

TITUS® TwistLIFT® Lock

Composite Cover Lock Specification

1.0 Required Function

The composite cover locking mechanism shall be designed to secure a manhole cover in order to protect against unauthorized access to the manhole, restrict movement of the cover therefore reducing wear, noise reduction and provide an attachment for a lifting tool to remove the cover.

2.0 Manufacturer

The locking mechanism shall be a TITUS® TwistLIFT® manufactured by TITUS® Wastewater Solutions, Inc. 5301 CY Ave. Casper, WY 82604 (877-582-9899 or 1-541-948-4458).

3.0 Overall Design Criteria

TITUS® TwistLIFT® composite access cover lock is designed as a security bolt requiring a special tool to operate the quarter turn bolt, and lift the cover from the frame. It functions with the standard cam lock quarter turn paddle.

4.0 Specific Design Criteria

- a. TITUS® TwistLIFT® security lock systems bolt shall be machined From Titanium Steel
- b. The bolt features a domed head with 3 equally spaced 'J' slots running horizontally around the bolt head. A flat is machined on the top to extend the life of the debris plugs. An indicator line is also machined into the head.
- c. Standard bolt sizes are ½" 20 Thread Per Inch (TPI) with a flat machined on two sides to engage paddle.
- d. The lock stop is a 316 SS investment casting pinned to the cover with a 1/2" hole to accommodate the TwistLIFT bolt.
- e. The bolt and paddle will be assembled using a standard 316 SS ½" x 20 TPI nut with thin SS washer coated in anti-seize. Nut should be torqued to about 35 ft/lbs. . This provides for the consistent turning resistance of the lock assembly. A second 316 SS lock nut is used as a jam nut, and torqued to 90 ft. lbs. while holding the bottom nut stationary. Red Locktite® or equivalent should be liberally used prior to assembly.
- f. The bolt will be operated by means of a specially made opening key consisting of a special socket attached to a 'T' handle used to both turn the bolt, and lift out the cover.
- g. Replacement opening keys are only available through TITUS® Wastewater Solutions, Inc.
- h. The bolt head is protected by a weather resistant plastic debris cap. The cap is included with each lock.

Specifications are subject to change without notice. Please contact TITUS® Wastewater Solutions, Inc. regarding any questions or requirements at 1-877-582-9899 or 1-541-948-4458.