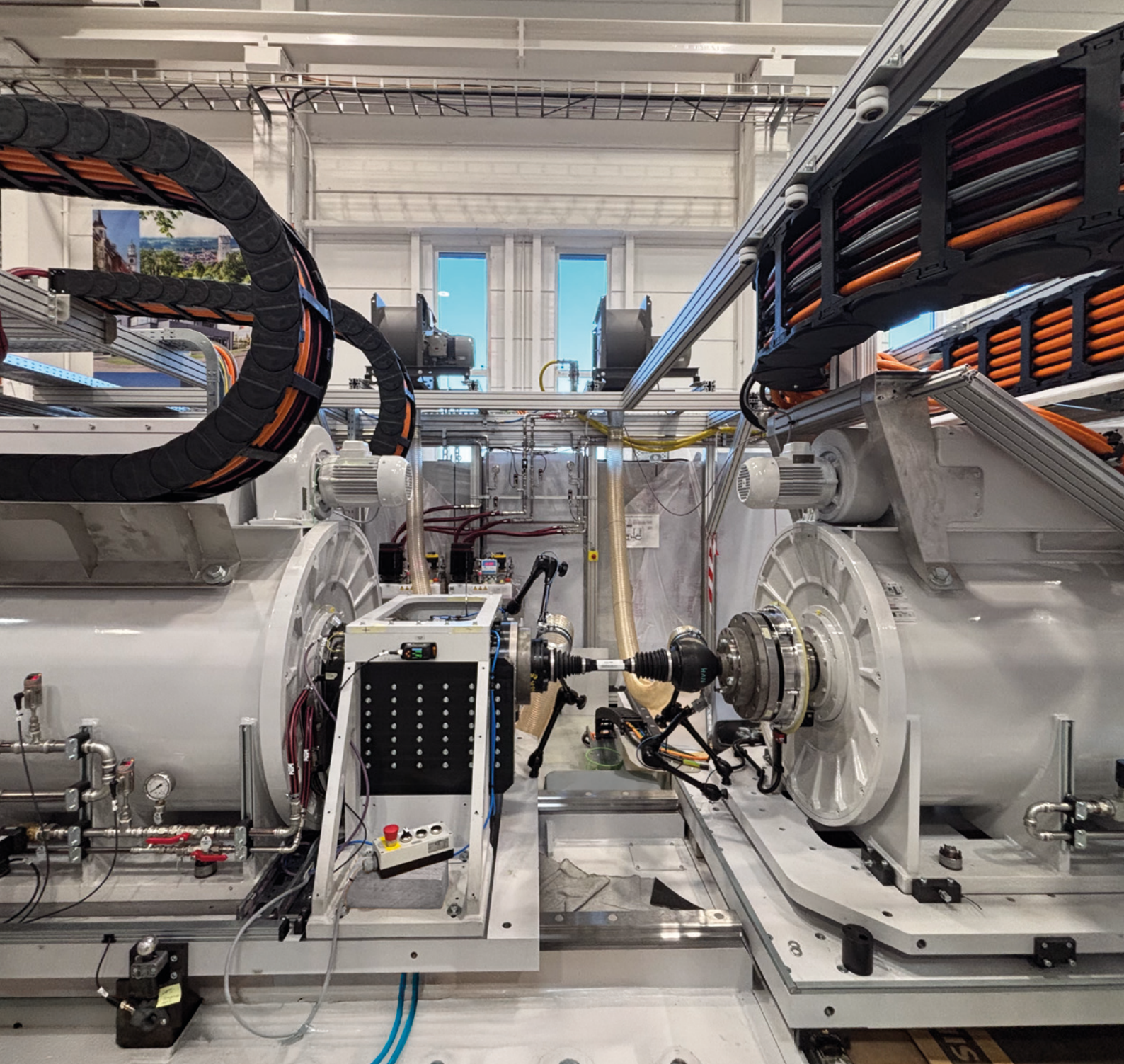




HIGH-TORQUE NVH TEST STAND
FOR DRIVE SHAFTS

BLUM
NOVOTEST



HIGH-TORQUE NVH TEST STAND FOR DRIVE SHAFTS



This test stand was designed for torsion fatigue and static strength tests on drive shafts. The test specimen is tested under specified loads and test setups in order to achieve a required number of cycles. The failure criteria are reaching defined torsion angles or breakage of the test specimen.

Tests

- Axial force generation
- High frequency plunge resistance
- Efficiency test
- Plunging force
- Backlash measurement
- Temperature measurement of individual tracks

Equipment

- Machine bed on vibration-insulating machine shoes
- Three-phase synchronous motors
- High-precision torque measuring shafts
- Fan for airflow simulation
- Axial shaker for high and short strokes
- Axial force measuring flange for measuring generated axial forces
- Pyrometer for recording test specimen temperature
- Backlash measurement kit
- Safety housing

Technical data

Test stand dimensions (LxWxH)	Housing approx. 6800 x 4900 x 3500 (mm) Control cabinet approx. 6200 x 1200 x 2200 (mm)
Motor	Nominal power: 1047 kW speed: 1000 rpm max. torque: 10,000 Nm
Axial displacement	± 100 mm max. frequency ± 10 mm / 1 Hz accuracy ± 0.1 mm
Swivel angle	-5 – 55° max. twisting speed 10°/s accuracy ± 0.1°
Linear displacement	500 mm max. travel speed 100 mm/s accuracy ± 0.1 mm
Shaker	± 0.1 mm @ 60Hz max. shift ± 5 mm accuracy ± 0.05 mm / 0.01 mm during shaking ± 1 mm
Axial force measurement	max. axial force ± 10 kN (accuracy ± 0.5% of maximum value)
Distances, test specimen length:	Flange to flange 500 – 1500 mm flange to joint 0 – 300 mm