



# Kiln Maintenance - Mechanical Kiln Inspection

Rotary kiln reliability depends on correct kiln geometry and alignment. Changes caused by foundation settlement, uneven wear or incorrect repair lead to overloading of individual components. This can result in significant damage and loss of production. IKN's mechanical inspection of the rotary kiln eliminates this risk by applying predictive technologies carried out by the maintenance team on site. The results of the analysis are then submitted to the client as well as recommendations on necessary repairs. IKN's preventive maintenance strategy aims at ensuring undisturbed kiln operation without unplanned interruptions.

+ Process optimisation

+ Reduction of kiln stoppages

+ Trouble-free kiln operation

+ Mechanical stability of equipment

## Inspection elements:

### Kiln geometry analysis - kiln axis

- Deviation in horizontal and vertical plane
- Position of support rollers – slope and skewing
- Axial balance of kiln – correct thrust by final skewing of rollers
- Position of kiln thrust unit in relation to kiln axis
- Dimension and wear of support tyres and rollers
- Tyre wobble
- General inspection of shell support pieces, support rollers and bearings
- Evaluation of CCR records and all kiln parameters

### Kiln shell profile analysis

- Shell eccentricity
- Shell run-out
- Shell deformation (roundness deviation)
- Shell temperature profile

### Shell flexing - ovality

- Ovality of supporting pieces
- Tyre migration
- Tyre clearance

## Kiln drive diagnostics

- Radial and axial run-out of girth gear
- Backlash and root clearance
- Mesh of girth gear and pinion
- Condition of teeth profile
- Inspection of the entire drive train alignment
- Gear lubrication
- Visual inspection of girth gear fixation and kiln drive parts

## Results

- Analysis, presentation and submission of report
- Proposal of re-alignment corrections and interventions



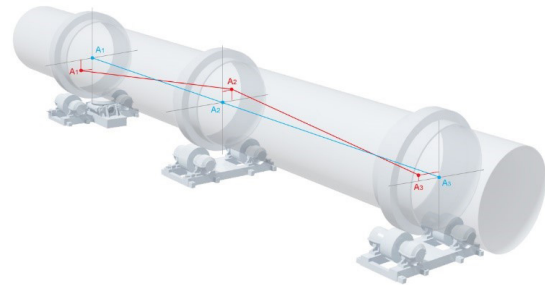
Kiln drive diagnostics

## General inspection

- Visual inspection of all kiln components
- Evaluation of data from the control system
- Special requirements of customer
- Thrust unit – all mechanical and hydraulic parameters
- Inspection of sealings
- Cooling of kiln shell, support pieces and discharge end

## Hot/cold kiln alignment

- Assistance of IKN specialists during alignment
- Most of the alignment procedures are provided during operation – kiln stoppage is not needed



Kiln axis deviation



Kiln geometry analysis



Hydraulic thrust unit inspection

## Contact

Please contact our after sales department for a customized offer at [aftersales@ikn.eu](mailto:aftersales@ikn.eu).



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