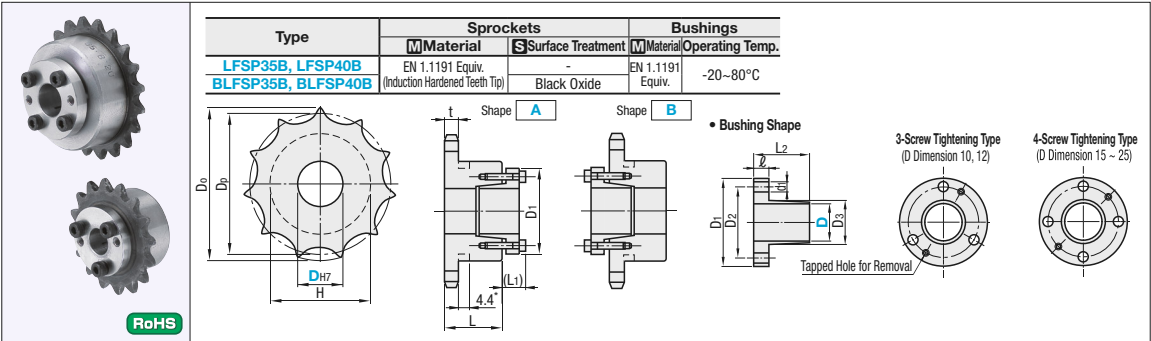


Keyless Sprockets

35B, 40B Series

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



■ **35B Series** For Chains, see **P.1535.**

Part Number		Shaft Bore Dia. DH7	Shape	Dp	Do	H	L	t	Unit Price	
Type	Number of Teeth								LFSP35B	BLFSP35B
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		Shaft Bore Dia. DH7	Shape	Dp	Do	H	L	t	Unit Price	
Type	Number of Teeth								LFSP40B	BLFSP40B
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				
	20	15 16 17 18 20 22 25		81.18	88	67				

Sprockets marked with * have grooves on hub O.D.

■ **Bushing Dimension/Performance Table**

Shaft Bore Dia. D	D1	D2	D3	d1	(L1)	L2	ℓ	Maximum Allowable Torque N·m (kgf·m)	Allowable Thrust Load kN (kgf)	Screws		Screw Tightening Torque N·m (kgf·m)	Tapped Hole for Removal
										Qty.	Size		
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	83 (8.5)									
17	38	30	19.6	88 (9.0)									
18	43	33	20.6	5.5	14	7		154 (15.7)	8.74 (895)	4	M5x20	8.3 (0.85)	M5x2
20	46	36	23.4					171 (17.4)					
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.

■ Installation

- ① Wipe off the shaft surface and lightly apply oil or grease.
(Do not use any oil or grease containing molybdenum type anti-friction agent.)
- ② 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.
- ③ Sub-assemble Sprockets and bushing before the shaft is inserted.
(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

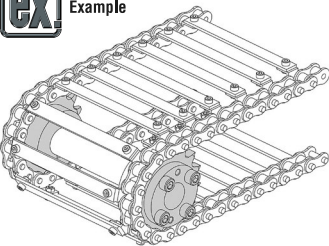
- Be sure the system is completely shut down before starting work.
- Loosen the tightening screws in circumferential order.
- Insert a screw in a screw hole for removal and tighten evenly.
- Repeat "Installation" process for re-installation.

■ 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.



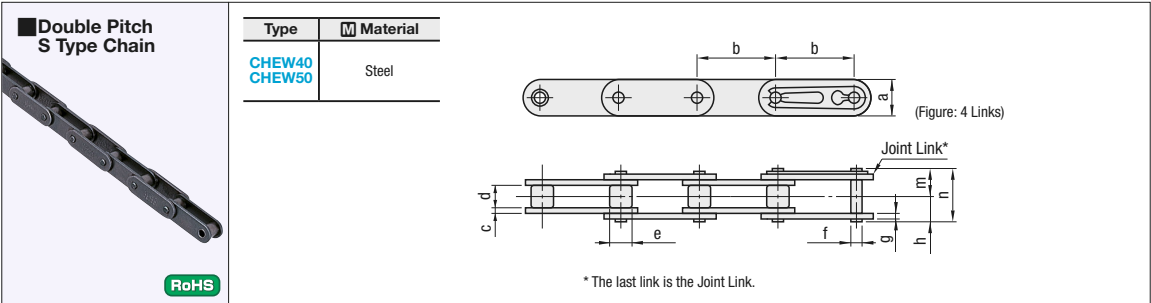
Example



[S Type Roller] Double Pitch Chains, Sprockets, Joint Links

2040B, 2050B Series

■ **Features:** Flat plate allows workpiece to be put directly on plate for conveyance.



Part Number	Number of Links (Specify Even Number)	Max. Allowable Tension (kN)	1 Unit (Number of Links)	Unit Price	Cutting Charge
CHEW40	4~	2.75	120 (Circumference Length 3,048mm)		
CHEW50	4~	4.41	96 (Circumference Length 3,048mm)		

• Detailed Chain Dimension

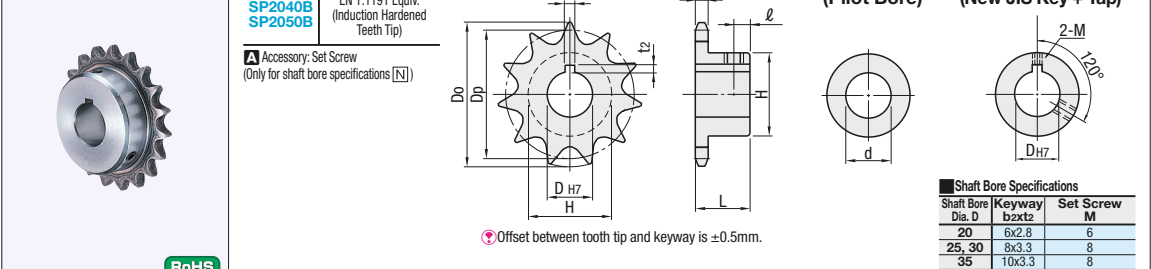
Type	a	b	c	d	e	f	g	h	m	n
CHEW40	11.7	25.4	1.5	7.95	7.95	3.97	1.5	8.02	9.53	17.55
CHEW50	14.6	31.75	2	9.53	10.16	5.09	2	10.15	11.6	21.75




Ordering Example
Part Number - Number of Links
CHEW40 - 200

- ① Specify links by even numbers. The last link is the Joint Link.
- ② When the ordered number of links exceeds the given number of links per unit, the qty. of links per unit and the extra qty. of links are packaged separately.
Ex.) For CHEW40-300, 3 separate packages: 120 links x 2 units + 60 links

■ Double Pitch S Type Dedicated Sprocket



For double pitch chain idlers, see  P1552																		
Part Number		Shaft Bore Specs.	Shaft Bore Dia.					Number of Operating Teeth	Dp	Do	Hub		X	ℓ	Mass (kg)	Unit Price		
Type	Allocated Number of Teeth		S Specification (DHS)	N Specification (DH7)							H	L				S Specification	N Spec. (In Stock)	N Spec. (Other than In Stock)
SP2040B	19	S	14	20*	25*	30	35	9 1/2	78.23	84	60	25	7.2	7	0.64			
	21		14	20	25	30	35	10 1/2	86.17	92	69				0.93	-		
	23		14	20	25	30	35	11 1/2	94.15	100	77				0.99	-		
	25		14	20*	25	30	35	12 1/2	102.14	108	63				1.06			
SP2050B	19	S	14	20	25*	30	35	9 1/2	97.78	105	73	28	8.7	8	1.1			
	21		14	20	25	30	35	10 1/2	107.72	115					1.62	-		
	23		16	20	25	30	35	11 1/2	117.68	125					1.74	-		
	25		16	25	30	35	12 1/2	127.67	135	1.87					-			



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

For double pitch chain idlers, see **P.1552.**

■ Double Pitch S Type Dedicated Joint Link



Part Number		Unit Price	Volume Discount Rate
Type	No.	1 ~ 20 Link(s)	21 ~ 50 Links
JNTWC (Steel)	40		
	50		

⚠ For orders larger than indicated quantity, please request a quotation.



Ordering Example
Part Number
JNTWC40

Chains with Attachments, Joint Links

40, 50, 60, 80 Series

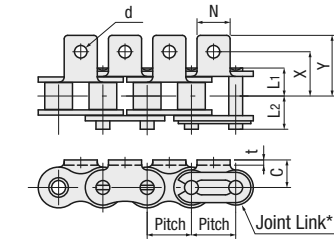
■ **Features:** Are standard chains with the Attachments and allow for conveyance of small workpieces, if desired.

Chains with Attachments Chains

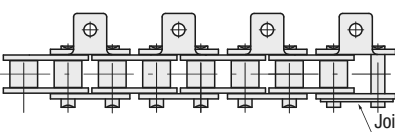


Attachment on One Side Type

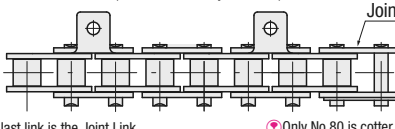
CHEL (Attachment on All Links)



CHEL (Attachment on Every Two Links)

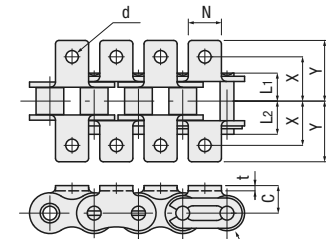


CHEL (Attachment on Every Four Links)

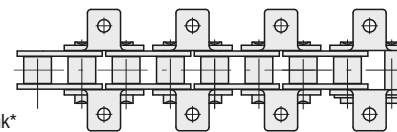


Attachment on Both Sides Type

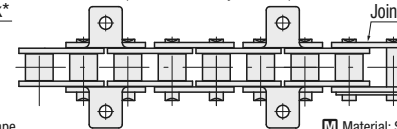
CHET (Attachment on All Links)



CHET (Attachment on Every Two Links)



CHET (Attachment on Every Four Links)



* The last link is the Joint Link.

Only No.80 is cotter pin shape.

M Material: Steel

Part Number			* Number of Links	Pitch	Pins		Plate	Attachment						Max. Allowable Tension kN (kgf)
Type	No.	Nominal			L ₁	L ₂	t	C	X	Y	N	d		
CHEL (One Side Type) CHET (Both Sides Type)	40	A (All Links) B (Every Two Links) C (Every Four Links)	4~	12.7	8.07	9.48	1.5	7.9	12.7	17.4	9.5	3.6	2.75 (280)	
	50		4~	15.875	10.17	11.63	2	10.3	15.9	22.3	12.7	5.2	4.41 (450)	
	60		4~	19.05	12.7	14.2	2.4	11.9	19.05	27.2	15.9	5.2	6.28 (640)	
	80		4~	25.4	16.15	19.25	3.2	15.9	25.4	35.2	19.1	6.8	10.69 (1090)	

* Use 2's multiples for "attachment on every link" and "attachment on every 2 links". Use 4's multiples for "attachment on every 4 links".

No.	Unit Price						Cutting Charge
	Attachment on One Side Type			Attachment on Both Sides Type			
	CHEL□□A	CHEL□□B	CHEL□□C	CHET□□A	CHET□□B	CHET□□C	
Specified Number of Links	Multiple of 2	Multiple of 2	Multiple of 4	Multiple of 2	Multiple of 2	Multiple of 4	
40							
50							
60							
80							

Number of Links per Unit

Part Number	No.	Number of Links per Unit
CHEL	40	240 (Circumference Length 3,048mm)
CHET	50	192 (Circumference Length 3,048mm)
	60	160 (Circumference Length 3,048mm)
	80	120 (Circumference Length 3,048mm)

When the ordered number of links exceeds the given number of links per unit, the qty. of links per unit and the extra qty. of links are packaged separately.
Ex.) For CHEL50A-300, 2 separate packages: 192 links x 1 unit + 108 links

Ordering Example
Part Number - Number of Links
CHEL40A - 200

Chains with Attachments Joint Link



JNT-L

JNT-T

M Material: Steel

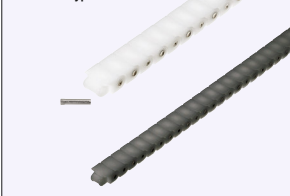
Ordering Example
Part Number
JNT-L40

Engineered Plastic Block Chains / Dedicated Sprockets

1 Row Type, 2 Row Type

■ **Features:** Use the products in environments where workpieces must not be tainted with chain oil or must not be damaged. Generally, they are used for conveying cans, etc.

Engineering Plastic Block Chains 1 Row Type

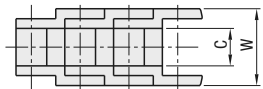
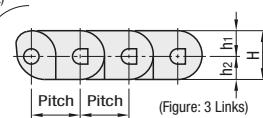


Engineering Plastic Block Chain 2 Row Type



1 Row Type

CHEED (General Use)
CHEEC (Conductive)
CHEEH (Heat Resistant)
CHEEY (Chemical Resistant)

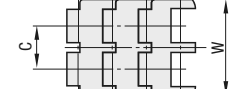
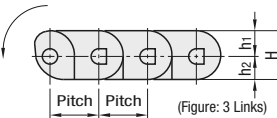


Chains only bend in the arrow direction but not in the opposite direction.

Part Number CHEEP60 is changed to CHEED60. Pin Shape: from Round to D.
Since the bending angle of chain is predetermined, specify the mating sprocket with the number of teeth: 14 or more.

2 Row Type

CHEE (General Use)
Select CHEES as Sprockets.



Chains only bend in the arrow direction but not in the opposite direction.

The pin shape of CHEE is changed from Round to D.

Part Number	Number of Links	Number of Rows	Usage	Color	Allowable Tension (N)	Allowable Chain Speed (m/min)	Coefficient of Sliding Friction μ_1	Reference Mass (kg/m)	Operating Temp. (°C)	Pitch	C	W	H	h ₁	h ₂	Number of Links per Unit	Unit Price		
TYPE	No															1 Link Unit Price x Number of Links			
CHEED	40	4~	Single	General Use	White	441	60	0.25	0.32	-5~65	12.7	7.95	20	12.7	6.7	6	240 (Circumference Length 3,048mm)		
	60						882	60		0.72		19.05	12.7	30	17.3	8.8	8.5	160 (Circumference Length 3,048mm)	
CHEEC	40			Conductive	Black	340	60	0.25	0.36	-20~80	12.7	7.95	20	12.7	6.7	6	240 (Circumference Length 3,048mm)		
CHEEH	40			Heat Resistant	Black	440	100	0.25	0.36	-20~150	12.7	7.95	20	12.7	6.7	6	240 (Circumference Length 3,048mm)		
CHEEY	40			Chemical Resistant	White	250	60	0.25	0.36	-20~80	12.7	7.95	20	12.7	6.7	6	240 (Circumference Length 3,048mm)		
CHEE		2 Rows		General Use	White	1270	60	0.25	0.55	-5~65	12.7	14.4	32	12.7	6.4	6.3	240 (Circumference Length 3,048mm)		

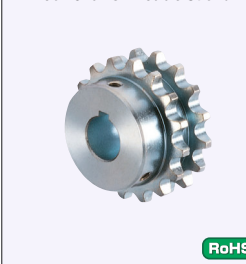
When the ordered number of links exceeds the given number of links per unit, the qty. of links per unit and the extra qty. of links are packaged separately.
Ex.) For CHEE-300, 2 separate packages: 240 links x 1 unit + 60 links



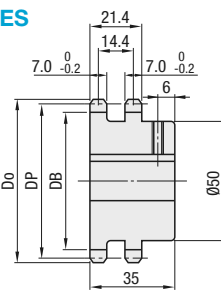
Ordering Example

Part Number - Number of Links
CHEED40 - 200
CHEE - 200

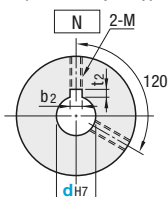
Sprocket for Engineering Plastic Block Chains - Double Strand



CHEES



Shaft Bore Specifications (New JIS Key + Tap)



Shaft Bore Dia. d	Keyway b x t	Set Screw M
20	6x2.8	6
25	8x3.3	8
30	8x3.3	8

M Material: EN 1.1191 Equiv.
S Surface Treatment: Bright Chromate Plating
A Accessory: Set Screw

Offset between tooth tip and keyway is ±0.5mm.

Part Number	Do	Dp	Root Dia. DB	Number of Teeth	Reference Mass (kg)	Unit Price
Type	dH7					
CHEES	20	68	65.1	57.15	16	0.6
	25					
	30					



Ordering Example

Part Number
CHEES20



Resistance Against Chemicals and Oils

Chemical Name	Spec. for General Use / Conductive Type	Spec. for Chemical Resistant Type
	CHEED CHEEC	CHEEY
Acetone	○	×
Oil (Vegetable, Mineral)	○	○
Alcohol	○	○
Ammonia Water	○	○
Sodium Chloride	○	○
Hydrochloric Acid (2%)	×	×
Seawater	△	△
Oxygenated Water	×	○
Sodium Hydroxide (Sodium Hydroxide) (2%)	○	○
Gasoline	○	○
Formic Acid	×	○
Formic Aldehyde	○	○
Citric Acid	△	○

Chemical Name	Spec. for General Use / Conductive Type	Spec. for Chemical Resistant Type
	CHEED CHEEC	CHEEY
Chromic Acid	×	△
Acetic Acid	×	○
Carbon Tetrachloride	○	○
Sodium Hypochlorite	×	×
Nitric Acid (5%)	×	○
Potassium Hydrate	○	○
Soap Solution	○	○
Lactic Acid	○	○
Paraffin	○	○
Benzene	○	○
Iodine	×	×
Sulfuric Acid	×	×
Phosphoric Acid (10%)	×	△

Resistance Against Foods

Chemical Name	Spec. for General Use / Conductive Type	Spec. for Chemical Resistant Type
	CHEED CHEEC	CHEEY
Whiskey	○	○
Milk	○	○
Vinegar	△	△
Soft Drinks	○	○
Beer	○	○
Fruit Juice	○	○
Water	○	○
Vegetable Juice	○	○
Wine	○	○

CHEEH is intended for use in dry environments and cannot be used in wet environments where water is splashed.