Cat. No.BE04-7

ASAHI

Stainless Steel Ball Bearing Units

JP-1973

ISO 9002
JQA-1973

MUCP200 MUCF200
MUCFL200 MUCT200
MUCPA200 MUCFC200
MB

NEW

ASAHI SEIKO CO., LTD.

Stainless Steel Ball Bearing Units

This series provide the excellent corrosion resistance as well as self-alignment; all stainless steel insert bearings incorporated with solid stainless steel housings.
The insert bearings are available with food grade lubricant USDA/FDA compliant, which can serve also at the higher temperature when applied with proper bearing internal clearance and sealing devices.

Feature 1 — Excellent corrosion resistance:

Both insert bearings and housings are made of stainless steel suitable against many harsh atmospheres with stainless steel slingers.

Feature 2 — Best for Food Processing Machines:

Insert bearing MUC-type can have food grade lubricant, upon request, good for Food Processing Plants. Insert beaering MB-type is pre-lubricated with the food grade lubricant as standard.

Feature 3 — Dimensionally Interchangeable with the ordinary JIS-types:

Insert bearing MUC-type is interchangeable with UC-type, and MB-type with B-type ball bearings.

MATERIAL

Parts		Material	
Bearing	Inner & outer rings	Stainless steel	SUS440C (EQ.)
	Balls	Stainless steel	SUS440C
	Slinger	Stainless steel	SUS304
	Retainer	Stainless steel	SUS304
	Rubber seal	Nitril／Silicon	
	Set-screw	Stainless steel	SUS304
Housing		Stainless cast steel	SCS13

NUMBERING SYSTEM OF BEARING UNITS

MUC P 2 04
- 04 — Inside diameter number (20mm bore)
- 2 — Outside diameter number (bearing O.D.series "2")
- P — Housing type symbol (MP, Stainless cast steel, Pillow block)
- MUC — Bearing type symbol, Stainless steel ball bearing units

MUC FC 2 05 FD
- FD — For food processing machine pre-lubricated with Food Grade Lubricant
- 05 — Inside diameter number (25mm bore)
- 2 — Outside diameter number (bearing O.D.series "2")
- FC — Housing type symbol (MFC, Stainless cast steel with Flange cartridge)
- MUC — Bearing type symbol, Stainless steel ball bearing units

MB 5 FD
- FD — For food processing machine pre-lubricated with Food Grade Lubricant
- 5 — Inside diameter number of bearing (25mm bore)
- MB — Bearing type symbol, Stainless steel ball bearing

RECOMMENDED TIGHTENING TORQUE

Bearing No.	Hex. Key Size	Tightening torque (N·m)
MB4	2.5	2.4
MB5～MB6 MUC201～MUC206	3	3.9
MB7～MB8 MUC207～MUC209	4	8.3
MUC210	5	16

CORROSION—RESISTANCE

◎; Excellent ○; Good △; Conditional ×; Poor

Series	Material		Chemicals									
			Distilled water	Sewage	Seawater	Hydrochloric acid	Nitric acid	Sulfuric acid	Natrium hydroxide	Calcium hydroxide	Hydrogen peroxide	Methyl alcohol
UCP	High carbon chromium bearing steel	SUJ2	○	△	×	×	×	×	×	×	×	×
	Gray cast iron	FC200	○	△	×	×	×	×	×	×	×	×

Note: Applicable conditions of the abovementioned chemicals (approx.10% solution) do not mean "fully dipped-in" operation, but splashing each chemical solution over the bearing units.

TOLERANCES

(1) TOLERANCE FOR BEARINGS

Unit : μm

Inner ring							Outer ring				
Nominal bore dia. (mm)		Deviation of mean bore dia. in plane of inner ring (Δdmp)		Variation of bore dia. in plane of inner ring. Vdp	Deviation of width ΔBs (reference)		Radial runout of inne ring Kia (reference)	Nominal outside dia. (mm)		Deviation of mean outside dia. (ΔDm)		Radial runout of outer ring Kea (reference)
Over	Incl.	High	Low		High	Low	Max.	Over	Incl.	High	Low	Max.
6	10	+12	0	8	0	−120	15	30	50	0	−11	20
10	18	+15	0	10	0	−120	15	50	80	0	−13	25
18	30	+18	0	12	0	−120	18	80	120	0	−15	35
30	50	+21	0	14	0	−120	20					

(2) TOLERANCES FOR HOUSINGS

Unit : μm

Housing No.	Pillow type	Flange type			Take-Up type				
MP,MPA MF,MFL MFC MT	Deviation of distance from mounting face to centre of spherical seat		Positional tolerance of bolt hole X	Deviation of spigot joit outside diameter $\Delta H3s$		Deviation of raceway groove width $\Delta A1s$		Deviation of distance between both groove bottoms		Symmetricity tolerance of both groove-side face X (Max.)
	ΔHs	$\Delta A2s$		High	Low	High	Low	$\Delta H1s$		
203～206 207～210	±150	±500	700	0 0	−46 −54	+200	0	0	−500	500

SHAFT TOLERANCES

Recommended shaft tolerances for this series are shown in the table below and the shaft must be straight and without burrs.

Shaft dia. (mm)		Recommended shaft tolerances (μm)		
		Normal		Tight
Over	Incl.	js7	h7	m6
6	10	± 7.5	0～−15	+15～+6
10	18	± 9	0～−18	+18～+7
18	30	±10.5	0～−21	+21～+8
30	35	±12.5	0～−25	+25～+9

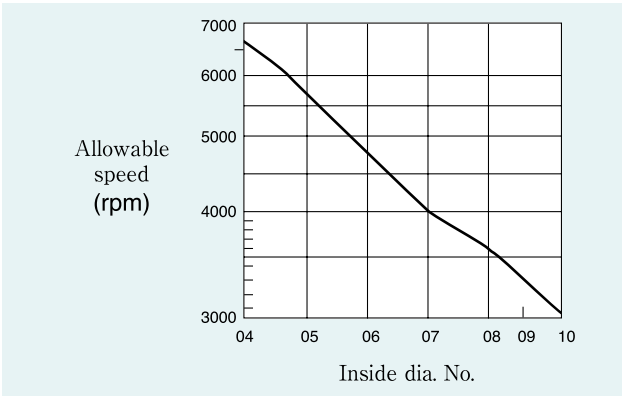
OPERATING TEMPERATURE RANGE

※ MB−FD	−15～+100℃
MUC200	−20～+120℃
※ MUC200FD	−20～+120℃
※ MUC200C4HR20	−20～+200℃

※ The insert bearings are supplied with Food Grade Lubricant authorized by USDA (United States Department of Agriculture) approved as USDA H-1 grade grease.

To specity, add suffix "**C4HR20**" for food processing machinery and high temperature application. Please be careful, however, for the grease not to touch food directly.

ALLOWABLE SPEED



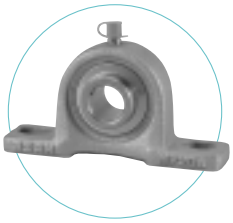
TYPICAL APPLICATIONS

Food processing machinery,
Chemical and Agricultural machinery, etc.

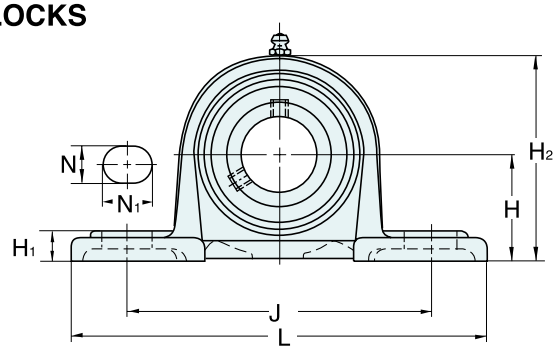
◆Contact ASAHI or nearest ASAHI distributor for exact bearing selection.

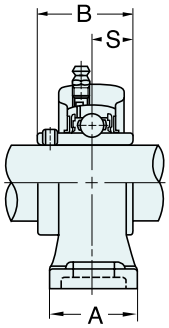
◆For higher security against beverage spillovers or high pressure washes, consult us for stainless steel end caps available in any type of stainless steel housings.

DIMENSIONS

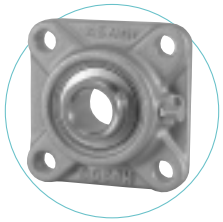


PILLOW BLOCKS
MUCP200

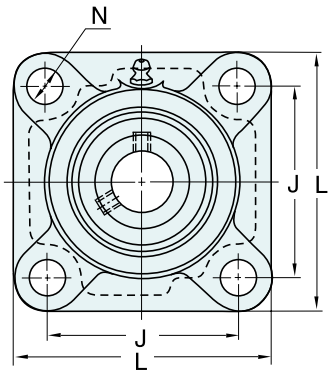


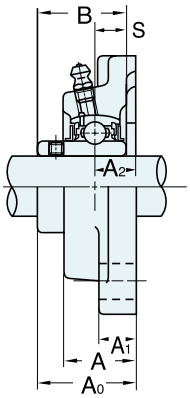


Shaft dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size	Bearing			Housing No.	Weight (kg)
		H	L	A	J	N	N_1	H_1	H_2	B	S		Bearing No.	Basic Load Rating(kN) Cr	Basic Load Rating(kN) Cor		
12	**MUCP201**	30.2	127	30	95	13	19	9	64	31	12.7	M10	**MUC201**	10.9	5.3	**MP203**	0.55
15	**MUCP202**	30.2	127	30	95	13	19	9	64	31	12.7	M10	**MUC202**	10.9	5.3	**MP203**	0.53
17	**MUCP203**	30.2	127	30	95	13	19	9	64	31	12.7	M10	**MUC203**	10.9	5.3	**MP203**	0.52
20	**MUCP204**	33.3	127	30	95	13	19	9	64	31	12.7	M10	**MUC204**	10.9	5.3	**MP204**	0.5
25	**MUCP205**	36.5	140	30	105	13	19	10	70	34.1	14.3	M10	**MUC205**	11.9	6.3	**MP205**	0.65
30	**MUCP206**	42.9	165	36	121	17	21	11	82	38.1	15.9	M14	**MUC206**	16.7	9.05	**MP206**	0.95
35	**MUCP207**	47.6	167	38	127	17	21	12	92	42.9	17.5	M14	**MUC207**	22	12.3	**MP207**	1.25
40	**MUCP208**	49.2	184	40	137	17	22	12	98	49.2	19	M14	**MUC208**	24.9	14.3	**MP208**	1.5
45	**MUCP209**	54	190	40	146	17	22	13	105	49.2	19	M14	**MUC209**	28.1	16.4	**MP209**	1.75
50	**MUCP210**	57.2	206	45	159	20	25	14	112	51.6	19	M16	**MUC210**	30.2	18.6	**MP210**	2.05



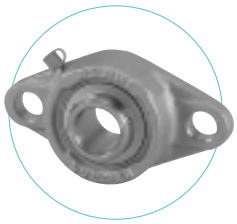
FOUR—BOLT FLANGE UNITS
MUCF200





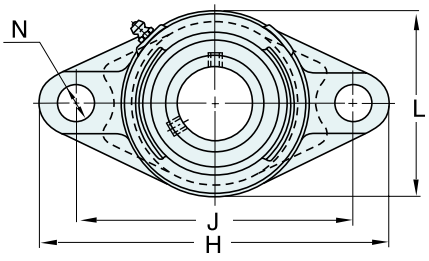
Shaft dia. (mm)	Unit No.	Dimensions (mm)									Bolt Size	Bearing			Housing No.	Weight (kg)
		L	A	J	N	A_1	A_2	A_0	B	S		Bearing No.	Basic Load Rating(kN) Cr	Basic Load Rating(kN) Cor		
12	**MUCF201**	86	25.5	64	12	12	15	33.3	31	12.7	M10	**MUC201**	10.9	5.3	**MF204**	0.7
15	**MUCF202**	86	25.5	64	12	12	15	33.3	31	12.7	M10	**MUC202**	10.9	5.3	**MF204**	0.68
17	**MUCF203**	86	25.5	64	12	12	15	33.3	31	12.7	M10	**MUC203**	10.9	5.3	**MF204**	0.67
20	**MUCF204**	86	25.5	64	12	12	15	33.3	31	12.7	M10	**MUC204**	10.9	5.3	**MF204**	0.65
25	**MUCF205**	95	27	70	12	14	16	35.8	34.1	14.3	M10	**MUC205**	11.9	6.3	**MF205**	0.9
30	**MUCF206**	108	31	83	12	13.5	18	40.2	38.1	15.9	M10	**MUC206**	16.7	9.05	**MF206**	1.2
35	**MUCF207**	117	34	92	14	11	19	44.4	42.9	17.5	M12	**MUC207**	22	12.3	**MF207**	1.6
40	**MUCF208**	130	36	102	16	11	21	51.2	49.2	19	M14	**MUC208**	24.9	14.3	**MF208**	2.15
45	**MUCF209**	137	38	105	16	13	22	52.2	49.2	19	M14	**MUC209**	28.1	16.4	**MF209**	2.55
50	**MUCF210**	143	40	111	16	13	22	54.6	51.6	19	M14	**MUC210**	30.2	18.6	**MF210**	2.65

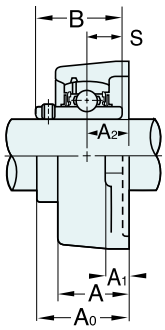
DIMENSIONS



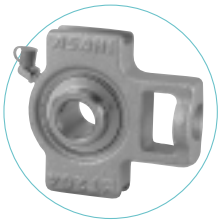
TWO－BOLT FLANGE UNITS

MUCFL200



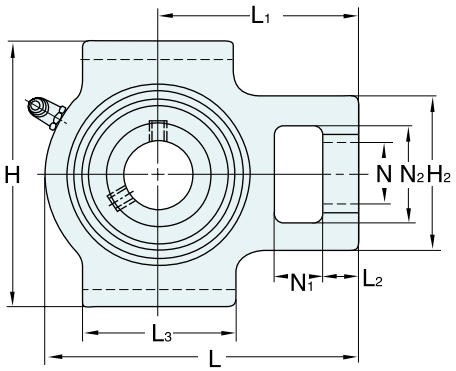


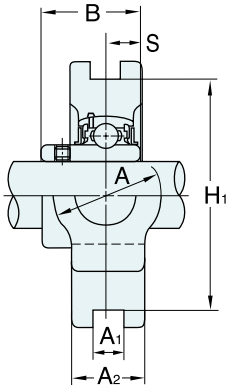
Shaft dia. (mm)	Unit No.	Dimensions (mm)										Bolt Size	Bearing			Housing No.	Weight (kg)
		H	L	A	J	N	A_1	A_2	A_0	B	S		Bearing No.	Basic Load Rating(kN) Cr	Basic Load Rating(kN) Cor		
12	**MUCFL201**	113	60	25.5	90	12	10	15	33.3	31	12.7	M10	**MUC201**	10.9	5.3	**MFL204**	0.4
15	**MUCFL202**	113	60	25.5	90	12	10	15	33.3	31	12.7	M10	**MUC202**	10.9	5.3	**MFL204**	0.38
17	**MUCFL203**	113	60	25.5	90	12	10	15	33.3	31	12.7	M10	**MUC203**	10.9	5.3	**MFL204**	0.37
20	**MUCFL204**	113	60	25.5	90	12	10	15	33.3	31	12.7	M10	**MUC204**	10.9	5.3	**MFL204**	0.35
25	**MUCFL205**	130	68	27	99	16	10	16	35.8	34.1	14.3	M14	**MUC205**	11.9	6.3	**MFL205**	0.5
30	**MUCFL206**	148	80	31	117	16	10	18	40.2	38.1	15.9	M14	**MUC206**	16.7	9.05	**MFL206**	0.8
35	**MUCFL207**	161	90	34	130	16	11	19	44.4	42.9	17.5	M14	**MUC207**	22	12.3	**MFL207**	1.05
40	**MUCFL208**	175	100	36	144	16	11	21	51.2	49.2	19	M14	**MUC208**	24.9	14.3	**MFL208**	1.35
45	**MUCFL209**	188	108	38	148	19	13	22	52.2	49.2	19	M16	**MUC209**	28.1	16.4	**MFL209**	1.65
50	**MUCFL210**	197	115	40	157	19	13	22	54.6	51.6	19	M16	**MUC210**	30.2	18.6	**MFL210**	1.9



TAKE-UP

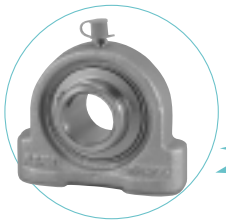
MUCT200





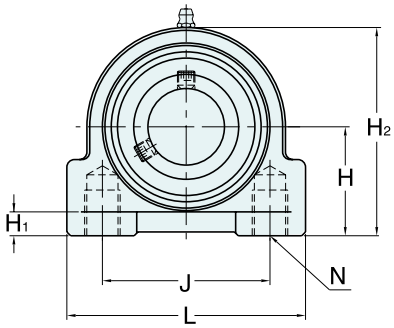
Shaft dia. (mm)	Unit No.	Dimensions (mm)															Bearing			Housing No.	Weight (kg)
		A	A_1	A_2	H	H_1	H_2	L	L_1	L_2	L_3	N	N_1	N_2	B	S	Bearing No.	Basic Load Rating(kN) Cr	Basic Load Rating(kN) Cor		
12	**MUCT201**	32	12	21	89	76	46	92	60	10	44	19	18	32	31	12.7	**MUC201**	10.9	5.3	**MT204**	0.85
15	**MUCT202**	32	12	21	89	76	46	92	60	10	44	19	18	32	31	12.7	**MUC202**	10.9	5.3	**MT204**	0.83
17	**MUCT203**	32	12	21	89	76	46	92	60	10	44	19	18	32	31	12.7	**MUC203**	10.9	5.3	**MT204**	0.82
20	**MUCT204**	32	12	21	89	76	46	92	60	10	44	19	18	32	31	12.7	**MUC204**	10.9	5.3	**MT204**	0.8
25	**MUCT205**	32	12	22	89	76	46	96	61	10	44	19	18	32	34.1	14.3	**MUC205**	11.9	6.3	**MT205**	0.9
30	**MUCT206**	36.5	12	27	102	89	52	111	69	10	50	22	18	37	38.1	15.9	**MUC206**	16.7	9.05	**MT206**	1.4
35	**MUCT207**	37	12	30	102	89	58	127	77	13	56	22	18	37	42.9	17.5	**MUC207**	22	12.3	**MT207**	1.7
40	**MUCT208**	49	16	33	114	102	74	142	87	16	72	29	20	49	49.2	19	**MUC208**	24.9	14.3	**MT208**	2.6
45	**MUCT209**	49	16	34	117	102	74	143	87	16	72	29	20	49	49.2	19	**MUC209**	28.1	16.4	**MT209**	2.55
50	**MUCT210**	49	16	37	117	102	74	147	89	16	72	29	20	49	51.6	19	**MUC210**	30.2	18.6	**MT210**	2.65

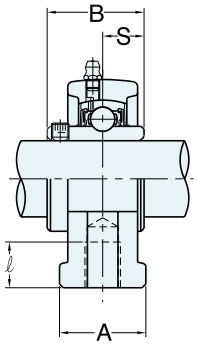
DIMENSIONS



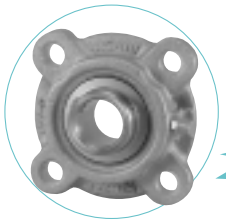
PILLOW BLOCKS
MUCPA200

NEW



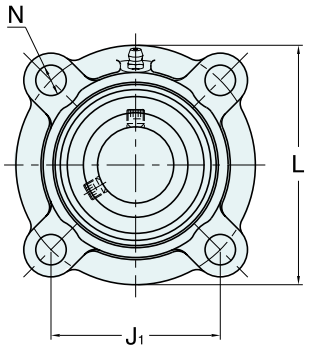


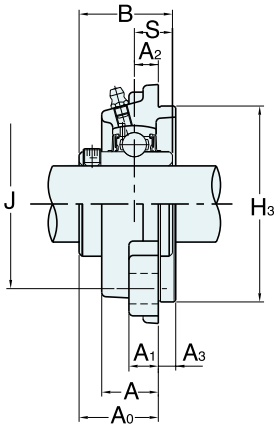
Shaft dia. (mm)	Unit No.	Dimensions (mm)										Bearing			Housing No.	Weight (kg)
		H	L	A	J	N	ℓ	H_1	H_2	B	S	Bearing No.	Basic Load Rating(kN) Cr	Basic Load Rating(kN) Cor		
12	**MUCPA201**	30.2	76	25.5	52	M10×1.5	12	5.7	60.9	31	12.7	**MUC201**	10.9	5.3	**MPA204**	0.49
15	**MUCPA202**	30.2	76	25.5	52	M10×1.5	12	5.7	60.9	31	12.7	**MUC202**	10.9	5.3	**MPA204**	0.47
17	**MUCPA203**	30.2	76	25.5	52	M10×1.5	12	5.7	60.9	31	12.7	**MUC203**	10.9	5.3	**MPA204**	0.46
20	**MUCPA204**	30.2	76	25.5	52	M10×1.5	12	5.7	60.9	31	12.7	**MUC204**	10.9	5.3	**MPA204**	0.44
25	**MUCPA205**	36.5	84	30	56	M10×1.5	15	8	70	34.1	14.3	**MUC205**	11.9	6.3	**MPA205**	0.61
30	**MUCPA206**	42.9	94	34	66	M14×2	18	9.4	82	38.1	15.9	**MUC206**	16.7	9.05	**MPA206**	0.95



FLANGE CARTRIDGE
MUCFC200

NEW

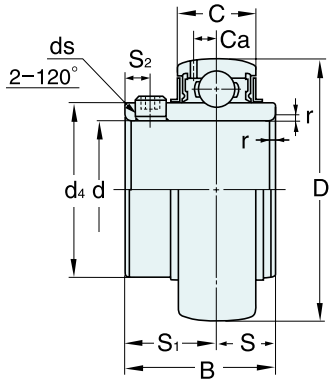




Shaft dia. (mm)	Unit No.	Dimensions (mm)											Bolt Size	Bearing			Housing No.	Weight (kg)
		L	A	J	J_1	N	A_1	A_2	A_3	H_3	B	S		Bearing No.	Basic Load Rating(kN) Cr	Basic Load Rating(kN) Cor		
25	**MUCFC205**	90	21	90	63.6	12	11	10	6	70	34.1	14.3	M10	**MUC205**	11.9	6.3	**MFC205**	0.69
30	**MUCFC206**	100	23	100	70.7	12	13	10	8	80	38.1	15.9	M10	**MUC206**	16.7	9.05	**MFC206**	0.88
35	**MUCFC207**	110	26	110	77.8	14	13.5	11	8	90	42.9	17.5	M12	**MUC207**	22	12.3	**MFC207**	1.14
40	**MUCFC208**	120	26	120	84.8	14	13.5	11	10	100	49.2	19	M12	**MUC208**	24.9	14.3	**MFC208**	1.49

DIMENSIONS

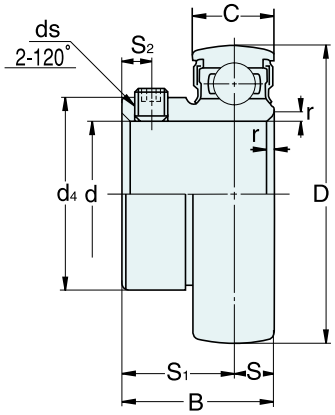
BALL BEARINGS FOR UNITS
MUC200
MUC200C4HR20



Shaft dia. (mm)	Unit No.	Dimensions (mm)											Basic Load Rating (kN)		Weight (kg)
		d	D	B	C	r	S	S1	S2	ds	Ca	d4	Cr	Cor	
12	**MUC201**	12	47	31	17	1	12.7	18.3	4.5	M 6 ×1	4.5	29	10.9	5.3	0.21
15	**MUC202**	15	47	31	17	1	12.7	18.3	4.5	M 6 ×1	4.5	29	10.9	5.3	0.19
17	**MUC203**	17	47	31	17	1	12.7	18.3	4.5	M 6 ×1	4.5	29	10.9	5.3	0.18
20	**MUC204**	20	47	31	17	1.5	12.7	18.3	4.5	M 6 ×1	4.5	29	10.9	5.3	0.16
25	**MUC205**	25	52	34.1	17	1.5	14.3	19.8	5	M 6 ×1	4.5	34	11.9	6.3	0.19
30	**MUC206**	30	62	38.1	19	1.5	15.9	22.2	5	M 6 ×1	5.1	40.5	16.7	9.0	0.31
35	**MUC207**	35	72	42.9	20	2	17.5	25.4	6	M 8 ×1	5.8	48	22.0	12.3	0.48
40	**MUC208**	40	80	49.2	21	2	19	30.2	8	M 8 ×1	6.2	53	24.9	14.3	0.62
45	**MUC209**	45	85	49.2	22	2	19	30.2	8	M 8 ×1	6.5	57.3	28.1	16.4	0.67
50	**MUC210**	50	90	51.6	23	2	19	32.6	9	M10×1.25	6.5	63	30.2	18.6	0.78

−MADE TO ORDER− For food processing machine pre-lubricated with Food Grade Lubricant, add suffix FD e.g. MUC205FD
For high temperature application of food processing machine, add suffix C4HR20 e.g. MUC205C4HR20

BALL BEARINGS FOR UNITS
MB



Shaft dia. (mm)	Unit No.	Dimensions (mm)										Basic Load Rating (kN)		Weight (kg)
		d	D	B	C	r	S	S1	S2	ds	d4	Cr	Cor	
20	**MB4 FD**	20	47	24.7	14	1.5	7	17.7	4.5	M5×0.8	29	10.9	5.3	0.12
25	**MB5 FD**	25	52	27	15	1.5	7.5	19.5	5	M6×0.75	34	11.9	6.3	0.16
30	**MB6 FD**	30	62	30.3	16	1.5	8	22.3	5	M6×0.75	40.5	16.7	9	0.25
35	**MB7 FD**	35	72	32.9	17	2	8.5	24.4	6	M8×1	48	22	12.3	0.38
40	**MB8 FD**	40	80	35.5	18	2	9	26.9	8	M8×1	53	24.9	14.3	0.49

— Designs and specifications are subject to change without prior notice —