SURGITRON® DUAL EMC 90

Advanced 4.0 MHz Radiofrequency Technology

PRECISION • VERSATILITY

ellman International, Inc. 50 Years Established 1959

ellman®
Experts in Precision Surgery.

Surgitron® Dual EMC 90 Energy Source

With over **50 years of experience**, over 70 patents and more than 200 journal articles, Ellman is your trusted worldwide partner for surgical products, service and se

The Surgitron® Dual EMC 90 unit represents advanced radiofrequency technology tha provides unparalleled surgical control, **precision**, **versatility** and **safety**. The high frequency of 4.0 MHz minimizes heat dissipation and thus cellular alter

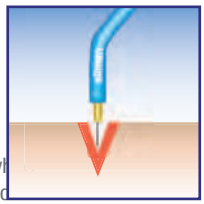
Five Distinct Waveforms for Optimum Results

1. Fully Filtered (Cut)

- Micro-smooth cutting
- Negligible lateral heat
- Minimal cellular destruction
- Best cosmetic results. Fastest healing
- Ideal for skin incision and biopsy
- 4.0 MHz

2. Fully Rectified (Cut/Coag)

- Cutting with hemostasis
- Ideal for sub-cutaneous tissue dissection and planing. Especially useful in vascular areas wh producing minimal amounts of lateral heat and tissue damage
- 4.0 MHz

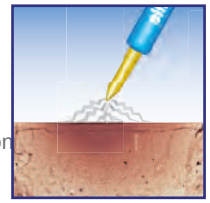


3. Partially Rectified (Hemo)

- Coagulation / Shrinkage
- Ideal hemostasis with controlled penetration
- For cutting with maximum hemostatic control
- 4.0 MHz

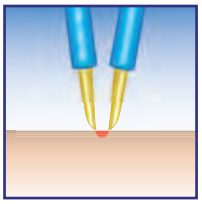
4. Fulguration

- Maximum hemostasis
- Ideal for intentional tissue destruction
- 4.0 MHz



5. Bipolar

- Pinpoint, micro-coagulation
- Minimal charring or tissue necrosis
- Ideal for coagulation in and around critical anatomy
- 1.7 MHz



Clinical Citations

1. Olivar, A.C., et al, Ann Clin Lab Sci. (1999); 29(4): p281-
2. Data on file.
3. Niamtu, J., Chapter 4B, "Radiowave Surgery in Oral and Maxillofacial Surgery", in Bell, W., *Distraction Osteogenesis of the Facial Skeleton*, 2007, p30-37.
5. Bridenstine, J.B., Derm Surgery (1998); vol 24, p397-400.
5. Ericsson, E., et al, The Laryngoscope (2007); vol 117, p654-6, Mercer Derm Surgery (2002); vol 28, p735-738
7. Eremia, S.,et al, Dermatol Surg (2001); 27: p1052-1054.

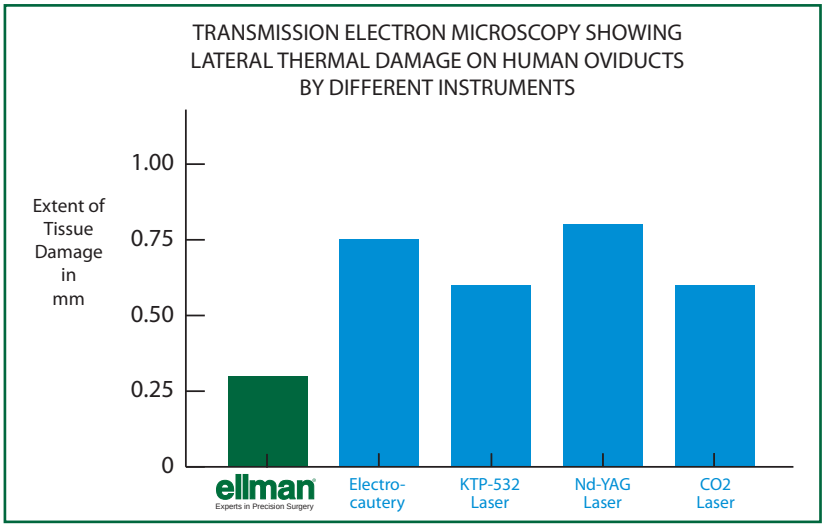
Distinct Benefits for Your Practice and Your Patients

- **Precision** – create precise incisions in a variety of tissue structures[3]
- **Versatility** – no other energy-based technology has the surgical versatility of Ellman[2]
- **Quick Recovery** – with less tissue destruction, healing is hastened and your patients can recover quickly[4]
- **Decreased Post-Operative Pain** – 4.0 MHz causes less trauma[5]
- **Decreased Post-Surgical Edema** – low temperature equals less tissue destruction[6]
- **Less Burning or Charring of Tissue** – 4.0 MHz minimizes burning of tissue, unlike laser or conventional lower frequency electrosurgery[1]

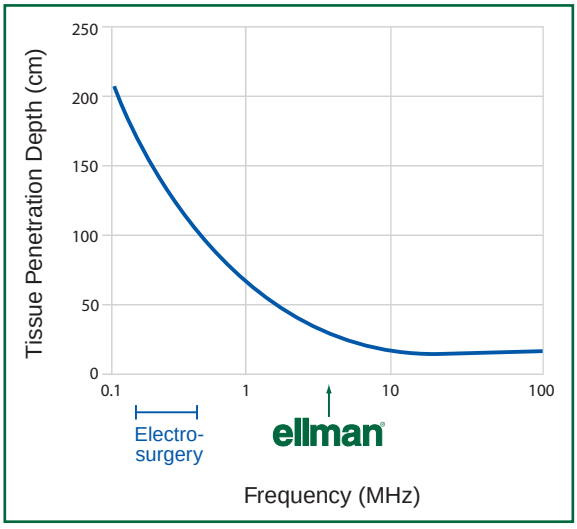
Features

- **Dual Frequency** combining two optimized frequencies – Monopolar (4.0 MHz) and Bipolar (1.7 MHz) for maximum surgical benefits – for outstanding precision and control
- **Digital Control Panel** facilitates easy operation and a clear view of settings
- **Solid State Circuitry** for dependable and consistent energy emission
- **Safety Indicators** provide visual and auditory alerts
- **Parameter Recall** allows rapid set-up for subsequent procedures

4.0 MHz Minimizes Lateral Thermal Damage and Maximizes Precision



Reference - Olivar, AC, et al, Ann Clin Lab Sci. 1999 Oct-Dec;29(4):221-29.



Source: Golio, JM, et al, "RF and Microwave Applications and Systems", The RF and Microwave Handbook, pp 21-1-2.

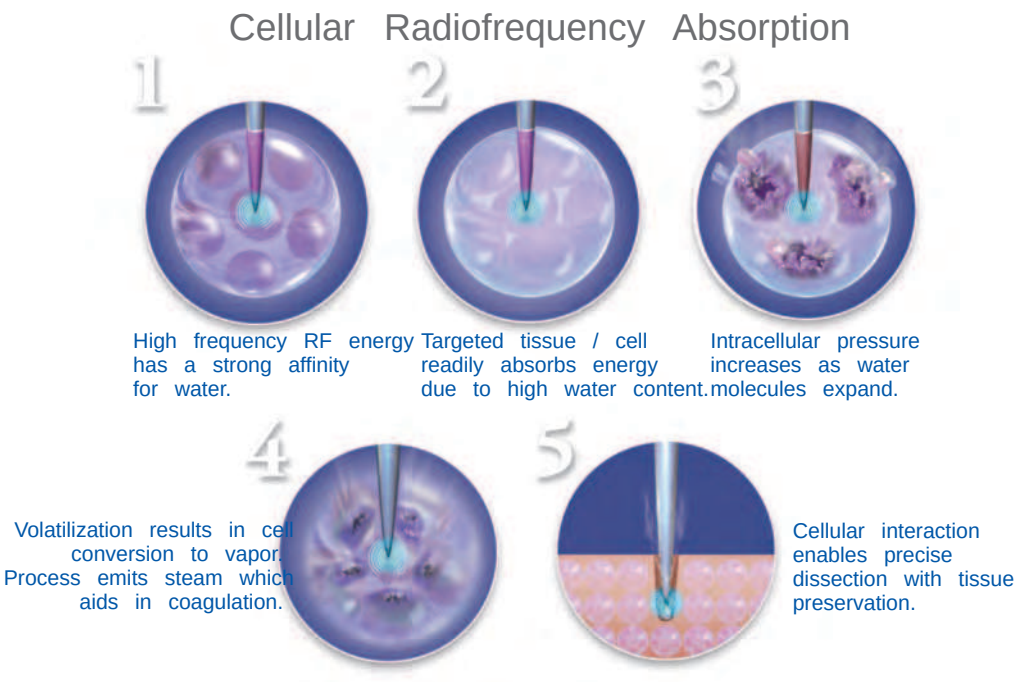
- Ellman radiofrequency technology produces one-third the lateral thermal damage as compared to conventional electrosurgery
- Ellman radiofrequency technology produces one-half to one-third of the lateral thermal damage versus most lasers

Shown with Surgitron® Dual EMC 90, Surg-e-Vac™ and Cart

Surgitron® Dual EMC 90 Specifications

Product Code: EC3A-S30-90 **Description:** Surgitron® 4.0 Dual RF 90 IEC	
Dimensions Height: 5 inches Width: 9 inches Depth: 13 inches Weight: 18 lbs	**Output frequency** 4.0 MHz Monopolar 1.7 MHz Bipolar **Line Frequency** 50 - 60 Hz
Line Voltage 110/120/220/240 volts	
Output Power Monopolar Cut: 90 Watts Monopolar Cut/Coag: 65 Watts Monopolar Hemo: 45 Watts Monopolar Fulgurate: 35 Watts Bipolar: 90 Watts	

How Our Patented Radiofrequency Technology Works



MiDiBen Medical
Distribuidor exclusivo en México
(81) 1001 7073
info@midiben.com

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CE 0413