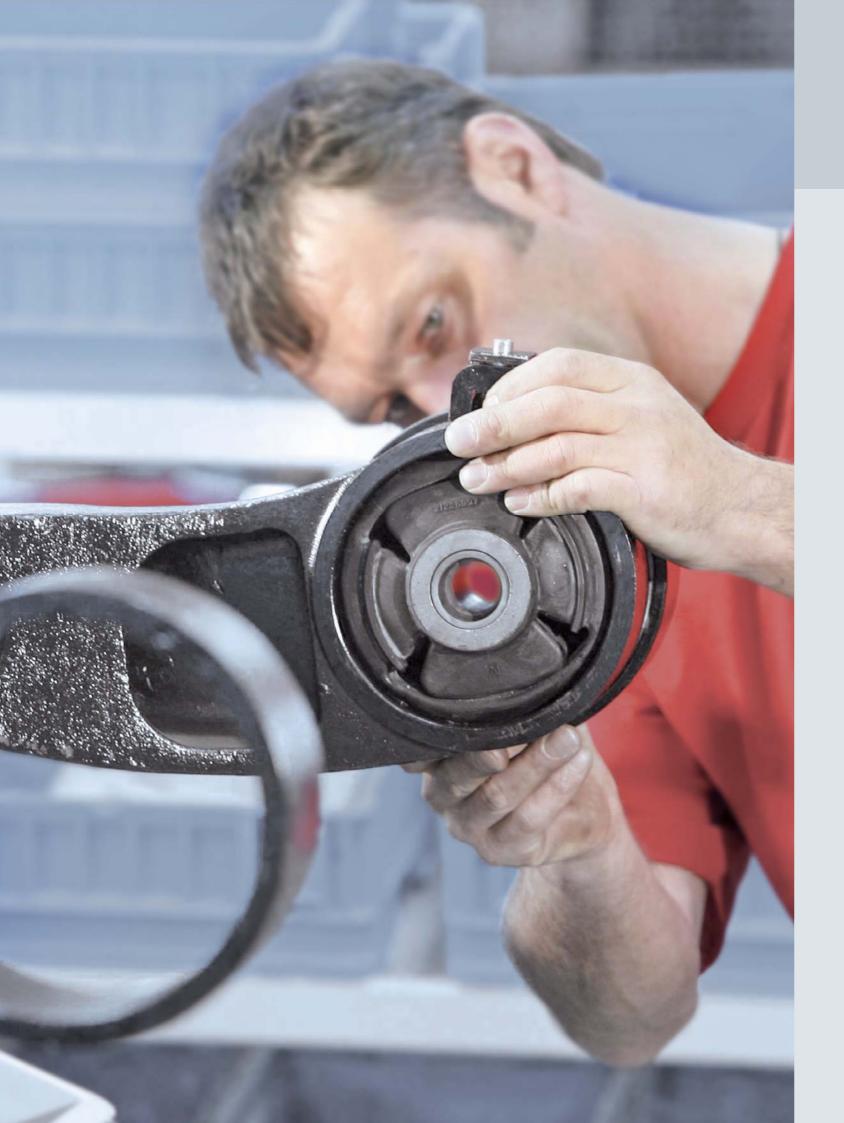
## KÖGEL





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### How You Benefit at a Glance

#### The Kögel Euro Trailer - it starts where your trailer ends!

The transport volume requirements in Europe are increasing every day, and therefore placing ever-higher demands on transport companies. The Kögel Euro Trailer sets new standards among trailers for freight forwarding businesses.

The semitrailer, elongated by 1.3 metres, has been in use on the road since 2005. This elongated trailer, invented by Kögel, therefore offers up to 10% more transport volume than standard trailers.



### Your plus – The Art of Engineering

- It boasts outstanding practicality and a high degree of road safety, certified by the Institute for Automotive Engineering
- Kögel is the inventor of the
  1.3 m-longer Euro Trailer
- A trailer which has bee tried and tested; on the roads for over 10 years

Your plus – Loading Space

- Up to approximately
  10 m³ extra volume\*
- 4 Euro pallet spaces or
  7 Euro pallet spaces if stacked in two layers (Box and Cool)
- Cost neutral in terms of tolls and taxes

Your plus – Cost Savings

 Reduced personnel, time and vehicle costs (e.g. for maintenance, wear, fuel, etc.): One in 10 trucks not needed due to the larger load capacity Your plus – Diverse Range of Models

Available as
 Cargo Rail, Mega Rail,
 Cool – PurFerro quality Rail,
 Box Rail, Box – PurFerro quality Rail

### Your plus – Flexibility

 Straightforward use in combined transport (rail, ship, road), as well as within existing infrastructure (roundabout traffic, parking spaces, etc.)

#### Your plus – Environmental Benefits

- Up to approximately 10% lower CO<sub>2</sub> emissions\* through the use of elongated trailers
- Saves up to approximately
  10% on fuel\* as a result of the larger load area necessitating fewer journeys

### Your plus – Quality

- High resale value due to the use of high-quality surface treatment (cataphoretic nano-ceramic coating)
- Limited downtime due to use of stable and long-lasting materials
- A quality product from the original manufacturer

#### Your plus – The Degree of Customisation

- Load securing packages such as the XL certificate (with drinks), Daimler Load Securing 9.5, and many more
- Service packages such as Full Service Telematics and many more
- Safety packages such as TIRE PILOT, RSAB and many more



Your plus – Cost-effectiveness

- More loading space
- Lower operating costs
- Increased margins
- ✓ A high degree of flexibility with respect to freight
- Up to 10% lower CO2 emissions\*
- Up to 10% savings on fuel\*

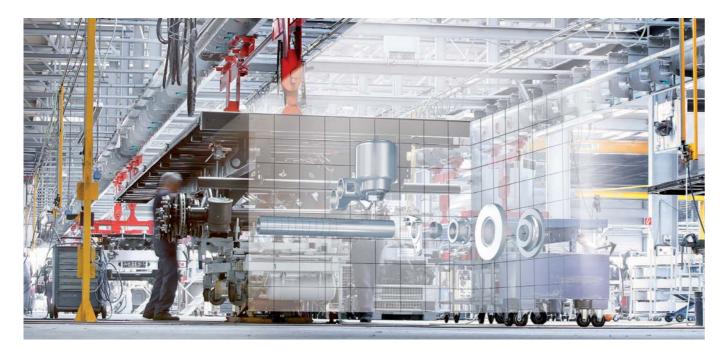
Compared to standard trailors

### 1. Your plus — The Art of Engineering

Kögel is the inventor of the Kögel Euro Trailer, featuring a 1.3 m elongation. This piece of kit has been in use for over 10 years, and fulfils many transport companies' needs for elongated trailers. Even before field-testing for innovative commercial vehicles started in January 2012, around 300 Kögel Euro Trailers had been on the road in Germany with special approval since 2006, proving the advantages they offer. During this field-testing, the Institute for Automotive Engineering certified outstanding practicality and a high degree of road safety.



The most important factor for innovation at Kögel is our reliable, creative and committed workforce.



#### Because it contains genius backed up by ability.

Our workforce brings comprehensive expertise and experience, creativity and openness, combined with a consistent focus on both the market and customers. These are the foundations for the spirit of innovation that Kögel uses to continually refine and develop transport solutions. Innovation may utilise cutting-edge design and simulation software, but it always originates from human input. In most cases the pencil sketch continues to be the first step in the complex process from a basic idea to the perfect end-product.

What sets Kögel apart is our close collaboration with customers throughout all development stages. This process allows us to keep a constant focus on practical

requirements, whilst also incorporating key market trends: solutions are discussed with customers, prototypes are tested jointly, and customer feedback is applied during further development and optimisation. During in-house testing, all components are trialled under extreme conditions that go far beyond normal requirements. The vehicles are subject to intensive testing on both standard and poor-quality roads, in rain, snow and ice, and blazing sunshine. Only when products have passed these endurance tests can they also be relied upon to withstand all the strains of day-to-day use over many years. Kögel chooses premium materials, exceptional processing and high-quality processes throughout the production chain.

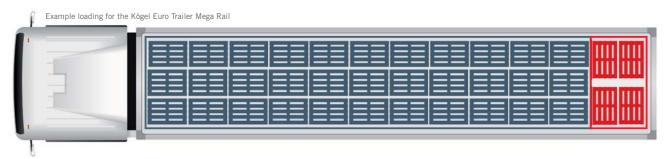


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# 2. Your plus – Loading Space

#### Volume

With up to 10% more volume, the Euro Trailer is a response to the growing transport problem in Europe. This solution from Kögel is 1.3 metres longer than the standard semitrailer, resulting in an interior loading length of up to 14.92 metres. This extra space enables the transport of up to an additional 7 pallets, depending on the body model.



Standard trailer: approx. 13.620 m 33 Euro pallets + approx. 1.3 m + 4 Euro pallets\* (+ up to 7 Euro pallets when stacked in two layers\*\*)

Kögel Euro Trailer approx. 14.920 m 37 Euro pallets in total\* (up to 73 Euro pallets when stacked in two layers\*)

#### Kögel Euro Trailer Cargo Rail

- 4 more Euro pallet spaces\*
- = approx. 9 m<sup>3</sup> more volume\*
- = loading volume of approx. 100.27 m<sup>3</sup> (interior: approx. 2.71 m)

#### Kögel Euro Trailer Mega Rail

- 4 more Euro pallet spaces\*
- = approx. 10 m<sup>3</sup> more volume\*
- = loading volume of approx. 111 m<sup>3</sup> (interior: approx. 3.0 m)

#### Kögel Euro Trailer Cool – PurFerro quality Rail

6 more Euro pallet spaces when stacked in two layers\*

- = approx. 1.645 m<sup>3</sup> more volume\*
- = loading volume of approx. 88.86 m<sup>3</sup> (interior: approx. 2.46 m)

### Kögel Euro Trailer Box Rail Kögel Euro Trailer Box – PurFerro quality Rail

7 more Euro pallet spaces when stacked in two layers\*

- = approx. 9 m<sup>3</sup> more volume\*
- = loading volume of approx. 101.01 m<sup>3</sup> (interior: approx. 2.73 m)

# 3. Your plus – Cost Savings

When loaded to an average level of 80% capacity, one in 10 trucks is no longer needed: the associated reduction in personnel, time and vehicle costs (e.g. maintenance, wear, fuel, etc.) increases efficiency for freight forwarding companies.

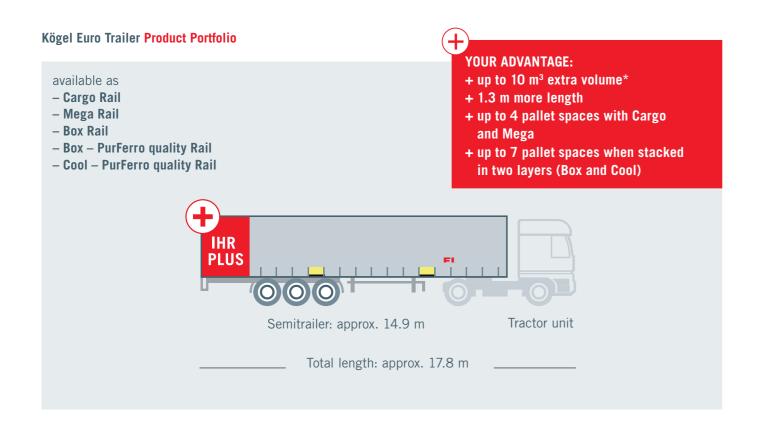
Consumption figures for moving the Euro Trailer are identical to those for moving a standard 40-tonne trailer. This means greater transport volumes without any resulting impact on tolls, insurance or taxes. The Kögel Euro Trailer therefore saves over 10% on fuel, and can be operated with standard towing vehicles. The financial advantages offered by the Euro Trailer were confirmed in an evaluation performed as part of large-scale testing, which took place over the course of 5 years and was supported by RWTH Aachen.



<sup>\*</sup> Compared to standard traile

<sup>\*\*</sup> Valid for Cool – PurFerro quality Rail, Box Rail and Box – PurFerro quality Rail

# 4. Your plus — A Diverse Range of Models



Cargo Mega Cool Box



This increased length means that the available loading volume is put to better use, also improving aerodynamics; and the volume optimisation results in reduced turnaround times.



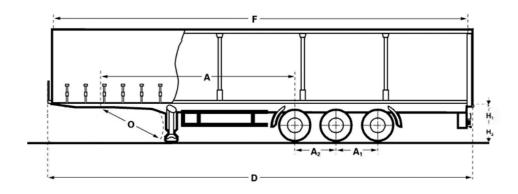
Euro Trailer Mega: Standard Euro Trailer solution as a 1.3 m-longer high-volume trailer



Euro Trailer Cool: As well as greater loading volume, the cooler also offers additional space for air circulation. This results in significantly improved quality for cooled and fresh produce transportation.



Euro Trailer Box: The 14.9 m dry freight box comes with 9 m³ more volume, making it particularly cost-efficient and environmentally friendly.



#### Technical Data for the Euro Trailer Cargo Rail

| (A)  | Wheelbase:                    | approx. 6,590 mm  |
|------|-------------------------------|-------------------|
| (A1) | Axle spacing:                 | approx. 1,310 mm  |
| (A2) | Axle spacing:                 | approx. 1,410 mm  |
| (D)  | Total length:                 | approx. 15,250 mm |
| (F)  | Interior loading area length: | approx. 14,920 mm |
| (H1) | Loading height, unladen:      | approx. 1,220 mm  |
| (O)  | Swivel radius:                | approx. 2,300 mm  |
|      | (compatible with 2- and 3-ax  | le S7M)           |

Total weight that is technically possible approx. 42,000 kg

#### Technical Data for the Euro Trailer Cool – PurFerro quality Rail

| (A)  | Wheelbase:                    | approx. 6,570 mm  |
|------|-------------------------------|-------------------|
| (A1) | Axle spacing:                 | approx. 1,310 mm  |
| (A2) | Axle spacing:                 | approx. 1,410 mm  |
| (D)  | Total length:                 | approx. 15,340 mm |
| (F)  | Interior loading area length: | approx. 13,325 mm |
| (H1) | Loading height, unladen:      | approx. 1,350 mm  |
| (0)  | Swivel radius:                | approx. 2,300 mm  |
|      | (compatible with 2- and 3-axl | e SZM)            |
|      |                               |                   |

Total weight that is technically possible approx. 42,000 kg

#### Technical Data for the Euro Trailer Mega Rail

| (A)  | Wheelbase:                          | approx. 6,590 mm  |  |
|------|-------------------------------------|-------------------|--|
| (A1) | Axle spacing:                       | approx. 1,310 mm  |  |
| (A2) | Axle spacing:                       | approx. 1,410 mm  |  |
| (D)  | Total length:                       | approx. 15,250 mm |  |
| (F)  | Interior loading area length:       | approx. 14,920 mm |  |
| (H1) | Loading height, unladen:            | approx. 1,020 mm  |  |
| (O)  | Swivel radius:                      | approx. 2,300 mm  |  |
|      | (compatible with 2- and 3-axle SZM) |                   |  |

Total weight that is technically possible approx. 39,000 kg

### Technical Data for the Kögel Euro Trailer Box Rail, Kögel Euro Trailer Box – PurFerro quality Rail

| (A)  | Wheelbase:                          | approx. | 6,590 mm  |
|------|-------------------------------------|---------|-----------|
| (A1) | Axle spacing:                       | approx. | 1,310 mm  |
| (A2) | Axle spacing:                       | approx. | 1,410 mm  |
| (D)  | Total length:                       | approx. | 15,250 mm |
| (F)  | Interior loading area length:       | approx. | 14,920 mm |
| (H1) | Loading height, unladen:            | approx. | 1,220 mm  |
| (0)  | Swivel radius:                      |         | 2,300 mm  |
|      | (compatible with 2- and 3-axle SZM) |         |           |
|      |                                     |         |           |

Total weight that is technically possible approx. 42,000 kg

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# 5. Your plus – Flexibility

The elongated trailer offers straightforward use both in combined transport and within existing infrastructure, and therefore represents a perfect solution for dealing with the inevitability of transport volumes which will only continue to increase. The Euro Trailer can be used flexibly for many industries and is suitable for combined transport.







#### Rail

In the Rail version developed in-house, the Euro Trailer fits on standard pocket wagons for combined transport. Special reinforcements in the frame and body, protective plates on the gripper edges, and rail-compatible underride protection make this trailer ideal for rail transport.

#### Ferry/RORO

Kögel offers specially adapted vehicle equipment for RORO transport, optimised over many years of experience. The key features are easily accessible, stable lashing points and generous clearances.

#### **Drinks**

Kögel fully meets the key requirements: of a high payload and intelligent securing of loads including partial loads; time saved during loading and unloading; and high efficiency in use.

#### **Automotive**

Kögel has met the requirements that delivery businesses place on the automotive industry with: a low empty weight; fast loading; specific options for securing wire mesh crates, pallets and small load carriers; as well as an excellent cost/benefit ratio.

#### Secure transports

Kögel offers a wide range of special solutions in this area. In designing the wealth of models available for secure transport with specific requirements, Kögel has focused on customers' needs.

# 6. Your plus – Environmental Benefits

The Euro Trailer supports efforts aimed at climate protection.  $CO_2$  emissions are reduced by up to 10%, and fuel savings of up to 10% are achieved through the use of the double train concept. The additional transport volume conveyed results in an overall reduction in the number of trips required. This has been confirmed by the "Accompanying Scientific Study relating to Field-Testing of the Elongated Trailer Concept (Kögel Euro Trailer)", undertaken by Prof. Wallentowitz at RWTH Aachen.







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This results in approximately 7.5 tonnes less  $CO_2$  per year in a long-distance truck-trailer combination. With more than two million existing truck-trailer combinations in Europe, extrapolating these figures could amount to a reduction in  $CO_2$  emissions totalling 15 million tonnes per year.

Figures may include special equipment/products are subject to ongoing technical changes

## 7. Your plus – Quality

The Kögel Euro Trailer is a quality product from the original manufacturer!



#### **Corrosion protection**

Cataphoretic nano-ceramic coating, the most advanced and highest-quality form of industrial surface treatment, offers the same outstanding characteristics as zinc phosphating did previously, but is more environmentally friendly and features a better energy balance. The long-lasting, clean surface coating can be repainted at any time.



#### Load securing and structural rigidity

Kögel fulfils the rigidity requirements for reinforced bodies in accordance with EN 12642 XL. In vehicles with this certificate, goods are secured very simply: for form-fit loads, and loads secured to the rear, the body absorbs all forces arising from driving dynamics in accordance with VDI 2700.



#### **Environmental protection** and sustainability

Kögel actively contributes to reducing fuel consumption and environmental impact: aerodynamics are optimised, noise emissions are reduced through the trailer design, and strict requirements for environmental protection and the recyclability of materials used are taken into account in production.



#### **Electronics and lighting**

EBS comes as standard. The lighting is available in a fully LED option - for long-lasting use and low power consumption.



Sophisticated components ensure a high degree of active and passive safety: specially developed cladding elements on the frame for improved aerodynamics, underride protection pursuant to the new EC Directive, series-produced equipment for securing loads in accordance with EN 12642 XL, RSS for greater driving stability and safety-optimised lifting-lowering valve (lifting roof with BG approval). Kögel vehicles also feature outstanding running characteristics.



#### **Extensive testing**

All vehicle components are tested in accordance with the highest standards and in dynamic driving trials.



#### Underride protection

The increased underride protection at the sides increases safety for all road users. It can be mounted and replaced individually.



Comprehensive services can be accessed at www.koegel.com - at any time and from anywhere. Repairs and warranties can be easily processed online. Our Kögel Assistance Hotline is available round-theclock and in many European languages.



The light carrier consists of shock-resistant plastic and provides 100% corrosion protection. It can be mounted and replaced individually.







#### Kögel CLIMATEX -

the Kögel cooling air distribution system



#### Kögel PurFerro -

the Kögel sandwich panel technology for box and refrigerated box vehicles



#### Kögel Telematics -

Kögel Trailer Telematics module + Kögel Telematics web portal



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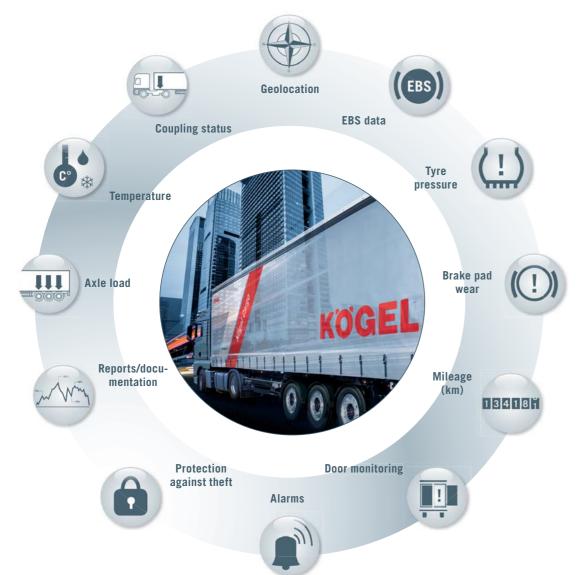
# 8. Your plus – The Degree of Customisation

Kögel offers a wide range of special solutions. In designing the wealth of models available for transports with specific requirements, Kögel has focused on customer needs.



#### Kögel Telematics – The Advantages at a Glance

- ✓ Reduce operating costs
- Increase efficiency
- ✓ Transparency and optimisation in logistics processes
- ✓ Transparency with respect to vehicle status and availability
- ✓ Control and monitoring of loading, e.g. the temperature of the goods
- ✓ Important trailer-related data can be viewed on the web-based Telematics portal
- ✓ Trailer theft surveillance with timely alarms and geolocation to find the trailer





#### Kögel Full Service

- ✓ All service work specified and recommended by Kögel pursuant to the maintenance checklist including all required spare parts and operating fluids (with the exception of fuels)
- ✓ All wear-related repairs that are required following correct and suitable use and application
- ✓ Invoice verification, invoice management and workshop handling
- Personnel costs, materials costs and acceptance fees for statutory testing: general inspection and safety test in accordance with section 29, German Road Traffic Licensing Regulation (StVZO) with approved test organisations, e.g. TÜV, DEKRA and GTÜ, and an annual LASI check on the certificate relating to load securing in accordance with EN 12642 XL

#### Kögel Packages relating to Load Securing

as XL certificate (with drinks), Daimler Load Securing 9.5 and additional packages for the transport of tyres, octabin and waste paper.

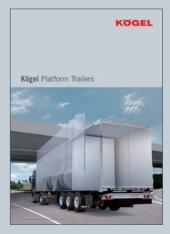
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#### Kögel Safety Packages

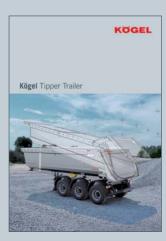
such as OptiTire tyre pressure monitoring, SAF Tire Pilot, RSAB and Telematics.



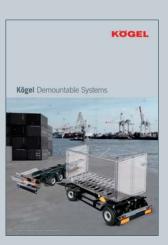
### Kögel Product Families



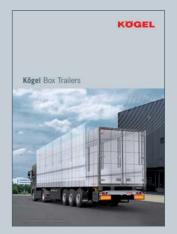




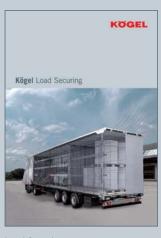
Tipper Trailer



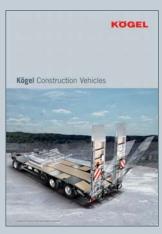
Demountable Systems



Box Trailers



Load Securing



Flatbed Trailers



Kögel Trailer GmbH & Co. KG | Industriestraße 1 | 89349 Burtenbach | Germany tel. +49 8285 88-0 | fax +49 8285 88-17905 | info@koegel.com www.koegel.com