

Product Overview



Mechanical and hydraulic steering systems and axle suspensions

ULTIMATE
CONTROL
BY STEERING
PERFORMANCE

www.tridec.com

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 – mechanically, hydraulically and electronically controlled steering systems for trailers as well as axle suspension systems.

Steering safely

Trailers fitted with a TRIDEC steering system and suspension offer the best option when it comes to safe cornering. These are often copied but never match the TRIDEC Quality standards. We fully understand the challenges you face – more compact sites, higher demands on current infrastructure, urbanization and not to mention the growing number of roundabouts. With solid and innovative solutions TRIDEC is the market leader for steering systems. Choosing a TRIDEC system offers you unbeatable advantages.

Proven reliability

TRIDEC has a vast experience with many different trailer applications, circumstances, weather conditions and terrains. These are built in Europe and comply with European quality standards. The products are easy to assemble and, in the event of an emergency, easy to repair. Their reliability is demonstrated by more than 50,000 systems delivered worldwide. You can rely on TRIDEC.

Saving costs

A trailer with a TRIDEC system has more value. Sites that had been previously inaccessible can now be accessed with larger trailer loads. This means less needed transport and associated cost savings – less tire wear and fuel savings. With a TRIDEC system your profit margin increases.





Custom made

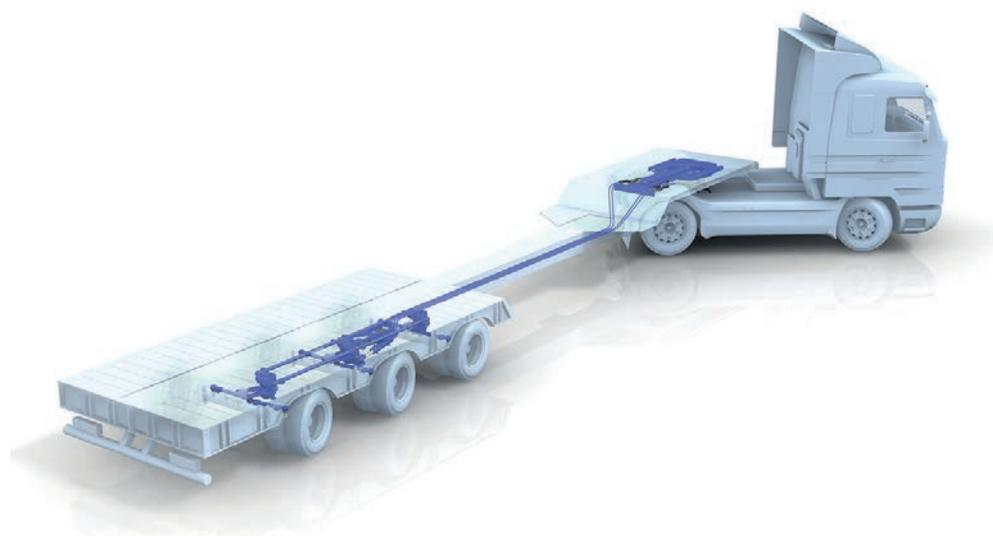
Each truck and trailer combination is different. Fortunately TRIDEC has specialist knowledge and years of experience to produce a custom made solution. Our systems are modular which allows us to offer a solution for any kind of trailer. Working closely with you, our collaborative approach means we achieve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

Advantages at a glance:

- Optimized maneuverability
- Smaller turning circles
- Reduced tire wear
- Reduced fuel consumption
- Increased load capacity
- Custom made

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 TRIDEC's know-how and the presence of JOST-World.



Trailers fitted with original TRIDEC steering systems and suspension offer the best option when it comes to safe cornering. These are often copied but never match to the TRIDEC quality standards. With solid and innovative solutions TRIDEC is the market leader for steering systems. Its reliability is demonstrated by over 50,000 systems delivered worldwide. Part of JOST-World. You can rely on TRIDEC.



Mechanical Steering System

TRIDEC's mechanical steering systems are characterised by a mechanical linkage between the fifth wheel coupling plate and the axle assemblies by means of a steering rod. The following types of mechanical systems are available:

Steering Systems				Axle Suspensions	
Mechanical		Hydraulic		Air Suspensions	Hydraulic Suspensions
Rigid Axle	Steered Axle	Rigid Axle	Steered Axle		
TD	TF	HS	HF	LV-O	HV-A / HV-V
TD light			HF-E	HF-O	DL-S
TD-X			HF-S		TP-O
TR					MD-O
TR-X					HD-O
BTRG					

TRIDEC's mechanical steering systems are primarily used in distribution vehicles. This includes retail distribution as well as the transport of liquids, compost, cattle feed or construction materials. This type of system improves the manoeuvrability of the vehicle, saving time and tyre wear. It also allows for optimised weight distribution of the load, reducing maintenance costs, fuel costs and costs caused by damages. Fuel costs can be further reduced thanks to the increased load capacity, which decreases the number of necessary trips. All this combined leads to a saving of 30% and greater driver comfort.

The system can be aptly maintained by occasionally greasing the turntable, visually inspecting the components and connections.

Advantages at a glance:

- Easy to install
- Low maintenance
- Low investment
- Broad applicability
- Truck independent



TD

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



TD-X & TD-XD

The TD-X system is used for heavier distribution transport on trailers with a short wheelbase. The TD-X system can also be used, in combination with increased axle spacing, to prevent overloading the truck axle (also with partial loads) and to reduce tyre wear. The TD-X system steers the front and rear trailer axles.



TR & TR-V & TR-X

The TRIDEC TR system is a mechanical steering system suitable for heavy distribution trailers. For example, tanker semi-trailers, tippers, construction material trailers and more. The TR system allows you to steer one to three axles and may be combined with one or two fixed axles. The TR system can be used on flatbed trailers (TR), on trailers with a goose neck (TR-V) and trailers with a short wheelbase (TR-X).



For more information about the mechanical steering system and its technical specifications please visit www.tridec.com – Products – Product catalogue online (under Mechanical Steering Systems).



BTRG

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



TF & TF-V

The TF is ideal for trailers with limited steering wheel rotation space. The combination of a mechanical steering system and steered axles results in cost efficient, reliable and an easy-to-mount configuration. The TF-V was developed for semi low-loaders with a goose neck.





Hydraulic steering systems

TRIDEC's hydraulic steering systems are characterised by a hydraulic linkage between the fifth wheel coupling plate and the axle assemblies by means of hydraulic cylinders. The following types of hydraulic systems are available:

Steering Systems				Axle Suspensions	
Mechanical		Hydraulic		Air Suspensions	Hydraulic Suspensions
Rigid Axle	Steered Axle	Rigid Axle	Steered Axle		
TD	TF	HS	HF	LV-O	HV-A / HV-V
TD light			HF-E	HF-O	DL-S
TD-X			HF-S		TP-O
TR					MD-O
TR-X					HD-O
BTRG					

TRIDEC's hydraulic steering systems are primarily installed in heavy transport vehicles and vehicles of exceptional length or height. Due to the significant dimensions of these vehicles, installing a steering system is 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 assemblies. Also, a substantial improvement in manoeuvrability can be achieved through use of the manual override.

The system can be aptly maintained by occasionally greasing the turntable, visually inspecting the components and connections.

Advantages at a glance:

- Allows for manual override
- Low maintenance
- Easy to install
- Solution when no mechanical linkage is possible

Tritronic

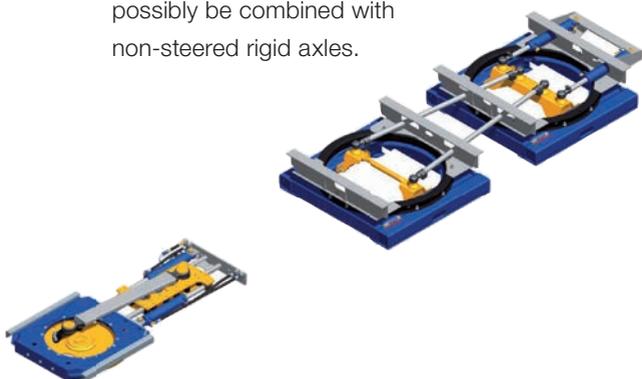
Tritronic is TRIDEC's Trailer Management System with wireless remote control. In order to make trailers with a hydraulic steering system extra manoeuvrable they can be manually overridden. One of Tritronic's unique features is automatic alignment of the vehicle with the truck after using the override. In addition, not only can Tritronic be used to automatically control the ride height of TRIDEC's hydraulic suspension but Tritronic can also be expanded with various electric and hydraulic functions.





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 or loads of exceptional length or height. HF-E is also suitable for extendible trailers.



HF

The HF system is a hydraulic steering system for controlling a steering axle and may be combined 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.



HF-S

The HF-S system is primarily used in distribution transport, trailers with a moving floor, silo trailers and milk collection trailers. It is a lightweight hydraulic steering system for steering axles that requires very little mounting space and fits onto most trailers.





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, namely:

Steering Systems				Axle Suspensions	
Mechanical		Hydraulic		Air Suspensions	Hydraulic Suspensions
Rigid Axle	Steered Axle	Rigid Axle	Steered Axle		
TD	TF	HS	HF	LV-O	HV-A / HV-V
TD light			HF-E	HF-O	DL-S
TD-X			HF-S		TP-O
TR					MD-O
TR-X					HD-O
BTRG					

TRIDEC's special axle suspensions can be used in a wide range of applications. From high volume trailers to extremely heavy trailers. All of TRIDEC's axle suspensions are easy to mount, low maintenance and contribute to a very stable ride. The axles can be 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 have been specially developed for heavier use, both on and off road. The harsh conditions

that occur as a result of these applications have been given particular consideration. All TRIDEC hydraulic suspensions can be operated with the Trailer Management System, Tritronic.

The maintenance is limited because in all axle suspensions lubricant-free bearing systems are used.

Advantages at a glance:

- Very durable
- Low maintenance
- Easy to install
- Increase payload or volume

Tritronic

Tritronic is TRIDEC's Trailer Management System with wireless remote control. In order to make trailers with a hydraulic steering system extra manoeuvrable they can be manually overridden. One of Tritronic's unique features is automatic alignment of the vehicle with the truck after using the override. In addition, not only can Tritronic be used to automatically control the ride height of TRIDEC's hydraulic suspension but Tritronic can also be expanded with various electric and hydraulic functions.





LV-O & HF-O

The LV-O and HF-O are independent air suspensions. Apart from double-deck vehicles, these are also used to transport glass and concrete slabs, for car and boat transport as well as for animal transport. Both suspensions make it possible to create additional usable loading space in a trailer. The construction ensures that there is no axle body between the wheels, allowing the floor to be lowered and creating room for a second loading compartment. The HF-O can be combined with progressive steering making the trailer highly manoeuvrable and well suited for distribution applications.



HV-A & HV-V

HV-A and HV-V are suitable for vehicles with multiple axles that require a large spring travel in order to avoid overloading individual axles. By using a hydraulic cylinder rather than air bellows, a large spring travel is achieved and raising and lowering of the vehicle is simplified.

TP-O

The TP-O was developed for the transport of extremely heavy cargo, bridge sections, earth moving machinery and military vehicles. This hydraulic oscillating axle ensures excellent compensation thanks to its large spring travel. The TP-O is exceptionally well suited to the high demands placed on these vehicles 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.



For more information about the axle suspensions and their technical specifications please visit www.tridec.com – Products – Product catalogue online (under axle suspensions).



DL-S

The independent hydraulic suspensions 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 frame chassis, reducing the weight of the vehicle drastically. The load capacity of the vehicle can be increased considerably as the permanent exemption of 12 tons 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°.



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. The 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.

TD-O

TRIDEC developed the TD-O system as an all-round solution for vehicles with off road systems. This fixed drawbar has a flexible modular design and, in addition to its hydraulic support leg, a unique combination of hydraulic suspension, hydraulic steering and automatic traction improvement. This load depending traction improvement ensures optimal front axle traction of the tractor. Besides a more comfortable ride it saves weight as front weights are unnecessary.

