

Rotary Stage RT1

Description

The rotary stage RT1 is an additional module for the light scattering measurement system OS 500. It enables the non-contact measurement of roundness- waviness- and roughness simultaneously. It was designed primarily for the usage in the shop floor. The mechanical bearings are driven by a stepper motor and allow a precise rotation with a run-out error of less than 1 µm. The measurement sensor OS 500 can be mounted from the top or sidewise (see picture). The software OS 5000 SW TK controls the stage and evaluates the form (LSC und FFT) and roughness (So). For the sample fixture different chucks can be used. Standard is a jaw chuck.

Applications

The following parts can be measured up to a weight of 15 kg

- gear shaft bearings
- bearing race
- balance shaft
- piston pins
- valves (seating and shaft)
- gaskets

Specifications

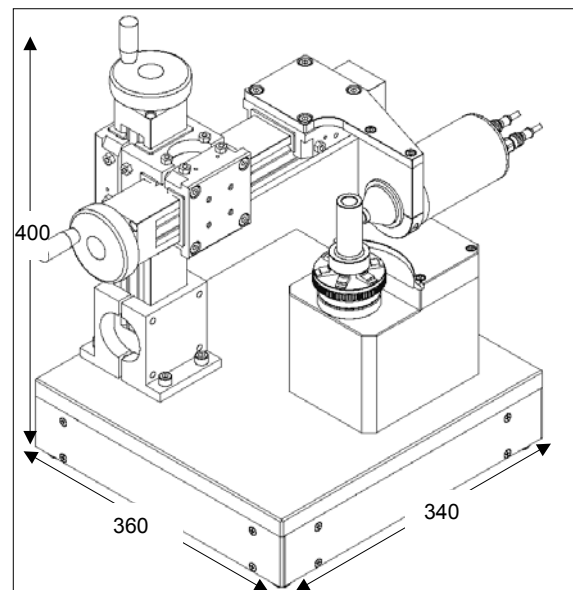
- run-out: < 1 µm
- rotary speed: 1-60 Upm
- step precision: 360°/4096
- manual z-travel length*: 40 mm
- manual x-travel length*: 40 mm
- trigger signal for sensor: max. 500/s

*larger travel length on request

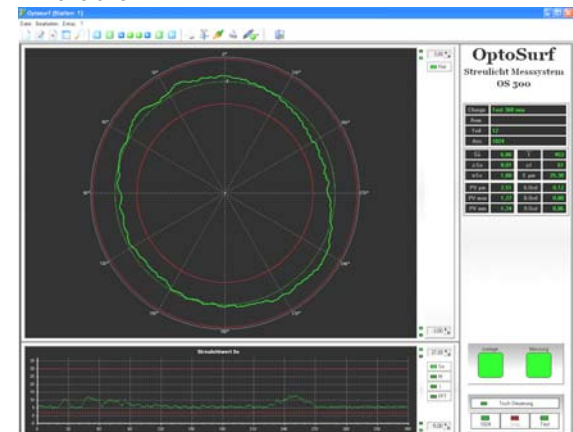
Control of the stage is carried out by the system controller OS 500 SC-E via a USB interface.



Rotary stage RT1 with OS 500 sensor:
Measurement stand with manual z- und x- axis



Dimensions in mm



Software OS 500 TK (roundness diagram above
roughness or FFT below)