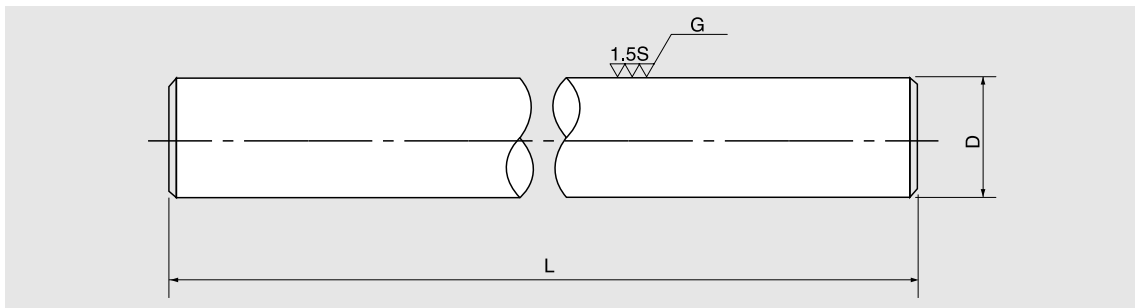


PRECISION GROUND LM SHAFT



PRECISION GROUND LM SHAFT

LS-STANDARD SHAFT

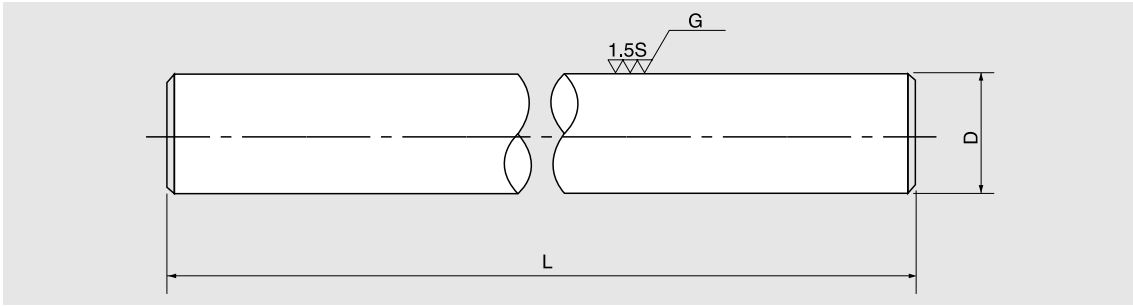


- ▶ Material SUJ 2 (bearing steel)
- ▶ Hardening depth more than 0.5mm
- ▶ High – frequency induction hardening
- ▶ Surface roughness less than 1.5s
- ▶ Hardness more than H_RC 60°~64°
- ▶ Tolerance of shaft diameter g6

SBC LM shaft manufactured by long-year rich experiences is suitable for high-quality products like special pneumatic cylinder rod, automatic precision printers, automatic cutting machines, and industrial robots. SBC LM shaft can be applied to every linear motion system.

Diameter D mm	Type No LS		Tolerance μm g6	Standardized length L mm										Standardized length L mm										Effective case hardened zone mm	Weight kgf/m	Diameter D mm
				100	200	300	400	500	600	800	1000	1500	1800	2000	2500	3000	3500	4000	4500	5000	5500	6000				
3	LS	3	-2 -8																					OVER 1.0	0.06	3
4	LS	4	-4																						0.10	4
5	LS	5	-12																						0.16	5
6	LS	6	-5																						0.23	6
8	LS	8	-14																						0.40	8
10	LS	10	-6																						0.62	10
12	LS	12	-7																						0.89	12
13	LS	13	-20																						1.04	13
16	LS	16	-9																						1.58	16
20	LS	20	-25																						2.47	20
25	LS	25	-7																						3.85	25
30	LS	30	-9																						5.55	30
35	LS	35	-25																						7.55	35
40	LS	40	-9																						9.87	40
50	LS	50	-29																						15.4	50
60	LS	60	-10																						22.2	60
80	LS	80	-29																						39.5	80
100	LS	100	-12																						61.7	100
120	LS	120	-34																					88.8	120	
150	LS	150	-14 -39																					139	150	

LCS-LM HARD CHROMIC PLATING SHAFT

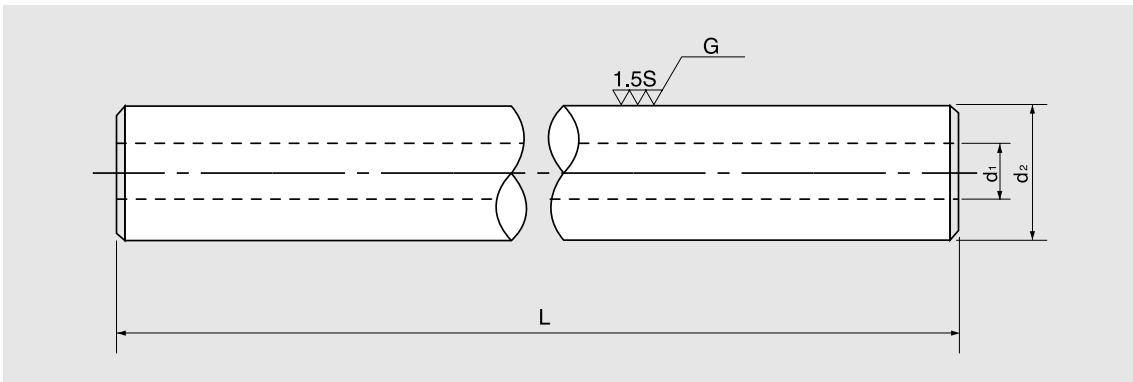


- ▶ Material SUJ 2 (bearing steel)
- ▶ Hardening depth more than 0.5mm
- ▶ High – frequency induction hardening
- ▶ Surface roughness less than 1.5s
- ▶ Hardness more than H_RC 60°~64°
- ▶ Tolerance of shaft diameter g6
- ▶ Plating thickness 0.5~1.0μm

Chromium-plated SBC LM shaft is highly anti-corrosive, so it is appropriate for the environment where oxidization easily occurs by water, chemicals, vapor, sea water, etc.

Diameter D mm	Type No LCS		Tolerance μm g6	Standardized length L mm										Standardized length L mm										Effective case hardened zone mm	Weight kgf/m	Diameter D mm						
				100	200	300	400	500	600	800	1000	1500	1800	2000	2500	3000	3500	4000	4500	5000	5500	6000										
3	LCS	3	-2																										0.06	3		
4	LCS	4	-8																											0.10	4	
5	LCS	5	-4																											0.16	5	
6	LCS	6	-12																											0.23	6	
8	LCS	8	-5																											0.40	8	
10	LCS	10	-14																											0.62	10	
12	LCS	12	-14																											0.89	12	
13	LCS	13	-6																											1.04	13	
16	LCS	16	-17																											1.58	16	
20	LCS	20	-6																											2.47	20	
25	LCS	25	-7																											3.85	25	
30	LCS	30	-20																											5.55	30	
35	LCS	35	-7																											7.55	35	
40	LCS	40	-9																											9.87	40	
50	LCS	50	-25																											15.4	50	
60	LCS	60	-10																											22.2	60	
80	LCS	80	-29																											39.5	80	
100	LCS	100	-12																											61.7	100	
120	LCS	120	-34																											88.8	120	
150	LCS	150	-14																											139	150	
			-39																													

LSS-SUS 440C SHAFT

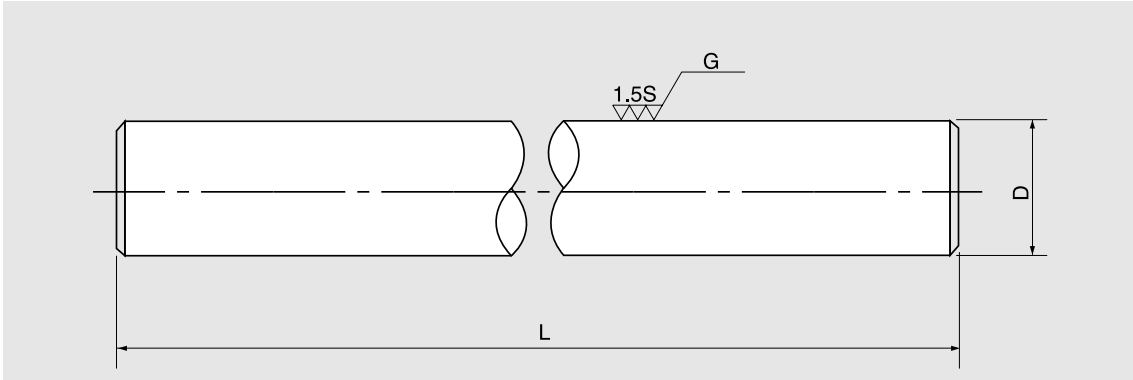


- ▶ Material improved over SUS 440C
- ▶ Hardening depth more than 0.5mm
- ▶ High – frequency induction hardening
- ▶ Surface roughness less than 1.5s
- ▶ Hardness more than HRC 60°~64°
- ▶ Tolerance of shaft diameter g6

SBC stainless shaft is highly anti-corrosive, so it is appropriate for the environment where oxidization easily occurs by water, chemicals, vapor, sea water, etc.

Diameter D mm	Type No LSS		Tolerance μm g6	Standardized length L mm										Standardized length L mm						Effective case hardened zone mm	Weight kgf/m	Diameter D mm				
				100	200	300	400	500	600	800	1000	1500	1800	2000	2500	3000	3500	4000	4500				5000	5500	6000	
6	LSS	6	-5																				OVER 1.5	0.22	6	
8	LSS	8	-14																					OVER 1.5	0.39	8
10	LSS	10	-6																					OVER 1.5	0.61	10
12	LSS	12	-17																					OVER 1.5	0.88	12
13	LSS	13	-7																					OVER 2.0	1.03	13
16	LSS	16	-20																					OVER 2.0	1.56	16
20	LSS	20	-9																					OVER 2.5	2.43	20
25	LSS	25	-25																					OVER 2.5	3.80	25
30	LSS	30	-9																					OVER 2.5	5.48	30
35	LSS	35	-25																					OVER 3.0	7.23	35
40	LSS	40																						OVER 3.0	9.44	40
50	LSS	50																						OVER 3.0	15.2	50

LPS-LM PIPE SHAFT

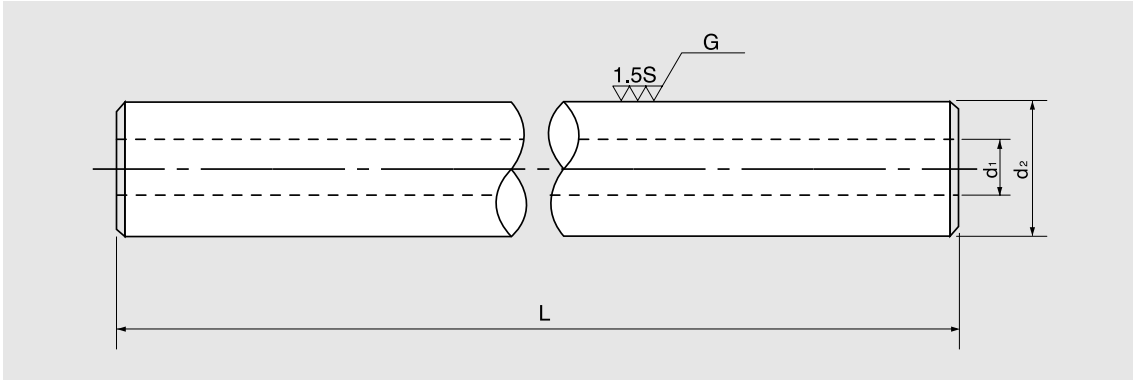


- ▶ Material SUJ 2 (bearing steel)
- ▶ Hardening depth more than 0.5mm
- ▶ High – frequency induction hardening
- ▶ Surface roughness less than 1.5s
- ▶ Hardness more than HRC 60°~64°
- ▶ Tolerance of shaft diameter g6

SBC pipe shaft has every feature that common LM shafts share, and yet greatly contributes to reducing weight and the simplification of machine due to its hollow structure. The hollow inner space of SBC pipe shaft is suitable for electric wiring, air/oil pressure pipe arrangement, fluid/lubricating passage, and robot arms.

Outer Diameter d ₂ mm	Inner Diameter d ₁ mm	Type No LPS		Tolerance μm g6	Standardized length L mm										Effective case hardened zone mm	Weight kg/m	Outer Diameter d ₁ mm	Inner Diameter d ₂ mm				
					100	200	300	400	500	600	800	1000	1200	1500					1800	2000	2500	3000
16	9	LPS	16	-5 -17															OVER 1.5	1.18	16	8
20	14	LPS	20	-7															OVER 1.5	1.85	20	14
25	15	LPS	25	-20															OVER 1.5	2.46	25	15
30	16	LPS	30	-9															OVER 2.0	3.97	30	16
35	19	LPS	35	-25															OVER 2.5	5.32	35	19
40	20	LPS	40	-10															OVER 2.5	7.39	40	20
50	25	LPS	50	-29 -12															OVER 3.0	11.3	50	26
60	32	LPS	60	-34															OVER 3.0	15.9	60	32
80	40	LPS	80																OVER 3.0	25.3	80	48
100	50	LPS	100																OVER 3.0	39.5	100	60

LCPS-LM CHROMIC PLATING PIPE SHAFT

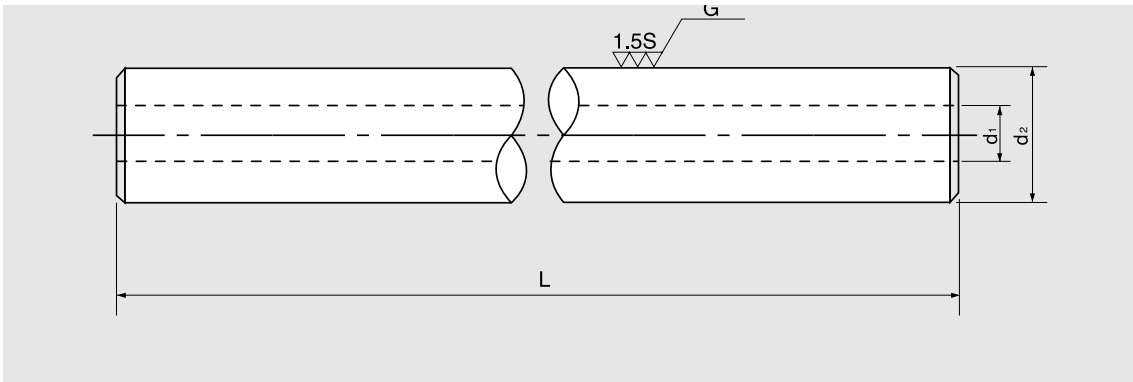


- ▶ Material SUJ 2 (bearing steel)
- ▶ Hardening depth more than 0.5mm
- ▶ High – frequency induction hardening
- ▶ Surface roughness less than 1.5s
- ▶ Hardness more than HRC 60°~64°
- ▶ Tolerance of shaft diameter g6
- ▶ Plating thickness 0.5~1.0μm

Chromium-plated SBC LM pipe shaft is highly anti-corrosive, so it is appropriate for the environment where oxidization easily occurs by water, chemicals, vapor, sea water, etc. Retaining every feature that common LM shafts share, it greatly contributes to reducing weight and the simplification of machine due to its hollow structure. The hollow inner space of chromium-plated SBC pipe shaft is suitable for electric wiring, air/oil pressure pipe arrangement, fluid/lubricating passage, and robot arms.

Outer Diameter d ₂ mm	Inner Diameter d ₁ mm	Type No LCPS	Tolerance μm g6	Standardized length L mm										Effective case hardened zone mm	Weight kgf/m	Outer Diameter d ₁ mm	Inner Diameter d ₂ mm						
				100	200	300	400	500	600	800	1000	1200	1500					1800	2000	2500	3000	3500	4000
16	9	LCPS 16	-6 -17																	OVER 1.5	1.18	16	8
20	14	LCPS 20	-7																	OVER 1.5	1.85	20	14
25	16	LCPS 25	-20																	OVER 2.0	2.46	25	15
30	17	LCPS 30	-9																	OVER 2.0	3.97	30	16
35	19	LCPS 35	-25																	OVER 2.5	5.32	35	19
40	20	LCPS 40	-10																	OVER 2.5	7.39	40	20
50	25	LCPS 50	-29 -12 -34																	OVER 3.0	11.3	50	26
60	30	LCPS 60																		OVER 3.0	15.9	60	32
80	40	LCPS 80																		OVER 3.0	25.3	80	48
100	50	LCPS 100																		OVER 3.0	39.5	100	60

LSPS-LM SUS PIPE SHAFT



- ▶ Material improved over SUS 440C
- ▶ Hardening depth more than 0.5mm
- ▶ High – frequency induction hardening
- ▶ Surface roughness less than 1.5s
- ▶ Hardness more than H_RC 60°~64°
- ▶ Tolerance of shaft diameter g6

SBC LM SUS 440C pipe shaft is highly anti-corrosive, so it is appropriate for the environment where oxidization easily occurs by water, chemicals, vapor, sea water, etc. Retaining every feature that common shafts share, SUS 440C pipe shaft greatly contributes to reducing weight and the simplification of machine due to its hollow structure. The hollow inner space of SUS 440C pipe shaft is suitable for electric wiring, air/oil pressure pipe arrangement, fluid/lubricating passage, and robot arms.

Outer Diameter d ₂ mm	Inner Diameter d ₁ mm	Type No LPS		Tolerance μm g6	Standardized length L mm										Effective case hardened zone mm	Weight kgf/m	Outer Diameter d ₁ mm	Inner Diameter d ₂ mm					
					100	200	300	400	500	600	800	1000	1200	1500					1800	2000	2500	3000	3500
16	8	LSPS	16	-6 -17																OVER 1.5	1.18	16	8
20	10	LSPS	20	-7																	1.85	20	14
25	15	LSPS	25	-20																	2.46	25	15
30	16	LSPS	30	-9																OVER 2.0	3.97	30	16
35	19	LSPS	35	-25																	5.32	35	19
40	20	LSPS	40																	OVER 2.5	7.39	40	20