

Keyless Locking Devices Simplify Maintenance in Traditional Stamping Presses

Climax Keyless Locking Devices eliminate the use of keyed shafts required when mounting bull gears in mechanical steel stamping presses, providing a shaft-to-bore connection that is reliable, increased durability, and supplies infinite timing capability.



Bull gears are widely used in traditional stamping presses. After some time the bore of these bull gears will wear out and require maintenance. The typical maintenance approach is often lengthy and consequently affects production and profitability to the manufacturing facility. This process includes welding the bores to enable the plant to machine them back to the required shaft size and finally add a keyway. In addition, the keyed shafting will oftentimes need to be repaired or replaced which can be difficult and time consuming.

Climax provides an exceptional solution that eliminates the need for keyed shafts. Our keyless locking assemblies can be placed in the bore of the bull gear, to lock it to the shaft and provide the necessary torque capacity, while increasing durability, as well as supply infinite timing capability. This keyless solution simplifies the machining required, allows for timing, and provides for infinite service life.

When maintenance is required, KLDs are installed and removed using simple hand tools. Climax carries an extensive line of shaft locking solutions from stock. Our engineers have the ability to engineer custom designs to fit any application challenge you may have.

For Rotating Applications:

- Keys, keyways, and set screws are prone to shaft damage and fretting corrosion
- Splines, prone to fretting and require expensive machining
- Shrink or press fits that are difficult to install and remove
- QD/Taperlock bushings use keyways where wallowing occurs causing fretting and backlash
- Hex nut keyless bushings are not self-locking and dynamic loading can loosen the connection

