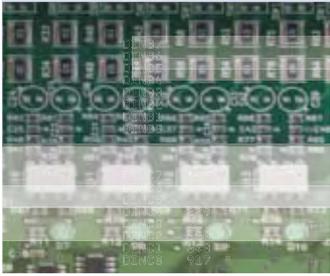


# ANTI-COLLISION AND ZONING FOR TOWER CRANES



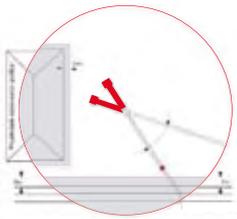
The risks associated with the use of tower cranes on jobsites – collisions between cranes, collision with high voltage electricity lines etc... may have serious consequences.

As a solution to these problems, SMIE has developed the technology for anti-collision and zoning systems for all jobsite situations.

## AC243 - Anti-collision in motion

The latest generation of zoning and anti-collision systems developed by SMIE, the AC243 is the fruit of an unequalled experience of more than 20 years acquired through thousands of installations throughout the world.

### Zoning



This function prevents the over-sailing of critical zones and of static obstacles (high voltage lines, railway lines, public places, schools...).

The crane can therefore work in proximity of the zone or follow its boundary in complete safety.

- Can define up to 15 zones
- Definition of zones with lines, circles, arcs or point by point
- Hook height management by threshold possible

### Anti-collision



In this case, the obstacle to avoid is another crane (hoist cable, jib, counter-jib, mast). The obstacle is no longer static but dynamic. The AC243 system allows cranes to track each other automatically at an optimum speed and distance in complete safety, therefore increasing the productivity of the site.

The AC243 system :

- Measures the position and speed of the load – slewing and trolley positions
- Calculates, in real time, the risk of collision with respect to the braking capacity of the crane
- Informs the operator if a collision risk is identified
- Implements a braking procedure as soon as a collision risk is identified

For an anti-collision solution, each crane must be equipped with an AC243 system.

## Inter-crane communication

In terms of communication, AC243 system offers you the choice of cabled connection (up to 30 cranes on one network) or wireless connection (up to 9 cranes per RAC3 network). For more than 9 cranes, several radio networks can be set up on the same site for inter-crane interference management.

### Wireless communication

The RAC radios are specially designed to suit the requirements of inter-crane interference management.

Developed around an industrial module, the RAC radio offers an excellent level of frequency stability for safer communication. Selection by software of up to 160 channels considerably reduces the problems of interference especially in dense urban areas.

### Options

BAZIL - prohibited zone activator

BAZIL is a prohibited zone activator for the selective activation and deactivation of 1 to 6 pre-defined zones.

### Options

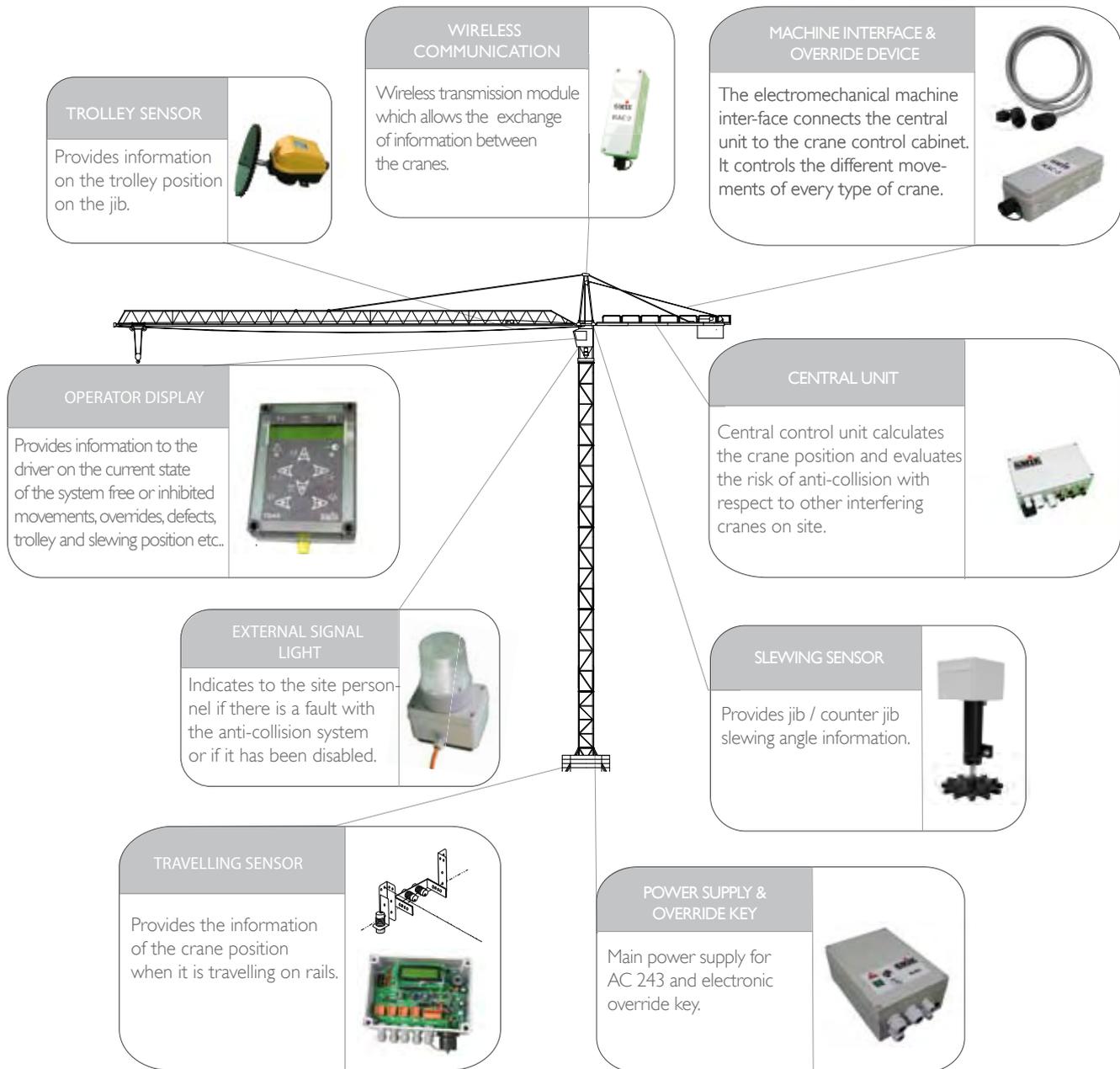
SGC240-graphical supervising and recording device

Graphical supervising device for anti-collision operations, the SGC240 allows the remote monitoring of complex jobsites :

- The supervising function offers a graphical visualisation, in real time, of the overall operation of the anti-collision systems onsite.
- The SGC240 records information relative to anti-collision systems.
- The data recorded by the SGC240 can be consulted remotely by internet and downloaded.

## A universal system

The AC243 system can be adapted on all types of cranes with only minor modifications.  
Saddle jib cranes, luffing jib cranes, fixed cranes, travelling cranes, PLC controlled cranes, relay controlled cranes.



and all makes of cranes :  
Comansa, Comedil, Jaso, Kroll, Liebherr, Peiner, Potain, Raimondi, Wolff,....

## Positive safety and fault management

The system is capable of identifying a large number of faults in it's own operation : internal functions, sensor validity, external inter-crane communication faults, identification of overrides, free-slewing etc..

*When such a situation is identified, all systems involved take the necessary measures to prevent any dangerous movements whilst maintaining the maximum freedom of movement.*

## Partnerships with crane manufacturers

Recognised for their experience and their know-how, SMIE works together with crane manufacturers to develop new systems and anti-collision interfaces.



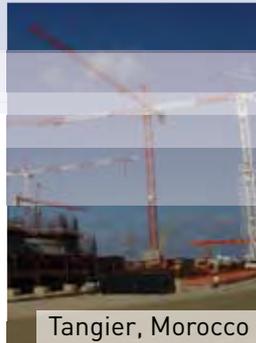
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