



Procedures for Installation, Operation & Maintenance

Welding Closures

(A) Crall Quick Opening Swing Bolt Hinged Closure will have a circumferential butt weld joining it to the vessel nozzle or pipe. When this is done, certain standard welding procedures should be taken to prevent damage to closure. If removal of the hub from the closure is imperative, make sure the head is also rejoined with its proper hub.

(B) O-ring must be removed from groove.

(C) Make sure the head is closed and bolts are tight to prevent and protect the seating surfaces from welding splatter. Vessel or pipe ends must line up evenly with hub so there will be a uniform gap for welding.

(D) Several tacks should be placed around the hub attaching it to the vessel or pipe.

The number of tacks around the hub for correct attachment will depend on the size of the closure.

(E) Code procedure should be used when welding and care should be taken to keep weld metal deposition and heat input as low as possible and practical. Throughout is circumference there should be a welded uniform cross section.

O-ring Installation, Operation & Maintenance Procedure

(A) There will be an O-ring gasket packed separately. It will have a smaller diameter than the groove. The reason for this is so it will have a tighter fit. Install the O-ring at a 90° quadrant then work it into the groove at the quadrant. Do not roll the O-ring. Make sure the O-ring and groove are clean and free from all foreign material. We suggest coating the O-ring with vaseline for ambient temperatures and silicon for higher levels of temperatures.

Note: Install O-ring only after all welding on closure is completed.

Caution: Make sure pipe or vessel has been relieved of all internal pressure before attempting to open closure. Otherwise it will most likely result in damage or injuries to persons and equipment.

(B) Make sure the O-ring is checked prior to closing the head to see if it's in the correct position in the groove.

Bolt Installation, Operation & Maintenance Procedure

(A) inspect the head bolts from time to time for thread wear. We suggest lubricating the bolts with a hydrocarbon base lubricant in accordance with the frequency and severity of the service involved.

Note: Excessive thread wear can be caused by over tightening the bolts. Try to avoid doing so.

(B) If closure is to be painted make sure head is closed so the sealing surface is not damaged.

Note: Do not paint bolt threads.

Closure Opening Procedure

(A) When opening of the closure is necessary make sure all internal pressure or vacuum is relieved in pipe or vessel. Loosen the bolts, however, do not swing bolts loose from the head lugs until it is certain no pressure or vacuum exists in the pipe or vessel. Then continue to loose, at the stage you will become aware of the presence or absence of pressure. Proceed to swing bolts loose from head lugs then raise head At this stage the opening cycle is completed.