

# Re-assembly Instructions

## 2100 End Drive Bottom Mounting Package

The end drive bottom mounting package is ordered from the factory in either configuration shown by Position "A" or "D" of Figure 1 along with the conveyor belt travel direction shown by arrow 1 or 2 of Figure 2. Actual direction of belt travel is indicated by an arrow decal affixed to side of conveyor. The same mounting package is used for both flat belt and cleated belt conveyors.

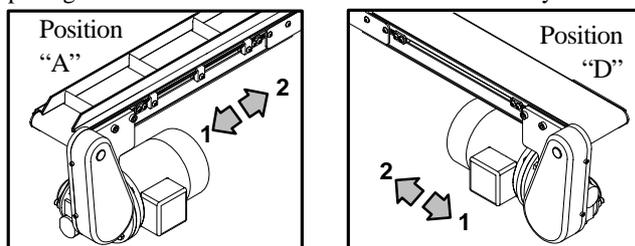


Figure 1: Cleated Belt (left) & Flat Belt (right)

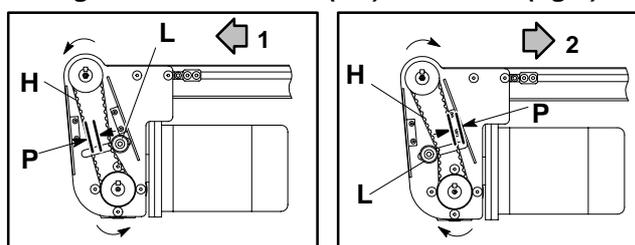


Figure 2: Timing Belt Tension Detail

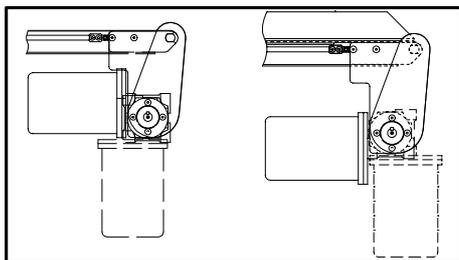


Figure 3: Gearmotor Re-orientation Details for Flat Belt Conveyor (left) & Cleated Belt Conveyor (right)

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WARNING

To prevent injury, make sure all electrical power sources have been disconnected before you perform any maintenance or adjustments or replace any components.

### Attaching to Conveyor

1. Remove and discard the two original tail plate screws (B of Figure 4) from outboard shaft side of conveyor.
2. The gearmotor and mounting plate (C) are shipped already sub-assembled, as shown. Attach this sub-assembly to the conveyor using the two 8 mm x 12 mm socket head shoulder screws (E) with 9 Nm torque.
3. If desired, re-orient the motor to alternate position shown by detaching the four (4) mounting screws, turning the motor 90° and re-securing the 4 screws (Figure 3).
4. Place a square key (I) into the keyway of the conveyor output shaft and install the driven pulley (G). Similarly, place a square key (J) in the keyway of the gear reducer shaft and install the drive pulley (F). Bring the pulleys and

the tensioning roller assembly (L) into alignment with each other and secure them onto their respective shafts by tightening the pulley set screws [or Taper Lock® bushing screws] (K).

### NOTE:

Use the hex key wrench furnished with the Taper Lock® style pulley kit. Retain wrench for future service.

For this drive arrangement, a Taper Lock® pulley (F) and bushing (K) combination, when provided, should only be installed on the gear reducer output shaft and not on the conveyor shaft.

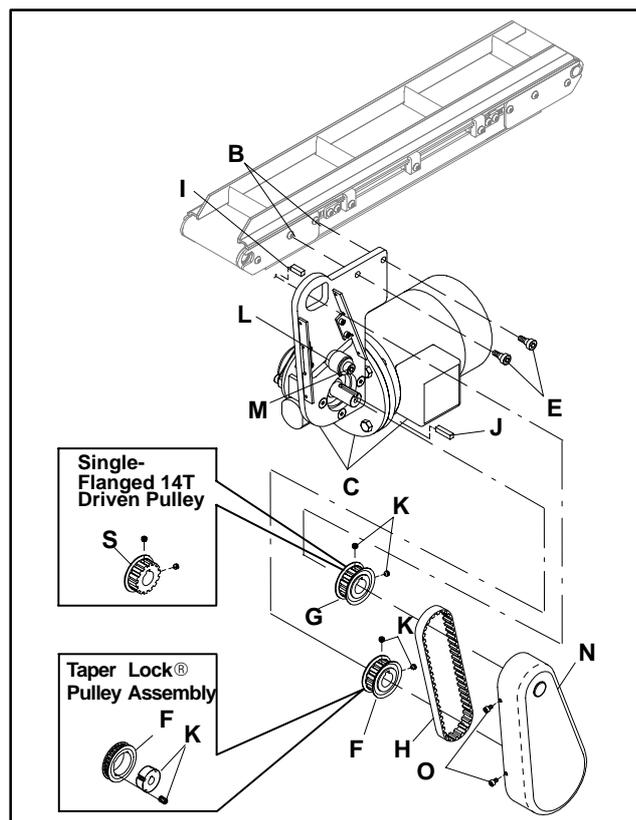


Figure 4: Sample Cleated Belt Bottom Drive

### NOTE:

For the combination 14T and 14T Pulley Kit only, be sure to install the single-flanged pulley (S of Figure 4) onto the conveyor shaft in the direction shown.

5. Install the timing belt (H of Figure 4) around the pulleys. Determine which direction the conveyor belt is traveling (as shown by arrow 1 or 2 of Figure 2) and position the tensioning roller assembly (L of Figure 2) on the appropriate slack side of the timing belt, as shown. Make sure timing belt is centered with respect to all three components before adjusting tension in the next step.
6. Adjust the timing belt tension by sliding the belt tensioning roller assembly (L) against the belt. Timing belt tension can be measured at the mid-point (P) on the tension side of the belt. At this point, tension should be adjusted for a 3 mm belt deflection with 0.5 kilograms of force applied.

<continued on next page>

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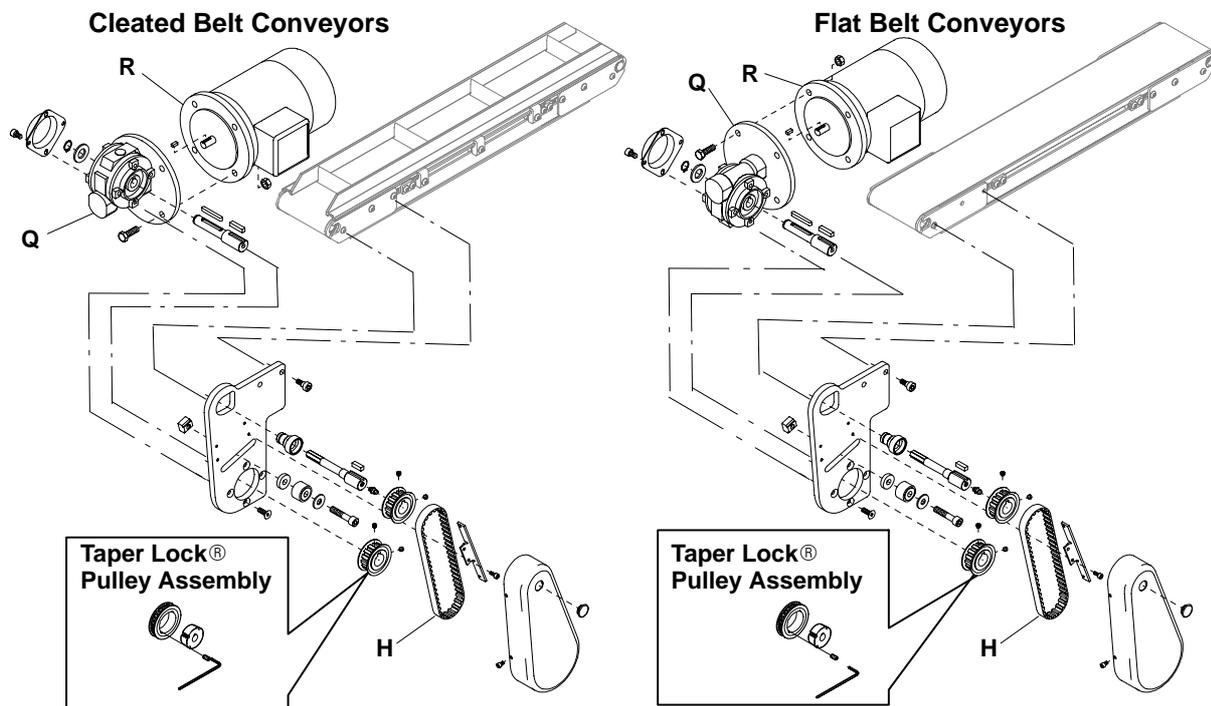
- After the required tension is achieved, tighten the M8 x 40 mm socket head cap screw (M of Figure 4) with 24 Nm of torque.
- Re-attach belt guard (N) using all four (4) M4 x 6 mm socket head cap screws (O).

## NOTE:

Do not over tension the timing belt. Over tensioning may cause reduced belt life or bearing and drive damage. Every timing belt application exhibits its own individual operating characteristics. The optimum timing belt tension should be determined experimentally. If necessary, continue to slide the tensioning roller assembly (L of Figure 2) against the timing belt (H) until belt is tensioned so as to prevent jumping the teeth under the most severe conditions or heaviest load that the drive will encounter.

## Replacement Parts

For unidentified items, contact factory.



For future service parts ordering, please record part numbers here and in your conveyor manual.

H Timing Belt (\* \_\_\_ \_ \_ L)

Q Gear Reducer (\*\*820- \_\_\_ \_ \_)

R Motor (\*\*826- \_\_\_ \_ \_)

\* Record length (which is marked on belt) here and in the appropriate space on page 2 of your Setup, Operation & Maintenance Manual, which was provided with your conveyor.

\*\* Record these Dornier Part Numbers (which are provided on affixed labels) here and in the appropriate spaces on page 2 of your Setup, Operation & Maintenance Manual, which was provided with your conveyor.

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**DORNER MFG. CORP.**

580 Industrial Drive, PO Box 20  
Hartland, WI 53029-0020 USA

USA

TEL 1-800-397-8664 (USA)

FAX 1-800-369-2440 (USA)

Outside the USA:

TEL 1-414-367-7600, FAX 1-414-367-5827

**DORNER**

Arnold-Sommerfeld-Ring 2  
D-52499 Baesweiler

Germany

TEL (02401) 80 52 90

FAX (02401) 80 52 93