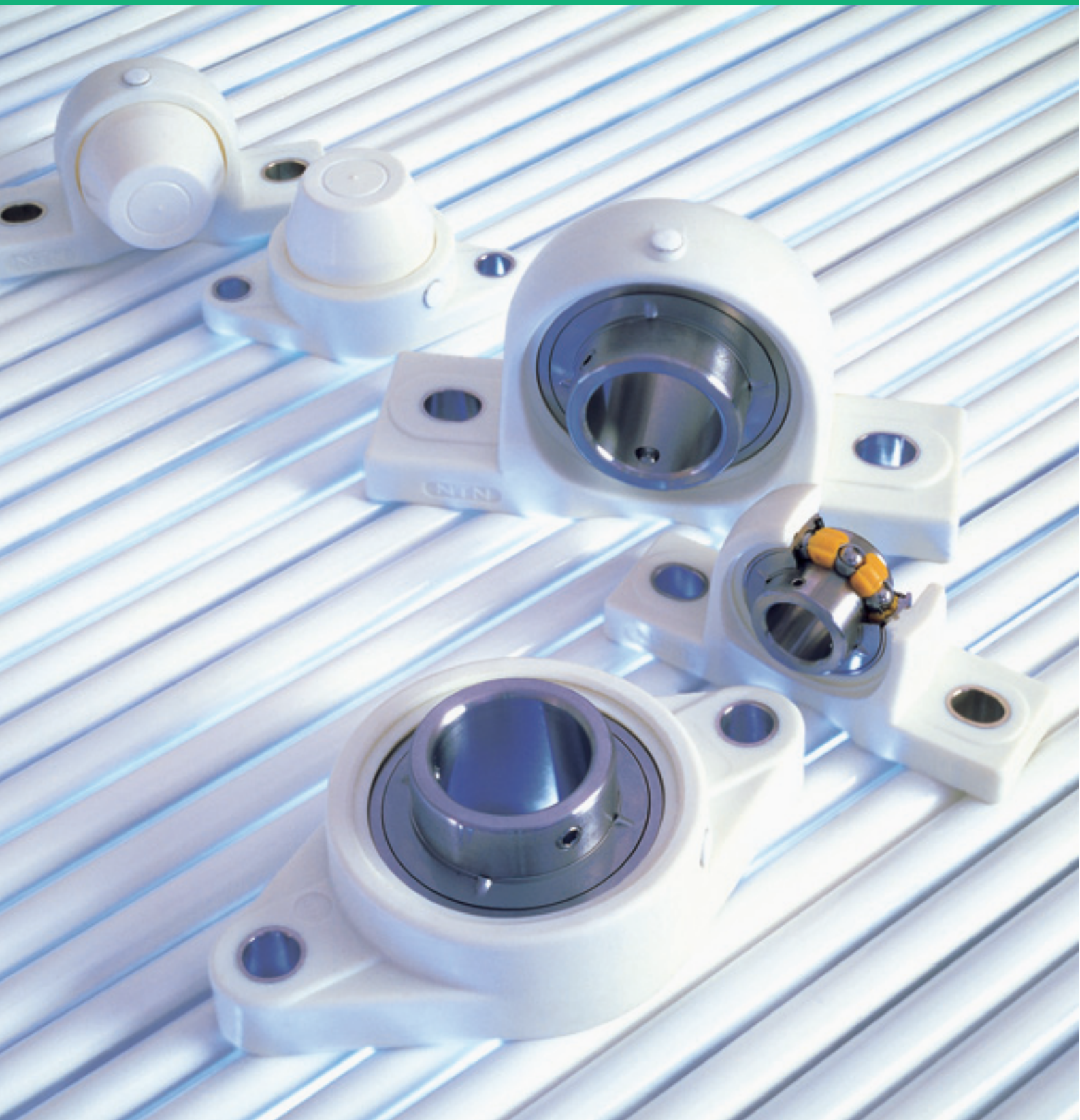
For New Technology Network

NTN®

NTN corporation

Bearing Units Plastic Housing Series

CAT. No. 3904-Ⅲ／E



The NTN plastic series ensures a clean operating environment.

1. Features

Guards against corrosion

NTN bearing units in the plastic series feature ball bearings inserted into housings made of plastics that provide superior resistance to corrosion as compared to standard series cast iron units. This series is especially useful in a wide variety of applications because of the nonmagnetic and rust free properties of the housing.

Maintains a clean operating environment

The solid grease lubricant in the ball bearing, solely developed by **NTN**, reduces leakage from the bearing, significantly reducing environmental pollution. Also, the housing will not stain, nor is there paint to peel and contaminate the environment.

Low torque characteristics

The standard solid grease type for these ball bearing units is spot-pack which places the lubricant on the bearing cage. Torque consumption capabilities of spot-pack bearings is low due to reduced whip resistance in comparison to standard grease lubricated ball bearings.

Light weight

Weight is reduced more than 30% to 60% over standard series units.

Water resistant

The glass filled polyester housing not only reduces corrosion but offers better water resistance.

2. Materials

Parts		Materials
Bearing	Raceways	Martensite stainless steel (equivalent to SUS440C)
	Rolling element	Martensite stainless steel (SUS440C)
	Slinger, Cage	Austenite stainless steel (SUS304)
	Rubber seal	Nitryl rubber
	Set screw(W shape screw head)	Martensite stainless steel (SUS410)
Bearing housing	Housing	Glass reinforced Polyester (VALOX 420)※
	Sleeve for set bolt	Austenite stainless steel (SUS 304)
	Nut for grease nipple	Austenite stainless steel (SUS 304)
Dust cover		Polypropylene
Plug		Polyethylene

※VALOX is a trade mark of General Electric Company

3. Recommended operating temperature and allowable speed

Bearings with solid grease are recommended to operate under -20 to +80˚C. However, operating temperature should be below +60˚C when bearing is operated with continuous use.

dn value: 12×10^4

(dn= bore diameter in mm ×speed in min^{-1})

Remarks: The recommended operating temperature range and allowable speed is applied to all bearings with solid grease. Contact **NTN** when your application exceeds these recommendations. For standard grease, the maximum recommended temperature for plastic units is 80˚C to prevent creeping between bearing outer ring and housing bore.

4. Compatibility and Handling

Basically, the plastic housing series is compatible with standard cast iron series units when setting, however, the nominal setting bolt diameter may differ from the standard series. The housing should be handled carefully and may be damaged if dropped on hard surfaces or hit with metal hammers. An electrostatic charge may be generated in certain operating conditions, making it inadvisable for use when flammable or explosive conditions may occur. The unit may be regreased using the plug on the housing, however relubrication is not recommended when unit ball bearings are packed with solid grease.

5. Applications

Bearings with solid grease are suitable for applications requiring a clean operating environment such as: food processing and packaging machinery, chemical processing machines, etc.

6. Option

When a stainless steel insert bearing is not required, a standard steel insert bearing can applied. In that case a relubricable type will be provided. Contact **NTN** for additional information.

Recommended tightening torque for set screw

Unit: N·m/lbf·inch

Bearing number (F-UC)	Designnation of set screws (W shape screw head)		Tightening torques (Max)	
	Metric series	Inch series	N·m	lbf·inch
204, 205	M5×0.8	No.10-32UNF	3.9	34
206	M6×0.75	1/4-28UNF	4.9	43
207	M6×0.75	1/4-28UNF	5.8	52
208	M8×1	5/16-24UNF	7.8	69

Tighten the two set screws uniformly using the torque listed in this table. Over tightening the set screw may cause the inner ring to crack.

Recommended tightening torque for setting bolt

Unit: N·m/lbf·inch

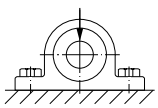
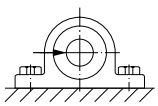
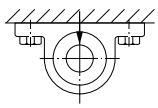
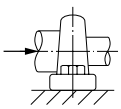
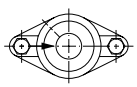
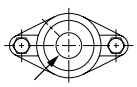
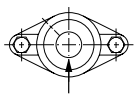
Housing number	Nominal bolt dia.		Tightening torques (Max.)	
	Metric series	Inch series	N·m	lbf·inch
PR204D1	M10	3/8	17.7	156
PR205D1			24.5	217
PR206D1	M12	7/16	29.4	260
PR207D1			35.3	312
PR208D1			45.1	399
FLR204D1	M10	3/8	17.7	156
FLR205D1			24.5	217
FLR206D1			29.4	260
FLR207D1	M12	7/16	35.3	312
FLR208D1			40.2	356

Over tightening the setting bolt may deform the plastic housing. Use the tightening torque guideline listed in this table.
NTN recommends the use of a washer between the bolt and housing base.
If a washer is not used, damage to the base could occur.

Plastic housing static strength

The table below indicates the static strength of plastic housings at room temperature (23.5˚C). The static strength of plastic housings varies by operating temperature, housing type and load direction and must be factored into the selection process. **NTN** recommends using safety equipment should the housing become damaged or broken, creating a dangerous working environment.

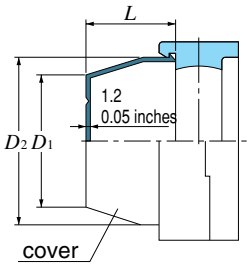
Unit: N/lbf

Type of housing	Direction of load	Static strength of housing				
		Nominal number				
		204	205	206	207	208
PR	Downward 	16,600	19,600	2,830	38,300	44,500
		3,730	4,410	6,370	8,620	10,000
	Horizontal 	7,000	7,400	8,600	10,300	12,100
		1,570	1,680	1,940	2,310	2,710
	Upward  ※Not recommended.	5,600	5,800	6,000	6,600	11,100
		1,260	1,300	1,340	1,480	2,490
	Axial direction  ※Not recommended.	3,000	3,200	4,000	5,700	8,500
		680	730	900	1,280	1,920
FLR	Horizontal 	5,600	8,000	10,800	13,800	17,300
		1,260	1,810	2,430	3,110	3,880
	45 degrees upward 	6,600	8,400	10,300	12,200	14,000
		1,480	1,900	2,310	2,730	3,150
	Upward 	7,400	7,600	8,500	10,700	15,100
		1,680	1,720	1,920	2,400	3,400

Dimensions for dust cover

Unit: mm/ inch

Cover number	Dimensions					
	D_1		D_2		L	
RM-204	36	1 13/32	50	1 31/32	29.5	1 5/32
RM-205	41	1 5/8	55	2 5/32	31.0	1 7/32
RM-206	50	1 31/32	64	2 17/32	35.0	1 3/8
RM-207	60	2 3/8	74	2 15/16	38.0	1 1/2
RM-208	68	2 11/16	84	3 5/16	40.0	1 9/16



Water and chemical resistance of housing (VALOX 420®)

Among engineering plastics, VALOX has better water absorption characteristics (0.06% at 23℃ over 24 hours) and better dimensional stability. VALOX is made of crystallized polymer and while not affected by organic solvents, is affected by alkaline, making it important to consider the operating environment. The table demonstrates VALOX's chemical resistance when soaked in solvent at 30 or 90 days.

	Chemicals	Temperature ℃	Deterioration ratio[1] % Number of days soaked	
			30 days	90 days
Acid	Hydrochloric acid, 10%	23	89	85
	Sulfuric acid, 36%	23	97	97
		60	84	60
	Acetic acid 10%	23	88	88
Alkaline	Potassium hydroacid, 5%	23	88	10
	Sodium hydroacid, 10%	23	※	※
	Ammonia hydroacid, 10%	23	96	87
Oil	Motor oil	23	100	100
	Brake oil	23	100	100
	Gasoline (Regular)	23	100	100
		60	93	90
Organic solven	Ethyl alcohol	23	99	96
	Methyl alcohol	23	91	82
	Isopropyl alcohol	23	100	100
	Acetone	23	86	74
	Methyl Ethyl Keton	23	90	80
	Ethyl acetate	23	96	86
	Methylene chloride	23	54	54
	ethylene grycole	23	100	100
Sodium	Zinc chrolide 10%	23	97	94
	Calcium chrolide 10%	23	98	98
	Sodium chrolide 5%	23	97	97

Remarks 1) Deterioration (%) is the strength after test divided by the strength before test.
The ※ symbol indicates that results could not be measured as the test piece dissolved.
Remarks 2) The values listed in the table are not guaranteed as they are the result of soaking without operating stresses on the sample. Because this strength data is general, it does not apply under all operating conditions. Actual housing strength will vary depending on the type and concentration of liquid, temperature, load, etc.
Remarks 3) Technical data provided by General Electric Company.

Anti-Corrosion capability

NTN recommends ratings of ◎ to ○ for optimum corrosion resistance.

◎ ○ △ ▲ ×
excellent ← → poor

Materials \ Condition	Atmosphere		Water		Acid		
	Dry	Wet	Natural water	Sodium water	Nitric acid	Sulfuric acid	Hydrochloric acid
Martensite stainless steel SUS440C, SUS410	○	△	△	▲	▲	×	×
Austenite stainless steel SUS304, SCS13	◎	◎	◎	○	◎	○	△
Polyester plastics VALOX 420	◎	◎	◎	◎	▲	○	○
Polypropylene, polyethylene	◎	◎	◎	◎	○	○	○
High carbon steel SUJ2	△	▲	▲	×	×	×	×
Carbon steel, Cast iron	▲	×	×	×	×	×	×

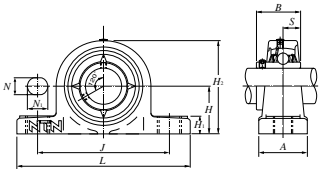
Remarks: This data is obtained by observation of the surface conditions of materials.
Note that these anti-corrosion capabilities are altered by anti-corrosion surface treatment.
Not recommended for use in liquid.

Pillow type bearing unit F-UCPR2 series

Cylindrical bore, set screw type

Shaft dia. mm / inch	Unit number	Nominal dimensions mm / inch H	L	J	A	N	N_1	H_1	H_2	B	S	Bolt size	Bearing number	Housing number	Mass of unit (Ref.) kg	lb
20 3/4	F-UCPR204/LP03 F-UCPR204-012/LP03	33.3 1 5/16	127 5	95 3 3/4	38 1 1/2	11 7/16	14 9/16	14.2 9/16	65 2 9/16	31 1.2205	12.7 0.500	M10 3/8	F-UC204D1/LP03 F-UC204-012D1/LP03	PR204D1 PR204D1	0.3 0.7
25 13/16 7/8 15/16 1	F-UCPR205/LP03 F-UCPR205-013/LP03 F-UCPR205-014/LP03 F-UCPR205-015/LP03 F-UCPR205-100/LP03	36.5 1 7/16	140 5 1/2	105 4 1/8	38 1 1/2	11 7/16	14 9/16	14.5 9/16	71 2 25/32	34.1 1.3425	14.3 0.563	M10 3/8	F-UC205D1/LP03 F-UC205-013D1/LP03 F-UC205-014D1/LP03 F-UC205-015D1/LP03 F-UC205-100D1/LP03	PR205D1 PR205D1	0.3 0.7
30 1 1/16 1 1/8 1 3/16 1 1/4	F-UCPR206/LP03 F-UCPR206-101/LP03 F-UCPR206-102/LP03 F-UCPR206-103/LP03 F-UCPR206-104/LP03	42.9 1 11/16	162 6 3/8	119 4 11/16	46 1 13/16	14 9/16	18 23/32	17.8 11/16	83 3 9/32	38.1 1.5000	15.9 0.626	M12 7/16	F-UC206-D1/LP03 F-UC206-101D1/LP03 F-UC206-102D1/LP03 F-UC206-103D1/LP03 F-UC206-104D1/LP03	PR206D1 PR206D1	0.5 1.1
35 1 1/4 1 5/16 1 3/8 1 7/16	F-UCPR207/LP03 F-UCPR207-104/LP03 F-UCPR207-105/LP03 F-UCPR207-106/LP03 F-UCPR207-107/LP03	47.6 1 7/8	167 6 9/16	127 5	48 1 7/8	14 9/16	18 23/32	18 23/32	94 3 11/16	42.9 1.6890	17.5 0.689	M12 7/16	F-UC207D1/LP03 F-UC207-104D1/LP03 F-UC207-105D1/LP03 F-UC207-106D1/LP03 F-UC207-107D1/LP03	PR207D1 PR207D1	0.7 1.5
40 1 1/2 1 9/16	F-UCPR208/LP03 F-UCPR208-108/LP03 F-UCPR208-109/LP03	49.2 1 15/16	184 7 1/4	137 5 13/32	54 2 1/8	14 9/16	18 23/32	19.5 25/32	98 3 27/32	49.2 1.9370	19 0.748	M12 7/16	F-UC208D1/LP03 F-UC208-108D1/LP03 F-UC208-109D1/LP03	PR208D1 PR208D1	1.0 2.2

Stainless bearing with solid grease + glass fiber reinforced plastic housing.

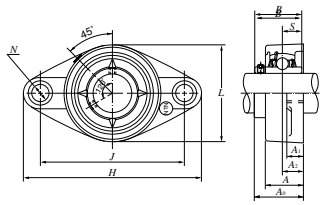


Rhombus flange type bearing unit F-UCFLR2 series

Cylindrical bore, set screw type

Shaft dia. mm / inch	Unit number	Nominal dimensions mm / inch H	J	A_2	A_1	A	N	L	A_0	B	S	Bolt size	Bearing number	Housing number	Mass of unit (Ref.) kg	lb
20 3/4	F-UCFLR204/LP03 F-UCFLR204-012/LP03	113 4 7/16	90 3 35/64	15.4 19/32	11.4 7/16	26.5 1 1/32	11 7/16	64 2 17/32	33.7 1 21/64	31 1.2205	12.7 0.500	M10 3/8	F-UC204D1/LP03 F-UC204-012D1/LP03	FLR204D1 FLR204D1	0.3 0.7
25 13/16 7/8 15/16 1	F-UCFLR205/LP03 F-UCFLR205-013/LP03 F-UCFLR205-014/LP03 F-UCFLR205-015/LP03 F-UCFLR205-100/LP03	130 5 1/8	99 3 57/64	17 21/32	13.5 17/32	29.1 1 5/32	11 7/16	68 2 11/16	36.8 1 29/64	34.1 1.3425	14.3 0.563	M10 3/8	F-UC205D1/LP03 F-UC205-013D1/LP03 F-UC205-014D1/LP03 F-UC205-015D1/LP03 F-UC205-100D1/LP03	FLR205D1 FLR205D1	0.3 0.7
30 1 1/16 1 1/8 1 3/16 1 1/4	F-UCFLR206/LP03 F-UCFLR206-101/LP03 F-UCFLR206-102/LP03 F-UCFLR206-103/LP03 F-UCFLR206-104/LP03	148 5 13/16	117 4 39/64	19 3/4	13.3 17/32	30.5 1 3/16	11 7/16	80 3 5/32	41.2 1 5/8	38.1 1.5000	15.9 0.626	M10 3/8	F-UC206-D1/LP03 F-UC206-101D1/LP03 F-UC206-102D1/LP03 F-UC206-103D1/LP03 F-UC206-104D1/LP03	FLR206D1 FLR206D1	0.5 1.1
35 1 1/4 1 5/16 1 3/8 1 7/16	F-UCFLRM207/LP03 F-UCFLR207-104/LP03 F-UCFLR207-105/LP03 F-UCFLR207-106/LP03 F-UCFLR207-107/LP03	163 6 13/32	130 5 1/8	18 23/32	16.1 5/8	32.8 1 9/32	13 1/2	90 3 17/32	43.4 1 45/64	42.9 1.6890	17.5 0.689	M12 7/16	F-UC207D1/LP03 F-UC207-104D1/LP03 F-UC207-105D1/LP03 F-UC207-106D1/LP03 F-UC207-107D1/LP03	FLR207D1 FLR207D1	0.7 1.5
40 1 1/2 1 9/16	F-UCFLR208/LP03 F-UCFLR208-108/LP03 F-UCFLR208-109/LP03	175 6 7/8	144 5 43/64	21.5 27/32	20 25/32	37.5 1 15/32	14 9/16	100 3 15/16	51.7 2 1/32	49.2 1.9370	19 0.748	M12 7/16	F-UC208D1/LP03 F-UC208-108D1/LP03 F-UC208-109D1/LP03	FLR208D1 FLR208D1	0.9 2.0

Stainless bearing with solid grease + glass fiber reinforced plastic housing

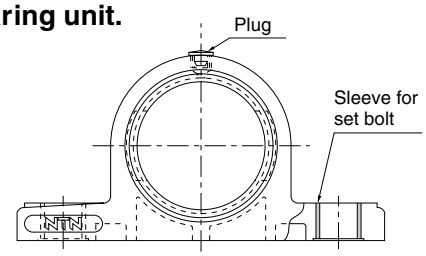


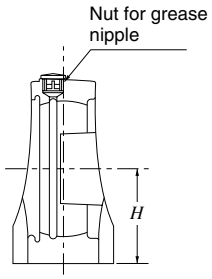
Housing tolerances

1. Center height tolerances for pillow type bearing unit.

Unit: mm/inch

Housing part number	H deviation DH_S
PR204D1	±0.25 ±0.010
PR205D1	
PR206D1	
PR207D1	
PR208D1	



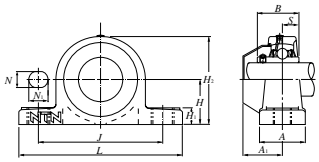


Pillow type bearing unit F-RM-UCPR2 series

Cylindrical bore, set screw type

Shaft dia. mm / inch	Unit number	Nominal dimensions mm / inch H	L	J	A	N	N_1	H_1	H_2	A_1	B	S	Bolt size	Bearing number	Housing number	Mass of unit (Ref.) kg / lb
20 3/4	F-RM-UCPR204/LP03 F-RM-UCPR204-012/LP03	33.3 1 5/16	127 5	95 3 3/4	38 1 1/2	11 7/16	14 9/16	14.2 9/16	65 2 9/16	39 1 17/32	31 1.2205	12.7 0.500	M10 3/8	F-UC204D1/LP03 F-UC204-012D1/LP03	PR204D1 PR204D1	0.3 0.7
25 13/16 7/8 15/16 1	F-RM-UCPR205/LP03 F-RM-UCPR205-013/LP03 F-RM-UCPR205-014/LP03 F-RM-UCPR205-015/LP03 F-RM-UCPR205-100/LP03	36.5 1 7/16	140 5 1/2	105 4 1/8	38 1 1/2	11 7/16	14 9/16	14.5 9/16	71 2 25/32	40 1 9/16	34.1 1.3425	14.3 0.563	M10 3/8	F-UC205D1/LP03 F-UC205-013D1/LP03 F-UC205-014D1/LP03 F-UC205-015D1/LP03 F-UC205-100D1/LP03	PR205D1 PR205D1	0.3 0.7
30 1 1/16 1 1/8 1 3/16 1 1/4	F-RM-UCPR206/LP03 F-RM-UCPR206-101/LP03 F-RM-UCPR206-102/LP03 F-RM-UCPR206-103/LP03 F-RM-UCPR206-104/LP03	42.9 1 11/16	162 6 3/8	119 4 11/16	46 1 13/16	14 9/16	18 23/32	17.8 11/16	83 3 9/32	46 1 13/16	38.1 1.5000	15.9 0.626	M12 7/16	F-UC206-D1/LP03 F-UC206-101D1/LP03 F-UC206-102D1/LP03 F-UC206-103D1/LP03 F-UC206-104D1/LP03	PR206D1 PR206D1	0.5 1.1
35 1 1/4 1 5/16 1 3/8 1 7/16	F-RM-UCPR207/LP03 F-RM-UCPR207-104/LP03 F-RM-UCPR207-105/LP03 F-RM-UCPR207-106/LP03 F-RM-UCPR207-107/LP03	47.6 1 7/8	167 6 9/16	127 5	48 1 7/8	14 9/16	18 23/32	18 23/32	94 3 11/16	49 1 15/16	42.9 1.6890	17.5 0.689	M12 7/16	F-UC207D1/LP03 F-UC207-104D1/LP03 F-UC207-105D1/LP03 F-UC207-106D1/LP03 F-UC207-107D1/LP03	PR207D1 PR207D1	0.7 1.5
40 1 1/2 1 9/16	F-RM-UCPR208/LP03 F-RM-UCPR208-108/LP03 F-RM-UCPR208-109/LP03	49.2 1 15/16	184 7 1/4	137 5 13/32	54 2 1/8	14 9/16	18 23/32	19.5 25/32	98 3 27/32	52 2 1/16	49.2 1.9370	19 0.748	M12 7/16	F-UC208D1/LP03 F-UC208-108D1/LP03 F-UC208-109D1/LP03	PR208D1 PR208D1	1.0 2.2

Stainless bearing with solid grease + glass fiber reinforced plastic housing

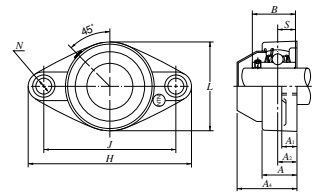


Rhombus Flange type bearing unit F-RM-UCFLR2 series

Cylindrical bore, set screw type

Shaft dia. mm / inch	Unit number	Nominal dimensions mm / inch H	J	A_2	A_1	A	N	L	A_0	A_4	B	S	Bolt size	Bearing number	Housing number	Mass of unit (Ref.) kg / lb
20 3/4	F-RM-UCFLR204/LP03 F-RM-UCFLR204-012/LP03	113 4 7/16	90 3 35/64	15.4 19/32	11.4 7/16	26.5 1 1/32	11 7/16	64 2 17/32	33.7 1 21/64	53 2 1/8	31 1.2205	12.7 0.500	M10 3/8	F-UC204D1/LP03 F-UC204-012D1/LP03	FLR204D1 FLR204D1	0.3 0.7
25 13/16 7/8 15/16 1	F-RM-UCFLR205/LP03 F-RM-UCFLR205-013/LP03 F-RM-UCFLR205-014/LP03 F-RM-UCFLR205-015/LP03 F-RM-UCFLR205-100/LP03	130 5 1/8	99 3 57/64	17 21/32	13.5 17/32	29.1 1 5/32	11 7/16	68 2 11/16	36.8 1 29/64	57 2 1/4	34.1 1.3425	14.3 0.563	M10 3/8	F-UC205D1/LP03 F-UC205-013D1/LP03 F-UC205-014D1/LP03 F-UC205-015D1/LP03 F-UC205-100D1/LP03	FLR205D1 FLR205D1	0.3 0.7
30 1 1/16 1 1/8 1 3/16 1 1/4	F-RM-UCFLR206/LP03 F-RM-UCFLR206-101/LP03 F-RM-UCFLR206-102/LP03 F-RM-UCFLR206-103/LP03 F-RM-UCFLR206-104/LP03	148 5 13/16	117 4 39/64	19 3/4	13.3 17/32	30.5 1 3/16	11 7/16	80 3 5/32	41.2 1 5/8	64 2 17/32	38.1 1.5000	15.9 0.626	M10 3/8	F-UC206-D1/LP03 F-UC206-101D1/LP03 F-UC206-102D1/LP03 F-UC206-103D1/LP03 F-UC206-104D1/LP03	FLR206D1 FLR206D1	0.5 1.1
35 1 1/4 1 5/16 1 3/8 1 7/16	F-RM-UCFLRM207/LP03 F-RM-UCFLR207-104/LP03 F-RM-UCFLR207-105/LP03 F-RM-UCFLR207-106/LP03 F-RM-UCFLR207-107/LP03	163 6 13/32	130 5 1/8	18 23/32	16.1 5/8	32.8 1 9/32	13 1/2	90 3 17/32	43.4 1 45/64	67 2 5/8	42.9 1.6890	17.5 0.689	M12 7/16	F-UC207D1/LP03 F-UC207-104D1/LP03 F-UC207-105D1/LP03 F-UC207-106D1/LP03 F-UC207-107D1/LP03	FLR207D1 FLR207D1	0.7 1.5
40 1 1/2 1 9/16	F-RM-UCFLR208/LP03 F-RM-UCFLR208-108/LP03 F-RM-UCFLR208-109/LP03	175 6 7/8	144 5 43/64	21.5 27/32	20 25/32	37.5 1 15/32	14 9/16	100 3 15/16	51.7 2 1/32	74 2 15/16	49.2 1.9370	19 0.748	M12 7/16	F-UC208D1/LP03 F-UC208-108D1/LP03 F-UC208-109D1/LP03	FLR208D1 FLR208D1	0.9 2.0

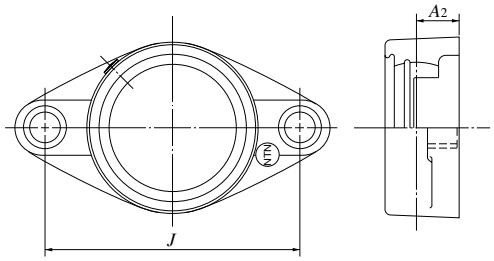
Stainless bearing with solid grease + glass fiber reinforced plastic housing



Housing tolerances

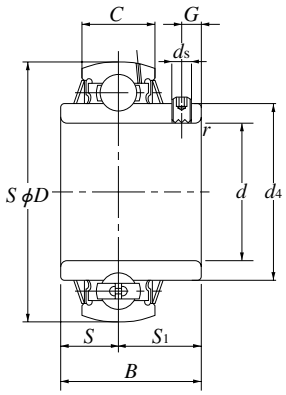
2. Tolerances for rhombus flange type housing. Unit: mm/inch

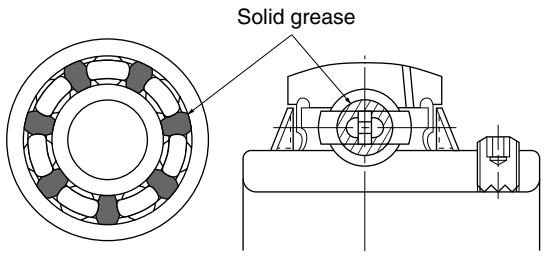
Housing number	A_2 deviation ΔA_2	Tolerances for mounting bolt holes
FLR204D1	±0.7 ±0.028	±0.5 ±0.020
FLR205D1		
FLR206D1		
FLR207D1		
FLR208D1		



Stainless insert bearing

Cylindrical bore, set screw type with solid grease





Grease fill plan (Spot-pack type is standard)

Shaft dia. mm / inch	Bearing number	Nominal dimensions mm / inch: d	D	B	C	$r_{s\,min}$	S	S_1	G	d_s	d_4	Basic load rating N dynamic C_r	lbf static C_{or}	Mass (Ref.) kg	lb
20	**F-UC204D1/LP03**	20	47	31	17	1	12.7	18.3	4.5	M5×0.8	29.6	9 900	6 650	0.17	
¾	**F-UC204-012D1/LP03**	0.7500	1.8504	1.2205	0.6693	0.039	0.500	0.720	0.177	No.10-32UNF	1.1654	2 220	1 500	0.39	
25	**F-UC205D1/LP03**	25	52	34.1	17	1	14.3	19.8	5	M5×0.8	33.9	10 800	7 850	0.20	
13/16	**F-UC205-013D1/LP03**	0.8125												0.53	
⅞	**F-UC205-014D1/LP03**	0.8750												0.51	
15/16	**F-UC205-015D1/LP03**	0.9375	2.0472	1.3425	0.6693	0.039	0.563	0.780	0.197	No.10-32UNF	1.3346	2 430	1 770	0.46	
1	**F-UC205-100D1/LP03**	1.0000												0.44	
30	**F-UC206D1/LP03**	30	62	38.1	19	1	15.9	22.2	5	M6×0.75	40.8	15 000	11 300	0.33	
1 1/16	**F-UC206-101D1/LP03**	1.0625												0.82	
1 ⅛	**F-UC206-102D1/LP03**	1.1250												0.77	
1 3/16	**F-UC206-103D1/LP03**	1.1875	2.4409	1.5000	0.7480	0.039	0.626	0.874	0.197	1/4-28UNF	1.6063	3 350	2 540	0.73	
1 ¼	**F-UC206-104D1/LP03**	1.2500												0.66	
35	**F-UC207D1/LP03**	35	72	42.9	20	1.5	17.5	25.4	6	M6×0.75	46.8	19 700	15 300	0.49	
1 ¼	**F-UC207-104D1/LP03**	1.2500												1.21	
1 5/16	**F-UC207-105D1/LP03**	1.3125												1.15	
1 ⅜	**F-UC207-106D1/LP03**	1.3750	2.8346	1.6890	0.7874	0.059	0.689	1.000	0.236	1/4-28UNF	1.8425	4 450	3 450	1.08	
1 7/16	**F-UC207-107D1/LP03**	1.4375												1.01	
40	**F-UC208D1/LP03**	40	80	49.2	21	1.5	19	30.2	8	M8×1	53	22 400	17 800	0.65	
1 ½	**F-UC208-108D1/LP03**	1.5000												1.52	
1 9/16	**F-UC208-109D1/LP03**	1.5625	3.1496	1.9370	0.8268	0.059	0.748	1.189	0.315	5/16-24UNF	2.0866	5 050	4 000	1.46	

Note) Insert bearings can be supplied with USDA qualified food grade grease. The resulting grease suffix is "L596". Ex. F-UC204 D1/L596.

Grease name	Allowable temp. range.	Applications	Note
CALTEX FM Grease EP2	−20～+80˚C	Food processing and general machines.	H-1 standard grease qualified by USDA.

Unit ball bearing tolerances (JIS B 1558)

1. Inner ring tolerances.

Unit: μm/0.0001 inch

Nominal bore diameter d over mm	over inch	incl. mm	incl. inch	Bore diameter Δd_{mp} Deviations high	Δd_{mp} low	ΔV_{dp} Variations max.	Width ΔB_s Deviations (ref.) high	ΔB_s low	Radial runout (ref.) max.
18	0.7087	31.750	1.2500	+18	0	12	0	−120	18
				+ 7	0	5	0	− 47	7
31.750	1.2500	50.800	2.0000	+21	0	14	0	−120	20
				+ 8	0	6	0	− 47	8

Δd_{mp}; Mean bore diameter deviation. ΔV_{dp}; Bore diameter variation.
ΔB_s; Inner ring width deviation.

2. Outer ring tolerances.

Unit: μm/0.0001 inch

Nominal outside diameter D over mm	over inch	incl. mm	incl. inch	ΔD_m Deviations high	ΔD_m low	Radial runout (ref.) max.
30	1.1811	50	1.9685	0	−11	20
				0	− 4	8
50	1.9685	80	3.1496	0	−13	25
				0	− 5	10

ΔD_m; Mean outside diameter deviation.
The low deviation of outside diameter ΔD_m dose not apply within the distance of 1/4 the width of the outer ring from the side.

Attaching the dust cover

① Insert the edge of the dust cover in the housing's groove.
② Insert the other side of the dust cover in the opposite housing groove either by hand or with assistance of a plastic/rubber mallet/hammer.
③ To remove the dust cover, pry the edge from the housing groove using a screw driver or similar tool.

∗ **Note:** frequent mounting/dismounting of the dust cover may damage the edge of the housing and is not recommended.