Our Technology, Your Health.

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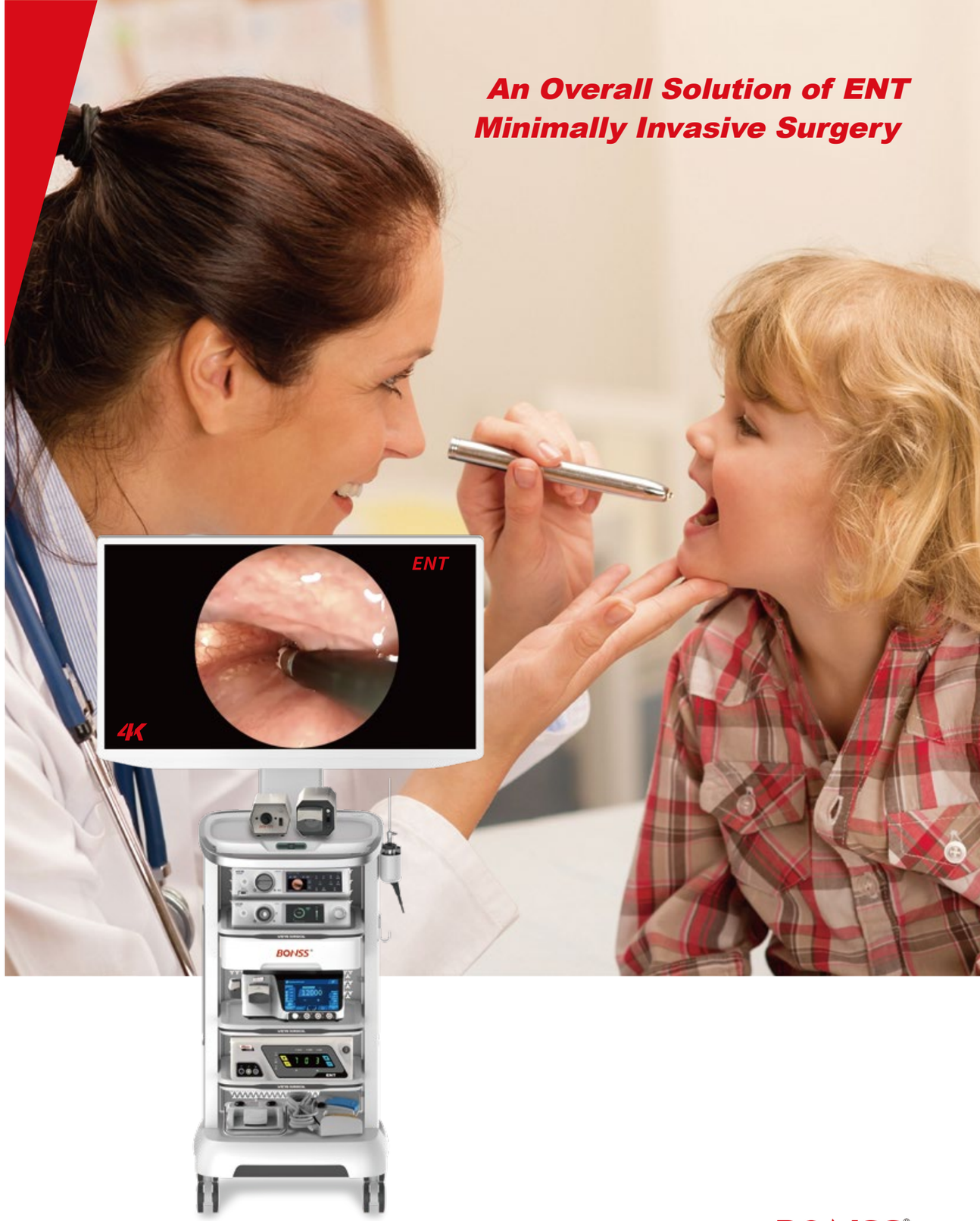
An Overall Solution of ENT Minimally Invasive Surgery



BONSS® MEDICAL

An overall solution of minimally invasive surgery

Laryngeal Tumor Surgical System

Intended for irrigation, suction, cutting, ablation, coagulation and hemostasis in laryngeal surgery, particularly useful for pediatric patients with narrow laryngeal structure and the laryngeal minor pathologies.

Laryn-Neo

Thinner, Longer, More Precise

For the deep laryngeal pathologies

Thinner 1.9mm

Longer 290mm

Patented Innovative Design, Improved Anti-blocking Capability

Patented L-shaped plate tip design, for higher ablation rate and optimized anti-blocking capability, increased by 2 times than the other laryngeal design;

Innovative design of curved tip surface and bilateral suction ports, makes the suction range expanded to 2.2mm², increased by 3 times than the other laryngeal design, to reduce the blockage risk.

Integrated Design with 2.5mm Diameter Tip

Precise Design, with Cutting, Ablation, Coagulation, Hemostasis, Irrigation and Suction capabilities in one versatile device.

Reduced Thermal Damage

The electrode tip adopts special ceramic design, with insulation scope reaching 67%;

Plasma energy sheath is controlled at 100μm, with the collateral thermal damage reduced by more than 50%.

Higher Cutting&Ablation Rate and Optimized Coagulation Capabilities

With L-shaped design, it can work at both sides of the tips, which effectively enhances the cutting, ablation and coagulation capabilities. Intended for the precise cutting and ablation in larynvgeal surgery. With coagulation capability increased by 30% and the cutting/ablation capability increased by 50%.

Anti-gravity Design

Crescent-shaped anti-gravity design of the irrigation port, ensures smooth and even saline irrigation to cover the whole tip surface, for effective and continual plasma creation.

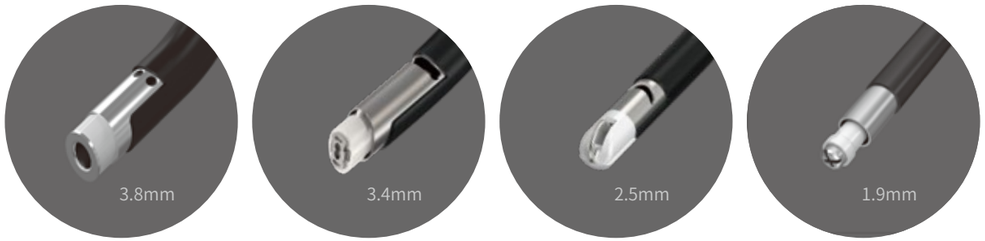
Longer, Thinner, More Precise

Bendable shaft of 2.5mm diameter and 190mm length is particularly useful for complex laryngeal structures, making it possible to reach into the larynx and the position below the glottis for precise cutting, ablation and accurate coagulation.

Excellent Clinical Performance

Powerful cutting, ablation and coagulation capability, to expand the clinical applications.The small diameter shaft design can be selected for the treatment of laryngeal pathology in minimal 3-month newborns, and even congenital throat stenosis or occlusion in newborns.

Various sizes are available for selection

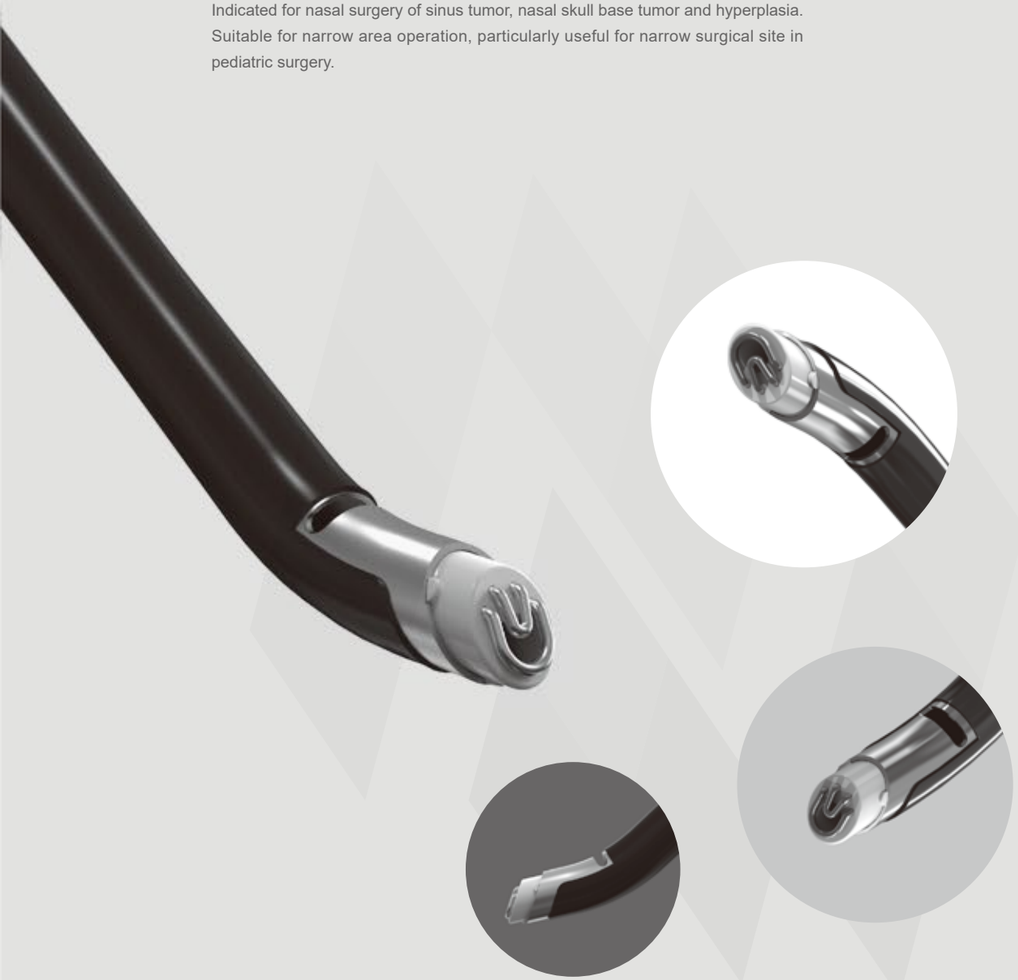


Laryn-Max ***Laryn-Blator*** ***Laryn-Neo*** ***Laryn-Mini***

An overall solution of ENT minimally invasive surgery

Neurosurgery & Skull Base Tumor Surgical System

Indicated for nasal surgery of sinus tumor, nasal skull base tumor and hyperplasia. Suitable for narrow area operation, particularly useful for narrow surgical site in pediatric surgery.



Patented Design for Nasal and Nasal Skull Base Surgery

- Flexible shaft and various tip size are available for clinical selection.
- Excellent solution for narrow anatomical structure, with improved surgical view in structural pathology.
- Clinically tested and approved for accurate and safe ablation, cutting, coagulation and hemostasis under endoscopy.

Overall Upgrade

Stronger Cutting, Ablation, Coagulation and Hemostasis Capability

Double U-shape structure for aggressive ablation rate, to achieve excellent clinical effect.

Improved Suction Capability

Reduced outer diameter and eccentric design, increases the cross-sectional area of the suction port, to obtaining stronger attraction;
The cross-sectional area of the suction port is designed bigger, to achieve a smooth saline flow, and clear surgical view.

Thinner Shaft

Shaft diameter ranges from precise 3.8mm to regular 4.4-6.0mm;
The precise 3.8mm design is particularly useful for precise cutting, ablation and coagulation in the complex surgery of pediatric, nasal, nasal skull base, small orifice site, etc.

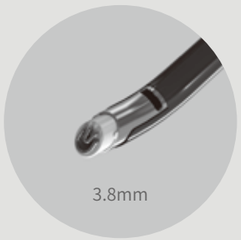
Safer Operation

Anti-gravity unidirectional flow design maintains a smooth irrigation and suction;
Precise energy penetration control reduces collateral thermal damage and electrical leakage risk, to ensure safe operations.

Various sizes are available for selection

Tonsil-BlatorPlus

Tonsil-BlatorHP



Tonsil-BlatorMax

An overall solution of ENT minimally invasive surgery

Nasal, Nasal Skull Base Oropharyngeal Surgical Electrodes

Indicated for ENT surgery of nasal sinus, nasal skull base, nasal cavity hyperplasia surgery, and narrow site surgery, such as pediatric tonsillectomy & adenoidectomy.

UPGRADED

- Carefully Selected and Tested Materials
- Repeatedly Verified Manufacturing Technique
- Thoroughly eliminated Collateral Thermal Damage
- Precise Control of Energy

Classic Design, Upgraded Effect

Tonsil-Blator

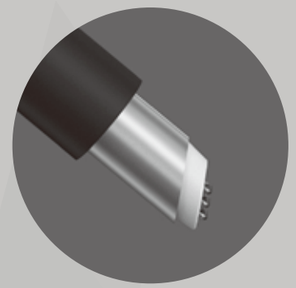
Tonsil-BlatorPT

An overall solution of ENT minimally invasive surgery

Tonsillectomy & Adenoidectomy Surgical Electrodes

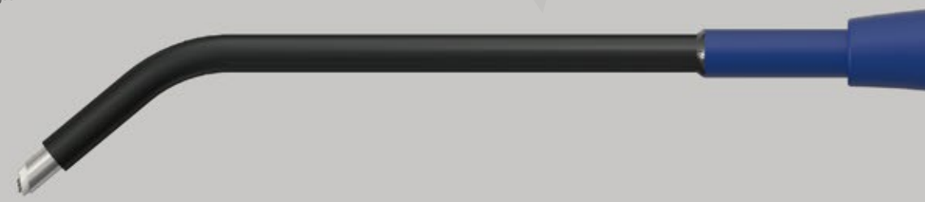
Clinical Standardization of Plasma Technology

- Multi-polar technology, with Cutting, Ablation, Coagulation, Hemostasis, Irrigation and Suction capabilities in one versatile device.
- Suitable for the clinical applications of various anatomical site and various pathology.
- Golden standard of plasma surgery.



Tonsil-BlatorAD

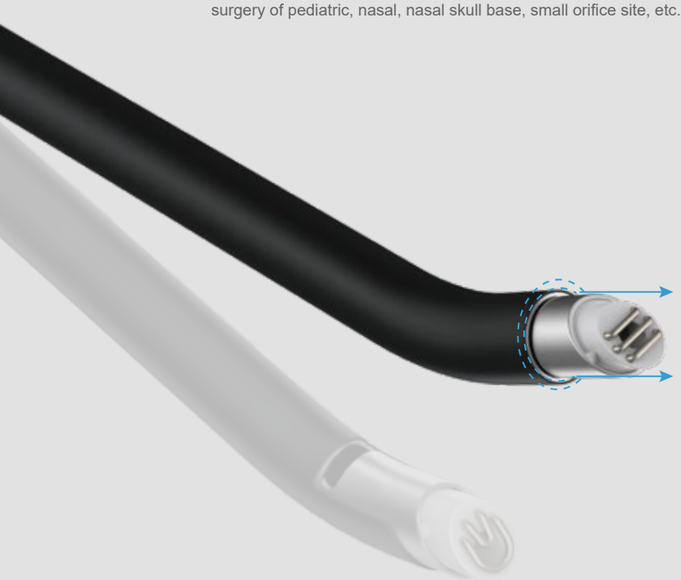
Pre-bended Tip Design
Particularly useful for adenoidectomy
Patented Design



An overall solution of ENT minimally invasive surgery

ExcelENT © Electrodes

Particularly useful for precise cutting, ablation and coagulation in the complex surgery of pediatric, nasal, nasal skull base, small orifice site, etc.



360° Irrigation from Tip Head

Forwarded irrigation port to achieve continual and accurate irrigation

Tonsil-PTC

Tonsil-BlatorC

Tonsil-PlusC

Safer, Bigger, Improved Suction Capability

Enhanced Cutting, Ablation,Coagulation and Hemostasis Capability

Thinner

Particularly useful for precise cutting, ablation and coagulation in the complex surgery of pediatric, nasal, nasal skull base, small orifice site, etc.

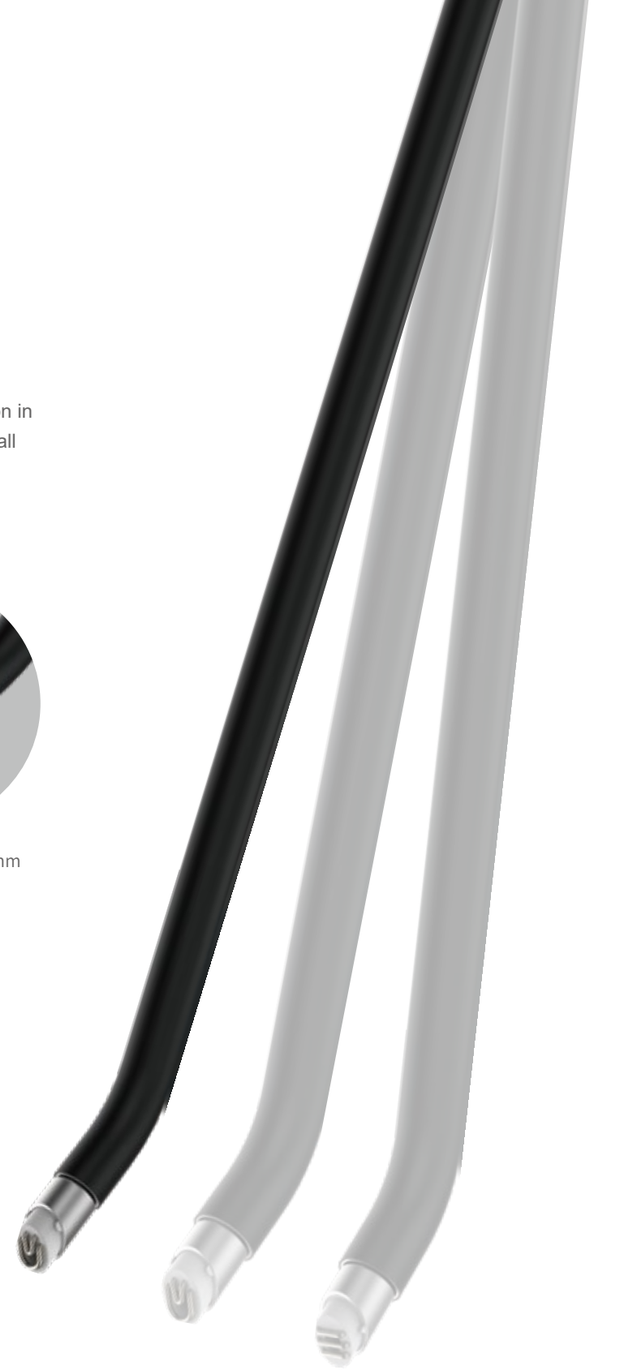
Minimal diameter 3.4mm

Tonsil-UGC

Regular diameter 3.54mm

Tonsil-HPC

Upgraded Design for Oral Nasopharyngeal Surgery



An overall solution of ENT minimally invasive surgery

MasterPillar © Bleeding Control Electrode

Indicated for simple nosebleed, assisted hemostasis in nasal cavity and sinus surgery. Can penetrate into the narrow temporal part of the nasal cavity.

MasterPillar

Bilateral Electrode Tip (left and right structure)

Small tip diameter, controllable coagulation range reduced thermal damage.

Internal Bilateral Suction Ports

Slim-Diameter Shaft Design

for ergonomic nasal operation

Pre-curved Design

to meet the needs of nasal anatomy

- No smoke
- No carbonization
- Precise coagulation for optimal hemostasis
- Small diameter design, does not affect the field of view, does not pollute the endoscope
- Pre-curved design for ergonomic nasal operation
- Integrated design, to reduce the instruments use and increase operation space

For various operations, For versatile applications

Integrated with the functions of irrigation, suction, flushing, coagulation hemostasis, dynamic circulation, etc.

An overall solution of ENT minimally invasive surgery

Nasopharyngeal Surgical Electrodes

Indicated for ablation and coagulation of soft palate, tonsil, uvula, tongue base, etc.

TurbinEX-C

- Sharp tip design for easy channeling.
- The fine shaft design of 1.6mm diameter achieves minimally invasive and precise ablation, and minimal incision.
- The shaft design with markers provides surgeons with scale guide to achieve precise ablation.
- The bending angle of shaft perfectly fits the nasal or oral structure.
- Tripolar structure design, for integrated channeling and ablation.
- Distal two circuits used for channeling, and proximal two circuits used for ablation.

Dual-Pole-C

PalatEX-C

Bilateral Electrode Tip (left and right structure)

Used for local precise coagulation, hemostais and ablation

Patented Innovation for Otoscope Surgery

Oto-Blator

An overall solution of ENT minimally invasive surgery

Surgical System for Open and Endoscopic Surgery

Indicated for otoscope, nasal cavity, neck dissection and other ear and nasal surgery.

ENT Radio Frequency Plasma Surgical System

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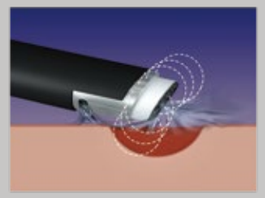
How it works

ABLATE (Cutting & Ablation)

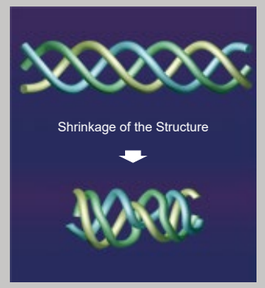
The Radio Frequency energy flows through active electrode and return electrode, and by the conductive saline solution it generates precisely focused plasma sheath of 100μm thin plasma layer around the electrodes. The plasma sheath consists of massive charged particles, which can generate sufficient energy 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.The lesion is decomposed into simple molecules, atoms, and low-molecular-weight gases (oxygen, nitrogen, hydrogen, and carbon dioxide) after cutting and ablation by low temperature plasma.



COAG (Bipolar Coagulation & Hemostasis)
Strong vessels closure function
Effective control of bleeding

The RF Plasma Surgical System is added with a macro-variable power supply module in addition to the plasma generator. Through the feedback signal from the electrode and the tissue, that module can generate a lower plasma voltage and radio frequency peak waveform between the working electrode and the target tissue. Corresponding changes in the RF voltage, waveform, and peak value would gradually reduce the proportion of the plasma threshold, and at the same time would generate the RF effect threshold. The ratio of plasma ablation effect and radiofrequency coagulation hemostasis effect changes with the change of power value setting. At a high COAG power value setting, the plasma ablation effect is bigger thus the better plasma ablation outcome is realized. When the COAG power value setting is low, the radio frequency coagulation effect is bigger to achieve better coagulation and hemostasis effect.

Advantages of Shrinkage Function:
Different from the other heat shrinking technology that realizes necrosis of tissues by high temperature, the RF plasma technology can accurately control the temperature at 40-70°C, which can not only ensure the shrinkage of the helical structure of collagen molecules, but also to maintain cell vitality.



Excellent Performance

Systematic Working Modes

Two working modes:
ABLATE for cutting 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.

Adjustable Coagulation Capability

ABLATE (Plasma ablation & cutting): 1-9 settings adjustable;
COAG (RF& Plasma coagulation & hemostasis): 1-9 settings adjustable. This innovative “Plasma & Radio frequency” coagulation and hemostasis function can form thrombi in blood vessels to achieve the sealing effect.

Smart Recognition, Simplified Design

The console can automatically identify the connections of electrode, foot switch, and power cord, and has corresponding displays and indicators on the control panel. When the electrode is properly connected, the default power setting would be selected automatically. Integrated with the intelligent design, the console can precisely adjust the power value of the same setting according to different target tissues.

Automatic Protection

The patented electrical circuit system can constantly monitor power output and automatically suspend power output when there is instantaneous peak current. It would automatically suspend radio frequency output when electrode contacts metal, and automatically resumes work after electrode has returned to a proper distance.

Cutting and Ablation under Endoscopy

By the channel of nasopharyngolarygnoscope or bronchofiberscope, the electrodes can reach into deep position to perform ablation process. Low temperature avoids risk of smoke and carbonization, providing an innovative surgical solution for laryngeal disease.

Integrated Function

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

Dual/Triple Foot Switch (optional)

The foot switch, which is waterproof pressure-resistant and convenient to use, can support two working modes of ABLATE (ablation & cutting) and COAG (coagulation & hemostasis), each identified in different colors and different working sound settings.
The triple foot switch can easily realize the power setting adjustment of ABLATE on the foot switch. No need to adjust the power setting on the console control panel.

Synchronous Control of Saline Flow

The flow control unit runs synchronously with the console. It can be turned on automatically when the console is activated, to ensure sufficient saline irrigation for the surgical process. While it can automatically stop when the console stops working, to prevent excessive saline irrigation.