WALTER INFO 11/2022

OPTION 3D SENSOR FOR THE MEASURING MACHINES HELICHECK PLUS AND PRO

FULLY AUTOMATIC MEASUREMENT AND DIGITISATION OF TOOLS AND WORKPIECES ON ONE MEASURING MACHINE







The new optional 3D sensor for the measuring machines of the series HELICHECK PRO and PLUS offers for the user the functionality of two measuring machines in one:

"Measuring" by means of back light, front light and top light camera as well as "digitising" with the 3D sensor.

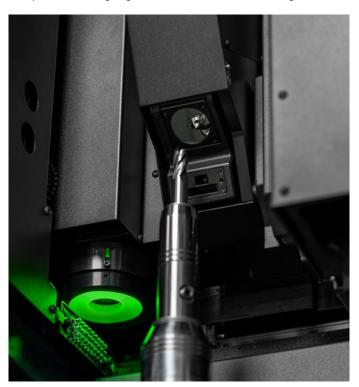
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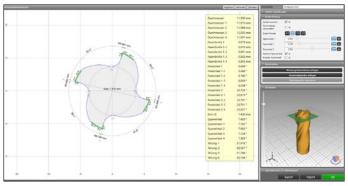


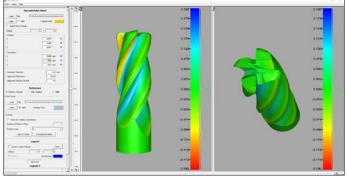
THE 3D SENSOR IN DETAIL

When the cutting edge geometry, pitch and spiral pitch of cutting tools vary from cutting edge to cutting edge, we are talking about high-performance tools. These not only request high demands on production, but also on measurement. In view of the many varying parameters, the much faster 3D laser measurement is recommended, for example with a WALTER HELICHECK 3D. For the complete measurement, however, a more precise, conventional measuring machine was then additionally required for some measurement criteria. Until now, two measuring machines were necessary for demanding tools, such as those commonly used in the automotive, aerospace or medical sectors. With the new optional 3D laser measurement, this is no longer the case.

The 3D sensor visualises the workpiece as a point cloud. Various measurements can then be carried out on this threedimensional image. If the user places this image against the 3D construction drawings or those of a master part, the deviations on the tool can be detected.







BENEFITS OF THE 3D SENSOR OPTION

- Proven WALTER measuring technology can now be combined with 3D measurement technology – in one machine!
- New laser sensor with 4 times higher resolution
- New "High Performance" PC hardware
- New precision swivel axis with extended swivel range (-55° to 90°), thus complete scans of indexable inserts are also possible
- Direct measurement without antireflection spray
- All types of tool surfaces possible
- 100 % wobble error free
- Completely closed point cloud, therefore no 3D reconstructions necessary

TECHNICAL DETAILS

- For tools from 3 mm to 80 mm diameter
- Tool length from top edge of spindle:
- HELICHECK PRO/PLUS: up to 205 mm
- HELICHECK PRO LONG/PLUS LONG: up to 605 mm
- Swivel range from -55° to 90°
- Resolution 1/1000°
- High Performance PC



