

ASAHI



ISO 9001
ISO 14001

JQA-1973
JQA-EM4783



e c o

S E R I E S

Ball Bearing Units



ASAHI SEIKO CO., LTD.

Ball Bearing Unit **eco** series

The new **eco** series is an excellent anti-corrosive bearing unit - the bearing is made of stainless steel equivalent to SUS440C, the housing is SCS13 stainless cast steel and the eccentric locking collar is SUS304 stainless steel. Food grease can be filled in the bearing on request to secure safety for the application of food processing machinery.

■ Features

1. High anti-corrosive

The bearing, the locking collar and the housing are all made of stainless steel, which provides high anti-corrosive properties.

2. High strength, fine housing

The housing is cast by lost wax process and its surface is specially treated. This brings high strength and fine appearance of the housing.

3. Compact & lightweight - good for environment

Compact bearing unit enables compact machine designs, which ultimately helps to save energy and natural resource to keep environment clean. It clears RoHS Directive.

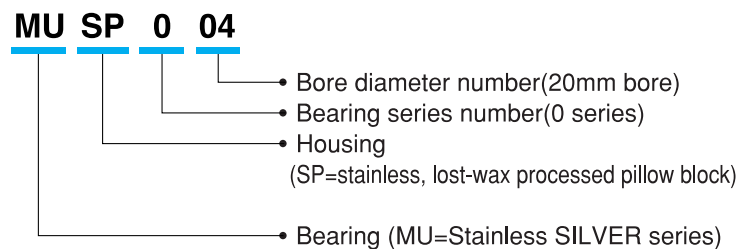
4. Easy & positive locking

Eccentric locking collar ensures quick and positive locking to the shaft.

■ Materials

Part		Material
Bearing	Bearing rings	Equivalent to SUS440C stainless steel
	Steel ball	SUS440C stainless steel
	Retainer	Nylon
	Rubber Seal	NBR
	Locking collar	SUS304 stainless steel
	Set-screw on collar	SUS304 stainless steel
Housing		SCS13 stainless cast steel

■ Nomenclature



■ Tolerance

The tolerances of the **eco** series bearing units are according to JIS B1558 Rolling bearings - Insert bearings and JIS B1559 housings for insert bearings.

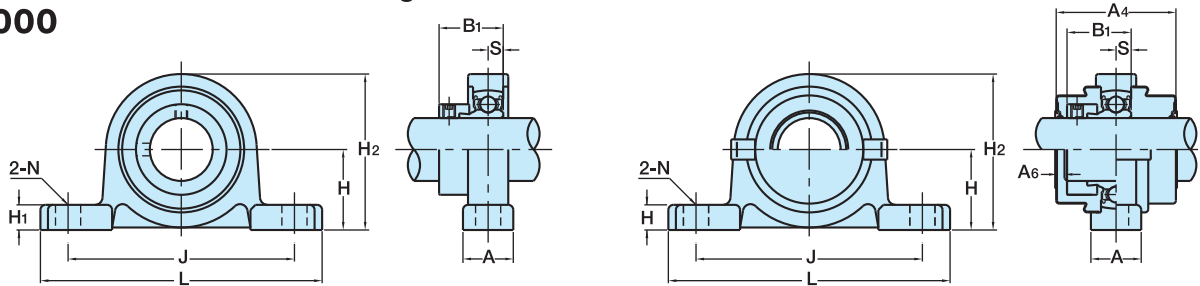
■ Recommended tightening torque for set-screws of locking collar & Axial load capacity

Bearing No.	Set-screw No.	Spanner No.	Tightening torque (N·m)	Axial load capacity (kN)
MU000~MU003	M4×0.7	2	1.5	0.88
MU004~MU005	M5×0.8	2.5	2.9	1.76

■ Anti-Corrosion Features (with comparisons to conventional bearing units - UCP type)

Bearing Unit	Material	Solution/Chemicals									
		Distilled water	Industrial water	Sea water	Hydrochloric acid	Nitric acid	Sulfuric acid	Hydroxide sodium	Hydroxide calcium	Hydrogen peroxide solution	Methanol
M U S P MUSFL	Stainless steel equivalent to SUS440C	◎	○	△	×	×	△	○	○	○	○
	SUS304 stainless steel	◎	◎	◎	○	○	○	◎	◎	○	○
	SCS13 stainless cast steel	◎	◎	◎	○	○	○	◎	◎	○	○
U C P	SUJ2 high carbon chromium bearing steel	○	△	×	×	×	×	×	×	×	×
	FC200 gray cast iron	○	△	×	×	×	×	×	×	×	×

Pillow Block with an eccentric locking collar
MUSP000

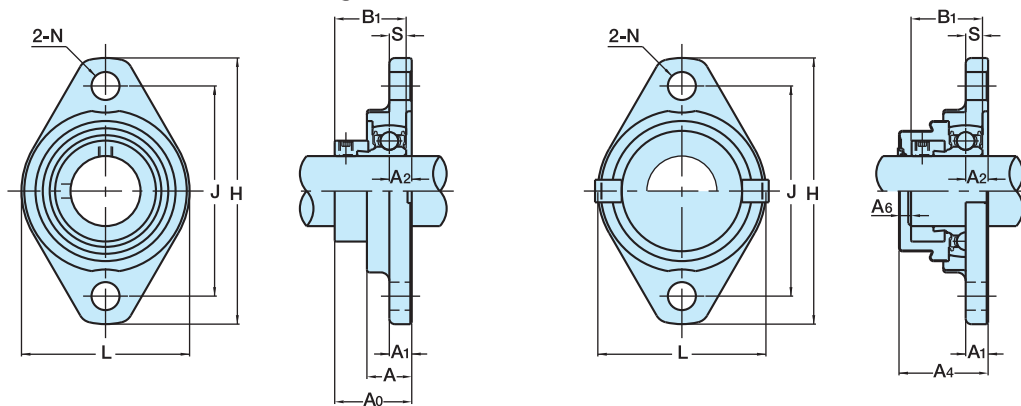


MUSP

Shaft Dia. (mm)	Unit No.	Dimension (mm)											Mounting bolt size
		H	L	A	J	N	H ₁	H ₂	B ₁	S	A ₄	A ₆	
10	MUSP000	18	67	16	53	7	5	34	17.5	4	33	2	M6
12	MUSP001	19	71	16	56	7	6	37	17.5	4	33	2	M6
15	MUSP002	22	80	16	63	7	6	42	18.5	4.5	34	2	M6
17	MUSP003	24	85	18	67	7	7	46	20.5	5	38	2	M6
20	MUSP004	28	100	20	80	10	8	53.5	24.5	6	46	3	M8
25	MUSP005	32	112	20	90	10	9	60.5	25.5	6	47	3	M8

Shaft Dia. (mm)	Bearing		Housing No.	Bearing unit with stainless steel covers		Stainless steel cover No.		weight (g)		
	Bearing No.	Basic Load Rating (kN)		with 2 open covers (with 1 open 1 end covers)		open cover	end cover	standard	with covers	
		Cr		Cor						
10	MU000+ER-MSG	3.9	1.55	SP000	MUSP000C(E)	000CP10	000CPE	79	89	
12	MU001+ER-MSG	4.3	1.9	SP001	MUSP001C(E)	001CP12	001CPE	98	109	
15	MU002+ER-MSG	4.75	2.25	SP002	MUSP002C(E)	002CP15	002CPE	129	141	
17	MU003+ER-MSG	5.1	2.65	SP003	MUSP003C(E)	003CP17	003CPE	170	186	
20	MU004+ER-MSG	7.9	4	SP004	MUSP004C(E)	04-5CP20	04-5CPE	258	282	
25	MU005+ER-MSG	8.6	4.65	SP005	MUSP005C(E)	05-6CP25	05-6CPE	333	358	

Two-bolt Flange with an eccentric locking collar
MUSFL000

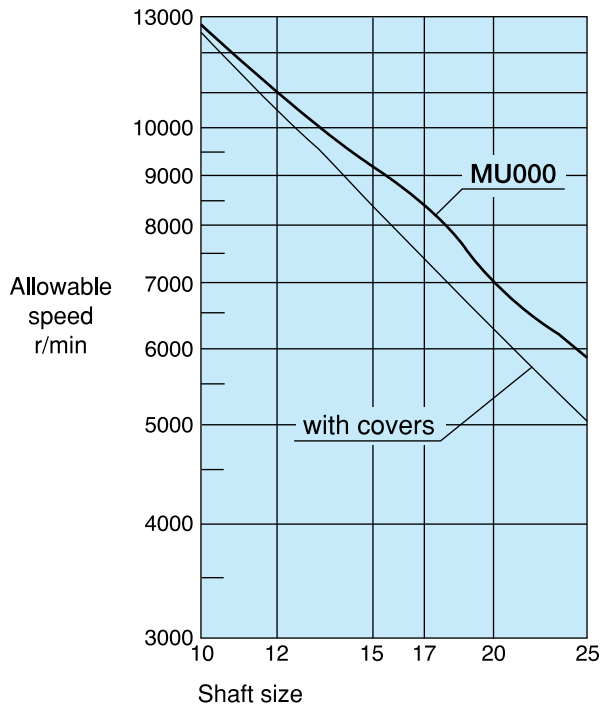


MUSFL

Shaft Dia. (mm)	Unit No.	Dimension (mm)											Mounting bolt size	
		H	L	A	J	N	A ₁	A ₂	A ₀	B ₁	S	A ₄		A ₆
10	MUSFL000	60	36	11.5	45	7	5.5	5.5	19	17.5	4	22	2	M6
12	MUSFL001	63	38	11.5	48	7	5.5	5.5	19	17.5	4	22	2	M6
15	MUSFL002	67	42	13	53	7	6.5	6.5	20.5	18.5	4.5	24	2	M6
17	MUSFL003	71	46	14	56	7	7	7	22.5	20.5	5	26	2	M6
20	MUSFL004	90	55	16	71	10	8	8	26.5	24.5	6	31	3	M8
25	MUSFL005	95	60	16	75	10	8	8	27.5	25.5	6	32	3	M8

Shaft Dia. (mm)	Bearing		Housing No.	Bearing unit with a stainless steel cover		Stainless steel cover No.		weight (g)		
	Bearing No.	Basic Load Rating (kN)		with an open cover (with an end cover)		open cover	end cover	standard	with a cover	
		Cr		Cor						
10	MU000+ER-MSG	3.9	1.55	SFL000	MUSFL000C(E)	000CP10	000CPE	77	84	
12	MU001+ER-MSG	4.3	1.9	SFL001	MUSFL001C(E)	001CP12	001CPE	87	93	
15	MU002+ER-MSG	4.75	2.25	SFL002	MUSFL002C(E)	002CP15	002CPE	115	122	
17	MU003+ER-MSG	5.1	2.65	SFL003	MUSFL003C(E)	003CP17	003CPE	146	154	
20	MU004+ER-MSG	7.9	4	SFL004	MUSFL004C(E)	04-5CP20	04-5CPE	253	265	
25	MU005+ER-MSG	8.6	4.65	SFL005	MUSFL005C(E)	05-6CP25	05-6CPE	298	311	

■ Allowable speed



■ Shaft Selection

Unit: μm

Shaft size (mm)	js7	h7
From 6 to 10	± 7.5	0 ~ -15
From 10 to 18	± 9	0 ~ -18
From 18 to 30	± 10.5	0 ~ -25

Remark: For high speed rotation and for operation with vibration, tight fit is recommended.

■ Operating temperature

-15 ~ +100°C

■ Typical Applications

Food Machinery, Packaging Machinery,
Chemical Equipment

<http://www.asahiseiko.co.jp>

ASAHI SEIKO CO., LTD.

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

Tel : +81-72-272-6900

Fax : +81-72-272-6903

e-mail : info@asahiseiko.co.jp

USA OFFICE : 570 North Wheeling Road, Mount Prospect, Illinois 60056-9108 USA

Tel : +1-847-759-0620

Fax : +1-847-759-0630

HEAD OFFICE & FACTORY : 570-1, Otori-Higashi-machi 6-cho, Nishi-ku, Sakai City, Osaka 593-8324, Japan

Tel : +81-72-271-1221

Fax : +81-72-273-0058