

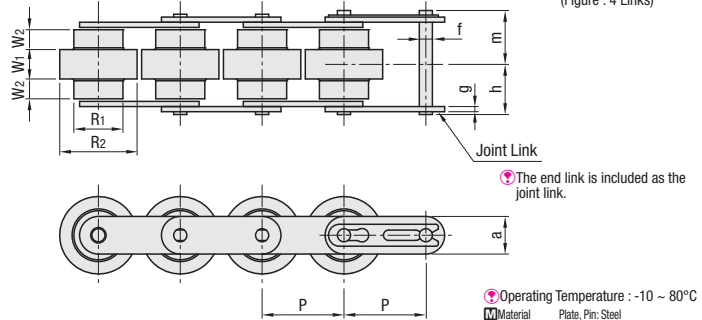
Double Speed Chains & Sprockets / Aluminum Extrusions / Return Guides

■ **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

WCHE

(Figure : 4 Links)



Ⓜ The end link is included as the joint link.

Ⓜ Operating Temperature : -10 ~ 80°C

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

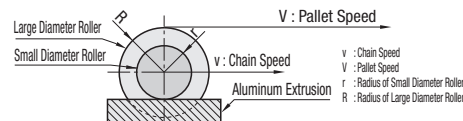
Part Number Type	Nominal	Number of Links Specification (Specify Even Number)	Pitch		Roller		Plate		Pins		Max. Allowable Tension (kN)	Speed Multiplier	Approx. Mass kg/m	Unit Number of Links		
			P	R1	R2	W1	W2	a	g	f					h	m
(Chain) WCHE	3	4~550	19.05	11.91	18.3	7.0	4.1	8.8	1.2	3.28	11.2	12.95	0.55	2.54	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 - Number of Links
WCHE3 - 200

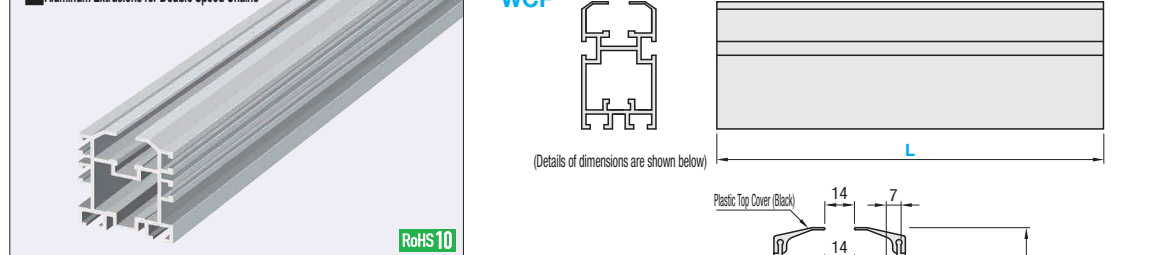
Principle of the Double Speed Chains



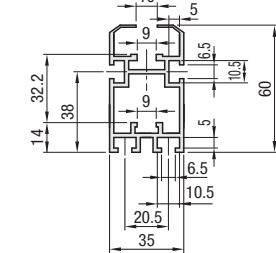
When a chain runs at v speed, circumferential velocity of the small diameter roller is v. At this time circumferential velocity of the large diameter roller becomes (R/r)·v due to ratio of radius.
Therefore, Pallet Speed V becomes a value that chain speed v and (R/r)·v are combined.
 $V = (R/r) \cdot v + v$
 $= (R/r + 1) \cdot v$
Since the ratio of radius of the large diameter roller and the small diameter roller is approximately 1.5:1
 $V = (1.5 + 1) \cdot v$
 $\approx 2.5v$

Aluminum Extrusions for Double Speed Chains

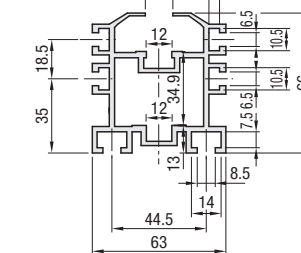
WCF



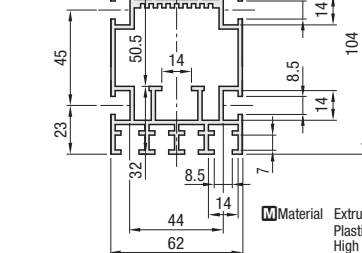
WCF3



WCF4



WCF5



Ⓜ Material Extrusion : A6063S-T5
Plastic Top Cover : High Density Polyethylene
Ⓜ Surface Treatment : Anodize

Ⓜ General purpose hex nut is applicable.

Part Number Type	Nominal	L 10mm Increment	Approx. Mass kg/m	Unit Price /m
4			2.49	
5			3.17	

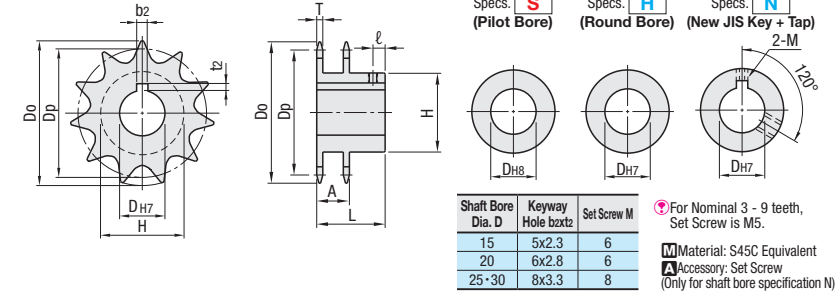
Ordering Example: Part Number - L
WCF3 - 1000

Alterations: Part Number - L - (FLC, FRC, YA, YB, ZA, ZB)
WCF3 - 1000 - FLC

Alterations Code	Extrusion Cut		Counterbore on the Side Slots																				
	FLC·FRC	YA, YB, ZA, ZB																					
Spec.	The extrusion ends are cut.	<table border="1"> <thead> <tr> <th>Nominal</th> <th>X</th> <th>Y</th> <th>S</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>210</td> <td>80</td> <td>25</td> </tr> <tr> <td>4</td> <td>300</td> <td>100</td> <td>25</td> </tr> <tr> <td>5</td> <td>340</td> <td>120</td> <td>45</td> </tr> </tbody> </table>	Nominal	X	Y	S	3	210	80	25	4	300	100	25	5	340	120	45	Adds counterbored holes for nuts on desired positions of the side slots. Use YA or YB as the code intended to specify the distance from the left end (on Plane Y) and ZA or ZB as the code intended to specify the distance from the right end (on Plane Z). Part Number: Machine Applicable Mat. (JIS Class 1) WCF3 Ø12 M6 or M5 WCF4 Ø12 M6 or M5 WCF5 Ø16 M8				
	Nominal	X	Y	S																			
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4	300	100	25																				
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<table border="1"> <thead> <tr> <th>Ordering Code</th> <th>FLC, FRC</th> <th>Ordering Code</th> <th>YA, YB, ZA, ZB</th> </tr> </thead> <tbody> <tr> <td>FLC</td> <td>FLC</td> <td>YA</td> <td>YA</td> </tr> <tr> <td>FRC</td> <td>FRC</td> <td>YB</td> <td>YB</td> </tr> <tr> <td></td> <td></td> <td>ZA</td> <td>ZA</td> </tr> <tr> <td></td> <td></td> <td>ZB</td> <td>ZB</td> </tr> </tbody> </table>	Ordering Code	FLC, FRC	Ordering Code	YA, YB, ZA, ZB	FLC	FLC	YA	YA	FRC	FRC	YB	YB			ZA	ZA			ZB	ZB	1mm Increment Ordering Code: ZA150 ZA100-ZB200	Ⓜ Ordering Example 1mm Increment Ordering Code: ZA150 ZA100-ZB200 Ⓜ YA, ZA≥10 Ⓜ L-YA, L-ZA≥10 Ⓜ L-YB, L-ZB≥10 Ⓜ YB-YA, ZB-ZA≥10	
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FLC	FLC	YA	YA																				
FRC	FRC	YB	YB																				
		ZA	ZA																				
		ZB	ZB																				

Double Speed Sprockets

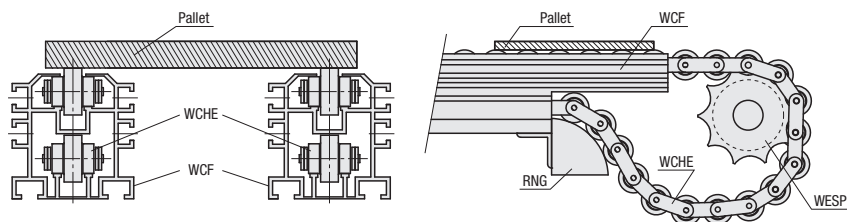
WESP



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

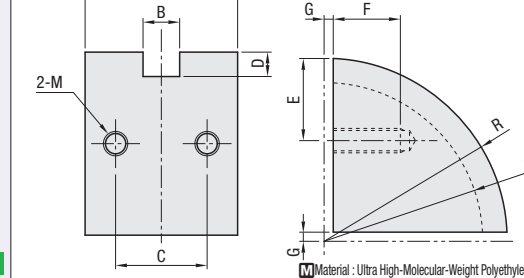
Ordering Example: Part Number - Number of Teeth - Shaft Bore Specifications, ID.
WESP3 - 10 - H15

Example



Return Guides

RNG



Part Number Type	Nominal	A	B	C	D	E	M	r	R	F	G	Unit Price
4	50	12	30	8	30	M8	52	60	25	3		
5	44	14	20	10	52	M8	54	64	25	3		

Ordering Example: Part Number
RNG3

Alterations: Part Number - (SET)
RNG3 - SET

Alterations Code	Bracket Set																																								
	SET																																								
Spec.	Bracket set is shipped with Return Guide.																																								
	<table border="1"> <thead> <tr> <th>Nominal</th> <th>L</th> <th>F</th> <th>G</th> <th>d1</th> <th>d2</th> <th>S</th> <th>P</th> <th>Q</th> <th>t</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>34</td> <td>6.75</td> <td>6</td> <td>6.5</td> <td>6.5</td> <td>25</td> <td>18</td> <td>17</td> <td>3</td> </tr> <tr> <td>4</td> <td>60</td> <td>7.75</td> <td>15</td> <td>8.5</td> <td>8.5</td> <td>30</td> <td>20</td> <td>17</td> <td>3</td> </tr> <tr> <td>5</td> <td>62</td> <td>9</td> <td>21</td> <td>8.5</td> <td>8.5</td> <td>35</td> <td>24</td> <td>20</td> <td>4</td> </tr> </tbody> </table>	Nominal	L	F	G	d1	d2	S	P	Q	t	3	34	6.75	6	6.5	6.5	25	18	17	3	4	60	7.75	15	8.5	8.5	30	20	17	3	5	62	9	21	8.5	8.5	35	24	20	4
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