

RT3000 and RT3001 Series

For V-belt, V-ribbed, Synchronous Belt and Roller Chain Drives

Mounting Requirements

Before beginning the installation, review the following:

- Mounting bracket and supporting framework must be sturdy to prevent twisting under load.
 - Mounting bracket and rotary tensioner must be located to allow for correct alignment of the idler with the driveR and driveN pulleys or sprockets.
 - Rotary tensioner should always be mounted on the slack side of the belt or chain drive. See Figure 1.
 - The preferred location of a rotary tensioner/idler is on the inside of the belt drive. Optimum location would be where the idler provides nearly equal arcs of contact on both the driveR and driveN pulleys.
 - As a rule of thumb, the inside idler pulley should be the same diameter as the driveR pulley.
 - An outside spring-loaded rotary tensioner may be used, but it imposes a back bend on the belt. Follow the belt manufacturer's recommendations for diameter and location. Typically, this diameter should be 1/3 larger than the driveR pulley.
 - Rotary tensioner and idler sprocket should always be positioned on the outside of the chain.
- Note: At least three idler sprocket teeth must engage the chain.**
- If possible, position the rotary tensioner with idler approximately 1/2, but no less than 1/3, of the center distance from the driveR sprocket.
 - **Never use a spring-loaded rotary tensioner/idler on a reversing drive.**

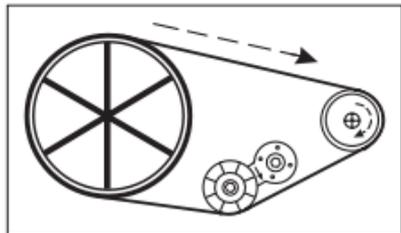


Fig. 1

Assembly Instructions

1. The directional arrow on the top of the arm must point in the direction of the belt(s). See Figure 2. If not, it is necessary to disassemble the tensioner and reverse the spring. See step 2. Otherwise, proceed to step 3.

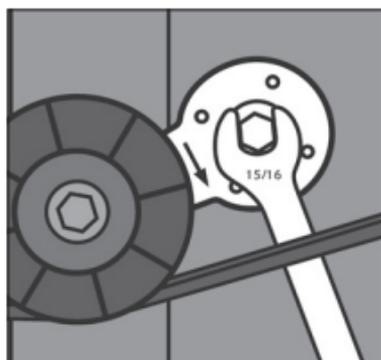


Fig. 2

2. When handling, be certain to securely hold both the housing/arm and base to prevent the unit from coming apart. Remove the wire tie from the tensioner. Lift off the aluminum housing/arm assembly, exposing the spring. Remove the spring, flip it over, and replace it on the tensioner base. The spring's center "tail" must engage the slot in the center shaft. On the arm, remove the directional arrow piece. Reverse it so the arrow points the opposite way and push it back into place. **Note: If arrow is not pointing in the correct direction, the tensioner cannot be reassembled.** Replace the housing/arm assembly onto the tensioner base.
3. Drill a hole in the mounting bracket corresponding to mounting bolt sizes 3/8"-16 for RT3000 and .410" for RT3001.
4. Mount the idler to the tensioner arm. The hole in the arm is designed to accept a 1/2" diameter bolt.
5. Bolt the tensioner/idler assembly onto the mounting bracket. **Note: When installing the RT3001 use a 3/8"-16 flat socket head capscrew.** Only snug the capscrew at this time — do not fully tighten! Check the alignment of the idler with the driveR and driveN pulleys.

Any misalignment must be corrected.

6. Place belt/chain over all pulleys/sprockets.
7. The tensioner spring is not yet under tension. Put the idler in light contact with the belt(s). Place a 15/16" open end wrench on the hex nut on the tensioner body and rotate it clockwise if the arrow points towards the "phone number" or counter-clockwise if the arrow points to "Fenner Drives" (when viewed from the front) until you feel light spring pressure. This will be the starting point for establishing tensioner force and degrees of rotation. See Figure 2.

8. From the starting point, continue rotating the wrench to the desired degrees of rotation and resulting tensioner force. **Note: The tensioner is rated at .6 lbs. force per degree and has equally spaced graduation marks every 10° on the housing (20° on base) that can be used to establish rotational degrees.** See Figure 3.

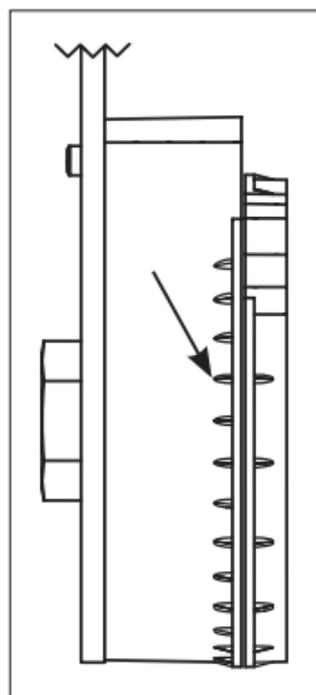


Fig. 3

9. Securely holding the 15/16" wrench at the desired tensioner setting, tighten the 3/8" mounting bolt holding the tensioner to the bracket. Remove the 15/16" wrench.
10. Before starting the drive, recheck drive alignment and check all mounting fasteners for tightness.

For a complete installation video visit
www.youtube.com/fennerdrives





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