

**Surface, contour and form measuring machines.** Product overview.





# Precise, reliable, customized. Measuring technology from ACCRETECH.

ACCRETECH was founded in Tokyo in 1949, and is currently one of the worldwide leading providers of high-precision measuring instruments for the industry. For over 20 years, we have been collaborating with Carl Zeiss in this field. In addition to the many years of experience and expertise, the following advantages are what particularly distinguishes ACCRETECH:

## → Highest degree of quality and sustainability

Measuring devices from ACCRETECH boast technologies that make them extremely reliable, virtually maintenance-free, lowwear and enable a long service-life. All products are subjected to stringent quality checks.

### → Very high value creation depth

Nearly every component is manufactured by ACCRETECH in our own production facilities in Japan and Germany.

## → Global reach and regional proximity

ACCRETECH is represented around the world, with 40 locations on 4 continents. In Europe, we provide our customers with an extensive network of branches and additional local sales and service partners.

### → Innovations with clear objectives

Our research and development is conducted in close dialogue with universities and experts from the practice. At ACCRETECH, innovations are never an end in itself, but rather tailored to the current and future needs of our customers. The term ACCRETECH is based on the word "Accrete", which means "growing together". This philosophy is also demonstrated in the partnership-spirited collaboration we practice with our customers. Discovering individual solutions together, offering the best possible support for the best products, growing together and attaining a mutual growth.

ACCRETECH – the name is also our guiding principle. We don't see ourselves as just a manufacturer, we also aim to function as a point of contact for all issues revolving around the topics of form and surface measurements. If you decide to purchase a measurement device from ACCRETECH, you can also rely on our comprehensive range of services. From consulting and training, all the way up to retrofits and upgrades.



The life cycle of an ACCRETECH measurement device is long. That is why we place a key emphasis on providing their optimal support throughout their entire service life. Far beyond the common statutory warranty regulations.





# Intelligent technologies. Designed to solve even highly complex measurement tasks.

One nanometer is equal to 0.000001 mm. This is the range in which we are able to conduct measurements. Because any deviation which can be detected, helps to reduce costs, conserve resources and optimize the products. ACCRETECH measuring devices feature innovative technologies, many of which are patented.

## → Linear motor drive

Utilized in our SURFCOM product line. The patented linear drive in the x-axis makes surface and contour measuring instruments considerably faster, and also reduces the maintenance as well as vibrations, compared to conventional devices with a spindle drive.

### → Temperature correction

The SURFCOM NEX series automatically compensates the scaling deviations through a temperature sensor, and is therefore able to ensure the system accuracy within a temperature range of  $20^{\circ}C \pm 5^{\circ}C$ .

# → Topography option with Y-driver

Optionally available for all SURFCOM NEX versions. The Y-driver can be positioned directly under the feeder unit, without the need for a workpiece movement. Through this, it is possible to also acquire the 3D measurement data of heavy and large workpieces.

# → Patented automatic function

Used in the mobile surface measuring devices HANDYSURF+ and SURFCOM TOUCH 35/40/45/50. Measuring range, total measured section, cut-off and display magnification are automatically adjusted depending on the surface condition.

# → Rotary table with an air bearing

Used in all RONDCOM measuring devices. Thanks to the contact-free guiding, there is no impairment of the result through



drive-related vibrations, and no wear and tear as with a mechanical-bearing rotary table.

## → CNC offset probe mount

Optionally available for all RONDCOM CNC devices. The CNC offset probe mount can be swivelled and tilted CNC-controlled, to perform an automatic guidance to the measuring element. Its patented geometric structure even enables measurements below the R-axis.

## → High-precision surface roughness measurement

Specially developed system components, such as air bearings with their extremely low noise and high resolution scaling, enable the surface measurement in the R, Z and rotational direction with our form measuring system RONDCOM NEX Rs.

# More precision. More advantages.

Energy efficiency, competitiveness, safety and perfection. The requirements for the industry are ever-increasing. Industrial measurement devices from ACCRETECH will provide significant advantages for applications where every nm counts. And the accuracy of conventional coordinate measuring devices is no longer sufficient.

### → In the manufacturing process,

where it is essential to conserve resources, and for an even more targeted and cost efficient planning of the final result.

### → During the quality assurance,

where it is crucial to detect deviations from the perfect geometry at an early stage, and thus avoid expensive production errors.

### → For the workpieces themselves,

if it's an industry, which demands absolutely flawless products more than ever before. With as little friction surface and as much accuracy as possible.



SURFCOM series. High-precision surface measurement devices from ACCRETECH are primarily utilized where the surface roughness of a workpiece affects its technical functionality. With our contour measuring devices, it is possible to precisely determine even the smallest deviations from the geometrical ideal shape. Thanks to its modular system design, many of the testing devices can be precisely adapted to the respective spatial conditions and individual customer requirements.

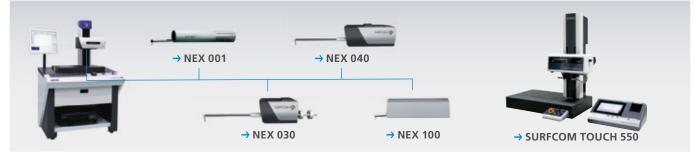
# Measurement of surfaces and contours

# Combined systems



The SURFCOM CREST utilizes a unique probe system to measure surfaces and contours in a single work step, with the highest degree of accuracy worldwide. The SURFCOM C5 is designed for the fully automated surface measurement with 5 CNC controlled axes. Opt-scope is able to quickly and precisely acquire 3D surfaces.

# Contour and roughness measurement



SURFCOM NEX systems are equipped with a roughness, contour or hybrid probe, and - depending on the requirements - can be modularly expanded to even enable 3D surface measurements. A contact-free optical sensor is also optionally available. A patented linear technology enables highly accurate measurements with an equally high measurement speed. The SURFCOM TOUCH 550 is ideal for high-precision and semi-automatic surface measurements.

# Mobile surface measuring devices



Handy, robust and easy to use. Ideal for the surface measurement of workpieces which can not be transported, for example, during the production or final inspection.



**RONDCOM series.** The workpiece-rotating form measurement devices with a measuring accuracy up to 0.01  $\mu$ m, are particularly suitable for the testing of rotationally symmetrical components. The spindle shape measurement devices are designed for heavy and non-rotationally symmetrical workpieces such as cylinder blocks, crankshafts and crankcases. All ACCRETECH measuring devices are complemented by a user-friendly and intuitive software, which can be used to graphically evaluate and log the results.

# Measurement of all types of roundness

# Roundness measurement devices for large workpieces



RONDCOM 73 spindle form measurement devices for heavy or cubic workpieces up to 200 kg, for RONDCOM 76 up to 1000 kg. The RONDCOM GRANDE is also capable of measuring oversized large ball bearings with an extreme accuracy.

# Fully automatic roundness measurement



→ RONDCOM NEX 200/300



→ RONDCOM NEX 200/300 Rs



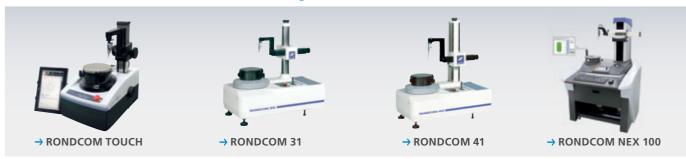
→ RONDCOM 60/65



→ RONDCOM CREST

Fully automatic workpiece alignment and a CNC-controlled measurement of all common form parameters and roughness with RONDCOM NEX 200/300 Rs. For the highest accuracy: RONDCOM 60/65 with a granite base, and the Z and X-axis with air bearings. The RONDCOM CREST is equipped with a newly developed measuring force control detector realizing automatic switching between roundness measurement and roughness measurement.

# Roundness measurement with a manual alignment



Form measuring systems with an air bearing and a manual as well as software-supported workpiece alignment. As of the RONDCOM 41 with a high-precision Z-axis.



Together with our partners, we are able to offer you a Europe-wide sales and service network. Through the regional proximity, a service technician can reach your premises without any prolonged wait and travel times. If you have any questions, please contact us directly from all European countries through our centralized metrology phone number or email address:

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