Load-securing

EUROPART Premium Parts

- Lashing straps
- Accessories for lashing straps
- Anti-slip mats
- Blocking elements
- Lashing points
- Lifting slings/round slings

EUROPE'S NO. 1 FOR TRUCK, TRAILER, VAN AND BUS SPARE PARTS!

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Focus on transport safety

Load securing – an important topic

Year after year, there are countless accidents caused by poorly secured loads. Inadequate load securing poses a considerable risk for all road users. It is not uncommon for people to be injured or even lose their lives in these accidents. The resulting damage to property runs into the millions.

Proper load securing on commercial vehicles is the decisive factor in guaranteeing high transport quality and protecting people and goods.

The term load securing serves as a generic term for securing the load against the physical forces of movement that occur during transport. A distinction is made between

\\\ during acceleration: Forces to the rear
\\\ When braking: forces in the direction of travel
\\\ when cornering: Lateral forces
\\\ Especially on uneven roads: vertical forces

The simplest form of load securing is to use the vehicle‘s load space limitation. Certified truck bodies that are stable enough have a sticker on the vehicle and are characterised by the fact that the two side walls can withstand 40 % of the payload, the front wall 50 % of the payload and the rear wall 30 % of the vehicle‘s payload. The load is fitted directly to the side walls as well as the front and rear walls and therefore cannot slip (so-called „positive locking“).

However, this is not possible in many cases due to the necessary load distribution and the type of load, so load securing aids must be used. The use of **certified, robust and reliable fastening systems** that guarantee adequate cargo security is of crucial importance here.

EUROPART offers you an extensive portfolio of products so that you can secure and transport your goods professionally.

Why is load securing often so criminally neglected?

„I think it has a lot to do with the time pressure on drivers that load securing is often only half done or not done at all. Some also don‘t know exactly how to secure which load. I‘ve also heard many people say: „Oh, I don‘t need to secure the load for this short stretch!“ These are all factors that can be dangerous for us. It‘s up to everyone to realise this and act accordingly.

My appeal is really that you pay attention to safety and also take the time. You simply have to have these 5 minutes to carry out this load securing.“

Your contact person
Markus Brüning

Technician in the department of equipment and accessories at EUROPART

The safety of the load is the responsibility of all those involved:

You are the vehicle owner

... then you have to provide a suitable vehicle driver, and equally so a vehicle in the proper condition and with the correct equipment. Should the sender or loader be in doubt about the intended transport, they are obliged to reject the vehicle.

You are the driver of the vehicle

...then you have to ensure that the load is safe for operation of the vehicle. Care must be taken here that

- the vehicle is not impaired (ability to steer, stability) by the load,
- permitted dimensions, total weight and axle loads are taken into account (load distribution plan),
- a test of the load security measures is undertaken before departure as well as underway(if necessary the means of lashing must be retightened etc.)

You are the shipper and common carrier

... then you are responsible for the secure carriage of the load and thus specifically for

- packaging that is suitable for the goods and the transportation route,
- proper labelling of the load,
- formation of suitable load units (palettes, lattice boxes, containers etc.),
- stowage of the load in the loading space,
- the attachment and security of the load on the vehicle,
- the proper use of lifting trucks, cranes etc.

*„Load securing often consists only of assumptions: ‚I'm driving with such foresight, I don't need to brake, it's so heavy, it won't shift'. But **load securing is a complex issue**. It affects everyone involved in transport. Our StVO states that something has to be done, but not how. In the case of traffic controls, penalties in the form of **immobilisation of the vehicle, fines and points** are the simplest measures. In the case of serious offences, the vehicle owner, driver, shipper and consignor are threatened with the **withdrawal of their driving licence** and even **criminal prosecution**."*

Philipp Roschmann

Brand Expert in the team of EUROPART Premium Parts and state-certified master vehicle technician

Laws, regulations and guidelines for load securing are regulated, for example, by

- **the Road Traffic Regulations (StVO)**
  § 22 StVO „Loading"
  § 23 StVO „Other duties of the vehicle driver"
- **the Road Traffic Licensing Regulations (StVZO)**
  § 31 StVZO „Responsibility for the operation of vehicles"
- **the German Commercial Code (HGB)**
  § 412 „Loading and unloading. Authorisation to issue ordinances"

as well as the accident prevention regulations (UVV) and technical regulations such as VDI 2700 ff. and DIN EN 12195-1 to -4.

Lashing straps

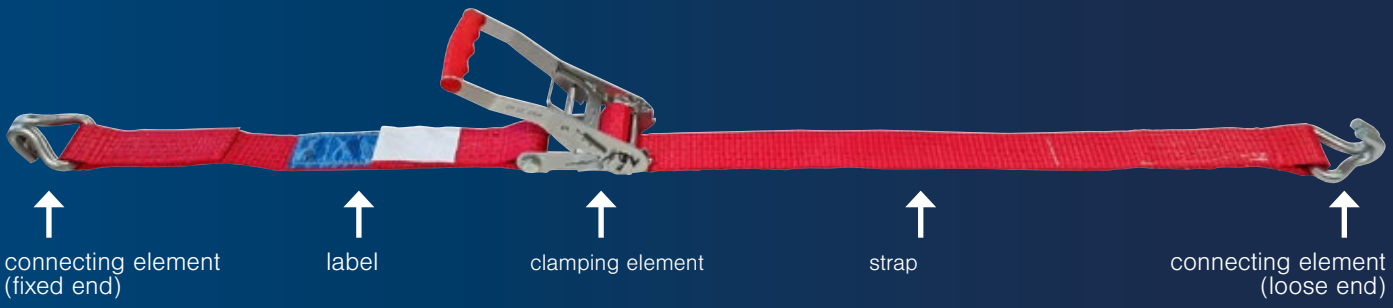
Lashing straps are particularly suitable for securing sensitive goods.

Short lever ratchets, also known as compression ratchets, generally achieve a pre-tensioning force of up to 300 daN. With a long lever ratchet (pull ratchet), on the other hand, a pre-tensioning force of 500 daN and more can be achieved.

EUROPART ratchet lashing straps (also known as two-piece lashing straps or Ratchet strap sets) are made of durable polyester that is **resistant to acids, oils and grease**. Temperatures from -40 to +100 °C also have no effect on the material properties. The pre-tensioning force of the lashing straps is between 300 and 600 daN and the permissible stretched tensile force is 2500 daN, 5000 daN in the strapping.

EUROPART lashing straps have an extremely low complaint rate.

Elements of a lashing strap



A two-part lashing strap can be used both in straight pull (for direct lashing) and in strapping (for tie-down lashing).

WITH FULLY STITCHED LABEL

1

2

Ratchet strap

Width	50 mm
Load capacity	5000 daN
Fixed end	500 mm
Material	polyester (PES)
Standard	EN 12195-2

permissible tensile force 2500 daN stretched, 5000 daN in the strapping

Scope of supply
2-piece

Version	Pre-tension force	Loose end	Length	Fig.	Order no
with profile hook and push ratchet	300 daN	7500 mm	8000 mm	1	**7801 000 030**
with profile hook and pull ratchet	500 daN	7500 mm	8000 mm	2	**7801 000 036**
with profile hook and push ratchet	300 daN	9500 mm	10000 mm	1	**7801 000 000**
with profile hook and pull ratchet	500 daN	9500 mm	10000 mm	2	**7801 000 038**

[1] WITH FULLY STITCHED LABEL

Ratchet strap

Width	50 mm
Pre-tension force	300 daN
Colour	red
Material	polyester (PES)
Standard	EN 12195-2

permissible tensile force 2500 daN stretched, 5000 daN in the strapping

Scope of supply
2-piece

This figure corresponds to 7801 000 184

Version	Length	Fixed end	Loose end		Order no
with spring hook and push ratchet	8000 mm	500 mm	7500 mm		**9690 000 028**
with profile hook and push ratchet	12000 mm	500 mm	11500 mm	[1]	**7801 000 184**

WITH FULLY STITCHED LABEL

Ratchet strap

Version	with profile hook and push ratchet
Width	35 mm
Fixed end	300 mm
Pre-tension force	100 daN
Colour	red
Material	polyester (PES)
Standard	EN 12195-2

permissible tensile force 1000 daN stretched, 2000 daN in the strapping

Scope of supply
2-piece

(Illustration similar)

Length	Loose end	Order no
4000 mm	3700 mm	**7801 000 056**
6000 mm	5700 mm	**7801 000 600**

SPECIAL EDITION

WITH FULLY STITCHED LABEL

Ratchet strap

with fully stitched label, with imprint „LEIDENSCHAFT VERBINDET – PASSION UNITES“

Width	50 mm
Length	10000 mm
Fixed end	400 mm
Loose end	9600 mm
Load capacity	2000 daN
Pre-tension force	300 daN
Colour	orange
Standard	DIN-EN 12195-2

permissible tensile force 2000 daN stretched, 4000 daN in strapping

Scope of supply
2-piece

Order no
7801 050 104

WITH FULLY STITCHED LABEL

Ratchet strap

Version	with profile hook and push ratchet	Loose end	1800 mm
		Pre-tension force	150 daN
Length	2000 mm	Colour	blue
Width	35 mm	Material	polyester (PES)
Fixed end	200 mm	Standard	EN 12195-2

permitted tensile force 1500 daN stretched, 3000 daN in the strapping.

Application range
for car transportation

Scope of supply
2-piece (Illustration similar)

Order no
7801 000 045

WITH FULLY STITCHED LABEL

Loose end

Width	50 mm
Colour	red
Material	polyester (PES)
Standard	EN 12195-2

permissible tensile force 2500 daN stretched, 5000 daN in the strapping

Scope of supply
1-piece This figure corresponds to 9690 900 001

Version	Length	Order no
With profile hook	7500 mm	**7801 000 002**
with profile hook	9500 mm	**9690 900 001**

WITH FULLY STITCHED LABEL

Ratchet strap

Version	with fixing rail fittings and push ratchet
Width	50 mm
Length	3500 mm
Fixed end	1200 mm
Loose end	2300 mm
Pre-tension force	300 daN
Colour	red
Material	polyester (PES)
Standard	EN 12195-2

permissible tensile force 750 daN stretched, 1500 daN in the strapping.

Scope of supply
2-piece (Illustration similar)

Length	Order no
3500 mm	**7801 000 042**

Ratchet strap

Version	with fixing rail fittings and push ratchet
Length	5000 mm
Width	50 mm
Fixed end	1200 mm
Loose end	3800 mm
Colour	red
Material	Polyester (PES)

permitted tensile force 750 daN stretched, 1500 daN in the strapping

Scope of supply
2-piece

Order no
9690 511 534

Labelling of lashing straps

The label that is secured to every certified ratchet strap contains the following information:

1. Name of the lashing strap manufacturer

2. Article identification number/tracing code

3. Designated use

4. SHF – Standard Hand Force - the manual force that may act on the lever of the ratchet. The standard value is 50 daN = 50 kg. Application of a higher force on the lever of the ratchet could damage it.

5. STF – Standard Tension Force (normally the preload force of the lashing strap) is the force with which the load is pressed down onto the loading floor. Important when lashing down. The higher the preload force, the fewer load securing devices must be used.

6. LC – Lashing Capacity - the loadability of the strap. Important when direct lashing. In a straight pull, it is 2500 daN (2500 kg) in this example, i.e. a load fastened with the single tensile force may weigh a maximum of 2.5 t.

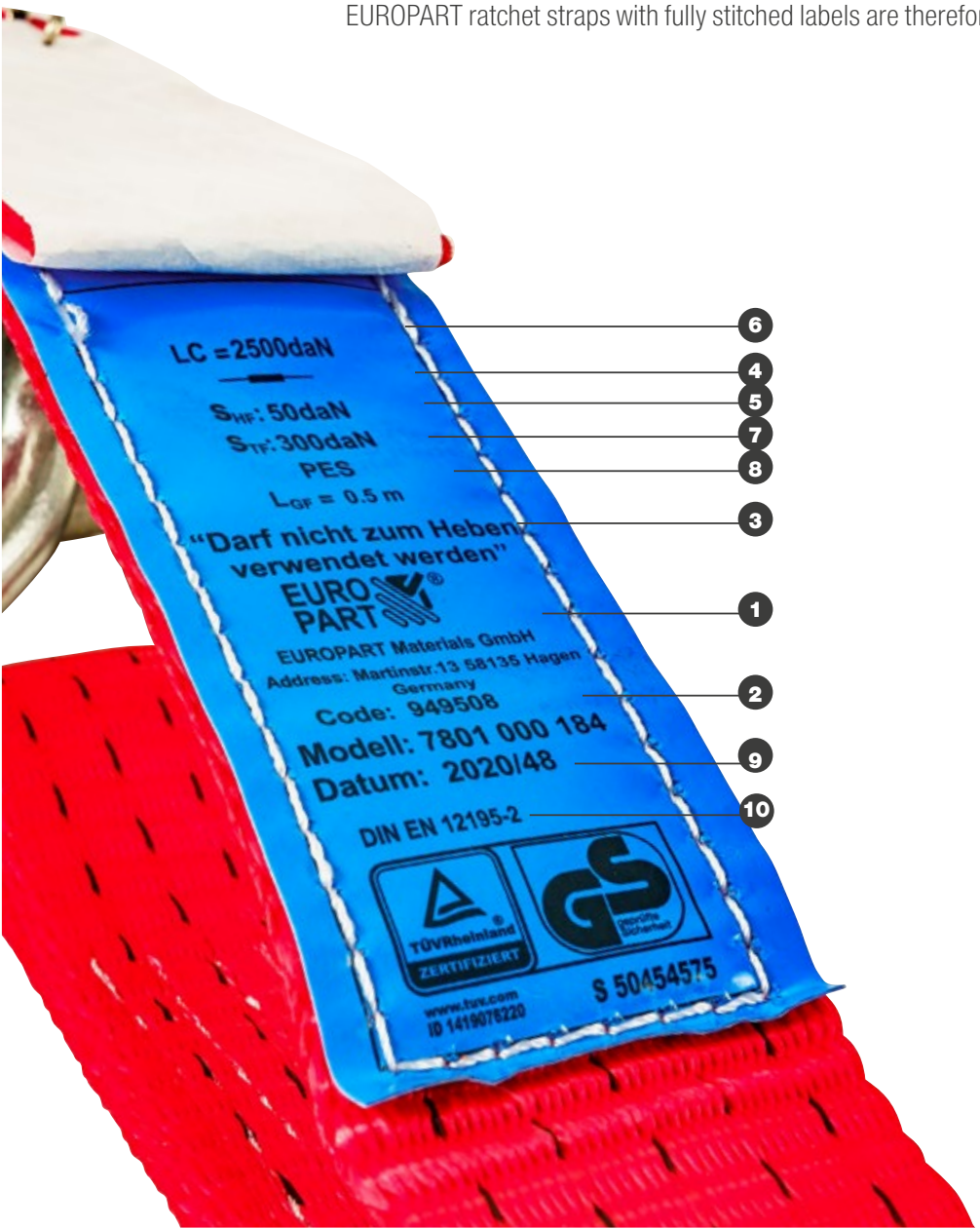
7. Designation of the material from which the lashing strap is made (PES - robust polyester)

8. LG – Length. LGL – length that was measured from the label of the lashing strap (9.5 m), LGF – length that was measured from the ratchet of the lashing strap (0.5 m)

9. Year of manufacture of the lashing strap

10. Declaration of conformity according to the EU standard EN 12195-2, which ensures the high quality and safety in use of the lashing strap

EUROPART ratchet straps with fully stitched labels are therefore particularly resistant to premature discard.



Spotlight on ...

EUROPART Premium Parts Load-securing

Your safety is important to us!

Load securing is an important aspect of transport, ensuring that the goods being transported remain secure and stable on the vehicle during the journey. An unsecured or poorly secured load can not only cause damage to the goods, but also pose a significant risk to road safety. Therefore, suitable securing equipment such as straps, nets or anti-slip mats must be used to prevent the load from slipping, tipping over or falling off. Correct load securing ensures the safety of all road users and avoids legal consequences.

The advantages of our Premium Parts:

- \\\ Strict quality control / OE quality.
- \\\ Large selection of lashing straps (e.g. numerous variants, lengths, etc.)
- \\\ Availability across multiple locations and via EWOS
- \\\ Good value for money combined with high durability

3-year manufacturer's warranty

A strong performance promise: exceeding the statutory requirements of a one-year warranty.

We offer a full 3-year manufacturer's warranty!

92 % Premium Parts share in the lashing strap segment

76 % Premium Parts share in load securing in 2024

28 countries

30 years of Premium Parts expertise

76 years of customer service

4.646.374 meters lashing straps
Over 4,600 kilometres of secure connectivity!
That is 15,486 times the height of the Eiffel Tower.

3 years manufacturer's warranty

You can find all information about our EUROPART Premium Parts here:

EUROPART.NET

Replacement state of lashing straps

The VDI 2700ff regulates, among other things, the so-called discard maturity. This term refers to the definition of the wear limit, e.g. at which the lashing straps may no longer be used. There is no general expiry date.

A lashing strap is in the replacement state when it has:

- yarn breaks and cuts over more than 10 % of the width of the strap, or other serious cuts
- damage to the seams, fibres, or indentations
- distortions caused by heat
- damage to the hooks, distortions, splits or fractures on the metal parts
- distortions of the ratchet
- excessive wear or damage caused by aggressive substances (chemicals)
- illegible or missing label

EUROPART lashing straps with fully stitched labels are therefore particularly resistant to premature discard.

The motorway police are responsible for truck inspections, among other things. Not only is the general technical condition of the vehicle checked, but also the load securing. This is because, in addition to non-compliance with driving and rest periods, the most frequent deficiencies are found here.

(Source: „Police checks provide more security“ polizei-dein-partner.de)

Lashing straps for vans

WITH FULLY STITCHED LABEL

Ratchet strap

Version	with push ratchet	Colour	red
Width	35 mm	Material	polyester (PES)
Length	6000 mm	Standard	EN 12195-2
Fixed end	6000 mm		

permitted tensile force 1000 daN stretched, 2000 daN in the strapping.

Scope of supply
1-piece

Order no
9690 000 128

WITH FULLY STITCHED LABEL

Ratchet strap

Version	with mini push ratchet	Colour	red
Width	25 mm	Material	polyester (PES)
Fixed end	4000 mm	Standard	EN 12195-2

permissible tensile force 40 daN stretched, permissible tensile force 400 daN in strapping

Scope of supply
1-piece, without hook

Length	Order no
4000 mm	**9534 878 120**
6000 mm	**9534 878 121**

WITH FULLY STITCHED LABEL

Ratchet strap

Version	with mini press ratchet, light design
Width	25 mm
Length	4500 mm
Fixed end	4500 mm
Colour	red
Material	polyester
Standard	EN 12195-2

permissible tensile force 40 daN stretched, permissible tensile force 400 daN in strapping

Scope of supply
1-piece

Order no
9690 000 026

WITH FULLY STITCHED LABEL

Ratchet strap

(Illustration similar)

Version	with fixing rail fittings and push ratchet
Length	4200 mm
Width	50 mm
Fixed end	500 mm
Loose end	3700 mm
Pre-tension force	300 daN
Colour	black
Material	polyester (PES)
Standard	EN 12195-2

permissible tensile force 750 daN stretched, 1500 daN in strapping

Scope of supply
2-piece

Order no
9690 000 313

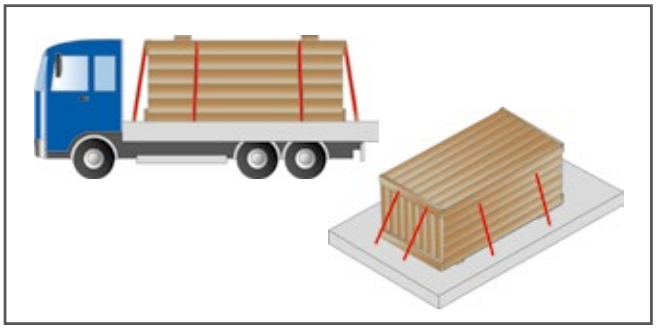
Direct lashing

Even the **heaviest loads** can be safely tied down with the aid of the form-fitting process of „direct lashing“. Direct lashing can be used in **various forms**, depending on the nature of the load. The required securing forces are created during the journey through offset loading. During the calculation, the **permitted lashing capacity (LC) in direct tension** is taken as a basis, so that the means of lashing directly absorb the forces created by the movements of the vehicle (acceleration, deceleration and centrifugal forces). With this type of lashing, each load securing device is secured between the lashing points on the truck and the load fastening points of the load. In contrast to lashing down, when direct lashing is used, the straps are **tightened only hand tight (with a max. of 10 % of the LC)**, so that the permitted lashing capacity (LC) is not already reduced by the high pretension forces.

Inclined lashing

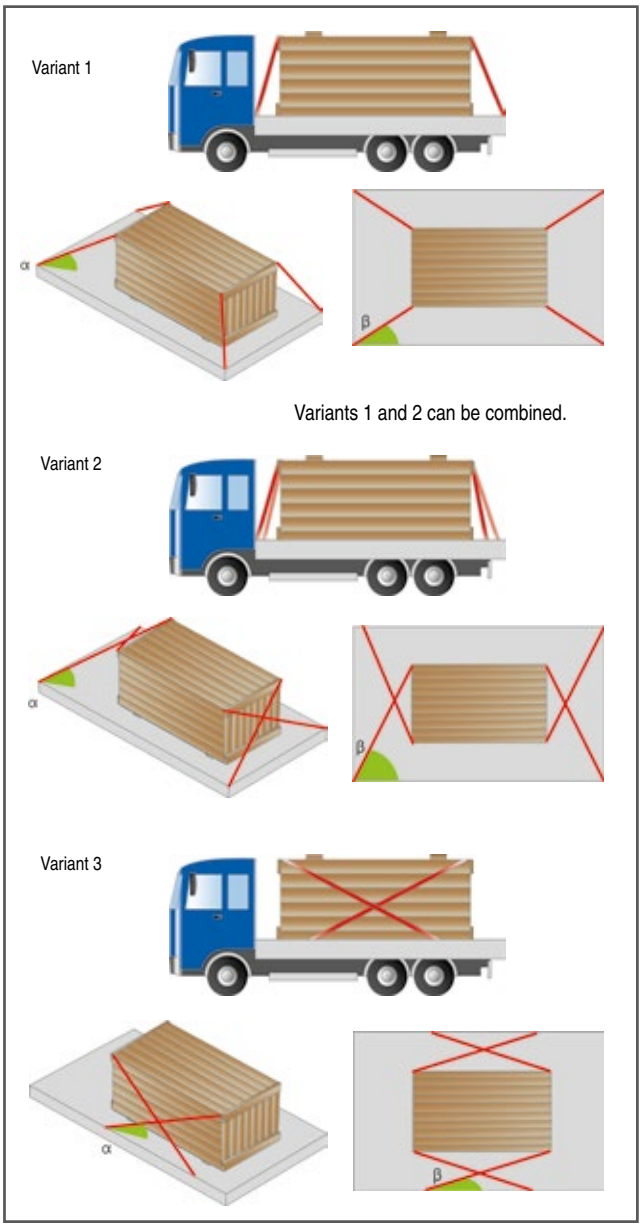
At least **eight load securing devices** are always required for inclined lashing.

These load securing devices are spanned from the load to the loading surface so that there are right-angles (β = 90°) to all four edges of the loading surface.



Diagonal lashing

Diagonal lashing can be done in various ways. In doing so, four load securing devices are always needed.



Lashing angle: The necessary permitted tensile force of the load securing device during direct lashing depends on the **lashing angles α and β**. Lashing angle **α is the vertical angle** between the loading surface and the load securing device. It should be in the range 20 to 65°. The **horizontal angle β** is the angle between the vehicle longitudinal direction and the load securing device, this should be in the range 6 to 55°.

The best values for securing forces can be calculated when the two angles α and β are measured using a **protractor**. In doing so, it often arises that load securing devices with smaller dimensions can be used or, higher load weights can be secured using the same load securing devices.

Head lashing

Head lashing is used as „**bulkhead substitute**“, if the load cannot be loaded at the bulkhead because of the load distribution. This is therefore **form-fitting load securing** in the form of a direct lashing. In this type of load securing that is still relatively unknown in traffic, special care must be taken without exception to ensure that the load securing device in front of the portion of the load is always held in its position during transport and **permanently fixed to the vehicle**.

Head lashing can be created according to the following principles:

1. A **round sling** (lifting strap) is laid around the front (in the direction of travel) edge of the load. On each side of the load, a load securing device is hooked into this round sling and connected to the vehicle at a lashing point on the loading surface (Fig. 1).

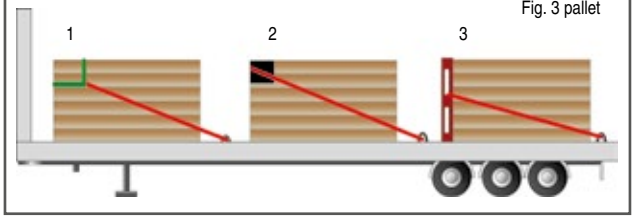
2. One **edge attachment** each is laid on the left and right front (in the direction of travel) upper edges of the load. This edge attachment serves as support for the load securing device that is now taken from a lashing point on the left side of the load, held through the edge attachment, led to a lashing point on the right side of the load and connected to the vehicle in this way (Fig. 2).

3. Alternatively, a **pallet** standing on edge can also be used (Fig. 3). The means of load securing then takes effect in strapping.

Fig.1 round sling

Fig. 2 edge attachment

Fig. 3 pallet



Lashing down

The most often used type of load securing is lashing down. In doing so, the load is **friction-locked** and pressed by the load securing device onto the loading surface, by which the „micro interlocking“ and thus the friction is increased. The **frictional force** holds the load tight on the loading surface. During lashing down, the load securing device is guided by spanning over the top of the load at both sides of the load - if possible in the lashing points - hooked into the loading surface and tightened with the clamping element (e.g. a ratchet). The term „**preload force**“ describes the force that the load securing device exerts on the load. In doing so, it is only applied by the clamping element of the load securing device.

Lashing angle: In addition to the preload force of the ratchet, decisive for the preload force of a load securing device is the lashing angle **α**. This lashing angle is measured at the perpendicular between the loading surface and the load securing device. The lashing angle greatly influences the effective preload force of the securing device being used. **The smaller the lashing angle α, the lower is the effective preload force.**

An **optimum preload force** of the load securing device is achieved with a lashing angle α = 90°.

When lashing down, a lashing angle of less than 30° should be avoided, as only 50% of the preload force is then effective. Thus, with even lower efficiency, so many lashing belts would be needed that it would no longer be practicable.

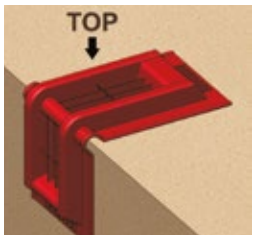
Accessories for lashing straps

Edge protection

provides an important protective effect. They distribute the pretensioning force as evenly as possible on both sides of the load. Without edge gliders, the pretensioning force on the side of the tensioning element is approximately 1.5 times greater (depending on the structure of the load surface) than on the opposite side. This is due to the friction losses caused by the contact surfaces between the belt and the load.

Edge protection corners should always be used to avoid the risk of damage to the load or the lashing straps. The edge protection is placed on the load so that the longer side plate is located at the top (TOP) and the shorter is towards the bottom, aligned along the side wall (Fig. 1). The lashing strap must be applied so that it lies exactly in the middle of the edge protection and is secured through the lateral guide (Fig. 2). Please pay attention that there are no tensioning or connecting elements such as sprockets, turnbuckles, hooks etc. on the lashing strap.

DIN EN 12195 and VDI Guideline 2701 stipulate that lashing equipment must be protected against damage to the load edges by edge gliders.



Lashing straps can become **mechanically damaged**, particularly if the article to be secured has sharp edges. For this reason, edge protection products are essential when securing the load using lashing straps. Edge protection made from elastic materials is placed at the load edges of the article, over which the lashing strap is tightened, **to protect it against chafing**. At the same time it can absorb microvibrations and thus **prevent the strap from slipping**.

The edge protection thus prevents not only premature wear of the lashing strap, but it also protects the goods, which equally guarantees higher transport safety.

EUROPART edge protectors are made from high-quality plastic (PP). They are characterised by:

- Robust construction
- Larger surfaces of the side parts that distribute the pressure evenly (**K-factor ≥ 1.78** / The transmission coefficient, or K-factor, describes how strongly forces that act on the load during transport are transmitted to the securing equipment. The higher the value, the higher the pre-tensioning force on the side opposite the ratchet).
- Resistance to damage at temperatures between -20 °C and +70 °C

Edge protection

resistant and flexible

Dimensions	150 x 200 x 170 mm
Colour	black
Material	polypropylene

Application range
for transporting paper rolls

Order no
9690 000 232

Edge protection

Dimensions	130 x 95 mm
Band width	65 mm
Colour	black
Material	plastic

Version	Order no
with slot, open	9690 000 230
with slot, closed	9690 000 231

„The ratchet plays a decisive role - but the label is more important because it says who tested the Ratchet strap. This means that the user can rely on the fact that the specified strengths are actually maintained. This is often not the case with counterfeit belts (plagiarism). The straps have not been tested and nobody knows what the ratchet will hold.“

Daniel Schulthoff
Brand manager in the team of EUROPART Premium Parts

Anti-slip mats

It is not the weight that prevents the load from slipping, but the friction.

In order to achieve **better friction values** and thus prevent the goods to be transported from slipping, **anti-slip mats and floor coverings** are used, among other things. Made of granulate rubber material, they increase the friction between the load and the floor and thus reduce the danger of the load slipping. **They are used in combination with the load securing devices.**

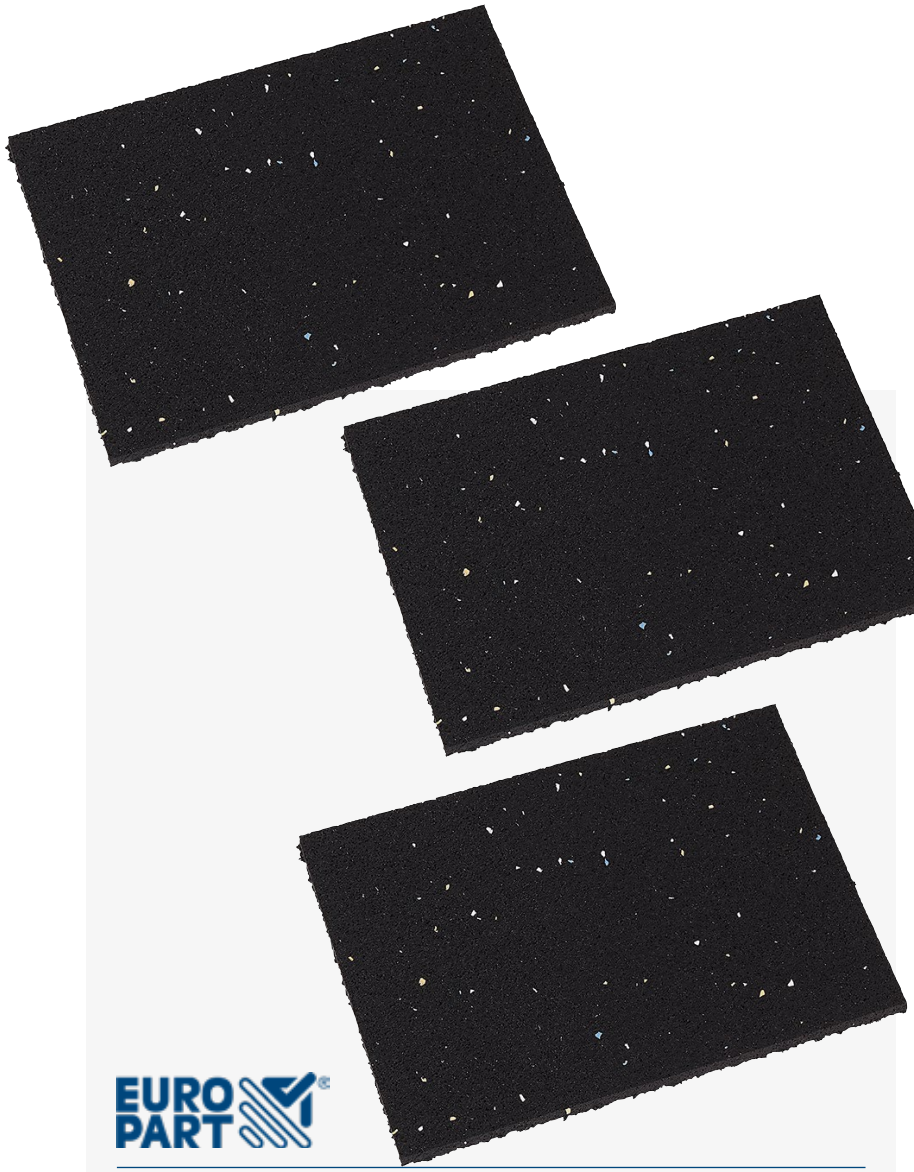
Anti-slip mats can only be effective if the **loading area is free of residues**, such as sand, granulate residues, etc. The so-called „swept clean“ loading area is a basic requirement for proper load securing. The broom belongs to the standard equipment of a commercial vehicle.

Fact about the sustainability of anti-slip mats:
Rubber granulate consists largely of used tyres!

EUROPART anti-slip mats are EUROSAFE certified.

Photo by lasse-moller on Unsplash

TESTED ACCORDING TO VDI 2700 SHEET 14



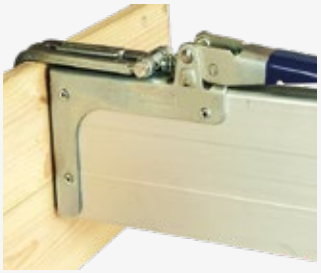
Anti-slip mat

Length	Width	Thickness	Friction coefficient		Order no
150 mm	200 mm	3 mm	0.65 µ		**2955 119 183**
200 mm	100 mm	8 mm	>0.7 µ	*	**2955 119 055**
200 mm	300 mm	8 mm	>0.7 µ	*	**2955 119 148**
250 mm	200 mm	8 mm	>0.7 µ	*	**2955 119 186**
300 mm	200 mm	10 mm	>0.7 µ	*	**2955 119 109**
600 mm	150 mm	3 mm	0.65 µ		**2955 119 043**
600 mm	200 mm	10 mm	>0.7 µ	*	**2955 119 147**
2000 mm	120 mm	3 mm	0.65 µ		**2955 119 855**
5000 mm	125 mm	8 mm	>0.7 µ	*	**2955 119 299**
5000 mm	250 mm	6 mm	>0.7 µ	*	**2955 119 250**
5000 mm	250 mm	8 mm	>0.7 µ	*	**2955 119 300**
10000 mm	125 mm	8 mm	>0.7 µ	*	**2955 119 700**
10000 mm	250 mm	3 mm	0.6 µ		**2955 119 251**
10000 mm	250 mm	8 mm	>0.7 µ	*	**2955 119 245**
20000 mm	150 mm	3 mm	0.65 µ		**2955 119 192**

* Improvement of the sliding friction coefficient from 0.65 µ to 0.7 µ

Blocking elements

Clamping bars are usually mounted diagonally or across the load space.
Only clamping bars that have been supplied by quality manufacturers
and tested to these high standards should be used to guarantee safety.
Never risk using „home-made“ bars!



Intermediate panel lock

to secure loads

for insertion and clamping on the gate or on the tarpaulin frame

Version	completely assembled
Locking force	400 daN
Length range	2400-2700 mm
Surface	blue anodized

Scope of supply
with extendable aluminium plate and 2 locks

Order no
9690 000 034

Clamping bar

toothed rack

comprising spring system, rubber bases and aluminium pipe

Pipe ∅ 42 mm

Not suitable for deep-freeze transports

Locking force	Length range	Order no
140 daN	2100-2470 mm	9690 000 089
150 daN	2350-2720 mm	9690 000 090

Accessories

Description	Order no
Housing	9690 002 208

Telescopic tube

Locking barrier

Length range	2260-2720 mm
Peg-∅	19 mm
Material	aluminium

Order no
9690 001 221

Load beam

for combination stay/lashing rail

Steel end pieces on both sides

Locking force	1000 daN	Pipe ∅	83 x 66 mm
Length range	2303-2582 mm	Material	aluminium

Order no
9690 000 215

Combination stay/lashing rail

3009

Version	Compatible with 24 mm pin	Height	12 mm
Length	3050 mm	Material	steel
Width	131 mm	Surface	galvanised

Application range
for medium-weight goods

Order no
9690 000 203

Load-securing: Your questionnaire on discard maturity!

If you can answer one of the following questions with „Yes“, the ratchet strap/ lashing point is considered ready for discarding.

Lashing straps (webbing, ratchet, hook)

1. Does the webbing have cuts or tears?
2. Are there chafe marks affecting more than 10 % of the width?
3. Is there any discolouration or embrittlement of the material (e.g. due to UV radiation or chemicals)?
4. Are burn marks or melting spots visible on the webbing?
5. Is the label with the labelling (e.g. LC value, standard specification) illegible or missing completely?
6. Are seams damaged or unravelled?
7. Is the ratchet not working properly (e.g. blocked or not closing properly)?
8. Does the hook or ratchet show signs of severe corrosion, cracks or deformation?
9. Is the belt twisted or permanently deformed?

Lashing points on the vehicle / trailer

1. Are cracks, deformations or corrosion visible at the lashing point?
2. Are weld seams or fastening parts missing?
3. Was the lashing point obviously overloaded (e.g. bent, torn out)?
4. Is the lashing point no longer clearly recognisable or marked as such?
5. Has the lashing point not been inspected or approved (e.g. missing inspection sticker for retrofitted systems)?

Lifting slings/round slings

For safe loading and unloading of vehicles

Sling bands and round slings are lifting means according to BGR 500 (previously UVV VBG 9a) and meet all the requirements of DIN EN 1492-1 and 2 as well as A1:2008. In the sense of the standards named, they are flat-woven sling bands or round slings made of synthetic fibres for the purposes of general use, **in particular for the lifting and transporting of loads**. Their use is only permitted by persons assigned and trained by the contractor. The operating instructions must be carefully read before initial operation and must be taken into account during use of the product.

ONLY SUITABLE FOR LIFTING, NOT FOR LASHING DOWN!

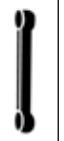
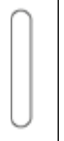
EUROPART

Lifting belt

DIN-EN 1492-1

two-layer sewn polyester band, dimensionally stabilised and impregnated, with 7X safety, colour-coding of the lifting safety, with 2 stitched, half-strengthened loops, better handling thanks to longer and tapered loops

Version	Colour	Band width	Length	Loop length	Order no
Lifting capacity, stretched draw 2000 kg, in U-shape 4000 kg	green	60 mm	2 m	300 mm	**9534 878 324**
Lifting capacity, stretched draw 2000 kg, in U-shape 4000 kg	green	60 mm	4 m	300 mm	**9534 878 332**
Lifting capacity, stretched draw 2000 kg, in U-shape 4000 kg	green	60 mm	5 m	300 mm	**9534 878 336**
Lifting capacity, stretched draw 2000 kg, in U-shape 4000 kg	green	60 mm	6 m	300 mm	**9534 878 340**
Lifting capacity, stretched draw 3000 kg, in U-shape 6000 kg	yellow	90 mm	4 m	350 mm	**9534 878 346**

direct	strung	strapped on	
LA=1	LA=0,8	LA=2 (β≤7°)	LA=1,4 (β≤45°) LA=1 (β≤60°)
			(β≤45°)  (β≤60°) 
			(β≤45°)  (β≤60°) 

Use of sling bands and round slings together in association with chemicals:

The materials from which textile products are manufactured (PES, PA, PP) differ both physically (e.g. grip, stability, abrasion behaviour) as well as in their differing resistance towards the effects of chemicals. Polyester is rather resistant towards many acids. Polyamide behaves with more resistance towards many alkalis. Polypropylene demonstrates a high resistance to many acids as well as to many alkalis.

β = inclination angle (angle between vertical and the sling band)

LA = load fastening factor (relationship to the load capacity in the direct type of fastening, for example: load capacity in the direct type of fastening 10 t (LA=1), load capacity in the strung type of fastening 8 t (LA=0.8)

Attention is especially drawn to the following regulations and technical rules that also apply:

- DIN EN 1492-1 Sling bands made of synthetic materials
- DIN EN 1492-2 Round slings made of synthetic materials
- BGR 500 The management of load suspension devices in hoisting gear operation
- BGI 556 and 873

First use: Before a sling band is put into operation for the first time, a check must be made to establish whether its identification and dimensions are correct. Never use a product that is damaged or whose identification is no longer present.

Identification of sling bands/round slings: In all the products offered here, a label is sewn in as specified according to DIN EN 1492-1 and 2.

The information given on the label is:

- WLL = Working Load Limit, load capacity in the direct type of fastening, figure in metric tonnes
- material:
  PES = Polyester, blue label
  PA = Polyamide, green label
  PP = Polypropylene, brown label
- working length in meters
- year of manufacture
- manufacturer identification DD
- traceability code
- GS mark and testing station
- CE conformity mark
- information on the applicable standards
- load capacity for the useable types of fastening

Not every fastening type shown is suitable for fastening every load!

EUROPART

Round loop

made of continuous polyester fibre, with 7X safety, safe verifying facility through colour-coding of the lifting capacity

Standard DIN-EN 1492-2

Version	Colour	Description	Usable length	Scope	Order no
Lifting capacity, stretched draw 2000 kg, in U-shape 4000 kg	green	with single casing	1 m	2 m	**9534 878 216**
Lifting capacity, stretched draw 2000 kg, in U-shape 4000 kg	green	with double jacket	2 m	4 m	**9534 878 224**
Lifting capacity, stretched draw 2000 kg, in U-shape 4000 kg	green	with single casing	4 m	8 m	**9534 878 236**
Lifting capacity, straight draw 4000 kg, in U-shape 8000 kg	grey	with single casing	4 m	8 m	**9534 878 264**
Lifting capacity, stretched draw 1000 kg, in U-shape 2000 kg	violet	with single casing	1 m	2 m	**9534 878 200**
Lifting capacity, stretched draw 3,000 kg, in U-shape 6,000 kg	yellow	with single casing	2 m	4 m	**9534 878 244**
Lifting capacity, stretched draw 3,000 kg, in U-shape 6,000 kg	yellow	with single casing	3 m	6 m	**9534 878 252**

Replacement state of sling bands and round slings

Sling bands and round slings must not be used when there is:

- damage to the selvedges (edges of the band) or to the fabric and a large number of broken threads: for instance, more than 10% of the total number of threads in the most heavily damaged cross-section or the band surface (putting down sharp-edged loads), if large areas of the warp (lengthwise) threads are cut through
- damage to the supporting seams or the jacket or its closing stitches caused by squashing, cutting or heat
- damage/visibility of the supporting groups of threads
- deformation/scorching through the effects of heat (friction, radiation)
- damage due to the effect of aggressive substances
- deformations (pronounced widening or thinning of the strap), fissures, breaks or other damage to the components of the fittings
- appearance of a large number of minor damage areas to the edges in a short period of time
- serious reduction in the strength of multi-loaded bands through knots
- missing labels or unreadable identification

Lashing points

As the link between the load and the vehicle, lashing points are the basis for lashing straps to work at all. But watch out! Lashing points are not assessed according to wear and tear in %, but according to the principle of „visibly damaged“ or „not safe to use“.

Discard maturity of lashing points

The usability of lashing points must be ensured and must not be affected by dirt or damage! According to VDI 2700 sheet 3.1, the lashing points must be inspected once a year by an expert.

When are lashing points considered ready for discarding?

- Deformations: Bending or deformation due to overloading or accidents
- Cracks or fractures: Visible cracking in the material or on weld seams
- Severe corrosion: Particularly on load-bearing elements, which impairs the load-bearing capacity
- Loose or missing fastening elements: screws, weld seams or bolts
- Wear: Significant material loss due to friction or impact load
- Missing or illegible labelling: Lashing points in accordance with EN 12640 must be labelled with their lashing capacity (LC)

EUROPART

Lashing ring
without weld-in pocket

Load capacity	2000 daN
Width	100 mm
Height	110 mm
Surface	untreated

Application range
for platform vehicles

	Order no
	9081 315 610

Accessories

Description	Order no
Lashing point with 2 holes, Suitable for lashing ring, 800 daN	9081 316 640

EUROPART

Lash tray
with plate

Suitable for	M10 bolts
Load capacity	800 daN
Length	105 mm
Width	105 mm
Depth	23 mm
Distance betw. holes	85 mm
Surface	galvanised

Order no
9081 315 621

EUROPART

VEHICLE PARTS

- Truck spare parts
- Trailer spare parts
- Light commercial spare parts
- Bus spare parts

WORKSHOP REQUIREMENTS

- Fastening technology
- Workshop utilities
- Workshop Equipment
- Operational safety and environmental protection
- Chemical-technical products
- Tools

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