



Tactical Safety for Access & Falls

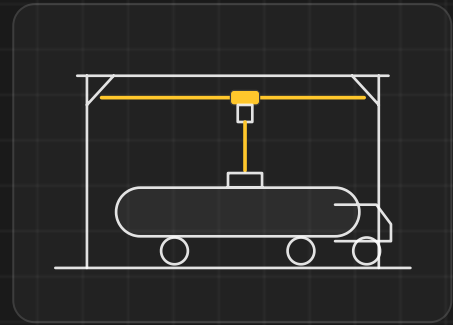
Product datasheet

— A PART OF MT&T GROUP —

LIFELINE SYSTEMS

Overhead Lifeline System

When people work on top of trucks, tankers, rail wagons or equipment, there is often nothing to anchor to at foot level. A TsaF overhead lifeline puts a continuous anchor above the work area, so workers can move along the vehicle without stopping to re-attach.



5-15 m

Intermediate bracket spacing on long lines

10 m

TSAF-404 retractable fall arrestor

15 kN

Rated strength of TSAF trolleys

EN 795:2012 Class C

CEN/TS 16415:2013

IS 3521 Part 8:2021

Overview

The problem at loading bays and vehicle tops

Loading and unloading tankers, trucks and rail wagons means people standing on curved, wet or uneven surfaces with no edge protection and no structure nearby to clip onto. The same is true for work over machinery, along pipe racks and on crane rails. A short fall from a vehicle top can cause serious injury, and these tasks are repeated many times a day.

How the TsaF overhead lifeline works

An overhead lifeline is a tensioned stainless steel cable fixed above the work zone, either to the building structure indoors or to a dedicated support structure outdoors. The worker connects a self-retracting lifeline, such as the TSAF-404 10 m retractable fall arrestor, to a trolley running on the cable and then to their full body harness. The trolley follows the worker along the line, giving easy, continuous and hands-free movement over long distances without stopping to re-attach to a new anchor point.

Because the anchor is overhead, the retractable arrestor keeps slack to a minimum and arrests a fall quickly. After a fall is arrested, the worker must be lowered or rescued promptly, so every overhead line should be planned together with a rescue method such as the TsaF Anchorline & Rescue System.

Trolley options

TsaF offers a double-wheel pass-through trolley (SS-304) for lines with intermediate brackets, and double-wheel and single-wheel non-pass-through trolleys for single-span lines. Intermediate brackets are typically spaced every 5 to 15 metres on long lines, and the line shares its shock absorber cum tensioner, end terminations and cable with the horizontal lifeline system.

Where overhead lifelines are used

Typical applications include truck and tanker loading in oil and gas and chemical plants, railway wagon loading, work on aircraft, over machinery and on pipe racks and crane rails. Where there is no structure to support a line, a freestanding TruckSafe or ConcreteSafe mobile anchor may be the better choice. For roof-level work, see our horizontal lifeline and rooftop barricade pages.

Why TsaF

The overhead lifeline is designed in accordance with EN 795:2012 Class C, CEN/TS 16415:2013 and IS 3521 Part 8:2021. TsaF surveys the bay, the vehicles and the supporting structure, engineers the layout and clearances, manufactures components in Jewar and installs with certified technicians. The Annual Maintenance Check then checks the cable, trolleys, brackets, end stops and clearances every year. Request a site assessment for your loading bays.

System types

Indoor overhead lifeline

Cable fixed to the building structure above loading bays, machinery or production lines.

Outdoor overhead lifeline

Cable supported on a dedicated structure for open loading areas where there is no building to fix to.

Double-wheel pass-through trolley (TSAF-407)

SS-304 trolley rated 15 kN that passes intermediate brackets, for long lines with several spans.

Double-wheel non-pass-through trolley (TSAF-406)

Anodised aluminium alloy trolley rated 15 kN for single-span lines.

Single-wheel non-pass-through trolley (TSAF-408)

Compact SS-304 trolley rated 15 kN for single-span lines.

Retractable fall arrestor 10 m (TSAF-404)

Self-retracting lifeline connecting the worker to the trolley and keeping slack to a minimum.

How it works

- 01 Support structure** — The line is fixed to the building indoors, or to a dedicated support structure outdoors, above the work zone.
- 02 Cable and tensioner** — An SS-316 cable is tensioned between end terminations by the TSAF-100A integrated shock absorber cum tensioner.
- 03 Intermediate brackets** — TSAF-401 SS-316 brackets support long lines, typically every 5–15 m.
- 04 Trolley** — A pass-through or non-pass-through trolley runs along the cable and follows the worker.
- 05 Retractable fall arrestor** — A self-retracting lifeline links the trolley to the worker's harness and locks quickly if they fall.
- 06 Rescue plan** — After a fall is arrested, the worker is lowered or rescued using a planned rescue method.

Benefits

Hands-free movement

Easy, continuous movement along the vehicle without stopping to re-attach.

Works with self-retracting lifelines

Designed to support retractable fall arrestors that keep slack to a minimum.

Long distances covered

Pass-through trolleys allow a single line to cover several bays.

Corrosion-resistant

SS-316 cable and brackets for outdoor and process environments.

Lighter than fabricated steel

A cable system needs less structure than a fabricated steel gantry.

Customised per bay

Each layout is engineered for the vehicles, heights and clearances on your site.

Components & specifications

SKU	Component	Key specifications
TSAF-108	Stainless Steel Wire Rope Dia 8 mm	Material: SS-316 · Construction: 7×7 · Dia: 8 mm · Length: 1m · Weight: 0.25 kg/Mtr.
TSAF-131	Karabiner	Material: Alloy Steel · Finishing: Natural Finish · Weight: 0.26 kg · Breaking Strength: 23 kN
TSAF-100A	Integrated Shock Absorber cum Tensioner	Material: SS-316 & AB-2 · Finishing: Natural Finish · Weight: 1.12 kg · Activating Force: 12kN · Max. Breaking Strength: 50kN
TSAF-102B	End Swage Less (Wedge Socket I-Bolt Type)	Material: SS-316 & AB-2 · Finishing: Natural Finish · Weight: 0.580 kg · Open Length: 250mm · Close Length: 160mm
TSAF-132	Full Body Harness with Energy Absorbing Lanyard	Material: Nylon, Steel & Plastic · Breaking Strength: 25kN · Weight: 0.95 kg
TSAF-404	Retractable Fall Arrestor 10m	Material: Steel & Plastic · Finishing: Natural Finish · Min. Breaking Strength: 6kN · Weight: 6.5 kg
TSAF-401	Intermediate Cable Bracket for OHLLS	Material: SS-316 · Finishing: Natural Finish · Weight: 0.28 kg · Fixing: Through SS-304 Fasteners
TSAF-406	Double Wheel Non Pass Through Trolley	Material: Aluminium Alloy · Finishing: Anodizing · Min. Breaking Strength: 15kN · Weight: 0.425 kg
TSAF-407	Double Wheel Pass Through Trolley	Material: SS-304 · Finishing: Natural Finish · Min. Breaking Strength: 15kN · Weight: 0.8 kg
TSAF-408	Single Wheel Non Pass Through Trolley	Material: SS-304 · Finishing: Natural Finish · Min. Breaking Strength: 15kN · Weight: 0.25 kg

Applications

Truck and tanker loading and unloading bays

Railway wagon loading

Work on top of vehicles and equipment

Aircraft maintenance

Work over machinery

Pipe racks

Crane rails and crane walkways

Standards & specifications. Designed in accordance with EN 795:2012 Class C, CEN/TS 16415:2013, IS 3521 Part 8:2021. Specifications are indicative and may vary with configuration. Final layouts, loads and applicable standards are confirmed by TsaF engineering for each project. Subject to technical changes.

Plan your overhead lifeline system with TsaF

Site assessment · System design · In-house manufacturing
· Installation · Training · Annual Maintenance Check

We don't just install your safety system. We stand on the roof with you.



Phone +91 99587 88970

Sales sales@tsafsafety.com

Web tsafsafety.com

Plot No. 69, Jewar Banger, Sector 32, Yamuna
Expressway Industrial Development Area, Gautam
Buddha Nagar, Uttar Pradesh – 203135