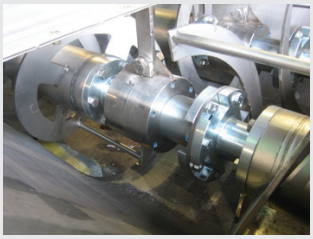

# Tor-Ri-Flex Intermediate Bearing

Shafted screw conveyors require a support bearing at each end and at intermediate points where the screw length is greater than the span the center pipe can support. The Conveyor Equipment Manufacturers Association (CEMA) has developed standards for the span between bearings and multiple hanger bearing designs. While the CEMA standards are suitable for some applications, KWS recognizes that many some applications, particularly to handle wastewater residuals, require a more robust intermediate bearing.

The KWS Tor-Ri-Flex Intermediate Bearing is torsionally rigid while allowing for flexibility in case of angular misalignment. KWS developed this bearing as a solution where long service life and low maintenance are essential.

## Features

**Low Friction Bearings –** Each KWS Tor-Ri-Flex Intermediate Bearing is designed with two spherical roller bearings to handle high radial loads and consume significantly less horsepower than friction bearings such as CEMA hanger bearings on shafted conveyors or trough liners on shaftless conveyors.

**Sealed Bearings –** The bearings are fully protected by mechanical seals on each side of the housings as well as seals on the outside of each bearing cartridge. Eliminating bearing contamination significantly improves bearing life.

**Automatic Lubrication Compatible –** The bearings are lubricated automatically using local grease pots (spring or gas actuated) or from a centralized lubrication pumping system located remotely where maintenance is more convenient.

**Flanged Connections –** A key feature of the KWS Tor-Ri-Flex Intermediate Bearing is that the bearing assembly can be removed and replaced without moving the adjacent screw sections. The flanged coupling faces have a registered fit to simplify and ensure correct alignment during assembly.

**Flexible Coupling –** The KWS Tor-Ri-Flex Intermediate Bearing assembly includes a torsionally rigid flexible coupling which compensates for angular misalignment and reduces the forces on the bearing.

## Benefits

**Reliable Operation –** The KWS Tor-Ri-Flex Intermediate Bearing is designed for exceptionally long life in hostile environments and under high load conditions. The seals along with the ability to maintain a slightly positive grease-purge pressure in the bearing housing ensures no bearing contamination. The flexible coupling reduces angular misalignment and eccentric loading on the bearing resulting in high bearing life.

**Versatile and Rugged–** The bearing housing, shafts and shaft flanges are machined from solid steel and are made from corrosion resistant materials. The flanged shafts are machined from solid bar stock so there is no welded connection that may fatigue under cyclical loading.

**Elimination of Noise –** Since the spherical bearings are low resistance type and operate in a clean environment with controlled lubrication, no noise is produced. This is a unique benefit relative to CEMA type hanger bearings.

**Low Energy Consumption –** Low resistance, well lubricated spherical bearings consume less energy than CEMA friction type hanger bearings. For the same throughput capacity, shafted conveyors with the Tor-Ri-Flex Intermediate Bearings consume significantly less energy than shaftless conveyors.

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