

STEEL DRUM CLOSING STATEMENT CFR 49 PART 178-178.2 (c) (1) NOTIFICATION

All steel containers should be closed after filling and before transportation in accordance with the tightening torque's in Appendix 1.

Containers fitted with crimped over seals over the closures will be fully torqued at the plant of manufacture.

APPENDIX 1

Closing Torques for Plug/Gasket Combinations

| PLUG TYPE | GASKETS | Tightening Torque | |
|---|--|-------------------|-------------|
| | | ¾" Dia Plugs | 2" Dia Plug |
| Tri-Sure Steel | Rubber-Black Buna, White Buna, Butyl, White Neoprene, Viton, Silicone & EPDM | 12 Ft. lbs | 20 Ft lbs |
| | Polyethylene, Irradiated Polyethylene & Teflon | 20 Ft. lbs | 30 Ft lbs |
| Tri-Sure Polyethylene Polypropylene/Nylon | Rubber-Black Buna, White Buna, Butyl, White Neoprene, Viton, Silicone & EPDM | 12 Ft lbs | 20 Ft lbs |
| | Polyethylene, Irradiated Polyethylene & Teflon | 8 Ft lbs | 30 Ft lbs |
| Rieke Steel | Rubber-Quartermaster Hycar, White Buna, White Asbestos, White Dapon, EPT Wht&Black | 15 Ft lbs | 30 Ft lbs |
| | Poly Seal (Plastic) Irradiated & Non-irradiated | 20 Ft lbs | 40 Ft lbs |
| Rieke Polyethylene Polypropylene/Nylon | Rubber-White Buna EPT Black& White Dapon, Irradiated & Non-Irradiated | 9 Ft lbs | 20 Ft lbs |

Open Head Containers

14" diameter, 16" diameter, 18 ¼" diameter

All Open Head containers should have the Locking Ring Bolt torque's checked after filling & before transportation in accordance with Appendix 2 Procedure for checking bolt tightening torque's:

- 1) Release the Jam Nut
- 2) Tighten the locking ring bolt to torque's stated in Appendix 2.
While torquing, bump the ring with a mallet directly opposite the lugs, and on both sides.
Note: Bump the ring at a 30-degree downward angle.
- 3) Retighten the Jam Nut to 20-25 Ft-lbs torque, against the unthreaded lug.

APPENDIX 2

Closing Torques for locking rings for 14", 16", 18 ¼" diameter drums

| 14" diameter rings | GASKET TYPES | BOLT TIGHTENING TORQUE |
|-----------------------------|---|---|
| 12 GA BOLT TYPE | Flow-in gaskets, 5/16 EPDM | 45 Ft lbs.-Ring gap 1/8" to 5/8" |
| 13 GA BOLT TYPE | Flow-in gaskets | 35-40 Ft lbs-Ring gap 1/8" to 5/8" |
| 13 GA BOLT TYPE | Neoprene, EPDM, & Tubular gaskets | 35-40 Ft lbs-Ring gap 1/8" to 5/8" |
| 18 GA BOLT TYPE | Flow-in gaskets | 8-15 Ft lbs-Ring gap 1/8" to 5/8" |
| 18 GA BOLT TYPE | Neoprene, EPDM, & Tubular gaskets | 8-15 Ft lbs-Ring gap 1/8" to 5/8" |
| 16" diameter rings | | |
| 18 GA BOLT TYPE | Flow-in gaskets | 8-15 Ft lbs-Ring gap 1/8" to 5/8" |
| 18 GA BOLT TYPE | Neoprene, EPDM, & Tubular gaskets | 8-15 Ft lbs-Ring gap 1/8" to 5/8" |
| 18 ¼" diameter rings | | |
| 12 GA FORGED LUG | 3/8" square sponge 5/16" Round solid black rubber 3/8" Round White Tubular Neozan | 30 to 35 Ft lbs Ring Gap 9/16" to ¼" |
| | Body Gasket EPDM Sponge Pinochio gasket | 50 to 60 ft lbs 9/16" to 1/8" |
| 16 GA BOLT RING | 3/8" square sponge 3/8" round white tubular ½" Dia Tan sponge | 15 Ft lbs Ring Gap 5/8" to 3/8" |

Note: For Lever Locking rings; Rings should be closed securely and latched.
A stiff wire should be placed thru eyelet of latch and twisted for security purposes.