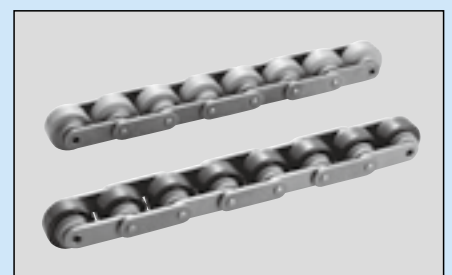
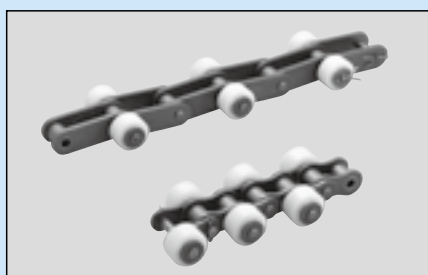
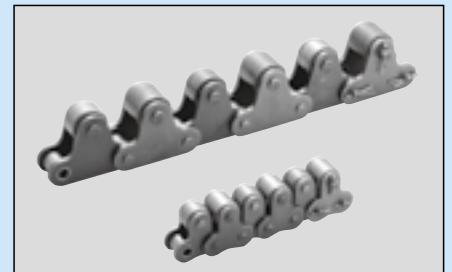
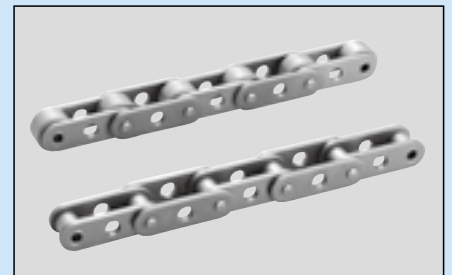
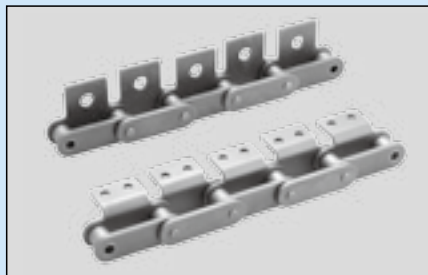
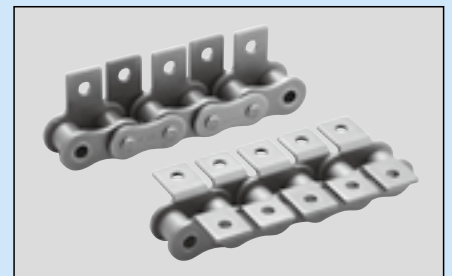
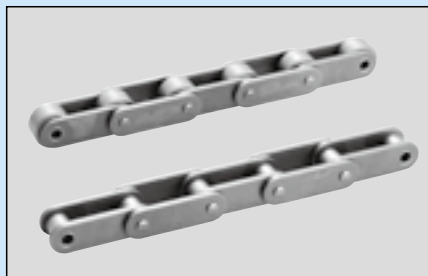


SMALL CONVEYOR CHAINS

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The double pitch roller chains for conveyor fall into two roller types: S-type (KCM Chain No. is suffixed with "0") and R-type (KCM Chain No. is suffixed with "2").

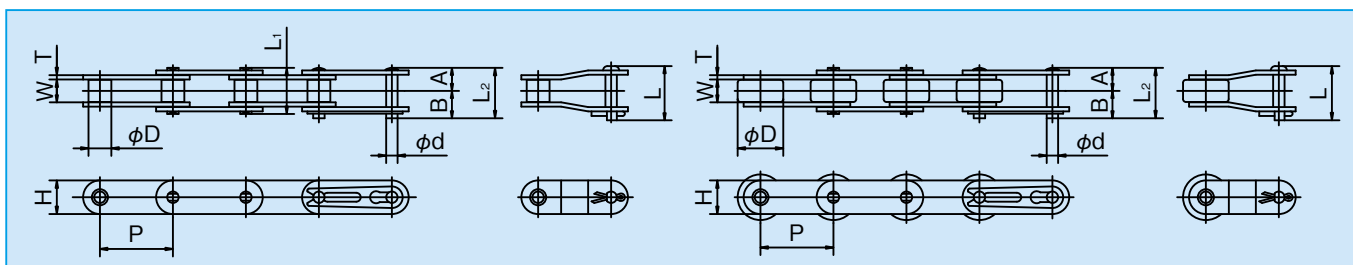
Using a variety of standard attachments, the double pitch roller chain can be used as a compact, high-precision conveyor.

Nickel plated models as well as stainless steel models are also available.

S Roller Type



R Roller Type



○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin						Link Plate		Ave. Tensile Strength kN (kgf)	Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	Links of 1 unit
				Dia. d	A	B	(A+A) L ₁	(A+B) L ₂	Offset L	Thickness T	Height H				
KCM C2040 KCM C2042	25.40	7.95	7.92 15.88	3.97	8.02	9.53	16.05	17.55	18.95	1.5	11.7	17.2(1,750)	2.65(270)	0.48 0.82	120
KCM C2050 KCM C2052	31.75	9.53	10.16 19.05	5.09	10.15	11.60	20.30	21.75	23.00	2.0	14.6	27.9(2,850)	4.31(440)	0.79 1.25	96
KCM C2060 KCM C2062	38.10	12.70	11.91 22.23	5.96	12.65	14.15	25.30	26.80	29.45	2.4	17.5	39.5(4,000)	6.28(640)	1.12 1.79	80
KCM C2060H KCM C2062H	38.10	12.70	11.91 22.23	5.96	14.25	15.75	28.50	30.00	32.65	3.2	17.5	39.5(4,000)	6.28(640)	1.43 2.11	80
KCM C2080 KCM C2082	50.80	15.88	15.88 28.58	7.94	16.07	19.18	32.15	35.25	36.90	3.2	23.0	68.6(7,000)	10.69(1,090)	1.88 2.92	60
KCM C2080H KCM C2082H	50.80	15.88	15.88 28.58	7.94	17.70	20.80	35.40	38.50	40.15	4.0	23.0	68.6(7,000)	10.69(1,090)	2.37 3.41	60
KCM C2100H KCM C2102H	63.50	19.05	19.05 39.67	9.54	21.72	24.68	43.45	46.40	48.30	4.8	28.9	106.9(10,900)	17.06(1,740)	3.53 5.68	48
KCM C2120H KCM C2122H	76.20	25.40	22.23 44.45	11.11	26.85	30.25	53.70	57.10	59.30	5.6	35.0	149.1(15,200)	23.93(2,440)	4.75 7.40	40

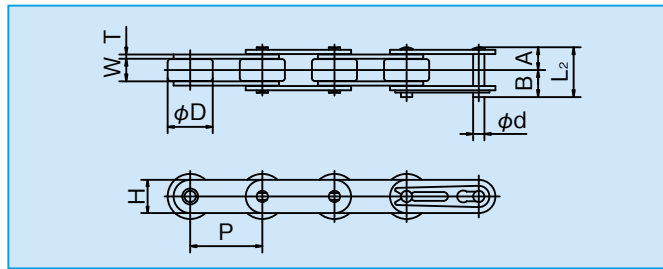
NOTES: - Connecting links for C2080 or larger models use split pins.

Sprockets: For S-roller type chains with teeth No. 29T (with 14 1/2 working teeth) or smaller, use the exclusively designed sprocket for double-pitch roller chains. For R-roller type chains, use the exclusively designed sprocket for R-roller type double pitch chains.

DL Type Double Pitch Roller Chain

DL type double pitch roller chain is another version of R type roller in which resin rollers are employed to reduce weight and travel noise. Nickel plated versions and stainless steel versions are also available. The DL type can be used with various attachments.

Resin Roller (DL)



○ Dimensions

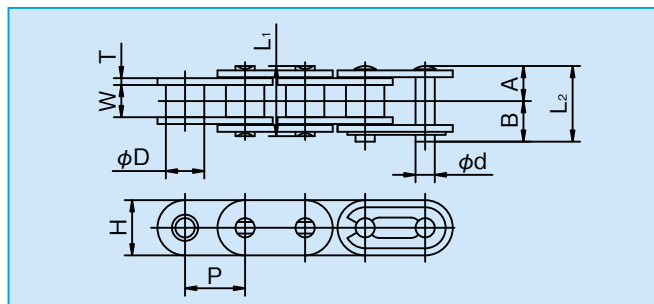
[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin			Link Plate		Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	Links of 1 unit
				Dia. d	(A+A) L ₁	(A+B) L ₂	Thickness T	Height H			
KCM C2042 DL	25.40	7.95	15.88	3.97	16.05	17.55	1.5	11.7	0.44 (45)	0.49	120
KCM C2052 DL	31.75	9.53	19.05	5.09	20.30	21.75	2.0	14.6	0.69 (70)	0.80	96
KCM C2062 DL	38.10	12.70	22.23	5.96	25.30	26.80	2.4	17.5	1.03(105)	1.10	80
KCM C2062H DL					28.50	30.00	3.2				
KCM C2082 DL	50.80	15.88	28.58	7.94	32.15	35.25	3.2	23.0	1.77(180)	1.83	60
KCM C2082H DL					35.40	38.50	4.0				
KCM C2102H DL	63.50	19.05	39.67	9.54	43.45	46.40	4.8	28.9	2.55(260)	3.42	48
KCM C2122H DL	76.20	25.40	44.45	11.11	53.70	57.10	5.6	35.0	3.82(390)	4.66	40

NOTES: - Connecting links for C2080 or larger models use split pins.

- **Sprockets:** For S-roller type chains with teeth No. 29T (with 14 1/2 working teeth) or smaller, use the exclusively designed sprocket for double-pitch roller chains. For R-roller type chains, use the exclusively designed sprocket for R-roller type double pitch chains.

The KCM F-type roller chains are standard roller chains using straight contour link plates, which are suitable for general power transmission, and conveying of materials placed directly on them.



○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin					Link Plate		Ave. Tensile Strength kN (kgf)	Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	Links of 1 unit
				Dia. d	A	B	(A+A) L ₁	(A+B) L ₂	Thickness T	Height H				
KCM 40F	12.70	7.95	7.92	3.97	8.02	9.53	16.05	17.55	1.5	12.0	18.1 (1,850)	2.65 (270)	0.72	240
KCM 50F	15.875	9.53	10.16	5.09	10.15	11.60	20.30	21.75	2.0	14.6	29.9 (3,050)	4.31 (440)	1.20	192
KCM 60F	19.05	12.70	11.91	5.96	12.65	14.15	25.30	26.80	2.4	17.5	40.7 (4,200)	6.28 (640)	1.78	160
KCM 80F	25.40	15.88	15.88	7.94	16.07	19.18	32.15	35.25	3.2	23.0	72.6 (7,400)	10.70 (1,090)	2.97	120
KCM 100F	31.75	19.05	19.05	9.54	20.10	23.05	40.20	43.15	4.0	28.9	112.8 (11,500)	17.10 (1,740)	4.57	96

NOTES: - Offset links are not available.

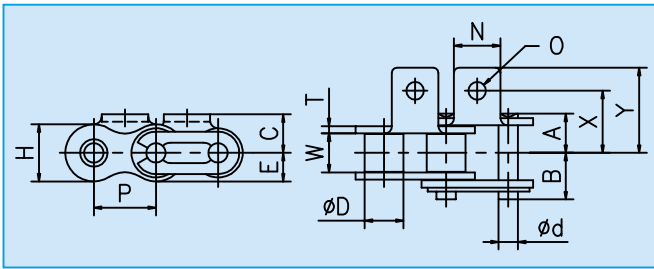
- **Sprockets:** KCM standard sprocket can be used.
Boss diameter must be reduced to avoid interference with link plate.

The roller chains fitted with high-precision attachments are best suited for compact conveyors with small pitches and high precision transferring capability.

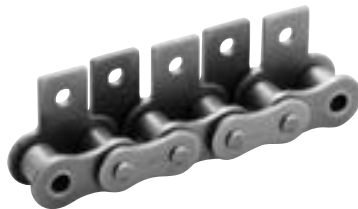
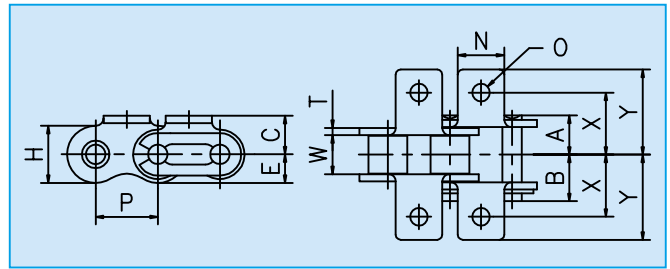
Standard Attachments



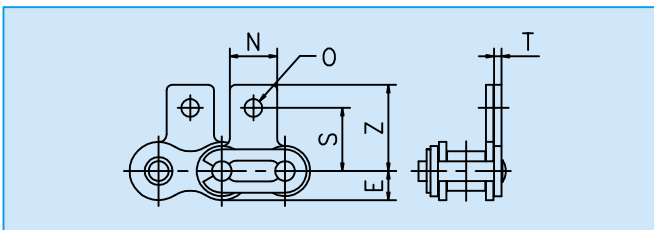
A-1 Attachments



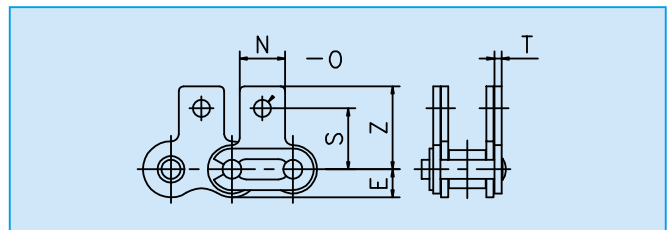
K-1 Attachments



SA-1 Attachments



SK-1 Attachments



○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin			Link Plate		Standard/Rustop (N)			Stainless steel (SS)		Links of 1 unit
				Dia. d	A	B	Thickness T	Height H	Ave. Tensile Strength kN (kgf)	Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	
KCM 25	6.35	3.18	*3.30	2.31	3.80	4.40	0.75	5.8	4.1 (425)	0.64 (65)	0.15	0.12 (12)	0.16	480
KCM 35	9.525	4.78	*5.08	3.59	5.77	7.28	1.25	8.8	10.2 (1,040)	1.52 (155)	0.33	0.26 (27)	0.33	320
KCM 40	12.70	7.95	7.92	3.97	8.07	9.48	1.5	11.7	17.2 (1,750)	2.65 (270)	0.61	0.44 (45)	0.63	240
KCM 50	15.875	9.53	10.16	5.09	10.17	11.63	2.0	14.6	27.9 (2,850)	4.31 (440)	1.01	0.69 (70)	1.04	192
KCM 60	19.05	12.70	11.91	5.96	12.7	14.2	2.4	17.5	39.5 (4,000)	6.28 (640)	1.49	1.03 (105)	1.50	160
KCM 80	25.40	15.88	15.88	7.94	16.15	19.25	3.2	23.0	68.6 (7,000)	10.69 (1,090)	2.50	1.77 (180)	2.62	120
KCM 100	31.75	19.05	19.05	9.54	20.1	23.05	4.0	28.9	106.9 (10,900)	17.06 (1,740)	3.85	2.55 (260)	4.09	96
KCM 120	38.10	25.40	22.23	11.11	25.2	28.6	4.8	35.0	149.1 (15,200)	23.93 (2,440)	5.66	—	—	80

NOTE: Connecting links of KCM80 or larger models are of split pin type. Figures marked with asterisk * imply bush diameter.

○ Dimensions

[Unit: mm]

KCM Chain No.	Attachments									Additional Weight per Attachment (kg)	
	N	O	E	C	X	Y	S	Z	A, SA-1	K, SK-1	
KCM 25	5.6	3.4	2.9	4.75	7.15	10.7	7.95	11.9	0.0003	0.0006	
KCM 35	7.9	3.4	4.4	6.35	9.5	13.8	9.5	14.25	0.0009	0.0018	
KCM 40	9.5	3.6	5.8	7.9	12.7	17.4	12.7	17.3	0.0014	0.0028	
KCM 50	12.7	5.2	7.3	10.3	15.9	22.3	15.9	22.3	0.0032	0.0062	
KCM 60	15.9	5.2	8.8	11.9	19.05	27.2	18.3	26.3	0.0056	0.012	
KCM 80	19.1	6.8	11.5	15.9	25.4	35.2	24.6	34.2	0.013	0.026	
KCM 100	25.4	8.7	14.4	19.8	31.75	44.7	31.8	44.1	0.025	0.050	
KCM 120	28.6	10.3	17.5	23.0	38.1	52.5	36.55	50.9	0.038	0.076	

NOTE: KCM attachment chains are available in stainless steel in the same dimensions.

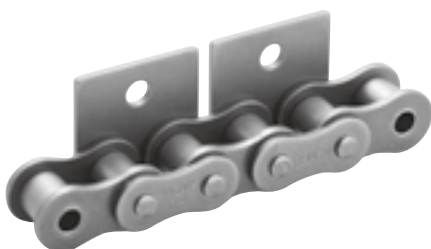
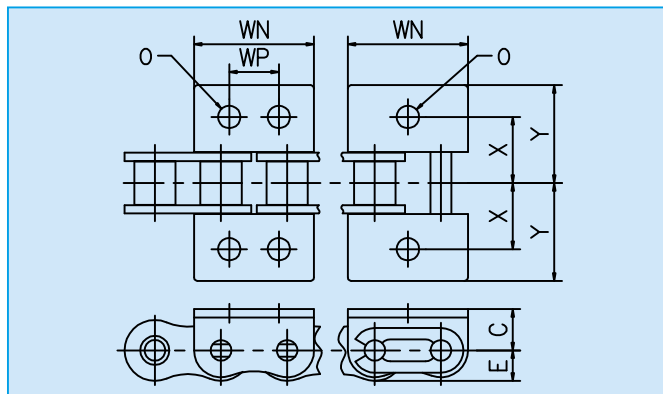
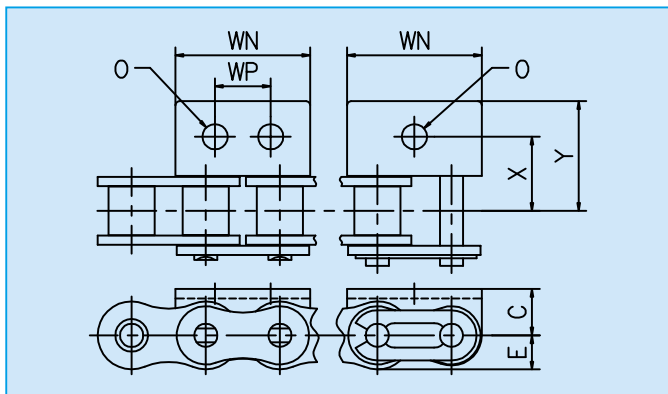
These attachments are a widened version of the standard attachments, which are suitable for large slat and metal pieces.

Wide Attachments



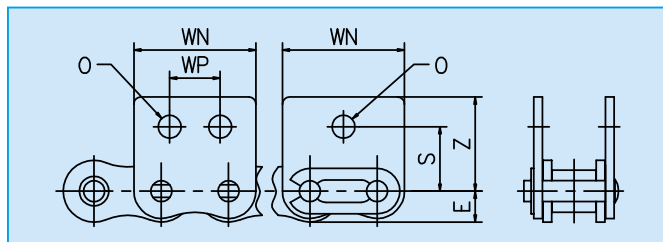
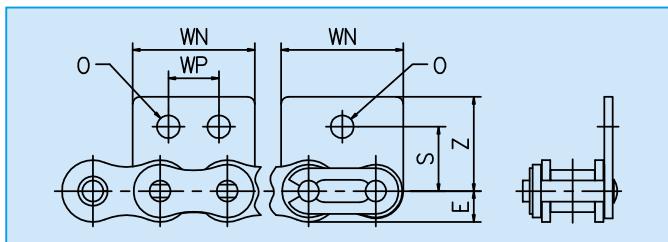
WA-1, WA-2 Attachments

WK-1, WK-2 Attachments



WSA-1, WSA-2 Attachments

WSK-1, WSK-2 Attachments



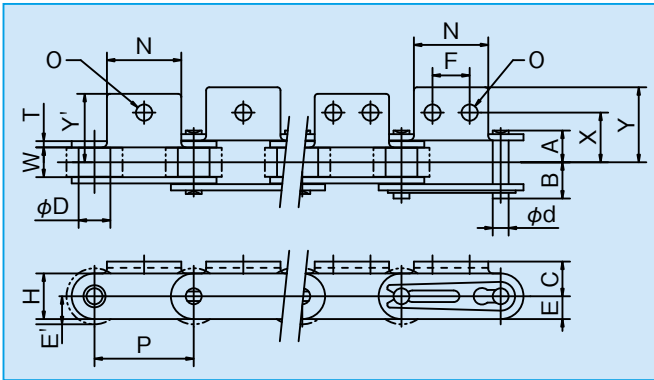
○ Dimensions

[Unit: mm]

KCM Chain No.	Attachments									Additional Weight per Attachment (kg)		Inner Link WN
	WN	WP	O	E	C	X	Y	S	Z	WA, WSA	WK, WSK	
KCM 40	23.0	9.5	4.5	5.05	7.9	12.7	17.4	12.5	17.3	0.003	0.006	24.4
KCM 50	28.8	11.9	5.5	7.3	10.3	15.9	23.0	15.9	22.6	0.007	0.014	30.475
KCM 60	34.6	14.3	6.6	8.8	11.9	19.05	28.2	18.3	26.7	0.013	0.026	36.55
KCM 80	46.1	19.1	9.0	10.35	15.9	25.4	36.6	24.6	35.4	0.030	0.060	48.4

NOTE: KCM attachment chains are available in stainless steel in the same dimensions.

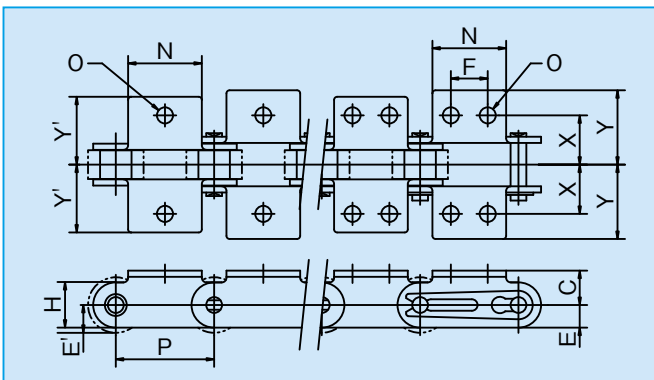
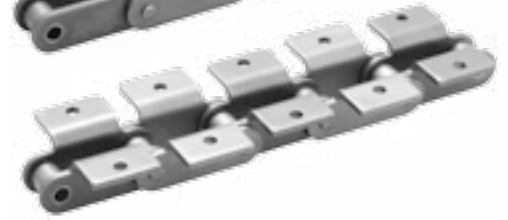
Standard Attachments



A-1 Attachments



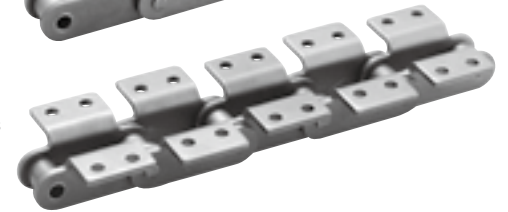
K-1 Attachments



A-2 Attachments



K-2 Attachments



○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin			Link Plate		Standard/Rustop (N)			Stainless steel (SS)		Links of 1 unit
				Dia. d	A	B	Thickness T	Height H	Ave. Tensile Strength kN (kgf)	Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	
KCM C2040 KCM C2042	25.40	7.95	7.92 15.88	3.97	8.05	9.6	1.5	11.7	17.2 (1,750)	2.63 (270)	0.48 0.82	0.44 (45)	0.49 0.83	120
KCM C2050 KCM C2052	31.75	9.53	10.16 19.05	5.09	10.15	11.65	2.0	14.6	27.9 (2,850)	4.31 (440)	0.79 1.25	0.69 (70)	0.83 1.28	96
KCM C2060 KCM C2062	38.10	12.70	11.91 22.23	5.96	12.70	15.40	2.4	17.5	39.5 (4,000)	6.28 (640)	1.12 1.79	1.03 (105)	1.19 1.88	80
KCM C2060H KCM C2062H	38.10	12.70	11.91 22.23	5.96	14.25	15.75	3.2	17.5	39.5 (4,000)	6.28 (640)	1.43 2.11	1.03 (105)	1.46 2.14	80
KCM C2080 KCM C2082	50.80	15.88	15.88 28.58	7.94	16.15	19.25	3.2	23.0	68.6 (7,000)	10.69 (1,090)	1.88 2.92	1.77 (180)	2.08 3.13	60
KCM C2080H KCM C2082H	50.80	15.88	15.88 28.58	7.94	17.70	20.80	4.0	23.0	68.6 (7,000)	10.69 (1,090)	2.37 3.41	1.77 (180)	2.44 3.50	60
KCM C2100H KCM C2102H	63.50	19.05	19.05 39.67	9.54	21.75	24.70	4.8	28.9	106.9 (10,900)	17.06 (1,740)	3.53 5.68	2.55 (260)	3.74 5.98	48

NOTE: Connecting links for the KCM C2080 or larger models use split pins.

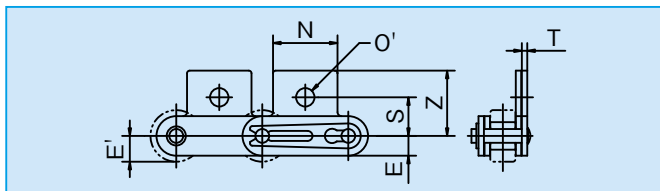
○ Dimensions

[Unit: mm]

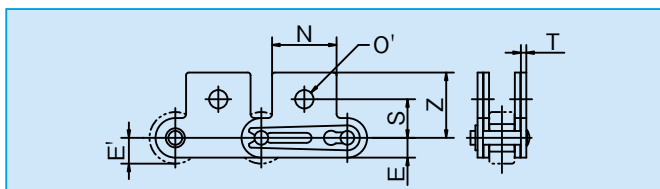
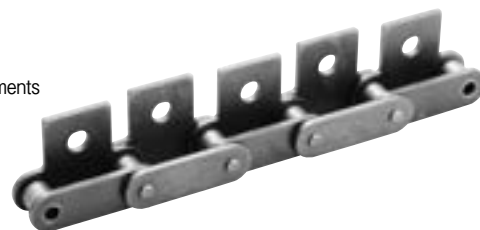
KCM Chain No.	Attachments									Additional Weight per Attachment (kg)	
	N	O	C	E(E')	X	PL side Y	RL side Y'	F	A-1, A-2	K-1, K-2	
KCM C2040 KCM C2042	19.1	3.6	9.1	5.9 (7.9)	12.7	19.0	17.4	9.5	0.003	0.006	
KCM C2050 KCM C2052	23.8	5.2	11.1	7.3 (9.5)	15.9	24.0	21.9	11.9	0.007	0.014	
KCM C2060 KCM C2062	28.6	5.2	14.7	8.8 (11.1)	21.45	29.6	27.0	14.3	0.013	0.026	
KCM C2060H KCM C2062H	28.6	5.2	14.7	8.8 (11.1)	21.45	31.8	28.4	14.3	0.016	0.032	
KCM C2080 KCM C2082	38.1	6.8	19.1	11.5 (14.3)	27.8	41.1	37.0	19.1	0.028	0.056	
KCM C2080H KCM C2082H	38.1	6.8	19.1	11.5 (14.3)	27.8	41.1	37.0	19.1	0.033	0.066	
KCM C2100H KCM C2102H	47.6	8.7	23.4	14.5 (19.8)	33.3	50.0	45.0	23.8	0.063	0.126	

NOTE: KCM attachment chains are available in stainless steel in the same dimensions.

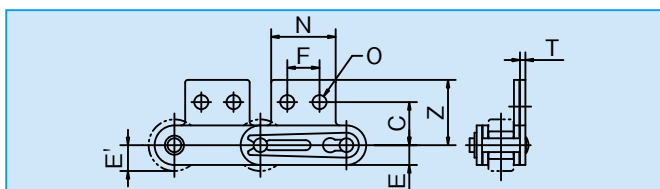
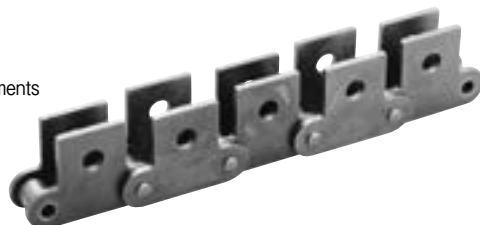
Standard Attachments



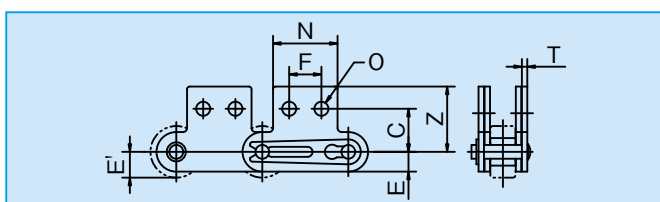
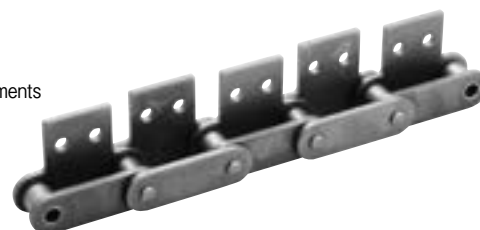
SA-1 Attachments



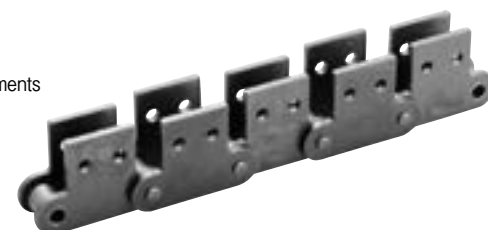
SK-1 Attachments



SA-2 Attachments



SK-2 Attachments



○ Dimensions

[Unit: mm]

KCM Chain No.	Attachments								Additional Weight per Attachment (kg)	
	N	O	O'	C	S	E(E')	Z	F	SA-1, SA-2	SK-1, SK-2
KCM C2040 KCM C2042	19.1	3.6	5.2	13.5	11.1	5.9 (7.9)	19.75	9.5	0.003	0.006
KCM C2050 KCM C2052	23.8	5.2	6.8	15.9	14.3	7.3 (9.5)	24.55	11.9	0.006	0.012
KCM C2060 KCM C2062	28.6	5.2	8.7	19.05	17.5	8.8 (11.1)	31.05	14.3	0.013	0.026
KCM C2060H KCM C2062H	28.6	5.2	8.7	19.05	17.5	8.8 (11.1)	31.05	14.3	0.016	0.032
KCM C2080 KCM C2082	38.1	6.8	10.3	25.4	22.2	11.5 (14.3)	40.8	19.1	0.027	0.055
KCM C2080H KCM C2082H	38.1	6.8	10.3	25.4	22.2	11.5 (14.3)	40.8	19.1	0.031	0.062
KCM C2100H KCM C2102H	47.6	8.7	13.5	31.75	28.6	14.5 (19.8)	50.8	23.8	0.053	0.106

NOTE: KCM attachment chains are available in stainless steel in the same dimensions.

EP Attachments

These EP roller chain attachments are attachments with extra extended pins.

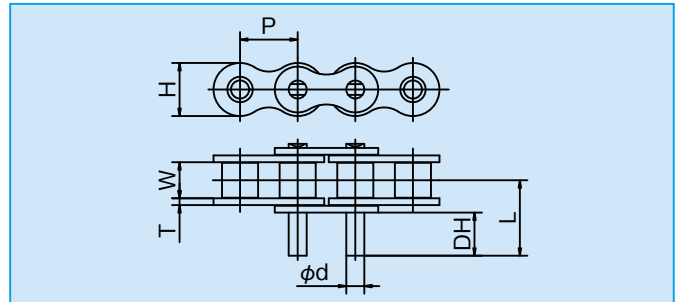
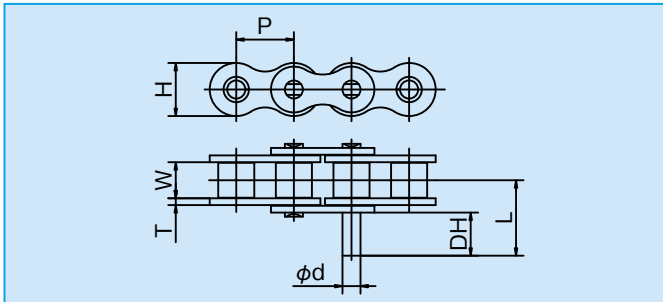
Two roller chains with EP attachments are arranged in parallel so that their extended pins faced to each other to carry pipes, metal pieces, etc.



2P EP Attachments



1P EP Attachments



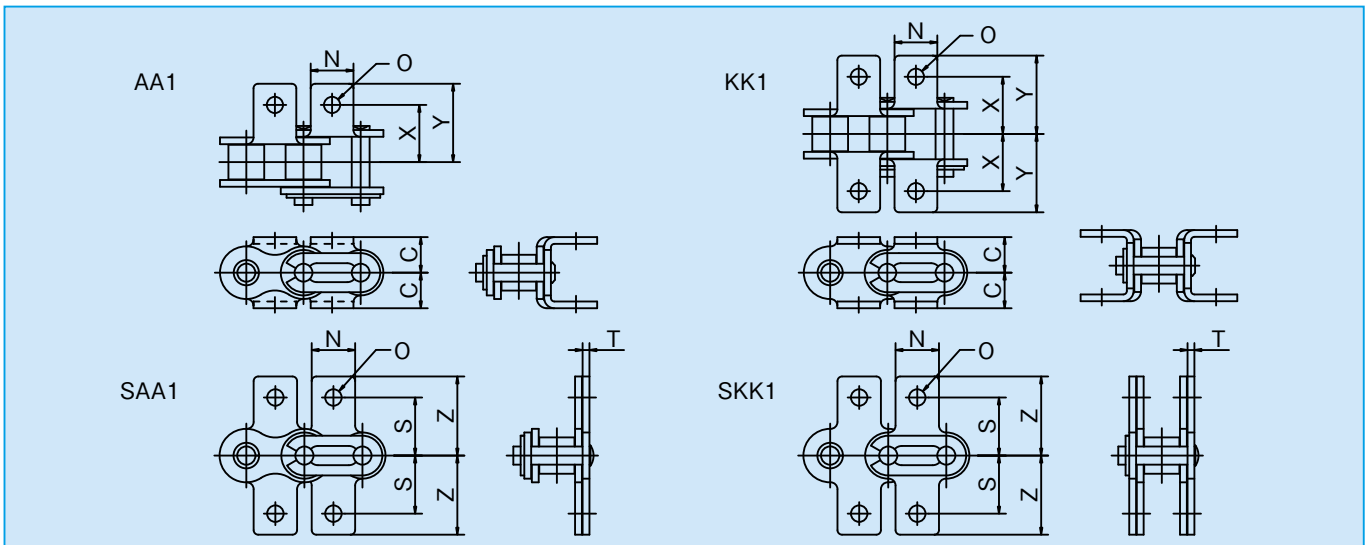
○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates		Roller Dia. D	Pin			Link Plate		Attachments		Additional Weight per Attachment (kg)		Links of 1 unit
		W	D		Dia. d	A	B	Thickness T	Height H	DH	L	2P EP	1P EP	
KCM 35	9.525	4.78	*5.08	3.59	5.70	7.10	1.25	8.8	9.5	14.5	0.0007	0.0014	320	
KCM 40	12.70	7.95	7.92	3.97	8.05	9.55	1.5	11.7	9.5	16.65	0.0009	0.0018	240	
KCM 50	15.875	9.53	10.16	5.09	10.15	11.60	2.0	14.6	11.9	20.9	0.0017	0.0034	192	
KCM 60	19.05	12.70	11.91	5.96	12.65	14.15	2.4	17.5	14.3	25.65	0.0034	0.006	160	
KCM 80	25.40	15.88	15.88	7.94	16.10	19.20	3.2	23.0	19.0	33.6	0.007	0.014	120	
KCM 100	31.75	19.05	19.05	9.54	20.10	23.05	4.0	28.9	23.8	41.6	0.012	0.024	96	
KCM 120	38.10	25.40	22.23	11.11	25.20	28.60	4.8	35.0	28.6	51.2	0.020	0.040	80	
KCM 140	44.45	25.40	25.40	12.71	27.30	31.30	5.6	40.7	33.3	57.6	0.030	0.060	68	
KCM 160	50.80	31.75	28.58	14.29	32.45	37.15	6.4	46.7	38.1	67.3	0.044	0.080	60	

NOTES: - KCM attachment chains are available in stainless steel in the same dimensions. Asterisk (*) implies bush diameter.
- Connecting links for the KCM80 or larger models use split pins.

Other Attachments



○ Dimensions

[Unit: mm]

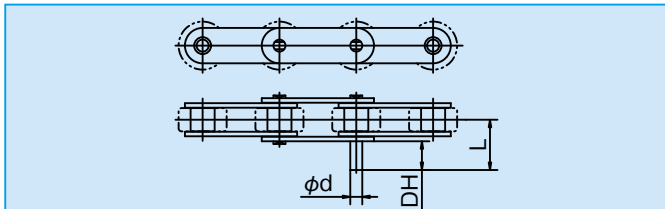
KCM Chain No.	Attachments								Additional Weight per Attachment (kg)	
	N	O	C	X	Y	S	Z	AA, SAA	KK, SKK	
KCM 40	9.5	4.5	7.9	12.7	17.4	12.7	17.3	0.003	0.006	
KCM 50	12.7	5.5	10.3	15.9	22.3	15.9	22.3	0.006	0.012	
KCM 60	15.9	6.6	11.9	19.05	27.2	18.25	26.3	0.010	0.020	
KCM 80	19.1	9.0	15.9	25.4	35.2	24.6	34.2	0.024	0.048	
KCM 100	25.4	11.0	19.85	31.75	44.7	31.75	44.6	0.050	0.100	

NOTE: KCM attachment chains are available in stainless steel in the same dimensions.

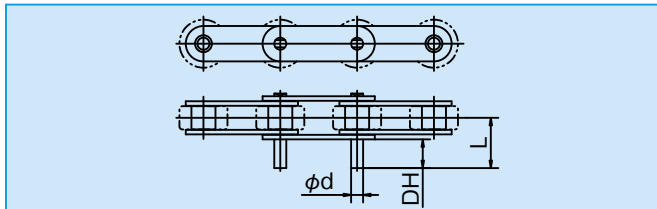
EP Attachments



2P EP Attachments



1P EP Attachments

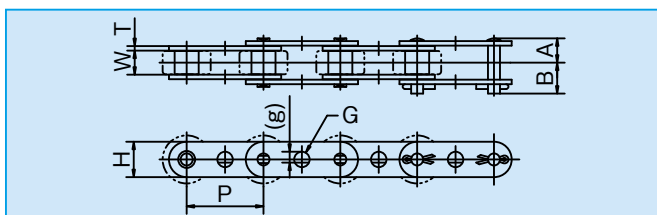
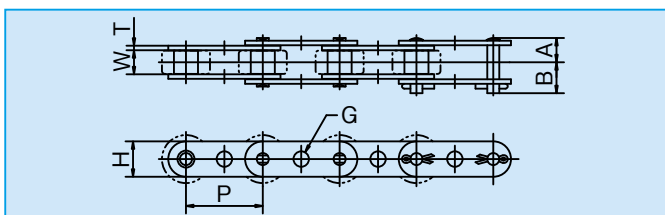


G Attachments

The G attachment is a link plate having a hole at midpoint.

Two roller chains with G-type attachments are arranged wide in parallel, using pins or bars engaged in the midpoint holes.

(NOTE: When used with the R-type roller chains, pay attention to the sprockets.)



○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin			Link Plate		Standard/Rustop (N)		Stainless steel (SS)		Links of 1 unit	
				Dia. d	A	B	Thickness T	Height H	Ave. Ave. Tensile Strength kN (kgf)	Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	Max. Allowable Load kN (kgf)		Approx. Weight (kg/m)
KCM C2040 KCM C2042	25.40	7.95	7.92 15.88	3.97	8.05	9.60	1.5	11.7	17.2(1,750)	2.65(270)	0.48 0.82	0.44(45)	0.49 0.83	120
KCM C2050 KCM C2052	31.75	9.53	10.16 19.05	5.09	10.15	11.65	2.0	14.6	27.9(2,850)	4.31(440)	0.79 1.25	0.69(70)	0.83 1.28	96
KCM C2060 KCM C2062	38.10	12.70	11.91 22.23	5.96	12.70	15.40	2.4	17.5	39.5(4,000)	6.28(640)	1.12 1.79	1.03(105)	1.19 1.88	80
KCM C2060H KCM C2062H	38.10	12.70	11.91 22.23	5.96	14.25	15.75	3.2	17.5	39.5(4,000)	6.28(640)	1.43 2.11	1.03(105)	1.46 2.14	80
KCM C2080 KCM C2082	50.80	15.88	15.88 28.58	7.94	16.15	19.25	3.2	23.0	68.6(7,000)	10.69(1,090)	1.88 2.92	1.77(180)	2.08 3.13	60
KCM C2080H KCM C2082H	50.80	15.88	15.88 28.58	7.94	17.70	20.80	4.0	23.0	68.6(7,000)	10.69(1,090)	2.37 3.41	1.77(180)	2.44 3.50	60
KCM C2100H KCM C2102H	63.50	19.05	19.05 39.67	9.54	21.75	24.70	4.8	28.9	106.9(10,900)	17.06(1,740)	3.53 5.68	2.55(260)	3.74 5.98	48
KCM C2120H KCM C2122H	76.20	25.40	22.23 44.45	11.11	26.85	30.25	5.6	35.0	149.1(15,200)	23.93(2,440)	4.75 7.40	—	—	40

NOTE: Connecting links for the C2080 or larger models use split pins.

○ Dimensions

[Unit: mm]

KCM Chain No.	D Attachments		G Attachments				Additional Weight per Attachment (kg)	
	DH	L	G (g)				2P EP	1P EP
KCM C2040 KCM C2042	9.5	16.65	4.1	5.1	6.1	6.5(5.5)	0.0009	0.0018
KCM C2050 KCM C2052	11.9	20.95	5.1(4.1)	6.1(5.1)	6.5	8.1(7.1)	0.0017	0.0034
KCM C2060 KCM C2062	14.3	25.65					0.003	0.006
KCM C2060H KCM C2062H	14.3	27.25	4.1	6.1(5.1)	7.9	8.1(7.1)	0.003	0.006
KCM C2080 KCM C2082	19.0	33.6					0.007	0.014
KCM C2080H KCM C2082H	19.0	35.2	8.1(7.1)	9.1(8.1)	10.1(8.6)	12.1(10.3)	0.007	0.014
KCM C2100H KCM C2102H	23.8	43.25	12.2(10.2)				0.012	0.024
KCM C2120H KCM C2122H	28.6	52.85	16.2(14.2)				0.020	0.040

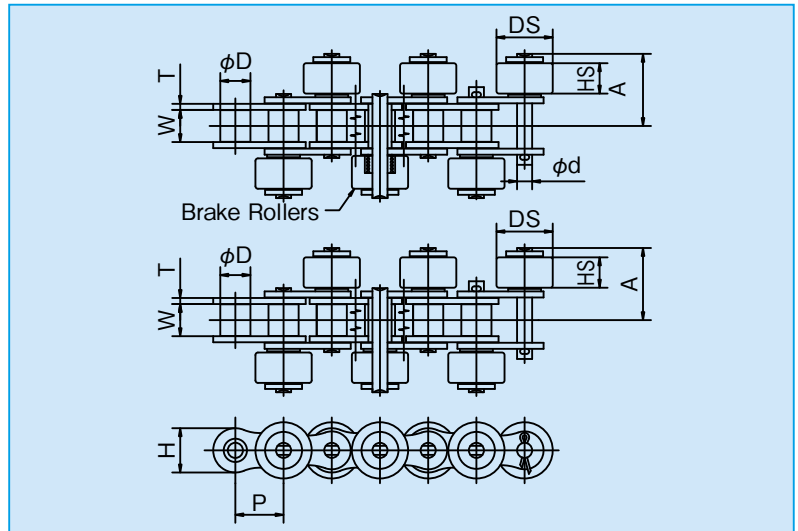
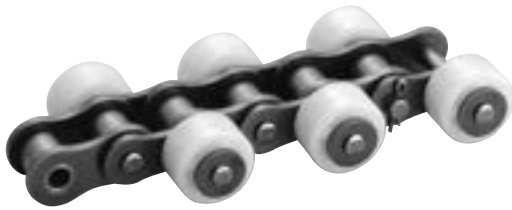
NOTE: KCM attachment chains are available in stainless steel in the same dimensions.

The standard roller chain is fitted with side rollers for free flow to quickly carry or accumulate materials on them.

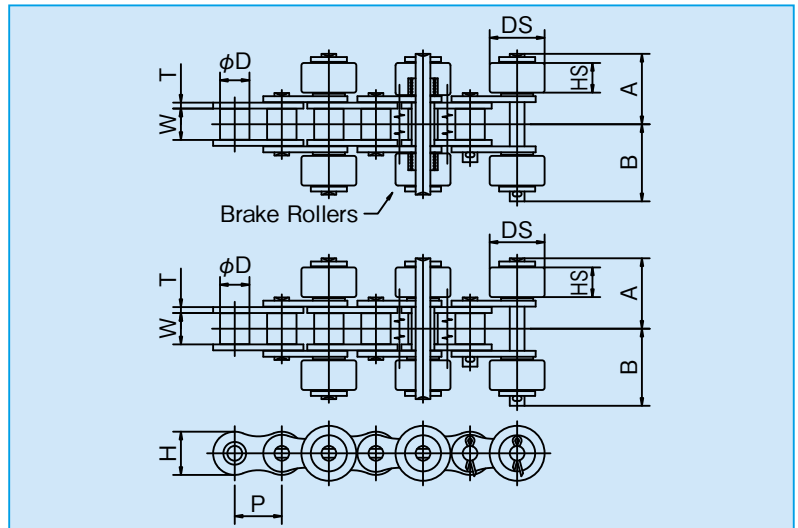
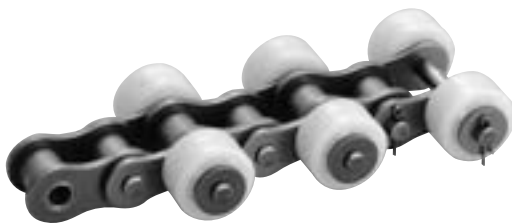
Return line layout is also simple and compact.

Side rollers made of steel, plastics, and rubber are available. Select them according to the kinds of transferred goods.

1P Alternate Side Type



2P Both Side Type



Please specify the interval between brakes.

○ Dimensions

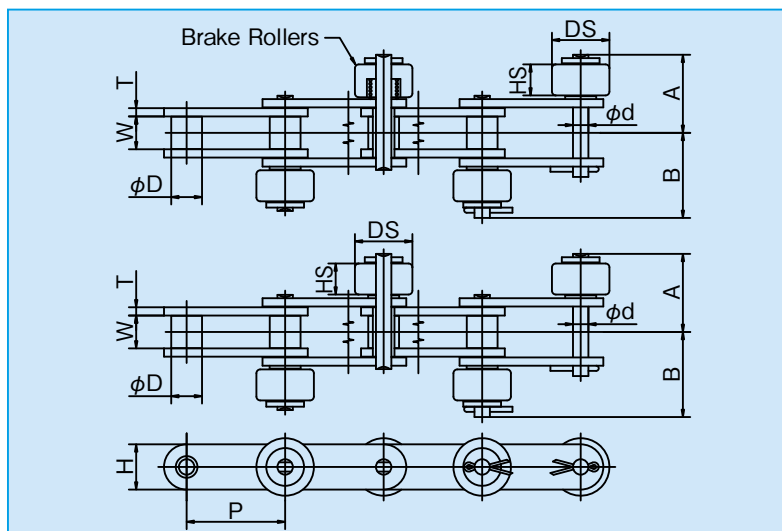
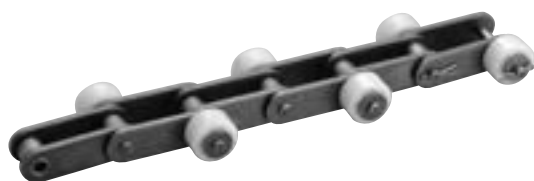
[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin			Side Roller		Additional Weight per Side Roller (kg)		
				Dia. d	A	B	DS	HS	Steel	Plastic	Rubber
KCM 40	12.70	7.95	7.92	3.97	18.475	20.675	15.88	7.8	0.014	0.004	0.007
KCM 50	15.875	9.53	10.16	5.09	22.5	24.5	19.05	9.4	0.024	0.006	0.012
KCM 60	19.05	12.70	11.91	5.96	28.5	31.2	22.23	12.6	0.043	0.010	0.025
KCM 80	25.40	15.88	15.88	7.94	36.25	39.35	28.58	15.7	0.086	0.025	0.045
KCM 100	31.75	19.05	19.05	9.54	44.1	47.05	39.69	18.8	0.195	0.055	0.092

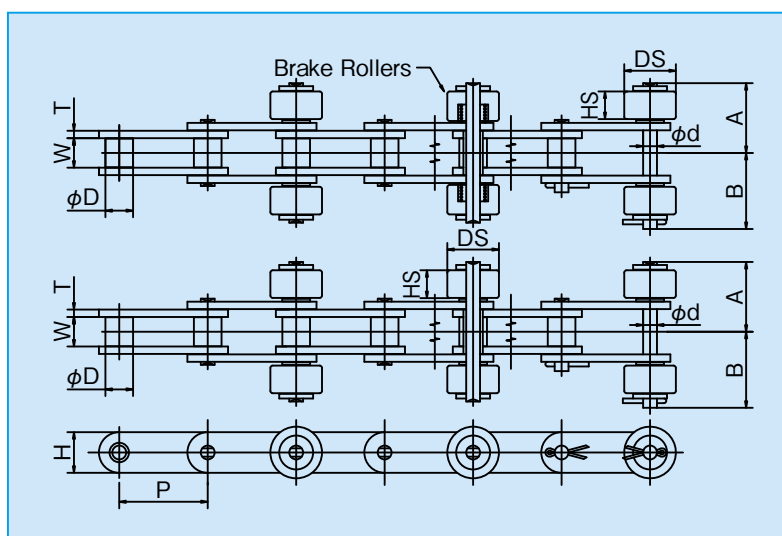
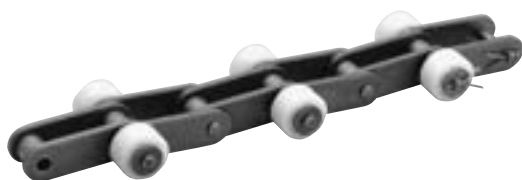
Sprocket: When KCM Standard "B Type" sprockets are used, side rollers may contact with or climb up on boss sprockets. Attention to the bosses for KCM 40 with up to 23T, KCM 50 with up to 18T, KCM 60 with up to 13T, KCM 80 with 9T, 13T, and 15T, and KCM 100 with up to 13T.

R-type roller chains, made of standard steel, plastics, and rubber, are available, similar to side rollers. Select them according to the transferred goods and environmental conditions.

1P Alternate Side Type



2P Both Side Type



Please specify the interval between brakes.

○ Dimensions

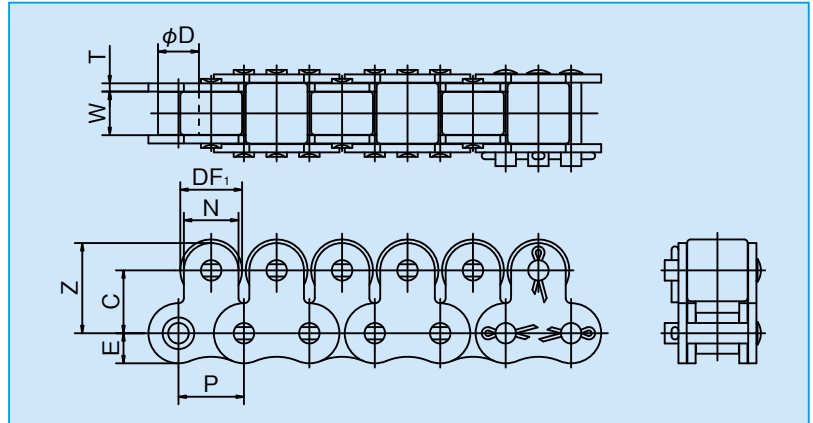
[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin			Side Roller		Additional Weight per Side Roller (kg)		
				Dia. d	A	B	DS	HS	Steel	Plastic	Rubber
KCM C2040	25.40	7.95	7.92	3.97	18.475	20.675	15.88	7.8	0.014	0.004	0.007
KCM C2042			15.88				23.0		0.029	0.007	0.016
KCM C2050	31.75	9.53	10.16	5.09	22.5	24.5	19.05	9.4	0.024	0.006	0.012
KCM C2052			19.05				27.0		0.050	0.013	0.030
KCM C2060H	38.10	12.70	11.91	5.96	30.1	32.8	22.23	12.6	0.043	0.010	0.025
KCM C2062H			22.23				30.0		0.077	0.019	0.049
KCM C2080H	50.80	15.88	15.88	7.94	37.85	40.95	28.58	15.7	0.086	0.025	0.045
KCM C2082H			28.58				38.1		0.150	0.038	0.095
KCM C2100H	63.50	19.05	19.05	9.54	45.725	48.675	39.69	18.8	0.195	0.055	0.092
KCM C2102H			39.67				50.8		0.320	0.072	0.205

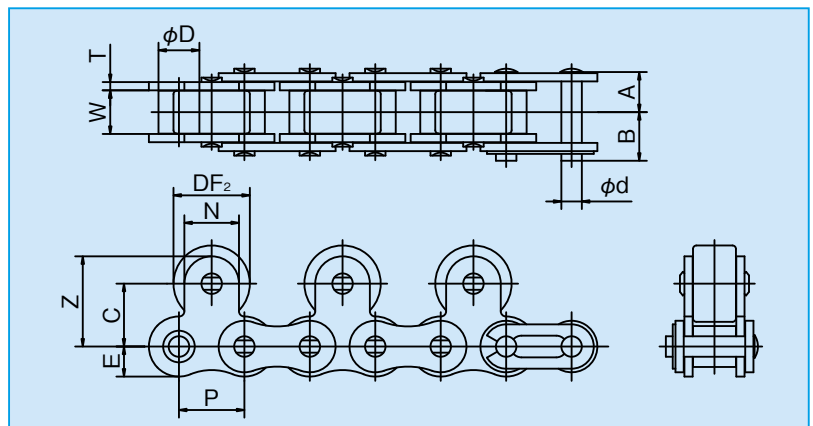
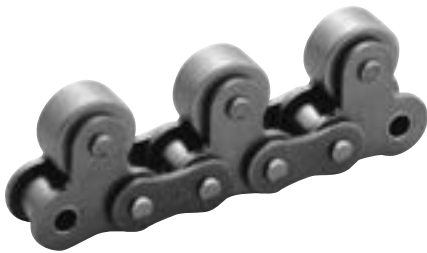
Sprocket: Standard and exclusively designed sprockets can be used.

The roller chains are provided with raised carrying rollers at midpoint of chain pitch for quick carrying and accumulating of materials. Top rollers, made of steel, plastic, and rubber, are available.

Top Roller Arrangement in Single Pitch



Top Roller Arrangement in Double Pitch



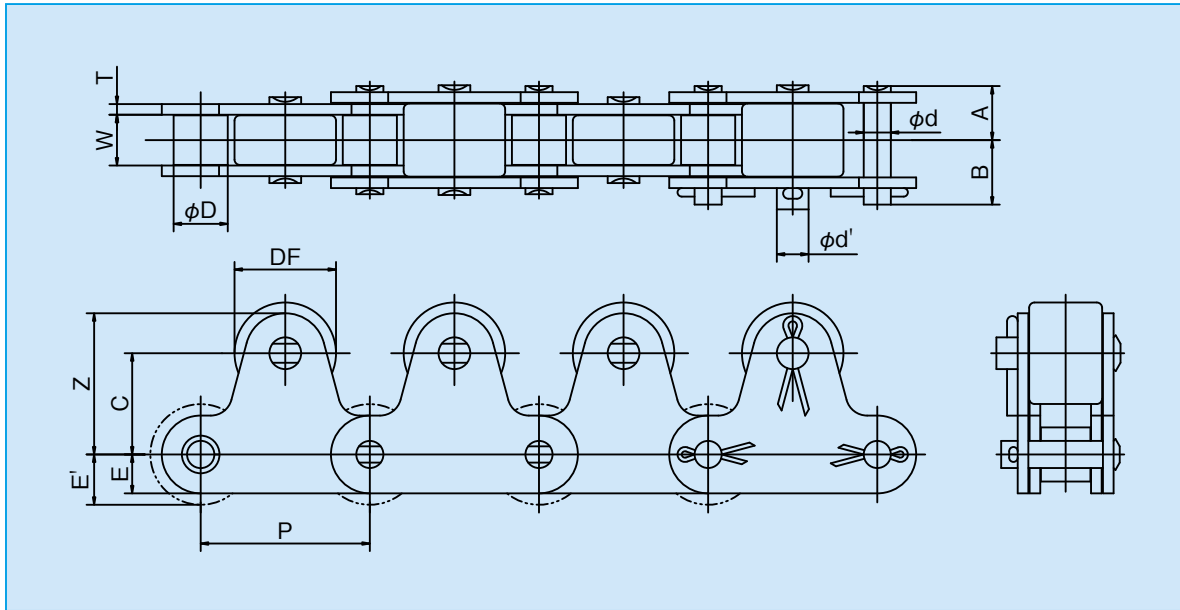
○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin			Attachments						Approx. Weight (kg/m)			
				Dia. d	A	B	Top rollers		C	Z	N	E	Steel		Plastic	
							DF ₁	DF ₂					1P	2P	1P	2P
KCM 40	12.70	7.95	7.92	3.97	8.07	9.48	11.0	15.88	12.7	17.45	9.5	5.9	1.83	1.41	0.92	0.85
KCM 50	15.875	9.53	10.16	5.09	10.17	11.63	15.0	19.05	15.9	22.25	12.7	7.3	2.39	2.18	1.56	1.38
KCM 60	19.05	12.70	11.91	5.96	12.70	14.20	18.0	22.23	18.3	26.25	15.9	8.8	3.60	3.18	2.30	2.03
KCM 80	25.40	15.88	15.88	7.94	16.15	19.25	24.0	28.58	24.6	34.15	19.1	11.5	6.09	5.27	3.90	3.44
KCM 100	31.75	19.05	19.05	9.54	20.10	23.05	30.0	39.69	31.8	44.50	25.4	14.5	9.30	8.85	6.06	5.41

NOTES: - For allowable load of top roller, see page 54.

- Connecting links for the KCM80 or larger models use split pins.



○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin			Attachments				Additional Weight per Attachment (kg)
				Dia. d (d')	A (A')	B (B')	DF	C	Z	E (E')	
KCM C2040	25.40	7.95	7.92	3.97	8.02	9.53	15.88	15.0	21.0	5.9	0.021
KCM C2042			15.88	(5.09)	(8.3)	(10.2)				(7.9)	
KCM C2050	31.75	9.53	10.16	5.09	10.15	11.60	19.05	19.0	26.5	7.3	0.038
KCM C2052			19.05	(5.96)	(10.35)	(13.05)				(9.5)	
KCM C2060H	38.10	12.70	11.91	5.96	14.25	15.75	22.23	23.0	32.0	8.8	0.080
KCM C2062H			22.23	(7.94)	(14.4)	(17.55)				(11.1)	
KCM C2080H	50.80	15.88	15.88	7.94	17.7	20.8	28.58	29.0	40.5	11.5	0.165
KCM C2082H			28.58	(11.11)	(17.9)	(22.2)				(14.3)	
KCM C2100H	63.50	19.05	19.05	9.54	21.72	24.68	39.69	35.4	49.7	14.5	0.340
KCM C2102H			39.67	(14.28)	(22.02)	(27.43)				(19.8)	

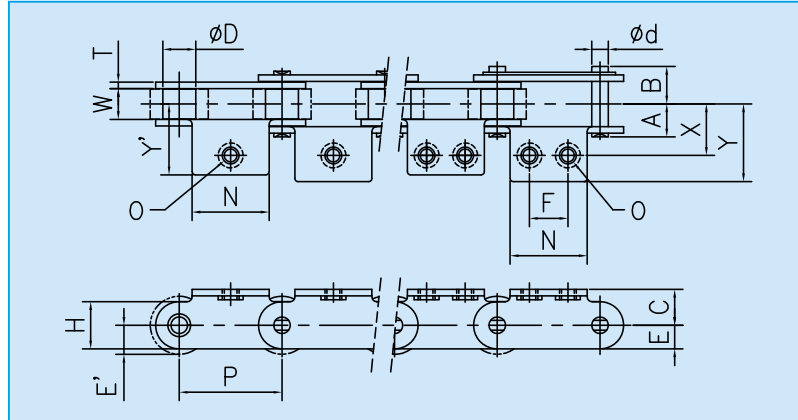
NOTES: - When used with the R-type roller chains, pay attention to the sprockets.

- For allowable load of top roller, see page 54.

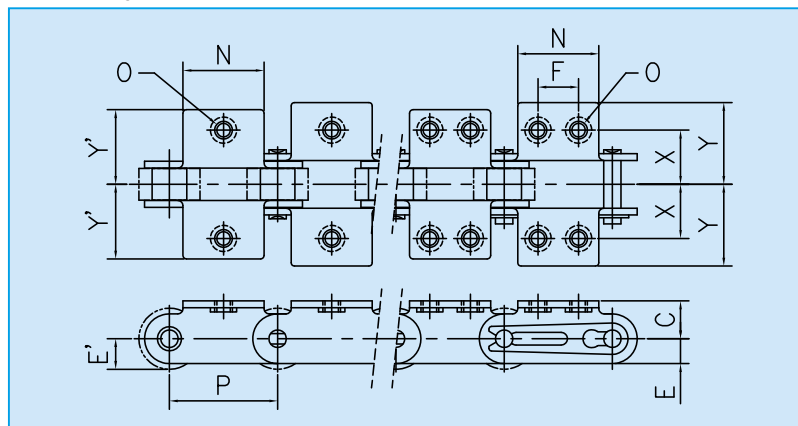
- Connecting links for the C2080 or larger models use split pins.

This is a double-pitch chain fitted with attachment burred and tapped. The installation such as slats is easy.

A-1, A-2 Burring Attachments



K-1, K-2 Burring Attachments



○ Dimensions

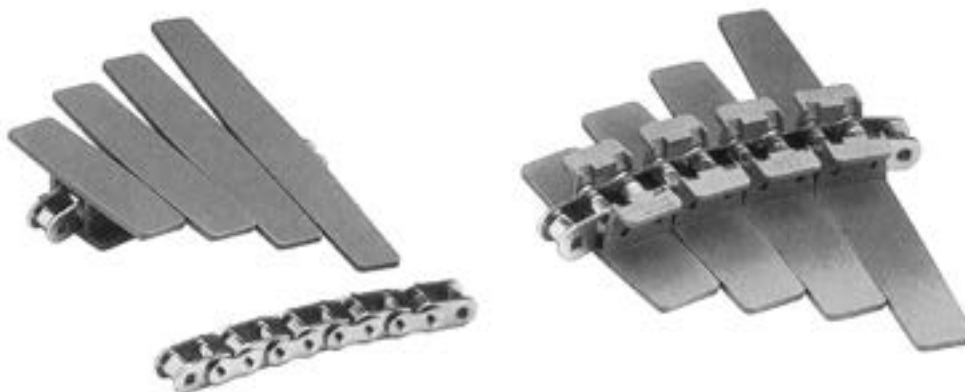
[Unit: mm]

KCM Chain No.	Attachments								Additional Weight per Attachment (kg)	
	N	O	C	E(E')	X	PL side Y	RL side Y'	F	A-1,A-2	K-1,K-2
KCM C2040	19.1	M4	9.1	5.9(7.9)	12.7	19.0	17.4	9.5	0.003	0.006
KCM C2042										
KCM C2050	23.8	M5	11.1	7.3(9.5)	15.9	24.0	21.9	11.9	0.007	0.014
KCM C2052										
KCM C2060H	28.6	M6	14.7	8.8(11.1)	21.45	31.8	28.4	14.3	0.016	0.032
KCM C2062H										
KCM C2080H	38.1	M8	19.1	11.5(14.3)	27.8	41.1	37.0	19.1	0.033	0.066
KCM C2082H										

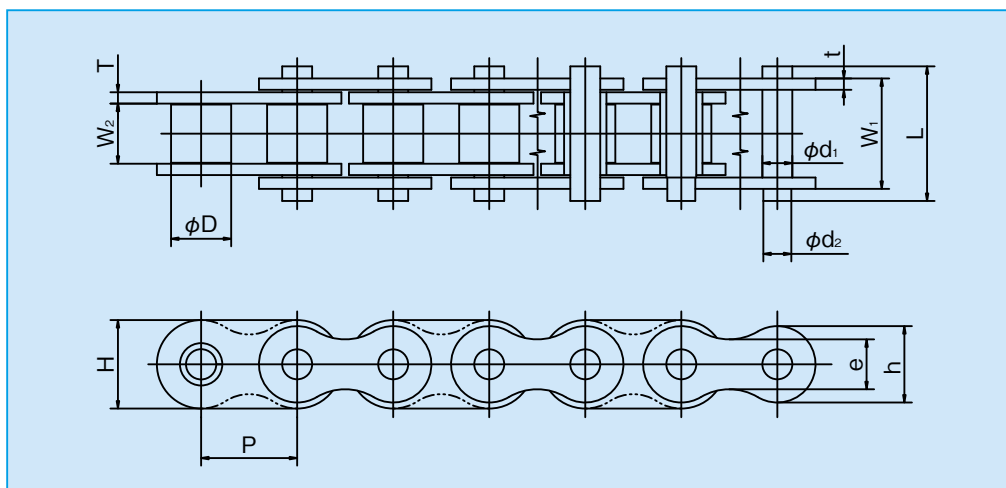
Plastic top plates can be snapped on the roller chains to easily form slat conveyor. The SUC type can be bent to allow curved travel.

NOTE: It is required to design the return portion, bearing in mind that the amount of back bend is limited.

SUC Type



SU Type



○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W ₂	Width between Outer Plates W ₁	Roller Dia. D	Pin			Link Plate					Min. Horizontal Bending Radius R	Approx. Weight (kg/m)	Links of 1 unit
					d ₁	d ₂	L	H	h	e	T	t			
※KCM 40 SU	12.70	7.95	14.6	7.92	3.97	3.70	17.80	11.7	10.1	6.6	1.5	1.5	—	0.65	240
KCM 60 SU	19.05	12.7	22.7	11.91	5.96	5.80	28.80	17.5	15.0	11.7	2.4	2.4	—	1.51	160
KCM 60 SUC	19.05	12.7	22.8	11.91	5.09	4.80	28.80	17.5	15.0	11.7	2.4	2.0	500	1.37	160

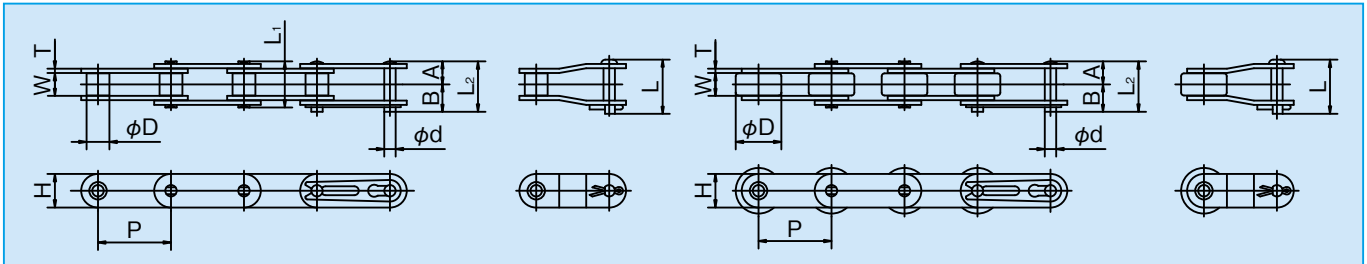
NOTE: Only inner link plates of the KCM40SU are of gourd shape.

The KCM lubrication-free chain uses special oil-impregnated bushing for self-lubrication, achieving maintenance-free.

Use this chain when no lubrication is required or difficult lubrication in process is expected.

- Nickel-plated chain and chains associated with various attachments are available.
- Recommended chain speed: 150m/min or slower
- Ordinary operating temperature range of -10°C to +150°C

NL Double-Pitch Roller Chain



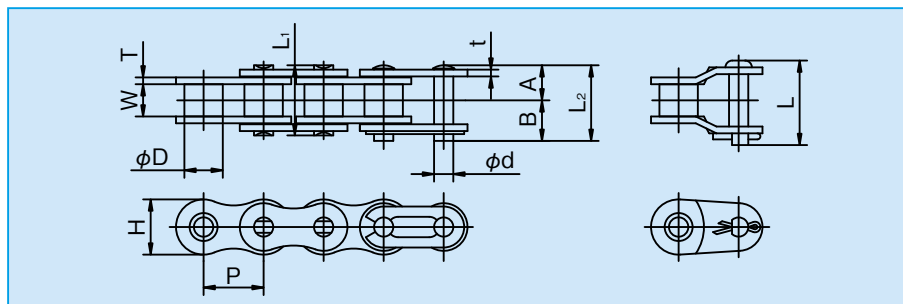
○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin						Link Plate			Ave. Tensile Strength kN (kgf)	Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	Links of 1 unit
				Dia. d	A	B	L ₁	L ₂	L	Thickness T	Thickness t	Height H				
KCM C2040 NL KCM C2042 NL	25.40	7.95	7.92 15.88	3.97	8.02	9.53	16.05	17.55	18.95	1.5	1.5	11.7	15.7(1,600)	2.65(270)	0.49 0.77	120
KCM C2050 NL KCM C2052 NL	31.75	9.53	10.16 19.05	5.09	10.15	11.60	20.30	21.75	23.00	2.0	2.0	14.6	25.5(2,600)	4.31(440)	0.80 1.21	96
KCM C2060 NL KCM C2062 NL	38.10	12.70	11.91 22.23	5.96	14.25	15.75	28.50	30.00	32.65	3.2	3.2	17.5	37.3(3,800)	6.28(640)	1.18 1.76	80
KCM C2080 NL KCM C2082 NL	50.80	15.88	15.88 28.58	7.94	17.70	20.80	35.40	38.50	40.15	4.0	4.0	23.0	63.7(6,500)	10.7 (1,090)	2.00 3.04	60

NOTES: - Connecting links of 2080NL are of split pin type.
- R-rollers can be replaced with plastic ones.

NL Roller Chain



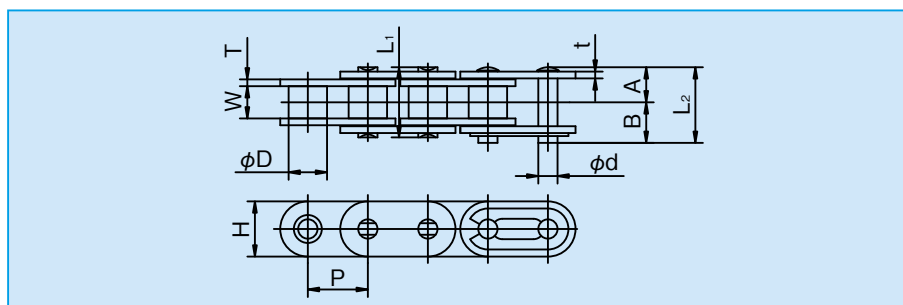
○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin						Link Plate			Ave. Tensile Strength kN (kgf)	Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	Links of 1 unit
				Dia. d	A	B	L ₁	L ₂	L	Thickness T	Thickness t	Height H				
KCM C40 NL	12.70	7.95	7.92	3.97	8.02	9.53	16.05	17.55	18.95	1.5	1.5	11.7	15.7(1,600)	2.65(270)	0.63	240
KCM C50 NL	15.875	9.53	10.16	5.09	10.15	11.60	20.30	21.75	23.00	2.0	2.0	14.6	25.5(2,600)	4.31(440)	1.03	192
KCM C60 NL	19.05	12.70	11.91	5.96	12.65	14.15	25.30	26.80	29.45	2.4	2.4	17.5	37.3(3,800)	6.28(640)	1.51	160
KCM C80 NL	25.40	15.88	15.88	7.94	16.07	19.20	32.15	35.25	36.90	3.2	3.2	23.0	63.7(6,500)	10.69(1,090)	2.56	120

NOTE: Connecting links of C80NL are of split pin type.

NL Oval Roller Chain



○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin						Link Plate			Ave. Tensile Strength kN (kgf)	Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	Links of 1 unit
				Dia. d	A	B	L ₁	L ₂	L	Thickness T	Thickness t	Height H				
KCM C40 FNL	12.70	7.95	7.92	3.97	8.02	9.53	16.05	17.55	18.95	1.5	1.5	12.0	15.7(1,600)	2.65(270)	0.72	240
KCM C50 FNL	15.875	9.53	10.16	5.09	10.15	11.60	20.30	21.75	23.00	2.0	2.0	14.6	25.5(2,600)	4.31(440)	1.16	192
KCM C60 FNL	19.05	12.70	11.91	5.96	12.65	14.15	25.30	26.80	29.45	2.4	2.4	17.5	37.3(3,800)	6.28(640)	1.70	160
KCM C80 FNL	25.40	15.88	15.88	7.94	16.07	19.20	32.15	35.25	36.90	3.2	3.2	23.0	63.7(6,500)	10.69(1,090)	2.88	120

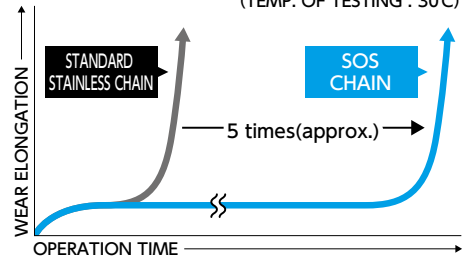
NOTE: Connecting links of C80FNL are of split pin type.

1. Lube-free. This eliminates contamination of oil from additional lubrication and contributes to a cleaner workplace. (*1) (*2)
2. Using lubricant NSF-H1 registration (which is possible to use in the place may touch foods accidentally), no problem for using for the food machines. Also produce SOS chain with bushes impregnated industrial lubricant.
3. Compatible with standard roller chains, and the installation of the standard attachment is possible.
4. Single and also multiple strand chain can use standard sprockets.
5. Available from low to high temperature (-20°C to +400°C) environment. (*3)

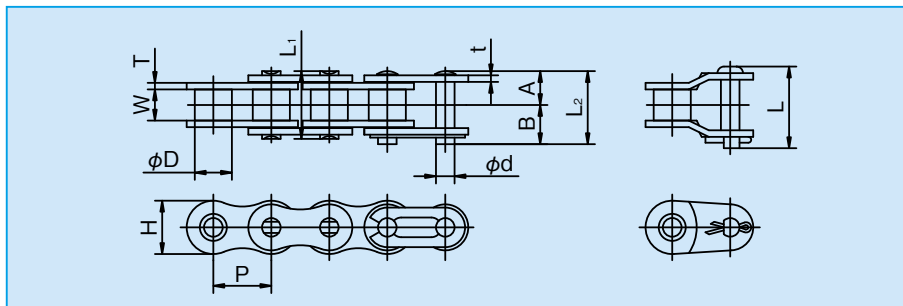
Note: *1. Please lubricate your chain before use, except when chains are to be used submerged in or in contact with water.
 *2. Do not use under complete oil-free condition.
 *3. It is better to use between -10°C to +150°C for oil impregnated bushes performance.

※Dust in the bush accelerates wear. Wet or high temperature environments can cause the oil in the oil-impregnated bush to leak, decreasing wear resistance.

COMPARISON OF WEAR ELONGATION BY OPERATION TIME
 (TEMP. OF TESTING : 30°C)



LUBRICATION FREE STAINLESS STEEL CHAINS

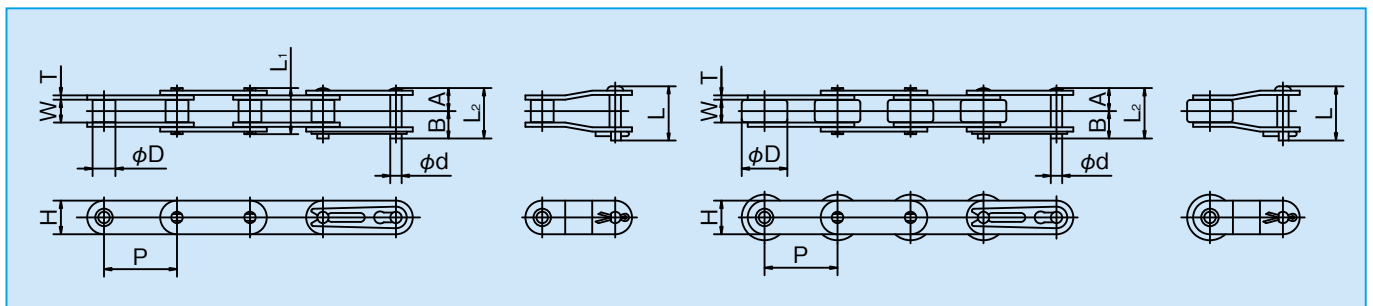


○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin						Link Plate			Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	Links of 1 unit
				Dia. d	A	B	L ₁	L ₂	L	Thickness T	Thickness t	Height H			
C40 SOS	12.70	7.95	7.92	3.97	8.07	9.58	16.15	17.65	19.05	1.5	1.5	11.7	0.44 (45)	0.63	240
C50 SOS	15.875	9.53	10.16	5.09	10.20	11.60	20.40	21.80	23.05	2.0	2.0	14.6	0.69 (70)	1.04	192
C60 SOS	19.05	12.70	11.91	5.96	12.70	14.20	25.40	26.90	29.55	2.4	2.4	17.5	1.03 (105)	1.50	160
C80 SOS	25.40	15.88	15.88	7.94	16.15	19.25	32.30	35.40	37.10	3.2	3.2	23.0	1.77 (180)	2.62	120

LUBRICATION FREE STAINLESS STEEL DOUBLE PITCH CHAINS



○ Dimensions

[Unit: mm]

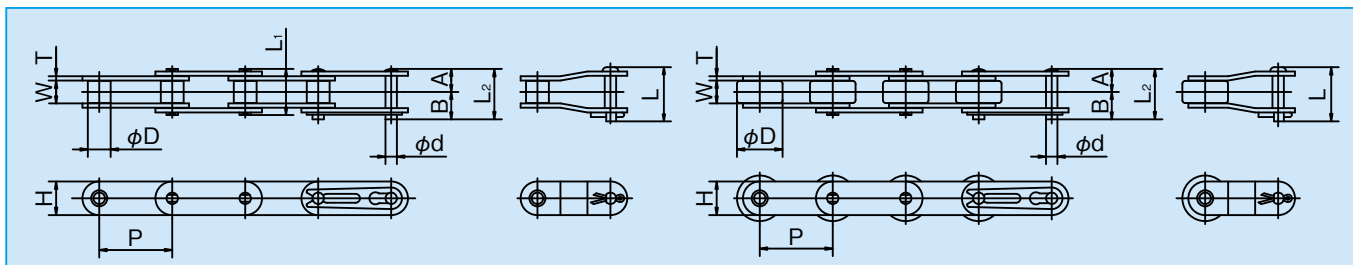
KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin						Link Plate			Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	Links of 1 unit
				Dia. d	A	B	L ₁	L ₂	L	Thickness T	Thickness t	Height H			
C2040 SOS	25.40	7.95	7.92	3.97	8.07	9.58	16.15	17.65	19.05	1.5	1.5	11.7	0.44 (45)	0.49	120
C2042 SOS			15.88						19.05						
C2050 SOS	31.75	9.53	10.16	5.09	10.20	11.60	20.40	21.80	23.05	2.0	2.0	14.6	0.69 (70)	0.83	96
C2052 SOS			19.05						23.05						
C2060 SOS	38.10	12.70	11.91	5.96	14.35	15.85	28.70	30.20	32.85	3.2	3.2	17.5	1.03 (105)	1.46	80
C2062 SOS			22.23						32.85						
C2080 SOS	50.80	15.88	15.88	7.94	17.80	20.90	35.60	38.70	40.40	4.0	4.0	23.0	1.77 (180)	2.44	60
C2082 SOS			28.58						40.40						

Note: The materials of R roller can be replaced to resin roller.

These chains are fitted with parts all made of SUS304(18Cr-8Ni) austenite stainless steel for use in operating environment requiring high thermal resistance (-20 to 400°C), corrosion resistance, and cleanliness.

NOTE: The KCM stainless steel roller chains have slight magnetic property as a result of cold manufacturing.

Double-Pitch Chains



○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin						Link Plate		Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	Links of 1 unit
				Dia. d	A	B	(A+A) L ₁	(A+B) L ₂	Offset L	Thickness T	Height H			
KCM C2040 SS	25.40	7.95	7.92	3.97	8.07	9.58	16.15	17.65	19.05	1.5	11.7	0.44 (45)	0.49	120
KCM C2042 SS			15.88										0.83	
KCM C2050 SS	31.75	9.53	10.16	5.09	10.20	11.60	20.40	21.80	23.05	2.0	14.6	0.69 (70)	0.83	96
KCM C2052 SS			19.05										1.28	
KCM C2060 SS	38.10	12.70	11.91	5.96	12.70	14.20	25.40	26.90	29.55	2.4	17.5	1.03(105)	1.19	80
KCM C2062 SS			22.23										1.88	
KCM C2060H SS	38.10	12.70	11.91	5.96	14.35	15.85	28.70	30.20	32.85	3.2	17.5	1.03(105)	1.46	80
KCM C2062H SS			22.23										2.14	
KCM C2080 SS	50.80	15.88	15.88	7.94	16.15	19.25	32.30	35.40	37.10	3.2	23.0	1.77 (180)	2.08	60
KCM C2082 SS			28.58										3.13	
KCM C2080H SS	50.80	15.88	15.88	7.94	17.80	20.90	35.60	38.70	40.40	4.0	23.0	1.77 (180)	2.44	60
KCM C2082H SS			28.58										3.50	
KCM C2100H SS	63.5	19.05	19.05	9.54	21.82	24.78	43.65	46.6	47.7	4.8	28.9	2.55(260)	3.74	48
KCM C2102H SS			39.67										5.98	

NOTE: For dimensions of the attachment, refer to pages 38 to 39.

Pins and rollers of the AS chains are made of precipitation hardening stainless steel for increased allowable load, instead of those of the SS chains. Maximum allowable load is 1.5 times that of standard SS chain. If allowable load of SS chain is insufficient, please specify the AS chain. Corrosion resistance of the AS chain is slightly lower than that of the SS chain. Operating range is -20°C to +400°C.

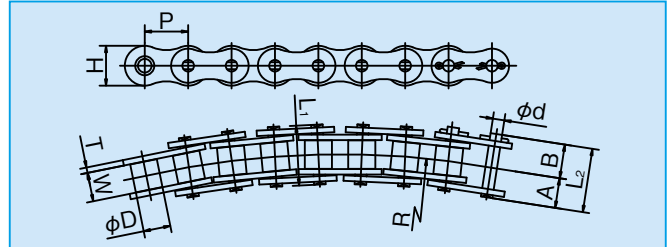
NOTE: The AS chain has magnetism of precipitation hardening stainless steel.

Chain No.	Max. Allowable Load kN (kgf)
KCM C2040 AS	0.69 (70)
KCM C2050 AS	1.03(105)
KCM C2060 AS	1.57(160)
KCM C2060H AS	1.57(160)
KCM C2080 AS	2.65(270)
KCM C2080H AS	2.65(270)

NOTE: - Dimensions, weight, and connecting links are the same as those of the SS chain.
 - For offset link, only 2-pitch type is available.
 - AS chains with attachments are available.

The side bow chain may be laterally curved for easily curved movement, using standard sprockets. Also, this chain can be used with attachments to form a curved conveyor, etc.

Roller Chain Type



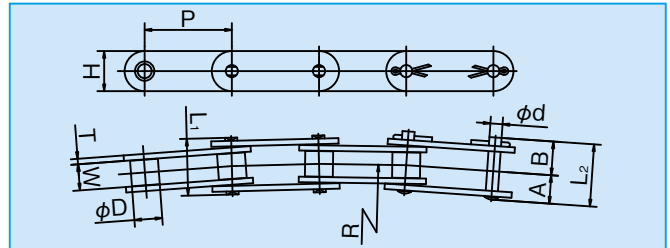
○ Dimensions

[Unit: mm]

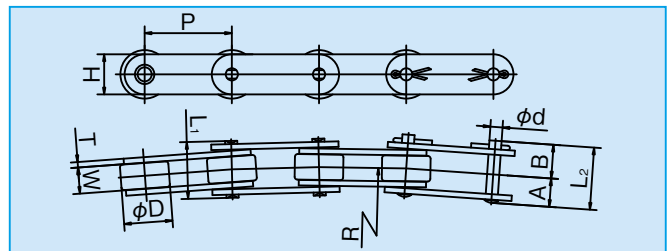
KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin					Link Plate		Min. Horizontal Bending Radius R	Ave. Tensile Strength kN (kgf)	Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)
				Dia. d	A	B	(A+A) L ₁	(A+B) L ₂	Thickness T	Height H				
KCM 40 SB	12.70	7.95	7.92	3.59	8.20	9.70	16.4	17.90	1.5	11.7	350	11.8 (1,200)	1.86 (190)	0.60
KCM 50 SB	15.875	9.53	10.16	4.51	10.35	12.30	20.7	22.65	2.0	14.6	400	20.6 (2,100)	2.84 (290)	0.98
KCM 60 SB	19.05	12.70	11.91	5.09	12.95	14.75	25.9	27.70	2.4	17.5	500	28.0 (2,860)	4.02 (410)	1.38
KCM 80 SB	25.40	15.88	15.88	5.96	16.40	18.90	32.8	35.30	3.2	23.0	600	39.2 (4,000)	6.96 (710)	2.53

Double Pitch Chain Type

S Roller Type



R Roller Type



○ Dimensions

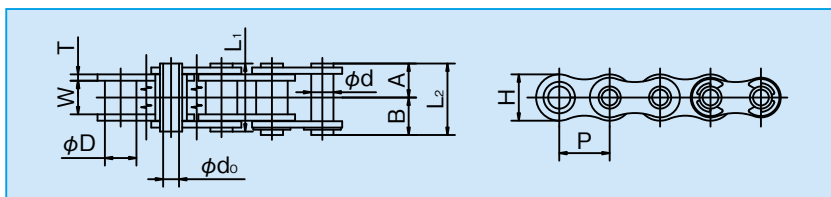
[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller Dia. D	Pin					Link Plate		Min. Horizontal Bending Radius R	Ave. Tensile Strength kN (kgf)	Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)
				Dia. d	A	B	(A+A) L ₁	(A+B) L ₂	Thickness T	Height H				
KCM C2040 SB	25.40	7.95	7.92	3.59	8.20	9.70	16.4	17.90	1.5	11.7	700	11.8 (1,200)	1.86 (190)	0.45
KCM C2042 SB			15.88											
KCM C2050 SB	31.75	9.53	10.16	4.51	10.35	12.30	20.7	22.65	2.0	14.6	800	20.6 (2,100)	2.84 (290)	0.74
KCM C2052 SB			19.05											
KCM C2060 SB	38.10	12.70	11.91	5.09	12.95	14.75	25.9	27.70	2.4	17.5	1000	28.0 (2,860)	4.02 (410)	1.00
KCM C2062 SB			22.23											
KCM C2060HSB	38.10	12.70	11.91	5.09	14.45	16.25	28.9	30.70	3.2	17.5	1000	28.0 (2,860)	4.02 (410)	1.29
KCM C2062HSB			22.23											
KCM C2080 SB	50.80	15.88	15.88	5.96	16.40	18.90	32.8	35.3	3.2	23.0	1200	39.2 (4,000)	6.96 (710)	1.74
KCM C2082 SB			28.58											
KCM C2080HSB	50.80	15.88	15.88	5.96	18.00	20.50	36.0	38.5	4.0	23.0	1200	39.2 (4,000)	6.96 (710)	2.17
KCM C2082HSB			28.58											

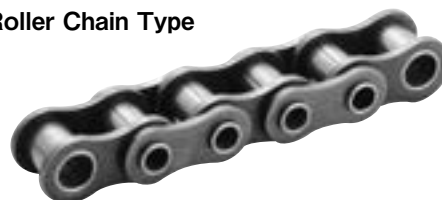


This chain uses hollow pins to which various attachments can easily be fixed.

Stainless steel version and surface treated version are available.
Standard and double pitch sprockets are available.



Roller Chain Type



○ Dimensions

[Unit: mm]

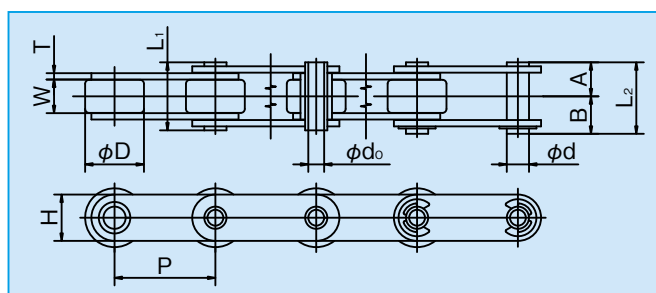
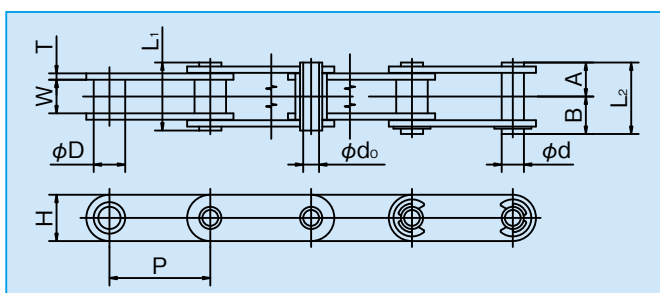
KCM Chain No.	Pitch P	Width between Inner Plates W	Bush diameter D	Pin						Link Plate		Ave. Tensile Strength kN (kgf)	Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	Links of 1 unit
				Outside diameter d	Inside diameter do (min)	A	B	(A+A) L1	(A+B) L2	Thickness T	Height H				
KCM 40 HP	12.70	7.95	7.92	5.69	4.00	8.12	9.43	16.25	17.55	1.5	11.7	13.2 (1,350)	1.77 (180)	0.51	240
KCM 50 HP	15.875	9.53	10.16	7.24	5.12	10.3	11.7	20.6	22.0	2.0	14.6	20.6 (2,100)	3.14 (320)	0.83	192
KCM 60 HP	19.05	12.70	11.91	8.39	5.99	12.9	14.3	25.8	27.2	2.4	17.5	31.4 (3,200)	4.22 (430)	1.24	160
KCM 80 HP	25.40	15.88	15.88	11.24	8.02	16.07	18.03	32.15	34.1	3.2	23.0	53.0 (5,400)	7.65 (780)	2.32	120

Double Pitch Chain Type

S Roller Type (bushed)



R Roller Type



○ Dimensions

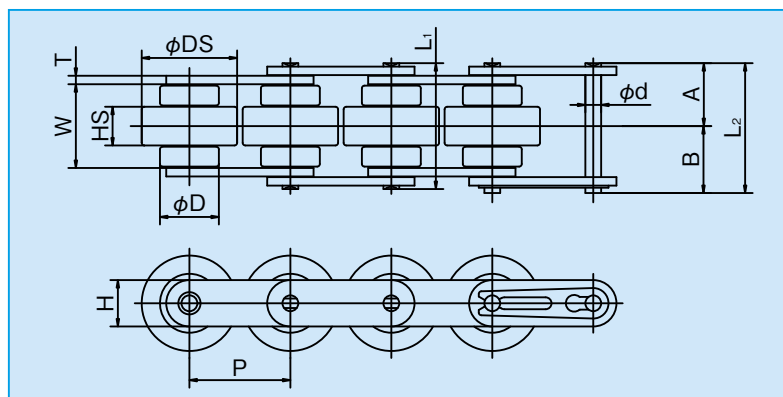
[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Bush diameter D	Pin						Link Plate		Ave. Tensile Strength kN (kgf)	Max. Allowable Load kN (kgf)	Approx. Weight (kg/m)	Links of 1 unit
				Outside diameter d	Inside diameter do (min)	A	B	(A+A) L1	(A+B) L2	Thickness T	Height H				
KCM C2040 HP	25.40	7.95	* 7.92	5.69	4.00	8.12	9.43	16.25	17.55	1.5	11.7	13.2 (1,350)	1.77 (180)	0.46	120
KCM C2042 HP			15.88												
KCM C2050 HP	31.75	9.53	* 10.16	7.24	5.12	10.3	11.7	20.6	22.0	2.0	14.6	20.6 (2,100)	3.14 (320)	0.76	96
KCM C2052 HP			19.05												
KCM C2060 HP	38.10	12.70	* 11.91	8.39	5.99	12.9	14.3	25.8	27.2	2.4	17.5	31.4 (3,200)	4.22 (430)	1.12	80
KCM C2062 HP			22.23												
KCM C2080 HP	50.80	15.88	* 15.88	11.24	8.02	16.07	18.03	32.15	34.1	3.2	23.0	53.0 (5,400)	7.65 (780)	1.98	60
KCM C2082 HP			28.58												

NOTE: Asterisk (*) indicates bush diameter.

The carrier roller chain is fitted with large carrier rollers at pins to carry the loads, allowing more smooth and stable loading transferring than those of the roller chain with top rollers.

Select a proper one of the rollers, made of steel and plastic, according to loading conditions.



Roller Specifications	Roller type	Main roller color	Aux. roller color
General type	DN	Blue	Blue
Conduction type	DNC	Black	Blue

○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller			Pin					Link Plate	
			DS	D	HS	d	A	B	L ₁	L ₂	T	H
KCM CY2030-**	19.05	15.75	18.30	11.91	7.0	3.28	11.23	12.95	22.45	24.15	1.2	8.8
KCM CY2040-**	25.40	22.30	24.80	15.88	9.0	3.97	15.20	16.75	30.40	31.95	1.5	11.7
KCM CY2050-**	31.75	28.20	30.00	19.05	11.4	5.09	19.45	20.90	38.90	40.35	2.0	14.6
KCM CY2060-**	38.10	31.80	36.00	22.23	15.0	5.96	23.75	25.25	47.50	49.00	3.2	17.5

NOTE: For models marked with **, select the type of roller.

○ Carrier Chains Specifications

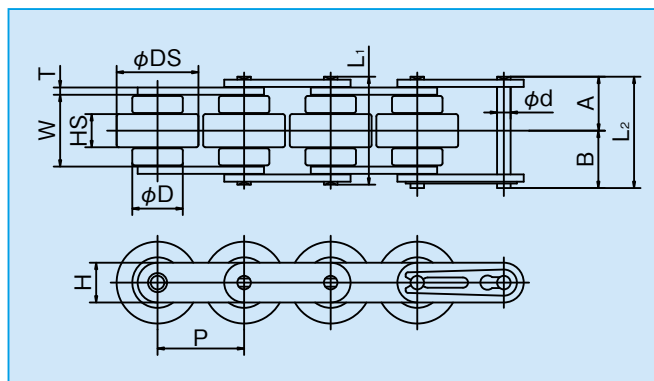
Type	KCM chain number	Roller material	Allowable Load (kgf)	Allowable load of roller (kgf/roller)	Operating temp. (°C)	Approx. Weight (kg/m)	Speed Ratio
3-type carrier chains	KCM CY2030-DN	Plastic	56	0.5	-10 ~ + 80	0.4	1:1
	KCM CY2030-DNC	Conductive plastic					
	KCM CY2030-HS	Steel					
4-type carrier chain	KCM CY2040-DN	Plastic	90	1	-10 ~ + 80	0.8	
	KCM CY2040-DNC	Conductive plastic					
	KCM CY2040-HS	Steel					
5-type carrier chain	KCM CY2050-DN	Plastic	140	1.7	-10 ~ + 80	1.3	
	KCM CY2050-DNC	Conductive plastic					
	KCM CY2050-HS	Steel					
6-type carrier chain	KCM CY2060-DN	Plastic	200	2.9	-10 ~ + 80	2.2	
	KCM CY2060-DNC	Conductive plastic					
	KCM CY2060-HS	Steel					
			640	7.6	-10 ~ +150	5.4	

Max. chain speed Vmax= 15m/min.

Sprocket: Use the exclusively designed sprocket.

Using the special roller structure, the roller chain speed is merely about 1/2.5 of the pallet speed, reducing operating noise which is suitable for the line requiring quiet operation. Also, this chain features excellent starting responsibility after accumulation, not given by general free flow chains, which is suitable for assembly line requiring repetitive starts and stops.

Select roller materials according to loading conditions, similar to the carrier chain.



Roller Specifications	Roller type	Main roller color	Aux. roller color
General type	DP	Gray	Black
Conduction type	DPC	Black	Black
General type	DN	Gray	Gray
Conduction type	DNC	Black	Gray

○ Dimensions

[Unit: mm]

KCM Chain No.	Pitch P	Width between Inner Plates W	Roller			Pin					Link Plate	
			DS	D	HS	d	A	B	L ₁	L ₂	T	H
KCM CZ2030-**	19.05	15.75	18.30	11.91	7.0	3.28	11.23	12.95	22.45	24.15	1.2	8.8
KCM CZ2040-**	25.40	22.30	24.80	15.88	9.0	3.97	15.20	16.75	30.40	31.95	1.5	11.7
KCM CZ2050-**	31.75	28.20	30.00	19.05	11.4	5.09	19.45	20.90	38.90	40.35	2.0	14.6
KCM CZ2060-**	38.10	31.80	36.00	22.23	15.0	5.96	23.75	25.25	47.50	49.00	3.2	17.5

NOTES: - For models marked with **, select the type of roller.
 - For allowable load of the main roller, refer to page 54.

○ Triple Speed Chain Specifications

Type		Roller material	KCM Chain No.	Allowable Load (kgf)	Allowable Load of roller (kgf/roller)	Operating temp. (°C)	Approx. Weight (kg/m)	Speed Ratio (Pallet speed/Chain speed)
3-type Triple speed chain	Low load	Normal	Plastic	CZ2030-DP	28	-10 ~ + 80	0.4	2.53
		Conductive	Conductive plastic	CZ2030-DPC				
	Medium load	Normal	Plastic	CZ2030-DN	56			
		Conductive	Conductive plastic	CZ2030-DNC				
High load	High strength	Steel	CZ2030-HS	150	1.2	-10 ~ +150	1.1	
4-type carrier chain	Low load	Normal	Plastic	CZ2040-DP	45	-10 ~ + 80	0.8	2.55
		Conductive	Conductive plastic	CZ2040-DPC				
	Medium load	Normal	Plastic	CZ2040-DN	90			
		Conductive	Conductive	CZ2040-DNC				
High load	High strength	Steel	CZ2040-HS	270	2.8	-10 ~ +150	2.2	
5-type carrier chain	Low load	Normal	Plastic	CZ2050-DP	70	-10 ~ + 80	1.3	2.57
		Conductive	Conductive plastic	CZ2050-DPC				
	Medium load	Normal	Plastic	CZ2050-DN	140			
		Conductive	Conductive plastic	CZ2050-DNC				
High load	High strength	Steel	CZ2050-HS	440	4.8	-10 ~ +150	3.7	
6-type carrier chain	Low load	Normal	Plastic	CZ2060-DP	140	-10 ~ + 80	2.2	2.62
		Conductive	Conductive plastic	CZ2060-DPC				
	Medium load	Normal	Plastic	CZ2060-DN	210			
		Conductive	Conductive plastic	CZ2060-DNC				
High load	High strength	Steel	CZ2060-HS	640	7.6	-10 ~ +150	5.6	

Max. chain speed V_{max} is 15m/min.

Sprocket: Use the exclusively designed sprocket.

Selection

Selection of small sized conveyor chains can be made in the following steps, except for some particular cases.

- (1) Preliminarily determining the type of conveyor chain
- (2) Confirming allowable load to rollers
- (3) Determining maximum tensile force acting on chain
- (4) Confirming conveying conditions
- (5) Determining the size of conveyor chain

Confirming Conveying conditions

- (1) Type of conveyor chain (slat, top roller, carrier, etc.)
- (2) Conveying direction (horizontal, vertical, slope, etc.)
- (3) Weight and dimensions of material conveyed
- (4) Total amount of material conveyed, and frequency of conveying
- (5) Speed of conveyor
- (6) Length of conveyor
- (7) Lubrication
- (8) Operating conditions of conveyor, such as temperature and humidity

Preliminarily Determining the Type of Conveyor Chain

$$T \text{ (kgf)} = W_T \times f \times K$$

T : Maximum static tensile force acting to chain

W_T : Weight of materials conveyed, except for chain (kgf)

f : Coefficient of friction (see Table 4)

K : Coefficient of speed (see Table 1)

When two conveyor chains are arranged in parallel, temporarily determine the type and size of the conveyor chain of which maximum allowable tensile force is less than that determined by $T \times 0.6$.

Table 1: Speed Factor

Conveyor Chain Speed (m/min)	Speed Factor K
15 or less	1.0
15 ~ 30	1.2
30 ~ 50	1.4
50 ~ 70	1.6
70 ~ 90	2.2
90 ~ 110	2.8
110 ~ 120	3.2

Confirming Allowable Load to Roller

Allowable load-carrying rollers of the conveyor chain shall not exceed those listed in Table 2 and Table 3.

Table 2: Allowable Loads to Main Rollers

KCM Chain No.	Plastic Roller R-Roller	Steel Roller	
		S-Roller	R-Roller
40, 2040, 2042	20	15	65
50, 2050, 2052	30	20	100
60, 2060, 2062	50	30	160
80, 2080, 2082	90	55	270
100, 2100, 2102	130	80	400

Unit: kgf/roller

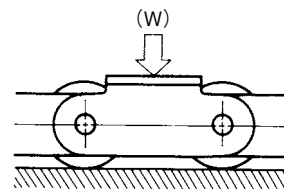
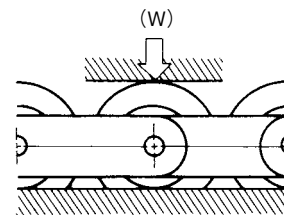


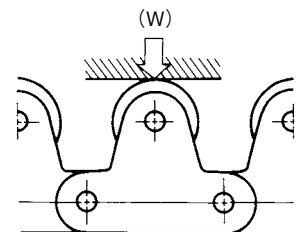
Table 3: Allowable Load to Load-carrying Roller

KCM Chain No.	Triple Speed Chain Roller	Side Rollers		Top Rollers	
		Plastic	Steel	Plastic	Steel
3-type carrier chain, Triple speed chain	6	—	—	—	—
40, 2040, 2042, 4-type Triple speed chain	14	5	15	5	15
50, 2050, 2052, 5-type Triple speed chain	22	7	20	7	20
60, 2060, 2062, 6-type Triple speed chain	36	10	30	10	30
80, 2080, 2082	—	18	55	18	55
100, 2100, 2102	—	30	80	30	80

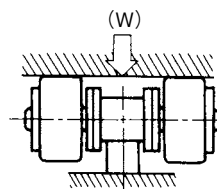
Unit: kgf/roller



Triple Speed Chain Roller



Top Roller



Side Roller

Determining Maximum Tensile Force Acting on Chain

Horizontal conveying

Normal conveying	$T = (W + 2.1m \cdot C) f_1$ $kW = \frac{T \cdot V}{5565} \cdot \frac{1}{\eta}$	
Accumulated conveying (Free flow conveyor)	$T = (w_1 + m) L_1 \cdot f_1 + w_2 \cdot L_2 \cdot f_2 + (w_2 + m) L_2 \cdot f_3 + 1.1m(L_1 + L_2) f_1$ $kW = \frac{T \cdot V}{5565} \cdot \frac{1}{\eta}$	

Determining the Size of Conveyor Chain

Finally determine the size of the conveyor chain of which maximum allowable tensile force of conveyor chain satisfies the following formula, by calculating the product of the maximum tensile force (T) acting on the conveyor chain and the speed factor K (Table 1).

$$T \times K \leq \text{Max. allowable tensile force of conveyor chain}$$

When two conveyor chains are arranged in parallel, the maximum tensile force acting on the chain is determined by $T \times 0.6$.

Table 4: Coefficient of Rolling Friction

Roller Type	Steel Roller		Plastic Roller
	Not Lubricated	Lubricated	
R-Roller	0.12	0.08	0.08
S-Roller	0.21	0.14	0.12

Coefficient of Sliding Friction (Link Plate)

Not Lubricated	Lubricated
0.3	0.2

Table 5: f₁: Coefficient of friction between chain and rail during conveying

KCM Chain Type	Type of Main Roller	Lubricated	Not lubricated	
Triple speed chain	Normal/High Load	—	0.08	
Chain w/ side rollers	Plastic Roller	S-Roller	0.12	
		R-Roller	0.08	
	Steel Roller	S-Roller	0.14	0.21
		R-Roller	0.08	0.12
Chain w/ top rollers	Steel Roller	S-Roller	0.14	
		R-Roller	0.08	

■ Symbols and Definitions

- T = Max. static tensile force acting on chain (kgf)
- V = Conveying speed (chain speed) (m/min)
- C = Center-to-center distance between sprockets (m)
- W = Max. total weight of conveyed materials on conveyor (kgf)
In case of separated materials: W= C/Conveying interval x Weight of conveyed material (kgf/piece)
- L₁ = Length of conveying portion (m)
- w₁ = Weight of conveyed material on conveying portion (kgf/m)
- L₂ = Length of accumulating portion (m)
- w₂ = Weight of conveyed material on accumulating portion (kgf/m)
- m = Weight of conveying portion, including chain (kgf/m)
- η = Mechanical transmission efficiency for drive unit, kW: Required power
- f₁ = Coefficient of friction between chain and rail when conveying (see Table 5)
- f₂ = Coefficient of friction between chain and conveyed material when accumulating (see Table 6)
- f₃ = Coefficient of friction between chain and rail when accumulating (see Table 7)

Table 6: f₂: Coefficient of friction between chain and conveyed material when accumulating

KCM Chain Type	Type of Carrying Roller	Lubricated	Not lubricated
Triple speed chain	Normal	—	0.08
	High load	—	0.14
Chain w/ top rollers	Plastic roller	—	0.06
	Steel roller	0.06	0.09
Chain w/ top rollers	Plastic roller	—	0.06
	Steel roller	0.06	0.09

Table 7: f₃: Coefficient of friction between chain and rail when accumulating

KCM Chain Type	Type of Main Roller	Not Lubricated
Triple speed chain	General type	0.16
	High load	0.2

NOTE: f₃=f₁, except for triple speed chain