



STRAMA-MPS

Sondermaschinenbau

Test Rigs



Distributed by:



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Your Partner in Industry



Test Rigs

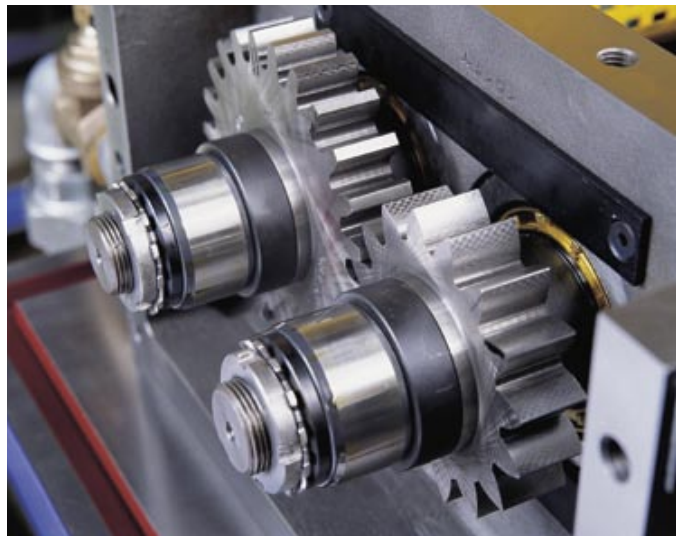
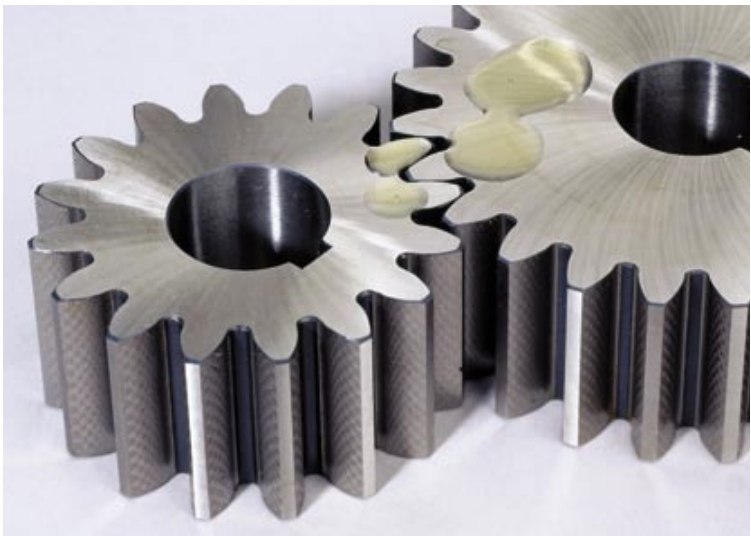
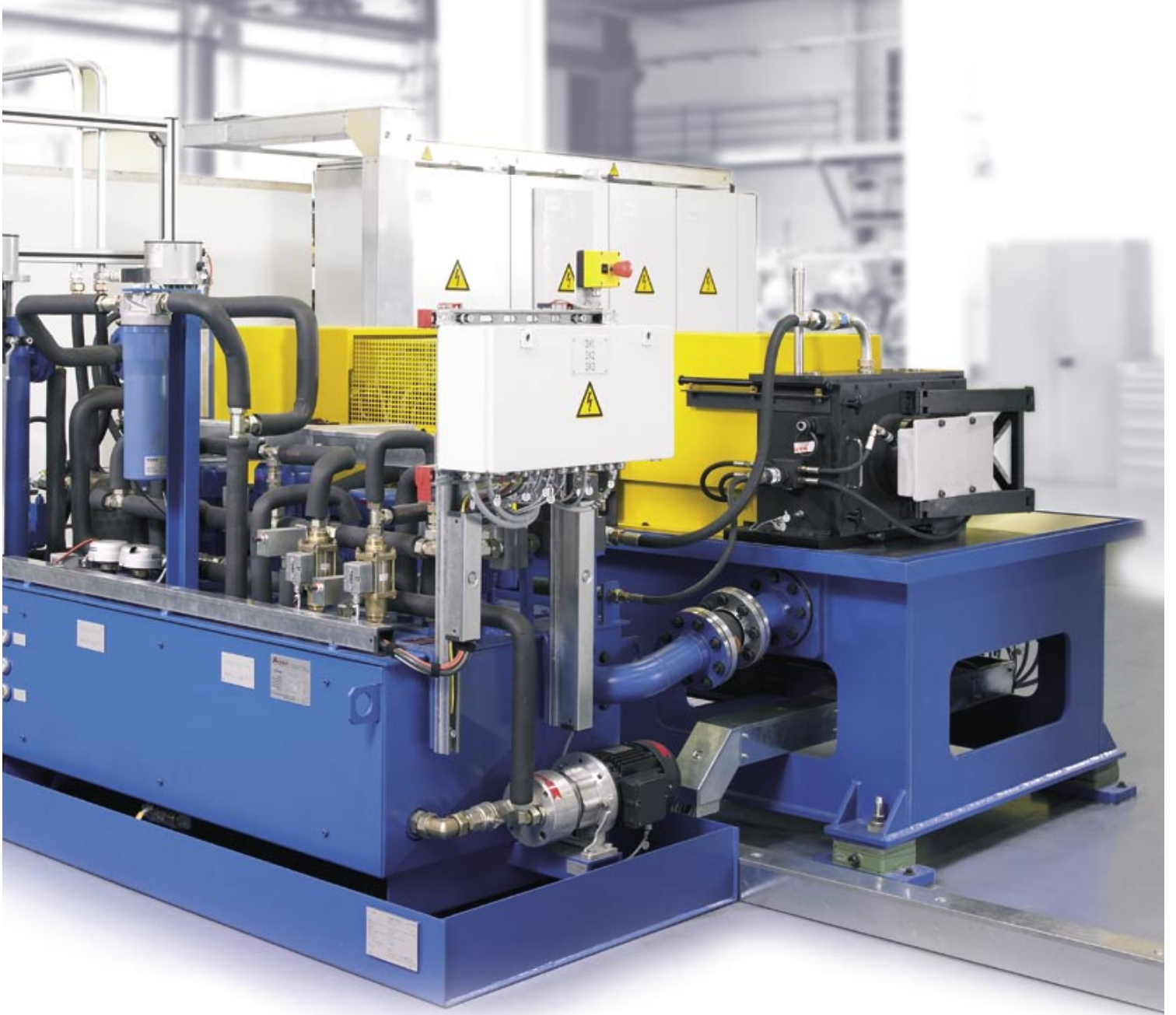
Strama-MPS – Partner for industry also in the field of test rigs

Since several years Strama-MPS provides a wide range of test rigs and test equipment to the customers all over the world.

Range of test rigs

-  **Standard FZG Test Rig**
-  **Modified FZG Test Rig**
-  **Load Spectra FZG Test Rig**
-  **Special Gear Test Rig**
-  **Efficiency FZG Test Rig**
-  **Constant Velocity Joint Test Rig**
-  **Bevel Gear Test Rig**





Requirements

 **FZG Standard Test**



 **FZG Load spectra test**



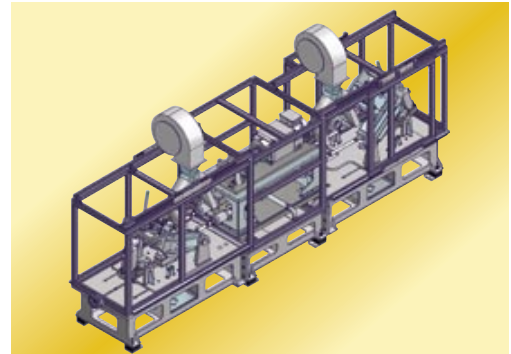
 **Special spur gear test**



 **Bevel gear test**



 **CV-Joint test**



Our Test Rig Customers

- Mineral Oil Companies
- Additive Industries
- Automotive Industries
- Gear Manufacturer
- Test Institutions
- Universities



Our Skills and Quality Standards

- We are a medium-sized company for special machinery and plant engineering
- Approx. 280 highly skilled employees
- 60-year company-history
- Innovative engineering, decided market orientation, flexibility as well as ultra-modern and high-precision production methods



Our Awards



„Europe's 500“ Award honouring the 500 fastest growing companies in Europe.

BOSCH Supplier Award



Strama-MPS received for their outstanding performance in the last years the „Greatest Prize for Medium-Sized Companies“.

„Bavaria's best 50“ Prize to the 50 strongest growing Bavarian companies.





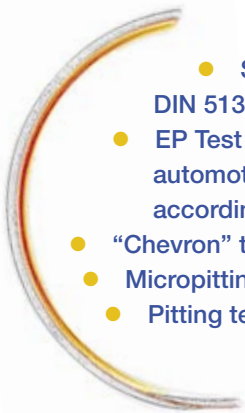
FZG Standard Test Rig

The FZG rig is a back-to-back gear test rig with a mechanical power circuit. The drive motor solely compensates the power loss due to friction, while the actual test gears can be operated under very high loads.

The maximum load transmitted can be as high as 1.000 Nm, which delivers some 150 kW at 1.500 rpm and 300 kW at 3.000 rpm.

The rig comprises drive gears and test gears, which are connected by two parallel shafts. One shaft is split in two parts and carries the load clutch for the application of the load. Also available is a standard rig including a speed reducer gear box to carry out low speed wear tests.

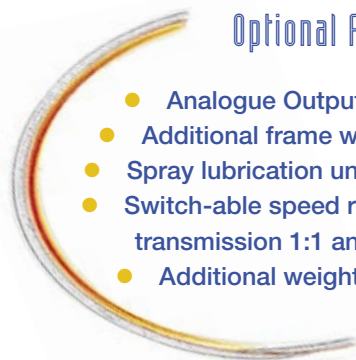
Standards

- 
- Scuffing load capacity according to DIN 51354, CEC L-07-A-96, ASTM D-5182, ISO 14635
 - EP Test to determine the scuffing load capacity of EP automotive gear oils according to API GL4 and GL5 according to FVA 243, ISO 14635-2 (120°C)
 - “Chevron” test according to ASTM D 4998
 - Micropitting test according to FVA 54/I-IV, DGMK 575
 - Pitting test according to FVA 2/IV

Standard Features

- 
- FZG Test Rig with speed controlled Motor 100 – 3000 rpm speed
 - Two directions of rotation
 - Two spray lubrication units can be operated
 - Siemens S7 PLC Control Unit
 - Colour TFT display
 - Curve display of speed and temperatures
 - Test parameters can be stored





Optional Features

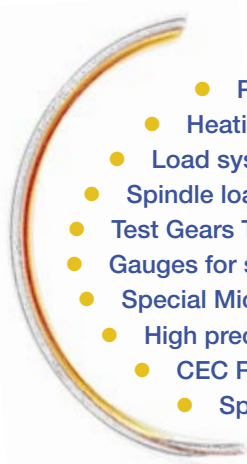
- Analogue Outputs for speed and temperatures
- Additional frame with casters for the control unit
- Spray lubrication unit
- Switch-able speed reducer gear box with gear transmission 1:1 and 25:1 for low speed wear test
- Additional weights for load stage 13 & 14





FZG Standard Accessories

The following accessories for the FZG-Standard Test Rig are available:



Accessories

- Pull off devices for the test gears
- Heating device to heat up the gears before mounting
- Load system with weights
- Spindle loading device
- Test Gears Type A, Type C-PT and Type C-MPT
- Gauges for scoring, scuffing and pitting
- Special Microscope
- High precision Scale
- CEC Reference Oils
- Spare parts

Strama-MPS also offers service packages for older FZG-Test Rigs:

- Small Service package carried out at the customers site
- Large Service package carried out at Strama-MPS

Including:

- Reference test
- CE-Declaration of Conformity
- New documentation
- Upgrade





FZG Load Spectra Test Rig

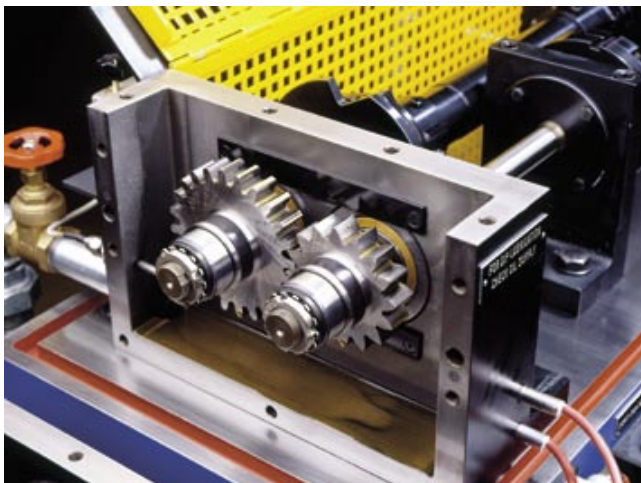
Example:

Computer-controlled load spectra test rig suitable for in-depth analysis of gears and lubricants, particularly for assessing pitting capacity (unsuitable for standard scuffing/scoring).

Measurement data acquisition:

Torque, speed and test oil temperature can be varied during the actual test run.

Load spectra can be edited freely via PC.



Key data

- Pinion speed +/- 6.000 rpm
- Pinion torque +/- 600 Nm
- Test oil temperature 50 -150°C
- Special high temperature lubrication unit
- Hydraulic unit for dynamically loadable torque clutch



Special Test Rigs

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Range of special test rigs

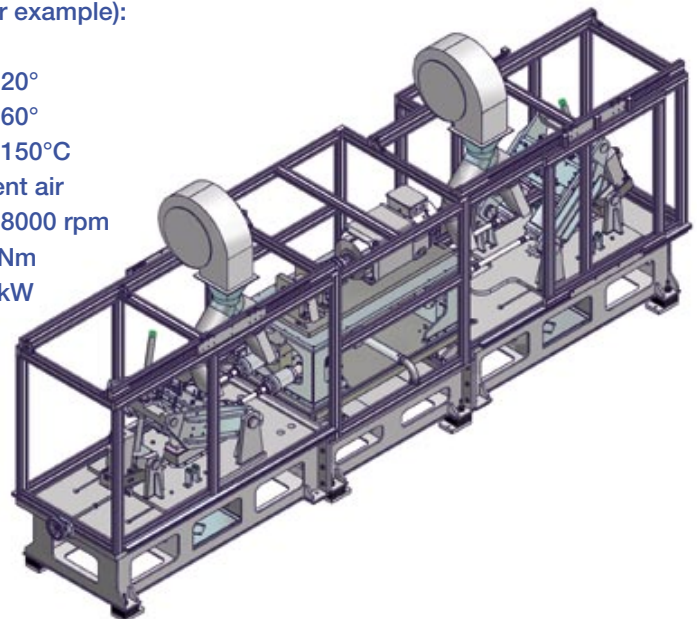
- **Standard Gear Test Rig**
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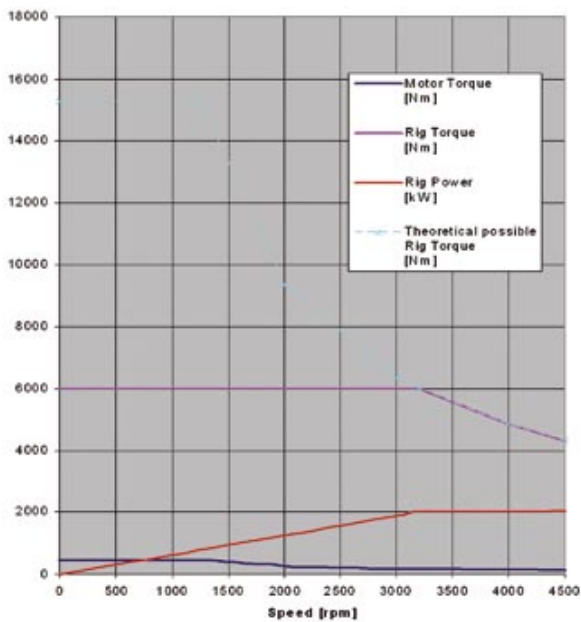


Example: CVJ Test Rig

Technical key data (for example):

- Joint angle: up to 20°
- Steering angle: up to 60°
- Joint heating: up to 150°C
- Joint cooling: ambient air
- n_{max} : up to 8000 rpm
- Md_{max} : 3000 Nm
- P_{max} : 1300 kW





Example: Special Gear Test Rig

Technical key data (for example):

- Centre distance: up to 200 mm
- Tooth width: up to 100 mm
- n_{max} : up to 6000 rpm
- Md_{max} : 6000 Nm
- P_{max} : 2600 kW

The roads to find us



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