

K140158

**510(k) Summary  
for the S.E.A.L. Fracture Fusion Tube**

**MAY 29 2014**

In accordance with 21 CFR 807.92 of the Federal Code of Regulations the following 510(k) summary is submitted for the S.E.A.L. Fracture Fusion Tube.

**1. GENERAL INFORMATION****Date Prepared:** January 15, 2014**Trade Name:** S.E.A.L. Fracture Fusion Tube**Common Name:** External Fixation Frame**Classification Name:** Single/multiple component metallic bone fixation appliances and accessories.**Class:** II**Product Code:** KTT**CFR section:** 21 CFR section 888.3030**Device panel:** Orthopedic**Legally Marketed** SBi Mini Rail External Fixation System (Small Bone Innovations, Inc., K093550)**Predicate Devices:** Vilex Rail Fixation System (Vilex eX-Fix, K052196)

DFS @ MiniFixator (EBI (Biomet), K951357/K970290)

Tomahawk Mini Fixator (Wright Medical, K052005)

**Submitter:** DNE, LLC

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**2. DEVICE DESCRIPTION**

The S.E.A.L. Fracture Fusion Tube provides a solution for fractures and for lengthening of small bones. The system allows controlled compression / distraction and early weight bearing. The articulating pin clamps allow adjustment around three axes and linear translation so that it can be used for comminuted intra-articular fractures or arthrodesis of the foot or hand. The fixator design enables pins to be located in multi-planar arrangements, allowing the frame to be built around the fractures in the hand or foot.

**Materials:**

6061-T6 Aluminum

316L Stainless steel

PTFE

PEEK

K140158

**Function:**

The S.E.A.L. Fracture Fusion Tube is indicated for stabilizing various fractures including open and/or comminuted fractures, fractures with length discrepancies, fusions and corrective osteotomies of the metacarpal and metatarsal bones

**3. SUBSTANTIAL EQUIVALENCE CLAIMED TO PREDICATE DEVICES**

The S.E.A.L. Fracture Fusion Tube is substantially equivalent to the predicate devices in terms of intended use, design, materials used, mechanical safety and performances.

**4. INTENDED USE**

The S.E.A.L. Fracture Fusion Tube is indicated for use in external fixation of fractures and/or reconstruction of small bones, including metacarpal and metatarsal.

**5. NON-CLINICAL TEST SUMMARY**

Testing was performed following ASTM F1541-02 Annex 7.

The results of this analysis indicate that the S.E.A.L. Fracture Fusion Tube is equivalent to predicate devices.

**6. CLINICAL TEST SUMMARY**

No clinical studies were performed

**7. CONCLUSIONS NONCLINICAL AND CLINICAL**

D.N.E considers the S.E.A.L. Fracture Fusion Tube to be equivalent to the predicate device listed above. This conclusion is based upon the devices' similarities in principles of operation, technology, materials and indications for use.



Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Center - WO66-G609  
Silver Spring, MD 20993-0002

May 29, 2014

DNE, LLC  
% J.D. Webb  
The OrthoMedix Group, Incorporated  
1001 Oakwood Boulevard  
Round Rock, Texas 78681

Re: K140158

Trade/Device Name: S.E.A.L. Fracture Fusion Tube

Regulation Number: 21 CFR 888.3030

Regulation Name: Single/multiple component metallic bone fixation appliances and accessories

Regulatory Class: Class II

Product Code: KTT

Dated: April 17, 2014

Received: April 21, 2014

Dear Mr. Webb:

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 contact the Division of Industry and Consumer Education 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>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 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 Industry and Consumer Education 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,

**Lori A. Wiggins**

for

Mark N. Melkerson

Director

Division of Orthopedic Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

**Indications for Use**

510(k) Number (if known)

K140158

Device Name

S.E.A.L. Fracture Fusion Tube

Indications for Use (Describe)

The S.E.A.L. Fracture Fusion Tube is indicated for use in external fixation of fractures and/or reconstruction of small bones, including metacarpal and metatarsal.

Type of Use (Select one or both, as applicable)

Prescription Use (Part 21 CFR 801 Subpart D)

Over-The-Counter Use (21 CFR 801 Subpart C)

**PLEASE DO NOT WRITE BELOW THIS LINE -- CONTINUE ON A SEPARATE PAGE IF NEEDED.**

**FOR FDA USE ONLY**

Concurrence of Center for Devices and Radiological Health (CDRH) (Signature)

Casey L. Hanley, Ph.D.  
Division of Orthopedic Devices