

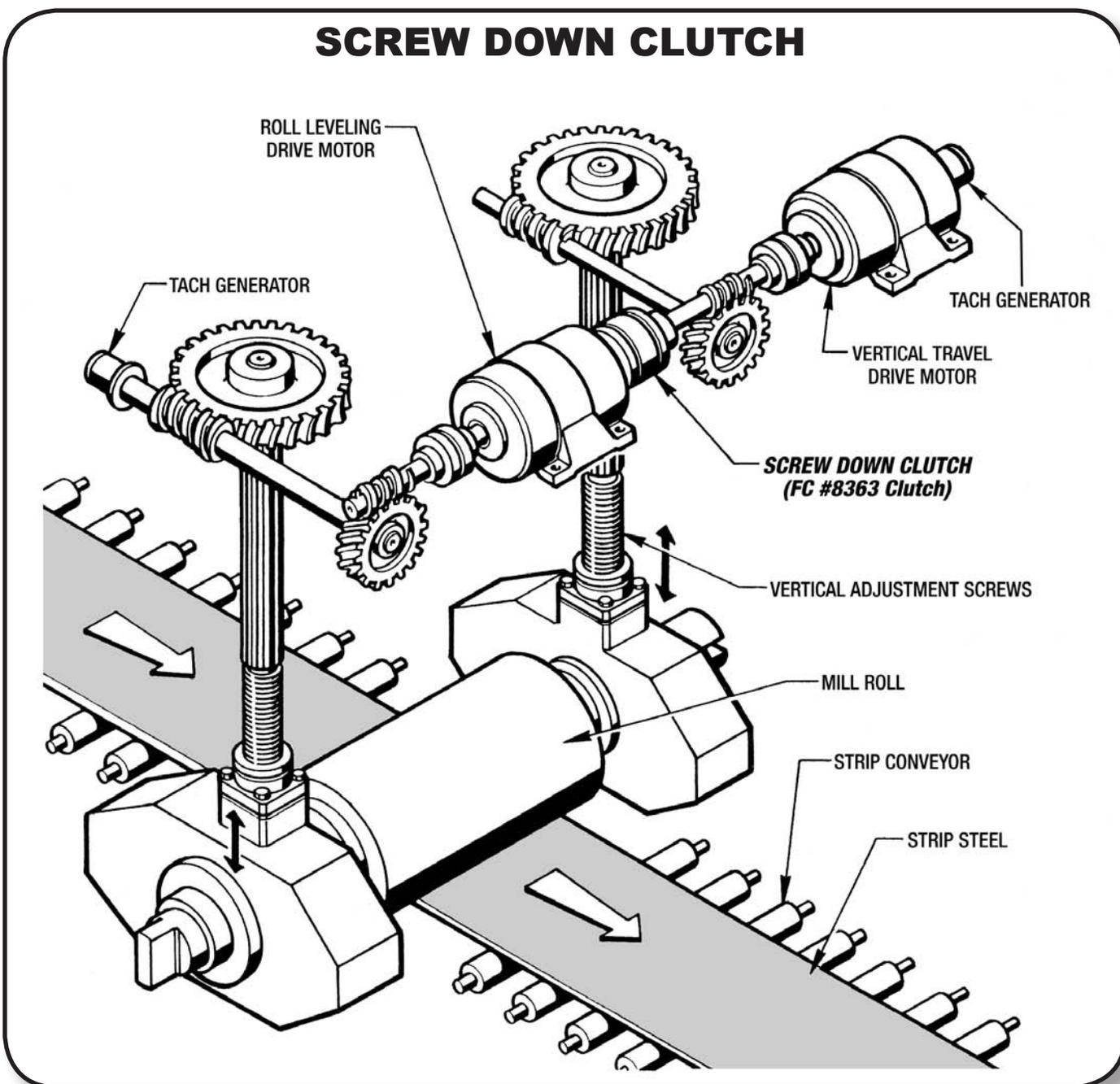
# APPLICATION BULLETIN



**APPLICATION:** Screw Down Clutch

**INDUSTRY:** Hot Strip Steel Mill

**PRODUCT:** Oil Shear *Posidyne* Clutch/Brake



## SCREW DOWN CLUTCH

**WHERE THEY ARE USED:** All steel industry strip mills consist of many rough and finish rolling mills. These mills usually have two large steel rolls that are used to flatten or form the hot steel. Depending on the location and use of the mill, it may be necessary to adjust or level the large rolls. This procedure is done by using the screw down assembly located above the mill. The **Screw Down Clutch** is located in this assembly. The clutch can be engaged to drive both sides of the roll as one common unit, or disengaged if it is necessary to lift or lower one independent side of the roll.

**HOW THEY WORK:** As stated above, the clutch can be either engaged so the screw down assembly works as one unit, or disengaged if necessary to move only one side to perform the leveling procedure. The Force Control **Screw Down Clutch** is a thru shaft unit mounted on the common drive shaft between the two screw drive packages. With the use of a simple rotary air union, the air can be applied to release the clutch if the leveling procedure requires separate roll side adjustments.

**PROBLEM SOLVED:** Several different problems were solved by changing to the Force Control **Screw Down Clutch**. The first problem was a maintenance problem. The Force Control Clutch outlasted any other type of unit by a considerable length of time. The second problem of accuracy was solved by the **Oil Shear** design of the Force Control Clutch. With the unique **Oil Shear** design the clutch gave more accurate adjustment of the rolls throughout the life of the Force Control unit. The final problem was solved due to the unique enclosed design of the Force Control unit. Because of the design, the holding torque of the unit was not affected by the outside dirty, wet, and oily environment.

### IMPORTANT FEATURES:

- **Oil Shear** technology provides smooth and accurate engagements throughout the lifetime of the clutch.
- The totally enclosed, sealed design protects the unit from outside contaminants.
- The **Oil Shear** design provides the user with a long service life with very little maintenance required.



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