Scientific articles - Use of Optimet’s 3D Dental Scanner and proprietary Conoscopic Holography technology for high accuracy implant bridge scanning and complete oral rehabilitation.

Jerusalem. February 2012, We are pleased to inform about recent scientific articles published in January-February 2012 on Optimet’ Conoscopic Holography Scanner use for Implant bridges in dental CAD/CAM procedures. These scientific articles reflect a successful field experience of 3 years of Optimet’s solution being used by Nobel Procera platform for implant based restorations on both the metrology aspect as well as the clinical rehabilitation experience.

The articles were published on the official Journal of the Academy of Osseointegration (January/February 2012) and on Implant Dentistry (Volume 21, Feb 2012).

The first article, Digitizing Implant position, presents comparative investigation and provides evidence that Optimet’s conoscopic holography scanner is as accurate as touch probe scanners in its ability to acquire spatial implant position (with threshold limit of 5µm).

A second article, “Complete Oral Rehabilitation”, presents a successful two year clinical review of a maxillary and mandibular screw-retained prostheses fabricated based on 3D digitization perform by Optimet’s conoscopic holography Scanner.

**Article 1**
“Digitizing Implant position Locators On Master Casts: Comparison of a Noncontact Scanner and a Contact probe Scanner.
Steffen Holst, Dr. Med dent, PHD. Anna Persson, PHD, Manfred Wichmann, Dr. med dent, PHD, Matthias Karl, Dr. med dent PHD

**Article 2**
Robert M. Bentz, DMD,* and Stephen F. Balshi, MBE

**Conclusion**
The present comparative investigation provides evidence that the conoscopic holography scanner tested is as accurate as touch probe scanners in its ability to acquire spatial implant position locator orientation on dental master casts, within acceptable threshold limits of 5 µm (0.005 mm).

The patient treated in this report experienced a life-changing experience with dental implant therapy in a minimally invasive treatment approach. The combination of medical imaging, CAD software, and stereolithography allowed for the design of a surgical template that resulted in flawless dental implant placement. Definitive prostheses were made using the latest optical scanning technology available, resulting in passive-fitting frameworks. Blending of these technologies resulted in a stable and predictable reconstruction for this edentulous patient.
Optimet uses in its 3D scanner solutions sophisticated scanning and processing technologies enabling valid results on real cases as proven in the past years. Optimet’s continues to develop and provides next generation 3D scanning solutions which further enhances the use of digital 3D information for a full restorations range.
A copy of the articles can be obtained from the publishing houses.

About Optimet & Newport Group
Optimet provides state-of-the-art 3D measurement sensors and systems with up to sub-micron precision. Optimet systems are actively used by Optimet partners worldwide for Inspection & Metrology of Automotive & Aerospace components, LCD/PDP production. Optimet provides the most innovative and precise 3D scanners for the Digital Dental CAD/CAM market. Optimet is a member of Newport Corporation, a world leader in photonics and electro-optics products.