

Double Speed Chains & Sprockets / Aluminum Extrusions / Return Guides

Features: Mixed structure of Small and Large Diameter Rollers enables a workpiece to be conveyed approx. 2.5 times faster than the chain speed. Suitable for free flow conveyors.

Double Speed Chains

RoHS 10

WCHE

(Figure : 4 Links)

The end link is included as the joint link.

Operating Temperature : -10 ~ 80°C

Material : Plate, Pin: Steel, Roller: Specialty Engineering Plastic

For Double Speed Chain selection information materials, see **P2251**.

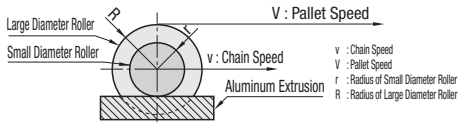
Part Number Type	Nominal	Number of Links Specification (Specify Even Number)	Pitch				Roller		Plate		Pins		Max. Allowable Tension (kN)	Speed Multiplier	Approx. Mass (kg/m)	Unit Number of Links
			P	R1	R2	W1	W2	a	g	f	h	m				
(Chain) WCHE	3	4~550	19.05	11.91	18.3	7.0	4.1	8.8	1.2	3.28	11.2	12.95	0.55	2.54	0.4	160 (Circumference Length 3,048mm)
	4	4~410	25.40	15.88	24.6	9.0	6.0	11.7	1.5	3.97	15.2	16.75	0.88	2.55	0.8	120 (Circumference Length 3,048mm)
	5	4~350	31.75	19.05	30.0	11.4	7.0	14.6	2.0	5.08	19.45	20.90	1.37	2.57	1.3	96 (Circumference Length 3,048mm)

Part Number Type	Nominal	Unit Price 1 ~ 2 pc(s).		Cutting Charge (+ Unit Price)
		Number of Links less than 1 Unit	Number of Links 1 Unit or More	
(Chain) WCHE	3	120 x Number of Links	100 x Number of Links	
	4	120 x Number of Links	100 x Number of Links	
	5	150 x Number of Links	130 x Number of Links	

No cutting charge when placing orders by Unit Number of Links.

Ordering Example
 Part Number: **WCHE3** - Number of Links: **200**

Principle of the Double Speed Chains



When a chain runs at v speed, circumferential velocity of the small diameter roller is v . At this time circumferential velocity of the large diameter roller becomes $(R/r) \cdot v$ due to ratio of radius. Therefore, Pallet Speed V becomes a value that chain speed V and $(R/r) \cdot v$ are combined.

$$V = (R/r) \cdot v + v = (R/r + 1) \cdot v$$

Since the ratio of radius of the large diameter roller and the small diameter roller is approximately 1.5:1

$$V = (1.5 + 1) \cdot v \approx 2.5v$$

Double Speed Sprockets

RoHS 10

WESP

Shaft Bore Specs. **S** (Pilot Bore)

Dh8

Shaft Bore Specs. **H** (Round Bore)

Dh7

Shaft Bore Specs. **N** (New JIS Key + Tap)

Dh7

Shaft Bore Dia. D	Keyway Hole bxtz	Set Screw M
15	5x2.3	6
20	6x2.8	6
25~30	8x3.3	8

For Nominal 3 - 9 teeth, Set Screw is M5.

Material: S45C Equivalent
 Accessory: Set Screw (Only for shaft bore specification N)

Part Number Type	Nominal	Number of Teeth	Shaft Bore Dia.			Dp	Do	T	H	L	l	A	Unit Price 1 ~ 10 pc(s).		
			S Specification (Dh8)	H Specification (Dh7)	N Specification (Dh7)								Shaft Bore Spec. S	Shaft Bore Spec. H	Shaft Bore Spec. N
(Sprocket) WESP	3	9	14	15 20	15 20	55.70	63	3	33	22	4	15.3			
	4	10	14	15 20	15 20	61.65	68	3	37	25	5	15.3			
	5	10	19	20 25	20 25	82.20	93	4	52	40	8	21.5			
			24	25 30	25 30	102.75	117	5	66	45	9	27.0			

Ordering Example
 Part Number: **WESP3** - Number of Teeth: **10** - Shaft Bore Specifications, I.D.: **H15**

