



SpanSet®

04

Height Safety
Lifting
Load Control
Safety Management

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You can also find all information on the internet:

www.spanset.de

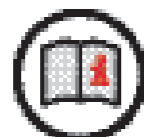
10 commandments for lifting sharp-edged loads



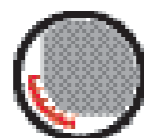
01 Never lift sharp-edged loads without receiving prior training!



02 Carefully plan the lifting procedure using the design specifications!



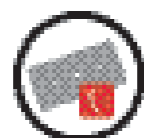
03 Read the instruction manual for the textile lifting gear before lifting!



04 If the radius of the edge is unknown, it has to be determined using measurement tools!



05 Lifting gear always has to be protected from sharp edges!



06 Never lift edge radii smaller than 1 mm without having received prior professional consultation!

Don't take any risks and arrange a consultation appointment with our application engineers.



07 Use coated flat slings only with mounting hardware when suspending in a noose!



08 Use the flexible NoCut sleeve and pad for deflections and narrow gaps!



09 Use protective sleeves to balance the lifting gear when lifting sharp-edged loads!



10 Relative motion between the load and the cut protectors is not permitted!

Don't take any risks and arrange a consultation appointment with our application engineers.

Download the 10 commandments as a poster for printing at www.spanset.de/Catalogue

SpanSet Germany

More than 50 years of experience and know-how for your safety

After Erik Ehnimb developed the first safety belt for cars together with the company Volvo, he founded SpanSet in 1966 with the aim of further advancing the developments in the field of transport and occupational safety. We still consistently pursue this safety concept today. We are facing the challenges of today and of the future with constant innovation, new technologies, new products and services.

Today, SpanSet is an internationally established company and a recognised guarantee for safety and maximum quality. Our products are used for a wide range of applications around the world, be it for the transportation of building materials for the construction of houses or for erecting major wind farms in the middle of the ocean. You can always rely on high-tech products from SpanSet.

For many decades, our experts have been actively involved in the development of DIN and EN standards and apply their expertise to meet the users' requirements. Numerous patents and a constant flow of new, practical improvements are a clear sign of our unique expertise.

We systematically expand this knowledge advantage: our employees strive to constantly develop innovative solutions for and with our customers.

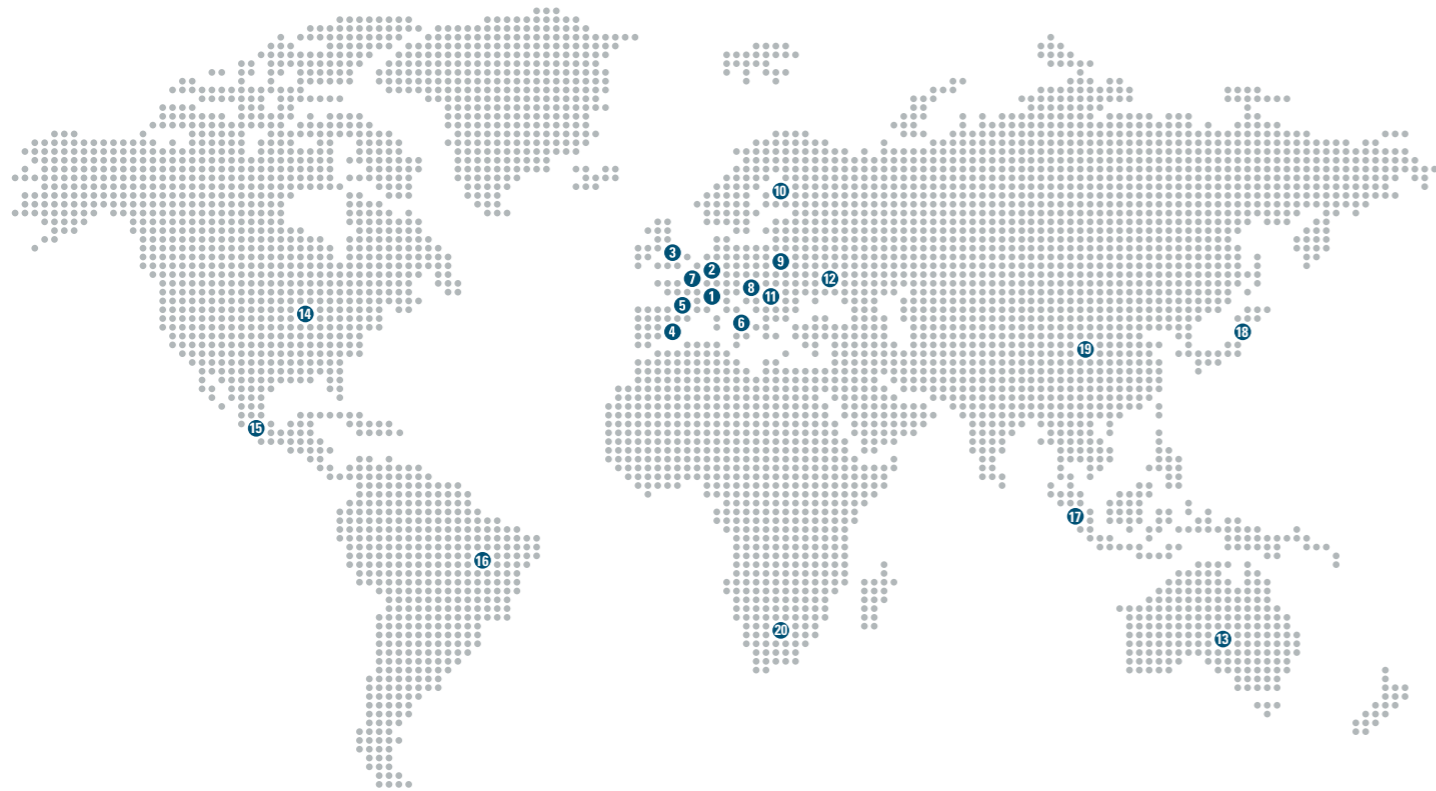
To help achieve this, in addition to our products, under the umbrella of safety management we offer a series of high-quality services that are developed and implemented in close contact with the users. We receive important feedback from your daily work routine, which helps us to solve problems early on and helps you to avoid risks. This constant further development of our products and our range of services enables us to offer the highest level of safety for all those who work with heavy loads or at great heights. Working together with SpanSet means that you are always at the cutting edge of technology and in compliance with the legal regulations. This way you can concentrate fully on your work.

On the following pages you will find an overview of our safety management offers in various branches of industry. From inspections and maintenance of your operational products as well as counselling, planning and construction all the way to installations – you are sure to find the right solutions. Our services are tailored to meet your demands and are constantly being newly and further developed. If you are missing a certain offer or are looking for a solution for a very special challenge, simply contact us directly or contact our company representatives.

Andreas Höltkemeier
Managing Director

Patrick Schulte
Managing Director

SpanSet around the world

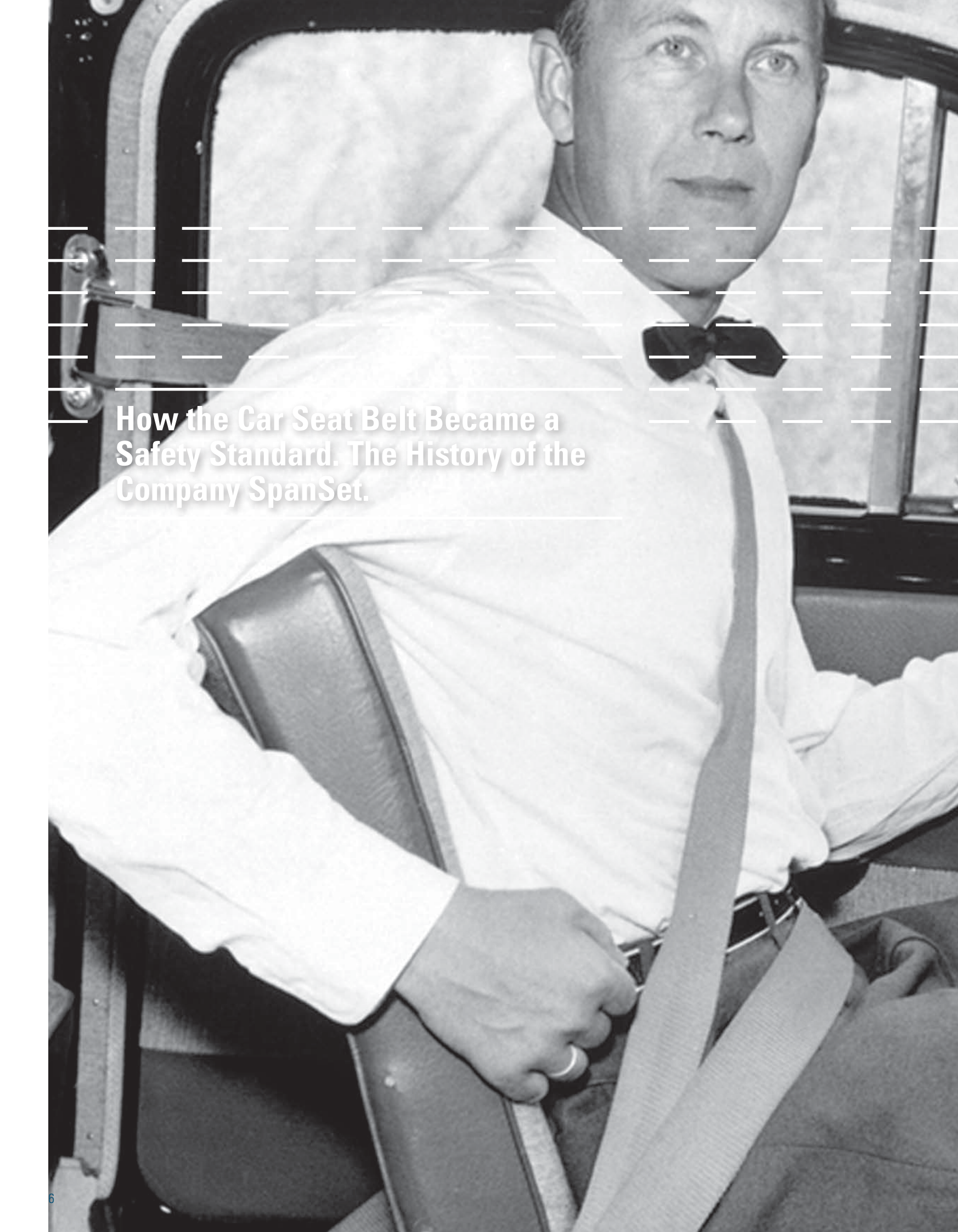


- 1 Switzerland, 2 Germany, 3 England, 4 Spain, 5 France, 6 Italy,
 7 Netherlands, 8 Hungary, 9 Poland, 10 Finland, 11 Czech Republic, 12 Ukraine,
 13 Australia, 14 USA, 15 Mexico, 16 Brazil, 17 Indonesia, 18 Taiwan,
 19 China, 20 South Africa

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How the Car Seat Belt Became a Safety Standard. The History of the Company SpanSet.

The Foundation Stone: The Development of the Safety Belt

It is hardly conceivable, but 50 years ago, the cars were not equipped with safety belts. At that time, less attention has been paid to accident prevention, and lots of accidents, at which nowadays people would not be harmed, had lethal consequences. At the end of the 1950s, the automobile manufacturer Volvo contacted the ribbon weaving company AB Textilkonst & Klippan with the aim of developing a safety belt for its vehicles in order to improve the safety of the car passengers. The hour for the small Swedish ribbon weaving company has come. In cooperation with the Volvo engineers they have developed the world's first car safety belts from high strength textile straps. In 1959, it was installed in the models Amazon and 544 and first caused lots of astonishment in public – but as it is generally known, it soon became a major success.

In 1966 – SpanSet Germany has been founded

Thanks to the huge demand, in 1966, Erik Ehnimb, co-owner of Klippan, founded the company SpanSet in Malmö. The belts produced by SpanSet were rapidly used in lots of other fields, in which up to that point in time chains and wire ropes were used. The customers appreciated in particular the enormous load bearing capacity of the new lashing and lifting straps. In the same year, the company SpanSet GmbH & Co. KG has been established in Germany and a year later, the company SpanSet AG has been founded in Hombrechtikon in the Zurich highlands. Soon thereafter, other subsidiaries followed in Europe, Asia, America and Australia and are still today part of a worldwide existing production and sales network..

The 1970s – Other innovations should follow

The safety belt was only the beginning of numerous innovative products which SpanSet has put in the market over the decades. In the early 1970s, SpanSet developed lifting belt mats in cooperation with the company Mannesmann Anlagenbau for the tube gas business for the laying of large-diameter tubes with a load-bearing capacity of up to 60 tons. Furthermore, lifting straps and protective hoses were used to lift and turn rough and sharp-edged loads.

Continuous further development in the 1980s

The secutex coating was an important step in the lifting and therefore the company SpanSet-secutex GmbH has been founded at the beginning of the 1980s. There was more to come and a new generation of round slings, which is provided with fabric wire reinforcement in the protective sheath and the load capacity details that are woven in, has been introduced into the market. Our long-standing know-how in the lifting and load control was forwarded to the users for the first time in form of trainings.

SpanSet provides for even more safety

In 1994, the TÜV Rheinland certified a quality management system according to the DIN ISO 9002/EN 29002 to the company SpanSet. By the way, today the quality management of SpanSet is being certified according to the DIN EN ISO 9001:2000. Moreover, the production and sale of the personal protective equipment against falls has started. Also the magnum round slings with an increased load bearing capacity of 100 tons and a useful length of 60 m passed their acid test, when in 1998 a tribune roof with a length of 110 m and a weight of 300 tons was placed on the Fritz-Walter Stadion in Kaiserslautern.

Safety Management of SpanSet for increased safety

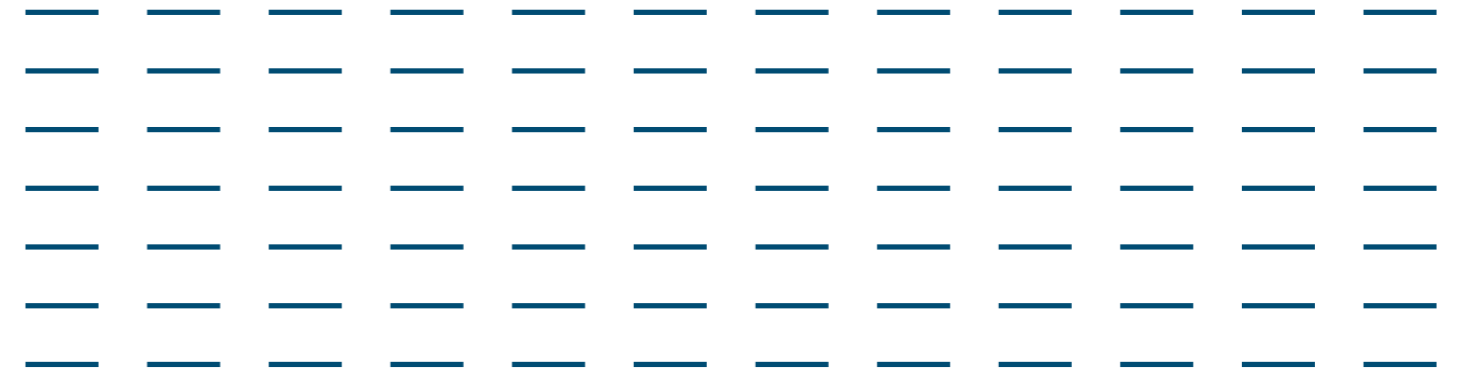
All times, SpanSet understood itself not only as developer and provider of innovative products in the fields of height safety, lifting and load control. But also as competent know-how mediators and service providers, putting its customers in the position to solve the daily tasks in an optimum way. The comprehensive apprenticeship and in-service training seminars guarantee current knowledge and direct practical relevance. Versatile services, which are summarised under Safety Management, complete the large range of products.

Nowadays, the SpanSet group with more than 15 production and sales companies and almost 1,000 employees is retrospectively proud of its history – finally, the research and development work of decades, has contributed worldwide to the increased safety, easier work, less number of accidents and less operating costs. On the basis of continuous innovation and new technologies, SpanSet is facing the challenges of the future.

SpanSet – Certified Safety



How SpanSet provides for optimum solutions with highest quality.



Height Safety

When talking about height safety, we often think of works at dizzying heights, e.g. when constructing new offshore facilities, at this, there would already be a risk of falling at little heights. Already when loading and unloading trucks, persons may fall off the loading area and get injured. Therefore, SpanSet forwarded the development of special systems which has provided an extremely high level of safety.

When working at extreme heights, safety is vital – SpanSet provides you with this safety. With a large range of products and services, we specially develop them for you and with you. We will find highly specialised solutions even for very complex applications. This ranges from the suitable protective equipment, collective safety systems, a practical mobile application up to height safety trainings. At this stage, our international orientation would be useful to us. Throughout the world, customers profit from the close cooperation of the SpanSet group in this business area.



Please find further information in our Height Safety Catalogue under www.spanset.de.

Lifting

Wherever something is constructed or transported, it also needs to be lifted. No matter if this is weighs 50 kg or 1,000 tons – the load needs to be safely well-handled and mastered by using the correct slings. The lifting is a decisive factor in modern construction and production technologies.

Whatever needs to be lifted, should remain lifted. Our extremely resilient round slings and lifting straps ensure this. Already in the 1960s, when wire ropes or hemp ropes were still used to lift heavy loads, SpanSet has developed new solutions made of high-strength plastic fibres. Today, textile lifting straps and round slings made by SpanSet are used worldwide to cope with difficult tasks. There is experience, continuous innovation and a quality management system, according to ISO behind the high tech products. Numerous patents and practical improvements are visible signs for our know how in the lifting technology.



Please find further information about these products in our Lifting Catalogue under www.spanset.de.

Load Control

Whoever transports a load wishes that it arrives safely. For you and us, efficiency and safety are in the first place, if it deals with transporting large or small goods and when it is about the protection of all road users. Safety not only gives a comforting feeling, but it is also prescribed by law. By using our load control equipment, you will efficiently avert dangers and accidents and comprehensively correspond to the legal requirements.

Our customers include companies and organisations having highest safety requirements. Thus, e.g. the automobile and aircraft manufacturers, the chemical, steel and paper industry, energy suppliers, forwarding agents, fire brigades or also aid organisations rely on our quality products. Pressure and pull ratchets for heaviest loads, load-control nets for the rapid use when freights are constantly changing and a comprehensive range of accessories increase the safety in the load control for decades.



Please find the comprehensive range of load control in our Load control Catalogue under www.spanset.de.



Safety Management

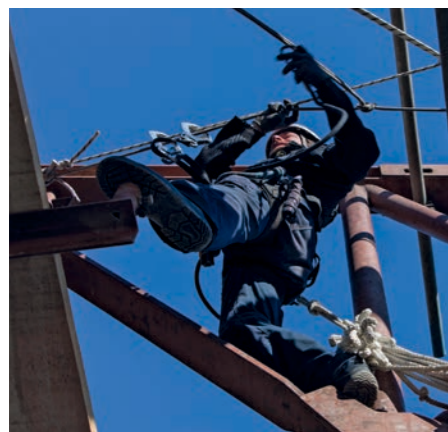
Safety is a matter of management

The brand SpanSet has been accepted worldwide for its quality and reliability. No matter if temperatures are below zero or in glowing heat, the SpanSet products are working in different fields of applications and always as intended. SpanSet Germany develops and produces, inspects, checks, advises and trains you in the fields of height safety, lifting technology and load securing. Additionally, we offer our customers seminars with comprehensive apprenticeship and in-service training in these three fields. By specialising in our selected business segments, we are able to safely and efficiently approach and solve all of our customer requirements. With the Safety Management, we complete our comprehensive range of products with high-quality services.

What does Safety Management mean?
 Safety Management are all services and processes which SpanSet offers you worldwide in order to help your company to efficiently perform a risk assessment and to make safe decisions. It already starts at an early point in time, for instance when we advise your specialists in the construction of machines which shall be lifted or transported using SpanSet products later on. Also, when working at heights, e.g. in the offshore wind power industry, we will be your partner in assessment, planning and advice. Being security experts, we do not only understand our role as manufacturers and providers of high quality products, but as your partner who can accompany you in recurring tasks. Together with the international SpanSet group and our partner companies and subsidiaries we strengthen the competences of our customers with the right solutions – from the technical advice, passing custom products up to seminar and training programs.

For and With Our Customers
 The approach of the Safety Management is to first listen to our customers and then to fall back on long-term experience and global resources in order to find efficient solutions for you. Thanks to the continuous customer feedback, we were able to provide lots of innovations. What started with the basic and advanced training of slingers, crane operators or work safety specialists, was extended to a comprehensive range of services in six divisions. In some cases also the involvement of an external service provider is useful to perform this function. Thus, we can provide you smooth and integrated services.





Your partner for highest demands

Being an expert for height safety, lifting technology and load control, we are yet a competent partner for you in lots of fields. All this is secured by our comprehensive certifications and quality systems. Therefore, the attained quality cannot only be traced back to state-of-the-art production possibilities. Each individual employee of our company is making a decisive and conscious contribution to the quality of our products and to our Safety Management. Thanks to the close international customer contact, new solutions are continuously developed for different problems, which in turn results in new products and services.

What does the Safety Management provide you with?

Our services include expert, comprehensive advice in our business segments, so that you can work safely and reliably. With the maintenance and repair services for your products, we guarantee you accident prevention and its subsequent costs. We will develop ideas and individual solutions with you, which fulfil your highest requirements and promote your company. We process each new demand from the point of view of our customers. The question: "Which additional added value can SpanSet provide?" is important for us to keep going. Therefore, we also commit ourselves in different independent institutions in Research and Development as well as in the standardisation.

With trainings and further education in our Germany-wide training centres or at your premises on site we will bring you and your employees up-to-date to the state of the art, important statutory provisions and the correct application of your equipment.

Our Service – Your Advantage

Our qualified staff compiles Safety Management offers for you, customised to your entrepreneurial requirements, so that you may completely focus on your work. If required, our technicians will come to you and advise you on site. We will help you identifying risks and hazard potentials as well as advise you on how to apply and use protective measures. Our installation and engineering services will develop temporary and permanent solutions, entirely in accordance with their requirements.

In this catalogue we will inform you about all our service offers. We will provide you the desired advice and products or services adapted to your requirements in your region. Our internal and external service team is the most important link to our customers and will be glad to advise you about our service offer.

Your Advantages



We will help you with difficult safety decisions

Together we will improve your occupational safety and reduce the risks of accidents



We plan resources, which increase your efficiency and reduce costs

Strengthen your company structure



Distinguish your company by constant quality

Fulfil your due diligence with our help and maximise the safety of people and material



04.1



Consultancy

For one year, the German-Chilenan artist Juan Fernandez in Engelsdorf nearby Jülich worked on a 5.40 m high statue of the saint Teresa, a Chilean Carmelite nun, before it was consecrated by Pope John-Paul II. at the Vatican. For the statue, a block of 30 tons of Carrara marble has been transported on a low-loader from Italy to Jülich and processed lying in the first working steps. In order to be able to process the sides and rear part of the statue, it was necessary to lift up the marble block which was still weighing 28 tons from the horizontal to the upright position. Since, where other lifting gear reach their limits, SpanSet was able to elaborate a special design in close coordination with the artist and a crane company, which does not only guarantee a high load bearing capacity, but also an extremely gentle treatment of the valuable load. The custom-made products consisted of round slings with a load bearing capacity of 25 and 30 tons as well as jointing plates. At this stage, it was also important to use white slings, so that there is no staining. In order to avoid damages, they decided to use a lifting basket, which allowed turning the statue in the air. The lifting basket was designed in a way that it safely kept the statue at any position and thus guaranteed that no metal parts would touch the statue. It is particularly necessary to avoid any contact on already processed surfaces. Under strict supervision of the artist, the statue was safely transported to Rome with the help of an open top container and the lateral fixtures by means of three-dimensional airbags, where you may still today admire it outside the St. Peter's Basilica.

For much heavier loads, higher bearing capacities would be required. In this case, the slings need to fulfil lots of requirements. They must have a low dead weight and less elongation, resistant to UV radiation and to chemicals, work at different operating temperatures and have a high cut and abrasion resistance. By using high quality fibres in textile slings they would fulfil such demands. We will help you to find out which slings are suitable for your tasks. No matter if you process marble statues, stone footballs, motors or pump parts in factories and power plants, we will advise you in all points of the load and height safety as well as in the lifting technology. Our advisers will help you to avoid problems at the initial stage and thereby know the exact legal situation as well as the applicable standards and directives. Thus we can surely find the safest and most efficient solution together with you.

SpanSet – Certified Safety



Assessment and planning of the work at the height

It is always a risk to work at the height

Measures for falling protection are already obligatory for any activities, which are performed at a height of 2 m or more. At increased risk of falling, it is also necessary to provide a suitable fall protection at a height of less than 2 m. Collective precautions, which protect everybody, always need to prefer individual protective measures.

A correct risk assessment is vital

If your risk assessment shows that an employee might fall off when performing his tasks, you need to plan thoroughly in order to be able to protect him against it. There are three basic provisions for the protection: Avoidance, prevention and reduction. If it is not possible to avoid working at heights, the priority should be at those safety measures which protect all workers. Collective safety systems such as fall by scaffolds, protection of roof edges, railings and nets help to provide suitable provisions for safe working for all employees. For any activities at places bearing a risk of falling, at which permanent or temporary collective provisions for falling protection cannot be realised, it is always necessary to use individual or personal protective equipment. In daily routine, it is also always possible to use a falling protection, which completely excludes a risk of injury, therefore

in such cases, it is necessary to consider steps which reduce the risk of falling as far as possible, e.g. by targeted training of the employees. Our trained advisers may define and plan together with you which are the correct measures for you and your employees.

It is good to keep standards – it is better to develop standards

We offer our support as partner in the field of safety training of your employees. SpanSet does not only commit itself for keeping the international safety requirements, but also for their constant improvement. With our products and services we are responsible for high quality. By a reliable advice for more safety – more than required today and as much as possible tomorrow.

Three categories of personal protective equipment

- **Restraining system** only offer a limited freedom of movement. At this, the user is secured from a safe attachment point by using a joining means, that he may not attain any edge or areas with risk of falling.
- **With holding fixtures or working place positioning**, the user is working, e.g. in a free suspended position and has been secured with a falling system.
- **Catching systems** are the only personal protective equipment, which allow possible falling. The user must be secured with shock absorbers or height safety devices with body harnesses and suitable joining, meaning, that he is caught controlled if he is falling off.

Your contact



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Load control by using SpanSet is easy and safe

Being experts in the field of load control and as your partner, we would like to be more than only a supplier of high-quality products. We will plan together with you how you could efficiently avoid risks. This includes the competent, professional advice and the further services which facilitate and sustainably improve the load control. We would like to grant you the necessary discharge in order that you may focus on the important aspects of your work.

Test drives and demonstrations – a knowledge transfer

Load control is always a special challenge. Each load is different and needs other safety precautions. Every day, for instance many thousands of tons of paper are transported on the streets in Germany. This includes waste paper, paper rolls with individual weights of several tons as well as ready-made printed matter and other paper products. No matter if pallet products, soft paper rolls, big bags, octabins or bagged goods on pallets, non-rigid loads, which cannot be lashed down, nonetheless need to arrive positive locking and safely without any damages at their place of destination.

SpanSet does not only have the necessary tools, but also the necessary know-how, in order to handle the paper transport as economically, safely and gently as possible. In a workshop at the Aachen Tivoli more than 100 participants were updated to state of the art and were able to discuss security issues in paper transportation with experts and representatives of the industry. The latest developments to secure paper rolls on a truck were demonstrated in a test drive.

It is our target to decisively contribute with new developments in improving the load control in dialogue with users and experts. For us, this includes to inform and advise users regarding the prevention of accidents and regarding your tasks and obligations for proper load control. Also use our comprehensive offer if apprenticeship and in-service training and be informed about our seminar regarding load control.

Our milestones in the load control

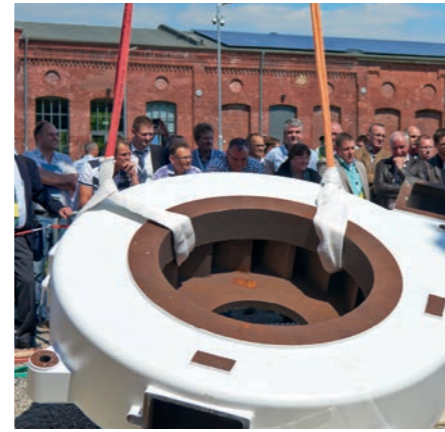
- TruXafe-System for curtainsiders
- PaXafe nets for individual load control
- SpanSet grip anti-slip mats
- Edge angles to secure sensitive edges

How we improve the load control in dialogue with the user

Your contact



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Shape the industry
with know-how

Safety Management means for SpanSet, to shape the industry with know-how

Im Bereich Heben mit textilen Anschlagmitteln haben wir uns in den letzten Jahrzehnten immer wieder neuen Herausforderungen gestellt und mit vielen Produktneuentwicklungen maßgebliche Meilensteine in der Hebeteknik gesetzt.

Für immer schwerer werdende Lasten werden auch immer höhere Tragfähigkeiten benötigt, wobei die Anforderungen an die Anschlagmittel immer weiter steigen. Geringes Eigengewicht und geringe Dehnung, UV- und Chemikalienbeständigkeit sowie hohe Schnitt- und Abriebfestigkeit sind Faktoren, die die Hochleistungsfasern unserer Produkte täglich erfüllen müssen. Die Entwicklung des Sicherheitsgurtes war nur der Anfang einer Vielzahl innovativer Produkte, die SpanSet im Laufe der letzten fünf Jahrzehnte auf den Markt gebracht hat.

secutex

The secutex coating for lifting straps and protective hoses at the company SpanSet-secutex GmbH which has been founded in 1979 by Heinz Franke and SpanSet, was an important step in the lifting technology. Since then, the textile lifting straps and round slings can be used to lift and turn rough and sharp-edged loads. To date secutex develops unique coatings for textile slings.

In-house Production

Due to the production in our own weaving mill, we are able to rapidly implement changing requirements in our products. The raised weaving of the load bearing capacity in hose sleeves of round slings for instance and the textile wire reinforcement and the two-part design of hose sleeves are only a few of the many patents which provide a leading market position to SpanSet. Newer milestones in the lifting are special die-forged fitting components for textile slings, such as D and C frames, which have an increased wear protection

and thus visibly prolong the service life of their straps. Due to the also die-forged VarioWeb the length adjustment of suspensions is being enabled. Whereas round slings made of polyester (PP, PA) with a load bearing capacity of up to 40 tons is described in the EN 1492-2, SpanSet already offers slings with load bearing capacities of up to 450 tons. By using high performance fibres in the textile slings, it is possible to attain higher and higher load bearing capacities, less elongation, less dead weight, special designs and extremely short useful lengths.

NoCut®

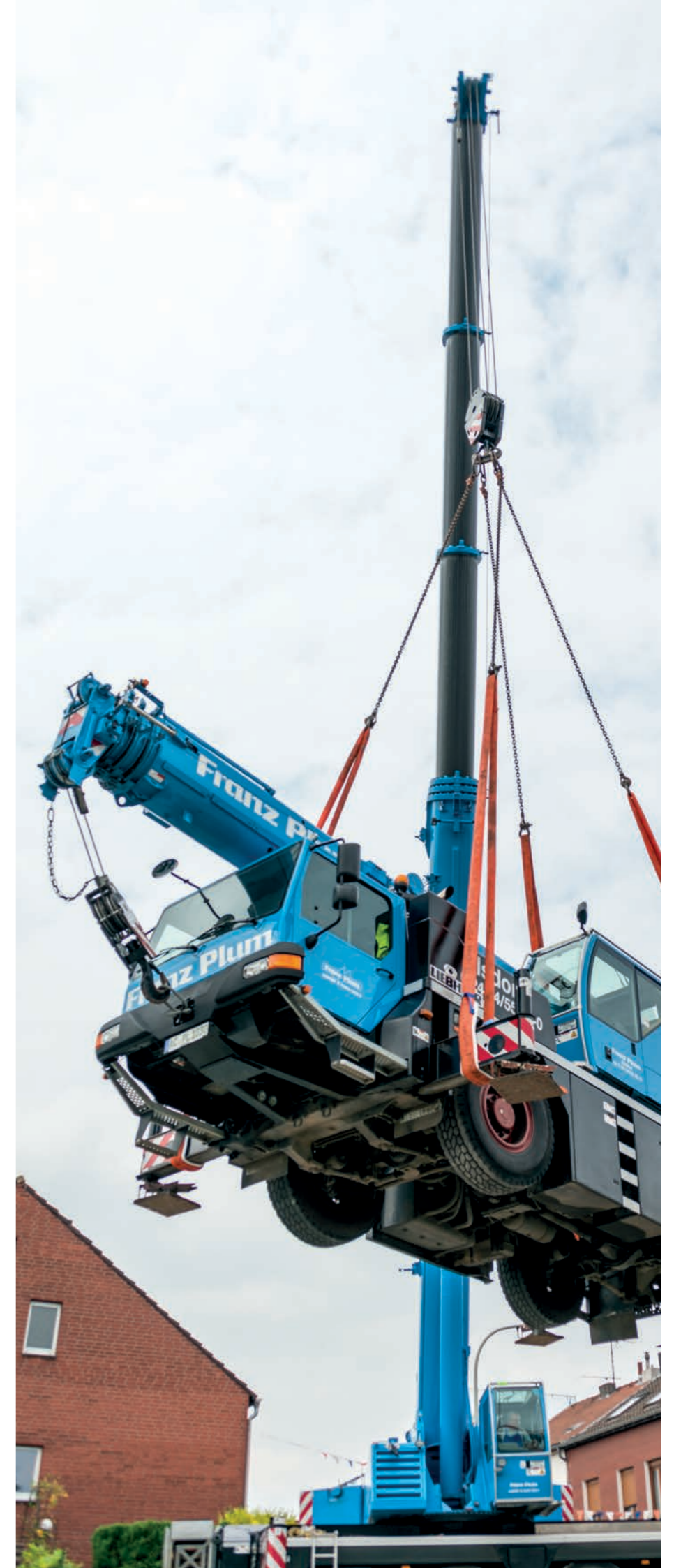
With the product NoCut SpanSet offers woven cutting protections which protects textile slings such as hoses or pads against razor-sharp edges and is thus flexible and easy. An advantage for the user which rapidly lead to a market breakthrough of the products of the NoCut series.

In order to learn again and again from practice in the dialogue with our customers, SpanSet regularly organises branch meetings, such as most recently the "Meeting at the sharp edge" in Alsdorf. There, under the watchful eyes of a selected expert audience we have presented all important novelties to lift sharp edged loads in cooperation with the subsidiary secutex.

It is our target to make your work more efficient, easy and safe by using high quality products. We will be glad to advise you regarding

We give advice in all industries regarding the subject Lifting by using textile slings:

- Machine and apparatus construction
- Steel production and steel construction
- Automobile, aerospace industry and shipbuilding
- Chemical and pharmaceutical industry
- Power generation
- Assembly industry
- and many more



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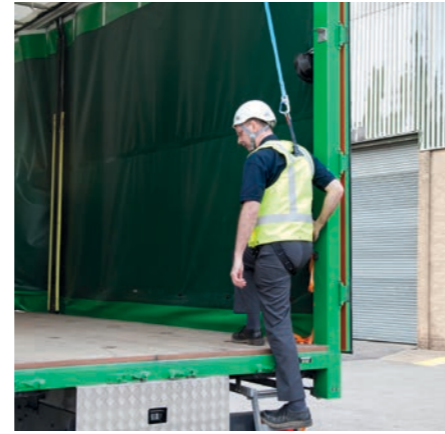


Installation and repair

In a food factory in Übach-Palenberg, the SpanSet group member MERA installed a system for personal protective equipment to protect against falling off in the area of the food receipt. The fluid raw mixture has been delivered here in a tanker every day. For quality control purposes, a sample will be taken out of the tanker and assessed through a special procedure before discharging the mixture. In order to that, the employees need to mount on the tanker. Although there is a lateral catwalk with fold-out railings on the tanker, the workers are not protected when they are in the tank. Therefore, the company has decided to protect the employees against the risk of falling off by additional measures. The task was to secure the employees over the whole distance of the tank trailer with a system which is as trouble-free as possible. At three already existing collecting points, two independent systems were installed. Now, the employees and the driver of the tanker can already secure themselves for the sampling on the ground before they mount on the tank. In this way, all persons involved may act independent from one another and freely change their position on the tanker.

Beim Arbeiten in der Höhe steht ein effektives Sicherheitssystem an erster Stelle. Für viele Aufgaben benötigt man Sicherheitsmaßnahmen, die nur für die Dauer der Arbeiten installiert und danach wieder entfernt werden müssen. Diese Maßnahmen sind oft zeitaufwendig, haben einige Einschränkungen und können Risiken bergen. Zur Minimierung der Risiken bietet SpanSet Installationsdienstleistungen für unsere breite Produktpalette. Dazu gehören Gesamtlösungen von Planung, Installation, Wartung und Reparatur für permanente und temporäre Installationen, nicht nur in der Höhensicherung und der persönlichen Schutzausrüstung. Damit sich Schwerlasten nicht „unfreiwillig selbst entladen“ oder Schutzausrüstungen nicht zum Sicherheitsrisiko werden, sind regelmäßige Kontrollen niemals zu vernachlässigen. Vermeiden Sie Risiken und Unfälle und erhöhen Sie die Langlebigkeit Ihrer Produkte. Wir stehen Ihnen dabei gerne zu Diensten.

SpanSet – Certified Safety



If it is concerning loading or unloading or when working at heights – Safety first

When working at heights, there are different hazardous areas

They may be secured by using different systems. The correct safety measures are caused by the kind of work which needs to be performed and by the structural circumstances. There is the choice between individual and collective as well as between short-term or long-term safety measures. At this, cost and efficiency are also playing an important role. For lots of works, collective and permanent safety measures (e.g. railings) are often the most simple and safest solution. For structural reasons, it is not always possible to install railings.

Temporary solutions have the advantage that they may be removed from the building or that they can be implemented during the construction process. Permanent individual protective measures against falling off have the advantage that they provide a large degree of safety for the instructed user and they are always available once they are installed. Lots of the products made by SpanSet can be specially adapted for the requirements and can be installed at your premises. This includes safety systems for shippers as well as individual and collective height safety, e.g. for roofing work and civil engineering activities.

Capcha fall protection

The problems and the related dangers, which the operators are facing for works at heights, e.g. on the loading area of commercial vehicles when loading and unloading or when working on flat roofs, are known and sufficiently proven as a result of an increasing number of accidents. The Capcha system made by SpanSet provides an easy-to-use solution in order to considerably reduce the risks by falling off vehicle structures. The Capcha falling off protection was specially developed by SpanSet

to be installed into the vehicle structure. Capcha allows a safe, unlimited and freehand access to the loading area. The system can also be used at places where it is necessary to work on loaded goods at heights. As well as for the installation in vehicles, the versatile Capcha falling off protection system can also be adapted to other situations, in which a permanent height safety is required at a fixed location.

If in maintenance workshops, body repair shops, tank loading gantries or tank washing bays, anywhere your employees are working at heights. By using the Capcha system you may stop the risk of injury by falling off.

Installation and assembly by SpanSet guarantees highest safety

A number of installation options and assembly kits are available and adapted to most vehicle configurations. We will install the system for you and exactly adapt it to your requirements. Capcha can be specified as original equipment or it can be subsequently installed in your vehicle fleet.

Please do not hesitate to contact us regarding our comprehensive range of products or to agree a date for a presentation.

Safeline for individual safety

At SpanSet new products are always developed with a close look at the requirements of our customers and the users with whom we are in close contact. The best example for this would be Safeline, a permanent lifeline system made of stainless steel which is used as horizontal protection against falling off and produced for the application tailored to individual customer requirements.

Individual or collective safety

For works for which the user needs to cover a large area, such as e.g. for roofing works, the horizontal Safeline securing system is a perfect solution for the individual safety. A firm anchoring and following systems provide more freedom of movement to the user and at the same time protect him against falling off. All Safeline systems are produced for the application tailored to individual customer requirements and can be installed on roofs, access bridges for cranes and many other locations where a guardrail system is practically unusable. When building and maintaining flat roofs, there is an imminent risk of falling off at the outer edges of the roof. Generally, the consequences of a person falling are usually serious physical injuries or even fatal injuries. In order to counter this risk, the legislator prescribes that the corresponding operator installs corresponding devices which can

avoid the person from falling off. SpanSet also provides different temporary security systems such as Roofsafe, which can be easily converted or implemented during the construction process.

Einfaches Umbauen während der Bauphase oder bei späteren Dacharbeiten

The innovative temporary safety system Tempoline is a special solution, which provides more mobility on the construction site to the construction workers without compromising their safety. SpanSet supports a network of approved installers who are able to dimension, plan, install and maintain a system which is suitable for you. We will train your employees in how to use the falling off protection systems and also advise you regarding possible extensions by different rescue systems.

We provide product installations for:

- Capcha
- Safeline
- Tempoline
- Roofsafe

Highest standards for horizontal safety

Online: SpanSet seminars

Please find all further information regarding the SpanSet seminars in the catalogue from p. 46 on and in the Internet under



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Protect your employees and your material – Regular maintenance is indispensable

New acquisitions are always a cost factor

Your slings, lashing straps or your personal protective equipment are always in use and need to fulfil difficult usage conditions. Also, when using material of high quality there will be traces of usage after some time or cuts or bruising of the products in case of application errors. Often it is not possible to decide at the first glance if the products may be repaired or if new acquisitions are required.

Accidents can be avoided

Accidents often occur due to defective slings, since e.g. ropes, chains or lifting slings fail due to wrong use or wear and thus loads might fall. All companies are obliged to professionally check and repair all lifting accessories in regular intervals or in case of heavy wear, they need to be decommissioned, if necessary. Round slings, lifting slings, etc. e.g. need to be checked. This requires special expertise and the corresponding inspection staff, if necessary. Users, who would like to perform in-house inspections, need to be professionally trained.

Our professional service maximises your safety

Our professional department for maintenance and repair services thoroughly checks each work equipment and will inform you, if a repair is necessary and possible. Simply send your products to SpanSet for maintenance purposes and save elaborate internal test processes. You do not need to do anything. After the repair, we will award a test certificate and a test badge, if applicable, which will inform you about the date of another test in the future.

We ensure by comprehensive service and professional advice that you will receive all important information about use, care, maintenance and repair. Your safety is in our experienced hands

We will also inspect competitive products for you and will provide them with a test badge.

Your contact



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Our employees are equipped in the best way

The factory representatives of the SpanSet group offer you maintenance and repair services, which will help you to work safely at any time. We inspect your slings such as round slings, lifting slings, hangers, chains and wire ropes, etc. as well as your personal protective equipment against falling in the prescribed intervals for you.

Also on site at your premises

It is also possible to render the service directly on site at your premises, in this way, you do not lose any time and you can rapidly continue to work. We inspect your products (also foreign products) at your premises, will tag and register them for you. After each inspection, you will receive a detailed test certificate about the state of your products. Extend the service life of your products with little expenditure and save expensive new acquisitions. In this way, you may actively avoid accidents and their subsequent costs.

Contact our factory representative in your vicinity and directly make an appointment.

Repairing – The easiest way to save costs



04.3



Tests

Inspired by different major customers, the SpanSet GmbH und Co. KG and the Axzion GKS inspected the strength of round slings in combination with standard shackles. In practice of industry and handicraft, the combination of round slings and shackles of the same rated load capacity is a common application method in order to extend round slings or to fix a load. However, since there are no standards and sets of rules for the correct allocation, lots of users follow the rule of thumb to define the sharp edges, after which the deflection radius needs to comply at least with the thickness of the sling. However, the rule of thumb is not always 100 % applicable and will not be fulfilled. In this way, serious liability risks and even accidents may occur. With the objective to close this security gap, SpanSet and Axzion developed an inspection plan and performed different inspections on a test bench with 250 tons and 600 tons in cooperation with the German Wood and Metal Trade Association (Berufsgenossenschaft Holz und Metall=BGHM). Therefore, it was possible to create a detailed test plan. Also, with the test bench of 1,500 tons in Neustrelitz, one of the largest test benches worldwide, we invest in innovations, which will help to increase the efficiency and safety for our customers.

By our permanent research and development with strong national and international partner of the industry and science and our production sites in Germany, we are able to rapidly implement innovations and to make them available to our customers. In our competence centres we can generally determine and differentiate technical parameters, by performing strength tests, standard tests, determinations of friction values and many more. On the following pages, you will learn in which way our network of research units and institutions may also enrich your work.

SpanSet – Certified Safety



Standards are innovation drivers

Guidelines in the load control, lifting and sling technology

The foundation of the "Standards committee of the German Industry" – the present DIN – is based on the knowledge, that standards are nationally and internationally had and have a major share in the industrial development. Industrial standardisation encourages innovations, form the basis for customer protection and occupational safety and define the state-of-the-art. With the EN 1492-1 and -2 for round slings and lifting slings and the EN 12195 -1 and -2 for lashing straps international industry standards for textile slings and lashing material have been created.

In Europe lashing straps for transport safety of loads are used, in most cases to lash down the load on the loading area. Here it applies: The more force can be applied on the load, the better.

SpanSet commits itself with standard tests

Lots of standards at European level give free space for interpretation; therefore the results would differ and be possibly not comparable depending on the interpretation. Therefore, it is not necessary to batch each product with a GS certificate. There are also a lot of systems with wrong marking on the market. I.e. our current standards would need revision in lots of respects. In this conflict area, the responsibility of leading companies such as SpanSet is becoming more and more important. We attach high importance to promote the state-of-the-art by testing facilities and regular standard tests.

Standardised determination of the preload force

An important differentiation criterion for lashing systems is the showing or attaining of a high preload force (Standard Tension Force). In lots of cases, high STF values allow the use of less clamping elements, in order to apply the securing force on the load. This accelerates the loading and discharging and in this case of great commercial advantage for freight forwarders.

In our own testing facilities, we elaborated a company standard and channelled the wide range of interpretation of the standard tests in cooperation with the RWTH Aachen. Following the actual use, the tensioning of a lashing system is defined in the laboratory, with the objective to determine reproducible performance data on the basis of a standardised test. The findings of the standard tests are discussed with independent inspection bodies and introduced in the work groups of the central authorities of the countries for safety technology.

As a consequence hereof, we reviewed the whole range of lashing materials made by SpanSet. Our customers benefit from our commitment in the standard work, from the reliable performance features of our products, which are documented by test seals, such as the 'GS' sign, as well as by the advisory services of our factory representatives.



If it is about lifting heavy loads, transporting of goods or securing at heights, there is always a great deal at stake – it is about the safety of the employee as well as about the high value of the loads. Our objective is to place innovative products on the market which would satisfy the highest demands of everyday work. For this purpose, we work together with strong partners on testing units who help us to guarantee high quality.

NoCut® – Lifting on sharp edges

Under the brand NoCut we have placed a new developed protective hose into the market, which distinguishes itself with particularly high cut and abrasion resistance. A special testing facility was designed and constructed for the development of NoCut, which allows determining the cut resistance quite close to reality, while testing the cut impact under nominal load. By doing this, the protective effect of NoCut was determined through various sharp edges.

New test bench with a test load of 1,500 tons

The new test bench will reduce the cost and make it less difficult to do the load tests of large elevators. Thus, it was for instance necessary to rent a floating crane in order to inspect a large traverse of 800 tons. In order to fasten examination weights and to perform the test, a total of ten workers were employed for several days Axzion GKS is the specialist for large load suspension devices in the internationally acting SpanSet group. With the expansion of the production site in Neustrelitz near Berlin, there is also a test bench with 1,500 tons available to anybody.

Combined test of round slings and shackles

Also, the frequently used combination of round slings with shackles represents an underestimated risk when lifting loads. Only seldom it is taken into consideration that the deflection radius of the shackle yet represents a sharp edge for the sling. It is all the more surprising that there were neither any sets of rules nor examinations in this field. The test bench in Langenfeld is open to anybody; it is also possible to test any kind of load suspension devices on short-term basis. Renowned auditing firms such as Lloyds Register, DNV GL (formerly Germanischer Lloyd) or Dekra already accompanied tests here and were amazed by the easy processing. It was possible to perform comprehensive test series under absolutely realistic usage conditions. It is also possible to inspect already existing load suspension devices in close cooperation with our engineers. If desired, the SpanSet AXZION can also organise the support of your tests by neutral testing organisations.

Trust is good - control is better

Therefore, all inspection-related slings need to be controlled in regular intervals according to the BGR 500 (DGUV rule 100–500). In connection with the IDXpert, our electronic product management and identification system, there is an optimum working tool at your disposal which extremely facilitates your own test routine.

Tested safety

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Improving the load control by using anti-slip mats

Increased friction value with the SpanSet technology

The issue of friction value is playing an important role in the load control. The securing by positive locking is the best method when securing loads. However, in the daily practice, the lashing down is predominant. In the practice, anti-slip mats are a useful and proven addition to the lashing materials. The use of anti-slip material yield lots of benefits, since they increase the friction between the load and the loading area and avoid the slipping of the load. Through this, the cost for additional load control equipment and the application are reduced.

Correct calculation of the load control

The friction between the loading area and the load resp. between the piled loaded goods is the most important factor when calculating the securing of the load. Therefore different standards and directives consider the definition of the friction characteristics. However, in the standardisation, the calculation of the load control is handled quite scientific and often incomprehensible for the user. Therefore, in the sense of simple and clear rules, it seems to be appropriate to use tables and software solutions for the correct calculation of the security measures.

More transparency for more security

The current situation with different ways of calculation for the correct securing method will lead to discussions and complicates the practice. Therefore, the determination of the friction values and their certification have proven under defined frame conditions. Influence factors such as humidity, temperature, material pairing and/or surface pressure can be simulated in the test bench at SpanSet and result in meaningful value tables which would allow to compare different anti-slip mats with one another. The factors are becoming transparent by the directives and standards on which the certificate is being based.

Tests regarding your safety

SpanSet performed comprehensive investigations at the Institute for distribution and retail logistics (Institut für Distributions- und Handelslogistik (IDH), which have shown, that influences, such as the surface pressure, temperature and material quality considerably influence the friction value of anti-slip mats. In order to facilitate the use of anti-slip mats in the practice for users, we have made up a **checklist** of our test results:

1. VEHICLE Select the right vehicle.
2. LOADING AREA Consider the condition of the loading area, consider technical performance data and manufacturer information and sweep the loading area.
3. LOADED GOODS Heavy loaded goods with small contact areas require special anti-slip mats (pressure stable, robust).
4. METHODS Combination of different load control means and methods.
5. ANTI-SLIP MAT Consider useful life, range of application and manufacturer specification for anti-slip mats.
6. CALCULATION Use tools to calculate the load control.
7. PECULARITIES Consider the condition of the anti-slip mats suitable for use and adverse weather influences.
8. LITERATURE Use literature, accompanying documents of load control equipment and attend trainings.

SpanSet makes a controller for lashing capacity as well as an app (refer to p. 42) available online for mobile calculation of correct load control.



Expert opinions are required in lots of situations

Lots of application cases when lifting or securing loads with textile products do not comply with the standard. In the daily routine of our customers, there are often exceptional usage scenarios, and also competent statements regarding the correct and proper use of the products are required.

In case of administrative controls, e.g. performed by the police, it is often useful to present an expert report, in order to be able to directly continue one's way. Or maybe there was even an accident in connection with textile lifting slings and a detailed analysis of the sequence of events is required.

Optimise your workflows

Our experts, who are certified and approved by the BDSH, inspect the general design of your products which are used for load control and lifting, they will advise you regarding the dimensioning of components, make strength tests and tests regarding the standard conformity and will issue an expert report for you on a royalties basis.

Mutually developed solutions

Our in-house expert and representative Mr. Ralf Schmitz will support you regarding expert reports and assessments of your concerns. We also take recourse in a large network of qualified, certified and independent experts. Depending on the requirements, their services are consisting of:

- Definition of the problem
- Visit on site at your premises
- Issuing a requirements specification
- Developing new solutions
- New design or modifications of existing products
- Inspections and practical tests

Through this, it would be possible to solve individual as well as outstanding problems directly and comfortably during operation, for which there are no standard solutions up to now.



erman Federal Association of Technical Trade Experts
(Bundesverband Deutscher Sachverständiger des Handwerks)

www.bdsh.de

Particularly high demands require special expert opinions

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04.4



Individual solutions

For decades, the company Hightex has implemented worldwide visionary textile architecture projects in lightweight construction. Designs under tensile load, support structures in facades, roofs and building envelopes of low material thickness have been built with innovative technology. Hightex had the spectacular task to build the stadium roof of the BC-Place stadium in Vancouver with an opening structure. SpanSet, as a reliable partner, had the task to develop the production and manufacture of slings suiting customer's specific requirements which assume the opening mechanism of the roof design. At the same time, at SpanSet lots of strength tests were performed on components of the roof design. Due to the elimination of transports and travels to external test facilities, it was possible to save time and money. It was also possible to attend more rapidly and targeted in case of occurring problems. The involved staff was already acquainted with the matter, thus the risk of errors was minimised. In an interaction of engineering construction support, manufacture and incorporation in the overall design and specialist advice regarding the processed raw materials, the project became a great success.

No matter if you are working in the textile industry or in the mechanical engineering, we will support your tasks and help you to make your ideas tangible. A seamless interplay of development, production, design and tests will provide you the decisive advantage which lots of companies may not achieve on their own. We are your partner in the development and performance of special designs and individual solutions. Custom products are one of our strengths, since here we can use our expertise. We will be glad to produce for you special custom-made lifting and lashing straps. We will support you in the production of individual parts and product components as well as in the tests and certifications. Testing machines of different capacities are available to you at our facility for strength tests. In the SpanSet group of companies you can test capacities of up to 1,500 tons, and with our worldwide contacts we can test up to several thousand tons. We can determine friction values with a surface pressing of several hundreds of tons per square meter contact area as well as cut resistance with and without relative movement and many more. Depending on your special requirements we will define new testing methods, which we perform together with you. If it is regarding ageing, weathering and cold tests or friction tests of webbing, exceptional tasks, such as those of the company Hightex, are part of our daily work. We will be glad to develop individual solutions with you.

SpanSet – Certified Safety



Allowing by permanent research innovations

We will find solutions for all applications in research and development which are relevant to security

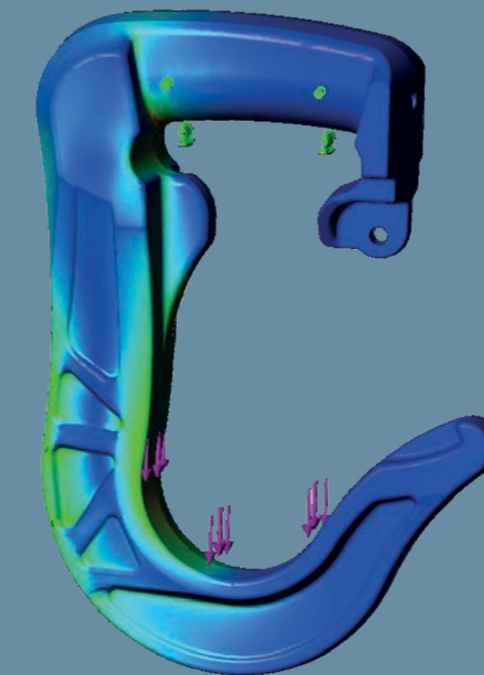
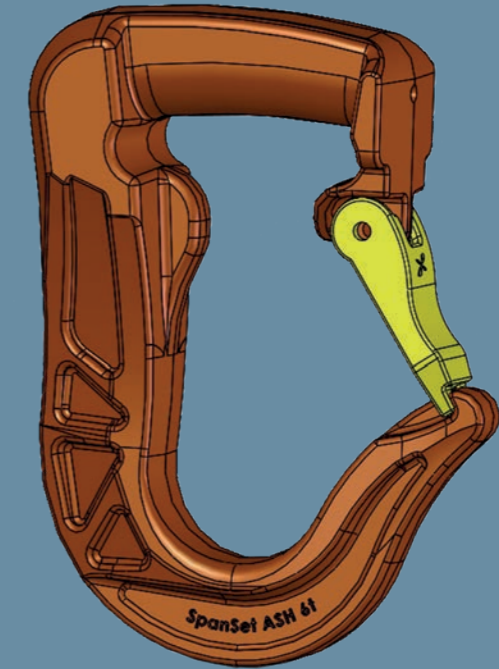
The competence centre for lifting and load control technology of the SpanSet group of companies is based in Übach-Palenberg. Here, the development is taking place in our own weaving mill. Here, new high performance fibres are processed every day in order to produce slings, hose sleeves, protective hoses and pads. The competence centre for fall protection technology is located in Middlewich nearby Manchester. At the sites in Übach-Palenberg, Langenfeld and Neustrelitz different test facilities which allow testing 250 tons, 650 tons or 1,500 tons each are available to the developers. If required, it is possible to revert to test facilities worldwide.

Using the **Finite-Element-Methode (FEM)** we develop technical drawings of all new products and additional tools on the PC. Using this simulation tool, it is possible to predict better, assess and optimise the structural behaviour of components in relation to their mechanics, thermal or flow. In the last few years this methods allowed us to expand our

knowledge about plastic processing, moulding and steel construction Through this way, as an example, the Joker hook was developed on the PC (refer to p. 31). Using the Joker hook you can convert any round sling to a hanger within shortest time – hook, turn, ready. Due to the sophisticated design of the Jokers you do not need any tools in order to thread the hook into your round sling or lifting sling. Or to connect two round slings. Other examples include also the edge protection angle “KaSiPlus” and the edge angle UWI (refer to p. 30 at the top, illustration on the right), which was also developed using the FEM. The angle protects the sensitive edge of paper rolls by a hollow groove when providing them with lashing straps as transport safety, in order to efficiently avoid damages on paper rolls.

With the innovative 3D printing method we can rapidly realise and test models and prototypes of such new developed products. As a result, SpanSet was also able to achieve successes in the metal processing. The development of the Dynamic Load

System with the reusable Dynamic Load Ratchet was enabled by permanent research and supports SpanSet to respond to the customer needs far beyond the core of our initial business areas. Also, the composite of metal and plastic material is no longer a problem in production. It is possible to read the inherent preload force directly after the tensing of the lashing system from the unique display, the **Tension Force Indicator (TFI)** which is directly built-in the clamping element. An advantage, which you should not oversee, therefore SpanSet serially equips the ABS and ErgoMaster lashing systems with a TFI at the fixed end. Optionally, it is possible to equip the loose ends of the ABS and ErgoMaster lashing systems with a TFI. Nothing was left to chance. Safety is our mission.



We cooperate with reliable institutions and experts in different fields:



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Engineering services – Complex tasks mastered in the team

Video: A football weighing 8 tons

Please find the video about the transport of a football weighing 8 tons and lots of other videos on our YouTube channel: www.youtube.com



Besides the lifting and lashing technology, webbing and other small textiles are repetitively processed in different products and buildings. At this, it is our task to check the breaking strength, seams, elongation, flexural fatigue strength, ageing resistance, application ranges in different temperature ranges and media for these constructions. For these reasons, SpanSet has developed, woven, sewn and examined special straps for the movable roof construction of the BC-Place in Vancouver with regards to the special requirements of the stadium roof. In the meantime, the outstanding roof design has been proven.

Who rolled the football to Mönchengladbach?

But also other spectacular projects can be mapped by our engineers. Thus, the request of the company Monte Graniti GmbH came on time for the Football World Cup. The company based in Niederheid was ordered to deliver a stone football and to place it in the city district Eicken in Mönchengladbach. The stone of a diameter of 1.80 m and a weight of 8,000 kg is a present of the national football league member Borussia Mönchengladbach to the city for the 110th anniversary of the club.

The supplier loaded the stone football on a truck and then lifted it to a predetermined place in Mönchengladbach. No simple matter with regards to the shape and weight of the ball. SpanSet delivered the solution in form of a SupraPlus round sling with a load bearing capacity of 8 tons which served to lift the ball. On the one hand, it was important that the sling was not too large in order to avoid that the ball might slip through it. On the other hand, it was necessary to be relatively near to the centre of gravity in order to avoid that the load might tilt over. Three lifting slings with a load

bearing capacity of 4 tons were fixed to the round sling in order to hook it into the crane hooks. Also, the load control was dimensioned and has been performed by the employees of SpanSet.

Paxafe net construction kit

In the daily transportation business of the company DPD square parcels and freights are no longer common practice. Due to permanently changing transport goods and tight delivery times, it is nonetheless necessary to guarantee risk-free transportation and safety for goods and road users at any time. Being a responsible shipping agent, the company DPD developed a webbing net in cooperation with SpanSet as partner which suits the best for the daily use and for different vehicle types. The net includes four connecting elements, which allows to fix the net to the two airline rails on each side. The two aluminium tubes, which are built-in the net on the right and left side, provide for more basic stability, which facilitates the mounting and demounting of the partition net. The connection elements were also developed and designed in cooperation.

During a standard delivery date, the net is unbut-toned countless times and shifted several times within the rail. Thus, the load is always secured positive locking with the partition net. An advantage, which the delivery agents much appreciate.

Coordinate your special designs with us

No matter if in the weaving mill for narrow textiles, in the plastics processing, in the moulding or in the steel construction, the engineering is an interplay of lots of factors. No matter if strength tests are performed in the lifting in order to prove the marketability of a sling, to determine friction values, in order to calculate the necessary securing forces, test drives, in order to empirically certify a load control method for your defined load, our range of offers would be extended by your requirements.

If there are no test methods yet, we will develop them

Where standards and sets of rules reach their limits, the task becomes really interesting. In cooperation with independent institutes such as the DGUV or the DEKRA, we will continuously develop new test procedures and commit ourselves in standardisation activities. Today, SpanSet customers can for instance combine defined shackles with round slings made by SpanSet with the same load bearing capacity, for which recently no defined standards have been applied. Testing machines of capacities of up to 250 tons are available to you at our facility for strength tests. In order to be able to perform load tests also for tonnages of more than 600 tons for the customers with least possible efforts, the new test bench

of 1,500 tons was built in Neustrelitz. The test facility had a length of 12 m, a height of 15 m and a dead weight of more than 150 tons. The traction of maximum 1,500 tons is applied by two huge hydraulic cylinders. The tank volume of the hydraulic unit is as large as the heating oil tank in the basement of a detached house. The control of the load test is performed either manually or computer-controlled.

The determination of STF values and the test of the strength of the top part of lashing systems are part of our scope of services, in the same way as the dynamic drop tests for personal protective equipment against falling and many more. Our challenge is to develop new testing procedures and to define new field tests with you. Let it be the ageing, weathering and cold tests or abrasion tests of webbing.

Documentation – as important as the design itself

Our engineering services also include a detailed documentation, the issuing of standard compliant operating instructions and the allocation of factory certifications. Please find further information about the technical documentation on the following page.

What is your special task?

Exceptional tasks as those of the companies Hightex, DPD or Monte Graniti are counted among your day-to-day work? We will be glad to advise you regarding our engineering services.

Your contact



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Violations against the Product Safety Act can be expensive

Perfect documents for the right use

A technical documentation includes all documents, which describe a technical product. Auditable statistics are often required for load suspension devices; a failure of the sling shall be excluded. Therefore, the customers and users of SpanSet products will always receive perfect documentation of all components for permanent backup. Or concern is to permanently simplify the access to the prescribed documents for you and even to make them available to you on mobile devices..

Safety First

The technical documentation of a manufacturer of slings includes risk assessments, declarations of conformity, manufacturer certificates and operating instructions. Declarations of conformity and operating instructions need to be attached to each product, this is prescribed in the 1492-1 and -2 as well as in the machine directive. The requirements in the product labelling and its technical documentation changed due to the Product Safety Act, and any violations can be expensive. Penalties may be imposed for missing issuing references, missing, incorrect or incomplete operating instructions. E.g. for the misuse of the GS sign even a penalty of up to 100,000 Euros may be imposed. If the infringement would impair health or life of a third person, imprisonments of up to one year threaten. It is also forbidden to display a CE sign on a label of a clamping element, other than for lifting slings and round slings made of chemical fibres, according to the above mentioned Product Safety Act (Produktsicherungs-gesetz ProdSG) § 7. As users of lashing systems you have to know the critical assessment of the right label and operating instructions for choice and distinction. To do so, also use the adjoining overview.

However, slings are subject to the machine directive 2006/42/EG, therefore round slings and lifting slings made of chemical fibres are marked with the CE sign by the manufacturer. With this, the manufacturer confirms the conformity with the machine directive.

Helpful tools

You can also use our helpful tools for the technical documentation. Please find more information from p. 38 on.

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You may recognise the correct connection and clamping elements with these following features:

Label

- STF, SHF and LC in daN and standard specification
- Elongation, fibre material (label colour), date of manufacture, retraceability code
- Manufacturer with his complete address
- Additional hazard warnings on an additional label
- Protected label resistant to be pulled out e.g. film tube and webbing overlap
- Possibility of fixing transponders or inspection tags
- No CE, according to the Product Safety Act (ProdSG § 7) it is forbidden to display a CE sign on the label of clamping elements
- Label colour (blue > PES, green > polyamide, brown > polypropylene)

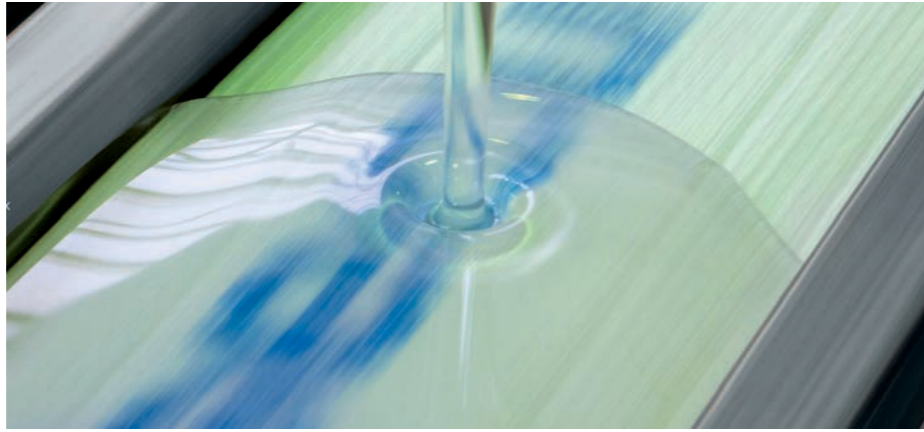
Operating instructions

- In the national language
- Attached to the product:
 - Self-explanatory graphics
 - Text in sufficient font
 - GS sign (optional)
 - Certificate No and graphic of the notified position

No sharp burrs and edges

- Webbing must attain the triple LCim strength text
- Thermofixed webbing with an elongation of less than 7 %
- Characteristic stripes, robust webbing and wear-free selvage





One layer ahead

Technical Data and Material Samples

We will make you the technical data and material samples available for the test at your premises. Please contact us.

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secutex stands for "safe textile"

For 35 years, the SpanSet subsidiary secutex has developed to one of the largest processors of compact polyurethane for textile lifting slings and protective hoses. The special mixture, preparation and treatment are decisive for the uniqueness of firmly coated lifting slings and textile protective hoses which is unattained to this date. In the dialogue with our customers and with the know-how acquired for decades about their daily requirements, we constantly develop new solutions for smooth lifting and safe treating valuable goods with care.

Lots of advantages justify the use of textile slings such as e.g. little dead weight, high load bearing capacity and the good adaptation to the loads. These advantages complete lots of products of the SpanSet group with the particular material properties of secutex. In the field of lifting, impact protection and load suspension devices we established some product groups, of which lots of advantages complete one another. Nowadays, SpanSet-secutex is able to design and produce even complicated mouldings. A product line with lots of potential which completes our offer far beyond the webbing, with which all started once upon a time. All production steps take place under one umbrella and pass a systematic quality control.

Besides external factors, such as temperature, chemical environment and mechanical stress, the "sharp edge" is still one of the main causes for damages on slings itself and thus a frequent cause of accidents. Most damages on sharp or rough edges are caused by movements of the load taking place transversal to the sling. If the edge is "sharp", in the worst case it may sever the sling. The secutex coating helps to dissipate

lifting capacities from the sharp edge. Transported goods with deviating geometry can no longer be included in the general rules for sharp edges. secutex can provide additional protection for such difficult situations.

Please also note the "10 commandments for the lifting of sharp-edged loads" issued by SpanSet which you can find on the fold-out page at the front of this catalogue.

secutex is an outstanding polyurethane elastomere with particular physical and chemical properties:

- High structural strength
- Protects the load
- Extreme wear resistance
- Permanently dimensionally stable

Within the worldwide acting SpanSet group, the company SpanSet-secutex is the specialist for lifting of sharp-edged heavy loads. Our competent specialists will assist you. Our well trained employees will be glad to give the advice you need.



With its long-term experience the company Axzion GKS distributes and produced load suspension devices such as traverses, coil hooks and grippers. At this, high importance is attached to complying with all safety and quality requirements according to the common rules. Due to the own construction and production at the sites in Langenfeld, Geilenkirchen and Neustrelitz Axzion disposes of numerous individual design elements, which can be assembled to an overall solution as required. Even individual productions can be realised in short delivery time. No matter if you need a costefficient standardised application or an individualised adjustment; you will find the suitable solution in cooperation with our advisers. As a member of the international SpanSet group, the company SpanSet Axzion provides worldwide service and advice. This guarantee promise is resilient; all risks are covered by the comprehensive insurance cover. We have highly experienced employees and design using most modern development tools. Our production is equipped with the necessary certifications and proofs and our qualified specialist workers guarantee reliable quality. In cooperation with SpanSet we are working on the energy system transformation mutually with large companies compliant with standards and with high quality. Transportation of components, special products and services are of high technical, logistical and financial importance e.g. in the offshore wind energy.

Standard or individual solutions – we will give you the right advice

Being a manufacturer, we are always able to individually design a price-efficient as well as a solutionoriented complete production for you. Our services also include assembly, paint and transportation up to the instruction of your employees. We offer you a complete service range one stop, in order to be able to safely fulfil most difficult standards.

Engineering

With our engineering services we offer you the design, the correct material and the production all at one stop. Already during the planning phase, the optimum conception will be elaborated by the intensive contact with the user. The design using most modern 3D-CAD systems and computer-aided calculation programs (FEM) allows a late processing or change at any time. For us, detailed technical documentation and good operating instructions are as important as the ready-made product, since in the international plant engineering the used materials need to be precisely proven. Here all test results, the used materials of all components and the information about the production flow together.

With our test bench of 600 tons in Langenfeld and the test bench of 1,500 tons in Neustrelitz, we offer you tests and load tests with all load bearing devices for offshore and heavy-duty applications at our sites.

Competent advice on site

The trained team of experienced advisers, testing technicians and service providers will bring along the whole potential of lots of problem solutions in your company. The application engineer will be glad to visit you in order to give you an idea of the corresponding operating conditions and requirements on site, to directly perform any necessary repairs on site and to perform any further risk analysis, if required.

The SpanSet group covers almost any field.

Our know-how is your advantage

Your contact



Stéphane Alary
 +49 (0)217 320 892 168
 s.alary@axzion.de

04.5



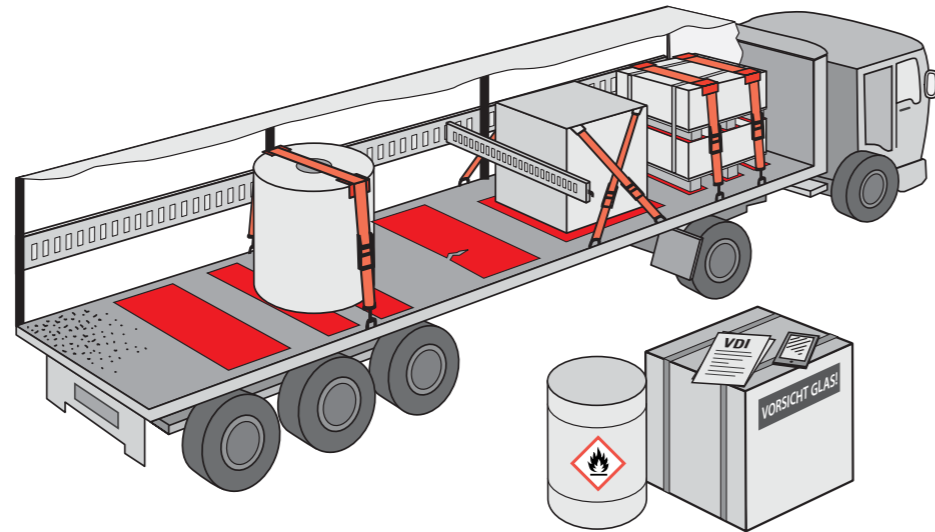
Useful tools

The Greek company SPANELAS consequently produces high quality products and services when lifting, fixing, handling and storing all kinds of loads for industrial plants. In 2010, the company implemented the electronic product management and identification system EPIS. Until then, the whole product management was handled solely in paper form. All products of the customers which need to be inspected were time-consuming listed in Excel lists. This problem is known by a lot of companies. An expert of the company SpanSet installed the network and also instructed the employees in the use of the database, the transponders and the writing and reading devices. In the meantime, after the transfer of the Excel lists into the database, the company SPANELAS operates the network solution with high success for five years. It is also possible to use the system on a laptop on site at the premises of the customer. The data which were maintained with high time consumption and documented with a pen stamp and did cost a lot of nerves, is now done with a few mouse clicks. It is also possible to represent invoices, delivery notes and lists of built-in spare parts or send them by e-mail. With the support of SpanSet, SPANELAS has implemented a system which renders work more efficiently than ever.

At the beginning of the years 2000, with IDXpert (formerly EPIS) SpanSet developed a system which combines soft- and hardware and revolutionised the regular inspection of slings and their documentation. Furthermore, SpanSet also keeps up at other levels in the digital age. The SpanSet lashing computer is an app for professional drivers who would like to secure a load and calculate the required lashing equipment on a mobile device. Also the new lifting computer app has received a lot of positive feedback. The free of charge app serves to determine the necessary slings for all tasks of lifting and moving loads.

We will make these and lots of other helpful tools available to you. They shall help you to save money in a measurable way. Visit us online and in the social networks and use the different product finders, configuration tools and computers, download our apps, catalogues and information material free of charge and benefit from the useful training sets. Our new blog will inform you about novelties, upcoming events and interesting developments on the market

SpanSet – Certified Safety



Simplify your work with practical tools

All important information summarised online
Beside our catalogues and printed brochures you can also be informed about new developments, products and services in our comprehensive online offer. Visit our social media pages on which we will report about innovations and events on daily basis and publish interesting background information.

SpanSet has set itself the task to be your preferred partner for products, systems and services in the fields of lifting technology, load control, height safety and Safety Management. As an internationally acting group of companies with own production and sales companies in Europe, the United States, Asia and Australia and a strong network of partner companies and subsidiaries, we have created a platform for you, in order to be able to compile the best safety solutions according to your need. Since each country lays down its own requirements, you will find country subsidiaries of SpanSet all around the globe. They are your competent contacts for any international concerns.

Please find all countries where SpanSet is represented and the contact data of the corresponding country subsidiaries under:

- www.spanset.de
- www.spanset.com

Please find our partners online under::

www.secutex.com

www.axzion.de/en

You also find us here:



NoCut® Produktfinder

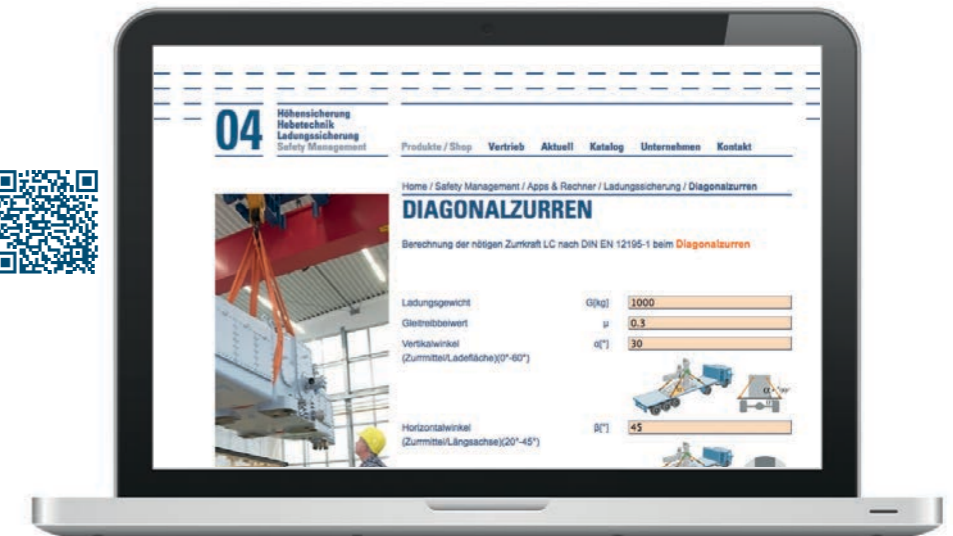
For instance for the handling of sharp-edged steel sheets it is often improvised and an ineffective solution is being found: Thus, among others, a pile of gloves or cardboard is used as edge protection. This violates the legal provisions and can result in severe accidents. Therefore, protect your slings by using our edge protection NoCut which had been specially developed for sharp edges.

Our new product configuration tool will help you to find the suitable NoCut product for your task by entering slings, load bearing capacity, useful length, and edge radius.

<http://configurator.spanset-nocut.de/en/>

Online-Rechner

With the online calculator, you will be able to directly calculate the necessary lashing equipment according to DIN EN 12195-1 when lashing down or the necessary lashing capacity LC according to the DIN EN 12195-1 when lashing diagonally.



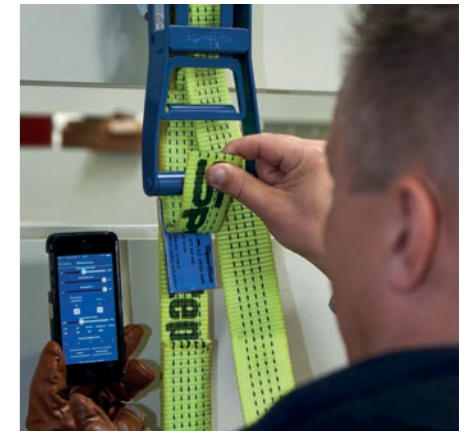
Microsites

You will find all SpanSet products either in our catalogues or online. Thematic Microsites on which you will find all relevant information, can directly place your orders or subscribe for seminars were created for selected products.

SpanSet-Microsites

- www.spanset-nocut.de
- www.spansetsafeline.co.uk





If it is about protective equipment, lifting or load control – detect what you need whilst being mobile

Lots of applications require special levels of detail

Being a truck driver or freight forwarder, it is quite common that different loads need to be secured. You know the dimensions and weights of your load, as well as other conditions such as the friction values of the load surface. But you do not know the exact lashing values, the number of required lashing straps and their pre-tensioning forces.

According to the law, being an owner and user of personal protective equipment against falling, it is necessary to have your equipment checked at least once a year and before each use according to law. At this, lots of details are prescribed e.g. webbing and seams on the harness, function or, if applicable, deformation of hooks and eyes, cuts, wear, scorching of joining means and many more.

Or you need to lift and move heavy loads using textile lifting slings and round slings as well as chains or wire ropes and know the weight and dimensions of the load, but the exact angle and the required load bearing capacity of the sling has been dimensioned in a complex way.

SpanSet-Apps – easy and available everywhere

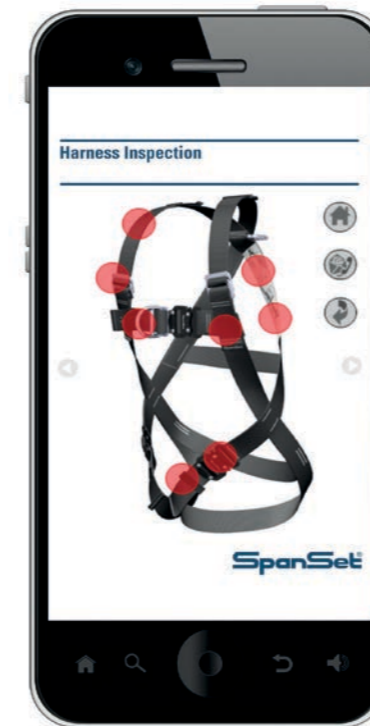
All these things can be calculated and determined by using our mobile apps. The useful tools provide clear and easy-to-understand user interfaces, so that, the calculation of the required lashing straps, for instance, are a piece of cake. Using the SpanSet lashing calculator, you can rapidly and easily determine the required number of lashing straps, which you need to secure your load.

With the App Inspector, you will reliably and visually inspect your personal protective equipment and do not forget any important detail. The lifting app will determine for you the necessary angles and calculate the load bearing capacity of the slings.

Proven know-how in no time

The apps provide you practical aid in your day-to-day work and train the sensitivity for mass and weight force, the handling of slings and protective equipment. Our free of charge apps are available in the Google Play Store and in the Apple App Store in German, English, French, Italian and Dutch.

Try it out and give us your feedback directly in the app.



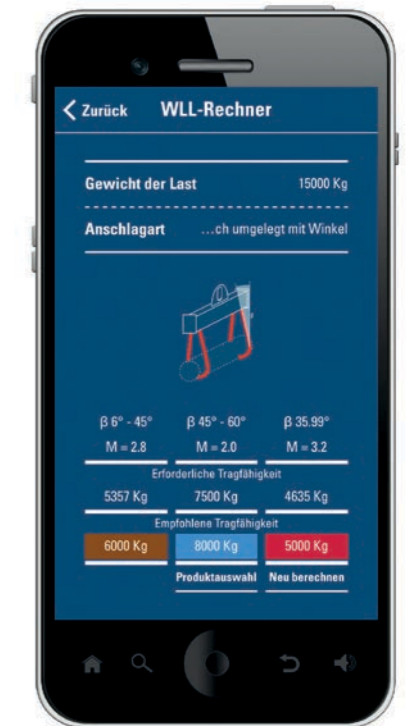
Height safety App Inspector

- Support in visual inspection of the personal protective equipment against falling
- Important notes and details to inspect harnesses, joining means and hooks
- 3D-view of the personal protective equipment against falling
- Only available in English



Load control App lashing calculator

- Based on the lashing force controller
- Calculation of the number of required lashing straps for low and diagonal lashing down and their pre-tensioning force
- Calculation of the angle of inclination with positioning sensors
- Calculation of the load control values according to the directives of the VDI 2700 sq. or DIN EN 12195
- Operating with a slide controller or direct input
- Documentation of the load distribution plan



Lifting technology app Lifting app

- Calculation of angles
- Calculation of the required load bearing capacity of the sling
- Choice from 14 different slings

04.6



Training and seminars

SpanSet is more than a manufacturer and supplier of high quality lashing systems, textile lifting slings or personal protective equipment. We would like to optimally support companies and their employees in their application and at this detect dangers at an early point in time and efficiently avoid risks in the daily work. Therefore, we provide a great number of training opportunities and professional development options, in which important know-how is imparted for more safety and efficient working.

In our safety training centre in Übach-Palenberg as well as at 13 other locations in Germany and Austria experienced and certified speakers will impart you the current knowledge in a practice-oriented way. Upon request we will also elaborate tailor-made trainings programs with you, according to a thorough needs assessment, which can also be performed with individual contents on site at your premises. Furthermore, the SpanSet group has other sites worldwide with training expertise, in order to be able to internationally accompany customers.

Please find our comprehensive training and education program for load control, lifting and height safety on the following pages. By the way, just very recently, the participants are able to refresh their theoretical knowledge in the lifting in a one-day revision workshop. Give yourself and your employees a decisive edge in your daily work.

We are looking forward to meet you.

SpanSet – Certified Safety

- www.spanset.de
- www.spanset.com



Selected references

Lots of renowned companies rely on the expertise and experience of SpanSet – and have been for decades.

- Atlas Copco
- Bayer Leverkusen
- Berufsfeuerwehren
- Bitburger Bier-GmbH
- BMW
- Bundeswehren
- DaimlerChrysler
- DEKRA
- DEULA
- Deutsche Airbus
- Deutsche Bahn
- Deutsche Lufthansa
- Deutsche Steinkohle
- Deutsche Telekom
- Dillinger Hütte GTS
- Dornier Flugzeugwerke
- e-on
- EXXON
- Flughäfen
- Goldbeck
- Henkel
- Hydro Aluminium
- Merck
- Miele & Cie. KG
- NATO
- OPEL
- RWE Power
- Salzgitter
- Siemens
- Tectrion
- THW
- Thyssen Maschinenbau
- Thyssengas
- ThyssenKrupp Stahl
- TÜV
- WDR

Give yourself and your company a decisive edge: current know-how for safe and efficient working. No matter if in the lifting, load control or height safety – you protect employees and goods against damage and thus you can save time and money every day. Use the knowledge and the experience of the market leader in terms of safety.

SpanSet seminars provide you:

- Directly implementable practical knowledge
- Current know-how (requirements, laws, standards, etc.)
- Experienced experts as speakers
- Concrete application examples
- Practical exercises and demonstrations
- Useful tools for your daily work
- Detailed documents
- Intensive advice and support

Objective

With the SpanSet seminars you can individually design your education and training program. In the run-up we determine your situation with you, in order to perfectly adapt the contents and learning objectives to your detailed needs. The general objective of our education and training concept is, to improve the safety in your company by trained staff and thus to allow more economic working. All seminars have been performed according to the current rules and standards of the trade union and laws and consist of theoretical as well as practical units. We will also be pleased to perform the latter in your own vehicle fleet and with your machines. We will offer you individual dates upon request.

Contents

The contents of the seminars will be personally coordinated with you. As already mentioned, we would like to individually respond to your needs.

Target group

Companies with specially set up education and training facilities or which attach importance to continuous education and training of their staff.

Performance

All seminars are performed by qualified and certified moderators who possess long-term experience as application engineers. In order that your employees will obtain a high benefit for their daily work, our seminars are particularly practice-oriented. The participants will receive specialised training documents for the seminar. We also offer all seminars for closed groups.

Training locations

Upon customer request, the seminars will be performed in your company or at a central place of your choice, e.g. if you have several subsidiaries. Another central training location is the Safety Training Centre (Sicherheits-Trainings-Zentrum (STZ)) of SpanSet in Übach-Palenberg.

**Do you have any further questions?
We will be glad to give you
one-to-one consultation!**

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pschmitz-beckers@spanset.de



The right seminar for each company

The safety training centre (Sicherheits-Trainings-Zentrum (STZ))

The modernised STZ in Übach-Palenberg will provide you with the perfect conditions for intensive and practical learning.

Your Advantages:

- Efficient learning in a modern environment
- Independent from weather thanks to air conditioning and indoor exercise facility
- Close experience of the manufacturing process
- Demonstrations in the testing laboratory
- Practical exercises (depending on the type of seminar)
- Professional exchange with participants from your and other industries
- Individual registrations are also possible
- Integrated service area

Seminars at SpanSet sites

In order that your journey is as short as possible, our speakers are at your disposal in Germany, Luxembourg and Austria.

Your Advantages:

- Numerous dates are available
- Shortest journey for you
- Guaranteed seminar quality by experienced speakers
- Individual advice after the seminar is possible
- Contact in your vicinity

In-house seminars in your company

These seminars would take employees particularly efficiently to the same level of knowledge and perform obligatory trainings (e.g. according to the DGUV regulation 1) cost-efficiently and time-saving.

Your Advantages:

- Individual agreement of the desired contents
- Developing solutions on site
- Practical training with your own equipment
- No additional travelling costs for your employees
- Less number of working hours being lost
- Cost-efficient participation fees
- Flexible timing – training on Saturdays, in shift operation and exchange of participants would be possible

Individual seminar concepts

We will mutually promote your company achieving the objectives. Through the intense analysis of your requirements we will develop an individual training concept.

Your Advantages:

- Objective-oriented and efficient further training
- Tailor-made training and concrete problem solution
- Sustainable benefits for your company
- Variable combination of in-house and STZ seminars
- It is possible to obtain several certifications on one day
- Individual planning and coordination

Safe time and money – with combined seminars

Here you and your employees will be trained compactly and practically. You benefit from lower seminar fees, save valuable working times and minimise travelling costs. The contents are perfectly completed and become fit to the point for safe lifting, moving and lashing of loads. In this way, you work more efficiently and economical.

Please find all existing combined seminars from p. 66 on.

Or combine yourself and contact us.

Ready to hand at any time – the SpanSet ID-Card

Being a participant of our seminars in the STZ you will obtain the credit-card sized SpanSet ID-Card in addition to your certificates, confirmations and a present. You will receive information about your training and qualification by SpanSet – in this way, you can prove your expertise at any time, even on the go.



LEARNING FROM AND WITH PROFESSIONALS

In each of our seminars one or several presenters will take care of you. Our certified speakers have long-term experience in the load control, height safety or lifting technology. They know how to familiarise you with all safety aspects in theory

and practice in a comfortable learning atmosphere. Being a seminar participant you may particularly profit from our professional seminar documents and the ability of our speakers, to impart event most difficult issues in simple terms.



Mario Angsten



Wolfgang Müller



Wolfgang Müller



Markus Kiesel



Ingo Burbach



Udo Nehles



Ralf Schmitz



Michael Girbes



René Tomás



Ralf Dovermann



Leo Seemann



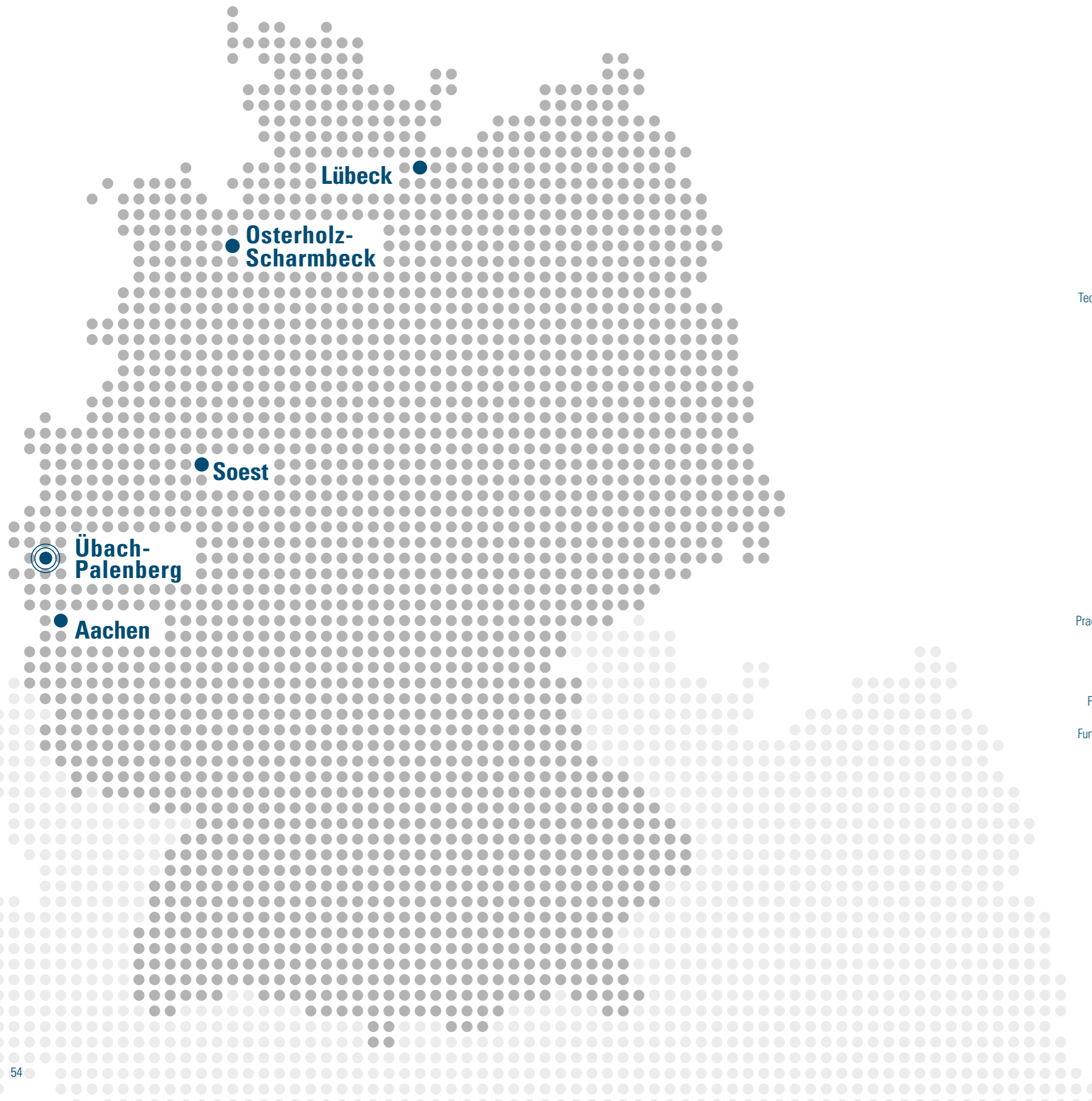
Jörg Scheilen

Your contact



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pschmitz-beckers@spanset.de





Seminars in Germany

	Aachen	Lübeck	Osterholz-Scharmbeck	Soest	Übach-Palenberg	
Technical seminar for load control	■	■	■	■	■	LOAD CONTROL
Technical seminar for load control, heavy-duty transport	■	■	■	■	■	
Practical seminar for load control VDI 2700a	■	■	■	■	■	
Practical seminar for load control CTU	■	■	■	■	■	
Practical seminar for load control, dangerous goods	■	■	■	■	■	
Practical seminar for load control in small vans	■	■	■	■	■	LIFTING
Technical seminar lifting 1 textiles	■	■	■	■	■	
Technical seminar lifting 2 wire ropes and chains	■	■	■	■	■	
Technical seminar lifting 1 + 2	■	■	■	■	■	HEIGHT SAFETY
Practical seminar crane operator training	■	■	■	■	■	
Practical seminar / Expertise for height safety technology	■	■	■	■	■	PROFESSIONAL DRIVERS
Basic seminar training in the height safety	■	■	■	■	■	
Further training for professional drivers modules 5 + 6	■	■	■	■	■	COMBINED SEMINARS
Further training for professional drivers modules 1-4, 8 + 10	■	■	■	■	■	
Combined seminar load control VDI 2700a + CTU	■	■	■	■	■	
Basic seminar load control / lifting 1	■	■	■	■	■	
Combined seminar load control / lifting 1	■	■	■	■	■	
Technical seminar lifting 1 + 2	■	■	■	■	■	

Seminars at a location of your choice!

At the customer's request, SpanSet seminars can also be held in your company or at a central location of your choice, e.g. if you have several branches. Just talk to us!



Seminar Overview

Seminars load control

- Page 54 Technical seminar load control
- 54 Technical seminar for load control heavy-duty transport
- 55 Practical seminar for load control VDI 2700a
- 55 Practical seminar for load control CTU
- 56 Practical seminar for load control dangerous goods
- 56 Practical seminar for load control small vans

Seminars lifting

- Page 57 Technical seminar lifting 1 textiles
- 57 Technical seminar lifting 2 wire ropes and chains
- 58 Technical seminar lifting 1 + 2 textiles / wire ropes and chains
- 58 Practical seminar crane operator training

Seminars Height Safety

- Page 59 Practical seminar / Expertise for height safety technology
- 59 ic seminar training in the height safety

Further training for professional drivers

- Page 60 Further training for professional drivers according to BKrFQG
- 61 Further training for professional drivers Overview of modules

Combined Seminars

- Page 62 Combinations: Practical seminar Load control VDI 2700a + CTU
- Combination: Basic seminar Load control + lifting 1 textiles
- Combination: Technical seminar Load control + lifting 1 textiles
- Combination: Technical seminar Lifting 1 textiles + lifting 2 Wire ropes and chains



Technical seminar for load control

Training to qualified persons for load control in the road transport

Seminar No SEM00003 🕒 7 h

Venues
Berlin | Friedburg | Gütersloh | Hilden | Lübeck | Oberhausen | Oelsnitz | Osterholz-Scharmbeck | Ramstein-Miesenbach | Siegen | Soest | Süßen | Übach-Palenberg (by agreement also at your premises)

▶ The number of participants is limited to 20 persons.

 All information about your registration on p. 63.
Please find current dates and prices for these seminar on www.spanset.de.

Objective

In this seminar you will learn the proper and professional handling of lashing equipment with textile lashing equipment and the calculation of lashing forces. Being a skilled person, you are qualified – after extensive sound experience in the company – to assess the safe state of lashing straps and load control tools. You can also perform tests yourself according to the recent rules and regulations.

Contents

- Load control technology
- Legal foundations of load control
- Physical principals of load control
- Contents of the standard for lashing straps
- Types of load control
- Calculation of forces
- Material choice, proper application
- Practical exercises
- Assessment of the discard criteria

Target group

This seminar is suitable for all who are engaged in transporting, loading or packaging of loads on road vehicles. This would include vehicle drivers and owners, senders, warehouse and shipping professionals as well as persons responsible who perform regular inspections of load control equipment.



Fachseminar Ladungssicherung, Schwertransport

Training to qualified persons for load control equipment on road vehicles / large volume and heavy-duty transports

Seminar No SEM00057 🕒 7 h

Venues
Friedburg | Übach-Palenberg
(by agreement also at your premises)

▶ The number of participants is limited to 20 persons.

 All information about your registration on p. 63.
Please find current dates and prices for these seminar on www.spanset.de.

Objective

By being a participant you will learn to secure the load control of oversized loaded goods with a high loading mass on a heavy-duty transporter taking the current laws and directives into consideration.

Contents

- Dimensions and weights, exemptions, transportation process planning
- Legal bases and responsibilities in the load control
- Forces affecting the travel operation and their effects
- Automotive engineering, lashing points, load distribution plan
- Lashing equipment and tools for load control
- Lashing down, using and calculating
- Direct lashing, using and calculating
- Securing customer-specific loaded goods
- Discard criteria / inspection of lashing equipment

Target group

This seminar is addressed to all who are dealing with the planning, transportation or loading of goods on large volume and heavy-duty transporters or who are responsible for such transports.



Practical seminar for load control VDI 2700a

Training to qualified persons for load control equipment in the road transport by using lashing equipment made of chemical fibres, chains and wire ropes according to the VDI 2700a

Seminar No SEM00004 🕒 2 x 7 h

Venues
Süßen | Übach-Palenberg
(by agreement also at your premises)

▶ The number of participants is limited to 20 persons.

 All information about your registration on p. 63.
Please find current dates and prices for these seminar on www.spanset.de.

Objective

You will learn about the professional handling of all relevant lashing equipment and can calculate lashing forces in theory and practice. You are able to assess the safe state of lashing straps and load control equipment according to current standards and regulations, and you can perform the annually recurring inspections. You will complete the seminar as a skilled person for load control technology.

Contents

- Legal bases of the load control
- Physical principals of the load control
- Requirements in the transport vehicle
- Types of load control
- Determining the required securing forces
- Lashing equipment for the load control (EN 12195-2, -3, -4)
- Development of a lashing strap
- Testing laboratory / tensile tests
- Practical exercises
- Test drives
- Discard criteria / inspection of lashing equipment

Target group

This seminar is addressed to all persons who are engaged in transporting, loading or packaging of loads on road vehicles. This includes e.g. vehicle drivers and owners, managers and persons responsible in warehouses and forwarding departments, loadmasters and safety officers as well as experts, who perform regular inspections of load control equipment.



Practical seminar for load control CTU

Training in the load control in the container according to the CTU packing guidelines

Seminar No SEM00028 🕒 7 h

Venues
Friedburg | Übach-Palenberg
(by agreement also at your premises)

▶ The number of participants is limited to 20 persons.

 All information about your registration on p. 63.
Please find current dates and prices for these seminar on www.spanset.de.

Objective

The load control in the container is a special case. In this seminar we will explain the technical and physical relations to you. Also, you will learn which legal requirements are important and which options you have for the load control in the container. For this purpose we will present you the most important types of load control.

Contents

- Legal bases
- Responsibilities, liability and penalties
- CTU packing guideline and other technical guidelines
- Technical and physical relationship of the load control according to the CTU
- Load control methods
- Transport loads
- Determining the necessary forces for the load control
- Load control equipment and tools
- Practical exercises
- Final test

Target group

This seminar is ideal for you if you count among the persons responsible in the field of logistics or dispatch or pack freight containers in your company.



Practical seminar for load control, dangerous goods

Training to qualified persons for load control tools in the transportation of dangerous goods with training certificate VDI 2700 a and training confirmation according to § 6 of the German Regulation for Commissioners for Hazardous Goods

Seminar No SEM00029

🕒 2 x 7 h

Venues

Übach-Palenberg
(by agreement also at your premises)

- ▶ The number of participants is limited to 20 persons.



All information about your registration on p. 63.

Please find current dates and prices for these seminar on www.spanset.de.

Objective

Besides the basics of the two-day practical seminar load control, we impart you special legal aspects to the transportation of dangerous goods.

Contents

- Legal bases of the load control
- Physical principals of the load control
- Requirements in the transport vehicle
- Types of load control
- Determining the required securing forces
- Lashing equipment for the load control
- Development of a lashing strap
- Testing laboratory
- Other tools
- Practical exercises and test drives
- Discard criteria
- Peculiarities according to the regulations GGVSEB and ADR
- Packaging, marking and transportation regulations
- Specific responsibilities of the hazardous goods law

Target group

This seminar is addressed to all persons who are engaged in transporting, loading or packaging of dangerous goods on road vehicles. This includes e.g. shippers, carriers, vehicle drivers and owners, senders, warehouse and shipping professionals as well as other persons responsible according to § 9 GGVSEB, who perform regular inspections of load control equipment.



Practical seminar for load control in the small van

Training to qualified persons for load control tools in small vans

Seminar No SEM00030

🕒 7 h

Venues

Friedburg | Übach-Palenberg
(by agreement also at your premises)

- ▶ The number of participants is limited to 20 persons.



All information about your registration on p. 63.

Please find current dates and prices for these seminar on www.spanset.de.

Objective

You learn the professional handling of textile load control tools and can theoretically calculate lashing forces and implement in practice. By the commissioning in your company, you will be empowered, to assess the safe state of lashing straps and load control equipment according to current standards and regulations. You will complete the seminar as skilled person for load control technology in the small van.

Contents

- Legal notices regarding § 22 StVO and DIN 75410
- Physical principals
- Vehicle structure
- Lashing points
- Choice of the suitable load control tool
- Lashing straps and nets
- Partition walls and jam pads
- Loading/load distribution
- Practical application
- Test

Target group

This seminar addresses all owners and drivers of courier services as well as public administrations with the corresponding vehicles; but generally all, who are driving small vans.



Technical seminar lifting 1 textiles

Training with certificate of competence in the lifting, textiles

Seminar No SEM00001

🕒 7 h

Venues

Berlin | Friedburg | Gütersloh | Hilden | Lübeck | Oelsnitz | Osterholz-Scharmbeck | Ramstein-Miesenbach | Siegen | Soest | Süßen | Übach-Palenberg (by agreement also at your premises)

- ▶ The number of participants is limited to 20 persons.



All information about your registration on p. 63.

Please find current dates and prices for these seminar on www.spanset.de.

Objective

In this seminar you will learn the commercial and proper application of textile slings. By being a competent person, you are entitled after the seminar to assess the safe state of lifting slings and round slings according to current rules and regulations.

Contents

- Textile sling technology
- Legal foundations
- Product and material science
- Safety information
- Proper application and choice
- Annual inspection according to BGR 500

Target group

With this seminar we mainly address managers, safety experts, masters, mechanics, technicians and strikers. Furthermore, all persons, who are dealing with the use and the regular inspection of textile slings.



Technical seminar lifting 2 wire ropes and

Expertise in the lifting technology fore wire ropes and sling chains

Seminar No SEM00023

🕒 7 h

Venues

Übach-Palenberg
(by agreement also at your premises)

- ▶ The number of participants is limited to 20 persons.



All information about your registration on p. 63.

Please find current dates and prices for these seminar on www.spanset.de.

Objective

This seminar is the ideal supplement to the technical seminar lifting 1 or also a further training for experts in the lifting technology.

Contents

- Sling technology chains and steel wire ropes
- Legal foundations
- Product and material science
- Works tour/testing laboratory
- Safety information
- Proper application and choice
- Annual inspection according to BGR 500

Target group

The target group of the technical seminar Lifting 1 as well as all persons, who are responsible for sling chains and steel wire ropes.



Technical seminar lifting 1 + 2

Ausbildung mit Befähigungsnachweis in der Hebetchnik Textil sowie in der Hebetchnik für Drahtseil und Anschlagkette



Practical seminar crane operator training

Ausbildung mit Befähigungsnachweis für den Transport von Lasten mithilfe einer Krananlage



Practical seminar / Expertise for height safety technology

Training with certificate of competence for personal protective equipment against falling




Basic seminar training in the height safety

Theoretical basics of the height safety technology / Practical handling of safety harnesses and joining means

Seminar No SEM00002 ⌚ 2 x 7 h

Venues
Übach-Palenberg
(by agreement also at your premises)

▶ The number of participants is limited to 20 persons.

 All information about your registration on p. 63.
Please find current dates and prices for these seminar on www.spanset.de.

Objective
These seminars summarise the two seminars for lifting (SEM00001 and SEM00023) in a two-day compact seminar. You will learn the commercial and proper application of textile slings and obtain expertise in the lifting for wire ropes and chains. Being experts, you will be empowered after the seminar, able to assess the safe state of lifting slings and round slings as well as of chains and wire ropes according to the current rules and regulations.

Contents

- Textile sling technology
- Sling technology chains and steel ropes
- Product and material science
- Works tour/testing laboratory
- Safety information
- Proper application and choice
- Annual inspection according to BGR 500

Target group
The target group of the technical seminar lifting 1 and lifting 2.

Seminar No SEM00061 ⌚ 7 h

Venues
Übach-Palenberg
(by agreement also at your premises)

▶ The number of participants is limited to 20 persons.

 All information about your registration on p. 63.
Please find current dates and prices for these seminar on www.spanset.de.

Objective
This seminar serves to impart knowledge for the safe operation of ground-operated cranes and their accessory equipment according to BGV D6, § 29.

Contents


- Contents BGV D6 "Cranes"
- Tasks and responsibility
- Safe attachment of loads
- Safe handling of slings
- Load transportation
- Strikers and crane operators
- Personal protective equipment
- Written examination
- Practical instruction on the device
- Manoeuvres
- Sling technology in the practice
- Practical examination

Target group
Operators (or those who would like to become operators) of groundoperated cranes, which shall be entrusted with tasks of the in-house transportation as well as with the storing and piling; and who need to prove their qualification towards the entrepreneur.

Seminar No SEM00006 ⌚ 2 x 7 h

Venues
Struppen | Übach-Palenberg
(by agreement also at your premises)

▶ The number of participants is limited to 20 persons.

 All information about your registration on p. 63.
Please find current dates and prices for these seminar on www.spanset.de.

Objective
In order to correctly assess when working at heights, to detect and estimate possible dangers of such work – that is the topic of this seminar. You will learn to create the rescue plan correctly and in due time. With this seminar you will obtain the expertise for the use of the personal protective equipment against falling and for the annual inspection of products for the personal protective equipment against falling.

Contents


- Choice of the personal protective equipment against falling
- Rights, standards, directives
- Works tour and testing laboratory (except for Struppen)
- Material science: Maintenance, care and inspection of selected personal protective equipment against falling
- Sling equipment
- Height safety devices
- Practical exercise to assess the occupational safety
- Demonstration of diverse work techniques in the practice

Target group
Anyone, who is working in heights or depths, due to their activity and use personal protective equipment against falling and/or, are responsible for the regular inspection and assessment of the safety harnesses such as e.g. factory mechanics and mechanics, safety experts, masters, foremen, workers in the building industry, roofers, fire brigade, etc.

Seminar No SEM00031 ⌚ 7 h

Venues
Friedburg | Übach-Palenberg
(by agreement also at your premises)

▶ The number of participants is limited to 20 persons.

 All information about your registration on p. 63.
Please find current dates and prices for these seminar on www.spanset.de.

Objective basic module
Working at heights bears a high potential of risks in itself – here you will learn, to adapt the correct assessment and choice of securing means to the corresponding situation.

Objective extension module 1
The objective is to train the participants in handling the height safety equipment.

Contents basic module
Basics of the height safety / hazard identification when working (Is a rescue plan needed?) / What kind of products are available for height safety? / Choice of the right work and securing equipment / How do I perfectly use my securing equipment and where are the dangers of a misapplication? / When do I have to withdraw the securing equipment from use?

Contents extension module 1
Contents extension module 1
Practical handling with safety harnesses and joining means / Safe handling with jointing means / How do I correctly fasten the belt and how do I correctly adjust it? / Visual inspection of the equipment for defects / Distinction of different safety systems and joining means in practice / Practical exercises with different securing systems / Presentation of different rescue systems / Correctly assessing dangers.




Further education for professional drivers in the road transport according to the law about the qualification of professional drivers (BKrFQG)

Flexibly blended seminars according to the law about the qualification of professional drivers (BKrFQG) for the further education for all professional drivers with the driving licence categories C1E, C, CE

Seminar No SEM00048 – SEM00055 ⌚ 5 x 7 h

Venues
Aachen | Übach-Palenberg

► The number of participants is limited to 20 persons.

 **All information about your registration on p. 63.**
Please find current dates and prices for these seminar on www.spanset.de.

The new law about the qualification of professional drivers (BKrFQG)
The council of the EU enacted this law, in order to improve and standardise the qualification of all professional drivers. This means for you: Until the renewal of your truck driving licence, you will have five years in order to attend the required further training. The scope of the further educations shall amount to a total of 35 hours and may be subdivided

Note
Further training for the driving licence category D upon request

Objective

The new EU directive (refer to the information box on the left) prescribes a continuous further education for all professional drivers. Also, drivers who have a long-term professional experience are obliged to keep their knowledge always up-to-date. By attending the certified seminars about the qualification of professional drivers BKrFQG of SpanSet you can design this further education according to your ideas, just as it best matches your time schedule. Therefore, we also offer short-term dates by which you can e.g. make good use of periods of bad weather. Contact us – also for compact offers and trainings on Saturdays!

Contents of the seminar modules (according to annex 1 of the qualification of professional drivers BKrFQG)

- Health and fitness: practical tips and exercises as a compensation for long sitting
- Kinetic chain, energy and environment: Drive economically, fuel-efficient and environmentally friendly
- Breakdowns, accidents, emergencies: e.g. correct behaviour in case of fire and criminality
- Social legislation among others regarding the topic driving and rest periods, control devices and traffic regulations
- Load control in the road haulage: In the basic and extension module you will get to know friction locking and positive locking methods of the load control
- Regulations for the road haulage: all about current new regulations, e.g. for traffic avoiding the tolls
- Market and image – take off: the transportation as market, driver and vehicle as company representatives

Target group

This seminar addresses all persons, which professionally drive trucks and buses, also with longer professional experience

Overview of modules

<p>Module 1 + Module 3 BKrFQG* 3.3 + 3.4 + 3.5 ⌚ 7 h</p> <p>Health and fitness Prevent health injuries / Prevention Sensitivity Meaning of a good physical / intellectual condition</p> <p>Breakdowns, accidents, emergencies, behaviour in case of fire and criminality Traffic accidents, safety technology, crime prevention / smuggling</p> <p>Venue: Aachen Seminar No: SEM00048 + SEM00050</p> 	<p>Module 2 BKrFQG* 1.1 + 1.2 + 1.3 ⌚ 7 h</p> <p>Kinetic chain, energy and environment Kinetic chain, function of the safety equipment, alternative drives, driving resistances, economical / ecological driving</p> <p>Venue: Aachen Seminar No.: SEM00049</p> 
<p>Module 4 BKrFQG* 2.1 ⌚ 7 h</p> <p>Social legislation Driving and rest periods according to VO(EG)561 AETR / Working Hours Act / time sheets Analogue and digital control devices Controls and penalties</p> <p>Venue: Aachen Seminar No.: SEM00051</p> 	<p>Module 5 BKrFQG* 1.4 ⌚ 7 h</p> <p>Road haulage / load control Legal bases, vehicle structures / forces, lashing equipment / tools, kinds of load control, calculation / goods</p> <p>Venue: Übach-Palenberg Seminar No: SEM00052</p> 
<p>Module 6 BKrFQG* 1.4 ⌚ 2 x 7 h</p> <p>Road haulage, regulations for the road haulage Legal bases, vehicle structures / forces, lashing equipment/ tools, kinds of load control, calculation / goods</p> <p>Practical seminar</p> <p>Venue: Übach-Palenberg Seminar No: SEM00053</p> 	<p>Module 8 + Module 10 BKrFQG* 2.2 + 3.6 + 3.7 ⌚ 7 h</p> <p>Road haulage, regulations for the road haulage Basic qualification and further training, transport operating licences, freight laws, transport documents / accompanying documents, customs legislation / road traffic law</p> <p>Company image and market research Behaviour, which contributes to a positive company image in the public, knowledge of the commercial environment and of the market regulation, different activities in the public transport, organisation</p> <p>Venue: Aachen Seminar No: SEM00054 + SEM00055</p> 

We will be glad to help you regarding any questions about the individual modules and the corresponding laws.

*Qualification of professional drivers



Practical seminar for load control VDI 2700a + Practical seminar for load control CTU
Seminar No SEM00056

🕒 3 x 7 h

Contents of the practical seminar for load control VDI 2700a (please find more information on p. 55)

Legal bases of the load control / Physical principals of the load control / Requirements in transportation vehicles / Types of load control / Determination of the required security forces / Lashing equipment for the load control 12195-2, -3, -4 / Development of a lashing strap / Testing laboratory / Tensile tests / Other tools / Practical tools / Test drives / Discard criteria / Testing of lashing equipment

Practical seminar for load control CTU (please find more information on p. 55)

Legal bases / Responsibilities, liability and penalties / CTU packaging directives and other technical directives / Technical and physical relationships of the load control according to the CTU / Load control methods / Transport loads / Determining the required forces for load control / Load control equipment and tools / Practical exercises / Final test



Basic seminar for load control + Basic seminar for lifting 1 textiles
Seminar No SEM00027

🕒 7 h

Contents of the technical seminar for load control (please find more information on p. 54)

Load control technology / Legal bases for load control / Physical principals for load control / Contents of the lashing strap standard / Types of load control / Calculation of forces / Material selection, proper application / Practical exercises / Assessment of the discard criteria

Contents of the technical seminar for lifting (please find more information on p. 57)

Textile sling technology / Legal bases / Product and material science / Safety information / Proper application and choice / Annual inspection according to BGR 500



Technical seminar for load control + Technical seminar for lifting 1 textiles
Seminar No SEM00005

🕒 2 x 7 h

Inhalte Fachseminar Ladungssicherung (mehr Informationen auf S. 54)

Load control technology / Legal bases for load control / Physical principals for load control / Contents of the lashing strap standard / Types of load control / Calculation of forces / Material selection, proper application / Practical exercises / Assessment of the discard criteria

Contents of the technical seminar for lifting (please find more information on p. 57)

Textile sling technology / Legal bases / Product and material science / Safety information / Proper application and choice / Annual inspection according to BGR 500



Technical seminar for lifting 1 textiles + Technical seminar for lifting 2 wire ropes and chains
Seminar No SEM00002

🕒 2 x 7 h

Contents of the technical seminar for lifting (please find more information on p.57)

Textile sling technology / Legal bases / Product and material science / Safety information / Proper application and choice / Annual inspection according to BGR 500

Contents of the technical seminar for lifting 2 wire ropes and chains (please find more information on p. 57)

Sling technology chains and steel wire ropes / Legal bases / Product and material science / Works tour and testing laboratory / Safety information / Proper application and choice / Annual inspection according to BGR 500

All information about your registration on p. 63. Please find current dates and prices for these seminars on www.spanset.de.

► Do you require another combined seminar for your company? Contact us.

Registration

With the individual combination of your apprenticeship and in-service training program you obtain exactly the qualification for your staff, which you need for more safety and efficiency in the company. The training on site at your premises guarantees direct practical relevance and saves you expenses. You can register in three different ways for our seminars:

Online

Just go to www.spanset.de and fill in the registration form.

Mobile

Conveniently scan the **QR-Code** of the selected seminar.

Fax

Directly fill in the registration form and send it to **+49 (0)2451 4831-8230**.



**Do you have any further questions?
We will be glad to support you!**

Petra Schmitz-Beckers
+49 (0)2451 4831 230
pschmitz-beckers@spanset.de

Registration by fax

Seminar	Seminar no
-----	-----
Venue	Date
-----	-----

Teilnehmer

1. First and last name	Position in the company
-----	-----
2. First and last name	Position in the company
-----	-----
3. First and last name	Position in the company
-----	-----
4. First and last name	Position in the company
-----	-----
5. First and last name	Position in the company
-----	-----

How many vegetarian meals shall we prepare for you? ----- Do you need any information about hotels? Yes No

If you would like to register several participants, please use the online registration under www.spanset.de or attach a separate sheet to this fax listing the individual participants.

Company	VAT-ID/Tax No	
-----	-----	
Street/P.O. Box	Zip code, City	
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Contact	Position in the company	
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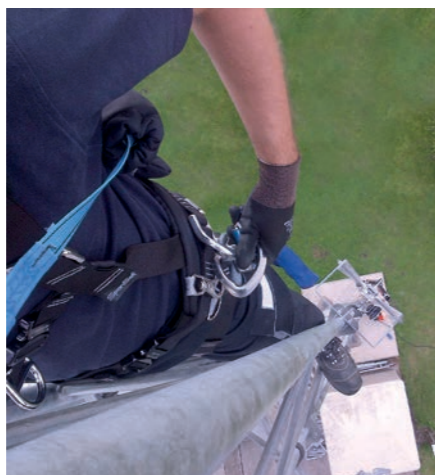
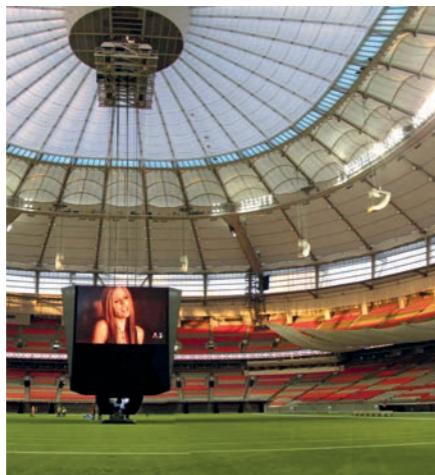
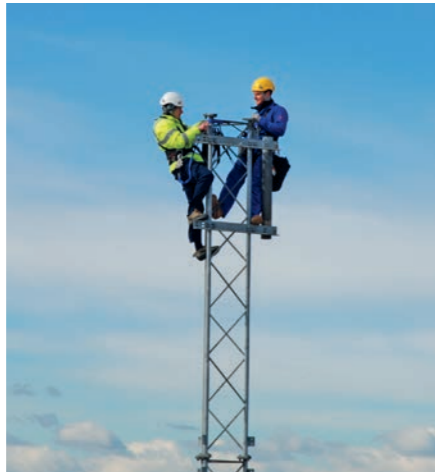
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Date	Signature
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