



## Basic Belting Guidelines

KVP RS511 and RS515 ½" pitch belting

# RS511/RS515 Belting Guidelines

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RS511 =  $\frac{1}{2}$ " pitch, flat top, tight radius belt

RS515 =  $\frac{1}{2}$ " pitch, curved top, tight radius belt

- 40% open area
- Food approved materials
- $\frac{3}{4}$ " diameter nosebar capability
- Connecting rod diameter = 0.188"
- Standard belt width increments = 1 inch nominal, starting from 12 inches

# RS511/RS515 Belting Guidelines

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## Questions:

- Does the customer and end-user know how the belt works?
- Why does the customer have the need for this belt?
- Does the customer know, that the conveyor designs in this document are requirements, not recommendations?
- Is the customer willing to design his conveyor per these guidelines?

## Good reasons for the customer to want this belt:

- Good product transfer
- Tight turn radius belt is needed in a small space

# RS511/RS515 Belting Guidelines



## Belt Data:

### RS511 (flat top)



Belt material		POM
Rod material		Nylon (PA)
Nominal tensile strength $F_N$ in curve <sup>(1)</sup>	N lbf	667 150
Temperature range	°C °F	-40 - 93 -40 - 200
Belt weight $m_B$	kg/m <sup>2</sup> lb/sqft	6.9 1.41
Standard belt color		blue/white

### RS515 (curved top)



Belt material		POM	Nylon (PA 612)
Rod material		Nylon (PA)	
Nominal tensile strength $F_N$ in curve <sup>(1)</sup>	N lbf	667 150	667 150
Temperature range	°C °F	-40 - 93 -40 - 200	-40 - 118 -40 - 245
Belt weight $m_B$	kg/m <sup>2</sup> lb/sqft	7.2 1.47	5.9 1.21
Standard belt color		blue/white	beige

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## Sprocket Data:



Sprocket part number	Number of teeth	(PD) Nominal pitch diameter		(WH) Shaft center to top of wearstrip		(BH) Shaft center to top of belt		Curved Top (BH) Shaft center to top of belt curve		(HT) Hub thickness	
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
070515 L/S	15	5.40	137	0.38	10	0.88	22	0.91	23	1.5	38

- Belt material should be called out when ordering sprockets
- Other sprocket sizes available on request
- Recommended sprocket material is Blue Cast Nylon

Sprocket part number	Available bore size														
	1"	1" sq.	30 mm	1-1/4"	1-7/16"	1-1/2"	1-1/2" sq.	40 mm	40 mm sq.	1-15/16"	50 mm	2"	60 mm	60 mm sq.	2-1/2" sq.
070515 L/S	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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## General Rules:

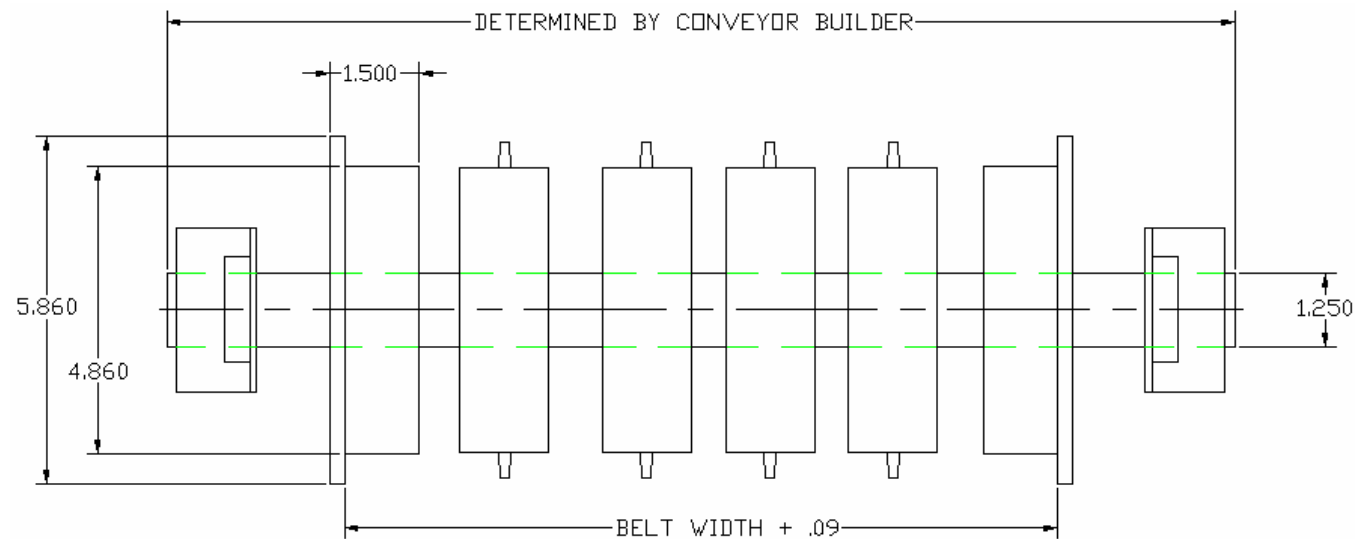
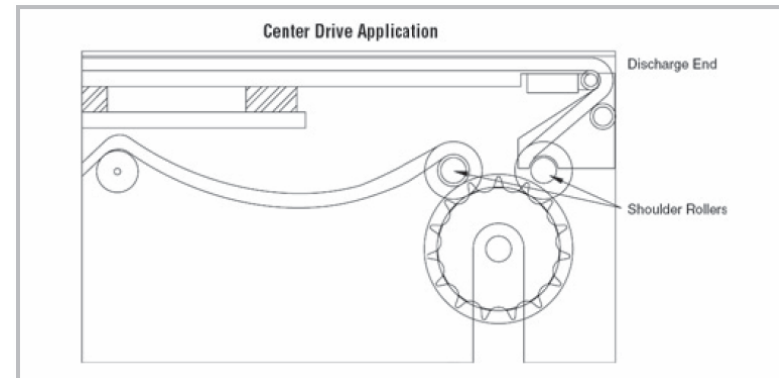
- Belt width must be 12" to 48" (consult Engineering for other widths)
- 18" minimum infeed and discharge regardless of belt width
- 25 ft maximum carryway length
- Only single 90 degree or less conveyor layouts
- No elevation change
- Uni-directional only
- Preferred drive is center drive w/ nosebars at infeed and discharge
- Standard end drive is acceptable
- Turn ratio:
  - Belt width 12" – 24" = 1:1
  - Belt width 25" – 48" = 1.1:1

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## Center Drive (preferred drive configuration):

- Rolling  $\frac{3}{4}$ " nosebars at infeed and discharge
- Shoulder rollers must be used on drive shaft to guide and support the belt
- Shoulder rollers must be used with snub rollers to guide the belt through the drive
- 270 degrees of belt wrap around sprocket



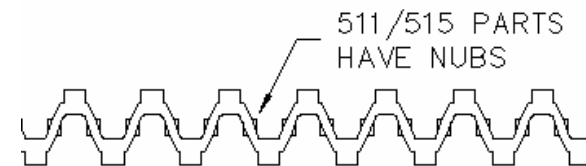
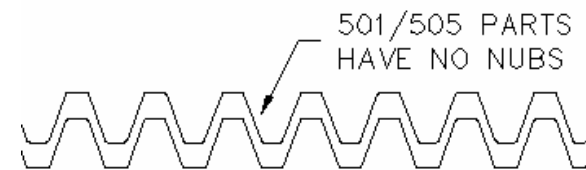
# RS511/RS515 Belting Guidelines



## Assembly Information:

- New “Nubbed” parts used in center of belt only
- Two “OP” rods are used per pitch, see below
- Belt widths 28” and over require floater rod every pitch
- Belt widths 30” and over require steel floater rod every 4<sup>th</sup> pitch

SMART PIN	BELT WIDTH
OP-0	6-9
OP-1	10-17
OP-2	18-29
OP-3	30-48





# RS511/RS515 Belting Guidelines



## Installation/Maintenance Information:

### Assembly

For all belt widths: Align the modules to be connected > Follow further instructions below.



Plug



Tapered pins. There are two pins per row.



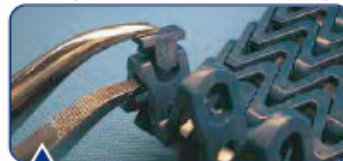
Rotate pins approx. 45° and slide pin into the belt (one from each side and thick end first).



Hole for little plug. When plug is installed, the pin is fixed.



Use nose pliers to put plug into position.



Use nose pliers to put plug into final position.

### Disassembly



Plugs in the belt side



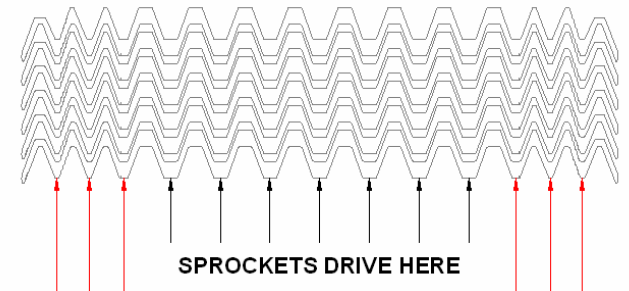
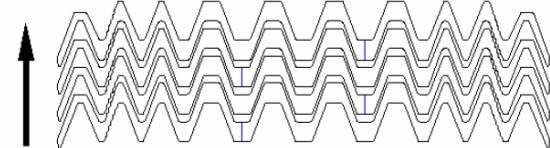
Use flat blade screwdriver to pry out the plug.



Use flat blade screwdriver to pry out the rods.

Replace all removed rods as they will be damaged during disassembly.

### PATH OF FLOW



NO  
SPROCKET  
PATHS

NO  
SPROCKET  
PATHS