

Conveyor Roller Shafts / Mini-Rollers for Conveyors

Roller Conveyors - Overview

Conveyor Roller Shafts

Type	Material	Surface Treatment	Applicable to Conveyor Rollers and Mini-Rollers on P.1163.
HRD	S45C Equivalent	-	25 / 6.3 / 0.1
HRDB		Black Oxide	
HRDM		Electroless Nickel Plating	
HRDS	SUS304	-	

Shape	Dimensions
A	
D	
G	
E (D12 only)	

Part Number	L	W	Q	d	l
Type	Shape	D	1mm Increment	Selection	
HRD	A	6	60~550	4	2.5
HRDB	D	8		6	2.5
HRDM	G	12		8	3
HRDS	E	12		10	13

Ordering Example	Part Number	L	W
	Type Shape D	-	-
	HRD D 6	- 135	- 4.5

Example Combination of these app. examples can be selected on our website. Details of Selection Procedure **P.87**

e-Catalog Search Keyword #MA692 [Search]

* Enter the search keyword in the search box on e-Catalog. The search result will be shown in "Modular Assembler" area.

Part Number	Body Price	Config. Price (Body Price +)
Type	D	A D E G
HRD	60~200 201~400 401~550	- - -
HRDB	6 8 12	- - -
HRDM	6 8 12	- - -
HRDS	6 8 12	- - -

Mini-Rollers for Conveyors

Type	Material	Surface Treatment	Bearing
CNMR	Steel	Trivalent Chromate Plating	Machined Bearing
CNMRC		Hard Chrome Plating	
CNMRS	Stainless Steel	-	

Part Number	B	d	d1	W	Allowable Load (N)	Unit Price
Type	D		CNMR, CNMRS CNMRC			CNMR CNMRC CNMRS
CNMR CNMRC CNMRS	20	15	6.1	9.2	10	17 294
		25	6.1	9.2	10	27 392
		50	6.2	10	52	490
		100	6.2	10	102	490

Ordering Example	Part Number	B
	CNMRC20	- 50

Selection Method of Roller Conveyors

- ① Selection of Roller Width
- Select a roller width according to outer size of conveyed objects.
- Optimum width selection is "Object Width + 50mm or more".
 - If the objects to be conveyed are on pallets, it is acceptable for the roller width to be narrower than the bottom surface width of the objects as long as the objects do not come into contact with the conveyor frame.
- ② Selection of roller pitch, material, and diameter
- Select a roller width according to the bottom surface of conveyed objects as shown below.

Bottom of Conveyed Object	Min. Pitch Required	Material, Diameter
When the conveyed objects have hard bottoms: (Steel, Plastic, etc.)	3 Pitches (4 Rollers)	Select material and outer diameter from Table 1 according to Condition Formula "Table 1 Strength x 4 ≥ Conveyed Object Weight"
When the conveyed objects have soft bottoms: (Cardboard, Rubber, etc.)	5 Pitches (6 Rollers)	Select material and outer diameter from Table 1 according to Condition Formula "Table 1 Strength x 6 ≥ Conveyed Object Weight"

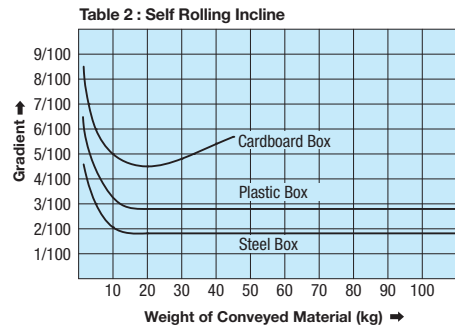
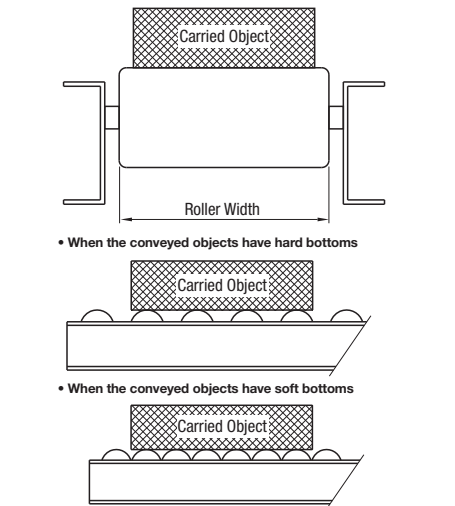
When impact is generated while loading, impact load is 1.5~3 times larger than the usual load. Please select the conveyor with sufficient load capacity.

Table 1 : Strength per Roller

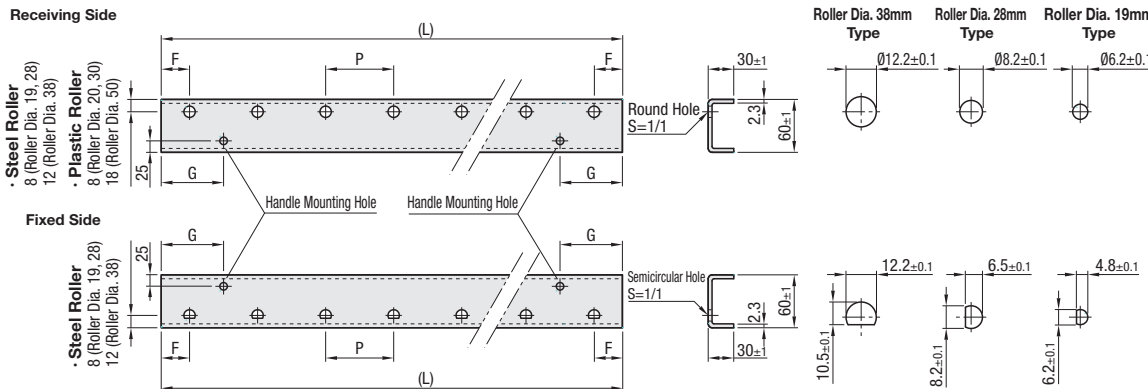
Roller Material	Roller Diameter	Roller Strength (N)				
		W113	W213	W313	W413	W513
Plastic	20mm	113	105	98	90	83
	30mm	162	154	147	139	132
	50mm	314	304	294	289	279
Steel	19.1mm	618	530	343	294	206
	28.6mm	1236	1059	687	588	412
	38.1mm	1342	1342	922	785	588

Conveyed Object Weight and Self Rolling Incline

See Table 2 for the movements of conveyed objects by own weight (self rolling incline) on inclined conveyors.



[Frame Side View]



Resin Roller Conveyor

Type	ROCOP
Frame Size	ROCOP
(L)	ROCOP
100~199	22
200~299	37
300~399	40
400~499	35
500~599	75
600~699	47.5
700~799	97
800~899	
900~1000	
1001~1100	
1101~1200	
1201~1300	

Steel Roller Conveyor

Type	ROCO	ROCON	ROCOM	ROCOG	ROCOE	ROCOH
Frame Size	ROCO	ROCON	ROCOM	ROCOG	ROCOE	ROCOH
(L)	ROCO	ROCON	ROCOM	ROCOG	ROCOE	ROCOH
100~199	20	20	35	-	-	-
200~299	40	10	55	25	70	-
300~399	80	15	90	15	90	-
400~499	20	155	20	155	-	-
500~599	10	145	25	160	-	-
600~699	15	150	15	150	25	150
700~799	20	155	20	155	150	162.5
800~899	10	145	25	160	-	137.5
900~1000	15	150	15	150	-	37.5

* Holes for Roller Shafts are provided at 50mm pitch on Ø38 x P100 flames.