

K103 790

Revised June 14, 2011

AUG 18 2011

## 510(k) Summary of Safety and Effectiveness

This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of SMDA 1990 and 21 CFR 807.92.

Manufacturer Name: ACE Surgical Supply Co., Inc.  
Manufacturer Address: 1034 Pearl St., Brockton, MA 02301  
Telephone Number: (508) 588-3100  
Fax Number: (508) 523-3140  
Date Prepared: October 1, 2010

Official Contact: Leigh Hayward, Director of Compliance

### DEVICE NAME:

Device Trade Name: ACE Surgical TriMark™ TriCam™ Dental Implant  
Device Common Name: Screw Dental Implant

Reason for submission: Not previously marketed in the USA

### ESTABLISHMENT REGISTRATION NUMBER:

The Establishment License Number for ACE Surgical Supply Co. Inc. is 1287163.

### DEVICE CLASSIFICATION:

Implant, Endosseous, Root-Form, product code, DZE, 21CFR 872.3640.

### PREDICATE DEVICES:

ACE Surgical Screw Dental Implant System (K954513)  
Nobel Biocare Replace TiUnite Endosseous Implant (K023113)  
Atlantis™ Abutment for Nobel Replace Interface (K053654)

### INTENDED USE:

The TriMark™ TriCam™ Dental Implant System is used in indications for oral endosseous implants in the maxilla and/or mandible as part of a functional and aesthetic oral rehabilitation in partial or fully edentulous patients.

The TriMark™ TriCam™ Dental Implant System is designed for use in totally edentulous mandibles or maxillae or as a terminal or intermediary abutment for fixed or removable bridgework. The system is intended for use with all standard straight abutment prosthetics and is not intended for use with angled abutments. The system can also be used for single tooth restorations. The TriMark™ TriCam™ Dental Implant System uses a two-stage implantation process and is not intended for immediate loading.

The TriMark™ TriCam™ Dental Implant System is compatible with 0 (zero) degree, straight version of the Atlantis™ Abutment for Nobel Replace Interface.

### DEVICE DESCRIPTION:

The ACE Surgical TriMark™ TriCam™ Dental Implant System is a screw type dental implant system designed with technology established with the ACE Surgical Screw Dental Implant System (K954513) and the Nobel Biocare™ Replace implant (K023113). The ACE Surgical TriMark™ TriCam™ Dental

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Implant is made of Ti-6-AL-4V ELI per ASTM F136 standard and surface treated with resorbable blast media (RBM). The TriMark™ TriCam™ Dental Implant tapered external thread geometry is consistent with industry standard screw implant fixtures. A cover screw is included with each implant to protect the internal features of the implant during healing. The implants are provided sterile and sterility is achieved by gamma radiation pursuant to ISO 11137.

**PERFORMANCE CHARACTERISTICS:**

The following non clinical mechanical tests were conducted to support the substantial equivalence of the ACE Surgical TriMark™ TriCam™ to the ACE Screw Dental Implant System (K954513) and the Nobel Biocare™ Replace Dental Implant (K023113): torsional insertion and shear loading and compressive bending and fatigue strength. The data generated from these tests demonstrates the ACE Surgical TriMark™ TriCam™ the ACE Screw Dental Implant System (K954513) and the Nobel Biocare™ Replace Dental Implant (K023113) to be substantially equivalent.

No clinical testing was conducted

**EQUIVALENCE TO MARKETED DEVICE:**

The ACE Surgical TriMark™ TriCam™ Dental Implant is substantially equivalent to the ACE Screw Dental Implant System (K954513) and the Nobel Biocare™ Replace Dental Implant (K023113). The candidate device and the predicate devices have the same intended use and similar technological characteristics as follows. Materials: The candidate device and predicate devices are made of titanium alloy and commercially pure titanium respectively, both have similar performance characteristics. The candidate and predicate devices have comparable roughened surface treatments. Diameters: Both the predicate and the candidate device are offered in diameters of 3.5, 4.3 and 5.0mm external thread diameters. The candidate and predicate devices are offered in similar lengths 8 – 16mm and 8 – 16 mm respectively. Internal threads: Both devices have 1.8 and 2.0mm metric internal threads. The candidate and predicate devices are packaged and sterilized by identical methods. Both the ACE Surgical Screw Implant and the ACE Surgical TriMark™ TriCam™ Dental Implant use a 2 stage implantation process. The Nobel Biocare™ Replace Dental Implant utilizes either a one or two stage implantation process.

A review of the technological characteristics and the non-clinical test data demonstrates ACE Surgical TriMark™ TriCam™ to the ACE Screw Dental Implant System (K954513) and the Nobel Biocare™ Replace Dental Implant (K023113) are substantially equivalent.



Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room -W066-G609  
Silver Spring, MD 20993-0002

Ms. Denise Williams  
Quality Assurance Manager  
ACE Surgical Supply Company Incorporated  
1034 Pearl Street  
Brockton, Massachusetts 02401

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Re: K103790  
Trade/Device Name: ACE Surgical TriMark™ TriCam™ Dental Implant  
Regulation Number: 21 CFR 872.3640  
Regulation Name: Endosseous Dental Implant  
Regulatory Class: II  
Product Code: DZE  
Dated: August 2, 2011  
Received: August 3, 2011

Dear Ms. Williams:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



Anthony D. Watson, B.S., M.S., M.B.A.  
Director  
Division of Anesthesiology, General Hospital,  
Infection Control and Dental Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

K103790

**Indications For Use:**

The TriMark™ TriCam™ Dental Implant System is used in indications for oral endosseous implants in the maxilla and/or mandible as part of a functional and aesthetic oral rehabilitation in partial or fully edentulous patients.

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Prescription Use   X    
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use \_\_\_\_\_  
(21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

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(Division Sign-Off)  
Division of Anesthesiology, General Hospital  
infection Control, Dental Devices

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