

Product Overview

Trailers with TRIDEC steering systems and axle suspensions are the safest and most solid choice





TRIDEC – Proven reliability

TRIDEC develops and produces, independent from axle or trailer manufacturer, mechanical, hydraulic and electronic steering systems, as well as special wheel and axle suspensions.

Steering safely

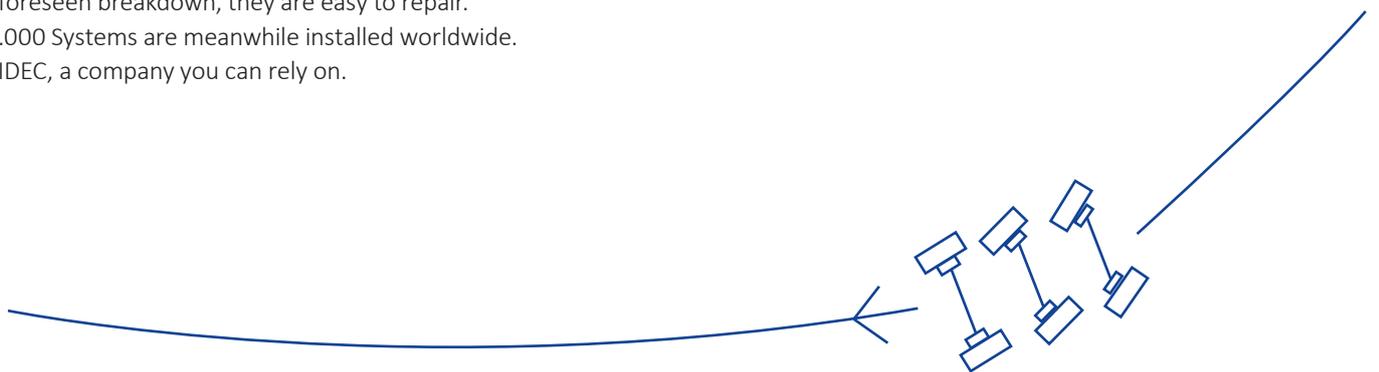
TRIDEC steering systems offer total control and the safest cornering. They are often copied, but never matched. The TRIDEC quality remains unbeaten. We fully understand your challenges: ever more difficult to reach destinations, busy traffic, urbanizations and the growing number of roundabouts. Our innovative and solid solutions make us the steering system market leader. Choosing TRIDEC on your trailer offers unbeatable advantages.

Proven reliability

TRIDEC systems hold years' of experience in different applications, road and weather conditions. They are built in Europe matching the toughest quality standards, ensuring unbeaten reliability. Besides, in case of an unforeseen breakdown, they are easy to repair. 60.000 Systems are meanwhile installed worldwide. TRIDEC, a company you can rely on.

Saving costs

A TRIDEC system adds value to your trailer. Previously inaccessible destinations are now reached with larger loads. The reduction in number of runs cuts costs significantly. Improved manoeuvrability also reduces fuel consumption and tire wear. Choosing for TRIDEC, is choosing for better margins and higher profits.





Custom made

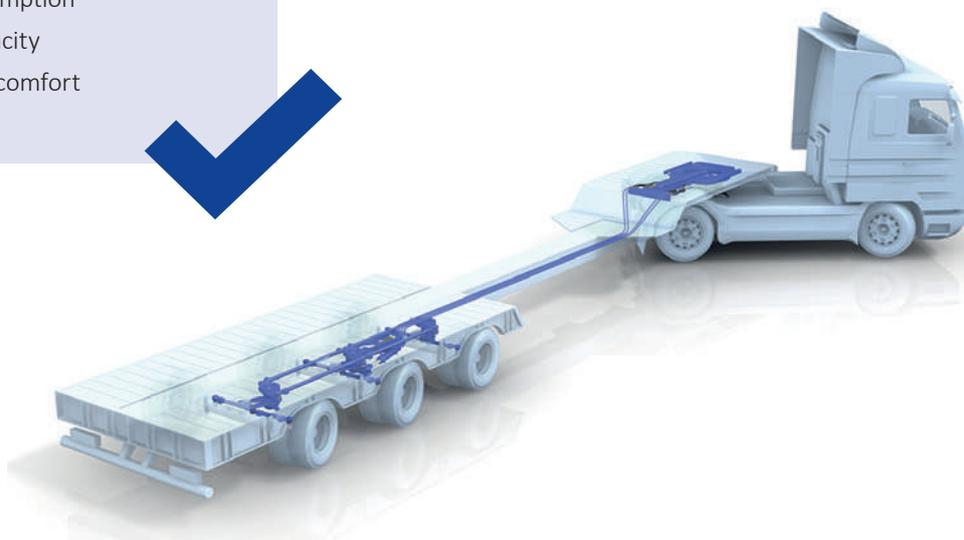
Each truck and trailer combination is different. Fortunately TRIDEC has specialist knowledge and years' of experience to produce a custom-made solution. Our systems are modular, which allows us to offer a solution for any kind of trailer. Working closely with you, our collaborative approach means we achieve excellent results. Together, we deliver a bespoke TRIDEC solution.

TRIDEC – Member of JOST-World

TRIDEC is part of JOST-World, a world leader in the manufacturing of systems, modules and components for commercial vehicles. As global player, JOST can guarantee the availability of products, without neglecting the local needs. Customers benefit from TRIDEC's know-how and the presence of JOST-World.

Advantages at a glance:

- Saves costs
- Optimises manoeuvrability
- Smaller turning circles
- Reduces tire wear
- Reduces fuel consumption
- Increases load capacity
- Increases safety & comfort
- Custom made



Trailers fitted with original TRIDEC steering systems and suspensions offer the best option when it comes to safe cornering. They are often copied, but never matched. TRIDEC quality remains unbeaten. TRIDEC quality remains unbeaten. With solid and innovative solutions TRIDEC is the market leader for steering systems. Its reliability is demonstrated by over 60,000 systems delivered worldwide. TRIDEC, part of JOST-World, a company you can rely on!

Would you like to know which system is most suitable for you? Then please contact us. Owing to our very comprehensive product range, you can rely on TRIDEC to give you the best advice for your individual application.



Mechanical Steering Systems

TRIDEC's mechanical steering systems are characterised by a mechanical linkage between the fifth wheel coupling plate and the axle by means steering rods.

Steering systems					Suspensions	
Mechanical		Hydraulic		Electronic	Air	Hydraulic
Rigid Axle	Steered Axle	Rigid Axle	Steered Axle	Steered Axle		
TD	TF	HS	HF	EF-S	LV-O	HV
TD-X			HF-E		TF-VO	DL-S
TR						TP-O
TR-X						MD-O
BTRG						HD-O
		Tritronic	Tritronic			Tritronic

This type of system improves the vehicle's manoeuvrability, saving on time and fuel. It also reduces tire wear. Previously inaccessible destinations are now reached with larger loads. The reduction in number of runs cuts costs significantly. All this combined leads to a saving of 30% and greater driver comfort.

Maintenance is kept to a bare minimum involving periodical greasing of turntables and visual inspections. Most joints are equipped with patented „sealed for life“ bearing constructions and maintenance free ball joints. Special TRIDEC spline bolts are used for most bolt connections, preventing loosening of bolts.

Advantages at a glance:

- Saves costs
- Solid and simple technology
- Truck-independent
- Low maintenance
- Easy to install
- Broad application
- Cost effective





TD

The TD system is designed to steer one or two axles in trailers used for distribution. Its cost effective design, simple mounting, broad applicability and minimal maintenance make the TD system our top selling steering system.

TD-X

The TD-X system steers the first and last axle of a three axle trailer, the first axle is counter steered. It allows increasing the axle distance, preventing overloading of the truck's axles when partially loaded. The system is mainly used in distribution transport and for tank trailers in milk or manure collection.

TR & TR-X

The TR steering system is primarily used in heavy distribution transport, such as transport of construction material, tippers and tankers. This system steers one, two or three axles on a one to five axle trailer.

The system is installed on flatbed trailers, trailers with a gooseneck (TR-V) and short three axle trailers with counter steering on the first axle (TR-X).





BTRG

The BTRG is specially designed for silo and bulk trailers with one or two steered axles. The steering rods run along the outside of the trailer.



TF

The TF steering system for trailers with king-pin steered axles, is mainly installed when limited space for large wheel-movement from turntable steering systems is available; such as e.g. concrete mixers, semi-low-loaders and exceptional designs. The system is available for flatbed trailers and trailers with a gooseneck (TF-V) and can steer multiple axles. For flatbed trailers with a single steered axle, TRIDEC offers the lightweight TF-D steering system.





Hydraulic steering systems

TRIDEC's hydraulic steering systems are characterised by a hydraulic linkage between the fifth wheel coupling plate and the axles by means of hydraulic cylinders.

Steering systems					Suspensions	
Mechanical		Hydraulic		Electronic	Air	Hydraulic
Rigid Axle	Steered Axle	Rigid Axle	Steered Axle	Steered Axle		
TD	TF	HS	HF	EF-S	LV-O	HV
TD-X			HF-E		TF-VO	DL-S
TR						TP-O
TR-X						MD-O
BTRG						HD-O
		Tritronic	Tritronic			Tritronic

TRIDEC's hydraulic steering systems are primarily installed in heavy transport vehicles and vehicles of exceptional length or width. Due to the significant dimensions of these vehicles, installing a steering system is often necessary to satisfy legal requirements. Hydraulic steering is exceptionally well suited for extendible trailers, as there is no mechanical linkage between the fifth wheel and the axle. Optional manual steering by wireless remote control further contributes to the vehicle's manoeuvrability.

Maintenance is kept to a bare minimum involving periodical greasing of turntables and visual inspections. Most joints are equipped with patented „sealed for life“ bearing constructions and maintenance free ball joints. Special TRIDEC spline bolts are used for most bolt connections, preventing loosening of bolts.

Advantages at a glance:

- Manual steering by remote possible
- Low maintenance
- Easy to install
- Suitable for extendible trailers



Tritronic

TRIDEC Tritronic Trailer Management System is an addition to TRIDEC hydraulic steering- and suspension systems. Tritronic controls vital trailer-functions by one single powerful remote; such as e.g. manual steering, automatic alignment, ride-height control, automatic ride-height control, ramps, adjustable gooseneck, landing legs and warning lights among many others. Tritronic offers a unique combination of functionality, safety and ease of control, revolutionary in the heavy transport industry.





HS

The HS system is especially beneficial for use with extendible trailers, ballast trailers and self-tracking dollies. A maximum of four rigid axles can be steered and may possibly be combined with non-steered rigid axles.



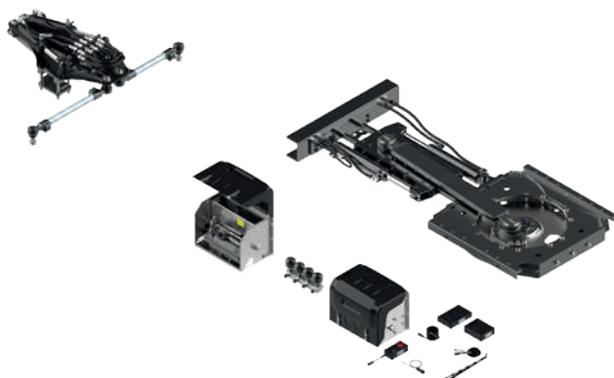
HF-E

The HF-E system is designed to control multiple steering axles. It is therefore incredibly well suited for (semi) low-loaders used for heavy loads of exceptional length and can steer up to seven steered axles. HF-E is also suitable for extendible trailers.



HF

The HF system is a hydraulic steering system for steering a single steered axle, possibly in combination with one or two rigid axles. It is ideal for trailers that have limited space for wheel turning. The HF system is often used for fuel distribution, milk collection and bulk transport vehicles, etc.





Electronic Steering Systems

TRIDEC's lightweight electronic steering system, which is quick and easy to install, is the solution for trailers with very limited mounting space:

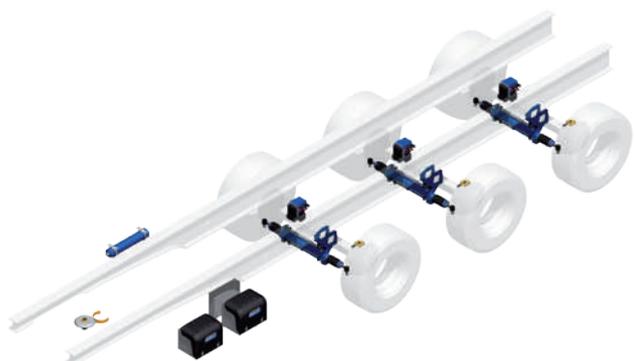
Steering systems				Suspensions	
Mechanical		Hydraulic		Air	Hydraulic
Rigid Axle	Steered Axle	Rigid Axle	Steered Axle		
TD	TF	HS	HF	LV-O	HV
TD-X			HF-E	TF-VO	DL-S
TR					TP-O
TR-X					MD-O/HD-O
BTRG					TD-O
		Tritronic	Tritronic		Tritronic

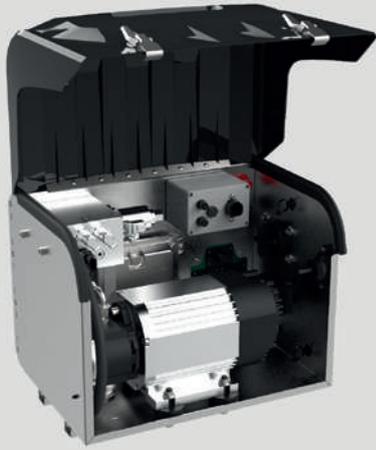
TRIDEC's EF-S steering system enables trailers with an extremely low trailer neck, such as milk and bulk tankers or trailers with monocoque constructions, to be equipped with a steering system for kingpin axles. Because of the weight advantage, as well as the minimal required mounting space and easy installation, the system can also be applied to low-loaders.

The system can steer a maximum of three kingpin steered axles. The steering angle is easily set to the available mounting space and required manoeuvrability. Manual steering by wireless remote control offers extra manoeuvrability, making the axles steer in ratio or at equal steering angles ('crab steering').

Advantages at a glance:

- Low neck- height possible
- Easy to install
- Weight
- Minimal chassis modifications
- Low maintenance





EF-S

TRIDEC's EF-S system reacts to the smallest steering motion and smoothly follows the truck without any delay, preventing chassis damage. Hydraulic accumulators directly supply the steering energy required. At higher speeds and while driving straight, the wheels are locked into the straight position, ensuring a highly stable straight run.

- Patented lightweight steering cylinder including mounting bracket
- Power pack, electro-hydraulic with brushless motor
- JOST 2" kingpin with integrated steering angle sensor and patented self-centring wedge
- Intelligent trailer battery charging system with temperature compensation
- CAN-bus and Bluetooth communication
- System diagnostics by indicator lamp and wireless remote control
- No greasing points on the steering system

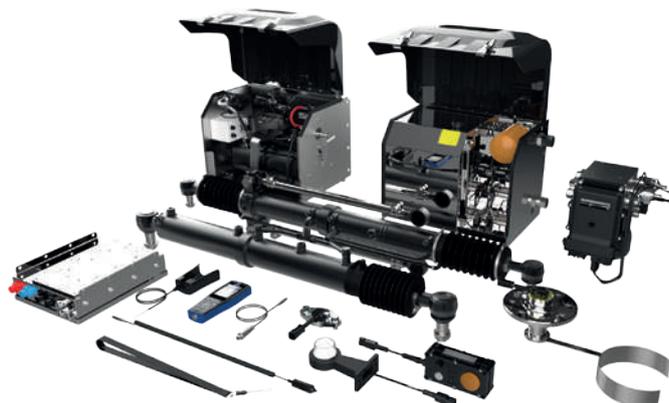
EF-S +

As the name suggests, the EF-S + version offers the possibility to operate additional hydraulic and electronic functions with one programmable TRIDEC remote control. The system can be expanded with a combination of either 6 hydraulic or 12 electronic functions. Additional functions can for example include the operating of ramps, an adjustable gooseneck, movable support legs, vehicle widening, etc.

It is also possible to upgrade the system with a so-called soft start mode to run the hydraulic movements even more smoothly and can be operated with extreme accuracy. The user can also set the oil flow per function using the remote control.

EF-S light

A weight and space-saving version has also been implemented, the EF-S Light weighs approximately 140 kg less due to leaving out a separate battery pack, instead the required energy is supplied directly via the truck. The system has been further optimized to use the available energy very efficiently and is suitable for trailers with up to two steered axles. Combining the above versions is also possible forming the EF-S + light.





Axle suspensions

The axle suspensions of TRIDEC increase the capacity of trailers in volume and load. TRIDEC offers different types of air and hydraulic axle suspensions:

Steering systems					Suspensions	
Mechanical		Hydraulic		Electronic	Air	Hydraulic
Rigid Axle	Steered Axle	Rigid Axle	Steered Axle	Steered Axle		
TD	TF	HS	HF	EF-S	LV-O	HV
TD-X			HF-E		TF-VO	DL-S
TR						TP-O
TR-X						MD-O
BTRG						HD-O
		Tritronic	Tritronic			Tritronic

TRIDEC's special axle suspensions are used in a wide range of applications, from high volume trailers to extremely heavy trailers. All of TRIDEC's axle suspensions are easy to install, low maintenance and contribute to a very stable ride. The suspensions are divided into two main groups:

- The TRIDEC independent air suspensions ensure the maximum possible volume for your trailer as there is no axle body between the wheels.
- The TRIDEC hydraulic axle suspensions are specially developed for heavy-duty application, both on and off road. The extreme loads in these applications are well taken into account. All TRIDEC hydraulic suspensions can be operated with the Trailer Management System, Tritronic.

Maintenance is kept to a bare minimum, thanks to the usage of „sealed for life“ and rubber bearing constructions.

Advantages at a glance:

- Increase payload or volume
- Safer due to more stability
- Better load distribution on road surface
- Very durable
- Low maintenance
- Easy to install



Tritronic

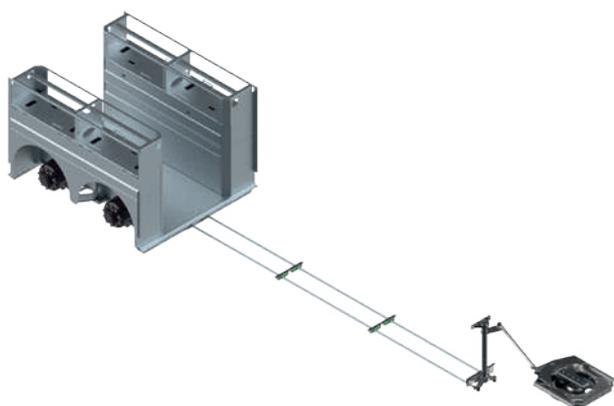
TRIDEC Tritronic Trailer Management System is an addition to TRIDEC hydraulic steering- and suspension systems. Tritronic controls vital trailer-functions by one single powerful remote; such as e.g. ride-height control, automatic ride-height control, lift axle and traction assistance, manual steering, automatic alignment, ramps, adjustable gooseneck, landing legs and warning lights among many others. Tritronic offers a unique combination of functionality, safety and ease of control, revolutionary in the heavy transport industry.





LV-O

The LV-O independent air suspensions are, apart from double-deck vehicles, also used to transport glass and concrete, for car and boat transport as well as for animal transport. By installing an independent wheel suspension, the space surrounding the wheels is put to good use, leading to 60% greater load capacity in combination with a second cargo floor.



TF-VO

TRIDEC's steered independent air-suspension TF-VO combines an advanced air-suspension with a robust mechanical steering system. A trailer equipped with an TF-VO system offers a steered trailer's agility with the possibility for additional cargo space by a second cargo floor. The TF-VO has found its success in distribution transport. Many operators are enjoying financial benefits by additional cargo space and the ability to provide urban areas.

HV

The HV axle-suspension is used when large suspension travel and superior vehicle stability are required, such as e.g. on rough soil or poor road-conditions. The HV suspension also offers solutions for vehicles with increased axle-load or in need of swift deck raising and lowering. Often it is installed on trailers with a larger number of axles and in heavy-duty applications.





TP-O

The TP-O is developed for extreme transport, such as the transport of bridge sections, heavy equipment or military vehicles. This hydraulic swivel axle suspension ensures excellent compensation thanks to its large spring travel. The TP-O is exceptionally well suited to the high demands placed on extreme transport thanks to its extremely high capacity and low maintenance bearing system. The TP-O is compatible with the TRIDEC HF-E steering system, allowing for a 70° steering angle.



MD-O & HD-O

The MD-O and HD-O are excellently suited to the challenging conditions of difficult-to-access terrain and heavy loads. This assembly is often used in agriculture and forestry or for earthworks. The unique torsion-free construction ensures a very stable ride thanks to a large spring travel in all directions. The maintenance costs of the suspension, axles and chassis are greatly reduced because of the lack of torsional forces and the use of maintenance-free bearings.

DL-S

The independent hydraulic suspension DL-S offers many advantages, especially to semi low-loaders, due to its unique construction. Along with its own low weight, the DL-S makes it possible to construct a high central spline chassis, reducing the weight of the vehicle drastically. The load capacity of the vehicle can be increased considerably as the permanent exemption of 12 ton axle loads (in accordance with §70 StVZO) is now possible. The DL-S distinguishes itself further with its high ride and roll stability and manoeuvrability, with a potential steering angle of 57°.





TRITRONIC

Tritronic is a Trailer Management System with wireless remote control, it offers an unique combination of functionality, safety and ease of control, revolutionary in the heavy transport industry.

Tritronic is an addition to TRIDEC hydraulic steering and suspension systems, it controls vital trailer-functions by one single powerful remote.

Hydraulic steering systems can be manually controlled. For additional manoeuvrability, the steered axles can be pointed in any desired position, simply by operating the remote. With one single press at the button, the axles automatically return in-line.

Tritronic automatically controls the correct ride-height for TRIDEC hydraulic suspensions. Optional functionalities include lift-axle control, traction-help a second automated ride-height and a load indication system.

Most other vital trailer applications can also be controlled. Hydraulic, electric and indirectly pneumatic functions can easily be operated by the remote. Most common examples are e.g. ramps, adjustable gooseneck, stingers, sliders, hydraulic landing legs, struts, pneumatic locking mechanisms, vehicle extension and widening, work- and signal-lights. The possibilities are endless and, best of all, user configurable.

System advantages

- Easy control of all functions with one single remote
- Clear menu structure
- Multilingual
- Wireless Bluetooth and wander-lead control
- Easy to install pre-mounted modules
- Emergency control without electric power possible
- Tested: EMC, IP, climate and vibration

Functions

- Manual steering with automatic alignment
- Automatic and manual ride-height control
- Lift-axle control
- Load indication system
- Level- and slope control
- Ramps
- Adjustable gooseneck
- Landing legs
- Warning lights
- ...among many others





TRIDEC Services

TRIDEC offers support during the integration, installation and maintenance of the TRIDEC system in your vehicle.

Engineering Service

Do you want to offer a steered trailer solution to your customer, but your company lacks the experience? Don't worry. With TRIDEC Engineering Services you get on-site support.

TRIDEC Engineering Services is your solution. Together with your engineering team, we find the optimal solution for your challenges. Combining your knowledge of trailer design and our experience on steering, we create the best results your customer can expect. You can rely on TRIDEC.

We provide you Engineering Services. We offer this service to customers worldwide, as well as to companies that consider making use of a TRIDEC product. Because we both benefit, we offer this service against very competitive pricing.

Start offering steered trailers to your customers or expand your product range with hydraulic or electronic systems. TRIDEC Engineering Services boosts your efficiency, quality and cost price.

Ask your sales representative for more details.

Training

Do you want to offer your customers the highest quality? TRIDEC is dedicated to providing support before, during and after the purchase of a system.

We offer you training programmes which expand and improve your knowledge and skill levels relating to TRIDEC systems. Technicians learn more about steering in general, the equipment to be used, installation guidelines and maintenance. Together, we optimise the use of our systems.

Register for our training programme(s) via your sales representative or by completing the form on the website: www.tridec.com/en/service





Transport

JOST

- 1-3 Systems
- 1 Fifth wheel couplings
- 2 King pins
- 3 Landing gears
- 4 Truck and Trailer axles
- 5 Hubodometers
- 6 Ball bearing turntables
- 7 Container technology

TRIDEC

- 8 Steering systems
- 9 Axle suspensions

ROCKINGER

- 10 Towing hitches
- 11 Drawbars and towing eyes

Agriculture

JOST

- 6 Ball bearing turntables

TRIDEC

- Axle suspensions

ROCKINGER

- 11 Drawbars and towing eyes
- 12 Coupling systems

Quicke

- 13 Front loader and implements