

Product info

IF-LaboratoryMeasurementModule 5.4

The Product

Large live view and various settings for automatic and user-defined 3D measurements

Users capture 3D data sets of solid geometries in the μm - and sub- μm range. Various settings and illumination adjustments enable optimized measurements of all kind of surfaces with registered real color information and estimated measurement uncertainty. The software is combined with the corresponding IF-MeasureSuite to perform advanced surface analysis with a series of measurement modules. While one 3D data set is created, another existing data set can be measured simultaneously. The IF-LaboratoryMeasurement is available for all Alicona measurement instruments.

The Benefits

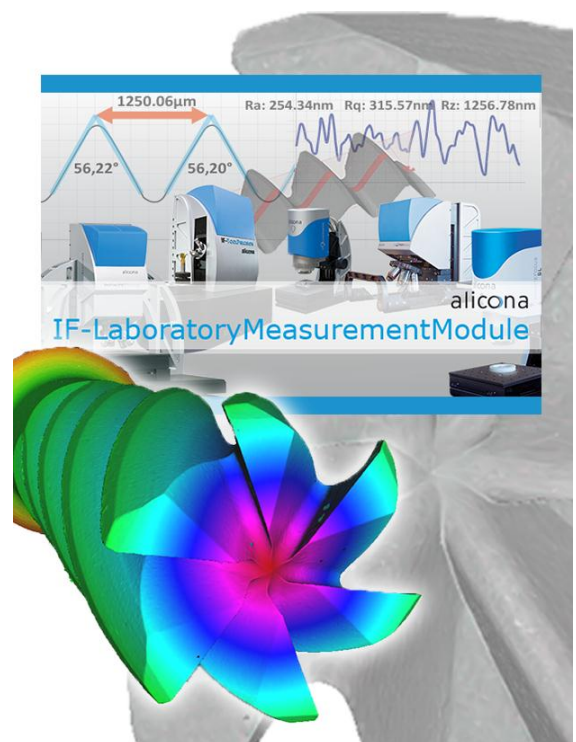
Easy to use, large measurement volumes and multi measurement

The IF-LaboratoryMeasurement provides an easy and flexible user interface. Users benefit from high measurement volumes. Additionally, full form measurements of components via 360° can be achieved. Also, the possibility to repeat a specific 3D measurement at a later date is offered as respective settings are stored. Moreover, users can define any set of measurements that are carried out automatically and are optionally merged. This e.g. enables the measurement of complex parts and makes repeating measurements more efficient.

The Applications

Micro structured surfaces in research and production

Any solid, non-transparent material with a minimum Ra of 10-15nm is measurable. Various automation possibilities provide the use both in research and production. Usually, micro structured components with a complex geometry including steep flanks and varying surface finishes or coatings are measured. All measurements include surface roughness and form information.



The new software package to generate 3D data enables the measurement of also complex components also across large measurement fields

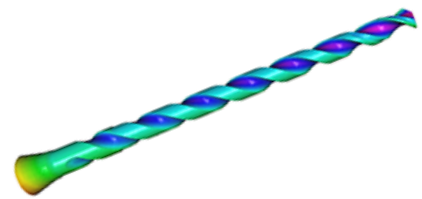
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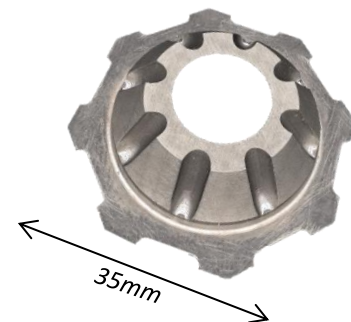
General	<p>LiveView Large window for magnified image of the specimen and user-friendly interface</p> <p>Interface to analysis software IF-MeasureSuite Measured 3D data sets are automatically exported into the IF-MeasureSuite for further analysis (e.g. roughness, form, wear, difference measurement)</p>
Measurement Modes	<p>Single Measurement Measurement of 3D data sets within one field of view</p> <p>Region of Interest (ROI) Measurement of the userdefined ROI without the need to measure the entire field of view</p> <p>Image Field Measurement (up to 200 Mio measurement points) Measurement of large areas</p> <p>2D Measurement Measurement of objects in 2D</p> <p>This software supports high speed measurement for systems with compatible hardware (IF-ControlServerHP)</p>
Optional Measurement Modes	<p>MultiMeasurement Automatic measurement and merging of multiple 3D data sets (ImageField and/or Real3D)</p> <p>X-Large ImageField Measurement of very large ImageFields with low resolution overview and high resolution single 3D data set information</p>
Additional Features	<p>IF-Automation Scripting language for automation of 3D measurements and various analysis possibilities (e.g. roughness/ form/wear measurement) and simple graphical user interface</p> <p>IF-Remoting (optional) Remote control of an Alicona measurement device with an external interface (LabView, C++, ...)</p>
Supported Alicona devices	<ul style="list-style-type: none"> » InfiniteFocusSL » IF-EdgeMasterG4 » IF-SensorR25 » IF-Profiler » Nicht unterstützt: IF-ControlServerLight
Supported ISO Standards	<p>ISO/DIS 25178-606, ISO/DIS 25178-6</p>

Full Form Measurement: Real3D

- » By using a rotation unit, users are able to perform 360° measurement of drills, micro end mills, taps and other cylindrical objects.
- » The „Real3D“ technology automatically aligns and merges individual measurements from various directions into a complete 3D data set.
- » Depending on the application, the rotation axis can be aligned horizontally or tilted, e.g. if a tool should not only be measured around 360° but also on its tip.



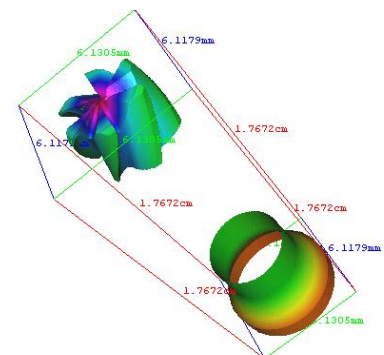
Full form measurement of a drill with „Real3D“ functionality (pseudo color)



3D measurement of very large areas with „ImageField“ functionality

Large Measurement Areas: ImageField

- » To measure areas that are larger than the actual field of view, the so called „ImageField“ functionality can be applied.
- » This enables the measurement of areas up to 10cm x 10cm.
- » Also, single 3D data sets of an X-Large ImageField (up to 100s of Gigabytes) can be analyzed individually. This allows detailed information at high resolution and a low resolution overview.



Cutting tool measured with the MultiMeasurement module (pseudo color)

MultiMeasurement: One 3D Data Set, All Perspectives

- » Users can define any set of measurements that are carried out automatically and are optionally merged. This e.g. enables the measurement of complex parts and makes repeating measurements more efficient.
- » Users can save all settings of these measurements. At any time later, either the same or a similar specimen which is of the same type can then be measured fully automatically.



Micro precision component with steep flanks (real color)

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