



Product

Americardan Model U3440 Universal Joints

Application

Cold Strip Steel Mill

Highlights

- U3440 units feature 553,000 Nm torque capacity
- Special carburized steels and custom bearing steel rollers
- Lightest weight
- Closed eye one piece yokes
- Replaceable inner race bearing package
- Zero radial clearance bearing package
- Built-in, 4-spring packs on the roll end knuckle for roll change when required
- Interchangeable with any gear spindle in any stand in any top or bottom position

In response to more challenging emission standards and consumer demand for more efficient autos, steel producers have begun to develop thinner, lighter weight auto gage steels that perform as well and look better than previous materials. These thinner steels are much more sensitive to surface damage from vibrations of rotating mill work rolls.

A major steel producer was experiencing excessive wear and vibration of the gear spindles on their 5-stand tandem cold mill with various spindle brands lasting only 6 months. Over time the surface damage to the steel from the spindle vibration (chatter) caused the operator to either slow the mill down, reducing production by 20% to reduce the vibration, or replace the spindles completely. Two spindles on each mill stand connect the pinion gearboxes to the primary upper and lower work rolls that compress the steel in a cold condition.

Ultimately, Ameridrives was called to provide a more reliable spindle. The Ameridrives advanced gear design spindles lasted twice as long as the competitor units. Soon after, Ameridrives application engineers approached the mill with an even better solution. They recommended that all the gear spindles be converted to universal joints which would reduce surface damaging vibration almost completely, while allowing the mill to run at faster speeds.

After testing competitive models, the mill selected and installed Americardan Model U3440 universal joints which allowed the mill to run at record-setting production levels with reduced vibration and minimal related surface damage. The new U-joints reduced lubrication manpower, lube and clean up costs by approximately \$120k annually compared to a grease lubricated gear spindle on a 5-stand mill.

US (Customer Service)

1-814-480-5000 (Universal Joints, Driveshafts)

1-888-449-9439 (Small Industrial Driveshafts)

1-219-874-5248 (Irrigation Universal Driveshafts)

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