30	**BPFL6**	113	84	18	90.5	11	5.2	71	30.3	8	M10	B6	19.6	11.3	PFL6	0.56	4.9	1.22
35	**BPFL7**	125	94	19	100	11	5.2	81	32.9	8.5	M10	B7	25.9	15.4	PFL7	0.70	6.22	1.52

2-Bolt Oval Flange Units
KHPFL200 Type

Normal Duty
Eccentric Collar Locking
Steel Collar w/ Black Oxide Finish
Pressed Steel Housing
Non-Relube

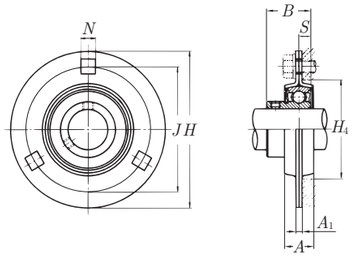


Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)	Allowable Load (kN)	
		H	L	A	J	N	A_1	H_1 (min.)	B1	S			C_r	C_{0r}			Radial	Axial
12	**KHPFL201GA**	81	59	14	63.5	7	4	49	28.6	6.5	M 6	KH201GAE	9.55	4.8	PFL3	0.27	2.65	0.64
15	**KHPFL202GA**	81	59	14	63.5	7	4	49	28.6	6.5	M 6	KH202GAE	9.55	4.8	PFL3	0.26	2.65	0.64
17	**KHPFL203GA**	81	59	14	63.5	7	4	49	28.6	6.5	M 6	KH203GAE	9.55	4.8	PFL3	0.25	2.65	0.64
20	**KHPFL204GA**	90	67	16	71.5	9	4	56	31	7.5	M 8	KH204GAE	12.8	6.6	PFL4	0.33	3.09	0.74
25	**KHPFL205GA**	95	71	18	76	9	4	60	31	7.5	M 8	KH205GAE	14	7.9	PFL5	0.4	3.53	0.9
30	**KHPFL206GA**	113	84	18	90.5	11	5.2	71	35.7	9	M10	KH206GAE	19.6	11.3	PFL6	0.62	4.9	1.22
35	**KHPFL207GA**	125	94	19	100	11	5.2	81	38.9	9.5	M10	KH207GAE	25.9	15.4	PFL7	0.81	6.22	1.52

3-Bolt Round Flange Units
BPF Type

Normal Duty
Set-Screw Locking
Pressed Steel Housing
Non-Relube

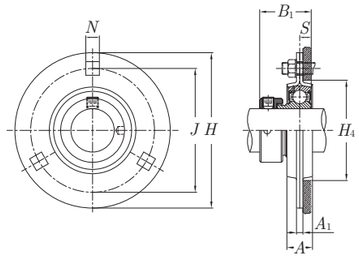


Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)								Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)	Allowable Load (kN)	
		H	*A*	*J*	*N*	A_1	H_1 (min.)	*B*	*S*			C_r	C_{0r}			Radial	Axial
12	**BPF1**	81	14	63.5	7	4	49	22	6	M 6	B1	9.55	4.8	PF3	0.21	2.65	1.32
15	**BPF2**	81	14	63.5	7	4	49	22	6	M 6	B2	9.55	4.8	PF3	0.20	2.65	1.32
17	**BPF3**	81	14	63.5	7	4	49	22	6	M 6	B3	9.55	4.8	PF3	0.18	2.65	1.32
20	**BPF4**	90	16	71	9	4	56	24.7	7	M 8	B4	12.8	6.6	PF4	0.25	3.09	1.52
25	**BPF5**	95	18	76	9	4	60	27	7.5	M 8	B5	14	7.9	PF5	0.35	3.53	1.76
30	**BPF6**	113	18	90	11	5.2	71	30.3	8	M10	B6	19.6	11.3	PF6	0.54	4.9	2.45
35	**BPF7**	122	20	100	11	5.2	81	32.9	8.5	M10	B7	25.9	15.4	PF7	0.71	6.22	3.09

3-Bolt Round Flange Units
KHPF200 Type

Normal Duty
Eccentric Collar Locking
Steel Collar w/ Black Oxide Finish
Pressed Steel Housing
Non-Relube

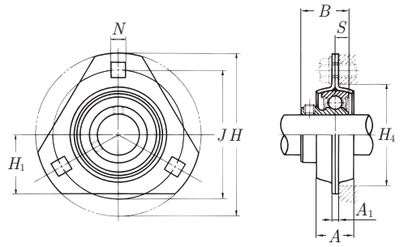


Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)								Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)	Allowable Load (kN)	
		H	*A*	*J*	*N*	A_1	H_1 (min.)	B_1	*S*			C_r	C_{0r}			Radial	Axial
12	**KHPF201GA**	81	14	63.5	7	4	49	28.6	6.5	M 6	KH201GAE	9.55	4.8	PF3	0.23	2.65	1.32
15	**KHPF202GA**	81	14	63.5	7	4	49	28.6	6.5	M 6	KH202GAE	9.55	4.8	PF3	0.22	2.65	1.32
17	**KHPF203GA**	81	14	63.5	7	4	49	28.6	6.5	M 6	KH203GAE	9.55	4.8	PF3	0.21	2.65	1.32
20	**KHPF204GA**	90	16	71	9	4	56	31	7.5	M 8	KH204GAE	12.8	6.6	PF4	0.29	3.09	1.52
25	**KHPF205GA**	95	18	76	9	4	60	31	7.5	M 8	KH205GAE	14	7.9	PF5	0.39	3.53	1.76
30	**KHPF206GA**	113	18	90	11	5.2	71	35.7	9	M10	KH206GAE	19.6	11.3	PF6	0.60	4.9	2.45
35	**KHPF207GA**	122	20	100	11	5.2	81	38.9	9.5	M10	KH207GAE	25.9	15.4	PF7	0.82	6.22	3.09

3-Bolt Triangular Flange Units
BPFT Type

Normal Duty
Set-Screw Locking
Pressed Steel Housing
Non-Relube



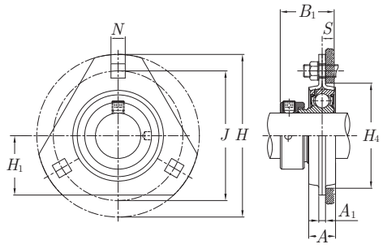
Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)	Allowable Load (kN)	
		H	A	J	N	A_1	H_1	H_4 (min.)	B	S			C_r	C_{0r}			Radial	Axial
12	※*BPFT1*	81	14	63.5	7	4	29	49	22	6	M 6	B1	9.55	4.8	PFT3	0.2	2.65	1.32
15	※*BPFT2*	81	14	63.5	7	4	29	49	22	6	M 6	B2	9.55	4.8	PFT3	0.19	2.65	1.32
17	※*BPFT3*	81	14	63.5	7	4	29	49	22	6	M 6	B3	9.55	4.8	PFT3	0.17	2.65	1.32
20	※*BPFT4*	90	16	71	9	4	33	56	24.7	7	M 8	B4	12.8	6.6	PFT4	0.23	3.09	1.52
25	※*BPFT5*	95	18	76	9	4	35	60	27	7.5	M 8	B5	14	7.9	PFT5	0.33	3.53	1.76
30	※*BPFT6*	113	18	90	11	5.2	38	71	30.3	8	M10	B6	19.6	11.3	PFT6	0.51	4.9	2.45
35	※*BPFT7*	122	20	100	11	5.2	45	81	32.9	8.5	M10	B7	25.9	15.4	PFT7	0.67	6.22	3.09

Note: For those marked with ※, consult ASAHI for availability.

3-Bolt Triangular Flange Units
KHPFT200 Type

Normal Duty
Eccentric Collar Locking
Steel Collar w/ Black Oxide Finish
Pressed Steel Housing
Non-Relube



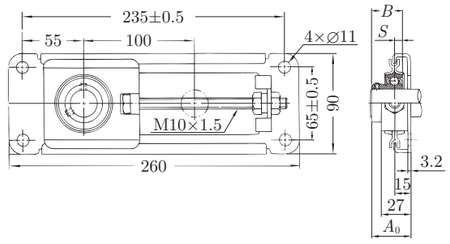
Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)		Housing No.	Mass (kg)	Allowable Load (kN)	
		H	A	J	N	A_1	H_1	H_4 (min.)	B_1	S			C_r	C_{0r}			Radial	Axial
12	※*KHPFT201GA*	81	14	63.5	7	4	29	49	28.6	6.5	M 6	KH201GAE	9.55	4.8	PFT3	0.22	2.65	1.32
15	※*KHPFT202GA*	81	14	63.5	7	4	29	49	28.6	6.5	M 6	KH202GAE	9.55	4.8	PFT3	0.21	2.65	1.32
17	※*KHPFT203GA*	81	14	63.5	7	4	29	49	28.6	6.5	M 6	KH203GAE	9.55	4.8	PFT3	0.2	2.65	1.32
20	※*KHPFT204GA*	90	16	71	9	4	33	56	31	7.5	M 8	KH204GAE	12.8	6.6	PFT4	0.27	3.09	1.52
25	※*KHPFT205GA*	95	18	76	9	4	35	60	31	7.5	M 8	KH205GAE	14	7.9	PFT5	0.37	3.53	1.76
30	※*KHPFT206GA*	113	18	90	11	5.2	38	71	35.7	9	M10	KH206GAE	19.6	11.3	PFT6	0.57	4.9	2.45
35	※*KHPFT207GA*	122	20	100	11	5.2	45	81	38.9	9.5	M10	KH207GAE	25.9	15.4	PFT7	0.78	6.22	3.09

Note: For those marked with ※, consult ASAHI for availability.

Take-Up Units with Frames
BTAW Type

Normal Duty
Set-Screw Locking
Pressed Steel Housing
Pressed Steel Mini Frame w/ Black Oxide Finish
Non-Relube



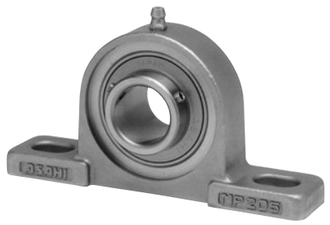
Metric Size

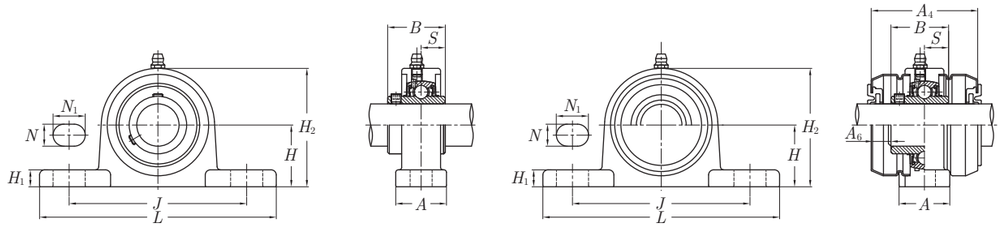
Shaft Dia. (mm)	Unit No.	Dimensions (mm)			Bolt Size (mm)	Allowable Load in Adjusting Direction (kN)	Bearing No.	Basic Load Rating (kN)		Mass (kg)
		A_0	B	S				C_r	C_{0r}	
12	※***BTAW201,X***	31	22	6	M10	3.4	B1	9.55	4.8	0.73
15	※***BTAW202,X***	31	22	6	M10	3.4	B2	9.55	4.8	0.72
17	※***BTAW203,X***	31	22	6	M10	3.4	B3	9.55	4.8	0.7
20	**BTAW204,X**	32.7	24.7	7	M10	3.4	B4	12.8	6.6	0.75
25	**BTAW205,X**	34.5	27	7.5	M10	3.4	B5	14	7.9	0.79

Note: For those marked with ※, consult ASAHI for availability.

Pillow Block Units
MUCP200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Cast Stainless Steel Housing
Relube





With Pressed Stainless Steel Covers

Metric Size

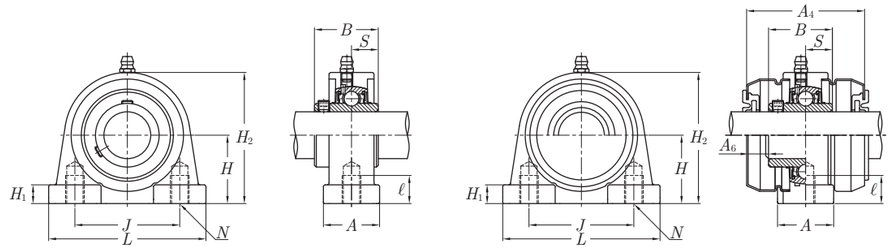
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	N_1	H_1	H_2	*B*	*S*			C_r	C_{0r}
12	**MUCP201V,Y**	30.2	127	30	95	13	19	11	61	31	12.7	M10	MUC201V	10.9	5.3
15	**MUCP202V,Y**	30.2	127	30	95	13	19	11	61	31	12.7	M10	MUC202V	10.9	5.3
17	**MUCP203V,Y**	30.2	127	30	95	13	19	11	61	31	12.7	M10	MUC203V	10.9	5.3
20	**MUCP204V,Y**	33.3	127	30	95	13	19	11	65	31	12.7	M10	MUC204V	10.9	5.3
25	**MUCP205V,Y**	36.5	140	30	105	13	19	11	70	34.1	14.3	M10	MUC205V	11.9	6.3
30	**MUCP206V,Z**	42.9	165	36	121	17	21	11	83	38.1	15.9	M14	MUC206V	16.7	9
35	**MUCP207V,Z**	47.6	167	38	127	17	21	11	94	42.9	17.5	M14	MUC207V	22	12.3
40	**MUCP208V,Z**	49.2	184	40	137	17	22	11	100	49.2	19	M14	MUC208V	24.9	14.3
45	**MUCP209V,Y**	54	190	40	146	17	22	11	108	49.2	19	M14	MUC209V	28.1	16.4
50	**MUCP210V,Y**	57.2	206	45	159	20	25	11	114	51.6	19	M16	MUC210V	30.2	18.6
55	**MUCP211V,Y**	63.5	219	45	171	20	25	16	126	55.6	22.2	M16	MUC211V	36.6	23.5
60	**MUCP212V,Y**	69.8	241	50	184	20	25	19	138	65.1	25.4	M16	MUC212V	44.6	28.9
65	**MUCP213V,Y**	76.2	265	52	203	25	29	20	150	65.1	25.4	M20	MUC213V	48.9	32

Standard		With Pressed Stainless Steel Covers				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
MP203,Y	0.62	**MUCP201VC,Y**	**MUCP201VE,Y**	55	8	0.68
MP203,Y	0.6	**MUCP202VC,Y**	**MUCP202VE,Y**	55	8	0.66
MP203,Y	0.59	**MUCP203VC,Y**	**MUCP203VE,Y**	55	8	0.65
MP204,Y	0.62	**MUCP204VC,Y**	**MUCP204VE,Y**	55	8	0.68
MP205,Y	0.68	**MUCP205VC,Y**	**MUCP205VE,Y**	63	10	0.76
MP206,Z	1.12	**MUCP206VC,Z**	**MUCP206VE,Z**	65	9	1.2
MP207,Z	1.5	**MUCP207VC,Z**	**MUCP207VE,Z**	70	8	1.7
MP208,Z	1.85	**MUCP208VC,Z**	**MUCP208VE,Z**	81	9	2.05
MP209,Y	2.04	**MUCP209VC,Y**	**MUCP209VE,Y**	82	10	2.24
MP210,Y	2.34	**MUCP210VC,Y**	**MUCP210VE,Y**	87	9	2.54
MP211,Y	3.05	–	–	–	–	–
MP212,Y	4.23	–	–	–	–	–
MP213,Y	5.02	–	–	–	–	–

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.
3. For 50 mm and smaller shafts, MUCP units are available with optional pressed stainless steel covers.

Tapped Base Pillow Block Units
MUCPA200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Cast Stainless Steel Housing
Relube



With Pressed Stainless Steel Covers

Metric Size

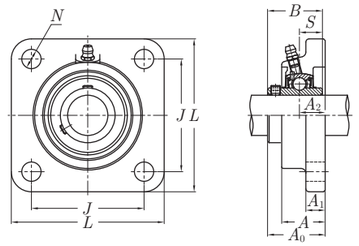
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	*ℓ*	H_1	H_2	*B*	*S*		C_r	C_{0r}
12	**MUCPA201V,Y**	30.2	76	25.5	52	M10×1.5	12	7	60.9	31	12.7	MUC201V	10.9	5.3
15	**MUCPA202V,Y**	30.2	76	25.5	52	M10×1.5	12	7	60.9	31	12.7	MUC202V	10.9	5.3
17	**MUCPA203V,Y**	30.2	76	25.5	52	M10×1.5	12	7	60.9	31	12.7	MUC203V	10.9	5.3
20	**MUCPA204V,Y**	30.2	76	25.5	52	M10×1.5	12	7	60.9	31	12.7	MUC204V	10.9	5.3
25	**MUCPA205V,Y**	36.5	84	30	56	M10×1.5	15	10	70	34.1	14.3	MUC205V	11.9	6.3
30	**MUCPA206V,Y**	42.9	94	34	66	M14×2	18	11	83	38.1	15.9	MUC206V	16.7	9

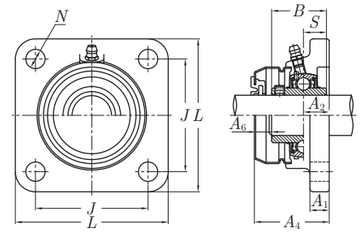
Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.

Standard		With Pressed Stainless Steel Covers				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
MPA204,Y	0.49	**MUCPA201VC,Y**	**MUCPA201VE,Y**	55	8	0.55
MPA204,Y	0.47	**MUCPA202VC,Y**	**MUCPA202VE,Y**	55	8	0.53
MPA204,Y	0.46	**MUCPA203VC,Y**	**MUCPA203VE,Y**	55	8	0.52
MPA204,Y	0.44	**MUCPA204VC,Y**	**MUCPA204VE,Y**	55	8	0.5
MPA205,Y	0.63	**MUCPA205VC,Y**	**MUCPA205VE,Y**	63	10	0.71
MPA206,Y	0.96	**MUCPA206VC,Y**	**MUCPA206VE,Y**	65	9	1.04

4-Bolt Square Flange Units
MUCF200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Cast Stainless Steel Housing
Relube





With Pressed Stainless Steel Cover

Metric Size

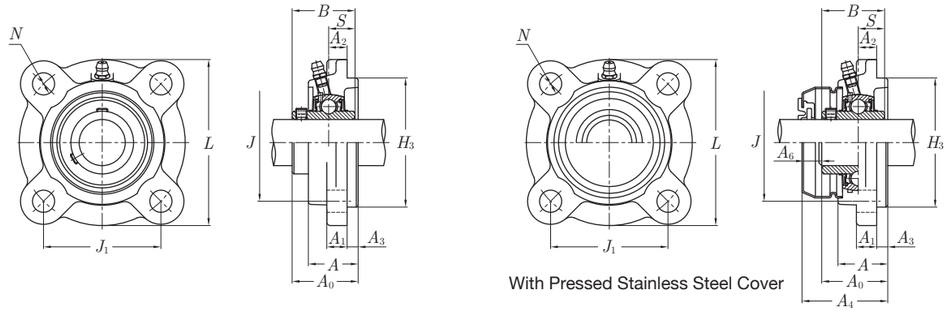
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		L	A	J	N	A_1	A_2	A_0	B	S			C_r	C_{0r}
12	**MUCF201V,Y**	86	25.5	64	12	11	15	33.3	31	12.7	M10	MUC201V	10.9	5.3
15	**MUCF202V,Y**	86	25.5	64	12	11	15	33.3	31	12.7	M10	MUC202V	10.9	5.3
17	**MUCF203V,Y**	86	25.5	64	12	11	15	33.3	31	12.7	M10	MUC203V	10.9	5.3
20	**MUCF204V,Y**	86	25.5	64	12	11	15	33.3	31	12.7	M10	MUC204V	10.9	5.3
25	**MUCF205V,Y**	95	27	70	12	12	16	35.8	34.1	14.3	M10	MUC205V	11.9	6.3
30	**MUCF206V,Z**	108	31	83	12	12	18	40.2	38.1	15.9	M10	MUC206V	16.7	9
35	**MUCF207V,Z**	117	34	92	14	12	19	44.4	42.9	17.5	M12	MUC207V	22	12.3
40	**MUCF208V,Z**	130	36	102	16	13	21	51.2	49.2	19	M14	MUC208V	24.9	14.3
45	**MUCF209V,Y**	137	38	105	16	13	22	52.2	49.2	19	M14	MUC209V	28.1	16.4
50	**MUCF210V,Y**	143	40	111	16	13	22	54.6	51.6	19	M14	MUC210V	30.2	18.6
55	**MUCF211V,Y**	162	43	130	19	16	25	58.4	55.6	22.2	M16	MUC211V	36.6	23.5
60	**MUCF212V,Y**	175	48	143	19	16.5	29	68.7	65.1	25.4	M16	MUC212V	44.6	28.9
65	**MUCF213V,Y**	187	50	149	19	16.5	30	69.7	65.1	25.4	M16	MUC213V	48.9	32

Standard		With Pressed Stainless Steel Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
MF204,Y	0.75	**MUCF201VC,Y**	**MUCF201VE,Y**	43	8	0.78
MF204,Y	0.73	**MUCF202VC,Y**	**MUCF202VE,Y**	43	8	0.76
MF204,Y	0.72	**MUCF203VC,Y**	**MUCF203VE,Y**	43	8	0.75
MF204,Y	0.7	**MUCF204VC,Y**	**MUCF204VE,Y**	43	8	0.73
MF205,Y	0.90	**MUCF205VC,Y**	**MUCF205VE,Y**	47	9	0.94
MF206,Z	1.25	**MUCF206VC,Z**	**MUCF206VE,Z**	51	9	1.29
MF207,Z	1.54	**MUCF207VC,Z**	**MUCF207VE,Z**	54	8	1.64
MF208,Z	2.07	**MUCF208VC,Z**	**MUCF208VE,Z**	62	9	2.17
MF209,Y	2.32	**MUCF209VC,Y**	**MUCF209VE,Y**	63	10	2.42
MF210,Y	2.63	**MUCF210VC,Y**	**MUCF210VE,Y**	66	9	2.73
MF211,Y	3.85	–	–	–	–	–
MF212,Y	4.97	–	–	–	–	–
MF213,Y	5.93	–	–	–	–	–

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.
3. For 50 mm and smaller shafts, MUCF units are available with optional pressed stainless steel covers.

Piloted 4-Bolt Round Flange Units
MUCFC200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Cast Stainless Steel Housing
Relube



Metric Size

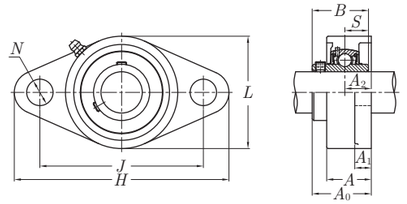
Shaft Dia. (mm)	Unit No.	Dimensions (mm)												Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		L	*A*	*J*	J_1	*N*	A_0	A_1	A_2	A_3	H_3	*B*	*S*			C_r	C_{0r}
12	**MUCFC201V,Y**	80	25.5	78	55.1	12	33.3	11	10	5	62	31	12.7	M10	MUC201V	10.9	5.3
15	**MUCFC202V,Y**	80	25.5	78	55.1	12	33.3	11	10	5	62	31	12.7	M10	MUC202V	10.9	5.3
17	**MUCFC203V,Y**	80	25.5	78	55.1	12	33.3	11	10	5	62	31	12.7	M10	MUC203V	10.9	5.3
20	**MUCFC204V,Y**	80	25.5	78	55.1	12	33.3	11	10	5	62	31	12.7	M10	MUC204V	10.9	5.3
25	**MUCFC205V,Y**	90	27	90	63.6	12	35.8	11	10	6	70	34.1	14.3	M10	MUC205V	11.9	6.3
30	**MUCFC206V,Y**	100	31	100	70.7	12	40.2	13	10	8	80	38.1	15.9	M10	MUC206V	16.7	9
35	**MUCFC207V,Y**	110	34	110	77.8	14	44.4	13.5	11	8	90	42.9	17.5	M12	MUC207V	22	12.3
40	**MUCFC208V,Y**	120	36	120	84.8	14	51.2	13.5	11	10	100	49.2	19	M12	MUC208V	24.9	14.3

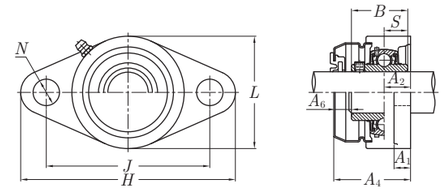
Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.

Standard		With Pressed Stainless Steel Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
MFC204,Y	0.56	**MUCFC201VC,Y**	**MUCFC201VE,Y**	43	8	0.59
MFC204,Y	0.54	**MUCFC202VC,Y**	**MUCFC202VE,Y**	43	8	0.57
MFC204,Y	0.53	**MUCFC203VC,Y**	**MUCFC203VE,Y**	43	8	0.56
MFC204,Y	0.51	**MUCFC204VC,Y**	**MUCFC204VE,Y**	43	8	0.54
MFC205,Y	0.66	**MUCFC205VC,Y**	**MUCFC205VE,Y**	47	9	0.7
MFC206,Y	0.91	**MUCFC206VC,Y**	**MUCFC206VE,Y**	51	9	0.95
MFC207,Y	1.19	**MUCFC207VC,Y**	**MUCFC207VE,Y**	54	8	1.29
MFC208,Y	1.54	**MUCFC208VC,Y**	**MUCFC208VE,Y**	62	9	1.64

2-Bolt Oval Flange Units
MUCFL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Cast Stainless Steel Housing
Relube





With Pressed Stainless Steel Cover

Metric Size

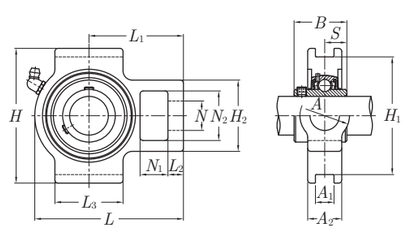
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	A_1	A_2	A_0	*B*	*S*			C_r	C_{0r}
12	**MUCFL201V,Y**	113	60	25.5	90	12	10	15	33.3	31	12.7	M10	MUC201V	10.9	5.3
15	**MUCFL202V,Y**	113	60	25.5	90	12	10	15	33.3	31	12.7	M10	MUC202V	10.9	5.3
17	**MUCFL203V,Y**	113	60	25.5	90	12	10	15	33.3	31	12.7	M10	MUC203V	10.9	5.3
20	**MUCFL204V,Y**	113	60	25.5	90	12	10	15	33.3	31	12.7	M10	MUC204V	10.9	5.3
25	**MUCFL205V,Y**	130	68	27	99	16	10	16	35.8	34.1	14.3	M14	MUC205V	11.9	6.3
30	**MUCFL206V,Y**	148	80	31	117	16	10	18	40.2	38.1	15.9	M14	MUC206V	16.7	9
35	**MUCFL207V,Y**	161	90	34	130	16	11	19	44.4	42.9	17.5	M14	MUC207V	22	12.3
40	**MUCFL208V,Y**	175	100	36	144	16	11	21	51.2	49.2	19	M14	MUC208V	24.9	14.3
45	**MUCFL209V,Y**	188	108	38	148	19	13	22	52.2	49.2	19	M16	MUC209V	28.1	16.4
50	**MUCFL210V,Y**	197	115	40	157	19	13	22	54.6	51.6	19	M16	MUC210V	30.2	18.6

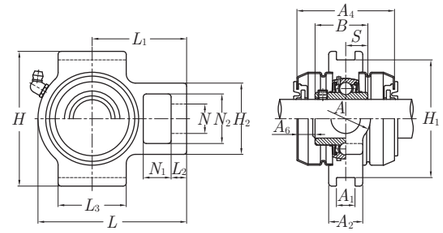
Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.

Standard		With Pressed Stainless Steel Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
MFL204,Y	0.51	**MUCFL201VC,Y**	**MUCFL201VE,Y**	43	8	0.54
MFL204,Y	0.49	**MUCFL202VC,Y**	**MUCFL202VE,Y**	43	8	0.52
MFL204,Y	0.48	**MUCFL203VC,Y**	**MUCFL203VE,Y**	43	8	0.51
MFL204,Y	0.46	**MUCFL204VC,Y**	**MUCFL204VE,Y**	43	8	0.49
MFL205,Y	0.59	**MUCFL205VC,Y**	**MUCFL205VE,Y**	47	9	0.63
MFL206,Y	0.91	**MUCFL206VC,Y**	**MUCFL206VE,Y**	51	9	0.95
MFL207,Y	1.21	**MUCFL207VC,Y**	**MUCFL207VE,Y**	54	8	1.31
MFL208,Y	1.59	**MUCFL208VC,Y**	**MUCFL208VE,Y**	62	9	1.69
MFL209,Y	1.96	**MUCFL209VC,Y**	**MUCFL209VE,Y**	63	10	2.06
MFL210,Y	2.31	**MUCFL210VC,Y**	**MUCFL210VE,Y**	66	9	2.41

Take-Up Units
MUCT200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Stainless Cast Steel Housing
Relube





With Pressed Stainless Steel Covers

Metric Size

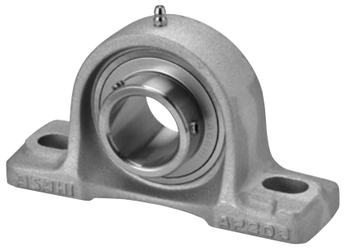
Shaft Dia. (mm)	Unit No.	Dimensions (mm)															Bearing No.	Basic Load Rating (kN)	
		A	A_1	A_2	H	H_1	H_2	L	L_1	L_2	L_3	N	N_1	N_2	B	S		C_r	C_{0r}
12	**MUCT201V,Y**	32	12	21	87	76	46	92	60	10	44	19	18	32	31	12.7	MUC201V	10.9	5.3
15	**MUCT202V,Y**	32	12	21	87	76	46	92	60	10	44	19	18	32	31	12.7	MUC202V	10.9	5.3
17	**MUCT203V,Y**	32	12	21	87	76	46	92	60	10	44	19	18	32	31	12.7	MUC203V	10.9	5.3
20	**MUCT204V,Y**	32	12	21	87	76	46	92	60	10	44	19	18	32	31	12.7	MUC204V	10.9	5.3
25	**MUCT205V,Y**	32	12	22	87	76	46	96	61	10	44	19	18	32	34.1	14.3	MUC205V	11.9	6.3
30	**MUCT206V,Y**	36.5	12	27	101	89	52	111	69	10	50	22	18	37	38.1	15.9	MUC206V	16.7	9
35	**MUCT207V,Y**	37	12	30	101	89	58	127	77	13	56	22	18	37	42.9	17.5	MUC207V	22	12.3
40	**MUCT208V,Y**	49	16	33	113	102	74	142	87	16	72	29	20	49	49.2	19	MUC208V	24.9	14.3
45	**MUCT209V,Y**	49	16	34	116	102	74	143	87	16	72	29	20	49	49.2	19	MUC209V	28.1	16.4
50	**MUCT210V,Y**	49	16	37	116	102	74	147	89	16	72	29	20	49	51.6	19	MUC210V	30.2	18.6

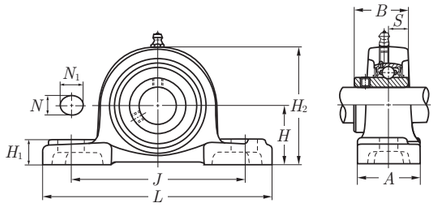
Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.

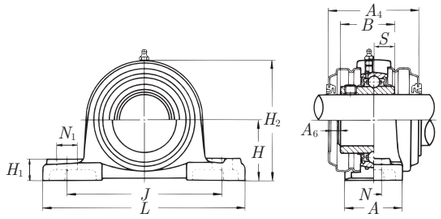
Standard		With Pressed Stainless Steel Covers				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
MT204,Y	0.74	**MUCT201VC,Y**	**MUCT201VE,Y**	55	8	0.80
MT204,Y	0.72	**MUCT202VC,Y**	**MUCT202VE,Y**	55	8	0.78
MT204,Y	0.71	**MUCT203VC,Y**	**MUCT203VE,Y**	55	8	0.77
MT204,Y	0.69	**MUCT204VC,Y**	**MUCT204VE,Y**	55	8	0.75
MT205,Y	0.72	**MUCT205VC,Y**	**MUCT205VE,Y**	61	9	0.8
MT206,Y	1.16	**MUCT206VC,Y**	**MUCT206VE,Y**	65	9	1.24
MT207,Y	1.54	**MUCT207VC,Y**	**MUCT207VE,Y**	70	8	1.74
MT208,Y	2.26	**MUCT208VC,Y**	**MUCT208VE,Y**	81	9	2.46
MT209,Y	2.21	**MUCT209VC,Y**	**MUCT209VE,Y**	82	10	2.41
MT210,Y	2.35	**MUCT210VC,Y**	**MUCT210VE,Y**	87	9	2.55

Pillow Block Units
MUCAP200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Cast Aluminum Alloy Housing
Relube







With Pressed Stainless Steel Covers

Metric Size

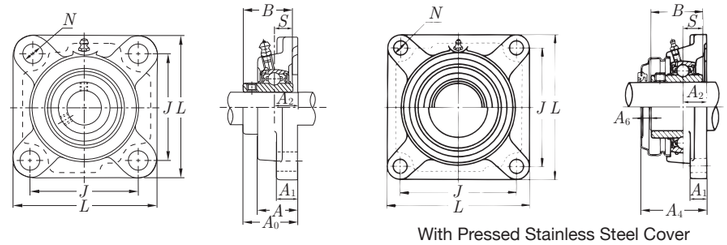
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	N_1	H_1	H_2	*B*	*S*			C_r	C_{0r}
20	**MUCAP204V-J**	33.3	127	38	95	13	19	15	65	31	12.7	M10	MUC204V	10.9	5.3
25	**MUCAP205V-J**	36.5	140	38	105	13	16	16	70	34.1	14.3	M10	MUC205V	11.9	6.3
30	**MUCAP206V-J**	42.9	165	48	121	17	21	18	83	38.1	15.9	M14	MUC206V	16.7	9
35	**MUCAP207V-J**	47.6	167	48	127	17	21	19	94	42.9	17.5	M14	MUC207V	22	12.3
40	**MUCAP208V-J**	49.2	184	54	137	17	25	19	100	49.2	19	M14	MUC208V	24.9	14.3

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.
3. Tolerance class “J7” applies to spherical bore diameter of housing.

Standard		With Pressed Stainless Steel Covers				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
AP204J	0.34	**MUCAP204VC-J**	**MUCAP204VE-J**	56	8	0.36
AP205J	0.41	**MUCAP205VC-J**	**MUCAP205VE-J**	63	10	0.43
AP206J	0.65	**MUCAP206VC-J**	**MUCAP206VE-J**	65	9	0.67
AP207J	0.88	**MUCAP207VC-J**	**MUCAP207VE-J**	70	8	0.91
AP208J	1.09	**MUCAP208VC-J**	**MUCAP208VE-J**	82	10	1.17

4-Bolt Square Flange Units
MUCAF200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Cast Aluminum Alloy Housing
Relube



With Pressed Stainless Steel Cover

Metric Size

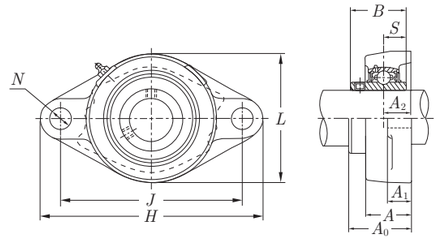
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		L	A	J	N	A_1	A_2	A_0	B	S			C_r	C_{0r}
12	**MUCAF201V-J**	86	25.5	64	12	12	15	33.3	31	12.7	M10	MUC201V	10.9	5.3
15	**MUCAF202V-J**	86	25.5	64	12	12	15	33.3	31	12.7	M10	MUC202V	10.9	5.3
17	**MUCAF203V-J**	86	25.5	64	12	12	15	33.3	31	12.7	M10	MUC203V	10.9	5.3
20	**MUCAF204V-J**	86	25.5	64	12	12	15	33.3	31	12.7	M10	MUC204V	10.9	5.3
25	**MUCAF205V-J**	95	27	70	12	14	16	35.8	34.1	14.3	M10	MUC205V	11.9	6.3
30	**MUCAF206V-J**	108	31	83	12	13.5	18	40.2	38.1	15.9	M10	MUC206V	16.7	9
35	**MUCAF207V-J**	117	34	92	14	16	19	44.4	42.9	17.5	M12	MUC207V	22	12.3
40	**MUCAF208V-J**	130	36	102	16	16	21	51.2	49.2	19	M14	MUC208V	24.9	14.3

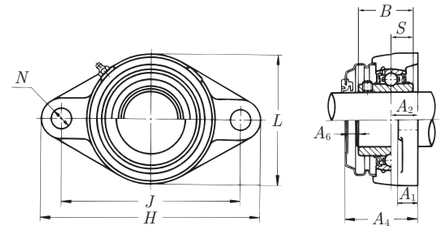
Standard		With Pressed Stainless Steel Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
AF204J	0.36	**MUCAF201VC-J**	**MUCAF201VE-J**	43	8	0.39
AF204J	0.34	**MUCAF202VC-J**	**MUCAF202VE-J**	43	8	0.37
AF204J	0.33	**MUCAF203VC-J**	**MUCAF203VE-J**	43	8	0.36
AF204J	0.31	**MUCAF204VC-J**	**MUCAF204VE-J**	43	8	0.34
AF205J	0.4	**MUCAF205VC-J**	**MUCAF205VE-J**	47	9	0.44
AF206J	0.57	**MUCAF206VC-J**	**MUCAF206VE-J**	51	9	0.64
AF207J	0.85	**MUCAF207VC-J**	**MUCAF207VE-J**	54	8	0.89
AF208J	1.06	**MUCAF208VC-J**	**MUCAF208VE-J**	62	10	1.16

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.
3. Tolerance class “J7” applies to spherical bore diameter of housing.

2-Bolt Oval Flange Units
MUCAFL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Cast Aluminum Alloy Housing
Relube





With Pressed Stainless Steel Cover

Metric Size

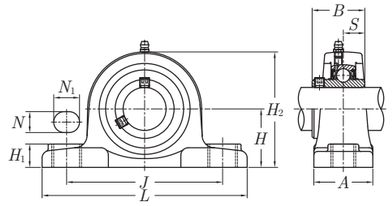
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	J	A_2	A_1	A	N	L	A_0	B	S			C_r	C_{0r}
12	**MUCAFL201V-J**	113	90	15	12	25.5	12	60	33.3	31	12.7	M10	MUC201V	10.9	5.3
15	**MUCAFL202V-J**	113	90	15	12	25.5	12	60	33.3	31	12.7	M10	MUC202V	10.9	5.3
17	**MUCAFL203V-J**	113	90	15	12	25.5	12	60	33.3	31	12.7	M10	MUC203V	10.9	5.3
20	**MUCAFL204V-J**	113	90	15	12	25.5	12	60	33.3	31	12.7	M10	MUC204V	10.9	5.3
25	**MUCAFL205V-J**	130	99	16	14	27	16	68	35.8	34.1	14.3	M14	MUC205V	11.9	6.3
30	**MUCAFL206V-J**	148	117	18	14	31	16	80	40.2	38.1	15.9	M14	MUC206V	16.7	9
35	**MUCAFL207V-J**	161	130	19	16	34	16	90	44.4	42.9	17.5	M14	MUC207V	22	12.3
40	**MUCAFL208V-J**	175	144	21	16	36	16	100	51.2	49.2	19	M14	MUC208V	24.9	14.3

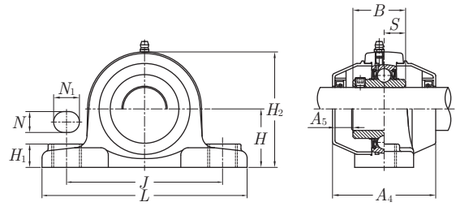
Standard		With Pressed Stainless Steel Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_6 (mm)	
AFL204J	0.31	**MUCAFL201VC-J**	**MUCAFL201VE-J**	43	8	0.34
AFL204J	0.29	**MUCAFL202VC-J**	**MUCAFL202VE-J**	43	8	0.32
AFL204J	0.28	**MUCAFL203VC-J**	**MUCAFL203VE-J**	43	8	0.31
AFL204J	0.26	**MUCAFL204VC-J**	**MUCAFL204VE-J**	43	8	0.29
AFL205J	0.34	**MUCAFL205VC-J**	**MUCAFL205VE-J**	47	9	0.38
AFL206J	0.53	**MUCAFL206VC-J**	**MUCAFL206VE-J**	51	9	0.57
AFL207J	0.74	**MUCAFL207VC-J**	**MUCAFL207VE-J**	54	8	0.78
AFL208J	0.95	**MUCAFL208VC-J**	**MUCAFL208VE-J**	62	10	0.98

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.
3. Tolerance class “J7” applies to spherical bore diameter of housing.

Pillow Block Units
MUCPPL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Thermoplastic Polyester Resin Housing
Relube





With Plastic Covers

Metric Size

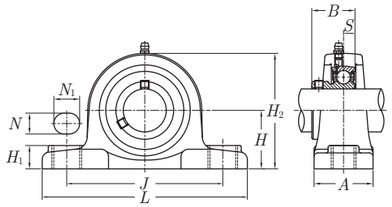
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	L	J	A	N	N_1	H_1	H_2	B	S			C_r	C_{0r}
20	**MUCPPL204V**	33.3	127	95	38	11	14	14.2	65	31	12.7	M10	MUC204V	10.9	5.3
25	**MUCPPL205V**	36.5	140	105	38	11	14	14.5	71	34.1	14.3	M10	MUC205V	11.9	6.3
30	**MUCPPL206V**	42.9	162	119	46	14	18	17.8	83	38.1	15.9	M12	MUC206V	16.7	9
35	**MUCPPL207V**	47.6	167	127	48	14	18	18	94	42.9	17.5	M12	MUC207V	22	12.3
40	**MUCPPL208V**	49.2	184	137	54	14	18	19.5	98	49.2	19	M12	MUC208V	24.9	14.3

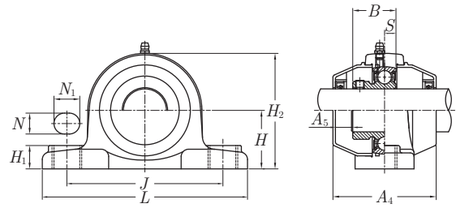
Standard		With Plastic Covers				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_5 (mm)	
PPL204	0.28	**MUCPPL204VC**	**MUCPPL204VE**	64	11	0.31
PPL205	0.33	**MUCPPL205VC**	**MUCPPL205VE**	69	12	0.36
PPL206	0.52	**MUCPPL206VC**	**MUCPPL206VE**	81	16	0.56
PPL207	0.73	**MUCPPL207VC**	**MUCPPL207VE**	90	17	0.78
PPL208	0.93	**MUCPPL208VC**	**MUCPPL208VE**	103	19	0.99

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.

MBPPL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Thermoplastic Polyester Resin Housing
Relube





With Plastic Covers

Metric Size

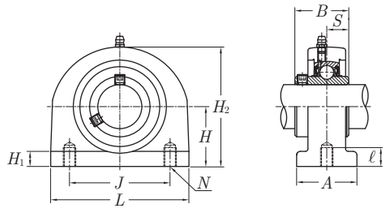
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	L	J	A	N	N_1	H_1	H_2	B	S			C_r	C_{0r}
20	**MBPPL204V**	33.3	127	95	38	11	14	14.2	65	24.7	7	M10	MB4V	10.9	5.3
25	**MBPPL205V**	36.5	140	105	38	11	14	14.5	71	27	7.5	M10	MB5V	11.9	6.3
30	**MBPPL206V**	42.9	162	119	46	14	18	17.8	83	30.3	8	M12	MB6V	16.7	9
35	**MBPPL207V**	47.6	167	127	48	14	18	18	94	32.9	8.5	M12	MB7V	22	12.3
40	**MBPPL208V**	49.2	184	137	54	14	18	19.5	98	35.5	9	M12	MB8V	24.9	14.3

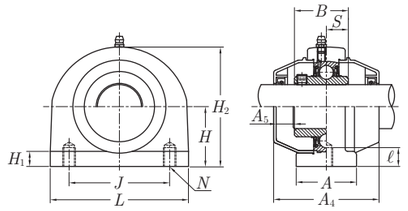
Standard		With Plastic Covers				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_5 (mm)	
PPL204	0.24	**MBPPL204VC**	**MBPPL204VE**	64	12	0.27
PPL205	0.3	**MBPPL205VC**	**MBPPL205VE**	69	12	0.33
PPL206	0.46	**MBPPL206VC**	**MBPPL206VE**	81	15	0.5
PPL207	0.63	**MBPPL207VC**	**MBPPL207VE**	90	18	0.68
PPL208	0.8	**MBPPL208VC**	**MBPPL208VE**	103	23	0.86

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.

Tapped Base Pillow Block Units
MUCTBL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Thermoplastic Polyester Resin Housing
Relube





With Plastic Covers

Metric Size

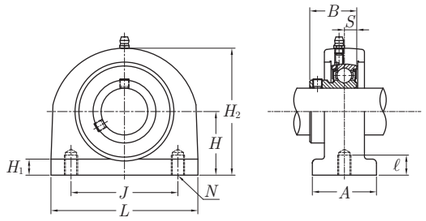
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bearing No.	Basic Load Rating (kN)	
		H	L	A	J	N	ℓ	H_1	H_2	B	S		C_r	C_{0r}
20	**MUCTBL204V**	33.3	72.8	34.5	50.8	M8×1.25	12	13	66	31	12.7	MUC204V	10.9	5.3
25	**MUCTBL205V**	36.5	76.2	39.5	50.8	M10×1.5	12	14	73.5	34.1	14.3	MUC205V	11.9	6.3
30	**MUCTBL206V**	42.9	101	42.5	76.2	M10×1.5	12	16	84	38.1	15.9	MUC206V	16.7	9
35	**MUCTBL207V**	47.6	110	47.5	82.6	M10×1.5	15.5	18.5	95	42.9	17.5	MUC207V	22	12.3
40	**MUCTBL208V**	49.2	120	48	88.9	M12×1.75	16	22.5	100.5	49.2	19	MUC208V	24.9	14.3

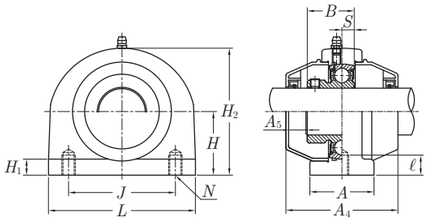
Standard		With Plastic Covers				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_5 (mm)	
TBL204	0.36	**MUCTBL204VC**	**MUCTBL204VE**	64	13	0.39
TBL205	0.4	**MUCTBL205VC**	**MUCTBL205VE**	70	14	0.43
TBL206	0.55	**MUCTBL206VC**	**MUCTBL206VE**	82	18	0.59
TBL207	0.8	**MUCTBL207VC**	**MUCTBL207VE**	90	19	0.85
TBL208	0.95	**MUCTBL208VC**	**MUCTBL208VE**	103	21	1.01

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.
3. Housing dimensions are different from those of cast iron housing PA200 type.

MBTBL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Thermoplastic Polyester Resin Housing
Relube





With Plastic Covers

Metric Size

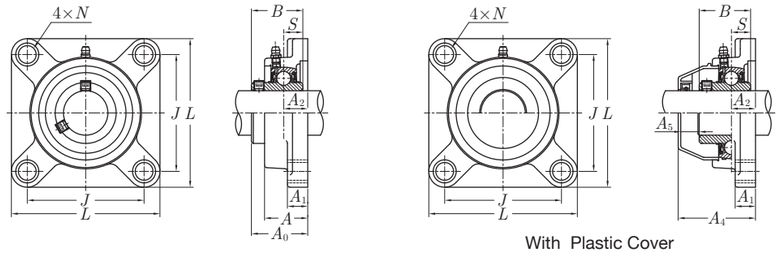
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bearing No.	Basic Load Rating (kN)	
		H	L	A	J	N	ℓ	H_1	H_2	B	S		C_r	C_{0r}
20	**MBTBL204V**	33.3	72.8	34.5	50.8	M8×1.25	12	13	66	24.7	7	MB4V	10.9	5.3
25	**MBTBL205V**	36.5	76.2	39.5	50.8	M10×1.5	12	14	73.5	27	7.5	MB5V	11.9	6.3
30	**MBTBL206V**	42.9	101	42.5	76.2	M10×1.5	12	16	84	30.3	8	MB6V	16.7	9
35	**MBTBL207V**	47.6	110	47.5	82.6	M10×1.5	15.5	18.5	95	32.9	8.5	MB7V	22	12.3
40	**MBTBL208V**	49.2	120	48	88.9	M12×1.75	16	22.5	100.5	35.5	9	MB8V	24.9	14.3

Standard		With Plastic Covers				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_5 (mm)	
TBL204	0.32	**MBTBL204VC**	**MBTBL204VE**	65	12	0.35
TBL205	0.37	**MBTBL205VC**	**MBTBL205VE**	70	13	0.4
TBL206	0.49	**MBTBL206VC**	**MBTBL206VE**	82	16	0.53
TBL207	0.7	**MBTBL207VC**	**MBTBL207VE**	90	18	0.75
TBL208	0.82	**MBTBL208VC**	**MBTBL208VE**	103	22	0.88

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.
3. Housing dimensions are different from those of cast iron housing PA200 type.

4-Bolt Square Flange Units
MUCFPL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Thermoplastic Polyester Resin Housing
Relube



With Plastic Cover

Metric Size

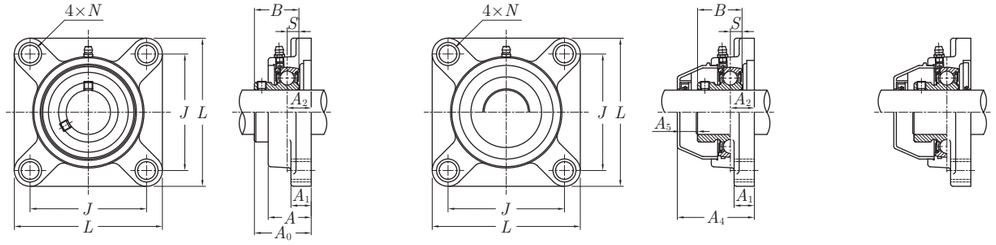
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		L	J	A_2	A_1	A	N	A_0	B	S			C_r	C_{0r}
20	**MUCFPL204V**	86	63.5	18	13.4	27.8	11	35.7	31	12.7	M10	MUC204V	10.9	5.3
25	**MUCFPL205V**	94.5	70	17	14.3	27.9	11	36.5	34.1	14.3	M10	MUC205V	11.9	6.3
30	**MUCFPL206V**	107	83	19.2	14.3	31.5	11	41.5	38.1	15.9	M10	MUC206V	16.7	9
35	**MUCFPL207V**	118	92	21.5	15.5	34.8	13	45.9	42.9	17.5	M12	MUC207V	22	12.3
40	**MUCFPL208V**	130	102	23	17	37.5	14	49.5	49.2	19	M12	MUC208V	24.9	14.3

Standard		With Plastic Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_5 (mm)	
FPL204	0.23	**MUCFPL204VC**	**MUCFPL204VE**	49	10	0.25
FPL205	0.3	**MUCFPL205VC**	**MUCFPL205VE**	51	11	0.32
FPL206	0.44	**MUCFPL206VC**	**MUCFPL206VE**	59	15	0.46
FPL207	0.65	**MUCFPL207VC**	**MUCFPL207VE**	64	14	0.68
FPL208	0.87	**MUCFPL208VC**	**MUCFPL208VE**	71	15	0.9

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.

MBFPL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Thermoplastic Polyester Resin Housing
Relube



With Plastic Cover

With Back Seal

Metric Size

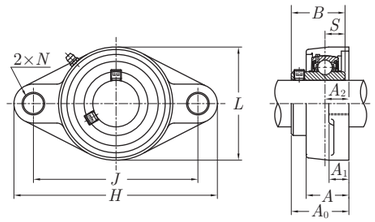
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		L	J	A_2	A_1	A	N	A_0	B	S			C_r	C_{0r}
20	**MBFPL204V**	86	63.5	18	13.4	27.8	11	35.7	24.7	7	M10	MB4V	10.9	5.3
25	**MBFPL205V**	94.5	70	17	14.3	27.9	11	36.5	27	7.5	M10	MB5V	11.9	6.3
30	**MBFPL206V**	107	83	19.2	14.3	31.5	11	41.5	30.3	8	M10	MB6V	16.7	9
35	**MBFPL207V**	118	92	21.5	15.5	34.8	13	45.9	32.9	8.5	M12	MB7V	22	12.3
40	**MBFPL208V**	130	102	23	17	37.5	14	49.5	35.5	9	M12	MB8V	24.9	14.3

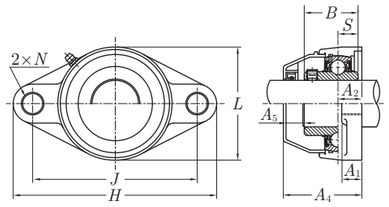
Standard		With Plastic Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_5 (mm)	
FPL204	0.19	**MBFPL204VC**	**MBFPL204VE**	49	10	0.21
FPL205	0.27	**MBFPL205VC**	**MBFPL205VE**	51	11	0.29
FPL206	0.38	**MBFPL206VC**	**MBFPL206VE**	59	15	0.40
FPL207	0.55	**MBFPL207VC**	**MBFPL207VE**	64	15	0.58
FPL208	0.74	**MBFPL208VC**	**MBFPL208VE**	71	19	0.77

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.
3. MBFPL200 units are available with back seal on request.

2-Bolt Oval Flange Units
MUCNFL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Thermoplastic Polyester Resin Housing
Relube





With Plastic Cover

Metric Size

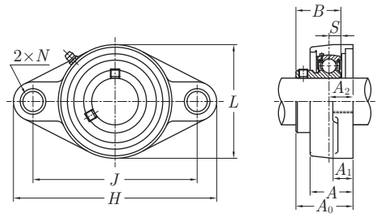
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*J*	A_2	A_1	*A*	*N*	*L*	A_0	*B*	*S*			C_r	C_{0r}
20	**MUCNFL204V**	114	90	15	11.4	26.5	11	64.8	32.7	31	12.7	M10	MUC204V	10.9	5.3
25	**MUCNFL205V**	130	99	17	13.5	29.1	11	70	36.5	34.1	14.3	M10	MUC205V	11.9	6.3
30	**MUCNFL206V**	148	117	19	13.3	30.5	11	80	41.3	38.1	15.9	M10	MUC206V	16.7	9
35	**MUCNFL207V**	163	130	18	16.1	32.8	13	90	42.4	42.9	17.5	M12	MUC207V	22	12.3
40	**MUCNFL208V**	175	144	21.5	20	37.5	14	100	48	49.2	19	M12	MUC208V	24.9	14.3

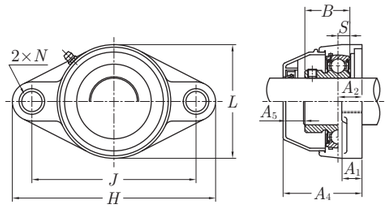
Standard		With Plastic Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_5 (mm)	
NFL204	0.23	**MUCNFL204VC**	**MUCNFL204VE**	47	11	0.25
NFL205	0.3	**MUCNFL205VC**	**MUCNFL205VE**	52	12	0.32
NFL206	0.44	**MUCNFL206VC**	**MUCNFL206VE**	58	14	0.46
NFL207	0.65	**MUCNFL207VC**	**MUCNFL207VE**	62	16	0.68
NFL208	0.87	**MUCNFL208VC**	**MUCNFL208VE**	71	17	0.9

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.

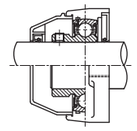
MBNFL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Thermoplastic Polyester Resin Housing
Relube





With Plastic Cover



With Back Seal

Metric Size

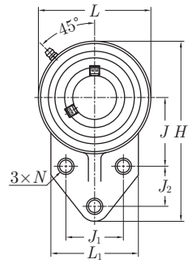
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*J*	A_2	A_1	*A*	*N*	*L*	A_0	*B*	*S*			C_r	C_{0r}
20	**MBNFL204V**	114	90	15	11.4	26.5	11	64.8	32.7	24.7	7	M10	MB4V	10.9	5.3
25	**MBNFL205V**	130	99	17	13.5	29.1	11	70	36.5	27	7.5	M10	MB5V	11.9	6.3
30	**MBNFL206V**	148	117	19	13.3	30.5	11	80	41.3	30.3	8	M10	MB6V	16.7	9
35	**MBNFL207V**	163	130	18	16.1	32.8	13	90	42.4	32.9	8.5	M12	MB7V	22	12.3
40	**MBNFL208V**	175	144	21.5	20	37.5	14	100	48	35.5	9	M12	MB8V	24.9	14.3

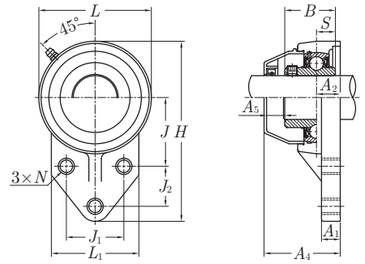
Standard		With Plastic Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_5 (mm)	
NFL204	0.19	**MBNFL204VC**	**MBNFL204VE**	47	12	0.21
NFL205	0.27	**MBNFL205VC**	**MBNFL205VE**	52	12	0.29
NFL206	0.38	**MBNFL206VC**	**MBNFL206VE**	58	14	0.40
NFL207	0.55	**MBNFL207VC**	**MBNFL207VE**	62	17	0.58
NFL208	0.74	**MBNFL208VC**	**MBNFL208VE**	71	21	0.77

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.
3. MBNFL200 units are available with back seal on request.

3-Bolt Flange Bracket Units
MUCFBL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Thermoplastic Polyester Resin Housing
Relube





With Plastic Cover

Metric Size

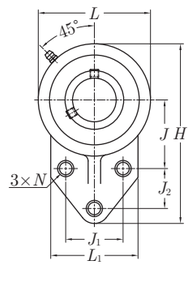
Shaft Dia. (mm)	Unit No.	Dimensions (mm)													Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	L	J	J_1	J_2	A_1	A	N	L_1	A_2	A_0	B	S			C_r	C_{0r}
20	**MUCFBL204V**	108	63.5	42.9	38.1	22.2	11.4	25.5	10.7	62	15.4	33.1	31	12.7	M10	MUC204V	10.9	5.3
25	**MUCFBL205V**	120.6	70	46	41.3	28.6	11.4	34	10.7	63.5	21.8	41.3	34.1	14.3	M10	MUC205V	11.9	6.3
30	**MUCFBL206V**	138.5	83	52.4	47.6	31.8	13.3	32	10.7	76	19.3	41.6	38.1	15.9	M10	MUC206V	16.7	9
35	**MUCFBL207V**	157	95	60.3	50.8	31.8	16.1	36.5	13.1	89	21.7	46.1	42.9	17.5	M12	MUC207V	22	12.3

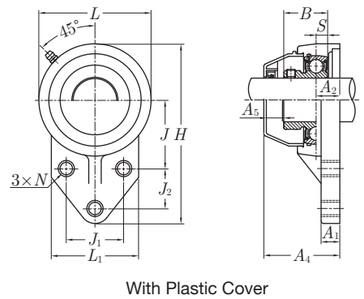
Standard		With Plastic Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_5 (mm)	
FBL204	0.25	**MUCFBL204VC**	**MUCFBL204VE**	46	10	0.27
FBL205	0.3	**MUCFBL205VC**	**MUCFBL205VE**	57	12	0.32
FBL206	0.46	**MUCFBL206VC**	**MUCFBL206VE**	59	15	0.48
FBL207	0.66	**MUCFBL207VC**	**MUCFBL207VE**	66	16	0.69

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.
3. Housing dimensions are different from those of cast iron housing FK200 type.

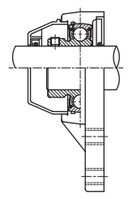
MBFBL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Thermoplastic Polyester Resin Housing
Relube





With Plastic Cover



With Back Seal

Metric Size

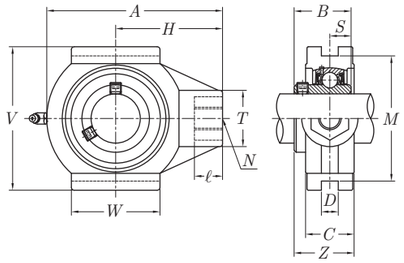
Shaft Dia. (mm)	Unit No.	Dimensions (mm)													Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	L	J	J_1	J_2	A_1	A	N	L_1	A_2	A_0	B	S			C_r	C_{0r}
20	**MBFBL204V**	108	63.5	42.9	38.1	22.2	11.4	25.5	10.7	62	15.4	33.1	24.7	7	M10	MB4V	10.9	5.3
25	**MBFBL205V**	120.6	70	46	41.3	28.6	11.4	34	10.7	63.5	21.8	41.3	27	7.5	M10	MB5V	11.9	6.3
30	**MBFBL206V**	138.5	83	52.4	47.6	31.8	13.3	32	10.7	76	19.3	41.6	30.3	8	M10	MB6V	16.7	9
35	**MBFBL207V**	157	95	60.3	50.8	31.8	16.1	36.5	13.1	89	21.7	46.1	32.9	8.5	M12	MB7V	22	12.3

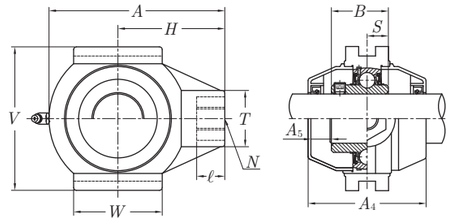
Standard		With Plastic Cover				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_5 (mm)	
FBL204	0.21	**MBFBL204VC**	**MBFBL204VE**	46	10	0.23
FBL205	0.27	**MBFBL205VC**	**MBFBL205VE**	57	13	0.29
FBL206	0.4	**MBFBL206VC**	**MBFBL206VE**	59	15	0.42
FBL207	0.56	**MBFBL207VC**	**MBFBL207VE**	66	17	0.59

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.
3. Housing dimensions are different from those of cast iron housing FK200 type.
4. MBFBL200 units are available with back seal on request.

Take-Up Units
MUCTPL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Thermoplastic Polyester Resin Housing
Relube





With Plastic Covers

Metric Size

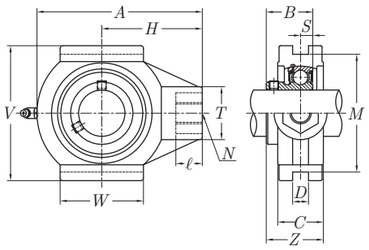
Shaft Dia. (mm)	Unit No.	Dimensions (mm)													Bearing No.	Basic Load Rating (kN)	
		A	*V*	*C*	*D*	*H*	*M*	*T*	*W*	*B*	*S*	*Z*	*N*	*ℓ*		C_r	C_{0r}
20	**MUCTPL204V**	99	89	27.5	12	64	76	36	46	31	12.7	31.5	M16×2	21	MUC204V	10.9	5.3
25	**MUCTPL205V**	99	89	27.5	12	64	76	36	46	34.1	14.3	33.3	M16×2	21	MUC205V	11.9	6.3
30	**MUCTPL206V**	125	102.5	34	12	76	89	40	63.5	38.1	15.9	39.3	M16×2	21	MUC206V	16.7	9
35	**MUCTPL207V**	125	102.5	34	12	76	89	40	63.5	42.9	17.5	41.4	M16×2	21	MUC207V	22	12.3
40	**MUCTPL208V**	140	114	34	16	85	102	40	80	49.2	19	43.5	M16×2	21	MUC208V	24.9	14.3

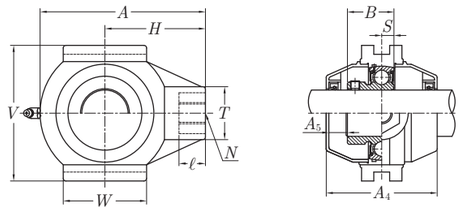
Standard		With Plastic Covers				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (g)
		Open	Closed	A_4 (mm)	A_5 (mm)	
TPL204	0.35	**MUCTPL204VC**	**MUCTPL204VE**	69	13	0.38
TPL205	0.4	**MUCTPL205VC**	**MUCTPL205VE**	72	14	0.43
TPL206	0.55	**MUCTPL206VC**	**MUCTPL206VE**	87	19	0.59
TPL207	0.8	**MUCTPL207VC**	**MUCTPL207VE**	91	17	0.85
TPL208	0.95	**MUCTPL208VC**	**MUCTPL208VE**	102	18	1.01

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.

MBTPL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Thermoplastic Polyester Resin Housing
Relube





With Plastic Covers

Metric Size

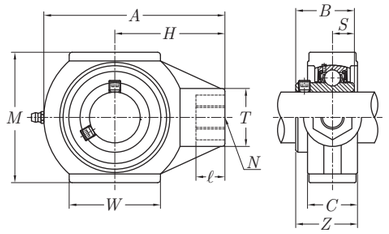
Shaft Dia. (mm)	Unit No.	Dimensions (mm)													Bearing No.	Basic Load Rating (kN)	
		A	*V*	*C*	*D*	*H*	*M*	*T*	*W*	*B*	*S*	*Z*	*N*	*ℓ*		C_r	C_{0r}
20	**MBTPL204V**	99	89	27.5	12	64	76	36	46	24.7	7	31.5	M16×2	21	MB4V	10.9	5.3
25	**MBTPL205V**	99	89	27.5	12	64	76	36	46	27	7.5	33.3	M16×2	21	MB5V	11.9	6.3
30	**MBTPL206V**	125	102.5	34	12	76	89	40	63.5	30.3	8	39.3	M16×2	21	MB6V	16.7	9
35	**MBTPL207V**	125	102.5	34	12	76	89	40	63.5	32.9	8.5	41.4	M16×2	21	MB7V	22	12.3
40	**MBTPL208V**	140	114	34	16	85	102	40	80	35.5	9	43.5	M16×2	21	MB8V	24.9	14.3

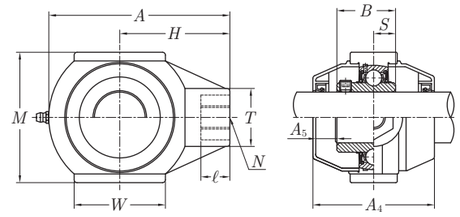
Standard		With Plastic Covers				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (g)
		Open	Closed	A_4 (mm)	A_5 (mm)	
TPL204	0.31	**MBTPL204VC**	**MBTPL204VE**	69	14	0.34
TPL205	0.37	**MBTPL205VC**	**MBTPL205VE**	72	14	0.40
TPL206	0.49	**MBTPL206VC**	**MBTPL206VE**	87	19	0.53
TPL207	0.70	**MBTPL207VC**	**MBTPL207VE**	91	18	0.75
TPL208	0.82	**MBTPL208VC**	**MBTPL208VE**	102	22	0.88

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.

Hanger Units
MUCHPL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Thermoplastic Polyester Resin Housing
Relube





With Plastic Covers

Metric Size

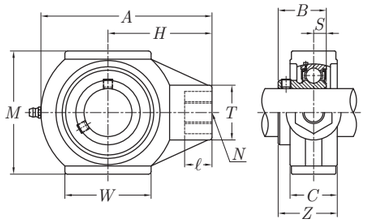
Shaft Dia. (mm)	Unit No.	Dimensions (mm)											Bearing No.	Basic Load Rating (kN)	
		A	*M*	*C*	*H*	*T*	*W*	*B*	*S*	*Z*	*N*	*ℓ*		C_r	C_{0r}
20	**MUCHPL204V**	99	65	27.5	64	36	46	31	12.7	31.5	M16×2	21	MUC204V	10.9	5.3
25	**MUCHPL205V**	99	74	27.5	64	36	46	34.1	14.3	33.3	M16×2	21	MUC205V	11.9	6.3
30	**MUCHPL206V**	125	90	34	76	40	63.5	38.1	15.9	39.3	M16×2	21	MUC206V	16.7	9
35	**MUCHPL207V**	125	90	34	76	40	63.5	42.9	17.5	41.4	M16×2	21	MUC207V	22	12.3
40	**MUCHPL208V**	140	100	34	85	40	80	49.2	19	43.5	M16×2	21	MUC208V	24.9	14.3

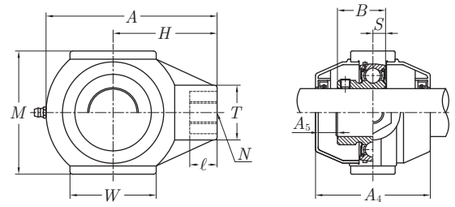
Standard		With Plastic Covers				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_5 (mm)	
HPL204	0.35	**MUCHPL204VC**	**MUCHPL204VE**	69	13	0.38
HPL205	0.4	**MUCHPL205VC**	**MUCHPL205VE**	72	14	0.43
HPL206	0.55	**MUCHPL206VC**	**MUCHPL206VE**	87	19	0.59
HPL207	0.8	**MUCHPL207VC**	**MUCHPL207VE**	91	17	0.85
HPL208	0.95	**MUCHPL208VC**	**MUCHPL208VE**	102	18	1.01

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.

MBHPL200 Type

Normal Duty
Set-Screw Locking
Stainless Steel Bearing Insert
Thermoplastic Polyester Resin Housing
Relube





With Plastic Covers

Metric Size

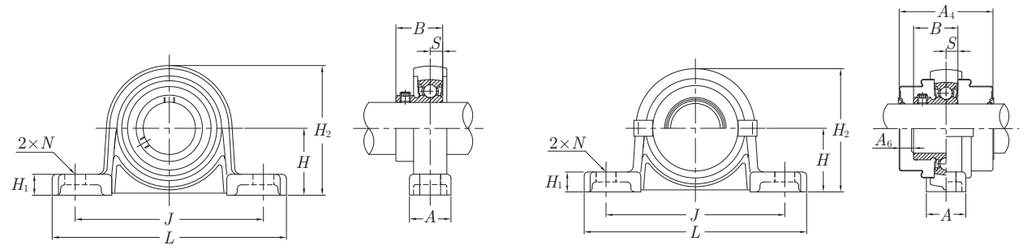
Shaft Dia. (mm)	Unit No.	Dimensions (mm)											Bearing No.	Basic Load Rating (kN)	
		A	*M*	*C*	*H*	*T*	*W*	*B*	*S*	*Z*	*N*	*ℓ*		C_r	C_{0r}
20	**MBHPL204V**	99	65	27.5	64	36	46	24.7	7	31.5	M16×2	21	MB4V	10.9	5.3
25	**MBHPL205V**	99	74	27.5	64	36	46	27	7.5	33.3	M16×2	21	MB5V	11.9	6.3
30	**MBHPL206V**	125	90	34	76	40	63.5	30.3	8	39.3	M16×2	21	MB6V	16.7	9
35	**MBHPL207V**	125	90	34	76	40	63.5	32.9	8.5	41.4	M16×2	21	MB7V	22	12.3
40	**MBHPL208V**	140	100	34	85	40	80	35.5	9	43.5	M16×2	21	MB8V	24.9	14.3

Standard		With Plastic Covers				
Housing No.	Mass (kg)	Unit No.		Cover Dimensions		Mass (kg)
		Open	Closed	A_4 (mm)	A_5 (mm)	
HPL204	0.31	**MBHPL204VC**	**MBHPL204VE**	69	14	0.34
HPL205	0.37	**MBHPL205VC**	**MBHPL205VE**	72	14	0.40
HPL206	0.49	**MBHPL206VC**	**MBHPL206VE**	87	19	0.53
HPL207	0.70	**MBHPL207VC**	**MBHPL207VE**	91	18	0.75
HPL208	0.82	**MBHPL208VC**	**MBHPL208VE**	102	22	0.88

Note: 1. For grease fitting tap size, see Table 7.1 on page 250.
2. Bearing inserts are factory-lubricated with food grade grease.

Pillow Block Units
KP000 Type

Light Duty
Set-Screw Locking
Die-Cast Zinc Alloy Housing
Non-Relube



With Pressed Stainless Steel Covers

Metric Size

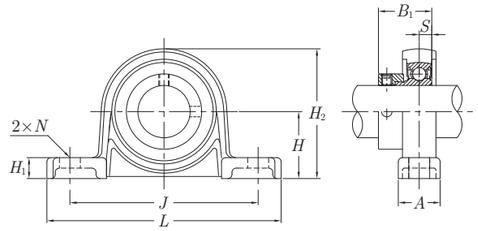
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	H_1	H_2	*B*	*S*			C_r	C_{0r}
10	**KP000,X**	18	67	16	53	7	6	35	14	4	M 6	K000,X	4.6	2
12	**KP001,X**	19	71	16	56	7	6	38	14.5	4	M 6	K001,X	5.1	2.4
15	**KP002,X**	22	80	16	63	7	7	43	16.5	4.5	M 6	K002,X	5.6	2.8
17	**KP003,X**	24	85	18	67	7	7	47	17.5	5	M 6	K003,X	6	3.3
20	**KP004,X**	28	100	20	80	10	9	54.5	21	6	M 8	K004,X	9.35	5.1
25	**KP005,X**	32	112	20	90	10	10	61.5	22.5	6	M 8	K005,X	10.1	5.8
30	**KP006,X**	36	132	26	106	13	11	70	24.5	6.5	M10	K006,X	13.2	8.3

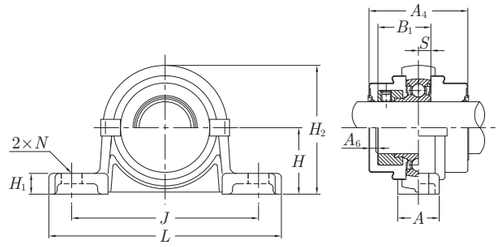
Note: Pressed stainless steel covers for 30 mm shaft are press-fit type which is specified by the suffix “Y”. For all other shaft sizes, covers are fixed to housing with clips.

Standard		With Pressed Stainless Steel Covers						
Housing No.	Mass (g)	Unit No.		Cover Dimensions		Mass (g)	Cover No. (reference)	
		Open	Closed	A_4 (mm)	A_6 (mm)		Open	Closed
P000	70	**KP000C**	**KP000E**	33	6	78	000CP10	000CPE
P001	80	**KP001C**	**KP001E**	33	5	89	001CP12	001CPE
P002	120	**KP002C**	**KP002E**	34	4	130	002CP15	002CPE
P003	140	**KP003C**	**KP003E**	37	5	154	003CP17	003CPE
P04-5	210	**KP004C**	**KP004E**	45	6	230	04-5CP20	04-5CPE
P05-6	270	**KP005C**	**KP005E**	47	6	291	05-6CP25	05-6CPE
P06-7	410	**KP006C,Y**	**KP006E,Y**	49	6	436	06-7CP30,Y	06-7CPE,Y

Pillow Block Units
UP000 Type

Light Duty
Eccentric Collar Locking
Steel Collar w/ Black Oxide Finish
Die-Cast Zinc Alloy Housing
Non-Relube





With Pressed Stainless Steel Covers

Metric Size

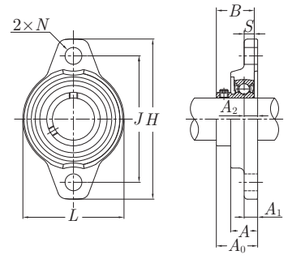
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	L	A	J	N	H_1	H_2	B_1	S			C_r	C_{0r}
10	**UP000**	18	67	16	53	7	6	35	17.5	4	M 6	U000+ER	4.6	2
12	**UP001**	19	71	16	56	7	6	38	17.5	4	M 6	U001+ER	5.1	2.4
15	**UP002**	22	80	16	63	7	7	43	18.5	4.5	M 6	U002+ER	5.6	2.8
17	**UP003**	24	85	18	67	7	7	47	20.5	5	M 6	U003+ER	6	3.3
20	**UP004**	28	100	20	80	10	9	54.5	24.5	6	M 8	U004+ER	9.35	5.1
25	**UP005**	32	112	20	90	10	10	61.5	25.5	6	M 8	U005+ER	10.1	5.8
30	**UP006**	36	132	26	106	13	11	70	26.5	6.5	M10	U006+ER	13.2	8.3

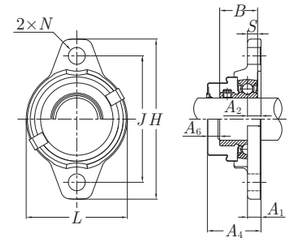
Note: Pressed stainless steel covers for 30 mm shaft are press-fit type which is specified by the suffix “Y”. For all other shaft sizes, covers are fixed to housing with clips.

Standard		With Pressed Stainless Steel Covers						
Housing No.	Mass (g)	Unit No.		Cover Dimensions		Mass (g)	Cover No. (reference)	
		Open	Closed	A_4 (mm)	A_6 (mm)		Open	Closed
P000	77	**UP000C**	**UP000E**	33	2	85	000CP10	000CPE
P001	91	**UP001C**	**UP001E**	33	2	100	001CP12	001CPE
P002	125	**UP002C**	**UP002E**	34	2	135	002CP15	002CPE
P003	156	**UP003C**	**UP003E**	37	2	170	003CP17	003CPE
P04-5	230	**UP004C**	**UP004E**	45	3	250	04-5CP20	04-5CPE
P05-6	294	**UP005C**	**UP005E**	47	3	315	05-6CP25	05-6CPE
P06-7	454	**UP006C,Y**	**UP006E,Y**	49	4	480	06-7CP30,Y	06-7CPE,Y

2-Bolt Oval Flange Units
KFL000 Type

Light Duty
Set-Screw Locking
Die-Cast Zinc Alloy Housing
Non-Relube





With Pressed Stainless Steel Cover

Metric Size

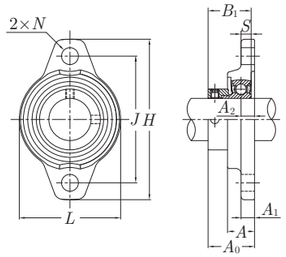
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	A_1	A_2	A_0	*B*	*S*			C_r	C_{0r}
10	**KFL000,X**	60	36	11.5	45	7	5.5	5.5	15.5	14	4	M 6	K000,X	4.6	2
12	**KFL001,X**	63	38	11.5	48	7	5.5	5.5	16	14.5	4	M 6	K001,X	5.1	2.4
15	**KFL002,X**	67	42	13	53	7	6.5	6.5	18.5	16.5	4.5	M 6	K002,X	5.6	2.8
17	**KFL003,X**	71	46	14	56	7	7	7	19.5	17.5	5	M 6	K003,X	6	3.3
20	**KFL004,X**	90	55	16	71	10	8	8	23	21	6	M 8	K004,X	9.35	5.1
25	**KFL005,X**	95	60	16	75	10	8	8	24.5	22.5	6	M 8	K005,X	10.1	5.8
30	**KFL006,X**	112	70	18	85	13	9	9	27	24.5	6.5	M10	K006,X	13.2	8.3

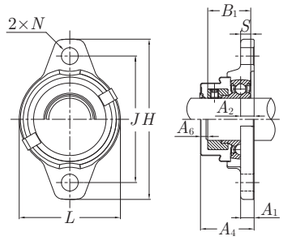
Note: Pressed stainless steel covers for 30 mm shaft are press-fit type which is specified by the suffix “Y”. For all other shaft sizes, covers are fixed to housing with clips.

Standard		With Pressed Stainless Steel Cover						
Housing No.	Mass (g)	Unit No.		Cover Dimensions		Mass (g)	Cover No. (reference)	
		Open	Closed	A_4 (mm)	A_6 (mm)		Open	Closed
FL000	50	**KFL000C**	**KFL000E**	22	6	55	000CP10	000CPE
FL001	70	**KFL001C**	**KFL001E**	22	5	74	001CP12	001CPE
FL002	90	**KFL002C**	**KFL002E**	24	4	95	002CP15	002CPE
FL003	115	**KFL003C**	**KFL003E**	26	5	121	003CP17	003CPE
FL04-5	190	**KFL004C**	**KFL004E**	31	6	200	04-5CP20	04-5CPE
FL05-6	220	**KFL005C**	**KFL005E**	32	6	231	05-6CP25	05-6CPE
FL06-7	340	**KFL006C,Y**	**KFL006E,Y**	34	6	356	06-7CP30,Y	06-7CPE,Y

2-Bolt Oval Flange Units
UFL000 Type

Light Duty
Eccentric Collar Locking
Steel Collar w/ Black Oxide Finish
Die-Cast Zinc Alloy Housing
Non-Relube





With Pressed Stainless Steel Cover

Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	A_1	A_2	A_0	B_1	*S*			C_r	C_{0r}
10	**UFL000**	60	36	11.5	45	7	5.5	5.5	19	17.5	4	M 6	U000+ER	4.6	2
12	**UFL001**	63	38	11.5	48	7	5.5	5.5	19	17.5	4	M 6	U001+ER	5.1	2.4
15	**UFL002**	67	42	13	53	7	6.5	6.5	20.5	18.5	4.5	M 6	U002+ER	5.6	2.8
17	**UFL003**	71	46	14	56	7	7	7	22.5	20.5	5	M 6	U003+ER	6	3.3
20	**UFL004**	90	55	16	71	10	8	8	26.5	24.5	6	M 8	U004+ER	9.35	5.1
25	**UFL005**	95	60	16	75	10	8	8	27.5	25.5	6	M 8	U005+ER	10.1	5.8
30	**UFL006**	112	70	18	85	13	9	9	29	26.5	6.5	M10	U006+ER	13.2	8.3
35	**UFL007**	122	80	20	95	13	10	10	32.5	29.5	7	M10	U007+ER	15.9	10.3
8	**UFL08**	48	27	8.5	37	4.8	4	4.5	16	15	3.5	M 4	U08+ER	3.3	1.26

Note: Pressed stainless steel covers for 30 mm shaft are press-fit type which is specified by the suffix “Y”. For all other shaft sizes, covers are fixed to housing with clips.

Standard		With Pressed Stainless Steel Cover						
Housing No.	Mass (g)	Unit No.		Cover Dimensions		Mass (g)	Cover No. (reference)	
		Open	Closed	A_4 (mm)	A_6 (mm)		Open	Closed
FL000	60	**UFL000C**	**UFL000E**	22	2	65	000CP10	000CPE
FL001	76	**UFL001C**	**UFL001E**	22	2	80	001CP12	001CPE
FL002	100	**UFL002C**	**UFL002E**	24	2	105	002CP15	002CPE
FL003	129	**UFL003C**	**UFL003E**	26	2	135	003CP17	003CPE
FL04-5	205	**UFL004C**	**UFL004E**	31	3	215	04-5CP20	04-5CPE
FL05-6	244	**UFL005C**	**UFL005E**	32	3	255	05-6CP25	05-6CPE
FL06-7	354	**UFL006C,Y**	**UFL006E,Y**	34	4	370	06-7CP30,Y	06-7CPE,Y
FL07-8	498	**UFL007C**	**UFL007E**	37	4	520	07-8CP35	07-8CPE
FL08	30	–	–	–	–	–	–	–

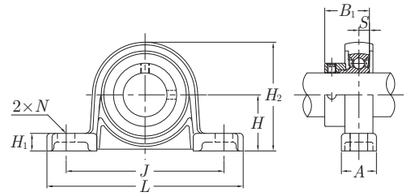
Pillow Block Units

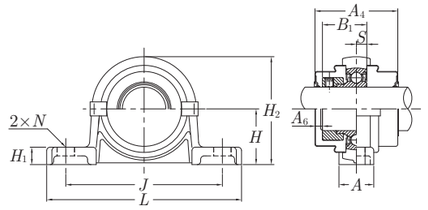
MUP000 Type

Light Duty
Eccentric Collar Locking
Stainless Steel Bearing Insert
Nickel Chrome Plated Steel Collar
Nickel Chrome Plated Die-Cast Zinc Alloy Housing
Non-Relube

MUP000+ER-MSG Type

Light Duty
Eccentric Collar Locking
Stainless Steel Bearing Insert
Stainless Steel Collar
Nickel Chrome Plated Die-Cast Zinc Alloy Housing
Non-Relube





With Pressed Stainless Steel Covers

Metric Size

Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	L	A	J	N	H_1	H_2	B_1	S			C_r	C_{0r}
10	**MUP000** **MUP000+ER-MSG**	18	67	16	53	7	6	35	17.5	4	M 6	MU000+ER MU000+ER-MSG	3.9	1.55
12	**MUP001** **MUP001+ER-MSG**	19	71	16	56	7	6	38	17.5	4	M 6	MU001+ER MU001+ER-MSG	4.3	1.9
15	**MUP002** **MUP002+ER-MSG**	22	80	16	63	7	7	43	18.5	4.5	M 6	MU002+ER MU002+ER-MSG	4.75	2.25
17	**MUP003** **MUP003+ER-MSG**	24	85	18	67	7	7	47	20.5	5	M 6	MU003+ER MU003+ER-MSG	5.1	2.65
20	**MUP004** **MUP004+ER-MSG**	28	100	20	80	10	9	54.5	24.5	6	M 8	MU004+ER MU004+ER-MSG	7.9	4
25	**MUP005** **MUP005+ER-MSG**	32	112	20	90	10	10	61.5	25.5	6	M 8	MU005+ER MU005+ER-MSG	8.6	4.65
30	**MUP006** **MUP006+ER-MSG**	36	132	26	106	13	11	70	26.5	6.5	M10	MU006+ER MU006+ER-MSG	11.3	6.6

Standard		With Pressed Stainless Steel Covers						
Housing No.	Mass (g)	Unit No.		Cover Dimensions		Mass (g)	Cover No. (reference)	
		Open	Closed	A_4 (mm)	A_6 (mm)		Open	Closed
P000Z3	77	**MUP000C** **MUP000C+ER-MSG**	**MUP000E** **MUP000E+ER-MSG**	33	2	85	000CP10	000CPE
P001Z3	91	**MUP001C** **MUP001C+ER-MSG**	**MUP001E** **MUP001E+ER-MSG**	33	2	100	001CP12	001CPE
P002Z3	125	**MUP002C** **MUP002C+ER-MSG**	**MUP002E** **MUP002E+ER-MSG**	34	2	135	002CP15	002CPE
P003Z3	156	**MUP003C** **MUP003C+ER-MSG**	**MUP003E** **MUP003E+ER-MSG**	37	2	170	003CP17	003CPE
P04-5Z3	230	**MUP004C** **MUP004C+ER-MSG**	**MUP004E** **MUP004E+ER-MSG**	45	3	250	04-5CP20	04-5CPE
P05-6Z3	294	**MUP005C** **MUP005C+ER-MSG**	**MUP005E** **MUP005E+ER-MSG**	47	3	315	05-6CP25	05-6CPE
P06-7Z3	454	**MUP006C,Y** **MUP006C,Y+ER-MSG**	**MUP006E,Y** **MUP006E,Y+ER-MSG**	49	4	480	06-7CP30,Y	06-7CPE,Y

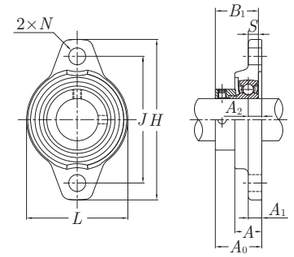
Note: 1. Bearing inserts are factory-lubricated with food grade grease.
2. Pressed stainless steel covers for 30 mm shaft are press-fit type which is specified by the suffix “Y”. For all other shaft sizes, covers are fixed to housing with clips.

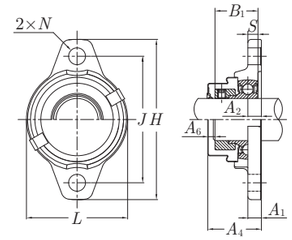
2-Bolt Oval Flange Units
MUFL000 Type

Light Duty
Eccentric Collar Locking
Stainless Steel Bearing Insert
Nickel Chrome Plated Steel Collar
Nickel Chrome Plated Die-Cast Zinc Alloy Housing
Non-Relube

MUFL000+ER-MSG Type

Light Duty
Eccentric Collar Locking
Stainless Steel Bearing Insert
Stainless Steel Collar
Nickel Chrome Plated Die-Cast Zinc Alloy Housing
Non-Relube





With Pressed Stainless Steel Cover

Metric Size

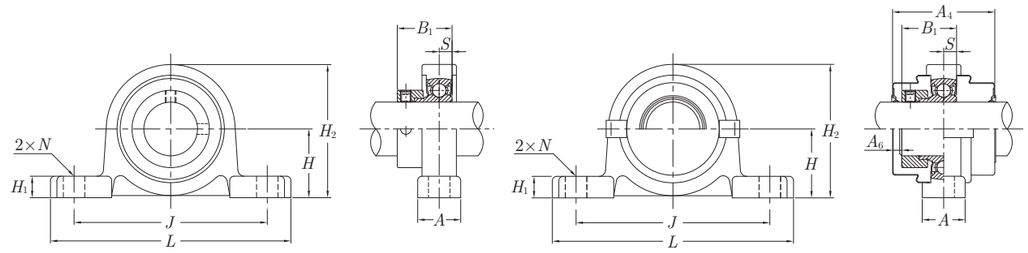
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	A_1	A_2	A_0	B_1	*S*			C_r	C_{0r}
10	**MUFL000** **MUFL000+ER-MSG**	60	36	11.5	45	7	5.5	5.5	19	17.5	4	M6	MU000+ER MU000+ER-MSG	3.9	1.55
12	**MUFL001** **MUFL001+ER-MSG**	63	38	11.5	48	7	5.5	5.5	19	17.5	4	M6	MU001+ER MU001+ER-MSG	4.3	1.9
15	**MUFL002** **MUFL002+ER-MSG**	67	42	13	53	7	6.5	6.5	20.5	18.5	4.5	M6	MU002+ER MU002+ER-MSG	4.75	2.25
17	**MUFL003** **MUFL003+ER-MSG**	71	46	14	56	7	7	7	22.5	20.5	5	M6	MU003+ER MU003+ER-MSG	5.1	2.65
20	**MUFL004** **MUFL004+ER-MSG**	90	55	16	71	10	8	8	26.5	24.5	6	M8	MU004+ER MU004+ER-MSG	7.9	4
25	**MUFL005** **MUFL005+ER-MSG**	95	60	16	75	10	8	8	27.5	25.5	6	M8	MU005+ER MU005+ER-MSG	8.6	4.65
30	**MUFL006** **MUFL006+ER-MSG**	112	70	18	85	13	9	9	29	26.5	6.5	M10	MU006+ER MU006+ER-MSG	11.3	6.6

Standard		With Pressed Stainless Steel Cover						
Housing No.	Mass (g)	Unit No.		Cover Dimensions		Mass (g)	Cover No. (reference)	
		Open	Closed	A_4 (mm)	A_6 (mm)		Open	Closed
FL000Z3	60	**MUFL000C** **MUFL000C+ER-MSG**	**MUFL000E** **MUFL000E+ER-MSG**	22	2	65	000CP10	000CPE
FL001Z3	76	**MUFL001C** **MUFL001C+ER-MSG**	**MUFL001E** **MUFL001E+ER-MSG**	22	2	80	001CP12	001CPE
FL002Z3	100	**MUFL002C** **MUFL002C+ER-MSG**	**MUFL002E** **MUFL002E+ER-MSG**	24	2	105	002CP15	002CPE
FL003Z3	129	**MUFL003C** **MUFL003C+ER-MSG**	**MUFL003E** **MUFL003E+ER-MSG**	26	2	135	003CP17	003CPE
FL04-5Z3	205	**MUFL004C** **MUFL004C+ER-MSG**	**MUFL004E** **MUFL004E+ER-MSG**	31	3	215	04-5CP20	04-5CPE
FL05-6Z3	244	**MUFL005C** **MUFL005C+ER-MSG**	**MUFL005E** **MUFL005E+ER-MSG**	32	3	255	05-6CP25	05-6CPE
FL06-7Z3	354	**MUFL006C,Y** **MUFL006C,Y+ER-MSG**	**MUFL006E,Y** **MUFL006E,Y+ER-MSG**	34	4	370	06-7CP30,Y	06-7CPE,Y

Note: 1. Bearing inserts are factory-lubricated with food grade grease.
2. Pressed stainless steel covers for 30 mm shaft are press-fit type which is specified by the suffix “Y”. For all other shaft sizes, covers are fixed to housing with clips.

Pillow Block Units
MUSP000 Type

Light Duty
Eccentric Collar Locking
Stainless Steel Bearing Insert
Stainless Steel Collar
Cast Stainless Steel Housing
Non-Relube



With Pressed Stainless Steel Covers

Metric Size

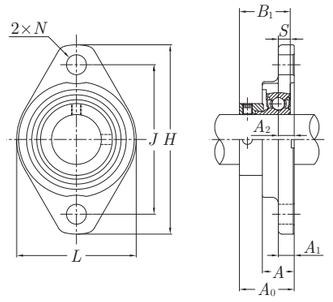
Shaft Dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	L	A	J	N	H_1	H_2	B_1	S			C_r	C_{0r}
10	**MUSP000**	18	67	16	53	7	5	34	17.5	4	M6	MU000+ER-MSG	3.9	1.55
12	**MUSP001**	19	71	16	56	7	6	37	17.5	4	M6	MU001+ER-MSG	4.3	1.9
15	**MUSP002**	22	80	16	63	7	6	42	18.5	4.5	M6	MU002+ER-MSG	4.75	2.25
17	**MUSP003**	24	85	18	67	7	7	46	20.5	5	M6	MU003+ER-MSG	5.1	2.65
20	**MUSP004**	28	100	20	80	10	8	53.5	24.5	6	M8	MU004+ER-MSG	7.9	4
25	**MUSP005**	32	112	20	90	10	9	60.5	25.5	6	M8	MU005+ER-MSG	8.6	4.65
30	**MUSP006**	36	132	26	106	13	10	69	26.5	6.5	M10	MU006+ER-MSG	11.3	6.6

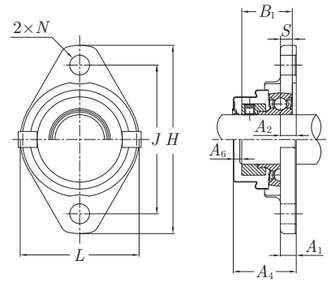
Note: Bearing inserts are factory-lubricated with food grade grease.

Standard		With Pressed Stainless Steel Covers						
Housing No.	Mass (g)	Unit No.		Cover Dimensions		Mass (g)	Cover No. (reference)	
		Open	Closed	A_4 (mm)	A_6 (mm)		Open	Closed
SP000	79	**MUSP000C**	**MUSP000E**	33	2	89	000CP10	000CPE
SP001	98	**MUSP001C**	**MUSP001E**	33	2	109	001CP12	001CPE
SP002	129	**MUSP002C**	**MUSP002E**	34	2	141	002CP15	002CPE
SP003	170	**MUSP003C**	**MUSP003E**	38	2	186	003CP17	003CPE
SP004	258	**MUSP004C**	**MUSP004E**	46	3	282	04-5CP20	04-5CPE
SP005	333	**MUSP005C**	**MUSP005E**	47	3	358	05-6CP25	05-6CPE
SP006	448	**MUSP006C**	**MUSP006E**	50	4	478	06-7CP30	06-7CPE

2-Bolt Oval Flange Units
MUSFL000 Type

Light Duty
Eccentric Collar Locking
Stainless Steel Bearing Insert
Stainless Steel Collar
Cast Stainless Steel Housing
Non-Relube





With Pressed Stainless Steel Cover

Metric Size

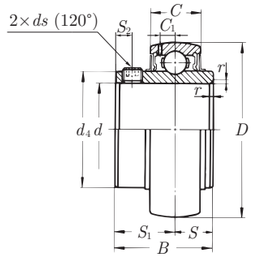
Shaft Dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size (mm)	Bearing No.	Basic Load Rating (kN)	
		H	*L*	*A*	*J*	*N*	A_1	A_2	A_0	B_1	*S*			C_r	C_{0r}
10	**MUSFL000**	60	36	11.5	45	7	5.5	5.5	19	17.5	4	M6	MU000+ER-MSG	3.9	1.55
12	**MUSFL001**	63	38	11.5	48	7	5.5	5.5	19	17.5	4	M6	MU001+ER-MSG	4.3	1.9
15	**MUSFL002**	67	42	13	53	7	6.5	6.5	20.5	18.5	4.5	M6	MU002+ER-MSG	4.75	2.25
17	**MUSFL003**	71	46	14	56	7	7	7	22.5	20.5	5	M6	MU003+ER-MSG	5.1	2.65
20	**MUSFL004**	90	55	16	71	10	8	8	26.5	24.5	6	M8	MU004+ER-MSG	7.9	4
25	**MUSFL005**	95	60	16	75	10	8	8	27.5	25.5	6	M8	MU005+ER-MSG	8.6	4.65
30	**MUSFL006**	112	70	18	85	13	9	9	29	26.5	6.5	M10	MU006+ER-MSG	11.3	6.6

Note: Bearing inserts are factory-lubricated with food grade grease.

Standard		With Pressed Stainless Steel Cover						
Housing No.	Mass (g)	Unit No.		Cover Dimensions		Mass (g)	Cover No. (reference)	
		Open	Closed	A_4 (mm)	A_6 (mm)		Open	Closed
SFL000	77	**MUSFL000C**	**MUSFL000E**	22	2	84	000CP10	000CPE
SFL001	87	**MUSFL001C**	**MUSFL001E**	22	2	93	001CP12	001CPE
SFL002	115	**MUSFL002C**	**MUSFL002E**	24	2	122	002CP15	002CPE
SFL003	146	**MUSFL003C**	**MUSFL003E**	26	2	154	003CP17	003CPE
SFL004	253	**MUSFL004C**	**MUSFL004E**	31	3	265	04-5CP20	04-5CPE
SFL005	298	**MUSFL005C**	**MUSFL005E**	32	3	311	05-6CP25	05-6CPE
SFL006	380	**MUSFL006C**	**MUSFL006E**	34	4	400	06-7CP30	06-7CPE

Bearing Inserts
UC200 Type

Normal Duty
Set-Screw Locking
Spherical O.D.
Relube



Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B	C	$r_{s\,min}$	S	S_1	S_2	ds	C_1	d_4	Basic Load Rating (kN) C_r	C_{0r}	Mass (kg)
12	**UC201**	47	31	17	0.6	12.7	18.3	4.5	M6 × 0.75	4.5	29	12.8	6.6	0.21
15	**UC202**	47	31	17	0.6	12.7	18.3	4.5	M6 × 0.75	4.5	29	12.8	6.6	0.19
17	**UC203**	47	31	17	0.6	12.7	18.3	4.5	M6 × 0.75	4.5	29	12.8	6.6	0.18
20	**UC204**	47	31	17	1	12.7	18.3	4.5	M6 × 0.75	4.5	29	12.8	6.6	0.16
25	**UC205**	52	34.1	17	1	14.3	19.8	5	M6 × 0.75	4.5	34	14	7.9	0.19
30	**UC206**	62	38.1	19	1	15.9	22.2	5	M6 × 0.75	5.1	40.5	19.6	11.3	0.31
35	**UC207**	72	42.9	20	1.5	17.5	25.4	6	M8 × 1	5.8	48	25.9	15.4	0.48
40	**UC208**	80	49.2	21	1.5	19	30.2	8	M8 × 1	6.2	53	29.3	17.9	0.62
45	**UC209**	85	49.2	22	1.5	19	30.2	8	M8 × 1	6.5	57.3	33	20.5	0.67
50	**UC210**	90	51.6	23	1.5	19	32.6	9	M10 × 1.25	6.5	63	35.5	23.2	0.78
55	**UC211**	100	55.6	24	2	22.2	33.4	9	M10 × 1.25	7.3	70	43	29.4	1.03
60	**UC212**	110	65.1	26	2	25.4	39.7	10	M10 × 1.25	7.7	77	52.5	36.1	1.45
65	**UC213**	120	65.1	27	2	25.4	39.7	10	M10 × 1.25	8.3	82.1	57.5	40	1.71
70	**UC214**	125	74.6	29	2	30.2	44.4	12	M12 × 1.5	8.7	87	62	44	2.06
75	**UC215**	130	77.8	30	2	33.3	44.5	14	M12 × 1.5	9.2	91.5	66	48.2	2.22
80	**UC216**	140	82.6	32	2.1	33.3	49.3	14	M12 × 1.5	9.6	98.5	72.5	53	2.82
85	**UC217**	150	85.7	34	2.1	34.1	51.6	14	M12 × 1.5	10.5	105	83.5	61.8	3.38
90	**UC218**	160	96	36	2.1	39.7	56.3	15	M12 × 1.5	11.1	111.5	95.5	71.4	4.34

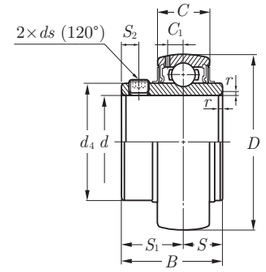
Inch Size

Shaft Dia. (inch) d	Bearing No.	Dimensions (inch) D	B	C	$r_{s\,min}$	S	S_1	S_2	ds (UNF)	C_1	d_4	Basic Load Rating (lbf.) C_r	C_{0r}	Mass (lb.)
1/2	UC201-8	1.8504	1.220	0.669	0.024	0.500	0.720	0.177	1/4-28	0.177	1.142	2880	1480	0.46
9/16	※*UC202-9*													0.42
5/8	202-10													
11/16	※*UC203-11*													0.40
3/4	UC204-12	1.8504	1.220	0.669	0.039	0.500	0.720	0.177	1/4-28	0.177	1.142	2880	1480	0.35
7/8	UC205-14	2.0472	1.343	0.669	0.039	0.563	0.780	0.197	1/4-28	0.177	1.339	3150	1780	0.42
15/16	※ *205-15*													
1	205-16													
1 1/16	※*UC206-17*	2.4409	1.500	0.748	0.039	0.626	0.874	0.197	1/4-28	0.201	1.594	4410	2540	0.68
1 1/8	206-18													
1 3/16	206-19													
1 1/4	UC207-20	2.8346	1.689	0.787	0.059	0.689	1.000	0.236	5/16-24	0.228	1.890	5820	3460	1.06
1 5/16	207-21													
1 3/8	207-22													
1 7/16	207-23													
1 1/2	UC208-24	3.1496	1.937	0.827	0.059	0.748	1.189	0.315	5/16-24	0.244	2.087	6590	4020	1.37
1 9/16	※ *208-25*													
1 5/8	UC209-26	3.3465	1.937	0.866	0.059	0.748	1.189	0.315	5/16-24	0.256	2.256	7420	4610	1.48
1 11/16	209-27													
1 3/4	209-28													
1 7/8	UC210-30	3.5433	2.031	0.906	0.059	0.748	1.283	0.354	3/8-24	0.256	2.480	7980	5220	1.72
1 15/16	210-31													
2	UC211-32	3.9370	2.189	0.945	0.079	0.874	1.315	0.354	3/8-24	0.287	2.756	9670	6610	2.27
2 1/8	※ *211-34*													
2 3/16	211-35													
2 1/4	UC212-36	4.3307	2.563	1.024	0.079	1.000	1.563	0.394	3/8-24	0.303	3.031	11800	8120	3.20
2 3/8	212-38													
2 7/16	212-39													
2 1/2	UC213-40	4.7244	2.563	1.063	0.079	1.000	1.563	0.394	3/8-24	0.327	3.232	12900	8990	3.77
2 3/4	※*UC214-44*	4.9213	2.937	1.142	0.079	1.189	1.748	0.472	7/16-20	0.343	3.425	13900	9890	4.54
3	※*UC215-48*	5.1181	3.063	1.181	0.079	1.311	1.752	0.551	7/16-20	0.362	3.602	14800	10800	4.89
3 1/8	※*UC216-50*	5.5118	3.252	1.260	0.083	1.311	1.941	0.551	7/16-20	0.378	3.878	16300	11900	6.22
3 1/4	※*UC217-53*	5.9055	3.374	1.339	0.083	1.343	2.031	0.551	7/16-20	0.413	4.134	18800	13900	7.45
3 1/2	※*UC218-56*	6.2992	3.780	1.417	0.083	1.563	2.217	0.591	1/2-20	0.437	4.390	21500	16100	9.57

Note: 1. $r_{s\,min}$ is the minimum allowable dimension of chamfer r.
2. For those marked with ※, consult **ASAHI** for availability.

Bearing Inserts
UCX00 Type

Medium Duty
Set-Screw Locking
Spherical O.D.
Relube



Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B	C	$r_{s\,min}$	S	S_1	S_2	ds	C_1	d_4	Basic Load Rating (kN) C_r	C_{0r}	Mass (kg)
25	**UCX05**	62	38.1	19	1	15.9	22.2	5	M6 × 0.75	5.1	40.5	19.6	11.3	0.37
30	**UCX06**	72	42.9	20	1	17.5	25.4	6	M8 × 1	5.8	48	25.9	15.4	0.56
35	**UCX07**	80	49.2	21	1.5	19	30.2	8	M8 × 1	6.2	53	29.3	17.9	0.74
40	**UCX08**	85	49.2	22	1.5	19	30.2	8	M8 × 1	6.5	57.3	33	20.5	0.8
45	**UCX09**	90	51.6	23	1.5	19	32.6	9	M10 × 1.25	6.5	63	35.5	23.2	0.92
50	**UCX10**	100	55.6	24	1.5	22.2	33.4	9	M10 × 1.25	7.3	70	43	29.4	1.21
55	**UCX11**	110	65.1	26	2	25.4	39.7	10	M10 × 1.25	7.7	77	52.5	36.1	1.72
60	**UCX12**	120	65.1	27	2	25.4	39.7	10	M10 × 1.25	8.3	82.1	57.5	40	1.97
65	**UCX13**	125	74.6	29	2	30.2	44.4	12	M12 × 1.5	8.7	87	62	44	2.33
70	**UCX14**	130	77.8	30	2	33.3	44.5	14	M12 × 1.5	9.2	91.5	66	48.2	2.57
75	**UCX15**	140	82.6	32	2	33.3	49.3	14	M12 × 1.5	9.6	98.5	72.5	53	3.22
80	**UCX16**	150	85.7	34	2.1	34.1	51.6	14	M12 × 1.5	10.5	105	83.5	61.8	3.81
85	**UCX17**	160	96	36	2.1	39.7	56.3	15	M12 × 1.5	11.1	111.5	95.5	71.4	4.83
90	**UCX18**	170	104	38	2.1	42.9	61.1	14	M14 × 1.5	11.9	118	109	81.6	5.49
100	**UCX20**	190	117.5	42	2.5	49.2	68.3	16	M16 × 1.5	13	132.5	134	104.7	9.04

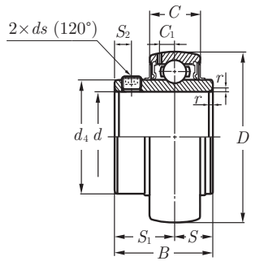
Inch Size

Shaft Dia. (inch) d	Bearing No.	Dimensions (inch) D	B	C	$r_{s\,min}$	S	S_1	S_2	ds (UNF)	C_1	d_4	Basic Load Rating (lbf.) C_r	C_{0r}	Mass (lb.)
7/8	※*UCX05-14*	2.4409	1.500	0.748	0.039	0.626	0.874	0.197	1/4-28	0.201	1.594	4410	2540	0.82
15/16	※ *X05-15*													
1	X05-16													
1 1/8	※*UCX06-18*	2.8346	1.689	0.787	0.039	0.689	1.000	0.236	5/16-24	0.228	1.890	5820	3460	1.23
1 3/16	※ *X06-19*													
1 1/4	X06-20													
1 3/8	※*UCX07-22*	3.1496	1.937	0.827	0.059	0.748	1.189	0.315	5/16-24	0.244	2.087	6590	4020	1.63
1 7/16	X07-23													
1 1/2	UCX08-24	3.3465	1.937	0.866	0.059	0.748	1.189	0.315	5/16-24	0.256	2.256	7420	4610	1.76
1 5/8	※*UCX09-26*	3.5433	2.031	0.906	0.059	0.748	1.283	0.354	3/8-24	0.256	2.480	7980	5220	2.03
1 11/16	X09-27													
1 3/4	X09-28													
1 7/8	※*UCX10-30*	3.9370	2.189	0.945	0.059	0.874	1.315	0.354	3/8-24	0.287	2.756	9670	6610	2.67
1 15/16	X10-31													
2	X10-32													
2 1/8	※*UCX11-34*	4.3307	2.563	1.024	0.079	1.000	1.563	0.394	3/8-24	0.303	3.031	11800	8120	3.79
2 3/16	X11-35													
2 1/4	X11-36													
2 3/8	※*UCX12-38*	4.7244	2.563	1.063	0.079	1.000	1.563	0.394	3/8-24	0.327	3.232	12900	8990	4.34
2 7/16	X12-39													
2 1/2	UCX13-40	4.9213	2.937	1.142	0.079	1.189	1.748	0.472	7/16-20	0.343	3.425	13900	9890	5.14
2 11/16	UCX14-43	5.1181	3.063	1.181	0.079	1.311	1.752	0.551	7/16-20	0.362	3.602	14800	10800	5.67
2 3/4	X14-44													
2 15/16	UCX15-47	5.5118	3.252	1.260	0.079	1.311	1.941	0.551	7/16-20	0.378	3.878	16300	11900	7.10
3	X15-48													
3 3/16	※*UCX16-51*	5.9055	3.374	1.339	0.083	1.343	2.031	0.551	7/16-20	0.413	4.134	18800	13900	8.40
3 1/4	UCX17-52	6.2992	3.780	1.417	0.083	1.563	2.217	0.591	1/2-20	0.437	4.390	21500	16100	10.65
3 7/16	X17-55													
3 1/2	UCX18-56	6.6929	4.094	1.496	0.083	1.689	2.406	0.551	9/16-18	0.469	4.646	24500	18300	12.10
3 15/16	UCX20-63	7.4803	4.626	1.654	0.098	1.937	2.689	0.630	5/8-18	0.512	5.217	30100	23500	19.93
4	X20-64													

Note: 1. $r_{s\,min}$ is the minimum allowable dimension of chamfer r.
2. For those marked with ※, consult **ASAHI** for availability.

Bearing Inserts
UC300 Type

Heavy Duty
Set-Screw Locking
Spherical O.D.
Relube



Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B	C	$r_{s\,min}$	S	S_1	S_2	ds	C_1	d_4	Basic Load Rating (kN) C_r	C_{0r}	Mass (kg)
25	**UC305**	62	38	21	1.5	15	23	6	M6 × 0.75	6.1	36.9	21.3	10.9	0.44
30	**UC306**	72	43	23	1.5	17	26	6	M6 × 0.75	6.7	45	26.8	15	0.56
35	**UC307**	80	48	25	2	19	29	8	M8 × 1	7.4	50.5	33.5	19.2	0.71
40	**UC308**	90	52	27	2	19	33	10	M10 × 1.25	8.2	56	40.5	23.9	1.0
45	**UC309**	100	57	30	2	22	35	10	M10 × 1.25	9	63	51.5	29.5	1.28
50	**UC310**	110	61	32	2.1	22	39	12	M12 × 1.5	10	70.5	61.5	38.2	1.65
55	**UC311**	120	66	34	2.1	25	41	12	M12 × 1.5	10.7	76.5	71.5	44.8	2.07
60	**UC312**	130	71	36	2.5	26	45	12	M12 × 1.5	11.5	82.5	81.5	52	2.59
65	**UC313**	140	75	38	2.5	30	45	12	M12 × 1.5	12.2	88.5	92.5	59.7	3.15
70	**UC314**	150	78	40	2.5	33	45	12	M12 × 1.5	13	95.2	104	68	3.83
75	**UC315**	160	82	42	2.5	32	50	14	M14 × 1.5	13.8	101.5	114	76.9	4.59
80	**UC316**	170	86	44	2.5	34	52	14	M14 × 1.5	14.5	108	123	86.4	5.4
85	**UC317**	180	96	46	3	40	56	16	M16 × 1.5	15	114.5	132	96.5	6.58
90	**UC318**	190	96	48	3	40	56	16	M16 × 1.5	15.9	121	143	107.2	7.34
95	**UC319**	200	103	50	3	41	62	16	M16 × 1.5	16.7	127.5	153	118.4	8.7
100	**UC320**	215	108	54	3	42	66	18	M18 × 1.5	18	135.5	173	140.4	10.8
105	**UC321**	225	112	56	3	44	68	18	M18 × 1.5	19	142	183	153.1	12.2
110	**UC322**	240	117	60	3	46	71	18	M18 × 1.5	21	152	205	178.8	14.3
120	**UC324**	260	126	64	3	51	75	18	M18 × 1.5	22	165	207	184.8	18.5
130	**UC326**	280	135	68	4	54	81	20	M20 × 1.5	23	178	229	214.3	23
140	**UC328**	300	145	73	4	59	86	20	M20 × 1.5	25	191.5	255	246	28.5

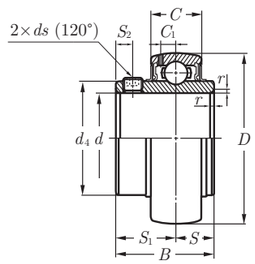
Inch Size

Shaft Dia. (inch) d	Bearing No.	Dimensions (inch) D	B	C	$r_{s\,min}$	S	S_1	S_2	ds (UNF)	C_1	d_4	Basic Load Rating (lbf.) C_r	C_{0r}	Mass (lb.)
7/8	**UC305-14**	2.4409	1.496	0.827	0.059	0.591	0.906	0.236	1/4-28	0.240	1.453	4790	2450	0.97
1	**305-16**													
1 1/8	**UC306-18**	2.8346	1.693	0.906	0.059	0.669	1.024	0.236	1/4-28	0.264	1.772	6020	3370	1.23
1 1/4	**UC307-20**	3.1496	1.890	0.984	0.079	0.748	1.142	0.315	5/16-24	0.291	1.988	7530	4320	1.57
1 3/8	**307-22**													
1 1/2	**UC308-24**	3.5433	2.047	1.063	0.079	0.748	1.299	0.394	3/8-24	0.323	2.205	9100	5370	2.20
1 5/8	**UC309-26**	3.9370	2.244	1.181	0.079	0.866	1.378	0.394	3/8-24	0.354	2.480	11600	6630	2.82
1 3/4	**309-28**													
1 7/8	**UC310-30**	4.3307	2.402	1.260	0.083	0.866	1.535	0.472	7/16-20	0.394	2.776	13800	8590	3.64
2	**UC311-32**	4.7244	2.598	1.339	0.083	0.984	1.614	0.472	7/16-20	0.421	3.012	16100	10100	4.56
2 1/8	**311-34**													
2 1/4	**UC312-36**	5.1181	2.795	1.417	0.098	1.024	1.772	0.472	1/2-20	0.453	3.248	18300	11700	5.71
2 3/8	**312-38**													
2 1/2	**UC313-40**	5.5118	2.953	1.496	0.098	1.181	1.772	0.472	1/2-20	0.480	3.484	20800	13400	6.94
2 3/4	**UC314-44**	5.9055	3.071	1.575	0.098	1.299	1.772	0.472	1/2-20	0.512	3.748	23400	15300	8.44
3	**UC315-48**	6.2992	3.228	1.654	0.098	1.260	1.969	0.551	9/16-18	0.543	3.996	25600	17300	10.12
3 1/8	**UC316-50**	6.6929	3.386	1.732	0.098	1.339	2.047	0.551	9/16-18	0.571	4.252	27700	19400	11.90
3 1/4	**UC317-52**	7.0866	3.780	1.811	0.118	1.575	2.205	0.630	5/8-18	0.591	4.508	29700	21700	14.51
3 1/2	**UC318-56**	7.4803	3.780	1.890	0.118	1.575	2.205	0.630	5/8-18	0.626	4.764	32100	24100	16.18
3 3/4	**UC319-60**	7.8740	4.055	1.969	0.118	1.614	2.441	0.630	5/8-18	0.657	5.020	34400	26600	19.18
4	**UC320-64**	8.4646	4.252	2.126	0.118	1.654	2.598	0.709	3/4-16	0.709	5.335	38900	31600	23.81

Note: $r_{s\,min}$ is the minimum allowable dimension of chamfer r.

Stainless Steel Inserts
MUC200 Type

Normal Duty
Set-Screw Locking
Spherical O.D.
Relube



Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B	C	$r_{s\,min}$	S	S_1	S_2	ds	C_1	d_4	Basic Load Rating (kN) C_r	C_{0r}	Mass (kg)
12	**MUC201V**	47	31	17	0.6	12.7	18.3	5	M5 × 0.8	4.5	29	10.9	5.3	0.21
15	**MUC202V**	47	31	17	0.6	12.7	18.3	5	M5 × 0.8	4.5	29	10.9	5.3	0.19
17	**MUC203V**	47	31	17	0.6	12.7	18.3	5	M5 × 0.8	4.5	29	10.9	5.3	0.18
20	**MUC204V**	47	31	17	1	12.7	18.3	5	M5 × 0.8	4.5	29	10.9	5.3	0.16
25	**MUC205V**	52	34.1	17	1	14.3	19.8	5	M5 × 0.8	4.5	34	11.9	6.3	0.19
30	**MUC206V**	62	38.1	19	1	15.9	22.2	5	M5 × 0.8	5.1	40.5	16.7	9	0.31
35	**MUC207V**	72	42.9	20	1.5	17.5	25.4	7	M6 × 0.75	5.8	48	22	12.3	0.48
40	**MUC208V**	80	49.2	21	1.5	19	30.2	8	M6 × 0.75	6.2	53	24.9	14.3	0.62
45	**MUC209V**	85	49.2	22	1.5	19	30.2	8	M6 × 0.75	6.5	57.3	28.1	16.4	0.67
50	**MUC210V**	90	51.6	23	1.5	19	32.6	9	M8 × 1	6.5	63	30.2	18.6	0.78
55	**MUC211V**	100	55.6	24	2	22.2	33.4	9	M8 × 1	7.3	70	36.6	23.5	1.03
60	**MUC212V**	110	65.1	26	2	25.4	39.7	10	M10 × 1.25	7.7	77	44.6	28.9	1.45
65	**MUC213V**	120	65.1	27	2	25.4	39.7	10	M10 × 1.25	8.3	82.1	48.9	32	1.71

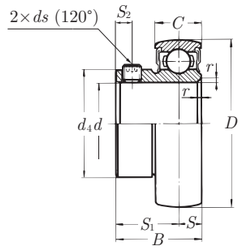
Inch Size

Shaft Dia. (inch) d	Bearing No.	Dimensions (inch) D	B	C	$r_{s\,min}$	S	S_1	S_2	ds (UNF)	C_1	d_4	Basic Load Rating (lbf.) C_r	C_{0r}	Mass (lb.)
1/2	**※*MUC201-8ST***	1.8504	1.220	0.669	0.024	0.500	0.720	0.197	1/4-28	0.177	1.142	2450	1190	0.46
5/8	**※*MUC202-10ST***													0.42
3/4	**MUC204-12ST**	1.8504	1.220	0.669	0.039	0.500	0.720	0.197	1/4-28	0.177	1.142	2450	1190	0.35
1	**MUC205-16ST**	2.0472	1.343	0.669	0.039	0.563	0.780	0.197	1/4-28	0.177	1.339	2680	1420	0.42
1 3/16	**MUC206-19ST**	2.4409	1.500	0.748	0.039	0.626	0.874	0.197	1/4-28	0.201	1.594	3750	2020	0.68
1 1/4	**206-20ST**													
1 1/4	**MUC207-20ST**	2.8346	1.689	0.787	0.059	0.689	1.000	0.276	5/16-24	0.228	1.890	4950	2770	1.06
1 7/16	**207-23ST**													
1 1/2	**MUC208-24ST**	3.1496	1.937	0.827	0.059	0.748	1.189	0.315	5/16-24	0.244	2.087	5600	3210	1.37
1 3/4	**※*MUC209-28ST***	3.3465	1.937	0.866	0.059	0.748	1.189	0.315	5/16-24	0.256	2.256	6320	3690	1.48
1 15/16	**※*MUC210-31ST***	3.5433	2.031	0.906	0.059	0.748	1.283	0.354	3/8-24	0.256	2.480	6790	4180	1.72
2	**※*MUC211-32ST***	3.9370	2.189	0.945	0.079	0.874	1.315	0.354	3/8-24	0.287	2.756	8230	5280	2.27
2 7/16	**※*MUC212-39ST***	4.3307	2.563	1.024	0.079	1.000	1.563	0.394	3/8-24	0.303	3.031	10000	6500	3.20
2 1/2	**※*MUC213-40ST***	4.7244	2.563	1.063	0.079	1.000	1.563	0.394	3/8-24	0.327	3.232	11000	7190	3.77

Note: 1. Bearing inserts are factory-lubricated with food grade grease.
2. $r_{s\,min}$ is the minimum allowable dimension of chamfer r.
3. For those marked with ※, consult ASAHI for availability.

Bearing Inserts
B Type

Normal Duty
Set-Screw Locking
Spherical O.D.
Non-Relube



Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B	C	$r_{s\,min}$	S	S_1	S_2	ds	d_4	Basic Load Rating (kN) C_r	C_{0r}	Mass (kg)
12	**B1**	40	22	12	0.6	6	16	4	M5 × 0.8	24.7	9.55	4.8	0.10
15	**B2**	40	22	12	0.6	6	16	4	M5 × 0.8	24.7	9.55	4.8	0.09
17	**B3**	40	22	12	0.6	6	16	4	M5 × 0.8	24.7	9.55	4.8	0.07
20	**B4**	47	24.7	14	1	7	17.7	4.5	M5 × 0.8	29	12.8	6.6	0.12
25	**B5**	52	27	15	1	7.5	19.5	5	M6 × 0.75	34	14	7.9	0.16
30	**B6**	62	30.3	16	1	8	22.3	5	M6 × 0.75	40.5	19.6	11.3	0.25
35	**B7**	72	32.9	17	1.5	8.5	24.4	6	M8 × 1	48	25.9	15.4	0.38

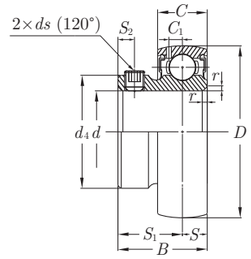
Inch Size

Shaft Dia. (inch) d	Bearing No.	Dimensions (inch) D	B	C	$r_{s\,min}$	S	S_1	S_2	ds (UNF)	d_4	Basic Load Rating (lbf.) C_r	C_{0r}	Mass (lb.)
1/2	**B1-8**	1.5748	0.866	0.472	0.024	0.236	0.630	0.157	10-32	0.972	2150	1080	0.22
5/8	**B2-10**												0.20
3/4	**B4-12**	1.8504	0.972	0.551	0.039	0.276	0.697	0.177	10-32	1.142	2880	1480	0.26
7/8 1	**B5-14** **B5-16**	2.0472	1.063	0.591	0.039	0.295	0.768	0.197	1/4-28	1.339	3150	1780	0.35
1 1/8	**B6-18**	2.4409	1.193	0.630	0.039	0.315	0.878	0.197	1/4-28	1.594	4410	2540	0.55
1 1/4 1 3/8 1 7/16	**B7-20** **7-22** **7-23**	2.8346	1.295	0.669	0.059	0.335	0.961	0.236	5/16-24	1.890	5830	3460	0.84

Note: $r_{s\,min}$ is the minimum allowable dimension of chamfer r.

Stainless Steel Inserts
Insert Ball Bearing
MB Type

Normal Duty
Set-Screw Locking
Spherical O.D.
Relube



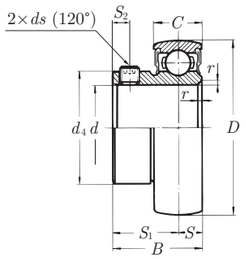
Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B	C	$r_{s\,min}$	S	S_1	S_2	ds	C_1	d_4	Basic Load Rating (kN) C_r	C_{0r}	Mass (kg)
20	**MB4V**	47	24.7	14	1	7	17.7	4.5	M5 × 0.8	4.1	29	10.9	5.3	0.12
25	**MB5V**	52	27	15	1	7.5	19.5	5	M5 × 0.8	4.1	34	11.9	6.3	0.16
30	**MB6V**	62	30.3	16	1	8	22.3	5	M5 × 0.8	4.9	40.5	16.7	9	0.25
35	**MB7V**	72	32.9	17	1.5	8.5	24.4	6	M6 × 0.75	5.4	48	22	12.3	0.38
40	**MB8V**	80	35.5	18	1.5	9	26.5	8	M6 × 0.75	5.9	53	24.9	14.3	0.49

Note: 1. Bearing inserts are factory-lubricated with food grade grease.
2. $r_{s\,min}$ is the minimum allowable dimension of chamfer r.
3. Consult ASAHI for availability of inch sizes.

Bearing Inserts
K000 Type

Light Duty
Set-Screw Locking
Spherical O.D.
Non-Relube



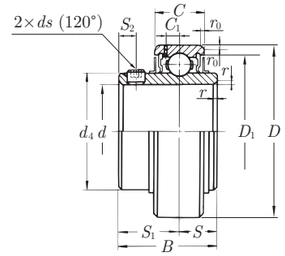
Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B	C	r	S	S1	S2	ds	d4	Basic Load Rating (kN) Cr	C0r	Mass (g)
10	**K000,X**	26	14	8	0.5	4	10	3	M3 × 0.35	14.8	4.6	2	23
12	**K001,X**	28	14.5	8	0.5	4	10.5	3	M3 × 0.35	17.4	5.1	2.4	30
15	**K002,X**	32	16.5	9	0.5	4.5	12	3.5	M4 × 0.5	20.1	5.6	2.8	45
17	**K003,X**	35	17.5	10	0.5	5	12.5	3.5	M4 × 0.5	23.1	6	3.3	50
20	**K004,X**	42	21	12	1	6	15	4	M5 × 0.5	27	9.35	5.1	84
25	**K005,X**	47	22.5	12	1	6	16.5	4.5	M5 × 0.5	31.7	10.1	5.8	100
30	**K006,X**	55	24.5	13	1	6.5	18	5	M5 × 0.5	38	13.2	8.3	142

Note: r is the nominal chamfer dimension.

Bearing Inserts
UR200 Type

Normal Duty
Set-Screw Locking
Cylindrical O.D.
Relube



Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B	C	rs min	r1s min	S	S1	S2	ds	C1	d4	D1	Basic Load Rating (kN) Cr	C0r	Mass (kg)
12	※***UR201***	47	31	17	0.6	0.6	12.7	18.3	4.5	M6 × 0.75	4.5	29	41	12.8	6.6	0.22
15	※***UR202***	47	31	17	0.6	0.6	12.7	18.3	4.5	M6 × 0.75	4.5	29	41	12.8	6.6	0.2
17	※***UR203***	47	31	17	0.6	0.6	12.7	18.3	4.5	M6 × 0.75	4.5	29	41	12.8	6.6	0.19
20	**UR204**	47	31	17	1	0.6	12.7	18.3	4.5	M6 × 0.75	4.5	29	41	12.8	6.6	0.17
25	**UR205**	52	34.1	17	1	0.6	14.3	19.8	5	M6 × 0.75	4.5	34	46	14	7.9	0.2
30	**UR206**	62	38.1	19	1	0.6	15.9	22.2	5	M6 × 0.75	5.1	40.5	54.3	19.6	11.3	0.32
35	**UR207**	72	42.9	20	1.5	1	17.5	25.4	6	M8 × 1	5.8	48	63.5	25.9	15.4	0.49
40	**UR208**	80	49.2	21	1.5	1	19	30.2	8	M8 × 1	6.2	53	69.3	29.3	17.9	0.63
45	**UR209**	85	49.2	22	1.5	1	19	30.2	8	M8 × 1	6.5	57.3	74.3	33	20.5	0.69
50	**UR210**	90	51.6	23	1.5	1	19	32.6	9	M10 × 1.25	6.5	63	79.7	35.5	23.2	0.8
55	※***UR211***	100	55.6	24	2	1.5	22.2	33.4	9	M10 × 1.25	7.3	70	90.7	43	29.4	1.05
60	※***UR212***	110	65.1	26	2	1.5	25.4	39.7	10	M10 × 1.25	7.7	77	100	52.5	36.1	1.47
65	※***UR213***	120	65.1	27	2	1.5	25.4	39.7	10	M10 × 1.25	8.3	82.1	106.2	57.5	40	1.73

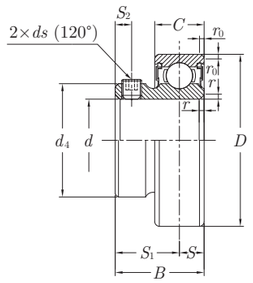
Inch Size

Shaft Dia. (inch) d	Bearing No.	Dimensions (inch) D	B	C	rs min	r1s min	S	S1	S2	ds (UNF)	C1	d4	D1	Basic Load Rating (lbf.) Cr	C0r	Mass (lb.)
3/4	**UR204-12**	1.8504	1.220	0.669	0.039	0.024	0.500	0.720	0.177	1/4-28	0.177	1.142	1.614	2880	1480	0.37
1	**UR205-16**	2.0472	1.343	0.669	0.039	0.024	0.563	0.780	0.197	1/4-28	0.177	1.339	1.811	3150	1780	0.44
1 1/4	**UR206-20**	2.4409	1.500	0.748	0.039	0.024	0.626	0.874	0.197	1/4-28	0.201	1.594	2.138	4410	2540	0.71
1 1/4 **1 7/16**	**UR207-20** **207-23**	2.8346	1.689	0.787	0.059	0.039	0.689	1.000	0.236	5/16-24	0.228	1.890	2.500	5820	3460	1.08
1 1/2	**UR208-24**	3.1496	1.937	0.827	0.059	0.039	0.748	1.189	0.315	5/16-24	0.244	2.087	2.728	6590	4020	1.39

Note: 1. $r_{s\,min}$ and $r_{0s\,min}$ are the minimum allowable dimensions of chamfers r and r_0 respectively.
2. For those marked with ※, consult **ASAHI** for availability.

Bearing Inserts
BR Type

Normal Duty
Set-Screw Locking
Cylindrical O.D.
Non-Relube



Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B	C	$r_{s\,min}$	$r_{0s\,min}$	S	S_1	S_2	ds	d_4	Basic Load Rating (kN) C_r	C_{0r}	Mass (kg)
12	**BR1**	40	22	12	0.6	0.6	6	16	4	M5 × 0.8	24.7	9.55	4.8	0.10
15	**BR2**	40	22	12	0.6	0.6	6	16	4	M5 × 0.8	24.7	9.55	4.8	0.09
17	**BR3**	40	22	12	0.6	0.6	6	16	4	M5 × 0.8	24.7	9.55	4.8	0.07
20	**BR4**	47	24.7	14	1	0.6	7	17.7	4.5	M5 × 0.8	29	12.8	6.6	0.12
25	**BR5**	52	27	15	1	0.6	7.5	19.5	5	M6 × 0.75	34	14	7.9	0.16
30	**BR6**	62	30.3	16	1	0.6	8	22.3	5	M6 × 0.75	40.5	19.6	11.3	0.25
35	**BR7**	72	32.9	17	1.5	1	8.5	24.4	6	M8 × 1	48	25.9	15.4	0.38

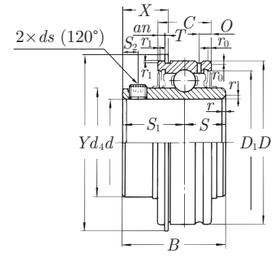
Inch Size

Shaft Dia. (inch) d	Bearing No.	Dimensions (inch) D	B	C	$r_{s\,min}$	$r_{0s\,min}$	S	S_1	S_2	ds (UNF)	d_4	Basic Load Rating (lbf.) C_r	C_{0r}	Mass (lb.)
1/2	**BR1-8**	1.5748	0.866	0.472	0.024	0.024	0.236	0.630	0.157	10-32	0.972	2150	1080	0.22
5/8	**BR2-10**													0.20
3/4	**BR4-12**	1.8504	0.972	0.551	0.039	0.024	0.276	0.697	0.177	10-32	1.142	2880	1480	0.26
7/8 **1**	**BR5-14** **5-16**	2.0472	1.063	0.591	0.039	0.024	0.295	0.768	0.197	1/4-28	1.339	3150	1780	0.35
1 1/8	**BR6-18**	2.4409	1.193	0.630	0.039	0.024	0.315	0.878	0.197	1/4-28	1.594	4410	2540	0.55
1 1/4 **1 3/8** **1 7/16**	**BR7-20** **7-22** **7-23**	2.8346	1.295	0.669	0.059	0.039	0.335	0.961	0.236	5/16-24	1.890	5820	3460	0.84

Note: $r_{s\,min}$ and $r_{0s\,min}$ are the minimum allowable dimensions of chamfers r and r_0 respectively.

Bearing Inserts
SER200 Type

Normal Duty
Set-Screw Locking
Cylindrical O.D. w/ Snap Ring
Relube



Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B	C	$r_{s\,min}$	$r_{0s\,min}$	$r_{1s\,min}$	S	S_1	S_2	ds	O	d_4	an	T	Y (max.)	X	D_1	Basic Load Rating (kN) C_r	C_{0r}	Mass (kg)
12	※***SER201***	47	31	15.9	0.6	1	0.5	10.3	20.7	4.5	M6 × 0.75	3.8	29	2.38	1.07	52.7	16.2	41	12.8	6.6	0.21
15	※***SER202***	47	31	15.9	0.6	1	0.5	10.3	20.7	4.5	M6 × 0.75	3.8	29	2.38	1.07	52.7	16.2	41	12.8	6.6	0.2
17	※***SER203***	47	31	15.9	0.6	1	0.5	10.3	20.7	4.5	M6 × 0.75	3.8	29	2.38	1.07	52.7	16.2	41	12.8	6.6	0.18
20	**SER204**	47	31	15.9	1	1	0.5	10.3	20.7	4.5	M6 × 0.75	3.8	29	2.38	1.07	52.7	16.2	41	12.8	6.6	0.16
25	**SER205**	52	34.9	19	1	1	0.5	13.1	21.8	5	M6 × 0.75	5.2	34	2.38	1.07	57.9	15.75	46	14	7.9	0.22
30	**SER206**	62	38.1	22.2	1	1	0.5	15.9	22.2	5	M6 × 0.75	5.6	40.5	3.18	1.65	67.7	15.93	54.3	19.6	11.3	0.35
35	**SER207**	72	42.9	23.8	1.5	1.5	0.5	17.5	25.4	6	M8 × 1	5.6	48	3.18	1.65	78.6	18.33	63.5	25.9	15.4	0.53
40	**SER208**	80	49.2	27.8	1.5	1.5	0.5	19	30.2	8	M8 × 1	6.4	53	3.18	1.65	86.6	21.13	69.3	29.3	17.9	0.73
45	**SER209**	85	49.2	27.8	1.5	1.5	0.5	19	30.2	8	M8 × 1	6.4	57.3	3.18	1.65	91.6	21.13	74.3	33	20.5	0.78
50	**SER210**	90	51.6	28.6	1.5	1.5	0.5	19	32.6	9	M10 × 1.25	7.5	63	3.18	2.41	96.5	23.89	79.7	35.5	23.2	0.89
55	※***SER211***	100	55.6	30.2	2	2	0.5	22.2	33.4	9	M10 × 1.25	7.5	70	3.18	2.41	106.5	23.89	90.7	43	29.4	1.16
60	※***SER212***	110	65.1	31.8	2	2	0.5	25.4	39.7	10	M10 × 1.25	7.5	77	3.18	2.41	116.6	29.39	100	52.5	36.1	1.59

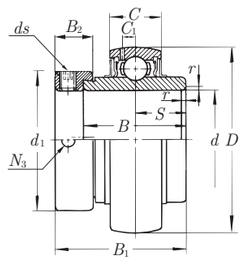
Inch Size

Shaft Dia. (inch) d	Bearing No.	Dimensions (inch) D	B	C	$r_{s\,min}$	$r_{0s\,min}$	$r_{1s\,min}$	S	S_1	S_2	ds (UNF)	O	d_4	an	T	Y (max.)	X	D_1	Basic Load Rating (lbf.) C_r	C_{0r}	Mass (lb.)
1/2	**SER201-8**	1.8504	1 7/32	5/8	0.024	0.039	0.020	13/32	13/16	0.177	1/4-28	0.150	1.142	3/32	0.042	2.075	0.638	1.614	2880	1480	0.46
5/8	**SER202-10**																				0.44
3/4	**SER204-12**	1.8504	1 7/32	5/8	0.039	0.039	0.020	13/32	13/16	0.177	1/4-28	0.150	1.142	3/32	0.042	2.075	0.638	1.614	2880	1480	0.35
7/8 **1**	**SER205-14** **205-16**	2.0472	1 3/8	3/4	0.039	0.039	0.020	33/64	55/64	0.197	1/4-28	13/64	1.339	3/32	0.042	2.280	0.620	1.811	3150	1780	0.49
1 1/8 **1 3/16**	**SER206-18** **206-19**	2.4409	1 1/2	7/8	0.039	0.039	0.020	5/8	7/8	0.197	1/4-28	7/32	1.594	1/8	0.065	2.665	0.627	2.138	4410	2540	0.77
1 1/4 **1 3/8** **1 7/16**	**SER207-20** **207-22** **207-23**	2.8346	1 11/16	15/16	0.059	0.059	0.020	11/16	1	0.236	5/16-24	7/32	1.890	1/8	0.065	3.094	0.722	2.500	5820	3460	1.17
1 1/2	**SER208-24**	3.1496	1 15/16	1 3/32	0.059	0.059	0.020	3/4	1 3/16	0.315	5/16-24	1/4	2.087	1/8	0.065	3.409	0.832	2.728	6590	4020	1.61
1 5/8 **1 11/16** **1 3/4**	**SER209-26** **209-27** **209-28**	3.3465	1 15/16	1 3/32	0.059	0.059	0.020	3/4	1 3/16	0.315	5/16-24	1/4	2.256	1/8	0.065	3.606	0.832	2.925	7420	4610	1.72
1 7/8 **1 15/16**	**SER210-30** **210-31**	3.5433	2 1/32	1 1/8	0.059	0.059	0.020	3/4	1 9/32	0.354	3/8-24	19/64	2.480	1/8	0.095	3.799	0.941	3.138	7980	5220	1.96
2 **2 3/16**	**SER211-32** **211-35**	3.9370	2 3/16	1 3/16	0.079	0.079	0.020	7/8	1 5/16	0.354	3/8-24	19/64	2.756	1/8	0.095	4.193	0.941	3.571	9670	6610	2.56
2 1/4 **2 7/16**	**SER212-36** **212-39**	4.3307	2 9/16	1 1/4	0.079	0.079	0.020	1	1 9/16	0.394	3/8-24	19/64	3.031	1/8	0.095	4.591	1.157	3.937	11800	8120	3.51

Note: 1. $r_{s\,min}$, $r_{0s\,min}$ and $r_{1s\,min}$ are the minimum allowable dimensions of chamfers r, r_0 and r_1 respectively.
2. For those marked with ※, consult **ASAHI** for availability.

Bearing Inserts
UG200+ER Type

Normal Duty
Eccentric Collar Locking
Spherical O.D.
Steel Collar w/ Black Oxide Finish
Relube



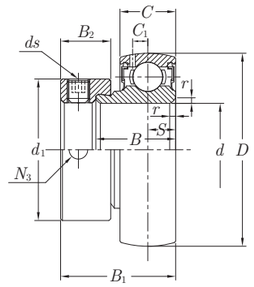
Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B1	B	C	rs min	S	d1	B2	ds	C1	N3	Basic Load Rating (kN) Cr	C0r	Mass (kg)
20	**UG204+ER**	47	43.7	34.2	17	1	17.1	33	13.5	M6 × 0.75	4.5	4.8	12.8	6.6	0.21
25	**UG205+ER**	52	44.4	34.9	17	1	17.5	37.9	13.5	M6 × 0.75	4.5	5	14	7.9	0.23
30	**UG206+ER**	62	48.4	36.5	19	1	18.3	44.4	15.9	M8 × 1	5.1	5	19.6	11.3	0.37
35	**UG207+ER**	72	51.1	37.6	20	1.5	18.8	55.4	17.5	M10 × 1.25	5.8	6	25.9	15.4	0.60
40	**UG208+ER**	80	56.3	42.8	21	1.5	21.4	59.9	18.3	M10 × 1.25	6.2	6	29.3	17.9	0.76
45	**UG209+ER**	85	56.3	42.8	22	1.5	21.4	63.4	18.3	M10 × 1.25	6.5	6	33	20.5	0.79
50	**UG210+ER**	90	62.7	49.2	23	1.5	24.6	69.5	18.3	M10 × 1.25	6.5	6	35.5	23.2	0.91
55	**UG211+ER**	100	71.4	55.5	24	2	27.8	75.8	20.7	M12 × 1.5	7.3	6.8	43	29.4	1.26
60	**UG212+ER**	110	77.8	61.9	26	2	31	83.8	22.3	M12 × 1.5	7.7	6.8	52.5	36.1	1.70
65	**UG213+ER**	120	85.7	68.2	27	2.1	34.1	91.6	23.8	M12 × 1.5	8.3	6.8	57.5	40	2.32

Note: 1. $r_{s\,min}$ is the minimum allowable dimension of chamfer r.
2. Consult **ASAHI** for availability of inch sizes.

Bearing Inserts
KH200GAE Type
GBE

Normal Duty
Eccentric Collar Locking
Spherical O.D.
Steel Collar w/ Black Oxide Finish
Relube



Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B1	B	C	rs min	S	d1	B2	ds	C1	N3	Basic Load Rating (kN) Cr	C0r	Mass (kg)
12	**KH201GAE**	40	28.6	19.1	12	0.6	6.5	28.3	13.5	M6 × 0.75	3.6	4.8	9.55	4.8	0.12
15	**KH202GAE**	40	28.6	19.1	12	0.6	6.5	28.3	13.5	M6 × 0.75	3.6	4.8	9.55	4.8	0.11
17	**KH203GAE**	40	28.6	19.1	12	0.6	6.5	28.3	13.5	M6 × 0.75	3.6	4.8	9.55	4.8	0.1
20	**KH204GAE**	47	31	21.5	14	1	7.5	33	13.5	M6 × 0.75	4.1	4.8	12.8	6.6	0.16
25	**KH205GAE**	52	31	21.5	15	1	7.5	37.9	13.5	M6 × 0.75	4.1	5	14	7.9	0.2
30	**KH206GAE**	62	35.7	23.8	16	1	9	44.4	15.9	M8 × 1	4.9	5	19.6	11.3	0.31
35	**KH207GAE**	72	38.9	25.4	17	1.5	9.5	55.4	17.5	M10 × 1.25	5.4	6	25.9	15.4	0.49
40	**KH208GAE**	80	43.7	30.2	18	1.5	11	59.9	18.3	M10 × 1.25	6	6	29.3	17.9	0.62
45	**KH209GBE**	85	43.7	30.2	19	1.5	11	63.4	18.3	M10 × 1.25	6.2	6	33	20.5	0.65
50	**KH210GBE**	90	43.7	30.2	20	1.5	11	69.5	18.3	M10 × 1.25	6.5	6	35.5	23.2	0.75
55	**KH211GBE**	100	48.7	32.5	21	2	12	75.8	20.7	M12 × 1.5	7	6.8	43	29.4	0.94

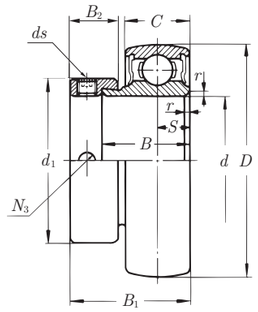
Inch Size

Shaft Dia. (inch) d	Bearing No.	Dimensions (inch) D	B1	B	C	rs min	S	d1	B2	ds (UNF)	C1	N3	Basic Load Rating (lbf.) Cr	C0r	Mass (lb.)
1/2	**KH201-8GAE**	1.5748	1 1/8	0.752	0.472	0.024	0.256	1.114	17/32	1/4-28	0.142	0.189	2150	1080	0.26
5/8	**KH202-10GAE**														0.24
3/4	**KH204-12GAE**	1.8504	1 7/32	0.846	0.551	0.039	0.295	1.299	17/32	1/4-28	0.161	0.189	2880	1480	0.35
7/8 **1**	**KH205-14GAE** **205-16GAE**	2.0472	1 7/32	0.846	0.591	0.039	0.295	1.492	17/32	1/4-28	0.161	0.197	3150	1780	0.44
1 1/8 **1 3/16** **1 1/4**	**KH206-18GAE** **206-19GAE** **206-20GAE**	2.4409	1 13/32	0.937	0.630	0.039	0.354	1.748	5/8	5/16-24	0.193	0.197	4410	2540	0.68
1 1/4 **1 3/8** **1 7/16**	**KH207-20GAE** **207-22GAE** **207-23GAE**	2.8346	1 17/32	1.000	0.669	0.059	0.374	2.181	11/16	3/8-24	0.213	0.236	5820	3460	1.08
1 1/2	**KH208-24GAE**	3.1496	1 23/32	1.189	0.709	0.059	0.433	2.358	23/32	3/8-24	0.236	0.236	6590	4020	1.37
1 5/8 **1 11/16** **1 3/4**	**KH209-26GBE** **209-27GBE** **209-28GBE**	3.3465	1 23/32	1.189	0.748	0.059	0.433	2.496	23/32	3/8-24	0.244	0.236	7420	4610	1.43
1 15/16	**KH210-31GBE**	3.5433	1 23/32	1.189	0.787	0.059	0.433	2.736	23/32	3/8-24	0.256	0.236	7980	5220	1.65
2 **2 3/16**	**KH211-32GBE** **211-35GBE**	3.9370	1 29/32	1.280	0.827	0.079	0.472	2.984	13/16	7/16-20	0.276	0.268	9670	6610	2.07

Note: $r_{s\,min}$ is the minimum allowable dimension of chamfer r.

Bearing Inserts
U000+ER Type

Light Duty
Eccentric Collar Locking
Spherical O.D.
Steel Collar w/ Black Oxide Finish
Non-Relube



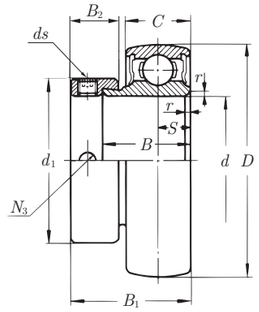
Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B_1	B	C	r	S	d_1	B_2	ds	N_3	Basic Load Rating (kN) C_r	C_{0r}	Mass (g)
10	**U000+ER**	26	17.5	11	8	0.5	4	17	8.5	M4 × 0.7	3.5	4.6	2	30
12	**U001+ER**	28	17.5	11	8	0.5	4	19	8.5	M4 × 0.7	3.5	5.1	2.4	36
15	**U002+ER**	32	18.5	12	9	0.5	4.5	22	8.5	M4 × 0.7	3.5	5.6	2.8	50
17	**U003+ER**	35	20.5	13.5	10	0.5	5	25	9.5	M4 × 0.7	3.5	6	3.3	62
20	**U004+ER**	42	24.5	16.5	12	1	6	30	11	M5 × 0.8	5	9.35	5.1	104
25	**U005+ER**	47	25.5	17.5	12	1	6	36	12	M5 × 0.8	5	10.1	5.8	133
30	**U006+ER**	55	26.5	18.5	13	1	6.5	42	12	M5 × 0.8	5	13.2	8.3	186
35	**U007+ER**	62	29.5	20	14	1.5	7	48	13.5	M6 × 0.75	5	15.9	10.3	246
8	**U08+ER**	22	15	10	7	0.5	3.5	14	7	M3 × 0.5	2.5	3.3	1.26	16

Note: r is the nominal chamfer dimension.

Stainless Steel Inserts
MU000+ER Type

Light Duty
Eccentric Collar Locking
Spherical O.D.
Nickel Chrome Plated Steel Collar
Non-Relube



MU000+ER-MSG Type

Light Duty
Eccentric Collar Locking
Spherical O.D.
Stainless Steel Collar
Non-Relube

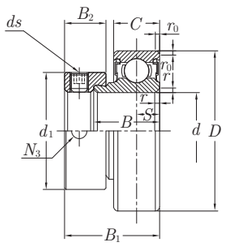
Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B_1	B	C	r	S	d_1	B_2	ds	N_3	Basic Load Rating (kN) C_r	C_{0r}	Mass (g)
10	**MU000+ER** **MU000+ER-MSG**	26	17.5	11	8	0.5	4	17	8.5	M4 × 0.7	3.5	3.9	1.55	30
12	**MU001+ER** **MU001+ER-MSG**	28	17.5	11	8	0.5	4	19	8.5	M4 × 0.7	3.5	4.3	1.9	36
15	**MU002+ER** **MU002+ER-MSG**	32	18.5	12	9	0.5	4.5	22	8.5	M4 × 0.7	3.5	4.75	2.25	50
17	**MU003+ER** **MU003+ER-MSG**	35	20.5	13.5	10	0.5	5	25	9.5	M4 × 0.7	3.5	5.1	2.65	62
20	**MU004+ER** **MU004+ER-MSG**	42	24.5	16.5	12	1	6	30	11	M5 × 0.8	5	7.9	4	104
25	**MU005+ER** **MU005+ER-MSG**	47	25.5	17.5	12	1	6	36	12	M5 × 0.8	5	8.6	4.65	133
30	**MU006+ER** **MU006+ER-MSG**	55	26.5	18.5	13	1	6.5	42	12	M5 × 0.8	5	11.3	6.6	186

Note: 1. Bearing inserts are factory-lubricated with food grade grease.
2. r is the nominal chamfer dimension.

Bearing Inserts
KHR200AE Type
BE

Normal Duty
Eccentric Collar Locking
Cylindrical O.D.
Steel Collar w/ Black Oxide Finish
Non-Relube



Metric Size

Shaft Dia. (mm) d	Bearing No.	Dimensions (mm) D	B1	B	C	rs min	r0s min	S	d1	B2	ds	N3	Basic Load Rating (kN) Cr	C0r	Mass (kg)
12	**KHR201AE**	40	28.6	19.1	12	0.6	0.6	6.5	28.3	13.5	M6 × 0.75	4.8	9.55	4.8	0.12
15	**KHR202AE**	40	28.6	19.1	12	0.6	0.6	6.5	28.3	13.5	M6 × 0.75	4.8	9.55	4.8	0.11
17	**KHR203AE**	40	28.6	19.1	12	0.6	0.6	6.5	28.3	13.5	M6 × 0.75	4.8	9.55	4.8	0.1
20	**KHR204AE**	47	31	21.5	14	1	0.6	7.5	33	13.5	M6 × 0.75	4.8	12.8	6.6	0.16
25	**KHR205AE**	52	31	21.5	15	1	0.6	7.5	37.9	13.5	M6 × 0.75	5	14	7.9	0.2
30	**KHR206AE**	62	35.7	23.8	16	1	0.6	9	44.4	15.9	M8 × 1	5	19.6	11.3	0.31
35	**KHR207AE**	72	38.9	25.4	17	1.5	1	9.5	55.4	17.5	M10 × 1.25	6	25.9	15.4	0.49
40	**KHR208AE**	80	43.7	30.2	18	1.5	1	11	59.9	18.3	M10 × 1.25	6	29.3	17.9	0.62
45	**KHR209BE**	85	43.7	30.2	19	1.5	1	11	63.4	18.3	M10 × 1.25	6	33	20.5	0.65
50	**KHR210BE**	90	43.7	30.2	20	1.5	1	11	69.5	18.3	M10 × 1.25	6	35.5	23.2	0.75
55	**KHR211BE**	100	48.7	32.5	21	2	1.5	12	75.8	20.7	M12 × 1.5	6.8	43	29.4	0.94

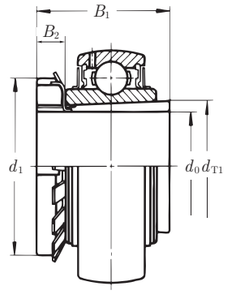
Inch Size

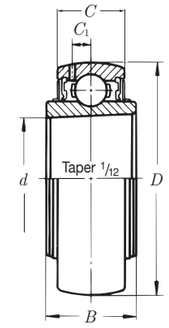
Shaft Dia. (inch) d	Bearing No.	Dimensions (inch) D	B1	B	C	rs min	r0s min	S	d1	B2	ds	N3	Basic Load Rating (lbf.) Cr	C0r	Mass (lb.)
1/2	**KHR201-8AE**	1.5748	1 1/8	0.752	0.472	0.024	0.024	0.256	1.114	17/32	1/4-28	0.189	2150	1080	0.26
5/8	**KHR202-10AE**														0.24
3/4	**KHR204-12AE**	1.8504	1 7/32	0.846	0.551	0.039	0.024	0.295	1.299	17/32	1/4-28	0.189	2880	1480	0.35
7/8	**KHR205-14AE**	2.0472	1 7/32	0.846	0.591	0.039	0.024	0.295	1.492	17/32	1/4-28	0.197	3150	1780	0.44
1	**205-16AE**														
1 1/8	**KHR206-18AE**	2.4409	1 13/32	0.937	0.630	0.039	0.024	0.354	1.748	5/8	5/16-24	0.197	4410	2540	0.68
1 3/16	**206-19AE**														
1 1/4	**206-20AE**														
1 1/4	**KHR207-20AE**	2.8346	1 17/32	1.000	0.669	0.059	0.039	0.374	2.181	11/16	3/8-24	0.236	5820	3460	1.08
1 3/8	**207-22AE**														
1 7/16	**207-23AE**														
1 1/2	**KHR208-24AE**	3.1496	1 23/32	1.189	0.709	0.059	0.039	0.433	2.358	23/32	3/8-24	0.236	6590	4020	1.37
1 5/8	**KHR209-26BE**	3.3465	1 23/32	1.189	0.748	0.059	0.039	0.433	2.496	23/32	3/8-24	0.236	7420	4610	1.43
1 11/16	**209-27BE**														
1 3/4	**209-28BE**														
1 15/16	**KHR210-31BE**	3.5433	1 23/32	1.189	0.787	0.059	0.039	0.433	2.736	23/32	3/8-24	0.236	7980	5220	1.65
2	**KHR211-32BE**	3.9370	1 29/32	1.280	0.827	0.079	0.059	0.472	2.984	13/16	7/16-20	0.268	9670	6610	2.07
2 3/16	**211-35BE**														

Note: $r_{s\,min}$ and $r_{0s\,min}$ are the minimum allowable dimensions of chamfers r and r_0 respectively.

Bearing Inserts
UK200+H Type

Normal Duty
Adapter Sleeve Locking
Spherical O.D.
Relube





Metric Size

Shaft Dia. (mm) d0	Bearing No.	Dimensions (mm) D	B1	d	B	C	C1	B2	d1	dT1	Basic Load Rating (kN) Cr	C0r	Mass (kg)
20	**UK205+H2305**	52	35	25	23	17	4.5	8	38	27.5	14	7.9	0.24
25	**UK206+H2306**	62	38	30	26	19	5.1	8	45	32.5	19.6	11.3	0.40
30	**UK207+H2307**	72	43	35	27	20	5.8	9	52	38	25.9	15.4	0.53
35	**UK208+H2308**	80	46	40	29	21	6.2	10	58	43	29.3	17.9	0.69
40	**UK209+H2309**	85	50	45	30	22	6.5	11	65	48.5	33	20.5	0.77
45	**UK210+H2310**	90	55	50	31	23	6.5	12	70	54	35.5	23.2	0.93
50	**UK211+H2311**	100	59	55	33	24	7.3	12	75	59	43	29.4	1.16
55	**UK212+H2312**	110	62	60	36	26	7.7	13	80	64.5	52.5	36.1	1.47
60	**UK213+H2313**	120	65	65	38	27	8.3	14	85	69.5	57.5	40	1.82
65	**UK215+H2315**	130	73	75	41	30	9.2	15	98	80	66	48.2	2.59
70	**UK216+H2316**	140	78	80	44	32	9.6	17	105	85.5	72.5	53	3.27
75	**UK217+H2317**	150	82	85	46	34	10.5	18	110	90.5	83.5	61.8	3.92
80	**UK218+H2318**	160	86	90	49	36	11.1	18	120	96	95.5	71.4	4.68

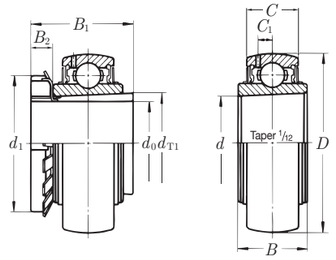
Inch Size

Shaft Dia. (inch) d0	Bearing No.	Dimensions (inch) D	B1	d	B	C	C1	B2	d1	dT1	Basic Load Rating (lbf.) Cr	C0r	Mass (lb.)
3/4	**UK205+HE2305**	2.0472	1.378	0.9843	0.906	0.669	0.177	0.315	1.496	1.083	3150	1780	0.53
13/16	**205+HA2305**												
7/8	**UK206+HS2306**	2.4409	1.496	1.1811	1.024	0.748	0.201	0.315	1.772	1.280	4410	2540	0.88
15/16	**206+HA2306**												
1	**206+HE2306**												
1 1/8	**UK207+HS2307**	2.8346	1.693	1.3780	1.063	0.787	0.228	0.354	2.047	1.496	5820	3460	1.17
1 3/16	**207+HA2307**												
1 1/4	**UK208+HE2308**	3.1496	1.811	1.5748	1.142	0.827	0.244	0.394	2.283	1.693	6590	4020	1.52
1 5/16	**208+HA2308**												
1 3/8	**208+HS2308**												
1 7/16	**UK209+HA2309**	3.3465	1.969	1.7717	1.181	0.866	0.256	0.433	2.559	1.909	7420	4610	1.70
1 1/2	**209+HE2309**												
1 5/8	**209+HS2309**												
1 11/16	**UK210+HA2310**	3.5433	2.165	1.9685	1.220	0.906	0.256	0.472	2.756	2.126	7980	5220	2.05
1 3/4	**210+HE2310**												
1 7/8	**UK211+HS2311**	3.9370	2.323	2.1654	1.299	0.945	0.287	0.472	2.953	2.323	9670	6610	2.56
1 15/16	**211+HA2311**												
2	**211+HE2311**												
2 1/16	**UK212+HA2312**	4.3307	2.441	2.3622	1.417	1.024	0.303	0.512	3.150	2.539	11800	8120	3.24
2 1/8	**212+HS2312**												
2 3/16	**UK213+HA2313**	4.7244	2.559	2.5591	1.496	1.063	0.327	0.551	3.346	2.736	12900	8990	4.01
2 1/4	**213+HE2313**												
2 3/8	**213+HS2313**												
2 1/2	**UK215+HE2315**	5.1181	2.874	2.9528	1.614	1.181	0.362	0.591	3.858	3.150	14800	10800	5.71
2 3/4	**UK216+HE2316**	5.5118	3.071	3.1496	1.732	1.260	0.378	0.669	4.134	3.366	16300	11900	7.21
3	**UK217+HE2317**	5.9055	3.228	3.3465	1.811	1.339	0.413	0.709	4.331	3.563	18800	13900	8.64
3 1/8	**UK218+HS2318**	6.2992	3.386	3.5433	1.929	1.417	0.437	0.709	4.724	3.780	21500	16100	10.32

ASAHI

Bearing Inserts
UKX00+H Type

Medium Duty
Adapter Sleeve Locking
Spherical O.D.
Relube



Metric Size

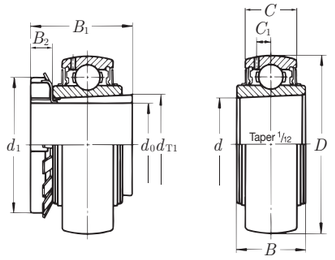
Shaft Dia. (mm)	Bearing No.	Dimensions (mm)									Basic Load Rating (kN)		Mass (kg)
d_0		D	B_1	d	B	C	C_1	B_2	d_1	d_{T1}	C_r	C_{0r}	
20	**UKX05+H2305**	62	35	25	26	19	5.1	8	38	27.5	19.6	11.3	0.37
25	**UKX06+H2306**	72	38	30	27	20	5.8	8	45	32.5	25.9	15.4	0.54
30	**UKX07+H2307**	80	43	35	29	21	6.2	9	52	38	29.3	17.9	0.70
35	**UKX08+H2308**	85	46	40	30	22	6.5	10	58	43	33	20.5	0.81
40	**UKX09+H2309**	90	50	45	31	23	6.5	11	65	48.5	35.5	23.2	0.94
45	**UKX10+H2310**	100	55	50	33	24	7.3	12	70	54	43	29.4	1.22
50	**UKX11+H2311**	110	59	55	36	26	7.7	12	75	59	52.5	36.1	1.54
55	**UKX12+H2312**	120	62	60	38	27	8.3	13	80	64.5	57.5	40	1.89
60	**UKX13+H2313**	125	65	65	40	29	8.7	14	85	69.5	62	44	2.09
65	**UKX15+H2315**	140	73	75	44	32	9.6	15	98	80	72.5	53	3.25
70	**UKX16+H2316**	150	78	80	46	34	10.5	17	105	85.5	83.5	61.8	3.86
75	**UKX17+H2317**	160	82	85	49	36	11.1	18	110	90.5	95.5	71.4	4.72
80	**UKX18+H2318**	170	86	90	52	38	11.9	18	120	96	109	81.6	5.11
90	**UKX20+H2320**	190	97	100	58	42	13	20	130	106.5	134	104.7	8.1

Inch Size

Shaft Dia. (inch)	Bearing No.	Dimensions (inch)									Basic Load Rating (lbf.)		Mass (lb.)
d_0		D	B_1	d	B	C	C_1	B_2	d_1	d_{T1}	C_r	C_{0r}	
3/4	**UKX05+HE2305**	2.4409	1.378	0.9843	1.024	0.748	0.201	0.315	1.496	1.083	4410	2540	0.82
13/16	**X05+HA2305**												
7/8	**UKX06+HS2306**	2.8346	1.496	1.1811	1.063	0.787	0.228	0.315	1.772	1.280	5820	3460	1.19
15/16	**X06+HA2306**												
1	**X06+HE2306**												
1 1/8	**UKX07+HS2307**	3.1496	1.693	1.3780	1.142	0.827	0.244	0.354	2.047	1.496	6590	4020	1.54
1 3/16	**X07+HA2307**												
1 1/4	**UKX08+HE2308**	3.3465	1.811	1.5748	1.181	0.866	0.256	0.394	2.283	1.693	7420	4610	1.79
1 5/16	**X08+HA2308**												
1 3/8	**X08+HS2308**												
1 7/16	**UKX09+HA2309**	3.5433	1.969	1.7717	1.220	0.906	0.256	0.433	2.559	1.909	7980	5220	2.07
1 1/2	**X09+HE2309**												
1 5/8	**X09+HS2309**												
1 11/16	**UKX10+HA2310**	3.9370	2.165	1.9685	1.299	0.945	0.287	0.472	2.756	2.126	9670	6610	2.69
1 3/4	**X10+HE2310**												
1 7/8	**UKX11+HS2311**	4.3307	2.323	2.1654	1.417	1.024	0.303	0.472	2.953	2.323	11800	8120	3.40
1 15/16	**X11+HA2311**												
2	**X11+HE2311**												
2 1/16	**UKX12+HA2312**	4.7244	2.441	2.3622	1.496	1.063	0.327	0.512	3.150	2.539	12900	8990	4.17
2 1/8	**X12+HS2312**												
2 3/16	**UKX13+HA2313**	4.9213	2.559	2.5591	1.575	1.142	0.343	0.551	3.346	2.736	13900	9890	4.61
2 1/4	**X13+HE2313**												
2 3/8	**X13+HS2313**												
2 1/2	**UKX15+HE2315**	5.5118	2.874	2.9528	1.732	1.260	0.378	0.591	3.858	3.150	16300	11900	7.17
2 3/4	**UKX16+HE2316**	5.9055	3.071	3.1496	1.811	1.339	0.413	0.669	4.134	3.366	18800	13900	8.51
3	**UKX17+HE2317**	6.2992	3.228	3.3465	1.929	1.417	0.437	0.709	4.331	3.563	21500	16100	10.41
3 1/8	**UKX18+HS2318**	6.6929	3.386	3.5433	2.047	1.496	0.469	0.709	4.724	3.780	24500	18300	11.27
3 1/2	**UKX20+HE2320**	7.4803	3.819	3.9370	2.283	1.654	0.512	0.787	5.118	4.193	30100	23500	17.86

Bearing Inserts
UK300+H Type

Heavy Duty
Adapter Sleeve Locking
Spherical O.D.
Relube

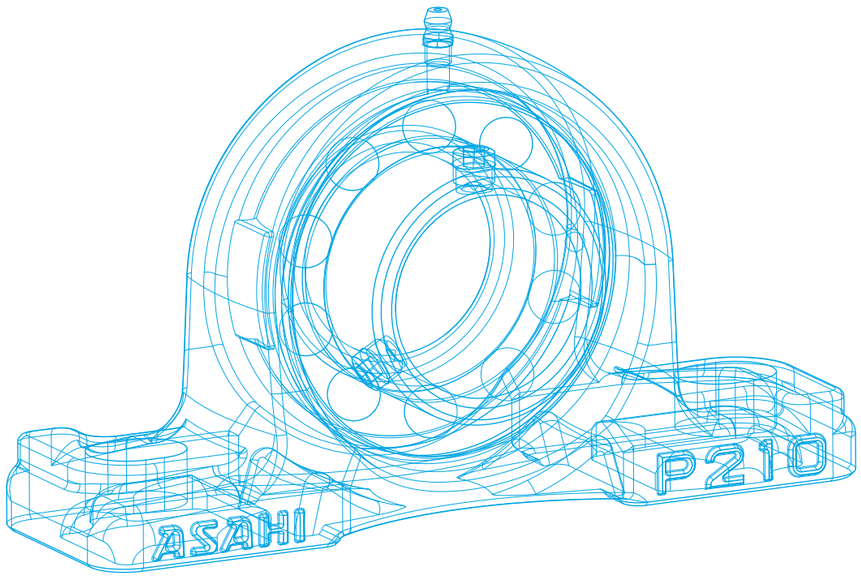


Metric Size

Shaft Dia. (mm)	Bearing No.	Dimensions (mm)									Basic Load Rating (kN)		Mass (kg)
d_0		D	B_1	d	B	C	C_1	B_2	d_1	d_{T1}	C_r	C_{0r}	
20	**UK305+H2305**	62	35	25	26	21	6.1	8	38	27.5	21.3	10.9	0.48
25	**UK306+H2306**	72	38	30	29	23	6.7	8	45	32.5	26.8	15	0.59
30	**UK307+H2307**	80	43	35	31	25	7.4	9	52	38	33.5	19.2	0.74
35	**UK308+H2308**	90	46	40	34	27	8.2	10	58	43	40.5	23.9	1.01
40	**UK309+H2309**	100	50	45	37	30	9	11	65	48.5	51.5	29.5	1.31
45	**UK310+H2310**	110	55	50	40	32	10	12	70	54	61.5	38.2	1.68
50	**UK311+H2311**	120	59	55	43	34	10.7	12	75	59	71.5	44.8	2.06
55	**UK312+H2312**	130	62	60	46	36	11.5	13	80	64.5	81.5	52	2.53
60	**UK313+H2313**	140	65	65	48	38	12.2	14	85	69.5	92.5	59.7	3.07
65	**UK315+H2315**	160	73	75	54	42	13.8	15	98	80	114	76.9	4.74
70	**UK316+H2316**	170	78	80	57	44	14.5	17	105	85.5	123	86.4	5.62
75	**UK317+H2317**	180	82	85	60	46	15	18	110	90.5	132	96.5	6.56
80	**UK318+H2318**	190	86	90	63	48	15.9	18	120	96	143	107.2	7.52
85	**UK319+H2319**	200	90	95	66	50	16.7	19	125	101	153	118.4	8.72
90	**UK320+H2320**	215	97	100	72	54	18	20	130	106.5	173	140.4	10.8
100	**UK322+H2322**	240	105	110	80	60	21	21	145	117	205	178.8	14.4
110	**UK324+H2324**	260	112	120	86	64	22	22	155	127.5	207	184.8	18.0
115	**UK326+H2326**	280	121	130	92	68	23	23	165	138.5	229	214.3	23.3
125	**UK328+H2328**	300	131	140	98	73	25	24	180	149	255	246	28.8

Inch Size

Shaft Dia. (inch)	Bearing No.	Dimensions (inch)									Basic Load Rating (lbf.)		Mass (lb.)
d_0		D	B_1	d	B	C	C_1	B_2	d_1	d_{T1}	C_r	C_{0r}	
3/4	**UK305+HE2305**	2.4409	1.378	0.9843	1.024	0.827	0.240	0.315	1.496	1.083	4790	2450	1.06
1	**UK306+HE2306**	2.8346	1.496	1.1811	1.142	0.906	0.264	0.315	1.772	1.280	6020	3370	1.30
1 1/8	**UK307+HS2307**	3.1496	1.693	1.3780	1.220	0.984	0.291	0.354	2.047	1.496	7530	4320	1.63
1 1/4	**UK308+HE2308**	3.5433	1.811	1.5748	1.339	1.063	0.323	0.394	2.283	1.693	9100	5370	2.23
1 3/8	**308+HS2308**												
1 1/2	**UK309+HE2309**	3.9370	1.969	1.7717	1.457	1.181	0.354	0.433	2.559	1.909	11600	6630	2.89
1 5/8	**309+HS2309**												
1 3/4	**UK310+HE2310**	4.3307	2.165	1.9685	1.575	1.260	0.394	0.472	2.756	2.126	13800	8590	3.70
1 7/8	**UK311+HS2311**	4.7244	2.323	2.1654	1.693	1.339	0.421	0.472	2.953	2.323	16100	10100	4.54
2	**311+HE2311**												
2 1/8	**UK312+HS2312**	5.1181	2.441	2.3622	1.811	1.417	0.453	0.512	3.150	2.539	18300	11700	5.58
2 1/4	**UK313+HE2313**	5.5118	2.559	2.5591	1.890	1.496	0.480	0.551	3.346	2.736	20800	13400	6.77
2 3/8	**313+HS2313**												
2 1/2	**UK315+HE2315**	6.2992	2.874	2.9528	2.126	1.654	0.543	0.591	3.858	3.150	25600	17300	10.45
2 3/4	**UK316+HE2316**	6.6929	3.071	3.1496	2.244	1.732	0.571	0.669	4.134	3.366	27700	19400	12.39
3	**UK317+HE2317**	7.0866	3.228	3.3465	2.362	1.811	0.591	0.709	4.331	3.563	29700	21700	14.46
3 1/8	**UK318+HS2318**	7.4803	3.386	3.5433	2.480	1.890	0.626	0.709	4.724	3.780	32100	24100	16.58
3 1/4	**UK319+HE2319**	7.8740	3.543	3.7402	2.598	1.969	0.657	0.748	4.921	3.976	34400	26600	19.22
3 1/2	**UK320+HE2320**	8.4646	3.819	3.9370	2.835	2.126	0.709	0.787	5.118	4.193	38900	31600	23.80
4	**UK322+HE2322**	9.4488	4.134	4.3307	3.150	2.362	0.827	0.827	5.709	4.606	46100	40200	31.74



Engineering Data Contents

1.1 Bearing Materials

High carbon chromium bearing steel SUJ2 and SUJ3 (JIS G 4805) are mainly used as materials of bearing rings and steel balls, the chemical compositions of which are shown in Table 1.1.

1.2 Housing Materials

The materials of housings are classified into cast iron, pressed steel, zinc alloy, cast stainless steel, etc., among which cast iron housings are most commonly used. Cast iron housings are made of gray cast iron FC200 (JIS G 5501), and its mechanical properties are shown in Table 1.2.

Table 1.1 Chemical Compositions of High Carbon Chromium Bearing Steel (JIS G 4805)

Grade	Chemcal composition %								
	C	Si	Mn	P	S	Cr	Mo	Ni	Cu
SUJ2	0.95 to 1.10	0.15 to 0.35	≤0.50	≤0.025	≤0.025	1.30 to 1.60	≤0.08	≤0.25	≤0.25
SUJ3	0.95 to 1.10	0.40 to 0.70	0.90 to 1.15	≤0.025	≤0.025	0.90 to 1.20	≤0.08	≤0.25	≤0.25

Table 1.2 Mechanical Properties of Gray Cast Iron (JIS G 5501)

Grade	Wall thickness mm Incl.	Below	Tensile strength N/mm²	Brinell hardness HB
FC200	2.5	10	≥205	≤223
	10	20	≥180	
	20	40	≥155	
	40	80	≥130	
	80	150	≥115	

1.3 Materials of Parts and Accessories

Table 1.3 Materials of Bearings, Housings and Accessories

Part			Material	Japanese Industrial Standard (JIS) Grade	Standard	Applicable bearing / housing / frame
Bearing	Inner & outer rings		High carbon chromium bearing steel	SUJ2	G 4805	UC, UK, UG, B, BR, KH, KHR, UR, SER, K, U
			Stainless steel	SUS440C (equiv.)	-	MUC, MB, MU, MU-MSG
	Balls		High carbon chromium bearing steel	SUJ2	G 4805	UC, UK, UG, B, BR, KH, KHR, UR, SER, K, U
			Stainless steel	SUS440C	G 4303	MUC, MB, MU, MU-MSG
	Retainer		Cold-rolled steel plate	SPCC	G 3141	UC, UK, UG, B, BR, KH, KHR, UR, SER, K, U
			Stainless steel	SUS304	G 4303	MUC, MB
			Nylon	-	-	MU, MU-MSG
	Slinger		Cold-rolled steel plate	SPCC	G 3141	UC, UK, UG, UR, SER
			Stainless steel	SUS304	G 4303	MUC
	Rubber seal		Rubber packing material for industrial use	-	K 6380	All bearings
	Set-screws		Chromium molybdenum steel	SCM435	G 4053	UC, B, BR, UR, SER, K
			Stainless steel	SUS304 (equiv.)	G 4303	MUC (inch)
			Stainless steel	SUS410	G 4303	MUC (metric), MB
	Locking pin		High carbon chromium bearing steel	SUJ2	G 4805	UC, UK, UG
			Stainless steel	SUS304	G 4303	MUC
	Eccentric collar	Collar	Rolled steel for general structure (with black oxide finish)	SS400 (equiv.)	G 3101	UG, KH, KHR, U
			Rolled steel for general structure (with nickel chrome plating)	SS400 (equiv.)	G 3101	MU
			Stainless Steel	SUS303	G 4303	MU-MSG
		Set screw	Chromium molybdenum steel	SCM435	G 4053	UG, KH, KHR, U
			Stainless steel	SUS304 (equiv.)	G 4303	MU
			Stainless steel	SUS410	G 4303	MU-MSG
Housing	Housing		Gray cast iron	FC200	G 5501	P, F, T, C, etc.
			Cold-rolled steel plate	SPCC	G 3141	Pressed Steel series
			Cast stainless steel	SCS13	G 5121	Stainless & ECO series
			Cast aluminum alloy	AC7A	H 5202	Aluminum series
			Die-cast zinc alloy	ZDC2	H 5301	Silver series
			Die-cast zinc alloy (with nickel chrome plating)	ZDC2	H 5301	Stainless Silver series
			Thermoplastic polyester resin	-	-	Plastic series
	Grease fitting		Lead-free brass	C6801	H 3250	P, F, T, C, etc.
			Stainless steel	SUS303	G 4303	Stainless & Aluminum & Plastic series
	Cover		Cold-rolled steel plate	SPCC	G 3141	P-C, F-C, T-C, etc.
			Gray cast iron	FC200	G 5501	CP, CF, CT, etc.
			Cold rolled stainless steel plate	SUS304	G 4305	Stainless & Aluminum series
			Cold rolled stainless steel plate	SUS430	G 4305	Silver & Stainless Silver & ECO series
Frame			Rolled steel for general structure	SS400	G 3101	WB, WL, WU
			Hot-rolled mild steel plate	SPHC	G 3131	

2.1 Bearing Designation

The designation of an insert bearing consists of the following symbols:

Type symbol | Diameter symbol | Bore diameter number | Supplementary symbol + Accessory symbol

(1) Type symbol

The type symbol indicates the type of a bearing as shown below. UC and UK type bearings are specified by JIS.

Bearing type symbol	Description
UC, B, K	Bearing Steel, Cylindrical Bore, Spherical O.D., Set-Screw Locking
MUC, MB	Stainless Steel, Cylindrical Bore, Spherical O.D., Set-Screw Locking
UR, BR	Bearing Steel, Cylindrical Bore, Cylindrical O.D., Set-Screw Locking
SER	Bearing Steel, Cylindrical Bore, Cylindrical O.D. w/ Snap Ring, Set-Screw Locking
UG, KH, U	Bearing Steel, Cylindrical Bore, Spherical O.D., Eccentric Collar Locking
MU, MU-MSG	Stainless Steel, Cylindrical Bore, Spherical O.D., Eccentric Collar Locking
KHR	Bearing Steel, Cylindrical Bore, Cylindrical O.D., Eccentric Collar Locking
UK	Bearing Steel, Tapered Bore, Spherical O.D., Adapter Sleeve Locking

(2) Diameter symbol

The diameter symbol represents the diameter series of a bearing such as 0, 2, X and 3.

Note: B and MB type bearings are classified into diameter series “2”, but their diameter symbols are omitted.

(3) Bore diameter number

The bore diameter number expresses the bearing bore diameter in two digits.

The bore diameter numbers “00”, “01”, “02” and “03” represent 10 mm, 12 mm, 15 mm and 17 mm respectively. Bore diameter numbers “04” and above represent the bearing bore diameter divided by 5.

An inch bore diameter is expressed by adding its hyphenated numerator in sixteenths of an inch to a corresponding metric bore diameter number. For example, the bore diameter of UC207-20 is 20/16 inches (or 1.25 inches).

Note: For B and MB type bearings, the first “0” of the two digits is omitted.

(4) Supplementary symbol

Supplementary symbols indicate special specifications of a bearing as listed below.

Supplementary symbol	Description
C2, CN, C3, C4, C5	Radial internal clearance for bearings with cylindrical bore
CT2, CTN, CT3, CT4	Radial internal clearance for bearings with tapered bore
HR4, HR5, HR20 HR23, CR2A	High & cold temp. specification
Z3	Nickel chrome plating on eccentric collar

Note: The standard radial internal clearance symbols CN and CTN are omitted from the part number.

(5) Accessory symbol

Accessories such as eccentric locking collars and adapter sleeves are expressed as follows.

Accessory symbol	Description
ER	Eccentric locking collar (for UG, U and MU types)
H2305	Adapter sleeve (example of metric H adapter sleeve for UK205)

Note: For KH type bearings, the accessory symbol “ER” is omitted.

Example 1

U 0 05 + ER

- ER: Accessory symbol (with eccentric collar)
- 05: Bore diameter number (25 mm)
- 0: Diameter symbol (diameter series “0”)
- U: Type symbol (Silver series, cylindrical bore, eccentric collar locking)

Example 2

UC 3 17 C4 HR5

- HR5: Supplementary symbol (high temp. specification)
- C4: Supplementary symbol (radial internal clearance C4)
- 17: Bore diameter number (85 mm)
- 3: Diameter symbol (diameter series “3”)
- UC: Type symbol (cylindrical bore, set-screw locking)

Example 3

B 1

- 1: Bore diameter number (12 mm)
- B: Type symbol (cylindrical bore, set-screw locking, narrow inner ring)

2.2 Housing Designation

The designation of a housing consists of the following symbols.

Type symbol | Diameter symbol | Bore diameter number | Supplementary symbol

Housings in Silver and Stainless Silver series incorporating the bearing U004/MU004 or larger ones are expressed by the following numbering rule (see also Example 4):

Type symbol | Bore diameter number of corresponding bearing in diameter series "0" | Supplementary symbol

(1) Type symbol

i) Standard housings

The standard housing type symbols are listed below. The housing types of P, F, FC, FS, FL, T and C are specified in JIS.

Housing type symbol	Description
P	Pillow Block, Gray Cast Iron
LLP	Light Pillow Block, Gray Cast Iron
IP	Thick Pillow Block, Gray Cast Iron
PH	Pedestal Base Pillow Block, Gray Cast Iron
PA	Tapped Base Pillow Block, Gray Cast Iron
EP	Expansion Type Pillow Block, Gray Cast Iron
F	4-Bolt Square Flange, Gray Cast Iron
FC	Piloted 4-Bolt Round Flange, Gray Cast Iron
FS	Piloted 4-Bolt Square Flange, Gray Cast Iron
FL	2-Bolt Oval Flange, Gray Cast Iron
LFL	Light 2-Bolt Oval Flange, Gray Cast Iron
FA	2-Bolt Adjustable Flange, Gray Cast Iron
FK	3-Bolt Flange Bracket, Gray Cast Iron
T, TL, TU	Take-Up, Gray Cast Iron
C	Cartridge, Gray Cast Iron
ECH	Hanger, Gray Cast Iron
PP	Pillow Block, Pressed Steel
PFL	2-Bolt Oval Flange, Pressed Steel
PF	3-Bolt Round Flange, Pressed Steel
PFT	3-Bolt Triangular Flange, Pressed Steel
TAW	Take-Up Frame, Pressed Steel
MP, SP000	Pillow Block, Cast Stainless Steel
MPA	Tapped Base Pillow Block, Cast Stainless Steel
MF	4-Bolt Square Flange, Cast Stainless Steel
MFC	Piloted 4-Bolt Round Flange, Cast Stainless Steel
MFL, SFL000	2-Bolt Oval Flange, Cast Stainless Steel
MT	Take-Up, Cast Stainless Steel
AP	Pillow Block, Cast Aluminum Alloy
AF	4-Bolt Square Flange, Cast Aluminum Alloy
AFL	2-Bolt Oval Flange, Cast Aluminum Alloy
PPL	Pillow Block, Thermoplastic Polyester Resin
TBL	Tapped Base Pillow Block, Thermoplastic Polyester Resin
FPL	4-Bolt Square Flange, Thermoplastic Polyester Resin
NFL	2-Bolt Oval Flange, Thermoplastic Polyester Resin
FBL	3-Bolt Flange Bracket, Thermoplastic Polyester Resin
TPL	Take-Up, Thermoplastic Polyester Resin
HPL	Hanger, Thermoplastic Polyester Resin
P000	Pillow Block, Die-Cast Zinc Alloy
FL000	2-Bolt Oval Flange, Die-Cast Zinc Alloy
P000Z3	Pillow Block, Nickel Chrome Plated Die-Cast Zinc Alloy
FL000Z3	2-Bolt Oval Flange, Nickel Chrome Plated Die-Cast Zinc Alloy

ii) Housings for pressed steel covers

The type symbol of housings for pressed steel covers is the same as the standard housing type symbol.

iii) Housings for cast iron covers

Housings for cast iron covers are indicated by adding the prefix "C" to the standard housing type symbol.

(2) Diameter symbol

The diameter symbol of a housing is the same as that of a corresponding bearing.

Note: For PP, PF, PFL, PFT, LLP and LFL type housings that incorporate B type bearings, the diameter symbol is omitted.

(3) Bore diameter number

The bore diameter number of a housing is the same as that of a corresponding metric bearing.

Note: Housings that incorporate multiple bearings with a bore diameter number of "03 or less" or "04 or less" apply the bore diameter number of the largest bearing among them.

(4) Supplementary symbol

Examples of housing supplementary symbols are listed below.

Supplementary symbol	Description
H, J, K	Tolerance class on spherical bearing seat bore diameter of housings
C	Housing with groove(s) for pressed steel cover(s) (without cover)
G00	Housing without relubrication hole (not applicable to housing types of LLP, LFL, PP, PF, PFL, PFT)
Z3	Nickel chrome plating on housing

Note: For housings with tolerance class "H7" as standard, its supplementary symbol "H" is omitted from their part numbers.

Example 4

P 06 – 7 ····· (Silver series)

- 7: second digit of bore diameter number of corresponding bearing in diameter series "9" (35 mm)
- 06: Bore diameter number of corresponding bearing in diameter series "0" (30 mm)
- P: Type symbol (Pillow Block, Die-Cast Zinc Alloy)

Note: An explanation of diameter series "9" is omitted from this catalogue.

Example 5

CFL 3 05

- 05: Bore diameter number (25 mm)
- 3: Diameter symbol (diameter series of corresponding bearing "3")
- CFL: Type symbol (2-Bolt Oval Flange, Gray Cast Iron, with bolt holes for cast iron cover)

Example 6

T 2 12 C

- C: Supplementary symbol (with grooves for pressed steel covers)
- 12: Bore diameter number (60 mm)
- 2: Diameter symbol (diameter series of corresponding bearing "2")
- T: Type symbol (Take-Up, Gray Cast Iron)

Example 7

PF 4

- 4: Bore diameter number (20 mm)
- PF: Type symbol (3-Bolt Round Flange, Pressed Steel)

2.3 Bearing Unit Designation

The type and diameter symbols of bearings and housings as well as the bearing bore diameter number are described in Sections 2.1 and 2.2.

Bearing type symbol | Housing type symbol | Diameter symbol | Bearing bore diameter number

Cover symbol | Supplementary symbol + Accessory symbol

(1) Bearing type symbol, Housing type symbol, Diameter symbol and Bearing bore diameter number

The designation of a bearing unit consists of the following symbols.

Note:
1. For bearing units with cast iron covers, the prefix "C" added to the housing type symbol is moved to the head of the bearing unit part number.
2. In combination of housings with diameter symbol "2" and B or MB type bearings, the diameter symbol and bore diameter number are fully displayed. will be fully displayed.

(2) Cover symbol

Cover material	Cover symbol	Number of covers installed to a bearing unit			
		For pillow block / take-up type		For flange type	
		Open	Closed	Open	Closed
Pressed (stainless) steel	C	2	-	1	-
	E	1	1	1	-
	N	with no cover (but with a groove on each housing face)			
Cast iron	C	2	-	1	-
	CE	1	1	1	-
	CN	with no cover (but with mounting bolt holes on each housing face)			

Note: The suffix "N" is not used for Silver, Stain less Silver and ECO series.

(3) Supplementary symbol

The supplementary symbols are explained in Subsections 2.1-(4) and 2.2-(4).

(4) Accessory symbol

The accessory symbols are as per Subsection 2.1-(5). The symbol "ER" is omitted from bearing unit part numbers. Other accessory symbols include the following.

Accessory symbol	Description
WB	Frame for Take-Up unit (T type)
WL Travel length	Frame for Take-Up unit (TL type)
WU Travel length	Frame for Take-Up unit (TU type)

Example 8

U P 0 06

- 06 — Bearing bore diameter number (30 mm)
- 0 — Diameter symbol (diameter series “0”)
- P — Housing type symbol (Pillow Block, Die-Cast Zinc Alloy)
- U — Bearing type symbol (Silver series, cylindrical bore, eccentric collar locking)

Example 9

C UC FL 2 15 C

- C — Cover symbol (with rubber-sealed open cast iron cover)
- 15 — Bearing bore diameter number (75 mm)
- 2 — Diameter symbol (diameter series “2”)
- FL — Housing type symbol (2-Bolt Oval Flange, Gray Cast Iron, with bolt holes for cast iron cover)
- UC — Bearing type symbol (cylindrical bore, set-screw locking)

Example 10

UK F 2 07 E + H2307

- H2307 — Accessory symbol (adapter sleeve, shaft diameter = 30 mm)
- E — Cover symbol (with closed end pressed steel cover)
- 07 — Bearing bore diameter number (35 mm)
- 2 — Diameter symbol (diameter series “2”)
- F — Housing type symbol (4-bolt Square Flange, Gray Cast Iron)
- UK — Bearing type symbol (tapered bore, adapter sleeve locking)

Note: The shaft diameter for bearing units with UK type bearing is determined by applicable adapter sleeve.

Example 11

UC T 2 10 + WB

- WB — Accessory symbol (frame for Take-Up unit with T type housing)
- 10 — Bearing bore diameter number (50 mm)
- 2 — Diameter symbol (diameter series “2”)
- T — Housing type symbol (Take-Up, Gray Cast Iron)
- UC — Bearing type symbol (cylindrical bore, set-screw locking)

Example 12

B LLP 2 J

- J — Supplementary symbol (tolerance class “J7” for spherical bearing seat bore diameter of housing)
- 2 — Bearing bore diameter number (15 mm)
- LLP — Housing type symbol (Light Pillow Block, Gray Cast Iron)
- B — Bearing type symbol (cylindrical bore, set-screw locking, narrow inner ring)

Example 13

B FC 2 05

- 05 — Bearing bore diameter number (25 mm)
- 2 — Diameter symbol (diameter series “2”)
- FC — Housing type symbol (Piloted 4-Bolt Round Flange, Gray Cast Iron)
- B — Bearing type symbol (cylindrical bore, set-screw locking, narrow inner ring)

Table 2.1 Bearing Unit Part Number Examples

Unit No.	Bearing No.	Housing No.	Unit type	Type symbol: Bearing	Type symbol: Housing	Diameter symbol	Bore diameter number	Shaft dia. (mm)	Remark
UCP211	UC211	P211	Pillow Block	UC cylindrical bore set-screw locking	P	2	11	55	
YCUCP315C	UC315	CP315			CP	3	15	75	with two cast iron covers (rubber-sealed open covers for a shouldered shaft)
UCIP213C	UC213	IP213C	Thick Pillow Block		IP	2	13	65	with two pressed steel covers (rubber-sealed open covers)
UCPH207	UC207	PH207	Pedestal Base Pillow Block		PH	2	07	35	
UCF210	UC210	F210	4-Bolt Square Flange		F	2	10	50	
CUCF316C	UC316	CF316			CF	3	16	80	with one cast iron cover (rubber-sealed open cover)
UCFC206	UC206	FC206	Piloted 4-Bolt Round Flange		FC	2	06	30	
UCFC202E	UC202	FC204C			FC	2	02	15	with one pressed steel cover (closed end cover)
UCFS313	UC313	FS313	Piloted 4-Bolt Square Flange		FS	3	13	65	
UCFL205	UC205	FL205	2-Bolt Oval Flange		FL	2	05	25	
CUCFL211CE	UC211	CFL211			CFL	2	11	55	with one cast iron cover (closed end cover)
UCFA209	UC209	FA209	2-Bolt Adjustable Flange		FA	2	09	45	
UCT212	UC212	T212	Take-Up		T	2	12	60	
UCT205+WB	UC205	T205	Take-Up with Frame		T	2	05	25	with angle steel frame
UCTU314+WU500	UC314	TU314			TU	3	14	70	with channel steel frame
UCC212	UC212	C212	Cartridge		C	2	12	60	
UCECH208	UC208	ECH208	Hanger		ECH	2	08	40	
UKIP213+H2313	UK213+H2313	IP213	Thick Pillow Block	UK tapered bore adapter sleeve locking	IP	2	13	60	
CUKP211C+H2311	UK211+H2311	CP211	Pillow Block		CP	2	11	50	with two cast iron covers (rubber-sealed open covers)
UKP206E+H2306	UK206+H2306	P206C			P	2	06	25	with two pressed steel covers (one each of rubber-sealed open & closed end covers)
UKF207+H2307	UK207+H2307	F207	4-Bolt Square Flange		F	2	07	30	
UKFL315+H2315	UK315+H2315	FL315	2-Bolt Oval Flange		FL	3	15	65	
UKTX05+H2305	UKX05+H2305	TX05	Take-Up		T	X	05	20	
BPP4	B4	PP4	Pillow Block	B cylindrical bore set-screw locking narrow inner ring	PP	(2)	(0)4	20	
BPFL7	B7	PFL7	2-Bolt Oval Flange		PFL	(2)	(0)7	35	
UGP208	UG208+ER	P208	Pillow Block	UG cylindrical bore eccentric collar locking	P	2	08	40	
UGF206	UG206+ER	F206	4-Bolt Square Flange		F	2	06	30	
UP004	U004+ER	P04-5	Pillow Block	U cylindrical bore eccentric collar locking	P	0	04	20	
UP005C	U005+ER	P05-6			P	0	05	25	with two pressed stainless steel covers (rubber-sealed open covers)
UFL002	U002+ER	FL002	2-Bolt Oval Flange		FL	0	02	15	

Note: The diameter symbols and bore diameter numbers in parentheses in the above table are omitted from the part numbers according to Subsections 2.1-(2), 2.1-(3) and 2.2-(2).

The accuracy of bearing units is specified in JIS B 1558 (Rolling bearings –Insert bearings and eccentric locking collars) and JIS B 1559 (Rolling bearings–Cast and pressed housings for insert bearings).

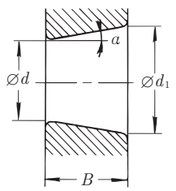
3.1 Accuracy of Bearings

Table 3.1 Inner Rings With Cylindrical Bore

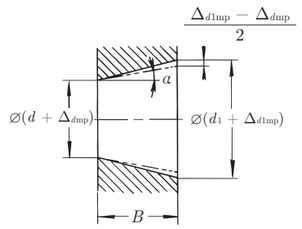
Unit: μm

Nominal bore diameter d (mm)		Deviation of mean bore diameter in a single plane Δ_{dmp}		Variation of bore diameter in a single plane V_{dsp}	Deviation of a single inner ring width Δ_{Bs} (ref.)		Radial runout of inner ring of assembled bearing K_{ia} (ref.)	Eccentricity deviation of eccentric surface of inner ring and eccentric locking collar Δ_{Hs}
Over	Incl.	High	Low	Max.	High	Low	Max.	
6	10	+12	0	8	0	–120	15	±100
10	18	+15	0	10	0	–120	15	
18	31.75	+18	0	12	0	–120	18	
31.75	50.8	+21	0	14	0	–120	20	
50.8	80	+24	0	16	0	–150	25	
80	120	+28	0	19	0	–200	30	———
120	180	+33	0	22	0	–250	35	

Note: The accuracy of inner rings with a bore diameter of 10 mm or less is in accordance with ASAHI standards.



Theoretical tapered bore



Actual tapered bore with deviation of mean bore diameter in a single plane

Table 3.2 Inner Rings With Tapered Bore

Unit: μm

Nominal bore diameter d (mm)		Deviation of mean bore diameter in a single plane at theoretical small end of tapered bore Δ_{dmp}		$\Delta_{d1mp} - \Delta_{dmp}$		Variation of bore diameter in a single plane[1] V_{dsp}
Over	Incl.	High	Low	High	Low	Max.
18	30	+33	0	+21	0	13
30	50	+39	0	+25	0	16
50	80	+46	0	+30	0	19
80	120	+54	0	+35	0	22
120	180	+63	0	+40	0	40

1) The value applies to all radial planes of a tapered bore.

Table 3.3 Outer Rings

Unit: μm

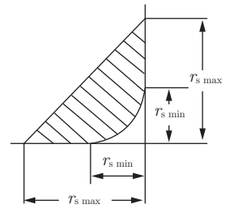
Nominal outside diameter D (mm)		Deviation of mean outside diameter Δ_{Dm}		Radial runout of outer ring of assembled bearing K_{ea} (ref.)
Over	Incl.	High	Low	Max.
18	30	0	– 9	15
30	50	0	–11	20
50	80	0	–13	25
80	120	0	–15	35
120	150	0	–18	40
150	180	0	–25	45
180	250	0	–30	50
250	315	0	–35	60

Note: The lower values of Δ_{Dm} are not applicable to the distance within 1/4 of the outer ring width dimension from both ends of the outer ring.

Table 3.4 Chamfer Dimensions

Unit: mm

Nominal chamfer dimension r	$r_{s\,max}$	$r_{s\,min}$
0.5	0.8	0.3
1	1.5	0.6
1.5	2	1
2	2.5	1.5
2.5	3	2
3	3.5	2.5
3.5	4	2.5
4	4.5	3
5	6	4



Note: Chamfer dimensions do not control the shape of the bearing corner, but the profile shall fall within the shaded area.

3.2 Accuracy of Housings

The accuracy of housings in cast iron, die-cast zinc alloy, cast aluminum alloy and cast stainless steel are shown as follows.

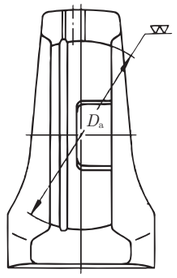


Table 3.5 Spherical Bearing Seat Bore Diameter of Cast Housings

Unit: μm

Nominal bore diameter of spherical bearing seat D_a (mm)		Tolerance class H7			Tolerance class J7			Tolerance class K7		
		Deviation of mean spherical bore diameter in a single plane Δ_{Damp}		Variation of spherical bore diameter in a single plane V_{Dasp}	Deviation of mean spherical bore diameter in a single plane Δ_{Damp}		Variation of spherical bore diameter in a single plane V_{Dasp}	Deviation of mean spherical bore diameter in a single plane Δ_{Damp}		Variation of spherical bore diameter in a single plane V_{Dasp}
Over	Incl.	High	Low	Max.	High	Low	Max.	High	Low	Max.
30	50	+25	0	10	+14	–11	10	+7	–18	10
50	80	+30	0	12	+18	–12	12	+9	–21	12
80	120	+35	0	14	+22	–13	14	+10	–25	14
120	180	+40	0	16	+26	–14	16	+12	–28	16
180	250	+46	0	18	+30	–16	18	+13	–33	18
250	315	+52	0	20	+36	–16	20	+16	–36	20

Note: 1. Dimensional accuracy of spherical bore diameter of ASAHI housings is classified into an “H7” for clearance fit, “J7” for transition fit and “K7” for interference fit. The standard tolerance class for ASAHI housings that incorporate insert bearings with a locking pin is known as **“H7”**.
2. “J7” or “K7” is recommended if rotating outer ring load or indeterminate direction load is applied.
3. “J7” applies to Aluminum series housings.
4. This table does not apply to Silver, Stainless Silver and ECO series housings.

Table 3.6
Die-Cast Zinc Alloy Pillow Block Type Housings (P, P-Z3)

Unit: mm

Housing No.		H Deviation	J Deviation
P000 P001 P002 P003 P04-5	P000Z3 P001Z3 P002Z3 P003Z3 P04-5Z3	±0.1	±0.3
P05-6 P06-7	P05-6Z3 P06-7Z3	±0.15	

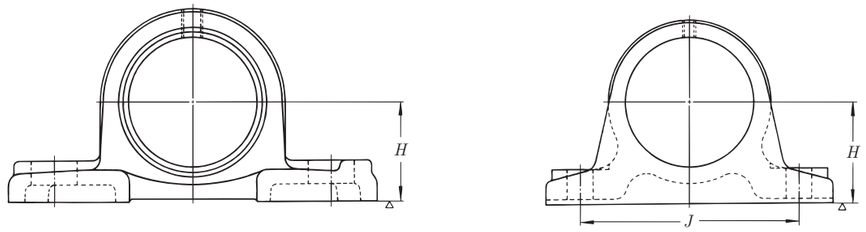


Table 3.7 Cast Iron and Cast Stainless Steel Pillow Block Type Housings (P, MP, IP, PH, PA, MPA)

Unit: mm

Housing No.								Deviation of distance between mounting base and spherical bearing seat center Δ_{Hs}	Deviation of center-to-center distance between mounting bolt holes
P	MP	P	P	IP		PH	PA	MPA		IP, PA, MPA
203	203	–	–	–	–	–	–	–	±0.15	±0.7
204	204	–	–	–	–	204	204	204		
205	205	305	X05	–	–	205	205	205		
206	206	306	X06	–	–	206	206	206		
207	207	307	X07	–	–	207	207	–		
208	208	308	X08	208	–	208	208	–		
209	209	309	X09	209	–	209	209	–		
210	210	310	X10	210	–	210	210	–		
211	211	311	X11	211	–	–	–	–	±0.2	±1
212	212	312	X12	212	–	–	–	–		
213	213	313	X13	213	313	–	–	–		
214	–	314	X14	–	314	–	–	–		
215	–	315	X15	–	315	–	–	–		
216	–	316	X16	–	316	–	–	–		
217	–	317	X17	–	317	–	–	–		
218	–	318	X18	–	318	–	–	–		
–	–	319	–	–	319	–	–	–	±0.3	
–	–	320	X20	–	320	–	–	–		
–	–	321	–	–	–	–	–	–		
–	–	322	–	–	322	–	–	–		
–	–	324	–	–	324	–	–	–		
–	–	326	–	–	326	–	–	–		
–	–	328	–	–	328	–	–	–		

Table 3.8
Die-Cast Zinc Alloy Flange Type Housings (FL, FL-Z3)

Unit: mm

Housing No.		J Deviation	A_2 Deviation
FL000 FL001 FL002	FL000Z3 FL001Z3 FL002Z3	±0.3	±0.3
FL003 FL04-5 FL05-6 FL06-7 FL07-8	FL003Z3 FL04-5Z3 FL05-6Z3 FL06-7Z3		±0.5
FL08			±0.15

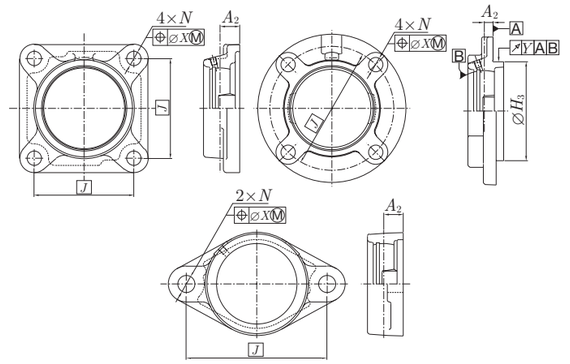


Table 3.9 Cast Iron and Cast Stainless Steel Flange Type Housings (F, MF, FC, MFC, FS, FL, MFL, FA, FK)

Unit: mm

Housing No.												Deviation of distance between mounting base and spherical bearing seat center Δ_{A2s}	Position of mounting bolt holes X	Radial runout of machined pilot Y(Max.)	Deviation of pilot outside diameter Δ_{H3s}			N Deviation		
F	MF	F	F	FC	MFC	FS	FL	MFL	FL	FA	FK				FC200	FS300	FCX00	200	300	X00
204	204	–	–	204	204	–	204	204	–	204	204	±0.5	0.7	0.2	0 −0.046	0 −0.046	0 −0.046	±0.2	±0.2	±0.2
205	205	305	X05	205	205	305	205	205	305	205	205									
206	206	306	X06	206	206	306	206	206	306	206	206					0 −0.054	0 −0.054			
207	207	307	X07	207	207	307	207	207	307	207	207				0 −0.054					
208	208	308	X08	208	208	308	208	208	308	208	208									
209	209	309	X09	209	–	309	209	209	309	209	209					0 −0.063	0 −0.063			
210	210	310	X10	210	–	310	210	210	310	210	210									
211	211	311	X11	211	–	311	211	–	311	211	–									
212	212	312	X12	212	–	312	212	–	312	–	–									
213	213	313	X13	213	–	313	213	–	313	–	–				0 −0.063					
214	–	314	X14	214	–	314	214	–	314	–	–			0.3		0 −0.072				
215	–	315	X15	215	–	315	215	–	315	–	–						0 −0.072			
216	–	316	X16	216	–	316	216	–	316	–	–									
217	–	317	X17	217	–	317	217	–	317	–	–									
218	–	318	X18	218	–	318	218	–	318	–	–	±0.8	1		0 −0.072					
–	–	319	–	–	–	319	–	–	319	–	–									
–	–	320	X20	–	–	320	–	–	320	–	–									
–	–	321	–	–	–	321	–	–	321	–	–			0.4	–	0 −0.081	–		±0.3	±0.3
–	–	322	–	–	–	322	–	–	322	–	–									
–	–	324	–	–	–	324	–	–	324	–	–					0 −0.089				
–	–	326	–	–	–	326	–	–	326	–	–									
–	–	328	–	–	–	328	–	–	328	–	–									

Note: 1. Radial runout of machined pilot Y(max.) applies to FC, MFC and FS type housings.
The values in this table also apply to housings for covers of the same types.
2. The values of Δ_{A2s}, X and Y(max.) for FX00 type also apply to FCX00 and FLX00 type housings.

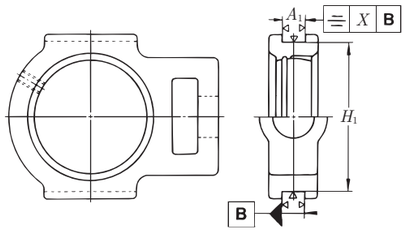


Table 3.10
Cast Iron and Cast Stainless Steel Take-Up Type Housings (T, MT)

Unit: mm

Housing No. T, MT	Deviation of groove width Δ_{A1s}	Deviation of distance between groove bottoms Δ_{H1s}	Symmetry of groove side faces X (Max.)
204 – – 205 305 X05 206 306 X06 207 307 X07 208 308 X08 209 309 X09 210 310 X10	+0.2 0	0 −0.5	0.5
211 311 X11 212 312 X12 213 313 X13 214 314 X14 215 315 X15 216 316 X16 217 317 X17	+0.3 0	0 −0.8	0.6
– 318 – – 319 – – 320 – – 321 – – 322 –			0.7
– 324 – – 326 – – 328 –			0.8

Note: The values in this table also apply to housings for covers of the same types.

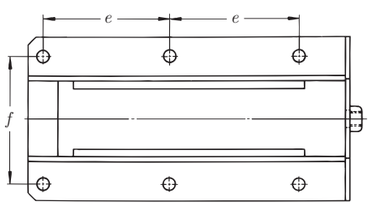


Table 3.11 Angle Steel Frames (WB)

Unit: mm

Frame No.	e Deviation	f Deviation
WB205 to 213	±0.7	±0.7

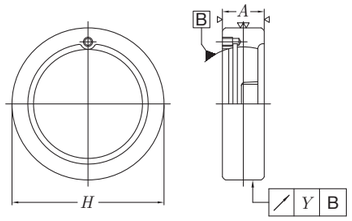


Table 3.12
Cast Iron Cartridge Type Housings (C)

Unit: mm

Housing No. C	Deviation of outside diameter Δ_{Hs} 200	Deviation of outside diameter Δ_{Hs} 300	Radial runout of outside surface Y	Deviation of width Δ_{As}
204 –	0 −0.030	–	0.2	±0.2
205 305		0 −0.035		
206 306 207 307 208 308	0 −0.035			
209 309				
210 310		0 −0.040		
211 311 212 312	0 −0.040		0.3	±0.3
213 313				
– 314	–	0 −0.046		
– 315 – 316 – 317 – 318				
– 319			0.4	
– 320 – 321 – 322		0 −0.052		
– 324 – 326 – 328		0 −0.057		

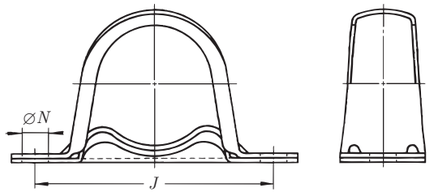


Table 3.13
Pressed Steel Pillow Block Type Housings (PP)

Unit: mm

Housing No.	J Deviation	Deviation of mounting bolt hole diameter Δ_{Ns}
PP3 PP4 PP5 PP6 PP7	±0.4	±0.5

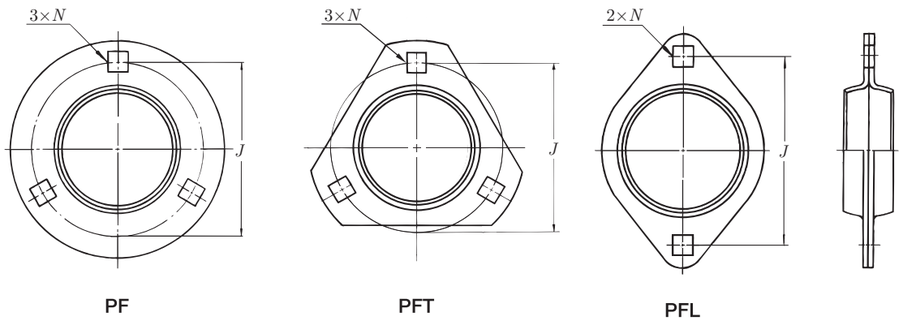


Table 3.14
Pressed Steel Flange Type Housings (PF, PFT, PFL)

Unit: mm

Housing No.	J Deviation	Deviation of mounting square bolt hole length Δ_{Ns}
PF3 PFT3 PFL3 PF4 PFT4 PFL4 PF5 PFT5 PFL5 PF6 PFT6 PFL6 PF7 PFT7 PFL7	±0.4	±0.25

As the service lives of bearing units are equivalent to those of the mounted bearing inserts, they can be calculated in the same method as for ordinary ball bearings.

4.1 Bearing Loads

4.1.1 Dynamic Factors

In general, loads acting on a bearing includes the weight of a rotating body supported by a bearing, loads generated by gears and belts that transmit power and various kinds of loads produced by operation of a machine. Besides them, machine operation is accompanied by vibration and shock to some degree, so it is practically difficult to obtain all these loads specifically by calculations. Therefore, the loads acting on a bearing are to be obtained by multiplying calculable values by correction factors determined through experience. These factors are referred to as dynamic factors and generally classified into the following three types.

Belt factor f_b : Belt (or chain) drive
Gear factor f_g : Gear drive
Machine factor f_d : Machines subjected to vibration and shock

(1) Belt (or chain) drive

The radial load imposed on the pulley (or sprocket) shaft by belt or chain drive is calculated as follows.

$$M = 9550\frac{H}{n} \quad \cdots\cdots (4.1)$$

$$K_b = \frac{M}{r} \quad \cdots\cdots (4.2)$$

where:

M : Torque on pulley (or sprocket) kN·mm
H : Transmission power kW
n : Rotational speed r/min
K_b : Effective transmission force of belt (or chain) kN
r : Effective radius of pulley (or sprocket) mm

The effective transmission force of a belt corresponds to the effective belt tension which is the difference between the tension on the tight and slack sides of a belt. The radial load acting on a shaft through pulleys is obtained by multiplying the effective transmission force by the belt (or chain) factor shown in Table 4.1, taking into account the type of belt and initial tension.

$$F_b = f_b \cdot K_b \quad \cdots\cdots (4.3)$$

where:

F_b : Radial load on pulley (or sprocket) shaft kN
f_b : Belt (or chain) factor

Table 4.1 Belt (or Chain) Factor f_b

Belt type	f_b
V-belt	2 to 2.5
Single leather belt with tension pulley	2.5 to 3
Double-ply leather belt with tension pulley	3 to 3.5
Silk belt	3.5 to 4.5
Single leather or rubber belt	4.0 to 5
Double-ply leather or hemp belt	5 to 6
Chain	1.25 to 1.5
Toothed belt	1.3 to 2

Note: The shorter the distance between shafts and the lower the rotational speed, the larger value of f_b shall be taken.

(2) Gear drive

Forces imposed on gear tooth in gear drives can be decomposed into three types by the direction: the tangential force, separating force and axial force. The magnitude and involvement of each component are dependent on the type of gears. Tangential and separating forces are involved in spur gears, while axial forces are present in helical and bevel gears in addition to those forces. In a spur gear drive, for example, the resultant radial load acting on the gear shaft due to tangential and separating forces can be obtained as follows.

$$K_t = \frac{M}{r} = 9550\frac{H}{n \cdot r} \quad \cdots\cdots (4.4)$$

$$K_s = K_t \tan a \quad \cdots\cdots (4.5)$$

$$K_g = \sqrt{K_t^{\,2} + K_s^{\,2}} = K_t \sec a = 9550\frac{H \cdot \sec a}{n \cdot r} \quad \cdots\cdots (4.6)$$

where:

K_g : Resultant radial load on gear shaft kN
K_t : Tangential load (tangential force as component of K_g) kN
K_s : Radial load (separating force as component of K_g) kN
M : Torque on gear kN·mm
H : Transmission power kW
n : Rotational speed r/min
r : Pitch radius of driving gear mm
a : Gear pressure angle

In practice, the theoretical load obtained through formulas (4.4), (4.5) and (4.6) is multiplied by a gear actor shown in Table 4.2 considering the degree of gear accuracy as follows.

$$F_g = f_g \cdot K_g \quad \cdots\cdots (4.7)$$

where:

F_g : Load on gear shaft kN
f_g : Gear factor

The load value of F_g obtained by formula (4.7) is to be distributed to supporting bearings as radial loads.

Table 4.2 Gear Factor f_g

Gear type	f_g
Precision gears (Pitch and profile deviations ≤ 0.02 mm)	1.05 to 1.1
Ordinary gears (Pitch and profile deviations ≤ 0.1 mm)	1.1 to 1.3

(3) Machines subjected to vibration and shock

As all machines and equipment are accompanied by vibration and shock to some degree during operations, the actual load applied to a shaft is to be obtained by multiplying the load calculated in preceding (1) or (2) by a machine factor shown in Table 4.3.

$$F = f_d \cdot F_b = f_d \cdot f_b \cdot K_b \quad \cdots\cdots (4.8)$$

or $$F = f_d \cdot F_g = f_d \cdot f_g \cdot K_g \quad \cdots\cdots (4.9)$$

where:

F : Actual load on pulley shaft (or sprocket shaft or gear shaft) kN
f_d : Machine factor

Table 4.3 Machine Factor f_d

Operating condition		f_d
Rotating machines not subjected to shock loads	Motor turbo compressor rotary furnace	1 to 1.2
Machines subjected to light shock loads and/or those making reciprocating motions	Reducer internal combustion engine compressor	1.2 to 1.5
Machines subjected to heavy shock loads	Hammer mill roller mill	1.5 to 3

The load obtained from the above calculation is to be divided among supporting bearings.

4.1.2 Mean Equivalent Load

When a machine is operated, the operating load on a bearing is not constant but fluctuates in general. Since the rating life of a bearing is in reverse proportion to the cube of the load, different fluctuating patterns can yield different influence to bearing life even if their mean values are the same. Therefore, fluctuating load needs to be converted to a mean equivalent load that would give the same bearing life as that given under actual loading conditions.

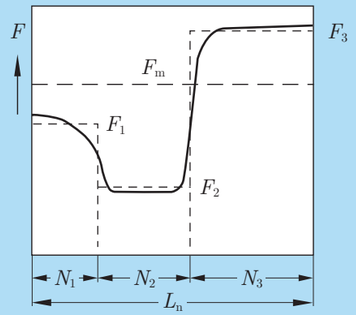
When the load fluctuates stepwise as shown in Fig. 4.1, the mean equivalent load can be obtained from formula (4.10).

$$F_m = \sqrt[3]{\frac{\sum(F_n^{\,3} \cdot N_n)}{L_n}} \quad \cdots\cdots (4.10)$$

where:

F_m : Mean equivalent load kN
F_n : Load to act during N_n revolutions kN
L_n : Total number of revolutions = $N_1 + N_2 + \cdots + N_n$

< Fig. 4.1 >



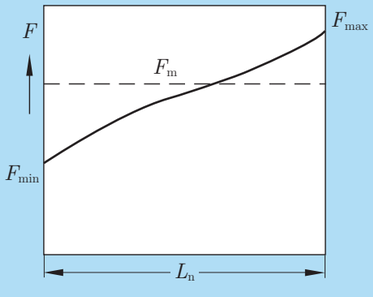
When the load varies monotonously in succession as shown in Fig. 4.2, the approximate mean equivalent load can be obtained from formula (4.11).

$$F_m = \frac{1}{3}F_{min} + \frac{2}{3}F_{max} \quad \cdots\cdots (4.11)$$

where:

F_{min} : Minimum fluctuating load kN
F_{max} : Maximum fluctuating load kN

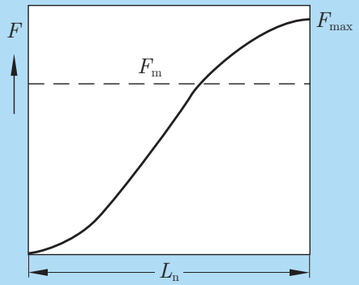
< Fig. 4.2 >



Moreover, when the fluctuating load corresponds to the sine curve as shown in Fig. 4.3, use formula (4.12). When it corresponds to the upper half of the sine curve as shown in Fig. 4.4, formula (4.13) is to be used for the calculation of mean equivalent load.

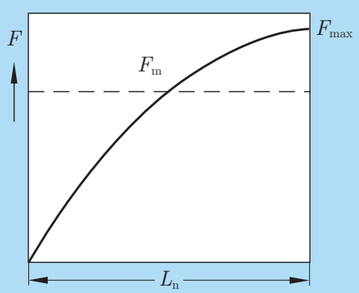
$$F_m = 0.65F_{max} \quad \cdots\cdots (4.12)$$

<Fig. 4.3>



$$F_m = 0.75F_{max} \quad \cdots\cdots (4.13)$$

<Fig. 4.4>



4.1.3 Dynamic Equivalent Load

Although radial or axial load may act on bearings singly in some applications, in general, bearings are often subjected to their combined load that varies in magnitude and direction. Therefore, such load needs to be converted to a dynamic equivalent load for the life calculation of bearings.

The dynamic equivalent load is a hypothetical load of constant direction and magnitude acting on a bearing that would give the same bearing life as that given under actual conditions of load and rotation. For bearing inserts, this load is referred to as **the dynamic equivalent radial load** P_r .

Generally the dynamic equivalent radial load is determined by formula (4.14).

$$P_r = X \cdot F_r + Y \cdot F_a \quad \cdots\cdots (4.14)$$

where:

P_r : Dynamic equivalent radial load — kN
X : Radial load factor
Y : Axial load factor
F_r : Radial load — kN
F_a : Axial load — kN

Note: Values of X and Y are shown in Table 4.4A.

Table 4.4A Factors X and Y

$\frac{f_0 \cdot F_a}{C_{0r}}$	$\frac{F_a}{F_r} \le e$		$\frac{F_a}{F_r} > e$		e
	X	Y	X	Y	
0.172				2.3	0.19
0.345				1.99	0.22
0.689				1.71	0.26
1.03				1.55	0.28
1.38	1	0	0.56	1.45	0.3
2.07				1.31	0.34
3.45				1.15	0.38
5.17				1.04	0.42
6.89				1	0.44

Note: 1. C_{0r} = Basic static radial load rating of bearing
2. Values of $f_0 \cdot F_a / C_{0r}$, Y and e not specified in the table above are to be obtained by linear interpolation.

Table 4.4B Factor f_0

Bearing No.	f_0	Bearing No.	f_0	Bearing No.	f_0
U000	12.41	UCX05	13.85	UC305	12.62
U001	13.16	UCX06	13.88	UC306	13.24
U002	13.39	UCX07	14.03	UC307	13.18
U003	14.42	UCX08	14.09	UC308	13.16
		UCX09	14.4	UC309	13.25
U004	13.95			UC310	13.16
U005	14.48	UCX10	14.38		
U006	14.76	UCX11	14.35	UC311	13.17
		UCX12	14.40	UC312	13.17
UC201	13.13	UCX13	14.43	UC313	13.16
UC202	13.13	UCX14	14.46	UC314	13.15
UC203	13.13			UC315	13.21
UC204	13.13	UCX15	14.6		
UC205	13.9	UCX16	14.53	UC316	13.24
		UCX17	14.47	UC317	13.28
UC206	13.84	UCX18	14.41	UC318	13.3
UC207	13.86	UCX20	14.38	UC319	13.32
UC208	14.04			UC320	13.17
UC209	14.09				
UC210	14.4			UC321	13.18
				UC322	13.14
UC211	14.38			UC324	13.55
UC212	14.35			UC326	13.56
UC213	14.39			UC328	13.57
UC214	14.41				
UC215	14.45				
UC216	14.61				
UC217	14.53				
UC218	14.45				

Note: 1. Factor f_0 is to be determined by the shape of each bearing component and applied stress level.

4.2 Life and Load Ratings

4.2.1 Life and Basic Dynamic Load Rating

Bearings are incessantly subjected to repetitive stresses during operation and will eventually results in flaking in the surface of raceways and rolling elements due to fatigue even under proper operating conditions.

The bearing (fatigue) life is expressed as the total number of revolutions or hours at a given constant speed which a bearing can complete before fatigue failure occurs in the material of either the bearing races or any of the rolling elements. Since fatigue is a statistical phenomenon, identical bearings operating under the same conditions can exhibit a considerable dispersion in their lives. This statistical dispersion of metal fatigue is taken into account in the basic rating life formula based on 90 % reliability (L_{10}) for the life prediction of bearings.

The basic rating life is defined as the total number of revolutions (or hours at a given constant speed) which 90 % of a group of identical bearings will attain or exceed under the same operating conditions before the first evidence of fatigue develops.

The basic dynamic load rating is a load of constant direction and magnitude such that the bearing can endure for a basic rating life of one million revolutions with stationary outer ring. For bearing inserts, this is expressed as pure radial load and referred to as **the basic dynamic radial load rating** C_r .

4.2.2 Basic Rating Life Formula

The relation among basic rating life, basic dynamic radial load rating and dynamic equivalent radial load for bearing inserts is formularized as follows.

$$L_{10} = \left(\frac{C_r}{P_r}\right)^3 \quad \cdots\cdots (4.15)$$

where:

L_{10} : Basic rating life — 10^6 rev.
C_r : Basic dynamic radial load rating — kN
P_r : Dynamic equivalent radial load — kN

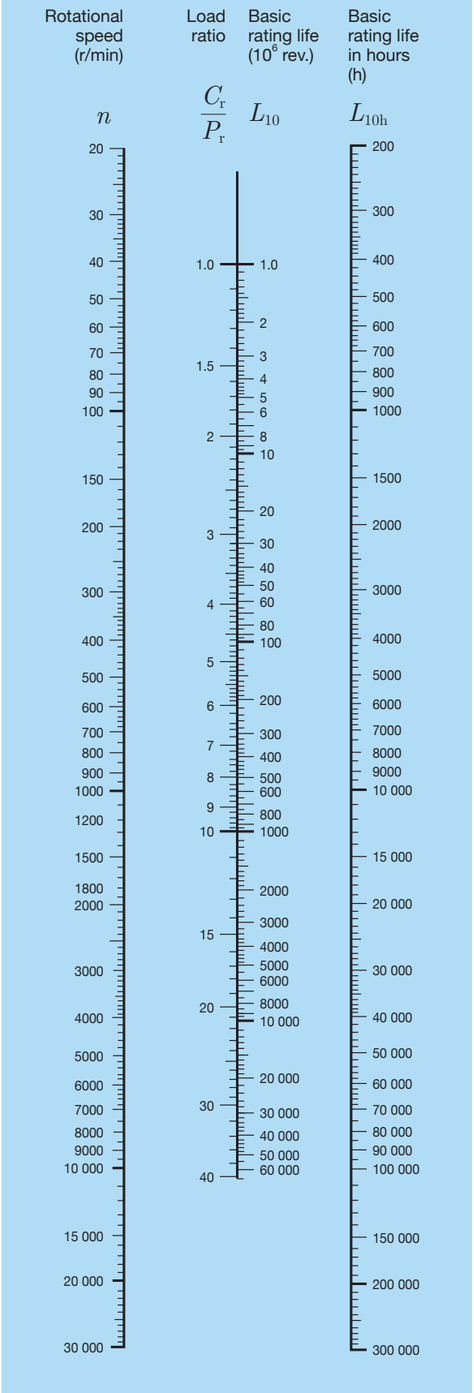
When it is convenient to express basic rating life in hours rather than the number of revolutions, formula (4.16) is used.

$$L_{10h} = \frac{10^6 L_{10}}{60n} = \frac{10^6}{60n}\left(\frac{C_r}{P_r}\right)^3 \quad \cdots\cdots (4.16)$$

where:

L_{10h} : Basic rating life in hours — h
n : Rotational speed — r/min

< Fig. 4.5 > Nomogram ($n - \frac{C_r}{P_r} - L_{10h}$)



For facilitating the bearing life calculation, the nomogram shown in Fig. 4.5 represents the relation between C_r/P_r value and the basic rating life.

Note:

1. The bearing life calculation formulas (4.15) and (4.16), and nomogram can be used on the premise that a bearing is mounted and lubricated properly, not contaminated and not used under extreme operating conditions. If these conditions are not met, bearing life can be reduced.
2. Effects of misalignment, deformation of housings and shafts and excessive radial internal clearance must be considered separately.
3. The formulas (4.15) and (4.16), and nomogram cannot be used if the dynamic equivalent load exceeds 1/2 of the basic dynamic load rating value.

4.2.3 Adjustment of Basic Dynamic Radial Load Rating for High Temperature

When a bearing is operated continuously at high temperature or encounters very high temperature even for a short period, there occurs a change in material composition of a bearing resulting in reduction in material hardness. The hardness reduction occurs and affects bearing performance when the operating temperature exceeds 150 °C (302 °F). Once it occurs, the hardness will remain reduced even if the operating temperature returns to normal.
For the bearing life calculation based on such temperature conditions, the adjusted basic dynamic radial load rating C_t is to be used, which can be obtained by multiplying C_r values listed in the dimension tables by the operating temperature factor f_t specified in Table 4.5.

$$C_t = f_t \cdot C_r \quad \cdots\cdots\cdots\cdots \quad (4.17)$$

where:

C_t : Adjusted basic dynamic radial load rating for high temperature — kN
f_t : Operating temperature factor

Table 4.5 Operating Temperature Factor f_t

Bearing temperature °C (°F)	150 (302)	175 (347)	200 (392)	225 (437)	250 (482)
f_t	1	0.95	0.9	0.82	0.75

4.2.4 Adjusted Rating Life

There are some applications where bearing life is required to have a reliability greater than 90 %. Considering the extended bearing life owing to the advanced manufacturing processes of bearing materials in terms of chemical compositions, cleanliness, melting and heat treatments, and the close relation between lubrication conditions and bearing life, JIS B 1518 introduces three adjustment factors into the basic rating life formula (4.15) to obtain an adjusted rating life.

$$L_{na} = a_1 \cdot a_2 \cdot a_3 \cdot L_{10} \quad \cdots\cdots\cdots\cdots \quad (4.18)$$

where:

L_{na} : Adjusted rating life, taking account of reliability of (100 –n)%, material and operating condition — 10^6 rev.
L_{10} : Basic rating life obtained from formula (4.15) — 10^6 rev.
a_1 : Reliability factor
a_2 : Material factor
a_3 : Operating condition factor

(1) Reliability factor a_1

Table 4.6 lists the reliability factor a_1 to be used for estimating rating life L_n based on a reliability of 90 % or greater (probability of failure is 10 % or less).

Table 4.6 Reliability Factor a_1

Reliability (%)	L_n	a_1
90	L_{10}	1
95	L_5	0.64
96	L_4	0.55
97	L_3	0.47
98	L_2	0.37
99	L_1	0.25

(2) Material factor a_2

The material factor a_2 is intended to adjust the rating life by the quality of materials, materials processing technology, heat treatment, etc. The basic dynamic radial load ratings listed in the dimension tables are based on ASAHI's standard materials and manufacturing processes. Therefore, the a_2 factor should be "1" as long as standard catalog bearings are used.

(3) Operating condition factor a_3

The operating condition factor a_3 provides an adjustment to the basic rating life according to operating conditions, especially lubrication conditions.
The a_3 factor should be "1" if the lubrication conditions are satisfactory to the extent that the contact surfaces of raceways and rolling elements are separated by a film of grease and free from damage caused by direct metal-to-metal contact. An a_3 factor greater than "1" can only be considered if the lubrication conditions are exceptionally favorable. If, on the other hand, the lubrication conditions are not adequate, or if a $d_m n$ value (d_m = mean diameter of bearing I.D. and O.D. in mm, n = rotational speed in rpm) is less than 10 000, the a_3 factor should be less than "1". The material factor a_2 generally does not exceed "1" when the a_3 factor is less than "1".
Effects on the basic rating life when the material properties change due to operating conditions are also compensated for by the a_3 factor.

4.2.5 Basic Static Load Rating

When a bearing is subjected to excessive load or heavy shock load, a local permanent deformation occurs at the contact point between the rolling elements and the raceway. The amount of permanent deformation increases with increasing load and interferes with the smooth rotation of the bearing when it exceeds a certain limit. The amount of the total permanent deformation of the rolling element and the raceway at this limit is approximately 0.0001 times the diameter of the rolling element and corresponds to the calculated contact stress. The basic static load rating is such static load that produces the calculated contact stress (4200 MPa for bearing inserts) at the center of the contact point between the rolling elements and the raceway that is most heavily stressed. For bearing inserts, the basic static load rating is referred to as **the basic static radial load rating** C_{0r} .

4.2.6 Static Equivalent Load

The static equivalent load is a hypothetical static load that would cause the same contact stress at the center of the contact point between the rolling elements and the raceway under the maximum stress as that given under actual loading conditions, when both static radial and static axial loads are imposed on the stationary or slightly oscillating bearing simultaneously. For bearing inserts, this load is expressed as the radial load acting through the bearing center and referred to as **the static equivalent radial load** P_{0r} . The static equivalent radial load can be obtained from formula (4.19) or (4.20).

$$P_{0r} = X_0 \cdot F_r + Y_0 \cdot F_a \quad \cdots\cdots\cdots\cdots \quad (4.19)$$

$$P_{0r} = F_r \quad \cdots\cdots\cdots\cdots \quad (4.20)$$

where:

P_{0r} : Static equivalent radial load — kN
X_0 : Static radial load factor
Y_0 : Static axial load factor
F_r : Radial load — kN
F_a : Axial load — kN

For bearing inserts, let X_0 and Y_0 be 0.6 and 0.5 respectively and take the larger of the values obtained from the two calculations above.

4.2.7 Safety Factor for Basic Static Radial Load Rating

The basic static radial load rating may be adjusted by the safety factor shown in Table 4.7 depending on operating conditions.

$$S_0 = \frac{C_{0r}}{P_{0r\,max}} \quad \cdots\cdots\cdots\cdots \quad (4.21)$$

where:

S_0 : Safety factor
C_{0r} : Basic static radial load rating — kN
$P_{0r\,max}$: Maximum static equivalent radial load — kN

Table 4.7 Safety Factor S_0

Operating condition	S_0 (Min.)
When high rotational accuracy, smooth rotation or operation without vibration is required.	2
Operation under shock loads	1.5
Normal operation	1

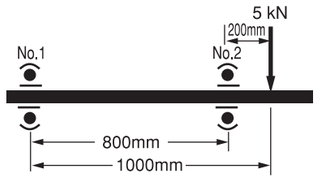
Note: Consult ASAHI if heavy loads, vibration or shock loads act toward the bearing filling slots in a housing.

4.3 Typical Calculations

Example 1

Obtain loads on bearings No. 1 and No. 2 when a radial load of 5 kN is applied to the shaft as illustrated in Fig. 4.6.

<Fig. 4.6>



Solution:

1. Calculate the load on bearing No. 1.

$$F_{r1} = \frac{200}{800} \times 5 = 1.25 \text{ kN}$$

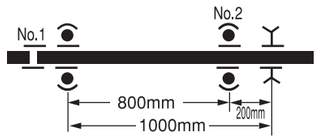
2. Calculate the load on bearing No. 2.

$$F_{r2} = \frac{1000}{800} \times 5 = 6.25 \text{ kN}$$

Example 2

Obtain loads on bearings No. 1 and No. 2 in given conditions when the shaft is driven by a V-belt without shock load as illustrated in Fig. 4.7.

<Fig. 4.7>



Transmission power	$H = 7.5$ kW
Rotational speed	$n = 600$ r/min
Pitch diameter of V-pulley	$D = 300$ mm

Solution:

1. Calculate the torque acting on the pulley using formula (4.1).

$$M = 9550\frac{H}{n} = 9550 \times \frac{7.5}{600}$$

$$\approx 119 \text{ kN·mm}$$

2. Calculate the effective transmission force of V-belt using formula (4.2).

$$K_b = \frac{M}{r} = \frac{M}{D/2} = 119 \times \frac{2}{300}$$

$$= 0.8 \text{ kN}$$

3. Determine belt and machine factors from Table 4.1 and 4.3.

Belt factor	$f_b = 2.25$ (average)
Machine factor	$f_d = 1.1$ (average)

4. Calculate the actual radial load on the pulley shaft using formula (4.8).

$$F = f_d \cdot f_b \cdot K_b = 1.1 \times 2.25 \times 0.8$$

$$\approx 2 \text{ kN}$$

Therefore,
Load on bearing No. 1:

$$F_{r1} = \frac{200}{800} \times 2 = 0.5 \text{ kN}$$

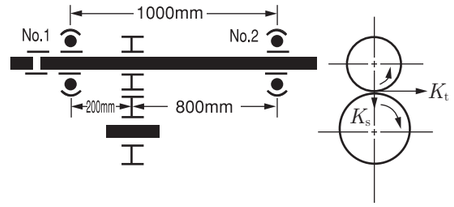
Load on bearing No. 2:

$$F_{r2} = \frac{1000}{800} \times 2 = 2.5 \text{ kN}$$

Example 3

Obtain loads on bearings No. 1 and No. 2 in given conditions when the shaft is driven by ordinary spur gears without shock load as illustrated in Fig. 4.8.

<Fig. 4.8>



Transmission power	$H = 3.7$ kW
Rotational speed	$n = 800$ r/min
Pitch diameter of gear	$D = 100$ mm
Pressure angle of gear	$a = 14.5°$

Solution:

1. Calculate the torque acting on the gear using formula (4.1).

$$M = 9550\frac{H}{n} = 9550 \times \frac{3.7}{800}$$

$$\approx 44 \text{ kN·mm}$$

2. Calculate the tangential load acting on the gear using formula (4.2).

$$K_t = \frac{M}{r} = \frac{44}{100/2} = 0.9 \text{ kN}$$

3. Calculate the radial load acting on the gear using formula (4.5).

$$K_s = K_t \tan a = 0.9 \times \tan 14.5° = 0.23 \text{ kN}$$

4. Calculate the resultant radial load acting on the gear shaft using formula (4.6).

$$K_g = \sqrt{K_t^2 + K_s^2} = \sqrt{0.9^2 + 0.23^2} = 0.93 \text{ kN}$$

5. Determine gear and machine factors from Table 4.2 and 4.3.

Gear factor	$f_g = 1.2$ (average)
Machine factor	$f_d = 1.1$ (average)

6. Calculate the actual radial load on the gear shaft using formula (4.9).

$$F = f_d \cdot f_g \cdot K_g = 1.1 \times 1.2 \times 0.93$$

$$= 1.23 \text{ kN}$$

Therefore,
Load on bearing No. 1:

$$F_{r1} = \frac{800}{1000} \times 1.23 = 0.98 \text{ kN}$$

Load on bearing No. 2:

$$F_{r2} = \frac{200}{1000} \times 1.23 = 0.25 \text{ kN}$$

Example 4

Determine the rating life in hours of pillow block unit UCP210 in given conditions below.

Radial load	$F_r = 2$ kN
Rotational speed	$n = 1800$ r/min

Solution:

1. As only radial load is applied, the dynamic equivalent radial load P_r from formula (4.14) is:

$$P_r = X \cdot F_r = 2 \text{ kN}$$

where:

Radial load factor $X = 1$

2. From the dimension tables, the basic dynamic radial load rating C_r of UCP210 is 35.5 kN.

3. Calculate the value of C_r/P_r.

$$\frac{C_r}{P_r} = \frac{35.5}{2} = 18$$

Therefore,
The rating Life in hours obtained from the nomogram in Fig. 4.5 is:

$$L_{10h} \approx 54\,000 \text{ h}$$

Example 5

In Example 4, determine the rating life in hours of UCP210 when an axial load of 1.7 kN is applied.

Solution:

1. From the dimension tables, the basic static radial load rating C_{0r} of UCP210 is 23.2 kN.

2. Obtain the value of $f_0 \cdot F_a / C_{0r}$.

$$\frac{f_0 \cdot F_a}{C_{0r}} = \frac{14.4 \times 1.7}{23.2} = 1.055$$

3. From Table 4.4A, Interpolate 1.055, the previously calculated value, between 1.03 and 1.38 and e between 0.26 and 0.28 to find e value is nearly 0.28.

4. Find that $F_a / F_r > e$.

$$\frac{F_a}{F_r} = \frac{1.7}{2} = 0.85 > e = 0.28$$

5. From Table 4.4A, determine the radial and axial load factors X and Y by interpolating e between 0.28 and 0.3 and Y between 1.55 and 1.45 when $F_a / F_r > e$.

Radial load factor $X = 0.56$
Axial load factor $Y = 1.54$

6. Calculate the dynamic equivalent radial load P_r using formula (4.14).

$$P_r = X \cdot F_r + Y \cdot F_a$$
$$= 0.56 \times 2 + 1.54 \times 1.7 = 3.74 \text{ kN}$$

$$\frac{C_r}{P_r} = \frac{35.5}{3.74} = 9.5$$

Therefore,
The rating Life in hours obtained from the nomogram in Fig. 4.5 is:

$$L_{10h} \approx 7940 \text{ h}$$

Example 6

Select a proper size of 4-bolt square flange unit UCF200 type that satisfies a minimum service life of 20 000 hours in given conditions below.

Radial load $F_r = 3$ kN
Rotational speed $n = 1800$ r/min

Solution:

1. Calculate the dynamic equivalent radial load P_r using formula (4.14).

$$P_r = X \cdot F_r = 1 \times 3 = 3 \text{ kN}$$

2. Obtain the value of C_r / P_r from the nomogram in Fig. 4.5 when $n = 1800$ r/min and $L_{10h} = 20\,000$ h.

$$\frac{C_r}{P_r} = 12.8$$

3. Calculate the required basic dynamic radial load rating C_r .

$$\text{Required } C_r = 3 \times 12.8 = 38.4 \text{ kN}$$

Therefore,
UCF211 is to be selected because its basic dynamic radial load rating C_r is 43 kN.

Example 7

Select a proper size of pillow block unit UCP200 type that satisfies a minimum service life of 27 000 hours in given conditions below.

Radial load $F_r = 1.8$ kN
Axial load $F_a = 0.9$ kN
Rotational speed $n = 1800$ r/min

Solution:

1. Obtain the value of C_r / P_r from the nomogram in Fig. 4.5 when $n = 1800$ r/min and $L_{10h} = 27\,000$ h.

$$\frac{C_r}{P_r} = 14.2$$

2. As $f_0 \cdot F_a / C_{0r}$ to determine the axial load factor Y is unknown, calculate the dynamic equivalent radial load P_r substituting 2.3 for Y tentatively.

$$P_r = X \cdot F_r + Y \cdot F_a$$
$$= 0.56 \times 1.8 + 2.3 \times 0.9 = 3.08 \text{ kN}$$

3. Calculate the required basic dynamic radial load rating C_r .

$$\text{Required } C_r = 3.08 \times 14.2 = 43.8 \text{ kN}$$

Therefore,
UCP212 is to be selected because its basic dynamic radial load rating C_r is 52.5 kN.

This is proven as follows:

4. From the dimension tables, the basic static radial load rating C_{0r} of UCP212 is 36.1 kN.

5. Obtain the value of $f_0 \cdot F_a / C_{0r}$.

$$\frac{f_0 \cdot F_a}{C_{0r}} = \frac{14.35 \times 0.9}{36.1} = 0.357$$

7. Find that $F_a / F_r > e$.

$$\frac{F_a}{F_r} = 0.5 > e = 0.222$$

8. Same as Step #7, the axial load factor Y is 1.98 by interpolation.

9. Calculate the dynamic equivalent radial load P_r using formula (4.14).

$$P_r = 0.56 \times 1.8 + 1.98 \times 0.9 = 2.79 \text{ kN}$$

10. Calculate the value of C_r / P_r .

$$\frac{C_r}{P_r} = \frac{52.5}{2.79} = 18.8$$

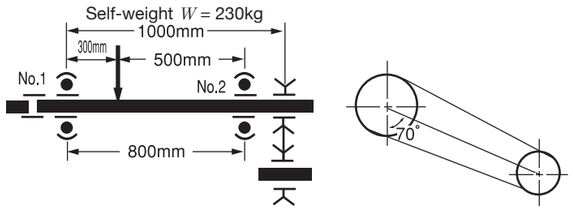
11. From the nomogram in Fig. 4.5, L_{10h} is 62 000 h when $n = 1800$ r/min and $C_r / P_r = 18.8$.

Therefore,
UCP211 is confirmed to satisfy the required service life.

Example 8

In Example 2, obtain loads on bearings No. 1 and No. 2 when the self-weights of the shaft and rotating body makes an angle of 70° with the center-to-center line between pulleys as illustrated in Fig. 4.9.

< Fig. 4.9 >



Solution:

1. From Example 2, the loads on bearing No. 1 and No. 2 by the belt drive are as follows.

$$F_{r1T} = 0.5 \text{ kN}$$
$$F_{r2T} = 2.5 \text{ kN}$$

2. Assuming the machine factor f_d is 1.1 as in Example 2, the radial load acting on the pulley shaft due to the self-weights of the shaft and rotating body is:

$$F_W = f_d \cdot W = 1.1 \times 2.3 \approx 2.53 \text{ kN}$$

Therefore,
Load on bearing No. 1:

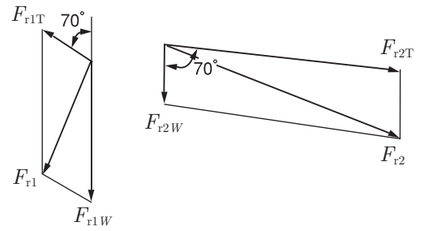
$$F_{r1W} = \frac{500}{800} \times 2.53 = 1.58 \text{ kN}$$

Load on bearing No. 2:

$$F_{r2W} = \frac{300}{800} \times 2.53 = 0.95 \text{ kN}$$

3. As there is an angle of 70° between the center-to-center line of the pulleys and the self-weights, the vector diagram of the loads acting on the bearings is shown in Figure 4.10. The resultant radial loads on bearing No. 1 and No. 2 are calculated as follows.

<Fig. 4.10>



Bearing No. 1 Bearing No. 2

$$F_{r1} = \sqrt{{F_{r1T}}^2 + {F_{r1W}}^2 - 2F_{r1T} \cdot F_{r1W} \cos 70^\circ}$$
$$= \sqrt{0.5^2 + 1.58^2 - 2 \times 0.5 \times 1.58 \cos 70^\circ}$$
$$= 1.32 \text{ kN}$$

$$F_{r2} = \sqrt{{F_{r2T}}^2 + {F_{r2W}}^2 - 2F_{r2T} \cdot F_{r2W} \cos(180^\circ - 70^\circ)}$$
$$= \sqrt{2.5^2 + 0.95^2 - 2 \times 2.5 \times 0.95 \cos 110^\circ}$$
$$= 2.96 \text{ kN}$$

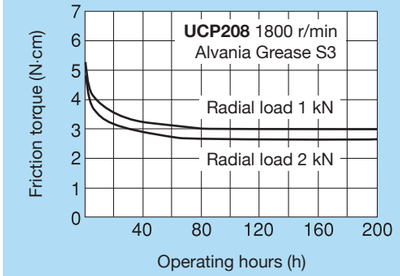
The performance of bearing units is evaluated in terms of friction torque, grease leakage, temperature rise, sealing performance, breaking strength of housings, shaft holding power, etc.
It is ideal to minimize the friction torque, grease leakage and temperature rise. However, the friction torque and temperature rise are inversely related to grease leakage and sealing performance because reducing the friction torque and temperature rise requires less contact pressure of rubber seals, which in turn causes more grease leakage and lower sealing performance. It is, therefore, most difficult to find the best possible bearing performance while balancing these two opposing factors.
ASAHI manufactures the best of bearing units through years of research and numerous experiments in these respects.

5.1 Bearing Friction Torque

Friction torque of sealed bearings such as bearing inserts is greatly affected by rolling friction for heavy duty applications, while the friction of rubber seals and agitation resistance of grease are major factors for light duty applications.
Fig. 5.1 and 5.2 show the relation between the friction torque and operating hours. The friction torque decreases as operating time goes on because excessive grease in the bearing is squeezed out and sealing lips in contact with the inner ring outside surface wear to some extent.

Note: Consult ASAHI if a low-torque bearing is needed.

< Fig. 5.2 >

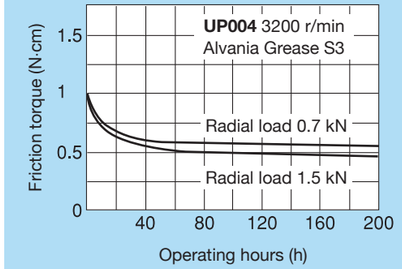


Note: The values of the friction torque is measured with no load after operation under given conditions.

5.2 Grease Leakage

10-40 % of the filled amount of grease leaks out of a bearing in a short period of time after starting operation, and then the leakage is sharply reduced and becomes marginal.
Fig. 5.3 shows experimental results obtained at normal operating temperature. Care must be taken when a bearing temperature rises because grease is more likely to leak due to the elevation of grease consistency. The amount of time a bearing can operate with residual grease varies considerably depending on operating conditions such as operating temperature, applied load and rotational speed. Table 5.1 shows the running test results of several bearing units without relubrication.

< Fig. 5.1 >



< Fig. 5.3 >

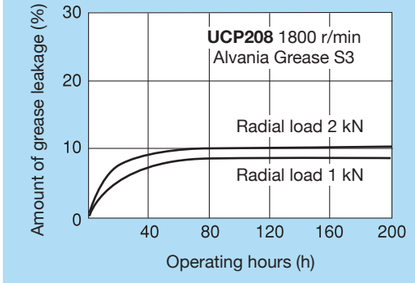


Table 5.1 Running Test Results Without Relubrication

Test sample	Rotational speed (r/min)	Applied load (kN)	Operating hours without relubrication (h)
UP004	3200	0.8	12 000
UP005	5850	0.6	7200
UP006	5850	0.8	7200
UCT206	2600	5	3350
UCT206	2600	5	3200
UCP207	1200	Belt tension only	58 000
UCP207	1200	Belt tension only	57 000
UCP207	1200	Belt tension only	15 800
UCP210	1800	0.8—1	16 000
UCP210	1800	0.8—1	13 000
UCP210	1800	0.8—1	9600
The above samples are tested in good environment at normal temperature.			
UCP205	1800	Belt tension only	3000
UCP205	300	Belt tension only	6000
UCP205	30	Belt tension only	6000
The above samples are tested in dusty environment at normal temperature.			

5.3 Temperature Rise

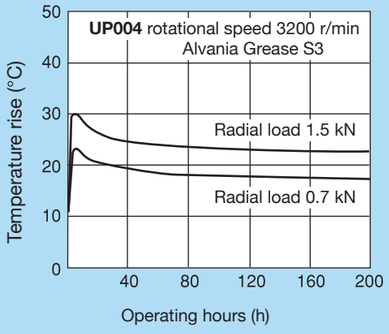
A temperature rise of a bearing is determined by the difference between the amount of heat generation and dissipation. The amount of heat generated is affected by the internal friction and rotational speed of a bearing, while the amount of heat dissipated is affected by various factors such as ambient temperature, fanning action of a rotating body and heat dissipation efficiency to be determined by the machine structure (housing shape, surface area, heat conduction to the shaft, etc.).

Although it is difficult to quantitatively predict the temperature rise under actual operating conditions, Fig. 5.4 and 5.5 show, as examples, the results of a temperature rise test when pillow block units were mounted on a cast iron frame and operated at a constant load and rotational speed under almost no airflow conditions. The graphs show the relation between the temperature of the outer ring surface and operating hours under given loads and rotational speeds. Generally, the temperature reaches its peak in 30 minutes to 2 hours after starting operation. As the operation goes on, the temperature decreases by 2 to 5 °C and then remains constant due to the decrease of friction described in Section 5.1.

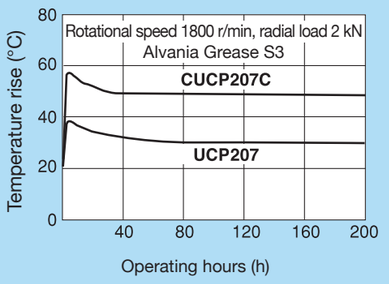
Despite having the same internal structure as deep groove ball bearings 6000, 6200 and 6300 series, bearing inserts have a higher temperature rise because they are sealed with rubber seals.

Bearing units with covers can cause higher rise of temperatures, especially when operated at high speed, not only because of less heat dissipation due to covers but also because of the additional friction between the contact surfaces of shafts and sealing lips attached to covers.

< Fig. 5.4 >



< Fig. 5.5 >



5.4 Sealing Performance

Bearing units are required to have excellent dust and moisture proof performance as they are sometimes used as components of industrial machinery or conveyors in heavily dusty or humid environments.

ASAHI bearing inserts have two types of sealing systems: single-sealing structure with rubber seals for use in normal environmental conditions and double-sealing structure with a combination of slingers and rubber seals for improved sealability that can withstand harsh conditions. In addition to these sealing systems, cast iron or pressed steel covers that can be attached to housings are also available on request for even better protection against dust, water and other contaminants.

Table 5.2 shows a comparison of dust and moisture proof performance of different bearing sealing types and covers.

Table 5.2 Comparison of Dust and Moisture Proof Performance

Sealing system		Environment			
Bearing sealing type	Covers	Dust condition			Exposed to moisture and water splashes
		moderately dusty	heavily dusty	extremely dusty	
Single sealing with rubber seals	-	Good	Poor	Poor	Poor
Double sealing with rubber seals and slingers	-	Excellent	Good	Poor	Poor
	Pressed steel	Excellent	Excellent	Good	Good
	Cast iron	Excellent	Excellent	Excellent	Good

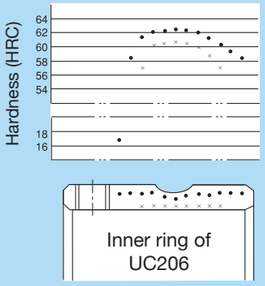
5.5 Special Heat-Treatment on Bearing Inner Ring

The bearing inner ring is zone-hardened with a special heat treatment method, which prevents not only inner ring cracking due to over-tightening set-screws, but also loosening of set-screws during operation, resulting in easier and positive locking of the bearing unit to the shaft than conventional bearing unit with a through-hardened inner ring.

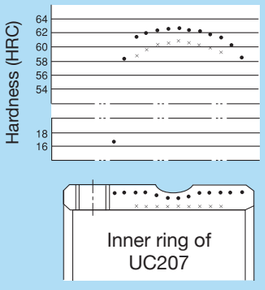
5.5.1 Hardness Distribution

The hardness distribution of some inner ring samples is shown in Fig. 5.6 and 5.7. The raceway and rubber seal contact area are hardened as hard as HRC 57 to 65 (JIS), while the extended area around the set-screws is left metallurgically soft and tough to around HRB 96 (HRC 17).

< Fig. 5.6 >



< Fig. 5.7 >



5.5.2 Tightening of Set-Screws

As the extended area of the inner ring around the set-screws is soft and tough in metallurgical structure, the inner ring is free from cracking even if the set-screws are tightened as hard as the hex key may break.
Table 5.3 shows comparative test results for inner ring cracking due to tightening set-screws between conventional through-hardened bearings and zone-hardened ones.

Table 5.3 Results of Set-Screw Tightening Test

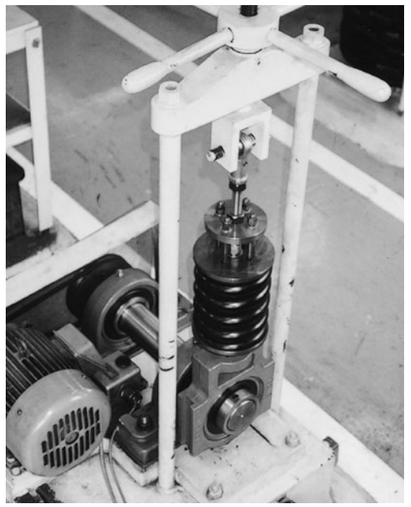
Bearing No.	Nominal thread designation	Tightening torque (N·m)				Recommended tightening torque (N·m)	
		Through-hardened		Zone-hardened		Through-hardened	Zone-hardened
UC206	M 6 × 0.75	7.1	Inner ring cracked	7.5	Hex key broke	3.9	4.9
UC208	M 8 × 1	35.2		40		8.3	11.8
UC213	M10 × 1.25	40		67.5		16.2	23.5

As shown in Table 5.3, the combination of zone-hardened bearing and standard SW type set-screws ensures positive locking of the bearing unit to the shaft even under conditions where repetitive vibration or shock is applied, owing to the zone-hardening method that enables the hardened set-screws to be driven hard into the screw holes precisely machined and finished on the soft extended area of the inner ring without cracking.
As an example, the following shows the results of set-screw loosening test for zone-hardened and through-hardened bearings. To compare the performance of loosening and creep resistance of the set-screws, test samples were mounted on an eccentric shaft and loaded in the radial direction with a spring of the testing machine as shown in Fig 5.8 so that the samples were operated under forced vibration.

Test conditions

Test sample ····· UCT208 with zone-hardened/through-hardened inner ring
Set-screw sample ····· M8×1 SW type set-screw to be set only in one of the screw holes
Rotational speed ····· 1800 r/min
Applied radial load ····· 1 kN / 2 kN
Vibration frequency ····· 1800 min^{-1}
Tightening torque of set-screws ····· 14.7 N·m (zone-hardened) 8.3 N·m (through-hardened)
loosening torque ····· 0.1 N·m
Shaft diameter ····· 40 mm
Shaft tolerance class ····· h7
Shaft material ····· S20C
Shaft eccentricity ····· 1 mm
Testing time ····· 500 hours

< Fig. 5.8 >



The test results are shown below and in Table 5.4.

(1) At a radial load of 1 kN, loosening or creep was not observed in either of the samples.

(2) At a radial load of 2 kN, loosening and creep occurred in the through-hardened bearings in a short period of time after starting operation, while most of the zone-hardened bearings did not loosen or creep even after 500 hours of operation.

(3) When a flat face (D-profile) or conical indentation was machined to the shaft surface in contact with set-screws, no loosening or creep occurred at all in the zone-hardened bearings even at a radial load of 2 kN.

Table 5.4 Results of Set-Screw Loosening Test

Test sample	Process onto set-screw contact surface of the shaft	Radial load (kN)	Anti-loosening performance
Through-hardened bearing	-	1	Excellent
		2	Poor
Zone-hardened bearing	-	1	Excellent
		2	Good
	Flat (D-profile)	2	Excellent
	Conical indentation		Excellent

5.6 Axial Load Capacity

The axial load capacity of bearing units is determined by the smallest of the followings.

(1) Shaft holding power in axial direction by locking style

Inner ring is locked onto the shaft by means of set-screws, eccentric collar or adapter sleeve. Each locking style has a different axial load capacity due to its shaft holding power as explained below. This shall not be taken into consideration when the shaft shoulder carries the axial load.

(i) Set-screw locking
On the condition that set-screws are tightened to a cylindrical shaft with recommended torque, the axial load capacity is 5-8 % of the C_r value for bearings with a through-hardened inner ring and 10 % for bearings with a zone-hardened inner ring.

(ii) Eccentric collar locking
With an eccentric collar tightened by hand and its set-screw tightened to the recommended torque, the axial load capacity is 8-15 % of the C_r value for Silver series and 8 % for Cast Iron series. However, when operated with a radial load acting, the axial load capacity increases further according to its magnitude.

(iii) Adapter sleeve locking
The axial load capacity of adapter sleeve locking is greatly dependent on the tightening torque of a locknut. When a locknut is tightened to a minimum recommended torque based on a radial load of C_r/13 or less as shown in Table 6.9, the axial load capacity is about 10-20 % of the C_r value.

(2) Allowable axial load of bearing inserts

The maximum allowable axial load of a bearing insert is to be taken into account when the axial load is supported by the shoulder of a shaft. This can vary depending on the internal clearance but is generally about 25 % of the basic dynamic radial load rating C_r. The maximum allowable axial load refers to the limit load at which the contact ellipse formed between the ball and raceway surface reaches beyond the shoulder of raceway groove.

(3) Breaking strength of housings in axial direction

Housing breaking strength in the axial direction is shown in Section 5.7.

5.7 Housing Breaking Strength

5.7.1 Cast Iron Housings

Gray cast iron FC200 (JIS G 5501) is used for cast iron housings, and their breaking strength depends on the type and size of housings as well as the direction of the applied load.
The approximate breaking strength value for each direction and housing type is listed in Table 5.6. As they are the mean values against static loads, a variation of ±30 % should be expected.
Cast iron is brittle against shock loads in general. In order for machine designers to cope with unexpected abnormal loads, the selection of a bearing unit must take into account the safety factor in addition to the above-mentioned variation. Table 5.5 shows the safety factor for cast iron as an example.

Table 5.5 Safety Factor (for Cast Iron)

Type of loads		Safety factor
Static load		4
Dynamic load	Repeated load	6
	Alternating load	10
	Shock load	15

Note: The above factors are based on W.C. Unwin's theory.

For machinery subjected to shock loads or those with heavy static loads such as cranes, winches, compressors, rolling mills, etc., housings made of rolled steel for general structure (SS400) or spheroidal graphite cast iron (FCD) are recommended.

5.7.2 Pressed Steel Housings

The amount of deformation before breaking must be considered for pressed steel housings and minimized to the extent that it causes no failure. The allowable load values are determined based on this idea and listed in the dimension tables.
The allowable load in the vertically downward direction is about 25 % of the basic dynamic radial load rating C_r. The allowable load in the axial direction varies depending on housing types, which is about 40 % of that in the vertically downward direction for PP type, 50 % for PFT type, and 25 % for PFL type housings.

5.7.3 Die-Cast Zinc Alloy Housings

Die-cast zinc alloy is used for Silver series housings, and their breaking strength depends on the type and size of housings as well as the direction of the applied load. As the values listed in Table 5.7 are the mean breaking strength against static loads, a variation of ±20 % should be expected.

5.7.4 Cast Stainless Steel Housings

Stainless series and ECO series housings are made of SCS13 cast stainless steel. Their allowable loads are also determined based on the same idea as for pressed steel housings. The allowable load of Stainless series and ECO series housings is about 1.5 times the static breaking strength of die-cast zinc alloy and cast iron housings of the same type and size, respectively.

Table 5.6 Static Breaking Strength of Housings

Unit: kN

Series	Housing No.	W_U	W_I	W_S	W_D	W_T	Housing No.	W_U	W_I	W_S	W_D	W_T	Housing No.	W_U
Cast Iron Series	P203	28	20	40	70	12	-	-	-	-	-	-	-	-
	P204	34	24	50	80	13	-	-	-	-	-	-	-	-
	P205	40	27	55	100	16	P305	42	35	70	120	25	PX05	60
	P206	44	30	60	110	18	P306	50	40	80	140	27	PX06	70
	P207	50	35	70	120	20	P307	59	46	100	170	33	PX07	80
	P208	56	39	80	140	22	P308	68	54	110	190	36	PX08	89.5
	P209	64	44	96	160	25	P309	78	60	130	220	40	PX09	102
	P210	74	50	110	180	30	P310	87	69	140	250	44	PX10	117
	P211	82	57	120	200	33	P311	98	77	160	280	50	PX11	127
	P212	95	65	140	230	38	P312	108	85	180	310	55	PX12	146
	P213	106	75	160	260	42	P313	119	95	200	340	63	PX13	162
	P214	120	85	180	300	48	P314	134	105	220	380	70	PX14	180
	P215	135	95	200	330	50	P315	148	115	240	410	72	PX15	197
	P216	150	106	220	370	60	P316	162	126	268	450	78	PX16	218
	P217	170	120	250	420	65	P317	180	140	300	500	83	PX17	239
	P218	190	132	280	480	70	P318	197	153	320	540	90	PX18	264
	-	-	-	-	-	-	P319	216	170	360	600	100	PX20	315
	-	-	-	-	-	-	P320	238	185	400	660	105	-	-
	-	-	-	-	-	-	P321	263	206	440	730	115	-	-
	-	-	-	-	-	-	P322	293	230	490	810	130	-	-
	-	-	-	-	-	-	P324	328	260	530	950	150	-	-
	-	-	-	-	-	-	P326	416	300	600	1200	170	-	-
	-	-	-	-	-	-	P328	520	340	700	1400	195	-	-

Series	Housing No.	W_U	Housing No.	W_U
Cast Iron Series	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	IP208	109	-	-
	IP209	116	-	-
	IP210	125	-	-
	IP211	135	-	-
	IP212	147	-	-
	IP213	160	IP313	160
	-	-	IP314	185
	-	-	IP315	210
	-	-	IP316	234
	-	-	IP317	265
	-	-	IP318	290
	-	-	IP319	316
	-	-	IP320	345
	-	-	IP322	398
	-	-	IP324	445
	-	-	IP326	480
	-	-	IP328	510

Housing No.	W_U	W_I	W_S	W_D	W_T
PH204	34	20	22	128	14
PH205	37	22	25	150	15
PH206	43.5	26	28	172	17
PH207	50	30	32.4	200	20
PH208	58	34.5	38	230	23
PH209	67	40	42	270	26.4
PH210	76	45	50	308	32

Housing No.	W_U	W_S	W_D	W_T
PA204	60	80	122	24
PA205	71	93	131	28
PA206	82	107	180	32
PA207	93	120	208	36
PA208	103	133	237	40
PA209	114	146	265	44
PA210	125	160	295	48

Note: 1. The breaking strength in the horizontal direction W_S and W_T are measured with housings fixed by test fixtures as the mounting bolts will break before reaching the fracture point of housings.
2. The breaking strength in the diagonally upward direction W_I is measured with the mounting bolts tightened firmly. Inadequate tightening of the bolts will significantly reduce the breaking strength.

Table 5.6 Static Breaking Strength of Housings (continued)

Unit: kN

Series	Housing No.	W_D	W_T	Housing No.	W_D	W_T	Housing No.	W_D	W_T	Housing No.	W_D	W_T
Cast Iron Series	F204	25	25	-	-	-	FL204	32	22.5	-	-	-
	F205	27	30	F305	38	42	FL205	44	25	FL305	70	35
	F206	30	30.3	F306	41.3	46	FL206	55	28	FL306	85	37.5
	F207	33	37.5	F307	45	51	FL207	66.5	32	FL307	101	42.5
	F208	35.5	42	F308	50	57	FL208	79	36.2	FL308	117	47.5
	F209	40	47	F309	55	62	FL209	91	41.2	FL309	133	54
	F210	45	52.5	F310	60	68	FL210	103	47	FL310	152	60
	F211	50	59	F311	65	75	FL211	115	53	FL311	170	67.5
	F212	55	65	F312	72.5	81.5	FL212	130	60	FL312	188	75
	F213	63	71	F313	80	89	FL213	143	68.8	FL313	205	82
	F214	70	78.5	F314	88.8	96	FL214	158	77.5	FL314	225	91
	F215	80	85	F315	96	105	FL215	173	87.5	FL315	243	100
	F216	88	95	F316	105	112	FL216	187	98	FL316	260	110
	F217	97.5	105	F317	116	122	FL217	203	110	FL317	280	120
	F218	108	116	F318	127	130	FL218	220	120	FL318	300	132
	-	-	-	F319	140	140	-	-	-	FL319	320	145
	-	-	-	F320	153	150	-	-	-	FL320	335	158
	-	-	-	F321	168	160	-	-	-	FL321	355	173
	-	-	-	F322	185	169	-	-	-	FL322	375	190
	-	-	-	F324	225	190	-	-	-	FL324	415	223
	-	-	-	F326	292	210	-	-	-	FL326	458	260
	-	-	-	F328	400	235	-	-	-	FL328	505	300

Note: The values in the W_D direction for F type housings are measured with only the upper two mounting holes bolted. Bolting all four holes will further improve their breaking strength.

Unit: kN

Series	Housing No.	W_P	W_T	Housing No.	W_P	W_T	Housing No.	W_P
Cast Iron Series	T204	30	29	-	-	-	ECH204	42
	T205	37	34	T305	51.5	66	ECH205	51
	T206	44	40	T306	60.5	73	ECH206	55
	T207	50	45	T307	70	79	ECH207	57.5
	T208	57	51	T308	79	85	ECH208	55
	T209	65	57.5	T309	89	93	ECH209	70
	T210	71	65	T310	100	100	ECH210	82
	T211	78.5	72.5	T311	110	108	-	-
	T212	85	82.5	T312	121	116	-	-
	T213	92	92	T313	132	126	-	-
	T214	98.5	104	T314	145	135	-	-
	T215	105	116	T315	158	145	-	-
	T216	113	130	T316	172	158	-	-
	T217	120	144	T317	185	170	-	-
	-	-	-	T318	200	185	-	-
	-	-	-	T319	215	200	-	-
	-	-	-	T320	229	220	-	-
	-	-	-	T321	244	243	-	-
	-	-	-	T322	260	265	-	-
	-	-	-	T324	292	317	-	-
	-	-	-	T326	328	375	-	-
	-	-	-	T328	368	450	-	-

Note: The values for T type housings are measured using nuts of the dimensions listed in Table 6.22. The values vary considerably depending on the nut size.

Unit: kN

Series	Housing No.	W_U	W_S	W_T	Housing No.	W_D	W_T	Housing No.	W_D	W_T
Aluminum Series	AP204	32.5	51.5	14	AF204	24	29	AFL204	30.5	26.5
	AP205	38	56.5	16	AF205	26	35	AFL205	42	29
	AP206	42	61.5	17.5	AF206	28.5	35.5	AFL206	52.5	32.5
	AP207	48	72	21	AF207	31.5	44	AFL207	64.5	37.5
	AP208	53.5	82	22.5	AF208	34	49	AFL208	75.5	42.5
Plastic Series	PPL204	7.7	8.8	5	FPL204	15.9	3.6	NFL204	8.5	-
	PPL205	10	13.7	8.1	FPL205	13	3.3	NFL205	11.1	-
	PPL206	10.6	12.6	5.7	FPL206	18	3.3	NFL206	14.2	-
	PPL207	10.8	12.7	7.5	FPL207	18.5	3.5	NFL207	14.9	-
	PPL208	11.1	13.1	8.5	FPL208	19.1	3.8	NFL208	15.1	-

Unit: kN

Series	Housing No.	W_U, W_D	W_S	W_T	Housing No.	W_S	W_D	W_T
Silver Series	P000	7.06	3.5	1.76	FL000	3.5	7.06	1.76
	P001	7.55	3.92	1.96	FL001	3.92	7.55	1.96
	P002	8.62	4.7	2.16	FL002	4.7	8.62	2.16
	P003	9.41	5.29	2.55	FL003	5.29	9.41	2.55
	P04-5	12.2	6.66	3.33	FL04-5	6.66	12.2	3.33
	P05-6	14.9	7.84	3.92	FL05-6	7.84	14.9	3.92
	P06-7	19.8	9.8	5.1	FL06-7	9.8	19.8	5.1
	-	-	-	-	FL07-8	12.2	24.8	6.17

Bearing units are prelubricated for immediate installation and operation but prone to premature failure if not handled properly. Bearing units, therefore, must be handled with care so as to avoid shock loads and the ingress of foreign matters into the bearing.

6.1 Selection of Shafts

The shaft on which bearing units are mounted shall be free from bends, nicks and burrs.
For bearings with a cylindrical bore (with set-screws or eccentric locking collar), a clearance fit between the shaft and inner ring bore is usually adopted considering easy handling, while an interference fit is recommended for high-speed or high-accuracy operation or when subjected to heavy or shock loads.

Table 6.1 shows shaft tolerances for clearance fits, and Table 6.2 for interference fits. Set-screws or eccentric locking collars are not necessarily required when bearing units with a cylindrical bore are mounted on a shaft with an interference fit.
Bearings with a tapered bore (with an adapter sleeve) can permit wider shaft tolerances as shown in Table 6.3 because they are locked to a shaft by an adapter sleeve.
When a large axial load acts on the bearing, it is recommended to use a shouldered shaft so that the inner ring end face can be firmly fixed by the shaft shoulder. Table 6.4 shows the allowable fillet radii and height of shaft shoulders.

Table 6.1 Shaft Tolerances for Clearance Fits for Bearings With Cylindrical Bore (Set-Screw & Eccentric Collar Locking Type)

Unit: μm

Shaft diameter (mm)		Tolerance			
Over	Incl.	js 7	h 6	h 7	h 8
6	10	± 7.5	0 to – 9	0 to –15	0 to –22
10	18	± 9	0 to –11	0 to –18	0 to –27
18	30	±10.5	0 to –13	0 to –21	0 to –33
30	50	±12.5	0 to –16	0 to –25	0 to –39
50	80	±15	0 to –19	0 to –30	0 to –46
80	120	±17.5	0 to –22	0 to –35	0 to –54
120	180	±20	0 to –25	0 to –40	0 to –63

Note: The tolerance class js7 is recommended in principle.

Table 6.2 Shaft Tolerances for Interference Fits for Bearings With Cylindrical Bore (Set-Screw & Eccentric Collar Locking Type)

Unit: μm

Shaft diameter (mm)		Tolerance			
Over	Incl.	n 6	n 7	m 5	m 6
6	10	+19 to +10	+25 to +10	+12 to + 6	+15 to + 6
10	18	+23 to +12	+30 to +12	+15 to + 7	+18 to + 7
18	30	+28 to +15	+36 to +15	+17 to + 8	+21 to + 8
30	50	+33 to +17	+42 to +17	+20 to + 9	+25 to + 9
50	80	+39 to +20	+50 to +20	+24 to +11	+30 to +11
80	120	+45 to +23	+58 to +23	+28 to +13	+35 to +13
120	180	+52 to +27	+67 to +27	+33 to +15	+40 to +15

Note: The tolerance class m6 should be applied to shafts with a diameter of 30 mm or less.

Table 6.3 Shaft Tolerances for Bearings With Tapered Bore (Adapter Sleeve Locking Type)

Unit: μm

Shaft diameter (mm)		Tolerance
Over	Incl.	h 9
18	30	0 to – 52
30	50	0 to – 62
50	80	0 to – 74
80	120	0 to – 87
120	180	0 to –100

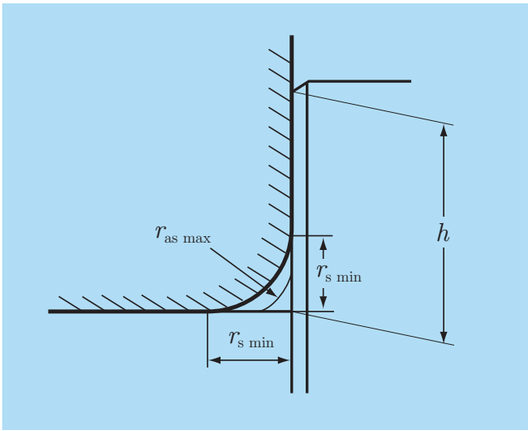


Table 6.4 Allowable Fillet Radii and Height of Shaft Shoulders

Unit: mm

Minimum allowable single chamfer dimension of inner ring $r_{s\ min}$	Maximum allowable single fillet radius of shaft shoulder $r_{as\ max}$	Minimum allowable shaft shoulder height h_{min}
0.3	0.3	1.25
0.6	0.6	2.25
1	1	2.75
1.1	1	3.5
1.5	1.5	4.25
2	2	5
2.1	2	6
2.5	2	6
3	2.5	7
4	3	9
5	4	11
6	5	14
7.5	6	18
9.5	8	22

Note: The shaft shoulder height must be greater than the above value if a bearing is subjected to a large axial load.

6.2 Mounting on Shafts

6.2.1 Bearing Units With Set-Screws

Although bearing units are simply mounted on the shaft by tightening two hexagon socket set-screws with a hex key for normal operating conditions, it is advisable for positive locking to the shaft to file (Fig. 6.1) or drill (Fig. 6.2) on the area of the shaft surface that comes into contact with set-screws to the extent that the tips of the set-screws sink below the shaft surface. For conditions where bearing units are subjected to vibration, shocks or heavy axial loads, use a shouldered shaft and locknut to fix bearing units firmly as shown in Fig. 6.3. In this case, set-screws must be tightened to the recommended torques as shown in Table 6.5.

Overtightening of the set-screws may result in poor running accuracy or inner ring cracking. On the other hand, the set-screws may loosen during operation and cause slippage between the inner ring and shaft if not tightened enough. Therefore, the set-screws must be properly tightened to the torques as recommended in Table 6.5.

Bearing units with zone-hardened inner ring can be securely fixed to the shaft and operated even under repeated vibration and shocks as they are free from inner ring cracking and loosening of the set-screws which are easy to occur in conventional through-hardened inner rings.

Bearing units with set-screws are mounted on the shaft in the following steps.

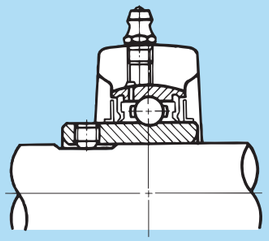
(1) Make sure the set-screw tips do not protrude from the inner ring bore. (Loosen the set-screws if they protrude.)

(2) Slowly place the bearing unit to a desired position on the shaft, keeping it at right angles to the shaft. Do not hammer the inner ring face or slinger during the installation.

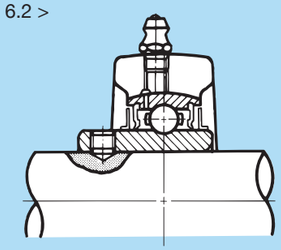
(3) Bolt the housing to the mounting surface firmly. The mounting surface must be rigid and flat to prevent the housing deformation.

(4) Tighten two set-screws evenly with a hex key to the recommended torque shown in Table 6.5.

< Fig. 6.1 >



< Fig. 6.2 >



< Fig. 6.3 >

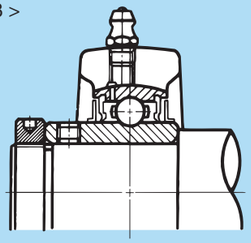


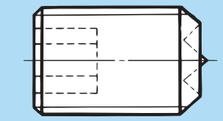
Table 6.5 Recommended Tightening Torque of Set-Screws

Nominal thread designation	Bearing No.						Heat treatment method	Recommended tightening torque (N·m)	Hex key size (mm)
	UC200	UCX00	UC300	MUC200	B	MB			
M 5 × 0.8	-	-	-	201–206	1–3	4–6	Through-hardened	2.4	2.5
	-	-	-	-	4	-	Zone-hardened	2.5	
M 6 × 0.75	201–203	X05	305–306	207–209	-	7–8	Through-hardened	3.9	3
	204–206	-	-	-	5–6	-	Zone-hardened	4.9	
M 8 × 1	-	X06–X08	-	210–211	-	-	Through-hardened	8.3	4
	207–209	-	307	-	7	-	Zone-hardened	11.8	
M10 × 1.25	-	X09–X12	-	212–213	-	-	Through-hardened	16.2	5
	210–213	-	308–309	-	-	-	Zone-hardened	23.5	
M12 × 1.5	214–216	-	310–311	-	-	-	Zone-hardened	39.2	6
	217–218	X13–X17	312–314	-	-	-	Through-hardened	27.9	
M14 × 1.5	-	X18	315–316	-	-	-	Through-hardened	27.9	
M16 × 1.5	-	X20	317–319	-	-	-	Through-hardened	66.6	8
M18 × 1.5	-	-	320–324	-	-	-	Through-hardened	66.6	
M20 × 1.5	-	-	326, 328	-	-	-	Through-hardened	112.7	10

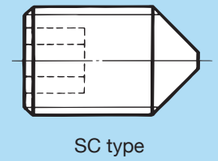
6.2.2 Type of Set-Screws

Fig. 6.4 shows the main types of set-screws. SW type is ASAHI standard set-screw used for ordinary applications. SC type reliably prevents the slippage between the set-screws and shaft although it requires machining on the shaft surface. SH type is used to compensate for the thermal expansion and contraction of the shaft in conditions where it is expected. Tables 6.6 through 6.8 show the dimensions of SW, SC and SH type set-screws and their corresponding bearings and eccentric collars.

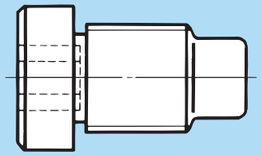
< Fig. 6.4 >



SW type



SC type



SH type

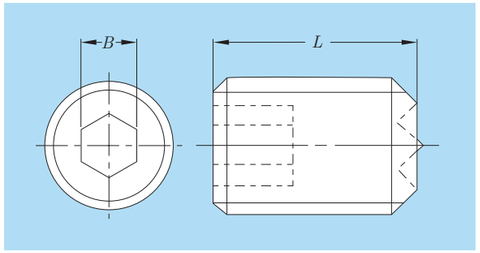


Table 6.6 Dimensions of SW Type Set-Screws Unit: mm

Set-screw No.	Thread		L	B	Corresponding bearing							Corresponding eccentric collar	
	Nominal dia.	Pitch			UC200	UCX00	UC300	MUC200	B	MB	K000	ER200	ER000
SW 3X 3F	M 3	0.35	3	1.5	–	–	–	–	–	–	000–001	–	–
SW 4X 4C	M 4	0.7	4	2	–	–	–	–	–	–	–	–	000–003
SE 4X 4C-MS		0.7	4		–	–	–	–	–	–	–	–	000Z3–003Z3
SW 4X 4C-MSL		0.7	4		–	–	–	–	–	–	–	–	000MSG–003MSG
SW 4X 4F		0.5	4		–	–	–	–	–	–	002–003	–	–
SW 5X 5F	M 5	0.5	5	2.5	–	–	–	–	–	–	004–006	–	–
SW 5X 6C		0.8	6		–	–	–	–	1–4	–	–	–	004–006
SE 5X 6C-MS		0.8	6		–	–	–	–	–	–	–	–	004Z3–006Z3
SW 5X 6C-MSL		0.8	6		–	–	–	203–206	–	4–6	–	–	004MSG–006MSG
SW 5X 8C-MSL		0.8	8		–	–	–	201–202	–	–	–	–	–
SW 6X 6F	M 6	0.75	6	3	203–206	–	–	–	5–6	–	–	201–205	007
SW 6X 8F-MSL		0.75	8		–	–	–	207–209	–	7–8	–	–	–
SW 6X 8F		0.75	8		201–202	X05	305–306	–	–	–	–	–	–
SW 8X 8	M 8	1	8	4	207–209	X06–X08	307	–	7	–	–	206	–
SW 8X 8MSL		1	8		–	–	–	210–211	–	–	–	–	–
SW10X10	M10	1.25	10	5	210–213	X09–X12	308–309	–	–	–	–	207–210	–
SW10X10MSL		1.25	10		–	–	–	212–213	–	–	–	–	–
SW12X12	M12	1.5	12	6	214–218	X13–X17	310–314	–	–	–	–	211–213	–
SW14X16	M14	1.5	16	6	–	X18	315–316	–	–	–	–	–	–
SW16X18	M16	1.5	18	8	–	X20	317–319	–	–	–	–	–	–
SW18X20	M18	1.5	20	8	–	–	320–324	–	–	–	–	–	–
SW20X26	M20	1.5	26	10	–	–	326, 328	–	–	–	–	–	–

Note: 1. The suffix “C” stands for metric coarse thread and “F” for metric fine thread. SW8 and larger ones are all with metric fine thread.
2. Those with the suffix “MS” or “MSL” are made of stainless steel.

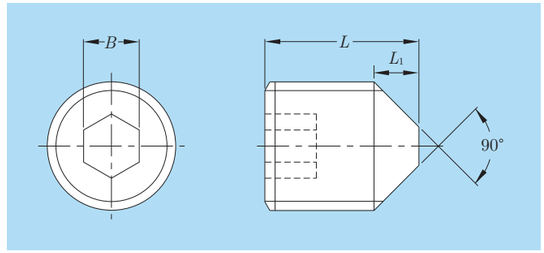


Table 6.7 Dimensions of SC Type Set-Screws Unit: mm

Set-screw No.	Thread		L	L_1	B	Corresponding bearing		
	Nominal dia.	Pitch				UC200	UCX00	UC300
SC 6X 9F	M 6	0.75	9	2.5	3	203–206	-	305
SC 6X11F			11			201–202	X05	306
SC 8X12	M 8	1	12	3	4	207–209	X06–X08	307
SC10X12	M10	1.25	12	3.5	5	210–211	-	308
SC10X15			15			212–213	X09–X12	309
SC12X14	M12	1.5	14	4.5	6	214–216	-	-
SC12X18			18			217–218	X13–X17	310–314
SC14X20	M14	1.5	20	5	6	–	X18	315–316
SC16X23	M16	1.5	23	6	8	–	X20	317–319
SC18X29	M18	1.5	29	6.5	8	–	–	320–324
SC20X34	M20	1.5	34	7	10	–	–	326, 328

Note: Before machining a conical indentation on a shaft, gauging two SC type set-screws and a shaft using actual parts is recommended.

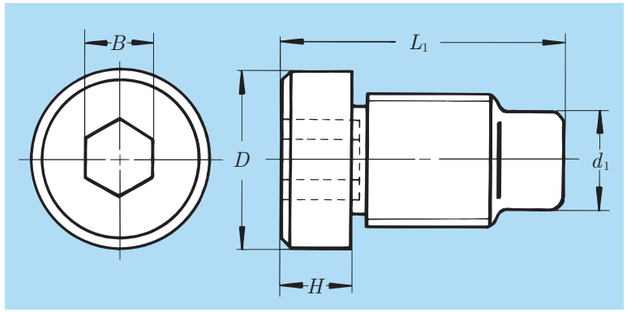


Table 6.8 Dimensions of SH Type Set-Screws

Unit: mm

Set-screw No.	Thread		D	L_1	H	d_1	B	Corresponding bearing		
	Nominal dia.	Pitch						UC200	UCX00	UC300
SH 6X 7.5F SH 6X 9F SH 6X10F SH 6X11F	M 6	0.75	7	10 11.5 12.5 13.5	2.5	4	3	204–205 203, 206 202 201	– 305 – 306	– – – X05
SH 8X10.5 SH 8X11.5 SH 8X13	M 8	1	10	13.5 14.5 16	3	6	4	207–209 – –	– 307 –	– – X06–X08
SH10X11 SH10X12.5 SH10X13.5 SH10X15	M10	1.25	12	14 15.5 16.5 18	3	7	5	210 211 212–213 –	– 308 309 –	– – X09–X10 X11–X12
SH12X14.5 SH12X15.5 SH12X17.5 SH12X19	M12	1.5	14	18.5 19.5 21.5 23	4	9	6	214–215 216 217–218 –	310 311–312 313–314 –	– X13–X14 X15 X16–X17
SH14X20	M14	1.5	17	25	5	10	6	–	315–316	X18
SH16X21.5 SH16X23.5	M16	1.5	19	27.5 29.5	6	12	8	– –	317 318–319	– X20
SH18X25 SH18X30	M18	1.5	22	32 37	7	13	8	– –	320–321 322, 324	– –
SH20X33	M20	1.5	24	41	8	15	10	–	326, 328	–

Note: See Table 6.19 for the dimensions of the keyway to be machined on the shaft for a SH type set-screw.

6.2.3 Bearing Units With Adapter Sleeve

Bearing units with an adapter sleeve can permit wider shaft tolerances and be used in applications where vibration and shocks are heavy. Bearing units with an adapter sleeve are mounted on the shaft in the following steps.

(1) Slide the adapter sleeve to a desired position on the shaft with the threads on the sleeve toward the outboard side. To facilitate this, widen the slot of the adapter sleeve with a screwdriver.

(2) Slide the bearing unit onto the adapter sleeve with the large bore end facing the sleeve so that the taper of the adapter sleeve fits in the tapered bore of the bearing.

(3) Bolt the housing to the mounting surface temporarily.

(4) Slide the lock washer on the adapter sleeve so that its inner tooth fits into the notch of the adapter sleeve.

(5) Install the locknut by hand with the chamfered face toward the bearing.

(6) Lightly tap the end face of the adapter sleeve on the unthreaded side over the entire circumference so that the taper of the adapter sleeve fits well into the tapered bore of the bearing.

(7) Tighten the locknut with a hook spanner torque wrench to the recommended torque as per Tables 6.9 through 6.11. Overtightening may cause heat generation and seizure due to reduced bearing radial internal clearance. On the other hand, insufficient tightening may result in creep between the inner ring and adapter sleeve, or between the adapter sleeve and shaft.

(8) Bend a tooth of the lock washer into one of the slots of the locknut to prevent the locknut from loosening. If none of the lock washer teeth lines up with any of the slots of the locknut, further tighten the locknut until one does. (Do not loosen the locknut to fit a tooth into one of the slots.)

(9) Loosen the mounting bolts of the housing to release the axial load due to tightening of the locknut, and once again bolt the housing to the mounting surface firmly.

Table 6.9 Recommended Tightening Torque of Adapter Sleeve Locknuts for UK200+H2300 Type

Bearing No.	Under radial load up to $C_r/4$			Under radial load up to $C_r/13$			Basic dynamic radial load rating of bearing C_r (kN)
	Tightening torque (N·m)		Reduction in radial internal clearance (μm)	Tightening torque (N·m)		Reduction in radial internal clearance (μm)	
	Min.	Max.		Min.	Max.		
UK205+H2305	20	40	5–10	15	30	4– 8	14
UK206+H2306	30	60	7–14	20	40	4– 8	19.6
UK207+H2307	50	100	8–16	30	60	5–10	25.9
UK208+H2308	60	120	8–16	40	80	6–12	29.3
UK209+H2309	60	120	9–18	40	80	6–12	33
UK210+H2310	75	150	10–20	50	100	7–14	35.5
UK211+H2311	105	210	11–22	70	140	7–14	43
UK212+H2312	145	290	12–24	100	200	8–16	52.5
UK213+H2313	165	330	13–26	110	220	9–18	57.5
UK215+H2315	185	370	15–30	130	260	10–20	66
UK216+H2316	235	470	15–30	160	320	10–20	72.5
UK217+H2317	300	600	16–32	205	410	11–22	83.5
UK218+H2318	360	720	17–34	245	490	12–24	95.5

Note: 1. When the temperature rise of a bearing exceeds 50 °C or when operated under vibration and shocks, tighten the locknut as close to the maximum recommended torque as possible.
2. Select a bearing with a proper initial clearance so that the radial internal clearance will not become negative due to tightening of the locknut. See Table 6.21 for the radial internal clearance of bearings with a tapered bore.

Table 6.10 Recommended Tightening Torque of Adapter Sleeve Locknuts for UKX00+H2300 Type

Bearing No.	Under radial load up to $C_r/4$			Under radial load up to $C_r/13$			Basic dynamic radial load rating of bearing C_r (kN)
	Tightening torque (N·m)		Reduction in radial internal clearance (μm)	Tightening torque (N·m)		Reduction in radial internal clearance (μm)	
	Min.	Max.		Min.	Max.		
UKX05+H2305	35	70	6–12	20	40	4– 8	19.6
UKX06+H2306	50	100	7–14	35	70	5–10	25.9
UKX07+H2307	60	120	8–16	40	80	5–10	29.3
UKX08+H2308	75	150	9–18	50	100	6–12	33
UKX09+H2309	90	180	10–20	60	120	6–12	35.5
UKX10+H2310	120	240	11–22	80	160	7–14	43
UKX11+H2311	155	310	12–24	105	210	8–16	52.5
UKX12+H2312	180	360	13–26	120	240	8–16	57.5
UKX13+H2313	240	480	14–28	165	330	9–18	62
UKX15+H2315	280	560	15–30	195	390	10–20	66
UKX16+H2316	340	670	16–32	230	460	11–22	72.5
UKX17+H2317	420	840	17–34	280	560	11–22	95.5
UKX18+H2318	480	960	18–36	320	650	12–24	109
UKX20+H2320	680	1350	20–40	460	910	13–26	134

Table 6.11 Recommended Tightening Torque of Adapter Sleeve Locknuts for UK300+H2300 Type

Bearing No.	Under radial load up to $C_r/4$			Under radial load up to $C_r/13$			Basic dynamic radial load rating of bearing C_r (kN)
	Tightening torque (N·m)		Reduction in radial internal clearance (μm)	Tightening torque (N·m)		Reduction in radial internal clearance (μm)	
	Min.	Max.		Min.	Max.		
UK305+H2305	30	60	6–12	20	40	4– 8	21.3
UK306+H2306	45	90	7–14	30	60	5–10	26.8
UK307+H2307	60	120	8–16	40	80	5–10	33.5
UK308+H2308	80	160	9–18	55	110	6–12	40.5
UK309+H2309	110	220	10–20	75	150	7–14	51.5
UK310+H2310	155	300	11–22	100	200	7–14	61.5
UK311+H2311	190	370	12–24	125	250	8–16	71.5
UK312+H2312	230	450	13–26	155	310	9–18	81.5
UK313+H2313	270	530	14–28	180	360	10–20	92.5
UK315+H2315	380	740	16–32	255	510	11–22	114
UK316+H2316	450	880	17–34	300	600	11–22	123
UK317+H2317	530	1000	18–36	360	710	12–24	132
UK318+H2318	620	1200	18–36	410	820	12–24	143
UK319+H2319	720	1400	19–38	480	960	13–26	153
UK320+H2320	880	1700	20–40	590	1200	14–28	173
UK322+H2322	1200	2400	22–44	820	1650	15–30	205
UK324+H2324	1450	2850	22–44	1000	2000	15–30	207
UK326+H2326	1800	3550	24–48	1250	2450	16–32	229
UK328+H2328	2150	4200	25–50	1450	2950	17–34	255

Note: 1. When the temperature rise of a bearing exceeds 50 °C or when operated under vibration and shocks, tighten the locknut as close to the maximum recommended torque as possible.
2. Select a bearing with a proper initial clearance so that the radial internal clearance will not become negative due to tightening of the locknut. See Table 6.21 for the radial internal clearance of bearings with a tapered bore.

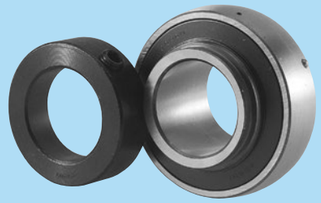
6.2.4 Bearing Units With Eccentric Locking Collar

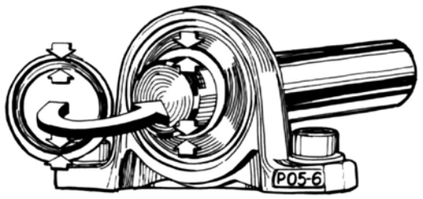
The eccentric locking collar has an off-center recessed cam that mates with the corresponding eccentric cam lip on one side of the bearing inner ring as illustrated in Fig. 6.5. When the collar is rotated on the inner ring by hand in the direction of shaft rotation, the eccentric collar engages with the inner ring, producing a wedge that grips the shaft tightly and continues to act by the shaft rotation during operation. Table 6.12 shows the recommended tightening torque for the set-screw on the collar when fixing the collar in that engaged position.
If the collar is engaged in the opposite direction of shaft rotation, there occurs the moment in operation when the collar is disengaged and the inner ring loosens before the collar is re-engaged in the direction of shaft rotation. As the shaft may slip against the inner ring at that moment if the bearing is subjected to axial load, either of the following procedures must be taken when bearing units with eccentric locking collar are used in equipment with forward and reverse rotation of the shaft.

(1) Further tighten the collar to larger torque after tightening it by hand.
(2) Use a shouldered shaft and place the end face of the bearing inner ring in contact with the shaft shoulder.
(3) Install the bearing units with eccentric locking collar with the collars face in the opposite direction to each other if they are used on the same shaft as a pair. (In this case, the bearing units cannot permit heavy axial load.)
(4) Use a shaft collar to fix the bearing inner ring axially.

The eccentric locking collar is not necessarily used when a bearing unit is mounted on the shaft with an interference fit. However, the inner ring must be fixed axially when subjected to axial load. Especially when heavy axial load acts on the bearing, the inner ring end face must be firmly fixed in the axial direction by the shoulder of a shaft.
The other installation steps are the same as those of bearing units with set-screws.

< Fig. 6.5 >





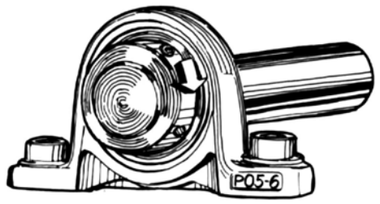


Table 6.12 Recommended Tightening Torque of Eccentric Collar Set-Screws

Nominal thread designation	Corresponding bearing			Hex key size (mm)	Recommended tightening torque (N·m)
	U+ER MU+ER(-MSG)	KH KHR	UG+ER		
M 3 × 0.5	08	–	–	1.5	0.59
M 4 × 0.7	000–003	–	–	2	1.5
M 5 × 0.8	004–006	–	–	2.5	2.9
M 6 × 0.75	007	201–205	204, 205	3	4.9
M 8 × 1	–	206	206	4	11.8
M10 × 1.25	–	207–210	207–210	5	23.5
M12 × 1.5	–	211	211–213	6	39

6.2.5 Bearing Units With Covers

Bearing units with covers in Cast Iron series and Silver series are mounted on the shaft in the following steps.

(1) Fill 1/3 to 1/2 of the chamber inside the covers with grease as illustrated in Fig 6.6 for prevention of the ingress of dirt and moisture from the atmosphere. Relatively firm or general purpose grease such as Cup Grease may be used.

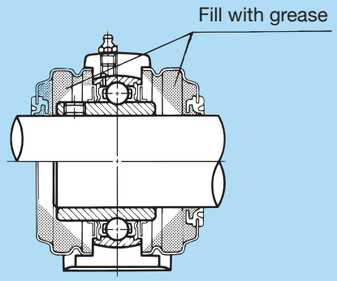
For pressed steel covers and covers for Silver series, apply grease 1) in the cover groove on the housing 2) to the space in between the seal lips 3) on the shaft surface in contact with the seal lips in order to enhance sealing performance by forming a grease dam that blocks contaminants from entering the bearing chamber.

(2) Slide the rubber-sealed open cover, which is to be installed to the inboard side of the housing, to a desired position on the shaft.

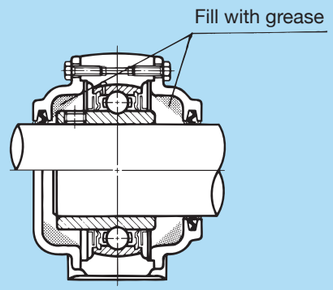
(3) Slide the bearing unit to the position on the shaft, and bolt the housing to the mounting surface firmly. Refer to Subsections 6.2.1 through 6.2.4 for the installation procedures onto the shaft and mounting surface.

< Fig. 6.6 >

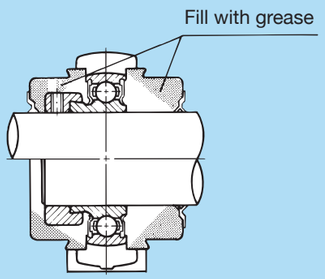
Pressed steel covers



Cast iron covers



Covers for Silver series



(4) Install the rubber-sealed open cover that has been placed onto the shaft in Step 2 to the housing. Then, install the other rubber-sealed open or closed end cover to the outboard side of the housing. The installation tips for each cover type are as follows:

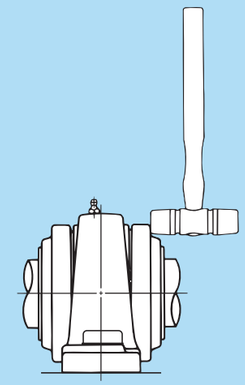
i) Pressed steel covers (press-fit type)
Press-fit the cover into the groove on the housing by tapping the edge of the cover over the entire circumference with a wooden or plastic hammer as shown in Fig. 6.7 so as not to deform it.

ii) Cast iron covers (bolt-mounted type)
Attach the cover onto the housing so that the spigot joint of the cover fits into the recess on the housing. Make sure each bolt hole on the cover aligns with the corresponding holes on the housing, then fix the cover to the housing with hexagonal bolts.

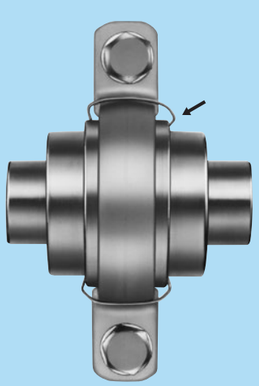
iii) Covers for Silver series (clip-mounted type)
Attach the covers into the groove on the housing and fix them by a pair of the clips.
For pillow type housings, place the claw on one side of the clip over the groove on the cover on one side as shown in Fig. 6.8 and then push the claw on the other side onto the groove on the other cover so that the covers on both sides are fixed firmly by the elasticity of the widened clips.
For flange type housings, place the L-shaped claw on one side of the clip over the clip seat on the housing base as shown in Fig. 6.9 and then push the claw on the other side onto the groove on the cover or vice versa so that the cover is fixed firmly by the elasticity of the widened clips.

Note: 1. Installation procedures of pressed steel covers also applies to pressed stainless steel covers for Stainless series and Aluminum series.
2. The cover installation procedures for Stainless Silver series and ECO series are the same as for Silver series.

< Fig. 6.7 >



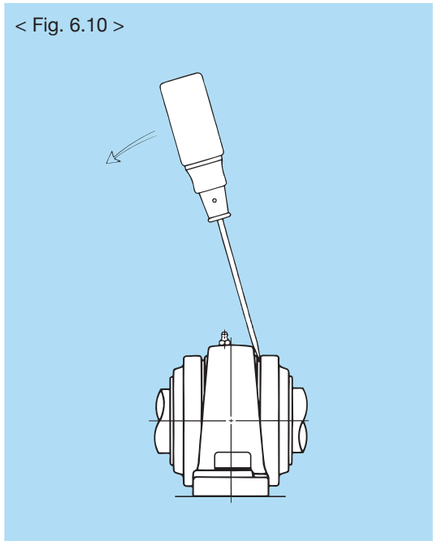
< Fig. 6.8 >



< Fig. 6.9 >

During operation, not only the seal lips wear out due to friction against rough unground shaft surface, but also dirt and other contaminants may be dragged into the small gap between the lips and the shaft surface. The rubber seal attached to open covers, therefore, needs to be replaced from time to time.
It is also desirable to chamfer the shaft end so that it may not damage the seal lips when mounting the rubber-sealed open cover onto the shaft.
The shaft surface must be ground and finished smoothly when bearing units with covers are used in medium to high speed operation.
The pressed steel covers can be easily removed by inserting a screwdriver into the groove on the periphery of the covers and prying them off as shown in Fig. 6.10.

< Fig. 6.10 >



6.2.6 Cover Part Numbers

Covers corresponding to each bearing and rubber seals attached to their open types are listed in Tables 6.13 through 6.16. For covers for Silver series, refer to the dimension tables.

Table 6.13
Pressed Steel Covers (for UC200 & UK200 Type)
Pressed Stainless Steel Covers (for MUC200V Type)

Shaft dia. (mm)	Bearing No.	Cover No.			
		Components		Rubber-sealed open cover (a) + (b)	Closed end cover
		Open cover w/o rubber seal (a)	Rubber seal (b)		
12	UC201	204CPA	CPR12	204CPA12	204CPE
15	UC202	204CPA	CPR15	204CPA15	204CPE
17	UC203	204CPA	CPR17	204CPA17	204CPE
20	UC204	204CP	CPR20	204CP20	204CPE
25	UC205	205CP	CPR25	205CP25	205CPE
30	UC206	206CP	CPR30	206CP30	206CPE
35	UC207	207CP	CPR35	207CP35	207CPE
40	UC208	208CP	CPR40	208CP40	208CPE
45	UC209	209CP	CPR45	209CP45	209CPE
50	UC210	210CP	CPR50	210CP50	210CPE
55	UC211	211CP	CPR55	211CP55	211CPE
60	UC212	212CP	CPR60	212CP60	212CPE
65	UC213	213CP	CPR65	213CP65	213CPE
20	UK205+H	205CPA	CPR20	205CPA20	205CPE
25	UK206+H	206CPA	CPR25	206CPA25	206CPE
30	UK207+H	207CPA	CPR30	207CPA30	207CPE
35	UK208+H	208CPA	CPR35	208CPA35	208CPE
40	UK209+H	209CPA	CPR40	209CPA40	209CPE
45	UK210+H	210CPA	CPR45	210CPA45	210CPE
50	UK211+H	211CPA	CPR50	211CPA50	211CPE
55	UK212+H	212CPA	CPR55	212CPA55	212CPE
60	UK213+H	213CPA	CPR60	213CPA60	213CPE
12	MUC201V	204CPAS	CPR12	204CPAS12	204CPES
15	MUC202V	204CPAS	CPR15	204CPAS15	204CPES
17	MUC203V	204CPAS	CPR17	204CPAS17	204CPES
20	MUC204V	204CPS	CPR20	204CPS20	204CPES
25	MUC205V	205CPS	CPR25	205CPS25	205CPES
30	MUC206V	206CPS	CPR30	206CPS30	206CPES
35	MUC207V	207CPS	CPR35	207CPS35	207CPES
40	MUC208V	208CPS	CPR40	208CPS40	208CPES
45	MUC209V	209CPS	CPR45	209CPS45	209CPES
50	MUC210V	210CPS	CPR50	210CPS50	210CPES

Note: Add the suffix “S” to a rubber seal or rubber-sealed open cover part number if a silicone rubber seal for heat/cold resistance is required.

Table 6.14 Pressed Steel Covers (for UCX00 & UKX00 Type)

Shaft dia. (mm)	Bearing No.	Cover No.						
		Components			Rubber-sealed open cover (a) + (b)		Closed end cover	
		Open cover w/o rubber seal (a)		Rubber seal (b)				
		Applicable housing type			Applicable housing type		Applicable housing type	
		P, F, FL, T	FC		P, F, FL, T	FC	P, F, FL, T	FC
25	UCX05	206CPA	206CPA	CPR25	206CPA25	206CPA25	206CPE	206CPE
30	UCX06	207CPA	207CPA	CPR30	207CPA30	207CPA30	207CPE	207CPE
35	UCX07	208CPA	207CP	CPR35	208CPA35	207CP35	208CPE	207CPE
40	UCX08	209CPA	208CP	CPR40	209CPA40	208CP40	209CPE	208CPE
45	UCX09	210CPA	210CPA	CPR45	210CPA45	210CPA45	210CPE	210CPE
50	UCX10	211CPA	210CP	CPR50	211CPA50	210CP50	211CPE	210CPE
55	UCX11	212CPA	212CPA	CPR55	212CPA55	212CPA55	212CPE	212CPE
60	UCX12	213CPA	213CPA	CPR60	213CPA60	213CPA60	213CPE	213CPE
20	UKX05+H	206CP20N	206CP20N	CPR20	206CP20	206CP20	206CPE	206CPE
25	UKX06+H	207CP25N	207CP25N	CPR25	207CP25	207CP25	207CPE	207CPE
30	UKX07+H	208CP30N	207CPA	CPR30	208CP30	207CPA30	208CPE	207CPE
35	UKX08+H	209CP35N	208CPA	CPR35	209CP35	208CPA35	209CPE	208CPE
40	UKX09+H	210CP40N	210CP40N	CPR40	210CP40	210CP40	210CPE	210CPE
45	UKX10+H	211CP45N	210CPA	CPR45	211CP45	210CPA45	211CPE	210CPE
50	UKX11+H	212CP50N	212CP50N	CPR50	212CP50	212CP50	212CPE	212CPE
55	UKX12+H	213CP55N	213CP55N	CPR55	213CP55	213CP55	213CPE	213CPE

Note: Add the suffix “S” to a rubber seal or rubber-sealed open cover part number if a silicone rubber seal for heat/cold resistance is required.

Table 6.15 Cast Iron Covers (for UC200 & UC300 Type)

Shaft dia. (mm)	Bearing No.	Cover No.				Nominal thread dia. of cover mounting bolt
		Components		Rubber-sealed open cover	Closed end cover	
		Open cover w/o rubber seal (a)	Rubber seal (b)	(a) + (b)		
12	UC201	204C 12	ZF 2	204C 12R	204CE	M5
15	UC202	204C 15	ZF 3	204C 15R	204CE	
17	UC203	204C 17	ZF 4	204C 17R	204CE	
20	UC204	204C 20	ZF 5	204C 20R	204CE	
25	UC205	205C 25	ZF 6	205C 25R	205CE	
30	UC206	206C 30	ZF 7	206C 30R	206CE	
35	UC207	207C 35	ZF 8	207C 35R	207CE	
40	UC208	208C 40	ZF 9	208C 40R	208CE	
45	UC209	209C 45	ZF10	209C 45R	209CE	
50	UC210	210C 50	ZF11	210C 50R	210CE	
55	UC211	211C 55	ZF12	211C 55R	211CE	
60	UC212	212C 60	ZF13	212C 60R	212CE	
65	UC213	213C 65	ZF15	213C 65R	213CE	
70	UC214	214C 70	ZF16	214C 70R	214CE	
75	UC215	215C 75	ZF17	215C 75R	215CE	
80	UC216	216C 80	ZF18	216C 80R	216CE	M10
85	UC217	217C 85	ZF19	217C 85R	217CE	
90	UC218	218C 90	ZF20	218C 90R	218CE	
25	UC305	305C 25	ZF 6	305C 25R	305CE	M5
30	UC306	306C 30	ZF 7	306C 30R	306CE	
35	UC307	307C 35	ZF 8	307C 35R	307CE	
40	UC308	308C 40	ZF 9	308C 40R	308CE	
45	UC309	309C 45	ZF10	309C 45R	309CE	
50	UC310	310C 50	ZF11	310C 50R	310CE	
55	UC311	311C 55	ZF12	311C 55R	311CE	
60	UC312	312C 60	ZF13	312C 60R	312CE	
65	UC313	313C 65	ZF15	313C 65R	313CE	M10
70	UC314	314C 70	ZF16	314C 70R	314CE	
75	UC315	315C 75	ZF17	315C 75R	315CE	
80	UC316	316C 80	ZF18	316C 80R	316CE	
85	UC317	317C 85	ZF19	317C 85R	317CE	
90	UC318	318C 90	ZF20	318C 90R	318CE	
95	UC319	319C 95	ZF21	319C 95R	319CE	
100	UC320	320C100	ZF22	320C100R	320CE	
105	UC321	321C105	ZF23	321C105R	321CE	
110	UC322	322C110	ZF24	322C110R	322CE	
120	UC324	324C120	ZF27	324C120R	324CE	
130	UC326	326C130	ZF29	326C130R	326CE	
140	UC328	328C140	ZF32	328C140R	328CE	

Table 6.16 Cast Iron Covers (for UK200 & UK300 Type)

Shaft dia. (mm)	Bearing No.	Cover No.				Nominal thread dia. of cover mounting bolt
		Components		Rubber-sealed open cover	Closed end cover	
		Open cover w/o rubber seal (a)	Rubber seal (b)	(a) + (b)		
20	UK205+H	205C 20	ZF 5	205C 20R	205CE	M5
25	UK206+H	206C 25	ZF 6	206C 25R	206CE	
30	UK207+H	207C 30	ZF 7	207C 30R	207CE	
35	UK208+H	208C 35	ZF 8	208C 35R	208CE	
40	UK209+H	209C 40	ZF 9	209C 40R	209CE	
45	UK210+H	210C 45	ZF10	210C 45R	210CE	
50	UK211+H	211C 50	ZF11	211C 50R	211CE	
55	UK212+H	212C 55	ZF12	212C 55R	212CE	
60	UK213+H	213C 60	ZF13	213C 60R	213CE	
65	UK215+H	215C 65	ZF15	215C 65R	215CE	
70	UK216+H	216C 70	ZF16	216C 70R	216CE	M10
75	UK217+H	217C 75	ZF17	217C 75R	217CE	
80	UK218+H	218C 80	ZF18	218C 80R	218CE	
20	UK305+H	305C 20	ZF 5	305C 20R	305CE	M5
25	UK306+H	306C 25	ZF 6	306C 25R	306CE	
30	UK307+H	307C 30	ZF 7	307C 30R	307CE	
35	UK308+H	308C 35	ZF 8	308C 35R	308CE	
40	UK309+H	309C 40	ZF 9	309C 40R	309CE	
45	UK310+H	310C 45	ZF10	310C 45R	310CE	
50	UK311+H	311C 50	ZF11	311C 50R	311CE	
55	UK312+H	312C 55	ZF12	312C 55R	312CE	
60	UK313+H	313C 60	ZF13	313C 60R	313CE	M10
65	UK315+H	315C 65	ZF15	315C 65R	315CE	
70	UK316+H	316C 70	ZF16	316C 70R	316CE	
75	UK317+H	317C 75	ZF17	317C 75R	317CE	
80	UK318+H	318C 80	ZF18	318C 80R	318CE	
85	UK319+H	319C 85	ZF19	319C 85R	319CE	
90	UK320+H	320C 90	ZF20	320C 90R	320CE	
100	UK322+H	322C100	ZF22	322C100R	322CE	
110	UK324+H	324C110	ZF24	324C110R	324CE	
115	UK326+H	326C115	ZF26	326C115R	326CE	
125	UK328+H	328C125	ZF28	328C125R	328CE	

Note: Add the suffix “S” to a rubber seal or rubber-sealed open cover part number if a silicone rubber seal for heat/cold resistance is required.

6.2.7 Cover Part Numbers for Shouldered Shaft

Table 6.17 shows the standard diameters of shouldered shafts. Rubber-sealed open cast iron covers for shouldered shafts and incorporated rubber seals are listed in Table 6.18.

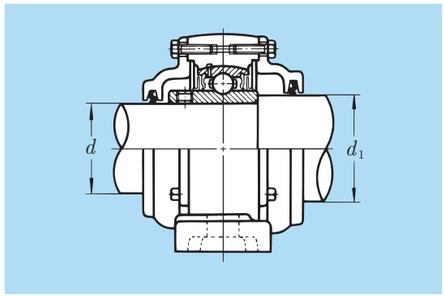


Table 6.17
Standard Shouldered Shaft Diameters for Bearing Units With Cast Iron Covers (for UC200 & UC300 Type)

Unit: mm

Shaft dia. d	Shouldered shaft dia. d_1	Shaft dia. d	Shouldered shaft dia. d_1
20	25	75	85
25	30	80	90
30	35	85	100
35	45	90	105
40	50	95	110
45	55	100	115
50	60	105	120
55	65	110	125
60	70	120	135
65	75	130	150
70	80	140	160

Note: See Table 6.4 for the allowable fillet radii and height of shaft shoulders.

Bearing units with rubber-sealed open cast iron covers for the standard shouldered shaft diameters listed in the above table are identified by adding the prefix “Y” to their part numbers as described in the examples below.

Example **YCUCP210C**

On the set-screw side (d) : 210C50R
(Rubber-sealed open cast iron cover for 50 mm shaft dia.)

On the opposite side (d_1) : 210CD60R
(Rubber-sealed open cast iron cover for 60 mm shouldered shaft dia.)

Example **YCUCP210CE**

On the set-screw side (d) : 210CE
(Closed end cast iron cover)

On the opposite side (d_1) : 210CD60R
(Rubber-sealed open cast iron cover for 60 mm shouldered shaft dia.)

Table 6.18
Rubber-Sealed Open Cast Iron Covers for Shouldered Shafts (for UC200 & UC300 Type)

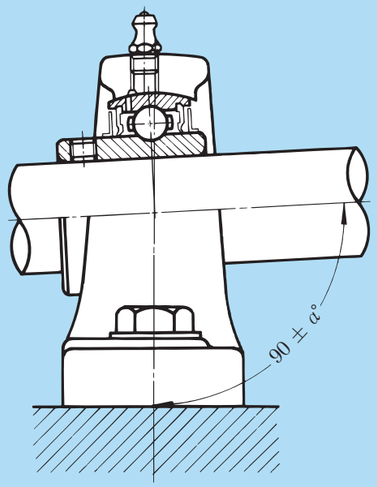
Shaft dia. (mm)	Bearing No.	Cover No.			Nominal thread dia. of cover mounting bolt
		Components		Rubber-sealed open cover	
		Open cover w/o rubber seal (a)	Rubber seal (b)	(a) + (b)	
25	UC204	204CD 25	ZF 6	204CD 25R	M5
30	UC205	205CD 30	ZF 7	205CD 30R	
35	UC206	206CD 35	ZF 8	206CD 35R	
45	UC207	207CD 45	ZF10	207CD 45R	
50	UC208	208CD 50	ZF11	208CD 50R	
55	UC209	209CD 55	ZF12	209CD 55R	
60	UC210	210CD 60	ZF13	210CD 60R	
65	UC211	211CD 65	ZF15	211CD 65R	
70	UC212	212CD 70	ZF16	212CD 70R	
75	UC213	213CD 75	ZF17	213CD 75R	
80	UC214	214CD 80	ZF18	214CD 80R	
85	UC215	215CD 85	ZF19	215CD 85R	
90	UC216	216CD 90	ZF20	216CD 90R	M10
100	UC217	217CD100	ZF22	217CD100R	
105	UC218	218CD105	ZF23	218CD105R	
30	UC305	305CD 30	ZF 7	305CD 30R	M5
35	UC306	306CD 35	ZF 8	306CD 35R	
45	UC307	307CD 45	ZF10	307CD 45R	
50	UC308	308CD 50	ZF11	308CD 50R	
55	UC309	309CD 55	ZF12	309CD 55R	
60	UC310	310CD 60	ZF13	310CD 60R	
65	UC311	311CD 65	ZF15	311CD 65R	M10
70	UC312	312CD 70	ZF16	312CD 70R	
75	UC313	313CD 75	ZF17	313CD 75R	
80	UC314	314CD 80	ZF18	314CD 80R	
85	UC315	315CD 85	ZF19	315CD 85R	
90	UC316	316CD 90	ZF20	316CD 90R	
100	UC317	317CD100	ZF22	317CD100R	
105	UC318	318CD105	ZF23	318CD105R	
110	UC319	319CD110	ZF24	319CD110R	
115	UC320	320CD115	ZF26	320CD115R	
120	UC321	321CD120	ZF27	321CD120R	
125	UC322	322CD125	ZF28	322CD125R	
135	UC324	324CD135	ZF30	324CD135R	
150	UC326	326CD150	ZF34	326CD150R	
160	UC328	328CD160	ZF36	328CD160R	

Note: 1. Add the suffix “S” to a rubber seal or rubber-sealed open cover part number if a silicone rubber seal for heat/cold resistance is required.
2. See Table 6.15 for covers corresponding to the shaft diameter d on the opposite side.

6.3 Allowable Misalignment

The allowable misalignment a of standard bearing units shown in Fig. 6.11 below is determined to be ±1.5 to 2.5 degrees by the alignment of the lubrication hole in bearing outer ring O.D. surface and the lubrication groove machined to housing bore. Although it is desirable to keep the misalignment within that range even for bearing units without relubrication, they can withstand up to ±5 degrees of misalignment.
For bearing units with covers, the allowable misalignment is restricted to be ±1.0 to 1.8 degrees due to the allowable tilt angle of the shaft within open cover bore. However, misalignment should be kept as small as possible, taking into account uneven contact of a rubber seal of open cover with the shaft, heat generated by friction between the shaft and the rubber seal, ingress of contaminants through the gap between the shaft and the rubber seal, etc.

< Fig. 6.11 >



6.4 Axial Displacement

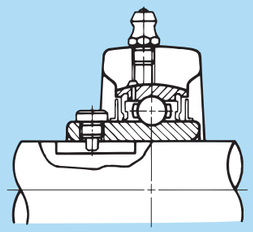
Unlike ordinary ball bearings, bearing units cannot accommodate axial displacement of the shaft not only because they are fixed to the shaft by means of set-screws, adapter sleeves or eccentric collars, but also because the spherical bearing outer ring mates with corresponding spherical housing bore diameter. The bearing may be damaged by abnormal axial load due to thermal expansion of the shaft when bearing units are exposed to high temperatures, when the temperature rises significantly during operation, or when bearing units are placed at a long distance.
Thermal expansion and contraction of the shaft need to be compensated for by using a hexagon socket full dog point set-screw SH type for the unit on free side with its tip placed in the keyway machined to the shaft as illustrated in Fig. 6.12, or by using cartridge units as shown in Fig. 6.13A. Although the former method, with a SH type set-screw and keyway, is popularly adopted as an expedient solution, cartridge units are suitable for this purpose. ASAHI also offers UCEP type bearing units to be used on free side.
When using a full dog point set-screw, the recommended shaft tolerance class for carbon steel shafts is h7 or h8 shown in Table 6.1. The keyway dimensions to be machined onto the shaft are described in Table 6.19.
The thermal expansion value of the shaft can be estimated by formula (6.1).

$$\Delta_l = a \cdot \Delta_T \cdot l \quad \cdots\cdots\cdots\cdots (6.1)$$

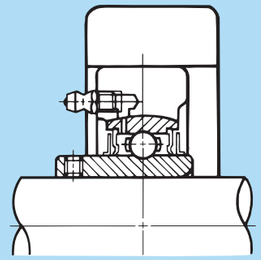
where:

Δ_l	: Axial elongation of shaft	mm
a	: Coefficient of linear thermal expansion of shaft (11.5×10^{-6} for mild steel)	1/°C
Δ_T	: Temperature differential of before and after temperature rise	°C
l	: Distance between bearings	mm

< Fig. 6.12 >
SH Type Set-Screw & Keyway on the Shaft



< Fig. 6.13A >
Cartridge Unit (UCC Type)



< Fig. 6.13B >
Expansion Type Pillow Block Unit (UCEP type)

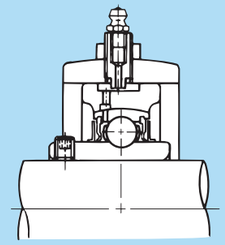
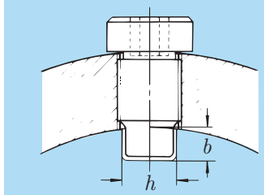


Table 6.19
Keyway Dimensions for SH Type Set-Screws

Unit: mm

Bearing No.	h (Min.)	b (Min.)	Bearing No.	h (Min.)	b (Min.)	Bearing No.	h (Min.)	b (Min.)
UC201	3	5	UC305	3.5	5	UCX05	4	5
UC202	3.5	5	UC306	4	5	UCX06	4.5	7
UC203	3.5	5	UC307	4.5	7	UCX07	4.5	7
UC204	3.5	5	UC308	5	8	UCX08	5	7
UC205	4	5	UC309	5	8	UCX09	5	8
UC206	4.8	5	UC310	5	10	UCX10	4	8
UC207	4.5	7	UC311	5.5	10	UCX11	4.5	8
UC208	4.5	7	UC312	5	10	UCX12	4.5	8
UC209	5	7	UC313	6.5	10	UCX13	5	10
UC210	5	8	UC314	5.5	10	UCX14	5.5	10
UC211	5.5	8	UC315	7.5	11	UCX15	6.5	10
UC212	5.5	8	UC316	6.5	11	UCX16	7	10
UC213	5.5	8	UC317	7.5	13	UCX17	6.5	10
UC214	6.5	10	UC318	8.5	13	UCX18	6.5	11
UC215	7	10	UC319	8	13	UCX20	8	13
UC216	7	10	UC320	8	14			
UC217	8	10	UC321	7	14			
UC218	7.5	10	UC322	9.5	14			
			UC324	8	14			
			UC326	9.5	16			
			UC328	8	16			

Note: Before machining a keyway on a shaft, gauging two SH type set-screws and a shaft using actual parts is recommended.



6.5 Radial Internal Clearance

The radial internal clearance of bearing inserts is specified in Table 6.20 for cylindrical bore and Table 6.21 for tapered bore. The axial internal clearance is about 6 to 10 times larger than the radial internal clearance.
Standard radial internal clearance (CN) is considered satisfactory to most operating conditions. However, larger radial internal clearance must be selected as initial clearance when:

(1) Bearing units are operated under high temperature.
(2) The temperature differential between the inner and outer rings is large due to the effect of heat conduction from the shaft.
(3) Temperature rise becomes large due to high-speed operation.
(4) Bearings are mounted on the shaft with interference fit.
(5) The residual clearance of bearings with tapered bore becomes negative due to tightening of the locknut.

Table 6.20 Radial Internal Clearance of Bearings With Cylindrical Bore (Set-Screw & Eccentric Collar Locking Type)

Unit: μm

Nominal bearing bore dia. d (mm)		Clearance symbol									
		C2		CN		C3		C4		C5	
Over	Incl.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
6	10	0	7	2	13	8	23	14	29	20	37
10	18	0	9	3	18	11	25	18	33	25	45
18	24	0	10	5	20	13	28	20	36	28	48
24	30	1	11	5	20	13	28	23	41	30	53
30	40	1	11	6	20	15	33	28	46	40	64
40	50	1	11	6	23	18	36	30	51	45	73
50	65	1	15	8	28	23	43	38	61	55	90
65	80	1	15	10	30	25	51	46	71	65	105
80	100	1	18	12	36	30	58	53	84	75	120
100	120	2	20	15	41	36	66	61	97	90	140
120	140	2	23	18	48	41	81	71	114	105	160

Table 6.21 Radial Internal Clearance of Bearings With Tapered Bore (Adapter Sleeve Locking Type)

Unit: μm

Nominal bearing bore dia. d (mm)		Clearance symbol							
		CT2		CTN		CT3		CT4	
Over	Incl.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
24	30	5	20	13	28	23	41	30	53
30	40	6	20	15	33	28	46	40	64
40	50	6	23	18	36	30	51	45	73
50	65	8	28	23	43	38	61	55	90
65	80	10	30	25	51	46	71	65	105
80	100	12	36	30	58	53	84	75	120
100	120	15	41	36	66	61	97	90	140
120	140	18	48	41	81	71	114	105	160

6.6 Mounting Base Design

The mounting surface where pillow block or flange type bearing units are installed must be flat and free from distortion. The flatness tolerance of the mounting surface should be 0.1 mm or less for bearing units with bore diameter number “10” or smaller, and 0.15 mm or less for those with bore diameter number “11” or larger. The mounting surface must be rigid enough so as not to cause vibration and abnormal noise.
The bore diameter of housings into which cartridge units are mounted should be finished to the extent that they can move freely in the axial direction. Housing bore tolerances for cartridge units are shown in Table 6.22.
Proper dimensions of guide rails, adjusting bolts and nuts for take-up units are described in Table 6.23.

Table 6.22 Housing Bore Tolerances for Cartridge Units

Unit: μm

Nominal bore dia. (mm)		Tolerance			
Over	Incl.	JS7	H7	H8	G7
50	80	±15	+30 to 0	+46 to 0	+40 to +10
80	120	±17.5	+35 to 0	+54 to 0	+47 to +12
120	180	±20	+40 to 0	+63 to 0	+54 to +14
180	250	±23	+46 to 0	+72 to 0	+61 to +15
250	315	±26	+52 to 0	+81 to 0	+69 to +17
315	400	±28.5	+57 to 0	+89 to 0	+75 to +18

Note: Apply H7 or H8 for normal operations, JS7 for operations with impact loads, and G7 when high heat is transferred from the shaft to the bearing inner ring.

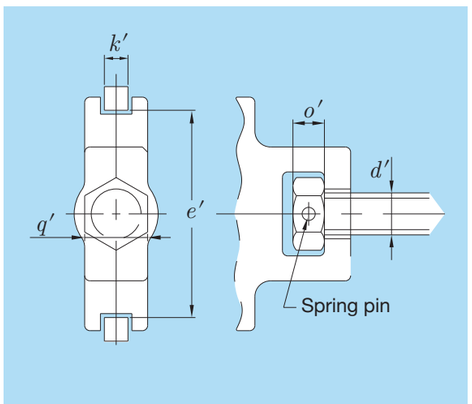


Table 6.23 Dimensions of Guide Rails, Adjusting Bolts and Nuts

Unit: mm

Housing No.			Guide rail		Adjusting bolt & nut		
			e'±0.5	k'	d'	q'	o'
T204	T204C	CT204	77	11	16	24	12
T205	T205C	CT205	77	11	16	24	12
T206	T206C	CT206	90	11	18	27	12
T207	T207C	CT207	90	11	18	27	12
T208	T208C	CT208	103	15	26	36	14
T209	T209C	CT209	103	15	26	36	14
T210	T210C	CT210	103	15	26	36	14
T211	T211C	CT211	131	20	30	46	20
T212	T212C	CT212	131	20	30	46	26
T213	T213C	CT213	152	24	36	50	26
T214	—	CT214	152	24	36	50	26
T215	—	CT215	152	24	36	50	26
T216	—	CT216	167	24	36	50	26
T217	—	CT217	175	28	42	58	30
TX05	TX05C	—	90	11	18	27	12
TX06	TX06C	—	90	11	18	27	12
TX07	TX07C	—	103	15	26	36	14
TX08	TX08C	—	103	15	26	36	14
TX09	TX09C	—	103	15	26	36	14
TX10	TX10C	—	131	20	30	46	20
TX11	TX11C	—	131	20	30	46	26
TX12	TX12C	—	152	24	36	50	26
TX13	—	—	152	24	36	50	26
TX14	—	—	152	24	36	50	26
TX15	—	—	167	26	36	50	26
TX16	—	—	175	26	42	58	30
TX17	—	—	175	26	42	58	30
T305	—	CT305	81	11	22	32	12
T306	—	CT306	91	15	24	34	14
T307	—	CT307	101	15	26	36	16
T308	—	CT308	113	16	28	40	18
T309	—	CT309	126	16	30	46	20
T310	—	CT310	141	18	32	46	22
T311	—	CT311	151	20	34	46	24
T312	—	CT312	161	20	36	50	24
T313	—	CT313	172	24	38	50	26
T314	—	CT314	182	24	42	58	28
T315	—	CT315	194	24	42	58	28
T316	—	CT316	206	28	46	65	34
T317	—	CT317	216	30	46	65	34
T318	—	CT318	230	30	50	70	38
T319	—	CT319	242	32	50	70	38
T320	—	CT320	262	32	52	75	38
T321	—	CT321	262	32	52	75	38
T322	—	CT322	287	36	55	80	42
T324	—	CT324	322	42	60	90	48
T326	—	CT326	352	48	65	100	52
T328	—	CT328	382	48	70	100	56

Note: The deviations of dimension k' are specified in JIS.

6.7 Dowel Pins

Pillow block and flange type cast iron housings listed in Table 6.24 are provided with two dowel pin seats near mounting bolt holes for easy and accurate positioning of bearing units. Machining positions of dowel pin holes and recommended pin diameters are shown in the same table.

Table 6.24 Machining Positions of Dowel Pin Holes and Recommended Pin Diameters

Unit: mm

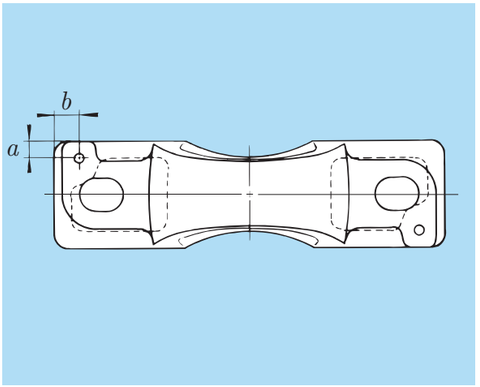
Housing No.				a	b	Recommended pin diameter
P203	P203C	CP203	—	5	8	3
P204	P204C	CP204	PH204	5	8	3
P205	P205C	CP205	PH205	6	10	3
P206	P206C	CP206	PH206	6	13	3
P207	P207C	CP207	PH207	6	11	4
P208	P208C	CP208	PH208	9	12	4
P209	P209C	CP209	PH209	9	12	5
P210	P210C	CP210	PH210	10	13	5
P211	P211C	CP211	—	10	13	6
P212	P212C	CP212	—	10	17	6
P213	P213C	CP213	—	9	18.5	6
P214	—	CP214	—	9	15	6
P215	—	CP215	—	9.5	16	6
P216	—	CP216	—	11	17	8
P217	—	CP217	—	11	17	8
P218	—	CP218	—	11	18	10
PX05	PX05C	—	—	6	8	3
PX06	PX06C	—	—	8	13	4
PX07	PX07C	—	—	8	16	4
PX08	PX08C	—	—	10	19	5
PX09	PX09C	—	—	10	19	5
PX10	PX10C	—	—	11	19	6
PX11	PX11C	—	—	11	23	6
PX12	PX12C	—	—	12	24	6
PX13	—	—	—	12	24	6
PX14	—	—	—	13	28	6
PX15	—	—	—	13	28	8
PX16	—	—	—	15	22	8
PX17	—	—	—	15	22	10
PX18	—	—	—	15	22	10
PX20	—	—	—	15	19	10
P305	—	CP305	—	5.5	10.5	4
P306	—	CP306	—	6.5	10	4
P307	—	CP307	—	8	13	5
P308	—	CP308	—	9	13	5
P309	—	CP309	—	10	14	6
P310	—	CP310	—	11	15	6
P311	—	CP311	—	12	19	8
P312	—	CP312	—	13	22.5	8
P313	—	CP313	—	12.5	20	10
P314	—	CP314	—	13	20	10
P315	—	CP315	—	13	26	10
P316	—	CP316	—	15	28	10
P317	—	CP317	—	15	28	10
P318	—	CP318	—	15	28	10
P319	—	CP319	—	20	32	10
P320	—	CP320	—	20	32	13
P321	—	CP321	—	20	32	13
P322	—	CP322	—	22.5	35	13
P324	—	CP324	—	25	35	13
P326	—	CP326	—	29	33	13
P328	—	CP328	—	29	33	16

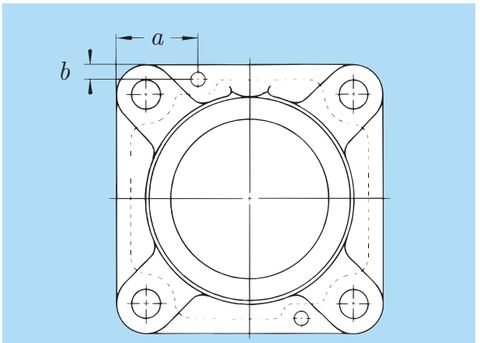
Unit: mm

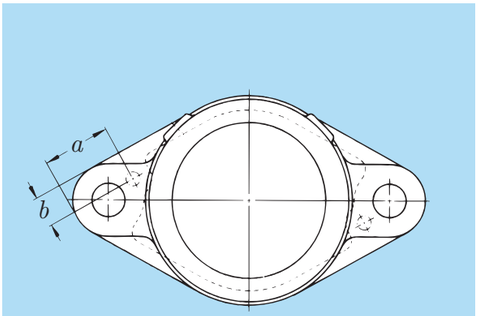
Housing No.			a	b	Recommended pin diameter
—	—	—	—	—	—
F204	F204C	CF204	30	6	3
F205	F205C	CF205	34	6	3
F206	F206C	CF206	35	6	3
F207	F207C	CF207	38	7	4
F208	F208C	CF208	40	8	4
F209	F209C	CF209	43	8	5
F210	F210C	CF210	47	8	5
F211	F211C	CF211	47	8	6
F212	F212C	CF212	50	8	6
F213	F213C	CF213	52	9	6
F214	—	CF214	54	9	6
F215	—	CF215	54	9	6
F216	—	CF216	55	10	8
F217	—	CF217	58	10	8
F218	—	CF218	62	11	10
FX05	FX05C	—	34	6	3
FX06	FX06C	—	37	7	4
FX07	FX07C	—	40	8	4
FX08	FX08C	—	43	8	5
FX09	FX09C	—	47	8	5
FX10	FX10C	—	47	8	6
FX11	FX11C	—	45	8	6
FX12	FX12C	—	52	9	6
FX13	—	—	54	9	6
FX14	—	—	58	9	6
FX15	—	—	58	10	8
FX16	—	—	58	10	8
FX17	—	—	58	11	10
FX18	—	—	58	11	10
FX20	—	—	75	12	10
F305	—	CF305	37	6	4
F306	—	CF306	40	7	4
F307	—	CF307	46	8	5
F308	—	CF308	48	8	5
F309	—	CF309	48	8	6
F310	—	CF310	52	9	6
F311	—	CF311	55	10	8
F312	—	CF312	56	10	8
F313	—	CF313	56	11	10
F314	—	CF314	62	11	10
F315	—	CF315	65	11	10
F316	—	CF316	70	11	10
F317	—	CF317	70	11	10
F318	—	CF318	78	12	10
F319	—	CF319	80	12	10
F320	—	CF320	85	14	13
F321	—	CF321	85	14	13
F322	—	CF322	90	14	13
F324	—	CF324	95	14	13
F326	—	CF326	105	15	13
F328	—	CF328	120	17	16

Unit: mm

Housing No.			a	b	Recommended pin diameter
—	—	—	—	—	—
FL204	FL204C	CFL204	26	9	3
FL205	FL205C	CFL205	32	10	3
FL206	FL206C	CFL206	34	12	3
FL207	FL207C	CFL207	34	13	4
FL208	FL208C	CFL208	35	15	4
FL209	FL209C	CFL209	41	15	5
FL210	FL210C	CFL210	41	15	5
FL211	FL211C	CFL211	45	18	6
FL212	FL212C	CFL212	52	20	6
FL213	FL213C	CFL213	51	21	6
FL214	—	CFL214	51	21	6
FL215	—	CFL215	53	23	6
FL216	—	CFL216	56	22	8
FL217	—	CFL217	57	24	8
FL218	—	CFL218	57	25	10
FLX05	FLX05C	—	27	12	3
FLX06	FLX06C	—	30	12	4
FLX07	FLX07C	—	32	15	4
FLX08	FLX08C	—	34	14	5
FLX09	FLX09C	—	35	15	5
FLX10	FLX10C	—	38	18	6
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
FL305	—	CFL305	37	10	4
FL306	—	CFL306	47	13	4
FL307	—	CFL307	45	13	5
FL308	—	CFL308	45	15	5
FL309	—	CFL309	53	18	6
FL310	—	CFL310	53	18	6
FL311	—	CFL311	52	19	8
FL312	—	CFL312	60	20	8
FL313	—	CFL313	61	23	10
FL314	—	CFL314	69	24	10
FL315	—	CFL315	66	25	10
FL316	—	CFL316	74	27	10
FL317	—	CFL317	76	28	10
FL318	—	CFL318	76	30	10
FL319	—	CFL319	81	30	10
FL320	—	CFL320	87	33	13
FL321	—	CFL321	87	33	13
FL322	—	CFL322	87	34	13
FL324	—	CFL324	96	38	13
FL326	—	CFL326	96	40	13
FL328	—	CFL328	105	43	16







6.8 Inspection

6.8.1 Post-installation Inspection

Upon installation of bearing units, check the following points before a test run to ensure that the bearing units are properly installed.

(1) Bearing units are firmly fixed onto the mounting surface.
(2) Bearing locking devices and other parts are firmly fixed to the shaft.
(3) The shaft rotates smoothly by hand.

6.8.2 Test Run Inspection

For operation with high-speed rotation or heavy load, conduct a test run in the following steps after the post-installation inspection.

(1) Check if there is no abnormal vibration or noise when operated at low speed with no load.
(2) Check if no abnormality is observed in noise and vibration level, temperature rise, etc. during operation at incremental rotational speed up to the actual operating speed.
(3) Conduct 2-3 hours of a test run under the actual operating conditions to see if the operating temperature reaches its peak and then shows a decreasing trend to a stable level.
(4) Check if bearing locking devices and other parts that are mounted to the shaft are not loosened after the test run.

Possible abnormal phenomena of bearing units during a test run and their main causes are shown in Table 6.25.

Table 6.25 Abnormal Phenomena of Bearing Units During Test Run and Their Main Causes

Phenomenon	Cause
Excessive torque	Too tight belts or chains
	Abnormal axial load due to improper installation procedures of bearing units
	Abnormal axial load due to thermal expansion and contraction of shaft
	Poor flatness on mounting surface
	Overtightening of adapter sleeve locknut
	Slinger deformed to be in contact with rubber seal due to careless handling during installation
Abnormal vibration	Bearing locking devices and/or other parts not firmly fixed to shaft
	Insufficient tightening of mounting bolts; bearing units not firmly fixed onto mounting surface
	Too loose fit between bearing and shaft
	Unbalanced rotating bodies
	Bent shaft
	Insufficient rigidity of mounting surface
	Misalignment when three or more bearing units are mounted on same shaft
Abnormal temperature rise	Bearing locking devices not firmly fixed to shaft
	Excessive load
	Poor flatness on mounting surface
	Overtightening of adapter sleeve locknut
	Negative bearing radial internal clearance due to inner ring expansion caused by heat conduction from shaft
	No compensation for shaft expansion and contraction
	Slinger deformed to be in contact with rubber seal due to careless handling during installation
	Rotational speed exceeding limit
	Misalignment when three or more bearing units are mounted on same shaft
Abnormal noise	Bearing locking devices and/or other parts not firmly fixed to shaft
	Cracks in inner ring due to overtightening of set-screws
	Dents on bearing raceway caused by damage due to careless handling during installation
	Fretting wear on bearing raceway caused by vibration due to external factors while bearing is stationary
	Dents on bearing raceway caused by excessive load while bearing is stationary
	Foreign matters entering between slinger and rubber seal, or slinger deformed to be in contact with rubber seal due to careless handling during installation

6.8.3 Periodic Inspection

Periodic inspections should be conducted at appropriate intervals depending on operating and environmental conditions of bearing units. Typical inspection items are as follows.

(1) Looseness of locking devices
(2) Vibration level
(3) Degree of temperature rise
(4) Noise level
(5) Overall appearance
(6) Grease replenishment time & amount of remaining grease

6.8.4 Bearing Unit Failure

Table 6.26 lists the common failure of bearing units and its main causes due to improper installation or careless handling. The causes listed in Table 6.25 can result in bearing unit failure even if no abnormal phenomena are observed during a test run. In that case, a comprehensive investigation must be conducted.

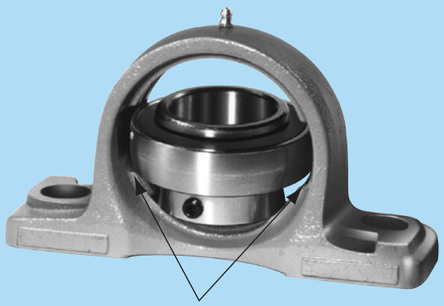
Table 6.26 Bearing Unit Failure and Its Main Causes

Failure	Cause
Excessive torque/ Total bearing lockup	Poor lubrication
	Rubber seal deformed to be in contact with slinger due to rapid relubrication while bearing is stationary
Abnormal vibration	Excessive bearing internal clearance due to wear on rolling surface
	Flaking on bearing raceway and/or rolling elements
Abnormal temperature rise	Poor lubrication
	Excessive grease inside bearing and/or rubber seal deformed to be in contact with slinger due to overgreasing while bearing is stationary
Abnormal noise	Pitting or flaking on bearing raceway and/or rolling elements
	Dents on bearing raceway caused by foreign matters entering into bearing chamber during relubrication
	Poor lubrication
	Rust caused by entry of water into bearing chamber
	Creep between bearing and shaft
Flaking on bearing raceway/ rolling elements	Excessive load
	Poor flatness on mounting surface
	Bent shaft
	Misalignment when three or more bearing units are mounted on same shaft
	Insufficient bearing internal clearance due to overtightening of adapter sleeve locknut or temperature rise
	Poor lubrication
Breakage of bearings/ housings	Flaking on bearing raceway
	Excessive load
	Excessive shock loads
	Poor flatness on mounting surface
	Overtightening of set-screws
	Locking pin biting into bearing filling slot in housing due to rotating outer ring load
	Broken retainer

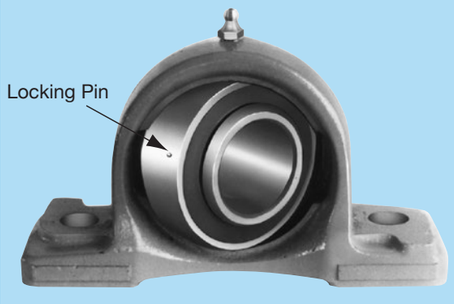
6.9 Bearing Replacement

When mounting the bearing in the housing, place the bearing horizontally into the filling slot of the housing (Fig. 6.14) so that the locking pin stays in the slot (Fig. 6.15), then turn the bearing into place inside the housing. It is also desirable that the lubrication hole on the bearing outer ring comes as close as possible to the grease fitting of the housing. Bearing mounting in the housing by force with the locking pin out of the slot may result in outer ring cracking.

< Fig. 6.14 >



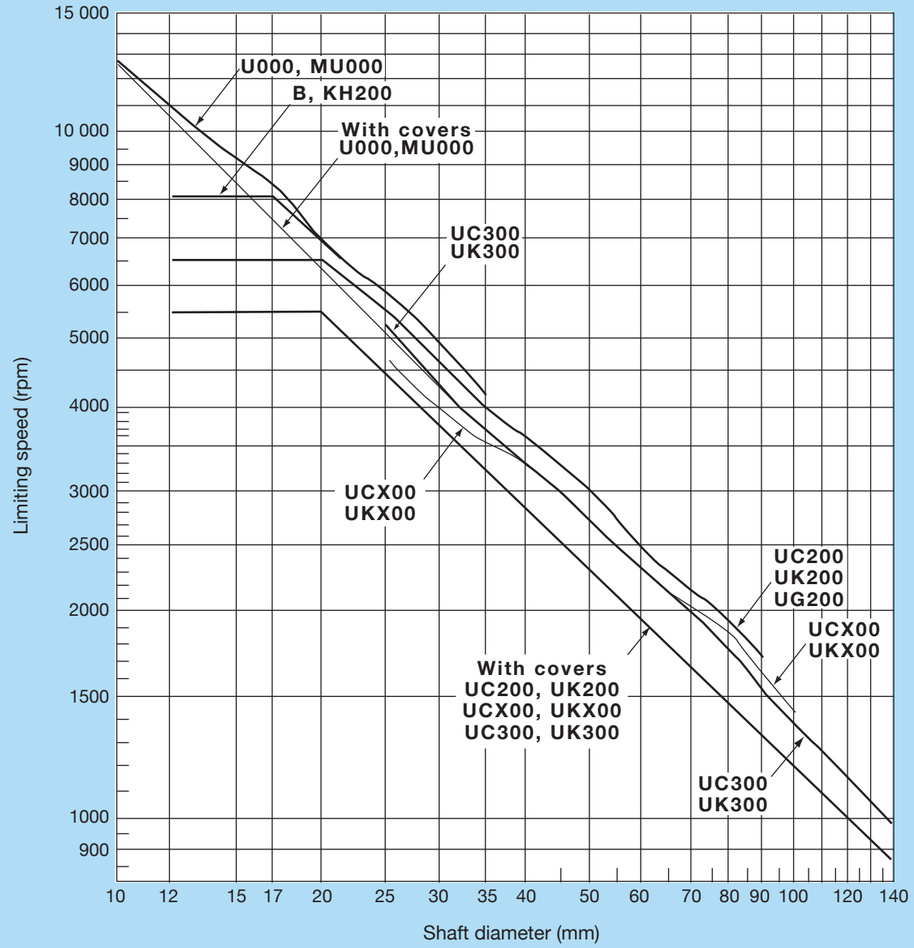
< Fig.6 .15 >



7.1 Limiting Speed

The limiting speed of a bearing insert is dependent on the type and size of a bearing, lubricant, lubrication method, etc. and generally expressed as dn value (d = bearing I.D. in mm, n = rotational speed in rpm) or $d_{\mathrm{m}}n$ value (d_{m} = mean diameter of bearing I.D. and O.D. in mm, n = rotational speed in rpm).
Bearing inserts have deep-grooved internal structures and are sealed with rubber seals on both sides to retain grease in the bearing chamber. Due to this characteristic, their speed capabilities are restricted by the circumferential speed of the seal contact area.
The limiting speed values of bearing units with covers are lower than those of standard bearing units not only due to the friction heat generated between the rubber seal attached to the cover and the shaft, but also due to less heat dissipation owing to the cover mounted over the housing.
The limiting speed values shown in Fig. 7.1 are, therefore, determined in consideration of these factors.
The allowable $d_{\mathrm{m}}n$ value for high temperature bearings specified by the suffix HR23 is set to be 100 000 due to the restriction by the agitation resistance of grease. In other words, the limiting speed values of HR23 bearing units are approximately 50 % of those of the standard ones shown in Fig. 7.1.

< Fig. 7.1 > Limiting Speed of Bearing Units



Note: 1. Consult ASAHI if the rotational speed exceeds the limiting speed shown in Fig. 7.1.
2. Consult ASAHI for the limiting speed of bearings with double-lip (RD) or triple-lip (RT) seals.

7.2 Benefits of Lubrication

Lubrication provides the following benefits by forming a barrier of oil film onto the rolling and sliding surfaces that prevents direct contact of metal components inside the bearing.

(1) Reduction of friction and wear
(2) Longer bearing service life
(3) Rust prevention
(4) Protection from contamination

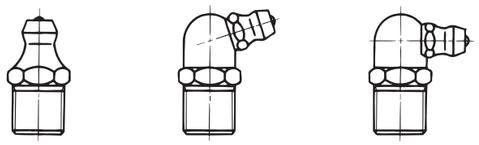
7.3 Relubrication

Bearing units are all factory-lubricated with grease, and Cast Iron series is designed to be relubricated. Grease injected from the grease fitting by means of a grease gun flows into the bearing chamber passing through the lubrication groove in the housing and lubrication hole in the bearing outer ring. To prevent excessive greasing, it is recommended to relubricate a bearing unit during operation. If unavoidable, perform relubrication while rotating the bearing inner ring by hand.
There are three types of grease fittings available as shown in Table 7.1. Depending on the mounting position of a bearing unit, a grease fitting with a convenient angle for easier relubrication can be selected.

When many bearing units are installed in a machine, a centralized lubrication system is often adopted for regular maintenance. In such cases, the standard bearing units can suffice if neither high-speed operation, high relubricating frequency nor a large amount of grease replenishment at once is required. If, on the other hand, any of these conditions apply, there is a risk that overheating or seizure of the bearing may occur due to excessive greasing because the standard bearing units are not furnished with grease drain holes. For centralized lubrication, a grease with ASTM (JIS) worked penetration (after 60 double strokes at 25 °C) of 385 to 310 (NLGI grade 0 or 1) is recommended.
Although grease gradually deteriorates with time, bearing units can withstand very long-term use without relubrication at normal temperatures under clean environmental conditions as demonstrated in the test results shown in Table 5.1. In conditions where grease deteriorates rapidly, such as dusty or humid environments or when bearing operating temperatures increase, periodical grease replenishment must be performed so as to purge the deteriorated grease from bearing chambers and maintain healthy lubrication with fresh grease for longer service lives of bearings.

Note: If bearing units with bore diameter number “13” or smaller need the thread size of G1/8 (PF1/8) for centralized lubrication, use a reducing socket “GZU” as shown in Fig. 7.2.

Table 7.1 Grease Fitting Types

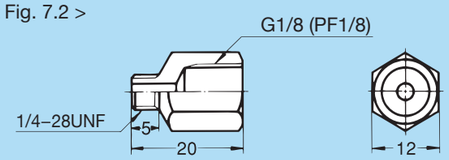


Upright 67.5° elbow 90° elbow

Part No.	Thread designation	Type	Applicable housing	
			Type	No.
GU1	1/4-28UNF	Upright	P, IP, PH, PA, EP F, FC, FS, FL, FA FK, C, ECH	201–213 X05–X13 305–313
G1	G1/8 (PF1/8)			214–218 X14–X20 314–328
GU2	1/4-28UNF	67.5° elbow	T	201–213 X05–X13 305–313
G2	G1/8 (PF1/8)			214–217 X14–X17 314–328
GU3	1/4-28UNF	90° elbow	Available on request	
G3	G1/8 (PF1/8)		TL, TU	204–212 313–318
GUD1	1/4-28UNF	Upright	MP, MPA, MF, MFC MFL, AP, AF, AFL PPL, TBL, FPL NFL, FBL,HPL	203–213
GUS2	1/4-28UNF	67.5° elbow	MT, TPL	204–210

Note: The head shape and dimensions of the grease fittings are specified in JIS B 1575.

< Fig. 7.2 >



7.4 Grease

7.4.1 Selection of Grease

Since bearing units are often intended for long-term use without relubrication, high-quality greases must be selected. Although many different types of greases are commercially available for various purposes depending on the combination of base oils, thickeners and additives, lithium-soap-thickened greases are most widely used as bearing greases due to their superiority over others in water and heat resistance and mechanical stability and can be used in both high and low operating temperature conditions to some degree.
ASAHI bearing units are lubricated at the factory with the high-quality greases listed in Table 7.2 that have best performed in grease testing among those suitable for each temperature range.
Greases are produced by lubricant manufacturers through careful selection of base oils, thickeners and additives as well as their formulations. Mixing greases with different thickeners must be avoided as it can cause changes in grease consistency and dropping point, resulting in considerable impact on the lubricating efficiency. Grease compatibility problems may also arise upon mixing greases of different base oils, such as individual greases insoluble in each other and oil separation. Even when two mineral-oil-based greases are mixed, they may affect one another due to different types of mineral oils and additives used by lubricant manufacturers. In principle, the use of the same grease as the factory-lubricated one without mixing with others is therefore recommended for replenishment. In case replenishment with a different grease is unavoidable, Table 7.3 lists the properties of typical greases commercially available for general industrial uses. They are mineral-oil-based greases thickened with lithium soap, the same base oil and thickener as Alvania Grease S.
HR23 high temperature bearings are lubricated with fluorine-based grease at the factory and designed to be able to operate for a longer period of time without relubrication under severe conditions of high temperature or high humidity. HR23 bearings are assembled with non-relubricatable housings to be available as maintenance-free bearing units.

Table 7.2 Properties of ASAHI Standard Greases

Type	Product name	Manufacturer	NLGI grade	Thickener	Dropping point (°C)	Range of operating temperature (°C)
General purpose	Alvania Grease S3	Shell Lubricants Japan K.K.	3	Lithium	182	–20 to +135
Food grade	Clarion® Food Machinery HT EP Grease No. 2	CITGO Petroleum Corporation	2	Aluminum complex	260	–12 to +163
High temperature	Super Lube No. 3	Yuken Kogyo Co., Ltd.	3	Calcium complex	300 or above	–20 to +200
Cold temperature	AeroShell Grase 7	Shell Lubricants Japan K.K.	1–2	Microgel	260 or above	–73 to +121

Note: 1. NLGI Grade expresses the grease consistency level based on the classification shown in the table below.
2. The consistency of AeroShell Grease 7 is between NLGI grades 1 and 2.

NLGI grade	ASTM (JIS) worked penetration (60 double strokes) at 25°C	
0	355–385	Soft
1	310–340	↑
2	265–295	↓
3	220–250	Firm

Table 7.3
Properties of Commercially Available Greases (Based on Mineral Oil, Thickened With Lithium Soap)

Manufacturer	Product name	Range of operating temperature (°C)
Idemitsu Kosan Co., Ltd.	Daphne Grease MP No. 0, 1, 2, 3	–20 to +130
Shell Lubricants Japan K.K.	Alvania Grease S1, S2, S3	–20 to +135
Shell Lubricants Japan K.K.	Sunlight Grease 1, 2, 3	–20 to +135
Eneos Corporation	Multinoc Grease 1, 2	–20 to +125
Chuo Yuka Co., Ltd.	Centax No. 0, 1, 2, 3	–20 to +130
Nippeco Ltd.	Nippeco MP No. 0, 1, 2, 3	–20 to +130

7.4.2 Amount of Grease

ASAHI standard bearing units are pre-lubricated at the factory with an amount of grease that fills up 30 % of the bearing chamber, which is considered adequate for proper lubrication in general.
The standard grease fill amount for relubrication is shown in Table 7.4, the indicated values of which are equivalent to about 80 % of the filled amount at the factory. If quantitative grease supply is difficult, replenish a bearing until the old grease is extruded from the chink between the bearing outer ring and the slinger.
For operation at very low speed ($dn < 20\,000$), an increased fill amount of grease may help prevent the ingress of foreign matters and moisture.

Table 7.4 Standard Grease Fill Amount for Relubrication

Unit: g

Bearing No.			Fill amount	Bearing No.		Fill amount	Bearing No.		Fill amount
UC201	—	—	1.2	UC305	UK305	3	UCX05	UKX05	2.2
UC202	—	—	1.2	UC306	UK306	3.8	UCX06	UKX06	3.2
UC203	—	—	1.2	UC307	UK307	5.7	UCX07	UKX07	3.9
UC204	—	UG204	1.2	UC308	UK308	7.8	UCX08	UKX08	5
UC205	UK205	UG205	1.4	UC309	UK309	9.4	UCX09	UKX09	5.4
UC206	UK206	UG206	2.2	UC310	UK310	12.8	UCX10	UKX10	7.4
UC207	UK207	UG207	3.2	UC311	UK311	16.4	UCX11	UKX11	10
UC208	UK208	UG208	3.9	UC312	UK312	21	UCX12	UKX12	11.8
UC209	UK209	UG209	5	UC313	UK313	26	UCX13	UKX13	13.6
UC210	UK210	UG210	5.4	UC314	—	31.5	UCX14	—	15.2
UC211	UK211	UG211	7.4	UC315	UK315	38	UCX15	UKX15	18.8
UC212	UK212	UG212	10	UC316	UK316	41	UCX16	UKX16	23
UC213	UK213	UG213	11.8	UC317	UK317	52	UCX17	UKX17	28
UC214	—	—	13.6	UC318	UK318	62	UCX18	UKX18	33.5
UC215	UK215	—	15.2	UC319	UK319	73	UCX20	UKX20	46.5
UC216	UK216	—	18.8	UC320	UK320	92			
UC217	UK217	—	23	UC321	—	106			
UC218	UK218	—	28	UC322	UK322	133			
				UC324	UK324	158			
				UC326	UK326	194			
				UC328	UK328	246			

Note: 1. This table does not apply to molybdenum-disulfide-based lubricants.
2. The standard fill amount for MUC200 type is the same as for UC200 type.

7.4.3 Relubrication Interval

Relubrication intervals for bearing units vary widely depending on the type and quality of grease used and operating conditions. Under normal operating conditions, it is advisable to schedule relubrication in less than 1/2 of the estimated grease life that can be obtained from formula (7.1).

$$\log L = 4.73 - (T - 17.2)(0.0104 + 8.46 \times 10^{-7} n) - 0.0047 \frac{n \cdot F_r^{1.5}}{C_r^{1.9}} \quad \cdots\cdots (7.1)$$

where:

L	: Grease life	h
T	: Bearing operating temperature	°C
n	: Rotational speed	r/min
F_r	: Radial load	kN
C_r	: Basic dynamic radial load rating of bearing	kN

Table 7.5 shows the general relubrication intervals for various environmental conditions and bearing operating temperatures.

Table 7.5 Relubrication Intervals

Bearing operating temperature (°C)	Relubrication interval		
	Environmental condition		
	Clean	Dirty	Washdown or extremely dirty/humid
50	3 years	6 months	3 months
70	1 year	2 months	1 month
100	2.5 months	2 weeks	1 week
120	1.5 months	1 week	3 days
150	2 weeks	3 days	Daily [1]

1) Daily relubrication is required.

7.5 Ranges of Operating Temperatures

ASAHI offers a wide range of products as shown in Table 7.6 to meet various operating temperatures.
High temperature bearings have larger radial internal clearances than normal bearings as specified in Table 7.6 below. If the temperature differential between the inner and outer rings is large, the selection of an even larger radial internal clearance should be considered. In bearing life calculation, the basic dynamic radial load rating needs to be corrected according to the bearing temperature as described in Subsection 4.2.3.
For applications where operating temperatures exceed 150 °C, consult ASAHI along with details of specifications and operating conditions.

Table 7.6 Ranges of Operating Temperatures by Product Series

Product series	Range of operating temperature (°C)	Grease	Rubber seal material
Cast Iron series	−15 to +100	Alvania Grease S3	
Pressed Steel series	−15 to +100	Alvania Grease S3	
Stainless series	−10 to +100	Clarion® Food Machinery HT EP Grease No. 2	
Alminum series (without covers)	−10 to +80	Clarion® Food Machinery HT EP Grease No. 2	
Alminum series (with covers)	−10 to +60	Clarion® Food Machinery HT EP Grease No. 2	Nitrile (NBR)
Plastic series	−10 to +80	Clarion® Food Machinery HT EP Grease No. 2	
Silver series	−10 to +80	Alvania Grease S3	
Stainless Silver series	−10 to +80	Clarion® Food Machinery HT EP Grease No. 2	
ECO series	−10 to +100	Clarion® Food Machinery HT EP Grease No. 2	

Table 7.7 Ranges of Operating Temperatures by Bearing Suffix (for UC, UG, UK, UR and SER Type Bearings)

Bearing type	Bearing suffix	Range of operating temperature (°C)	Radial internal clearance		Grease	Rubber seal material
			Cylindrical bore	Tapered bore		
Standard	-	-15 to +100	CN	CTN	Alvania Grease S3	Nitrile (NBR)
High temperature	HR4	Normal to +120	C3	CT3	Super Lube No. 3	Nitrile (NBR)
High temperature	HR5	Normal to +200	C4	CT4	Super Lube No. 3	Silicone
High temp. & food grade	HR20	Normal to +150	C4	CT4	Clarion® Food Machinery HT EP Grease No. 2	Silicone
High temp. & maintenance-free	HR23	Normal to +230	C4	CT4	Fluorine grease	Silicone
Cold temperature	CR2A	-40 to +100	CN	CTN	AeroShell Grase 7	Silicone

Note: 1. Standard radial internal clearance symbols CN and CTN are omitted from part numbers.
2. This table applies to UC, UG, UK, UR and SER type bearings. Consult ASAHI for high and cold temperature options for other bearings.

8.1 Precautions for Selection

(1) Select a shaft with the recommended tolerance class as a too loose fit between the shaft and inner ring can cause inner ring cracking as well as vibration and shaft runout.

(2) Insufficient rigidity and flatness of the mounting surface can deform the housing and bearing outer ring, resulting in shorter service life. The flatness tolerance of the mounting surface should be, therefore, 0.1 mm or less for bearing units with bore diameter number “10” or smaller, and 0.15 mm or less for those with bore diameter number “11” or larger.

(3) An adequate safety factor should be considered in selecting products as the housing strength depends on the direction and type of an applied load as well as a housing material.

(4) Silver series, ECO series and Plastic series bearings may not align smoothly inside the housings as tighter fits are adopted for those series considering the differences in the linear expansion coefficients of the materials used for the bearings and housings.

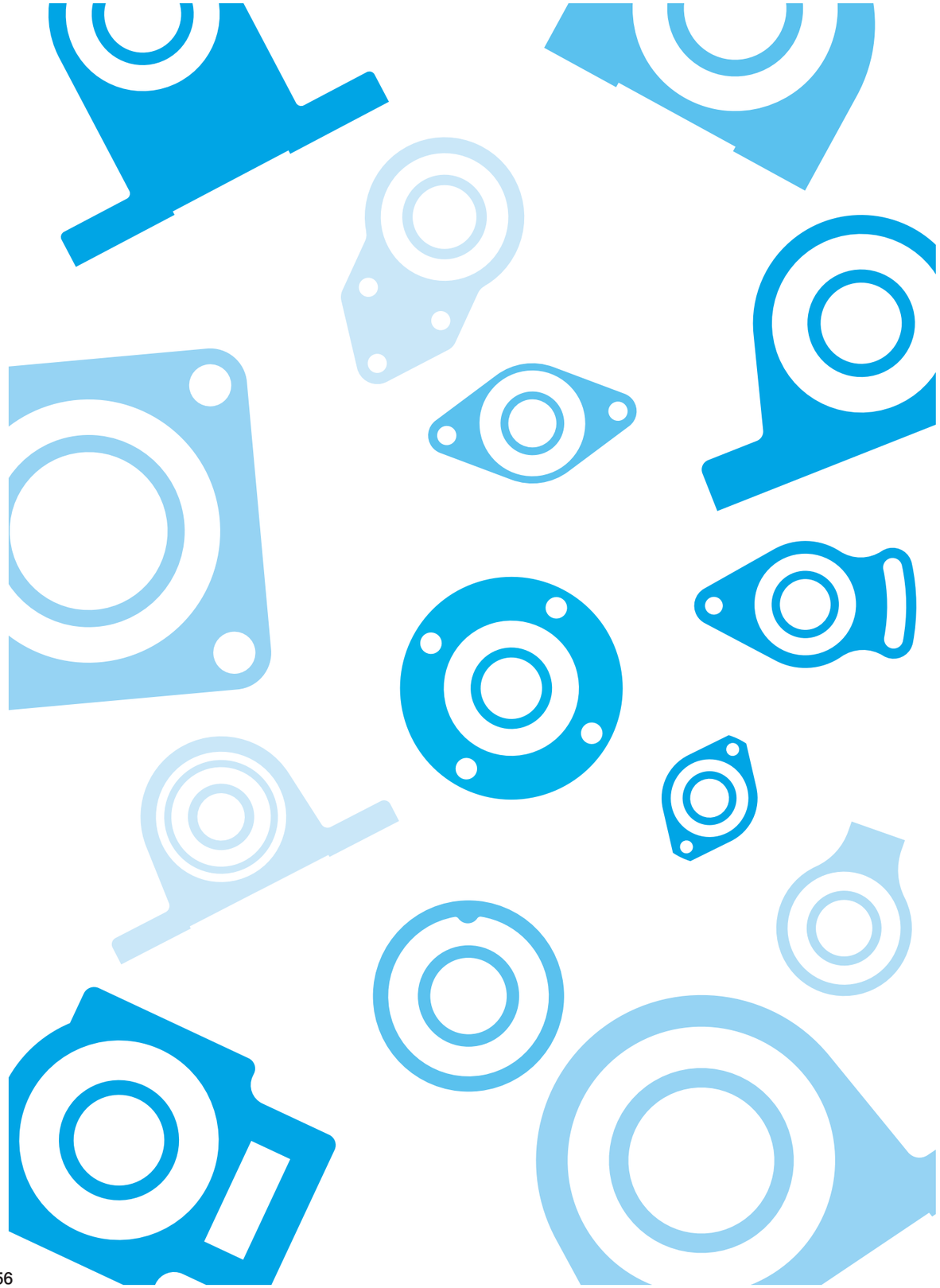
8.2 Precautions for Handling

(1) At the time of bearing unit installation, check first that the shaft is of proper diameter and free from bends, nicks and burrs. Then, slowly place the bearing unit on the shaft so the slingers do not deform due to heavy impact on the inner ring or the shaft.

(2) When mounting UC type bearing onto the shaft, tighten two set-screws on the inner ring evenly to the recommended torque so as to avoid inner ring cracking due to overtightening.

(3) For the installation of UK type bearings, tighten the locknut to the recommended torque so that the internal radial clearance will not become negative due to overtightening.

(4) Ensure the locking pin stays in the filling slot of the housing during the installation of bearing units. Bearing mounting in the housing by force with the locking pin out of the filling slot can lead to outer ring cracking.



Appendix Contents

kN–kgf Conversion Table for Basic Load Ratings

(based on 1 kgf = 9.8 N)

Cast Iron & Pressed Steel Series

Bearing No.							Basic dynamic load rating C_r		Basic static load rating C_{0r}	
							(kN)	(kgf)	(kN)	(kgf)
—	—	—	B1–B3	KH201–KH203	—	—	9.55	975	4.8	490
UC201–UC204	UG204	—	B4	KH204	—	—	12.8	1310	6.6	680
UC205	UG205	UK205	B5	KH205	—	—	14	1430	7.9	800
UC206	UG206	UK206	B6	KH206	UCX05	UKX05	19.6	2000	11.3	1150
UC207	UG207	UK207	B7	KH207	UCX06	UKX06	25.9	2640	15.4	1570
UC208	UG208	UK208	—	KH208	UCX07	UKX07	29.3	2990	17.9	1830
UC209	UG209	UK209	—	KH209	UCX08	UKX08	33	3350	20.5	2090
UC210	UG210	UK210	—	KH210	UCX09	UKX09	35.5	3600	23.2	2370
UC211	UG211	UK211	—	KH211	UCX10	UKX10	43	4400	29.4	3000
UC212	UG212	UK212	—	—	UCX11	UKX11	52.5	5350	36.1	3700
UC213	UG213	UK213	—	—	UCX12	UKX12	57.5	5850	40	4100
UC214	—	—	—	—	UCX13	UKX13	62	6350	44	4500
UC215	—	UK215	—	—	UCX14	—	66	6750	48.2	4900
UC216	—	UK216	—	—	UCX15	UKX15	72.5	7400	53	5400
UC217	—	UK217	—	—	UCX16	UKX16	83.5	8500	61.8	6300
UC218	—	UK218	—	—	UCX17	UKX17	95.5	9750	71.4	7300
—	—	—	—	—	UCX18	UKX18	109	11 100	81.6	8350
—	—	—	—	—	UCX20	UKX20	134	13 700	104.7	10 700

Bearing No.		Basic dynamic load rating C_r		Basic static load rating C_{0r}	
		(kN)	(kgf)	(kN)	(kgf)
UC305	UK305	21.3	2170	10.9	1120
UC306	UK306	26.8	2730	15	1530
UC307	UK307	33.5	3400	19.2	1960
UC308	UK308	40.5	4150	23.9	2440
UC309	UK309	51.5	5250	29.5	3000
UC310	UK310	61.5	6300	38.2	3900
UC311	UK311	71.5	7300	44.8	4600
UC312	UK312	81.5	8300	52	5300
UC313	UK313	92.5	9450	59.7	6100
UC314	—	104	10 600	68	6900
UC315	UK315	114	11 600	76.9	7800
UC316	UK316	123	12 500	86.4	8800
UC317	UK317	132	13 500	96.5	9800
UC318	UK318	143	14 600	107.2	10 900
UC319	UK319	153	15 600	118.4	12 100
UC320	UK320	173	17 700	140.4	14 300
UC321	—	183	18 700	153.1	15 600
UC322	UK322	205	20 900	178.8	18 200
UC324	UK324	207	21 100	184.8	18 900
UC326	UK326	229	23 400	214.3	21 900
UC328	UK328	255	26 000	246	25 100

Silver Series

Bearing No.		Basic dynamic load rating C_r		Basic static load rating C_{0r}	
		(kN)	(kgf)	(kN)	(kgf)
U000	K000	4.6	470	2	200
U001	K001	5.1	520	2.4	245
U002	K002	5.6	570	2.8	290
U003	K003	6	610	3.3	335
U004	K004	9.35	955	5.1	515
U005	K005	10.1	1030	5.8	595
U006	K006	13.2	1350	8.3	845
U007	—	15.9	1620	10.3	1050
U08	—	3.3	335	1.26	130

Stainless Silver & ECO Series

Bearing No.	Basic dynamic load rating C_r		Basic static load rating C_{0r}	
	(kN)	(kgf)	(kN)	(kgf)
MU000	3.9	400	1.55	160
MU001	4.3	440	1.90	195
MU002	4.75	485	2.25	230
MU003	5.1	520	2.65	270
MU004	7.9	810	4	410
MU005	8.6	875	4.65	475
MU006	11.3	1150	6.6	675

Stainless Series

Bearing No.		Basic dynamic load rating C_r		Basic static load rating C_{0r}	
		(kN)	(kgf)	(kN)	(kgf)
MUC201V–MUC204V	MB4V	10.9	1110	5.3	541
MUC205V	MB5V	11.9	1210	6.3	643
MUC206V	MB6V	16.7	1700	9	923
MUC207V	MB7V	22	2250	12.3	1260
MUC208V	MB8V	24.9	2540	14.3	1460
MUC209V	—	28.1	2870	16.4	1670
MUC210V	—	30.2	3080	18.6	1900
MUC211V	—	36.6	3730	23.5	2400
MUC212V	—	44.6	4550	28.9	2950
MUC213V	—	48.9	4990	32	3270

Steel Hardness Conversion Table

Rockwell hardness C Scale HRC	Vickers hardness (HV0.3)	Brinell hardness 10 mm ball / at 29.42 kN		Rockwell hardness		Shore hardness HS
		Standard ball HBS 10/3000	Tungsten carbide ball HBW 10/3000	A Scale HRA diamond brale intender	B Scale HRB 1/16 inch ball	
68	**940**	—	—	**85.6**	—	97
67	**900**	—	—	**85.0**	—	95
66	**865**	—	—	**84.5**	—	92
65	**832**	—	(739)	**83.9**	—	91
64	**800**	—	(722)	**83.4**	—	88
63	**772**	—	(705)	**82.8**	—	87
62	**746**	—	(688)	**82.3**	—	85
61	**720**	—	(670)	**81.8**	—	83
60	**697**		(654)	**81.2**	—	81
59	**674**		(634)	**80.7**	—	80
58	**653**	—	**615**	**80.1**	—	78
57	**633**	—	**595**	**79.6**	—	76
56	**613**	—	**577**	**79**	—	75
55	**595**	—	**560**	**78.5**	—	74
54	**577**	—	**543**	**78**	—	72
53	**560**	—	**525**	**77.4**	—	71
52	**544**	(500)	**512**	**76.8**	—	69
51	**528**	(487)	**496**	**76.3**	—	68
50	**513**	(475)	**481**	**75.9**	—	67
49	**498**	(464)	**469**	**75.2**	—	66
48	**484**	(451)	**455**	**74.7**	—	64
47	**471**	**442**	**443**	**74.1**	—	63
46	**458**	**432**	**432**	**73.6**	—	62
45	**446**	**421**	**421**	**73.1**	—	60
44	**434**	**409**	**409**	**72.5**	—	58
43	**423**	**400**	**400**	**72**	—	57
42	**412**	**390**	**390**	**71.5**	—	56
41	**402**	**381**	**381**	**70.9**	—	55
40	**392**	**371**	**371**	**70.4**	—	54
39	**382**	**362**	**362**	**69.9**	—	52
38	**372**	**353**	**353**	**69.4**	—	51
37	**363**	**344**	**344**	**68.9**	—	50
36	**354**	**336**	**336**	**68.4**	(109)	49
35	**345**	**327**	**327**	**67.9**	(108.5)	48
34	**336**	**319**	**319**	**67.4**	(108)	47
33	**327**	**311**	**311**	**66.8**	(107.5)	46
32	**318**	**301**	**301**	**66.3**	(107)	44
31	**310**	**294**	**294**	**65.8**	(106)	43
30	**302**	**286**	**286**	**65.3**	(105.5)	42
29	**294**	**279**	**279**	**64.7**	(104.5)	41
28	**286**	**271**	**271**	**64.3**	(104)	41
27	**279**	**264**	**264**	**63.8**	(103)	40
26	**272**	**258**	**258**	**63.3**	(102.5)	38
25	**266**	**253**	**253**	**62.8**	(101.5)	38
24	**260**	**247**	**247**	**62.4**	(101)	37
23	**254**	**243**	**243**	**62**	100	36
22	**248**	**237**	**237**	**61.5**	99	35
21	**243**	**231**	**231**	**61**	98.5	35
20	**238**	**226**	**226**	**60.5**	97.8	34
(18)	**230**	**219**	**219**	—	96.7	33
(16)	**222**	**212**	**212**	—	95.5	32
(14)	**213**	**203**	**203**	—	93.9	31
(12)	**204**	**194**	**194**	—	92.3	29
(10)	**196**	**187**	**187**	—	90.7	28
(8)	**188**	**179**	**179**	—	89.5	27
(6)	**180**	**171**	**171**	—	87.1	26
(4)	**173**	**165**	**165**	—	85.5	25
(2)	**166**	**158**	**158**	—	83.5	24
(0)	**160**	**152**	**152**	—	81.7	24

Note: 1. The bold numbers are according to ASTM E140 Table 1(SAE-ASM-ASTM).
2. The above values in parentheses are not commonly used.

Shaft Tolerances

Unit: μm

Nominal dia. (mm)		g		h						js			k		m		n	p	r
Over	Incl.	g5	g6	h5	h6	h7	h8	h9	h10	js5	js6	js7	k5	k6	m5	m6	n6	p6	r6
–	3	−2 −6	−8	0 −4	−6	−10	−14	−25	−40	±2	±3	±5	+4 0	+6	+6 +2	+8	+10 +4	+12 +6	+16 +10
3	6	−4 −9	−12	0 −5	−8	−12	−18	−30	−48	±2.5	±4	±6	+6 +1	+9	+9 +4	+12	+16 +8	+20 +12	+23 +15
6	10	−5 −11	−14	0 −6	−9	−15	−22	−36	−58	±3	±4.5	±7.5	+7 +1	+10	+12 +6	+15	+19 +10	+24 +15	+28 +19
10	18	−6 −14	−17	0 −8	−11	−18	−27	−43	−70	±4	±5.5	±9	+9 +1	+12	+15 +7	+18	+23 +12	+29 +18	+34 +23
18	30	−7 −16	−20	0 −9	−13	−21	−33	−52	−84	±4.5	±6.5	±10.5	+11 +2	+15	+17 +8	+21	+28 +15	+35 +22	+41 +28
30	50	−9 −20	−25	0 −11	−16	−25	−39	−62	−100	±5.5	±8	±12.5	+13 +2	+18	+20 +9	+25	+33 +17	+42 +26	+50 +34
50	65	−10 −23	−29	0 −13	−19	−30	−46	−74	−120	±6.5	±9.5	±15	+15 +2	+21	+24 +11	+30	+39 +20	+51 +32	+60 +41
65	80																		+62 +43
80	100	−12 −27	−34	0 −15	−22	−35	−54	−87	−140	±7.5	±11	±17.5	+18 +3	+25	+28 +13	+35	+45 +23	+59 +37	+73 +51
100	120																		+76 +54
120	140	−14 −32	−39	0 −18	−25	−40	−63	−100	−160	±9	±12.5	±20	+21 +3	+28	+33 +15	+40	+52 +27	+68 +43	+88 +63
140	160																		+90 +65
160	180																		+93 +68
180	200	−15 −35	−44	0 −20	−29	−46	−72	−115	−185	±10	±14.5	±23	+24 +4	+33	+37 +17	+46	+60 +31	+79 +50	+106 +77
200	225																		+109 +80
225	250																		+113 +84
250	280	−17 −40	−49	0 −23	−32	−52	−81	−130	−210	±11.5	±16	±26	+27 +4	+36	+43 +20	+52	+66 +34	+88 +56	+126 +94
280	315																		+130 +98
315	355	−18 −43	−54	0 −25	−36	−57	−89	−140	−230	±12.5	±18	±28.5	+29 +4	+40	+46 +21	+57	+73 +37	+98 +62	+144 +108
355	400																		+150 +114
400	450	−20 −47	−60	0 −27	−40	−63	−97	−155	−250	±13.5	±20	±31.5	+32 +5	+45	+50 +23	+63	+80 +40	+108 +68	+166 +126
450	500																		+172 +132

Note: 1. The upper values in each row indicate the upper limit deviation and the lower values for the lower limit deviation.
2. Values in the table are specified in JIS B 0401.

Housing Bore Tolerances

Unit: μm

Nominal dia. (mm)		G		H						JS			J		K			M			N	
Over	Incl.	G6	G7	H5	H6	H7	H8	H9	H10	JS5	JS6	JS7	J6	J7	K5	K6	K7	M5	M6	M7	N6	N7
–	3	+8 +2	+12	+4	+6	+10 0	+14	+25	+40	±2	±3	±5	+2 −4	+4 −6	0 −4	0 −6	0 −10	−2 −6	−2 −8	−2 −12	−4 −10	−4 −14
3	6	+12 +4	+16	+5	+8	+12 0	+18	+30	+48	±2.5	±4	±6	+5 −3	+6 −6	0 −5	+2 −6	+3 −9	−3 −8	−1 −9	0 −12	−5 −13	−4 −16
6	10	+14 +5	+20	+6	+9	+15 0	+22	+36	+58	±3	±4.5	±7.5	+5 −4	+8 −7	+1 −5	+2 −7	+5 −10	−4 −10	−3 −12	0 −15	−7 −16	−4 −19
10	18	+17 +6	+24	+8	+11	+18 0	+27	+43	+70	±4	±5.5	±9	+6 −5	+10 −8	+2 −6	+2 −9	+6 −12	−4 −12	−4 −15	0 −18	−9 −20	−5 −23
18	30	+20 +7	+28	+9	+13	+21 0	+33	+52	+84	±4.5	±6.5	±10.5	+8 −5	+12 −9	+1 −8	+2 −11	+6 −15	−5 −14	−4 −17	0 −21	−11 −24	−7 −28
30	50	+25 +9	+34	+11	+16	+25 0	+39	+62	+100	±5.5	±8	±12.5	+10 −6	+14 −11	+2 −9	+3 −13	+7 −18	−5 −16	−4 −20	0 −25	−12 −28	−8 −33
50	80	+29 +10	+40	+13	+19	+30 0	+46	+74	+120	±6.5	±9.5	±15	+13 −6	+18 −12	+3 −10	+4 −15	+9 −21	−6 −19	−5 −24	0 −30	−14 −33	−9 −39
80	120	+34 +12	+47	+15	+22	+35 0	+54	+87	+140	±7.5	±11	±17.5	+16 −6	+22 −13	+2 −13	+4 −18	+10 −25	−8 −23	−6 −28	0 −35	−16 −38	−10 −45
120	180	+39 +14	+54	+18	+25	+40 0	+63	+100	+160	±9	±12.5	±20	+18 −7	+26 −14	+3 −15	+4 −21	+12 −28	−9 −27	−8 −33	0 −40	−20 −45	−12 −52
180	250	+44 +15	+61	+20	+29	+46 0	+72	+115	+185	±10	±14.5	±23	+22 −7	+30 −16	+2 −18	+5 −24	+13 −33	−11 −31	−8 −37	0 −46	−22 −51	−14 −60
250	315	+49 +17	+69	+23	+32	+52 0	+81	+130	+210	±11.5	±16	±26	+25 −7	+36 −16	+3 −20	+5 −27	+13 −36	−13 −36	−9 −41	0 −52	−25 −57	−14 −66
315	400	+54 +18	+75	+25	+36	+57 0	+89	+140	+230	±12.5	±18	±28.5	+29 −7	+39 −18	+3 −22	+7 −29	+17 −39	−14 −39	−10 −46	0 −57	−26 −62	−16 −73
400	500	+60 +20	+83	+27	+40	+63 0	+97	+155	+250	±13.5	±20	±31.5	+33 −7	+43 −20	+2 −25	+8 −32	+18 −45	−16 −43	−10 −50	0 −63	−27 −67	−17 −80

Note: 1. The upper values in each row indicate the upper limit deviation and the lower values for the lower limit deviation.
2. Values in the table are specified in JIS B 0401.

Inch–Millimeter Conversion Table

1 inch = 25.4 mm

inch		0	1	2	3	4	5	6	7	8	9
Fractions	Decimals	mm									
	0		25.400	50.800	76.200	101.600	127.000	152.400	177.800	203.200	228.600
1 / 64	.015625	0.397	25.797	51.197	76.597	101.997	127.397	152.797	178.197	203.597	228.997
1 / 32	.031250	0.794	26.194	51.594	76.994	102.394	127.794	153.194	178.594	203.994	229.394
3 / 64	.046875	1.191	26.591	51.991	77.391	102.791	128.191	153.591	178.991	204.391	229.791
1 / 16	.062500	1.588	26.988	52.388	77.788	103.188	128.588	153.988	179.388	204.788	230.188
5 / 64	.078125	1.984	27.384	52.784	78.184	103.584	128.984	154.384	179.784	205.184	230.584
3 / 32	.093750	2.381	27.781	53.181	78.581	103.981	129.381	154.781	180.181	205.581	230.981
7 / 64	.109375	2.778	28.178	53.578	78.978	104.378	129.778	155.178	180.578	205.978	231.378
1 / 8	.125000	3.175	28.575	53.975	79.375	104.775	130.175	155.575	180.975	206.375	231.775
9 / 64	.140625	3.572	28.972	54.372	79.772	105.172	130.572	155.972	181.372	206.772	232.172
5 / 32	.156250	3.969	29.369	54.769	80.169	105.569	130.969	156.369	181.769	207.169	232.569
11 / 64	.171875	4.366	29.766	55.166	80.566	105.966	131.366	156.766	182.166	207.566	232.966
3 / 16	.187500	4.762	30.162	55.562	80.962	106.362	131.762	157.162	182.562	207.962	233.362
13 / 64	.203125	5.159	30.559	55.959	81.359	106.759	132.159	157.559	182.959	208.359	233.759
7 / 32	.218750	5.556	30.956	56.356	81.756	107.156	132.556	157.956	183.356	208.756	234.156
15 / 64	.234375	5.953	31.353	56.753	82.153	107.553	132.953	158.353	183.753	209.153	234.553
1 / 4	.250000	6.350	31.750	57.150	82.550	107.950	133.350	158.750	184.150	209.550	234.950
17 / 64	.265625	6.747	32.147	57.547	82.947	108.347	133.747	159.147	184.547	209.947	235.347
9 / 32	.281250	7.144	32.544	57.944	83.344	108.744	134.144	159.544	184.944	210.344	235.744
19 / 64	.296875	7.541	32.941	58.341	83.741	109.141	134.541	159.941	185.341	210.741	236.141
5 / 16	.312500	7.938	33.338	58.738	84.138	109.538	134.938	160.338	185.738	211.138	236.538
21 / 64	.328125	8.334	33.734	59.134	84.534	109.934	135.334	160.734	186.134	211.534	236.934
11 / 32	.343750	8.731	34.131	59.531	84.931	110.331	135.731	161.131	186.531	211.931	237.331
23 / 64	.359375	9.128	34.528	59.928	85.328	110.728	136.128	161.528	186.928	212.328	237.728
3 / 8	.375000	9.525	34.925	60.325	85.725	111.125	136.525	161.925	187.325	212.725	238.125
25 / 64	.390625	9.922	35.322	60.722	86.122	111.522	136.922	162.322	187.722	213.122	238.522
13 / 32	.406250	10.319	35.719	61.119	86.519	111.919	137.319	162.719	188.119	213.519	238.919
27 / 64	.421875	10.716	36.116	61.516	86.916	112.316	137.716	163.116	188.516	213.916	239.316
7 / 16	.437500	11.112	36.512	61.912	87.312	112.712	138.112	163.512	188.912	214.312	239.712
29 / 64	.453125	11.509	36.909	62.309	87.709	113.109	138.509	163.909	189.309	214.709	240.109
15 / 32	.468750	11.906	37.306	62.706	88.106	113.506	138.906	164.306	189.706	215.106	240.506
31 / 64	.484375	12.303	37.703	63.103	88.503	113.903	139.303	164.703	190.103	215.503	240.903
1 / 2	.500000	12.700	38.100	63.500	88.900	114.300	139.700	165.100	190.500	215.900	241.300
33 / 64	.515625	13.097	38.497	63.897	89.297	114.697	140.097	165.497	190.897	216.297	241.697
17 / 32	.531250	13.494	38.894	64.294	89.694	115.094	140.494	165.894	191.294	216.694	242.094
35 / 64	.546875	13.891	39.291	64.691	90.091	115.491	140.891	166.291	191.691	217.091	242.491
9 / 16	.562500	14.288	39.688	65.088	90.488	115.888	141.288	166.688	192.088	217.488	242.888
37 / 64	.578125	14.684	40.084	65.484	90.884	116.284	141.684	167.084	192.484	217.884	243.284
19 / 32	.593750	15.081	40.481	65.881	91.281	116.681	142.081	167.481	192.881	218.281	243.681
39 / 64	.609375	15.478	40.878	66.278	91.678	117.078	142.478	167.878	193.278	218.678	244.078
5 / 8	.625000	15.875	41.275	66.675	92.075	117.475	142.875	168.275	193.675	219.075	244.475
41 / 64	.640625	16.272	41.672	67.072	92.472	117.872	143.272	168.672	194.072	219.472	244.872
21 / 32	.656250	16.669	42.069	67.469	92.869	118.269	143.669	169.069	194.469	219.869	245.269
43 / 64	.671875	17.066	42.466	67.866	93.266	118.666	144.066	169.466	194.866	220.266	245.666
11 / 16	.687500	17.462	42.862	68.262	93.662	119.062	144.462	169.862	195.262	220.662	246.062
45 / 64	.703125	17.859	43.259	68.659	94.059	119.459	144.859	170.259	195.659	221.059	246.459
23 / 32	.718750	18.256	43.656	69.056	94.456	119.856	145.256	170.656	196.056	221.456	246.856
47 / 64	.734375	18.653	44.053	69.453	94.853	120.253	145.653	171.053	196.453	221.853	247.253
3 / 4	.750000	19.050	44.450	69.850	95.250	120.650	146.050	171.450	196.850	222.250	247.650
49 / 64	.765625	19.447	44.847	70.247	95.647	121.047	146.447	171.847	197.247	222.647	248.047
25 / 32	.781250	19.844	45.244	70.644	96.044	121.444	146.844	172.244	197.644	223.044	248.444
51 / 64	.796875	20.241	45.641	71.041	96.441	121.841	147.241	172.641	198.041	223.441	248.841
13 / 16	.812500	20.638	46.038	71.438	96.838	122.238	147.638	173.038	198.438	223.838	249.238
53 / 64	.828125	21.034	46.434	71.834	97.234	122.634	148.034	173.434	198.834	224.234	249.634
27 / 32	.843750	21.431	46.831	72.231	97.631	123.031	148.431	173.831	199.231	224.631	250.031
55 / 64	.859375	21.828	47.228	72.628	98.028	123.428	148.828	174.228	199.628	225.028	250.428
7 / 8	.875000	22.225	47.625	73.025	98.425	123.825	149.225	174.625	200.025	225.425	250.825
57 / 64	.890625	22.622	48.022	73.422	98.822	124.222	149.622	175.022	200.422	225.822	251.222
29 / 32	.906250	23.019	48.419	73.819	99.219	124.619	150.019	175.419	200.819	226.219	251.619
59 / 64	.921875	23.416	48.816	74.216	99.616	125.016	150.416	175.816	201.216	226.616	252.016
15 / 16	.937500	23.812	49.212	74.612	100.012	125.412	150.812	176.212	201.612	227.012	252.412
61 / 64	.953125	24.209	49.609	75.009	100.409	125.809	151.209	176.609	202.009	227.409	252.809
31 / 32	.968750	24.606	50.006	75.406	100.806	126.206	151.606	177.006	202.406	227.806	253.206
63 / 64	.984375	25.003	50.403	75.803	101.203	126.603	152.003	177.403	202.803	228.203	253.603

Note: The above values are rounded in accordance with JIS Z 8401.

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