



Reliable safety for construction

Motec Camera Systems for construction machinery and vehicles

Motec

Systematic safety

Whether freight, rail traffic, industry, municipalities, logistics 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 are relying on our systems and components since years and trust in our solution expertise.

Motec camera systems for construction machinery

Motec camera solutions help the machine operator to more safely manoeuvre construction machinery and vehicles which are often large and complex. The extremely robust and resistant heavy duty cameras help the driver to detect persons and objects in the path of the machine in a timely manner. In this way, Motec camera solutions help to fulfil the requirements of Machine guideline 2006/97/EG. 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 600 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 ISO14001 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



Wheel loaders

Rear view monitoring when loading



When the direct view is not sufficient for ensuring safety, the Motec cameras assist the driver in always keeping an eye on their surroundings.

Allows the driver to see

- Persons in the machine's blind spot
- Vehicles and objects which are not in the field of view



MD3070A

- Flat and compact 7" monitor
- Integrated background lighting
- High temperature resistance



MB1205

- Easy control of up to two cameras
- Mirror function for each camera
- Supports indicator-controlled side camera
- Automatic trailer detection



MC3000A

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

Crushers and screens

Monitor fill level and avoid material blockage



The MVR6000 and MVR6065 radio video system allow the driver of wheel loaders and excavators to simultaneously receive the camera image of the crusher and screen.

Allows the driver to see

- Fill level of the crusher hopper
- Material blockage in the hopper
- Foreign objects such as broken shovel prongs



MD3071

- Screen size 17.8 cm (7")
- Connection of up to two cameras
- Image mirroring
- Sharp and high-contrast images even in heavy sunlight



MVR6065

- Range: approx. 500 m
- 3 channels for trouble-free image transmission
- Frequency range 2.4 – 2.4835 GHz
- ISM Band
- Waterproof IP65



MC3000A

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Excavation and cargo handling equipment

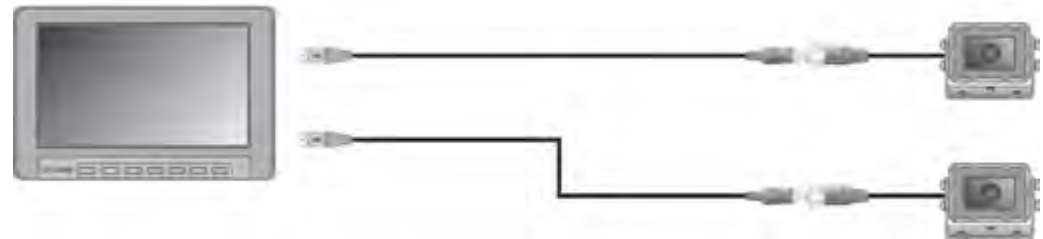
Rear and side view monitoring



The robust and shock-proof Motec cameras capture the entire area around the jib. The wide angles of view make it possible to capture the entire rear area of the machine.

Allows the driver to see

- Persons and objects in the work area of the construction machines
- Vehicles and persons when reversing



MD3072B-Quad

- Direct connection of up to four cameras
- Split screen - up to four images at one time
- Automatic camera selection
- Screen size 17.8 cm (7")
- Crystal clear images



MKW

- High-grade and robust system cable
- Waterproof connector
- With protective hose against mechanical damages
- Meets the highest requirements in accordance with the industrial standard



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Concrete pumps

Clear view of the rear of the jib



The camera is mounted on the inflexion point of the jib. Reinforced cables ensure reliable signal transmission and are precisely adapted to the machine.

Allows the operator to see

- Persons and objects behind the jib



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Tunneling machines

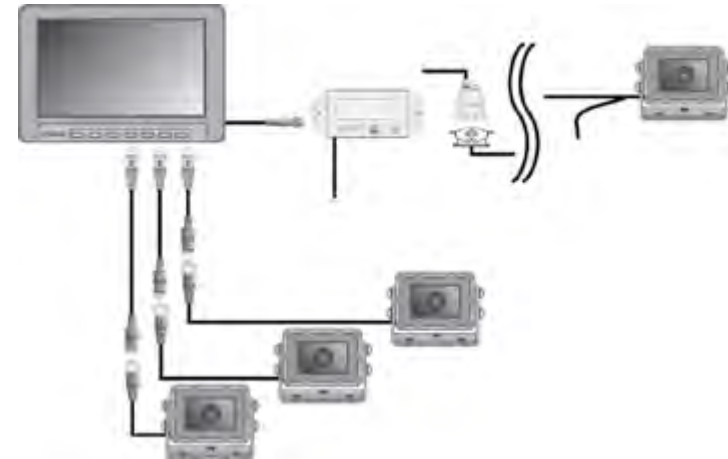
Pressure sluice and material transport monitoring



Motec camera systems are used for large drilling equipment to monitor the machine pressure sluice and the transportation of the material.

Allows the operator to see

- Material on the inside of the tunneling machine
- Instruments
- Operating processes



MD3072B-Quad

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- Split screen - up to four images at one time
- Automatic camera selection
- Screen size 17.8 cm (7")
- Crystal clear images



MTP

- Video signal amplifier
- Signal converter (analogue-digital) for twisted pair cables
- Automatic adaptation of the signal in accordance with the transmission length



MC3000A

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Concrete mixers

Fast and safe approach of the filling hopper



The point of approach cannot be seen without assistance. Cameras capture the area behind the drum and the driver can precisely approach the hopper without the need for a signaller.

Allows the driver to see

- Concrete pump hopper
- Persons and obstacles between the concrete mixer and the hopper
- Obstacles when manoeuvring



MD3052A-L

- Screen size 14.2 cm (5.6")
- Two switchable camera images
- Fits into every cabin
- Light protection hood
- Image mirroring



MC7000P-3

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



MC7000P-E

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

Lattice mast cranes

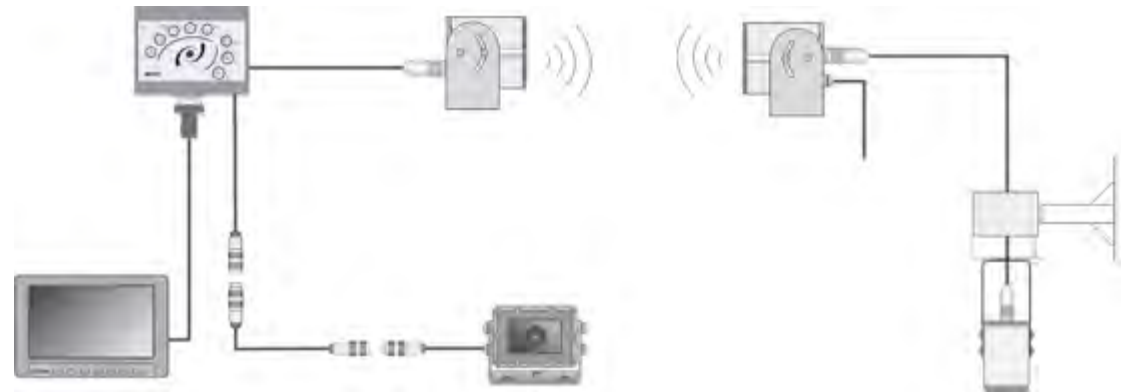
Load hook and route monitoring



Approach collisions and stack rope cost time and money. Motec cameras reduce the risk; the driver always has a view of the load hook, the route and the rope winch.

Allows the operator to see

- Load hook
- Persons and objects in the hazard zone
- Persons on the route



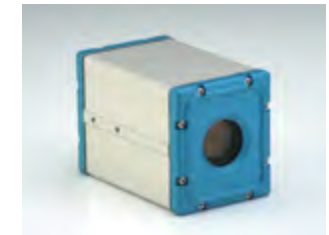
MD3070A

- Flat and compact 7" monitor
- Integrated background lighting
- High temperature resistance



MVR5200

- Trouble-free image transmission
- Range: approx. 300 m
- Up to 5 video channels
- ISM Band
- Video broadcasting 5.9 Ghz



MC5200-1

- Robust aluminium housing
- Sharp and high-contrast images
- Up to 26-fold optical zoom
- Horizontal image angle of 1.6° to 47.5° grade

Transshipment equipment

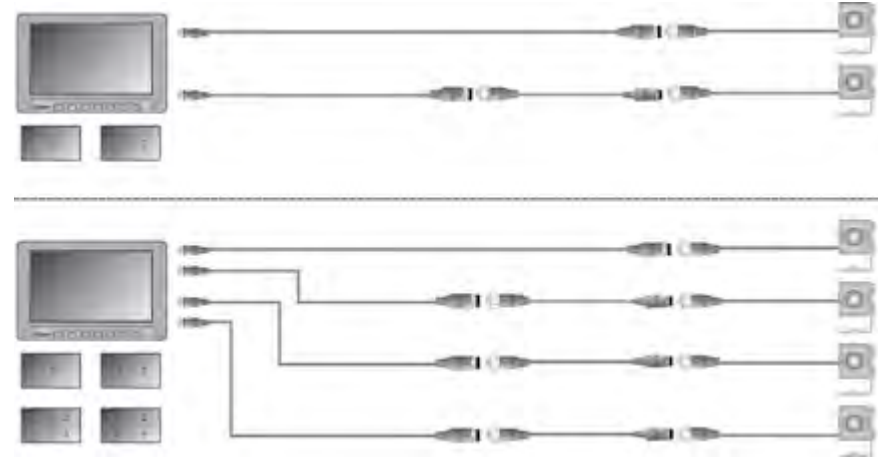
All-round visibility when handling materials



The robust and shock-proof Motec cameras capture the entire area around the boom. The wide angles of view make it possible to capture the entire rear area of the machine.

Allows the driver to see

- Persons and objects in the work area of the construction machines
- Vehicles and persons when reversing



MD3072B-Quad

- Direct connection of up to four cameras
- Split screen - up to four images at one time
- Automatic camera selection
- Screen size 17.8 cm (7")
- Crystal clear images



MKW

- High-grade and robust system cable
- Waterproof connector
- With protective hose against mechanical damages
- Meets the highest requirements in accordance with the industrial standard



MC7000P-E

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

Telescope cranes

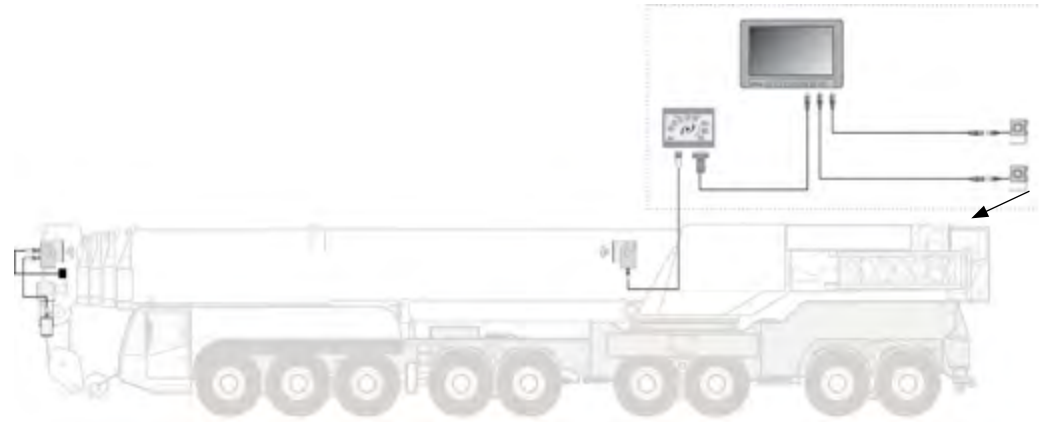
Safe manoeuvring



Motec motor zoom cameras allow the driver to approach loads more quickly and accurately. An additional rear view camera increases the manoeuvring safety.

Allows the operator to see

- Load and load hook
- Operating environment
- Persons and objects in the blind spot of the crane



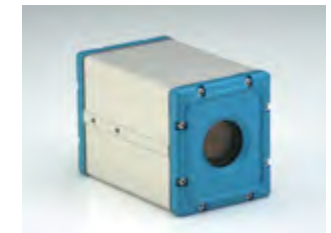
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MVR5200

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Horizontal drilling equipment

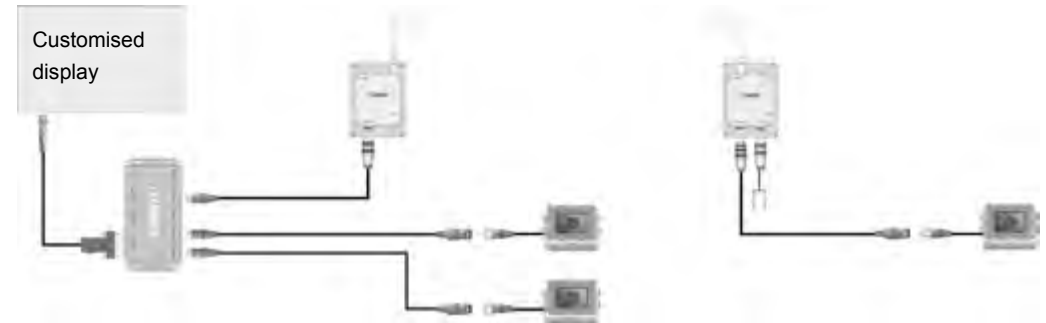
View of thread shaft and target pit



Depending on the machine type and equipment, certain areas in horizontal drilling technology are difficult to see or completely invisible, such as threaded shafts, crushing equipment or the target pit.

Allows the operator to see

- Thread shaft for the drill pipe
- Threaded crushing unit
- Target pit



MB1405-Quad

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



MVR6065

- Range: approx. 500 m
- 3 channels for trouble-free image transmission
- Frequency range 2.4 – 2.4835 GHz
- ISM Band
- Waterproof IP65



MC3000A

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

Mobile harbour cranes and cargo handling equipment

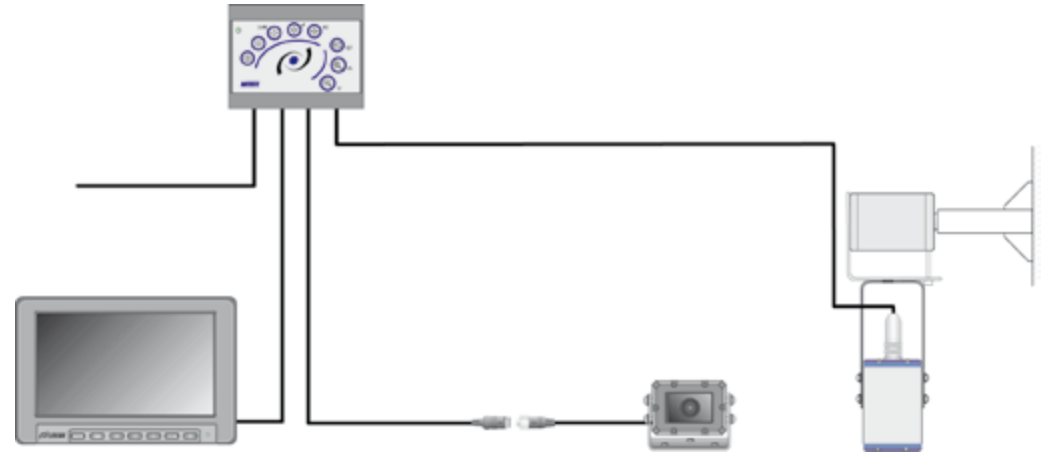
Quicker and safer material handling



The Motec crane camera allows the crane operator a direct view of the hull when lifting and lowering loads which makes it possible to move loads more quickly and safely.

Allows the operator to see

- Load hook
- Position to other containers and objects
- Distances to the hull



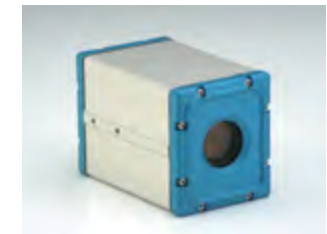
MD3070A

- Flat and compact 7" monitor
- Integrated background lighting
- High temperature resistance



MBE5200

- Digital control of camera and radio system
- Compact camera via 2nd connection
- Functions can be controlled by external signals
- Connection of a second monitor is possible



MC5200-1

- Robust aluminium housing
- Sharp and high-contrast images
- Up to 26-fold optical zoom
- Horizontal image angle of 1.6° to 47.5° grade

Mobile harbour cranes

CANBUS controlled Video control unit MVCU1500

The Motec motor zoom camera provides the machine operator with an optimal view of the hook load and thus contributes to quick and efficient material handling. The system connected to the CANbus-capable MVCU1500 control unit generally consists of 2 motor zoom cameras and 6 fixed focal length cameras whose pictures can be displayed in various image modes on up to 2 monitors. The system can be directly controlled by the internal machine control display via the CAN interface.

Allows the operator to see

- View of the hook load
- Position relative to other containers and objects
- Distances to the hull
- Monitoring of the machine and control area
- Monitoring of the area behind the vehicle



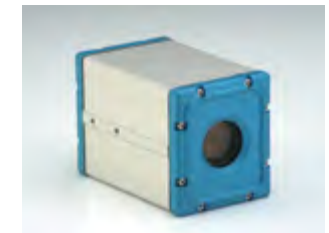
MD3100

- Screen size 25.9 cm (10.2")
- Stable metal housing
- Protection class IP54 (Front side)
- Crystal clear images



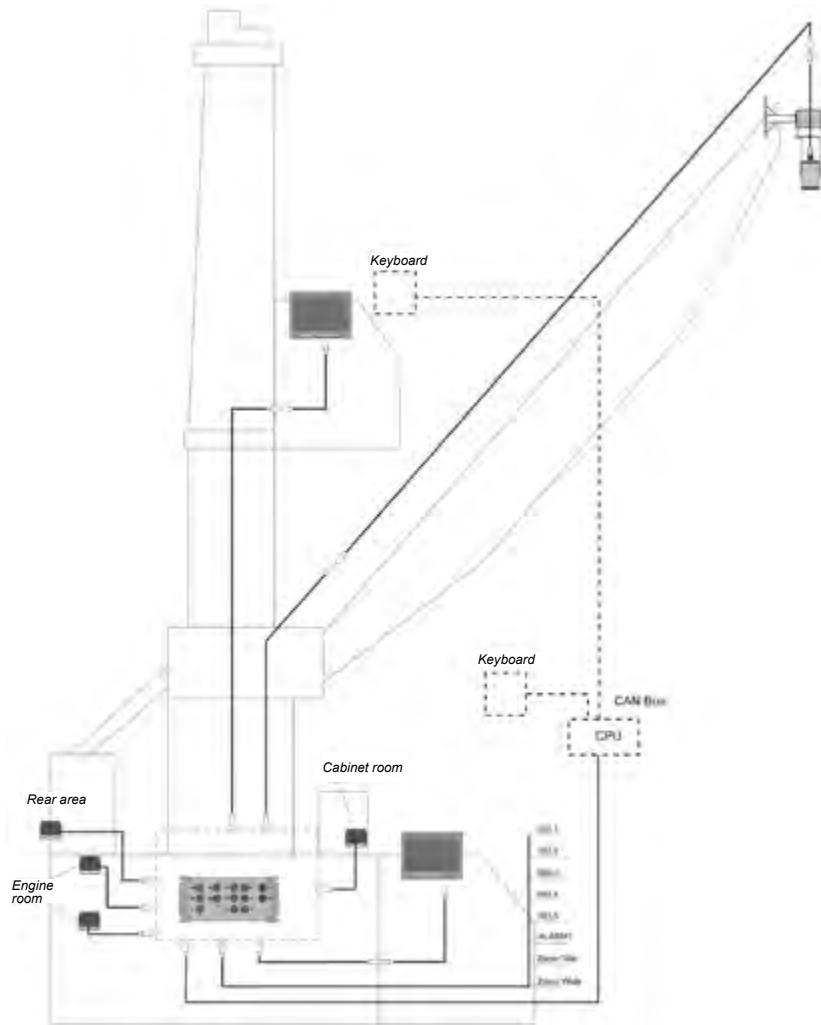
MVCU1500

- Freely programmable image display
- Up to 6 fixed focal lengths and 2 motor zoom cameras
- Choice of activating cameras using freely programmable control cables or CAN Bus



MC5200-1

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- Sharp and high-contrast images
- Up to 26-fold optical zoom
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Rotating tower cranes

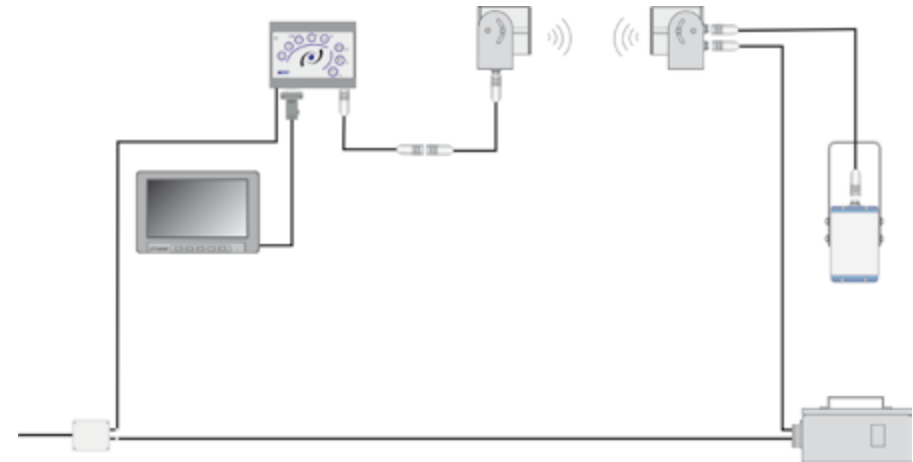
Move loads safely and without damages



A camera mounted on the trolley allows the crane operator a secure view of the work processes, allowing timely avoidance of obstacles and inspection of the hanging load.

Allows the operator to see

- Obstacles at the construction site
- Correct attachment of the load
- Persons in the pivoting range



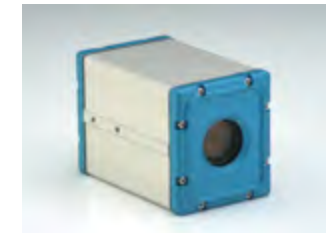
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Luffing jib cranes

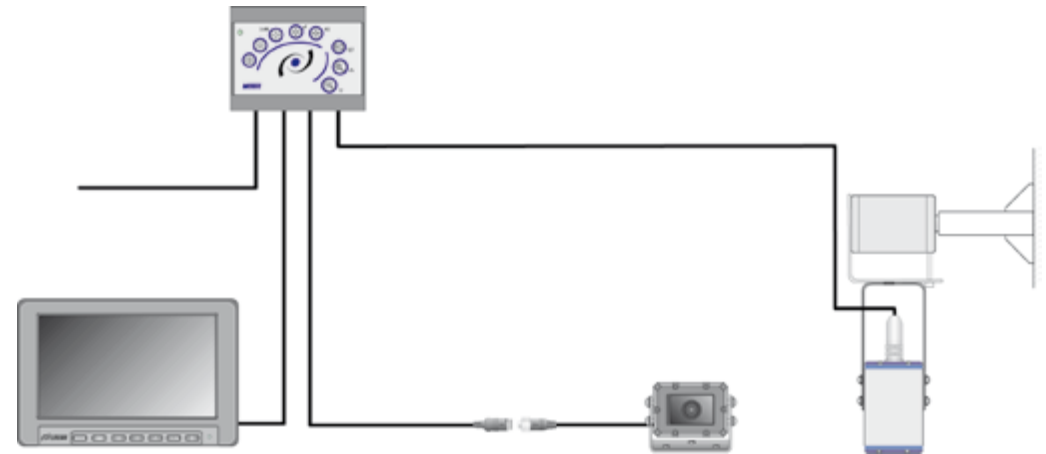
Always an eye in the load



Depending on the angle of the jib, a suspended mount always keeps the camera perpendicular. The crane operator always has a view of the hook and can move the loads more precisely.

Allows the operator to see

- Load and load hook
- Persons and objects in the hazard zone



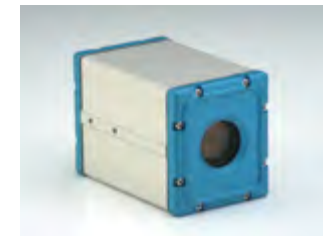
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Container- and ship-to-shore cranes

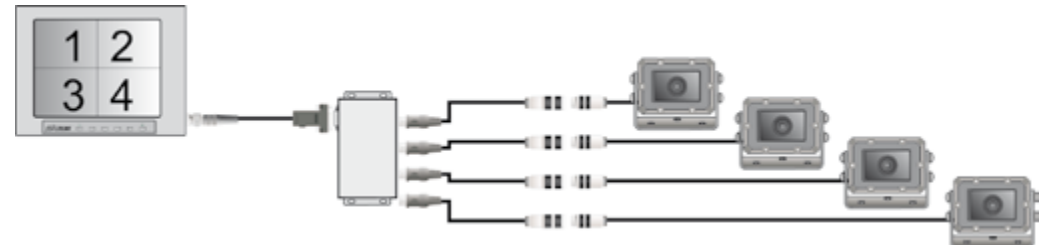
View of the route when handling containers



Cameras capture all operating ranges and the routes of the crane. A control box enables the simultaneous display of up to four camera images.

Allows the operator to see

- Persons in the hazard zone
- Objects and obstacles in the crane's path



MD3100

- Screen size 25.9 cm (10.2")
- Stable metal housing
- Protection class IP54 (Front side)
- Crystal clear images



MB1405-Quad

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



MC3000A

- Robust housing of machined aluminium
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Deck cranes

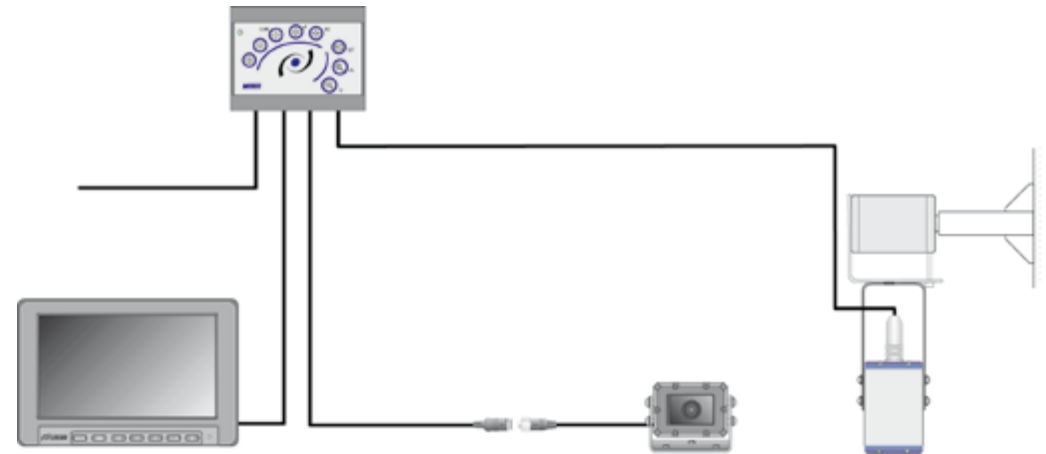
Quicker and safer material handling



The Motec motor zoom camera allows the crane operator a free view of the hull when lifting and lowering loads which makes it possible to move loads more quickly and safely.

Allows the operator to see

- Load and load hook
- Persons and objects in the hazard zone
- Distances to the hull



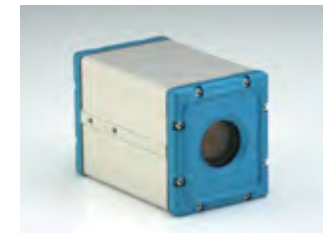
MD3070A

- Flat and compact 7" monitor
- Integrated background lighting
- High temperature resistance



MBE5200

- Digital control of camera and radio system
- Compact camera via 2nd connection
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- Connection of a second monitor is possible



MC5200-1-EX

- EX-protection
- Robust aluminium housing
- Sharp and high-contrast images
- Up to 26-fold optical zoom
- Horizontal image angle of 1.6° to 47.5° grade

Offshore cranes

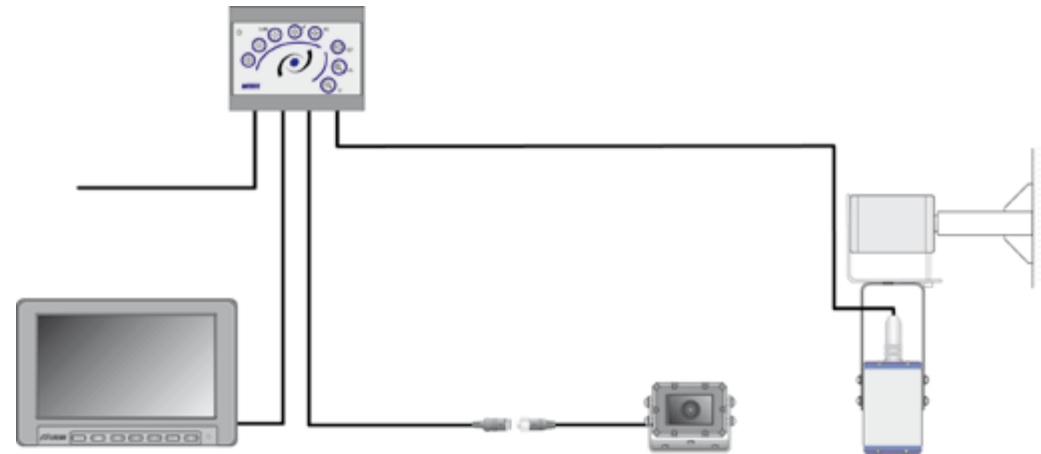
Safe material handling in explosion-proof area



The explosion-proof Motec camera allows the crane operator to approach loads more quickly and accurately. This makes it possible to avoid costly downtimes caused by incorrect winding and unwinding.

Allows the operator to see

- Distorted winding and unwinding of the load rope
- Slackrope
- Diagonal pull of the load rope



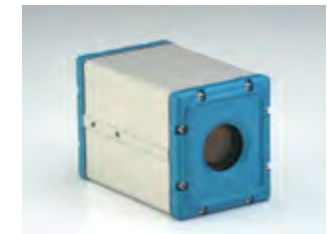
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Dredgers

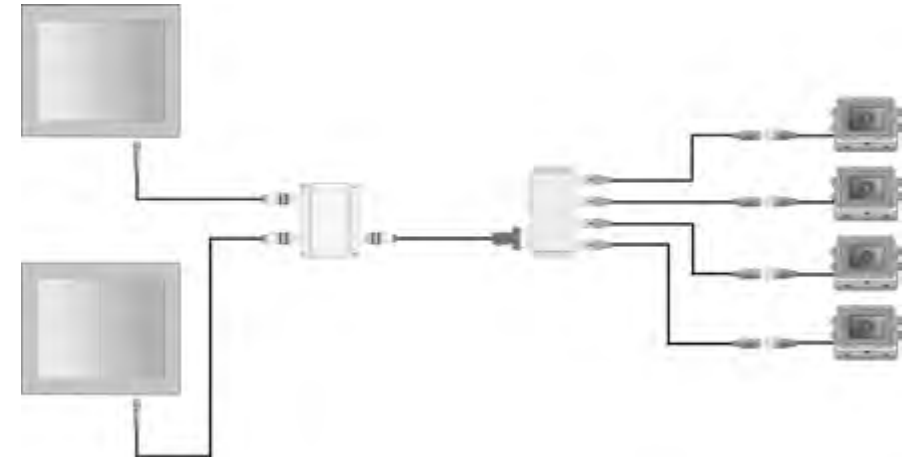
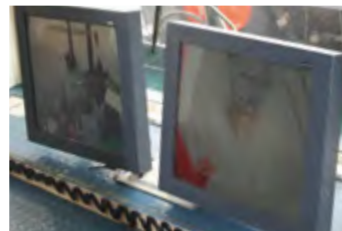
Special solutions for offshore applications



Four cameras send your images by cable and can be simultaneously displayed on various monitors. The systems are adapted for the high demands of offshore applications.

Allows the operator to see

- View of the engine compartment and anchoring
- Monitoring of lifting gear
- View of the twist drill



17" monitor

- For industrial and stationary applications
- Robust and resistant housing
- Housing protection class IP65 (front side)



MV14

- Distribution of the camera signal onto up to 3 monitors
- Amplification of the camera signal



MC3000A

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- Extremely high chemical and mechanical resistance

Customised solutions for numerous additional sectors

System solutions



Construction machinery and cranes



Utility vehicles in freight traffic and communal use



Agricultural machinery



Forklifts and industrial applications



Industrial systems and vehicles



Armoured and all-terrain utility and transport vehicles



Track and railroad vehicles



Maritime and offshore applications



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