



DIGILOG Technology



Workpiece Measurement



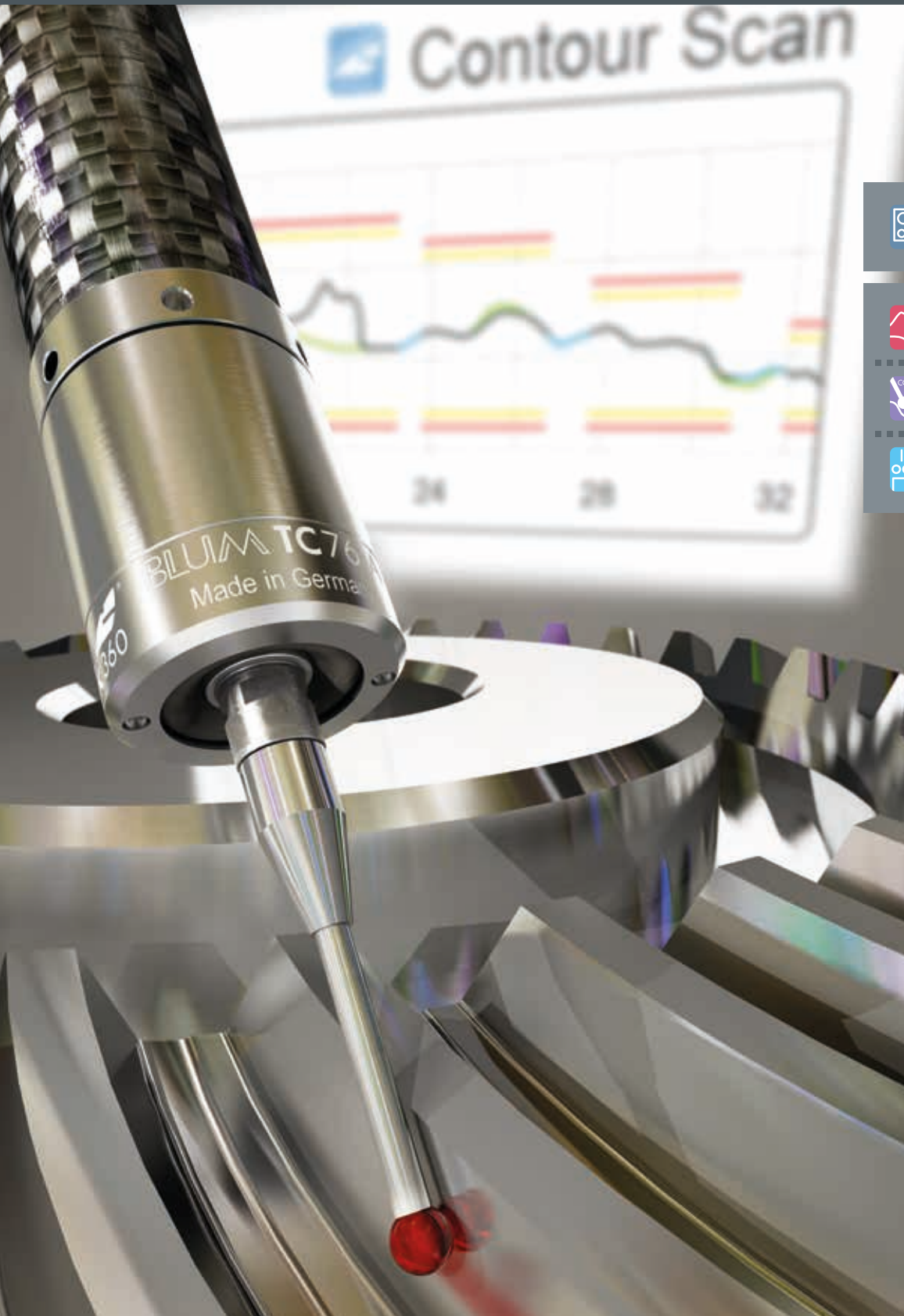
Workpiece Inspection



ContourScan



Mass Production



DIGILOG Technology

BLUM
focus on productivity



DIGILOG Measuring Technique for Machine Tools

Under the brand name 'DIGILOG', BLUM offers progressive solutions for digital and analogue measuring tasks in machine tools. While the digital functionality is being used, especially when recording the workpiece position, state and dimensions, the analogue measurement offers extraordinary results, when it comes to the evaluation of surfaces and contours.

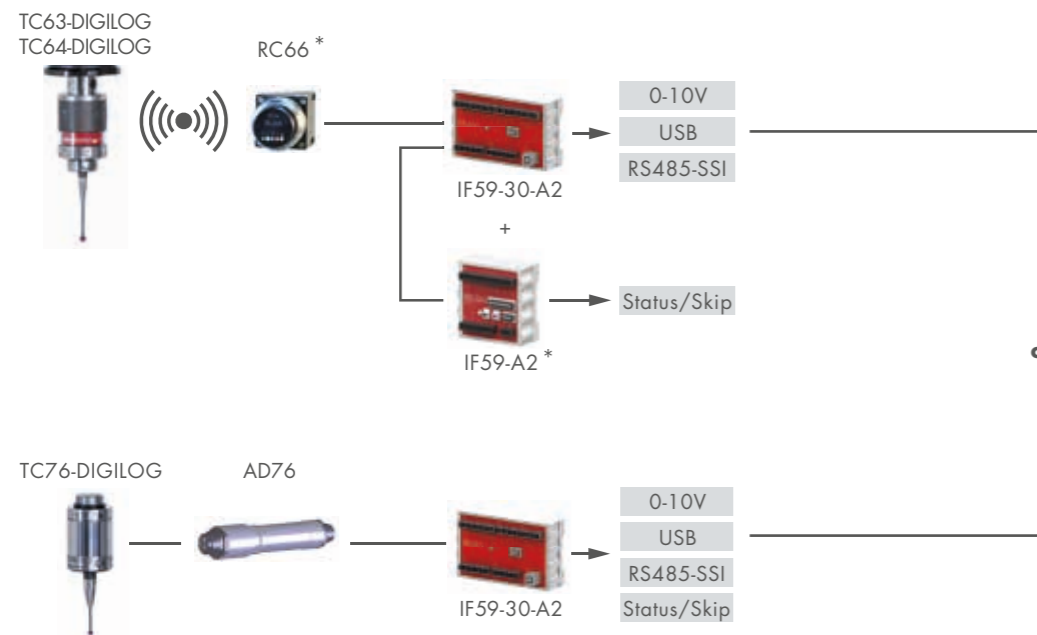
For instance, if a workpiece surface needs to be checked for machining errors, a DIGILOG Touch Probe by BLUM can scan over the surface, and take thousands of measuring values within a very short time.

The digilog touch probes are specially designed for the extreme requirements of high-productive machining centres. They are coolant-resistant and IP68 rated, making them entirely suitable for machine tools.

Your benefit:

- Detection of machining errors by analogue scanning process in the machining centre
- No continued production of NOK-parts due to downstream, external measurements
- Immediate rework in the original setting is possible
- Early detection of "error trends" by BLUM evaluation software
- Reduction of the measuring time when evaluating surfaces (compared to single-trigger probes)
- High measuring resolution for maximum precision and safety

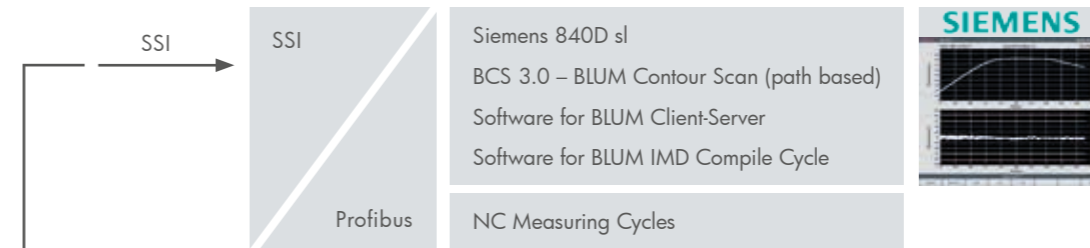
System overview: Touch Probes



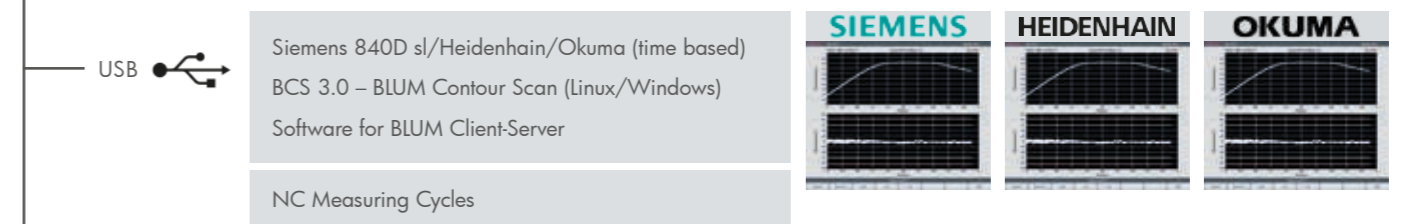
* If TC6X touch probe is already installed, the components IF59 and RC66 will not apply.

System overview: Evaluation

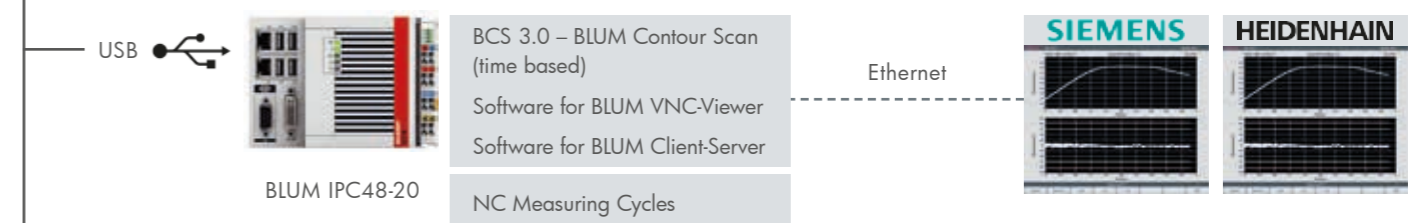
Evaluation on machine control



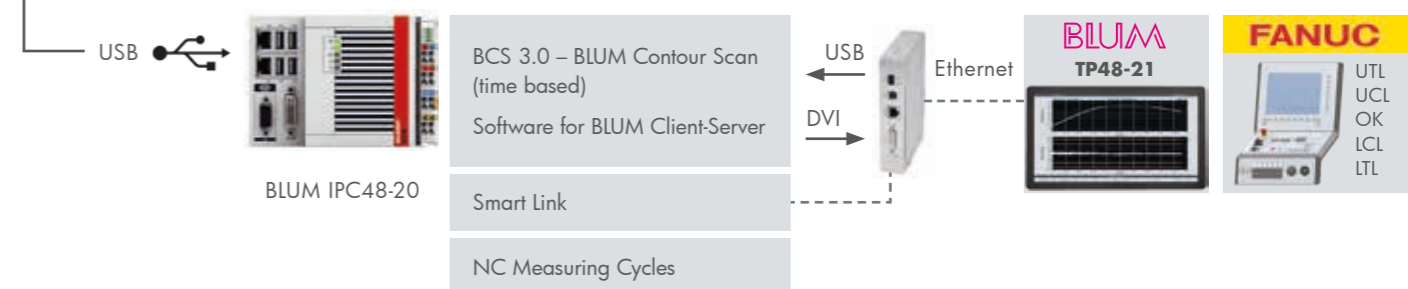
Evaluation on machine control, visualisation on control screen



Evaluation with IPC48-20, Visualisation on control screen



Evaluation with IPC48-20, Visualisation on Touch Panel TP48-21





DIGILOG Software BCS 3.0

Specially developed for the use of DIGILOG measuring systems, BLUM BCS 3.0 software offers the perfect opportunity for data entry and evaluation of the measuring values, recorded in the machining centre.

Features:

- Evaluation and visualisation at the control screen or BLUM Touch Panel TP48-21
- Contour monitoring of any number of scan programmes per workpiece
- Flexible definition of warning and tolerance limits per workpiece
- Alarm output when exceeding the warning and tolerance limits
- Real-time evaluation and alarm output
- Provides the tracked data in a log-file
- Scan movement in 2 axis is possible

Measuring Process and Evaluation

The image displays three sequential screenshots of the DIGILOG software interface. The first screenshot shows a 'Registration master profile' with a green line graph of 'Tiefe [mm]' vs 'Position' and a second graph below it. The second screenshot shows a 'Comparison measurement' with a blue line graph overlaid on the green master profile, and a table of data below. The third screenshot shows a 'Comparison with defect parts' with a blue line graph overlaid on the green master profile, and a table of data below. Each screenshot has a control bar at the bottom with buttons for 'Zurück', 'Zurück', 'Zurück', 'Zurück', and 'Zurück'.

- **1. Registration master profile**
 - Contour scan of a reference part
 - Master profile (green) will be recorded and stored in the BLUM-Software
- **2. Comparison measurement**
 - Contour scan of the serial workpieces
 - Comparison profile (blue) is laid over the master profile (green)
 - Warning limits (yellow) and tolerance limits (red) may be adjusted process specific
- **3. Comparison with defect parts**
 - Deviation between master profile (green) and comparison profile (blue) becomes visible
 - Exceeding of the warning or tolerance limits leads to alarm output