Zirkonzahn®
Human Zirconium Technology

DOUBLE SCREW BAR

The Zirkonzahn Culture

DOUBLE SCREW METAL TECHNIQUE

PRODUCTION OF FULL-ARCH PROSTHETICS ON DIVERGENT IMPLANTS

The production of full-arch prosthetics on divergent implants is one of the most challenging jobs for a techno-clinical team. In the current case, a patient presented with complete maxillary edentulism and six implants already placed in the upper jaw. The virtual tooth set-up revealed a strong divergence of anterior implants towards the vestibular area. To strike a balance between function, stability and aesthetics in the final restoration, an hybrid restoration was produced using the Double Screw Metal technique.

The planned restoration consisted of a titanium bar and a secondary framework made of resin with 14 individual resin crowns. The design of the primary structure incorporated an innovative CAD/CAM workflow, in which four additional screws were integrated to screw the superstructure to the bar. The virtual position of the screws was visualised using the new Double Screw Metal function of the Zirkonzahn.Modellier software (Attachment module), which allows the generation of virtual screw threads within the bar design. The 3D rendering also provides the optimal position of the screw channel in the primary structure, as well as the ideal fit of the screw head in the superstructure.

The titanium bar is then screwed to the implants and the secondary structure to the bar. With the Double Screw Metal technique it is now possible to avoid unaesthetic vestibular channels, in order to produce highly stable, bar-supported rehabilitations even in complex cases without compromising the full arch aesthetics.
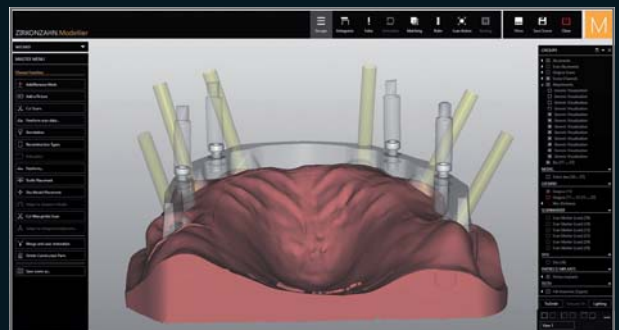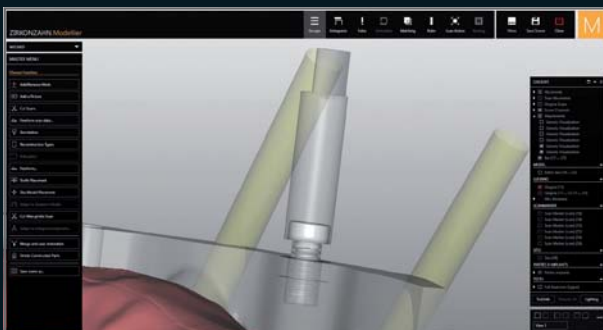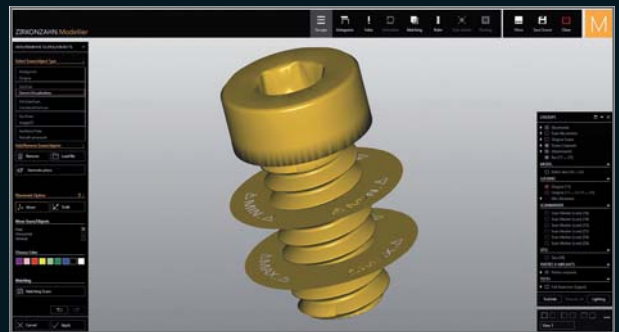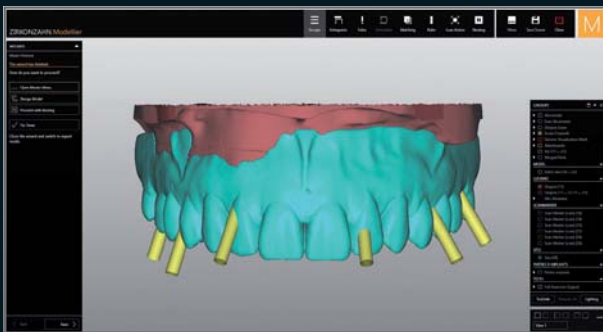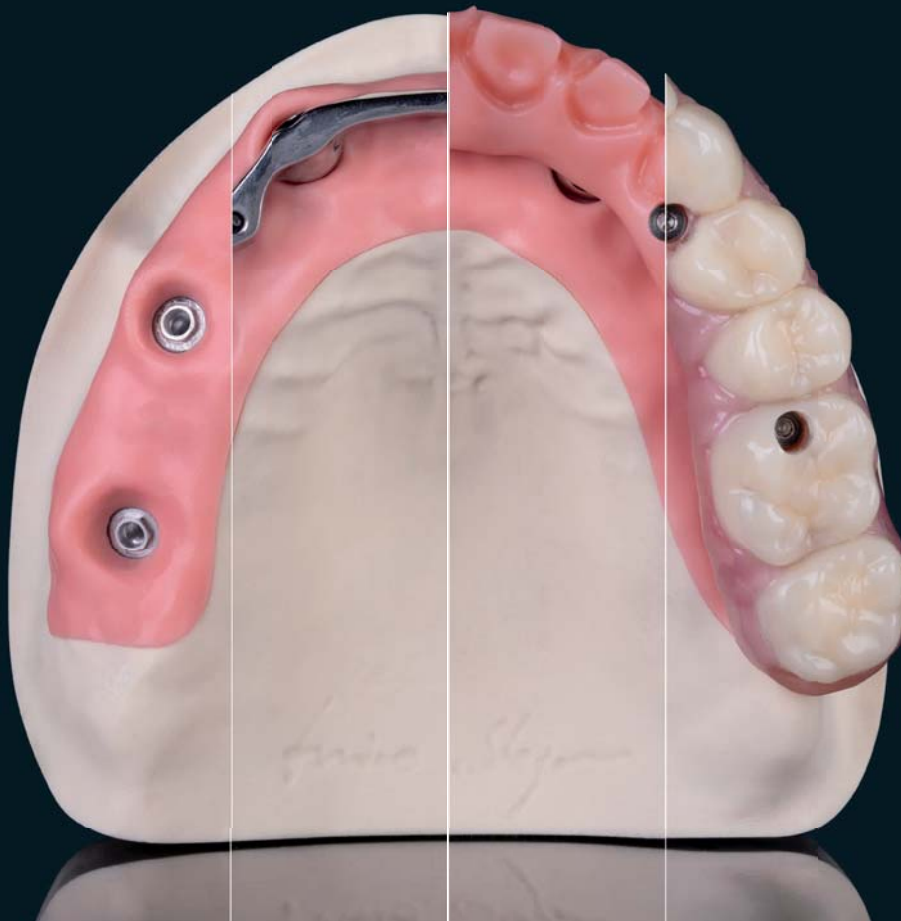
INTELLIGENT SOLUTIONS

WITH ZIRKONZAHN DIGITAL WORKFLOW

Zirkonzahn Education Center Brunico, South Tyrol, Italy

Threaded screw channel virtually created

Model Blank Beige

Screwed titanium bar
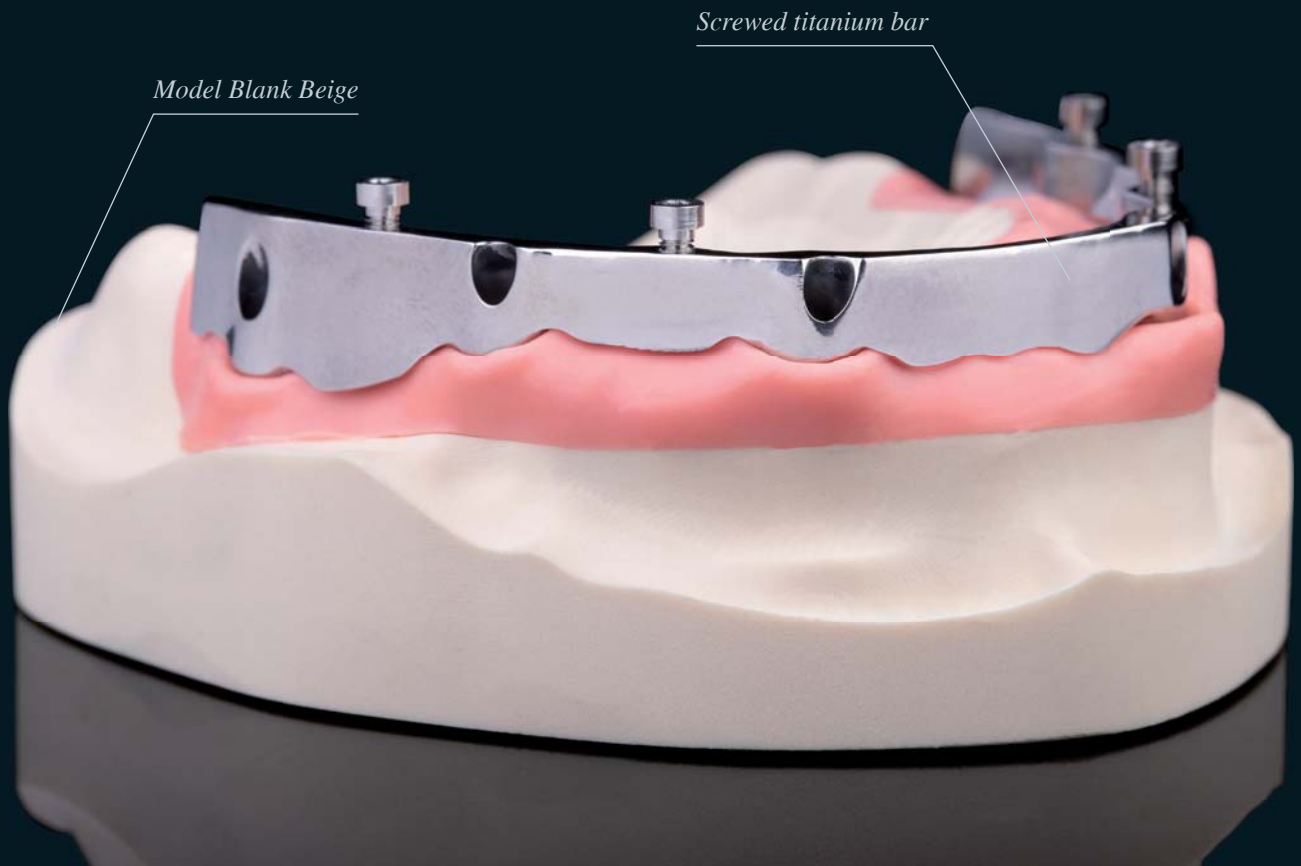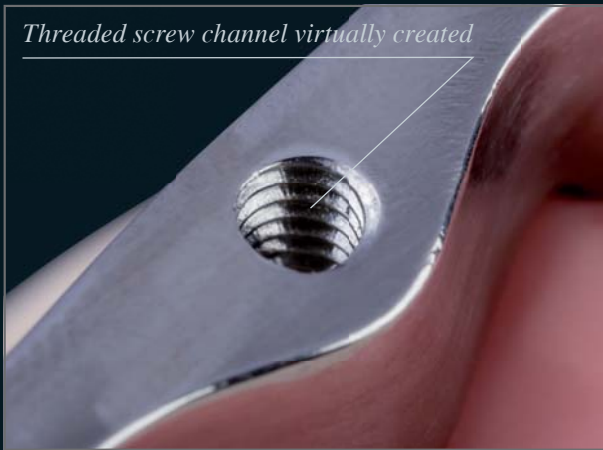
HUMAN ZIRCONIUM TECHNOLOGY

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