

Maintaining Component Integrity in Wastewater Treatment Plants

Climax Shrink Disc style flanged couplings in lieu of bore-keyway-setscrew or interference fits, allows for stronger shafts while eliminating corrosion sites and stress risers that are a common point of failure.



For Rotating Applications:

- Keys, keyways, and set screws are prone to shaft damage and fretting corrosion
- Splines, prone to fretting corrosion 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

Mounting couplings with traditional keyed connections in treatment applications such as clarifier drives and drag conveyors, introduces 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 at risk of corrosion build up resulting in backlash and fretting. In wastewater applications where slow rotation requires a greater torque, keyways produce a great risk for timing issues, resulting in downtime and loss of profit. Climax **KLDs eliminate the need for keyways reducing the risk of corrosion, providing a longer life** for clarifier drives and drag conveyors.

Using a press or shrink fit method, while effective is difficult and time consuming resulting in additional time dismounting and reinstalling. Hostile environments required precise machining tolerances and expensive finish to extend the life of the plant. These applications are generally expensive and cumbersome, and in extreme cases potentially hazardous. Climax **KLDs provide all of the benefits of a press or shrink fit while reducing both cost, and difficult installation** requirements.

Climax carries a robust inventory of KLDs and has the ability to engineer custom designs including stainless steel and various plating options for hostile environments.

