

# ASAHI

## PLASTIC SERIES

### BEARING UNITS



JP-1973

ISO 9002  
JQA-1973

**STAINLESS STEEL BEARING MOUNTED IN  
THERMOPLASTIC HOUSINGS!**

**NEW**



- *Anti-corrosive, Water / Chemical resistant*
- *Light-weight housings*
- *Interchangeable with normal type*
- *For Food-processing / Packaging / Textile machineries, Chemical apparatus, etc*

**ASAHI SEIKO CO., LTD.**

# PLASTIC SERIES BEARING UNITS

## 1. INTRODUCTION

Plastic housings are made of high-grade glass-filled thermoplastic polyester and mounted with stainless steel ball bearing inserts.

Hygienic construction: Solid housing base prevents from breeding of various germs. Plastic covers are also available to cover the shaft and bearing for the better protection against contaminants and safety.

## 2. MATERIAL

Table 1

Parts		Materials	
Bearing	Inner & outer rings	Stainless steel	SUS440C (EQ.)
	Balls		SUS440C
	Retainers		SUS304
	Slingers		
	Set-screws		
Rubber seals	Nitril rubber	—	
Housing		Thermoplastic	—
	Bolt hole bushings	Stainless steel	SUS304
	Grease nipple receiver		SUS303
	Grease nipple		COPPER ALLOY

## 3. ANTI-CORROSION FEATURES

Table 2

Environment	Materials				
	Stainless Steel SUS440C (EQ.)	Stainless Steel SUS304	Thermoplastic —	Bearing Steel SUJ2	Grey cast iron FC200
Dry	○	◎	◎	—	×
Mist	—	◎	◎	×	××
Fresh water	—	◎	◎	×	××
Salt water	×	◎	◎	××	××
Nitric acid	×	◎	×	××	××
Sulfuric acid	××	○	○	××	××
Hydrochloric acid	××	—	○	××	××

◎ : pretty good ○ : good — : not good × : bad ×× : very bad

## 4. ACCURACY

Table 3

No. MUC	Bearing inner ring			Housing		
	$\Delta d_{mp}$ max. min.	V <sub>dp</sub>	$\Delta B_s$ max. min.	K <sub>ia</sub> max.	No. PPL	$\Delta H_s$
204~206	+18 0	12	0 -120	18	204~208	±300
207~208	+21 0	14	0 -120	20		

$\Delta d_{mp}$  : Deviation of single-plane mean bore diameter

V<sub>dp</sub> : Bore diameter variation in a single radial plane

$\Delta B_s$  : Deviation of a single inner ring width

K<sub>ia</sub> : Radial runout (of assembled bearing inner ring)

$\Delta H_s$  : Deviation of distance between mounting base and spherical-seat center for pillow block

## 5. TIGHTENING TORQUE

Table 4

Bearing			Housing		
No. MUC	Hexagonal socket screw key No.	Tightening torque (N · m)	No. PPL, FPL, NFL	Fixing bolt	Tightening torque (N · m)
204	3	3.9	204	M10	17.7
205	3	3.9	205	M10	24.5
206	3	3.9	206	M10 / M12	29.4
207	4	8.3	207	M12	35.3
208	4	8.3	208	M12	45.1

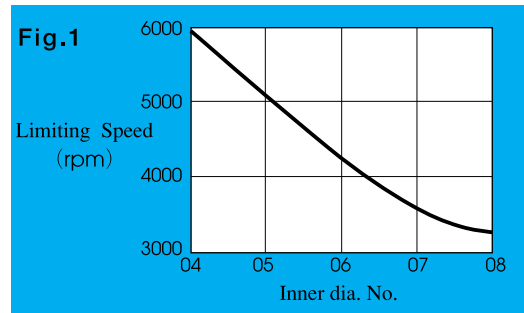
## 6. STATIC BREAKING STRENGTH OF HOUSING

Table 5

Unit : kN

No. PPL, FPL,NFL						
	W <sub>u</sub>	W <sub>s</sub>	W <sub>t</sub>	W <sub>d</sub>	W <sub>t</sub>	W <sub>d</sub>
204	7.7	8.8	5	15.9	3.6	8.5
205	10	13.7	8.1	13	3.3	11.1
206	10.6	12.6	5.7	18	3.3	14.2
207	10.8	12.7	7.5	18.5	3.5	14.9
208	11.1	13.1	8.5	19.1	3.8	15.1

## 7. LIMITING SPEED



## 8. RANGE OF OPERATING

TEMPERATURE : -20 ~ +80°C

## PILLOW BLOCKS MUCA200SB

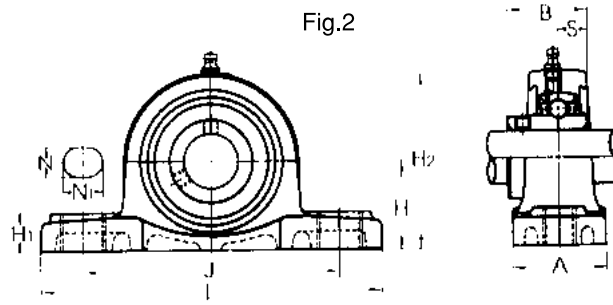


Table 7

Shaft dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size	Bearing		Housing No.	Weight (kg)	
		H	L	A	J	N	N <sub>1</sub>	H <sub>1</sub>	H <sub>2</sub>	B	S		Bearing No.	Basic load rating (kN) Cr Cor			
20	<b>MUCA 204SB</b>	33.3	127	38	95	11	14	14.2	65	31	12.7	M10	<b>MUC204</b>	10.9	5.3	<b>PPL204SB</b>	0.28
25	<b>MUCA 205SB</b>	36.5	140	38	105	11	14	14.5	71	34.1	14.3	M10	<b>MUC205</b>	11.9	6.3	<b>PPL205SB</b>	0.33
30	<b>MUCA 206SB</b>	42.9	162	46	119	14	18	17.8	83	38.1	15.9	M12	<b>MUC206</b>	16.7	9	<b>PPL206SB</b>	0.52
35	<b>MUCA 207SB</b>	47.6	167	48	127	14	18	18	94	42.9	17.5	M12	<b>MUC207</b>	22	12.3	<b>PPL207SB</b>	1.73
40	<b>MUCA 208SB</b>	49.2	184	54	137	14	18	19.5	98	49.2	19	M12	<b>MUC208</b>	24.9	14.3	<b>PPL208SB</b>	1.95

## SQUARE FLANGE UNITS MUCB200SB

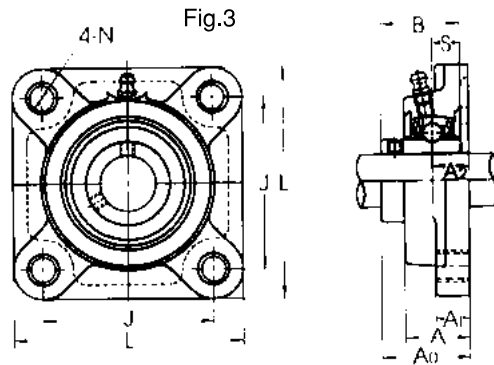


Table 9

Shaft dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size	Bearing		Housing No.	Weight (kg)
		L	A	J	N	A <sub>1</sub>	A <sub>2</sub>	A <sub>0</sub>	B	S	Bearing No.		Basic load rating (kN) Cr Cor			
20	<b>MUCB 204SB</b>	86	27.8	63.5	11	13.4	18	36.3	31	12.7	M10	<b>MUC204</b>	10.9	5.3	<b>FPL204SB</b>	0.28
25	<b>MUCB 205SB</b>	94.5	27.9	70	11	14.3	17	36.8	34.1	14.3	M10	<b>MUC205</b>	11.9	6.3	<b>FPL205SB</b>	0.33
30	<b>MUCB 206SB</b>	107	31.5	83	11	14.3	19.2	41.4	38.1	15.9	M10	<b>MUC206</b>	16.7	9	<b>FPL206SB</b>	0.52
35	<b>MUCB 207SB</b>	118	34.8	92	13	15.5	21.5	46.9	42.9	17.5	M12	<b>MUC207</b>	22	12.3	<b>FPL207SB</b>	1.73
40	<b>MUCB 208SB</b>	130	37.5	102	14	17	23	53.2	49.2	19	M12	<b>MUC208</b>	24.9	14.3	<b>FPL208SB</b>	1.95

## TWO-BOLT FLANGE UNITS MUCD200SB

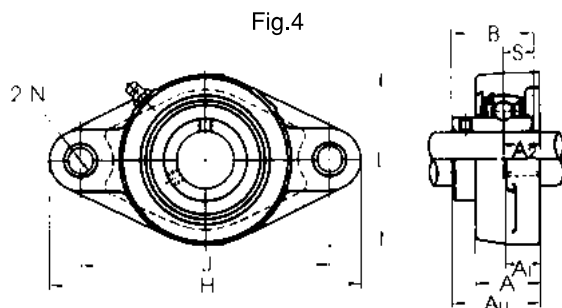


Table 11

Shaft dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size	Bearing		Housing No.	Weight (kg)	
		H	L	A	J	N	A <sub>1</sub>	A <sub>2</sub>	A <sub>0</sub>	B	S		Bearing No.	Basic load rating (kN) Cr Cor			
20	<b>MUCD 204SB</b>	113	64	26.5	90	11	11.4	15.4	33.7	31	12.7	M10	<b>MUC204</b>	10.9	5.3	<b>NFL204SB</b>	0.23
25	<b>MUCD 205SB</b>	130	69.5	29.1	99	11	13.5	17	36.8	34.1	14.3	M10	<b>MUC205</b>	11.9	6.3	<b>NFL205SB</b>	0.3
30	<b>MUCD 206SB</b>	148	80	30.5	117	11	13.3	19	41.2	38.1	15.9	M10	<b>MUC206</b>	16.7	9	<b>NFL206SB</b>	0.44
35	<b>MUCD 207SB</b>	163	90	32.8	130	13	16.1	18	43.4	42.9	17.5	M12	<b>MUC207</b>	22	12.3	<b>NFL207SB</b>	0.65
40	<b>MUCD 208SB</b>	175	100	37.5	144	14	20	21.5	51.7	49.2	19	M12	<b>MUC208</b>	24.9	14.3	<b>NFL208SB</b>	0.87

## THERMOPLASTIC COVER

Fig.5

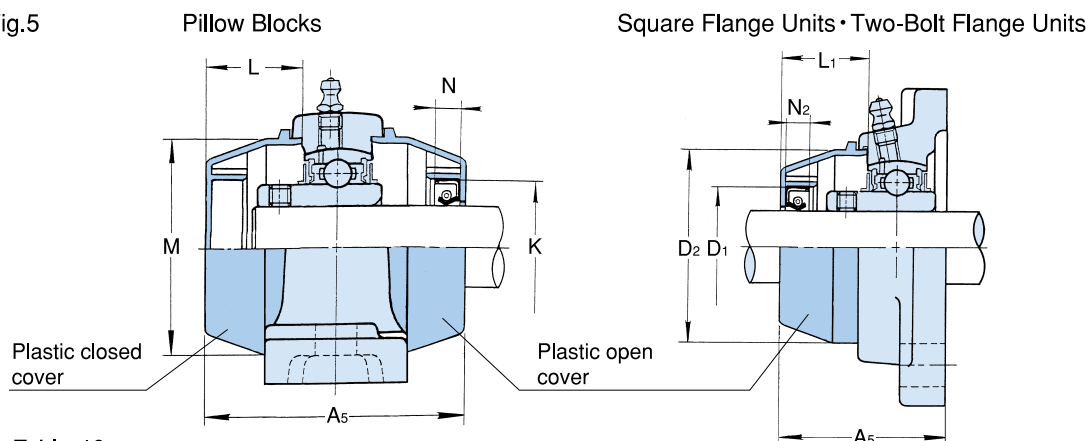


Table 12

Shaft dia. (mm)	Open Cover No.	Closed Cover No.	Dimensions (mm)						
			L	N	K	M	Pillow P	Flange F FL	
							A5		
20	<b>RMO-204</b>	<b>RMC-204</b>	23	7	32	50	65	49.5	46.5
25	<b>RMO-205</b>	<b>RMC-205</b>	25	7	37	55	71	50.5	50.5
30	<b>RMO-206</b>	<b>RMC-206</b>	30	7	42	64	89	58.5	58.5
35	<b>RMO-207</b>	<b>RMC-207</b>	32	7	47	74	91	63.5	60
40	<b>RMO-208</b>	<b>RMC-208</b>	37	7	52	84	103	71	69

Remark : When ordering these covers, please consult us.

Back seal is available to flange type housings, FPL and NFL in combination with MB series bearing insert to be mounted. Please consult us if necessary.

### ○Remarks

- Bolt Size of thermoplastic housings may differ from those of JIS-type ball bearing units for some sizes.
- Thermoplastic housings may be damaged when heavy shock is applied.
- This unit should not be used where static electricity may be generated. When used, it shall be earthed properly.
- Breaking strength of the housings (Table 5) shows the average value under the normal operating temperature. Safety factor should be taken into account depending upon the operating temperature, carrying load and its direction and nature.
- In order to prevent from inner ring's crack due to over tightening set-screws or set-screws' loosening due to vibration while operating, the set-screws shall be properly and evenly tightened.
- Specifications are subject to change without prior notice.

## ASAHI SEIKO CO., LTD.

**FOREIGN TRADE DEPARTMENT** : 570-1, Otori-Higashi-machi 6-cho, Sakai City, Osaka 593-8324, Japan

Tel : +81-72-272-6900

Fax : +81-72-272-6903

e-mail address : ex-1@asahiseiko.co.jp

e-mail address : ex-2@asahiseiko.co.jp

**U.S.A. OFFICE** : P.O.Box 9108, 570 North Wheeling Road, Mount Prospect, Illinois 60056-9998 U.S.A

Tel : +1-847-759-0620

Fax : +1-847-759-0630

**HEAD OFFICE & FACTORY** : 570-1, Otori-Higashi-machi 6-cho, Sakai city, Osaka 593-8324, Japan

Tel : +81-72-271-1221

Fax : +81-72-273-0058