TECHNICAL DATA INDEX

Page

1. Construction A3

2. Design Features and Advantages A4

2.1 Maintenance free type A4

2.2 Relubricatable type A4

2.3 Special sealing feature A4

2.4 Secure fitting A5

2.5 Self-aligning A5

2.6 Higher rated load capacity A5

2.7 Light weight yet strong housing A5

2.8 Easy mounting A5

2.9 Accurate fitting of the housing A5

2.10 Bearing replaceability A5

3. Tolerance A6

3.1 Tolerances of ball bearings for the unit A6

3.2 Tolerances of housings A9

4. Basic Load Rating and Life A13

4.1 Bearing life A13

4.2 Basic rated life and basic dynamic load rating A13

4.3 Basic static load rating A15

4.4 Allowable static equivalent load A15

5. Bearing Internal Clearance A16

5.1 Bearing internal clearance A16

5.2 Internal clearance selection A16

5.3 Bearing internal clearance selection standards A17

6. Lubrication A19

6.1 Maximum permissible speed of rotation A19

6.2 Replenishment of grease A19

6.3 Grease fitting A21

6.4 Standard location of the grease fitting A22

7. Recommended Torques for Tightening Set Screws A23

1. Construction

The **NSK** bearing unit is a combination of a radial ball bearing, seal, and a housing of high-grade cast iron or pressed steel, which comes in various shapes.

The outer surface of the bearing and the internal surface of the housing are spherical, so that the unit is self-aligning.

The inside construction of the ball bearing for the unit is such that steel balls and retainers of the same type as in series 62 and 63 of the deep groove ball bearing are used. A duplex seal consisting of a combination of an oil-proof synthetic rubber seal and a slinger is provided on both sides.

Depending on the type, the following methods of fitting to the shaft are employed:

(1) The inner ring is fastened onto the shaft in two places by set screws.

(2) The inner ring has a tapered bore and is fitted to the shaft by means of an adapter.

(3) In the eccentric locking collar system the inner ring is fastened to the shaft by means of eccentric grooves provided at the side of the inner ring and on the collar.

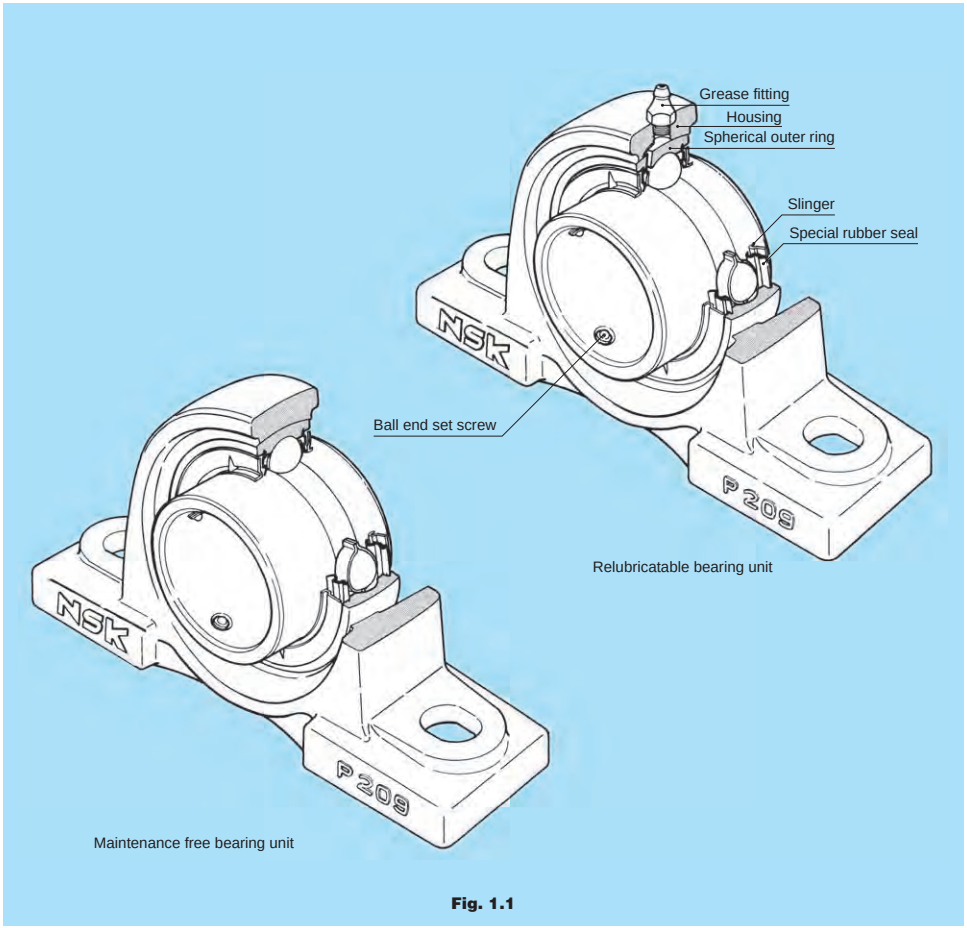


Fig. 1.1

2. Design Features and Advantages

2.1 Maintenance free type

The **NSK** Maintenance free bearing unit contains a high-grade lithium-based grease, good for use over a long period, which is ideally suited to sealed-type bearings. Also provided is an excellent sealing device, which prevents any leakage of grease or penetration of dust and water from outside.

It is designed so that the rotation of the shaft causes the sealed-in grease to circulate through the inside space, effectively providing maximum lubrication. The lubrication effect is maintained over a long period with no need for replenishment of grease.

To summarize the advantages of the **NSK** maintenance free bearing unit:

(1) As an adequate amount of good quality grease is sealed in at the time of manufacture, there is no need for replenishment. This means savings in terms of time and maintenance costs.
(2) Since there is no need for any regreasing facilities, such as piping, a more compact design is possible.
(3) The sealed-in design eliminates the possibility of grease leakage, which could lead to stained products.

2.2 Relubricatable type

The **NSK** relubricatable type bearing unit has an advantage over other simillar units being so designed as to permit regreasing even in the case of misalignment of 2° to the right or left. The hole through which the grease fitting is mounted usually causes structural weakening of the housing.

However, as a result of extensive testing, in the **NSK** bearing unit the hole is positioned so as to minimize this adverse effect. In addition, the regreasing groove has been designed to minimize weakening of the housing.

While the **NSK** maintenance free type bearing unit is satisfactory for use under normal operating conditions in-doors, in the following circumstances it is necessary to use the relubricatable type bearing unit:

(1) Cases where the temperature of the bearing rises above 100°C, 212°F:
*-Normal temperature of up to 130°C, 266°F heat-resistant bearing units.
(2) Cases where there is excessive dust, but space does not permit using a bearing unit with a cover.
(3) Cases where the bearing unit is constantly exposed to splashes of water or any other liquid, but space does not permit using a bearing unit with a cover.
(4) Cases in which the humidity is very high, and the machine in which the bearing unit is used is run only intermittently.
(5) Cases involving a heavy load of which the C_r/P_r value is about 10 or below, and the speed is 10 min^{-1} or below, or the movement is oscillatory.
(6) Cases where the number of revolutions is relatively high and the noise problem has to be considered; for example, when the bearing is used with the fan of an air conditioner.

2.3 Special sealing feature

2.3.1 Standard bearing units

The sealing device of the ball bearing for the **NSK** bearing unit is a combination of a heat-resistant and oil-proof synthetic rubber seal and a slinger of an exclusive design.

The seal, which is fixed in the outer ring, is steel-reinforced, and its lip, in contanct with the inner ring, is designed to minimize frictional torque.

The slinger is fixed to the inner ring of the bearing with which it rotates. There is a small clearance between its periphery and the outer ring.

These two types of seals on both sides of the bearing prevent grease leakage, and foreign matter is prevented from entering the bearing from outside.

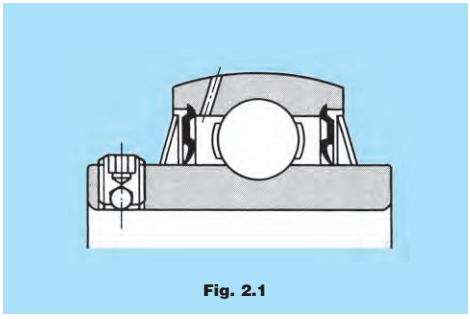


Fig. 2.1

2.3.2 Bearing units with covers

The **NSK** bearing unit with a cover consists of a standard bearing unit and an outside covering for extra protection against dust. Special consideration has been given to its design with respect to dust-proofing.

Sealing devices are provided in both the bearing and the housing, so that units of this type operate satisfactorily even in such adverse environments as flour mills, steel mills, foundries, galvanizing plants and chemical plants, where excessive dust is produced and/or liquids are used. They are also eminently suitable for outdoor environments where dust and rain are inevitable, and in heavy industrial machinery such as construction and transportation equipment.

The rubber seal of the cover contacts with the shaft by its two lips, as shown in Fig. 2.2 and 2.3 By filling the groove between the two lips with grease, an excellent sealing effect is obtained and, at the same time, the contacting portions of the lips are lubricated. Furthermore, the groove is so designed that when the shaft is inclined the rubber seal can move in the radial direction.

When bearing units are exposed to splashes of water rather than to dust, a drain hole (5 to 8 mm, 0.2 to 0.3 inches in diameter) is provided at the bottom of the cover, and grease should be applied to the side of the bearing itself instead of into the cover.

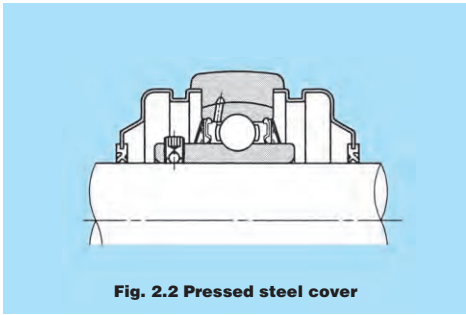


Fig. 2.2 Pressed steel cover

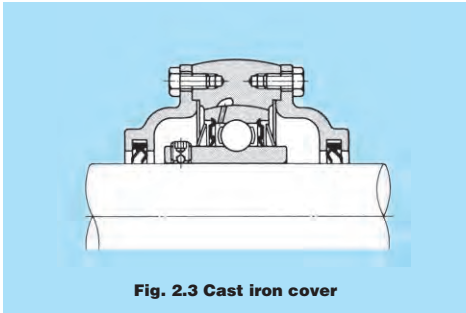


Fig. 2.3 Cast iron cover

2.4 Secure fitting

Fastening the bearing to the shaft is effected by tightening the ball-end set screw, situated on the inner ring. This is a unique feature which prevents loosening, even if the bearing is subjected to intense vibrations and shocks.

2.5 Self-aligning

With the **NSK** bearing unit, the outer surface of the ball bearing and the inner surface of the housing are spherical, thus this bearing unit has self-aligning characteristic. Any misalignment of axis that may arise from poor workmanship on the shaft or errors in fitting will be properly adjusted.

2.6 Higher rated load capacity

The bearing used in the unit is of the same internal construction as those in bearing series 62 and 63, and is capable of accommodating axial load as well as radial load, or composite load. The rated load capacity of this bearing is considerably higher than that of the corresponding self-aligning ball bearings used for standard plummer blocks.

2.7 Light weight yet strong housing

Housings for **NSK** bearing units come in various shapes. They consist of either high-grade cast iron, one-piece casting, or of precision finished pressed steel, the latter being lighter in weight. In either case, they are practically designed to combine lightness with maximum strength.

2.8 Easy mounting

The **NSK** bearing unit is an integrated unit consisting of a bearing and a housing.

As the bearing is prelubricated at manufacture with the correct amount of high-grade lithium base, it can be mounted on the shaft just as it is. It is sufficient to carry out a short test run after mounting.

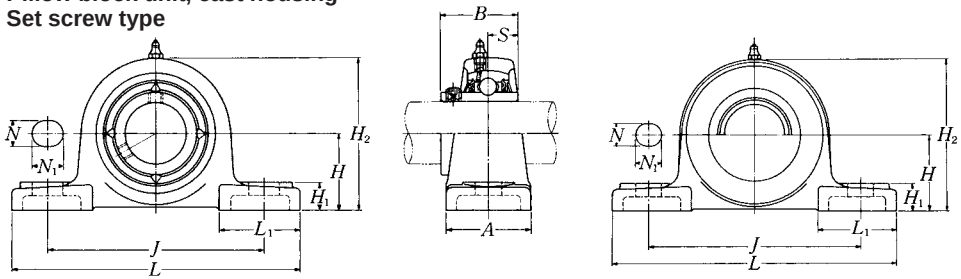
2.9 Accurate fitting of the housing

In order to simplify the fitting of the pillow block and flange type bearing units, the housings are provided with a seat for a dowel pin, which may be utilized as needed.

2.10 Bearing replaceability

The bearing used in the **NSK** bearing unit is replaceable. In the event of bearing failure, a new bearing can be fitted to the existing housing.

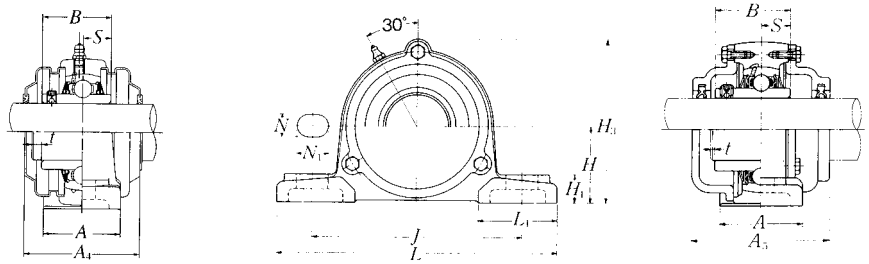
Pillow block unit, cast housing
Set screw type



Pressed steel dust cover type
Open end **Z-UCP···D1**
Closed end **ZM-UCP···D1**

Shaft dia. mm / inch	Unit number (1)	Nominal dimensions mm / inch											Bolt size mm / inch	Bearing number
		H	L	J	A	N	N_1	H_1	H_2	L_1	B	S		
12	UCP201D1	30.2	127	95	38	13	16	14	62	42	31	12.7	M10	UC201D1
1/2	UCP201-008D1	1 3/16	5	3 3/4	1 1/2	1/2	5/8	9/16	2 7/16	1 21/32	1.2205	0.500	3/8	UC201-008D1
15	UCP202D1	30.2	127	95	38	13	16	14	62	42	31	12.7	M10	UC202D1
9/16	UCP202-009D1													UC202-009D1
5/8	UCP202-010D1	1 3/16	5	3 3/4	1 1/2	1/2	5/8	9/16	2 7/16	1 21/32	1.2205	0.500	3/8	UC202-010D1
17	UCP203D1	30.2	127	95	38	13	16	14	62	42	31	12.7	M10	UC203D1
11/16	UCP203-011D1	1 3/16	5	3 3/4	1 1/2	1/2	5/8	9/16	2 7/16	1 21/32	1.2205	0.500	3/8	UC203-011D1
20	UCP204D1	33.3	127	95	38	13	16	14	65	42	31	12.7	M10	UC204D1
3/4	UCP204-012D1	1 5/16	5	3 3/4	1 1/2	1/2	5/8	9/16	2 9/16	1 21/32	1.2205	0.500	3/8	UC204-012D1
25	UCP205D1	36.5	140	105	38	13	16	15	71	42	34.1	14.3	M10	UC205D1
13/16	UCP205-013D1													UC205-013D1
7/8	UCP205-014D1													UC205-014D1
15/16	UCP205-015D1	1 7/16	5 1/2	4 1/8	1 1/2	1/2	5/8	19/32	2 25/32	1 21/32	1.3425	0.563	3/8	UC205-015D1
1	UCP205-100D1													UC205-100D1
30	UCP206D1	42.9	165	121	48	17	20	17	83	54	38.1	15.9	M14	UC206D1
1 1/16	UCP206-101D1													UC206-101D1
1 1/8	UCP206-102D1													UC206-102D1
1 3/16	UCP206-103D1	1 11/16	6 1/2	4 3/4	1 7/8	21/32	25/32	21/32	3 9/32	2 1/8	1.5000	0.626	1/2	UC206-103D1
1 1/4	UCP206-104D1													UC206-104D1
35	UCP207D1	47.6	167	127	48	17	20	18	93	54	42.9	17.5	M14	UC207D1
1 1/4	UCP207-104D1													UC207-104D1
1 5/16	UCP207-105D1													UC207-105D1
1 3/8	UCP207-106D1	1 7/8	6 9/16	5	1 7/8	21/32	25/32	23/32	3 21/32	2 1/8	1.6890	0.689	1/2	UC207-106D1
1 7/16	UCP207-107D1													UC207-107D1
40	UCP208D1	49.2	184	137	54	17	20	18	98	52	49.2	19	M14	UC208D1
1 1/2	UCP208-108D1													UC208-108D1
1 9/16	UCP208-109D1	1 15/16	7 1/4	5 13/32	2 1/8	21/32	25/32	23/32	3 27/32	2 1/16	1.9370	0.748	1/2	UC208-109D1
45	UCP209D1	54	190	146	54	17	20	20	106	60	49.2	19	M14	UC209D1
1 5/8	UCP209-110D1													UC209-110D1
1 11/16	UCP209-111D1													UC209-111D1
1 3/4	UCP209-112D1	2 1/8	7 15/32	5 3/4	2 1/8	21/32	25/32	25/32	4 3/16	2 3/8	1.9370	0.748	1/2	UC209-112D1

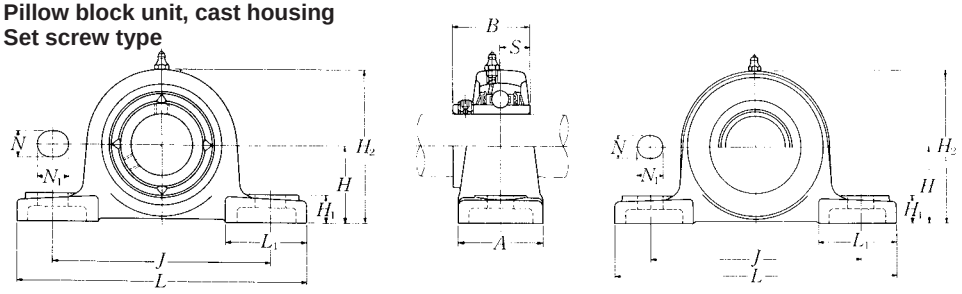
Note (1) These numbers indicate relubricatable type. If maintenance free type is needed, please order without suffix "D1".
Remarks Please refer to page **A21** for size of grease fitting.



Cast dust cover type
Open end **C-UCP···D1**
Closed end **CM-UCP···D1**

Housing number	Unit number (1) pressed steel dust cover type	Unit number (1) cast dust cover type	Nominal dimensions mm / inch				Mass of unit kg / lb		
			t max.	A_4	H_3	A_5	UCP	Z(ZM)	C(CM)
P203D1	Z(ZM)-UCP201D1	C(CM)-UCP201D1	2	45	67	62	0.7	0.7	1.0
P203D1	Z(ZM)-UCP201-008D1	C(CM)-UCP201-008D1	5/64	1 25/32	2 5/8	2 7/16	1.5	1.5	2.2
P203D1	Z(ZM)-UCP202D1	C(CM)-UCP202D1	2	45	67	62	0.7	0.7	1.0
P203D1	Z(ZM)-UCP202-009D1	C(CM)-UCP202-009D1							
P203D1	Z(ZM)-UCP202-010D1	C(CM)-UCP202-010D1	5/64	1 25/32	2 5/8	2 7/16	1.5	1.5	2.2
P203D1	Z(ZM)-UCP203D1	C(CM)-UCP203D1	2	45	67	62	0.7	0.7	1.0
P203D1	Z(ZM)-UCP203-011D1	C(CM)-UCP203-011D1	5/64	1 25/32	2 5/8	2 7/16	1.5	1.5	2.2
P204D1	Z(ZM)-UCP204D1	C(CM)-UCP204D1	2	45	70	62	0.7	0.7	0.9
P204D1	Z(ZM)-UCP204-012D1	C(CM)-UCP204-012D1	5/64	1 25/32	2 3/4	2 7/16	1.5	1.5	2.0
P205D1	Z(ZM)-UCP205D1	C(CM)-UCP205D1	2	48	76	70	0.8	0.9	1.1
P205D1	Z(ZM)-UCP205-013D1	C(CM)-UCP205-013D1							
P205D1	Z(ZM)-UCP205-014D1	C(CM)-UCP205-014D1							
P205D1	Z(ZM)-UCP205-015D1	C(CM)-UCP205-015D1	5/64	1 29/32	3	2 3/4	1.8	2.0	2.4
P205D1	Z(ZM)-UCP205-100D1	C(CM)-UCP205-100D1							
P206D1	Z(ZM)-UCP206D1	C(CM)-UCP206D1	2	53	88	75	1.4	1.4	1.7
P206D1	Z(ZM)-UCP206-101D1	C(CM)-UCP206-101D1							
P206D1	Z(ZM)-UCP206-102D1	C(CM)-UCP206-102D1							
P206D1	Z(ZM)-UCP206-103D1	C(CM)-UCP206-103D1	5/64	2 3/32	3 15/32	2 15/16	3.1	3.1	3.7
P206D1	—	—							
P207D1	Z(ZM)-UCP207D1	C(CM)-UCP207D1	3	60	99	80	1.6	1.7	2.0
P207D1	Z(ZM)-UCP207-104D1	C(CM)-UCP207-104D1							
P207D1	Z(ZM)-UCP207-105D1	C(CM)-UCP207-105D1							
P207D1	Z(ZM)-UCP207-106D1	C(CM)-UCP207-106D1	1/8	2 3/8	3 29/32	3 5/32	3.5	3.7	4.4
P207D1	—	—							
P208D1	Z(ZM)-UCP208D1	C(CM)-UCP208D1	3	69	105	90	1.9	2.1	2.7
P208D1	Z(ZM)-UCP208-108D1	C(CM)-UCP208-108D1							
P208D1	Z(ZM)-UCP208-109D1	C(CM)-UCP208-109D1	1/8	2 23/32	4 1/8	3 17/32	4.2	4.6	6.0
P209D1	Z(ZM)-UCP209D1	C(CM)-UCP209D1	3	69	113	95	2.2	2.4	3.1
P209D1	Z(ZM)-UCP209-110D1	C(CM)-UCP209-110D1							
P209D1	Z(ZM)-UCP209-111D1	C(CM)-UCP209-111D1							
P209D1	Z(ZM)-UCP209-112D1	C(CM)-UCP209-112D1	1/8	2 23/32	4 7/16	3 3/4	4.9	5.3	6.8

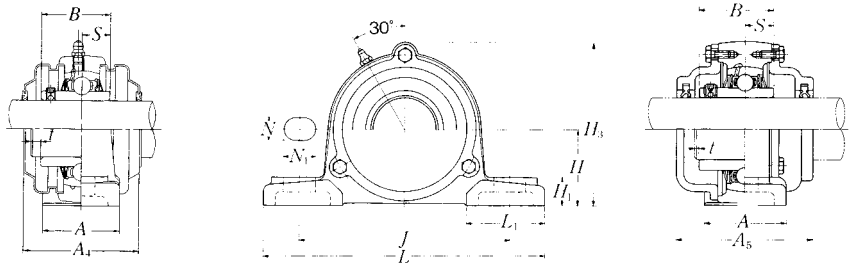
Pillow block unit, cast housing
Set screw type



Pressed steel dust cover type
Open end **Z-UCP···D1**
Closed end **ZM-UCP···D1**

Shaft dia. mm / inch	Unit number (1)	Nominal dimensions mm / inch: H	L	J	A	N	N_1	H_1	H_2	L_1	B	S	Bolt size mm / inch	Bearing number
50	UCP210D1	57.2	206	159	60	20	23	21	114	65	51.6	19	M16	UC210D1
1 13/16	UCP210-113D1													UC210-113D1
1 7/8	UCP210-114D1	2 1/4	8 1/8	6 1/4	2 3/8	25/32	29/32	13/16	4 1/2	2 9/16	2.0315	0.748	5/8	UC210-114D1
1 15/16	UCP210-115D1													UC210-115D1
2	UCP210-200D1													UC210-200D1
55	UCP211D1	63.5	219	171	60	20	23	23	126	65	55.6	22.2	M16	UC211D1
2	UCP211-200D1													UC211-200D1
2 1/16	UCP211-201D1	2 1/2	8 5/8	6 23/32	2 3/8	25/32	29/32	29/32	4 31/32	2 9/16	2.1890	0.874	5/8	UC211-201D1
2 1/8	UCP211-202D1													UC211-202D1
2 3/16	UCP211-203D1													UC211-203D1
60	UCP212D1	69.8	241	184	70	20	23	25	138	70	65.1	25.4	M16	UC212D1
2 1/4	UCP212-204D1													UC212-204D1
2 5/16	UCP212-205D1	2 3/4	9 1/2	7 1/4	2 3/4	25/32	29/32	31/32	5 7/16	2 3/4	2.5630	1.000	5/8	UC212-205D1
2 3/8	UCP212-206D1													UC212-206D1
2 7/16	UCP212-207D1													UC212-207D1
65	UCP213D1	76.2	265	203	70	25	28	27	151	77	65.1	25.4	M20	UC213D1
2 1/2	UCP213-208D1	3	10 7/16	8	2 3/4	31/32	1 3/32	1 1/16	5 15/16	3 1/32	2.5630	1.000	3/4	UC213-208D1
2 9/16	UCP213-209D1													UC213-209D1
70	UCP214D1	79.4	266	210	72	25	28	27	157	77	74.6	30.2	M20	UC214D1
2 5/8	UCP214-210D1													UC214-210D1
2 11/16	UCP214-211D1	3 1/8	10 15/32	8 9/32	2 27/32	31/32	1 3/32	1 1/16	6 3/16	3 1/32	2.9370	1.189	3/4	UC214-211D1
2 3/4	UCP214-212D1													UC214-212D1
75	UCP215D1	82.6	275	217	74	25	28	28	163	80	77.8	33.3	M20	UC215D1
2 13/16	UCP215-213D1													UC215-213D1
2 7/8	UCP215-214D1	3 1/4	10 13/16	8 17/32	2 29/32	31/32	1 3/32	1 3/32	6 13/32	3 5/32	3.0630	1.311	3/4	UC215-214D1
2 15/16	UCP215-215D1													UC215-215D1
3	UCP215-300D1													UC215-300D1
80	UCP216D1	88.9	292	232	78	25	28	30	175	85	82.6	33.3	M20	UC216D1
3 1/16	UCP216-301D1													UC216-301D1
3 1/8	UCP216-302D1	3 1/2	11 1/2	9 1/8	3 1/16	31/32	1 3/32	1 3/16	6 7/8	3 11/32	3.2520	1.311	3/4	UC216-302D1
3 3/16	UCP216-303D1													UC216-303D1

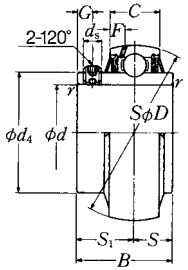
Note (1) These numbers indicate relubricatable type. If maintenance free type is needed, please order without suffix "D1".
Remarks Please refer to page **A21** for size of grease fitting.



Cast dust cover type
Open end **C-UCP···D1**
Closed end **CM-UCP···D1**

Housing number	Unit number (1) pressed steel dust cover type	Unit number (1) cast dust cover type	Nominal dimensions mm / inch: t max.	A_4	H_3	A_5	Mass of unit kg / lb: UCP	Z(ZM)	C(CM)
P210D1	Z(ZM)-UCP210D1	C(CM)-UCP210D1	3	76	119	100	2.7	2.8	3.6
P210D1	Z(ZM)-UCP210-113D1	C(CM)-UCP210-113D1							
P210D1	Z(ZM)-UCP210-114D1	C(CM)-UCP210-114D1	1/8	3	4 11/16	3 15/16	6.0	6.2	7.9
P210D1	Z(ZM)-UCP210-115D1	C(CM)-UCP210-115D1							
P210D1	–	C(CM)-UCP210-200D1							
P211D1	Z(ZM)-UCP211D1	C(CM)-UCP211D1	4	77	130	100	3.5	3.5	4.4
P211D1	Z(ZM)-UCP211-200D1	C(CM)-UCP211-200D1							
P211D1	Z(ZM)-UCP211-201D1	C(CM)-UCP211-201D1	5/32	3 1/32	5 1/8	3 15/16	7.7	7.7	9.7
P211D1	Z(ZM)-UCP211-202D1	C(CM)-UCP211-202D1							
P211D1	Z(ZM)-UCP211-203D1	C(CM)-UCP211-203D1							
P212D1	Z(ZM)-UCP212D1	C(CM)-UCP212D1	4	89	143	115	4.7	5.0	6.0
P212D1	Z(ZM)-UCP212-204D1	C(CM)-UCP212-204D1							
P212D1	Z(ZM)-UCP212-205D1	C(CM)-UCP212-205D1	5/32	3 1/2	5 5/8	4 17/32	10	11	13
P212D1	Z(ZM)-UCP212-206D1	C(CM)-UCP212-206D1							
P212D1	–	C(CM)-UCP212-207D1							
P213D1	Z(ZM)-UCP213D1	C(CM)-UCP213D1	4	91	155	120	5.6	5.8	7.2
P213D1	Z(ZM)-UCP213-208D1	C(CM)-UCP213-208D1	5/32	3 19/32	6 3/32	4 23/32	12	13	16
P213D1	Z(ZM)-UCP213-209D1	C(CM)-UCP213-209D1							
P214D1	–	C(CM)-UCP214D1	4	–	162	135	6.5	–	8.3
P214D1		C(CM)-UCP214-210D1							
P214D1	–	C(CM)-UCP214-211D1	5/32	–	6 3/8	5 5/16	14	–	18
P214D1		C(CM)-UCP214-212D1							
P215D1	–	C(CM)-UCP215D1	4	–	168	135	7.2	–	9.3
P215D1		C(CM)-UCP215-213D1							
P215D1		C(CM)-UCP215-214D1							
P215D1	–	C(CM)-UCP215-215D1	5/32	–	6 5/8	5 5/16	16	–	21
P215D1		C(CM)-UCP215-300D1							
P216D1	–	C(CM)-UCP216D1	4	–	181	145	8.7	–	11
P216D1		C(CM)-UCP216-301D1							
P216D1	–	C(CM)-UCP216-302D1	5/32	–	7 1/8	5 23/32	19	–	24
P216D1		C(CM)-UCP216-303D1							

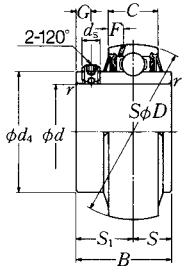
Ball bearings
Set screw type



Shaft dia. mm / inch	Bearing (1) number	Nominal dimensions mm / inch											Basic load ratings N / lbf		Mass kg / lb
		d	D	B	C	r min.	S	S_1	G	d_s	d_4	F	dynamic C_r	static C_{0r}	
12	**UC201D1**	12	47	31	17	0.6	12.7	18.3	4.5	M5×0.8	29.6	4.7	12 800	6 650	0.21
1/2	**UC201-008D1**	0.5000	1.8504	1.2205	0.6693	0.024	0.500	0.720	0.177	No.10-32UNF	1.1654	0.185	2 890	1 500	0.46
15	**UC202D1**	15	47	31	17	0.6	12.7	18.3	4.5	M5×0.8	29.6	4.7	12 800	6 650	0.20
9/16	**UC202-009D1**	0.5625	1.8504	1.2205	0.6693	0.024	0.500	0.720	0.177	No.10-32UNF	1.1654	0.185	2 890	1 500	0.44
5/8	**UC202-010D1**	0.6250													0.42
17	**UC203D1**	17	47	31	17	0.6	12.7	18.3	4.5	M5×0.8	29.6	4.7	12 800	6 650	0.18
11/16	**UC203-011D1**	0.6875	1.8504	1.2205	0.6693	0.024	0.500	0.720	0.177	No.10-32UNF	1.1654	0.185	2 890	1 500	0.39
20	**UC204D1**	20	47	31	17	1	12.7	18.3	4.5	M5×0.8	29.6	4.7	12 800	6 650	0.17
3/4	**UC204-012D1**	0.7500	1.8504	1.2205	0.6693	0.039	0.500	0.720	0.177	No.10-32UNF	1.1654	0.185	2 890	1 500	0.39
25	**UC205D1**	25	52	34.1	17	1	14.3	19.8	5	M5×0.8	33.9	4.5	14 000	7 850	0.20
13/16	**UC205-013D1**	0.8125													0.53
7/8	**UC205-014D1**	0.8750													0.51
15/16	**UC205-015D1**	0.9375	2.0472	1.3425	0.6693	0.039	0.563	0.780	0.197	No.10-32UNF	1.3346	0.177	3 150	1 770	0.46
1	**UC205-100D1**	1.0000													0.44
30	**UC206D1**	30	62	38.1	19	1	15.9	22.2	5	M6×0.75	40.8	4.6	19 500	11 300	0.32
1 1/16	**UC206-101D1**	1.0625													0.82
1 1/8	**UC206-102D1**	1.1250													0.77
1 3/16	**UC206-103D1**	1.1875	2.4409	1.5000	0.7480	0.039	0.626	0.874	0.197	1/4-28UNF	1.6063	0.181	4 400	2 540	0.73
1 1/4	**UC206-104D1**	1.2500													0.66
35	**UC207D1**	35	72	42.9	20	1.5	17.5	25.4	6	M6×0.75	46.8	4.6	25 700	15 300	0.46
1 1/4	**UC207-104D1**	1.2500													1.21
1 5/16	**UC207-105D1**	1.3125													1.15
1 3/8	**UC207-106D1**	1.3750	2.8346	1.6890	0.7874	0.059	0.689	1.000	0.236	1/4-28UNF	1.8425	0.181	5 750	3 450	1.08
1 7/16	**UC207-107D1**	1.4375													1.01
40	**UC208D1**	40	80	49.2	21	1.5	19	30.2	8	M8×1	53	4.5	29 100	17 800	0.64
1 1/2	**UC208-108D1**	1.5000	3.1496	1.9370	0.8268	0.059	0.748	1.189	0.315	5/16-24UNF	2.0866	0.177	6 550	4 000	1.52
1 9/16	**UC208-109D1**	1.5625													1.46
45	**UC209D1**	45	85	49.2	22	1.5	19	30.2	8	M8×1	57.5	4.9	32 500	20 400	0.68
1 5/8	**UC209-110D1**	1.6250	3.3465	1.9370	0.8661	0.059	0.748	1.189	0.315	5/16-24UNF	2.2638	0.193	7 350	4 600	1.76
1 11/16	**UC209-111D1**	1.6875													1.68
1 3/4	**UC209-112D1**	1.7500													1.57

Note (1) These numbers indicate relubricatable type. If maintenance free type is needed, please order without suffix "D1".

Ball bearings
Set screw type



Shaft dia. mm / inch	Bearing (1) number	Nominal dimensions mm / inch											Basic load ratings N / lbf		Mass kg / lb
		d	D	B	C	r min.	S	S_1	G	d_s	d_4	F	dynamic C_r	static C_{0r}	
50	**UC210D1**	50	90	51.6	24	1.5	19	32.6	9	M8×1	62.4	5.9	35 000	23 200	0.78
$1\frac{13}{16}$	**UC210-113D1**	1.8125													2.03
$1\frac{7}{8}$	**UC210-114D1**	1.8750	3.5433	2.0315	0.9449	0.059	0.748	1.283	0.354	$\frac{5}{16}$-24UNF	2.4567	0.232	7 900	5 200	1.92
$1\frac{15}{16}$	**UC210-115D1**	1.9375													1.81
2	**UC210-200D1**	2.0000													1.69
55	**UC211D1**	55	100	55.6	25	2	22.2	33.4	9	M8×1	69	6.0	43 500	29 200	1.04
2	**UC211-200D1**	2.0000													2.71
$2\frac{1}{16}$	**UC211-201D1**	2.0625	3.9370	2.1890	0.9843	0.079	0.874	1.315	0.354	$\frac{5}{16}$-24UNF	2.7165	0.236	9 750	6 550	2.60
$2\frac{1}{8}$	**UC211-202D1**	2.1250													2.46
$2\frac{3}{16}$	**UC211-203D1**	2.1875													2.34
60	**UC212D1**	60	110	65.1	27	2	25.4	39.7	10	M10×1.25	77	6.2	52 500	36 000	1.46
$2\frac{1}{4}$	**UC212-204D1**	2.2500													3.66
$2\frac{5}{16}$	**UC212-205D1**	2.3125	4.3307	2.5630	1.0630	0.079	1.000	1.563	0.394	$\frac{3}{8}$-24UNF	3.0315	0.244	11 800	8 150	3.50
$2\frac{3}{8}$	**UC212-206D1**	2.3750													3.33
$2\frac{7}{16}$	**UC212-207D1**	2.4375													3.17
65	**UC213D1**	65	120	65.1	32	2	25.4	39.7	10	M10×1.25	82.5	8.7	57 500	40 000	1.86
$2\frac{1}{2}$	**UC213-208D1**	2.5000	4.7244	2.5630	1.2598	0.079	1.000	1.563	0.394	$\frac{3}{8}$-24UNF	3.2480	0.343	12 900	9 000	4.26
$2\frac{9}{16}$	**UC213-209D1**	2.5625													4.09
70	**UC214D1**	70	125	74.6	33	2	30.2	44.4	12	M10×1.25	87	8.8	62 000	44 000	2.10
$2\frac{5}{8}$	**UC214-210D1**	2.6250													5.09
$2\frac{11}{16}$	**UC214-211D1**	2.6875	4.9213	2.9370	1.2992	0.079	1.189	1.748	0.472	$\frac{3}{8}$-24UNF	3.4252	0.346	14 000	9 900	4.87
$2\frac{3}{4}$	**UC214-212D1**	2.7500													4.65
75	**UC215D1**	75	130	77.8	34	2	33.3	44.5	12	M10×1.25	93	9.0	66 000	49 500	2.34
$2\frac{13}{16}$	**UC215-213D1**	2.8125													5.73
$2\frac{7}{8}$	**UC215-214D1**	2.8750	5.1181	3.0630	1.3386	0.079	1.311	1.752	0.472	$\frac{3}{8}$-24UNF	3.6614	0.354	14 900	11 100	5.49
$2\frac{15}{16}$	**UC215-215D1**	2.9375													5.25
3	**UC215-300D1**	3.0000													4.98
80	**UC216D1**	80	140	82.6	35	2.5	33.3	49.3	12	M10×1.25	98.1	9.5	72 500	53 000	2.78
$3\frac{1}{16}$	**UC216-301D1**	3.0625													6.57
$3\frac{1}{8}$	**UC216-302D1**	3.1250	5.5118	3.2520	1.3780	0.098	1.311	1.941	0.472	$\frac{3}{8}$-24UNF	3.8622	0.374	16 300	11 900	6.28
$3\frac{3}{16}$	**UC216-303D1**	3.1875													6.00

Note (1) These numbers indicate relubricatable type. If maintenance free type is needed, please order without suffix "D1".