T-MAX BELT & CHAIN TENSIONERS

Rotary Tensioner Installation Instructions

RT1000 and RT1600 Series

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

Mounting Requirements

Before beginning the installation, review the following:

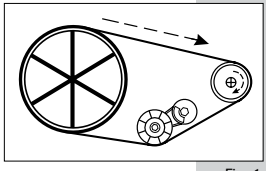

Fig. 1

- 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 the idler pulley 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.**

(OVER)

Assembly Instructions

1. Mount idler pulley/sprocket to rotary tensioner arm.
2. Drill a 0.40 clearance hole or tap for a $^{3}/_{8}$" – 16 thread in the mounting bracket.
3. Insert mounting bolt in rotary tensioner body and into the mounting hole. Hand tighten only! Check the alignment with the driveR and driveN pulleys/sprockets. **Any misalignment must be corrected!**
4. Place belt/chain over all the pulleys/sprockets.
5. Place a $^{15}/_{16}$" wrench on the hex nut in the tensioner body and a wrench on the mounting fastener.
6. Using the wrench on the tensioner body, apply pressure in the appropriate direction until the belt/chain is properly tensioned. Figure 2: The tensioner body has equally spaced marks every 15° representing the force and degrees per Table 1.
7. With the tensioner securely held in position, tighten the mounting fastener.
8. Before starting the drive, recheck drive alignment and check all mounting fasteners for tightness.

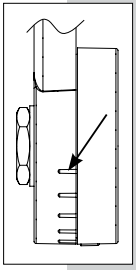

Fig. 2

Table 1.

Model Series	Arm Rotation Degrees	Force (1) (lbs.)
RT1000	15	16
	30	23
	45	30
RT1600-L	15	10
	30	13
	45	16
RT1600	15	20
	25	23
	35	26

(1) All forces (lbs.) are nominal.

Patent Pending

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