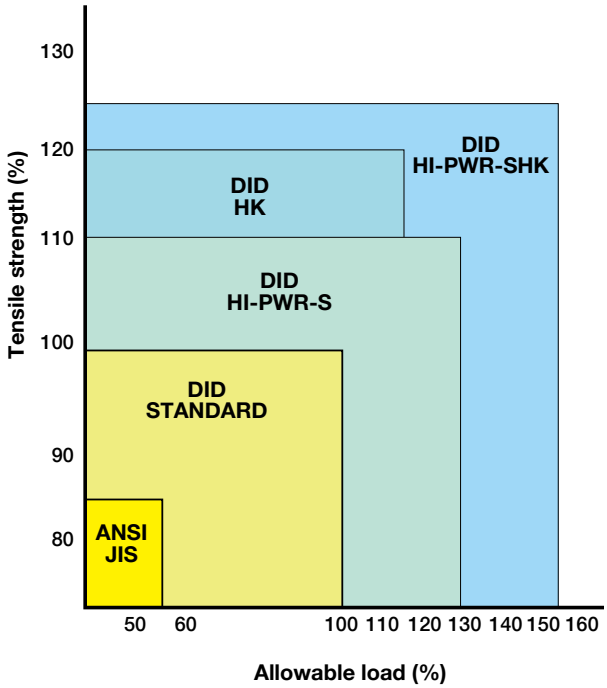
HI-PWR-SHK Type Roller Chains

High-end type of the high strength series

The DID HI-PWR-SHK roller chains have thicker link plates than HI-PWR-S roller chains, and are the highest in tensile strength and allowable load among general application chains, thus being suitable for low speed heavy duty transmission.



Recommended uses

- The HI-PWR-SHK roller chains are 25 percent higher in tensile strength and 50 percent higher in maximum allowable load than the standard roller chains, but since their weight is heavier, driving performance declines at high speed. So, they are suitable for heavy duty at low speed applications.

<Examples>

Multilevel parking machines, pipe benders, construction machines, etc.

Selection of chains

Select a proper HI-PWR-SHK type chain based on "Low-speed selection" (P123)
For the maximum allowable load, see the following table of dimensions.
HI-PWR-SHK series is available in simplex.

Sprockets

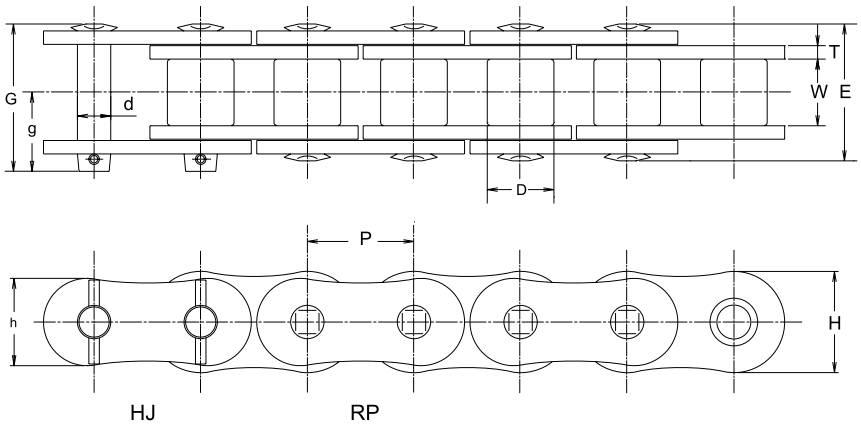
Standard sprockets for multiplex chains cannot be used.

Connecting links and offset links

The best feature of the HI-PWR-SHK roller chains is high maximum allowable load. Therefore, interference-fitted connecting links (HJ type connecting links) with little strength degradation are used.
The connecting plate and the connecting pins are connected with spring pins. The tensile strength of an HJ type connecting link is equivalent to that of the chain, but the allowable load is somewhat lower than that of the chain.

HI-PWR-S type roller chains do not have any offset link. Use an even number of links.

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	Roller link width	Roller dia.	Pin				Plate			Min. tensile strength		Avg. tensile strength		Max. allowable load		Approx. weight (kg/m)
	P	W	D	d	E	G	g	T	H	h	kN	kgf	kN	kgf	kN	kgf	
DID HI-PWR-S 80HK	25.40	15.88	15.88	7.94	35.9	38.7	20.6	4.0	24.1	20.8	85.4	8,670	98.1	9,960	22.5	2,280	3.12
DID HI-PWR-S 100HK	31.75	19.05	19.05	9.54	42.7	45.8	24.4	4.8	30.1	26.0	132	13,400	145	14,720	34.3	3,480	4.37
DID HI-PWR-S 120HK	38.10	25.40	22.23	11.11	53.2	56.5	29.9	5.6	36.2	31.2	171	17,360	196	19,900	45.1	4,580	6.39
DID HI-PWR-S 140HK	44.45	25.40	25.40	12.71	56.9	61.7	33.3	6.4	42.2	36.3	222	22,540	255	25,890	60.8	6,170	9.25
DID HI-PWR-S 160HK	50.80	31.75	28.58	14.29	67.0	71.6	38.2	7.1	48.2	41.4	282	28,630	323	32,790	77.4	7,860	11.48
DID HI-PWR-S 180HK	57.15	35.72	35.71	17.46	74.9	80.8	43.3	8.0	54.3	46.6	422	42,840	461	46,800	91.2	9,260	15.55
DID HI-PWR-S 200HK	63.50	38.10	39.68	19.85	84.7	91.7	49.4	9.5	60.3	52.0	520	52,790	598	60,710	112	11,370	20.13
DID HI-PWR-S 240HK	76.20	47.63	47.63	23.81	108.5	116.3	61.7	12.7	72.3	62.0	803	81,520	922	93,600	155	15,740	29.72

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.