

TITUS® TwistLIFT® Security 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® Industrial Group, Inc. 1450 N.W. Gardner Rd. Prineville, Oregon 97754 (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 either the standard cam lock quarter turn paddle, or the extended 'SURCHARGE' paddle.

4.0 Specific Design Criteria

- a. The bolt shall be machined from 17-4PH H900 hardened stainless steel.
- b. The bolt features a domed head with 3 equally space 'J' slots running horizontally around the bolt head. A flat is machined on the top to extend the life of the debris plugs.
- c. Standard bolt sizes are 14 MM coarse thread with a flat machined on two sides to engage paddle.
- d. The paddle is die cast from 304 stainless steel and also available in both standard cam lock design, or extended surcharge configuration.
- e. The bolt and paddle will be assembled using two Stainless Steel 14 MM nut's, the bottom nut is a standard nut that will be torqued to 35 ft. lbs. to give the desired tension on the bolt. A second Nylock™ lock nut is used as a jam nut, and torqued to 90 ft. lbs. Stainless Steel washers are used to provide consistent turning resistance.
- f. A 3/16 Stainless Steel set screw, set in a threaded hole in the cover provides for a stop at ¼ turn of operation.
- g. 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.
- h. Replacement opening keys are only available through TITUS® Industrial Group Inc.
- i. 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® Industrial Group, Inc. regarding any questions or requirements at 1-877-582-9899 or 1-541-948-4458.