


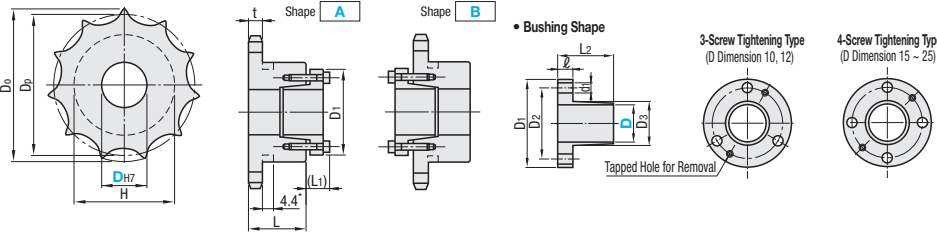
Keyless Sprockets

35B, 40B Series

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



Type	Sprockets		Bushings	
	M Material	S Surface Treatment	M Material	O Operating Temp.
LFSP35B, LFSP40B BLFSP35B, BLFSP40B	S45C Equivalent (Induction Hardened Teeth Tip)	- Black Oxide	S45C	-20~80°C



• Bushing Shape

3-Screw Tightening Type (D Dimension 10, 12)

4-Screw Tightening Type (D Dimension 15 ~ 25)

Tapped Hole for Removal

RoHS10

35B Series For Chains, see [P.1535](#)

Part Number	Type	Number of Teeth	Shaft Bore Dia. D _{H7}	Shape	D _p	D _o	H	L	t	Unit Price	
										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		B	45.81	51	35				
	16	10 12 15 16			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					

For sprockets with 12 teeth, A Shape only. Sprockets marked with * have grooves on hub O.D.

40B Series For Chains, see [P.1535](#)

Part Number	Type	Number of Teeth	Shaft Bore Dia. D _{H7}	Shape	D _p	D _o	H	L	t	Unit Price	
										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		B	61.08	67	46				
	16	15 16 17 18 20 22			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 O.D.

Bushing Dimension/Performance Table

Shaft Bore Dia. D	D ₁	D ₂	D ₃	d ₁	(L-1)	L ₂	ℓ	Maximum Allowable Torque N·m (kgf·m)	Allowable Thrust Load kN (kgf)	Screws Qty.	Screw Size	Screw Tightening Torque N·m (kgf·m)	Tapped Hole for Removal
10	30	22	12	4.5	10.5	16.5	5	39 (4.0)	5.34 (545)	3	M4x16	4.0 (0.41)	M4x2
12	32	24	14					48 (4.9)					
15	36	28	17.6					78 (7.95)					
16	37	29	18.6	13	23	7	83 (8.5)	8.74 (895)	4	M4x18	8.3 (0.85)	M5x2	
17	38	30	19.6				88 (9.0)						
18	43	33	20.6				154 (15.7)						
20	46	36	23.4	5.5	14	14	171 (17.4)	8.74 (895)	4	M5x20	8.3 (0.85)	M5x2	
22	48	38	24.6				186 (19.16)						
25	52	42	28.4				216 (21.8)						

Shaft tolerance g6 and shaft surface roughness Ra6.3 are standard.

When there is keyway machining or D cut on the installed shaft, transmitting torque is reduced by approximately 15% or more.

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.



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 tightening screws other than included.



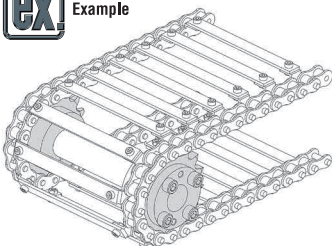
Ordering Example: Part Number - Number of Teeth - d
LFSP35B16 - 15 - A

Features

When a keyway is added to a shaft, the position of teeth / keys is fixed. On such a shaft, however, by using Keyless Sprockets, the position of teeth can be adjusted freely and, thereby, phase matching is facilitated.



Example



Installation

- Wipe off the shaft surface and lightly apply oil or grease. (Do not use any oil or grease containing molybdenum type anti-friction agent.)
- Please completely wipe off sprockets and bushing contact surfaces also before lubricating with oil or grease. Please lubricate screw and seating surfaces in the same manner.
- Sub-assembly Sprockets and bushing before the shaft is inserted. (Do not tighten the screws on the bushing before inserting into shaft.)
- 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).
- Tighten the screws further to an increased torque (approximately 1/2 specified torque).
- Tighten with the predetermined tightening torque.
- 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.