

**STEEL DRUM CLOSING STATEMENT  
CFR 49 PART 178 –178.2 © (1) NOTIFICATION**



Steel containers with fittings should be closed after filling and before transportation in accordance with the tightening torques in Appendix 1. Open Head Steel containers with Bolt Ring closures should have the closing ring torques checked after filling & before transportation in accordance with Appendix 2.

**APPENDIX 1**  
Closing Torques for Plug/Gasket Combinations

**NON-COMPOSITE DRUMS**

PLUG TYPE	GASKETS	TIGHTENING TORQUE in Ft-Lbs		
		¾" Plugs	2" Plugs	1½" Plugs
American Flange Steel	Buna, EPDM, Neoprene, Nitrile/Buna N, Rubber, Silicone, Viton	8 - 15	15 - 22	
American Flange Steel	Poly, Poly O-Ring, Poly Irradiated, Poly Seal, Teflon	11 - 18	15 - 22	
American Flange Plastic or Nylon	All	8 - 11	15 - 22	
Rieke Steel	Buna, Dapon, EPDM, Silicone, Teflon, Viton	15	30	30
Rieke Steel	Poly, Poly Irradiated	20	40	40
Rieke Plastic or Nylon	All	9	20	
Rieke TOV Steel	Buna, Dapon, EPDM, Silicone, Teflon, Viton	9	20	
Rieke TOV Steel	Poly, Poly Irradiated	15	30	
Rieke TOV Nylon or Plastic	All	9	20	

**COMPOSITE DRUMS**

PLUG TYPE	GASKETS	DRUM INSERT	TIGHTENING TORQUE in Ft-Lbs	
			2" NPS	2" Buttress
American Flange PE or PP	EPDM, O-Ring, Poly Irradiated, Rubber, Viton	.080" min thickness	15	15
American Flange PE or PP	EPDM, O-Ring, Poly Irradiated, Rubber, Viton	.063" & .040" min. thickness	10	10

**NOTE:** In combination plugs, the ¾" plug should have a torque of 4-5 ft. lbs.

**APPENDIX 2**

Basic Closing Ring Instructions and Closing Torques for Bolt Ring Closures for 30gal and 55gal drums

<b>BOLT RING*</b>	Place cover on the drum, making sure gasket is in place. Snap the closing ring over the cover and top lip of the drum, making sure that the bottom edge of the closing ring engages under the lip of the drum, and the ring's lugs point down. Insert the bolt through the lug without threads. Next, (if applicable) screw on the locking jam nut. Finally, screw the bolt into the threaded lug. While tightening the bolt, tap the entire perimeter of the ring with a mallet, starting directly across from the bolt. Tighten the bolt according to the chart below. If used, tighten the jam or locking nut against the lug without threads. If the bolt ring is combined with an inside lever-lok, pull the lever until fully closed, and hook under the latch.		
<b>BOLT-RING CLOSURE</b>	<b>GASKET TYPES</b>	<b>TIGHTENING TORQUE</b>	<b>RING GAP</b>
12 GA Bolt Ring, All types except Composite	All	60 Ft-Lbs	1/8" to 5/8"
16 GA or 18 GA Bolt Ring, All types except Composite	All	8 to 15 Ft-Lbs	1/8" to 5/8"
12 GA Bolt Ring, Composite	Any (gasket not required)	30 Ft-Lbs	N/A
16 GA Bolt Ring, Composite	Any (gasket not required)	15 Ft-Lbs	N/A
<b>LEVER- ACTION, OUTSIDE LEVER</b>	Place cover on the drum, making sure the gasket is in place. Snap the closing ring over the cover and top lip of the drum, making sure that the bottom edge of the closing ring engages under the lip of the drum. Pull the locking lever closed, and at the same time, tap the 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 seal wire or other sealing device through the hole in the latch lever.		
<b>LEVER-ACTION, INSIDE LEVER</b>	Place cover on the drum, making sure the gasket is in place. Snap the closing ring over the cover and top lip of the drum, making sure that the bottom edge of the closing ring engages under the lip of the drum. Pull the locking lever closed, and at the same time, tap the edge of the closing ring, beginning directly opposite the closing lever, with a mallet until the lever is fully closed and hooked under the latch. Apply a seal wire or other sealing device through the hole in the latch lever.		

\*Bolt Ring/Lever-Lok rings should use the same torque values as a standard Bolt Ring