



February 24, 2023

Corinth MedTech, Inc.
George Hsu
Vice President, R&D
1190 Saratoga Ave, Ste 210
San Jose, CA 95129

Re: K230205
Trade/Device Name: Veloxion System
Regulation Number: 21 CFR 876.1500
Regulation Name: Endoscope and Accessories
Regulatory Class: II
Product Code: FJL,KQT,GEI
Dated: January 24, 2023
Received: January 25, 2023

Dear George Hsu:

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. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database located at <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm> identifies combination product submissions. 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) for devices or postmarketing safety reporting (21 CFR 4, Subpart B) for combination products (see <https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products>); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

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 <https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance>) and CDRH Learn (<https://www.fda.gov/training-and-continuing-education/cdrh-learn>). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice>) for more information or contact DICE by email (DICE@fda.hhs.gov) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

Mark J. Antonino -S

Mark J. Antonino, M.S.

Assistant Director

DHT3B: Division of Reproductive,
Gynecology and Urology Devices

OHT3: Office of GastroRenal, ObGyn,

General Hospital and Urology Devices

Office of Product Evaluation and Quality

Center for Devices and Radiological Health

Enclosure

Indications for Use

510(k) Number (if known)
K230205

Device Name
Veloxion System

Indications for Use (Describe)

The Veloxion System is intended for use by trained urologists for endoscopically controlled tissue chip resection and coagulation, and removal of prostate adenomas via suction channel under continuous flow conditions following resection using a bipolar resecting device.

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)

CONTINUE ON A SEPARATE PAGE IF NEEDED.

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I. Submitter Information

Submitter name:	Corinth MedTech, Inc. 1190 Saratoga Ave. Suite 210 San Jose, CA 95129
Contact person:	George Hsu Vice President of R&D Phone: 408-703-0722 Fax: 408-703-2411
Date Prepared:	January 24, 2023

II. Product Classification

Device Name:	Veloxion System
Common Name:	Resectoscope
Regulation:	21 CFR 876.1500
Regulation Name:	Endoscope and accessories
Class:	II
Product Code:	FJL
Additional Product Codes:	KQT, GEI

III. Predicate Devices

The predicate device is the system comprised of the following legally marketed devices as used in combination to which substantial equivalence is claimed:

Primary Predicate: Veloxion System (cleared per K190099)

Predicate has not been a subject of a design related recall.

IV. Device Description

The Veloxion System consists of the following components:

- Veloxion Controller (with Integrated Fluid Control and video)
 - Footswitch
- Veloxion Resectoscope
- Veloxion Fluid Control Set
- Veloxion Roll Stand

The Veloxion System also includes the following Class I accessories for handling of waste collected from the patient (these items only handle waste after it is already outside the patient), which includes:

- Waste Management Tubing: To provide a conduit for transfer of aspirated fluids and tissue from the patient and from under the patient's buttocks drape
- Tissue Catch: For collection of gross resected tissue pieces for pathology.

The Veloxion System provides bipolar resection and coagulation of prostate adenomas, it distends the cavity by filling with saline and it provides pressure control of the cavity to facilitate viewing with the integrated Resectoscope. The components of Veloxion System perform the following functions:

- The Veloxion Controller provides bipolar radiofrequency outputs (for cut and coagulation) and fluid/pressure control through the use of two integrated peristaltic pumps, provides the user interface to establish the desired set pressure, monitors intracavitary pressure using dual independent pressure sensors mechanically connected to the Veloxion Fluid Control Set irrigation lumen. The software then monitors, controls and notifies the user when the limits are reached or when specific conditions are met. Furthermore, the controller provides control of the camera, light, display image to a commercially available monitor, stores image and video selected by the user from a session, and provides a USB connection for a USB Stick download of stored media by the user.
- The Veloxion Resectoscope is a sterile single use hand held bipolar radiofrequency device configured to provide camera and light for visualization of the anatomy for the resection of tissue and aspiration of resected chips. Fluid inflow and aspiration of the resected chips are controlled by the Controller’s peristaltic pumps.
- The Veloxion Fluid Control Set is a sterile single use device that provides conduits for fluid inflow, aspiration of resected tissue and fluids and a diaphragm (pressure membrane) that provides mechanism for the Controller to measure cavity pressure (through the irrigation lumen) during the procedure thereby facilitating the insufflation function.
- The Veloxion Roll Stand enables monitoring of saline remaining in the saline bag.

V. Indications for Use

There is no difference in the indications for use for the subject device when compared to the predicate device.

Comparison of Indications for Use

Device	Indications For Use
Modified Veloxion System (Subject Device)	The Veloxion System is intended for use by trained urologists for endoscopically controlled tissue chip resection and coagulation, and removal of prostate adenomas via suction channel under continuous flow conditions following resection using a bipolar resecting device.
Veloxion System K190099 (Predicate Device)	The Veloxion System is intended for use by trained urologists endoscopically controlled tissue chip resection and coagulation and removal of prostate adenomas via suction channel under continuous flow conditions following resection using a bipolar resecting device.

VI. Comparison of Technological Characteristics with the Predicate Device

The subject Veloxion System and the previously cleared Veloxion System (K190099) have the same or similar technological characteristics in terms of basic operating principle and basic design features with one key difference being that the predicate Veloxion System has a separate Controller and Video Control Unit, whereas the subject system combines the video functions into the Controller.

Specification	Special 510K submission	Predicate Device (K190099)	Comparison
Indications for use	The Veloxion System is intended for use by trained urologists for endoscopically controlled tissue chip resection and coagulation, and removal of prostate adenomas via suction channel under continuous flow conditions following resection using a bipolar resecting device.	The Veloxion System is intended for use by trained urologists for endoscopically controlled tissue chip resection and coagulation, and removal of prostate adenomas via suction channel under continuous flow conditions following resection using a bipolar resecting device.	Same
Monopolar or Bipolar	Bipolar	Bipolar	Same
Energy Type	Radiofrequency, bipolar	Radiofrequency, bipolar	Same
Optics	Integrated, Sterile, 10degree Endoscope	Integrated, Sterile, 10degree Endoscope	Same
Able to set cavity pressure on device	Yes	Yes	Same
Continuous flow?	Yes	Yes	Same
Irrigation Fluid	Saline	Saline	Same
Pump	Dual Pump (Irrigation, Aspiration)	Dual Pump (Irrigation, Aspiration)	Same
Able to monitor saline remaining	Yes	Yes	Same
Programmed Flow rate	Programmed flow rate constant for each mode: Steady State = 50ml/min, Cut = 200ml/min Coag = 50ml/min ASPIRATE = 400ml/min	Programmed flow rate constant for each mode: Steady State = 50ml/min, Cut = 380ml/min Coag = 50ml/min ASPIRATE = 400ml/min	Flow rate for CUT mode was reduced to shorten initial plasma ignition while not affecting the ability to evacuate tissue chip.
Passive flow	User adjustable flow rate using Roller Clamp installed during manufacturing. The nominal passive flow rate when Roller	User adjustable flow rate using Roller Clamp installed during manufacturing. The nominal passive flow rate when Roller	Same

Specification	Special 510K submission	Predicate Device (K190099)	Comparison
	Clamp is fully open is: <ul style="list-style-type: none"> • 360ml/min (at 20mmHg) • 500ml/min (at 60mmHg) 	Clamp is fully open is: <ul style="list-style-type: none"> • 360ml/min (at 20mmHg) • 500ml/min (at 60mmHg) 	
Set Pressure Range	20 to 60mmHg	20 to 60mmHg	Same
Positive action to increase above 40 mmHg	Yes	Yes	Same
Pressure sensor	Dual, independent, direct sensing of cavity pressure	Dual, independent, direct sensing of cavity pressure	Same
Over-pressure condition detection	Yes	Yes	Same
Maximum allowable actual cavity pressure	75mmHg	75mmHg	Same
Ultimate mitigation for risk of over-pressurization of cavity if all designed mitigations are unsuccessful	<ul style="list-style-type: none"> • Non-defeatable, continuous notification tone • Notification displayed: "Remove device from cavity. Check for Clog." 	<ul style="list-style-type: none"> • Non-defeatable, continuous notification tone • Notification displayed: "Remove device from cavity. Check for Clog." 	Same
Max. Shaft OD (Sheath):	With Sheath Assembled: 25Fr (8.3mm)	With Sheath Assembled: 25Fr (8.3mm)	Same
Working Length	Sheath Working Length: 220mm	Sheath Working Length: 220mm	Same
Materials (Electrode/ Insulation)	Electrode: Tungsten (99.95% purity) Insulation: FEP	Electrode: Tungsten (99.95% purity) Insulation: FEP	Same
How Supplied (Sterility):	Sterile, Single Use (Veloxion Resectoscope)	Sterile, Single Use (Veloxion Resectoscope)	Same

The main technological differences between the subject Veloxion System and the predicate Veloxion System are the following:

- The subject Veloxion System includes a sterile, single-use Resectoscope whose camera and LED are in a single tube assembly while the predicate Veloxion System uses a sterile, single-use Resectoscope whose camera and LED are in separate tube assemblies.
- The subject Veloxion System includes a Controller that provides the RF generator, pressure/flow control, user interface to control, monitor, and provide notification with integrated resectoscope video streaming and light control while the predicate Veloxion System includes a Controller that provides the RF generator, pressure/flow control, user interface to control, monitor, and provide notification and a separate Video Control Unit that provides resectoscope video streaming and resectoscope light control.
- The subject Veloxion System includes programmed electrode oscillation rate and flow rate slightly different from the predicate Veloxion System as a result to facilitate initial plasma ignition on the electrode without impact on the tissue evacuation capability. The differences outlined were evaluated through performance testing to demonstrate safety and effectiveness of the subject Veloxion System.

VII. Non-Clinical Testing Data

The following performance data have been provided in support of the substantial equivalence determination.

- **Software Verification and Validation Testing** performed per IEC 62304 and documentation provided per FDA's Guidance for Industry and FDA Staff, "Guidance for the Content of Premarket Submissions for Software Contained in Medical Devices."
- **Other Tests** were performed per approved test protocols which included:
 - Integrity: System withstands operating pressures
 - Functional Testing: Cut and coagulation, aspiration, irrigation, pressure control
 - Dimensional Inspection and Testing
 - Functional Testing for all components of the system
 - Maximum LED Tip Temperature
 - Comparative visualization testing in a simulated model
 - Simulated Use: Tissue resection and spot coagulation, regulation of cavity pressure, imaging
 - Durability Testing: Electrode durability testing for tissue resection and coagulation.
 - Comparative testing to predicate for electrode durability, pressure control and fluid control.
 - Thermal effects evaluation.
 - Biocompatibility Testing: In accordance with ISO 10993-1
 - Sterility: In accordance with ISO 11135:2014, ISO 11137-1:2006, ISO 11137-2:2013
 - Packaging: In accordance with ASTM D4169:14 and ISO 11607-1:2006.
 - Shelf-life: In accordance with ASTM F1980:2007.
 - Electrical Safety & EMC: In accordance with IEC 60601-1:2005, IEC 60601-1-2:2014, IEC 60601-2-18:2009 and IEC 60601-2-2:2009.
 - Usability Testing: Use related risk evaluation

In order to prove substantial equivalence, testing performed on the Veloxion System was either identical to the testing protocols used for the predicate device (except for part number and

documentation number), or were a subset of the testing performed only on the changes to the device but based on the predicate's testing protocols.

VIII. Conclusions

Based on the results of performance tests, the subject Veloxion System is considered to be substantially equivalent and as safe and effective as the *predicate* Veloxion System (K190099).