

# APPLICATION BULLETIN

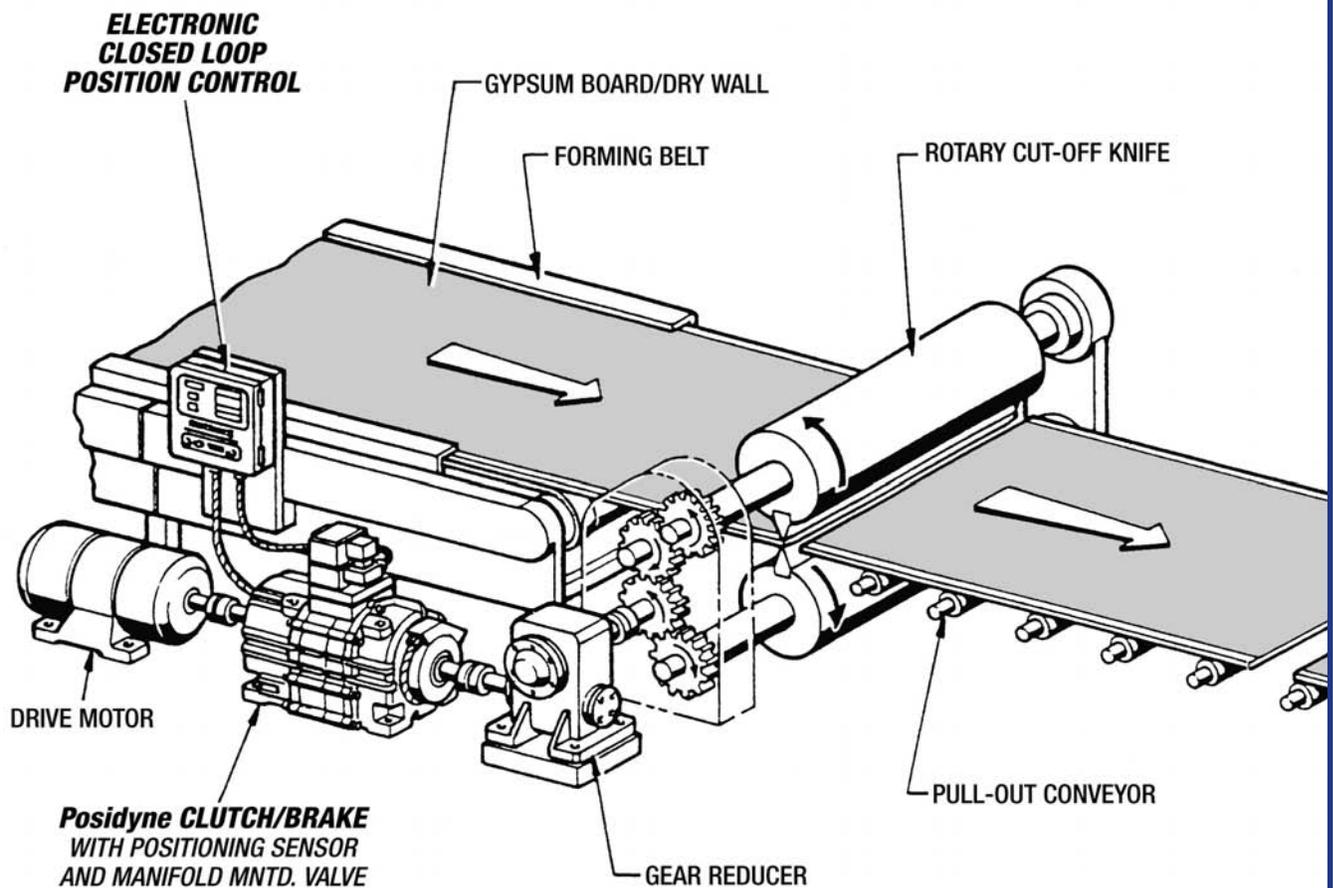


**APPLICATION:** Rotary Cut-Off knife

**INDUSTRY:** Gypsum Board Plants

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

## ROTARY CUT-OFF KNIFE



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**WHERE THEY ARE USED:** The rotary knife is used to cut the gypsum board to length. It is located between the board machine and the wet end transfer.

**HOW THEY WORK:** The rotary cut-off knife consists of two drums driven by a common gear train with a knife blade attached. As the two rotate, the knife blades come together to cut the board. The knives must be accelerated up to speed in less than 1/2 revolution and cut at exactly the proper moment.

The knife blades must move at the same velocity as the board. The drive is a variable speed motor controlled to line speed. A pull-out conveyor running slightly faster than the line pulls a gap between the two pieces.

**PROBLEMS SOLVED:** Many of the knives use a very special, high cost foreign motor which is expensive to repair, and difficult to get parts for. The **Posidyne** Clutch/Brake is quick, accurate and easy on the gear train. The **CLPC** (Closed Loop Positioning Control) uses the built-in encoder to track position, and stop at precisely the correct position. This is critical for an accurate cut length. The consistent acceleration of the oil shear clutch assures reaching the cut position at the right time.

The totally enclosed sealed unit is ideal for the dusty, dirty conditions found in the gypsum plants.

## IMPORTANT FEATURES:

- **Oil Shear Technology** offers a consistent acceleration and deceleration for exact cut length.
- **Manifold Mounted Valve** offers quick response for both the clutch and brake.
- **Positioning Control** offers ultra fast response eliminating scan time inaccuracies.



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