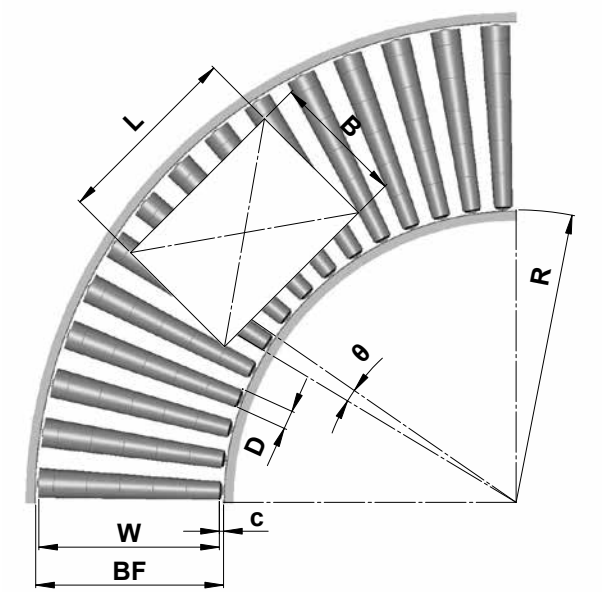
1600 Series Curve Conveyor Roller



Turn Radius

In theory, the geometric extension line of the tapered roller should join with the centre of the radius of the curve frame. By using this method, you can achieve the ideal curve for conveying. It may be calculated using the formula below:

$$R=\frac{D}{K}-c$$

In the formula :

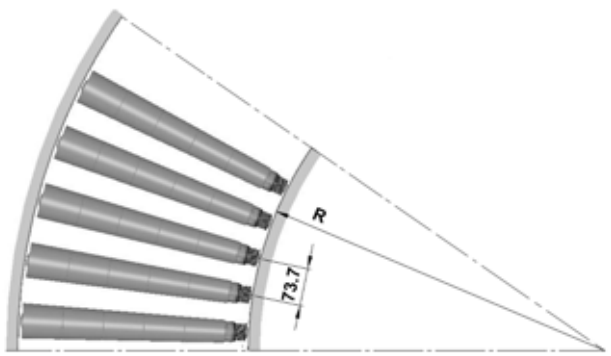
R —— turn (inner) radius
D —— diameter of the smaller head of the taper roller
K —— conical degree (the conical degree is expressed by fraction, eg. 1/16, 1/30, it's reduction formula is K=2*tan θ /2
c —— the space between the tapered roller's smaller head and the inner side of the frame.

Series	Taper	Small dia.(D)	Curve radius(R)
1600	3.6°	52.5	830
2624		55.6	880
2650	3.6°	52.5	800
2660		55.6	850
2640	3.6°	52.5	760
		55.6	810

Roller Pitch

The design of roller pitch should follow the principle of "minimum 3 rollers to support the goods at any moment" (refer to P03)

For poly-vee tapered rollers the recommended pitch of poly-vee pulleys is 73.7mm.



Calculating Roller Length

For straight conveying, generally there is no need to consider the length of the goods but for curved conveying, the length and width of goods and the curve radius are all influencing factors. It may be calculated using the formula below:

$$BF=\sqrt{(R+B)^2+(L/2)^2}-R+(\text{min.}125)$$

In the formula:

BF—— frame inner width
R —— turn (inner) radius
B —— width of goods
L —— length of goods

After confirming BF, you can calculate the roller length W and taper sleeve length WT by the available series of tapered roller. The tapered sleeve is the working surface of the tapered roller. The tapered sleeve length WT is available in increments of 50mm. Adjust the calculation result based on the formula.

E.g.: W计=628, WT=595
W计=561, WT=545

⚠ Based on the width of goods, the calculated roller length for a curve is longer than that for a straight conveyor. Typically, the length of the roller for the curve would be used as the default roller length for the entire conveyor system. Where it is not convenient to utilize a uniform roller length, a transitional straight conveyor will need to be installed.

1600 Series

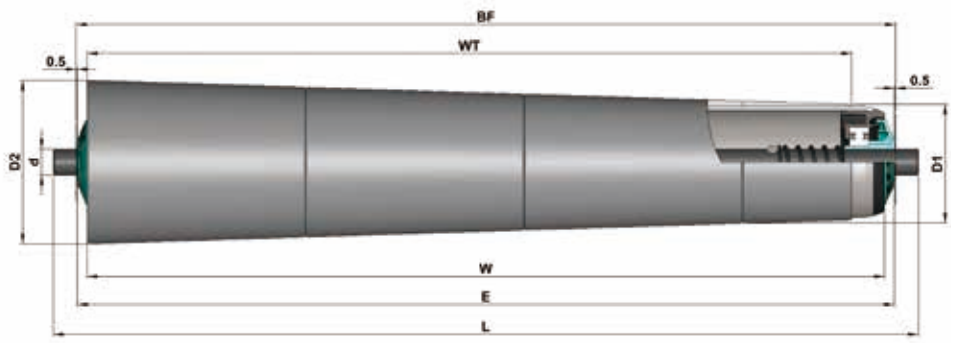
Gravity Tapered Sleeve Roller

Products Features

- Based on the 1200 Series, fitted with a grey polypropylene taper sleeve; abrasion resistant, low noise, shockproof.
- In the case of sensitive to static electricity, you can choose anti-static tapered sleeve (black), surface resistance value: 10^6~ $10^9\Omega$.
- The bearing end cap consists of a precision ball bearing, a polymer housing and end cap seal. Combined they provide an attractive, smooth and quite running roller.
- The design of the end cap protects the bearings by providing excellent resistance to dust and splashed water.
- The roller is light, easy to start-up.
- The weight of single items to be conveyed should not exceed 50kg. Temperature range: -5℃ ~ 40℃.
- Please contact us if humidity out of this scope.

Specifications

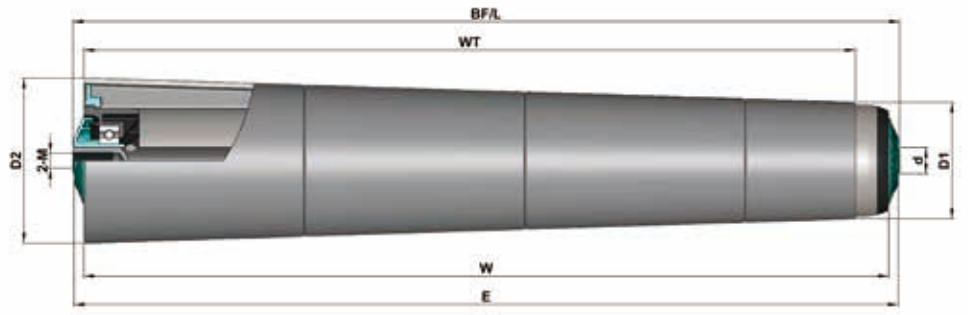
Bearing Unit	
Bearing housing	Polyamide, black
End cap	Polypropylene, Damon green
Precision ball bearing	6002



1600 Series Spring Loaded

Tube Dia. (D)	Shaft Dia.(d)			
Φ50	Φ12/11hex	BF=W+10	E=W+9	L=W+31

Tube	D*T	WT	D1	D2	Shaft Dia.(d)	
					11hex	Φ12
Steel, zinc plated, tapered sleeve	Φ50x1.5	295	Φ52.5	Φ71	1.600.SHJ.AFA	1.600.SHJ.ACA
		345	Φ55.6	Φ77.3		
		395	Φ52.5	Φ77.3		
		445	Φ55.6	Φ83.6		
		495	Φ52.5	Φ83.6		
		545	Φ55.6	Φ89.9		
		595	Φ52.5	Φ89.9		
Steel, zinc plated, tapered sleeve **(Static conductive version,black)**		645	Φ55.6	Φ96.2	1.600.SHK.AFA	1.600.SHK.ACA
		695	Φ52.5	Φ96.2		
		745	Φ55.6	Φ102.5		
		795	Φ52.5	Φ102.5		
		845	Φ55.6	Φ108.8		
		895	Φ52.5	Φ108.8		



1600 Series Internal Thread

Tube Dia.(D)	Shaft Dia.(d)			
Φ50	Φ12/15	BF=W+10	E=W+9	L=W+10

Tube	D*T	WT	D1	D2	Shaft Dia.(d)	
					Φ12（M8x15)	**Φ15（M18x20）**
Steel, zinc plated, tapered sleeve	Φ50x1.5	295	Φ52.5	Φ71	1.600.SHJ.ACC	1.600.SHJ.ADC
		345	Φ55.6	Φ77.3		
		395	Φ52.5	Φ77.3		
		445	Φ55.6	Φ83.6		
		495	Φ52.5	Φ83.6		
		545	Φ55.6	Φ89.9		
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		795	Φ52.5	Φ102.5		
		845	Φ55.6	Φ108.8		
		895	Φ52.5	Φ108.8		