

10092631

**Special 510(k) Summary of Safety and Effectiveness:  
MANTIS® Spinal System - Line Extension**

SEP 25 2009

Proprietary Name: MANTIS® Spinal System & MANTIS Redux Spinal System

Common Name: Spinal Fixation Appliances

Classification Name and Reference: 1) Spinal Interlaminar Fixation Orthosis, 21 CFR §888.3050  
2) Spinal Intervertebral Body Fixation Orthosis, 21 CFR §888.3060  
3) Pedicle Screw Spinal System, 21 CFR §888.3070 (b) (1) & (b) (2)

Device Product Code: NKB, KWP, KWQ, MNH, MNI

Proposed Regulatory Class: Class III

For Information contact: Curtis Truesdale  
Regulatory Affairs Project Manager  
2 Pearl Court  
Allendale, NJ 07401  
Telephone: (201) 760-8296  
Fax: (201) 760-8496  
Email: Curtis.Truesdale@Stryker.com

Date Summary Prepared: August 4, 2009

Predicate Devices

- Stryker Spine MANTIS Spinal System, K061812, K073151;
- Stryker Spine Xia® Spinal System, K013823, K043473;
- Stryker Spine Xia® II Spinal System, K063428;
- Stryker Spine Osteonics Spinal System, K951725; and
- Stryker Spine Radius® Spinal System, K062270, K082608.

Description of Device Modification	This 510(k) is intended to introduce an extension to the existing MANTIS <sup>®</sup> Spinal System. The proposed line extension includes the addition of titanium Reduction Screws, and use of Stryker Spine Radius titanium and Vitallium <sup>®</sup> rods with other components of the MANTIS <sup>®</sup> and MANTIS <sup>®</sup> Redux Spinal Systems.
Intended Use	<p>The MANTIS<sup>®</sup> &amp; MANTIS<sup>®</sup> Redux Spinal Systems: degenerative disc disease (DDD) (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies); spondylolisthesis; trauma (i.e., fracture or dislocation); spinal stenosis; curvatures (i.e., scoliosis, kyphosis, and/or lordosis); tumor; pseudoarthrosis; and failed previous fusion.</p> <p>The titanium and Vitallium<sup>®</sup> rods from the Stryker Spine Radius<sup>®</sup> Spinal System are intended to be used with the other components of MANTIS<sup>®</sup> &amp; MANTIS<sup>®</sup> Redux Spinal Systems.</p>
Summary of the Technological Characteristics	The Stryker Spine MANTIS <sup>®</sup> & MANTIS <sup>®</sup> Redux Spinal Systems, with the incorporation of the subject components, is substantially equivalent to the predicate devices in terms of material, design, and indications for use. Engineering analysis and testing to demonstrate compliance with FDA's Guidance for Spinal System 510(k)'s May 3, 2004 were completed for the systems.



DEPARTMENT OF HEALTH & HUMAN SERVICES

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

Stryker Spine  
% Mr. Curtis Truesdale  
Regulatory Affairs Project Manger  
2 Pearl Court  
Allendale, New Jersey 07401

SEP 25 2009

Re: K092631

Trade/Device Name: MANTIS<sup>®</sup> Spinal System and MANTIS<sup>®</sup> Redux Spinal System  
Regulation Number: 21 CFR 888.3070  
Regulation Name: Pedicle screw spinal system  
Regulatory Class: III  
Product Code: NKB, MNI, MNH, KWP, KWQ  
Dated: August 5, 2009  
Received: August 26, 2009

Dear Mr. Truesdale:

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.

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/CDRHOices/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 (240) 276-3150 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Mark N. Melkersen". The signature is written in a cursive style with a large initial "M".

Mark N. Melkersen

Director

Division of Surgical, Orthopedic,  
and Restorative Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known): \_\_\_\_\_

Device Name: MANTIS® Spinal System and MANTIS® Redux Spinal System

### Indications for Use:

The MANTIS® Spinal System and MANTIS® Redux Spinal System is intended for posterior, non-cervical pedicle fixation for the following indications: degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies), spondylolisthesis, trauma (i.e. fracture or dislocation), spinal stenosis, curvatures (i.e. scoliosis, kyphosis, and/or lordosis), tumor, pseudoarthrosis and failed previous fusion.

The Titanium and Vitallium rods from the Stryker Spine RADIUS® Spinal System are also intended to be used with other components of MANTIS® Spinal System and MANTIS® Redux Spinal System.

Prescription Use   X  

AND/OR

Over-The-Counter Use \_\_\_\_\_

(21 CFR 801 Subpart D)

(21 CFR 807 Subpart C)

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

Concurrence of CDRH, Office of Device Evaluation (ODE)

Karen S. Bunnery for MXM

(Division Sign-Off)

Division of Surgical, Orthopedic,  
and Restorative Devices

510(k) Number   K092631