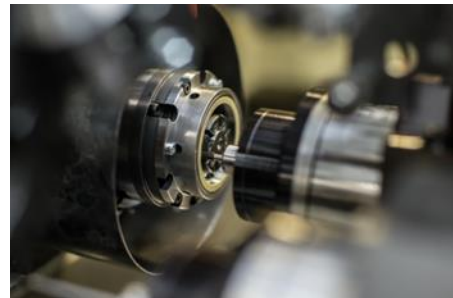


# Meister Test Center reduces “Time to Market”

## Tradition and Innovation

Meister has decades of experience in the manufacture and application of special high-precision tools for fuel injection components. Grinding the guidance bore and seat of the injection nozzle is one of the ultimate challenges in internal grinding. The interaction of the grinding tool, quill, and dressing system creates the foundation for a successful process solution. Perfecting

our specific know-how in engineering, production and application is the basis of Meister’s technological leadership in this specialist field.



Picture 1: Internal bore grinding

## Test Center for internal grinding

To continue meeting this challenge in future, Meister is the first manufacturer to have our own internal grinding test center available, which simulates conditions in bore and seat grinding of injection nozzles. At the heart of this development environment is a UVA U80 high-precision grinding machine, which is tried and trusted in series production and equipped with the following components:

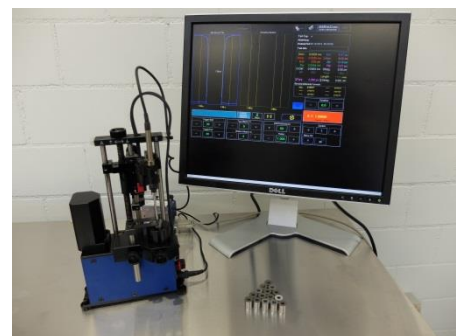
- 2 internal grinding spindles (100000 rpm)
- 1 surface grinding spindle (6000 rpm)
- Workpiece spindle with diaphragm chuck and dressing ring
- Dressing turbine
- Devices for process optimisation (GPC\*, PSH\*)



Picture 2: Test Centre

This machine offers the basis for innovative process developments and production-ready optimization. In addition to the machine, the following measurement equipment is available, providing comprehensive analysis and documentation of the test series:

- Dimensional tactile measurement - Seewald ZMG
- Form testing - Mahr MMQ 400
- Surface measurement - Mahr Perthometer



Picture 3 Seewald-Measuring Unit

Meister’s development of this Test Center clearly demonstrates our commitment to technological leadership in internal grinding. The production-ready use of new developments can significantly reduce lead times and thereby constructively support customers in the continuing development of processes.

\*GPC: Grinding Process Control

\*PSH: Pivoting Spindle Head