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# PH20™

The new 5-axis touch trigger system



# Use your head!

Touch

PH20 is another innovative measurement product from Renishaw that transforms co-ordinate measuring machine (CMM) performance.

For the first time, 5-axis technology developed for the multi-award winning REVO® measurement system is available for touch-trigger applications on all sizes of CMM.

## Increased throughput

PH20's unique 'head touches' allow measurement points to be taken by moving only the head rather than the CMM structure. Using only the rapid rotary motion of the head, points can be taken faster, and with improved accuracy and repeatability.

Furthermore, 5-axis motion eliminates time spent indexing the head. Together these speed increases typically result in a 3-fold improvement in throughput over conventional systems.

## Easy access to features at any angle

PH20's infinite positioning capability guarantees optimal feature access, minimising stylus changes.

5-axis simultaneous motion allows larger parts to be measured on the CMM by minimising the space required around the part for head rotation.

PH20 automatically aligns itself with the part coordinate system, avoiding stylus collisions and the requirement for accurate fixtures.



# ...it's infinitely better

## Faster calibration

The unique 'inferred calibration' technique developed for PH20 determines the head orientation and probe position in a single operation, allowing subsequent measurement at any head angle. (Enhanced metrology performance is available if needed by calibrating the probe tip at the feature orientation.)

These dramatic time savings accumulate as the calibration process is repeated on a regular basis to comply with quality procedures or following a probe crash.

## Integral industry standard TP20 probe

Users of the PH20 probe head will immediately have access to the range of proven TP20 probe modules, providing a wide selection of trigger forces, directional sensing options and extensions to meet application requirements\*. The detachable modules provide crash protection and can be automatically changed using the MCR20 change rack.

\*Excepting the extended force module



## Improved touch-trigger metrology performance

- Repeatability – improved when ‘head touch’ method is used
- Accuracy – improved by using feature orientation based calibration and ‘head touches’
- Pre-travel variation – automatic compensation
- Module changing – automatic tip offset correction

## Available with your new CMM or as retrofit to existing equipment

- Compact design – suitable for a wide range of CMMs using shank or quill mounting
- Renishaw CMM controller – I++DME communication, wide selection of metrology software
- Index head compatibility – no requirement to modify existing programs in the majority of cases
- Integral TP20 probe – allows re-use of existing equipment
- Mechanical bearings – no air supply required

