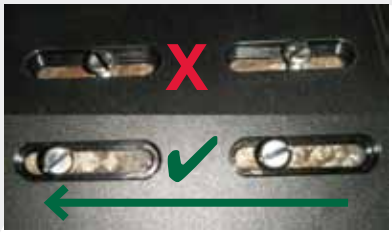
5997 Sprocket & Transfer Comb Installation Checklist

Transfer Comb Installation

1. Place all combs on Z-bar and engage the teeth with the ribs in the 5997 chain.

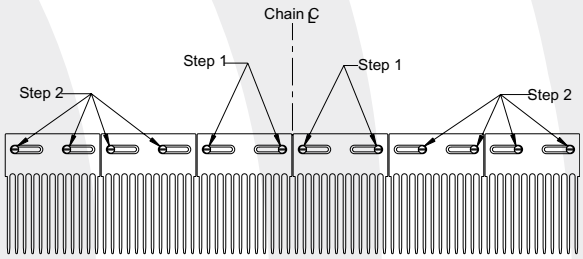
2. Finger-tighten all screws across width of conveyor and observe screw placement in the comb slots. For pasteurizers, screws should be aligned towards the outer edge of the comb eyes. During retrofits where existing holes are used, it may be necessary to re-tap and drill holes in the support bar to properly align the combs. As an alternative, proper alignment can be achieved by cutting the outer finger off from a few combs to position the screws. Only screws located within the outer half of the slot are acceptable.

Finger-tighten Screws Across Entire Conveyor Width

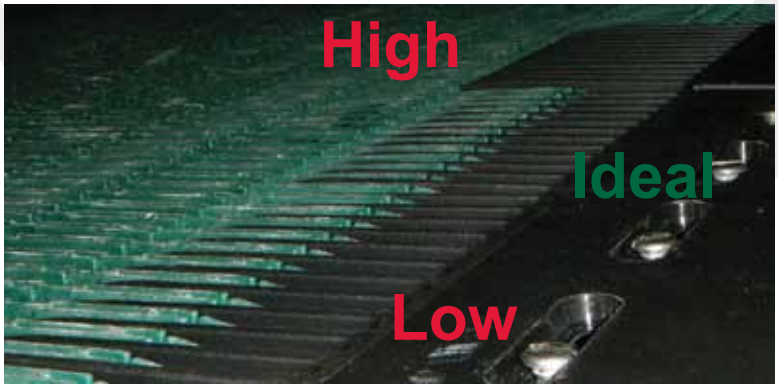


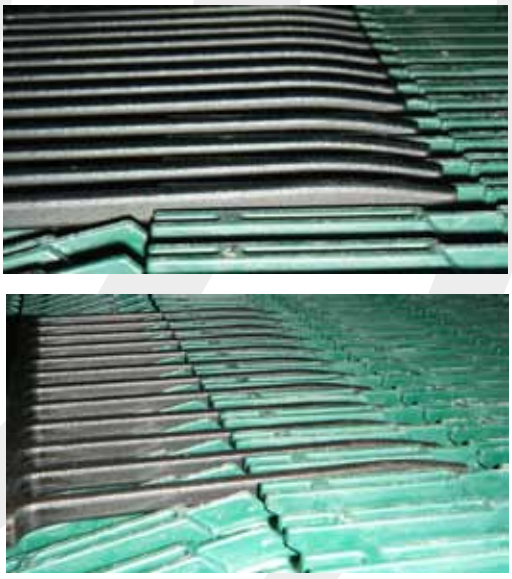
Chain can Expand from Centerline

3. Once all screws are properly oriented in the comb slots they should be fully tightened down. If the comb cannot freely slide back-and-forth after tightening, loosen the screws slightly (turn them approximately 90°) until the combs slide freely. The screws should be as tight as possible and still allow comb movement as to prevent them from pivoting on the Z-bar into the chain.



4. If the mounting beam is a Z-bar, adjust it by first loosening all bolts. If there is a break between the beams, inspect the weld and repair it as necessary (an uneven joint will result in product instability). When aligning the combs, start with the center and work out ensuring the transfer Combs are parallel with the chain. In other words, the fingers should not tip upwards from the chain, nor should they dive down into it. The surface of the chain and the surface of the combs should be as close to even as possible. Other beam configurations exist but are typically only have limited adjustments.

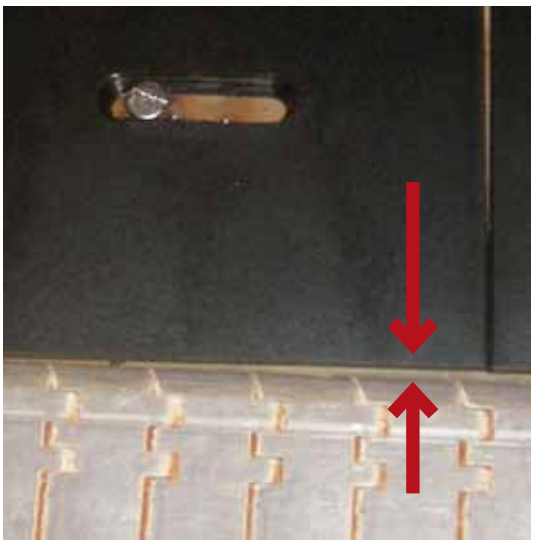




Comb Orientation at Infeed – Upper Photo shows Combs that are Too High, Lower Photo is Ideal

5. After adjusting the Z-bar over the entire width of the conveyor, check back in the center to ensure later adjustments did not affect the initial location of the combs. If the combs are no longer level, minor adjustments to the Z-bar should be sufficient to realign them.

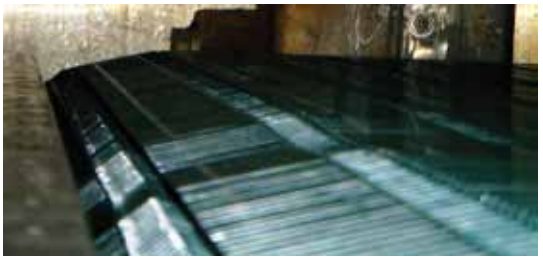
6. The infeed (or take-away) conveyors should be as close as possible to the back of the transfer combs. This can be forced by placing a piece of UHMW between the guide rail support and the chain to ensure there is no gap between the combs and the chain.
7. Product flow should always step down from one surface to the next. For the infeed side of the pasteurizer, the infeed chain should be slightly higher than the transfer combs, and the combs should be slightly higher than the pasteurizer chain. For the discharge side, just the opposite: the pasteurizer chain should be slightly higher than the transfer combs, which should in turn be slightly higher than take-away chain.
8. When inserting the screw caps ensure they are not depressed too far into the slots or sticking out above the comb surface. If they are not flush, they will trip the product.
9. Check for proper transfers using an inverted can. You should be able to push the can over the transfers without having it catch. If possible, turn on the pasteurizer and verify transfers with a case of cans.



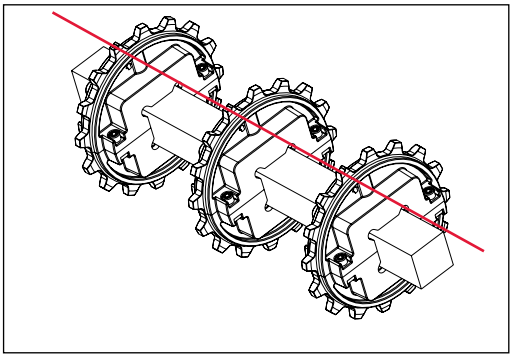
Gap between Combs and Chain

Sprocket Installation

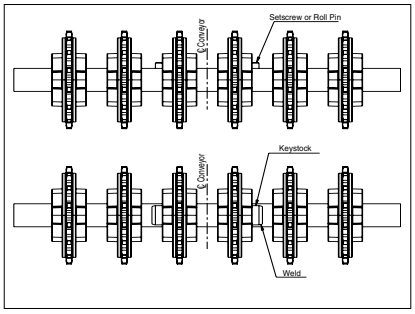
With all tunnel applications, Rexnord recommends using all available sprocket pockets on both the drive and idler ends (if a bearing obstructs a sprocket pocket, skip it out of necessity). If more than two sprocket pockets are skipped, consider using UHMWPE shoes around the bearing to support the chain. This assures optimum product transfer at both ends of the machine, which is especially critical when using transfer combs. For 5997 Chain series, the two center sprockets should be fixed on both the drive and the idle shaft while the remainder of the sprockets are allowed to float axially. Fixed sprockets can be locked in place using set screws, roll pins, welded blocks or shaft collars (preferred). It is only necessary to use locking mechanisms on the outer faces of the two centermost sprockets, but if space allows it is also acceptable to lock both sides of the center two sprockets. It is not recommended to use the center bearing as one side of the locking mechanism.



Dip in Chain where Sprocket Pocket is Missed



Square Bore Sprockets Displaying Timing Mark



Recommended Locking Method for Two Center Sprockets

Properly Installed Sprockets with Timing Mark in Alignment

Additional Details can be found in Rexnord's Pasteurizer, Warmer, Cooler Engineering Manual: Publication 8rxPWCdm-eng

8rx5997COMBpb-en 02/10