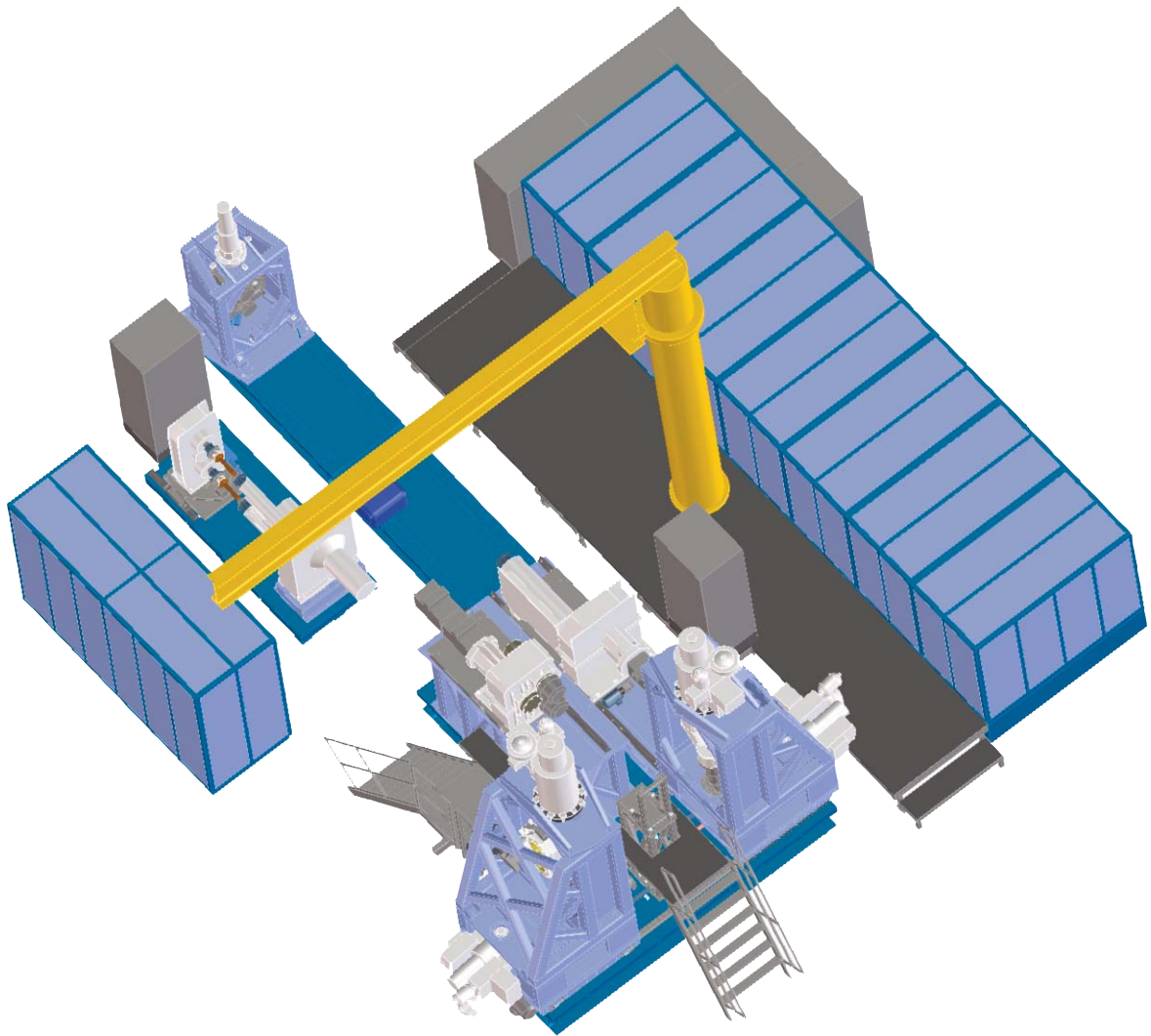


Universal Test Stand for Powertrain

>UPA2P<



The test stand serves for testing of drive shafts and differentials in the automotive field as well as main rotor shafts, tail rotor shafts and tilt shafts for aircrafts

- > UUT drive and loading according to predefined profiles (e.g. race data)
- > Highly dynamic simulation
- > Dynamic lifting and traverse movement

GENERAL INFORMATION

- > Testing and optimizing of limited slip of differential
- > Temperature simulation during test operation
- > Automatic and manual tests

TECHNICAL DATA

> Power requirements:

- El. supply: 3/N/PE AC 50Hz 400V
- Max. power: 730kVA
- Rated current: 1055A
- Compressed air supply: 1.5kgpm, 6 to 10bar
- Cooling water supply: 380lpm, 4 to 6bar

> Dimensions and weight:

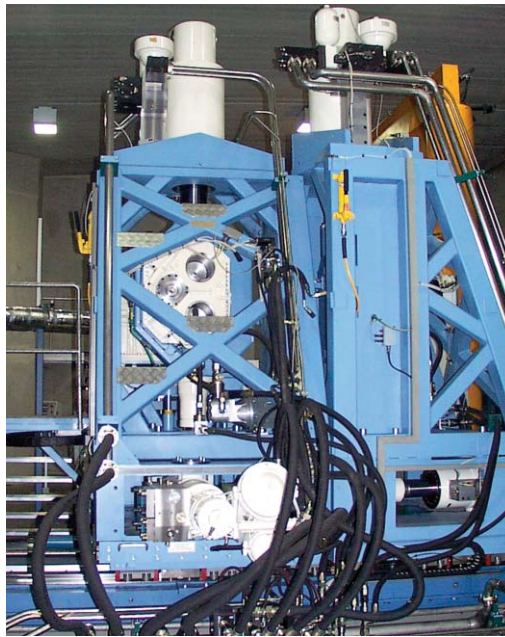
- Dimensions: WxDxH: 11 x 9.75 x 4.4m
- Weight: approx. 60t

> Test station 1:

The test station 1 serves for testing of half axles and differentials.

The test station consists of a drive gear unit and two deflection gear units.

For simulation of suspension and steering movement both deflection gear units are running in bearings. Therefore they are able to execute vertical and rotating oscillations actuated from controlled hydraulic-cylinders.



TECHNICAL DATA

<p>> Test station 1:</p> <ul style="list-style-type: none"> - Speed: 0 to 3600U/min - Torque: max. 6500Nm <li style="padding-left: 20px;">Gradient < 9800Nm/s - Transmittable power: 1415kW - Vertical movement: 2Hz at ±150mm 20Hz at ±15mm - Torsional movement: dynamic 2Hz at ±50° 20Hz at ±4.5° 30Hz at ±2° static up to ±80° 		<p>> Dimensions of UUTs:</p> <ul style="list-style-type: none"> - Length: 250 to 950mm - Diameter: < 155mm 	
		<p>> Dimensions and weight</p> <ul style="list-style-type: none"> - Dimensions: BxTxH 4300 x 5100 x 4500mm - Weight: approx. 20t 	

> Test station 2:

The test station 2 serves for testing of cardan shafts, tail rotor shafts and tilt shafts.

The test station consists of a drive gear unit and one deflection gear unit.

The deflection gear unit is running in bearings. Therefore it is able to execute vertical oscillations actuated from a controlled hydraulic cylinder.



TECHNICAL DATA

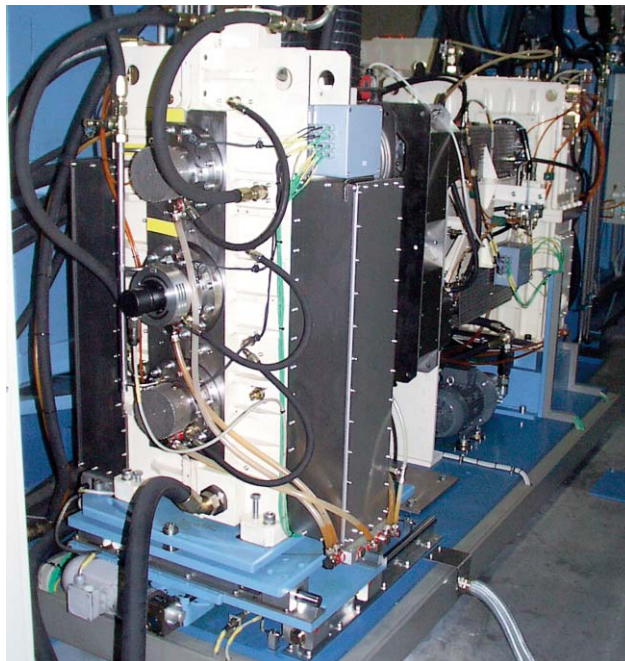
<p>> Test station 2:</p> <ul style="list-style-type: none"> - Speed: 0 to 9000U/min - Torque: max. 4000Nm <li style="padding-left: 20px;">Gradient < 9250Nm/s - Transmittable power: 1200kW - Vertical movement: 2Hz bei ±150mm 20Hz bei ±15mm - Torsional movement: ±20° 		<p>> Dimensions of UUTs:</p> <ul style="list-style-type: none"> - Length: 375 bis 5400mm - Diameter: < 150mm 	
		<p>> Dimensions and weight:</p> <ul style="list-style-type: none"> - Dimensions: WxDxH 8300 x 1200 x 3400mm - Weight: approx. 12t 	

> Test station 3

The test station 3 serves for testing of aircraft shafts.

The drive gear unit on test station 3 is fixed on a basic plate and therefore not movable.

The deflection gear unit on test station 3 can execute a longitudinal displacement as well as a lateral displacement and a rotating movement.



TECHNICAL DATA

> **Test stand 3:**

- Speed: 0 bis 21000U/min
- Torque: max. 1500Nm
- Transmittable power: 1450kW
- Torsional movement: $\pm 15^\circ$

> **Dimensions of UUTs:**

- Length: 300 bis 800mm
- Diameter: < 150mm

> **Dimensions and weight:**

- Dimensions: WxDxH 3500 x 1300 x 1700mm
- Weight: approx. 3t

OPTIONS

A wide range of options is available to fulfil our customers' requirements.