TRIGENIUS®

COST-EFFECTIVE.
RELIABLE.
INNOVATIVE.



TRIGENIUS® THREE-WAY TIPPER

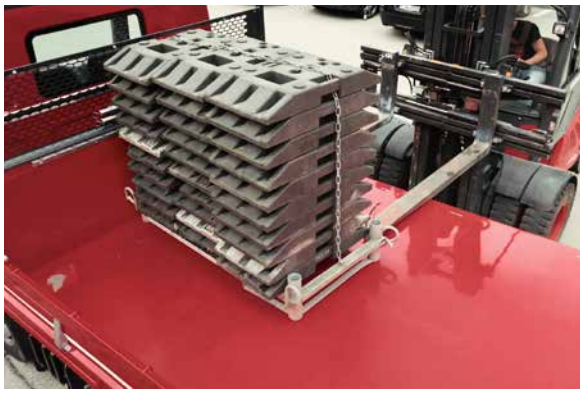
ROBUST IN EVERY RESPECT

The TRIGENIUS three-way tipper delivers maximum performance in every respect. MEILLER technology, design and innovations make your transport tasks even more cost-effective, reliable and easier.



MEILLER TRIGENIUS
D421 at work.





INNOVATIVE

MEILLER has completely redesigned the TRIGENIUS three-way tipper: inspired by user experience and wishes, the result is an outstanding three-way tipper that adapts perfectly to every application. The TRIGENIUS proves itself with maximum performance even under extreme conditions and remains safe to operate in any situation. This is made possible by optimised functions, the use of high-quality materials and numerous perfected components.

COST-EFFECTIVE

The innovative design of the TRIGENIUS reduces weight, while the use of high-strength steel increases its loading capacity. In addition to saving drive power, the related increase in payload enables cost-effective operation. A uniform operating concept across all series and ergonomically designed components shorten operating cycles and make for efficient operation and handling.

RELIABLE

Extremely high-quality materials and cutting-edge manufacturing technologies establish the prerequisites for a particularly robust and durable superstructure that offers optimum corrosion protection. All components have to undergo rigorous, harsh stress tests and have been put through their paces in operation.

The result is a three-way tipper that meets every challenge in a TRIgenious way:
COST-EFFECTIVE. RELIABLE. INNOVATIVE.

HIGHLIGHTS

INNOVATIONS FOR THE ENTIRE PRODUCT RANGE

All new TRIGENIUS developments have been systematically implemented in all series – whether the large or small three-way tipper:
the new styling, the modular design and the integrated, innovative operating concept ensure efficiency and safety during operation.



4-axle chassis D421

3-axle chassis D316

RESILIENT SURFACES

- Optimum corrosion protection thanks to CDP primer-coated subframe and top coat in RAL 7021
- Cavity-sealed subframe and tipper body (D202-D212)
- Coated hydraulic system and mounting parts

OPTIMISED DESIGN

- Particularly corrosion-free, perforated subframe
- Easy to retrofit accessories and mounting parts
- Dirt-resistant hydraulic cylinder support

STURDY LOAD SECURING

- More lashing eyes and practical subdivision for better lashing options
- Sturdy lashing eyes in walls with a retention force of up to 2 t per lashing point
- Folding lashing eyes that are flush with the floor with a retention force of up to 8 t per lashing point
- Electric sliding tarpaulin whose cable tensioners can be dismantled from the ground and stored on the front wall

TRIGENIUS DESIGN

- Modern M-Jet design
- Double-plated side walls as an option (as of D212-D428)
- Smooth inner and outer surfaces reduce soiling and make labelling easier

EFFICIENCY

- Greater payload thanks to weight-reduced design
- The optional i.s.a.r.-control remote makes operation easier, saves time in typical operating cycles, particularly in combination with the sequence control, and increases safety

COMFORT AND OPERATING SAFETY

- Bordmatik with LED safety light opens and closes quietly with flashing LED strips at front and rear
- Ball-type tipping parts with ergonomic locking pins, non-interchangeable
- Drop-type side walls including spring load relief system for ergonomic single-person operation
- Control lamps in the cab for all pneumatic and hydraulic locks
- Lock block for top-hinged and drop-type side walls



Heavy-duty 2-axle chassis D212 | Light-duty 2-axle chassis D205 | Transporter class D202

PRODUCT RANGE

MORE VERSATILE THAN EVER BEFORE

The TRIGENIUS is more versatile than ever before. The portfolio includes vehicles from 2 to 5-axle chassis and a nominal load of 2 to 28 tonnes. Customise your three-way tipper with a varied range of tried-and-tested accessories. The modular design and the use of bolting technology enable easy retrofitting.

D210

Three-way tipper

Number of axles
2, 3, 4, 5 axles

Max. nominal load
2 to 28 t



D202 TO D204
Transporter class



D205 TO D208
Light-duty 2-axle chassis



D210 TO D212
Heavy-duty 2-axle chassis

TYPE	D202 2 AXLES	D204	D205	D208	D210	D212
Nominal load	2 t	4 t	5 t	8 t	10 t	12 t
Techn. permissible GVW	3.5 - 4.6 t	5 - 7.2 t	7.49 - 8 t	9 - 14 t	15 - 16 t	18 t
Tipper body length	2,600 - 3,400 mm	2,700 - 4,000 mm	3,000 - 4,200 mm	3,000 - 4,200 mm	3,200 - 4,800 mm	3,600 - 4,800 mm
Tipper body width	2,000 mm	2,000 | 2,200 mm	2,000 | 2,350 mm	2,200 | 2,350 mm	2,380 mm	2,450 mm
Side wall height	400 mm	400 mm	400 | 500 mm	500 | 600 mm	500 mm	600 mm
Floor material	1.5 mm STEELECT® 450	2.5 mm	2.5 mm STEELECT® 450	2.5 mm	4.0 mm STEELECT® 450	4.0 mm
Front wall material	1.5 mm STEELECT® 240	1.5 mm	1.5 mm STEELECT® 240	1.5 mm	2.5 mm STEELECT® 450	2.5 mm
Side wall and tailgate material	1.5 mm STEELECT® 240	1.5 mm	1.5 mm STEELECT® 240	1.5 mm	2.5 mm STEELECT® 450	2.5 mm



For municipal and road companies: Municipalities and cities are responsible for a variety of transportation tasks.



For professional gardening and landscaping:
A wide range of transportation tasks for private or large gardens.



For building and road construction:
Many different goods have to be transported – from building materials and bricks to excavated material from construction sites.



For civil engineering, gravel and earthmoving companies that transport both light material and heavy bulk material, rubble and boulders.



D316 TO D321
3-axle chassis



D421 TO D428 | D528
4-axle chassis

TYPE	D316 3 AXLES	D321	D421 4 AXLES	D428
Nominal load	16 t	21 t	21 t	28 t
Techn. permissible GVW	26 - 28 t	33 t	32 - 35 t	41 t
Tipper body length	4,400 - 5,100 mm	4,400 - 5,100 mm	5,400 - 6,200 mm	5,400 - 6,200 mm
Tipper body width	2,420 mm	2,420 mm	2,420 mm	2,420 mm
Side wall height	800 mm	800 | 1,000 mm	900 | 1,000 mm	1,000 mm
Floor material	5.0 mm STEELECT® 450	5.0 mm STEELECT® 450	6.0 mm STEELECT® 450	6.0 mm STEELECT® 450
Front wall material	3.0 mm STEELECT® 450	3.0 mm STEELECT® 450	3.0 mm STEELECT® 450	3.0 mm STEELECT® 450
Side wall and tailgate material	4.0 mm STEELECT® 450	4.0 mm STEELECT® 450	4.0 mm STEELECT® 450	4.0 mm STEELECT® 450

PERFECTION IN EVERY DETAIL

OPTIMISED AND EXTENDED FUNCTIONS FOR PRACTICAL USE

OPTIMISED DESIGN COMBINES ADVANTAGES

- Powerful hydraulic telescopic cylinder on the 4-axle chassis
- Optimum corrosion protection thanks to CDP primer-coated subframe and top coat in RAL 7021

SAFE-TO-OPERATE BALL-TYPE TIPPING PARTS

- All TRIGENIUS models have new ball-type tipping parts with ergonomic locking pins, which can be operated with one hand
- The locking pins are diagonally plug-in safe and prevent incorrect operation





Ball-type tipping parts for one-hand operation





Side and front wall lashing eyes also for transporters and light 2-axle vehicles



Lashing eyes in floors now even more accessible

CONVENIENT AND SAFE SIDE WALL OPERATION

- The MEILLER Bordmatik opens and closes the side wall particularly gently and quietly
- The flashing "Bordmatik Safety Light" LED light at the side ensures operation on both sides
- A load-relief system with a spring mechanism makes manual opening and closing by a single person easier for the top-hinged and drop type side wall

FLEXIBLE AND PRACTICAL LOAD SECURING

- Lashing eyes in walls hold up to 2 t and floor-level folding lashing eyes even up to 8 t
- The front wall offers practical fixtures and storage options for work equipment
- Uniform operating concept for all side and rear wall locks



Optimised MEILLER Bordmatik



Bordmatik safety light



Folding with spring load relief system



Only one hydraulic telescopic cylinder on the 4-axle vehicle



Perforated subframe

TRIGENIUS® D316-D428 – OVERVIEW OF NEW OPTIONS

HYDRAULICALLY FOLDING REAR UNDERRUN PROTECTION

- Hydraulically folding rear underrun protection according to ECE R58 (R58-03)
- Powered by electric hydraulic unit
- Operation even when driving slowly without PTO
- Incl. optical display in cab
- Incl. tipping lock at intermediate position
- Only in combination with i.s.a.r.-control, sequence control tipping and automatic lowering at V > 15 km/h
- Equipment required for hydraulic underrun protection



I.S.A.R.-CONTROL REMOTE

The MEILLER i.s.a.r.-control remote provides complete control: Operate from a safe distance and at a location with the best visibility. Throughout the entire tipping process and while opening the tarpaulin, you always have an optimum view of your bulk material and the vehicle.

All hydraulic functions, such as raising the underrun protection, opening the tarpaulin and tipping the bulk material, are operated at the push of a button.

- Automatic sequence control with rested safety lowering is included as standard
- Automated process saves working time and increases profitability
- Lorry can be started and stopped at any time using the start/stop function
- Driver can interrupt the tipping process at any time
  and fully focus on his work environment
- Control unit is fail-safe, thanks to the included emergency control unit



TRIGENIUS®
WITH LOADING CRANE PREPARATION

PATENTED SCREW-TYPE CRANE INTERFACE

Efficient fixation of the loading crane is made possible by the consoles specifically designed for the crane. The bolted mounting of the crane consoles to the tipper subframe and chassis frame preserves the factory-finished surfaces and their high corrosion protection.

- Steel construction preparation, subframe reinforced in the area of the loading crane, including two screw-type cross members in the front area of the subframe
- Including tipper/crane hydraulic changeover valve in the subframe
- MEILLER crane hydraulics designed for a maximum operating pressure of 370 bar and a maximum peak pressure of 400 bar (sufficient for all commercially available cranes and manufacturers)
- Large oil tank for crane operation installed in the subframe
- Oil tank including return filter, flow rate 180 l/min, purity 10 µm
- Hydraulic oil viscosity class 32 as standard
- Including gearbox-driven continuously running pump (optional variable or engine-driven displacement pump)
- Crane consoles suitable for the respective crane manufacturer mounted by MEILLER or MEILLER accessories are available for mounting by crane mounting partners
  ATTENTION: The design of the entire system is only valid with original MEILLER crane consoles
- Validated system for approved crane sizes, no framework calculation by ABH required
- The delivery range of the crane consoles includes the crane mounting parts for bolted crane mounting
- Optimum corrosion protection thanks to bolted crane consoles
- Optional: Pre-mounted crane consoles reduce crane erection time

CRANE CLEARANCES AND SIZES

Crane design for product types:

TRIGENIUS TYPE	D205	D208	D210	D212	D312	D316
Crane clearances	650 - 850 mm	750 - 1,000 mm	800 - 1,050 mm	800 - 1,200 mm	1,000 - 1,400 mm	1,000 - 1,400 mm
Crane size up to *	8 mt	13 mt	16 mt	21 mt	28 mt	28 mt
Oil tank capacity	67 l	106 l	106 l	138 l	159 l	159 l
Oil amount, max.	50.0 l	73.6 l	73.6 l	113 l	139.5 l	139.5 l
Oil amount, min.	17.7 l	21 l	21 l	25.6 l	30.5 l	30.5 l
Oil amount, usable	35.5 l	52.6 l	52.6 l	87.4 l	109 l	109 l

*** related to total crane moment [gross] = load moment + moment from crane dead weight**



TRIGENIUS® D202 TO D204

TRANSPORTER CLASS

Sturdy steel tipper with low dead weight thanks to its weight-optimised design – for flexible use in the transporter class. Maximum comfort due to a low overall height and lots of space for stowing tools.

TYPE	D202	D204
Nominal load	2 t	4 t
Techn. permissible GVW	3.5 - 4.6 t	5 - 7.2 t
Tipper body length	2,600 - 3,400 mm	2,700 - 4,000 mm
Tipper body width	2,000 mm	2,000 | 2,200 mm
Side wall height	400 mm	400 mm
Side wall	Continuously hinged on the left and right	
Tailgate	Top-hinged and drop type	



✓ Standard functions
⊕ Optional functions

Illustrations similar, may contain optional equipment.

HIGHLIGHTS

HIGH TRANSPORT VOLUME:
- Side wall height 400 mm
- HBW 450 floor plates

STURDY LOAD SECURING:
- Tie rod system for fast load securing of bulky items
- Integrated deflector plate on the tailgate to protect against damage caused by the ball head coupling
- Retractable 2 t lashing eyes in floor as per DIN EN 12642
- Lashing eyes in walls (standard)
- Integrated tarpaulin hooks
- Storage cabinet behind the cab with space for tools and bulky items (optional)

COMFORT AND OPERATING SAFETY:
- Low overall height for easy loading
- Access steps on side wall and tailgate (retractable on tailgate)
- Ergonomic locks
- Practical access steps



✓ Standard functions
⊕ Optional functions


Swinging side walls
Ergonomic
dropside locks
Stop roller
Plastic or
stainless steel toolboxes

COST-EFFECTIVE.
RELIABLE.
INNOVATIVE.




TRIGENIUS®
MEILLER
MEILLER

TRIGENIUS® D205 TO D208

LIGHT-DUTY 2-AXLE CHASSIS

Versatile and manoeuvrable three-way tipper – for a wide range of applications. Ideally suited for transporting bulky items for construction site set-up, for municipal applications and for transporting bulk goods.

TYPE	D205	D208
Nominal load	5 t	8 t
Techn. permissible GVW	7.49 - 8 t	9 - 14 t
Tipper body length	3,000 - 4,200 mm	3,000 - 4,200 mm
Tipper body width	2,000 | 2,350 mm	2,200 | 2,350 mm
Side wall height	400 mm	500 mm
Side wall	Continuously hinged on the left and right	
Tailgate	Top-hinged and drop type	



✓ Standard functions

⊕ Optional functions

Illustrations similar, may contain optional equipment.

HIGHLIGHTS

HIGH TRANSPORT VOLUME:
- HBW 450 floor plates
- Plug-in aluminium attachment walls (optional)
- Extending tailgate rest for transport of long material (optional)

OPTIMISED DESIGN:
- Hydraulic oil tank with special baffle plates and vibration-dampened fastening system
- Side wall material light and particularly wear-resistant
- Lashing eyes in walls for securing purposes (standard)
- Integrated tarpaulin hooks
- Storage cabinet behind the cab with space for tools and bulky items (optional)

STURDY LOAD SECURING:
- Tie rod system for fast load securing of bulky items
- Permanent leak tightness thanks to seamless (maze-like) side wall limit stop principle
- Lashing eyes in walls
- Integrated tarpaulin hooks
- Retractable 2 t lashing eyes in floor as per DIN EN 12642
- Storage cabinet behind the cab with space for tools and bulky items (optional)

COMFORT AND OPERATING SAFETY:
- Bolted crane mounting (simple mounting and high durability)
- Access steps on side wall and tailgate (retractable on tailgate)



Extending tailgate rest

Tipping parts with ergonomic locking pins

✓ Standard functions
⊕ Optional functions



Ergonomic
side wall locks

Dimensionally stable stainless steel mudguards
with rubber border

TRIGENIUS® D210 TO D212

HEAVY-DUTY 2-AXLE CHASSIS

Three-way tipper with 2,450 mm-wide cargo area for highly universal transportation options: from bulk material to construction site cabins.
Optionally with double-plated side walls for heavy-duty use.

TYPE	D210	D212
Nominal load	10 t	12 t
Techn. permissible GVW	15 - 16 t	18 t
Tipper body length	3,200 - 4,800 mm	3,600 - 4,800 mm
Tipper body width	2,380 mm	2,450 mm
Side wall height	500 mm	600 mm
Side wall	- drop-type - top-hinged and drop-type - side wall with Bordmatik	
Tailgate	- top-hinged and drop-type - hydraulic or pneumatic drop-type with | without top-hinged tailgate	



✓ Standard functions

⊕ Optional functions

Illustrations similar, may contain optional equipment.

HIGHLIGHTS

HIGH TRANSPORT VOLUME:
- 2,450 mm interior width for transporting lightweight construction site cabins

OPTIMISED DESIGN:
- New hydraulic oil tank with special baffle plates and vibration-dampened fastening system
- Weight-optimised design
- Double-plated side walls for heavy-duty use (optional)

COMFORT AND OPERATING SAFETY:
- Bolted crane mounting (simple mounting and high durability)
- Sequence control (in combination with i.s.a.r.-control only) (optional)

STURDY LOAD SECURING:
- 6 x lashing eyes in front wall (2 t)
- Lashing eyes in walls
- Deposit rack
- Front wall elevation
- Hydraulic or pneumatic tailgate (optional)
- Bordmatik with LED safety light and control lamp in the cab, opens and closes quietly and gently (optional)
- Retractable lashing eyes in floor (4 t, 8 t in the corners) (optional)



✓ Standard functions
⊕ Optional functions


Access steps
Drop-type tailgate
TRIGENIUS
MEILLER
Vibration-dampened fastening system for hydraulic oil tank
Tipping parts with ergonomic locking pins

TRIGENIUS® D316 TO D428

3- AND 4-AXLE CHASSIS

The robust tippers with maximum payload thanks to their weight-optimised design and high-strength steel – for maximum revenue. Particularly stable superstructure that stands out for safe operation.

TYPE	D316 | D321	D421 | D428
Nominal load	16 t | 21 t	21 t | 28 t
Techn. permissible GVW	26 - 28 t | 33 t	32 - 35 t | 41 t
Tipper body length	4,400 - 5,100 mm	5,400 - 6,200 mm
Tipper body width	2,420 mm	2,420 mm
Side wall height	800 | 1,000 mm	900 | 1,000 mm
Side wall	- drop-type - top-hinged and drop-type - side wall with Bordmatik incl. LED safety light	
Tailgate	- drop-type - top-hinged and drop-type - hydraulic or pneumatic drop-type with top-hinged tailgate	



✓ Standard functions

⊕ Optional functions

Illustrations similar, may contain optional equipment.

HIGHLIGHTS

HIGH TRANSPORT VOLUME:
- 2,420 mm interior width for transporting pallets

OPTIMISED DESIGN:
- Hydraulic oil tank with special baffle plates and vibration-dampened fastening system
- Aluminium side walls with optional lashing eyes in walls (optional)
- Double-plated side walls for heavy-duty use (optional)

STURDY LOAD SECURING:
- 6 x lashing eyes in front wall (2 t)
- Hydraulic or pneumatic tailgate
- Permanent leak tightness thanks to seamless (maze-like) side wall limit stop principle
- Tarpaulin systems
- Self-adjusting, noise-reducing mounting for the side walls
- Lashing eyes in walls (optional)

COMFORT AND OPERATING SAFETY:
- Hydraulic/pneumatic tailgate with top-hinged upper part
- Easily removable top-hinged tailgate
- Ball-type tipping parts with one-hand lever at the rear, can be repositioned using the balls; tipping forks at the front
- Hydraulically folding rear underrun protection
- Lock block for ruling out operator errors (drop down and top hinge functions can no longer be operated simultaneously; Bordmatik cannot be opened with the sliding tarpaulin closed)
- Protective circuit for sliding tarpaulin in combination with Bordmatik
- Bolted crane mounting (simple mounting and high durability) (optional)
- Sequence control (in combination with i.s.a.r.-control only) (optional)
- Top-hinged and drop type side walls with improved load relief (optional)



Tipping parts with ergonomic locking pins

LED flashing bars at front and rear when the wall is open

✓ Standard functions
⊕ Optional functions

Horizontally divided tailgate
hinged at the bottom,
swinging at the top

Double-plated side wall



Folding underrun protection

QUALITY AT MEILLER

RELIABLE, DURABLE AND EXTREMELY RESILIENT – FOR MORE THAN 175 YEARS.



DEVELOPMENT QUALITY

We provide the highest quality with long-lasting, customer-oriented solutions through rigorous testing, customer integration and continuous audits.



PRODUCT QUALITY

Our products deliver the highest quality with cathodic dip coating, wet priming and body-cavity sealing.



HYDRAULIC SYSTEM QUALITY

Our hydraulic systems offer minimum maintenance and maximum efficiency, using high-quality materials, cylinders and wear-resistant components.



SERVICE QUALITY

Our service team minimises downtime by fast support, mobile factory customer service and efficient logistics.

STEELECT®

STEEL FOR PERFECT TIPPERS





Optimum steel mix guarantees high payload and maximum stability

OPTIMUM STEEL MIX

The STEELECT® quality seal stands for optimum use of various branded steels to maximise wear resistance and load-bearing capacity of MEILLER tippers. MEILLER selects the best steel for each component based on its function and application.

STEELECT® quality steels reduce abrasive wear, ensuring fewer repairs and a long lifetime. This allows for a lightweight superstructure while ensuring maximum stability. This increases the payload, leading to cost-effective operation and a high resale value.

Designation	Steel types	Hardness	Yield strength	Minimum tensile strength
STEELECT® 128	Construction steel	128 HBW	355 N/mm²	430 N/mm²
STEELECT® 220	Construction steel	220 HBW	500 N/mm²	500 N/mm²
STEELECT® 240	Construction steel	240 HBW	650 N/mm²	700 N/mm²
STEELECT® 400	Highly wear-resistant fine-grained steel (wear-resistant steel)	400 HBW	1,000 N/mm²	1,250 N/mm²
STEELECT® 450	Highly wear-resistant fine-grained steel (wear-resistant steel)	450 HBW	1,200 N/mm²	1,350 N/mm²
STEELECT® 500	Highly wear-resistant fine-grained steel (wear-resistant steel)	500 HBW	1,300 N/mm²	1,600 N/mm²

All values are approximate.

MEILLER TIPPER

COST-EFFECTIVE. RELIABLE. INNOVATIVE.

COMPANY
MEILLER stands for durable, practical and technically sophisticated tipper superstructures that can be adapted to individual requirements with many options.

MEILLER employees work every day to make the products safer to use, practical and convenient to use in practice.

MEILLER relies on state-of-the-art manufacturing processes throughout the entire process chain and continuously optimises product development in order to always remain one step ahead of increasing quality standards.

Steel components, hydraulic systems and control technology come from a single source at MEILLER – the unique compatibility of the components speaks for the efficiency of the MEILLER products and their long lifetime.

EVERY MEILLER EMPLOYEE
IS A GUARANTEE FOR THE HIGH QUALITY OF ALL MEILLER PRODUCTS.



SUSTAINABLE INTO THE FUTURE

Certified environmental management in accordance with DIN 14001:2015 and EMAS demonstrates that MEILLER is committed to the responsible and efficient use of resources.



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F.X. MEILLER Fahrzeug- und Maschinenfabrik GmbH & Co KG
Ambossstraße 4 | 80997 Munich | Germany
T +49 89 1487-0 | info@meiller.com | meiller.com

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