

Eliminate Timing Drift and Mechanical Failure in High-Volume Print Operations

Mechanical connection failures common in high-volume print operations, can significantly disrupt system performance, positional accuracy, and overall print quality.



The KLD Advantage:

- Eliminates the need for keys, keyways, & set screws, prone to shaft damage & fretting corrosion
- Superior to splines susceptible to fretting corrosion & require expensive machining
- Shrink fits or press fits are difficult to install & remove
- KLDs only require standard hand tools for installation & removal
- KLDs transmit high torque, thrust, & bending loads

In high-volume print industry machinery, synchronized multi-stage operations are essential for minimizing cycle times and maximizing production efficiency. Traditional keyed shaft-to-hub connections are common but are prone to mechanical breakdowns under repetitive load cycles and dynamic torque conditions.

Over time, keyways can develop backlash, leading to misalignment, timing drift, and eventual mechanical failure. This connection deterioration can undermine synchronization between stages, resulting in print defects and unplanned downtime.

Climax Keyless Locking Devices are precision engineered mechanical components used to replace traditional keyed shaft-hub connections. Utilizing a frictional multi-screw design, KLDs provide a secure, backlash-free torque transmission in highly repetitive applications. Their design eliminates fretting corrosion and mechanical slack, ensuring consistent timing and alignment without accumulated wear or affecting production. Maintenance procedures are streamlined, as installation and removal can be done using standard hand tools, eliminating the need for specialized equipment or extensive disassembly.

Climax Metal Products can tailor products to fit precise application needs. Our experienced in-house engineers are ready to work side-by-side with you, designing a custom solution that fits your exact application needs.

Contact us today to discover how Climax can provide you with a tailored Engineered Shaft Locking Solution™.

