



RATCHET STRAPS

MANUAL NO. 13905

SKU:JFTDS00001



SAFETY REGULATIONS

Mandatory Safety Warnings & Legal Statements (Read Before Use)

DANGER

Failure to follow these instructions may result in severe injury, death, cargo loss, or traffic accidents.

WARNING

A tensioned strap that breaks will produce a deadly whiplash effect. Keep all personnel clear during operation and inspection.

1. Load Limits & Safety Factor – MOST IMPORTANT! Read Carefully

The Working Load Limit (WLL) is printed on the product label. This number is the maximum cargo weight that you must NEVER exceed in actual use. It is the legal red line and the ONLY basis for safe use.

Breaking Strength is the physical ultimate force at which a brand-new strap breaks under laboratory conditions. This product is designed with a Breaking Strength of 3 times the WLL. This 3:1

safety factor is an industry-standard margin to compensate for strength loss caused by abrasion, aging, UV exposure, and shock loads during actual service.

WARNING: Under NO circumstances shall the Breaking Strength value be used as the basis for loading weight! If you load based on Breaking Strength, even slight wear or a sudden brake will erase the safety margin and cause immediate failure.

Simple Formula:

Maximum Load Weight $\leq$ WLL (Label Value) – This is the ONLY correct standard

Maximum Load Weight $\neq$ Breaking Strength ($3\times$ WLL) – This is a FATAL mistake!

2. Anchor Point Strength

The vehicle anchor points (e.g., beams, E-track slots, D-rings, or structural frame members) must have a strength at least 2 times the WLL of this tie-down strap. Weak anchors will compromise securement.

3. Edge Protection – FMCSA Mandatory Requirement

Where the webbing contacts sharp corners, rough surfaces, or friction points of cargo or vehicle structure, edge protectors/corner pads MUST be used. Sharp edges can cut the webbing at loads far below the WLL.

4. Pre-Use Inspection – Mandatory Before Each Use

DO NOT USE if any of the following defects exist:

Cuts, abrasions (>25% of width), burns, chemical corrosion, knots, broken stitching;

Rust, deformation, or cracks on metal parts;

Missing, stuck, or non-returning ratchet springs.

5. Prohibited Actions

DO NOT use for lifting/hoisting – This product is for cargo securement ONLY.

DO NOT apply shock loads – Never jerk or use vehicle inertia to tighten. Shock loads can multiply forces several times over, causing failure.

DO NOT tie knots – Knots reduce webbing strength by over 50%.

DO NOT modify or repair – Never sew webbing, weld, or hammer the ratchet mechanism.

6. In-Transit Monitoring

Must check tension within the first 15 km (10 miles) of transit and periodically thereafter. Vibration causes loosening. Re-tighten if slack is observed.

7. Environment & Storage

Operating temperature range: -40°F to +175°F (-40°C to +80°C).

Do not use outside this range.

Store away from direct sunlight, moisture, and solvents. UV rays degrade polyester strength.

8. Labeling & Product Information

The product label must remain legible and contain WLL, Breaking Strength, material, and lot number. If damaged or illegible, do not use and contact the manufacturer for replacement.

9. Regulatory Applicability & User Responsibility

The operating instructions in this manual are intended to assist users in meeting the basic requirements of the U.S. FMCSA Cargo Securement Regulations (49 CFR 393.104). Users are solely responsible for ensuring:

(1) Vehicle anchor points have a strength of at least 2x the Working

Load Limit (WLL) marked on this strap;

(2) All sharp edges are protected with edge protectors;

(3) Actual load weight does not exceed the WLL printed on the product label.

The manufacturer assumes no liability for any loss or injury resulting from overloading, insufficient anchor strength, failure to use edge protection, or improper operation.

OPERATION

Before operation: Ensure you have read and understood all safety warnings and legal statements above, especially Section 1 (Load Limits).

Step 1: Wrap the Endless Loop Around the Cargo or Anchor

Fully unwind the strap. The endless loop design contains no metal hooks – the strap loops around itself to secure the load. Pass the loop end around the cargo or through the anchor point (e.g., roof rack crossbar, trailer frame rail, truck bed tie-down ring, or structural member), then bring it back to form a complete loop around the anchor. Ensure the webbing lies flat and untwisted. For hookless endless-loop straps, securement relies on the webbing loop gripping the anchor; therefore, ensure the loop is fully seated around the anchor and pulled snug before proceeding. Pre-install edge protectors on any sharp corners.



Step 2: Thread the Strap (Insert Webbing into Ratchet Axle)

Ensure the ratchet handle is in the fully open (release) position (handle level with base). Take the free end (the end attached to the ratchet mechanism), pass it underneath the center rotating shaft (mandrel) , then up through the center slot, and pull it out from the other side. Leave about 30 cm (12 inches) of tail. Keep webbing flat and untwisted.



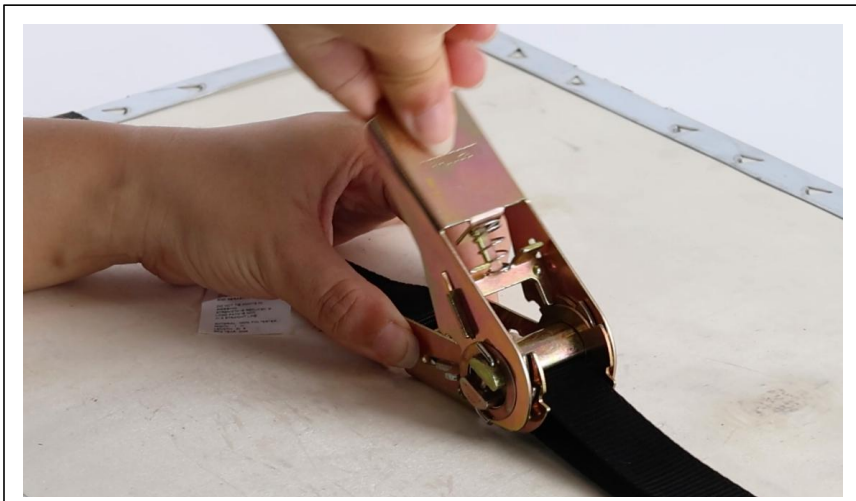
Step 3: Pull Out Slack

Pull the free end of the webbing to remove all visible slack from the loop around the cargo or anchor. The webbing should be snug against the cargo surface and the anchor point before you begin ratcheting.



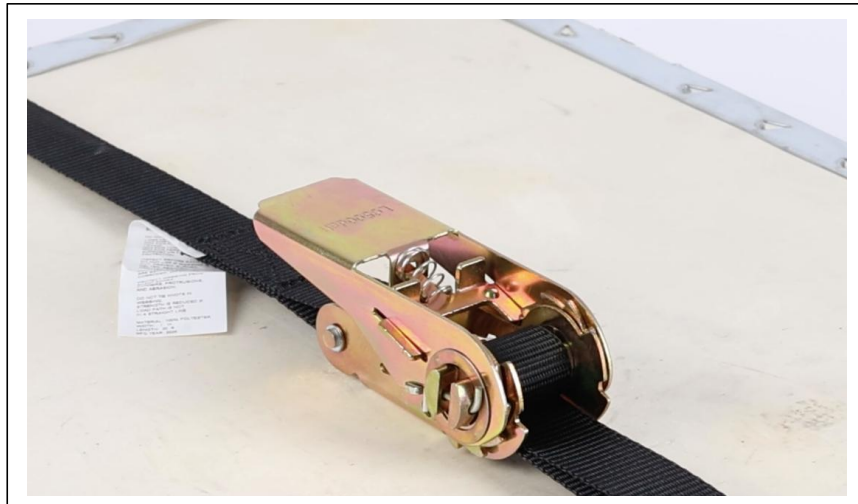
Step 4: Swing Handle Back and Forth (Tensioning)

Stabilize the ratchet base with one hand. With the other, swing the handle back and forth until the desired tightness is achieved. The axle rotates and winds the webbing. Continue ratcheting until the webbing is taut and the cargo is firmly secured. DO NOT exceed WLL.



Step 5: Lock the Handle

Once the desired tension is reached, press the handle firmly down until it is parallel (flush) with the base – you will hear a locking sound. The strap is now locked and secure.



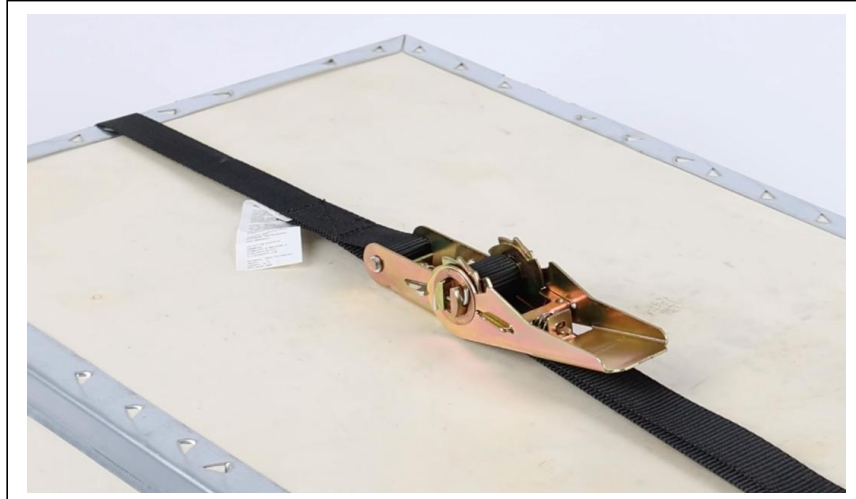
Step 6: Release the Strap (Unloading)

Critical: Ensure cargo will not tip upon sudden release.

Lift the handle upwards to approximately 90 degrees to disengage the lock;

Continue folding the handle back to the fully open (horizontal) position (pawl disengages from gear);

Directly pull the free-end webbing outward to release tension – if stuck, gently wiggle the handle to assist.



Step 7: Disassembly and Coiling

After fully releasing and extracting the webbing, remove the loop from the anchor point. Straighten and coil into loops (do not tie knots) . Store in a dry place away from direct sunlight. If contaminated with oil or mud, clean and air-dry before storage.



Lot Number Location:

The lot number is affixed to the label on the product packaging box. Please record or keep the packaging box for future reference before disposal.

This manual is for operational guidance only. For specific regulatory requirements, please refer to the latest FMCSA regulations. Contact the manufacturer for any questions.

Contact:

Feel free to visit our website: www.ussolid.com

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