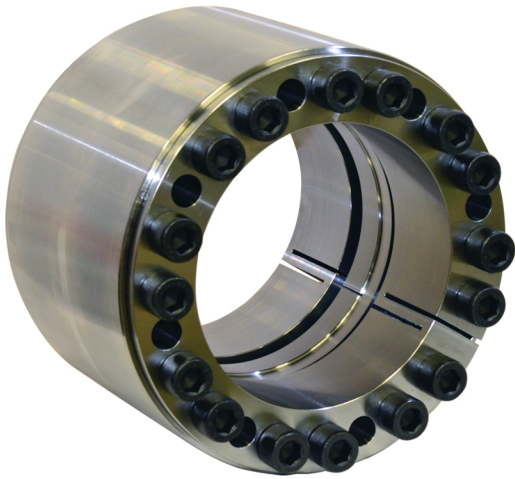


Optimal Solution for Mining Belt Conveyor Systems

Climax keyless locking devices provide advantages over keyed connections. Mining OEMs incorporate keyless connections in equipment design.



Drum pulleys, especially head or tail pulleys, using traditional keyed connections introduce several compromises. Whenever a shaft is keyed, it must be oversized to account for the loss of effective cross section. This adds weight and cost not only to the shaft, but to every component on the shaft. Once assembled, keyways are susceptible to fretting, corrosion, and allow backlash. QD, XT, or taper-lock bushings do not transmit reversing bending moments and are susceptible to shaft fatigue failure originating at the keyways. Climax KLDs eliminate the need for keyways reducing downtime and loss of profit while allowing the use of smaller shafting and components. KLDs provide a longer life for both mine duty and engineered class conveyor pulleys.

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

Mining machinery is constantly subjected to some of the harshest environments and torturous loads for which an engineer can design. Climax KLDs provide high torque, bending, and axial thrust capacities, eliminate axial movement during installation, and provide for a mechanically designed system that eliminates the need for keyways. KLDs are installed and removed using simple hand tools allowing for easy field serviceability.

Climax offers an extensive line of keyless locking devices from stock and has the ability to engineer custom designs.

