

HK Type Roller Chains



Roller Chains for Power Transmission
High-strength Roller Chain Series

Downsizing Your System with Higher Power Chains

HK type roller chains conform to H type of ANSI, and their thickness of inner and outer link plates are equal to those of the next larger size chain. Therefore, HK type roller chains are higher in tensile strength by about 20% and in maximum allowable load by about 15% than those of standard roller chains. Since the weight of the chains is also larger, HK type roller chains are suitable for the application of heavy duty at low speed.

Recommended uses

- Optimal for places where higher strength is required but large and heavier chains cannot be used.

<Examples>

Asphalt finishers

HK Type Connecting Link and Offset Link

	Connecting link		Offset link	
	Clearance fit	Interference fit	1-Pitch Offset link (Clearance fit)	2-Pitch Offset link (Interference fit)
Applicable connecting link	RJ: DID 50 or smaller CJ: DID 80 or larger RJ/ CJ: DID 60	FJ: DID 50 or smaller HJ: DID 80 or larger FJ/ HJ: DID 60	OJ: exclusive use for HK (unavailable for DID 40)	2POJ: exclusive use for HK (unavailable for DID 40)
Tensile Strength	Same as chain			

Selection of chains

Select a proper HK type roller chain based on "Low-speed selection". (P123)

For the maximum allowable load, see the following table of dimensions.

HK type roller chains are available up to triplex.

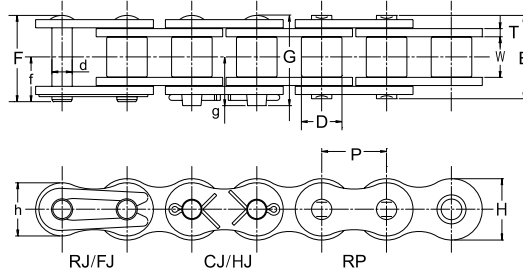
Sprockets

Use standard sprockets for a simplex HK roller chain. Since the transverse pitches (C dimension: see P61) are larger than those of standard chains in the case of duplex or triplex, standard sprockets cannot be used. Refer to the sprocket tooth profiles for HK. (see P118-119)

Connecting link and offset link

The tensile strength of connecting links and offset links are listed on the left, but the maximum allowable load is lower than that of the base chain. Please consult us should you have any questions. It is recommended to use the connecting link of interference-fitted. (FJ, HJ)

Never make the holes of the connecting plate larger and never make the pins thinner to facilitate the work for fitting the pins into the connecting plate, since otherwise the fatigue strength will be lowered.

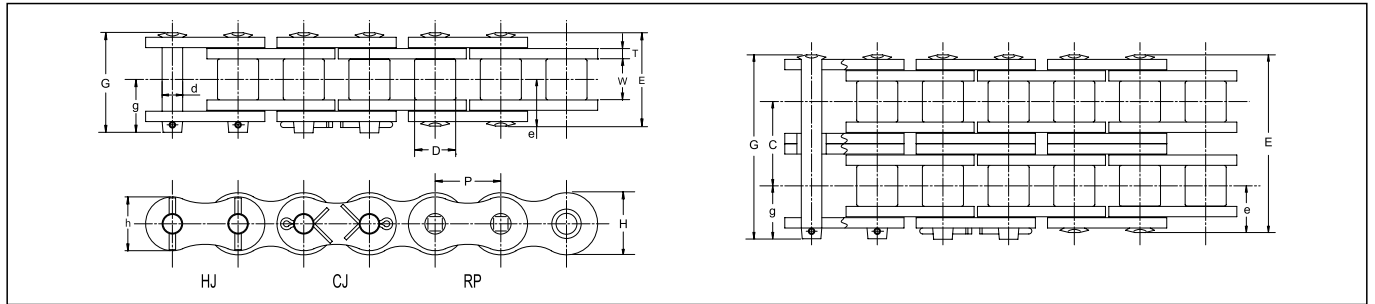


Dimensions

Unit (mm)

Chain No.	Pitch P	Roller link width W	Roller dia. D	Pin						Plate			Min. tensile strength		Avg. tensile strength		Max. allowable load		Approx. weight (kg/m)
				d	E	F	G	f	g	T	H	h	kN	kgf	kN	kgf	kN	kgf	
DID 40HK	12.70	7.95	7.92	3.97	18.5	19.5	—	10.5	—	2.0	12.0	10.4	19.6	1,990	21.5	2,180	4.51	460	0.72
DID 50HK	15.875	9.53	10.16	5.09	21.8	23.4	—	12.6	—	2.4	15.0	13.0	33.3	3,380	36.3	3,690	7.85	800	1.12
DID 60HK	19.05	12.70	11.91	5.96	28.7	30.5	31.2	16.1	16.9	3.2	18.1	15.6	47.1	4,780	52	5,280	10.7	1,090	1.81

- Note: 1. The values of average tensile strength and maximum allowable tension are for chains.
 2. When grooving using sprockets with smaller number of teeth, the grooves may interfere with the chain outer plate. Consult us for advise.
 3. Ask us for the delivery time.



Dimensions

Unit (mm)

Chain No.	Pitch P	Roller link width W	Roller dia. D	Pin					Transverse Pitch C	Plate			Min. tensile strength		Avg. tensile strength		Max. allowable load		Approx. weight (kg/m)
				d	E	G	e	g		T	H	h	kN	kgf	kN	kgf	kN	kgf	
DID 80HK	25.40	15.88	15.88	7.94	35.9	38.7	18.0	20.6	32.6	4.0	24.0	20.8	81.3	8,250	96.1	9,760	16.6	1,690	2.97
DID 80HK-2					68.5	71.3							162	16,450	192	19,490	28.3	2,870	5.88
DID 80HK-3					101.2	104.0							244	24,770	288	29,240	41.6	4,220	8.76
DID 100HK	31.75	19.05	19.05	9.54	42.7	45.8	21.4	24.4	39.1	4.8	29.9	26.0	123	12,490	142	14,420	26.4	2,680	4.16
DID 100HK-2					82.0	85.0							246	24,970	284	28,830	45	4,570	8.23
DID 100HK-3					121.1	124.1							369	37,460	426	43,250	66.1	6,710	12.27
DID 120HK	38.10	25.40	22.23	11.11	53.2	56.5	26.6	29.9	48.9	5.6	35.9	31.2	167	16,950	191	19,390	34.3	3,480	6.08
DID 120HK-2					102.2	105.5							334	33,910	382	38,780	58.3	5,920	12.04
DID 120HK-3					151.1	154.4							501	50,860	573	58,170	85.8	8,710	17.94
DID 140HK	44.45	25.40	25.40	12.71	56.9	61.7	28.5	33.3	52.2	6.4	41.9	36.3	217	22,030	250	25,380	45.1	4,580	8.81
DID 140HK-2					109.2	114.0							434	44,060	500	50,760	76.6	7,780	17.44
DID 140HK-3					161.4	166.2							651	66,090	750	76,140	113	11,470	25.99
DID 160HK	50.80	31.75	28.58	14.29	67.0	71.6	33.5	38.2	61.9	7.1	47.8	41.4	278	28,220	318	32,280	58.8	5,970	10.93
DID 160HK-2					129.0	133.6							556	56,450	637	64,670	100	10,150	21.64
DID 160HK-3					191.9	195.6							834	84,670	956	97,060	147	14,920	32.24
DID 180HK	57.15	35.72	35.71	17.46	74.9	80.8	37.5	43.3	69.2	8.0	53.8	46.6	402	40,810	441	44,770	71.5	7,260	14.81
DID 180HK-2					144.2	150.0							804	81,620	882	89,540	121	12,280	29.32
DID 180HK-3					213.5	219.3							1,200	121,830	1,320	134,010	178	18,070	43.69
DID 200HK	63.50	38.10	39.68	19.85	84.7	91.7	42.4	49.4	78.3	9.5	60.0	52.0	487	49,440	558	56,650	83.3	8,460	19.17
DID 200HK-2					163.0	170.0							974	98,880	1,110	112,690	141	14,310	37.95
DID 200HK-3					241.4	248.4							1,461	148,320	1,670	169,540	208	21,120	56.55
DID 240HK	76.20	47.63	47.63	23.81	108.5	116.3	54.3	61.7	101.2	12.7	71.5	62.0	768	77,970	882	89,540	112	11,370	28.30
DID 240HK-2					209.9	217.6							1,536	155,940	1,760	178,680	191	19,390	56.03
DID 240HK-3					311.1	318.8							2,304	233,910	2,640	268,020	281	28,530	83.48

- Note: 1. The above chains are of riveted pin type (RP). As for cotter pin type (CP), consult us.
 2. The values of average tensile strength and maximum allowable tension are for chains.
 3. When grooving using sprockets with smaller number of teeth, the grooves may interfere with the chain outer plate. Consult us.