

Application

TD for distribution transport



TD Mechanical Steering System

The TD steering arrangement is a mechanical system which is used primarily in distribution transport. This system steers the rear axle of a one, two or three axle trailer. It is also possible to the two last axles.

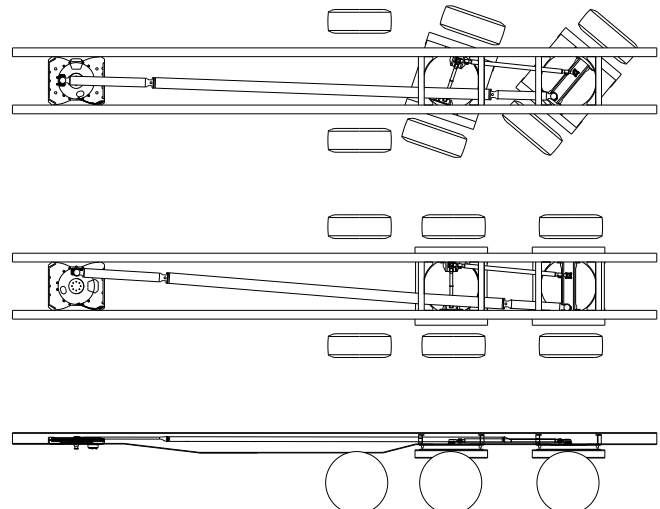
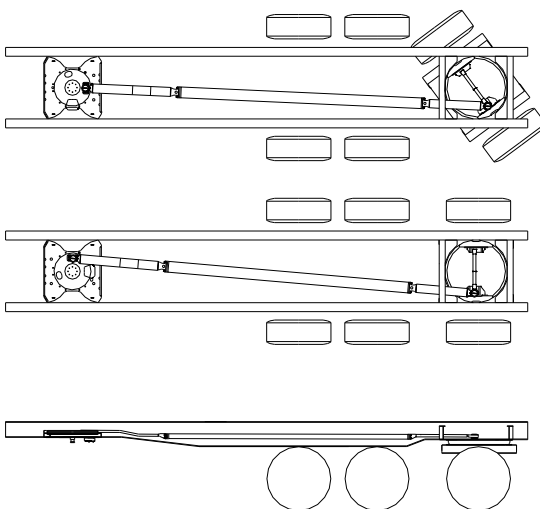
The TD steering system allows the operator to make more efficient use of his trailer through improved manoeuvrability, making inner city deliveries easier and providing the ability to negotiate small roundabouts on urban roads.

Savings on

- Amount of runs due to larger vehicle
- Time, through better manoeuvrability
- Fuel consumption
- Tyre wear
- Accessibility
- Vehicle damage

Steering principle

While making a turn, the movement between the truck and trailer is transmitted by the fifth wheel plate, locked into the fifth wheel coupling by the steering wedge. The steering bar transmits this steering motion directly and without any play to the axle mounting frame.



Technical Specification

TD for distribution transport

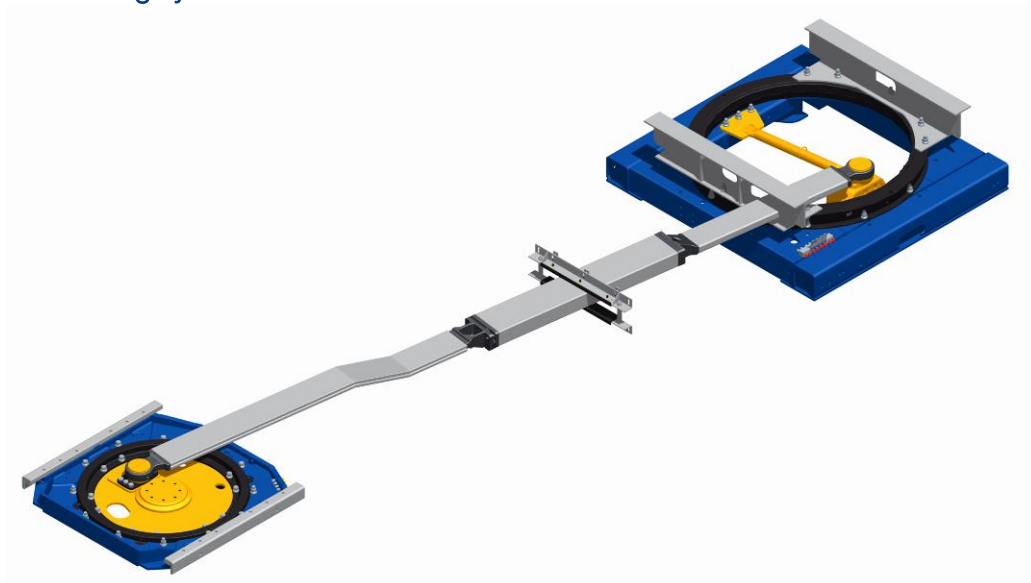
General

- The TD system steers the rear axle, or the two most rear axles, on a 1 to 3-axle trailer
- RDW test report according EEC guideline (R79) for most common TD configurations available at request (no. 56210026)
- Special TRIDEC spline bolts used for most bolt connections. No loosening of bolts and re-tightening not necessary
- Gross weight: 1 steered axle 565-800kg, two steered axles 814-1135kg. Net weight of steering system is reduced due to the replacement of a conventional rubbing plate with the TRIDEC unit and modifications to rear of chassis to accommodate the turntable
- Possible steering angles at the last axle are 26/28/30/32/36/40 degrees
- Also 21° (last axle) is possible with a fifth wheel unit mounting height of 135mm
- Components: fifth wheel unit, steering bar, axle mounting frame(s), steering rod (only for 2 steered axles)

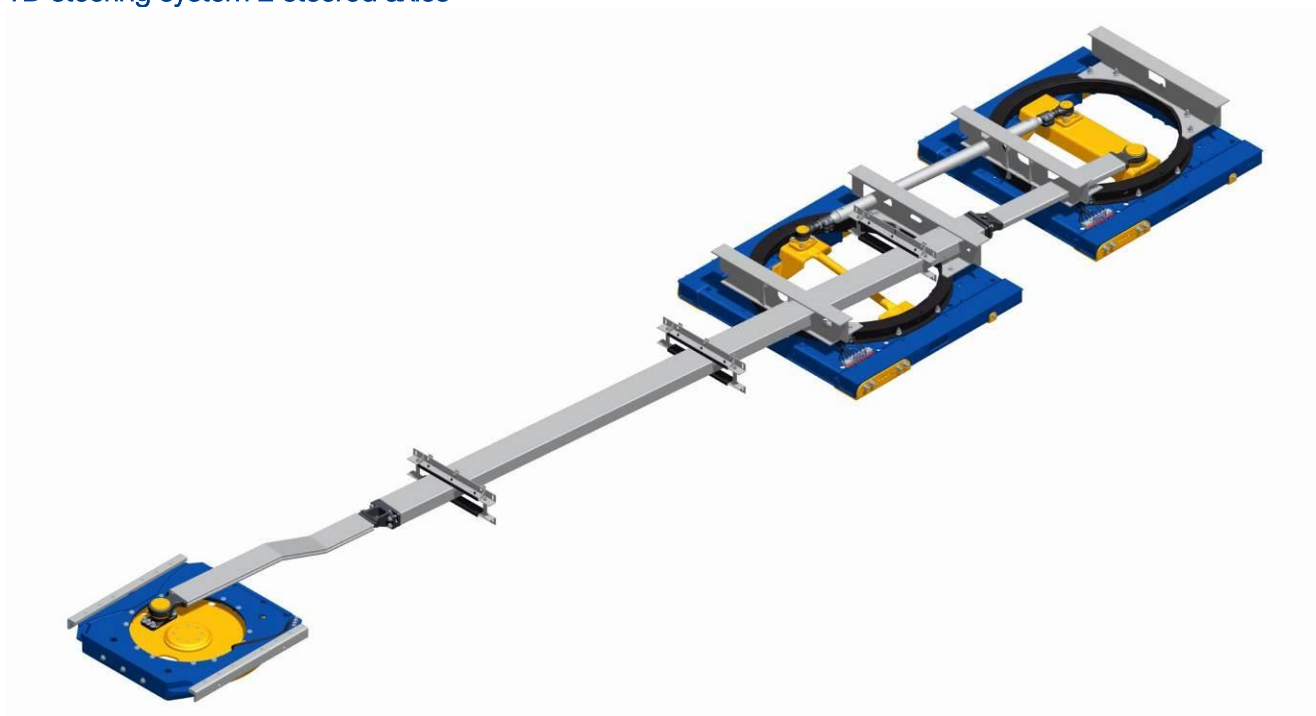
Technical Specification

Feature	Value
Number of steered axles	1/2
Fifth wheel load	15/20t
Axle load	10t
Spring centres	980/1100/1200/1300mm
Chassis centres	980/1200mm
Gross weight 1 steered axle	565-800kg
Net weight on trailer, 1 steered axle	440-675kg
Gross weight 2 steered axles	814-1135kg
Steering angles	21/26/28/30/32/36/40°

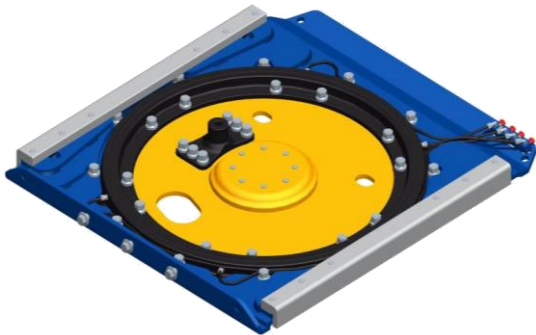
TD steering system 1 steered axle



TD steering system 2 steered axles



Components



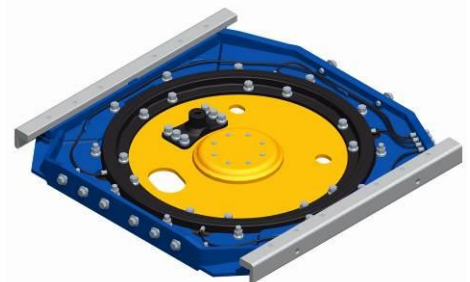
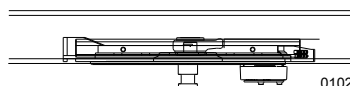
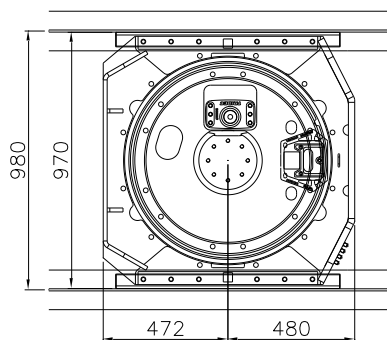
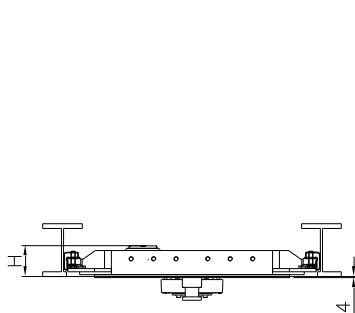
Fifth wheel unit

- Bolted into the chassis by supplied mounting profiles, which are welded into the chassis resulting in simple and quick installation
- Easy maintenance and possible repairs
- Equipped with JOST turntable, 2" king pin and TRIDEC steering wedge
- Treatment: KTL
- 3 versions possible: TD-K, TD-T & TD-G

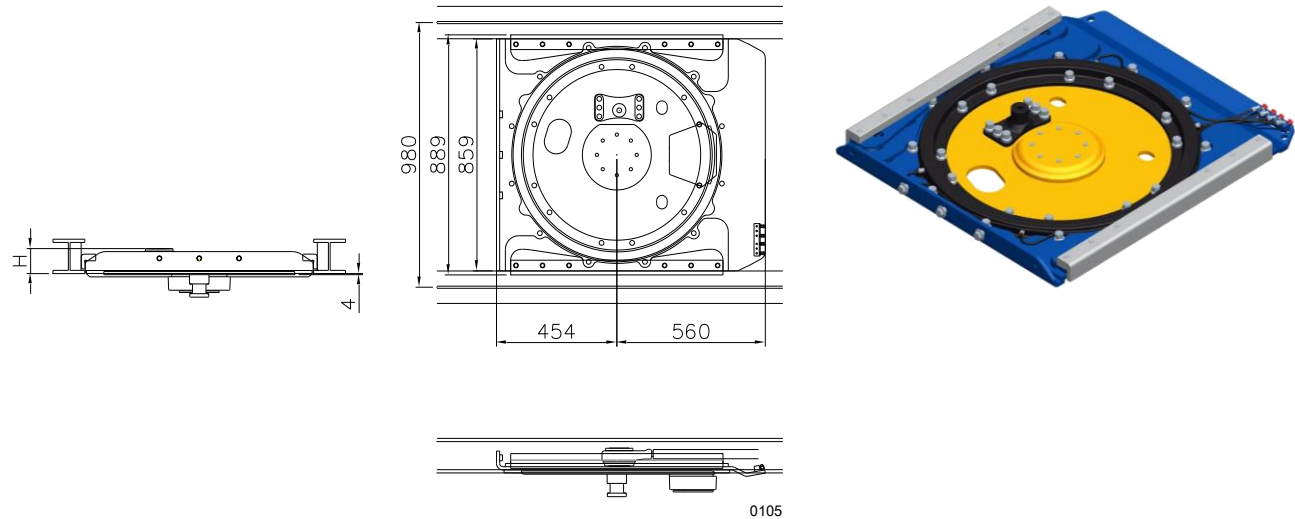
		Fifth wheel unit							
		TD-K	TD-T	TD-G					
				15		20			
Max. load	t	15	15	15	1190	970	1190		
Width W	mm	970	889	970	1190	970	1190		
Chassis centre CC	mm	980	980	980	1200	980	1200		
Weight	kg	174	163	225	282	235	299		

		koppelingsplateau		
		TD-K	TD-T	TD-G
Mounting height TD H mm				
Steering angle < 21°		-	-	135
Steering angle upon 26°		92	92	125

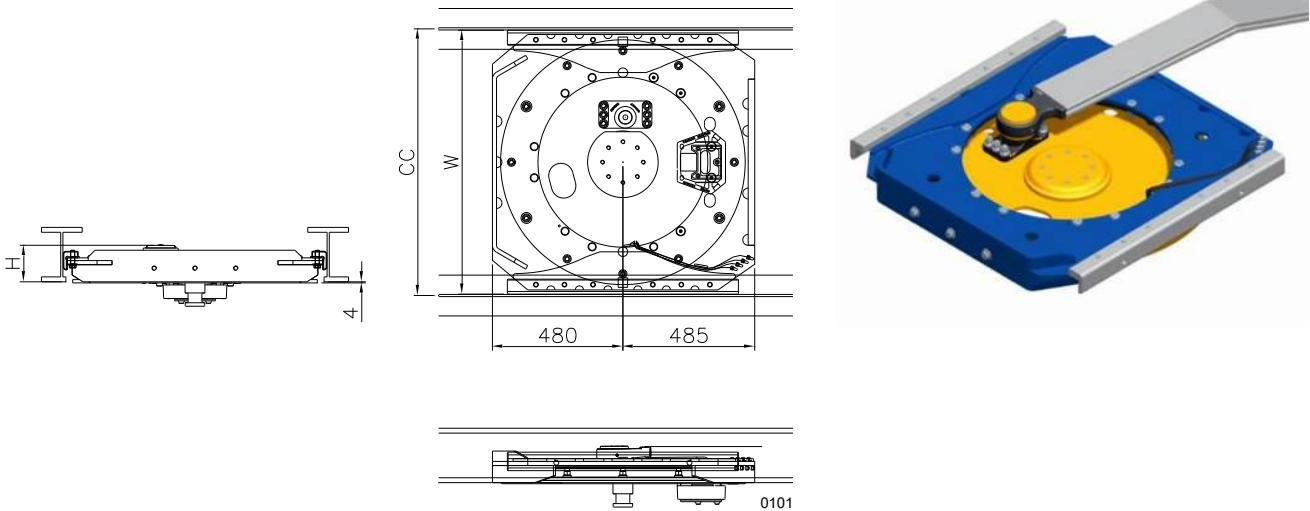
Fifth wheel-unit TD-K

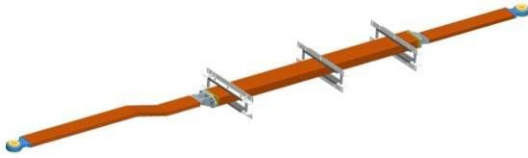


Fifth wheel-unit **TD-T**



Fifth wheel-unit **TD-G**





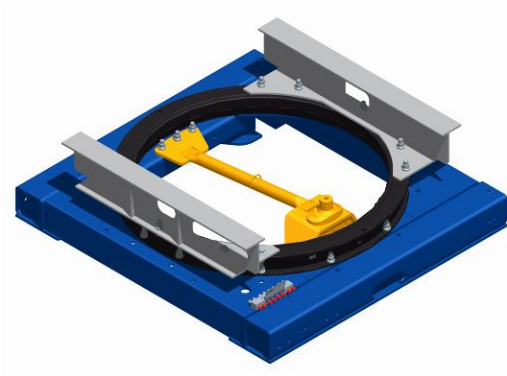
Steering bar

- The steering bar connects the fifth wheel unit to the axle mounting frame
- Consists of 3 sections that are supported by steering bar supports
- Front and rear steering bar available in various “off set” configurations to accommodate height differences between the front and rear of the chassis
- If necessary the middle section can also be manufactured with an additional off set
- Joints on both ends are equipped with a TRIDEC patented maintenance free bearing
- Easy alignment of the steered axle by usage of a shim-set between the first 2 sections of the steering bar
- Treatment: front and rear steering bars are KTL treated; middle is galvanised



Steering rod (only for 2 steered axles)

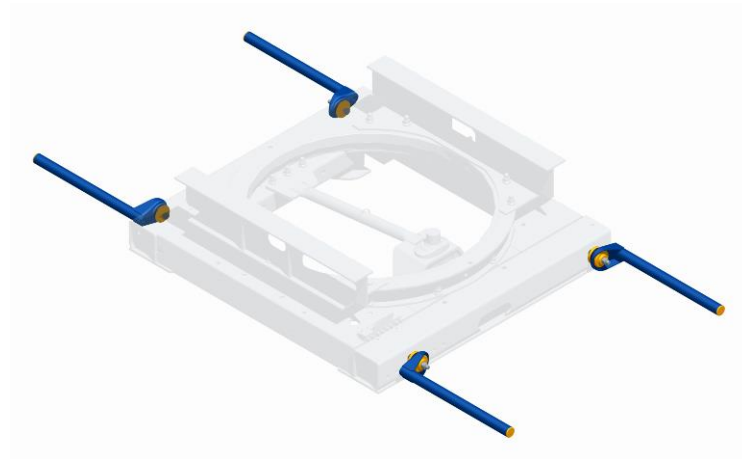
- The steering rod connects the most rear axle mounting frame to the frame in front of it.
- The steering rod is equipped with sealed for life maintenance free bearing constructions
- Easy alignment, length of the rod can easily be adjusted
- Treatment: rod and joints are KTL treated



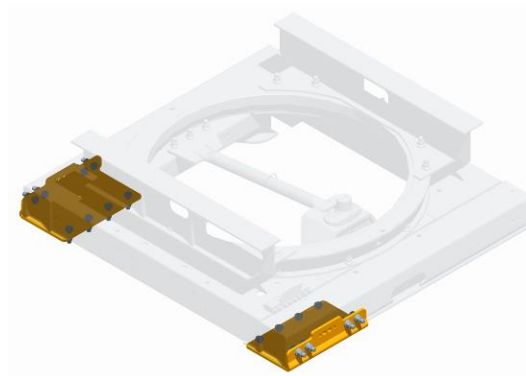
Axle mounting frame

- Suitable for use with most common tyre dimensions and axles with air suspension
- Axle load 10t (legally approved).
- Spring centres: 980/1100/1200/1300mm
- The standard mounting frame height is 140mm (optional 30/100mm)
- TRIDEC specific JOST turntable with a diameter of 1100 or 1200mm, 90mm height, KTL treated
- Cross members to support the turntable are included as part of the supplied kit
- Greasing points centralized on one greasing block
- Welding of thrust plates no longer required, due to use of special TRIDEC spline bolts for mounting the turntable on the chassis
- Optional mudguard supports (available in lengths of 455/575/770 mm) with vibration reducing rubbers bolted to the turntable frame
- Treatment: KTL (standard). Optional: galvanised, supplied with two hanger bracket mounting plates

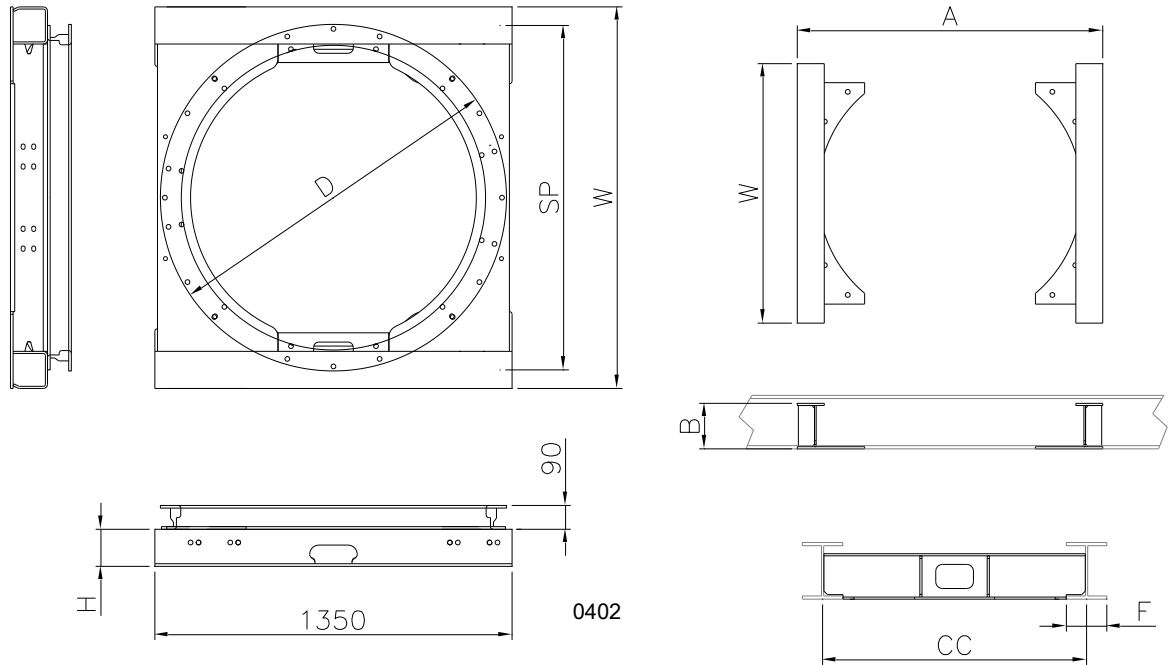
Mudguard supports:



Hanger bracket mounting plates:



Axle mounting frame and cross members



0303

Axle mounting frame

Spring centre SP (mm)	Height H (mm)	Width W (mm)	Turntable D (mm)
900-980	100 /140	1100	Ø 1100
900-980	30	1170	Ø 1100
1100	100 /140	1240	Ø 1100 /1200
1100	30	1250	Ø 1100
1200	30 /100 /140	1340	Ø 1100 /1200
1300	30 /100 /140	1440	Ø 1100 /1200

Cross member

Chassis centre CC (mm)	Width W (mm)	Height B (mm)	Turntable D (mm)	Flange F (mm)	A (mm)
980	970	140 /170	Ø 1100	120	1134
980	970	140 /170	Ø 1100	140	1134
980	970	140 /170	Ø 1100	150	1134
1200	1190	140 /170	Ø 1200	120	1236
1200	1190	140 /170	Ø 1200	150	1236

Order references

TD Mechanical Steering System

Code	Description
0101	TD steering system 1 axle steering (Frame 980-140, 1100-140 or 1200-140)
0102	TD steering system 2 axles steering (Frame 980-140, 1100-140 or 1200-140)
0105	TD steering system 1 axle steering with TD-T fifth wheel unit (Frame 980-140, 1100-140 or 1200-140)
0106	TD steering system 2 axles steering with TD-T fifth wheel unit (Frame 980-140, 1100-140 or 1200-140)

TD Options

Code	Description
0120	Fifth wheel unit (TD-K) 100mm mounting height
0122	20 tons fifth wheel unit
0123	Bended mid-section steering rod
0124	Axle mounting frame 30mm height instead of standard 140mm
0125	Axle mounting frame 100mm height instead of standard 140mm
0126	Axle mounting frame for 1300mm spring centre
0129	Adjustable mudguard support galvanised (set of 2, length 455, 575 or 770mm)
0130	Hanger bracket mounting plate, to bolt to the axle mounting frame (set of 2 pieces)
0133	Galvanised axle mounting frame with KTL treated turntable and 2 hanger bracket mounting plates (each turning unit)
0135	Extended axle mounting frame front section
0136	Galvanised axle mounting frame with KTL treated turntable without hanger bracket mounting plates

The information contained in this document gives an indication of the possibilities. Not all exceptional models are included in this document. Please contact our sales department to determine whether a particular configuration of the system can be used in your trailer or that special solutions are possible.

Sales contact

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