

Tower Cranes Anti-Collision, Boundary and Zone Protection System

Introduction



TAC-3000 is an easy-to-install system that will work with most make of tower cranes. It is an efficient safety system aiding to prevent serious or fatal accidents that may be caused by human error.

It uses state-of-the-art technologies of today to provide a safe and reliable system that is suitable for fixed tower cranes as well as tower cranes that travel on tracks regardless of saddle or luffing jib.

However, TAC-3000 is not a fail-safe system as the tower crane operation is still in the operator's control.



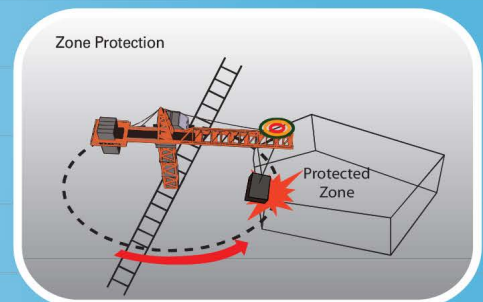
Collision Path Protection

Detect and anticipate the risk of hook block or jib or counter jib collision when multiple cranes of different or same height are in use. The tower cranes can be fixed or travelling on tracks.



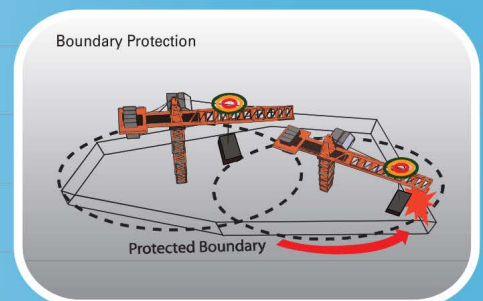
Zone Protection

Prevent the hook block from over-sailing into restricted areas like adjacent buildings highways, railway tracks, power lines, ships and other public areas or structures. This will eliminate the risk of load/material from accidentally falling into these restricted areas.



Boundary Protection

Prohibit the hook block from going out of the site perimeters or boundary to prevent risk of load/material being hoist by the tower crane from accidentally falling out of the job site boundary.



Early Warning & Control

- Real time calculation on the relative distances between potential collision paths and these data will be sent to the involved cranes as well as alerting the operator visually and audibly.
- Automatic decelerate and stop any crane movements when needed to prevent collision.
- Provides operator with potential collision direction and colliding crane's identity on the LCD monitor.
- Audible bypass alert to remind users of current bypass state.
- Intelligent automatic mode change from bypass to normal after a preset period with audible warning prior to change.

Fault Detection

The crane will be immobilized should the TAC-3000 detects any module faulty disconnected or tampered with to prevent a safety compromised crane from further operations.