

Ralphs-Pugh Poly V Products

1.90" Roller Tube OD Inserts

- Injection Molded
- Conductive plastic with 2 ABEC-1 ball bearings
- 43mm OD (Effective diameter) – 1.69"

Standard roller tube is 1.90" OD x .065" wall thickness.

- Other sizes available – call for information
- 43MM insert OD with belt installed is 1.84" final OD



Poly V Belt Configuration

Accommodates Hutchinson ConveyXonic "J" series - 2, 3, or 4 ribs. **Belts are available from Ralphs-Pugh.**

Ralphs-Pugh Poly V design matches directly with the Itoh motorized roller or if an alternate non powered roller motor option is chosen, Ralphs-Pugh can machine Poly V pulleys to your specification.

Ralphs-Pugh Poly V inserts are sold as a component, or as complete rollers.

Available with 2 shaft configurations

- 3PB44J43-4** - 7/16" Hex - Spring loaded through shafts or drilled and tapped ends 5/16-18 x 1.00" deep
- 3PB50J43-4** - 1/2" Round - Drilled and tapped 5/16-18 x 1.00" deep

Safety Considerations: Poly V belts have very little elongation or stretch. Guards or shields should be installed anywhere personnel could come into contact with them due to nip points.

2.50" Roller Tube OD Inserts

- Machined out of Steel or Stainless Steel
- Roller center distances start at 3.00"

Insert effective diameter (OD) is dependent on whether final diameter with belt installed must be less than roller tube diameter.

Standard roller tube is 2.50" OD x .120" wall thickness

- Insert has 1 ABEC-1 precision ball bearing.
- Insert is to be welded to the tube end for strength and concentricity.



Poly V Belt Configuration

Accommodates Hutchinson ConveyXonic "J" or "K" belts with up to a maximum of 6 ribs per belt dependent on roller centers and loading – See how to determine in "Application Information Required". **Belts are available from Ralphs-Pugh.**

Ralphs-Pugh Poly V design matches directly with the Itoh motorized roller or if an alternate non powered roller motor option is chosen Ralphs-Pugh can machine Poly V pulleys to your specification.

Ralphs-Pugh Poly V inserts are sold as a component, or as complete rollers.

Standard shaft configuration is 11/16" hex, spring loaded.

Part Number – 34PB68(J or K belt)(Effective Diameter of insert) – 6

Safety considerations: Poly V belts have very little elongation or stretch. Guards or shields should be installed anywhere personnel could come into contact with them due to nip points.

Application Information Required

- Roller center distance
- Zone length
- Max pallet weight
- Footprint of pallet or dimensions of load to be conveyed
- Max load per roller
- Max load per zone
- Speed of conveyer
- Will conveyor be loaded from both sides? This will determine effective diameter and guarding issues

Features of Poly V Inserts and Rollers

1.90" Series

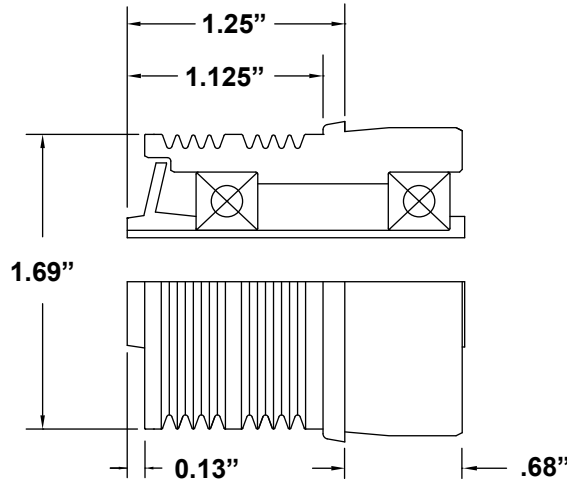
- One motorized roller can power up to 30 slave rollers depending on application criteria
- Poly V belts don't slip or stretch like "O" rings and are low maintenance
- Reduced noise levels
- Can be used with robotic picking due to the accuracy of electronic stopping and starting
- Insert diameter with belt installed can be smaller in diameter than tube OD allowing product to be transferred off the system in both directions.



2.50" Series

- Reduced noise levels
- Clean – No chains, grease or gear boxes
- Close rollers centers - down to 3.00"
- Reduced maintenance - no lubrication necessary as with chain and sprocket
- Can be used with robotic picking due to the accuracy of electronic stopping and starting
- Tighter roller centers than standard chain and sprocket configurations
- Insert diameter with belt installed can be smaller in diameter than tube OD allowing product to be transferred off the system in both directions.
- Can move pallet loads up to 3300 pounds – dependent on application data and chosen drive method

Poly V Belt Inserts - 43MM Effective Diameter



3PB44J43-4

Bearing:	Type:		Qty:
	ABEC-1 Precision	Chromium	2
	Option: ABEC-1 Precision	440SS	2

Insert Material: Conductive Plastic

Bore:	7/16" Hex	Part #	3PB44J43-4
	1/2" Round		3PB50J43-4

Tube: 1.90" x .065" - Standard
 Options: 1.75" x .065"
 2.50" x .083
 Others

Roller Centers: 3.00" - Standard

Installation method: Press fit into tube and swage

Belts: ConveyXonic® - High Tension Poly V - elastic nylon reinforced rubber

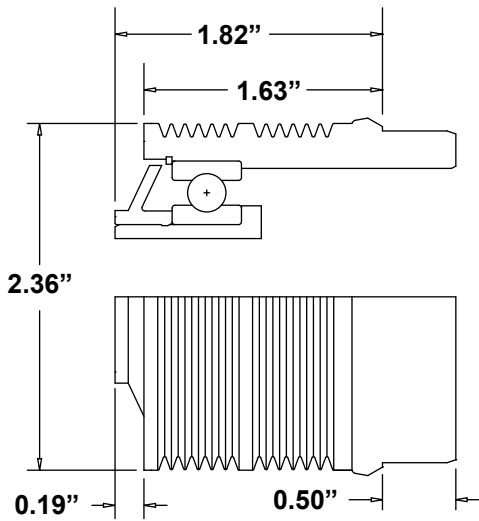
# of ribs	Series	Part #
2, 3, 4	"J"	Inquire - Dependent on load requirements and roller center distances

Belt Manufacturer: Hutchinson Belt Drive Systems

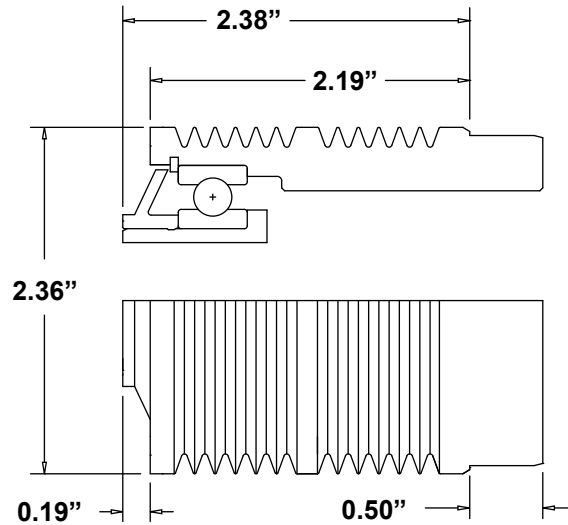
Belt Supplier: Ralphps-Pugh

Insert Drive Options: Motorized roller - Ralphps-Pugh insert is a direct match to Itoh Denki motorized rollers. Ralphps-Pugh will machine a Poly V pulley for installation with your preferred drive.

Poly V Belt Inserts - 60MM Effective Diameter



34PB68J60-6



34PB68K60-6

Bearing:	Type:		Qty:
	ABEC-1 Precision	Chromium	1
	Option: ABEC-1 Precision	440SS	1

Insert Material: Steel or Stainless Steel

Bore:	11/16" Hex	Part #	34PB68J60-6	"J" series belts
			34PB68K60-6	"K" series belts

Tube: 2.50" OD x .120" wall thickness - Standard
Options: Inquire

Roller Centers: 3.00" - 12.00"

Installation Method: Press fit into tube and weld

Belts: ConveyXonic® - High Tension Poly V - elastic nylon reinforced rubber

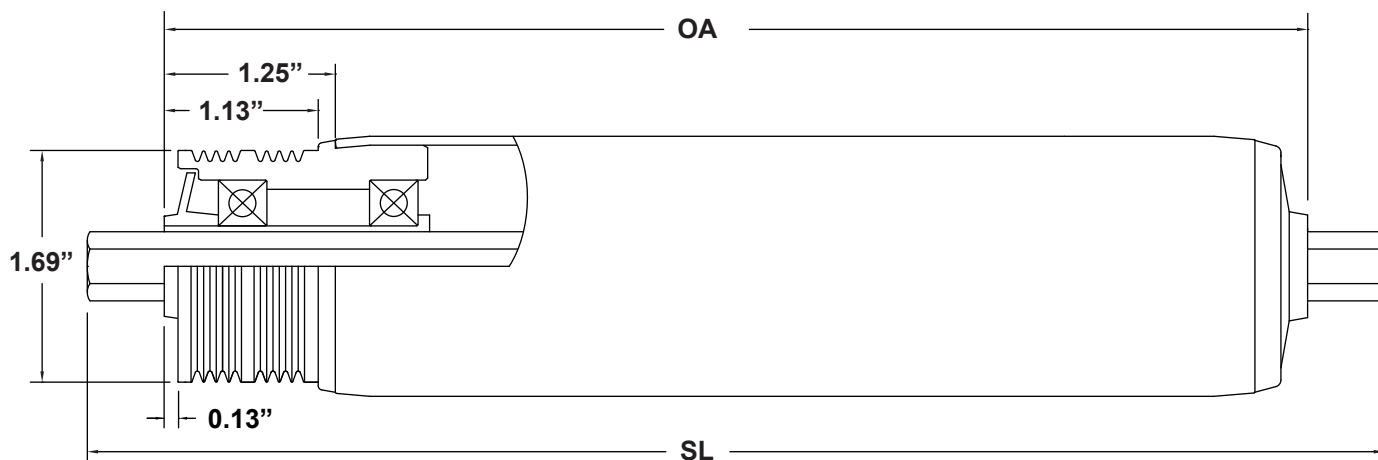
# of ribs	Series	Part #	
2, 3, 4, 5, 6	"J"	Inquire	Dependent on load requirements and roller center distances
2, 3, 4, 5, 6	"K"	Inquire	Dependent on load requirements and roller center distances

Belt Manufacturer: Hutchinson Belt Drive Systems

Belt Supplier: Ralphps-Pugh

Insert Drive Options: Motorized roller - Ralphps-Pugh insert is a direct match to Itoh Denki motorized rollers. Ralphps-Pugh will machine a Poly V pulley for installation with your preferred drive.

1.90" O.D. Poly V Belt Roller - 3PB44J43-4.G46.C68



Bearing: **Type:** **Qty:**
 ABEC-1 Precision Chromium 2
 Option: ABEC-1 Precision 440SS 2

Insert Material: Conductive Plastic

Bore: 7/16" Hex **Part #** 3PB44J43-4

Tube: 1.90" x .065" - Standard

Roller Centers: 3.00" - Standard

Installation method: Press fit into tube and swage

Belts: ConveyXonic® - High Tension Poly V - elastic nylon reinforced rubber

# of ribs	Series	Part #
2, 3, 4	"J"	Inquire - Dependent on load requirements and roller center distances

Belt Manufacturer: Hutchinson Belt Drive Systems

Belt Supplier: Ralphps-Pugh

Drive Options: Motorized roller - Ralphps-Pugh insert is a direct match to Itoh Denki motorized rollers. Ralphps-Pugh can machine Poly V pulleys to your specifications for non motorized roller drive options.

Load Capacity

Frame I.F.	Load Capacity (lbs.)	Frame I.F.	Load Capacity (lbs.)
12	297	33	95
15	228	36	87
18	185	39	80
21	156	42	74
24	134	45	69
27	118	48	64
30	105	51	60

* Load capacity with aluminum tube or shaft is 33% of steel capacity.

** Longer lengths are available upon request.

*** Capacities are for uniform loading - Reduce 50% for point loading.

