How Our Patented Radiofrequency Technology Works

Cellular Radiofrequency Absorption

1. High frequency RF energy has a strong affinity for water.
2. Targeted tissue/cell readily absorbs energy due to high water content.
3. Intracellular pressure increases as water molecules expand.
4. Volatilization results in the conversion of intracellular water to vapor. Process emits steam which aids in coagulation.
5. Cellular interaction enables precise dissection with tissue preservation.

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

<table>
<thead>
<tr>
<th>Product Code:</th>
<th>IEC3a-S30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Surgitron 4.0 Dual RF/120 IEC</td>
</tr>
<tr>
<td>Dimensions:</td>
<td></td>
</tr>
<tr>
<td>Height:</td>
<td>7.1 inches</td>
</tr>
<tr>
<td>Width:</td>
<td>9.5 inches</td>
</tr>
<tr>
<td>Depth:</td>
<td>16.5 inches</td>
</tr>
<tr>
<td>Weight:</td>
<td>19 lbs</td>
</tr>
<tr>
<td>Output frequency:</td>
<td></td>
</tr>
<tr>
<td>Monopolar:</td>
<td>4.0 MHz</td>
</tr>
<tr>
<td>1.7 MHz Bipolar</td>
<td></td>
</tr>
<tr>
<td>Line Frequency:</td>
<td></td>
</tr>
<tr>
<td>50/60 Hz</td>
<td></td>
</tr>
<tr>
<td>Line Voltage:</td>
<td>100-240 volts</td>
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<tr>
<td>Output Power:</td>
<td></td>
</tr>
<tr>
<td>Monopolar Cut:</td>
<td>120 Watts</td>
</tr>
<tr>
<td>Monopolar Blend:</td>
<td>90 Watts</td>
</tr>
<tr>
<td>Monopolar Coag:</td>
<td>60 Watts</td>
</tr>
<tr>
<td>Monopolar Fulgurate:</td>
<td>45 Watts</td>
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<tr>
<td>Bipolar:</td>
<td>120 Watts</td>
</tr>
</tbody>
</table>

Clinical Citations
5. Aferzon, M, Derm Surgery (2002); vol 28, p735-738.

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With over 55 years of experience, over 70 patents and more than 200 journal articles, Ellman is your trusted worldwide partner for surgical products and services.

The patented Surgitron Dual RF™ unit represents advanced RF technology that provides unparalleled surgical control, precision, versatility and safety. It generates 120 watts of power and operates at 4.0 megahertz (MHz) in monopolar mode and 1.7 MHz in bipolar mode. The high frequency is up to eight times greater than traditional electrosurgery units. This minimizes thermal damage along the incision path and is the ideal choice for your soft tissue cutting and coagulation needs, regardless of setting: private office, surgery center or hospital.

Features of the Surgitron Dual RF 120

- **Advanced Technology** reflects 50 years of innovation and enhancement
- **Dual Frequency** combines two distinct frequencies – Monopolar (4.0 MHz) and Bipolar (1.7 MHz) – for outstanding precision and control
- **Digital Control Panel** facilitates easy operation and clear view of settings
- **Solid State Circuitry** for dependable and consistent energy emission
- **Parameter Recall** enables rapid set-up for subsequent procedures
- **Safety Indicators** provide visual and auditory alerts

Distinct Benefits for Your Practice

- **Precision** – sculpt precise incisions in very thin, mobile or tension-free tissues (e.g. eyelid skin, earlobe, etc...)
- **Versatility** – more versatility than other energy-based technologies
- **Value** – our patented technology is a high return on investment (ROI) purchase for both hospital and office environments

Clinical Outcomes for Your Patients

- **73% Less Thermal Spread** - as compared to Bovie 1250 and Valleylab ForceFX™ in porcine tissue
- **Excellent Cosmetic Results** - causes minimal scar tissue
- **Quick Recovery** – with less tissue destruction, healing is hastened and your patients can recover quickly
- **Decreased Post-Operative Pain** - high frequency RF surgery causes less trauma
- **Less Burning or Charring of Tissues** – high frequency RF surgery minimizes burning of tissue, unlike laser or conventional electrosurgery
- **Minimal Heat Dissipation** - maximum readability of histologic specimens

PROCESSES

- **Biopsy for pathology**
- **Bipolar coagulation**
- **Blepharoplasty**
- **Endoscopic brow lift**
- **Epliation**
- **Face-lifts**
- **Flaps & grafts in reconstructive surgery**
- **Hair transplant (micro grafts)**
- **Keloids**
- **Lesion removal (skin tags, nevus, etc...)**
- **Matricectomy**
- **Mohs surgery**
- **Rhinophyma**
- **Scar revision**
- **Telangiectasia**
- **Wart removal**

Five Distinct Waveforms for Optimal Clinical Outcomes

- **Fully Filtered (Cut)**
  - Micro-smooth cutting • Negligible lateral heat • Minimal cellular destruction • Ideal for skin incision and biopsy • Best cosmetic results • Fastest healing 6,7
  
- **FULLY RECTIFIED (Blend)**
  - Cutting with hemostasis • Ideal for subcutaneous tissue dissection and planing • Especially useful in vascular areas while producing minimal amounts of lateral heat and tissue damage

- **PARTIALLY RECTIFIED (Coag)**
  - Coagulation / Shrinkage • Ideal for hemostasis with controlled penetration • For cutting with maximum hemostatic control

- **FULGURATION**
  - Maximum hemostasis • Ideal for intentional tissue destruction

- **BIPOLAR**
  - Pinpoint, micro-coagulation • Minimal charring or tissue necrosis • Ideal for coagulation in and around critical anatomy

4.0 MHz minimizes Lateral Thermal Spread & maximizes Precision

![Transmission Electron Microscopy showing Lateral Thermal Damage on Human Gland ducts by Different Instruments](image)
