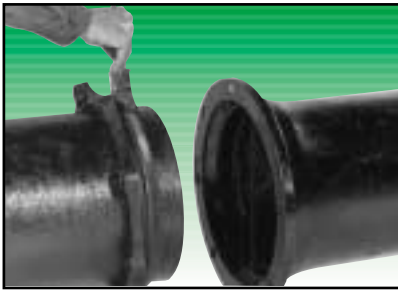


# Mechanical Joint Assembly



1. Clean the socket and the plain end. Lubrication is recommended for proper assembly of all mechanical joints. Lubrication and additional cleaning should be provided by brushing both the gasket and plain end with soapy water or pipe lubricant just prior to slipping the gasket onto the plain end for joint assembly. Place the gland on the plain end with the lip extension toward the plain end followed by the gasket with the narrow edge of the gasket toward the plain end.



2. Insert the pipe into the socket and press the gasket firmly and evenly into the gasket recess. Keep the joint straight during assembly.



3. Push the gland toward the socket and center it around the pipe with the gland tip against the gasket. Insert bolts and hand-tighten the nuts. Make deflection after joint assembly but before tightening the bolts.



4. Tighten the bolts to the normal range of bolt torque as indicated in the adjacent table while maintaining approximately the same distance between the gland and the face of the flange at all points around the socket. This can be accomplished by partially tightening the bottom bolt first, then the top bolt, next the bolts at either side, finally the remaining bolts. Repeat the process until all bolts are within the approximate range of torque. In large (30" - 48") sizes, five or more repetitions may be required. The use of a torque wrench will facilitate this procedure.

## Installation Tips for Mechanical Joint Pipe

### Lubrication

This is very important with mechanical joints (pipe and fittings) to ensure a leak-free assembly. Once the gasket is placed over the plain end of the pipe and prior to assembly, the gasket must be lubricated. This step is sometimes omitted because the mechanical joint appears to assemble easily without lubricant. After tightening of the bolts with no gasket lubrication, the gasket will tend to slowly flow into place with time, resulting in loosening of the bolts from their proper torque. This happens because the gasket has not properly seated due to friction from lack of lubrication. The lubricant allows the gasket to easily and fully "flow" into the wedge shaped gasket seat under compression from the gland during the initial assembly. When the bolts are then properly tightened, the gasket will be fully seated in the proper position and the bolts will remain tight.

### Joint Deflection

Mechanical joint pipe should be assembled with little or no deflection of the joint. Following assembly, the joint can be deflected as necessary. If the joint is assembled in the deflected condition, the gasket may not be evenly seated and can also be damaged during assembly.

### Restraint

A common misconception is that mechanical joint pipe are sometimes thought to be restrained joint pipe because bolts and nuts are involved in their installation. However, the mechanical joint does not provide any restraint. The mechanical joint can only be properly restrained by using it in conjunction with a restraining type connection such as a Griffin BOLT-LOK or MECH-LOK assembly, or with restraining glands.