

APPLICATION BULLETIN

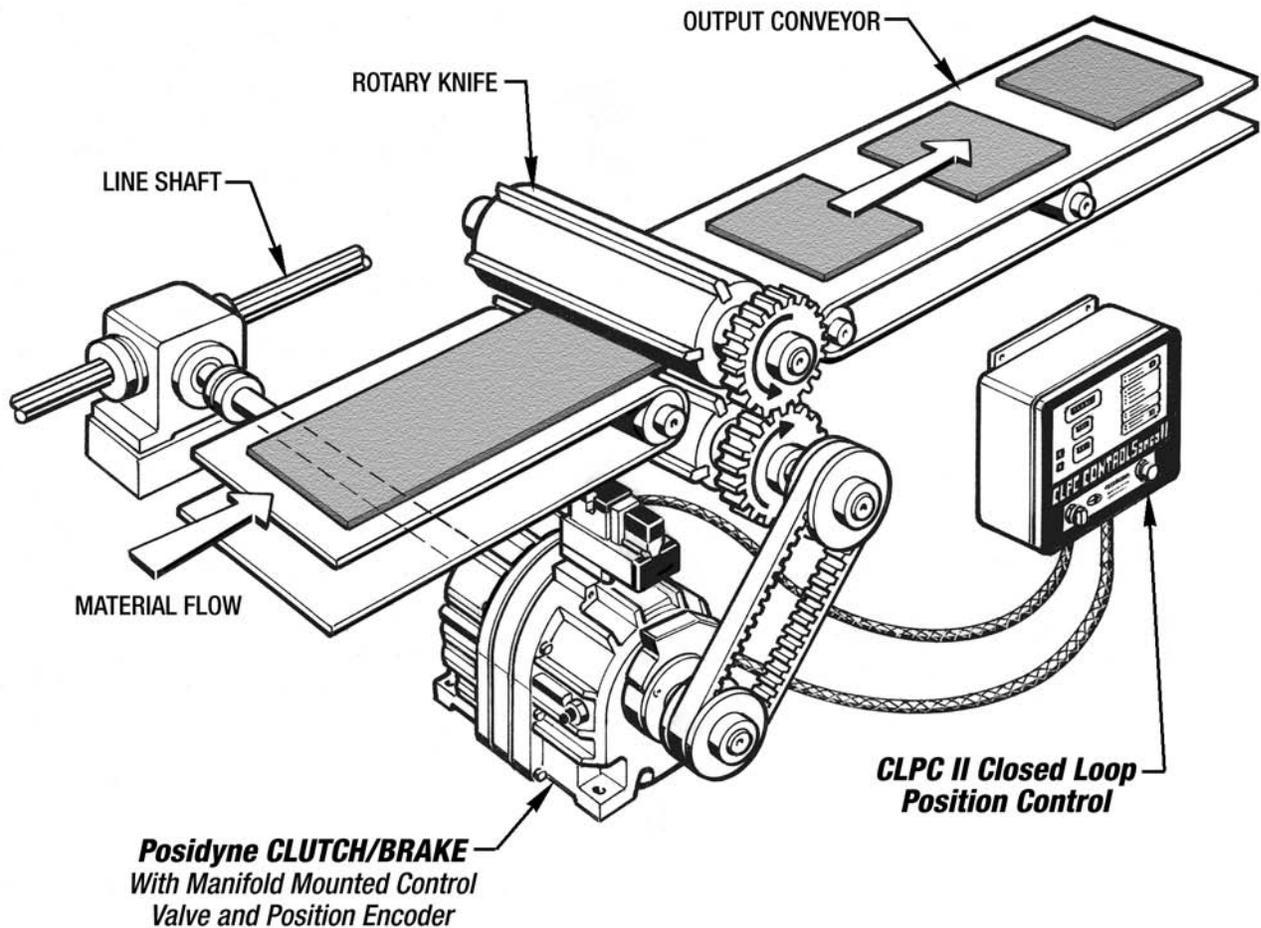


APPLICATION: Rotary Cut-Off or Perforator Index Drive

INDUSTRY: Packaging (Paper Converting, Corrugated Board, Bag Making, etc.)

PRODUCT: Posidyne Clutch/Brake with CLPC II

ROTARY CUT-OFF or PERFORATOR INDEX DRIVE



ROTARY CUT-OFF or PERFORATOR INDEX DRIVE

WHERE THEY ARE USED: On machines which cut to length continuous strips of paper, cardboard, film, bag material, etc.

HOW THEY WORK: A rotary knife consists of one to four blades around a drum. Often there is another drum rotating with the knife, which provides the base. The product is a continuous strip, which is being laminated, glued, printed, etc. in the front end of the machine. Material is fed into the knife at a continuous speed.

In order to maintain register and speed, the rotary knife is driven by a line shaft from the rest of the machine. A photo-sensor, timer, electro-cam, encoder, or other measurement device is used to determine when the proper length is reached. When clutch is engaged, the knife accelerates, cuts the material, and stops in position for the next cut. Rotation of the knife could be from 90 degrees to 360 degrees depending on the number of blades.

PROBLEMS SOLVED: The *Posidyne* Clutch/Brake is preferred for several reasons.

1. Acceleration must be consistent to make the cut accurately.
2. Deceleration must be consistent to place the blade at the proper position. Variation in the stop will change the length of time required to reach the material cut, causing variation in the length.
3. The *Oil Shear* system controls heat so higher cycle rates can be obtained with less down time.

IMPORTANT FEATURES:

- Advanced friction materials for accurate positioning.
- Reduced cold start to hot run phase shift for consistent cut length.
- Low inertia cycling components for quick response.
- *Oil Shear* lubricating and cooling for high cycle rates.
- Heavy sealed construction for long life, reducing down time.
- **CLPC II (Closed Loop Positioning Control)** offers ultra fast response, eliminating scan time inaccuracies. Also eliminates the need for external limit switches.



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