



GITA MARKETING CO.

TECHNICAL DATA SHEET

RATCHET LASHING SYSTEMS

EN 12195-2 — Star Lifting & Securing — Technical Data Sheet

Gita Marketing Co.

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1. Product Overview

Star Lifting & Securing Pvt Ltd — EN 12195-2

Ratchet lashing straps (also termed ratchet tie-downs or ratchet straps) are the primary cargo securing method for road transport under EN 12195-2. Each assembly comprises a high-tenacity polyester webbing strap fitted with a ratchet tensioning mechanism and end hooks. The ratchet mechanism allows precise tensioning and holds load without creep. EN 12195-2 mandates that the Lashing Capacity (LC), Breaking Force (BF), and Standard Hand Force (SHF) are permanently marked on every strap. LC is rated in daN (decanewtons: 1 daN ≈ 1 kgf) — this is the legal unit under the standard and must not be converted to 'tonnes' for compliance labelling.

2. Key Ratings — EN 12195-2 Definitions

LC — Lashing Capacity	Maximum securing force the strap can apply in the lashing direction. Rated in daN.
BF — Breaking Force	Minimum force at which the assembly fails. $BF \geq 2 \times LC$ per EN 12195-2.
SHF — Std Hand Force	Force applied by one person at the ratchet handle. Typically 50 daN.
STF — Std Tension Force	Pre-tension achievable with the SHF and the ratchet mechanism.
daN	Decanewton — the unit of force. $1 \text{ daN} = 10 \text{ N} \approx 1.02 \text{ kgf}$. Do not label in kg or tonnes.

3. Product Range — Star Lifting

Model	Webbing Width	Configuration	Breaking Force	Approx LC
SL003	25 mm	Two-part with hook	680 kg (≈ 6,670 N)	≈ 340 daN
SL004	25 mm	Two-part with hook	1,300 kg (≈ 12,750 N)	≈ 650 daN
SL002	35 mm	Two-part with hook	2,500 kg (≈ 24,520 N)	≈ 1,250 daN
SL001	50 mm	Two-part with hook	5,000 kg (≈ 49,050 N)	≈ 2,500 daN
SL005	75 mm	Two-part with hook	10,000 kg (≈ 98,100 N)	≈ 5,000 daN

LC values above are derived from $BF \div 2$ per EN 12195-2. Refer to the marking on each individual strap for the certified LC value — this document is a general reference only.

4. Webbing Material & Construction

Webbing	High-tenacity polyester — UV stable, moisture resistant, low stretch
Mechanism	Galvanised or zinc-plated steel ratchet buckle with safety latch
Hooks	J-hook or flat hook — zinc-plated or galvanised carbon steel
End Types	Two-part (long strap + short strap with ratchet) · Endless loop





Lengths

3 m to 10 m — custom lengths on request

5. How to Use — Correct Lashing Procedure

- Route the strap over or around the load — avoid sharp edges; use edge protectors where needed.
- Attach hooks to anchor points rated at or above the LC of the strap.
- Feed the free strap end through the ratchet mandrel and take up slack by hand.
- Operate the ratchet handle with full strokes until the required tension is achieved.
- Close the ratchet safety latch to prevent accidental release during transit.
- Inspect tension at intermediate stops on long journeys — polyester can relax slightly.
- To release: lift the safety latch, open the ratchet fully, and pull the release tab.

6. Inspection & Retirement

- Inspect webbing before every use — retire if cuts, fraying, knots, heat damage, or chemical attack found.
- Inspect ratchet mechanism — retire if latch is bent, cracked, or does not hold under load.
- Do not use a strap with an illegible or missing LC marking — it cannot be verified for compliance.
- Do not knot or shorten the webbing — this concentrates stress and reduces breaking force.
- Store loosely coiled, dry, away from heat, UV, and corrosive chemicals.

7. Standards & Compliance

Standard	EN 12195-2:2001 — Lashing chains, straps, steel wire ropes and round slings
CE Marking	CE marked — mandatory for cargo securing equipment on EU roads
Marking	Permanent label: LC (daN) · BF · STF · SHF · Standard reference · Manufacturer
Legal Use	Compliant with EU Regulation EC 561/2006 and national road transport rules
Manufacturer	Star Lifting & Securing Pvt Ltd
Distributor	Gita Marketing Co. — Bangalore · ISO 9001:2015 · ISO 45001:2018

8. Ordering & Supply

Range	25 mm · 35 mm · 50 mm · 75 mm webbing widths
Lengths	3 m – 10 m standard · Custom on request
Hooks	J-hook · Flat hook · Specify end type on order
Docs	Conformity declaration · Batch test certificate on request
Contact	info@gitamarketing.com · +91-89040-35515

