SWIVEL JOINTS MANUAL

MAINTENANCE

Swivel Joints require greasing with Lubriplate 1444 every 8 hours or once a shift because the joint is in a constant rotation and high temperature environment.

Every 160 hours or once a month the swivel joint should be inspected and adjusted by removing the lock bar, turning the jam nut clockwise to the next locking slot and reinstalling lock bar. Process may be repeated until packing has worn too badly to effect a good seal.

REPACKING

1. Remove lock bar.
2. Remove nut and nipple assembly from body by turning nut counter clockwise.
3. Remove back-up ring from body.
4. Remove 2 packing rings.
5. Remove male adaptor.
6. Clean packing chamber and reinstall (1) new packing and (2) back-up ring. Grease all parts thoroughly.
7. Insert nut and nipple assembly in body and reassemble. Rotate nipple constantly as the nipple passes through the packing.
8. Tighten nut clockwise until compression on packing causes nipple to rotate with a mild amount of torque.
9. You do not need to remove the ball bearings or disassemble the nut and nipple to repack the Swivel Joint.
Manufactured in eight styles. Sizes from 1-1/2" through 4" pipe size in steel and stainless steel. The basic components of Swivel Joints are as follows:

1. **Swivel Nipple**: Rotates on 2 rows of chrome alloy steel balls to ensure ease of rotation under severe thrust and radial loads.

2. **Holding Nut**: Provides half of bearing race and utility of (1) Providing initial compression on packing (2) Take-up on worn packing (3) Quick disassembly for repacking. Ball races of 6000 PSI and 15,000 PSI series are through hardened to 42 to 58 Rockwell "C" scale, for maximum strength and wear.

3. **Body**: Parts 1 and 3 are changed in configuration to provide eight different styles.

4. **Back-up Ring**: Furnished in similar metal to part 1 to back up packing and act as outboard bearing during severe radial loads.

5. **Male Adaptor**: Acts as wedge to expand chevron packing and effect seal. Furnished in Buna N as standard, but may be furnished in aluminum, steel, stainless steel or aramid fiber.

6. **Lock Bar**: Locks assembly of parts 1 and 2 to part 3. Removal of lock bar allows holding nut to be rotated to (1) Take-up on packing in increments of .005" or (2) Remove assembly of parts 1 and 2 from body for repacking.

7. **Grease Fitting**: Grease swivel joint every shift or 8 hours with Lubriplate 1444
Basic Components:

- **Balls**: Hardened chrome alloy steel balls are furnished as standard. Optional material: stainless steel.

- **"O" Rings**: Act as grease seals to (1) Seal grease in assembly to insure proper lubrication of bearings (2) Seal against grit and dirt from outside sources (3) Seal bearings against line contaminants. Optional materials: Silicone, teflon, viton.

- **Chevron Packing**: The most effective packing design known, used in standard JIC and in Buna N. Optional materials: teflon, aramid fiber, viton.

- **Ball Plugs**: Retain balls in races. Assembly of parts 1 and 2 is made at factory and need not be disassembled to repack the joint. The joints can be repacked without handling balls.

Union Assembly allows for take up on worn packing. Result: **Up to 400% longer packing life.** Provides positive pressure on packing to insure against low pressure and low temperature leaks. Result: **No leaks, less maintenance.**

Bearing assembly is protected against outside and inside contaminants, and grease is sealed in. Result: **Longer life, less maintenance.**

They will withstand heavier radial loads and thrust loads while maintaining seal due to high quality bearing races, outboard bearing, and modern engineering design. Result: **Lower final cost.**

**MART PBM SWIVEL JOINT**

- 34050 – 1-1/2” NPT 90 deg Swivel Joint
- 71037 – 2” NPT 90 deg Swivel Joint
- 71038 – 2-1/2” NPT 90 deg Swivel Joint
- 49719 – 1-1/2” NPT Straight Swivel Joint
- 34060 – 2” NPT Straight Swivel Joint
- 34131 – 1-1/2” NPT Swivel Repacking Kit
- 34130 – 2” NPT Swivel Repacking Kit