TRIOPTICS

Application Report: µPhase VERTICAL with Tray

General

The µPhase® VERTICAL stand is a motorized stand that allows semi-automatic radius measurements of spheric and toric samples with radius of curvature smaller than 200 mm. The adjustment has to be done manually by the operator using the sample adjustment unit (tip-tilt table respectively x-y translation) of the system.

Tray upgrade

To measure several lenses in a batch fully automated the system can be additionally equipped with a motorized x-y-table, who provides space for an individual tray. The supported table has a movement range of 225x75 mm. The example shows a tray with 16 samples. The specific number of placed samples depends on the lens size and the tray design.


The tilt adjustment of the tray is solved by a three point bearing with fine thread screws. Once the lens positions in the tray are stored in the software the operator only has to enter the nominal sample values and start the measurement. The system automatically moves to each lens, measures its radius of curvature and shows or exports the results.

The measurement time for on lens is between 20-50 seconds including the lens positioning and the auto adjustment. Therefore a packed tray can be measured in a few minutes.

If not done by the customer himself the tray is constructed individually for the customers' needs, so the best placements for the samples is guaranteed and it is only necessary to change the separate trays to measure different sample diameters. It is possible to use more than one tray simultaneously, so during the measurement of on tray another can be loaded with samples.

Key benefits

- Fully automated measurement (no supervision necessary)
- Measurement time per lens 20-50 sec. (depends on alignment and geometry)
- Number of samples depends on sample geometry (e.g. for a sample diameter of 28mm 16 slots a possible)Tray can be changed separately from x-y-table
- Support of several trays (parallel placement of samples while measurement)
- Automatic saving and export of measurement results
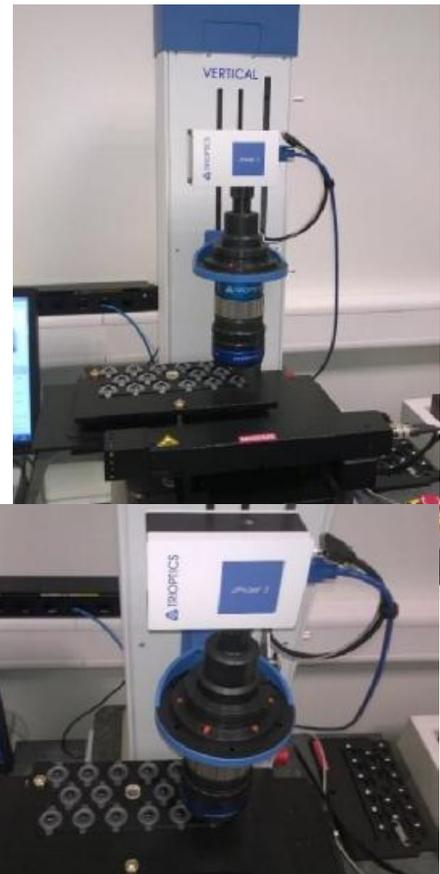
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