

sprockets, and various other components must be installed.

SHAFT INSTALLATION

- Use the triangulation method to check shaft alignment and ensure the shafts are parallel even when the conveyor frame is not square.

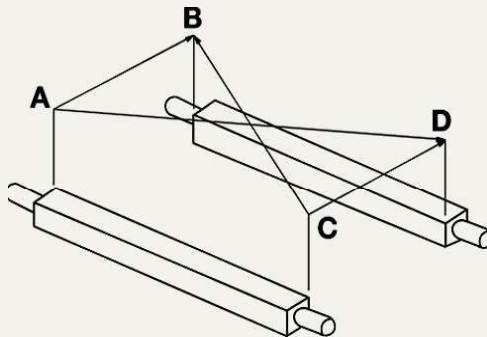


Figure 1: If **AD** and **BC** are equal, and **AB** and **CD** are equal, then the shafts are square with each other.

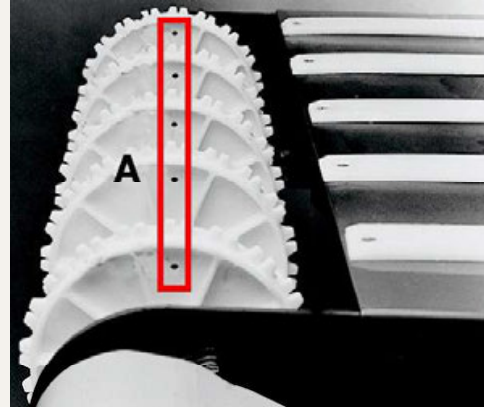
- Align the shafts in the same relative position for the entire length of the conveyor so the belt tracks properly.

SPROCKET INSTALLATION

SPROCKET ALIGNMENT

- Align sprocket teeth in the same position. Inspect by looking down the shaft.

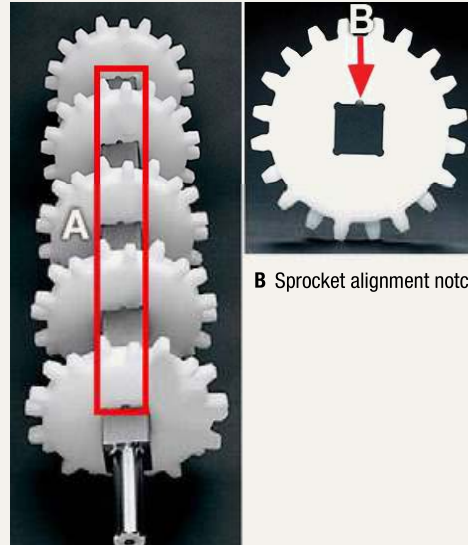
- Ensure the pilot holes on all sprockets with an uneven number of teeth are aligned on the same side of the shaft.



A Ensure pilot holes are aligned

Figure 2: Shaft with aligned sprockets

- When installing sprockets with a number of teeth unevenly divided by 4 on a square shaft, ensure the sprocket alignment notches are aligned on the same side of the shaft.



B Sprocket alignment notches

Figure 3:

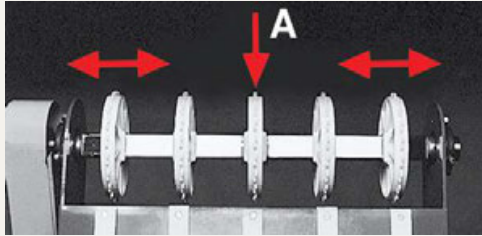
Ensure sprocket alignment notches are aligned

A Notches aligned

SPROCKET POSITIONS ON THE SHAFT

NOTE: This information does not apply to Series 888, Series 2600, Series 2700, Series 2800, or Series 2900. See those specific sections on the following pages for more information.

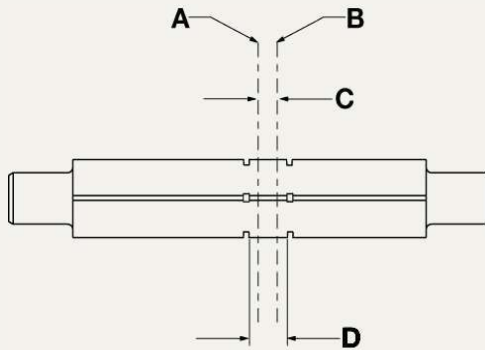
- Lock one sprocket on each on the drive and idle shafts to maintain proper lateral tracking.



A Locked sprocket

Figure 4: Lock one sprocket each on drive and idle shafts

- Position the locked sprockets in the same location on each shaft.
- Ensure the non-locked sprockets on the shaft are free to move with the elongation and contraction of the belt.
- If there are only two sprockets per shaft, only lock the sprockets on the drive journal side.
- See the following table for center sprocket offset and maximum sprocket spacing information.



A Centerline of belt

B Centerline of sprocket

C Offset

D Sprocket width

Figure 5: Center sprocket offset and maximum sprocket spacing

Center Sprocket Offset						
Series	Number of Links	Offset		Max. Sprocket Spacing		Notes
		in	mm	in	mm	
100	even	0	0	6	152	
	odd	0.12	3	6	152	
200	even, odd	0	0	7.5	191	
200 RR	even, odd	0.09	2.3	7.5	191	
400	even	0	0	6	152	
	odd	0.16	4	6	152	
400 RT, ARB, TRT						See Center Sprocket Offset for Roller Belts.
550	even	0	0	5	127	
	odd	0.5	12.7	5	127	
800	even, odd	0	0	6	152	
800 Angled EZ Clean	even, odd	0.16	4	6	152	6-, 10-, and 16-tooth sprockets can be placed on belt centerline.
800 RR	even	3	76	6	152	
	odd	0	0	6	152	
850	even, odd	0	0	6	152	
888						See Medium Slot (without Stainless Steel Links) Sprocket Installation and Medium and Large Slot (with Stainless Steel Links) Sprocket Installation
900	even	0	0	4	102	
	odd	0.16	4	4	102	
900 OFG						For offset and number of links, see Locked Sprocket Location
1000	even	0	0	6	152	
	odd	0.25	6.44	6	152	

WEARSTRIP INSTALLATION

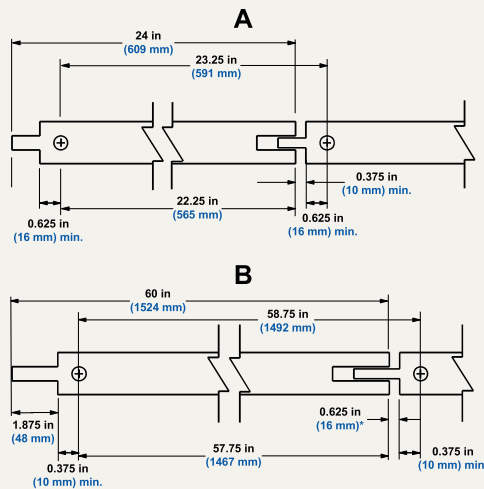
Plastic wearstrip installation should allow for thermal expansion and contraction.

FLAT FINGER-JOINT WEARSTRIPS

1. Starting at the idle end of the conveyor, cut the tongues from the first wearstrips and bevel the leading edges.
2. Place the wearstrips in position.
3. Drill a 0.25 in (6 mm) hole in the wearstrip and frame.

NOTE: Before mounting, ensure there is proper clearance between the tongues and grooves. Ensure all tongues point in toward the idle shaft.

4. Using the plastic bolt and nut, fasten the wearstrips to the frame.
5. Continue this process, working toward the drive end of the conveyor.
6. Cut off the excess wearstrips at the drive end and fasten the wearstrips to the frame.

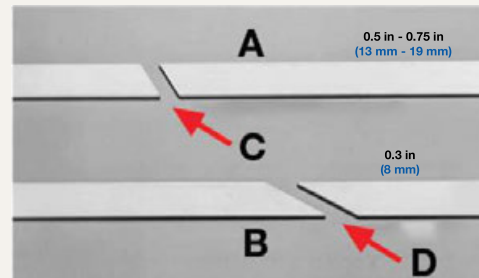


A Idle end
B Drive end
* Minimum

Figure 6: Flat Finger-Joint Wearstrips

FLAT AND ANGLE WEARSTRIPS

1. Bevel cut the opposing ends of the wearstrips.
 - a. A 30-degree angle with the horizontal and a 0.30 in (8 mm) clearance gap usually works best.
 - b. In extreme conditions, a 60-degree angle is needed. The clearance must be determined by thermal expansion calculations.



A Operating temp. of 100°F (37°C) or more
B Operating temp. of 100°F (37°C) or less
C 60.00 degrees
D 30.00 degrees

Figure 7: Bevel cut opposing wearstrip ends

2. Place the wearstrips in position and stagger the wearstrip joint locations for smooth belt operation.
3. Drill a 0.25 in (6 mm) hole in the wearstrips and frame at the idle end of the conveyor.
4. Using the plastic bolt and nut, fasten the wearstrips to the frame.
5. Drill slotted holes through the wearstrips and frame every 2 ft (0.61 m) to 5 ft (1.52 m) on centerlines, working toward the drive end of the conveyor.
6. Cut off the excess wearstrips at the drive end and fasten the wearstrips to the frame.

BELT INSTALLATION PREPARATION

installing Uniking belting. Not all conveyors are

may have special considerations. Review the following information before installing or replacing a belt.

- In most retrofits, Intralox belting can run directly on the same carryways as the replaced belt.
- Ensure carryways are clean, in good condition, not grooved from belt wear, and free of debris.
- Ensure the existing wearstrip material is compatible with the new belt.
- Replace damaged, worn, or incompatible wearstrips as needed.

TOP & BOTTOM INSPECTION

If belt geometry is not symmetrical on top and bottom, a dedicated top (product conveyance surface) and bottom (sprocket driving surface) must be determined before installation. Some distinguishing features on open area belts are:

- The bottom side has geometry designed for the sprocket tooth to engage (drive bar, drive pockets).
- The top side has a closed hinge and the bottom side has an open hinge design.
- Center bars/spines are wider on the top side than the bottom side.
- The end of the rod is usually more exposed on the bottom side.

If still unclear, refer to the belt drawing for the specific

STANDARD BELT INSTALLATION

1. If there is a shaft take-up, move the adjustment to the relaxed or loose-belt position.
2. Feed the belt down the carryway from the conveyor drive end.



Figure 8: Feed belt from drive end

3. Center the belt on the conveyor frame, noting the location of the locked sprocket.
4. Ensure there is space between the belt edges and the conveyor frame to accommodate belt expansion.

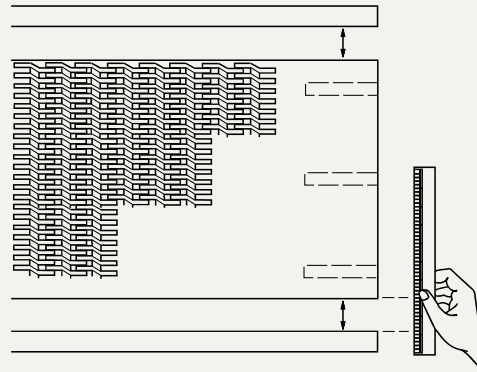


Figure 9: Measure distance between belt edge and frame

5. Wrap the belt around the idle sprockets, ensuring the sprockets remain aligned and in position. The two outboard sprockets must engage the belt 1.5 in (38 mm) to 2 in (51 mm) in from the outer belt edges.

NOTE: For Series 1100, the two outboard sprockets must engage 1 in (25.4 mm) in from the outer belt edges.

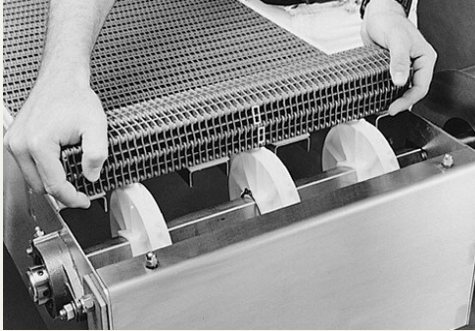


Figure 10: Wrap belt around idle sprockets

6. Once wrapped around the idle sprockets, feed the belt down the returnway until it reaches the drive sprockets.



Figure 11: Feed belt down returnway

7. Wrap the belt around the drive sprockets, keeping the drive end and idle end locked sprockets in the same lateral position.

NOTE: Ensure the belt engages the drive and idle end locked sprocket in the same position. Failure to do this causes belt mistracking.

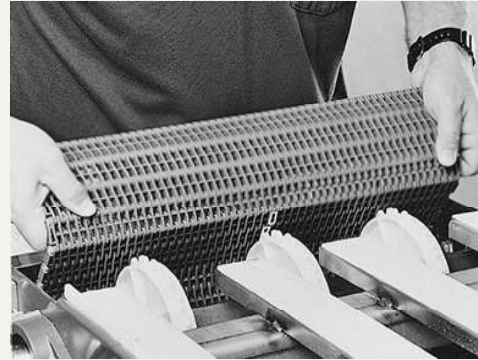


Figure 12: Wrap belt around drive sprockets

8. Push the belt ends together to engage the links and ensure the edges are properly aligned.



Figure 13: Push belt ends together

9. Clip the rod at an angle to make insertion easier.



Figure 14: Clip rod at angle

10. After any final adjustments, insert a rod to join the belt ends (see specific instructions for your belt series and style).

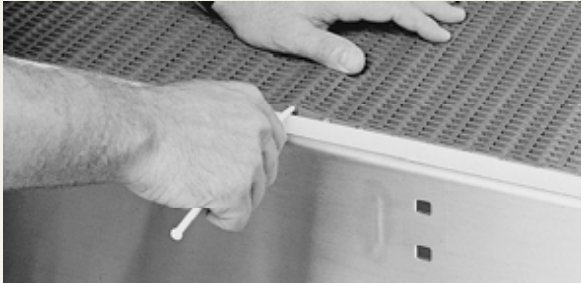


Figure 15: Insert rod

CHECKING THE INSTALLATION

1. Jog the conveyor slowly or manually push the belt forward so the drive shaft revolves several times.
2. While the belt moves, ensure the drive and idle shaft sprockets fully engage the belt and the belt tracks properly.

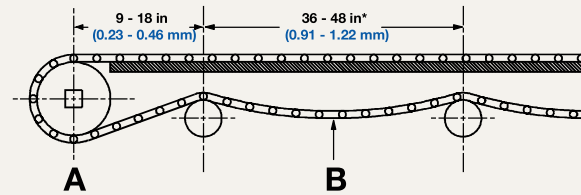


Keep hands and fingers clear of moving parts.

3. If the sprockets engage the belt properly and the belt tracks properly, ensure the shaft bearings and conveyor frame are aligned properly.
 - a. If the belt and sprockets do not engage, repeat the [Sprocket Installation](#) and [Belt Installation](#) procedures in this section.
 - b. If the belt does not track properly, check the sprocket positions on both shafts. See [Sprocket Installation](#) in this section.

CATENARY SAG

1. If needed, add or remove belt rows or adjust the take-up to achieve proper catenary sag for belt tension.



A Drive sprocket

B Catenary sag: set up at 1 in (25.4 mm) to 6 in (152 mm) during operational temperature

* For all except Series 100, Series 400, and Series 1200. These series should have rollers spaced from 48 in (1219 mm) to 60 in (1524 mm)

Figure 16: Proper catenary sag

Roller Diameter	
Belt Pitch	Minimum Roller Diameter
0.6 in, 1.0 in	2 in (51 mm)
1.25 in, 1.5 in, 2.0 in, 2.5 in	4 in (102 mm)

2. Once the belt is properly tensioned and running smoothly, secure the rod in place. (See specific instructions for your belt series and style.)

BREAK-IN PERIOD

The break-in period usually occurs during the first several days of operation. Depending on the application and environment, belts elongate from 0.5% to 1% of their total length during the break-in period.

If belt elongation is excessive, remove one or more rows of modules to maintain proper catenary sag and belt tension.