SpanSet Ltd. Telford Way, Middlewich Cheshire CW10 0HX, UK Tel: +44 (0) 1606 737494 Fax +44 (0) 1606 737502 www.spanset.co.uk

## **ICONS**



## "Anti-Belt-Slip"- procedure (ABS)

ABS "Allows pre-tensioning to be released in small stages



## "Tension Force Indicator"

Available with indicator for showing the actual pre-tensioning achieved



## **Extended ratchet lever**

For improved force transmission and better ergonomics;



## Self-locking ratchet lever

Prevents unintentional opening of the ratchet



## **Double slider**

For increased pre-tensioning force



## Quality label in protective tube

Reinforced with insert



## Security label

As a protection against damage with critical information sewn inside seam



#### Reinforced selvedge

Available with reinforced selvedge



## Available in strap widths

of 25, 45 and 50 mm



## **Epoxy resin coating**

on chrome- and zinc-plated sheet steel ratchet



## **Optimum fitting**

of webbing to cambuckle

## **HELPFUL ITEMS**

#### **Cargo Control Poster**



Are your loads being secured correctly? A1 poster with useful information and legal requirements for securing your loads in transportation. Ideal to display in the communal areas within the work place.

## Also available from SpanSet:

- Height safety equipment including the Gotcha range of rescue equipment
- Stoppa and Capcha systems for working at height on vehicles
- Textile lifting slings
- Safety training modular courses for industry, police and the emergency services

**Discover SpanSet quality** 

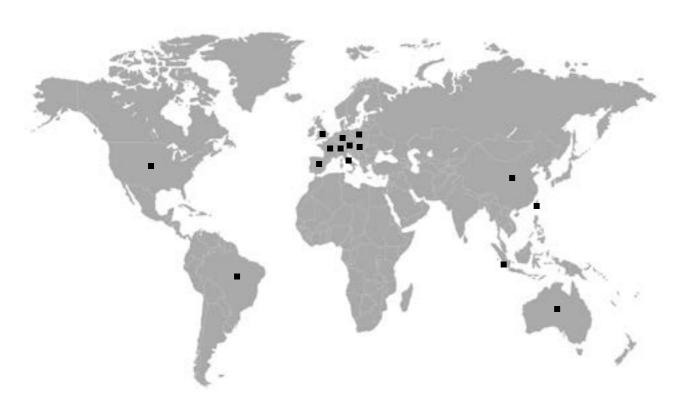




Height Safety and Lifting







The SpanSet Group are world specialists in Height Safety, Lifting and Securing Loads with fifteen operating plants across the world and a global network of dealers.

SpanSet is here for you

**SpanSet Worldwide** 

- Switzerland France Italy
   Australia Germany Poland
   Austria Hungary Spain
   Brasil UK Taiwan
   China Indonesia USA
- SpanSet UK have been established for over 40 years. SpanSet designs, manufactures and supplies Height Safety, Lifting and Load Control systems.

All SpanSet products have been developed to work as part of an overall safety solution, which includes products, installations, training, implementation, testing and servicing. By offering our customers an overall solution SpanSet is better able to meet customers' needs and help them develop safer solutions for working at height, lifting and load restraint.

For more information: log on to www.spanset.co.uk

SpanSet Ltd also design, manufacture and supply and extensive range of Textile Lifting Slings and Height Safety Equipment including the Gotcha Rescue Range and Working at Height on Vehicles systems.

## Stoppa

Every day, drivers and operatives suffer injuries as a result of falls whilst working at height on vehicles. The Stoppa system enables safe access on the roof of the vehicle at any remote site, whether it be roadside, workshop or site.

Typical Installations Include:

- Tankers
- Refuse Collection Vehicles
- Fire and Rescue Vehicles
- Containers
- Modular Buildings

#### **Capcha Overhead Fall Arrest Systems**

The problems and inherent dangers faced by operators working at height on commercial vehicle trailer beds during loading and unloading operations is fully recognised and well documented as a result of the increasing number of accidents.

The SpanSet Capcha system provides an easy to use solution, helping to reduce the risks posed by falls from vehicle trailers. The system has been designed for integration with the vehicle body. Capcha allows secure, unrestricted hands free access to the trailer platform. The system can also be used when it is necessary to work at height on the loaded goods.

#### Capcha Overhead Base System

Aswell as being fitted to vehicles, the versatile Capcha system can also be adapted to those situations where a permanent height safety arrangement is required at a fixed base or location.

Typical Installations Include:

- Maintenance workshops
- Bodybuilding Shops
- Tanker Loading Gantries
- Tank Washes

For further information on these systems or other products in our extensive range, call our customer services dept on +44 (0) 1606 737494 or email customerservices@spanset.co.uk

## **Inspection and Testing Service**

SpanSet can perform the thorough inspections required by legislation and/or equipment manufacturers. We can also provide training for Competent Persons and therefore the combination of your staff and our services can increase the safety and ensure compliance.





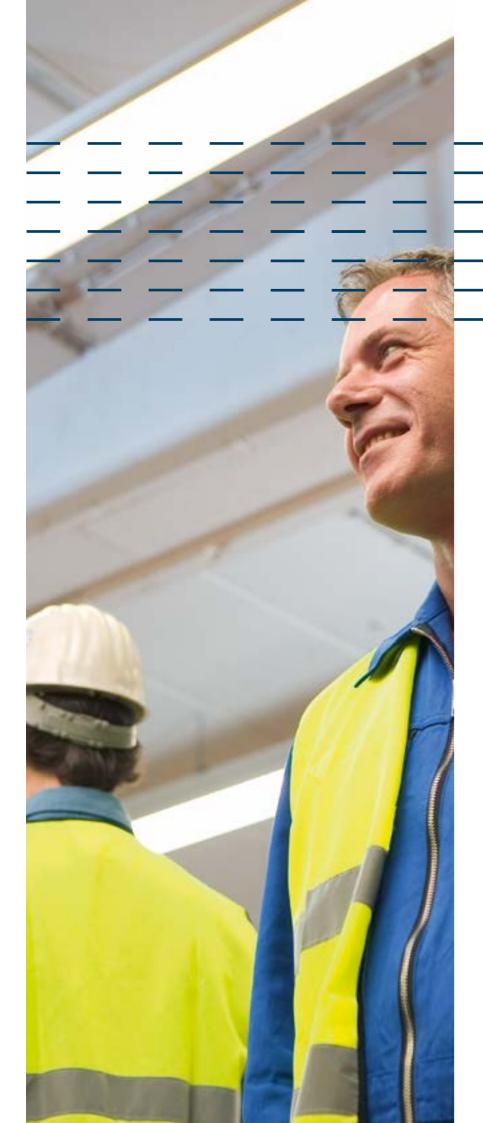
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# Your partner for greater peace of mind

Security is the top priority for both you and us when it comes to the transportation of goods and the protection of all those involved. Not only does it give a sense of reassurance, but is also a legal requirement. But where does security start?





# We can manage your security

The greatest security does not come about overnight. It is the result of many years' development. SpanSet can look back over 40 years of experience and success. After all, we developed the first car safety belt for Volvo back in the 60s — which today is an indispensable security feature for every car.

We have consistently followed up these security concepts. Nowadays, SpanSet has become the number one for quality and our products are in use around the world. Our customers include companies and organisations who set the highest demands in security, such as automobile and aircraft manufacturers, the chemical, steel and paper industry, energy suppliers, freight companies, fire services, Ministry of Defence and NATO.

## Progress needs pacesetters – such as SpanSet

In addition, SpanSet is an international pacesetter in development: for decades, we have supported standardisation in Europe. Each year, we put forward patents and new developments in load security, lifting technology and personal protective equipment. We are actively involved in drawing up guidelines through European bodies such as the UK Health and Safety Executive and the VDI (Association of German Engineers), meaning our customers are the first to find out about important innovations and trends in security technology.

This is how we can maximise your security, wherever it's needed: with our load security products you will effectively avert risks and accidents and comprehensively meet legal requirements. With the use of SpanSet quality products, you can be assured that you'll be doing the utmost for your transport safety.

# Only 100% quality is good enough for us

How can we actually be sure that our products keep their promises? It's quite simple: we are obsessed with quality.

From material selection to quality testing, from accurate calculations to intelligent use — we provide 100% performance for each phase. We weave our own webbings at several of our locations and we employ technical and legal experts so that only absolutely reliable and practical load security products reach your hands. We develop new products together with universities and other institutions.

Our quality management continually tests materials and end products. They are checked continuously in our own laboratory and in external testing programmes. We test the maximum load, strength and durability. For many years we have also been audited by renowned institutions, including BSI, TÜV and MoD who regularly certify our products and quality management.

#### Quality does not stop with our straps

Our care for your security extends well beyond the manufacture of reliable lashing straps, net systems and shoring materials. This is why we make sure through our comprehensive service and consultancy that you also have the necessary information to select the right load security equipment. Of course, when it comes to tests, repairs and maintenance work, we'll also be by your side.

# As your partner, we have the same aims

Our customers are our partners, and we share their aims: more security for individuals and cargo. Within this partnership, we will do everything to support you in your day-to-day life.

## SpanSet offers you real partnership

As experts in load security, we actively seek interaction with you and other experienced experts so we can advance together. Through training and seminars, we can help you to implement load security quickly and easily in everyday life. Tests and proving ground trials with independent institutions also give you an informative edge over others.

You can also contact our technicians and specialists directly if you need a particular design. We manufacture and modify our load security products on request to meet any special requirements you may have.

This partnership helps us both: you prevent accidents, their consequences and subsequent costs. You prevent damage to public and private property, protect resources and people. This will save you expensive fines, court procedures and time-wasting conflicts. You will win the trust of your customers by delivering completely undamaged cargo on time. This also means you will improve your image in the long term compared to your competitors.

## TECHNICAL INFORMATION

The route to optimum load security

# **Determining the securing force**

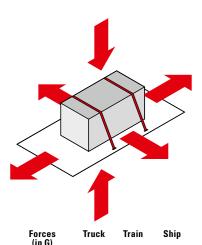




# TECHNICAL INFORMATION

Assembly and maintenance of textile lashing straps

# Making lashing straps safe



(III G)			
To the front	0.8	4.0	0.2
To the back	0.5	4.0	0.2
To the side	0.5	0.5	0.7
Upwards	-	0.3	2.2
Downwards	1.0	1.0	2.2

#### **Mode of transport**

Take into account the load distribution, the carrying capacity of the load area, stanchions and ship's sides, but also the different forces that occur when transporting by ship, truck or train (see table). The first step towards security is selecting the right lashing equipment for your cargo.

## **Legal basis**

Under EN 12195-1 and EN 12195-2, the same directives apply across Europe regarding lashing strap requirements for securing cargo. In addition the Road Traffic Act sections 1, 2 and 40A and Road Vehicles (construction and use) Regulations 100(2) apply in UK.

## Form-fitting load security

Form-fitting load securing takes place when the cargo can support itself against bulkheads or ship's walls or stanchions. The load is held in position using longitudinal and diagonal lashings.

The lashing straps must be evenly tensioned without over tightening. The support – the bulkhead or similar – must be able to absorb the necessary forces as should the anchor points on the truck and cargo.

Use form-fitting load security whenever you have the opportunity, as this form of load security is particularly efficient and safe.

## Calculating the forces in form-fitting load security

The permitted tensile force (LC) is calculated as follows:

$$LC = \frac{G \times (0.8 - \mu)}{n_w (\mu \times \sin \alpha + \cos \beta)}$$

- LC Lashing capacity
- G Weight of load
- 0.8 Acceleration factor in the direction of travel
- $n_{\scriptscriptstyle W}\,$  Number of lashing units in the direction of travel
- μ Kinetic friction coefficient

In the case of longitudinal and diagonal lashing, the lashing angles  $\alpha$  and  $\beta$  must be considered. Ideally, the apex angle  $\alpha$  will lie between 0° and 60°, and the longitudinal angle of inclination  $\beta$  between 20° and 45°.

#### Tip:

Use our lashing force controller to secure your loads correctly.

#### Friction applied load security

Loads are secured against tilting or sliding using friction lashing. In the case of friction lashing, two forces act together to secure the load: the pre-tensioning force and kinetic friction.

The lashing straps are used for applying the pre-tensioning force. The number of lashing straps to be used is determined depending on the pre-tensioning force required.

The friction that results from the combination of the load and the load surface reduces the pre-tensioning force that is required to secure the cargo on the load surface. You can increase the friction by placing non-slip matting under the cargo. SpanSet Grip, our premium non-slip matting product, significantly reduces the pre-tensioning forces required.

## Calculating the forces in force actuated load security

The pre-tensioning force (F) is calculated as follows (no angles):

$$\mathbf{F_v} = G \times \frac{(0.8 - \mu)}{U}$$

 ${f F_v}$  – Pre-tensioning force

G - Weight

0.8 – Acceleration factor in the direction of travel

 $\mu$  - Kinetic friction coefficient

For example, friction lashing on a load weighing 6 t with non-slip matting placed underneath (no angles):

$$\mathbf{F_v} = 6,000 \times \frac{(0.8 - 0.6)}{0.6} = 2,000 \text{ daN}^*$$

#### Structure of textile lashing straps

In order to select the right lashing strap, you of course need to know which types are used, and when. In general, a distinction is made between one-piece and two-piece lashing straps:

The **one-piece lashing strap** is used for strapping the load and therefore does not need any end fittings such as eyes or hooks (see fig. 1 on the left).

The **two-piece lashing strap** consists of a fixed end (FE), an end fitting (EF), a tensioning device (TD) and an adjustable end (AE), which is also equipped with an end fitting (see fig. 1).

**Caution:** Means of fixing such as ropes or long-link chains are not permitted for securing loads!

#### Safety label

According to the new European Standard EN 12195-1, fixed and adjustable ends must be identified respectively using a safety label that provides all of the technical details (see fig. 2). It is now obligatory to state the Standard Tension Force (STF). If this is missing, a lashing strap may no longer be used for friction lashing. Across Europe it is also obligatory to state the lashing capacity (LC), which is the maximum lashing capacity permitted.

#### **Extremely durable**

Lashing straps made from polyester can be used in a temperature range from -40°C to +100°C. Even caustic solutions and acids do not generally cause a problem — depending on the concentration and the duration of exposure.

#### **Testing and maintenance**

Lashing straps must be tested at least once a year by a competent person. This may even need doing more frequently, depending on the conditions and frequency of use. Maintenance work may only be carried out by the manufacturer or by his representative.

Lashing straps may no longer be used if the details of the manufacturer, LC and material can no longer be ascertained (because the security label has been torn off, for example).

#### **IDXpert Net helps with administration**

An electronic product management system lets you administer inspection dates, maintenance work and inventory lists for load security equipment with ease. Using IDXpert Net technology, which can be embedded in the lashing strap, data on the relevant product can be read out directly and maintained in a database. The prescribed inspections are planned, documented and administered automatically. For further information visit our website http://www.spanset.co.uk/fileadmin/spanset\_uk/pdf/catalogue/80213\_IDXpert\_Net\_Brochure\_Web.pdf

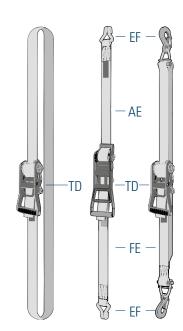


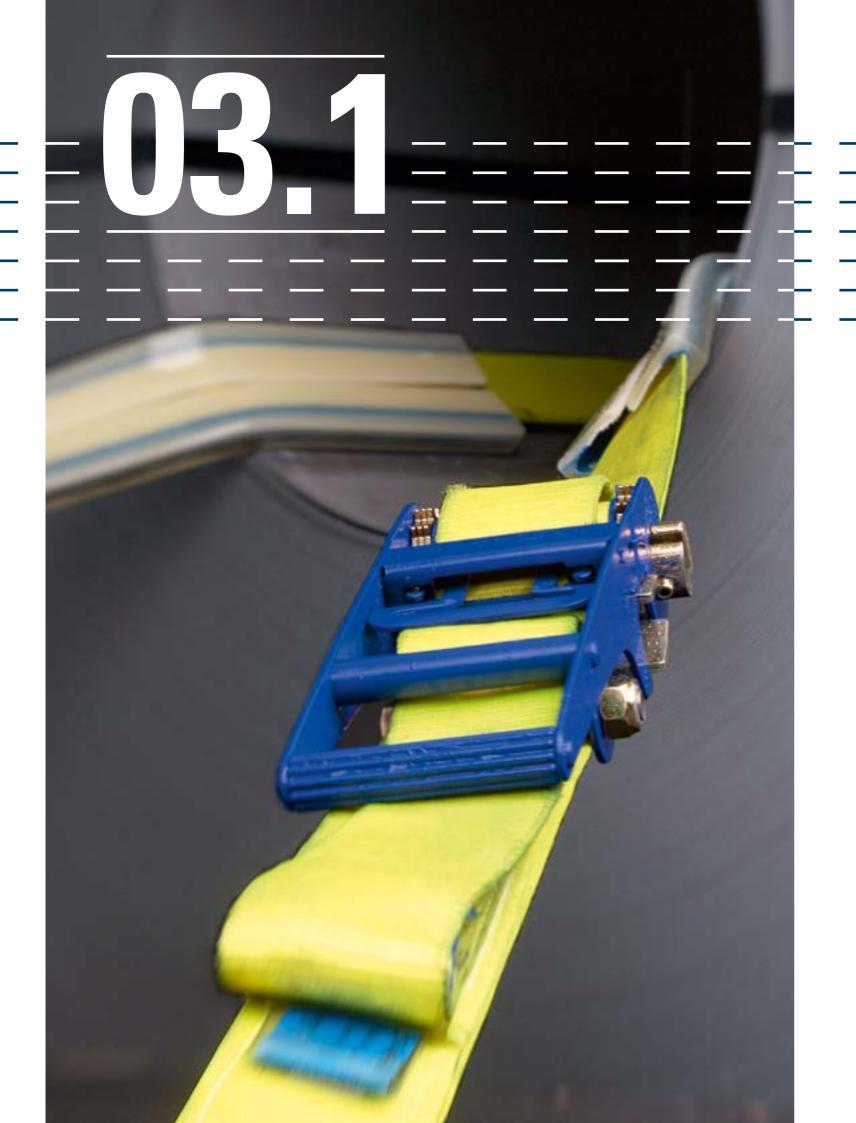
Figure 1: Lashing straps



Figure 2: Safety label

<sup>\*</sup> Total pre-tensioning force required = 2,000 daN





# Heavy Duty Ratchets quickly secure even the heaviest loads

The heavy duty ratchets from SpanSet are real power packs. They don't stop even for the heaviest jobs:

#### More tension, less effort

The patented double slider even secures in the intermediate stage when tensioning, using the "half tooth". This gives you more tension in smaller steps — and conserves your physical strength.

#### Less dead weight

They are called heavy duty ratchets, but are much lighter than comparable lashing equipment. The ratchet lashing straps have clear advantages over chains or wire ropes when it comes to their dead weight — and are thus much lighter to handle.

#### Self-locking ratchet lever

For maximum security when lashing, we developed the self-locking ratchet lever. When lashing, you pull the integrated slider, close the ratchet, and it engages automatically in the locking position. This means that unintentional opening of the ratchet when on the move is effectively impossible.

## The best quality for a sense of security

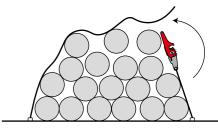
Even for heavy loads, such as construction equipment or precast concrete parts, it is a matter of controlled load security. Heavy loads do not only have to be secured. It is more a case of a controlled securing procedure from start to finish.

This is why we place great value on the quality of each individual part of our heavy duty ratchets. This extends from the impact-resistant epoxy resin coating of the ratchets to the webbing with optional integrated edge protection, designed for extreme loads.

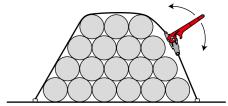


### "Anti-Belt-Slip" procedure

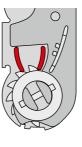
The ratchet is opened, the tension loosens sporadically, and the load gets out of control: anyone who has experienced this knows how important ABS is. It means you have complete control even during release. The ABS system lets you release the pre-tension force in small steps. This gives you the opportunity to use a fork-lift truck to straighten up any loads that threaten to tip and are leaning into the strap, helping prevent damage and accidents.



Without ABS



With ABS



## **HEAVY DUTY RATCHETS**

Heavy duty ratchet lashing straps with ABS 10,000/75

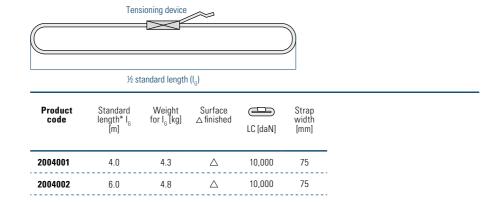
- Individual printing possible
- Low dead weight compared to chains
- ABS system incorporated
- Ratchet with robust epoxy resin coating
- Optional TFI (Tension Force Indicator)
- Ratchet lashing strap according to EN 12195-2
- Maximum lashing capacity 10,000 daN
- Ref. No. 20040





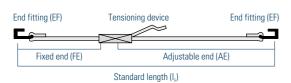






## Two-piece

One-piece



Product code	Standard length *I <sub>G</sub> [m]	Weight for I <sub>g</sub> [kg]	End fitting**	Surface △ finished	EC [daN]	Standard length FE [m]	Strap width [mm]
2004003	4.0	6.8	А	Δ	5,000	0.7	75
2004004	6.0	7.3	А	Δ	5,000	0.7	75
2004005	4.0	8.7	В	Δ	5,000	0.7	75
2004006	6.0	9.2	В	Δ	5,000	0.7	75
2004007	4.0	5.6	С	Δ	5,000	0.7	75
2004008	6.0	6.1	С	Δ	5,000	0.7	75

- \* Special lengths on request
- $\ensuremath{^{**}}$  Sizes and details of the end fittings can be found at www.spanset.co.uk













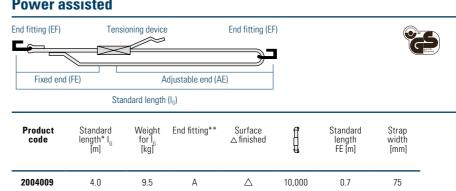


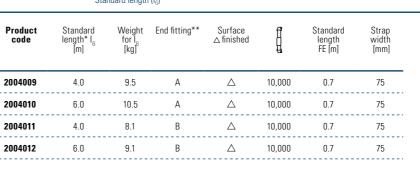
## **HEAVY DUTY RATCHETS**

ABS heavy-duty ratchet lashing strap 10,000/75

- Tensioning device can be released gradually, self-locking and equipped with double slider
- Tensioning device coated with epoxy
- Robust label, resistant to being pulled out, protected by plastic sleeve and webbing insert
- Ideal for diagonal lashing of vehicles and machinery
- Reliable lashing force of up to 10,000 daN

## **Power assisted**







A Delta hook 01252





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<sup>\*\*</sup> Sizes and details of the end fittings can be found at www.spanset.co.uk











<sup>\*</sup> Special lengths on request

## **HEAVY DUTY RATCHETS**

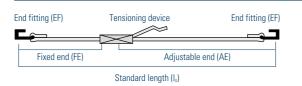
Heavy-duty ratchet lashing strap 5,000/75

- Yellow chrome-plated tensioning device
- Self-locking ratchet lever
- Wear-resistant webbing
- Reliable lashing force of up to 5,000
- Label that is resistant to being pulled out, protected by webbing insert





## Two-piece





Product code	Standard length *I <sub>g</sub> [m]	Weight for I <sub>g</sub> [kg]	End fitting**	Surface △ finished	LC [daN]	Standard length FE [m]	Strap width [mm]
0181501	4.0	6.2	А	Δ	5,000	0.7	75
0181502	6.0	6.8	А	Δ	5,000	0.7	75
1081503	4.0	8.8	В	Δ	5,000	0.7	75
0181504	6.0	9.4	В	Δ	5,000	0.7	75
0181505	4.0	8.3	С	Δ	5,000	0.7	75
0181506	6.0	8.9	С	Δ	5,000	0.7	75

# A Claw hook 01231 B Triangle hook 01252 C Delta hook 01427

<sup>\*\*</sup> Sizes and details of the end fittings can be found at www.spanset.co.uk







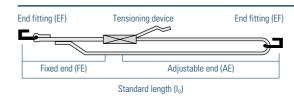


## **HEAVY DUTY RATCHETS**

Heavy duty ratchet lashing straps with ABS 12,500/75

- Max. lashing capacity 12,500 daN even for heaviest loads, such as tanks
- Low dead weight compared to chains
- Constructed from hardened material with reinforced links
- TFI (Tension Force Indicator) included
- Ratchet lashing strap according to EN 12195-2
- Ratchet with robust epoxy resin coating
- Ref. No. 20031

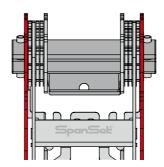
## **Power assisted**



Product code	Standard length* I <sub>G</sub> [m]	Weight for l <sub>s</sub> [kg]	End fitting**	Surface △ finished		Standard length FE [m]	Strap width [mm]
2003101	4.0	16.5	А	Δ	12,500	0.7	75
2003102	6.0	17.5	А	Δ	12,500	0.7	75

#### **Reinforced link**

This high-performance ratchet has extra reinforcement thanks to a double link, so that the load is distributed over three points instead of just two. This provides enormous loading capacity and stability.



**Tension Force Indicator (TFI)** The TFI is fitted as standard in this high-

performance lashing as added security

against unintentional over-tensioning,

thereby providing optimum tension in

proportion to the lashing capacity (LC).



<sup>\*\*</sup> Sizes and details of the end fittings can be found at www.spanset.co.uk

















A Safety hook

<sup>\*</sup> Special lengths on request





## **Medium and Light Duty Ratchets** tension gently, secure efficiently



## Longer handle, tensioning that protects

The extended handle of the Ergo ratchet makes lashing much easier. You can achieve even high pre-tensioning forces using much less muscle power. As you always pull Ergo ratchets downwards instead of pushing upwards, they are much gentler on your back. With the extra-long lever, you'll be able to fulfil ergonomic demands to an even higher level.



## **Tension Force Indicator**

With the patented TFI, you can verify the pre-tension force in the system quickly and easily. When the jaws of the TFI are closed, it indicates the maximum pre-tensioning force that can be achieved of 750 daN. Intermediate stages can also be read off. It just can't get any easier. And now there is also a TFI with an adapter for the adjustable end.

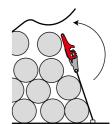
#### Optional integrated edge protection

Straps by SpanSet are available with a low elasticity of max. 4%. Thanks to the additional wear-resistant selvedge, they won't wear away, even on rough loads, meaning you have a tough partner on your side to achieve load security.



## "Anti-Belt-Slip" procedure

The ratchet is opened, the tension loosens sporadically, and the load gets out of control: Anyone who has experienced this knows how important ABS is. It means you have complete control even during release. The ABS system lets you release the pre-tension force in small steps. This gives you the opportunity to use a fork-lift truck to straighten up any loads that threaten to tip and are leaning into the lashing, helping prevent damage and accidents.



Without ABS





## Safety label on every strap

So that you can always check whether the ratchet lashing strap is suitable for the load to be secured, each lashing strap is equipped with a patented safety label that cannot be torn out. The lashing strap may not be used without its label. Our top products have this label fitted as standard. In their well-thought out solutions, our tension ratchets combine the greatest security with economy and efficiency. They make your everyday life that much easier and let you work faster – and therefore more profitably. What more could you want?

## **MEDIUM DUTY RATCHETS**

## Ergo Master Ratchet 2,000/50 with STF 720

- Fitted with TFI pre-tensioning display as standard, pre-tensioning force of 1,000 daN1) can be achieved and read off
- Ideal transfer of force thanks to a unique slit shaft system
- Low-stretch, wear-resistant webbing with cord edge and marking stripes
- Tensioning device coated with epoxy resin - Robust label, resistant to being pulled out, protected by plastic sleeve and webbing insert





#### A Claw hook 01228 B Triangle hook 01253







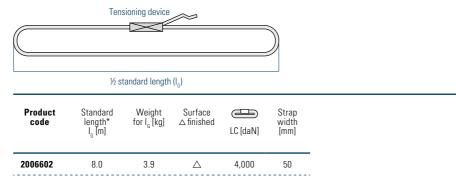




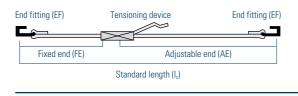


D Rave hook CLRAVE





## Two-piece



Product code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>G</sub> [kg]	End fitting**	Surface △ finished	EC [daN]	STF [daN]	With TFI [daN]	Standard length FE [m]	Strap width [mm]
2006603	8.0	3.4	А	Δ	2,000	720	1,000	0.5	50
2006604	8.0	4.1	В	Δ	2,000	720	1,00	0.5	50
2006605	8.0	3.7	С	Δ	2,000	720	1,000	0.5	50
2006606	8.0	3.3	D	Δ	2,000	720	1,000	0.5	50

- \* Special lengths on request
- $\hbox{\ensuremath{}^{**}}\ Other\ end\ fittings\ available.\ Sizes\ and\ details\ of\ the\ end\ fittings\ can\ be\ found\ at\ www.spanset.co.uk$

The explanations of the pictograms can be found on the flap. 1) simple, direct















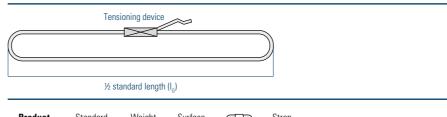


## **MEDIUM DUTY RATCHETS**

Ergo ABS ratchet 5,000/50

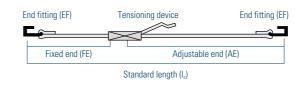
- Ergo pull down action for tensioning
- Optional TFI (Tension Force Indicator)
- Individual interweaving or printing is possible on request
- Ratchet lashing strap according to EN 12195-2
- Maximum Lashing Capacity 5,000 daN
- ABS system incorporated
- Ratchet with robust epoxy resin coating
- Ref. No. 20050

## One-piece



Product code	Standard length* I <sub>g</sub> [m]	Weight for I <sub>g</sub> [kg]	Surface △ finished	LC [daN]	Strap width [mm]
2005001	6.0	3.0	Δ	5,000	50
2005002	8.0	3.2	Δ	5,000	50

## Two-piece



Product code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>G</sub> [kg]	End fitting**		EC [daN]	STF [daN]	With TFI [daN]	Standard length FE [m]	Strap width [mm]
2005003	8.0	4.3	А	Δ	2,500	500	750	0.5	50
2005004	10.0	4.5	А	Δ	2,500	500	750	0.5	50
2005005	8.0	3.6	В	Δ	2,500	500	750	0.5	50
2005006	10.0	3.8	В	Δ	2,500	500	750	0.5	50
2005007	8.0	3.9	С	Δ	2,500	500	750	0.5	50
2005008	10.0	4.1	С	Δ	2,500	500	750	0.5	50
2005009	8.0	3.5	D	Δ	2,500	500	750	0.5	50
2005010	10.0	3.7	D	Δ	2,500	500	750	0.5	50

<sup>\*</sup> Special lengths on request

<sup>\*\*</sup> Other end fittings available. Sizes and details of the end fittings can be found at www.spanset.co.uk

















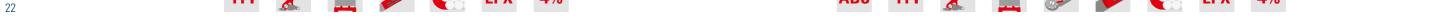






A Triangle hook 01253 B Claw hook 01228





## **MEDIUM DUTY RATCHETS**

Ergo ratchet 5,000/50

- Ergo pull down action for tensioning
- Optional TFI (Tension Force Indicator)
- Individual printing is possible on request
- Ratchet lashing strap according to EN 12195-2
- Maximum Lashing Capacity 5,000 daN
- Ref. No. 20060







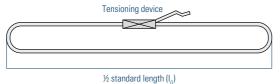


**B** Claw hook and keeper **01228SL** 

C Rave hook CLRAVE

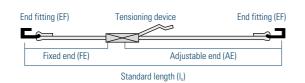






Product code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>G</sub> [kg]	Surface △ finished	LC [daN]	Strap width [mm]
2006001	6.0	2.8	Δ	5.000	50
2006002	8.0	3.0	Δ	5.000	50

## Two-piece



Product code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>G</sub> [kg]	End fitting** TFI	Surface △ finished	EC [daN]	STF [daN]	With TFI [daN]	Standard length FE [m]	Strap width [mm]
2006003	8.0	3.4	А	Δ	2,500	500	750	0.3	50
2006004	10.0	3.6	А	Δ	2,500	500	750	0.3	50
2006005	10.0	3.7	В	Δ	2,500	500	750	0.3	50
2006006	10.0	3.9	В	Δ	2,500	500	750	0.3	50
2006007	8.0	3.3	С	Δ	2,500	500	750	0.3	50
2006008	10.0	3.5	С	Δ	2,500	500	750	0.3	50



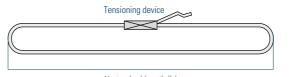


## **MEDIUM DUTY RATCHETS**

ABS ratchet 5,000/50

- Optional TFI (Tension Force Indicator)
- Individual interweaving or printing is possible on request
- Ratchet lashing strap according to EN 12195-2
- Maximum Lashing capacity 5,000 daN
- ABS system incorporated
- Ratchet with robust epoxy resin coating
- Ref. No. 20020

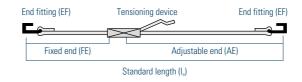
## One-piece



½ standard length (I <sub>c</sub> )	1/2	stand	lard	length	$(I_{c})$
-------------------------------------	-----	-------	------	--------	-----------

Product code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>G</sub> [kg]	Surface △ finished	LC [daN]	Strap width [mm]
2002001	6.0	2.6	Δ	5,000	50
2002002	8.0	2.8	Δ	5,000	50

## Two-piece



Product code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>g</sub> [kg]	End fitting**	Surface △ finished	<b>[</b> ]		Standard length FE [m]	Strap width [mm]
					LC [daN]			
2002003	8.0 10.0	3.8 	A A	 Δ	2,500  2,500	450  450	0.5  0.5	50  50
2002005	8.0	3.3	В	Δ	2,500	450	0.5	50
2002006	10.0	3.5	В	Δ	2,500	450	0.5	50
2002007	8.0	3.6	С	Δ	2,500	450	0.5	50
2002008	10.0	3.8	С	Δ	2,500	450	0.5	50
2002009	8.0	3.1	D	Δ	2,500	450	0.5	50
2002010	10.0	3.3	D	Δ	2,500	450	0.5	50

<sup>\*</sup> Special lengths on request

 $<sup>^{**}</sup>$  Other end fittings available. Sizes and details of the end fittings can be found at www.spanset.co.uk

















A Triangle hook 01253 B Claw hook 01228



 $<sup>\</sup>hbox{\ensuremath{^{**}} Other end fittings available. Sizes and details of the end fittings can be found at www.spanset.co.uk}$ 

## **MEDIUM DUTY RATCHETS**

Ratchet 5,000/50 "Econolash"

- Individual printing possible
- The self-locking ratchet lever prevents the ratchet springing open again later on in transit – even under heavy vibration and shaking.
- Ratchet lashing strap according to EN 12195-2
- Maximum Lashing Capacity 5,000 daN
- Ref. No. 01857







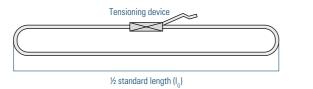
B Claw hook and

keeper 01228SL

C Rave hook CLRAVE

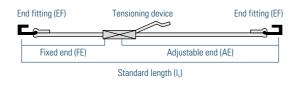


## One-piece



Produce code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>g</sub> [kg]	Surface △ finished	LC (daN)	Strap width [mm]
0185701	8.0	2.4	Δ	5,000	50
0185702	10.0	2.6	Δ	5,000	50

## Two-piece



Product code	Standard length*	Weight for $I_{_{\mathbb{G}}}$ [ $\mathbb{H}_{g}$ ]	End fitting**	Surface △ finished	LC [daN]	STF [daN]	Standard length FE [m]	Strap width [mm]
0185703	8.0	2.9	А	Δ	2,500	450	0.5	50
0185704	10.0	3.1	А	Δ	2,500	450	0.5	50
0185705	8.0	3.1	В	Δ	2,500	450	0.5	50
0185706	10.0	3.3	В	Δ	2,500	450	0.5	50
0185707	8.0	2.9	С	Δ	2,500	450	0.5	50
0185708	10.0	3.1	С	Δ	2,500	450	0.5	50
0185709	8.0	2.7	D	Δ	2,500	450	0.5	50
0185710	10.0	2.9	D	Δ	2,500	450	0.5	50

<sup>\*</sup> Special lengths on request

 $<sup>\</sup>star\star$  Other end fittings available. Sizes and details of the end fittings can be found at www.spanset.co.uk



## **MEDIUM DUTY RATCHETS**

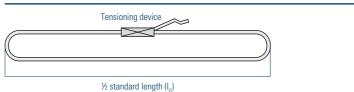
Ratchet 3,000/50





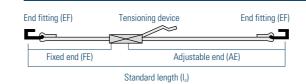
- Individual printing possible
- Ratchet with anti-corrosion coating
- Comfort handle grip
- Push up ratchet according to EN 12195-2
- Maximum Lashing Capacity 3,000 daN

## One-piece



Product code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>g</sub> [kg]	Surface △ finished	LC [daN]	Strap width b [mm]
0180601	4.0	1.8	Δ	3,000	50
0180602	6.0	2.0	Δ	3,000	50

## Two-piece



Product code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>g</sub> [kg]	End fitting**	Surface △ finished	EC [daN]	STF [daN]	Standard length FE [m]	Strap width b [mm]
0180603	4.0	2.3	А	Δ	1,500	350	0.5	50
0180604	6.0	2.5	А	Δ	1,500	350	0.5	50
0180605	4.0	2.4	В	Δ	1,500	350	0.5	50
0180606	6.0	2.6	В	Δ	1,500	350	0.5	50
0180607	4.0	2.3	С	Δ	1,500	350	0.5	50
0180608	6.0	2.5	С	Δ	1,500	350	0.5	50
0180609	4.0	2.5	D	Δ	1,500	350	0.5	50
0180610	6.0	2.7	D	Δ	1,500	350	0.5	50

<sup>\*</sup> Special lengths on request





B Flat J hook 01244

C Rave hook CLRAVE









## **LIGHT DUTY RATCHETS**

Ratchet 1,500/50

- Individual printing possible
- Ratchet with anti-corrosion coating
- Wide ratchet handle provides particularly good ergonomics
- Push up ratchet according to EN 12195-2
- Maximum Lashing Capacity 1,500 daN
- Ref. No. 1805





#### A Snap hook 01209 B Claw hook 01224

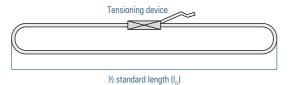


**C** Low profile claw D Track hook 01265 hook **01263** 



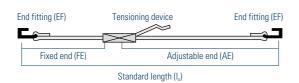


## One-piece



Product code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>g</sub> [kg]	Surface △ finished	LC [daN]	Strap width b [mm]
0180501	4,0	1.3	Δ	1,500	50
0180502	6,0	1.5	Δ	1,500	50

## Two-piece



Product code	Standard length* I <sub>g</sub> [m]	Weight for I <sub>g</sub> [kg]	End fitting**	Surface △ finished	€ LC [daN]	STF [daN]	Standard length FE [m]	Strap width b [mm]
0180503	4.0	1.6	А	Δ	750	200	0.5	50
0180504	6.0	1.8	А	Δ	750	200	0.5	50
0180505	4.0	1.6	В	Δ	750	200	0.5	50
0180506	6.0	1.8	В	Δ	750	200	0.5	50
0180507	4.0	1.5	С	Δ	750	200	0.5	50
0180508	6.0	1. 7	С	Δ	750	200	0.5	50
0180509	4.0	1.6	D	Δ	750	200	0.5	50
0180510	6.0	1.8	D	Δ	750	200	0.5	50

<sup>\*</sup> Special lengths on request





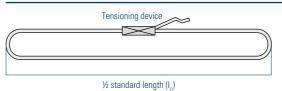
Strap

## **LIGHT DUTY RATCHETS**

Ratchet 500/25 stainless, Ratchet 500/25

- Individual printing possible
- Stainless ratchet with 13% chrome in the steel for permanent protection against rust
- Ratchet lashing strap according to EN 12195-2
- Maximum Lashing Capacity 500 daN
- Ref. No. 01802SS / 01802

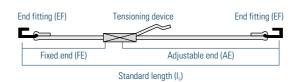
## One-piece



Product code	Stainless steel	Standard length*	Weight for I <sub>g</sub> [kg]	Surface △ finished	LC [daN]
		length*			

5525	01001	I <sub>G</sub> [m]	ioi i <sub>G</sub> [kg]	Zillioned	LC [daN]	[mm]
0180201 0180202		4.0 6.0	0.4 0.4	Δ	500	25
\$180201 \$180202	:	4.0 6.0	0.4 0.4	Δ	500	25

## Two-piece



Product code	Stainless steel	Standard length* I <sub>G</sub> [m]	Weight for I <sub>g</sub> [kg]	End fitting**	Surface △ finished	ff [] LC [daN]	Standard length FE [m]	Strap width [mm]
<b>S180203</b> S180204	:	4.0 6.0	0.6 0.6	А	Δ	250	0.3	25
<b>0180203</b> 0180204		4.0 6.0	0.6 0.6	А	Δ	250	0.3	25
\$180205 \$180206	•	4.0 6.0	0.6 0.6	В	Δ	250	0.3	25
<b>0180205</b> 0180206		4.0 6.0	0.6 0.6	В	Δ	250	0.3	25
\$180207 \$180208		4.0 6.0	0.7 0.7	С	Δ	250	0.3	25
<b>0180207</b> 0180208		4.0 6.0	0.7 0.7	С	Δ	250	0.3	25
\$180209 \$180210	•	4.0 6.0	0.5 0.5	D	Δ	250	0.3	25
<b>0180209</b> 0180210		4.0 6.0	0.5 0.5	D	Δ	250	0.3	25

<sup>\*</sup> Special lengths on request







A Claw hook 01298 **B** S hook **01203** 



**C** Snap hook **01209** 











 $<sup>^{**} \ \</sup>text{Other end fittings available. Sizes and details of the end fittings can be found at www.spanset.co.uk}$ 

 $<sup>^{**}</sup>$  Other end fittings available. Sizes and details of the end fittings can be found at www.spanset.co.uk

## **TENSION FORCE INDICATOR**

#### TFI – Tension Force Indicator

- With the TFI, you can verify the pre-tensioning force that is actually attainable
- Verifies that up to 60% fewer lashing straps can be used
- For fixed and adjustable ends
- Very easy to read thanks to signal colour



## **ANTI BELT-SLIP AND TENSION FORCE INDICATOR** ABS. TFI and

adjustable end TFI

- TFI optional on all 50 mm strap ratchets
- Indicates actual pre-tension
- Adjustable end compatible with several end fittings

#### Achieve the maximum pre-tensioning force in a cost-effective and precise manner.



#### a unique mechanical aid – the Tension Force Indicator. The TFI reliably shows the pre-tensioning force that has been achieved - to do so, it is installed directly on the tensioning device. Well-protected and extremely easy to read! Many of our products have already been fitted with TFIs as standard, meaning that expensive measurements are

The TFI – Tension Force Indicator

Normally, when determining the pre-tensioning

force, additional electronic devices are used.

These are very accurate, but also expensive.

More than ten years ago, SpanSet developed

#### Achieve the maximum pre-tensioning force in a verifiable manner with the TFI

now a thing of the past.

The TFI helps you to make the best possible use of your lashing straps, achieving maximum performance. The pre-tensioning force display makes it simple for you to measure the pre-tensioning force applied and to provide evidence of this with no problems in the event of a check. The two jaws of the TFI close when tension is added.

Once the full pre-tensioning force has been reached, the jaws are pressed together (form fit). In this way, you can prove the pre-tensioning force applied in the system quickly and directly. If the lashing strap loses tension during the journey, the jaws of the TFI will not be fully closed, indicating that re-tensioning is necessary in the event of doubt.

The Tension Force Indicator, designed for 50mm-lashing straps, is available in different versions, with 500 (green), 750 (red) and 1,000 (yellow) daN/STF pre-tensioning displays, tailored to the relevant lashing systems. As the TFI design uses signal colours, it also makes it easier to read the pre-tensioning force in poor light conditions.

#### Additional use of TFI at adjustable end

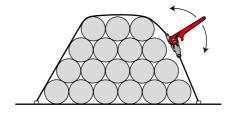
In addition to the TFI at the fixed end, the TFI can also be used at the adjustable end. For this, there is an adaptor available for the TFI which can be integrated into the current end fittings. In addition, SpanSet has specially designed a delta hook to which the TFI can easily be attached. This results in an additional cost saving, as no adaptor is then required. Alongside the even higher verifiable pre-tensioning force, the K-factor (1.5) is no longer significant, as a lashing force can also be proven at the adjustable end. In addition to your own safety, the unique TFI guarantees the necessary traceability for the authorities and is also listed as a system component in the GS test descriptions. This means that not only does the Tension Force Indicator from SpanSet ensure greater cost-effectiveness, it also guarantees greater safety when using lashing systems.

#### "Anti-Belt-Slip" procedure (ABS)

The ratchet is opened, the tension releases spontaneously, and the load gets out of control: anyone who has experienced this knows how important ABS is. It means you have complete control even during release. The ABS system lets you release the pre-tension force in small steps. This gives you the opportunity to use a forklift truck to straighten up any loads that threaten to tip and are leaning into the strap, helping prevent damage and accidents.



Without ABS



With ABS

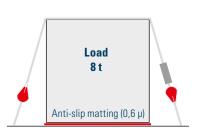
#### Be certain of the right tension

When it comes to pre-tensioning forces in your lashing strap system, you need to be smart with your calculations. According to EN 12195-1, you may normally only take into account the STF value of the fixed end and 50% of the pretensioning force of the fixed end for the adjustable end. However, if you can prove that a greater pre-tensioning force is achieved, you can take into account this force. So if you can prove 750 daN on both the fixed end and the adjustable end, for example, you can include this 1,500 daN total pre-tension force in your calculations.

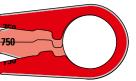
We have developed a unique aid that guickly and reliably shows you the pre-tensioning force applied: the patented TFI (Tension Force Indicator). It states the pre-tensioning force actually achieved directly at the ratchet and at the adjustable end: in steps of 250, 500 and max. 750 daN.

With optimum pre-tensioning, you will thus achieve a load security that can be proven, which will stand up to inspection by police checks, and at the same time reduce the number of lashing items required. So for each load, you'll save on lashing equipment and time.

#### **ErgoABS** ratchet with TFI at adjustable end and ratchet end



- 1. Total pre-tensioning force necessary: 2,626 daN
- 2. TFI-Displays at ratchet and adjustable ends read 2 x "750" = 1.500 daN
- 3. You need: 2 x Ergo ABS with a pre-tensioning force of 1,500 daN = 3.000 daN

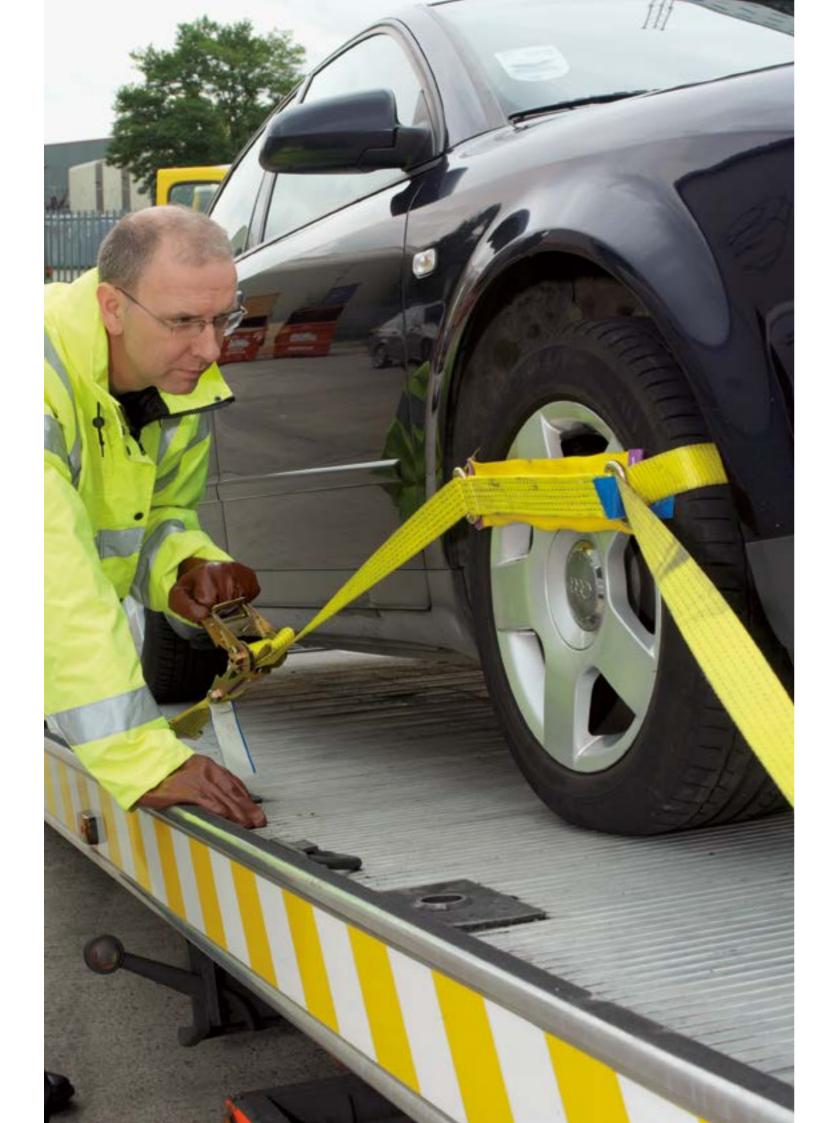


#### SpanSet - Certified Safety

# 2: TFI 750 daN

3: TFI 1.000 daN

Tension Force Indicator



## **VEHICLE RECOVERY** & TRANSPORTATION

Carfix – Car transport safety device

- Complies with DIN EN 12195-2
- Satisfies VDI Directive 2700 Sheet 8
- Other hook types are possible
- Also available with indivdual print on request



## 4 steps to your Carfix lashing strap

## 1,500 and 2,500 kg lashing capacity

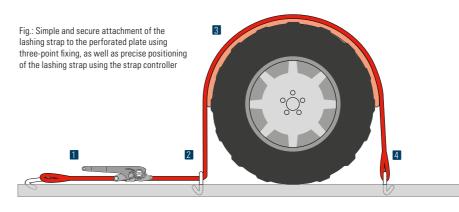
SpanSet Carfix is available in versions with webbing straps measuring 35 mm or 50 mm in width, and with a lashing capacity of 1,500 or 2,500 daN, in a straight pull. The Carfix system has a particularly low webbing stretch ("4%) and is therefore especially well-suited to transporting vehicles.

#### "Secured by 3 hooks"

With the right handling, the three-point attachment with hooks at the fixed end 11, adjustable end 4 and running freely on the adjustable end guarantees fast, secure attachment and ease of use for the user. The moveable swivel hook that can be rotated through 360° or the traditional claw hook can be selected for attachment to the perforated plate. Other hook types are also available on request.

## Stable grip and protection for the webbing strap

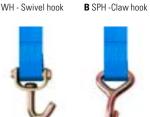
The strap controller 3 comes as standard with both lashing strap variants. During transport, the particularly pronounced profile on the underside of the strap controller grips very well to the tyre and remains in a stable position, while the webbing strap on the inside can glide perfectly during tensioning. In addition, the webbing strap controller protects both the webbing strap and the tyres of the vehicle. There is also the option of edge reinforcement (piped edge), which extends the durability of the controller. Simply select the lashing strap you require and your preferred hook, and put together your individual Carfix lashing straps easily using the tables (on the right).



## **Loose Carfix controllers**

Product code	•	Standard Length [mm]	Weight [kg]	Strap width [mm]
VTS01	Carfix strap only	2500	2.0	50
VTS02	Carfix strap & sleeve	2500	2.3	50
VTS03	Carfix sleeve loose	750	-	50







## **VEHICLE RECOVERY SYSTEMS**

Wheel straps Bracing straps

- Manufactured to BSEN 12195-2
- Universal size up to 3.5 tonnes
- Replaceable bracing strap
- Max Lashing Capacity 1,500 daN









## **VEHICLE RECOVERY SYSTEMS**

Centre pull strap Spectacle frame strap

- Manufactured to BSEN 12195-2
- Universal size up to 3.5 tonnes
- Max Lashing Capacity 1,200 daN



## Wheel straps for easy recovery

The two directional wheel straps are designed for use with vehicle recovery transporters for simple but effective restraint of recovered road vehicles. With the casualty vehicle winched onto the deck of the recovery vehicle, it can be safely secured for onward

Wheel strap / Bracing strap

Wheel strap complete

Wheel strap complete

Bracing strap only

Bracing strap soft

4150

4150

400

400

2.8

2.5

0.5

0.2

transportation with a set of 4 SpanSet wheel straps. The vehicle is restrained from movement in either direction without the need for chocks or any additional tools.

The wheel straps are a universal fitting for all cars and vans up to 3.5 tonnes and may be used with any chassis length or wheel size. All straps are of a heavy duty design and incorporate sturdy snap hooks fitted each end. The snap hook will fit comfortably over most lashing rings in the vehicle deck and prevents accidental release of the hook.

#### **Bracing straps prevent scratches**

Each wheel strap comes complete with a bracing strap which fits across the front of the wheel. The bracing straps are interchangeable and may be replaced. They are available as either standard or soft types.

The standard bracing strap has three thicknesses of webbing to give it strength and rigidity which makes it easier to fit. It has a built in backing pad to protect alloy wheels from being marked. The soft bracing strap has no metal components around the wheel and is ideal for lighter weight or sports car recovery.

Strap Width

50

50

50

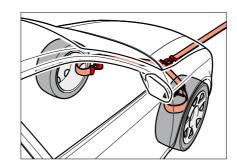
1500

1500

## Centre pull strap

The centre pull straps are designed for use with vehicle recovery transporters to enable the securing of the casualty vehicle to the transporter winch rope. The winch rope hook fits neatly into the floating centre connector so that it automatically locates its centre pull point and applies even tension to each leg of the strap. This allows the vehicle to be winched safely without slewing.

The centre pull straps are a universal fitting for all cars and light commercial vehicles. Each end of the strap can be easily passed around the front axle or wishbone and secured with the snap hook. The heavy duty webbing construction avoids damage to the vehicle body but is tough and durable and easy to handle in comparison to chain.



#### Spectacle frame strap

When a vehicle is being recovered using a spectacle frame to lift the wheels the spectacle frame straps are the ideal solution for quickly securing the vehicle at the roadside. The strap incorporates two stainless steel carbine snap hooks which can easily be fitted over the bars of the frame at the rear of wheel.

The spectacle frame straps are a universal fitting for all cars and light commercial vehicles and must be used in pairs. The ratchet tensioner is bolted to the frame and is available separately. The spectacle frame strap does not include the ratchet.

## Spectacle frame strap / Centre pull strap

Product Code	,	Standard Length [mm]	Weight [kg]	LC [daN]	Strap Width [mm]
VR001	Spec frame strap	2500	1.2	1200	50
VR958	Centre pull strap	2000	1.5	-	50







**Product Code** 

VR005

VRNNR

VR956

VR957





# Cambuckle and Overcentre buckle lashings keep small loads together quickly and easily

With the cambuckle lashing straps from SpanSet, bundling and fastening goods of all types is easy. They are ideal for bundling materials for transportation or storage. The overcentre buckle internal restraints hold your load securely and prevent damage to your vehicle. SpanSet buckles are also ideally suited as internal restraints in box trailers where overtensioning of the strap is to be avoided.

## Thermally precision-fastened webbing

Others take the easy route. We produce our webbings under strict control. This is the only way we can have full control of strap quality. The result: high accuracy of fit with optimum widths and thicknesses tailored to the respective buckle. This means easy handling and a secure hold in the buckle.

#### Finishing included

The webbing in our cambuckle and overcentre buckle lashing straps is treated, which means that they undergo a finishing process that makes the straps less sensitive to wear and abrasion.

#### **High-quality material**

The cambuckles hold the strap under tension. It's no surprise that, with your security in mind, we pay attention to this quality detail too and test the clamps regularly. The end result is that the strongest of our cambuckle lashing straps can hold loads of up to one tonne in check

#### Security needs checks

Our cambuckle and overvcentre buckle lashing straps have a security label according to EN 12195-2. It contains the prescribed details of the maximum lashing capacity (LC) depending on the use. The label is sewn firmly into the strap and the internal section of the label preventing the critical information from being lost. The lashing strap may not be used without this label.

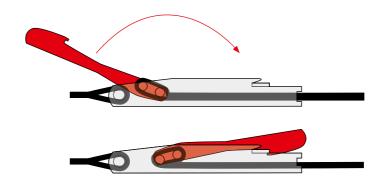


Figure 1: Overcentre buckle lashing strap

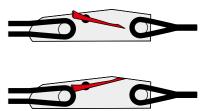


Figure 2: Cambuckle lashing strap

## Cambuckle lashing straps 200/25 and 700/25

- Individual printing possible
- The one-piece lashing strap is used for strapping the load and therefore does not need any end fittings.
- Cambuckle lashing strap according to EN 12195-2
- Max. Lashing Capacity 200 / 700 daN
- Ref. No. 01155 / 01152







## **CAMBUCKLES**

Cambuckle lashing straps 1,000/50

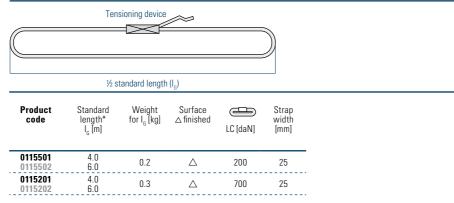
- Individual printing possible
- The one-piece lashing strap is used for strapping the load and therefore does not need any end fittings
- Cambuckle lashing strap according to EN 12195-2
- Maximum Lashing Capacity 1,000 daN
- Ref. No. 01154



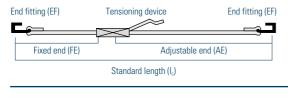
**D** Claw hook **01298** 

**C** Snap hook **01209** 

## One-piece



## Two-piece

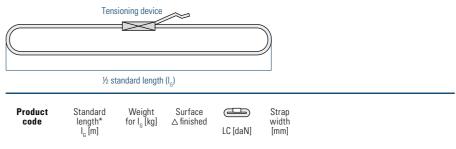


Product code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>g</sub> [kg]	End fitting**	Surface △ finished	EC [daN]	Standard length FE [m]	Strap width [mm]
0115503 0115203	4.0	0.3 0.4	А	Δ	100 350	0.3	25
<b>0115504</b> 0115204	6.0	0.3 0.4	А	Δ	100 350	0.3	25
<b>0115505</b> 0115205	4.0	0.4 0.5	В	Δ	100 350	0.3	25
<b>0115506</b> 0115206	6.0	0.4 0.5	В	Δ	100 350	0.3	25
<b>0115507</b> 0115207	4.0	0.5 0.6	С	Δ	100 350	0.3	25
<b>0115508</b> 0115208	6.0	0.5 0.6	С	Δ	100 350	0.3	25
<b>0115509</b> 0115209	4.0	0.4 0.5	D	Δ	100 350	0.3	25
0115510 0115210	6.0	0.4 0.5	D	Δ	100 350	0.3	25

<sup>\*</sup> Special lengths on request

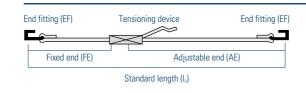


## One-piece



Product code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>g</sub> [kg]	Surface △ finished	LC [daN]	Strap width [mm]
0115401	4.0	0.5	Δ	1,000	50
0115402	6.0	0.5	Δ	1,000	50

## Two-piece



Product code	Standard length* I <sub>g</sub> [m]	Weight for I <sub>g</sub> [kg]	End fitting**	Surface △ finished	LC [daN]	Standard length FE [m]	Strap width [mm]
0115403	4.0	0.8	А	Δ	500	0.3	50
0115404	6.0	0.8	А	Δ	500	0.3	50
0115405	4.0	0.8	В	Δ	500	0.3	50
0115406	6.0	0.8	В	Δ	500	0.3	50
0115407	4.0	0.9	С	Δ	500	0.3	50
0115408	6.0	0.9	С	Δ	500	0.3	50
0115409	4.0	0.9	D	Δ	500	0.3	50
0115410	6.0	0.9	D	Δ	500	0.3	50

<sup>\*</sup> Special lengths on request















 $<sup>\</sup>star\star$  Other end fittings available. Sizes and details of the end fittings can be found at www.spanset.co.uk

 $<sup>^{**}</sup>$  Other end fittings available. Sizes and details of the end fittings can be found at www.spanset.co.uk

## OVERCENTRE BUCKLES

Overcentre buckles 01138, 01148

- Overcentre buckle lashing strap
- Buckle with anti-corrosion coating
- Max. Lashing Capacity 750 / 2,000 daN
- Ref. No. 01138 / 01148







# OVERCENTRE BUCKLES

Overcentre buckles 01150

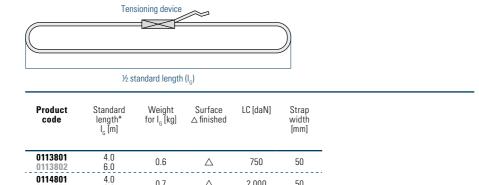
- Overcentre buckle lashing strap
- according to EN 12195-2
- Buckle with anti-corrosion coating
- Max. Lashing Capacity 2,000 daN
- Ref. No. 01150



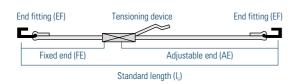
B Slide fitting B023

D Rave hook CLRAVE

## One-piece



## Two-piece



Product code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>g</sub> [kg]	End fitting (VE)**	Surface △ finished	EC [daN]	Standard length FE [m]	Strap width b [mm]
<b>0113803</b> 0114803	4.0	0.8 0.9	А	Δ	375 1000	2.0	50
<b>0113804</b> 0114804	6.0	0.8 0.9	А	Δ	375 1000	3.0	50
<b>0113805</b> 0114805	4.0	1.1 1.2	В	Δ	375 1000	2.0	50
<b>0113806</b> 0114806	6.0	1.1 1.2	В	Δ	375 1000	3.0	50
<b>0113807</b> 0114807	4.0	0.8 0.9	С	Δ	375 1000	2.0	50
<b>0113808</b> 0114808	6.0	0.8 0.9	С	Δ	375 1000	3.0	50
<b>0113809</b> 0114809	4.0	0.8 0.9	D	Δ	375 1000	2.0	50
<b>0113810</b> 0114810	6.0	0.8 0.9	D	Δ	375 1000	3.0	50

- \* Special lengths on request
- $\star\star$  Other end fittings available. Sizes and details of the end fittings can be found at www.spanset.co.uk



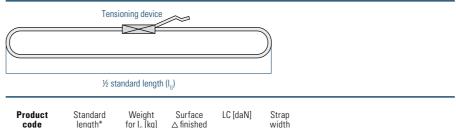




# ther end fit

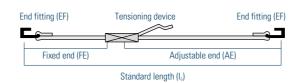


## One-piece



Product code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>g</sub> [kg]	Surface △ finished	LC [daN]	Strap width [mm]
0115001	4.0	1.1	Δ	2,000	45
0115002	6.0	1.2	Δ	2,000	45

## Two-piece



Product code	Standard length* I <sub>G</sub> [m]	Weight for I <sub>G</sub> [kg]	End fitting (VE)**		EC [daN]	Standard length FE [m]	Strap width b [mm]
0115003	4,0	1.3	А	Δ	1000	2.0	45
0115004	6,0	1.4	А	Δ	1000	3.0	45
0115005	4,0	1.5	В	Δ	1000	2.0	45
0115006	6,0	1.6	В	Δ	1000	3.0	45
0115007	4,0	1.4	С	Δ	1000	2.0	45
0115008	6,0	1.5	С	Δ	1000	3.0	45
0115009	4,0	1.3	D	Δ	1000	2.0	45
0115010	6,0	1.4	D	Δ	1000	3.0	45

- \* Special lengths on request
- $^{**}$  Other end fittings available. Sizes and details of the end fittings can be found at www.spanset.co.uk







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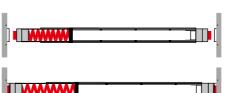
A Low profile

fitting **01265** 

claw hook **01263** 











# Shoring equipment — securely fastened from every direction

SpanSet can design and engineer a load restraint package to suit your operational requirements.

#### **Fast and convenient**

With our range of shoring bars, a basic load control can easily be achieved. The expandable bars fit into any rigid box or trailer with minimal effort. Made from plated steel or lightweight aluminium, they prevent your load from sliding around the cargo area. An extensive array of load blocking arrangements can easily be achieved and is complimented by our range of internal restraint straps to provide you with total control over your load. This means safety from start to finish: the goods don't get damaged, operators won't get injured by loose cargo and the vehicle does not get damaged.

Bulkhead bars can be used to protect the vehicle bulkhead from damage. Expanding rubber footed bars may be used inside the rear door of trailers or containers to protect operators from injury. Decking beams can be inserted to create doubledecks for more versatile use of the load space.

## Easy form-fitting load security with TRUXAFE

The structural rigidity of curtainsiders is laid down in EN 12642. This in itself does not complete the picture for the load security: restrain the complete package using TRUXAFE.

#### Highly effective

Practical, light-weight and robust — these features characterise all TRUXAFE system components. This includes aluminium side slats, locking bars and tension straps. Using these three components, you can secure almost any load, such as drums, 'Big Bags' or even rolls of toilet tissue, using cutting-edge technology — and it's form-fitting, due to its reinforced structure. In order

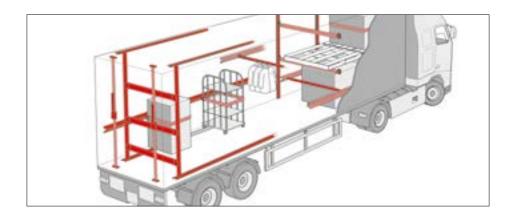
to optimise its effectiveness, simply use additional securing components such as our protective air bags or SpanSet Grip non-slip matting (page 55 ff).

#### **Economic transport solution**

Those who are already aware of unreliable and costly load security will value TRUXAFE not only as an economical transport solution, but also one that meets legal requirements. The system components are speedily put together, quickly assembled and will withstand the rough everyday life of transportation for years.

## Safety for people and goods

As TRUXAFE significantly increases the structural rigidity of curtainsiders, you can count on improved driving quality for your vehicles, which improves safety. Furthermore, maintenance costs for sliding tarpaulins and loadspace rear doors will also be reduced.



TRUXAFE side slats



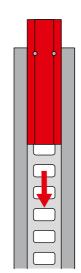
## SHORING EQUIPMENT

TRUXAFE cross beams

- Can be loaded to max. 2,500 daN (distributed load)
- Quick to install, easy to stow away

## High-strength side slats

Stabilise side walls: For the TRUXAFE side slats, this means absorbing up to four times more load than standard side slats. In concrete terms, this could be 400 daN lumped load and 800 daN distributed load. The robust aluminium side slats are easy to handle at just 11.7 kg. Thanks to the adjustable head-pieces that can be screwed in or out (and which are placed in the stantion pockets), their structure is also adjustable in length.



## Cross beams as reinforcement

In addition to the side slats, you can also give your load additional support with TRUXAFE cross beams. They can be laden with up to 2,500 daN. The bars, which weigh almost 12 kg, are simply suspended using the hook ends in the grid cutouts of the side slats. This transfers the forces to the side slats on both sides of the vehicle.

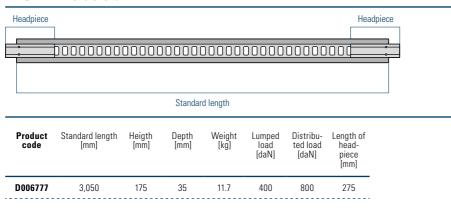
#### The advantages are obvious:

- Quick to install
- Secures loads of up to 2 t per 1 m structural length

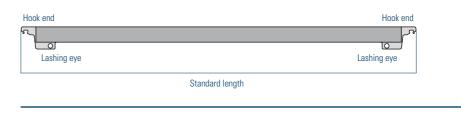
## Cross beam variants for light and fragile goods

We recommend the narrow cross beam design for the transport of fragile goods. Their surface, 175 mm high, protects your goods but can also be laden with up to 1,000 daN distributed loads. In addition, you can attach lashing hooks and other securing equipment to their extra anchor points.

## **TRUXAFE** side slat



## **TRUXAFE** cross beam



Product code	Standard length [mm]	Height [mm]	Depth [mm]	Weight [kg]	Distribu- ted load [daN]
D006458	2,540	127	80	11.8	2,500
D013527	2,540	175	35	10.3	1,000



TRUXAFE diagonal lashing

- Brace side slats and locking bars securely
- Proven tension strap construction
- Approved by The Association of German Engineers (VDI)

A Claw hook 01228 B Rave hook CLRAVE

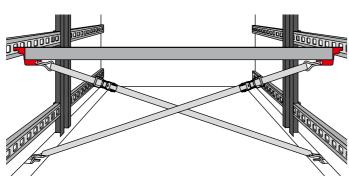




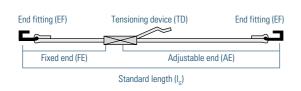
## Transmit forces diagonally

The last step in optimising the security of your load can be carried out using TRUXAFE diagonal tension straps. They are really easy to fasten: at the top to the standard locking

bar hook eyes, and at the bottom to the lashing point or on the rave rail of the loading surface. Tensioned diagonally, they transfer the lateral loads to the vehicle floor and thus relieve the side slats and stanchions.



## **TRUXAFE** diagonal lashing



Product code	Standard length* I <sub>g</sub> [m]	Weight for I <sub>G</sub> [kg]	End fitting**	Surface △ finished	LC [daN]	Standard length FE [m]	Strap width [mm]
0180511	3.5	1.8	А	Δ	1,000	0.5	50
0180512	3.5	1.5	A + B	Δ	1,000	0.5	50
0185711	3.5	3.4	В	Δ	2,500	0.3	50
0185712	3.5	3.0	A + B	Δ	2,500	0.3	50

<sup>\*</sup> Special lengths on request







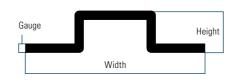
## SHORING EQUIPMENT

Track profiles

- The ideal addition to box vans, trailers and refrigerated trailers
- Fixes easily and quickly to all surfaces
- SpanSet internal restraint straps and shoring equipment lock into place
- Available in standard lengths or cut to size

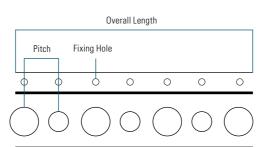
#### Keep it on track

When using general purpose restraints for load control, this is best done in combination with a track system. This can be installed in any box and trailer. You gain reliable anchor points for your internal restraints and shoring bars. The track provides flexible anchor points for various body types used in general distribution allowing optimum use of load space.



Our track range offers a wide variety of styles and finishes. The apertures can be round keyhole, captive, euro-track, slot/hole combinations and so on. All tracks are made from steel or aluminium with various platings for enhanced corrosion resistance.

Other track options available – for details visit www.spanset.co.uk



## Track profiles

Product code	Length [mm]	Width [mm]	Pitch [mm]	Height [mm]	Gauge [mm]	Fixing [mm]	Weight [kg]	Material	Styles
TM12	3,050	80	41	15	2.5	7	4.5	Plated steel	Heavy duty Q track
TM16A	3,660	55	60	10	4	6	3	Aluminium	Captive slide
TH21	3,050	132	51	12	2.5	5	7.5	Plated steel	Universal E slot
TH23	3,050	132	60	12	2.5	5	7.5	Plated steel	Combination E slot/ hole horizontal
TH27	3,050	132	41	12	2.5	7	7	Plated steel	Eurotrack



TH 27

<sup>\*\*</sup> Sizes and details of the connection elements can be found at www.spanset.co.uk

Shoring bars

- Effective and versatile load control
- Quickly and easily installed or shifted to a new position
- Securely fits on track profiles in standard sized trucks or trailers

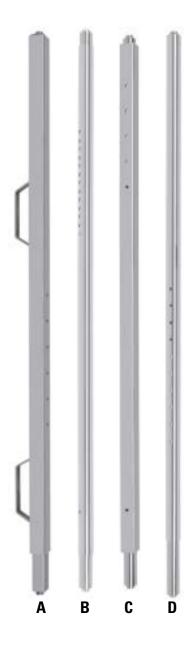


## SHORING EQUIPMENT

Garment rails



- For garment distribution to stores
- Ideal for transporting those returned goods, dry cleaning or laundry
- Suitable for use in any box trailer down to the smallest van



#### **Fast and convenient**

With our range of shoring bars, a basic load control can easily be achieved. The expandable bars fit into any rigid box or trailer with minimal effort. Made from plated steel or lightweight aluminium, they prevent your load from sliding around the cargo area. An extensive array of load blocking arrangements can easily be achieved and is complimented by our range of internal restraint straps to provide you with total control over your load. This means safety from start to finish: the goods don't get damaged, operators won't get injured by loose cargo and the vehicle does not get damaged.

## Easy adjustment

The adjustable bars can be reduced or lengthened by setting it to one of several possible positions. A pin keeps the bar securely in the chosen length. These bars fit into all standard-sized vans and trailers.

For stepless adjustment choose one of our compressible bars. Our shoring bars are available for ranges up to 2,920 mm. If you need further information on the possible sizes, visit our website **www.spanset.co.uk** or give us a call.





## **Shoring bars**

Product code	Туре	Diameter [mm]	Range [mm]	Weight [kg]	Material	Style
SW 3090	А	50×50	2,000-2,550	11.5	Plated steel	square
SW 2029	В	44.5	2,000-2,550	7.4	Plated steel	round
FE 1090	С	45 × 45	2,000-2,550	9.0	Plated steel	square
FE 1029	D	44.5	2,000-2,550	7.4	Plated steel	round

## Garment rails – a perfect fit

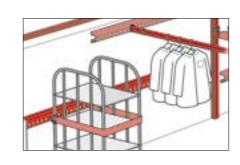
These bars are a simple and versatile solution to transporting hanging garments of all types. Garment hangers are simply suspended along the rails preventing damage or creasing, thus ensuring that your garments arrive in good condition. For extra security, the rails can be equipped with a folding top rail which clamps over the top of the garment hangers to prevent them bouncing off the rail during transit. This is particularly useful for lightweight garments.

SpanSet garment rails can be fitted anywhere along the length of the vehicle body and are quick to install. Spring loaded at one end, they simply lock into position in the track fitted to the vehicle body. The spring tension ensures that they remain securely in position during transit.



Alternative end fittings

The rails are available with a range of end fittings to suit different styles of track. If the vehicle is fitted with GTS panels the rails may be positioned anywhere on the panel to maximise the space utilisation. In combination with track, our garment rails are suited to fit in any box type trailer, down to the smallest van.



## **Garment rails**

Product code	Туре	Diameter [mm]	Material	Options

FE 1378	Е	33.7	Plated steel	-
FE 1378TR	F	33.7	Plated steel	hinged top rail



Cups and bulkhead bars

- to build additional bulkhead in box type trailers of any size
- prevents front bulkhead from damage
- an easy way to form additional compartments for more load security
- for use with track systems

FE6040

- supplied in any desired length (standard size: 2,500 mm)





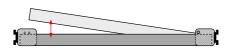
Bulkhead bars are a fast and simple solution to build an additional bulkhead in any box type trailer – regardless of size. When installed behind the front bulkhead, they protect the vehicle front bulkhead from damage by a shifting load. What's more, the cups that hold the bulkhead bars can be installed anywhere along the trailer body. Just fit them on your track system and you gain new possibilities:

- add intermittent bulkheads to form load compartments
- position a part load directly above the axles to stabilise the vehicle

Made from robust plated steel, all bars are used in conjunction with pairs of bulkhead cups. The cups are locked into track, one with a fixed pin and one with a latch. You slide the bar under the pin, drop it into the opposite cup and secure it with the latch – done. When not in use, keep the bars in the appropriate storage brackets.







## **Bulkhead bars and cups**

Product code	Туре	Track	Dimensions [mm]	Max width [mm]	Weight max. [kg]	Material
FE6040	Bulkhead bar	n/a	60×40	2,500	15	Plated steel
FE6040L	Pin cup	25 mm hole	60 × 40	n/a	1.4	Plated steel
FE6040P	Latch cup	25 mm hole	60 × 40	n/a	1.4	Plated steel
FE6040PE	Pin cup	E-track	60 × 40	n/a	1.4	Plated steel
FE6040LE	Latch cup	E-track	60 × 40	n/a	1.4	Plated steel
FE6000LH	Storage bracket	n/a	left hand	n/a	-	Plated steel
FE6000RH	Storage bracket	n/a	right hand	n/a	-	Plated steel



Decking beams



- ideal for creating flexible storage compartments
- maximises use of cubic capacity within your trailer
- perfect for double stacking of bulky, lightweight items

#### Maximise your loading capacity

With decking beams you are able to fully utilise the cubic capacity of your box type trailer. To achieve this, track profiles are installed either horizontally along the body of your trailer or vertically at fixed intervals. On the FE4500 vertical track a sliding system is fitted that allows to slide the decking beams effortlessly (shown above) to any desired position and fix it there.

## With the vertical captive system you can:

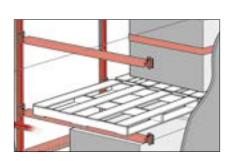
- quickly accommodate different sized goods
- stack large packages or containers in two decks
- form a second deck with pallets
- use the beams to make an artificial bulkhead for securing heavy equipment

When not in use just push the sliding beams up towards the roof and fix them for convenient storage. They are immediately ready for their next use.

#### **Horizontal decking beams**

The FE8000 is a strong but lightweight aluminium decking beam. It is designed to slot into universal E-track profiles, optionally into GTS track, that run horizontally over the full length of your trailer. The beams can be positioned at any point along the track to form an instant second deck of any length required.

## Please specify required trailer width for all decking beams when ordering!

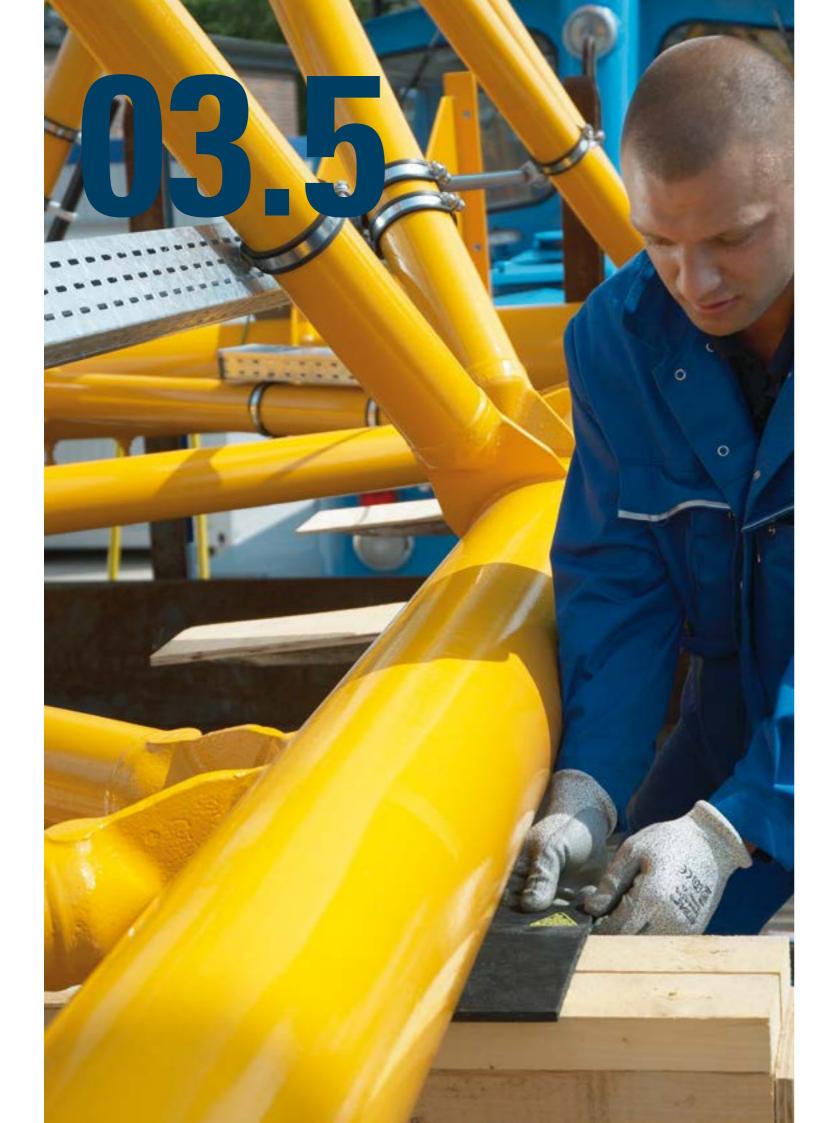


## Decking beams

Product code	Туре	Dimensions [mm]	Max. width [mm]	Weight max. [kg]	Material
FE 4500	Captive sliding TM2008 track	45×45	2,470	11	Plated steel
FE 8000	E-track	85×65	2,470	10	Aluminium
FE 8000GTS	GTS track	85×65	2,470	10	Aluminium

FE8000



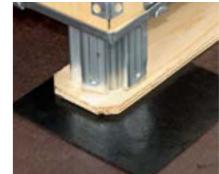


## **ANTI SLIP MATTING**

SpanSet Grip

matting





- Non-standard sizes are available - Less additional load securing equipment required than without

If your load starts to slip, load security has failed

Sliding loads are hard to stop, uncontrollable and destructive. SpanSet non-slip matting significantly reduces this source of risk – at a low cost.

#### Increased friction coefficient

No matter what the material combination is between the freight and the vehicle floor, SpanSet Grip non-slip matting will increase the friction. The vital friction coefficient  $\mu$  can easily be enhanced to 0.6 - or even to 0.9, depending on surface pressure and matting type.

#### The right material

High-compression solid rubber with a closed cell structure - this is what makes our non-slip matting so effective. This also means there is no "ball-bearing" effect, where abraded material slides between the load and the matting and thus reduces the effect of friction.

## Load more efficiently & economically

Less risk of sliding means the following for you: just use as an underlay and you'll need to use much less other load securing equipment. You'll therefore load more efficiently and save time and money, particularly as SpanSet Grip can be re-used many times.

## Only as much as necessary

Non-slip matting is particularly efficient because it is only placed where there is contact between cargo and the loading area. In the case of pallets, two narrow strips are enough. Sometimes small areas are sufficient to secure the whole cargo from sliding. For this reason, SpanSet Grip matting is not only available in standard sizes, but can also be cut to the required size. SpanSet Grip is also available in 9.5 mm thickness. Even with heavy compression, this matting does not let things slip.

#### **Anti Slip Matting**

Product Thickness\*

code	lmmj	נווווון	[KY]
For norma	l loads		
RH20020	2.0	200 × 200	0.01
RH20500	2.0	5,000 × 266	3.18
RH22000	2.0	20,000 × 150	7.17
Ideal for h	eavy loads		
RH95020	9.5	200 × 200	0.59
RH95500	9.5	5,000 × 266	19.50

Weight

Sample applications for SpanSet Grip

# Friction co-efficients based on the 2 mm design 0,4

- On wet surface with SpanSet Grip On dry surface with SpanSet Grip
- On wet surface without SpanSet Grip □ On dry surface without SpanSet Grip

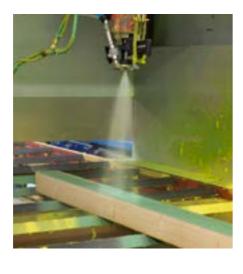


<sup>\*</sup> Other sizes on request

#### **03.5 ANTI-SLIP MATTING**

## Secugrip 95 and Securgrip 30

- Secugrip is resistant to acids, caustic solutions and UV light
- Reusable
- DEKRA-certified







# 03.5 ANTI-SLIP MATTING

SpanSet Grip-G Granulate matting

- Complies with VDI 2700 et seq.
- Friction value of μ 0.6 for the common material combinations
- Individual sizes possible



1 secugrip-95 pray coating on wooden beams

## Secugrip 95 and Securgrip 30

#### Secugrip 95 – spray coating

Load carriers, beams and pallets can be coated with the new secugrip 95 spray coating to create a permanent anti-slip effect. The coloured coating is applied to a thickness of approximately 2 mm. Where necessary, the spraying process can be repeated to increase the coating thickness. With common material combinations, secugrip 95 achieves a friction coefficient of 0.6  $\mu$  and is particularly robust and durable.

In order to draw up a specific quotation we require information on the size, condition and material of your load carriers. Do not hesitate to contact us — we will be please to help you!

#### Secugrip 30 – anti-slip pads

The material composition of the new secugrip 30 was configured for high friction coefficients and designed to bridge uneven spots on the loading area, with a material thickness of 10 mm. TÜV certifies friction coefficients of 0.6  $\mu$  for the common material combinations. The secugrip 30 pads are labelled with the manufacturer's information, which makes it possible to provide evidence of the product characteristics to the authorities.



2 secugrip 30 – anti-slip pads

Product code	Format [mm]	Thickness [mm]	Weight [kg]
secugrip 30 – cut section			
GRIP3002	200 x 200	10	0,4
GRIP3012	1200 x 100	10	1,4
GRIP3008	800 x 150	10	1,4

i Other sizes on request;
Certificates, an enquiry form and further information can be found at www.spanset.de.

## SpanSet Grip-G – granulate matting

The popular anti-slip matting made from granulated rubber is manufactured to a consistently high quality, complies with VDI 2700 et seq. and is universally usable. For the common material combinations, friction values of  $\mu$  0.6 and more are attained and documented by test certificates.

In the manufacturing process, rubber granules of a defined quality and size are bonded together and processed to create anti-slip matting. In addition to the standard cut sizes, customer-specific anti-slip mats can be produced in various sizes and thicknesses.



Product code	Format [mm]	Thickness [mm]	Weight [kg]
granulate matting — cut	section		
RH8-200-200	200 × 200	8	0,3
RH8-5000	5.000 × 250	8	8,2
RH8-20000	20.000 × 150	3	7,7

i Special dimensions available on request; further information at www.spanset.de

- Protects your loads and your lashing equipment as well
- Non-standard sizes on request



UWI edge protector







LAWI Black



To prevent your load from transport damage, SpanSet has developed a range of edge protectors for various applications. Intelligent design details make all edge protectors from SpanSet light and easy to use.

#### LOX

Made from robust polypropylene, LOX is quick to place in position and fixes the strap so it cannot slip.

With its two prestressed sides, LOX is firmly placed under tension on the load and protects the edges of the load and the webbing against cutting.

#### The universal edge protector

The UWI is an especially economical edge protector for everyday applications in the transport sector. It is quick to attach and protects the fabric of the webbing strap from sharp edges and rough surfaces, and the cargo from pressure points caused by the webbing. The UWI is particularly suitable for relieving the strain on the load edge for straight loads where the securing forces are transferred over a large area. In addition, the smooth, polished webbing strap deflector improves the manner in which the securing force is transferred.

LAWI1636 LAWI BLACK 2400



#### LAWI

Precast concrete parts and paving stones are more fragile during transportation than you would think - particularly their edges. In addition, each load consists of numerous individual bricks or elements. If a standard edge protector is used, the individual brick beneath it will be moved. This is why our LAWI is the right partner for you:

- Edge protection with ingenious L-profile for optimum pressure distribution
- Rounded shape protects straps and transported goods
- Ideal for palletised goods with fragile edges, such as clinker bricks, sand-lime bricks and concrete slabs
- Rounded edge allows high pre-tensioning forces

Unlike similar products, the LAWI is made from solid materials and can thus also handle large forces. LAWI is therefore ideally equipped for rough, everyday work.

We supply LAWI in two standard sizes, which correspond to standard pallet dimensions. Should you need other sizes, these can be made relatively easily. Talk to us about it.

Extruded PP 2400 x 180 x 90

## Edge protection for the transport of paper rolls

Thanks to a cutout, the innovative Edge Plus (1) protects the delicate edge of the paper roll during transport with lashing straps. The guides for the webbing strap above the edge deflectors that bend inwards and the raised upper strap deflector also take the strain off the delicate edge of the paper roll and distribute the surface pressure over a larger contact area. In this way, pressure points and damage to the paper rolls are effectively avoided. Plastic ribs reinforce the structure of the robust edge protect, which is resistant to frost and cold.

## Simply place in position

The telescopic rod with corresponding positioning device (2) enables easy fitting of the Edge Plus when positioning at higher points is required. The Edge Plus is simply fitted onto the positioning device and then attached at the relevant height using the telescopic pole.

## Tidy load surface

The Edge Plus is designed to be stackable and therefore space-saving. What is more, with the Egde Plus rack (3), your load surface is always tidy. Simply fill the rack, which has space for up to 10 Edge Plus edge protectors, and hang it on the side slat, for example.



Accessory for positioning and storage

Avoid pressure points on the paper

For lashing systems with webbing

**ACCESSORIES** 

Edge Plus



(1) The Edge Plus



(2) Telescopic rod and

Product Code	Name	For use with max. strap width [mm]	Material	Dimensions [mm]
1635	Edge Pro to UWI	50	PP	145 × 145 × 80
SPS032	LOX	35-55	PP	95 × 95
LAWI1637	LAWI RED 800	N/A	Extruded PP	800 x 120 x 80
LAWI1637	LAWI RED 1200	N/A	Extruded PP	1200 x 120 x 80
LAWI1637	LAWI RED 2400	N/A	Extruded PP	2400 x 120 x 80
LAWI1636	LAWI BLACK 1200	N/A	Extruded PP	1200 x 180 x 90

Product code	Name	Webbing width (mm)	Length x Width x Height (mm)	Weight (kg)
01629	Edge Plus edge protector	55	200 x 150 x 145	0.3
01632	Edge Plus telescopic pole			0.4
01633	Edge Plus positioning adaptor			0.1
01643	Edge Plus rack		465 x 220 x 210	0.9



(3) Edge Plus rack

Hammock Lashing

Hammock Lashing



Loads on heavy good vehicles come in a variety of shapes and sizes and many have their own specific characteristics which make them difficult to secure adequately to the vehicle platform. In some situations a conventional webbing lashing strap is not suitable to secure the load. This may be because the load has fragile edges which would

- Effective restraint system that spreads the tension over a broader area
- GRP reinforced edges
- Avoids damage to vunerable edges
- Lightweight, less than 3Kg
- Exceptionally tough and durable
- Will not rip through
- Easy to deploy from ground level
- Reduces work at height risks
- Can be used with Ergo pull down ratchets
- Minimises manual handling
- Rolls up after use for space saving stowage
- Breathable fabric, eliminates drag
- LC4000daN, STF 750daN with Ergo ratchet
- Approved to BS EN 12195-2

#### Typical Applications

- Cladding panels
- Fragile Edges
- Sand/cement in sacks
- Fertiliser
- Agrochemicals
- Aggregates
- Octabins
- Pallet Boxes

be damaged by the load securing straps when under tension such as cladding profiles or because the load combines several units which need to be restrained over a wider area. The hammock lashing offers a complete solution to these situations providing load security without damaging the edge profile of the load.

#### **Bulkhead Hammock**

- Temporary bulkhead for curtainsider vehicles
- Provides secure forward restraint
- Can be applied anywhere along the trailer
- May be used to secure frontwards or rearwards
- Allows additional pull down restraint
- Multifunctional, can also be used over the load as frictional lashing
- Rolls up after use for easy stowage
- Lightweight, durable and easy to apply
- Ideal for
- Part loads
- Multi drop loads
- Double stacked loads



Product Code	Dimensions (m)	Tail Lengths (m)	Ratchet Tensioner	Lashing Capacity (daN)	Fixed Length (m)	End Fitting	Tension Force Indicator
MHHLA1001B	2.6 x 0.8	2.0 & 2.0	20050 ErgoABS	2000	0.4	Closed Rave Hook	included
MHHLA2001B	2.6 x 0.8	2.0 & 2.0	20060 Ergo	2000	0.4	Closed Rave Hook	included
MHHLA2011B	2.6 X 0.8	1.2 & 6.0	20060 Ergo	2000	0.4	Closed Rave Hook	included
MHHLA3001B	2.6 x 0.8	2.0 & 2.0	20020 HD Short	2000	0.4	Closed Rave Hook	included
MHHLA4001B	2.6 x 0.8	2.0 & 2.0	01857 Econolash	2000	0.4	Closed Rave Hook	included
MHHLA1003B	2.8 x 0.8	2.0 & 2.0	20050 ErgoABS	2000	0.4	Closed Rave Hook	included
MHHLA2003B	2.8 x 0.8	2.0 & 2.0	20060 Ergo	2000	0.4	Closed Rave Hook	included
MHHLA3003B	2.8 x 0.8	2.0 & 2.0	20020 HD Short	2000	0.4	Closed Rave Hook	included
MHHLA4003B	2.8 x 0.8	2.0 & 2.0	01857 Econolash	2000	0.4	Closed Rave Hook	included

## **Material Specification**

Description	Weight (g/m²)	Tear Strength (N)	Air Permeability (I/m² sec)
MEHL001 SpanMesh Heavy Duty	470	580/600	1400









Rave Hook

Load Choker





LS50 - 50mm Strap Model Load Capacity 2500kg Manufactured and tested to: AS/NZS 4380 EN 12195-2

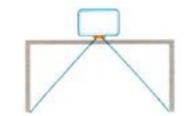


LCO8 - 8mm Chain Model Load Capacity 4000kg Manufactured and tested to: AS/NZS 4344 EN 12195-3











Top layers can be securely belly wrapped to stop the centre of load shifting forward under braking. There is no need to pyramid the stack, therefore maximizing payloads.

Load Choker is the latest innovation

in load restraints. The 2:1 leverage

pulls the load together, restricting

movement in all directions.

Loads on trade racks and machinery can also be secured faster and safer than conventional methods.



## **ACCESSORIES**

Winches





- robust construction
- integral lashing device, always at hand
- fast and efficient load control
- space saving when not in use
- available with winch straps

#### **Built-in load control**

These versatile winches are bolted or welded to your truck or trailer and cannot be lost. You can quickly apply a tension force with the ratchet and pawl. The tension is securely released with the appropriate latch for unloading. In order to give you a large variety of applications, our quality straps come with different end fittings. When not in use, the lashing straps stow away neatly and are always ready for the next use. All winches are designed to a sturdy construction and are well equipped for daily work and harsh conditions.

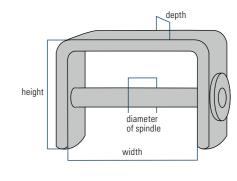
## Winch straps

Product code	Standard length* [m]	Strap width [mm]	LC [daN]	End fitting
WS401	8.0	50	2,000	А
WS402	10.0	50	2,000	А
WS403	8.0	50	2,000	В
WS404	10.0	50	2,000	В
WS405	10.0	50	2,000	none

<sup>\*</sup> Other lengths available

## **Additional features:**

- Winches are available for use on flatbed trucks, car transporters, rail wagons and flatrack systems.
- Tommy bars and ratchet spanners are also available for tensioning the winches.
- Other winches available on request with capacities up to 10 tonnes MBS.









WN004

A Rave hook CLRAVE B Claw hook 01228





## Winches (incl. levers)

								_
Product code	Height [mm]	Width [mm]	Diameter	Depth	MBS	Weight [kg]	Strap width [mm]	
01827	140	200	50	100	4,000	5,2	50	
WN001	140	128	50	90	4,000	3,5	50	
WN004	95	55	25	72	4,000	1,6	50	
								٠.

## Airbags and inflator Ratchet bars

- Fast and convenient load security
- Protection against impact and tilting over
- For containers, vans and boxed transportation









## **ACCESSORIES**

Abrasion protection sliP, LSP-SF1

- sliP the patented protective sleeve, reinforced with high-performance fibres
- Light and flexible can be rolled up together with the webbing
- LSP-SF1 protective sleeve with thick-walled polyurethane coating for particularly rough areas of application



# 7

FE8045

Compressed-air inflator gun, Product code INFLATOR

#### Airbags

Whether on the train, in a van or in containers: Airbags from SpanSet give you a quick and easy form-fit load control. These cushions can readily be inserted in gaps between load units or between loads and side walls. Now fill them up with air — fast and convenient with our handy inflator gun. Thus, your goods are protected against thrusts and jolts caused by the transport. Your load can't fall over and neither goods nor vehicle get damaged.

## Your benefits:

- highly shock-absorbing
- swiftly installed, quickly removedprotects loads from toppling over
- resists high compressive stress
- suitable for all form-fitting appliances, e.g. boxed vans or containers

## **Ratchet bars**

These expanding ratchet bars are an ideal solution to the problem of unstable loads falling from behind container doors. With the ratchet bars in place the container or trailer doors can be opened safely without the risk of the load falling out and causing injury.

The bars are quick and easy to install, simply extend the bar to the container walls and then operate the ratchet to tension against the sidewalls. Each end of the bar is fitted with a rubber foot which grips the side of the container.

- For use in containers or light commercial vehicles without load restraint track
- May be used horizontally or vertically
- For body widths from 2.2 m to 2.6 m

Airbags, single and two-ply with inner PE-shell

Product code	Layers	Dimensions [cm]	Max. gap [mm]	Working pressure [bar]	Burst pressure (min.) [bar]	No/pallet	Weight p.u. [kg]
R2 1P 60x110 R2 2P 60x110	single multi	60 × 110	25	0.1	0.3 0.9	500 350	275 240
R2 1P 80x120 R2 2P 80x120	single multi	80 × 120	35	0.1 0.3	0.3 0.9	400 300	320
R2 1P 80x185 R2 2P 80x185	single multi	80 × 185	35	0.1 0.3	0.3 0.9	250 180	300 260
R2 1P 100x120 R2 2P 100x120	single multi	100 × 120	45	0.1 0.3	0.3 0.9	300 200	290 240
R2 1P 100x185 R2 2P 100x185	single multi	100 × 185	45	0.1 0.3	0.3 0.9	220 150	305 270
R2 1P 100x200 R2 2P 100x200	single multi	100 × 200	45	0.1 0.3	0.3 0.9	220 150	360 310

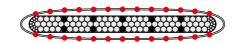
Ratchet bar	rs				
Product code	Туре	Diameter [mm]	Range [mm]	Weight [kg]	Material
FE 8045	Ratchet action	38	2200-2630	4.7	Aluminium

#### sliP protective sleeve

Friction, coarse edges, high lashing capacity - your webbing is affected by these enormous stresses every day. The new sliP (slide protection) protective sleeve permanently protects your lashing straps.

The patented sliPs can be recognized immediately by their striking black and white weave. This also has a dual function: The weave ribs, which run all the way around, are made from high-performance fibres on the inside, which help the webbing slide. On the outside, the interweaving means that the strap is highly resistant to wear on both sides. This gives you ideal sliding behaviour on all lashing angles and good force transfer when using frictional lashings.

With these properties, sliP out-performs standard PVC and PU protective sleeves. This has been proven many times in intensive tests. As we only weave in the high-performance fibre material where it is needed, sliPs are also very attractively priced.



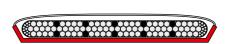
#### SpanSet sliP

Product code	For use onstrap widths up to [mm]	Length [mm]
SLIP35	35	250
SLIP50	50	250

#### LSP-SF1 protective sleeve

This protective sleeve has an additional robust polyurethane coating on one side, which cushions even the hardest edges. The polyurethane side is placed against the goods and protects the lashing strap from abrasion and damage. The LSP-SF1 remains on the strap and is simply rolled up with it. You can thus effectively protect webbing up to 75 mm wide from wear and cuts.

The LSP-SF1 has proven itself to be particularly useful for use in transporting precast concrete parts, steel or metal components or similar sharp-edged goods.



## SpanSet protective sleeve LSP-SF1

Product code	For use on strap widths up to [mm]	Standard length* [mm]	
LSP-SF1 25	25	250	
LSP-SF1 35	35	250	
LSP-SF1 50	50	250	
LSP-SF1 75	75	250	

<sup>\*</sup> Other lengths available



## Lashing points

- Available bolt on or weld on types
- Suitable for use with different trailer types
- Range of lashing capacities available
- Manufactured to BSEN 12640









## **ACCESSORIES**

Captive wires Staput

- Captive Wires for secure storage of lashing straps
- Staputs provide additional load security for wheeled trollies or cages



Type D



Type C



Type B



Lashing points form an integral part of the load control arrangements for any commercial vehicle body. All load platforms should be fitted with suitable lashing points. With SpanSet you can install your lashing points to enable a flexible approach to load security so that the platform can be adapted to different types of lashing arrangements. The minimum requirements for lashing points are described in BS EN 12640.

Curtainsider vehicles should also be fitted with a suitable arrangement of lashing points to enable the load to be secured to the platform within the curtain. A continuous

lashing bar or rave rail can be used but this must be sufficiently strong to take the load incurred from the lashing without deflection. This type of continuous bar is not suitable for use with direct lashing arrangements.

SpanSet provide a range of different lashing points to equip your vehicle to give you the security of having the most effective load restraint. Different types of lashing points are available with lashing capacities from 800daN to 150kN and meeting the requirements of BS EN 12640.

## Lashing points

Product Code	Туре	Dimensions [mm]	Ring diameter [mm]	Weight [kg]	Features	Lashing capacity [daN]	Material
LP80610	А	90 × 95	50	0.9	flush fitting	1225	forged steel
P1808	В	105 × 105	68	0.5	lightweight flush fitting	400	plated steel
WLP031	С	66 x 79	38	0.4	weldable	3000	forged steel
WLP051	С	77 x 91	45	0.6	weldable	5000	forged steel
WLP081	С	87 x 102	51	0.9	weldable	8000	forged steel
WLP131	D	115 x 141	67	2.2	weldable	13400	forged steel
WLP201	D	129 x 157	67	3.3	weldable	20000	forged steel
XOPSTR0112	D	50 x 85	40	0.5	360 degree swivel	2000	forged steel
XOPSTR0116	D	50 x 85	38	0.5	360 degree swivel	3000	forged steel
XOPSTR0120	D	68 x 111	54	1.3	360 degree swivel	5000	forged steel

## **Captive Wire System**

The complete solution for ensuring that you will always have your whole complement of lashing straps available in the trailer. The Captive Wire System can be fitted to the inside wall of any length of box trailer to keep your lashings straps secure and tidy. You just put the end fitting on the wire to secure your lashing straps. With the straps hanging neatly on the side walls they always within reach for the next use.

## Your benefits:

- Prevents the loss of straps from within the trailer
- Helps to prevent damage to lashing straps
- Keeps the trailer deck free of obstructions
- Straps can be replaced as required

## Staput

Retail goods, food and mail distribution, for example, frequently use wheeled trollies or cages to transport the goods and speed up the loading and unloading process into the trailers. The Staput is a simple device that is used with wheeled trollies to improve their load security and safe handling.

A Staput strip is simply placed on the trailer deck behind the wheels of the loaded trolley. Its profile provides a means of chocking the wheels and eliminating any excessive movement during transit.

Staputs are also used to assist with the loading and unloading of trollies when the trailer is on an incline. The Staput controls the hazard of loose trollies moving along the trailer deck which can cause damage to the vehicle or load and is a safety consideration for the loading personnel.

#### Important note:

Staputs should always be used in conjunction with a suitable lashing strap to provide adequate load restraint for the trollies.

#### Captive wire system / Staput

Product code	Туре	Length [m]	Weight [kg]	Material
RETENTION KIT	Captive wire & brackets	max. 13.0	-	Galvanised wire
STAPUT 1.0	Wheel chock	1.0	0.6	Rubber
STAPUT 0.8	Wheel chock	0.8	0.5	Rubber

SideClip ratchet support

- The cargo is protected from the tensioning device, for example to avoid paint damage
- Quick to attach and remove for efficient use
- Robust material for long service lives









## **ACCESSORIES**

Lashing force app

- Calculation in line with the guidelines of VDI 2700 et seq. and DIN EN 12195
- A useful tool based on the tried-andtested SpanSet lashing force controller
- For Android and iOS



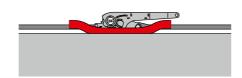
#### Ratchet support

#### Reliable protection for the ratchet

With the practical ratchet support, you can protect your cargo from pressure applied by the ratchet devices in contact with the cargo.

Movement during transport may result in marks, particularly on painted or polished surfaces. With the ratchet support made from robust polyethylene, you can prevent this in a simple and effective manner.

The ratchet support is easy to thread onto the ratchet in question and cannot slip during transport.



Product code	Length x Width [mm]	Usable strap width [mm]	
D000195	170 x 90	35	
D000196	205 x 96	50	
D000197	295 x 125	75	

## How calculations for lashing straps become child's play

The useful app, based on the tried-and-tested SpanSet lashing force controller, provides a clear and easily-comprehensible user interface that makes calculating the lashing straps required child's play. Using the app, by moving the sliders or entering the dynamic friction coefficients, angle of inclination and pre-tensioning forces directly, as well as inputting the acceleration in the direction of travel and the K-factor, it is possible to display the number of lashing straps required for the specific pre-tensioning force (STF) directly, in just a few steps.

For the angle of inclination, there is even the option of calculating the angle or having it displayed using the level sensors in your smartphone. Calculation of the load control values takes place either in line with the guidelines of VDI 2700 et seq. and/or DIN EN 12195, as you choose. The additional option of documenting the load distribution plan means the lashing force calculator embodies mobile added value in the field of load control.

- Input of dynamic friction coefficients, angle of inclination, pre-tensioning forces
- And of the acceleration in the direction of travel and the K-factor
- Languages: German, English, Dutch, Italian, Portuguese, Spanish
- Easily-comprehensible user interface
- Documentation of the load distribution plan
- Calculation possible in line with the old and new versions of DIN EN 12195



## SideClip

The SideClip is a useful aid in load control when is passed around the load, and can be used for webbing straps measuring 50 mm in width.

Product code	Name	For webbing straps [mm]	Weight [kg]
D056333	SideClip	50	0,5

## **Install now free of charge!**

The free lashing force app is available to download under Google Play in the App Store.









it is a matter of securing smaller cargo units. The loops of the tensioning devices are inserted into the SideClip. The clip can then simply be attached in any location on the vehicle wall and side slats, using the wall clamps. The SideClip is designed for a loading capacity of 200 daN when the strap

## **TRAINING**

## **Load Restraint Courses**

















The course is designed to provide an overview and understanding of safe load control practices for road transport plus an overview of the current European standards on load restraint.

#### **TRAINING COURSES**

#### **Load Restraint**

Title	Order Code
Load Restraint Appreciation & Inspection	LR1

## **Height Safety for Industry**

Title	Order Code
Height Safety Equipment Appreciation and Inspection	HS1
Practical Use of Personal Fall Protection Equipment	HS2
Occasional Industrial Climber	HS3
Advanced Industrial Climber	HS4
GOTCHA Kit Rescue Training	HS5A
SHARK Rescue Training	HS5B
CRD Kit Rescue Training	HS5C
GOTCHA POLE TOP Rescue Training	HS5D
Rooftop Safety / Work Restraint	HS6
Competent Person Practical Inspection and Record Keeping	HS7
Radio Frequency Awareness, Safety in Radio Frequency Fields	HS8
Management of Work at Height	HS9
Access, Egress and Rescue from a Confined Space	HS10

## **Work at Height on Vehicles**

Title	Order Code
Vehicle Mounted Work Restraint System - Operator Training	STOPPA
Vehicle Mounted Fall Arrest System - Operator Training	CAPCHA
Load Restraint For Road Transport Vehicles	LR1

## **Industrial Rope Access**

Title	Order Code
IRATA Level 1 – Rope Access Technician	IRATA 1
IRATA Level 2 – Experienced Rope Access Technician	IRATA 2
IRATA Level 3 – Rope Access Supervisor	IRATA 3



## **Safe Lifting & Rigging**

Title	Order Code
Safe Slinging & Lifting Appreciation	SL1
Practical Slinging and Lifting	SL2
Rigging and Lifting for Workers at Height	SL3
Lifting Equipment – Practical Inspection & Record Keeping	SL4

#### **Police Height Safety Training**

Title	Order Code
Introduction to Height Safety and Equipment Awareness	PHS1
Height Safety for Operations on Rooftops, Structures and Steep Ground	PHS2
Rescue and Recovery for Officers Operating at Height	PHS3
Practical Training for Operations at Height. Safe – Access – Egress – Rescue	PHS4
SARA (Search and Rope Access) Operative	SARAOP
SARA (search and Rope Access) Supervisor	SARASUP

## **Height Safety For Rescue Courses for the Emergency Services**

Title	Order Code
An introduction to personal safety at height and equipment awareness	HSR1
Basic height safety/practical application – Rooftops and Structures	HSR2
FR Kit user	HSR3
FR Kit instructor	HSR4
Line rescue operative	LROP
Line rescue supervisor	LRSUP

To book a course contact the training department on +44 (0) 1606 738529. or book online www.cbs-spanset.co.uk