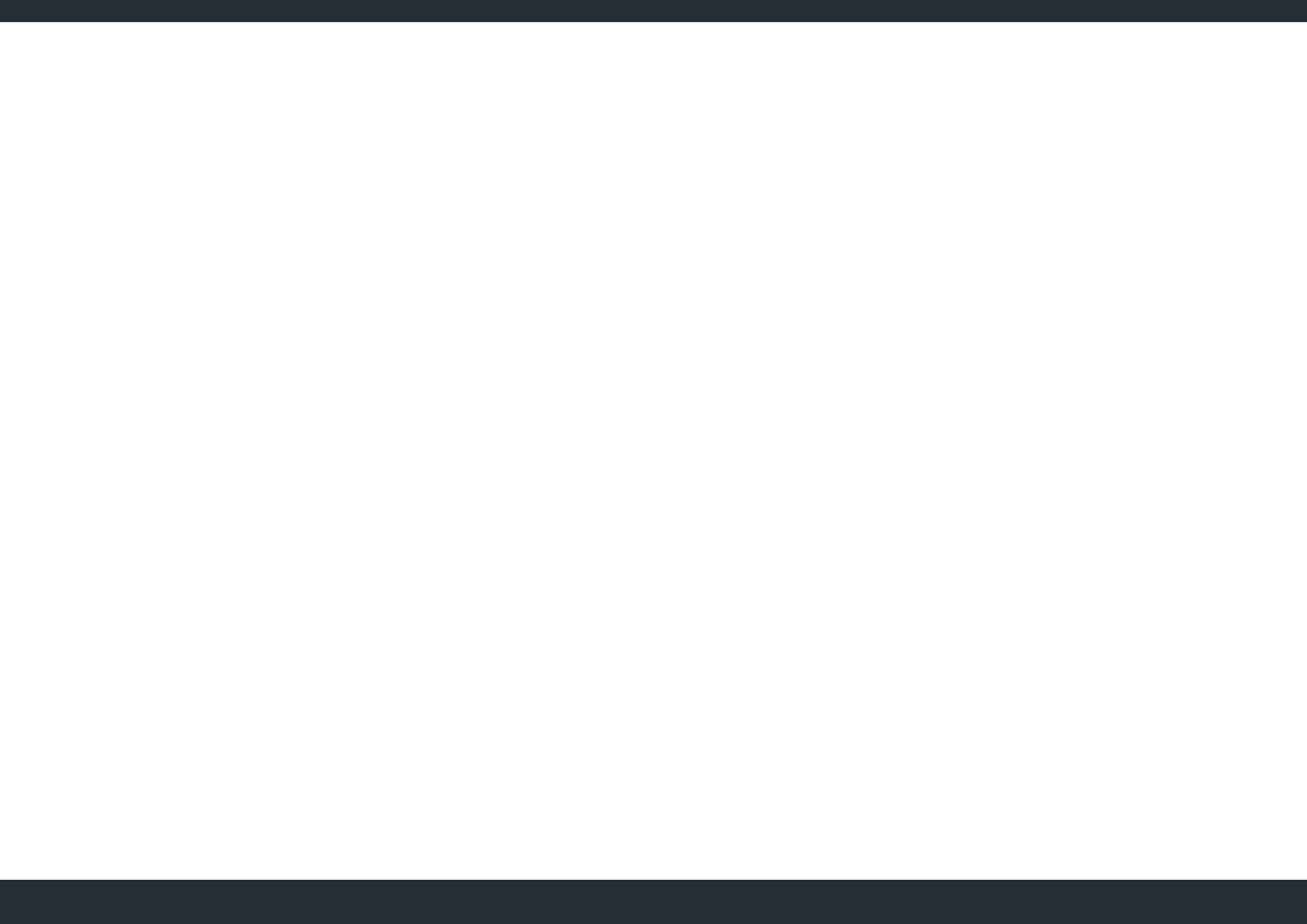




Motec camera systems for logistics, harbour and industrial applications
The highest of safety



Motec

Systematic safety

Whether logistics, industry, freight, rail traffic, municipalities or agriculture – Motec has been one of the leading manufacturers of high-quality and intelligent camera monitoring systems for mobile applications for over 20 years. Our strength: Systems which we customise perfectly to your needs. High-grade components designed for continuous operation under the toughest conditions which function reliably in wind and rain.

Motec is a flexible and reliable partner for initial equipping. Our processes in the development, production and service are at OEM level and meet the industrial standards. Renowned international vehicle, machine and system manufacturers have been relying on our systems and components for years and trust in our solution expertise.

Motec camera systems for logistics, harbour and industrial applications

Motec camera solutions offer drivers of forklifts and reach stackers a clear view of the machine track when transporting bulky loads and thus help to prevent serious accidents. They can also serve as an effective tool for helping the driver positioning the load, thus allowing them to maintain an ergonomic posture while working. This brochure contains a presentation of our selection of possible system solutions for your applications.

Monitors

- Top processing
- Easy installation
- High functionality
- Digital technology for the highest image quality
- Can be installed as modules

Cables and plugs

- More than 800 cables and connectors – robust, waterproof, reinforced
- Customised assembly
- Individual tailoring
- Every connection possible
- High quality material mix

Cameras

- Top processing
- Robust and resistant
- Suitable for high pressure cleaners (IP69K)
- Modern camera technology
- Can be installed as modules
- Automatically controlled camera heating

Certified quality

Top quality at all levels – Motec is certified in accordance with ISO 9001 and ISO 14001 and holds the AEO certificate as an “Authorised Economic Operator”.



Technical service – fast help guaranteed

Top quality also includes top service. We are also available to assist you with technical questions or problems. Our sales and technology divisions work closely together. You will benefit from short distances and efficient communication. Our service employees know your needs, can understand your processes and quickly find a solution.

Associations



Forklift

View of the driving direction



A camera on the lift mast allows a direct view on what is in front of the forklift. The system can be expanded to include an automatically activated rear view camera.

High visibility:

- Persons in the path of the forklift
- Objects and obstacles in front of the forklift



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



MK496

- High-quality Motec standard cable
- Waterproof plug connector IP67
- Meets the highest requirements in accordance with industrial standards



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Forklift

Monitoring of the rear view: Safe and ergonomic



A camera in the rear is automatically activated as soon as the forklift reverses. A plus for ergonomics: The driver can see the rear area without turning his head.

High visibility:

- Persons and objects behind the forklift
- Distances to the stored goods and shelves



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply

MK496

- High-quality Motec standard cable
- Waterproof plug connector IP67
- Meets the highest requirements in accordance with industrial standards

MC7000P-4-E

- Modern image electronics (CMOS-Chip)
- Adapts easily to changing lighting conditions
- Sharp images even in back-light
- With stainless steel mount

Reach trucks

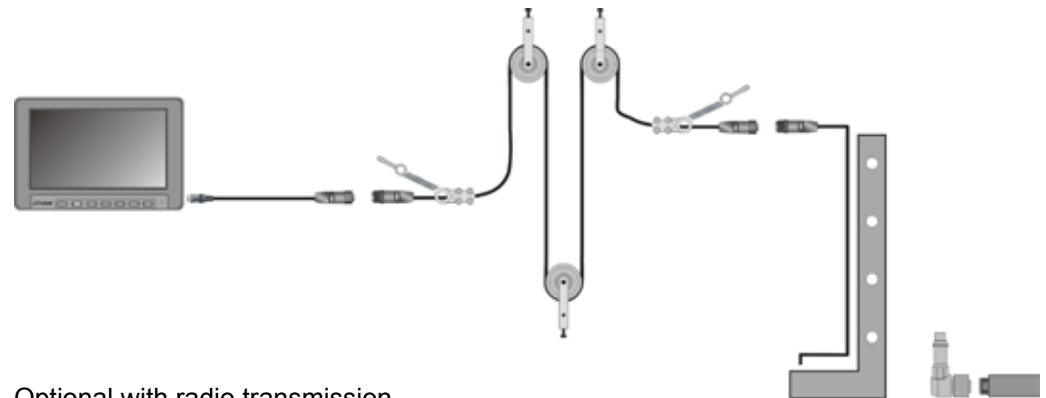
Fork shank camera system



In comparison with the mounted forks camera, the robust and compact MC9150 is attached to the fork shank. The camera is optimally protected against impacts and shocks. The image angle of 50° additionally offers a clear view of both forks.

High visibility:

- Optimal view of both forks when loading and unloading



Optional with radio transmission



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



MK554

- Stable and high-grade mast cable for laying through deflection rollers



MC9150

- Robust stainless steel housing
- Shock resistance 100 g
- 3 mm pin hole objective
- CMOS sensor
- Optimal images even in poor lighting

Reach trucks

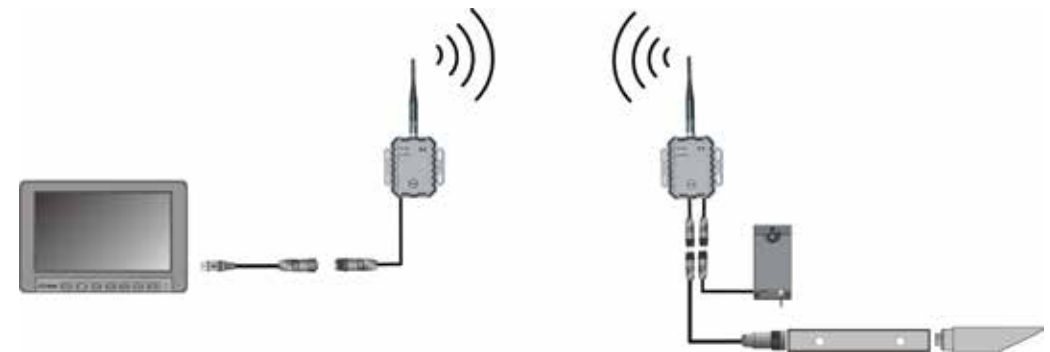
Fork tine camera system



The loading and unloading of deep loads in the warehouse requires precision and the full attention of the driver. A camera mounted on the fork enables fast and safer handling of the load.

High visibility:

- Optimal view of both forks when loading and unloading



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



MAB1000-Set-2

- Wireless image transfer
- 2,4 GHz-Digital radio
- Includes rechargeable lithium ion battery and charger
- Runtime 10 hours



MC9050

- Stainless steel housing
- Highest shock resistance up to 100 g
- Mounting on the inside of the fork

Reach trucks

Duo-camera system



2 cameras attached to the inner mast allow simultaneous viewing of the right and left external sides of the pallet. Both camera images are displayed at the same time (split screen mode).

High visibility:

- A optimal view beneath and on the sides of both forks



MD3100

- 10,2"-monitor (screen size 25,9 cm)
- Stable metal housing
- Protection class IP54 (front side)
- Crystal clear images



MK701

- Twin mast cable laying over deflection rollers
- Transmits 2 camera images at once



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Reach trucks

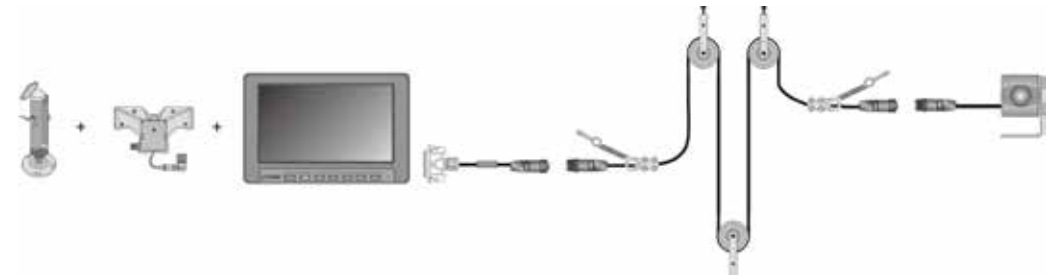
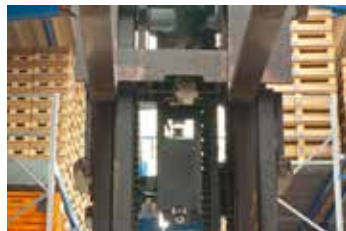
Mast camera system



Motec compact cameras, mounted in the mast, are always at the height of the load and facilitate fast and safer handling of the pallets in high-bay warehouses.

High visibility:

- Optimal view of the underside of the fork carrier on both forks



MD3074A-Quad

- 7"-monitor (screen size 17,8 cm)
- Suitable for cold stores and outdoor applications
- Waterproof IP65
- Connection of up to 4 cameras



MK554

- Stable and high-grade mast cable for laying over deflection rollers
- Waterproof plug connector



MC7000P-4-E

- Modern image electronics (CMOS-Chip)
- Adapts easily to changing lighting conditions
- Sharp images even in back-light
- With stainless steel mount

Attachments

Visual aid for rotators, paper clamps or telescopic forks



Bulky loads such as those in the paper industry or rotators in heavy industry require special system solutions to support the driver effectively.

High visibility:

- Loading during transport
- Immersion of the telescopic fork
- Position of the rotator
- Persons in the machine track



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



MK588

- Robust spiral cable
- Easy and quick laying on the mast
- Waterproof plug connector



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Forklift

Fork carriage camera



Using a fork carriage camera, drivers have perfect view of the fork tine. It is thus able to drive into the different charge carriers more safely.

High visibility:

- Perfect view of the fork tine



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



FLT cable reel

- For the transmission of video signals
- Extremely robust
- Suitable for refrigerated warehouses
- Effective length 10 metres



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Reach Stackers

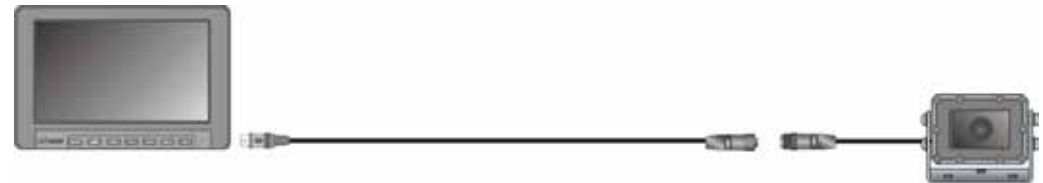
Rear view monitoring



Motec cameras provide a view of the rear area of the reach stacker and help the driver to quickly and safely load the containers.

High visibility:

- Persons and objects behind the vehicle



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



MK496

- High-quality Motec standard cable
- Waterproof plug connector IP67
- Meets the highest requirements in accordance with industrial standards



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Reach Stackers

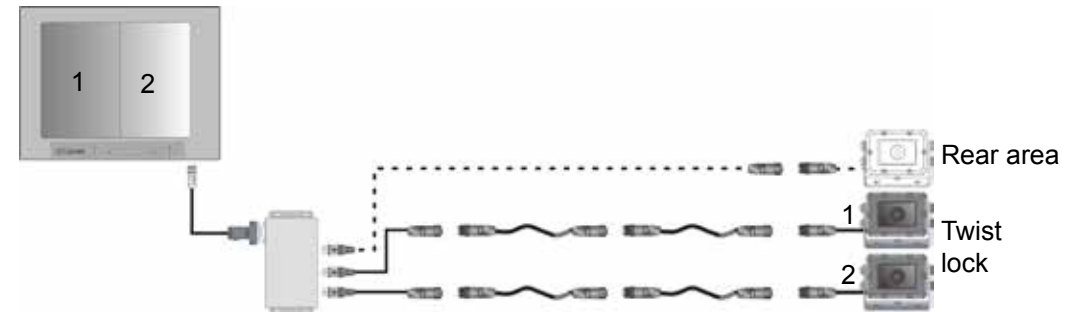
Twist lock monitoring and manoeuvring assistance for container handling



The mobility of reach stackers are limited without camera system. Cameras installed on the spreader will support the driver while loading the goods.

High visibility:

- Position of the twist locks for quick and safe handling
- Persons in the hazard zone



Optional with radio transmission



MD3100

- 10,2"-monitor (screen size 25,9 cm)
- Stable metal housing
- Protection class IP54 (front side)
- Crystal clear images



MB1405-Quad

- Easy control of up to 4 cameras
- Split function – up to 4 images at once
- Camera selection using control cables or operating units
- Power supply for cameras and monitors



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Straddle Carriers

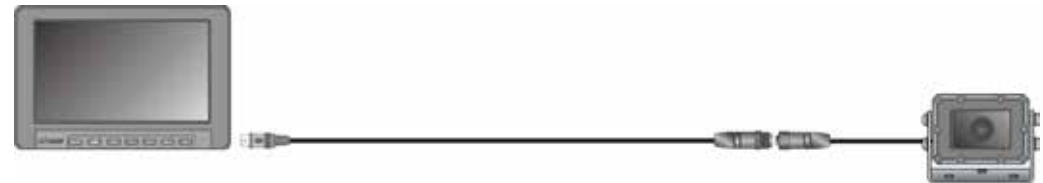
Rear-view monitoring



Motec cameras provide a view of the rear area of the machine even when a container is picked up.

High visibility:

- Persons in the hazard zone behind the machine (rear area)



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



MK496

- High-quality Motec standard cable
- Waterproof plug connector IP67
- Meets the highest requirements in accordance with industrial standards



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Straddle Carriers

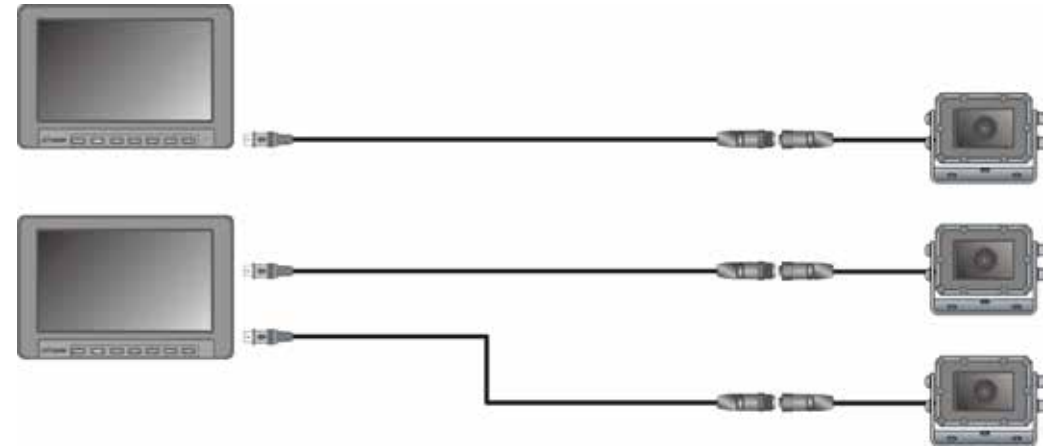
Quick and safe handling of containers



Motec cameras provide the best view of the twist locks. The images are transmitted to 2 monitors allowing the driver to position the container with millimetre precision.

High visibility:

- Position of the twist locks for truck loading operations
- Persons and objects in the hazard zone



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



MK496

- High-quality Motec standard cable
- Waterproof plug connector IP67
- Meets the highest requirements in accordance with industrial standards



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Side stackers

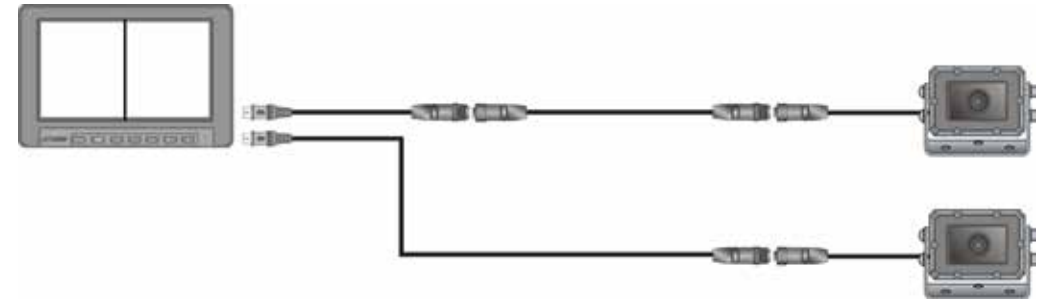
All-round camera view for more safety



Rear and side view cameras provide the driver with a view in all travel directions and increase driving safety.

High visibility:

- Persons and obstacles in the side stacker's surroundings
- The positioning of the forks when loading and unloading



MD3072B-Quad

- 7"-monitor (screen size 17,8 cm)
- Direct connection of up to 4 cameras
- Split screen – up to 4 images at once
- Automatic camera selection
- Crystal clear images

MK496

- High-quality Motec standard cable
- Waterproof plug connector IP67
- Meets the highest requirements in accordance with industrial standards

MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Fourway sideloader

Fork carrier camera system



The loading and unloading of deep loads in the warehouse requires precision and the full attention of the driver. A camera mounted on the fork carrier enables fast and safer handling of the load.

High visibility:

- Best view of the loading and/or the forks



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



MK554

- Stable and high-grade mast cable for laying trough deflection rollers
- Waterproof connector



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Log stackers

Efficient material handling using radio camera systems



The camera images on the shredder hopper are transmitted by radio to the monitor of the log stacker. The driver can thus detect material blockages soon.

High visibility:

- Fill level of the hopper
- Material blockage during the filling process
- Foreign objects in the hopper



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



MVRD1000-Set-2

- Wireless image transfer
- 2,4 GHz-Digital radio
- Range approx. 120 m
- Housing protection class IP69K



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Telescopic forks

Pallet handling



The camera is always well protected at the height of the fork on the inside of the pallet separator. With a 50° image angle the driver can always securely see both forks and the fork pockets of the pallets.

High visibility:

- Optimal view of both forks when loading and unloading. Good view even in poor lighting conditions with Motec Power Light LED



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



MK554

- Stable and high-grade mast cable for laying over deflection rollers
- Waterproof plug connector



MC9150

- Robust stainless steel housing
- Suitable for high pressure cleaners (IP69K)
- Shock resistance 100 g
- 3 mm pin hole objective
- CMOS sensor
- Optimal images even in poor lighting

Forklift/Reach trucks

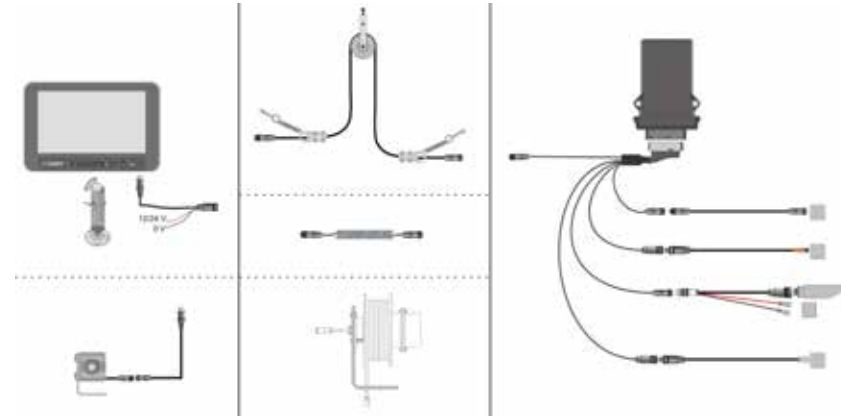
SmartFork® with integrated sensor in the fork tip



The camera and the sensor system are integrated at the tip of the fork rake and therefore saved against mechanical damages.

High visibility:

- The inclination of the forke rake
- Ahead and above the freight through a accurate distance measurement signalling



Optional with radio transmission



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



MK554

- Stable and high-grade mast cable for laying through deflection rollers
- Waterproof plug connector



MC9250-1

- Stainless steel housing
- Highest shock resistance
- Mounting on the underside of the fork

Forklift

Truck loading



A camera mounted firmly on the lifting gear allows a view of the underside of the fork directly on the load. The system can be extended with an automatically activated rearview camera.

High visibility:

- Loading edge
- Persons near the truck



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply

MK496

- High-quality Motec standard cable
- Waterproof plug connector IP67
- Meets the highest requirements in accordance with industrial standards

MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

High-rack forklifts

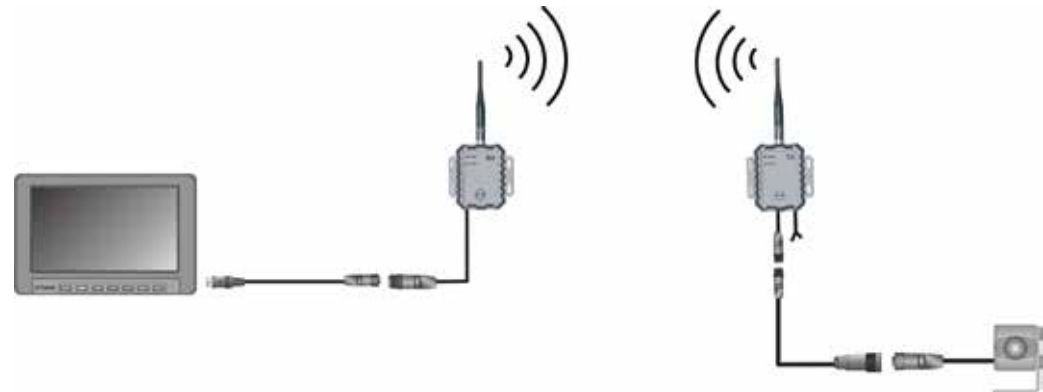
Rear view monitoring



A camera on the rear lifting device allows the driver of this vehicle an ideal rear view.

High visibility:

- Persons and objects behind the vehicle
- Distances to the stored goods and shelves



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



KIT-MVRD1000

- Wireless image transfer
- 2,4 GHz-Digital radio
- up to 10 units in parallel
- Quick and easy mounting



MC7000P-4-E

- Modern image electronics (CMOS-Chip)
- Adapts easily to changing lighting conditions
- Sharp images even in back-light
- With stainless steel mount

High-rack forklifts

Duo-camera system



2 cameras on the forks and one on the fork carrier allows a simultaneous view of the load and rack.

High visibility:

- Ideal view of the fork tines
- Ideal view of the loading and the rack crossbeams above.



MD3072B-Quad

- 7"-monitor (screen size 17,8 cm)
- Direct connection of up to 4 cameras
- Split screen – up to 4 images at once
- Automatic camera selection
- Crystal clear images



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance



MC9150

- Robust stainless steel housing
- Suitable for high pressure cleaners (IP69K)
- Shock resistance 100 g
- 3 mm pin hole objective
- CMOS sensor
- Optimal images even in poor lighting

360°-Bird's eye view – MVS

Mobile Vicinity Scout



Due to the use of FPGA (Field Programmable Gate Array) technology, intelligent software and performant algorithm, the Mobile Vicinity Scout system offers a powerful technology platform for 360° all-round visibility system. All system components, in particular those for heavy-duty and commercial vehicles, are developed and manufactured by Motec in Germany.



The Motec Mobile Vicinity Scout (MVS) is a camera especially designed for commercial vehicles. It provides the driver with a 270° or 360° view around his equipment. Thus, it saves lives, helps people and reduces costs.

- Crystal clear, intuitive bird's eye perspective display of the vehicle's surroundings
- Specifically developed for heavy duty applications and utility vehicles – flexible, adjustable, reliable
- Customizable dynamic overlays
- Expandable for ultra sound or radar sensors integration
- Simple, end-of-line as well as in-field calibration
- By using these various interfaces (Ethernet, CAN bus, control cables) it can be integrated into the electronic system of the vehicle



MD3071A-V

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Horizontal model available
- Auto dimmer function
- Illuminated keyboard



MVCD1000

- Up to 4 cameras
- CAN bus, control line and Ethernet interfaces
- Display of dynamic and static overlay
- Combined image/video/ultra sound and radar information



MC7180N-4

- 180° horizontal viewing angle
- CMOS ¼" image sensor with 648 x 488 pixel sensor resolution
- Robust aluminium housing
- Housing protection class IP69K

Heavy-load forklifts

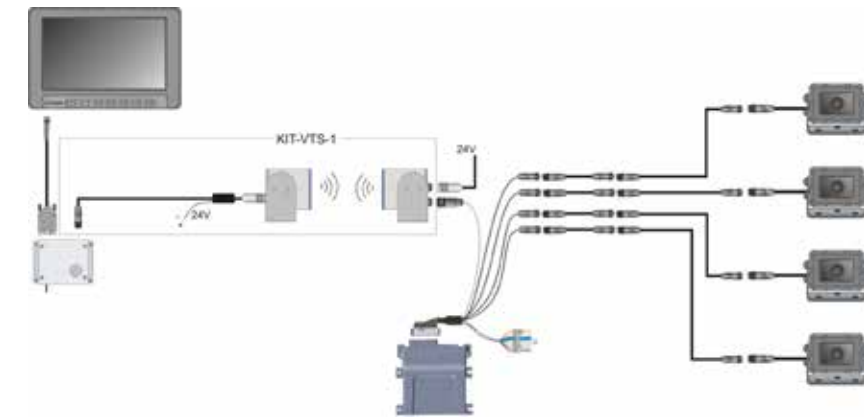
Front and rear-view monitoring



Depending on the structure, the driver's front- and rear-view can be restricted. Automatic switching of the camera images between the front and rear areas is possible.

High visibility:

- Persons and objects around the forklift



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



KIT-VTS-1

- Wireless image transmission.
- 5,8 GHz
- High range up to 300 m
- Fast and easy installation



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Forklift load monitoring

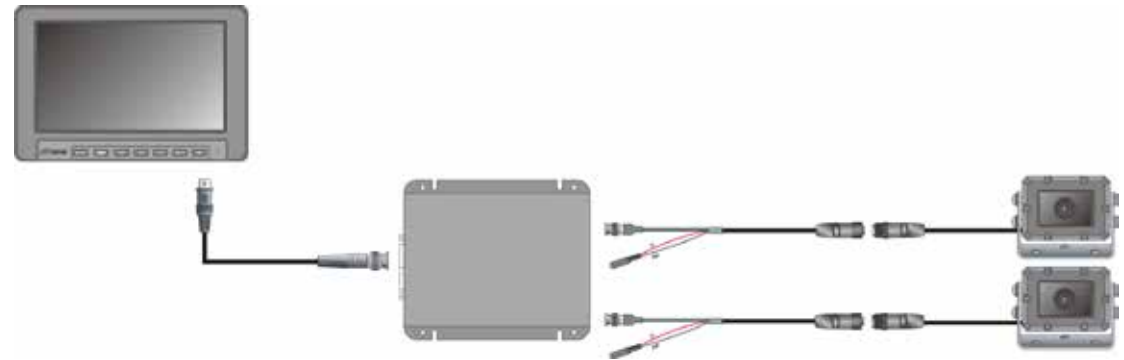
Record, secure and transmit images



Cameras allow an ideal view of the load for the detection of damage and to document images for later analysis.

High visibility:

- Optimal view of the fork when loading and unloading



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



DVR-EMV200S

- Connection of up to 2 cameras
- Play on the monitor possible
- Simple data upload to PC



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Transport manipulators

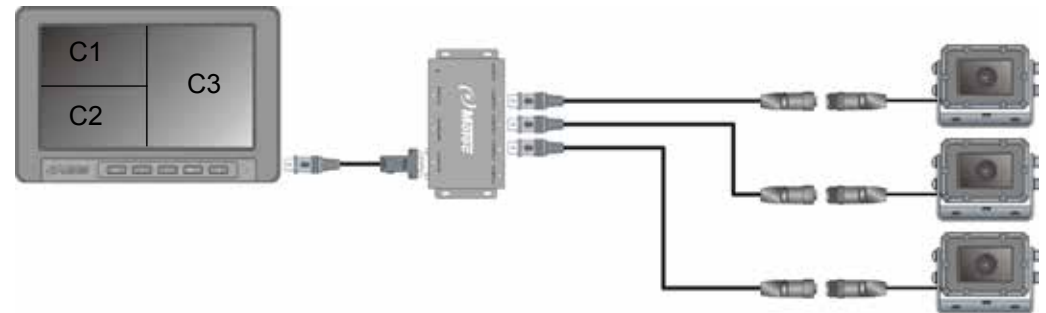
Rear- and front-view monitoring



A better view in rear and front room ensure cameras on transport manipulator. They serve for better handling of heavy workpieces between the furnace and press in an open die forging.

High visibility:

- Persons and objects around the machine
- No blind spots



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



MB1405-Quad

- Easy control of up to 4 cameras
- Split function – up to 4 images at one time
- Camera selection using control cables or operating unit
- Power supply for cameras and monitors



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Injection moulding machine

Workpiece monitoring



Cameras on the gripper and transport container secure control of the correct positioning of the workpiece or semi-finished product.

High visibility:

- Correct positioning of the workpiece/semi-finished product in the transport box



MD3100

- 10,2"-monitor (screen size 25,9 cm)
- Stable metal housing
- Protection class IP54 (front side)
- Crystal clear images



MB1405-Quad

- Easy control of up to 4 cameras
- Split function – up to 4 images at one time
- Camera selection using control cables or operating unit
- Power supply for cameras and monitors



MC3000B-4

- Robust housing of machined aluminium
- Extremely high chemical and mechanical resistance

Forklift

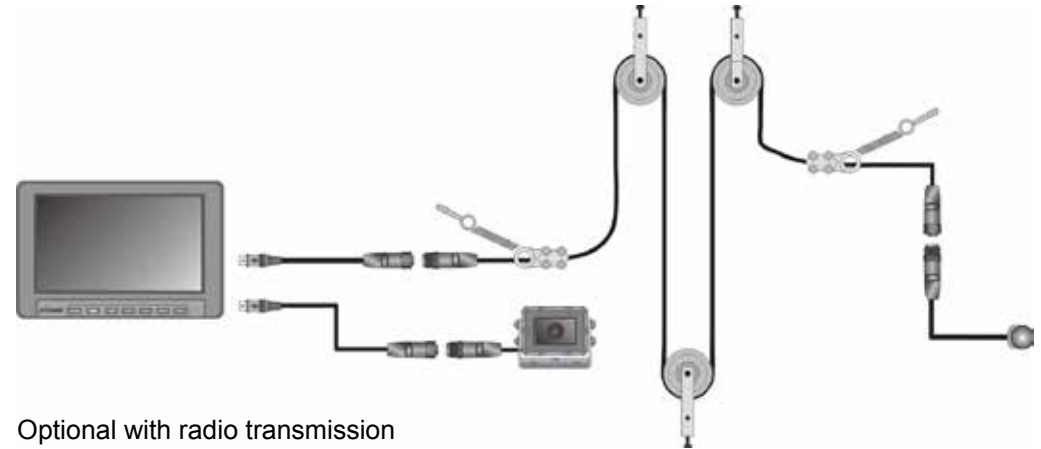
Coil transport



The driver's front view is blocked when transporting bulky loads such as coils.

High visibility:

- Persons in the machine track
- Obstacles behind the forklift
- Area in front of the forklift for secure lowering of the coils



Optional with radio transmission



MD3071A

- 7"-monitor (screen size 17,8 cm)
- Connection of up to 2 cameras
- Sharp and high-contrast images even in heavy sunlight
- 12 V...48 V power supply



MK554

- Stable and high-grade mast cable for laying through deflection rollers
- Waterproof plug connector



MC7000P-4

- Modern image electronics (CMOS-Chip)
- Adapts easily to changing lighting conditions
- Sharp images even in back-light

Customised solutions for numerous additional sectors

System solutions



Construction machinery and cranes



Forklifts and industrial applications



Utility vehicles in freight traffic and communal use



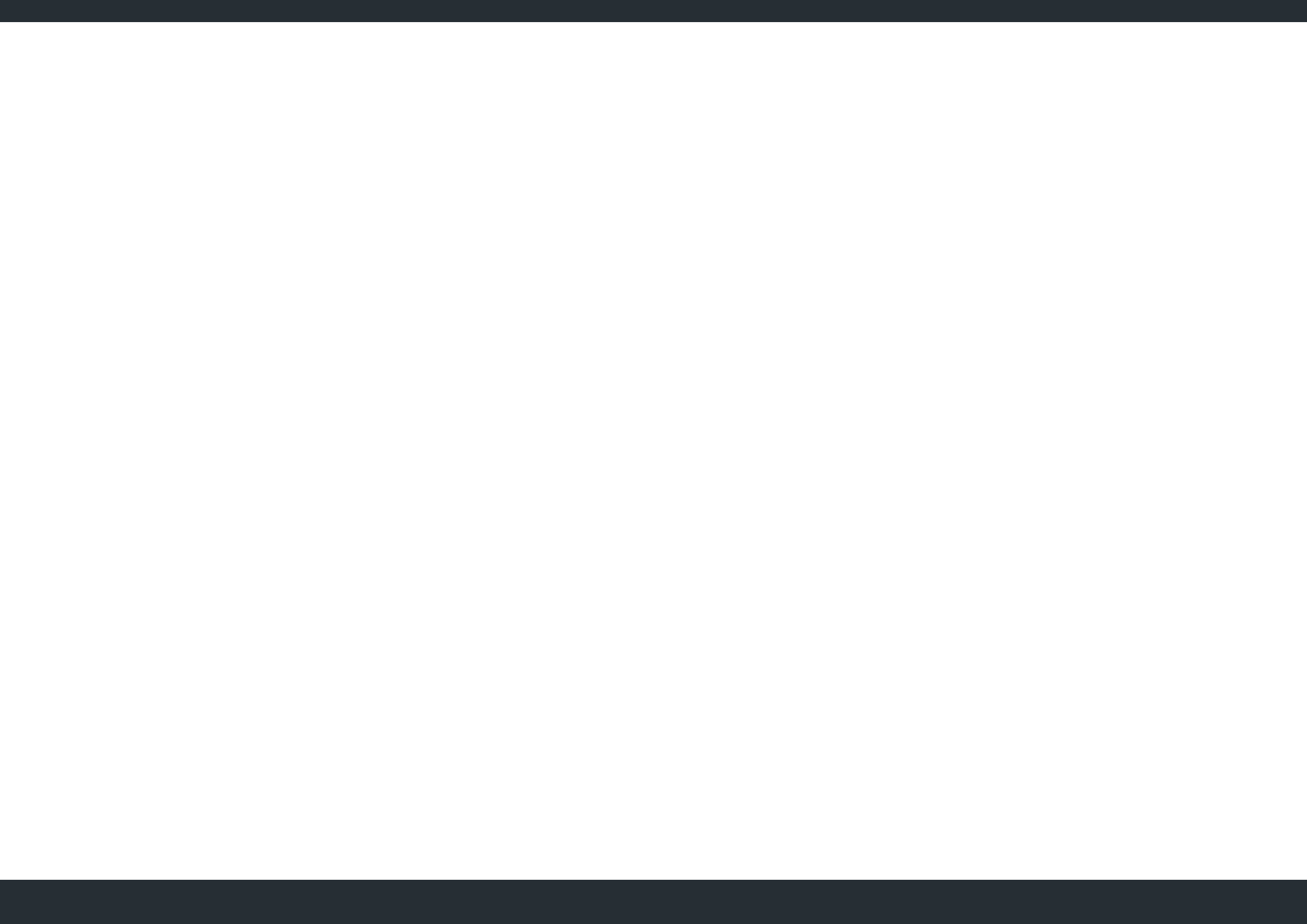
Armoured and all-terrain utility and transport vehicles



Agricultural machinery

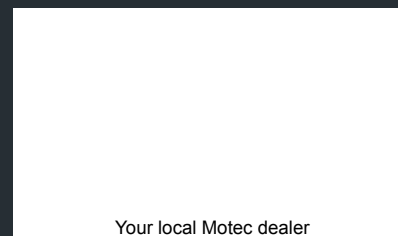


Track and railroad vehicles



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