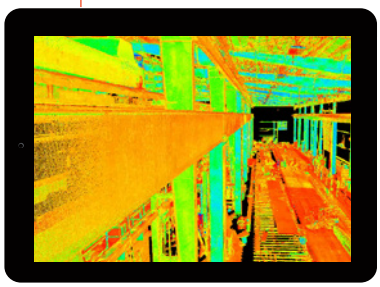
Fast, comprehensive, safe runway surveys

The condition of the runway influences how well a crane moves on its rails and affects the usability and lifetime of the crane and its traveling machineries. Poor runway alignment condition can lead to reduced crane reliability, performance, and possible safety risks. A safe crane runway is essential for helping prevent accidents, protecting your equipment and maintaining efficient operations.
We offer two types of runway surveys: **RailQ 3D Runway Survey** and **RailQ Runway Survey.**

With RailQ 3D you get insights of:

- Runway alignment
- Rail-to-girder eccentricity
- Rail wear
- Girder condition
- Visual observation of the runway
- Girder camber and sway

01 RAILQ 3D VIEWER – POINT CLOUD
The system captures millions of data points to generate accurate 3D view of your crane bay



02 RAILQ 3D VIEWER – CRANE BAY

Geotags show problem points

Pictures highlight areas of concern like a worn rail

03 ENGINEERING SURVEY DRAWING
Shows recommended adjustments and repairs needed to bring the runway to the necessary tolerances

With RailQ you get insights of:

- Geometrical alignment of a rail
- Visual observation of the runway

A runway survey is recommended when:

- The crane skews or mistracks during travel
- Rails or wheels show excessive wear
- Rail fasteners are loose or failing
- Bridge movement produces unusual noise
- Parts like couplings or axles need frequent replacement
- Wheel flanges are bent from stress
- A new runway needs precise alignment
- A crane is added or capacity increased
- A crane modernization is being planned
- Critical cranes haven't been surveyed recently
- Crane overloading is suspected
- Girder flexing is visible under load

Benefits

- **Delivers precise insights** into runway condition and alignment, powered by the expertise of our trained specialists.
- **Faster than traditional methods**, saving valuable time without compromising accuracy.
- **Clear, actionable reporting—**condition data and recommendations are easy to understand and share across teams.
- **Supports immediate action—**engineering survey drawings enable quick field adjustments and repairs.
- **Flexible survey options—**choose a full-depth analysis of rails and girders with RailQ 3D, or focus solely on rail alignment with RailQ.
- **Improved safety and less downtime** with remote data collection.

Our runway surveys at a glance

SURVEY FEATURE	RAILQ	RAILQ 3D
Top running cranes	✓	✓
Survey style drawing & summary report	✓	✓
Span	✓	✓
Straightness	✓	✓
Elevation	✓	✓
Rail-to-rail elevation	✓	✓
Visual observation of runway*	✓	✓
Rail-to girder eccentricity	✗	✓
Girder condition	✗	✓
Rail wear	✗	✓
Underslung cranes	✗	✓
3D crane bay view with geotags	✗	✓
Point cloud data	✗	✓
Immune to runway rail condition	✗	✓

*Spot observations and RailQ 3D observations from point cloud data

RailQ 3D survey

RailQ survey

Konecranes RailQ 3D and RailQ runway surveys are conducted to meet major international standards, including ISO 12488-1. Our reporting can be tailored to ensure compliance with your specific regional requirements, such as CMAA (US), AS 1418 (Australia), BS 466 (UK), PN-91/M-45457 (Poland), and ASME (US).