Professional Supplier of Bipolar Radio Frequency Plasma Surgical Electrodes
**Urology PKRP**
Transurethral Plasma Kinetic Resection of the Prostate

**RC 106**
Bipolar Design Various sizes are available

Specialized in Minimally-invasive Radio Frequency Plasma Technology for Urology and Gynecology Surgery

Compatible with urology and gynecology resectoscopes
**How It Works**

The Radio Frequency energy flows through active electrode and return electrode, and by the conductive saline solution it generates precisely focused plasma sheath around the electrodes. The plasma sheath consists of massive charged particles which can generate sufficient energy of strong oxidizing when accelerated by the electric field. The generated energy is powerful enough to break the organic molecular bonds within the tissue, and make the tissue rapidly dissolved into molecular and atoms level at a relatively low temperature of 40-70°C. The device provides rapid and efficient ablation and resection capabilities of soft tissues in a relatively low temperature.

**ABLATE**

The serious blood loss during procedure blocks the surgical visions and causes high potential risk, which would increase the difficulties and time of the surgical procedures. One of the solutions is BONISS Radio Frequency Plasma Surgical System. The double effects of Radio Frequency and Plasma have the advantages as below:

- The blood vessels or the bleeding points are coagulated before resection, thus less blood loss during procedure is achieved.
- Blood vessels are sealed during surgical procedure, to ensure the ablation and resection process with less blood loss, and to ensure a clear surgical field.
- In one versatile single-use plasma electrode, it provides resection, ablation, coagulation and hemostasis capabilities for simple surgical process.

**Excellent Performance**

The low frequency of 100KHz is used. Compared with the technology of ≥200KHz, the Low-frequency Super Pulse Plasma Technology (LSP) provides more precise resection and ablation, and lower working temperature.

FEATURES: Lower working temperature, Reduced thermal damage, No edema period, Shorter hospital stay, Precise resection and ablation by RF Plasma energy, Similar operation and effect to laser enucleation.

**Systematic Working Mode**

Two working modes:
- **ABLATE** for resection and ablation activated at Yellow control panel and Yellow foot pedal.
- **COAG** for coagulation and hemostasis activated at Blue control panel and Blue foot pedal.

**Intelligent Control System**

Designed with automatic identification of electrodes, foot switch and power supply, which are displayed respectively on the device control panel, and automatic default power output value for different electrode designs.

**Endoscopic ABLATION and COAGULATION functions**

BONISS ARS Radio Frequency Plasma Surgical System can support endoscopic resection, ablation, coagulation and hemostasis, such as resectoscope. The product safety has been approved by the health authority to meet the standard of endoscopic surgery. The features include accurate and precise endoscopic resection, no risk of obturator neural reflex, no risk of post-TURP edema.

**Automatic Protection**

The electrical circuit system can constantly monitor power output and automatically suspend power output when there is instantaneous peak current. For example, it will automatically suspend radio frequency output when electrode contacts or is close to metal, and automatically resumes work after electrode has returned to a proper distance.

**Integrated Function**

In one versatile single-use electrode, it provides ABLATE for resection and ablation, COAG for coagulation and hemostasis capabilities. The integrated electrode enhances surgical vision, controlled resection for rapid removal of soft tissues.
Minimally-Invasive Surgery

The Minimally-Invasive Solution at Your Hand

The Radio Frequency Plasma Surgical System provides a minimally-invasive solution for resection of the prostatic hyperplasia. The Radio Frequency Plasma Electrode goes into the target prostate field through the transurethral endoscope to resect the prostatic hyperplasia. No open surgery is necessary.

BONSS Radio Frequency Plasma Surgical System provides the transuretheral plasma resection of the prostate under normal saline solution:

**Precise Operation**
The precise resection and ablation has no injury on the capsule, which is very important for TUR-BT (Bladder Tumor).

**Fast Recovery**
The feature of low working temperature, reduced thermal damage, and the pseudomembrane generated after resection and ablation, ensures a fast recovery.

**Reduced Complications**
- Reduced post-operative urethral thermal injury, mucosal injury, sphincter injury and stenosis.
- Reduced post-operative urinary tract infection and irritation.
- Reduced post-operative bladder irritation, transient urinary incontinence, erectile dysfunction and more.

**Integrated Multifunctions**
In one versatile radio frequency plasma surgical system, it provides bipolar capability, urology and gynecology applications.

**Low Working Temperature**  
**Low Thermal Damage**

<table>
<thead>
<tr>
<th>Plasma Surgery</th>
<th>Electrosurgery</th>
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<tbody>
<tr>
<td>Plasma Energy</td>
<td>Break Molecular Bonds</td>
</tr>
<tr>
<td>40-50℃</td>
<td>100-150℃</td>
</tr>
<tr>
<td>60-100℃ Normal Saline Solution</td>
<td>250-300℃</td>
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<tr>
<td>Multipolar/Bipolar, No Patient Plate</td>
<td>Monopolar, Requires Patient Plate</td>
</tr>
<tr>
<td>Reduced Thermal Damage</td>
<td>High Thermal Damage</td>
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<tr>
<td>No Carbonization</td>
<td>Carbonization</td>
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**Low Blood Loss**

**Reduced Thermal Damage, Fast Recovery**

**Shortened Hospital Stay Time**
The hospital stay for patients treated by plasma technology can be shortened by 2-4 days, compared to that by conventional surgical methods.