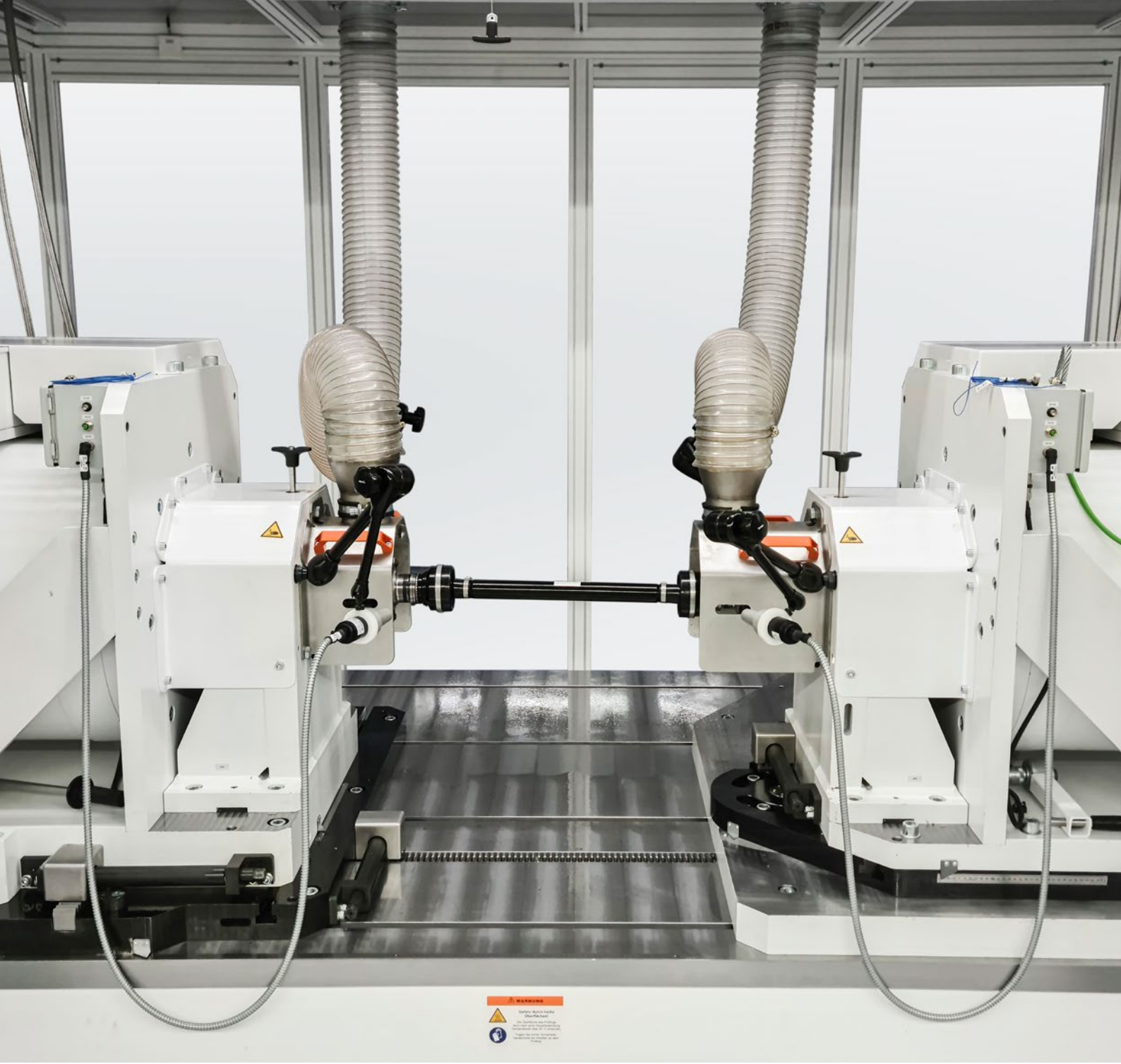


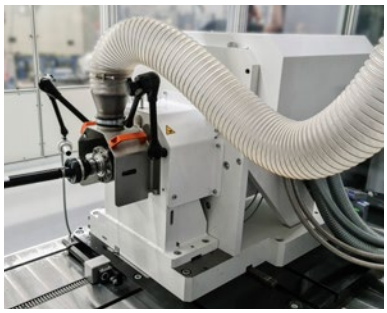
HIGH DYNAMIC STRENGTH TEST RIG
FOR DRIVE SHAFTS

BLUM
NOVOTEST

HIGH DYNAMIC STRENGTH TEST RIG
FOR DRIVE SHAFTS

This high dynamic strength test rig is designed for vehicles with electric motors or conventional engines. High dynamic strength tests simulate the break behaviour of the drive shaft at very dynamic speeds and torques. Break resistance and failure type under these conditions – caused by oscillating forces and the internal friction of components – can differ from standard static and dynamic strength tests without speed. High speed and torque gradients during start-up or in highly dynamic driving states enhance this effect. Such dynamic tests are necessary to be able to make statements on the limit loads of the products – especially for eDrive applications.

Swivel unit with temperature sensor



2 Fans for air flow simulation

Features:

– 2 Torque motors
– 2 High precision torque cells
– 1 Swivel unit
– 1 Displacement unit
– 2 Fans for air flow simulation
– 2 Pyrometers for temperature measurement
– Safety housing

Technical data

Test bench dimensions	Enclosure approx. 5360 x 3140 x 3150 (LxWxH in mm) Switch cabinet approx. 3800 x 800 x 2670 (LxWxH in mm) Cooling unit approx. 600 x 700 x 700 (LxWxH in mm)
Max. power	nom. 280 kW (max. 400 kW)
Speed | Speed gradient	0 – 750 rpm | ± 250 rpm/s at 5000 Nm
Torque | Torque gradient	± 6000 Nm (max. 8000 Nm) | ± 90 000 Nm/s (± 300°/s)
Swivel angle	0…55° (static)
Jounce	0…300 mm (static)

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