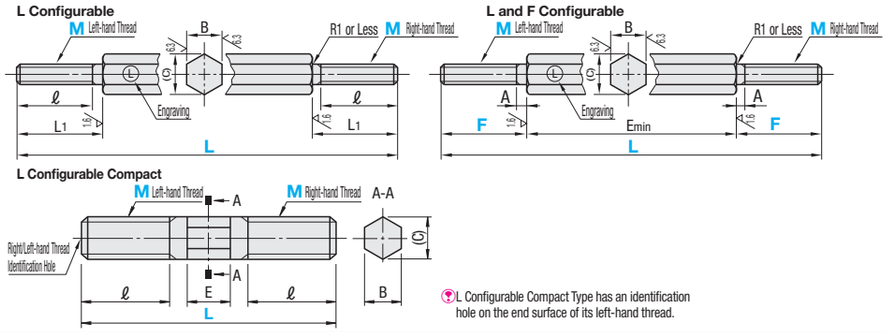
Rod End Coupling Rods
Both Ends Threaded

■When assembling rod end bearings, please use PMC (Fine Thread) alteration as required.

■Both Ends Threaded

Type: L Configurable	Type: L and F Configurable	Type: L Configurable Compact	M Material	S Surface Treatment	A Accessory Hex Nut (Right/Left-hand thread 1 pc. each) M Material	A Accessory Hex Nut (Right/Left-hand thread 1 pc. each) S Surface Treatment
LBRBF	LBRBFF	-	S45C Equivalent	Black Oxide	SS400	Trivalent Bright Chromate
LBRFN	LBRFNF	LBRSM		Electroless Nickel Plating		
SLBRFN	SLBRFNF	SLBRS	SUS304	-	SUS304 Equivalent	-



L Configurable Compact Type has an identification hole on the end surface of its left-hand thread.

■Both Ends Threaded, L Configurable

Included Nut: JIS Grade I

Part Number Type	M (Coarse)	L 1mm Increment	L1	ℓ	B	(C)	LBRBF (Black Oxide) Min. L ~ 200	L201 ~400	L401 ~600	L601 ~800	L801 ~1000	LBRFN (Electroless Nickel Plating) Min. L ~ 200	L201 ~400	L401 ~600	L601 ~800	L801 ~1000	SLBRFN (SUS304) Min. L ~ 200	L201 ~400	L401 ~600	L601 ~800	L801 ~1000
L Configurable LBRBF LBRFN SLBRFN	3	25~39	8	7	6	6.9			-	-	-			-	-	-			-	-	-
		40~300	15	14																	
	4	35~49	12	10	7	8.1			-	-	-			-	-	-			-	-	-
		50~400	20	18																	
	5	40~59	13	11	8	9.2				-	-				-	-				-	-
		60~600	25	23																	
	6	50~69	17	15	10	11.5				-	-				-	-				-	-
		70~600	30	28																	
	8	60~89	23	20	13	15															
		90~1000	40	37																	
	10	70~109	28	25	17	19.6															
		110~1000	50	47																	
	12	80~129	33	30	19	21.9															
		130~1000	60	56																	
	14	130~1000	60	56	21	24															
	16	170~1000	80	76	24	27.7															
	18	170~1000	80	76	27	31.2															
	20	170~1000	80	76	30	34.6											-	-	-	-	-
	22	170~1000	80	76	32	36.9											-	-	-	-	-

SLBRFN is available for M3 ~ 18 only.

■Both Ends Threaded, L and F Configurable

When assembling rod end bearings, check M-Pitch.

Part Number Type	M (Coarse)	L 1mm Increment	F 1mm Increment	A	B	(C)	E min	LBRBFF (Black Oxide) Min. L ~ 200	L201 ~400	L401 ~600	L601 ~800	L801 ~1000	LBRFNF (Electroless Nickel Plating) Min. L ~ 200	L201 ~400	L401 ~600	L601 ~800	L801 ~1000	SLBRFNF (SUS304) Min. L ~ 200	L201 ~400	L401 ~600	L601 ~800	L801 ~1000
L and F Configurable LBRBFF LBRFNF SLBRFNF	3	19~300	5~15	1.5	6	6.9	10			-	-	-			-	-	-			-	-	-
	4	22~400	6~20	1.5	7	8.1				-	-	-			-	-	-			-	-	-
	5	25~600	7~25	1.5	8	9.2					-	-				-	-				-	-
	6	32~600	9~30	2.5	10	11.5	14				-	-				-	-				-	-
	8	38~1000	12~40	2.5	13	15																
	10	44~1000	15~50	2.5	17	19.6																
	12	54~1000	18~60	3.0	19	21.9	18															
	14	60~1000	21~70	3.0	21	24																
	16	66~1000	24~80	3.0	24	27.7																
	18	72~1000	27~90	4.0	27	31.2																
	20	85~1000	30~100	4.0	30	34.6	25															
	22	91~1000	33~110	5.0	32	36.9																

■Both Ends Threaded, L Configurable Compact

L≥2F+Emin. When assembling rod end bearings, check M-Pitch.

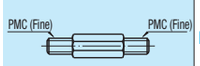
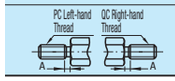
Part Number Type	M (Coarse)	L 1mm Increment	ℓ	E	B	(C)	LBRSM (Electroless Nickel Plating), SLBRS (SUS304) Min. L ~ 100	L101 ~200	L201 ~300
L Configurable Compact LBRSM SLBRS	3	20~39	7	3	2.5	2.9		-	-
		40~100	17						
	4	20~39	7	4	3	3.4		-	-
		40~100	17						
	5	30~59	10	6	4	4.6			-
		60~150	25						
	6	30~59	10	6	5	5.8			-
		60~150	25						
	8	50~89	18	8	6	6.9			-
		90~150	38						
	10	50~89	18	8	8	9.2			-
		90~150	38						
	12	60~129	22	10	10	11.6			-
		130~200	56						
	16	75~169	28	10	13	15			
		170~300	76						

When assembling rod end bearings, check M-Pitch.

Ordering Example: Part Number - L - F
SLBRFN8 -- 225
SLBRFNF5 275 - 20

Alterations: Part Number - L - F - (RLC, PMC, PC, QC)
LBRBFF5 - 100 - 10 - QC

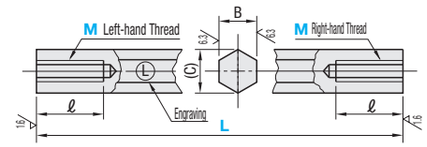
Not applicable to LBRSM and SLBRS.

Alterations	Code	Spec.
	PMC	Changes both threads to fine threads. Alteration is available for M10, 14, 18, 20 and 22 only. Ordering Code PMC. M(N): 10, 14, 18 — Pitch 1.25, 1.5; M(N): 20, 22 — Pitch 1.5
	PC QC	Adds an undercut to A part. Ordering Code PC. Applicable to LBRBFF, LBRFNF, SLBRFNF only.

Rod End Coupling Rods
Both Ends Tapped / One End Threaded, One End Tapped

■Both Ends Tapped

Type	M Material	S Surface Treatment	A Accessory Hex Nut (Right/Left-hand thread 1 pc. each) M Material	A Accessory Hex Nut (Right/Left-hand thread 1 pc. each) S Surface Treatment
LBMBF	S45C Equivalent	Black Oxide	SS400	Trivalent Bright Chromate
LBMFN		Electroless Nickel Plating		
SLBMFN	SUS304	-	SUS304 Equivalent	-



■Both Ends Tapped

Included Nut: JIS Grade I

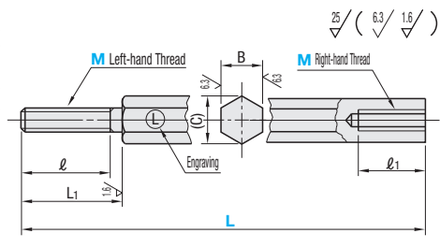
Part Number Type	M (Coarse)	L 1mm Increment	ℓ	B	(C)	LBMBF (Black Oxide) Min. L ~ 200	L201 ~400	L401 ~600	L601 ~800	L801 ~1000	LBMFN (Electroless Nickel Plating) Min. L ~ 200	L201 ~400	L401 ~600	L601 ~800	L801 ~1000	SLBMFN (SUS304) Min. L ~ 200	L201 ~400	L401 ~600	L601 ~800	L801 ~1000
LBMBF LBMFN SLBMFN	3	20~300	9	6	6.9			-	-	-			-	-	-			-	-	-
	4	30~400	12	7	8.1			-	-	-			-	-	-			-	-	-
	5	40~600	16	8	9.2				-	-				-	-				-	-
	6	50~600	18	10	11.5				-	-				-	-				-	-
	8	60~1000	24	13	15															
	10	70~1000	30	17	19.6															
	12	80~1000	36	19	21.9															
	14	80~1000	36	21	24.1															
	16	100~1000	48	24	27.7															
	18	120~1000	56	27	31.2															
	20	130~1000	60	30	34.6											-	-	-	-	-
	22	140~1000	66	32	36.9											-	-	-	-	-

SLBMFN is available for M3 ~ 18 only.

When assembling rod end bearings, check M-Pitch.

■One End Threaded One End Tapped

Type	M Material	S Surface Treatment	A Accessory Hex Nut (Right/Left-hand thread 1 pc. each) M Material	A Accessory Hex Nut (Right/Left-hand thread 1 pc. each) S Surface Treatment
LBGBF	S45C Equivalent	Black Oxide	SS400	Trivalent Bright Chromate
LBGF		Electroless Nickel Plating		
SLBGF	SUS304	-	SUS304 Equivalent	-



■One End Threaded One End Tapped

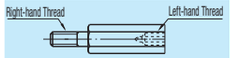
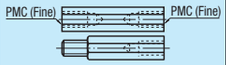
Included Nut: JIS Grade I

Part Number Type	M (Coarse)	L 1mm Increment	L1	ℓ	ℓ1	B	(C)	LBGBF (Black Oxide) Min. L ~ 200	L201 ~400	L401 ~600	L601 ~800	L801 ~1000	LBGF (Electroless Nickel Plating) Min. L ~ 200	L201 ~400	L401 ~600	L601 ~800	L801 ~1000	SLBGF (SUS304) Min. L ~ 200	L201 ~400	L401 ~600	L601 ~800	L801 ~1000
LBGBF LBGF SLBGF	3	40~300	15	14	9	6	6.9			-	-	-			-	-	-			-	-	-
	4	50~400	20	18	12	7	8.1			-	-	-			-	-	-			-	-	-
	5	60~600	25	23	16	8	9.2				-	-				-	-				-	-
	6	70~600	30	28	18	10	11.5				-	-				-	-				-	-
	8	90~1000	40	37	24	13	15															
	10	110~1000	50	47	30	17	19.6															
	12	130~1000	60	56	36	19	21.9															
	14	130~1000	60	56	36	21	24.1															
	16	170~1000	80	76	48	24	27.7															
	18	170~1000	80	76	56	27	31.2															

For minimum L dimension, a tapped pilot hole may go through. When assembling rod end bearings, check M-Pitch.

Ordering Example: Part Number - L
LBMBF5 - 225

Alterations: Part Number - L - (RLC, PMC)
LBGBF5 - 100 - RLC

Alterations	Code	Spec.
	RLC	Reverses thread twist direction of each for One End Threaded, One End Tapped Type. Ordering Code RLC
	PMC	Changes both threads to fine threads. Alteration is available for M10, 14, 18, 20 and 22 only. Ordering Code PMC. M(N): 10, 14, 18 — Pitch 1.25, 1.5; M(N): 20, 22 — Pitch 1.5