

Regulations for mirrors

Fields of vision for European mirror regulations 2003/97/EC



- Blind spot
- View through the side screen
- Sidewalk mirror class V, 300 mm radius
- Main mirror class III
- Wide-angle mirror class IV, 300 mm radius
- Mandatory view EU-standard front side, class VI

Blind spot



The blind spot is any area around the vehicle not visible to the driver. Any road users present in the blind spot area are at risk since they cannot be seen. Large trucks and busy traffic conditions increase dangers on the roads, especially that of the blind spot. Every vehicle has a number of blind spots: in front, behind and at the side area of the vehicle. The blind spot situated on the right hand side of the vehicle is particularly dangerous as it makes turning right extremely hazardous.

The blind spot problem can however be solved with the use of Orlaco's vision solutions!

3-Mirror concept



Additional mirrors are not the solution

The government and European Union have suggested additional mirrors as a solution to the blind spot problem and with the introduction of new regulations are forcing you to take action. By installing more mirrors however, you cannot be guaranteed full visibility of the road and the chance of having an accident is still (too) great. Furthermore, the driver of the vehicle will have to focus on several mirrors at the same time, reducing his field of vision. The best solution to this problem is installing an Orlaco front vision system to the vehicle. You can read more about this system on the next page.



The camera is positioned at the same viewing height as the mirrors.

FrontCam



The front view system allows for excellent visibility in front of, to the front right hand side and to the side of the vehicle. The camera is installed on the same viewing height as the mirrors and the monitor fits easily into the vehicle's cabin.

Your advantage

- No more blind spots on the front right hand side or to the side of the vehicle.
- Improved visibility with fewer mirrors (the front, pavement and blind spot mirrors are not necessary).
- You comply with all current regulations.



- Mandatory European field of vision: category VI
- An Orlaco camera monitors the category VI fields of vision as well as other areas

Rear view



It is very difficult to reverse a vehicle in busy traffic conditions. The risks of being involved in an accident are (too) great, as the driver often cannot see what is happening behind his vehicle. Another problem is the noise from a reversing beacon on a vehicle when it has to reverse in built up areas in the early morning or late at night. The government and the European Union are encouraging companies to take measures to overcome these problems. Orlaco's reverse-vision system ensures silent and safe reversing. With this specific vision system, you will be able to kill two birds with one stone! The reversing beacon is not necessary and thanks to the camera and monitor, the driver now has an extra 'pair of eyes'. The cameras are fitted to the rear of the vehicle or in some cases on the side. The driver is able to keep an eye on all situations to the rear of the vehicle with the help of the self-activating monitor and is able to independently manoeuvre his vehicle without having to rely on instructions from others.



Navigation systems



The advantages of the camera monitor systems

- Full visibility of the blind spots to the side and rear of the vehicle.
- Guaranteed high quality images on the monitor, even at night or during dusk.
- Heated camera lenses, ensuring clear visibility during all weather conditions.

The advantages of the navigation system

- Route information available with the help of 'drivers view and a friendly voice.
- Improved efficiency, resulting in economical driving.
- The system will inform you of traffic jams or road closures and provide you with an alternative route.

The advantages of combining two systems

- A reduction in costs: the combined system is cheaper than two separate systems.
- A saving on space in the vehicle's cabin: one monitor will provide all the necessary information.

You will benefit from convenience of a navigation system when your vehicle is standing still or travelling at speeds above 30 km/hour.

What does this mean for you?

The main product features are

- 1. Guaranteed quality.**
All our products and our organisation are ISO 9001-2000, EMC and 2003/97/EC certified. The 2003/97/EC certification conforms to European mirror regulations.



- 2. Sunlight-resistant.**
High quality images even in direct sunlight.



- 3. 100% waterproof.**
100% waterproof guarantee thanks to the camera encasement that is filled with dry nitrogen.



The three most important advantages of Orlaco's vision solutions

- The driver will have greater comfort and peace of mind as all the blind spots will be visible.
- Reduced damage means a decrease in down-time, therefore lower costs, and fewer problems.
- The systems fit neatly into the vehicle's cabin; an Orlaco compact monitor is aesthetically pleasing to the eye in the cabin.

Your Orlaco dealer is:



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Fire department



A fire engine or emergency vehicle on its way to an incident has 'right of way' in the traffic. Unfortunately, fellow road users do not always grant right of way. It is therefore essential that the driver of the vehicle has optimal visibility of the road.

An extra 'eye' on cranes

It is possible to turn an unmanned crane into an observation platform by placing an Orlaco camera on the crane's basket and a monitor in the operators' position. During a major incident the system could be used to keep an eye on specific people in the crowd for example. At a glance the operator could see where disturbances are originating so emergency services are directed to that location.



Off-road



Orlaco vision systems are particularly suitable for professional use in off road conditions. The camera monitor systems are shock and vibration resistant and guarantee a clear sharp image even under the most extreme conditions. The system is also designed for use in low light. The camera actually has better vision in the dark than the human eye. High quality materials and strict quality controls guarantee reliability and a long product lifespan.



All Orlaco vision systems comply with the strictest off-road requirements.

Public transport



Photo: copyright Bombardier

The use of cameras on public transport in order to increase overall security is becoming more and more popular. Passengers and people working in this sector e.g. on trains, buses, metros and trams, and on station platforms, feel much safer when cameras have been installed. The camera systems can also store the images on video, enabling the authorities to analyse incidents and gather information in order to claim for damages and identify and prosecute criminals. According to a test done by the Dutch Railways, damage caused due to vandalism decreased enormously once security cameras were installed. A test done on eight trains showed that vandalism costs decreased in one year from 140.000 euro to 80.000 euro.



Protective camera cover pipe-installation

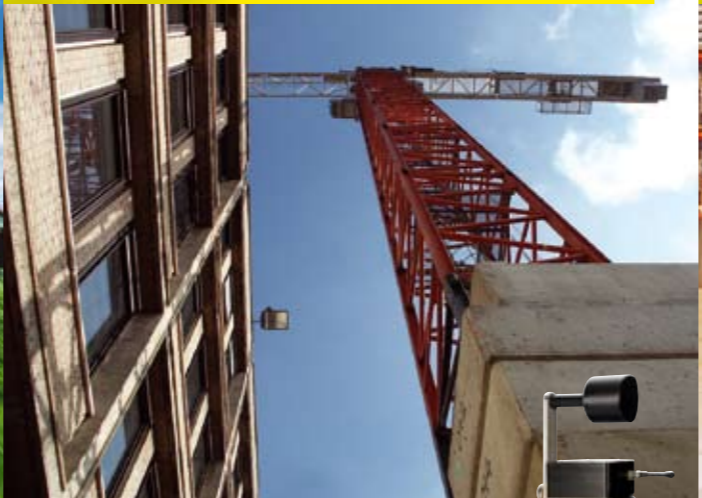


Protective camera cover wall-installation



Protective camera cover ceiling-installation

Cranes



With Orlaco, a crane driver can work more safely, efficiently and accurately. In this way, you save more than just time. There is less chance of lengthy and therefore costly work interruptions. Orlaco offers vision systems for various types of cranes.

The advantages of Orlaco crane view systems include

- View of work areas behind and above buildings and obstacles, in situations in which you would be 'blind' without the camera.
- A clear view of the hook and what is going on around it, which improves control, thanks to the Auto Focus zoom camera.
- Safety: a clear view of the work area helps prevent accidents.
- Labour-saving: with the camera, the driver can do more on his own.



- Less damage: improved view of the work area means greater manoeuvrability.
- Increased efficiency: the camera will help you work more quickly.
- Certain types of cranes can be fitted with a winch vision system.

Fork-lifts



Lifting and positioning pallets at extreme heights requires precise working. A small mistake can cause damage to the pallet or racking. With an Orlaco camera every pillar and horizontal beam in the warehouse can be clearly seen on the monitor ensuring full visibility. The image shown on the monitor is extremely accurate and sharp. The driver is also able to see in poor lighting conditions, thanks to the camera's built-in illumination function.

The advantages of Orlaco camera systems on forklifts include

- Working more efficiently.
- Preventing damage.
- Preventing neck and back problems.

Maritime



Orlaco can offer you watertight cameras with specific viewing angles for each situation. A lift and turn unit with a zoom camera can be mounted on the ships bow. The ship's captain can follow everything on a built-in monitor on the bridge, allowing him therefore to work more efficiently and safely.

The Orlaco cameras are waterproof and provided with a heated lens so that they will function in all weather conditions. The hardened lens glass will also remain scratch-free.



Explosion proof



THE SMALLEST EXPLOSION PROOF CAMERA

Orlaco offers the smallest explosionproof camera in the world.

It is advisable to have a limited amount of people present when working in 'explosion proof' situations. It is however necessary that these EEX-zones can be viewed from a safe distance.

Orlaco has developed a special solution for these specific situations whereby the camera functions as the 'missing eye'. This product is called the 'EEX Compact Colour Camera'. It is unique in the world as it is explosion proof as well as being compact. With the use of this vision solution, an operator for example in the petrochemical industry is able to view the EEX-zone and not have to worry about other people who could possibly be present in the particular area. Shell, Total and BP are already successfully using this innovative Orlaco vision system.



The camera is also being used successfully as part of the CCTV system on board sea-going tankers (LNG, oil, chemical), offshore platforms (cranes, drilling operations) and onshore locations (petrochemical industry).

The organisation

Orlaco is a Dutch company that has been developing and supplying effective vision solutions with camera-monitor products for more than 16 years for various forms of transport, on the road and in the water. Orlaco has been so successful that it has become a market leader and is well known nationally and internationally for its expertise, its extensive innovative capabilities and the quality of its products and services. The Orlaco organisation as well as its advanced dealer and distribution network ensure excellent advice and on time delivery of all products. This has resulted in a large, satisfied customer base in the Netherlands and the rest of the world. Our camera systems are the solution to all your vision problems! For more information, see www.orlaco.com. If you wish, please feel to contact us directly or one of our dealers.

Quality

We offer worldwide service and support. Orlaco manufacturer these vision systems under the strictest quality standards and is ISO 9001-2000 and 2003/97/EC certified. The E-mark guarantees that the camera system is not sensitive to outside interference and that it does not cause interference itself.



VISION SOLUTIONS

