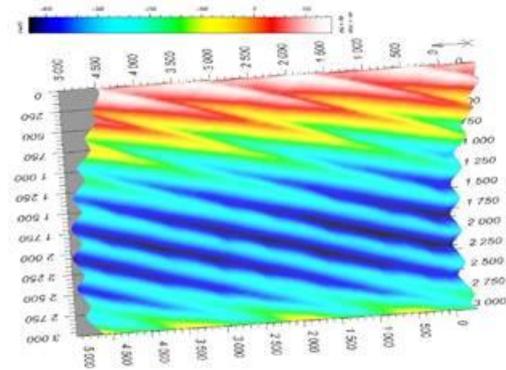
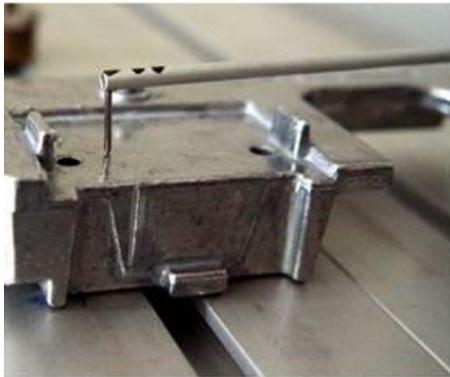


The Hommel sommicronic surfascan is a 3D profilometer based on a stylus line scan measurement. The stylus is a rounded cone with a radius of $2\mu\text{m}$ and an opening angle of 90° . The height of the stylus pin is around 10mm. The minimal resolution in the X direction is $2\mu\text{m}$, the minimal resolution in the Y direction is $4\mu\text{m}$. The resolution of the height measurement is $0.01\mu\text{m}$, a total height difference of 6mm can be measured. The measuring speed can be varied between 0.3 mm/s up to 5 mm/s. The roughness parameters are calculated according to DIN4776, the surface parameters according to DIN4762. The measurements are performed in a climate-controlled room of 20°C .



For contactless measurement of roughness, 3D measurement of wear surfaces and details, the laboratory is equipped with a Taylor-Hobson CCI HD 3D optical profiler. Further specification include: 2048×2048 pixel array for large FOV with high resolution; 0.1 Angstrom resolution over the entire measurement range; 0.3% - 100% Surface reflectivity can be accommodated; < 0.2 Angstrom RMS repeatability, $< 0.1\%$ step height repeatability. The measurements are performed in a climate-controlled climate-controlled room of 20°C .

