

**RK**  
safetec

**MORE SAFETY**  
MONITORING AND  
**MORE CONTROL**  
COMMUNICATIONS SYSTEM  
**MORE EFFICIENCY**  
FOR LARGE CONSTRUCTION SITES



**RK SAFETEC GMBH**





## “AS QUICK, EFFICIENT AND RELIABLE AS POSSIBLE.”

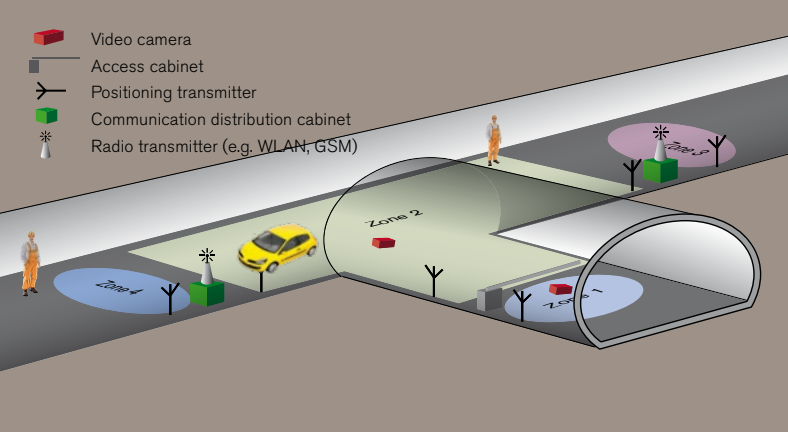
The main requirements of the client can be summarised in just a few words. Fulfilment is a lot less simple. The management of large construction sites presents a considerable challenge. There are always a large number of different partners, suppliers and employees to manage – again and again, with no time to waste.

We at RK safetec can offer you a monitoring and communications system that proves itself every single day on our national and international projects. “ZOKA” consists of several modules that can be selected and combined to suit your project-specific needs.

Tell us about your planned projects. We can devise an optimum solution for you.







Zone 2 (1 person, 1 vehicle), zone 3 (0 persons, 0 vehicles), zone 4 (1 person, 0 vehicles)

## ZO SYSTEMS FOR ACCESS CONTROL AND POSITIONING

The centrally monitored system allows you to limit access to people and vehicles with authorisation cards. This is done by giving them badges or tags that automatically open or close access barriers according to their authorisation.

Additional video monitoring provides further security at all entrances. Doors, gates and turnstiles can also be covered by the monitoring system.

Personnel monitoring is intended primarily for the personal safety of every employee, partner and supplier. In the event of an emergency, the personalised badge gives information about the wearer's exact position and is vital for an efficient rescue mission.

The tunnel is divided into various positioning zones to provide a detailed overview. A suitable zoning system can also be devised for large construction sites.



## K FLEXIBLE COMMUNICATIONS SOLUTIONS

Site communications play a key role in the safe management of construction sites. They ensure that proper connections with the outside world are maintained and information can be exchanged efficiently on site.

RK safetec has developed special communications distribution cabinets, which – when positioned at regular intervals and fitted with the appropriate communications solutions – can provide a reliable network for safety and security.

The basic configuration has an emergency telephone attached to the side of the cabinet. This robust fixed-line IP device creates a direct connection to the control centre as soon as the handset is lifted.

The position of the caller is clearly identified by the telephone. Several different systems are also available for mobile communications:

- WLAN radio including Push-To-Talk (PTT)
- WLAN data transmission
- GSM radio network
- Digital trunked radio (TETRA)
- Analogue radio systems

All mobile transmission stations are integrated into the communications distribution cabinet and connected to one another by an optical fibre network. This allows all data and information to be managed and monitored in the control centre.

This internal connection between control centre, tunnel, site offices and site facilities areas is simple to set up using various communications systems and contributes to cost-effective and efficient operation of the construction site.





## **A** USEFUL ALARM SYSTEMS

The communications distribution cabinets not only provide secure communication within the construction site or in the tunnel, they also have a valuable role in an emergency. Two rotating lights fastened to the distribution cabinet indicate the level of the alarm and are supplemented acoustically by a signal horn. The alarms are initiated in the control centre – either over the whole of the construction site or in individual sections.

Evacuation is monitored centrally using the access and positioning software. Even in the event of a mains power failure, our system with its integrated UPS units maintains perfect communication and positioning in the tunnel.

All safety-relevant components in the control centre also continue to operate. The communications distribution cabinets can also be used to connect to external devices such as mobile jet fans or air-quality measuring stations, providing them with power and allowing them to be monitored and controlled over a data connection.

## **S** ESSENTIAL POWER

Power supply to large construction sites normally requires complex middle voltage (MV) installations. These then supply power to the low voltage (LV) network that feed the distribution units and the construction lighting.

Additional reliability can be added in case of a power outage like e.g. a redundant power supply.

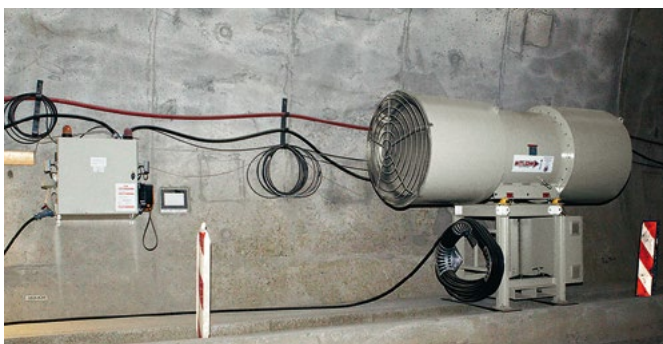
It is important to correctly interpret the power supply from the start, so that supply peaks can be correctly addressed. High-power consumer equipment may e.g. require an own power supply so that it does not complicate the network unnecessarily.



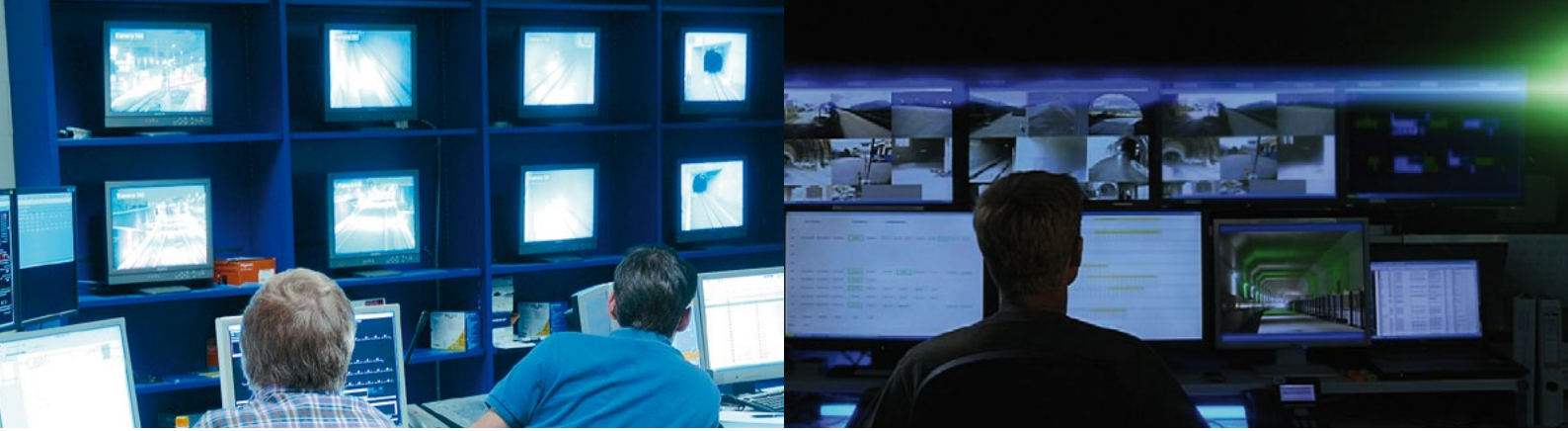
## **B** VISIBLE LIGHTING

From normal fluorescent tubes to the most modern and sophisticated LED technology!  
Our ZOKA system performs monitoring and control of lighting systems. An independent power supply in case of power failures is standard to ZOKA.

Irrespective of the size of the project, whether it is in a tunnel or an entire construction area - we have the best solution for your project.







# CONTROL CENTRE

## WITH A CENTRAL MONITORING SYSTEM

All the information from the various components of the control and monitoring system are brought together in the control centre. Here you gain an overview of the whole area and can locate all the people and vehicles on the construction site.

If required the system can also issue new authorisations, restrictions and control warning signals to alarm equipment. Safety has a special importance in the control centre. Even if "normal" reception is not available people can still be contacted by telephone.

**Z** ZUTRIFF  
ACCESS

We equip construction sites with cabinets, doors, gates and turnstiles as well as video monitoring to enable all entry points to be monitored, access authorisation checked and automatic access logging.

**O** ORTUNG  
POSITIONING

A smart positioning system gives you information on the people and vehicles that are in each zone of the site and where they are heading. Everyone can be quickly localised in a dangerous situation.

**K** KOMMUNIKATION  
COMMUNICATION

Modern technologies ensure an efficient and smooth exchange of information and data. We equip your site perfectly: with fixed line and emergency telephones, with GSM or WLAN wireless networks, with digital or analogue, trunked radio systems as well as standard methods for accessing the data network.

**A** ALARMIERUNG  
ALARM

In an emergency situation everyone working in the tunnel or building can be notified by visual and acoustic alarms. The level of severity is also distinguished via alarm. Monitoring air quality and other emergency indicators provide additional safety.



## RK safetec

RK safetec GmbH is a newly established company and has its origin from two companies with considerable experience. Rhomberg Bahntechnik GmbH and K.E.M. Montage GmbH have been combining their skills and working together in the field of construction for many years now. They have demonstrated this combined expertise on projects such as the northern exploration tunnel – part of the Brenner Base Tunnel, in which they were jointly responsible for the safety system.

At the largest railway construction project currently running in Austria, the Brenner northern approach tunnel, their responsibilities included all required temporary power supply to the construction site and lighting. The increasing demand for customised solutions has prompted the partners to combine their know-how in one company - RK safetec GmbH that can now offers its extensive services not just to the railway industry, but also extend them to serve all types and sizes of construction sites.

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