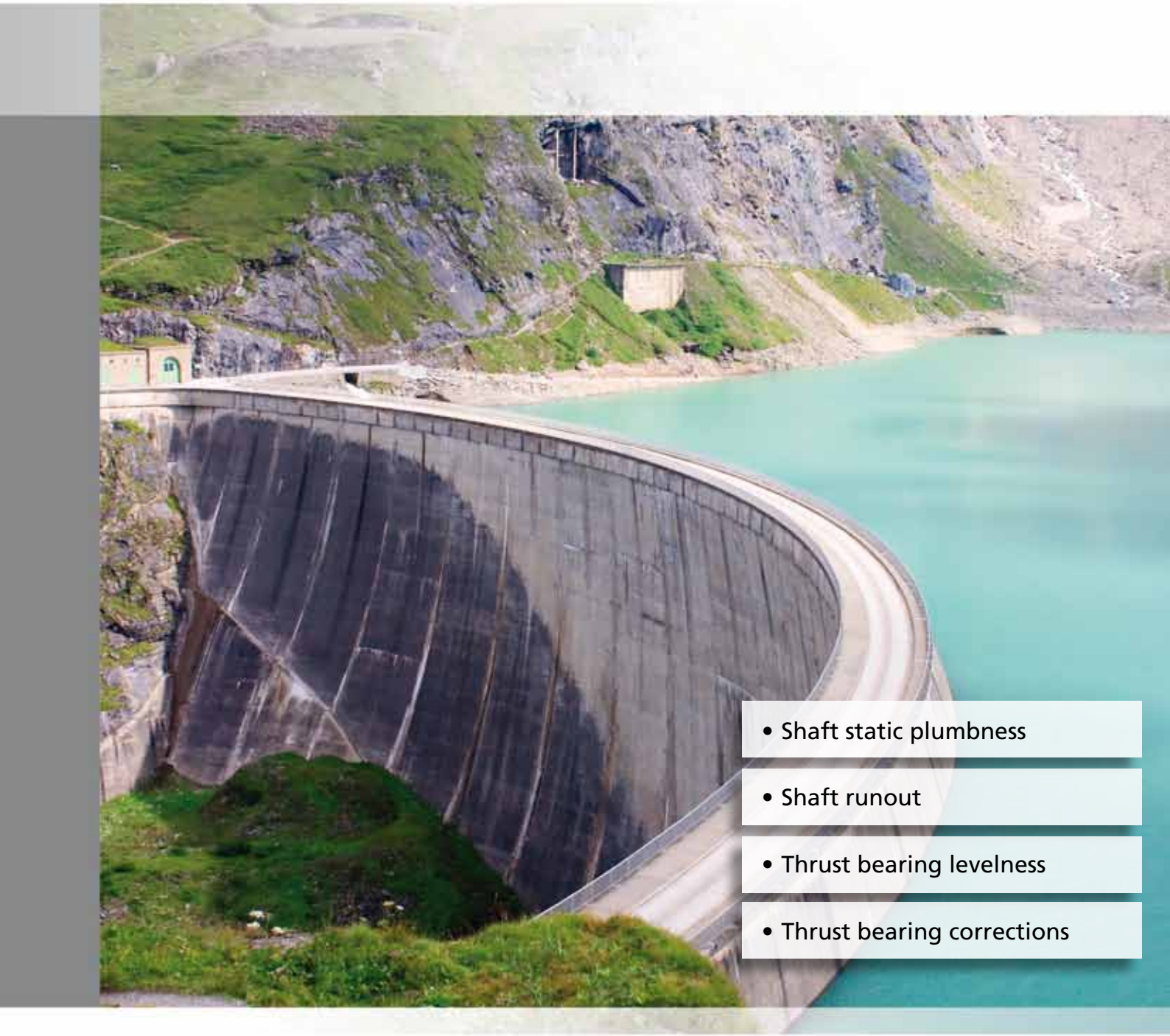
PRÜFTECHNIK

ROTALIGN® Ultra Hydropower

Alignment of hydro turbines with a flip



- Shaft static plumbness
- Shaft runout
- Thrust bearing levelness
- Thrust bearing corrections

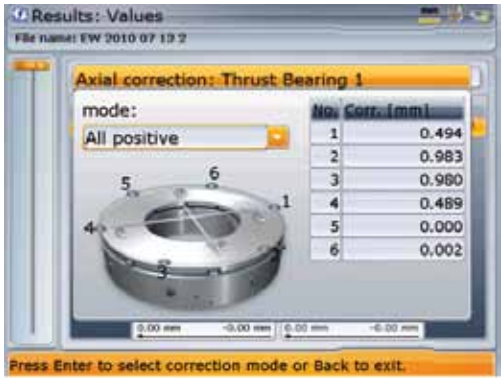
Plumbness and level dedicated to hydro turbines

Traditional methods to measure the alignment condition of a hydro turbine, although workable and reasonably accurate, are very time- consuming; it may take as long as a week to determine turbine misalignment before overhaul.

ROTALIGN® Ultra Hydropower, the latest application on the Ultra platform, in combination with INCLINEO® the high precision electronic inclinometer, delivers all important alignment parameters:

- Shaft static plumbness
- Shaft runout
- Thrust bearing levelness
- Thrust bearing corrections

These allow quick and precise identification of turbine alignment condition.



Thrust bearing correction screen

Shaft plumbness is calculated by taking the INCLINEO® measurements at opposite positions

Highlights

- Quick identification of turbine alignment condition
- Precise, repeatable and documented measurements
- Shortened overhaul time
- Minimized human error impact
- Wireless communication
- Integrated PDF reporting capability
- High measurement quality through readings interpolation

INCLINEO® technical data

Measurement range	±10°
Resolution	0.0003° [1"]
Limits of error at calibration [Ta =22°C]	0.005% full scale 0.03% read out
Limits of error at measurement [Ta =22°C]	0.005% full scale 0.06% read out
8-hour zero-point drift	0.04% full scale
Digital Filter/Average	3rd order with 0.3 / 1 / 3 Hz options
Temperature range	Storage: -40°C to 85°C Operation: -10°C to 60°C
Display	LCD display, 132 x 32 pixel with LED backlight
User interface	Three key operation
Wireless communication	Embedded RF module with LED indicator
External interface	RS-232 (serial) for computer and sensor; Connector for dial gauge
Power supply	2 AA batteries
Battery status indicator	3 LEDs
Data storage	up to 999 measurements

With a flip

ROTALIGN® Ultra Hydropower allows a quick measurement of shaft inclination, by flipping INCLINEO® through 180° on the shaft. Shaft static plumbness can be measured by positioning INCLINEO® at opposite spots on any shaft reference surface. The center of run- out is determined by rotating the shaft with INCLINEO® on a fix position. The mean levelness of the thrust bearing is obtained by averaging absolute readings. ROTALIGN® Ultra Hydropower integrates all these functions in a dedicated measurement system; hydro turbine alignment with a flip.

PRÜFTECHNIK
PROVEN QUALITY
- Made in Germany
- Global Presence
- Qualified Support
- Quality Service

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