FAYMONVILLE
TRAILERS TO THE MAX

COMBIMAX



Define & combine

faymonville.com

BÜLLINGEN (BE)
since 1988 - 30.000 m²



With an experience of over 50 years, Faymonville is one of the biggest manufacturers of semi-trailers for special and heavy haulage.

Faymonville provides their customers with optimal solutions and systems for any transport need outside the usual norms.

Quality, flexibility, productivity, creativity and service are the company's keywords. The range of products and services is constantly enlarged in tight collaboration with our customers.

GOLENIOW (PL)
since 2006 - 21.000 m²



The high level of innovation and the excellent manufacturing quality of the products are secured by optimized production processes and own modern production plants in Büllingen (Belgium), Lentzweiler (Luxembourg) and Goleniow (Poland). A service station has been opened in Noginsk (near Moscow, Russia).

NOGINSK (RU)
since 2014 - 3.120 m²



LENTZWEILER II (LU)
since 2015 - 16.000 m²

LENTZWEILER I (LU)
since 2003 - 20.250 m²



DEFINE & COMBINE

„Define your transport need -configure your trailer solution!“

The COMBIMAX is a unique and wide-ranging trailer concept. It’s idea is based on the diversity in the combinability of standardized parts.
Modularity and flexibility are the main key words for the low loaders for medium to heavy payloads between 50 and 250 tons.
The COMBIMAX can be adjusted to every need of transport.

Main concept

- ✓ Modularity
- ✓ 50-250 to of payload
- ✓ Optimized tare weight
- ✓ Easy handling
- ✓ Less investment costs
- ✓ Combination of bolt-coupling, hook-connection and extendable platform
- ✓ On-road transport at min 30 km/h
- ✓ One-Neck-Technology
- ✓ FALCO II Calculation software
- ✓ Mixed combination possible 17.5“ with 19.5“
- ✓ Common spare parts for 17.5“ and 19.5“

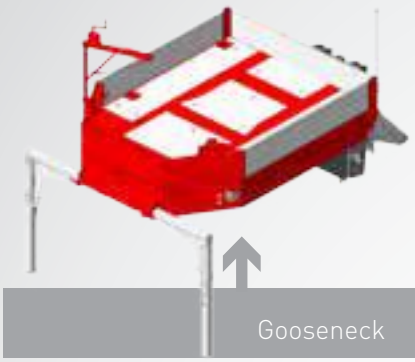








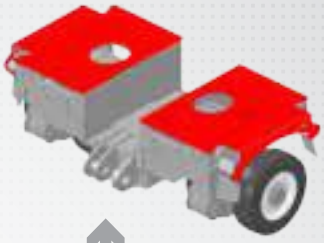
COMBIMAX system



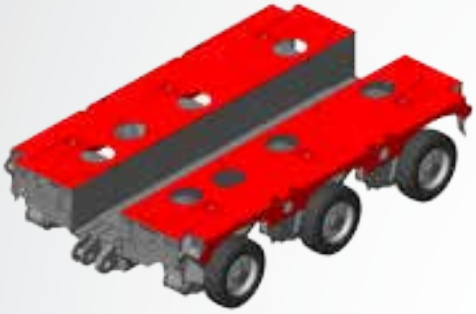
Gooseneck



2 axle front bogie with hook connection



Joker axle



3 axle center bogie



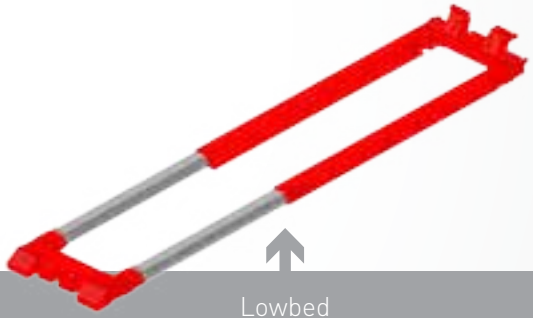
4 axle rear bogie



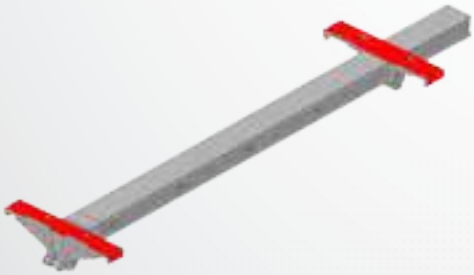
Turntable
with and without self-tracking device



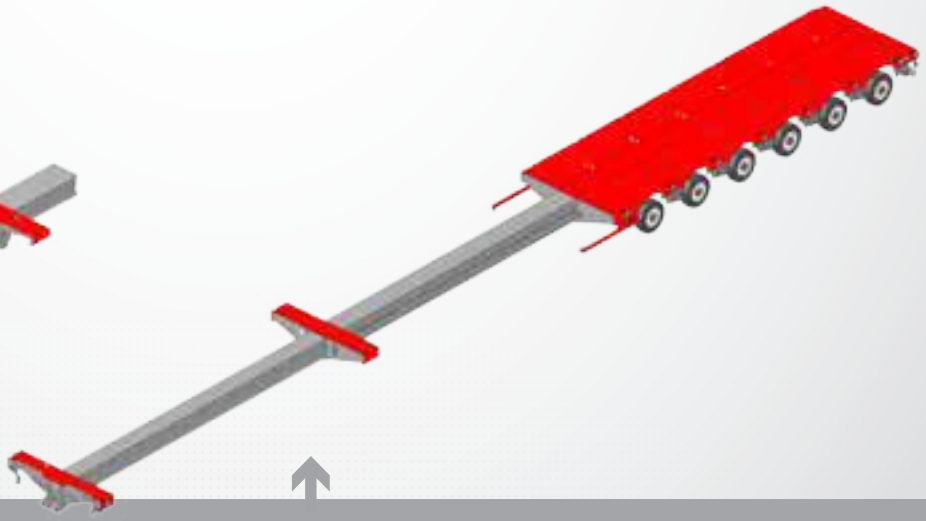
Drawbar



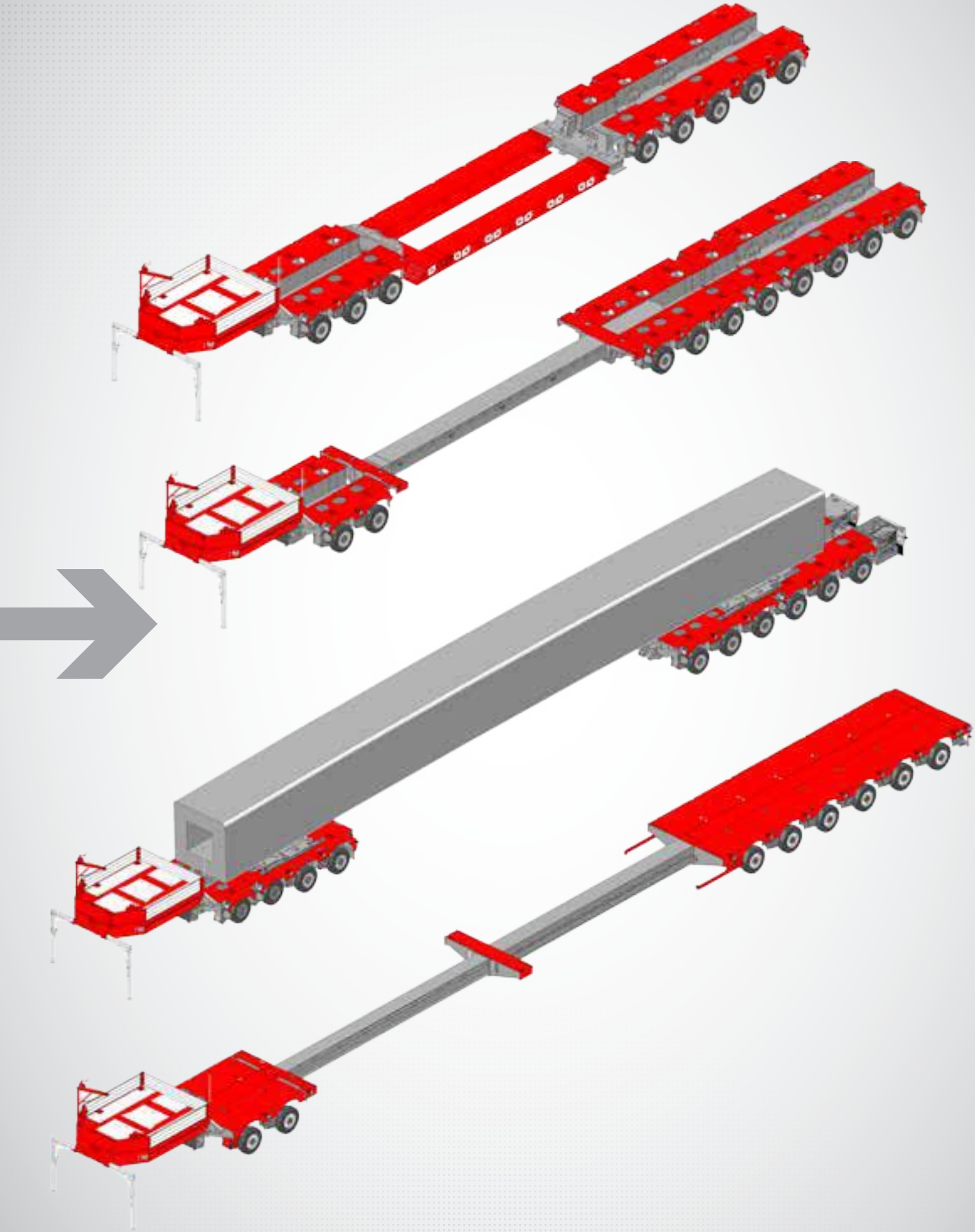
Lowbed



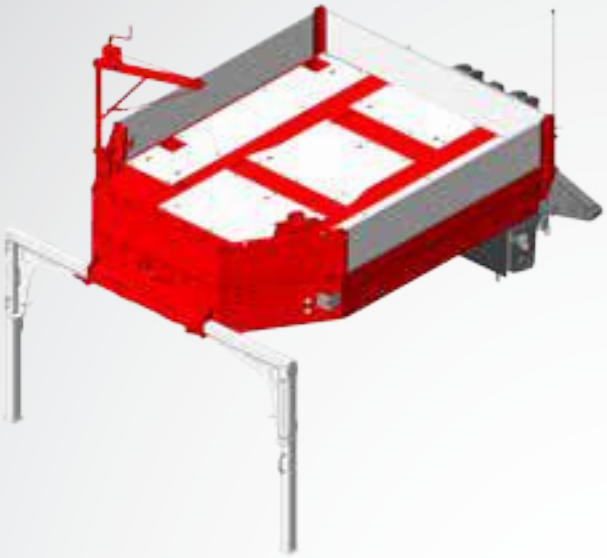
Add-On-Beam

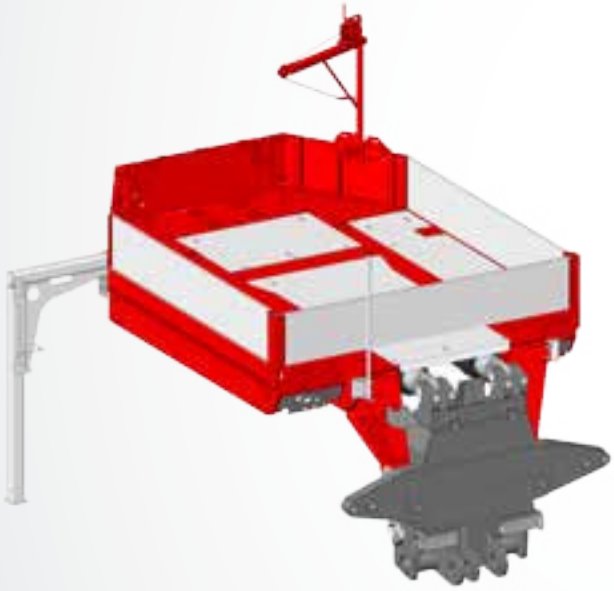


PA-X loading platform



Gooseneck - One-Neck-Technology





The new One-Neck-technology defines Faymonville's latest generation of hydraulic goosenecks.

Our proven and simple operation system has been optimized again for the CombiMAX and convinces form start to finish:

- Clear and simple operating
- Double steering for different axle systems
- 4 basic functions :
  - Removable
  - Hydraulically compensating
  - Lift and lowerable
  - Rigid
- Versatile and under loading adjustable king pin pressure
- Booster-cylinder for extra high king pin load

	Gooseneck swing	Technical king pin load
V-30	2.700mm	37.5to
V-40	3.350mm	50to

Gooseneck operating



Gooseneck with booster-cylinder



Add-On-Beam

The „Add-On“ beam is available in single or double extendable version and it offers newest possibilities for combinable vehicles. If required, the beam can be inserted between two CombiMAX components.

Thanks to the open design of the CombiMAX central frame, the beam “disappears” inside the chassis.

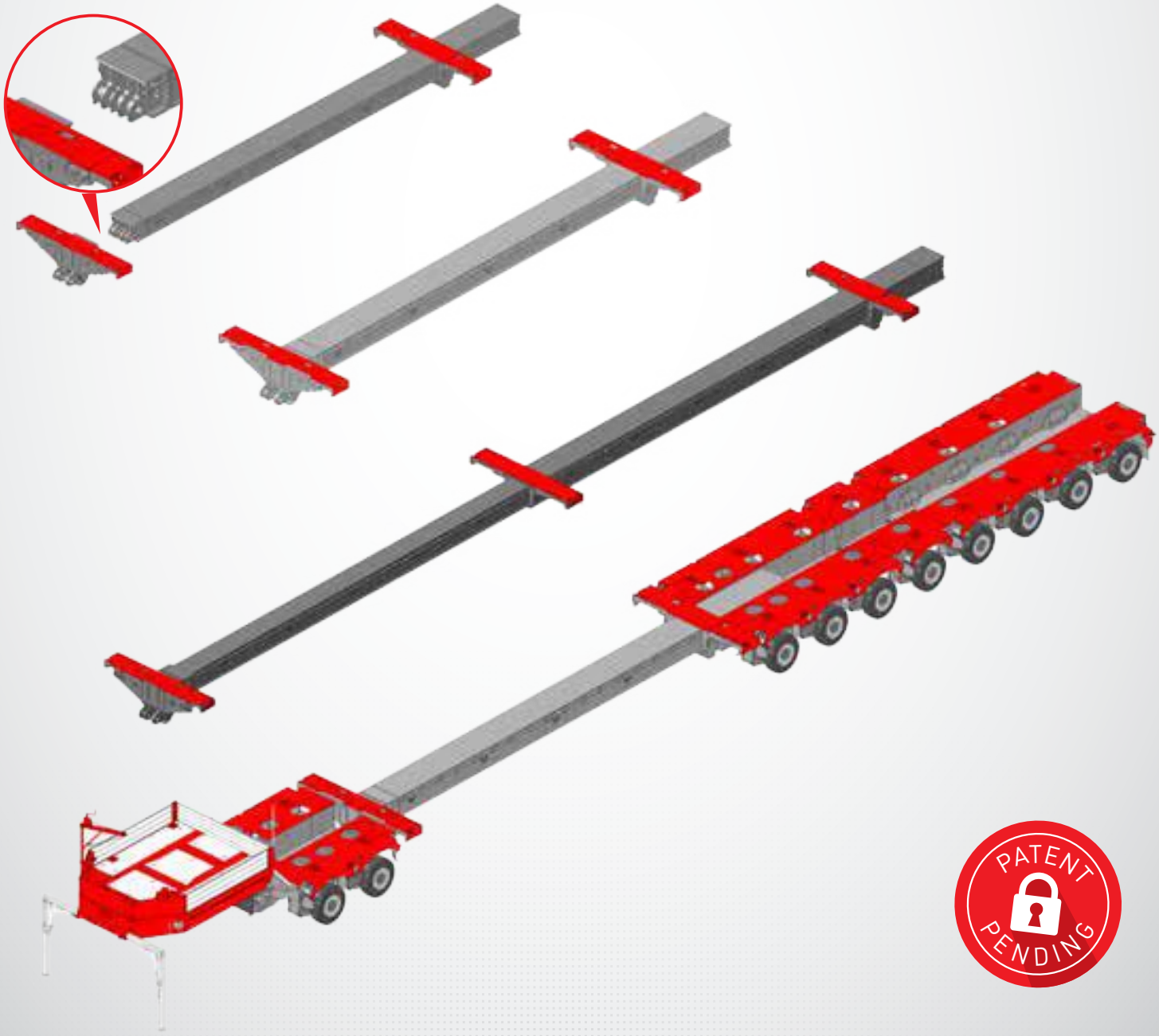
In order to reduce costs for permits or escort vehicles, the combination will be shortened to minimum length for empty runs.

The Add-on-Beam can be extended by elongation pieces which can be attached using bolt coupling interfaces at the front or rear part of the Add-On-Beam.

Available basic lengths:

- 1x extendable: 5.80m - 14.00m
- 2x extendable: 14.32m - 25.00m

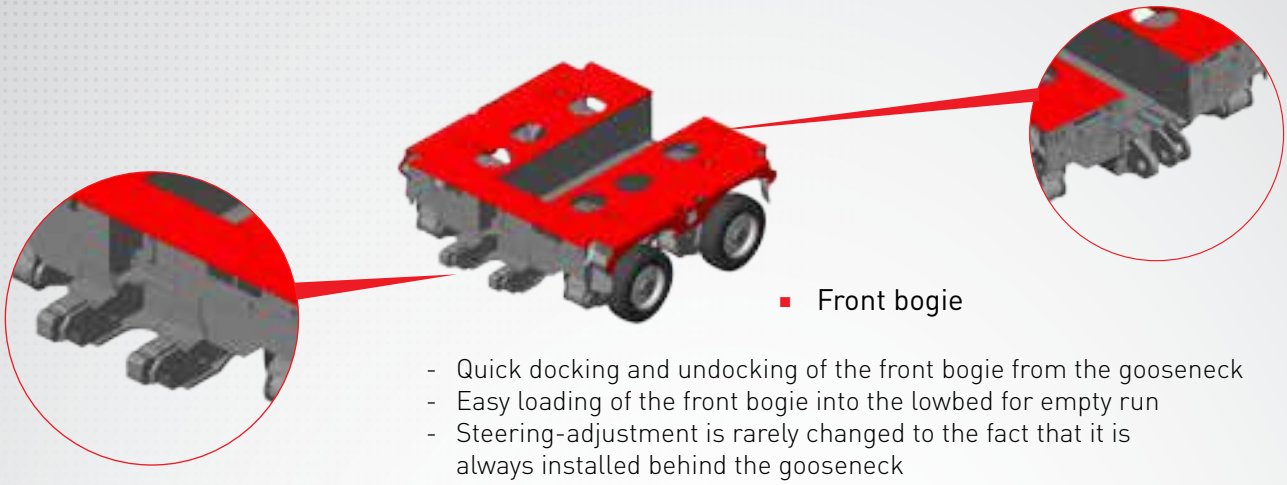
Bolt coupling interface
for elongation piece



PATENT PENDING

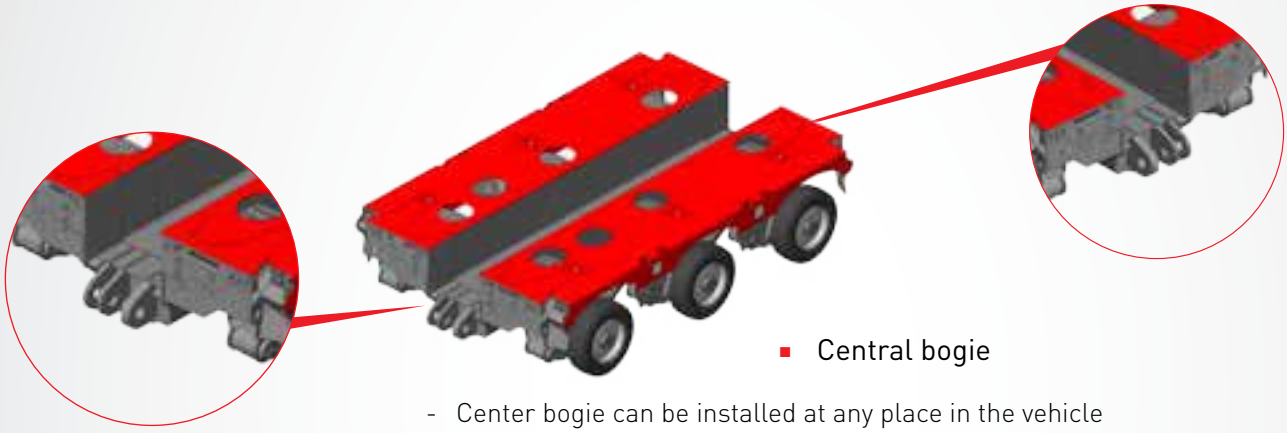
Different types of bogies

Tyres	4x245/70 R17.5	4x285/70 R19.5	8x215/75 R17.5
			
Axle load (30km/h)	14.18 to	17.42 to	22.68 to
Front bogie	✓	✓	✗
Center bogie	✓	✓	✓
Rear bogie	✓	✓	✗
Average driving height	4x245/70 R17.5: 1.060mm (-200/+400)	4x285/70 R19.5: 1.160mm (-200/+400)	8x215/75 R17.5: 1.060mm (-225/+375)
Width/ Track width	2550/1690 mm 2850/2000 mm 3000/2150 mm		3000/1800 mm 3200/2000 mm 3600/2400 mm
Axle distance	1360/1500 mm		1500 mm
Suspension	600 mm		
Recess width/ Basic width	2550/400 mm 2850/700 mm 3000/850 mm		3200/470 mm 3600/870 mm



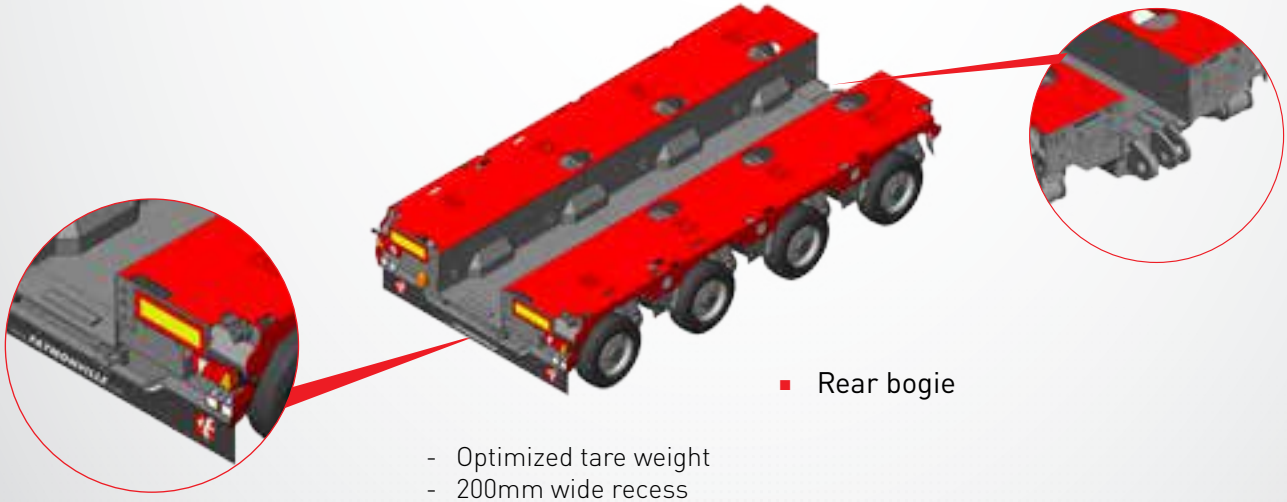
▪ Front bogie

- Quick docking and undocking of the front bogie from the gooseneck
- Easy loading of the front bogie into the lowbed for empty run
- Steering-adjustment is rarely changed to the fact that it is always installed behind the gooseneck
  = Time saving combination



▪ Central bogie

- Center bogie can be installed at any place in the vehicle
- The Joker axle offer infinite combinations
- CombiMAX Add-On-Beams can be installed easily into a center bogie
  = Efficient



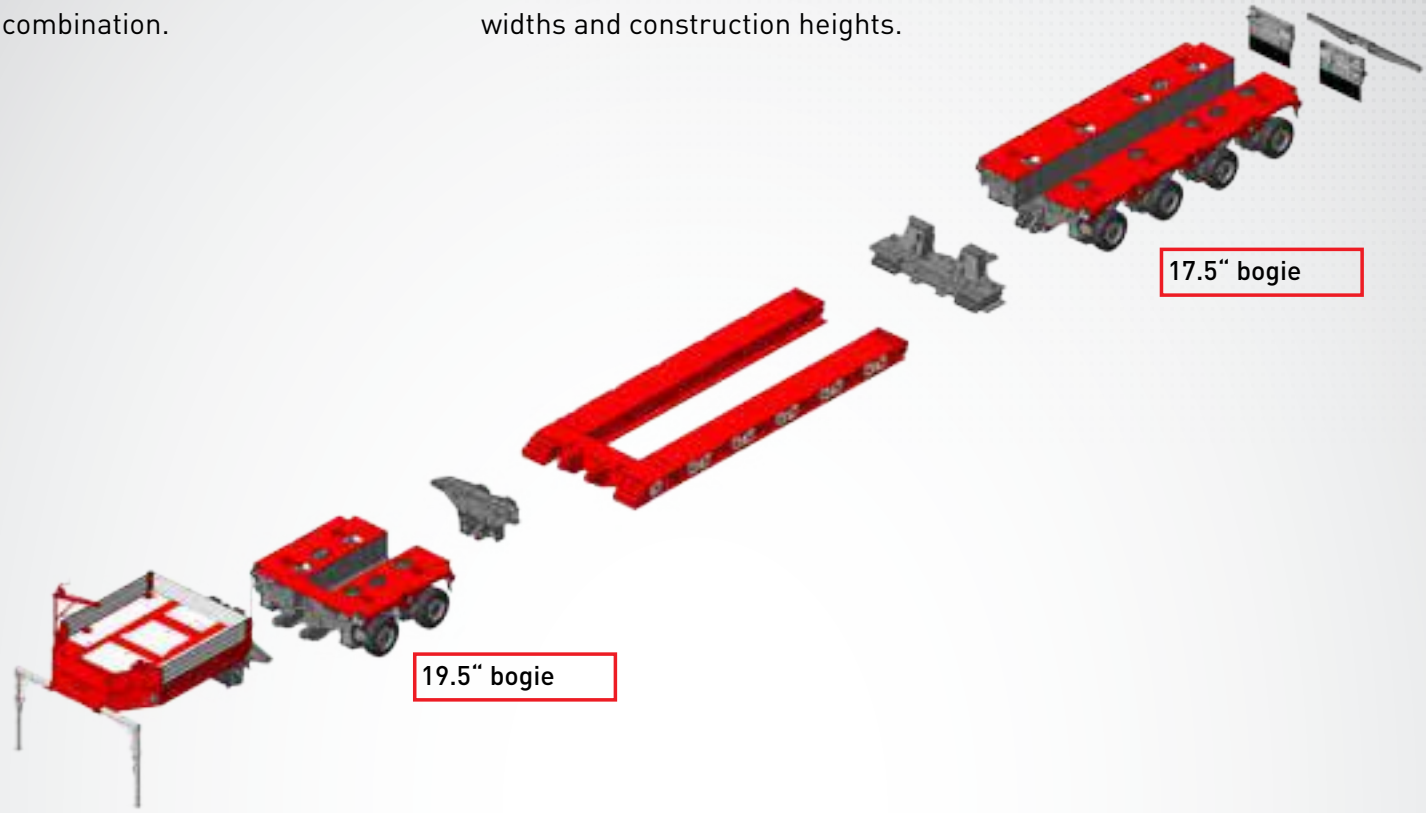
▪ Rear bogie

- Optimized tare weight
- 200mm wide recess
- Recess still usable for Add-On-Beam
- Firmly installed rear lights and underride protection
- Installation of hydraulic ramps possible
- Steering-adjustment is rarely changed to the fact that it is always at the rear of a combination.
  = Time + money- saving

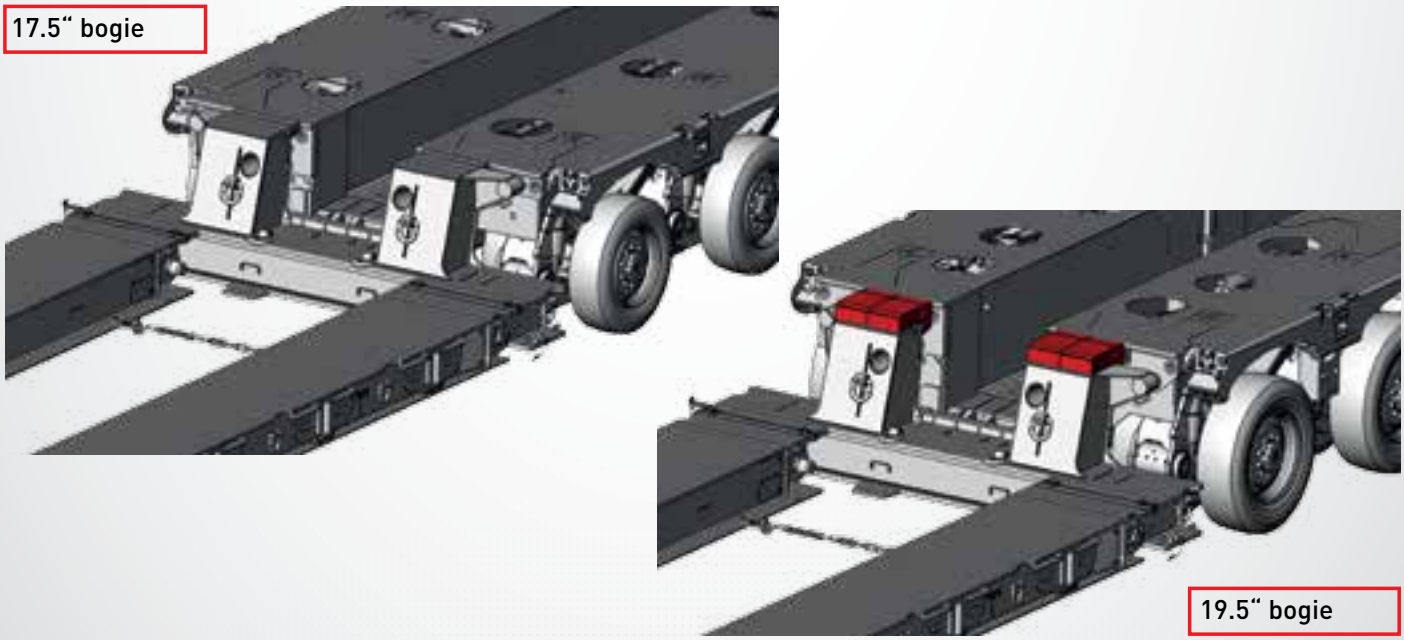
Mixed Combinations

Thanks to the universal coupling head, bogies of different tires and widths can be combined inside a combination.

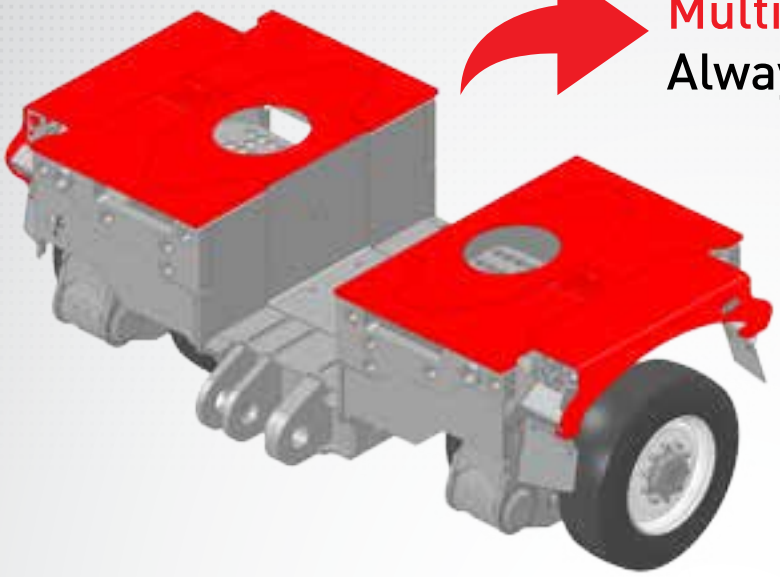
All parts like lowbeds, turntable or lighting elements are designed to be combinable with different widths and construction heights.



Example:
Lowbed- crossmembers for 17.5” and 19.5” bogies at 2.850mm or 3.000mm width.



Joker Axle



Multiply your opportunities!
Always **accurate** axle loads!



BEFORE:



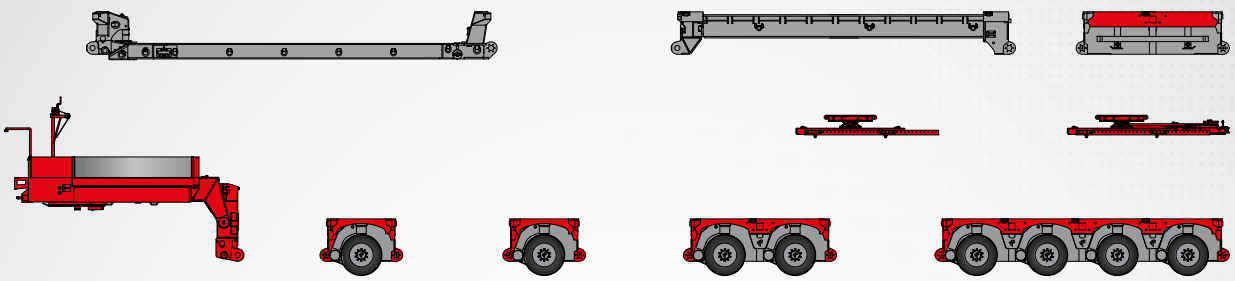
60 min.



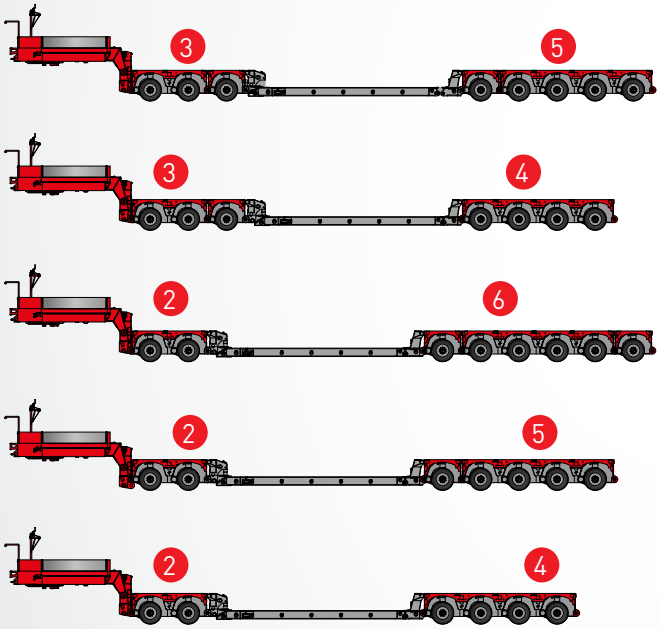
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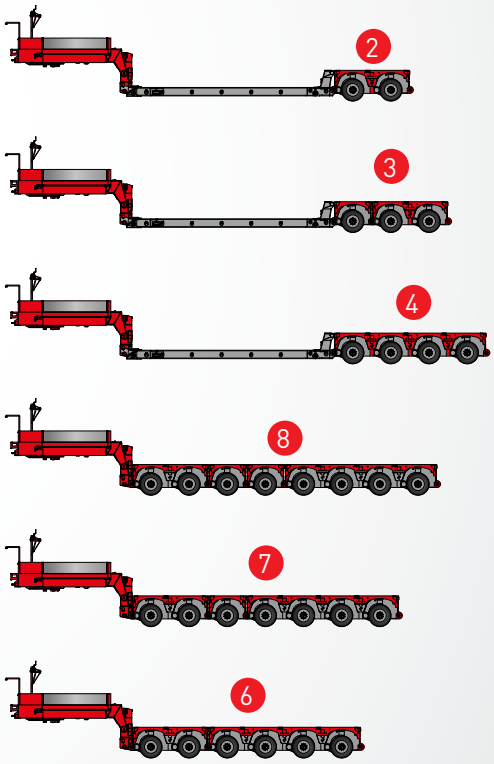


One investment – countless possibilities



Application example*:

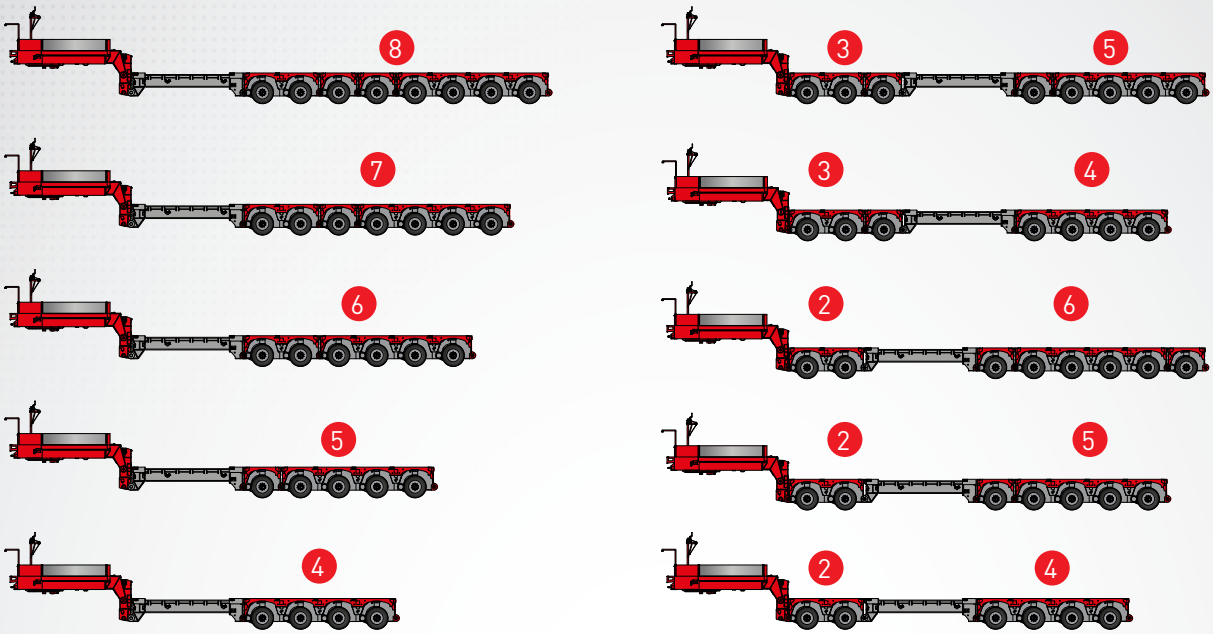




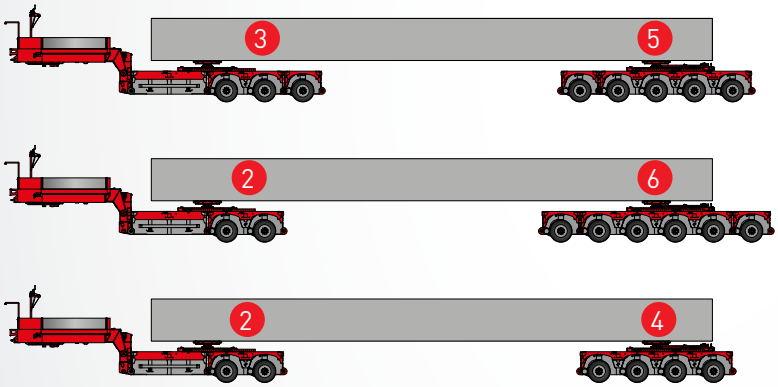
*These combinations and its accessories are exemplary and do not reflect the complete range of possibilities within the CombiMAX concept.

Possible additions*:

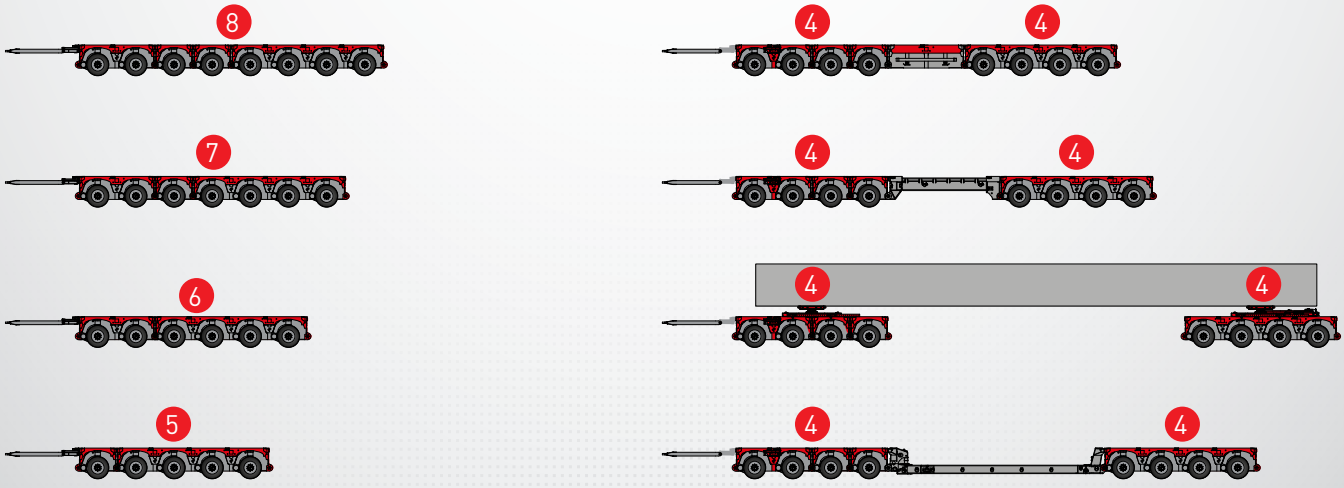
Add-On-Beam



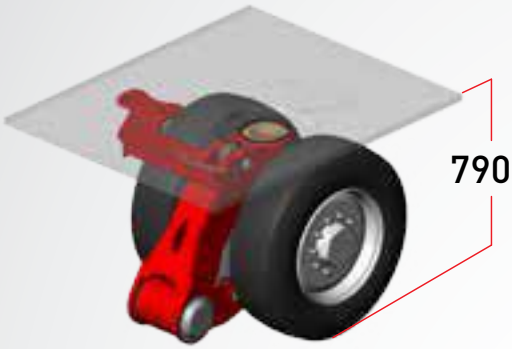
Turntable & Spacer



Drawbar

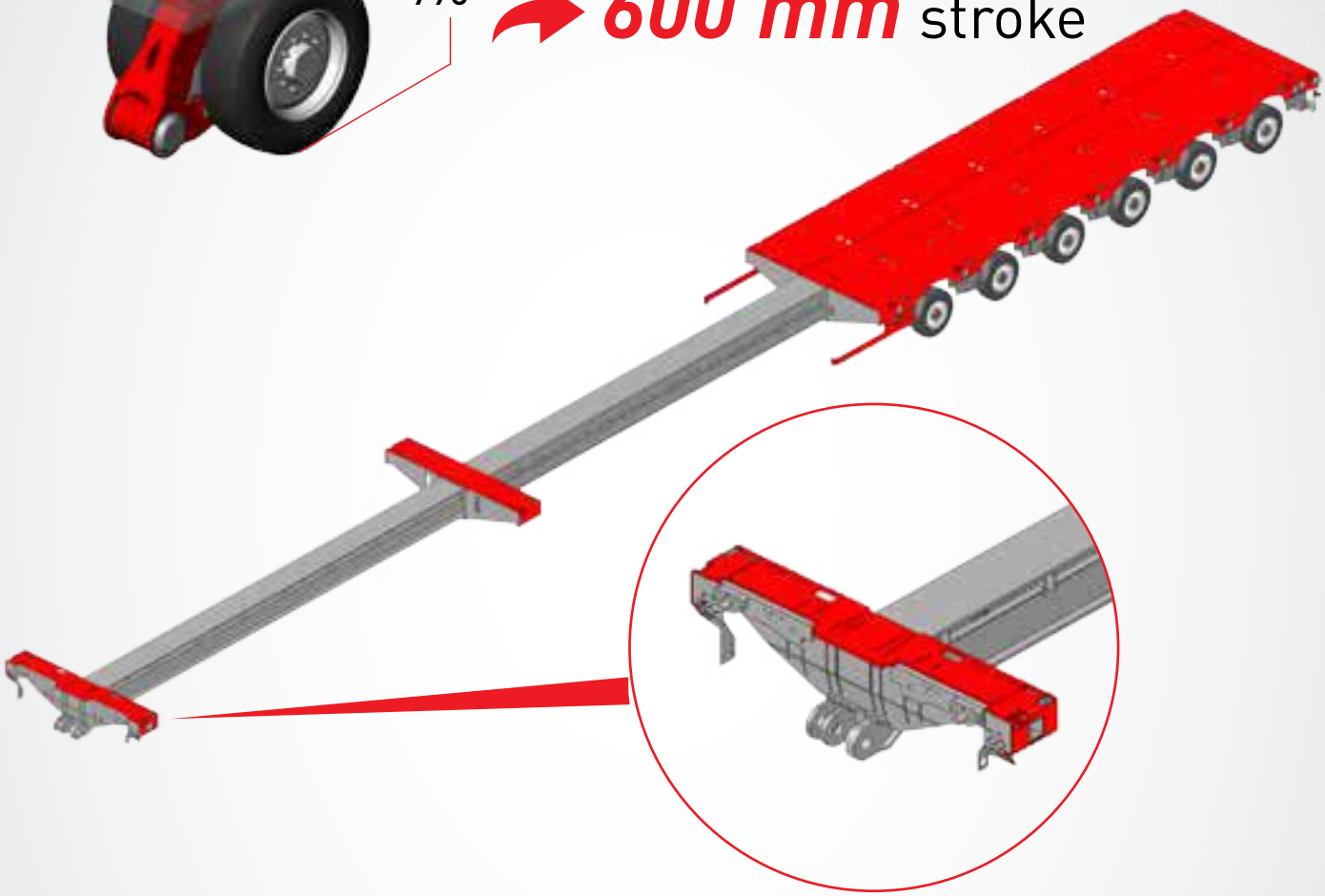


PA-X More than low



790 mm loading height

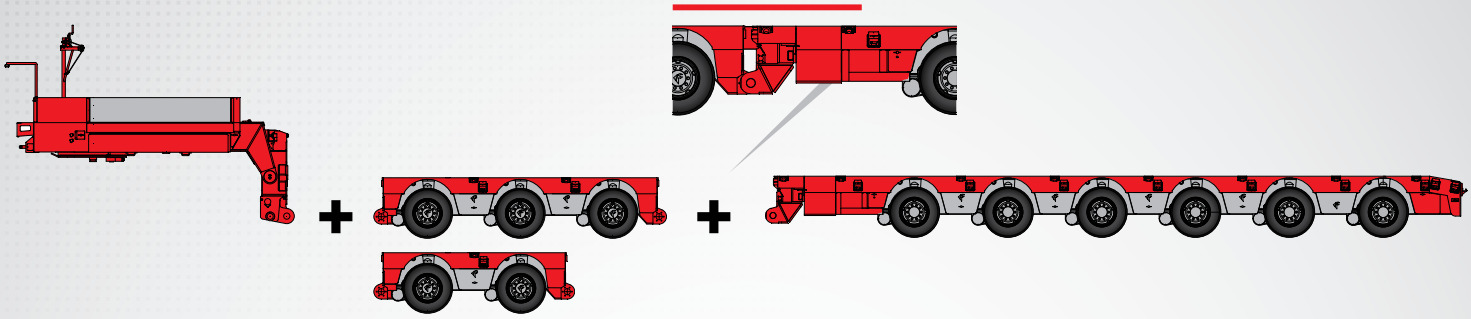
600 mm stroke



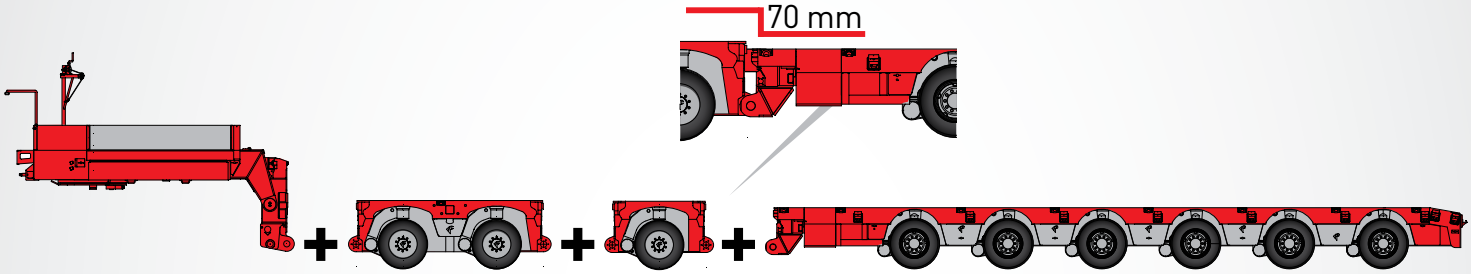


EXCLUSIVE
by FAYMONVILLE TRAILERS TO THE MAX

COMBIMAX-PA-X



CombiMAX PA-X bogie



CombiMAX 17.5” bogie

The PA-X loading platform has been designed with the intention of the lowest possible loading height.
The unique result: 790mm loading height with 600 mm stroke.
The PA-X loading platform can be attached to CombiMAX components through its bolt coupling interface.

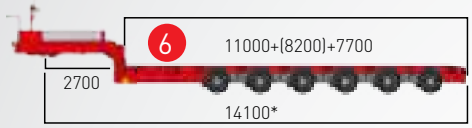
A huge priority has been given to the fact, that the PA-X is using as many parts as possible of the CombiMAX system.
The PA-X can also be extended by 3 more axle-lines and thereby contributes to a higher payload and to the improvement of the load distribution.
The customer has the choice between the conventional 17.5” CombiMAX bogie and the newly designed and lower PA-X front bogie.

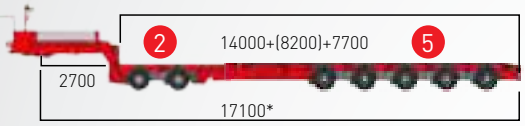


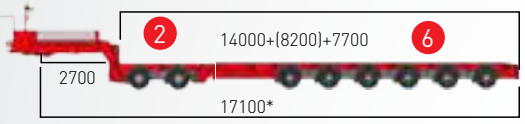
Possible combination CombiMAX PA-X

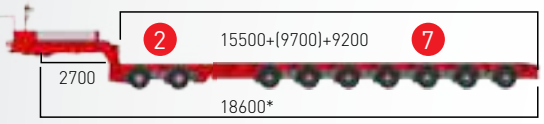
Axle distance = 1.500 mm

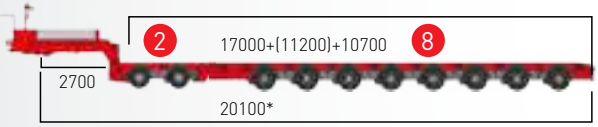


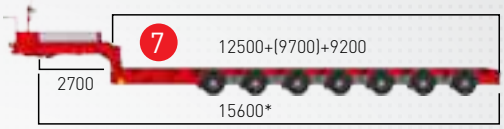


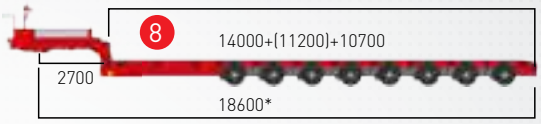




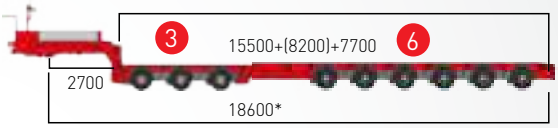


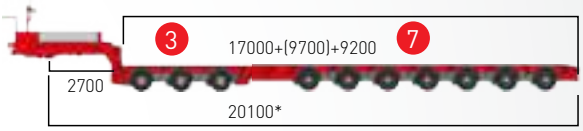


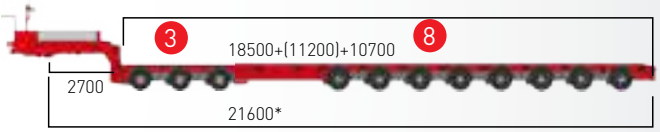






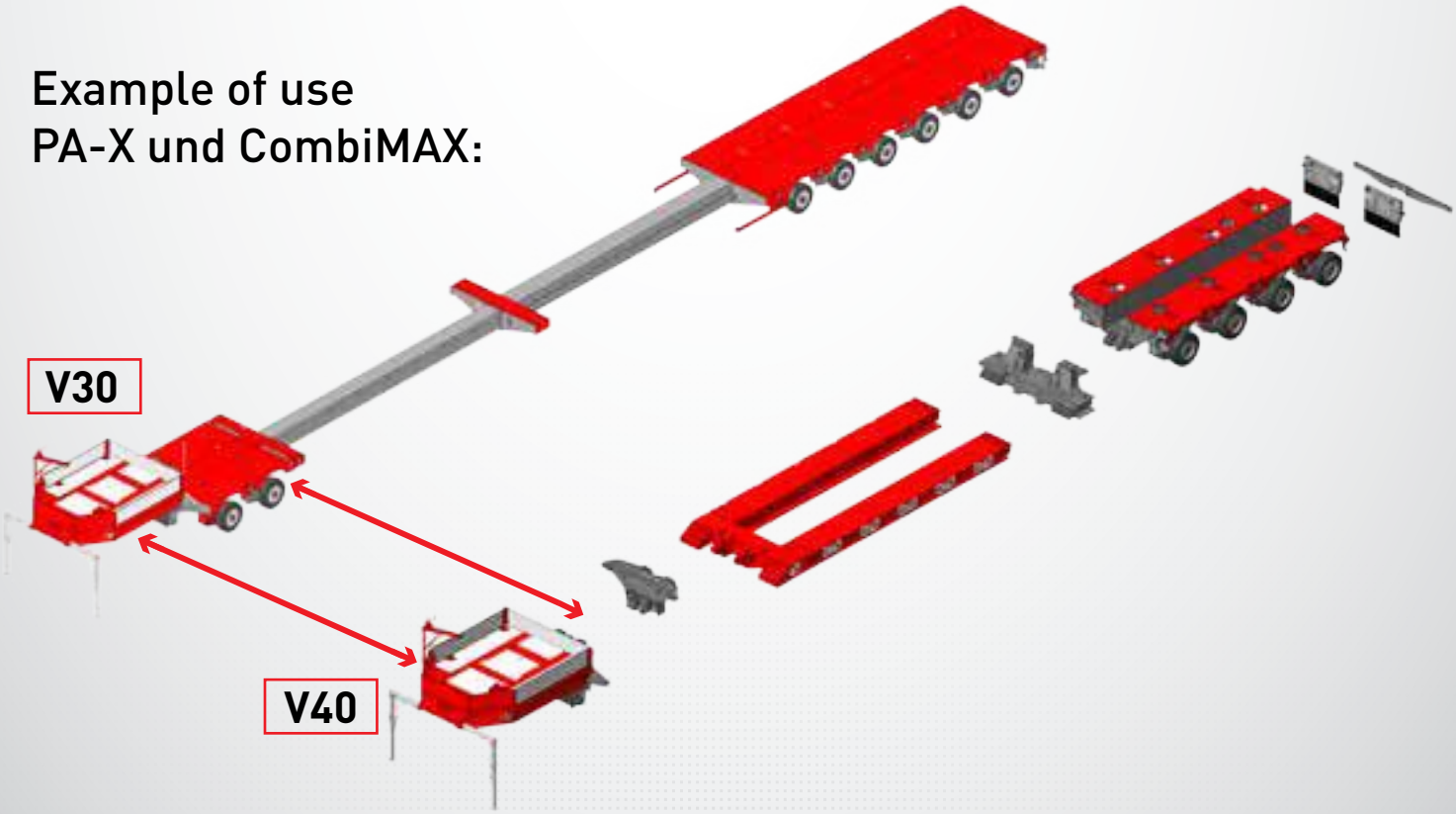






* Coupling length without U-beam

Example of use PA-X und CombiMAX:

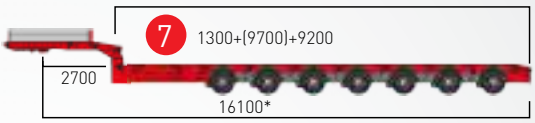


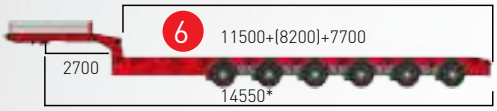
Possible combination MultiMAX PA-X

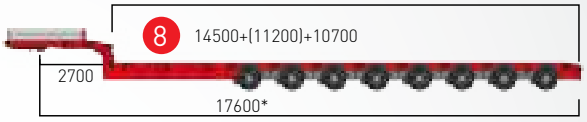
The new PA-X axle system has been integrated as well into the MultiMAX product range.
The MultiMAX PA-X abandon the use of a bolt-coupling between the gooseneck or front bogie and the platform.
This results into a weight- and cost improved alternative to the CombiMAX PA-X system.

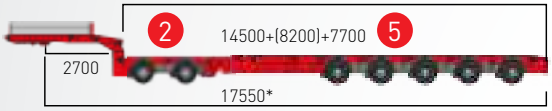
Axle distance = 1.500 mm

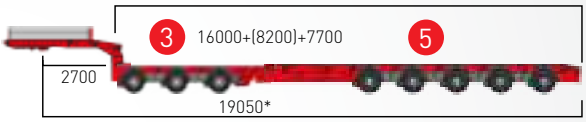






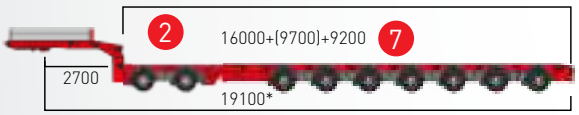


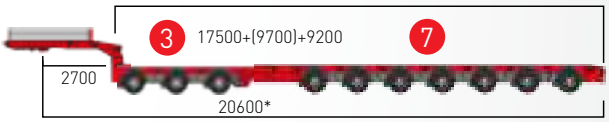


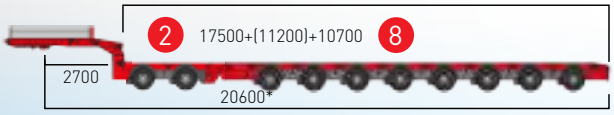


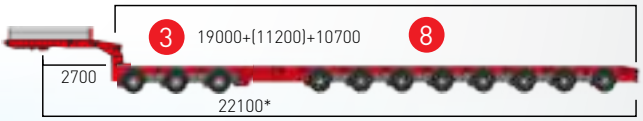












* without U-beam



Dropdecks

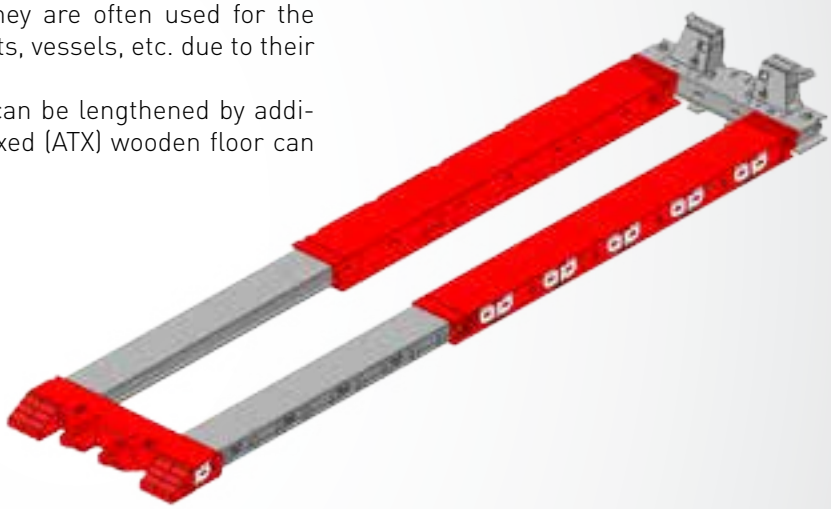
Dropdecks are available in various designs and payload classes. The customer can choose within a large range of versatile and standardized dropdecks or even go for a tailor-made solution that exactly meets his needs.



- Outer beam KBX or ATX

Outer beam decks are overdrivable up front. They are often used for the transport of construction machinery, industry parts, vessels, etc. due to their low loading height.
The loading platform is usually extendable and can be lengthened by additional elongation pieces. A removable (KBX) or fixed (ATX) wooden floor can be added in between the beams.

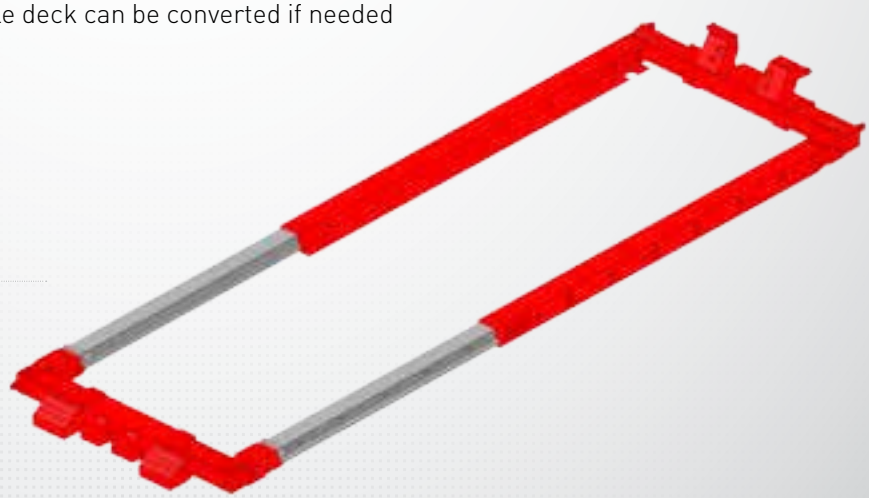
Construction height	300 or 350 mm
Width	2.850 or 3.000 mm



- KBV: hydraulically extendable vessel deck

The vessel deck is hydraulically widenable in order to adapt its width to the dimension of the cargo. This type of low bed is suitable for vessels and wide cargo.
Extendable beams and additional elongation pieces are also available. The front area can be overdrivable and the whole deck can be converted if needed to an excavator deck.

Construction height	400 or 450 mm
Width	3.000 - 4.700 mm

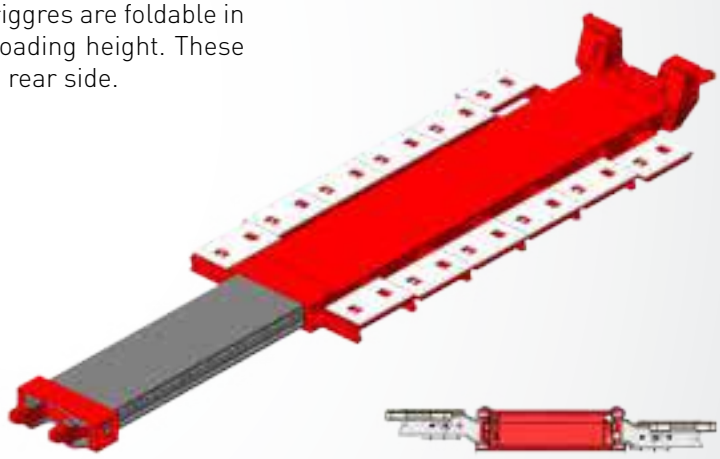




BB: spine deck

The spine deck is the ideal transport solution for all track vehicles. The matrasses can be placed in two different loading heights by turning the outriggers. The matrasses are removable as well and the outriggres are foldable in order to carry track vehicles with the lowest possible loading height. These dropdecks can be extendable from the front or from the rear side.

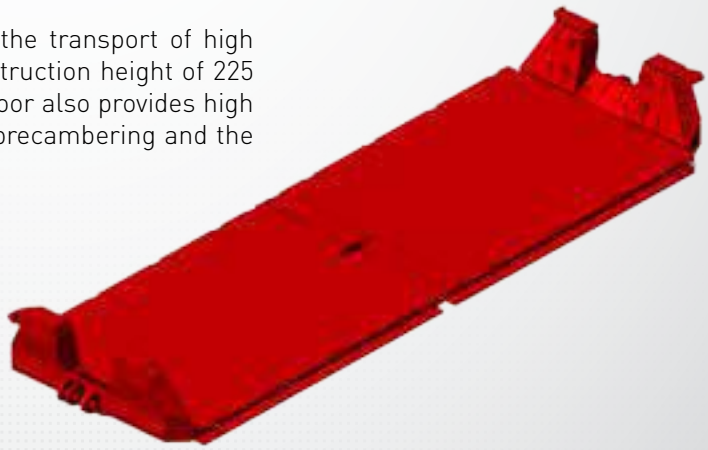
Construction height	400 or 450 mm
Width	1.350 or 1.500 mm



FBX: Flatbed deck

Faymonville flatbed decks are the ideal solution for the transport of high components such as transformers thanks to the construction height of 225 mm or 250mm. The continuous and reinforced steel floor also provides high point load. Bolt coupling interfaces enable individual precambering and the installation of elongation pieces.

Construction height	225 or 250 mm
Width	2.850 or 3.000 mm



Standardization down to the spare parts

Standardization was the key issue during the development of the whole COMBIMAX system and this right down to the last detail.
An example: all pendle axle variants – 17,5" or 19,5" - are equipped with the same components.
Cylinders, bearings or wear parts are identical.
An optimal condition for a fast availability of spare parts
– worldwide!





Swing axle bogies round the clock



- In-house axle-bogie production line
- 2 gantry robots with a total of 13 articulation points
- High-focus arc welding technology
- Quality assurance by welding parameter monitoring and documentation



Detail view



Gooseneck



Flat bed deck



Lighting, underride protection, warning boards



Lashing rings, stake pockets, preparation for outriggers, steering rod cover



Pendle axle 17.5"



Rear bogie with preparation for hydraulic ramps or push-bar connection



Quick coupling device for hook-adapter



Spine deck with matrasses, foldable outriggers and ramps



Widenable cross member
with central bolt coupling



Widenable cross member
with central bolt coupling



Add-On-Beam



Joker Axle



Outriggers



Push-bar connection

MAXPROTECT+

Weather conditions and environmental influences as well as corrosion and stone chips are the biggest enemies of a steel structure. For the long-term surface protection of semi-trailers, FAYMONVILLE relies on MAXProtect+, a fully co-ordinated and meticulously optimised surface treatment system.

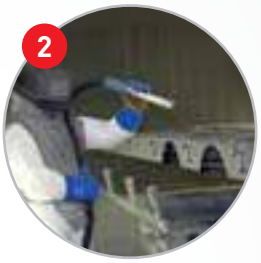
MAXProtect+ is by far the best concept currently available in the industry. That is why it sets the benchmark in the field of surface protection. Our MAXProtect+ treatment offers a long-life surface protection.

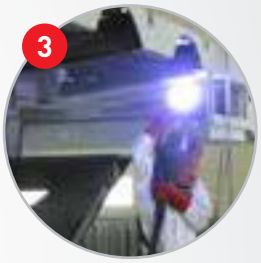
All stages and processes included in MAXProtect+ – from the painting to the metallisation, including shot- and sandblasting – are carried out, developed and tested 'in-house'.

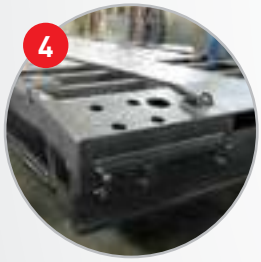
This optimum surface treatment additionally increases the quality and longevity of our products.

















Composition of the surface refinement

1. Machine blasting: Airless blast cleaning with metallic shot.
2. Manual blasting: Manual cleaning and refinement of the material surface with mineral blasting agents.
3. Spray galvanising: Application of a zinc/aluminium layer for corrosion and adhesion protection.
   Partial metallisation especially for strongly stressed surfaces.
4. Joint sealing: Prevents the spread of rust in the gap and underneath the paintwork.
5. Priming: 2-component zinc epoxy with 81% zinc content and additional active corrosion protection.
6. Top coat: Final coating with 2-component DTM.
7. Sealing: Prevents corrosion in corners and hollow spaces.
8. Optional: Seawater-resistant complete preservation

Falco II
Simulation Software

- Axle load and fifth wheel load calculation
- Bending moment survey
- Documentation
- Configuration of CombiMAX Trailer
- Optimize your vehicle fleet workload



faymonville.com

FAYMONVILLE
TRAILERS TO THE MAX

FAYMONVILLE DISTRIBUTION AG
8, Duarrefstrooss
L-9990 WEISWAMPACH
T: +352 /26 90 04 155
sales@faymonville.com

Version°04 - 03/2018