

Application

LV-O Independent air suspension



LV-O

TRIDEC's advanced independent wheel suspension LV-O allows for creating additional cargo space in a trailer. The space surrounding the wheels is put to good use, leading to 60% greater load capacity in combination with a second cargo floor. The number of transport movements is noticeably reduced, as two double deck trailers carry as much goods as three conventional trailers. The double deck trailer is one of the most sustainable means of transport, providing significant cost savings.



The LV-O is mainly installed at double deck trailers: food distribution, post and package delivery, the transport of clothing and appliances, retail distribution, for both semi-trailers and drawbar trailers. Glass and concrete are also transported with LV-O suspensions, as are cars, forklift trucks and livestock.

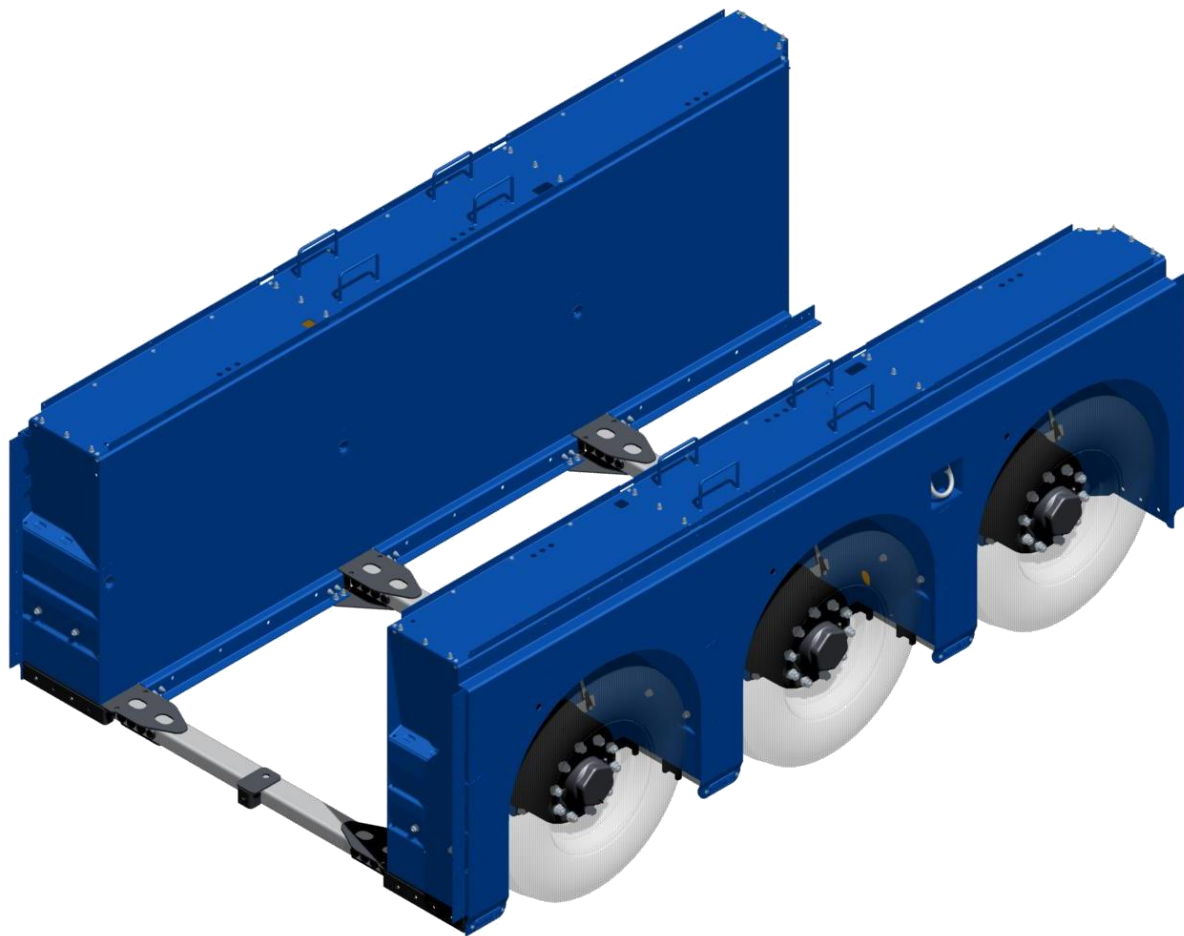
Noticeable savings

- 60% more capacity, >110m³ cargo space
- 39% fewer transport movements
- Time savings, by less frequent loading and unloading
- >40% CO₂ emissions reduction
- >30% operational cost reduction
- High vehicle stability by low centre of gravity
- Safe for cyclists
- 1620mm cargo space between the wheels
- Cargo space height between 1,80m and 1,85m
- No axle body between the wheels
- Sufficient ground clearance available
- Low maintenance
- Easy to install



Unique design

The LV-O is a unique construction that has been designed, making the axle body between the wheels redundant. With a total trailer height of 4 meters, it is now possible to create two cargo spaces, both up to 1,85m high, without compromising the ground clearance. The two decks provide over 110m³ of cargo volume. A vehicle 2550mm wide achieves 1620mm width between the wheel boxes, which is sufficient to accommodate two Euro pallets. This arrangement does not require the tires to protrude beyond the wheel wells at all. With an axle spacing of 1310mm or 1320mm, more load surface remains available. The suspension is available in 1, 2 and 3 axle configuration. The galvanised wheel boxes and KTL-treated suspension offers excellent corrosion protection.



Technical Specifications

LV-O Independent air suspension

General

- Available in 1, 2, and 3 axle configuration for 385/55 R22.5 and 385/65 R22.5 tires
- High quality Gigant axle stubs with drum brakes, ABS/EBS sensor possible
- For most bolt constructions special TRIDEC spline bolts are used, preventing them from running loose, retightening is not required
- Quick and easy installation, thanks to TRIDEC's fully galvanised bolt-on wheel box construction and pre-mounted main components
- The wheel boxes are simply positioned in to the chassis, followed by bolt-on installation of the suspensions. Wheel alignment is easily set by means of two alignment bolts
- Components: Wheel suspension including Gigant axle stub, air bellow, brake lever and shock absorber, galvanised wheel boxes and cross members, optionally steel rims
- LV-O suspensions for different tire sizes and axle loads are also available (see chapter "Special versions")



Technical specification

Feature	Value
Axle load (technical permitted)	10t
Deck height	Up to 2x 1,85m
Cargo space between the boxes	1620mm / 1670mm (refrigerated)
No of Europallets	54
Vehicle width	2550 / 2600mm (refrigerated)
Suspension travel	110mm in, 170mm out
Axle spacing	1310mm on 385/55 R22,5 tires 1320mm on 385/65 R22,5 tires
Axle stub	Gigant GEOKH2 10010 4218 ECE test report brake: 361-015-07
Tires	385/65 R22,5 or 385/55 R22,5*
Rims	22.5x11.75 ET65 (offset)

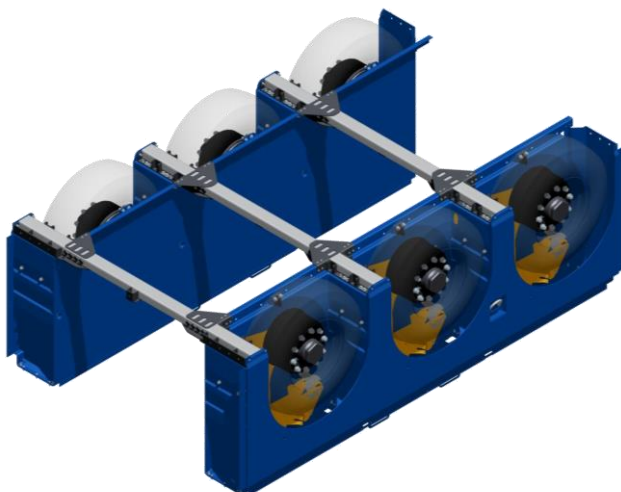
* Note that between the various tyre manufactures the diameter and width of the tyre can differ significantly. Please check the Tridec mounting drawing to guarantee sufficient tyre clearance.

Components



LV-O wheel suspension

- Extra-large main rubber bearing's trunnion bushes, for prolonged life time
- Hollow central bearing pin for weight reduction
- Steel casted triangle for minimal weight
- Gigant axle stub with compact wheel bearing and service friendly 'Protec' drum brake
- High quality air bellow and shock absorber
- Easy wheel alignment by two alignment bolts
- Versions for 385/65R22.5 and 385/55R22.5 tires (other tire size available on request)
- 10t axle load maximum technical permitted
- KTL-treatment corrosion protection
- 'Sealed-for-life' brake lever
- Low maintenance, periodical greasing is limited to the axle stub's brake, by centrally located greasing nipples
- Brake boosters up to 30/30-size possible
- Separately supplied 'Catch-hook', to lift a suspension in case of a flat tire
- Optional steel rims ET65 (offset)

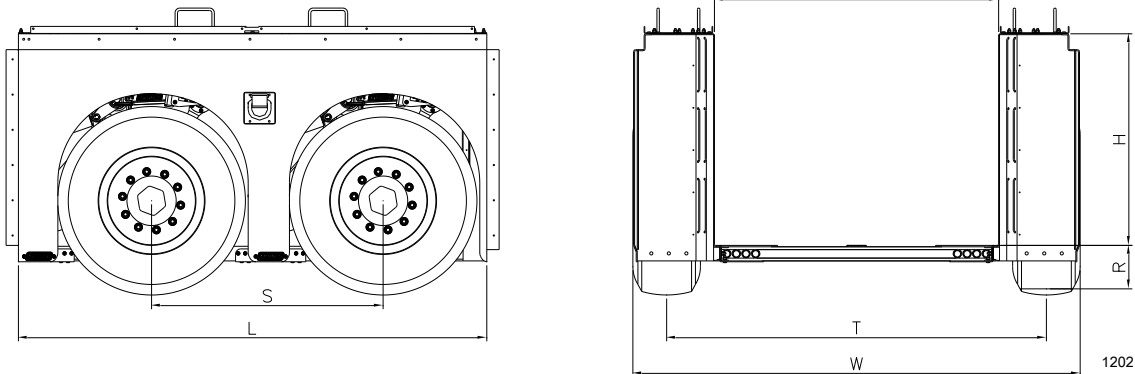


Wheel boxes and cross members

- Suitable for 2550mm and 2600mm wide vehicles
- 1, 2 and 3 axle configurations
- Suitable for semi-trailers and drawbar trailers
- Fully galvanised wheel boxes and cross members
- Cross members with cable/hose-ducts
- Ferry-eye lashing points optionally available
- TRIDEC spline bolts, preventing from running loose, retightening is not required
- Easy vehicle mounting by plywood fastening strips and offset cover
- Ducts for ride-height sensors

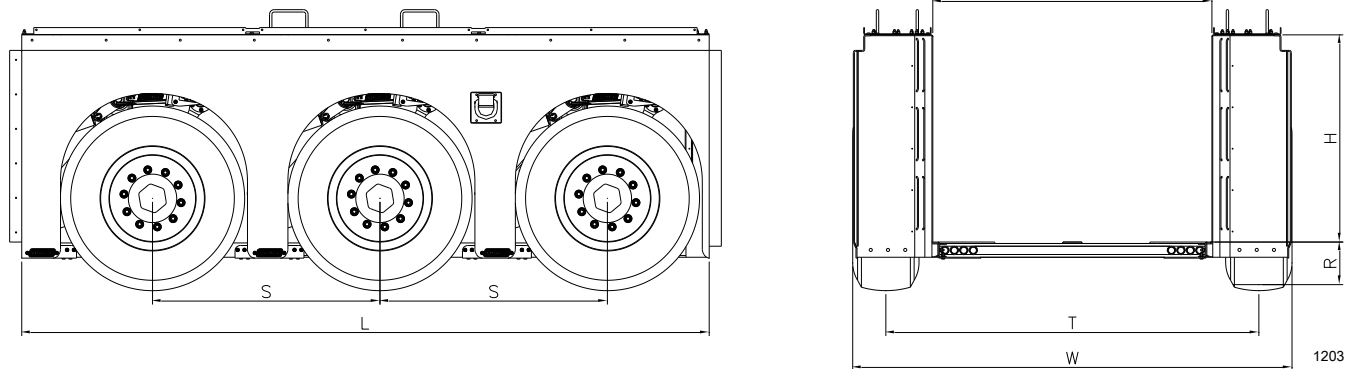
Dimensions

Wheel boxes and LV-O 2-axes



Tires	W (mm)	T (mm)	I (mm)	R (mm)	H (mm)	L (mm)	S (mm)	Weight (kg)
385/65R22.5	2550	2165	1620	243 / 300	1200	2670	1320	2669
385/65R22.5	2600	2215	1670	243 / 300	1200	2670	1320	2674
385/55R22.5	2550	2165	1620	243	1164	2630	1310	2577
385/55R22.5	2600	2215	1670	243	1164	2630	1310	2582

Wheel boxes and LV-O 3-axes



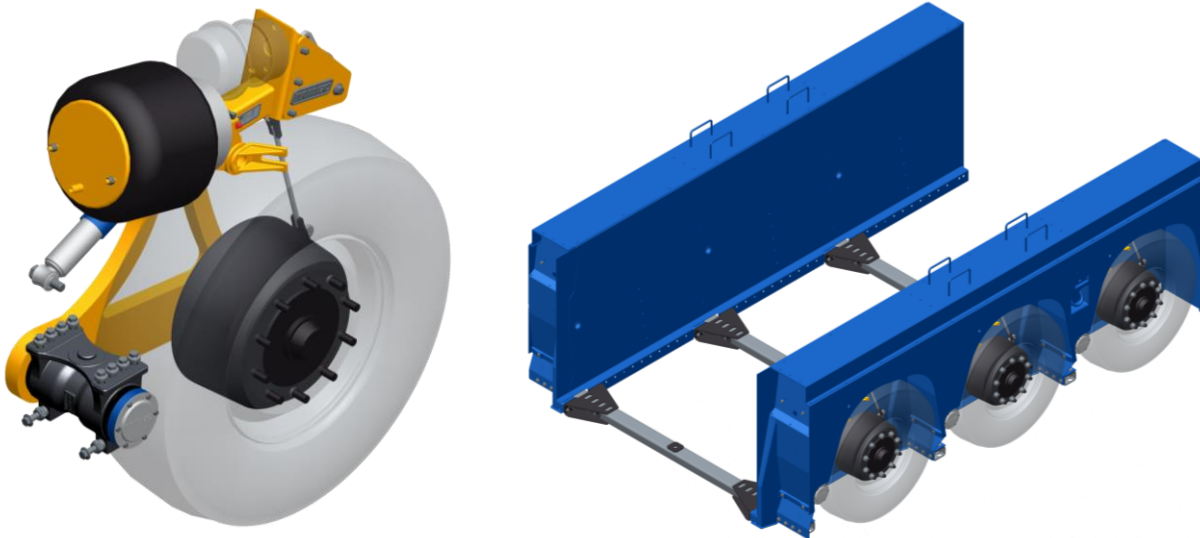
Tires	W (mm)	T (mm)	I (mm)	R (mm)	H (mm)	L (mm)	S (mm)	Weight (kg)
385/65R22.5	2550	2165	1620	243 / 300	1200	3990	1320	3556
385/65R22.5	2600	2215	1670	243 / 300	1200	3990	1320	3561
385/55R22.5	2550	2165	1620	243	1164	3950	1310	3418
385/55R22.5	2600	2215	1670	243	1164	3950	1310	3423

Special versions

LV-O suspension for 315/80R22.5 tires



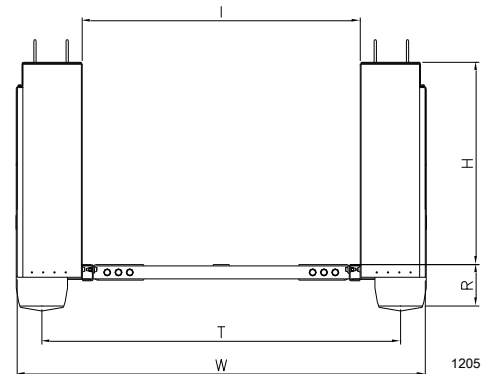
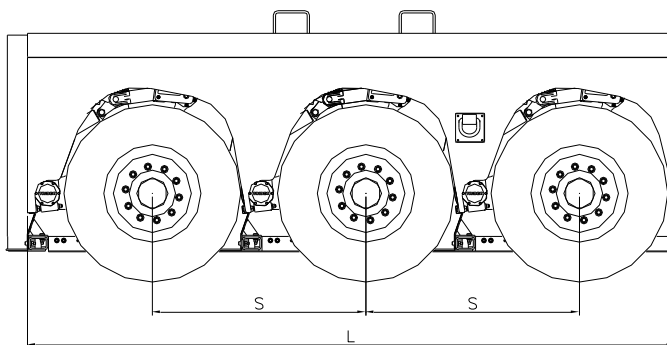
- Mainly applied in forklift trailers
- Available as 3 axle lines in wheel boxes, or per axle line with a mounting bracket
- High quality BPW axle stubs with drum brakes, ABS/EBS sensor possible
- Reinforced wheel boxes, suitable for trailers without a second floor or fixed side walls



Code	Description
1273	LV-O for 315/80R22.5 tires with boxes, 3 axle lines

Technical specification

Feature	Value
Axle load (technical permitted)	8.5t
Inner space	1724mm
Surface treatment boxes	Primer (transport corrosion protection)
Surface treatment suspension	KTL dip coat
Vehicle width	2550mm
Suspension travel	135mm in, 243mm out
Axle spacing	1324mm
Axle stub	BPW RDBF ST 8010 (drum brake)
Tires	315/80 R22,5
Rims	22.5x8.25 ET100 (offset)

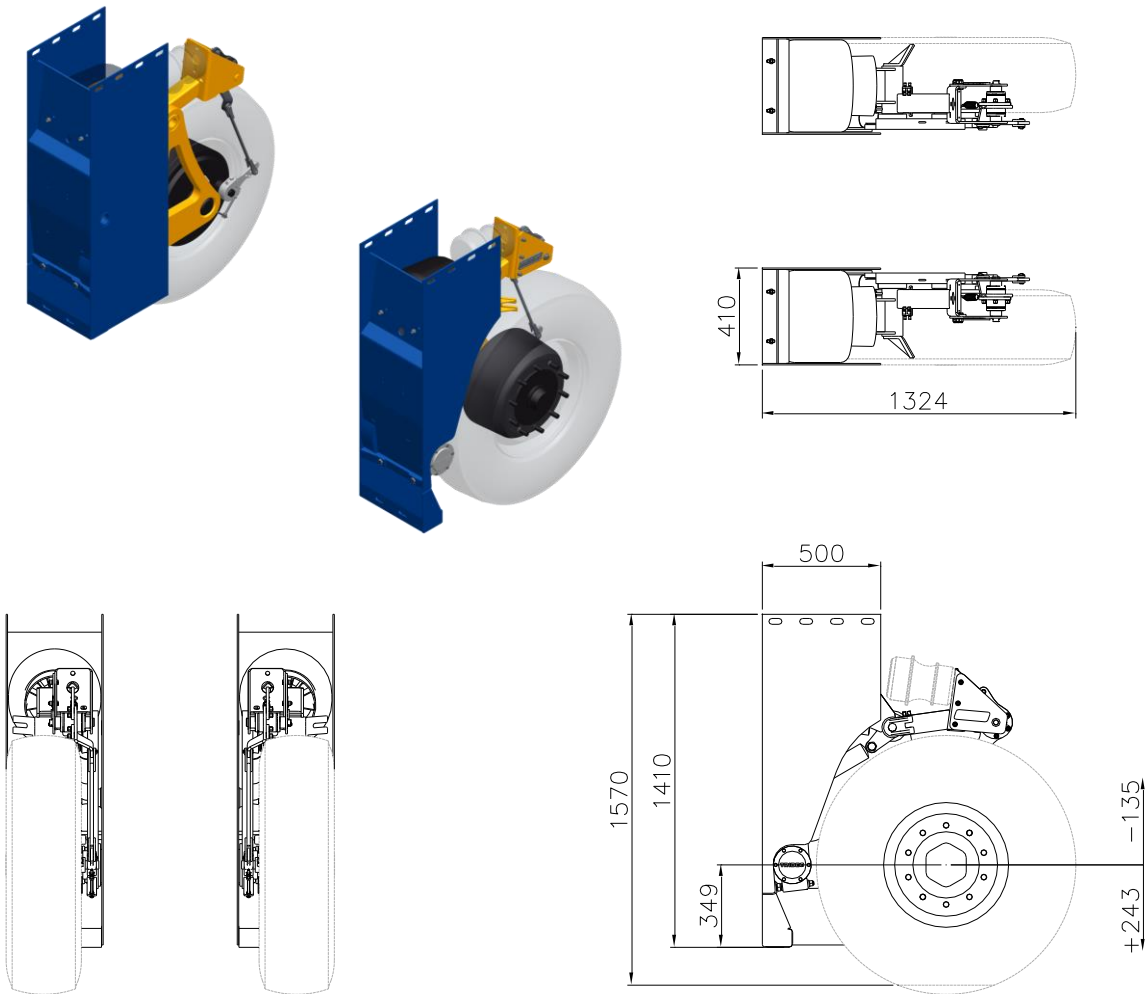


W (mm)	T (mm)	I (mm)	R (mm)	H (mm)	L (mm)	S (mm)	Weight (kg)
2550	2224	1724	247	1251	4016	1324	3555

Code	Description
1271	LV-O for 315/80R22.5 tires, with mounting bracket, per axle line

Technical specification

Feature	Value
Axle load (technical permitted)	8.5t
Surface treatment suspension	KTL dip coat
Suspension width	410mm
Suspension travel	135mm in, 243mm out
Axle stub	BPW RDBF ST 8010 (drum brake)
Tires	315/80 R22,5
Rims	22.5x8.25 ET100 (offset)
Weight	926 kg/axle line

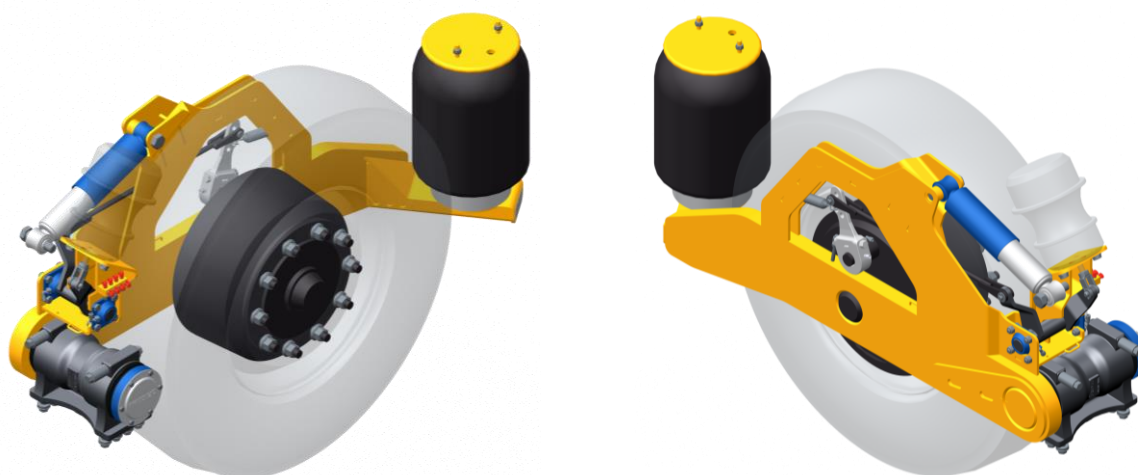


1210

LV-O suspension for 315/80R22.5 tires – Extra low



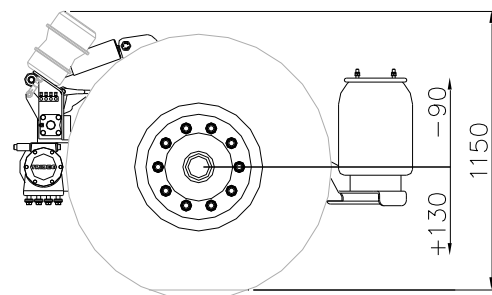
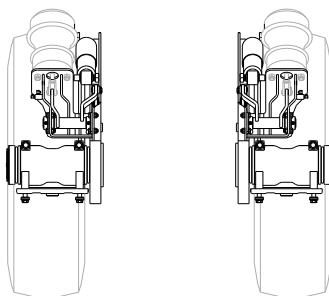
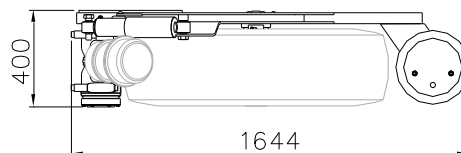
- Mainly applied in front wheel drive trucks as rear axle
- Low mounting height
- High quality BPW axle stub with drum brakes, ABS/EBS sensor possible
- Available per axle line without wheel boxes



Code	Description
1291	LV-O –low for 315/80R22.5 tires, per axle line

Technical specification

Feature	Value
Axle load (technical permitted)	8.5t
Surface treatment suspension	KTL dip coat
Width suspension	400mm
Suspension travel	90mm in, 130mm out
Axle stub	BPW RDBF ST 8010 (drum brake)
Tires	315/80 R22,5
Rims	22.5x8.25 ET100 (offset)
Weight	844 kg/axle line

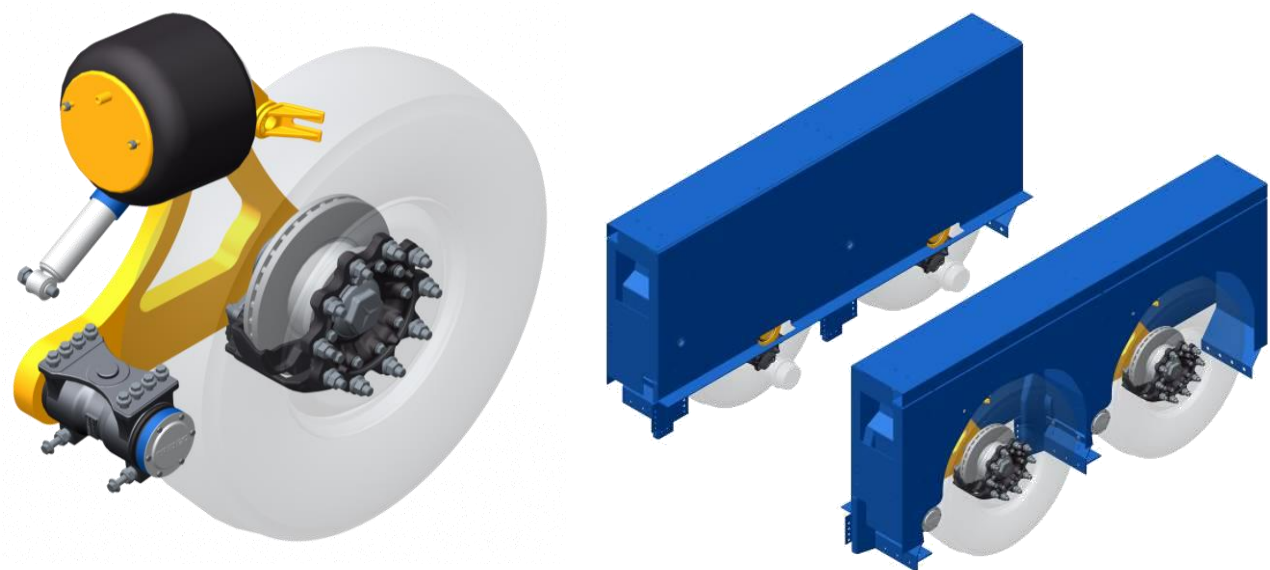


1206

LV-O suspension for 13R22.5 tires



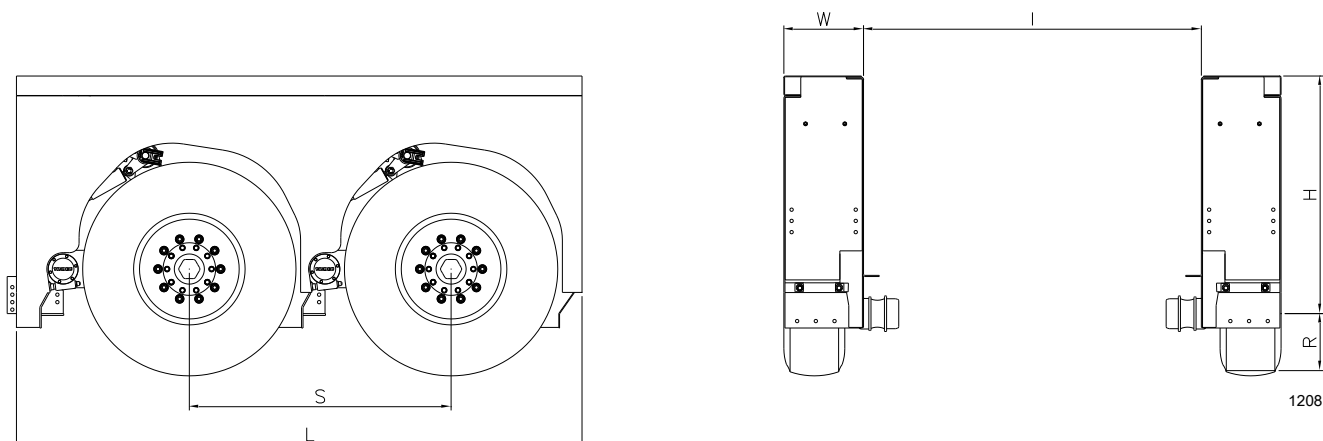
- Mainly applied in trailers for internal at airports
- High quality JOST axle stubs with disc brakes, ABS/EBS sensor possible
- Available as 2 axle lines in wheel boxes, others on request
- Boltable connection to the trailer chassis



Code	Description
1275	LV-O for 13R22.5 tires with boxes, 2 axle lines

Technical specification

Feature	Value
Axle load (technical permitted)	8t
Inner space	variable
Surface treatment boxes	Primer (transport corrosion protection)
Surface treatment suspension	KTL dip coat
Vehicle width	variable
Suspension travel	100mm in, 250mm out
Axle spacing	1400mm
Axle stub	JOST H TE5 3 (disc brake)
Tires	13R22.5
Rims	22.5x9 ET114 (offset)

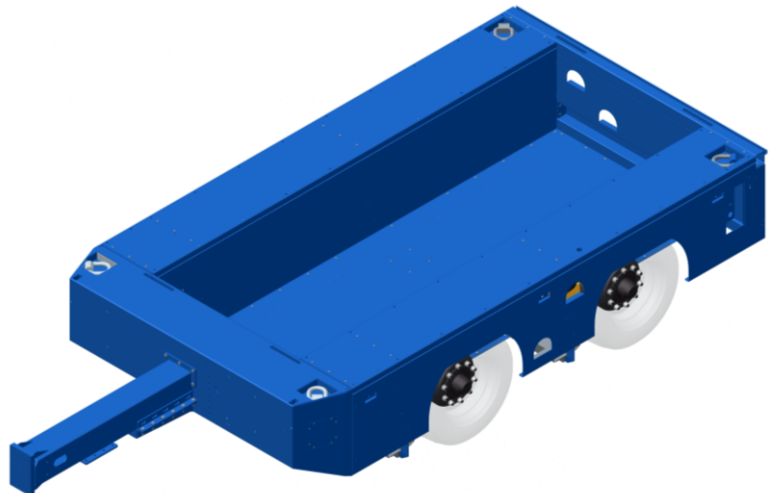


W (mm)	I (mm)	R (mm)	H (mm)	L (mm)	S (mm)	Weight (kg)
426	Variable	305	1270	3250	1400	2325

LV-O suspension for 435/50R22.5 tires



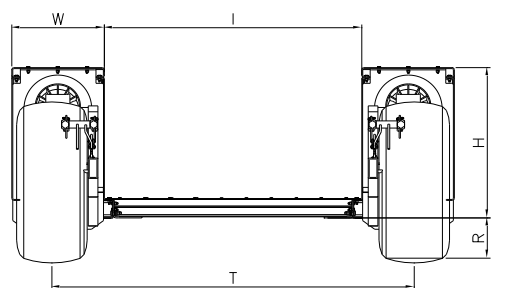
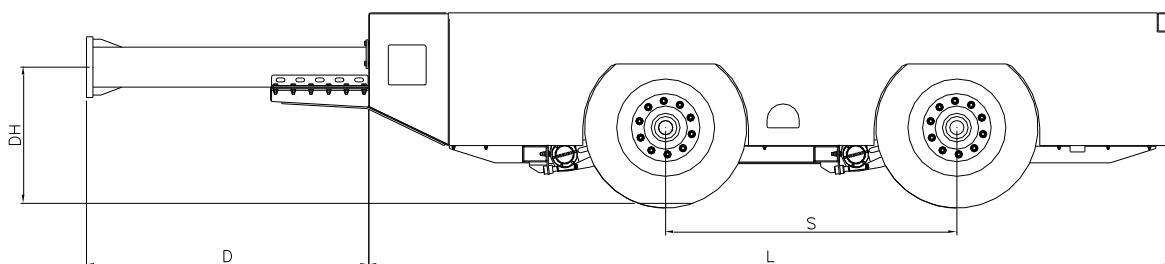
- Applied in ballast trailers
- High quality BPW axle stubs with drum brakes, ABS/EBS sensor possible
- Available as 2 axle lines in wheel boxes, others on request



Code	Description
1277	LV-O for 435/50R22.5 tires, with boxes, 2 axle lines

Technical specification

Feature	Value
Axle load (technical permitted)	10t
Inner space	1600mm
Surface treatment wheel boxes	Galvanization
Surface treatment suspension	KTL dip coat
Vehicle width	2750mm
Suspension travel	100mm in, 100mm out
Axle spacing	1810mm
Axle stub	BPW MVBF ST 10010 (drum brake)
Tires	435/50R22.5
Rims	22.5x14 ET45 (offset)



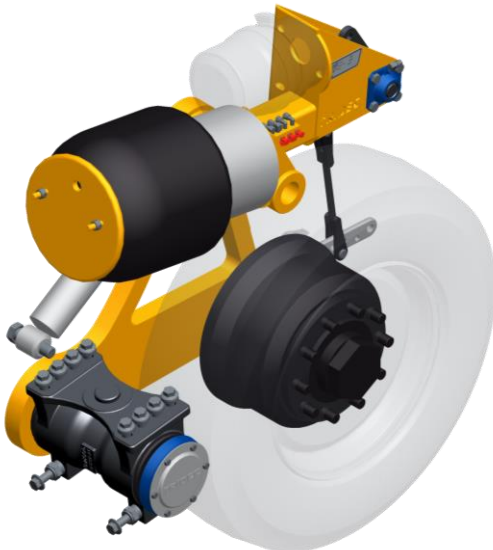
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W (mm)	I (mm)	T(mm)	R (mm)	H (mm)	L (mm)	S (mm)	DH(mm)	D(mm)	Weight (kg)
575	1600	2250	250	940	5000	1810	850	1750	4735

LV-O suspension for 245/70R17.5 tires



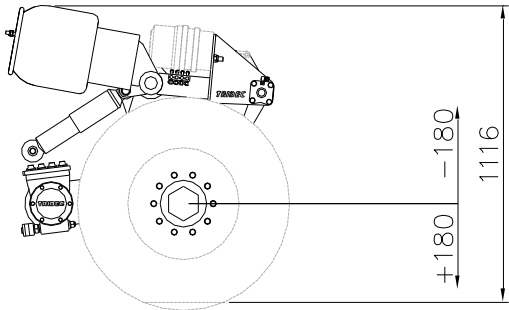
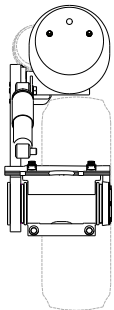
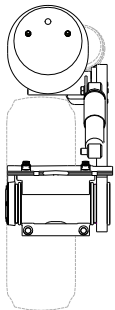
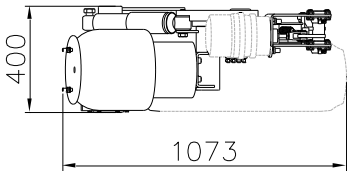
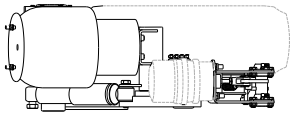
- Mainly applied in vending trailers, and special builds
- High quality BPW axle stubs with drum brakes, ABS/EBS sensor possible
- Available per axle line without wheel boxes



Code	Description
1292	LV-O for 245/70R17.5 tires, per axle line

Technical specification

Feature	Value
Axle load (technical permitted)	5.5t
Surface treatment suspension	KTL dip coat
With suspension	400mm
Suspension travel	180mm in, 180mm out
Axle stub	BPW NRDBM ST 6010 (drum brake)
Tires	245/70 R17,5
Rims	17.5x6.75 ET55 (offset)
Weight	784kg/axle line

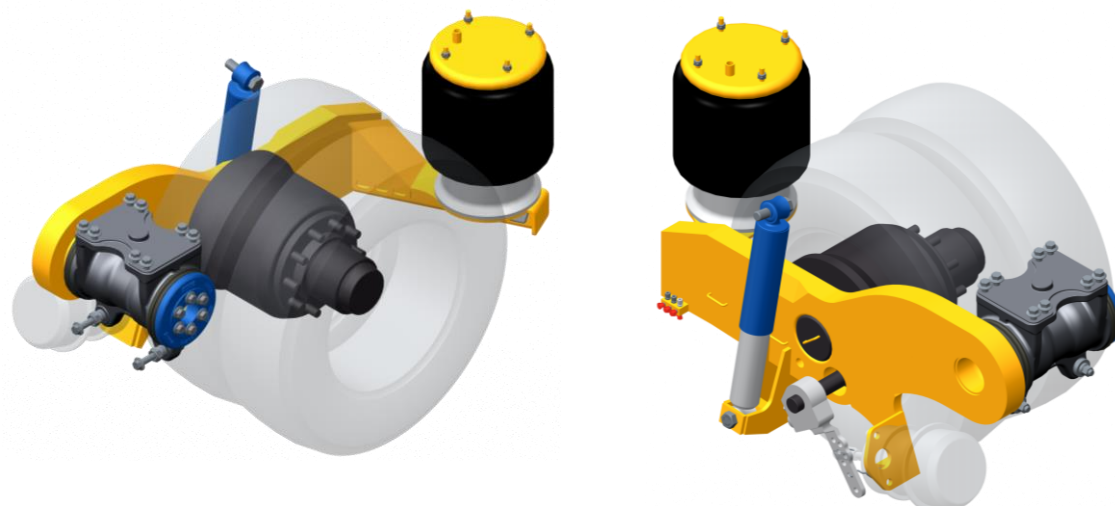


1207

LV-O suspension for 235/75R17.5 twin tire mounting



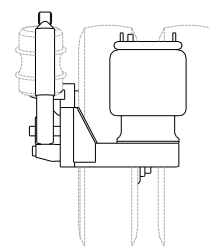
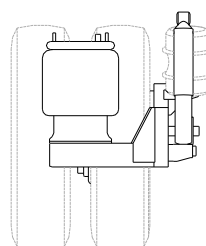
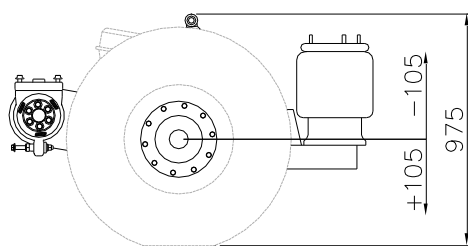
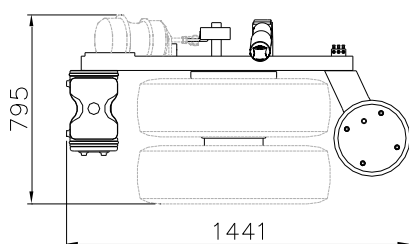
- Mainly applied in low loaders for boats, pre-fab or with adjustable width
- High quality BPW axle stubs with drum brakes, ABS/EBS sensor possible
- Extra-large main rubber bearing's trunnion bushes, for prolonged life time
- Available per axle line without wheel boxes
- Versions 255/70R22.5 and 245/70R19.5 tires on request



Code	Description
1293	LV-O for 235/75R17.5, twin tire mounting, per axle line

Technical specification

Feature	Value
Axle load (technical permitted)	12t
Surface treatment suspension	KTL dip coat
Width suspension	795mm
Suspension travel	105mm in, 105mm out
Axle stub	BPW NRDZF ST 12010 (drum brake)
Tires	235/75R17.5 double tire mounting
Rims	17.5x6.75
Weight	1098 kg/axle line



1207

Order references

LV-O Suspension

Code	Description
1201	1 axle line version double deck (axle line with ABS)
1230	2 axle lines version double deck (1 axle line with ABS)
1260	3 axle lines version double deck (1 axle line with ABS)

LV-O Special suspensions

Code	Description
1271	LV-O for 315/80R22.5 tires with mounting bracket, per axle lines
1273	LV-O for 315/80R22.5 tires with wheel boxes, 3 axle lines
1291	LV-O low for 315/80R22.5 tires, per axle line
1275	LV-O for 13R22.5 tires, with wheel boxes, 2 axle lines
1277	LV-O for 435/50R22.5 tires, with wheel boxes, 2 axle lines
1292	LV-O for 245/70R17.5 tires, per axle line
1293	LV-O for 235/75R17.5 twin tire mounting, per axle line

LV-O Options

Code	Description
1250	Less price for axle line without ABS
1251	Additional price for axle line with ABS
1255	Galvanised wheel boxes 1 axle line (price per set)
1256	Galvanised wheel boxes 2 axle lines (price per set)
1257	Galvanised wheel boxes 3 axle lines (price per set)
1258	Steel rims ET65 (offset)

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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