

Our Vision Is To Be Our Customers Preferred Container Supplier



Steel Drum Closure & Assembly Instructions

49 CFR/UN Requirements

North Coast Container certifies that the drums we supply meet the requirements of Title 49 Code of Federal Regulations, part 178, subparts L and M. If, after receiving our drums, you, as the filler and shipper alter the drums in any way you release North Coast Container from its responsibilities as the drum manufacturer.

Specifically, North Coast Container installs all closure devices in a way that satisfies all performance test requirements.

To comply with parts 178.2, 178.601 (b), and to assist you as the shipper and our customer in fulfilling your responsibilities, we list the following pertinent information.

Fitting Torque Requirements (Ft.- lbs.)

C1 OCTAGONAL BASE CLOSURE SYSTEM (See Note 1) Recommended Minimum APPLICATION Torque (Steel)

Gasket	TRISURE		RIEKE		TITSEAL	
	¾" (20 mm)	2" (50 mm)	¾" (20 mm)	2" (50 mm)	¾" (20 mm)	2" (50 mm)
Black Buna	12 ft. - lbs.	20 ft. - lbs.	9 ft. - lbs.	20 ft. - lbs.	8 ft. - lbs.	15 ft. - lbs.
White Buna	12 ft. - lbs.	20 ft. - lbs.	9 ft. - lbs.	20 ft. - lbs.	8 ft. - lbs.	15 ft. - lbs.
Butyl	12 ft. - lbs.	20 ft. - lbs.	9 ft. - lbs.	20 ft. - lbs.	NA	NA
White Neoprene	12 ft. - lbs.	20 ft. - lbs.	9 ft. - lbs.	20 ft. - lbs.	NA	NA
Polyethylene	15 ft. - lbs.	30 ft. - lbs.	15 ft. - lbs.	30 ft. - lbs.	8 ft. - lbs.	15 ft. - lbs.
Irradiated Poly	15 ft. - lbs.	30 ft. - lbs.	15 ft. - lbs.	30 ft. - lbs.	8 ft. - lbs.	18 ft. - lbs.
Viton	12 ft. - lbs.	20 ft. - lbs.	9 ft. - lbs.	20 ft. - lbs.	8 ft. - lbs.	15 ft. - lbs.
Hypalon	12 ft. - lbs.	20 ft. - lbs.	9 ft. - lbs.	20 ft. - lbs.	NA	NA
Teflon	20 ft. - lbs.	30 ft. - lbs.	20 ft. - lbs.	30 ft. - lbs.	10 ft. - lbs.	18 ft. - lbs.
Silicone	12 ft. - lbs.	20 ft. - lbs.	9 ft. - lbs.	20 ft. - lbs.	NA	NA
EPDM	12 ft. - lbs.	20 ft. - lbs.	9 ft. - lbs.	20 ft. - lbs.	8 ft. - lbs.	15 ft. - lbs.

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Recommended Minimum APPLICATION Torque (Nylon)

Gasket: • ¾" (20 mm) – 8 ft.-lbs. • 2" (50 mm) – 20 ft.-lbs.
• 15 ft. – lbs. **(TITSEAL ONLY)**

Recommended Minimum APPLICATION Torque (Polypropylene & HDPE)

Gasket: • ¾" (20 mm) – 5 ft.-lbs. • 2" (50 mm) – 10 ft.-lbs.

The "as shipped" torques may be up to 35% less than the application torques and still withstand normal conditions of transportation.

C2 Serrated Base Closure System

Recommended Minimum Torque (Steel)

Gasket	¾" (20 mm)	1 ½" (38 mm)	2" (50 mm)
Black Buna	15 ft. - lbs.	25 ft. - lbs.	30 ft. - lbs.
White Buna	15 ft. - lbs.	NA	30 ft. - lbs.
Gray Neoprene	15 ft. - lbs.	NA	30 ft. - lbs.
Polyethylene	20 ft. - lbs.	40 ft. - lbs.	40 ft. - lbs.
Irradiated Poly	20 ft. - lbs.	40 ft. - lbs.	40 ft. - lbs.
Dapon	15 ft. - lbs.	NA	30 ft. - lbs.
EPT/EPDM	15 ft. - lbs.	25 ft. - lbs.	30 ft. - lbs.
Viton	15 ft. - lbs.	NA	30 ft. - lbs.

Recommended Minimum Torque (Plastic)

Gasket	¾" (20 mm)	2" (50 mm)
Black Buna	9 ft. - lbs.	20 ft. - lbs.
White Buna	9 ft. - lbs.	20 ft. - lbs.
Gray Neoprene	9 ft. - lbs.	20 ft. - lbs.
Polyethylene	9 ft. - lbs.	20 ft. - lbs.
Irradiated Poly	9 ft. - lbs.	20 ft. - lbs.
Dapon	9 ft. - lbs.	20 ft. - lbs.
EPT/EPDM	9 ft. - lbs.	20 ft. - lbs.
Viton	9 ft. - lbs.	20 ft. - lbs.

Recommended Minimum Torque for Self Gasketing Plastic Plugs

Gasket: • ¾" (20 mm) – 5 ft.-lbs. • 2" (50 mm) – 12 ft.-lbs.

Most Important: Open head cover gasket performance can be affected by time (age), temperature, exposure to chemicals and ozone. This could result in loss of cover gasket elasticity. Consequently, North Coast Container recommends checking the closing ring bolt for proper torque prior to shipping.

On open heads, North Coast Container applies pressure to the cover to compress its gasket and facilitate proper tightening of the closing ring. Consequently, we strongly recommend filling through a top opening rather than by removing the cover. If you find it necessary to remove the cover for any reason, then reinstallation should proceed as follows:

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Drum Closing Instructions

- 1 Install drum cover and closing ring on the drum.
- 2 Optimum tightening for a 16 gage closing ring is 15 to 20 ft.-lbs.
- 3 Optimum tightening for a 12 gage closing ring with forged lugs with bolt and jamming nut is to jam the nut between the two lugs.
- 4 If the nut cannot be jammed between the lugs, tighten the ring bolt to 60 to 70 ft.-lbs. of torque then tighten the jam nut against the inside of the non-threaded lug.
- 5 If a shoulder bolt is used instead of a standard bolt, tighten the ring bolt to 60 to 70 ft.-lbs. of torque.

(Note) For Lord Code 1001769 black & orange drums and code 1001765 black & green agitator drums the rings must be tightened until their ends butt.

- 6 During the torquing process, tap the outside of the closing ring with a non-sparking mallet.
- 7 Tighten all plugs to the recommended torques.

(Note) By removing the cover from an open head drum, 49 CFR §173.22 and §178.2 make you responsible for that drum's performance and safety during transport.

These closing instructions are valid for all drum specifications North Coast Container supplies and are in effect until further notice.

