Synthetic Cargo Tiedowns and Hardware

CERTEX offers a full line of synthetic tiedown assemblies and related hardware for all the tough demands of the flatbed and van trailer industry. Also available is a full line of pickup and smaller trailer straps used for securing loads. These straps are made from a specially treated polyester webbing for minimal stretch, environmental considerations and resistance to wear. The soft polyester webbing protects material surfaces and conforms to the shape of the load at any angle. These assemblies are available in 1, 2, 3 and 4 inch widths with a variety of end fittings and working load limits (WLL). CERTEX tiedown assemblies are manufactured to strict quality guidelines according to the latest government standards.

CERTEX strongly recommends that these products be used in accordance with all local, state and Department of Transportation regulations. Users of tiedown assemblies should review and comply with all federal, state and local regulations relative to the proper securement of cargo being transported. Securement strength requirements should take into consideration "G" forces and all other contributing factors affecting the material being transported. Tiedown assemblies should not be used for overhead lifting.

For further information please consult the Web Sling and Tiedown Association's Recommended Standard Specification for Synthetic Web Tiedowns and the Recommended Standard Specification for Synthetic Web Tiedown Winches.

Recommended Operating Practices

Mechanical Considerations

Determine weight of the cargo to be secured, including expected Gravity "G" forces.

Select tiedown having suitable characteristics for the type of load and environment.

Tiedowns shall not be loaded in excess of the Working Load Limit (WLL). Consideration should be given to the angle from the vertical (cargo tiedown to load angle) which affects working load capacity.

Tiedown shall be attached to provide control of the load and positioned in accordance with applicable regulations.

Tiedowns shall not be dragged on the floor, ground, or over an abrasive surface.

Tiedowns shall not be tied into knots, or joined by knotting.

Tiedowns shall not be pulled from under loads when the load is resting on the tiedown.

Tiedowns shall always be protected from being cut by sharp corners, sharp edges, protrusions or abrasive surfaces.

Tiedowns with metal fittings shall not be dropped.

The opening in fittings shall be the proper shape and size to insure that the fitting will seat properly in the anchorage point or other attachments. If the anchor point is inadequate to support the force of the tiedown system, then the load rating of the tiedown will be limited to the strength of the anchor point.

Tiedowns shall not be used for lifting.

Environmental Considerations

Tiedowns should be stored in a dry and dark place, and should not be exposed to sunlight when not in use.

Chemically active environments can effect the strength of synthetic web tiedowns in varying degrees ranging from little to total degradation. The tiedown manufacturer should be consulted before tiedowns are used or stored in chemically active environments.

A. Acids

1. Nylon is subject to degradation in acids, ranging from little to total degradation.
2. Polyester is resistant to some acids, but is subject to degradation ranging from little to moderate with other acids
3. Each application shall be evaluated, taking into consideration the following:
    i. Type of Acid
    ii. Exposure Conditions
    iii. Concentration
    iv. Temperature

B. Alkalis

1. Polyester is subject to degradation by alkalis, ranging from little to total degradation.

2. Nylon is resistant to some alkalis, but is subject to degradation ranging from little to moderate with other alkalis.
3. Each application shall be evaluated, taking into consideration the following:
    i. Type of Alkali
    ii. Exposure Conditions
    iii. Concentration
    iv. Temperature

Nylon and polyester webbing shall not be used at temperatures in excess of 194 degrees F (90 degrees C). Both types are routinely used at temperatures as low as –40 degrees F (–40 degrees C).

Tiedowns incorporating aluminum fittings shall not be used where fumes, vapors, sprays, mists or liquids of alkalis and/or acids are present.

Environments in which synthetic webbing tiedowns are continuously exposed to ultra-violet light can affect the strength of synthetic webbing tiedowns in varying degrees ranging from slight to total degradation.

A. Factors which can determine the degree of strength loss are:
1. Length of time of continuous exposure
2. Webbing construction and design
3. Other environmental factors such as weather conditions and geographic location.

B. Suggested procedures to minimize the effects of ultra-violet light.
1. Store webbing tiedowns in a cool, dry and dark place when not being used for prolonged periods of time.
2. Inspect webbing tiedowns weekly or more often, depending on frequency of use.
3. Impregnate a coating into the webbing.

C. Visual indications of possible ultra-violet degradation are:
1. Bleaching out of webbing.
2. Increased stiffness of webbing material.
3. Surface abrasion in areas not normally in contact with the load.

Caution: Degradation can take place without visible indications.

Inspection

Type of Inspection

A. Initial Inspection — Before any tiedown is placed in service it shall be inspected to insure that the correct tiedown is being used as well as to determine that the tiedown meets the requirements of the application.

B. Frequent Inspection — This inspection shall be made by the person handling the tiedown each time it is used.

C. Periodic Inspection — This inspection shall be conducted by designated personnel. Frequency of inspection shall be based on:
1. Frequency of use
2. Severity of service conditions
3. Experience gained on the service life of tiedowns used in similar applications.
4. Inspection should be conducted at least monthly.

Inspection Records

Tiedown inspection records shall be established by the user.

Tiedown Replacement

A. Tiedown shall be removed from service if any of the following, are visible.
a. Acid or alkali burns.
b. Melting, charring, or weld spatter of any part of the webbing.
c. Holes, tears, cuts, snags or embedded particles.
d. Broken or worn stitching in load bearing stitch patterns.
e. Excessive abrasive wear.
f. Knots in any part of the webbing.
g. Distortion and excessive pitting or corrosion or broken fittings.
h. Other apparent defects which cause doubt as to the strength of the tiedown.

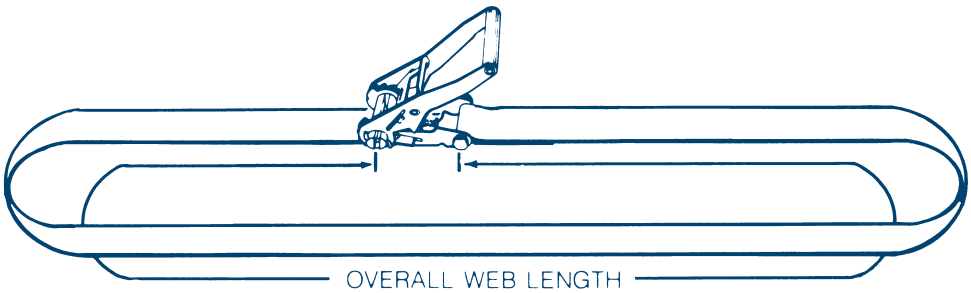
Repair of Tiedown Webbing

No repairs of webbing, fittings, or stitching shall be permitted.

Tiedown Assemblies

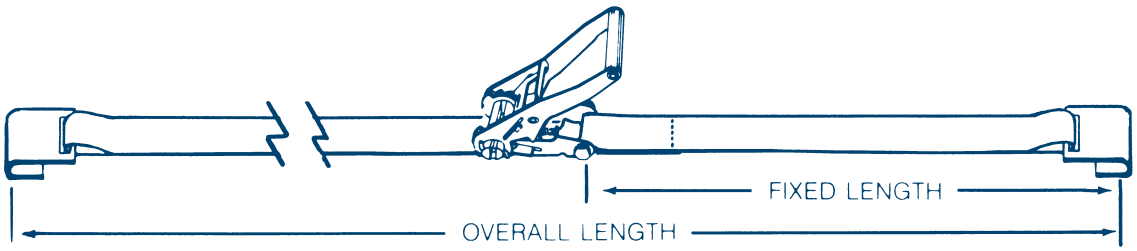
Ratchet Load Binders offer the ease of one hand tensioning with their high quality ratchet buckles. These ratchet buckles offer a variety of adjustment positions to secure loads of any type for short term or long haul transit. The ratchet buckle assemblies are easily tightened to secure your loads properly and when it comes time to release the loads at the final destination these ratchet buckles are released just as easily. The soft polyester webbing conforms to the shape of the load and is flexible at any angle. The webbing also protects finished surfaces from scratching and abrasion. The webbing is engineered and manufactured to breaking strengths to acquire specific working load limits (WLL) when fabricated into a tiedown assembly.

A variety of tensioning buckles and end fittings are available. Webbing widths range from 1 inch, 2 inch, 3 inch and 4 inches. Also many different strengths are available which effect the working load limit (WLL) of the tiedown assembly. Strength ratings are “minimum break strength”. Unless otherwise specified, the strength rating is based upon a straight tensile pull. Load direction other than straight can result in a significant reduction in strength. Strength ratings are contingent upon using combinations of components as a system. The weakest component of the system determines the strength rating including the point of attachment. Tiedown assemblies are tagged with a working load limit (WLL).



Type A – Endless

The simplest, most versatile Ratchet Binder has one end of the web sewn to the ratchet head, the other end free for passing around loads or through narrow openings, and inserting into the ratchet. Fabricated in any practical web length.



Type B – Two Piece

This is a two-piece device with flat hooks at the two extremities. The cut-and-sealed plain end inserts into the ratchet the same as Type A. Offered in any practical length, measured between hooks.

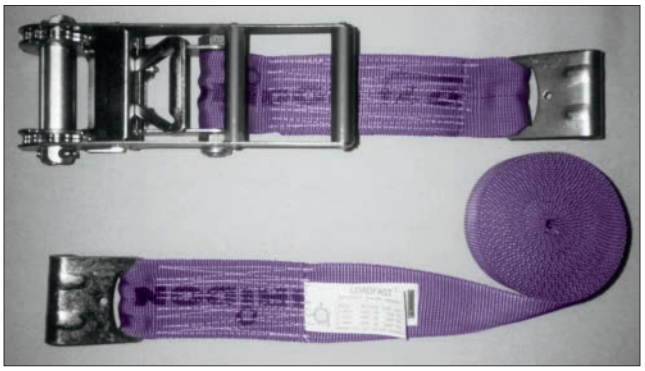
WARNING:
Tiedown assemblies are not to be used for overhead lifting.

CARGO CONTROL

Tiedown Assemblies

1 Inch Ratchet Tie Down Assembly	
CX07-0624	1” X 15’ with flat hooks
CX07-0651	1” X 15’ with S hooks
CX07-5113	1” X 8’ with S hooks

2 Inch Ratchet Tie Down Assembly	
CX07-7074	2” X 27’ with flat hooks
CX07-7075	2” X 27’ with wire hooks



3 Inch Ratchet Tie Down Assembly	
CX07-7078	3” X 27’ with flat hooks
CX07-9237	3” X 30’ with flat hooks

4 Inch Ratchet Tie Down Assembly	
CX07-0641	4” X 30’ with wire hooks
CX07-9238	4” X 30’ with flat hooks

WARNING:
Tiedown assemblies are not to be used for overhead lifting.