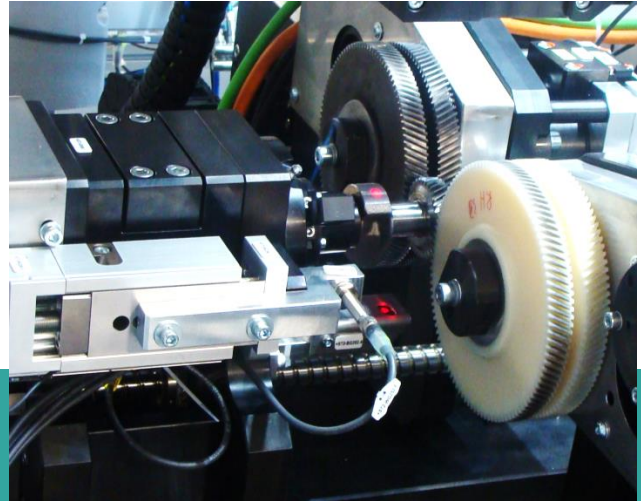
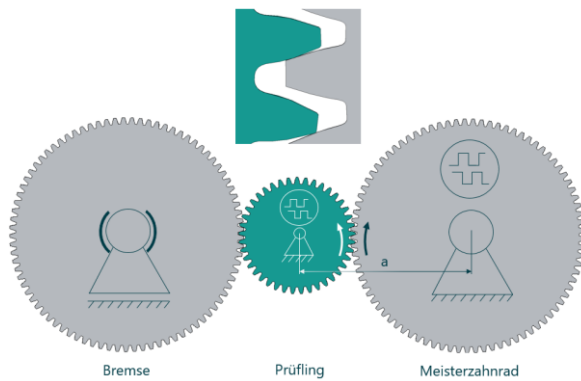


Gear measurement EWP+ZWP

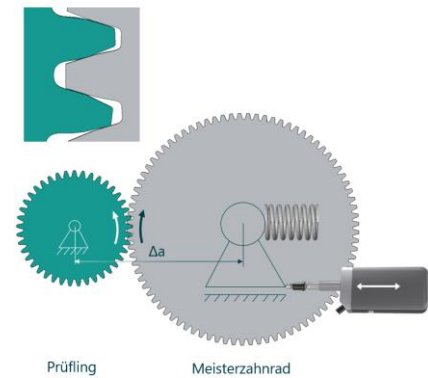


- Automatic measuring machine for gear inspection with single-flank and double-flank contact rolling test methods to determine gearing errors.
- EWP Measuring principle:
 - The test piece is driven by a master gear and simultaneously subjected to a braking torque via another gear;
As a result, the master gear rolls off with defined force onto the tooth flank
 - Roll off both tooth flanks by changing the direction of rotation
 - Define the axis distance between test piece and master gear (can be adjusted individually)
 - Measure the rotational angle difference between the test piece and the master gear to draw conclusions about gearing errors F_i' , f_i' and flank play f'
- ZWP Measuring principle:
 - The test piece is driven by the master gear;
 - As a result, the master gear is pressed into both tooth flanks with a defined force
 - Measure the change in axis distance between the test piece and the master gear to draw conclusions, mainly about concentricity deviations F_r'' and gearing errors F_i'' , f_i''
- 100% inspection with very short cycle time

Einflankenwälzprüfung



Zweiflankenwälzprüfung



Technical Data

Test piece Gears or gear shafts with: Helical gears, spur gears, worm gears/screws, bevel gears

Measurement data processing

Hardware Industrial PC
 Operating system Windows
 Measuring data software premeSTAR®
 Visualisation Screen
 Storage csv file
 Export individual QA systems, SQL database



EWP	Measurement data	Angle of rotation difference between test piece and master gear
	Calculated characteristic data	F_i' single-flank contact rolling deviation f_i' single-flank tooth-to-tooth contact rolling deviation f' flank play (reverse play) optional: all other common tooth parameters
	Adjustable parameters	Axis distance Braking torque Test speed Contact pressure
	Cycle time	< 25 sec
ZWP	Measurement data	Axis distance changes
	Calculated characteristic data	F_R'' rolling concentricity deviations optional: F_i'' dual-flank contact rolling deviation f_i'' dual-flank tooth-to-tooth contact rolling deviation
	Adjustable parameters	Contact pressure
	Cycle time	< 8 sec