

Measurement of differential gear axial play end-of-line



- Automatic measuring system for the axial play and the idling torque of bevel differential gear integrated into an assembly line
- Axial play: Insertion of test axes moved by electrical motor

into the bevel gear axes

- Determination of the maximum play
- Force and path evaluation
- Test force can be parameterised freely
- Idling torque: Determination by means of a test axis in the drive

bevel gear and fixed transmission housing

- Torque sensor
- 100% inspection during the assembly process
 - OK/NOK evaluation
 - Can be combined with manual or automated assembly stations through cycle belt linking
 - Flexibly adaptable to different sized differential gear types
 - Space-saving, short cycle times
- Optional: Low-cost variant as a manual equipment test station with horizontally arranged, pneumatically adjustable test axes
 - Variant as test station for determining the necessary thickness of the bevel gear setting rings





Technical Data

Test piece	Bevel differential gear
Measurement data	Axial play
	Idling torque, drag torque
Adjustable parameters	Max. test force (traction, pressure)
	Speed, direction of rotation, number of revolutions
Cycle time	approx. 40 sec

Measuring data processing and machine control

Hardware, PLC SIMATIC S7-1500

Measuring data software PLC

Visualisation Touch panel Storage, archiving csv file

Export individual QA systems,

SQL database

Optional

Measuring data evaluation via PC application

Electrical characteristic data IEC Supply 400 V / 50 Hz / 3x63 A

Control voltage 24 V DC Connected load 30 kVA

Compressed air connection 6 bar

Airborne noise emission

Max. sound pressure level <83 dB(A) Eq. permanent noise level <75 dB(A)

Machine dimensions

Width 1.2m
Depth 1.2m
Height 2.2m
Weight 800 kg

