

# Smart Sifter Lubrication Instructions

The Norvell Smart Sifter drive is equipped with four (4) long life grease lubricated bearings, two (2) gearboxes, and two (2) splined vertical couplers. Before installing the bearings and gearboxes, they are carefully checked, cleaned, and then lubricated with Conoco Multiplex Red #2<sup>1</sup> grease, unless otherwise specified by the customer, using a hand pump gun system.

## Compatible vs. Comparable

Please Note: The Conoco Multiplex Red # 2 grease furnished by Norvell is lithium based. Please do not mix this grease with one of a different base. While you may find *comparable* greases, **NOT ALL GREASE IS COMPATIBLE**. Should your facility require a Food Grade grease, completely purge bearings, gear boxes, & couplers prior to use. Incompatible greases will starve the bearing for lubrication, and can potentially ruin the sifter.

Each bearing compartment contains a zero pressure grease release zerk. The installed zerk contains no spring or ball within its structure to trap built up pressures or overflowing grease. This protection is a definite over-lubrication safety factor, assuming that no leaks occur at the oil seals; and providing the zerk fitting opening is maintained and not plugged.

## Recommendation

- After the initial 30-day period of operating the sifter, check your bearing lubrication.
- When applying grease, apply two to four strokes.<sup>2</sup>
- On a 24 hour per day application, add eight pumps of our recommended grease<sup>3</sup> per month per bearing.
- Every precaution should be taken to avoid over-greasing. This could damage the sifter bearing grease seals.
- Bearings should be checked occasionally for damaged grease seals causing leaks. If the seal leaks, grease bearings as often as necessary until damaged seals can be replaced at a convenient time.
- The vertical couplers have been pre-lubed at our factory and should be checked quarterly (every 3 months). Norvell has provided a needle point coupler and grease cartridge to access the couplers grease fitting. The fittings can be found through the top hole in the gearbox cover plate.

## Caution:

Keep in mind that during periods of operation, expansion and contraction takes place within the sifter bearing compartments. This causes pressure which may result in excessive grease discharging through the grease zerk. Norvell sifter drive bearings are designed to operate at 180-degree temperatures. The neoprene grease seals are designed to accept temperatures up to 250 degrees. Sifter bearings may run hot during their first 48 hours of operation and will taper down in heat as they are run.

## Gear Boxes

Your sifter is equipped with two right-angle gearboxes. The factory lubrication instructions are as follows:

- The gearboxes must be filled to the proper level with recommended grease before operation. Remove the filler plug and level plug (where provided) at horizontal shaft centerline. Fill the gearbox until lubricant flows out of the level plughole.
- Service life and efficiency of gears and bearings will be affected by oxidation or contamination of the lubricating grease. Improved performance will be obtained by periodic re-lubrication.
- Under normal conditions, the drive should be re-lubricated at intervals of approximately 700 hours of operation or every month. NOTE: 15 pumps of grease with a standard grease gun.
- Re-lubricate more frequently if unit is operated in abnormally high ambient temperatures or unusually contaminating atmosphere.
- Inspect units for extensive noise or backlash to determine if factory replacement parts may be needed.

- 1 *Conoco Multiplex Red #2 is a high-quality, multipurpose, extreme-pressure, lithium based grease. This grease is recommended for heavy-duty, heavily loaded anti-friction and plain bearings.*
- 2 *Please note that every grease gun is different and there are multiple variables to be taken into consideration; such as ambient temperature, humidity, continuous hours of operation, etc.; that will affect how much grease your bearing will require.*
- 3 *Norvell recommends using Conoco Multiplex Red #2 or an equivalent lithium based grease.*



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