O'BRYAN BARREL CLOSURE INSTRUCTIONS

Pursuant to the requirements of the Department of Transportation in CFR 49 Part 178.2(c) (1), we are providing you with the following closure instructions for the containers sold to you. Your product may adversely affect container materials, bung threads or closing devices. Product compatibility with the container is the shipper's responsibility. All containers should be inspected before filling and shipment.

STEEL TIGHTHEAD DRUMS

Tighten all plugs to the recommended torque, while taking care that the plugs are not cross threaded into the flange and that the plug gaskets do not become looped or twisted while tightening.

Plug Type	2" Closure (in ft-lb)	3/4" Closure (in ft-lb)
Steel Plug/Rubber Gasket	30	15
Steel Plug/PE Gasket	30	15
Plastic Plug/Rubber or P.E. Gasl	ket 20	10

STEEL OPENTOP DRUMS

- Covers must be firmly seated on the top of the drum with the gasket in place. Care must be taken to ensure that the gasket has not become dislodged, looped
 or twisted during either removal or placement of the cover.
- Snap the closing ring over the cover and curl area of the drum, making sure that it is seated over the entire perimeter FOR SOME RING/GASKET COMBINATIONS, A MECHANICAL HEAD COMPRESSING DEVICE MAY BE NECESSARY TO ACCOMPLISH THIS.
- Tighten the ring bolt while tapping the outside of the closing ring with a non-sparking mallet. In order to compress the gasket uniformly, tap around the
 entire perimeter of the ring.
- For bolt ring closures, torque the bolt and nut until the gap between the closing ring ends is between 1/8" and 1/4". Aim for 1/8" gap. (The torque applied to the bolt usually falls within the range of 35-45 ft-lb.)
- The locking nut required for proper application of style 17H rings must be placed between the lugs and securely tightened against the unthreaded lug after tightening the bolt.
- For side lever locking rings, the ring latch must be snapped securely in place. For top lever locking rings, the top lever must be fully locked into place under the securing bar.
- · Sealing the eyelets of lever rings is necessary not only for evidence of tampering, but for the integrity of the enclosure.
- The components of a drum from one drum manufacturer should not be intermingled with those of another. Components from the same manufacturer from different drum specifications likewise should not be intermingled. This ensures proper fit of the subassemblies and performance of the drum.
- The use of non-sparking tools is recommended to close drums containing hazardous materials.

PLASTIC TIGHTHEAD DRUMS

- Openings in tighthead plastic drums MUST BE FITTED WITH Rieke/Tri-Sure plugs bearing NPS and/or BTR threads.
- Plugs must be fitted with gaskets appropriate to the plug size and design.
- Plugs must be placed in the appropriate openings and tightened to a torque level of 20 ft-lbs for 2" fittings and 9 ft-lbs for 34" fittings.

PLASTIC OPENTOP DRUMS

- Place cover on drum, using only cover gasket we have supplied.
- Snap the closing ring over the cover and the bead of the drum. Make sure the ring's lugs point down toward the floor. Also make sure that sufficient
 downward pressure is applied to the cover so that the bottom edge of the closing ring is fully engaged under the bottom edge of the drum bead.
- If there are fittings in the cover, the 3/4" bung should be between 45 and 90 degrees from the ring lung. If no 3/4" bung, orient the 2" bung 45 to 0 degrees from the ring lung.
- . Insert the bolt through the lug without threads. Then screw lock nut on bolt. Finally screw the bolt into the threaded lug.
- Tighten the bolt in the locking ring lugs to 60-75 ft-lbs of torque. While tightening the bolt, tap the entire perimeter of the locking ring with a small mallet until there is no further loosening. Begin each tapping cycle 180 degrees across the drum from the locking ring lugs; repeat several times. Check to ensure that the ring is seated tightly against the bottom edge of the drum bead and cover.

IBC

- Place the lid with gasket in place on the top opening of the IBC.
- Screw the lid by hand until the gasket is in contact with the sealing surface.
- Using the lid adapter and torque wrench tighten the lid to the recommended torque: 6" and 9" fill port caps should be torqued at 75 ft-lbs; 2" plug in standard lid should be torqued at 20 ft-lbs; metal collar IBC valves should be torqued to 55 ft-lbs; plastic collar IBC valves should be torqued to 35 ft-lbs.

FIBRE DRUM WITH LOK-RIM CLOSURE

- · Place cover on drum.
- Snap the closing ring over the cover and top lip of the drum. Make sure that the writing on the closing lever is right side up. Also, make sure the bottom edge of the closing ring engages under the top lip of the drum.
- Pull the locking lever closed. At the same time, tap along the entire outside edge of the closing ring, beginning directly opposite the closing lever, with a
 mallet until the lever is fully closed against the edge of the ring.
- Snap the latch into the lever until it locks, then apply a sealing wire or other sealing device through the holes on the latch lever.
- Drums closed in this manner have met the UN performance test requirements as specified in the container markings.