



## Quality monitoring during the production process

Control of material thickness and surface quality of  
thin metal sheets

### Initial situation

During the manufacturing of thin rolled sheet such as nickel-iron alloys, the accuracy and quality of the strip output thickness are very important factors. Both equipment wear and fluctuations in material grade have a decisive influence on quality. High-resolution displacement sensors can be used to determine tendency deviations of the sheet thickness in relation to the roll width.

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## Solution

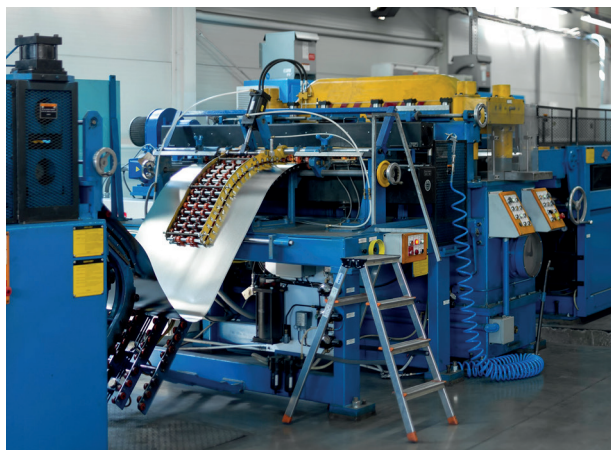
The displacement sensors of the LVDT-IKDT series from Inelta Sensorsysteme are ideally suited for quality monitoring. A number of high-precision sensors are mounted linearly at equal intervals on a measuring beam. The beam is lowered at timed intervals and the surface of the rolled sheet is measured by the sensors. The integrated electronics of the LVDT-IKDT transmit analogue output signals to a quality monitoring system. This one analyses the determined thickness profiles and reports when adjustments are required, for example in the roll control.



Displacement sensor LVDT-IKDT

### Characteristics of the LVDT-IKDT

- Integrated signal conditioner, analogue signals 0 ... 5; 0 ... 10VDC
- Spring loaded tip for measurements between 2 - 20mm
- Stainless steel version, outer diameter 8mm



## Customer value

- Creation of quality trend profiles
- Reduction of complex finishing treatments
- Fine adjustment for machine optimisation
- Early detection of signs of wear
- Quality improvement of the rolled material

## Inelta Sensorsysteme

For over 20 years now, Inelta Sensorsysteme has been developing, producing, and selling customer-specific sensor solutions for industrial applications. Our portfolio includes sensors for measuring force, pressure, displacement and inclination and also various designs of signal conditioners. We enjoy working with you to develop customised sensor solutions to meet your individual requirements using our interdisciplinary know-how and many years of experience in sensor technology.

Take advantage of our interdisciplinary know-how on sensor systems.

We would be glad to advise you!



## Contact

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