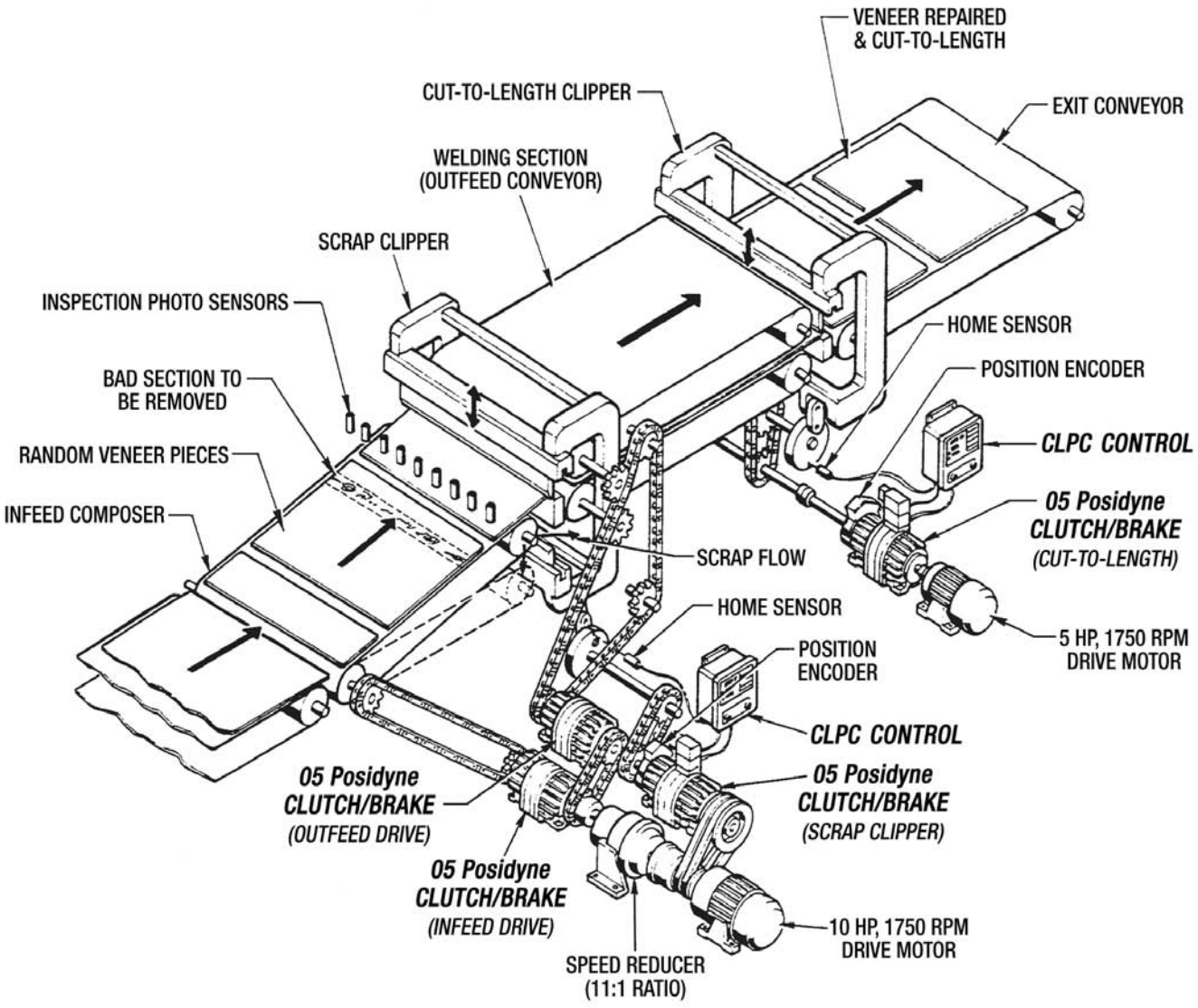
APPLICATION BULLETIN

APPLICATION: **Veneer Composer Drive**

INDUSTRY: **Plywood/Veneer Plants**

PRODUCT: **Oil Shear *Posidyne* Clutch/Brake with CLPC II**

VENEER COMPOSER DRIVE



VENEER COMPOSER DRIVE

WHERE ARE THEY USED: The Veneer Composer (Veneer Welder) is an off line machine used in plywood/veneer plants.

HOW THEY WORK: Smaller or flawed pieces of veneer are fed into the infeed chain conveyor. The bad sections are identified with photo eyes and "Clipped" out via the scrap clipper. The good pieces carry on to the outfeed conveyor (welding section) where they are glued together with hot melt and glass reinforcing tape. The now continuous veneer is clipped to length by the "Cut to length" clipper and reintroduced to the mainstream process. Infeed & outfeed conveyors use an 05 ***Posidyne***. Both clippers use an 05 ***Posidyne*** with ***CLPC*** Closed Loop Position Control.

PROBLEMS SOLVED:

Longevity - Employing a standard motor that is allowed to run constantly and a Posidyne clutch/brake to provide a smooth controlled drive engagement is a key strategy to ensure long, maintenance free life in all high cycle drive components. The ***Posidyne's*** totally enclosed housing and patented oil cooling techniques ensure reliable service in hot, dirty, wet and generally hostile environments.

Consistent Accuracy - Consistent, fast acting starts and stops are essential for the infeed & outfeed conveyors. The Posidyne exhibits negligible torque changes throughout its life, or during cold-to-hot phase shift. The result of this is consistently accurate stops and starts with no adjustments required. The clippers require servo-like accuracy to ensure that the small opening between the blades is always maintained. This is easily achievable with the ***CLPC***. The ***CLPC*** is a high-speed closed loop-positioning controller. It uses a pulse gear and a quadrature encoder, attached to the ***Posidyne*** output shaft, to determine position. The control's software uses a running average of the stopped position to constantly advance or retard the brake's trigger point to hit absolute position. Accuracy of +/- 3° @ 1800 rpm is easily achievable. The correct stop position will be maintained under varying conditions such as load, temperature, speed, etc. The end result is servo-like accuracy from simple, rugged, oil shear clutch/brakes @ 600+ CPM, or with 24,000 Lb. In. torque (or more).

IMPORTANT FEATURES:

- CLPC closed loop position control. Servo-like accuracy from simple, rugged Oil Shear Clutch/Brakes.
- Totally enclosed, oil cooled unit for long service life with low maintenance in the harshest environments.
- Oil Shear technology and innovative friction material provide smooth controlled torque for quick, smooth acceleration.
- Consistently accurate starts and stops with no adjustment required.
- Continuously running standard motor for long service life and lower energy consumption.

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