Gearbox test bench

for industrial gearboxes after repair and production

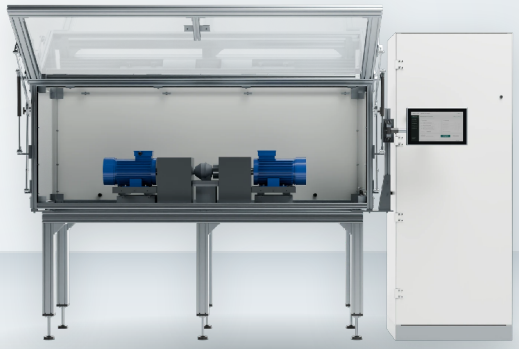
AT A GLANCE

2 measuring points
Torque and speed upstream and downstream of the gearbox

Regenerative
Load machine, the torque can be controlled freely

Interchangeable fixtures
for foot, flange or torque arm mounting

For each gearbox
Test report with serial number and test date



With our NIKLAS Drive Bench gearbox test bench you test industrial gearboxes after repair or production during run-in, under load and in endurance runs. Torque, speed and efficiency are recorded for each gearbox with its serial number in the test report.

Measurements

- Torque at input and output
- Speed at input and output, transmission ratio
- No-load torque at the input
- Input and output power
- Efficiency with oil temperature and load
- Oil and housing temperature
- Housing and shaft vibration
- Run-in, load stages and endurance run

Equipment

Drive and load machine
The drive machine and the regenerative load machine sit with the interchangeable fixture on a rigid machine bed.

Enclosed test area
Protective housing and oil drip tray are part of the test area.

Interchangeable fixtures
Interchangeable fixtures for foot, flange or torque arm mounting accommodate different gearbox types.

Crane loading
A roof segment opens the test area for loading by crane.

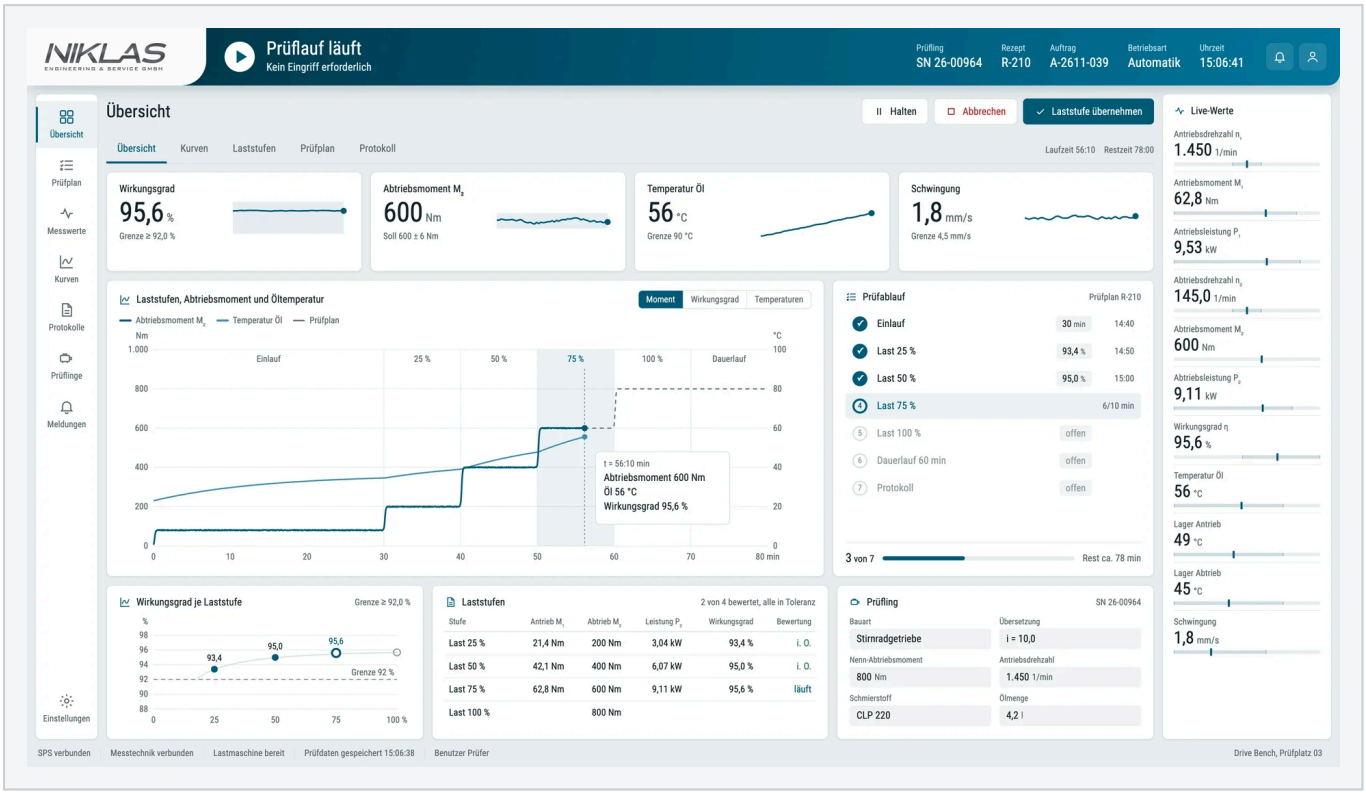
Technical data

Feature	Specification
Test items	Industrial gearboxes after repair or production
Mounting	Interchangeable fixtures for foot, flange or torque arm mounting
Test sequence	Run-in in stages, no load, load stages, endurance run
Drive and load	Drive machine and regenerative load machine on a rigid machine bed
Measuring points	2 measuring points close to the gearbox for torque and speed upstream and downstream of the gearbox
Torque range	Input up to 2,000 Nm, output up to 10,000 Nm, depending on configuration
Speed range	Input 0 to 3,000 1/min, output 0 to 1,500 1/min, depending on configuration
Drive power	up to 250 kW, depending on configuration
Test item weight	up to 3,000 kg, depending on fixture
Vibration	recorded additionally, where access is available. Assessment to DIN ISO 20816-9 with your test specification
Test area	Protective housing, oil drip tray, roof segment for crane loading
Test report	for each gearbox with serial number and test date
Dimensions (W × D × H)	to customer specification
Mains connection	400 V, 3/N/PE, 50 Hz, optionally regenerative, fuse protection depending on configuration

Options

- Oil and housing temperature, additionally, where the gearbox provides access
- Vibration measurement, additionally. Assessment to DIN ISO 20816-9 according to the test specification
- Noise test to ISO 8579-1, after clarification with your test specification
- Additional measuring point between motor and gearbox for separate values

Software



The test software guides you through the test plan with run-in, load stages and endurance run, shows torque, speed and efficiency for each gearbox and creates the test report with serial number and test date.

Request a quotation

Tell us the gearbox types with dimensions, weight and mounting, torque, speed, the tests you require, tests per day and the installation site with available space and mains connection.

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As of 11/2026 · Subject to technical changes