

# Segment Trough Tipper Semi-trailers





# Pan-European competency.

For over 150 years, Schwarz Müller has been making commercial vehicles for specific demands. Our customers benefit from this experience by the value added to their purchases.

**S**chwarz Müller Group is a family-owned enterprise based in Austria yet active internationally. Considered one of today's leading European commercial vehicle suppliers the Group centres its currently 20 sites in Central and Eastern Europe.

Schwarz Müller provides not only a broad range of vehicles but also optimised solutions for almost any industry. More than once, the premium manufacturer and innovation leader has set the pace regarding payload and handling and is thus decidedly adding value to everyday applications.

Another factor that has been speaking in Schwarz Müller's favour for decades is the Group's extensive service offering covering the entire product lifecycle: Significantly extends for vehicle's useful life. Services include everything from maintenance and OEM spare parts availability to rentals and leasing.

Schwarz Müller Group produces at four sites: Special-purpose vehicles are made at its Upper Austrian headquarters. Standard and near-stand-

ard vehicles are made in the Czech Republic and Hungary, whereas skip container vehicles are made in Neustadt/Dosse. Our annual production output amounts to about 11,000 vehicles. Over 350 service centres located along the major European transport routes ensure that your vehicles will remain available for everyday use.

Since 1871, Schwarz Müller has been working to win and retain industrial innovation and technology leadership based on the competency and know-how of its employees. Lightweight design and its benchmarks set by Schwarz Müller for over 35 years is but one example.

Other areas include construction, metal structures or welding where Schwarz Müller periodically kicks off new developments or often is the first supplier using new vehicle manufacturing technologies. This is how turn innovation into mass production. Thus, if you are looking for smart vehicle solutions, special requirements or top quality, try Schwarz Müller to find an ideal partner.



# Smart visionary vehicles.

A Schwarz Müller vehicle must successfully face various challenges. This is why construction makes the first difference.

**C**ompared to towing vehicles, the role of commercial trailers will further gain in importance because, owing to current traffic densities as well as infrastructural and legal constraints, the number of towing vehicles will grow but slowly. The performance of both trailers and bodies therefore needs to increase. Schwarz Müller is driving this development with smart designs: Bodies and trailers provide many improvement options from payloads, longer useful lives and simplified handling to cost reductions.

A competent and innovative team of over 2,150 development, design and manufacturing personnel share Schwarz Müller's vision and turn it into smart vehicle. Latest innovations such as the POWER LINE semitrailer, the first walking floor weighing less than seven tons or the thermo-tipper trailer for transporting temperature-controlled asphalt are impressive examples of this spirit of innovation.

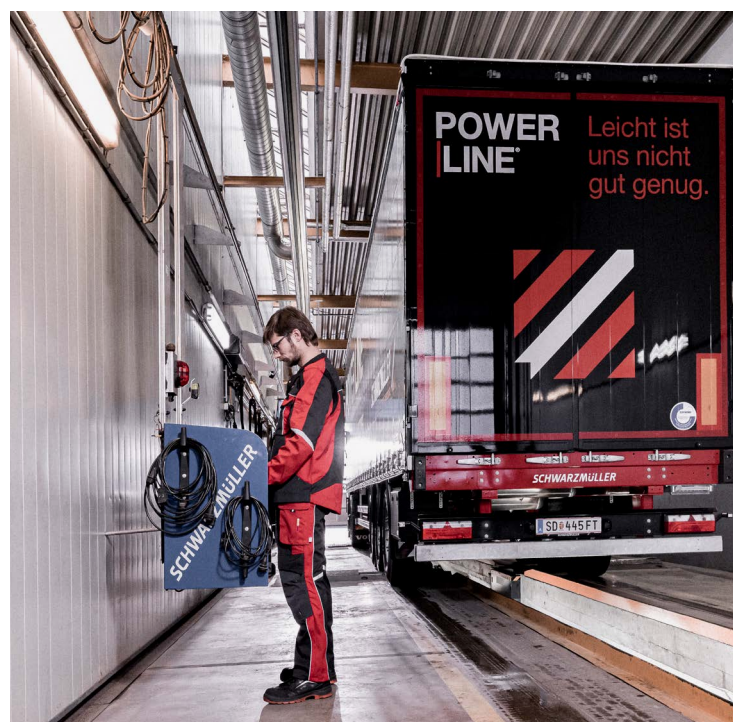
And quality is not an accidental feature of Schwarz Müller either: 3D design down to the

smallest detail and highly efficient quality assurance methods ensure that the vehicles are powerful performers in everyday practice.

A typical characteristic of Schwarz Müller is the specialised handling of steel and aluminium in production. It is one of fundamentals of the premium quality that Schwarz Müller vehicles are distinguished by.

The vehicles of the two Schwarz Müller and Hüf-fermann brands roll out to the construction sec-

tor, infrastructure companies, raw materials and reusables industries and short-distance & long haul forwarders. The enterprise is the only full-range supplier at premium level to make eight groups including a total of 150 different types of vehicles. Our more than 1,000 model variants satisfy almost any specific wish a customer may have. All of these vehicles share top-level quality, sturdiness, toughness and an optimised payload.





# Intelligent Solutions for Maximum Stability.

Segment trough trailers from Schwarz Müller are characterised by a combination of optimum tipping and driving stability. They meet the various requirements of a variety of different sectors and are up to even the most extreme usage scenarios.

The qualities of Schwarz Müller segment trough trailers are most apparent in the construction and disposal sector. Sand, stone, waste or viscous transport materials can be transported and unloaded conveniently, easily and, above all, safely. Thanks to an intelligent, parallel frame design, high-quality Naxtra steel and special torsion tubes, segment trough trailers from Schwarz Müller exhibit an almost extraordinarily high degree of tipping stability. The enormous stability of the tipping process is even more striking in the lightweight design version. The Schwarz Müller segment trough is available in

a number of configuration models. Customers may for example choose between the aluminium or steel chassis and between the aluminium or steel trough. This flexible weighting configuration means the vehicle is adaptable to the requirements of a variety of different users. The thermo trough allows asphalt mixtures to be transported to building sites without any major temperature loss.

All vehicles can be configured with a view to weight optimisation and used versatilely. They impress with user friendliness and guarantee top manufacture quality.



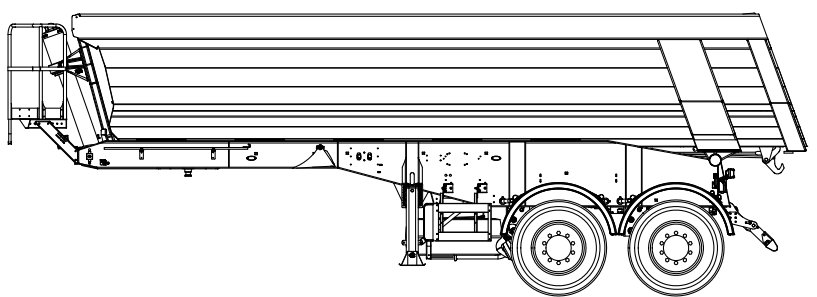


# A Segment Trough For Every Requirement.

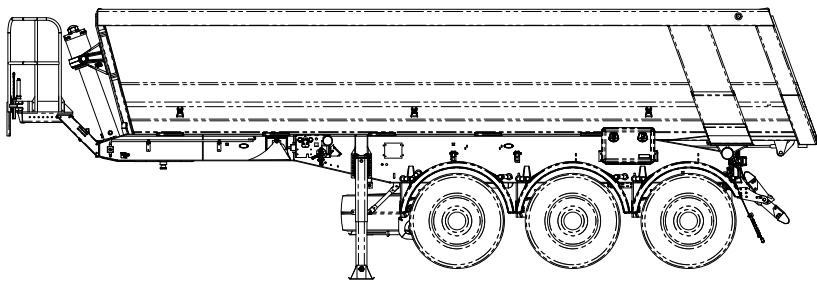
Schwarzmüller segment troughs are used in the construction industry. Thanks to their aluminium or steel design, different set-ups and variety of different

configuration options, they offer an extraordinarily diverse range of possibilities for use.

2-axle segment trough



3-axle segment trough



	2-axle		3-axle
Wheelbase	1.31 m	1.81 m	2 x 1.31 m
Technical axle loads	2 x 9 t	2 x 10 t	3 x 9 t
Imposed load	18 t	12 t	12 t
Technical total weight	36 t	32 t	39 t
Tare weight alu / alu	from 3.9 t		from 4.3 t
Tare weight steel / alu	from 4.4 t		from 4.8 t
Tare weight steel / steel	from 5.0 t		from 5.4 t
Tare weight alu / alu - thermo	from 4.3 t		from 4.7 t
Tare weight steel / alu - thermo	from 4.7 t		from 5.1 t
Tare weight steel / steel - thermo	from 5.4 t		from 5.8 t
Interior length	7.35 m / 7.65 m*	6.50 m / 6.80 m*	7.35 m / 7.65 m*
Interior height	1.47 m / 1.64 m**	1.47 m / 1.64 m**	1.47 m / 1.64 m**
Loading volume	24/25*/27*/28**m³	21/22*/24*/25**m³	24 / 25* / 27* / 28** m³

\* without chute \*\* high tailgate

# Three of Many Design Variations.

3-axle aluminium



3-axle steel



3-axle thermo trough



## Perfectly Equipped.

Schwarzmüller offers a whole range of intelligent pre-fitted ex works configuration highlights for segment trough vehicles. Example of such highlights include:

- A discharge hopper that adds transport materials to a silo with precision.
- Special metering units for the controlled discharge of bulk goods.

- Steering trailer axles for particularly tight turning circles.
- Tarpaulin and covering devices that can be controlled via remote control from the driver's cabin.

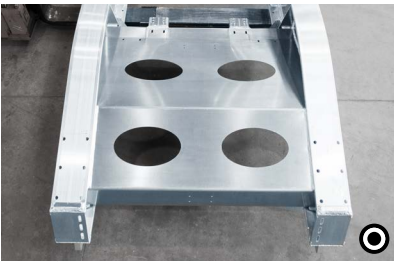
You can find out more about the configuration features of the Schwarzmüller segment trough on the next few pages.



# Standard Equipment.


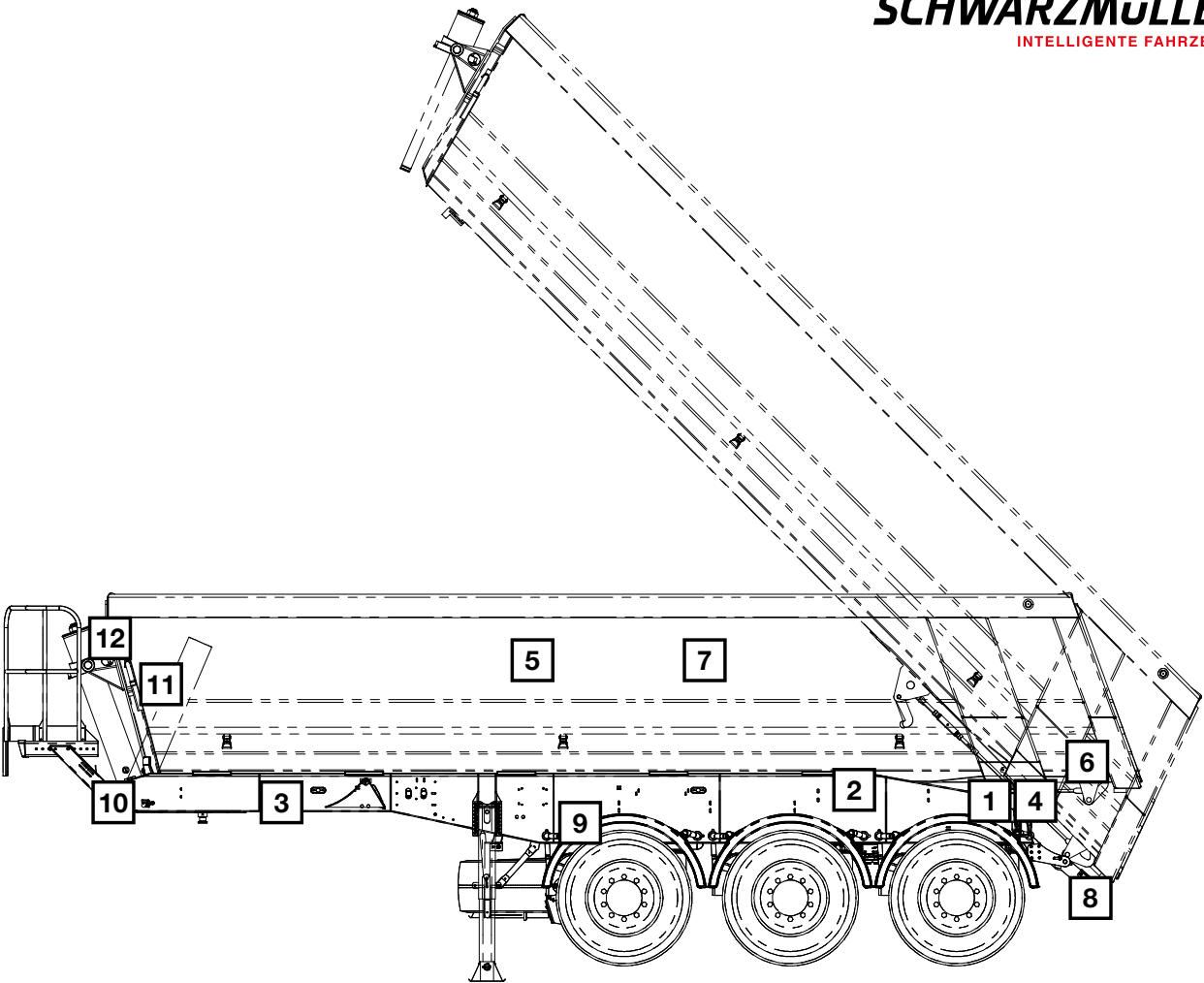
Schwarzmüller segment troughs set benchmarks in terms of payload, handling and service life - even in the standard version. Even in the standard configuration, these offer countless solutions which guarantee a superior performance from these vehicles on a day-to-day basis. The symbols indicate which configuration detail corresponds to which feature.

- LEGEND
- ⊙ Efficiency
  - ⊙ Stability
  - ⚠ Driver safety
  - ⊕ Added value
  - ⓘ Thermo trough



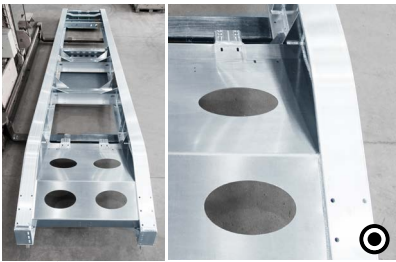
**1 Torsion box**

A sophisticated, tried and tested solution for guaranteeing optimum stability in the tail area of the tipping trailer throughout the tipping process.




**2 Torsion tubes**

Similar to the torsion box, these special cross-links ensure added tipper trailer stability throughout the tipping process.



**3 Parallel frame**

One key advantage compared with many competitor vehicles is the parallel action of both longitudinal frames: a guarantee of added stability in every situation.



**4 One-piece tipping axle**

The tipping axle is welded on - not only at the sides - but throughout. This design ensures more stability during the tipping process.



**8 Foldable underride guard**

The underride guard folds up as standard so as to ensure that the necessary ground clearance is always guaranteed once fully equipped.




**9 Single-wheel mud guards**

Schwarzmüller tipper trailers feature single-wheel mud guards. These protect other road users, and the trough, against stone chippings and dirt.



**10 Brake and light connections**

The brake and light connections, together with the electrical and hydraulic connections, are compactly and clearly arranged at the front of the vehicle on the standing platform below.




**5 Steel trough**

The steel trough is manufactured 100% from durable sheet metal. The front and rear wall, as well as top belt, are also fabricated from this high-quality material.




**6 Automatic tailgate unlocking**

The tailgate is automatically unlocked by a special rod during the tipping process. This is also the mechanism which triggers automatic locking upon lowering.



**7 Thermo trough**

The trough is thermally insulated throughout. Asphalt mixtures can for example be transported to building sites at a higher temperature, contributing to a significant increase in paving quality.



**11 Interior trough ladder**

Several robust steps are welded onto the end wall inside the segment trough. This enables easy and safe climbing in and out.



**12 Four-point mounting**

The tipper cylinder is mounted at four positions (twice at the top and twice at the bottom). This creates unique tipping stability compared with a three-point mounting.








# Optional Equipment.

Schwarz Müller segment troughs are constructed based on the individual specifications of our customers. Optional configuration details open up even more possibilities to improve the performance of the vehicle. The symbols indicate which configuration detail corresponds to which feature.

## LEGEND

- ⌚ Efficiency
- ⦿ Stability
- ⚠ Driver safety
- ⊕ Added value
- ⌚ Thermo trough



**A** **Aluminium frame**

The optional aluminium frame brings an added weight advantage of 250 kilograms compared with the steel design.



**B** **Steel frame**

The lightweight, extremely robust and highly-stable steel frame was specially developed for the challenges posed by daily use on construction sites.



**C** **Stand**

The stand serves as a means of climbing up to the trough, monitoring the loading process and opening and closing the covering tarpaulin. Available in aluminium or steel.




**D** **Aluminium trough**

The tipping trough is constructed from aluminium throughout. The weight advantage gained on the steel trough equates to roughly 900 kilograms.



**E** **Wear floor (aluminium or steel)**

An aluminium plate in the tail area protects the trough from early wear. An extra 3 mm wear floor is recommended for heavy and abrasive bulk materials.



**F** **Rear wall with tipping drain**

The rear wall is offset into the trough, causing the formation of a chute – the load's centre of gravity moves further forwards and increases the pressure on the tractor unit's rear axle.



**G** **Rear wall without tipping drain**

The rear wall or hatch is fixed at the back in this model. This increases the load capacity of the trough by approx. 1.5 cubic metres.



**H** **Hydraulic tailgate**

The hydraulic tailgate can be opened fully hydraulically, meaning the whole opening is available immediately and even large stones can be unloaded without issue.



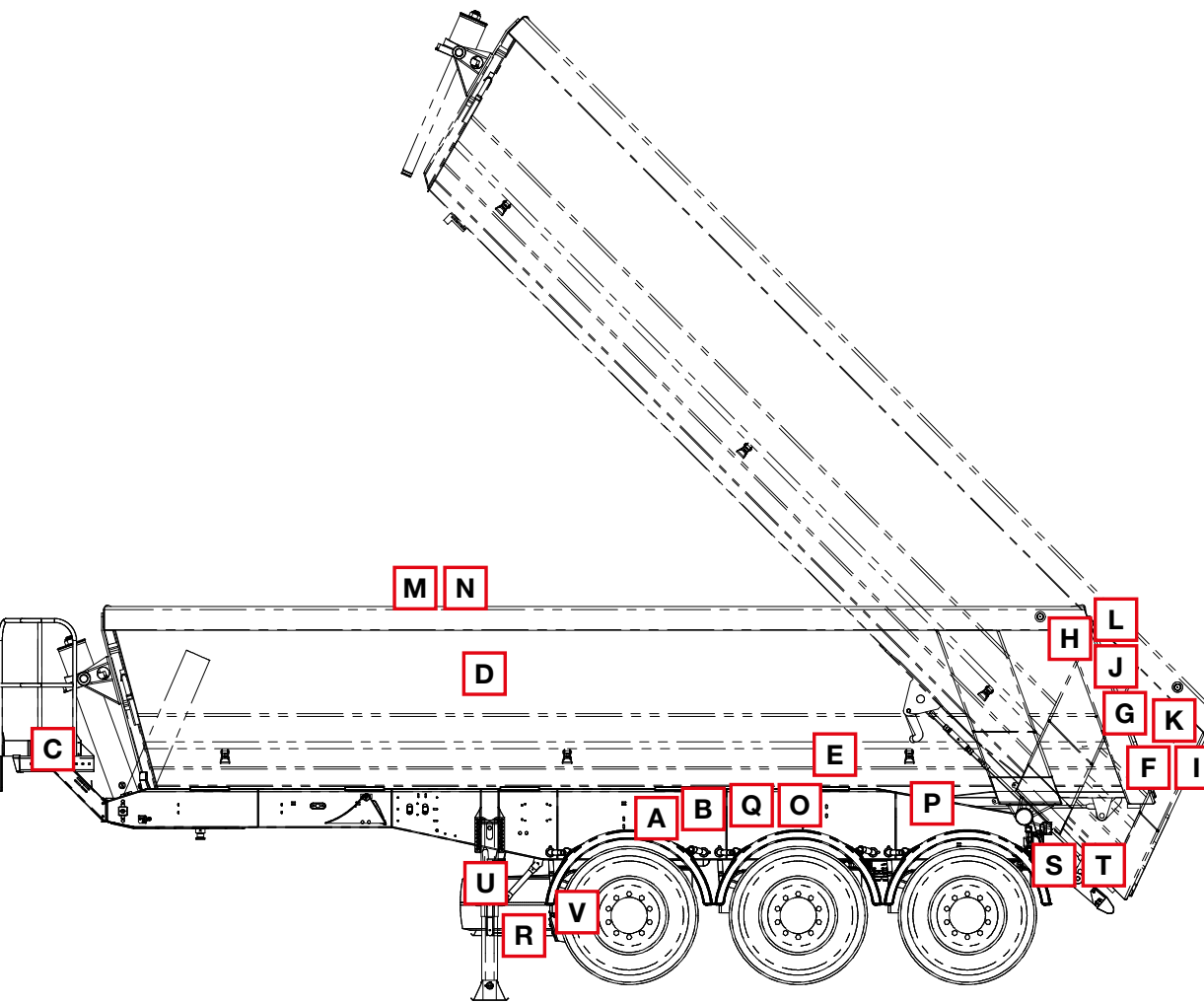
**I** **Asphalt slider (plus linchpin for lock)**

A small additional opening in the tailgate ensures that asphalt cargo can be discharged in a targeted manner – and in precisely-dosed quantities.



**J** **Metering device**

The stop bracket can limit the opening width of the tailgate, allowing bulk material to be discharged in whatever quantity necessary.



**K** **Tensioning screws**

Viscous transport materials increase the pressure on the tailgate. In order to withstand this load, additional tensioning screws are fitted to secure the load.



**L** **Rubber seal**

Additional rubber seals in the tailgate area are a reliable means of ensuring that the necessary leak-tightness is guaranteed as far as possible.



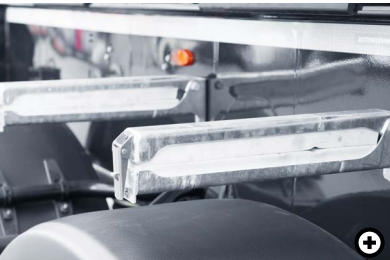
**M** **Roller tarpaulin**

A rollable tarpaulin protects cargo from the elements and loss. Rolling and unrolling is controlled from the stand, securing is done with quick-action clamps and belts.



**N** **Schwarz Müller cover**

Electric sliding cover with remote control for convenient opening and closing of the protective tarpaulin from the ground.



**O** **Shovel and brush holder**

Ideal for carrying equipment.



**P** **Tool box**

There is the option of installing a tool box.



**Q** **Access ladder**

Thanks to its special shape, this access ladder enables risk-free entry and exit of the trough for maintenance and cleaning work.



**R** **Spare wheel holder**

This is an easy way to transport a replacement wheel en-route.



**S** **LED lighting**

The combination rearlight is designed as a full-LED light in the standard version.



**T** **Light protection**

In order to protect these from damage and coarse dirt as best possible, the tail lights are framed with their own sheet steel cover.



**U** **Landing legs**

Schwarz Müller offers a choice of landing legs: either in the form of a steel or aluminium crank-handle leg or steel or aluminium support legs.



**V** **Lifting axles**

Reduce tyre wear by means of automatic axle raising during empty runs, while serving simultaneously as a start-up aide.



# Best-in-class customer service.

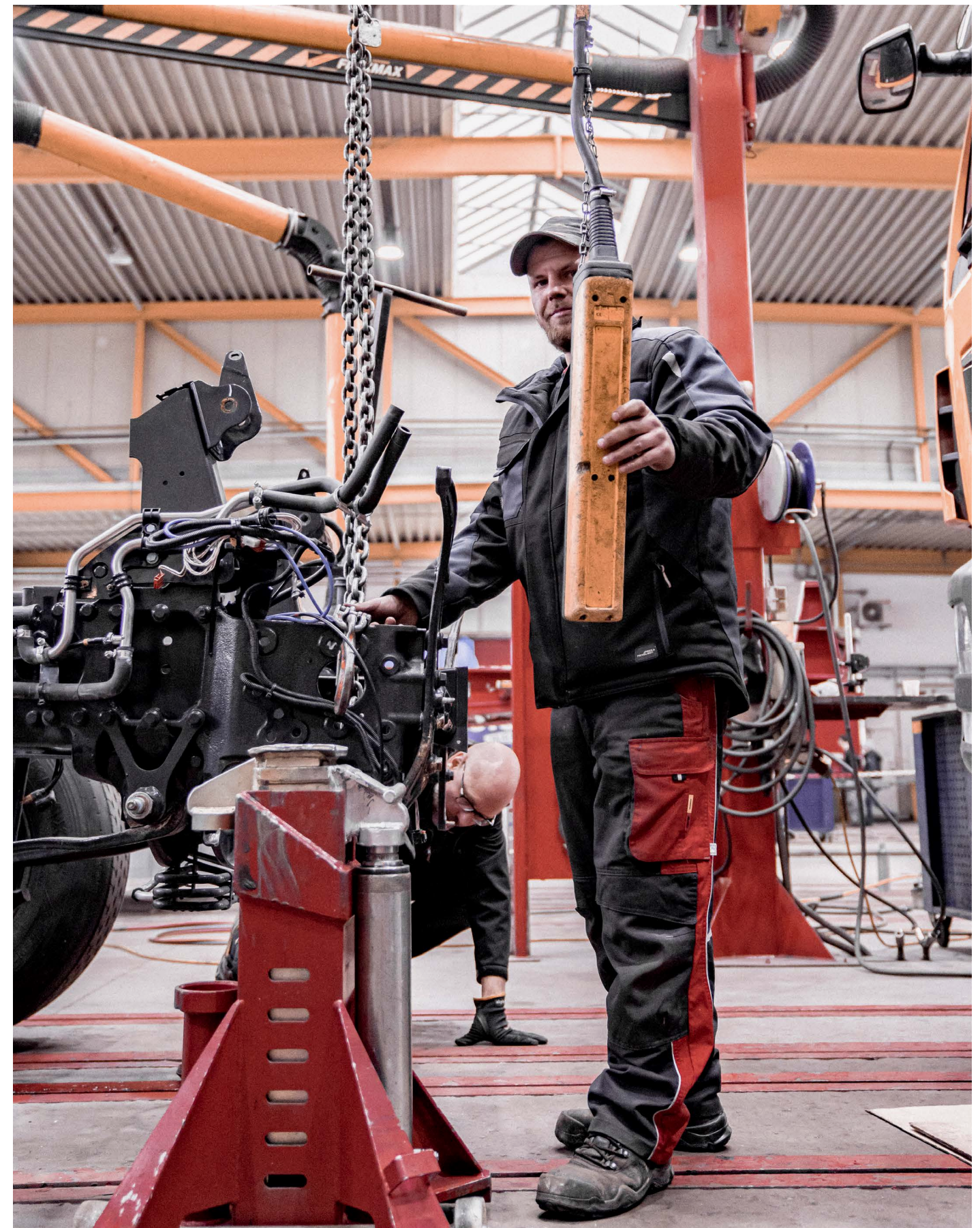
Single source for solutions matching any Schwarzmüller vehicle requirement.

**S**chwarzmüller benefits its customers not only with an extensive product portfolio but also with a complete system services offering. Customers can rely on pinpoint solutions throughout their vehicles' entire lifecycle - in currently 20 countries.

Our own network of garages plus 350 further service partners ensure that your Schwarzmüller will always be and remain a Schwarzmüller. Our experts know exactly how to best maintain and service a Schwarzmüller vehicle. An international logistics

network allows permanently available OEM spares to be supplied rapidly.

Schwarzmüller runs one of Europe's largest fleet of hired standard and special-purpose vehicles. It helps you buffer peak demands without having to do without premium quality. Also ask for Schwarzmüller's tailored leasing opportunities. Schwarzmüller's own Financial Service or an external partner's service with or without a service agreement: It is always up to the customer to opt for the perfect answer to their needs.





# Close to our customers in 20 countries.

**S**chwarz Müller Group and our sales partners currently run own sites (production, sales and service) in 20 Central and Eastern European countries. This international network and its about 2,150 employees are the basis of suc-

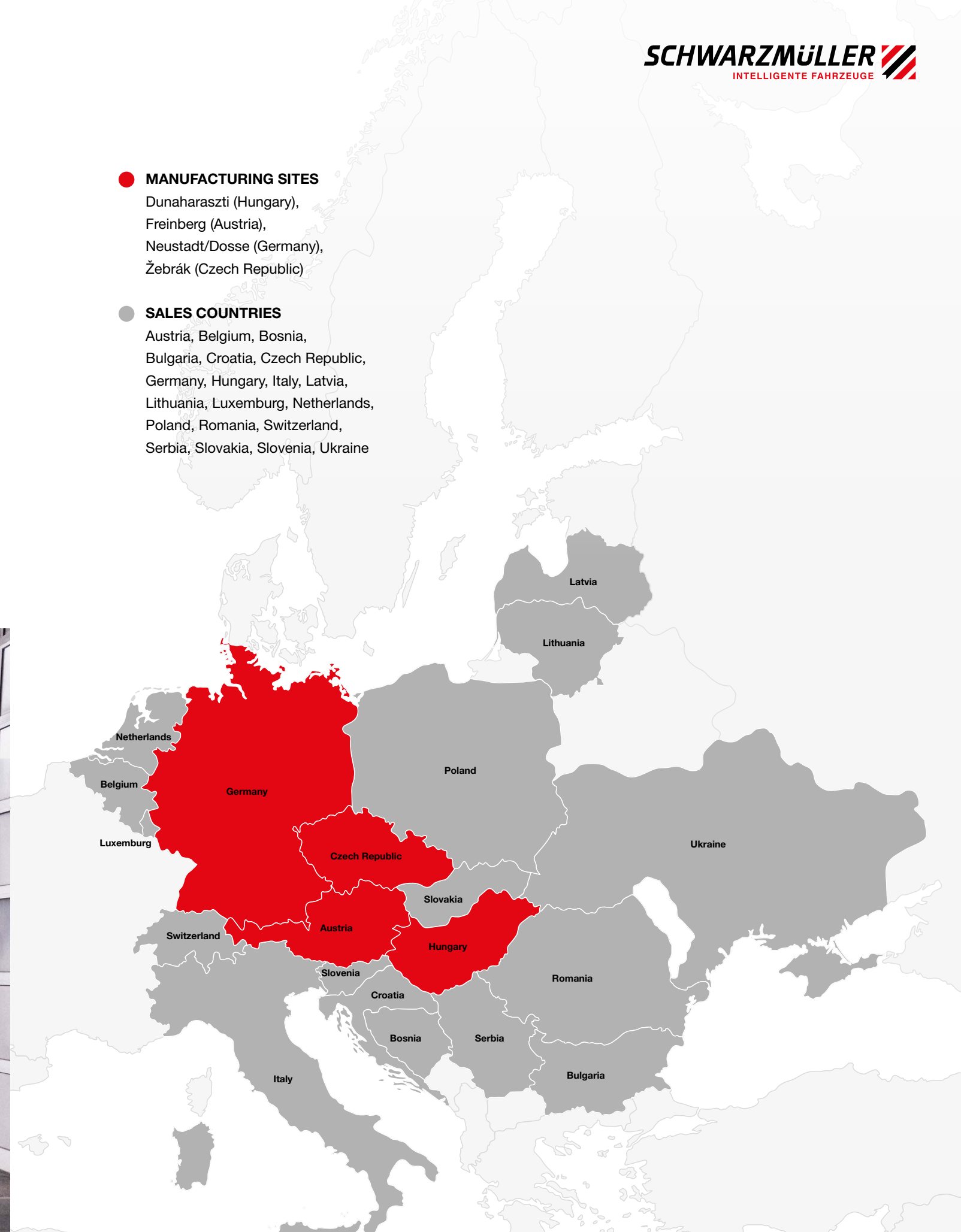
cessful relations with customers of many industries requiring challenging transport solutions. It allows Schwarz Müller to penetrate the entire market region with new vehicles and a portfolio of services throughout the entire lifecycle of its products.

## ● MANUFACTURING SITES

Dunaharaszti (Hungary),  
Freinberg (Austria),  
Neustadt/Dosse (Germany),  
Žebrák (Czech Republic)

## ● SALES COUNTRIES

Austria, Belgium, Bosnia,  
Bulgaria, Croatia, Czech Republic,  
Germany, Hungary, Italy, Latvia,  
Lithuania, Luxembourg, Netherlands,  
Poland, Romania, Switzerland,  
Serbia, Slovakia, Slovenia, Ukraine





# Intelligent full-range portfolio.

Schwarz Müller vehicles satisfy almost any transport need. From aluminium tank semi-trailer to centre-axle tipper trailers.

**S**chwarz Müller is proud of being able to supply its customers with smart vehicle for practically every application. Our eight product groups cover over 150 types of vehicles with more than one thousand model variants. All types of vehicles benefit from the know-how, core com-

petence and innovative power of the entire Group. They provide the perfect answer to the transport needs of the industries served. All Schwarz Müller vehicles stand for uncompromising premium quality to create real added value in everyday use.



**Timber/stanchion vehicles**

Timber



**Tipper vehicles**

Construction industry, agriculture, waste management



**Body building vehicles**

Construction industry, shipping/long haul transport, waste management



**Platform vehicles**

Shipping/long haul transport, construction industry



**Walking-floor vehicles**

Shipping/long haul transport, timber, waste management



**Tank vehicles**

Mineral oil



**Low-loader vehicles**

Construction industry



**Container transport vehicles**

Waste management



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