

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

Steel containers with fittings should be closed after filling and before transportation in accordance with the tightening torque's 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		
		3/4" Plugs	2" Plugs	1 1/2" 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	
Technocraft TiteSeal Steel	Buna, EPDM, Viton	8 - 15	10 - 25	
Technocraft TiteSeal Steel	Poly, Poly Irradiated	8 - 15	14 - 25	
Technocraft TiteSeal Nylon	Buna, EPDM	8 - 12	10 - 25	
Technocraft TiteSeal Nylon	Poly, Poly Irradiated	8 - 12	14 - 25	

NOTE: In combination plugs, the 3/4" plug should have a torque of 4-5 ft. lbs.

APPENDIX 2
Basic Closing Ring Instructions and Closing Torques for Bolt Ring Closures

BOLT RING*	Place cover on 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 rings 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.		
BOLT-RING CLOSURE	GASKET TYPES	TIGHTENING TORQUE	RING GAP
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"
LEVER-ACTION, OUTSIDE LEVER	Place cover on 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.		
LEVER-ACTION, INSIDE LEVER	Place cover on 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