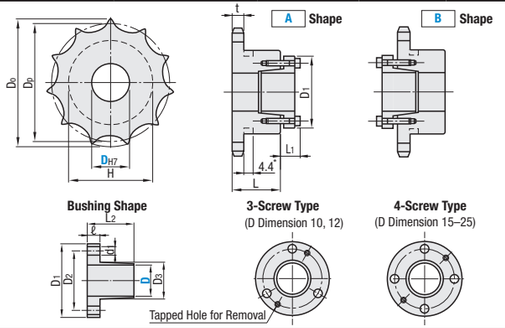
Keyless Sprockets / Sprockets 2-Rows

35B / 40B / 50B Series

Feature: The strength of shafts is not deteriorated as machining to shafts is not required. Positioning is easy.

Keyless Sprockets – 35B / 40B Series

Type	Sprockets		Bushing	
	Material	Surface Treatment	Material	Operating Temp.
LFSP35B LFSP40B	1045 Carbon Steel or Equivalent (Induction Hardened Teeth Tip)	—	1045 Carbon Steel or Equivalent	-20–80°C
BLFSP35B BLFSP40B		Black Oxide		



Note on Installation
- Tighten the bushing screws after inserting the shaft. (Bushing may deform if the screws are tightened before inserting the shaft.)
- Use torque wrench to tighten screws.
- Do not use screws other than included.

Installation
(1) Wipe off the shaft surface and lightly apply oil or grease. (Do not use any oil or grease containing molybdenum type antifriction agent.)
(2) Please completely wipe off sprocket and bushing contact surfaces also before lubricating with oil or grease. Please lubricate screw and seating surfaces in the same manner.
(3) Subassemble sprocket and bushing before inserting into shaft. (Do not tighten the screws on the bushing before inserting into shaft.)
(4) After locating, tighten the lock screws using a torque wrench in the diagonal line order, beginning lightly (approx. 1/4 of the predetermined tightening torque).
(5) Tighten the screws further to an increased torque (approximately 1/2 specified torque).
(6) Tighten with the predetermined tightening torque.
(7) Finally, tighten the screws to the listed torque values in a circumferential order.

Removal
- Be sure the system is completely shut down before starting work.
- Loosen the tightening screws in circumferential order.
- Insert a screw in a screw hole for removal and tighten evenly.
- Repeat "Installation" process for re-installation.

35B Series For Chains, **P.1514**.

Part Number Type	No. of Teeth	Shaft Bore Dia. D_{H7}	Shape	Dp	Do	H	L	t
LFSP35B BLFSP35B	12	10*	A	36.80	41	*30.5	20	4.3
	13	10		39.80	44	*32		
	14	10 12		42.81	47	32		
	15	10 12		45.81	51	35		
	16	10 12 15 16	B	48.82	54	37		
	18	12 15 16 17		54.85	60	44		
	20	12 15 16 17 18 20 22		60.89	66	50		

Sprockets with Number of Teeth 12 for A Shape only. Sprockets marked with *have grooves on hub O.D.

40B Series For Chains, **P.1514**.

Part Number Type	No. of Teeth	Shaft Bore Dia. D_{H7}	Shape	Dp	Do	H	L	t
LFSP40B BLFSP40B	12	12 15 16 17	A	49.07	55	*40	22	7.2
	13	12 15 16		53.07	59	37		
	14	12 15 16 17		57.07	63	42		
	15	12 15 16 17 18 20		61.08	67	46		
	16	15 16 17 18 20 22	B	65.10	71	50		
	17	15 16 17 18 20 22		69.12	76	54		
	18	15 16 17 18 20 22 25		73.14	80	57		
	19	15 16 17 18 20 22 25		77.16	84	62		
	20	15 16 17 18 20 22 25		81.18	88	67	25	

Sprockets marked with * have grooves on hub outer diameter.

Part Number Example Part Number - D - Shape
LFSP35B16 - 15 - A

Bushing Performance

Shaft Bore Dia. D	Maximum Allowable Torque Nm (kgf-m)	Allowable Thrust Load kN (kgf)	Screws Qty.	Screws Size	Screw Tightening Torque Nm (kgf-m)	Detaching Tapped Hole
10	39 (4.0)	5.34 (545)	3	M4 x 16	4.0 (0.41)	M4 x 2
12	48 (4.9)					
15	78 (7.95)		4	M4 x 18		
16	83 (8.5)					
17	88 (9.0)					
18	154 (15.7)	8.74 (895)		M5 x 20	8.3 (0.85)	M5 x 2
20	171 (17.4)					
22	186 (19.16)					
25	216 (21.8)					

In the event that transmissible torque exceeds values in the above table, shaft could slip, resulting in serious danger. Make sure that it is used within the allowable torque range.

Bushing Dimension Table

Shaft Bore Dia. D	D_1	D_2	D_3	d_1	L_1	L_2	ℓ
10	30	22	12	4.5	10.5	16.5	5
12	32	24	14		12	22	6
15	36	28	17.6		13	23	7
16	37	29	18.6				
17	38	30	19.6				
18	43	33	20.6	5.5	14		
20	46	36	23.4				
22	48	38	24.6				
25	52	42	28.4				

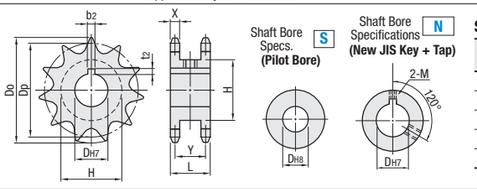
– Shaft tolerance g6, shaft surface roughness Ra6.3 are standard.
– When there is key groove machining or D cut on the installation shaft, transmitting torque is reduced by approximately 15% or more.

Sprockets 2-Row

RoHS 10

Type	Material
SP40SD SP50SD	1045 Carbon Steel or Equivalent (Induction Hardened Teeth Tip)

Differences between tooth tip and keyway are ±0.5.



Shaft Bore Specifications

Shaft Bore Dia. D	Keyway b_2 x t_2	Set Screw M
15	5 x 2.3	6
18, 20	6 x 2.8	6
25–30	8 x 3.3	8
35	10 x 3.3	8
40	12 x 3.3	8

40B Series For Chains, **P.1514**.

Part Number Type	No. of Teeth	Shaft Bore Specs.	Shaft Bore Dia. S Spec. D_{H8}	Shaft Bore Dia. N Specification D_{H7}	Dp	Do	H	L	X	Y	Mass (kg)	Compliance with Standard S Spec.	Compliance with Standard N Spec. (In Stock)	Compliance with Standard N Spec. (Other than In Stock)
SP40SD	12	S N	10	15* 18*	49.07	55	34	35	7.2	27.8	0.33	•	•	•
	13		13	18 20*	53.07	59	38				0.40	•	•	•
	14		13	18* 20*	57.07	63	42				0.49	•	•	•
	15		13	20* 25*	61.08	67	46				0.57	•	•	•
	16		13	20* 25	65.10	71	50				0.66	•	•	•
	17		13	25 28 30	69.12	76	54				0.76	•	—	•
	18		13	25* 28 30 35	73.14	80	59				0.89	•	•	•
	19		13	25* 28 30 35	77.16	84	63				1.00	•	•	•
	20		13	25* 28 30* 35	81.18	88	67				1.14	•	•	•
	21		13	25 28 30 35*	85.21	92	71				1.23	•	•	•

50B Series For Chains, **P.1514**.

Part Number Type	No. of Teeth	Shaft Bore Dia. N Specification D_{H7}	Dp	Do	Hub H	Hub L	X	Y	Mass (kg)
SP50SD	12	18 20	61.34	69	43	40	8.7	31.3	0.63
	13	20 25 28	66.34	74	48				0.75
	14	20 25 28 30	71.34	79	53				0.90
	15	20 25 28 30 35	76.35	84	58				1.04
	16	25 28 30 35 40	81.37	89	63				1.22
	17	25 28 30 35 40	86.39	94	68				1.41
	18	25 28 30 35 40	91.42	100	73				1.61
	19	25 28 30 35 40	96.45	105	79				1.80
	20	25 28 30 35 40	101.48	110	84				1.95
	21	28 30 35 40	106.51	115	89				2.27

Part Number Example Part Number - Bore Specification - Shaft Bore Dia.
SP40SD16 - N - 20

MISUMI

Small Conveyor Sprockets / Small Conveyor Chains / Joint Links

Double Pitch Type

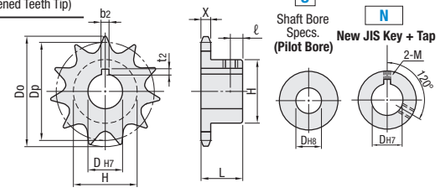
Feature: Flat plate allows workpiece to be put directly on plate for conveyance.

Small Conveyor Sprockets

RoHS 10

Type	Material
SP2040B SP2050B	1045 Carbon Steel or Equivalent (Induction Hardened Teeth Tip)

Accessories: Set Screw (Only for shaft bore specification [N])



Differences between tooth tip and keyway are ±0.5.

Shaft Bore Specifications

Shaft Bore Dia. D	Keyway b_2 x t_2	Set Screw M
20	6 x 2.8	6
25, 30	8 x 3.3	8
35	10 x 3.3	8

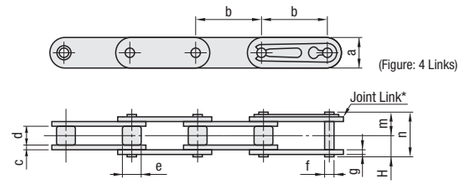
Part Number Type	Part Number Allocated Tooth Quantity	Shaft Bore Dia. N Specification D_{H7}	No. of Operating Teeth	Dp	Do	Hub H	Hub L	X	ℓ	Mass (kg)
SP2040B	19	20 25 30 35	9 1/2	78.23	84	60	25	7.2	7	0.64
	21	20 25 30 35	10 1/2	86.17	92	69				0.93
	23	20 25 30 35	11 1/2	94.15	100	77				0.99
	25	20 25 30 35	12 1/2	102.14	108	63				1.06
SP2050B	19	20 25 30 35	9 1/2	97.78	105	73	28	8.7	8	1.10
	21	20 25 30 35	10 1/2	107.72	115					1.62
	23	20 25 30 35	11 1/2	117.68	125					1.74
	25	25 30 35	12 1/2	127.67	135					1.87

Part Number Example Part Number - Bore Specification - Shaft Bore Dia.
SP2040B21 - N - 20

Small Conveyor Chains – Double Pitch Type

RoHS 10

Type	Material
CHEW40 CHEW50	Steel



Part Number	No. of Links (Specify Even No.)	Max. Allowable Tension (kN)	1 Unit (No. of Links)
CHEW40	4+	2.75	120 (Circumference Length 3,048 mm)
CHEW50	4+	4.41	96 (Circumference Length 3,048 mm)

(1) Specify links by even numbers.(1 joint link included)
(2) A roller chain longer than the unit length (number of unit links) is divided into separate packages per unit.
Ex.) CHEW40-200, 2 separate packages: 120 links + 80 links
(3) No cutting charge is required when 1 unit link is ordered.

Detailed Chain Dimension

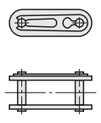
Type	a	b	c	d	e	f	g	h	m	n
CHEW40	11.7	25.4	1.5	7.95	7.95	3.97	1.5	8.02	9.53	17.55
CHEW50	14.6	31.75	2	9.53	10.16	5.09	2	10.15	11.6	21.75

Part Number Example Part Number - Number of Links
CHEW40 - 200

Joint Link

RoHS 10

JNTWC



Material: Steel

Part Number Type	Part Number No.
JNTWC (Steel)	40
	50

Part Number Example Part Number
JNTWC40