



The Trailer Company.



**More than just general cargo:
Strong Curtainsider solutions for demanding
transport tasks**

Prologue

Do you drive in countries with higher permissible gross weights, are you often on the road in cross-border or combined traffic? Do you need a robust vehicle with solid construction and high flexibility?

With specific product solutions in terms of load, payload and equipment, the curtainsider semitrailer S.CS becomes a robust and flexible universal talent. Equipment for combined and cross-border traffic as well as options for particularly high point loads or construction site traffic are available, as well as for rail loading and ferry traffic.

Semitrailer curtainsider S.CS: Strong product solutions for demanding transport tasks.

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High loads in cargo traffic

Requirements and product solutions for safe transport



High load capacity with low dead weight and high payload is an essential requirement for transport solutions in the commercial vehicle sector. Due to developments in the transport and logistics sector, vehicles that are designed for heavy-duty use are becoming more important. The reasons for this are, on the one hand, the extended radii of action and, on the other hand, the ever more extensive fields of application.

The challenges faced by transporters include, in cross-border traffic in the European and non-European area **difficult road conditions and weather conditions**, but also additional scope for use, such as **higher permissible gross weights** in certain countries. Similarly, there is a demand for vehicles at home and abroad that cover the **widest possible range** of tasks and also allow **greater flexibility in combined transport**.

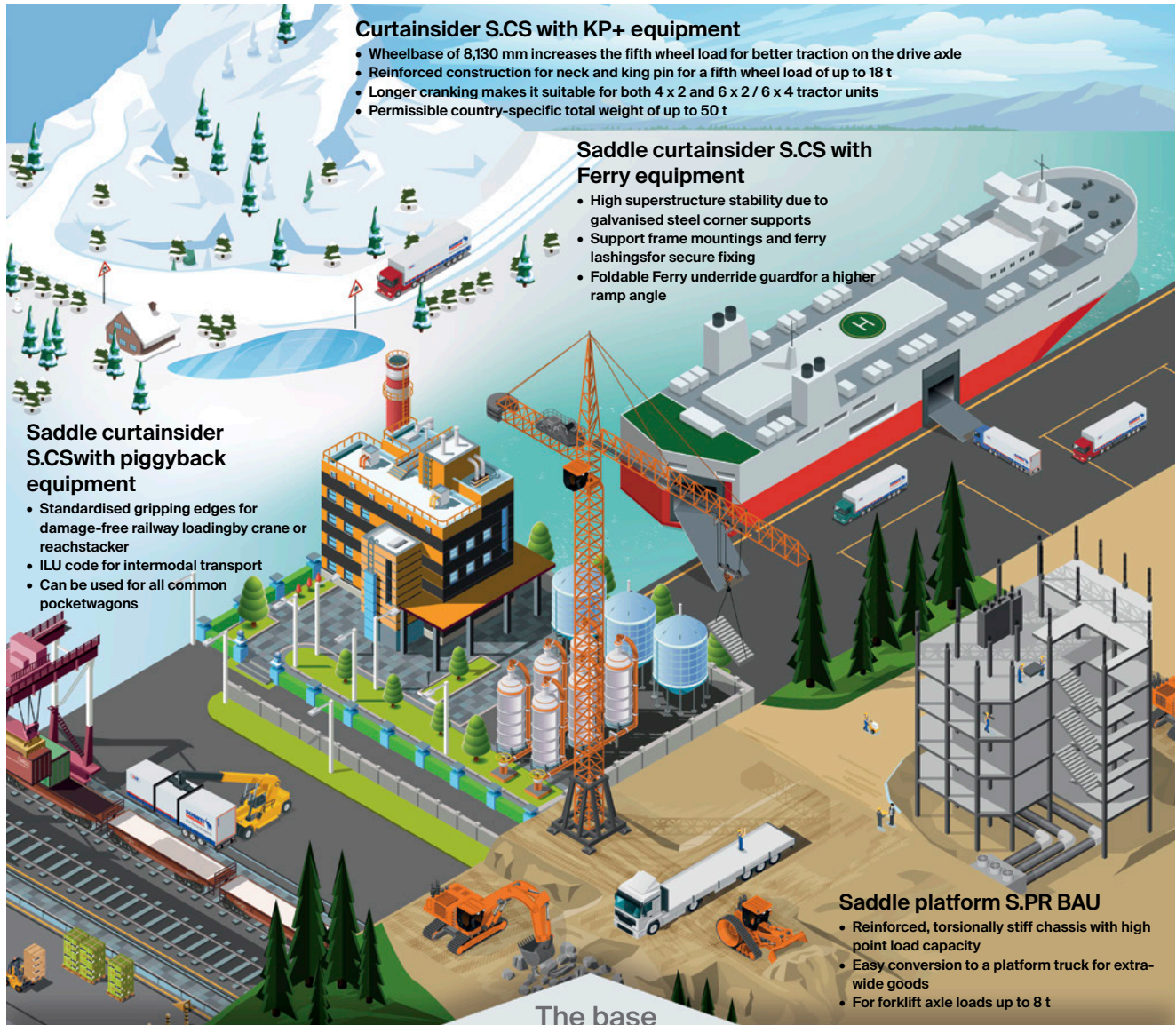
In view of these requirements, the focus is increasingly on **heavy-duty product solutions** that ensure the safe transport of goods.



In cross-border transport, strong product solutions are needed to master the many challenges.

Transport solutions for demanding tasks

On the road with the right equipment



The MODULOS-Chassis

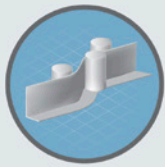
High point load with roll-formed longitudinal beams



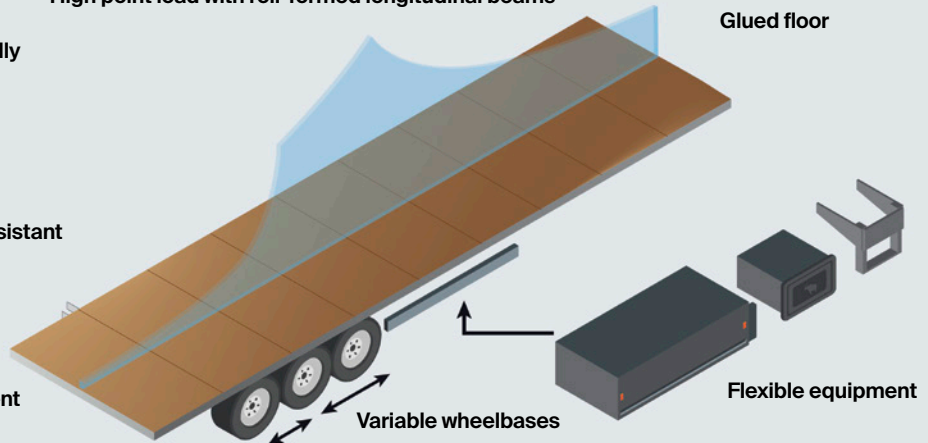
Repair-friendly



Corrosion resistant



Highly resilient



Freight traffic on the road

High stability under heavy use and high point loads

Throughout Europe, there is a growing tendency to raise the total weights for freight transport on the roads above the classic 40 tonnes. In the Scandinavian countries, permissible gross weights of 50 tonnes and more apply today. Particularly in the northern and eastern regions, poor roads with heavy loads are just as much a part of everyday transport as the long winter seasons with slippery roads due to snow, slush and ice.

Heavy-duty vehicles such as the **curtain insider** semitrailer **S.CS UNIVERSAL KP+** are optimised for such challenges. **Higher country-specific gross weights** can be exploited thanks to the **increased load-bearing capacity** of the MODULOS-chassis. This very sturdily constructed vehicle frame can cope with the loads even on poor road surfaces. In addition, it allows for an **extended wheelbase**, which increases the **fifth-wheel load on the drive axle**. This reduces traction problems in difficult road conditions.

The increasingly diverse and complex transport tasks in freight transport require vehicles that can be used flexibly and are also uncomplicated in the loading and unloading processes. The MODULOS chassis of the S.CS UNIVERSAL KP+ is **highly resistant to strong point loads**, such as those that occur when transporting paper or when being driven over by floor vehicles. This provides **more flexibility** in the transport business **without impairing the service life** of the vehicles.



The selectively reinforced MODULOS chassis in the curtain insider semitrailer S.CS UNIVERSAL KP+ is designed for extreme conditions through increased load-bearing capacity and stronger load-bearing capacity



The S.CS UNIVERSAL KP+ is suitable for two- and three-axle tractors due to its longer cranking, has a saddle load of up to 18 tonnes due to the reinforced construction at the neck and king pin and allows a total weight of up to 50 tonnes.

Combined transport

The right equipment for train and ferry

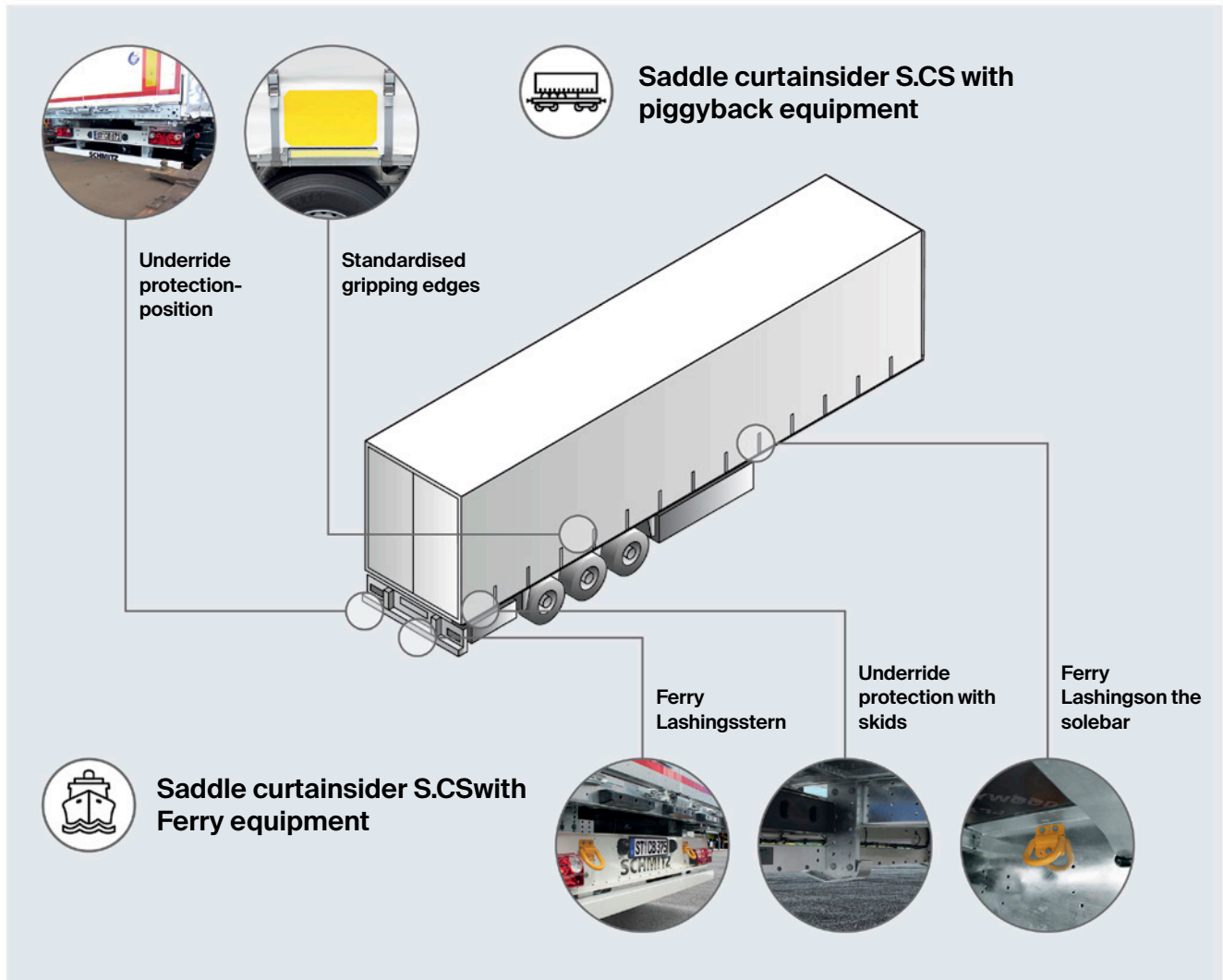
Rail and sea are increasingly used as economical and environmentally friendly alternatives in combined transport - for example for transalpine transport or for freight transport in the Baltic Sea region. Unaccompanied transport in particular places increased demands on the strength of the trailers due to loading processes. Our strong product solutions meet these stability requirements without restrictions. This reduces the risk of failure in demanding multimodal transport. In addition, the vehicles have equipment specially designed for rail or short sea shipping.

The S.CS curtainsider semitrailer with piggyback equipment is optimally prepared for rail transport and ensures smooth operations during vertical handling and on the track. Stable, standard-compliant gripping edges on the trailer enable damage-free loading with a crane or reach stacker.



The **adapted positioning of the underride guard** enables compliance with different envelope spaces and thus transport on all common bag trolleys.

The **S.CS curtainsider semitrailer with ferry equipment** shows its superior characteristics in the extreme conditions of rough roll-on/roll-off ferry traffic. The **skid-mounted underride guard** can cope with collisions and is designed to be foldable for steep ramp profiles. **Integrated trestle mounts** as well as special **ferry lashings** on the longitudinal beam, frame and rear ensure reliable securing of the dropped vehicle during the crossing.

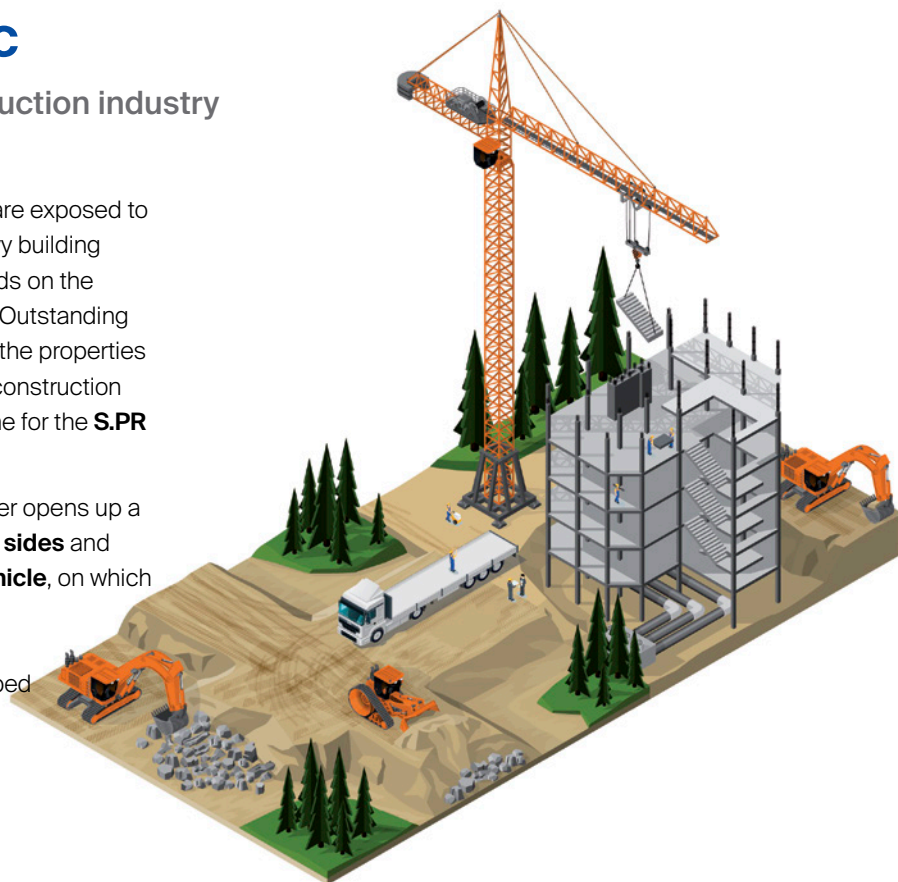


Construction traffic

Robust load carriers for the construction industry

In the construction transport business, vehicles are exposed to the heaviest loads due to being loaded with heavy building materials or construction machinery. The demands on the stability of the chassis are correspondingly high. Outstanding **torsional rigidity** and **point load** resistance are the properties that make the MODULOS chassis for use in the construction sector and make it the adequate supporting frame for the **S.PR BAU flatbed semitrailer**.

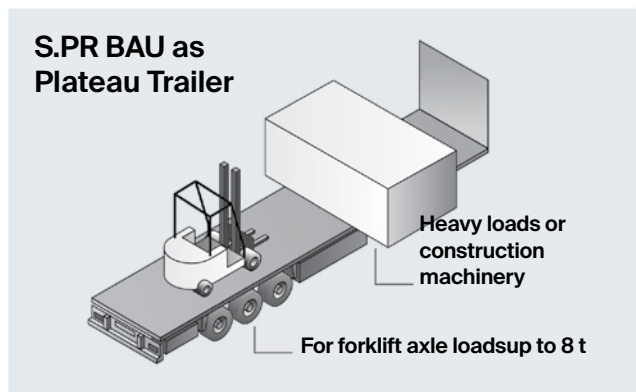
The equipment of the S.PR BAU flatbed semitrailer opens up a wide range of applications. The **removable drop sides** and **stanchions** enable conversion to a **platform vehicle**, on which bulky loads can be reliably secured with robust lashing . For **transport with excess width** the S.PR BAU semitrailer is equipped with **extendable warning signs on the sides**.



The S.PR BAU flatbed semitrailer with reinforced chassis and tight, easily removable drop sides.



Fold-down drop sides and removable stanchions for full lateral loading through-loading width.



Easy conversion to a plateau for the transport of heavy loads or extra-wide goods. Loads or extra-wide goods to be transported.



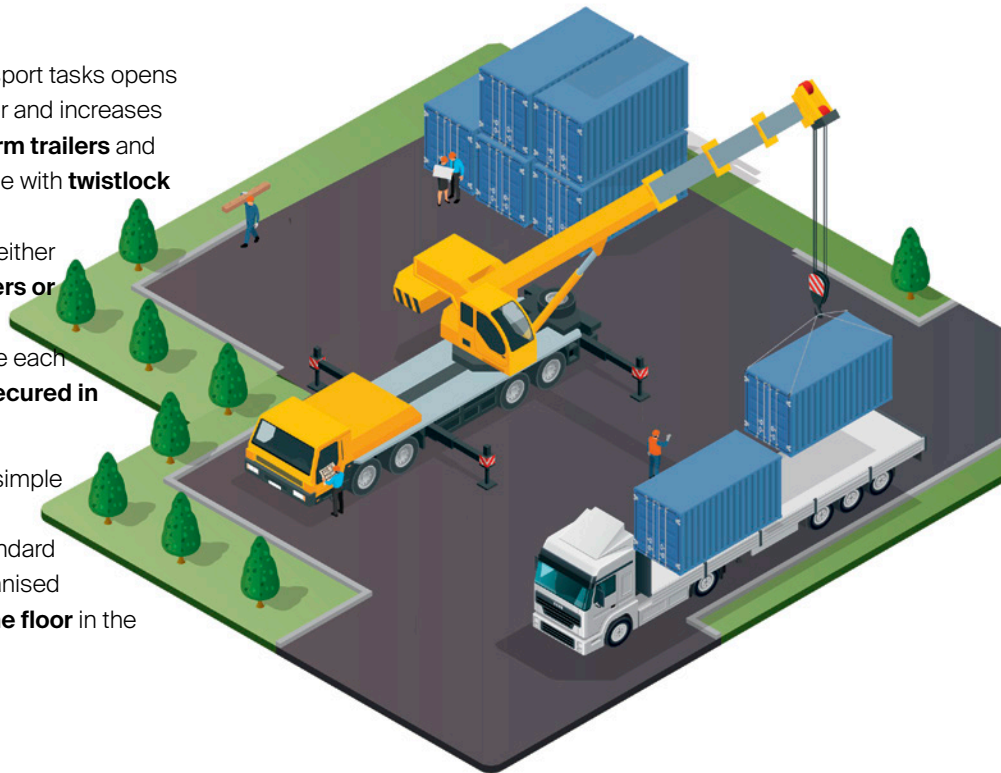
For high point loads, the reinforced construction chassis can also be combined with an S.CS curtainsider.


Container transport

Multifunctional transport vehicles


Being able to react flexibly to different transport tasks opens up additional orders for the freight forwarder and increases the utilisation of the fleet. **S.PR BAU platform trailers** and **S.PL platform trailers** can therefore also be with **twistlock container locks** be equipped. With six locking pairs, these vehicles can transport either **1 x 40 foot container, 2 x 20 footcontainers or 1 x 20-foot ISO containers**. For **optimum load distribution**, the freight containers are each positively repetition secured in the centre **secured in the centre**.

The handling of the Twistlock locks is as simple as usual, the selected position is always secured with the drop safety catch. For standard tasks for construction site trailers, the galvanised container locks are **recessed flush with the floor** in the outer frame.







Plateau trailerin container transport



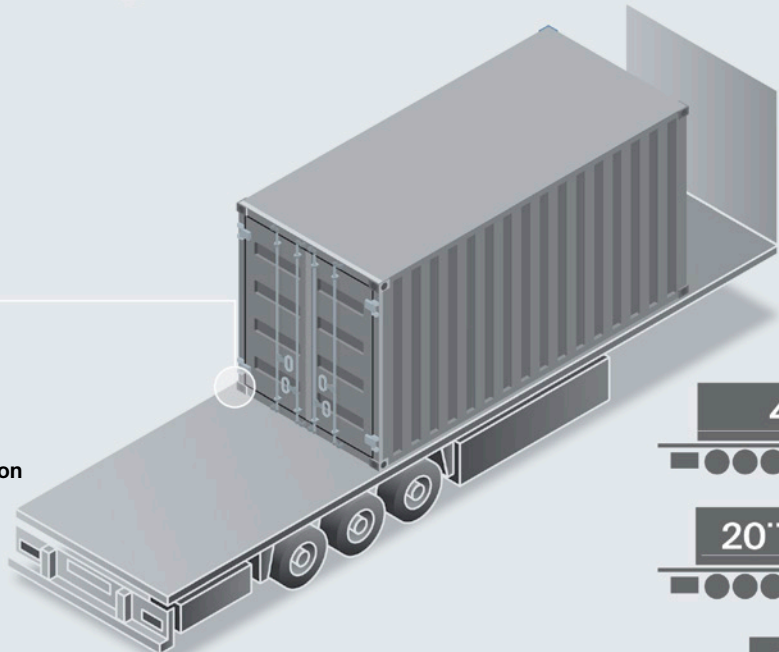
Twistlock in the bottom flush recessed

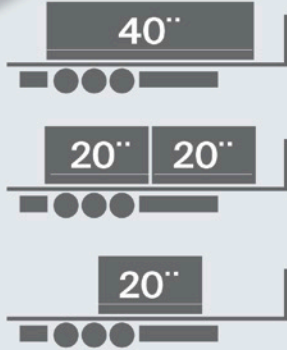


Twistlock in locking position



Twistlock latch on the underside





Container loading plan

Transport of long material

Load securing with stanchion pockets

Stanchions simplify the load securing of **long materials, mesh mats and general cargo**. Compared to individual stanchion pockets in the vehicle floor, **stanchion pocket magazines across the direction of travel** multiply the optimal arrangement of stanchions.

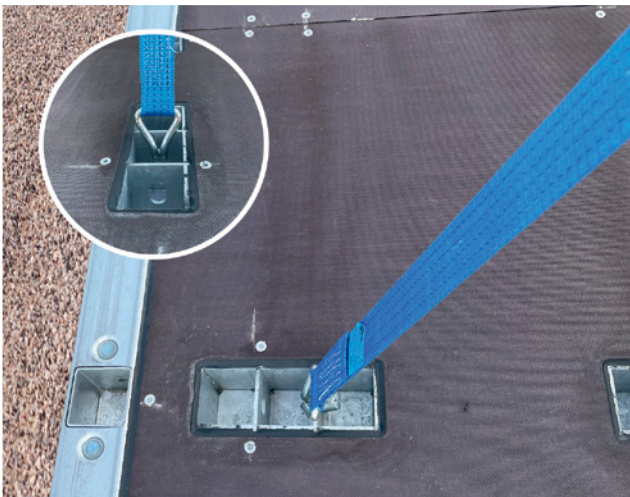
Up to 100 positions are possible with eight rows of hot-dip galvanised pocket magazines and stanchion pockets, each arranged on the outer frame and centrally. In addition, load securing straps can also be hooked into the **perforated securing elements** to lash down the cargo quickly and easily. This combination of different load securing elements is available for the **curtainsider semitrailer S.CS UNIVERSAL** and especially for the **construction vehicles S.PR BAU and S.PL**.



Hot-dip galvanised stanchion pocket magazines in the vehicle floor offer many possibilities for the arrangement of plug-in supports.



Two rows of stanchion pockets in the front area.



Additional lashing straps can be hooked into the stanchion pocket magazines



Even with the drop sides locked, the stanchion pockets in the outer frame remain completely usable.

Overlong transports of goods

Safe and law-abiding on the road

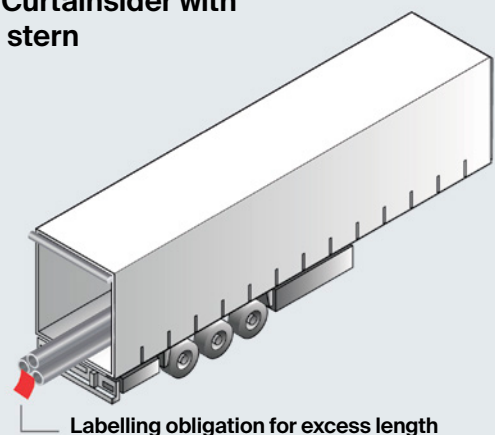
Within the legal requirements, extra-long goods can be transported with standard vehicles such as **S.CS curtainsiders** if appropriate load securing and labelling is carried out. In the case of closed bodies, a **detachable folding stanchion** and a **roll-up tarpaulin with tarpaulin rope** must be provided so that the rear can be opened safely and the goods can protrude up to 1.50 m.* The red warning element at the end of the cargo remains mandatory.

In regular transport, these tarpaulin trailers meet the **specifications for Code XL** through the use of **aluminium top slats** and **diagonal bracing of the corner stanchions at the rear**. The 820 mm high aluminium tailgate provides the necessary body stability in the lower area.

* On short distances of less than 100 km, even an overhang of 2.00 m is permitted.

When the transport of extra-long goods becomes a standard task, Schmitz Cargobull's modular production system offers correspondingly **longer vehicles with lengths of 14.92 and 16.32 metres**. These are subject to special regulations and can only be used in some countries. In Germany, for example, the Curtainsider S.CS UNIVERSAL with 14.92 m is used within the regulations for the EuroCombi.

S.CS Curtainsider with open stern



Prepared for transporting overlong freight: S.CS curtainsider semitrailer with dropside at the rear and roll-up tarpaulin.



CODE XL rigidity due to diagonal tensioning cross and inserted aluminium slats.

Innovative manufacturing process for longitudinal beams

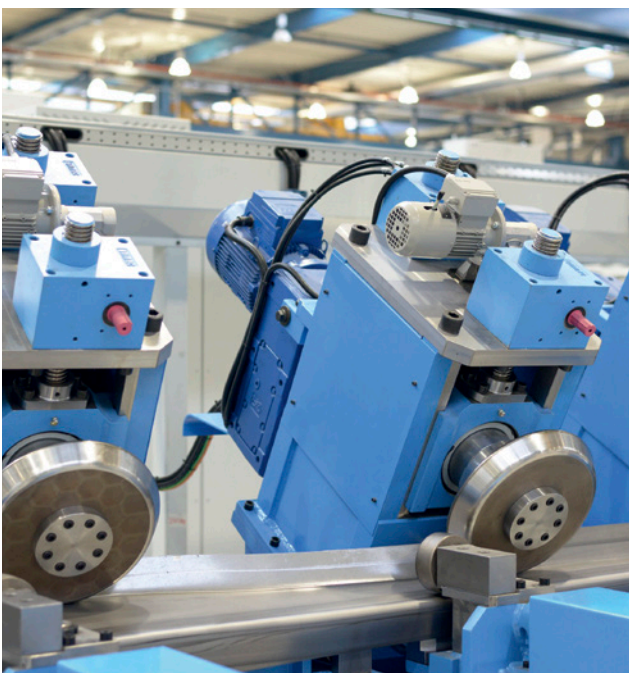
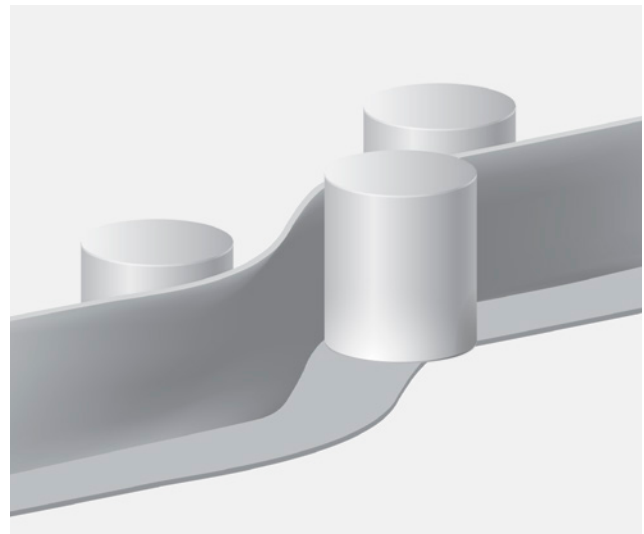
Cold forming from one piece

The central supporting structure of the vehicle frame is traditionally formed by **two longitudinal members** to which all components of the frame dock. The manufacturing process has increased the **load capacity and durability** of the longitudinal members for the MODULOS chassis, on which the strong product solutions are based. This has also improved the **overall strength and durability** of the frame.

The solebar is **manufactured from one piece by cold forming**. The beam blank receives its profile in a **roller burnishing machine**, where it is formed into its exact shape at room temperature by several swivelling rollers arranged in a row.

In contrast to conventional welding of the upper and lower chords, this process **does not cause any material stresses** due to high heat exposure and **no weakening of the material**. Instead, roll forming compresses the material at the bending edge of the longitudinal member, which further increases the strength of the entire chassis.

The load-bearing capacity of the longitudinal girder increases by about **10 percent per loading metre** due to the material-conserving production. A comparable increase can only be achieved with welded longitudinal beams by using more material and thus also a higher dead weight.



In the roller burnishing unit, the long beam is formed into its exact shape at room temperature by swivelling rollers.

Higher stability of the MODULOS chassis

Stress-free construction with screwable bolts

The solebar is supported by **weight-favourable struts and reinforcements**, for example at the lower chord in the neck area. The load scenarios to be considered are computer-simulated using the **finite element method**. This achieves **maximum stability with minimum use of materials**.

On the rolled solebar, all components of the MODULOS chassis are firmly connected with **screwable bolts**. The bolts are secured against rotation by longitudinal grooves on the shaft and are mounted with torque-controlled tightening. The bolted connection remains detachable so that components on the chassis can be replaced without major effort in the event of damage or retrofitted for **individual adjustments**, for example with **ferry lashings or reinforcements**, for special transport **applications**.

Avoiding welded **joints increases manufacturing precision**, as no thermally-induced stresses occur. This **increases the dimensional stability** of the vehicle frame, which in results in **greater driving stability** of the trailer. The stress-free design also has a positive effect on the **service life of the frame**.



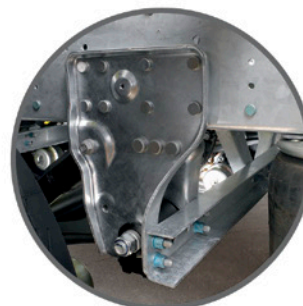
The high-strength knurled bolts from Schmitz Cargobull have longitudinal grooves on the shaft and thus wedge themselves into the bore. This also secures the connection against twisting.



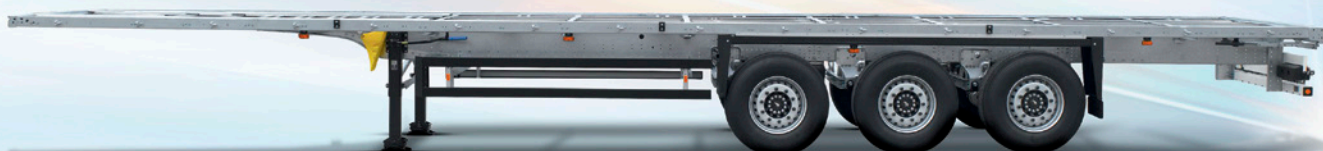
The lower chord of the neck area is specifically reinforced so that the entire solebar can be designed with optimised weight.



Triangular braces absorb large forces with little material input. This is the basis for being able to move up to 27 tonnes of aggregate load efficiently and safely over the road.



The axle suspension directs the forces directly vertically into the web of the rolled longitudinal member. This means: maximum reliability even on the most unfavourable road conditions.



Unique corrosion protection

Long service life due to hot-dip galvanisation

The bolted construction enables particularly effective **corrosion protection through hot-dip galvanising**.

Galvanisation takes place before the chassis components are assembled, so that all surfaces of the finished components, including the cut edges, holes and cavities, are reliably reached in the zinc bath. This ensures a **long service life** even under adverse operating conditions, for example in wet weather or under the influence of road salt.

Hot-dip galvanised surfaces are also characterised by the fact that they have a **self-healing** effect in the case of small-scale damage. If the zinc layer is damaged, an electrolytic zinc is deposited on the steel to be protected. The corrosion protection remains intact.

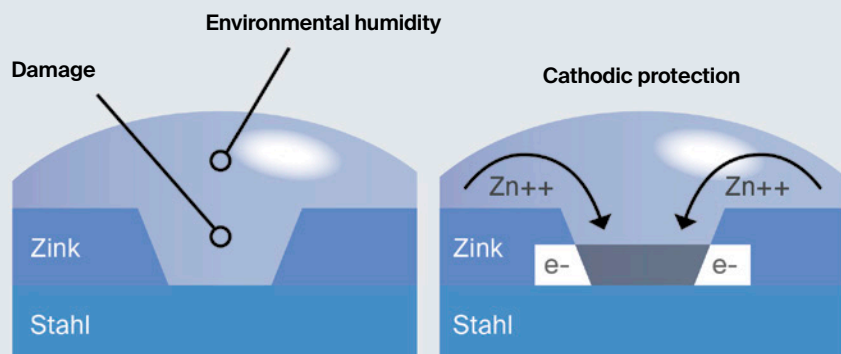


Only the finished workpiece is dipped into the zinc bath. This piece-galvanising process protects cut edges and cavities just as much as the large outer surfaces.



Convenient self-healing:

Minor damage to the galvanised surface is no drama. Due to electrolytic processes, there is a bridging protective effect. This makes this corrosion protection almost maintenance-free.



Schmitz Cargobull AG

Complete solutions for the transport and logistics market

Schmitz Cargobull AG offers innovative vehicles and comprehensive services for the transport and logistics industry from a single source. The range of trailer-related services extends from financing and leasing to spare parts supply, service contracts and trailer telematics.



Find out more at:

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