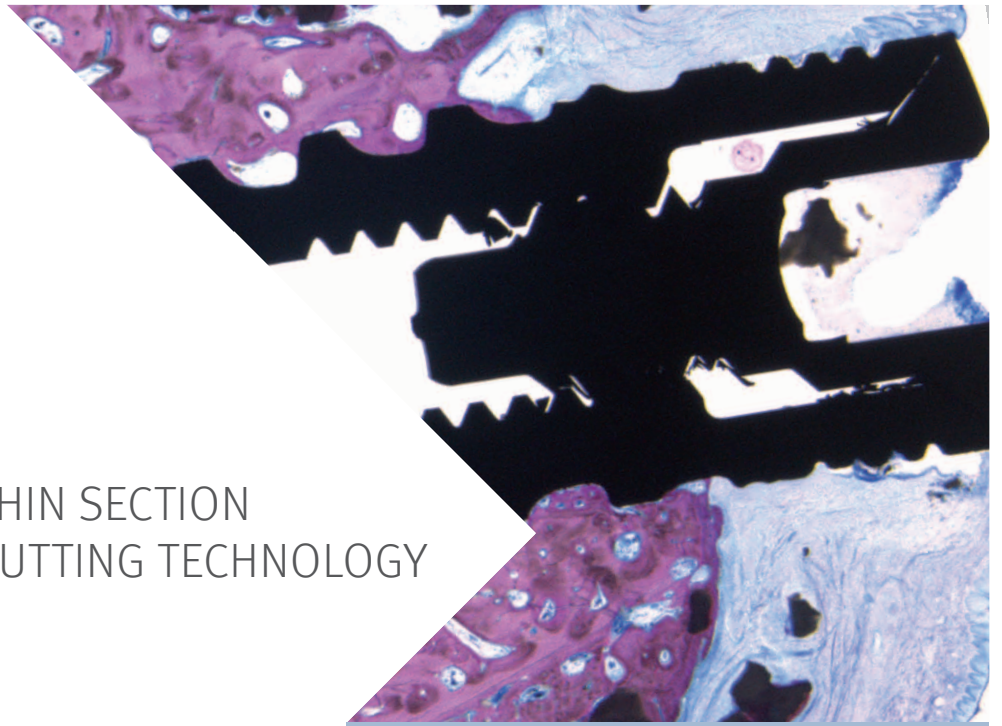


THIN SECTION CUTTING TECHNOLOGY



HIGHLIGHTS

- › Samples do not need to be de-calcified
- › Applicable to all difficult to cut tissue and materials
- › Structural preservation of the interfaces
- › Reproducible sample preparation in μ -accuracy
- › Resin embedding with light polymerisation
- › Multiple staining solutions and IHC possible
- › Thin sections for implants, e. g. made of titanium, ceramics in bone tissue composite

The EXAKT Thin Section Cutting Technology is a process for the preparation of histological thin sections from difficult to cut tissue and hard material combinations, such as bone and implants. For this purpose, the material is histologically processed and embedded in a special resin (Technovit). In this way, thin sections can be produced in a range of thicknesses down to 10 microns.

From the embedded sample, multiple sections are cut using the EXAKT 300/310 diamond band saw. These thin sections are then ground and polished with the precision micro-grinding system EXAKT 400 CS. Depending on the examination requirements, the thin sections are then stained with the specific staining solution most suitable.

The outstanding advantage of this method is the structural preservation of the interfaces, e. g. implant-bone, during the preparation process. Furthermore, the samples can be used directly for light and electron microscopic examination techniques.

Areas of application include the research and development of implants, stents and heart catheters, as well as applications in oral pathology, dentistry, orthopedics, biomaterials and veterinary medicine.

THIN SECTION CUTTING TECHNOLOGY

FROM FRESH TISSUE TO THE STAINED THIN SECTION

