

Conveyor Roller Shafts / Mini-Rollers for Conveyors

Roller Conveyors - Overview

Conveyor Roller Shafts

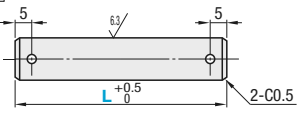


RoHS

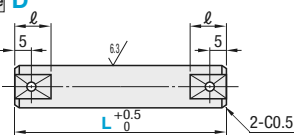
Type	Material	Surface Treatment
HRD	EN 1.1191 Equiv.	-
HRDB	EN 1.1191 Equiv.	Black Oxide
HRDM	EN 1.1191 Equiv.	Electroless Nickel Plating
HRDS	EN 1.4301 Equiv.	-

Applicable to Conveyor Rollers and Mini-Rollers on P.1163.

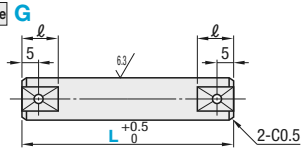
Shape A



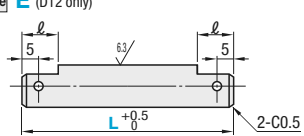
Shape D



Shape G



Shape E (D12 only)



Part Number			L 1mm Increment	W Selection	Q	d	ℓ
Type	Shape	D					
HRD	A	6	60~550	4 4.5	4	2.5	11
HRDB	D	8		5.8 6	6	2.5	12
HRDM	G	12		10	8	3	13
HRDS	E						

Ordering Example

Part Number

Type

Shape

D

-

L

-

W

HRD

D

6

-

135

-

4.5

Unit Price = Body Price + Shape Charge

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

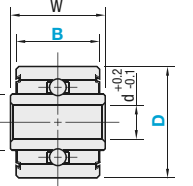
Mini-Rollers for Conveyors



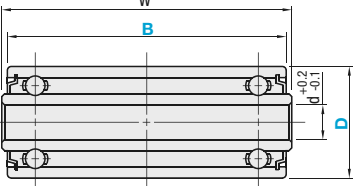
RoHS

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

B=15, 25



B=50, 100



Part Number		B	d	d ₁			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.

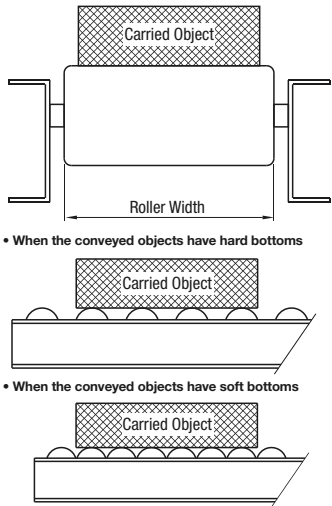
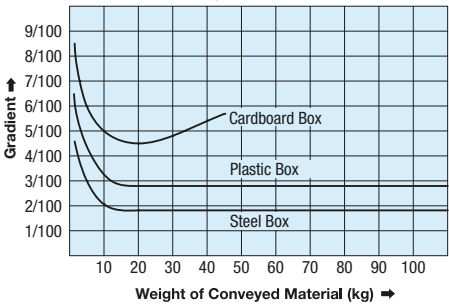
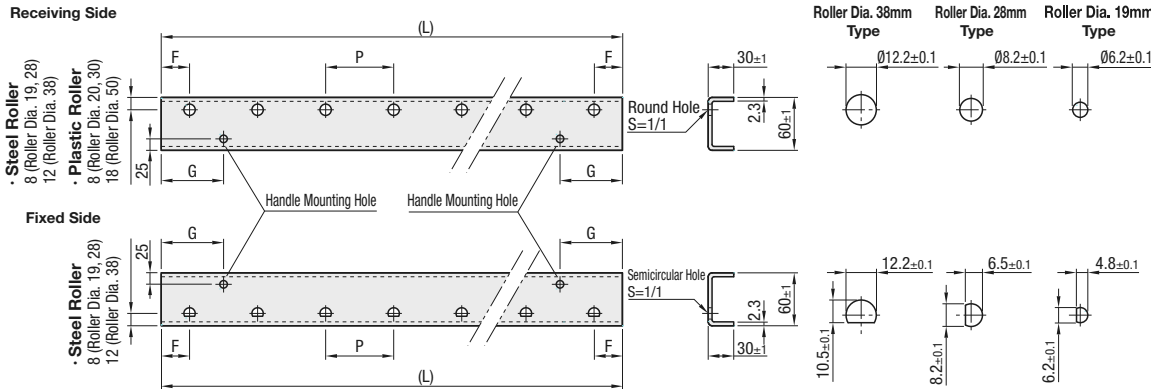


Table 2 : Self Rolling Incline



[Frame Side View]



Resin Roller Conveyor

For Resin Roller Conveyors, the receiving and fixed side holes are round.

Type	ROCOP					
Frame Size	Ø20xP25	Ø30xP40	Ø30xP50	Ø50xP75	Ø50xP100	
(L)	F	G	F	G	F	G
100~199	10	22	37	40	35	47.5
200~299						
300~399						
400~499						
500~599						
600~699		17.5	22.5	22.5	35	75
700~799						
800~899						
900~1000						
1001~1100		97	11.7	97.5	97.5	97
1101~1200						
1201~1300						

Steel Roller Conveyor

Type	ROCO	ROCON	ROCOM	ROCOG	ROCOE ROCOJ	ROCOH
Frame Size	Ø19xP20	Ø19xP30	Ø28xP30	Ø28xP50	Ø38xP50 Ø38xP100*	Ø38xP75
(L)	F	G	F	G	F	G
100~199	10	20	35	25	100	100
200~299						
300~399						
400~499						
500~599						
600~699		15	150	150	25	150
700~799						
800~899						
900~1000						
1001~1100		15	150	150	150	150
1101~1200						
1201~1300						

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