

Engineered Solutions

Manual Universal Measuring Station - Series 001

Measurement Task

Measurement of roughness and contour features depending on the drive unit applied

- Complex small parts
- Heavier workpieces
- Periodic measurement tasks

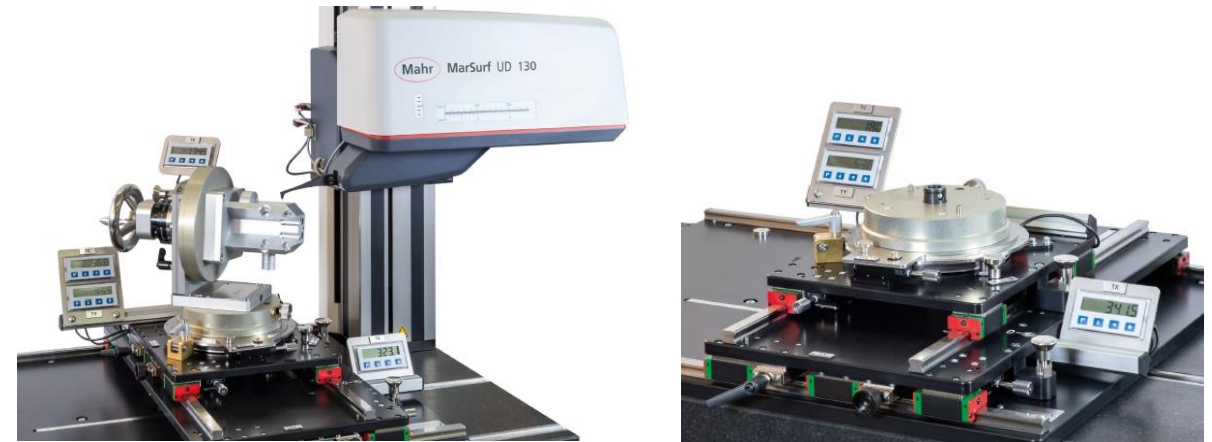
The Solution

This measuring station simplifies daily measuring tasks by using manual positioning axes placed on a standard measuring station (with a large granite plate).

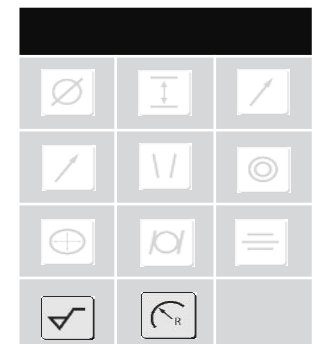
It is suitable for workpieces up to 30 kg and an edge length of up to 300 mm.

The basic axis comprises two linear axes TX and TY and a rotary axis TC which can be freely rotated through 360°. The axes are all equipped with digital position indicators. In addition, a fine positioning mechanism on each axis enables the sensitive alignment of the workpiece.

As an option, the measuring station can also be expanded with one or two additional swivel axes (TA or TA/TB) by means of a standard quick-change interface.



Automation:	manual
Main application:	gear; camshaft
Reference No:	22



Flexible Manual Measurement Station

Measurement Task

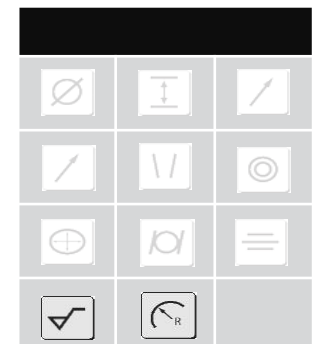
- General contour and roughness measurement tasks
- Roughness measurement on main and journal bearings
- Radii at bearing joints

The Solution

Basic setup of this measurement station is a standard XCR20 LD260 measurement station in combination with a 1500mm x 1000mm granite. The HZ-column is fixed at the granite. The workpiec support system is carried by an air plate to enable easy movement of quite heavy workpieces. On top of the airplate system a fixture with a mechanical TB swivelling axis is installed. Therefore the granite has been surrounded by a safety boundry.



Automation:	manual
Main application:	shaft, crankshaft
Reference No:	26



Measuring Station for Nozzle Bodies

Measurement Task

- Nozzle Body and workpieces with small bores
- Complete measurement of roughness and contour features within the nozzle (cone, seat, seat angle, blind hole, half-angle, guide diameter)

The Solution

The measuring system is based on a standard MarSurf LD 130 measuring station and is suitable for the fully automatic measurement of nozzle bodies. For each nozzle body type, an auxiliary fixture is manually set up once with an XY table integrated into the fixture. Once this has been done, the fully automatic measurement of the nozzle can be performed. Different fixtures, once aligned, can be changed at any time without further set-up. The particularly small probe tip (0.45 mm total height) is designed to be inserted into a blind hole with a diameter of approx. 0.6 mm. Afterwards the measurement of the complete inner contour is carried out. A special software routine ensures that the blind hole is approached automatically in several steps. This solution is used for fast series measurement, as further set-up work is not necessary.



Automation:	semi-automatic
Main application:	injection system
Reference No:	77

