APPLICATION BULLETIN

APPLICATION: Gypsum Board/Drywall Booker

INDUSTRY: Gypsum Board/Drywall Plants

PRODUCT: Oil Shear Posidyne Clutch/Brake and CLPC

GYPSUM BOARD/DRYWALL BOOKER

- DRIVE MOTOR
- CLPC-Closed Loop Position Control
- GEAR REDUCER
- POSITIONING ENCODER
- Posidyne CLUTCH/BRAKE With Manifold Mounted Pneumatic Control Valve
- DRY END TRANSFER CONVEYOR BELTS
- (2-SHEETS) GYPUM BOARD/DRYWALL STACKED "BOOKED"
WHERE THEY ARE USED: The Booker is used in the manufacturing of gypsum board to place two boards together with the white sides facing each other. This is called a book. They are then taped to hold them together for shipping. This way the good side is not exposed where it may become damaged.

HOW THEY WORK: There are several methods used to make the book. At this point the boards are on the conveyor white side up. One board needs to be turned over on top of another. This can be done using a scissors type turn over device. The two sides of the scissors lay open under the conveyor. Two boards are brought into the turn-over with one on either side of the center pivot point. The arms lift both boards up toward each other until vertical. One arm actually moves slightly past vertical so that board falls over on the other. The turn over arms are then lowered laying the two boards on the dry end transfer to be transferred to the taping section.

PROBLEMS SOLVED: The rotation of the crank to rotate the turn over arms into position and back must be accurately controlled, and smooth. The Posidyne torque can be adjusted to provide a smooth, controlled start/stop. Also the amount of rotation must be accurate. The Posidyne Oil Shear Clutch/Brake with the Closed Loop Electronic Positioning Encoder and Control (CLPC) is very accurate and does not require limit switches. The stopping position is controlled by the positioning control for accurate stops. The totally enclosed Posidyne Clutch/Brake is designed for long life in the dirty dusty environment found in the drywall manufacturing process.

IMPORTANT FEATURES:

- **Oil Shear Technology** offers a consistent acceleration and deceleration for smooth operation
- Manifold mounted valve offers quick response for both the Posidyne Clutch/Brake.
- **Positioning Control (CLPC)** offers ultra fast response eliminating scan time inaccuracies. Also eliminates external limit switches.
- Totally enclosed cast iron housing protects the clutch and brake from the dirt and dust for long service life.