

JAN 08 2003

## 510(k) Summary of Safety & Effectiveness

(as required by 21 CFR 807.92c)

K024059

**Date Prepared:**

1 December 2002

**Submitter's Information:**

Soring GmbH Medizintechnik  
Justus-v.Liebig 10  
25451 Quickborn  
Germany  
Telephone: 49 4106-6100-0

**Trade Name, Common Name, Classification:**

Trade name: Söring GmbH, MBC™ Series  
Common name: Electrosurgical conductive gas coagulation  
Classification name: 878.4400 - Device, Electrosurgical, Cutting & Coagulation & Accessories

**Predicate Device:**

Name: Söring GmbH, ARCO 3000, ARCO 2000, ARCO 1000, and MBC Series  
510(k) Number: K993265  
Regulation Number: 878.4400 - Device, Electrosurgical, Cutting & Coagulation & Accessories  
Product Code: GEI  
Decision Date: 10/22/1999

**Device Description:**

The Soring GmbH MBC™ Series is a monopolar and bi-polar RF surgical device for cutting and coagulation. RF Surgery is the use of high frequency alternating electrical current (frequency higher than 300 kHz) with the purpose of alteration or destruction of cells and for cutting tissue. The Soring GmbH MBC™ Series is used for tissue removal and cauterization in connection with mechanical operation techniques. The tissue cauterization and cutting effects are accomplished by a combination of heating through the electrical resistance offered by the biological tissue and through the heating of the electrode. Heat production is mainly a result of the fact that biological tissue acts as an electrical resistor for frequencies normally used during RF surgery and that as an electrical resistor biological tissue heats up when electric currents flow through. The amount of heat developed is therefore dependent on the current and the resistance of the conductor (the biological tissue) put up by the patient. From an electrical point of view, the patient is the conductor. As a result, in a closed current loop of metallic conductors and biological tissue of equal cross sectional area the biological tissue heats up significantly more. As can be seen in the table below, different biological tissue types offer a wide range of electrical resistance and thus are affected differently

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by the applied RF signal. The Soring GmbH MBC™ Series internal circuitry automatically senses the resistivity and adjusts the RF signal accordingly for the best results.

### **Indications for Use:**

The devices are intended to cut and or coagulate (soft) biological tissue during surgical procedures. Typical users of this system are trained medical professionals.

### **Performance Data:**

The subject and predicate devices both use standard data communications controls to detect errors. Both devices comply with IEC 950 – Safety of Information Technology Equipment, CISPR 22, class A – Electromagnetic Compatibility, IEC-801-2, IEC-801-3 – Electromagnetic Compatibility, IEEE 1003.1 – General Electrical Safety for medical devices, IEC 601-1 –Electrical Safety for medical devices using RF-power, IEC 601-2-2 – Special specifications for the safety of RF-surgery units

### **Conclusion:**

Similar to the predicate device, the Soring GmbH MBC™ Series of devices do not control any life sustaining functions or services. The Soring GmbH MBC™ Series and the predicate device share the same conformance to performance standards and both function as RF surgery units. Based on the information supplied in this 510(k), we conclude that the subject devices are safe, effective, and substantially equivalent to the predicate devices.



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

JAN 08 2003

Soring GmbH Medizintechnik  
c/o Mr. Carl Aletto  
Delta Quality Consulting  
1100 Lakeview Boulevard  
Denton, Texas 76208

Re: K024059

Trade/Device Name: Soring GmbH MBC™ Series  
Regulation Number: 21 CFR 878.4400  
Regulation Name: Electrosurgical cutting and coagulation device and accessories  
Regulatory Class: II  
Product Code: GEI  
Dated: November 12, 2002  
Received: December 9, 2002

Dear Mr. Aletto:

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 such 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); 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.

Page 2 - Mr. Carl Aletto

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (301) 594-4659. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97) you may obtain. Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,

*Miriam C. Provost*  
for Celia M. Witten, Ph.D., M.D.  
Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

(Indications for Use Form)

510(k) Number: K024059

Device Name: **Soring GmbH MBC™ Series**

Indications for Use:

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Typical users of this system are trained medical professionals.

(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)

Prescription Use  OR Over-The-Counter Use   
(Per 21 CFR 801.109)

(Optional Format 1-2-96)

Meriam C. Probst  
(Division Sign-Off)  
Division of General Restorative  
and Neurological Devices

510(k) Number K024059