



*Greensight  
for any  
application!*

## **Greensight**

### **Detection, visualisation and alarm**

Greensight, the Active Safety Concept of Groeneveld, is a modular system that can be mounted to any customer specifications and contributes to reduction of damage and injury.



This brochure describes the loose Greensight parts, allowing you to determine for yourself what Greensight can mean to your organization.





### Greensight sensors

Greensight can detect the complete surroundings around a vehicle or machine. The large clusters have 6 sensors and the small clusters have 2 sensors. The sensors have been integrated in solid, plastic clusters, preventing them from getting damaged in case of minor impact or a firm touch. The sensors function under all weather conditions and are resistant to grit, sand and to frost and moisture, which makes them very durable and a good return on investment.

#### Adjustability:

The detection area can be adjusted for each cluster to any customers specifications. The maximum zone is 9 metres and the minimum zone is 10 centimetres.

- Ultrasonic detection system
- Unique combination possibilities for maximum detection and safety
- Rear/top/side detection possible with one system
- Full-colour monitor with split screen function and CAN bus connection
- Combinations possible with max. four cameras
- Alarm function in the cabin and/or on the outside of the vehicle/machine
- Combination possibilities with navigation systems and/or onboard computers



### Cameras

Ultimate safety is achieved by combining detection and alarm with visualization. Therefore cameras are essential and they are among the fixed options of Greensight. When cameras have been connected to the monitor, the driver/operator can use fewer mirrors and so maintain his focus. Cameras make difficult zones visible, such as the rear, front and side blind spots. Groeneveld cameras comply with the mirror directives.



### Full-colour monitor

The full-colour monitor offers the driver/operator visual control of a certain detection area.

The brightness of the display on the monitor is automatically adjusted to the environmental conditions. Therefore bright sunlight, darkness or dusk will no longer hinder visibility. The monitor indicates the safety zone, is easy to operate, has an acoustic alarm and can be combined with navigation systems and onboard computers.

#### Split screen:

The monitor has a split screen function. This offers advantages when several cameras have been connected. The driver/operator has full visibility of the entire risk zone and can

determine his focus himself by selecting a certain camera. Split screen functionality offers considerable advantages compared to mirrors. Everything comes together in one place near the driver/operator. This prevents an overload of information and makes focusing less fatiguing for the driver/operator; the work becomes safer.

#### Multifunctional:

Groeneveld has provided the monitor with a CAN bus and it can, apart from the overview function, also be used for the navigation system and the onboard computer.



### In-cab display

Instead of a monitor, Greensight is available with an in-cab display. This is a small alarm device that can be placed in the cabin that warns the driver/operator by means of acoustic and light signals about what is happening in the detection zone. The in-cab display is often used on excavating machines, wheel loaders and other types of machines with a relatively small cabin. The in-cab display is compact, conveniently arranged and can be mounted in every cabin.



### Smart alarm

Apart from warning the driver/operator, it is in some cases necessary to also alarm the surroundings outside the vehicle. This can be done by connecting the Groeneveld Smart Alarm: a powerful claxon that will certainly attract the attention of the bystanders.



### Greensight target areas

Greensight has been successfully applied in all imaginable combinations for many years:

- All vehicle types in road transport
- Off-road equipment
- Buses
- Trains and railway applications
- Airport vehicles
- Military vehicles at home and abroad

## TECHNICAL SPECIFICATIONS

Supply voltage: 12 or 24 VDC

#### Alarm zones

Alarm zones and detection area: possible by customer-specification

- Attention zone: 117.9 to 66.8 inch
- Danger zone: 66.8 to 27.5 inch
- Immediate danger of collision: 27.5 to 0 inch
- Min. dimensions of obstacle: Ø 2.9 inch

#### Weights

- Control unit: 3.5 lb
- Detection unit: 1.0 lb
- Detection unit upper corner detection: 0.63 lb

#### Dimensions

- Detection unit (w x h x d): 4.8 x 2.7 x 2.6 inch
- Detection unit upper corner detection: 3.3 x 1.9 x 2.5 inch

#### Full-colour camera

Standard system camera: CCC 102°  
 Outside diameter camera: 2.9 inch (including support)

#### Monitor

Standard system monitor:

Dimensions (w x h x d): 7.6 x 5.8 x 2.4 inch  
 Optional monitor: TopIQ-monitor

#### Mirror directive and EMC

Greensight with recommended camera and monitors complies with the following standards:  
 Mirror directive (transport) EC/2003/97  
 EMC E marking 2004/104/E  
 EMC CE marking for earth-moving machinery ISO 13766  
 EMC CE marking for industrial trucks EN 12895\*

\* excluding version with monitor.

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## Groeneveld Durability from within!

With over 40 years of experience, Groeneveld is a market-oriented company that constantly anticipates supply and demand. One of these demands involves sustainability and the vision for the future with respect to less environmental impact. We can say with confidence that our products and solutions contribute to an optimum efficiency for our customers, such as reduced fuel consumption, minimum waste of lubricants, less damage and less standstill. All this contributes to a better environment. Groeneveld does not only offer efficiency, it also makes high demands on the internal organization itself. For example, we aim at optimization of all business processes, such as energy saving applications, use of raw materials that can be completely recycled, control of waste flows, and the education and training of employees. The Groeneveld Group has been certified for 9001 – Groeneveld Italy has been certified for 14001.

## Your efficiency is our challenge!



### **Twin** Heavy duty greasing systems

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Groeneveld has developed the Twin heavy duty greasing system especially for the toughest operating conditions. Twin is a parallel system that is often applied to off-road equipment and other vehicles or machines that usually operate under tough conditions. A Twin heavy duty greasing system protects throughout the service life of the machine. It is an investment that amply pays back itself through lower operating costs and greater availability of the equipment.



### **Oilmaster** Oil level management

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Oilmaster reduces the need for manually checking the oil level and topping up between surface intervals. This innovative product provides carefree oil management with reduced maintenance costs, oil consumption, time loss, environmental impact, and constant oil quality. Oilmaster is used in internal combustion engines in the transport and off-road sectors and in stationary installations.



### **SingleLine** The best in 0-grease

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Automatic single-line grease system with a pneumatic or electric pump. Groeneveld supplies the single-line automatic greasing system in a special version for trucks, trailers, buses, forklifts and many other applications. This system greases all greasing points simultaneously, at the right moment and with the correct amount of grease. Because of the regular greasing, vital parts such as the king pins and the fifth wheel coupling will remain well-greased at all times, so moisture and sand are kept out. Wear of expensive parts is reduced to a minimum without you having to give it a single thought. The benefits are time gain, no extra service stops, reduced wear, reduced repair costs and greater reliability.

