![INTERROLL logo]

Contact factory for special
Grooved tapered part numbers

Tapered Conveyor Rollers
Series 1300
(commercial bearings)

Series 1350
(stainless steel bearings)

Series 1400
(precision bearings)

Bearing
Balls: Commercial, Precision or Stainless Steel

This innovative series of tapered rollers offers the designer a choice of three distinct bearing systems for building roller curves. Tapered rollers with commercial grade ball bearings, stainless steel ball bearings or chrome alloy steel precision bearings are all available. Bearings are fitted into nylon housings. Double labyrinth seals, snapped into place, complete and assembled providing a pre-lubricated bearing cartridge which is fully protected from dust and dirt and requires no maintenance.

Tube
Diameters (inch) 2.07 (small end)

Steel roller tubes (or optional aluminum or stainless tubes) are overlaid with several high impact molded polypropylene conical segments to form a continuous tapered roller assembly to desired length. The completed assembly offers excellent wear properties, noise dampening and shock resistance. For powered applications, the smaller end of the tube can be friction driven by polyurethane "O" rings.

Shaft
Diameter: .500,
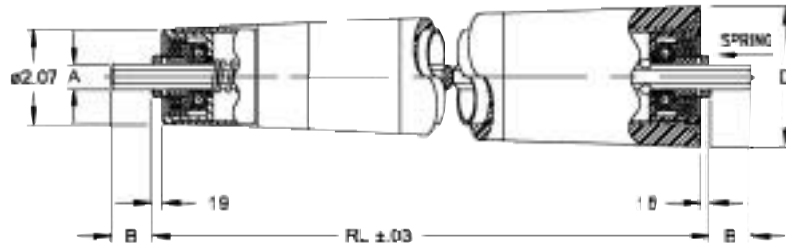Hexagonal: .437
Shafts may be spring-loaded, tapped or threaded.

Application
45°, 90° and 180° conveyor curves with a 32" inside radius.
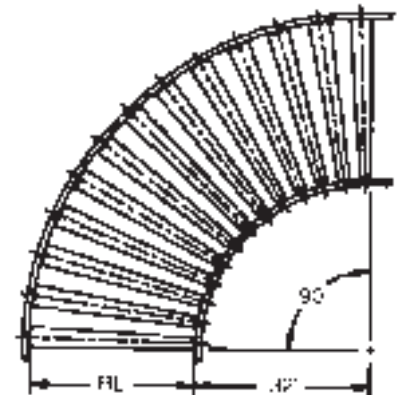
Spring loaded shafts move in
direction of arrow

Tapered Conveyor
Rollers
Series 1300, 1350, 1400

(Typical RL=BF–.12)

|	Part Number	D	A	B	Material	Finish	Remarks
Bearing	1.318.___.___-		.437 hex		Nylon	Black	Commercial bearings
	1.319.___.___-		.500 dia		Nylon	Black	Commercial bearings
	1.368.___.___-		.437 hex		Nylon	Black	Stainless bearings
	1.369.___.___-		.500 dia		Nylon	Black	Stainless bearings
	1.418.___.___-		.437 hex		Nylon	Black	Precision bearings
	1.419.___.___-		.500 round		Nylon	Black	Precision bearings
Tube	_.___.T12.___-	2.80			polypropylene/steel	Black	RL Range 9.52”-12.27”
	_.___.T14.___-	3.06			polypropylene/steel	Black	RL Range 13.47”-16.22”
	_.___.T18.___-	3.31			polypropylene/steel	Black	RL Range 17.42”-20.17”
	_.___.T22.___-	3.56			polypropylene/steel	Black	RL Range 21.37”-24.13”
	_.___.T26.___-	3.81			polypropylene/steel	Black	RL Range 25.32”-28.07”
	_.___.T32.___-	4.06			polypropylene/steel	Black	RL Range 29.27”-32.02”
	_.___.T36.___-	4.31			polypropylene/steel	Black	RL Range 33.22”-35.97”
Shaft	_.___.___.C42-		.437 hex	.56	steel	None	Spring-loaded
	_.___.___.S42-		.437 hex	.56	stainless	None	Spring-loaded
	_.___.___.C50-		.500 dia	1.00	steel	None	1/2-13" threaded removable
	_.___.___.S50-		.500 dia	1.00	stainless	None	1/2-13" threaded removable
	_.___.___.C51-		.500 dia	.06	steel	None	Tapped 5/16-18" x 5/8D
	_.___.___.S51-		.500 dia	.06	stainless	None	Tapped 5/16-18 x 5/8D
	_.___.___.C52-		.500 dia	1.00	steel	None	1/2-13" threaded-fixed
	_.___.___.S52-		.500 dia	1.00	stainless	None	1/2-13" threaded-fixed

Note: For grooved tube part numbers, please contact the factory for further information. For Hex shafts, "A" dimension
indicates flat-to-flat measurement.

To order, use the following reference to form
your ten-digit part number:
1.318.T14.C42-14.88"RL
Bearing Part No.
Tube Part No.
Shaft Part No.
15" between frame

Tapered Conveyor Rollers
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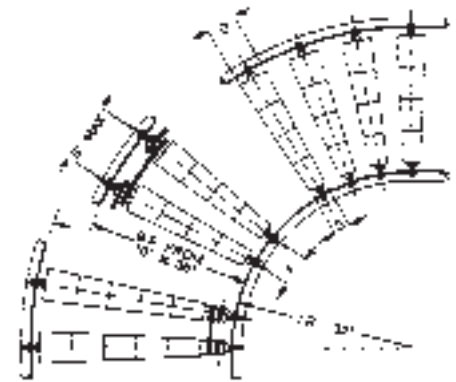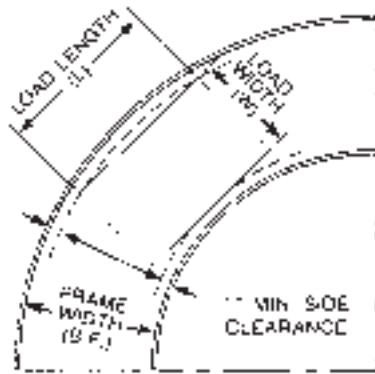
Curved design

Interroll plastic tapered rollers increase in diameter by 0.062" each inch of many lengths. Rollers may be ordered in many roller lengths from 9.88" to 35.88" for a range of 10" to 36" between conveyor frames.

The small (S) and large (D) diameters of the rollers are dependent upon the roller length. The small diameter is typically 2.07". The large diameter is wholly dependent upon the small diameter (S), the roller length (RL) and the roller taper.

The required number of rollers per 90° curve is dependent upon the inside frame pitch (P) of the rollers. It should be close enough for a minimum of three rollers to be supporting the load at any point in its travel.

For loads outside the range of the chart, the following formula may be used:

$$BF = \sqrt{[(32" + 1" + 18")2 + (24"/2)2]} + 1" - 32"$$

Example:

Load width (W) = 18"
Load length (L) = 24"
Chart shows (BF) = 22"
Inside Radius of curve (R)=32"

For the same sample, the formula would give ...

$$BF = \sqrt{[(32" + 1" + 18")2 + (24"/2)2]} + 1" - 32"$$

Answer 21.39" or 22"

On conveyor curves using Interroll tapered rollers, the between frame (B.F.) width for various size loads may be calculated as follows:
(a) Determine the length (L) and the width (W) of the largest load.
(b) Select the B.F. width from the B.F. selection chart given below.
(c) If the load is outside of the chart's range, or the inside radius (I.R.) of the curve is other than 32", use the formula given to the side of the chart.

INTERROLL®

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Tapered Conveyor Rollers
Series 1300, 1350, 1400

Series 1300, 1350, 1400 tapered roller load capacity in lbs.

Tube Dia. In. Material Bearing Shaft Dia.RL Inches	2.07" Diameter Plastic over Steel Commercial and Precision Bearings* All	2.07" Diameter Plastic over Steel Stainless Bearings All
10	113	56
12	113	56
14	113	56
16	113	56
18	113	56
20	113	56
22	113	56
24	113	56
26	113	56
28	113	56
30	113	56
32	113	56
34	106	53
36	90	45

Minimum Roller Lengths for Non-Grooved Rollers (all dimensions in inches)

Diameter	Spring Loaded	Fixed	Loose Shaft/No Shaft
1300-1400	9.88	9.88	9.88

Speed Ratings

Bearing Type	Maximum Recommended Conveyor Speed
Commercial	125 fpm
Stainless	125 fpm
Precision	236 fpm