

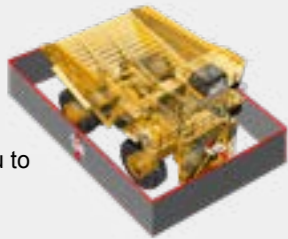


Examples of **Vision solutions**



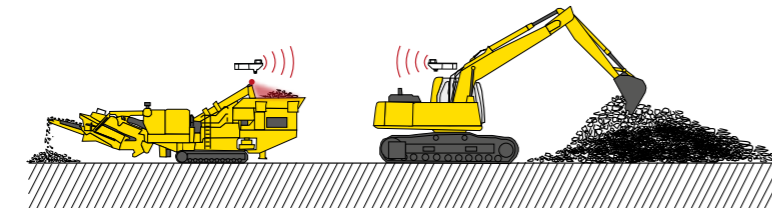
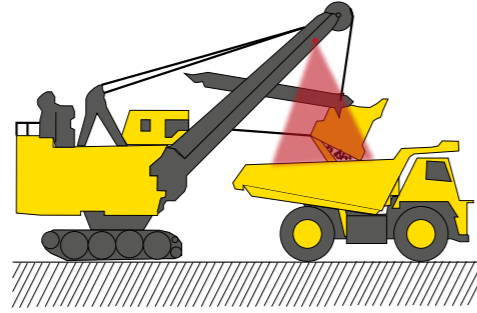
Orlaco's vision solutions are suitable for professional use on off road- / mining machines. The camera and monitor systems are **shock- and vibration proof** and present a **sharp image under extreme conditions**. Quality checks ensure excellent performance and longevity.

For Orlaco, safety is paramount at all times. There are many blind spots around machines, as a result of which the operator has an inadequate field of vision in his immediate vicinity. The **ISO 5006** standard states that an imaginary line 1.5 m high and 1 m round the machine must be visible. **Orlaco's** vision systems will **enable** you to satisfy **the standard**.



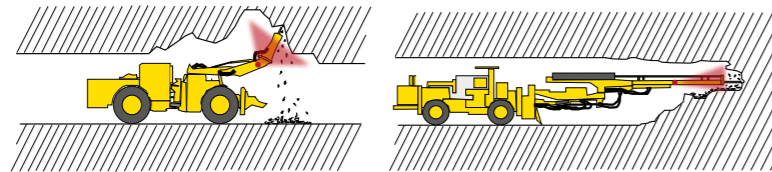
Loadview

Camera fitted on the boom of an excavator to allow quick and efficient loading of a dumptruck.



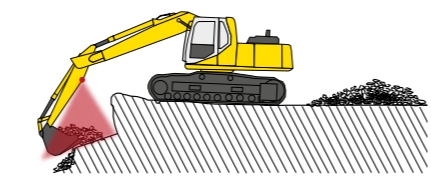
Processview

Transmitter-Receiver system. Monitor in excavator receives image of camera placed on the bucket of a crusher to clearly view the process which can increase efficiency and / or prevent damage to the machine.



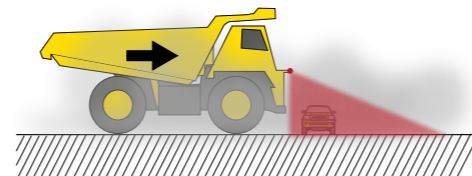
Toolview

Camera system allows good view of drilling process in difficult and / or dangerous area's. Operator can execute drilling process with good vision on safe distance under better ergonomic conditions.



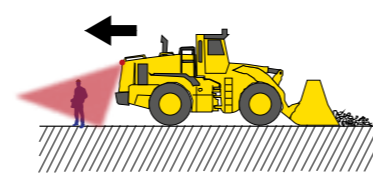
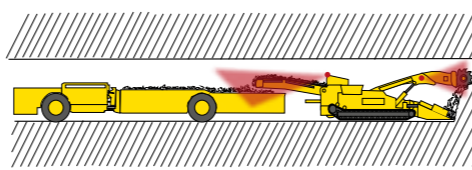
Toolview

A camera can be placed in such a way to give the operator good vision on it's working tool where direct vision is not possible.



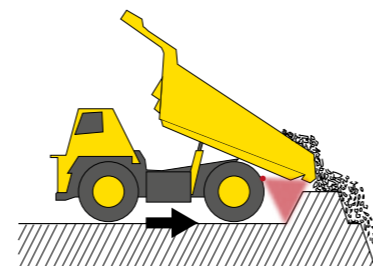
Frontview / Allroundview

Camera system prevents blind spots in front or if required allround the machine. Increase of safety and can avoid damage of machine and/or infrastructure.



Rearview

Camera placed on backside of a machine gives good vision for operator to allow safe reversing and to prevent damage to the machine.

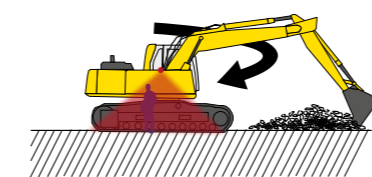


Rearview

Rear camera gives operator good vision when driving reverse at unloading area to prevent tipping over.

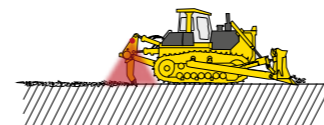
Process/Toolview

With the installation of a single or multiple cameras, a direct overview of the drilling process and transport process is secured. For additional ease of use and safety, we also supply a Transmitter-Receiver system. This allows the operator to see what is happening at a distance and to always be aware of the status.



Sideview

If you are continuous turning, you cannot always see what is happening next to the machine. A Sidecam is then the solution, certainly when the turning space is limited.



Toolview

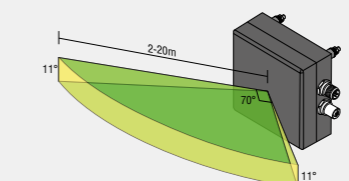
Whatever it is you are doing, you want to see what is going on. However, the larger the tool, the more difficult it is to have sufficient vision.

Examples of **Active safety solutions**



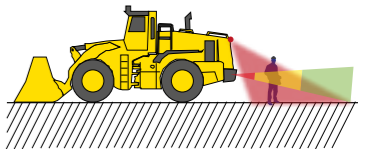
RadarEye is an active view system and is suitable for integrating with monitors that have a PAL/NTSC input. It is designed to detect and see objects in zones obscured from the operator's view. The pulsed-time-domain radar systems detect stationary as well as moving objects in a designated coverage area.

With this rearview system the operator is actively warned with audible tones that increase in rate as objects come closer. When an object is detected this can be seen on the monitor and the operator can respond. This will prevent vehicle damage and damage to other equipment due to backing accidents. The radar units have a rugged design, are shockproof and have waterproof housing.



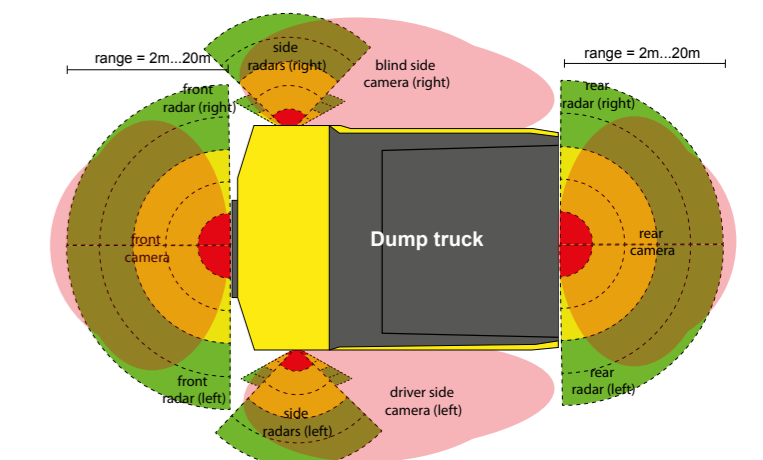
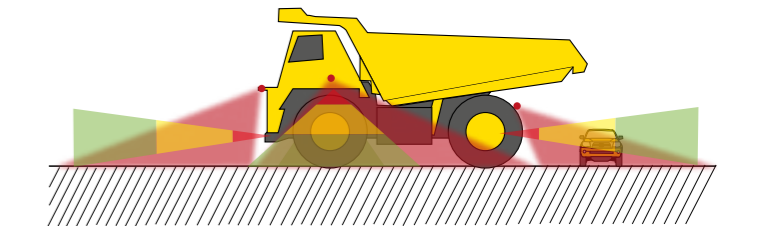
RadarEye Rear

RadarEye Rearview system for optimal safe reversing. This active view system detect and see objects of the back side of the vehicle.



RadarEye Around

RadarEye Roundview system for optimal safe driving. This active view system detect and see objects around the vehicle.



Camera & Monitor possibilities

For more information about Cameras, Monitors, Cables and Accessories please visit www.orlaco.com.

**Compact Color Cameras**

- There is an aperture angle for every vision solution
- Heated lens glass, therefore no problems with condensation or frost
- Shockproof and vibration resistant
- Watertight IP69K according to IEC 60529
- -40° to +85° operating temperature

**Compact Camera InfraRed LED**

- Lens angle 69° / 118°
- Watertight IP69K according to IEC 60529
- 4 High Power Infrared LEDs 850nm
- Shockproof and vibration resistant
- -40°C to +85°C operating temperature

**Display 7" RLED**

- LED Backlight technology
- Brightness automatically adjust to light
- Shockproof and vibration resistant
- Watertight IP67 according to IEC 60529
- -40°C to +85°C operating temperature

**Monitor 12"**

- LED Backlight technology
- Brightness automatically adjust to light
- Shockproof and vibration resistant
- -40°C to +85°C operating temperature

**MultiView box**

- Full screen, split screen, picture in picture or quad split
- 4 channels
- Stainless steel housing
- Serial Orlaco Monitor needed

**SRD Sensors**

- Integrated in Camera-Monitor system
- Active detection system
- 2m-20m detection area, divided in 5 equally sizes segments
- Obstacle reaction delay 50ms

**SRD Interface box for existing monitors**

- To connect the RadarEye active detection system to non-radar (third party) monitors
- Set consists of interface box, external speaker, adapter plug and open wired multicable with 8p connector

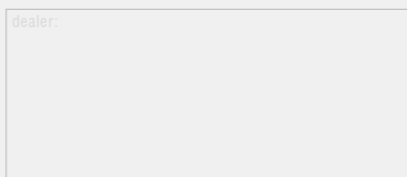
**Orlaco cables**

- **Armored cable specially for severe off-road conditions**
- This is due to the additional internal galvanised braided steel wire armor
- **Multi cable standard**
- This standard cable can be used on all HE machines if no special requirements are needed

vision solutions

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Improved
Safety and
EfficiencyEnhanced
Ergonomics
and ComfortCertified
Quality

Machines have become increasingly more advanced and capable. However people are still required to operate them. The operator of a large machine has limited visibility in his immediate vicinity. This is when damages occurs, either to the machine itself or to people or objects in its surroundings.

Good vision is essential to allow the work to progress smoothly. Orlaco vision solutions improve operational efficiency and the results are an immediate economic benefit.

The seating position in a vehicle is standard, assuming an operator is sitting straight up. Limited vision dictates he must often move into unnatural positions to be able to follow what is going on and this can lead to his injury.

A vision solution from Orlaco gives the operator the additional eyes he needs, regardless of the machine or the location in which the work is being performed.



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