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JESWIS

BEIJING
JESWIS TECHNOLOGY LTD.

Precision out of passion

LEARN OUR HISTORY



Incorporated in 2011, Beijing Jeswis Technology Ltd. is located in Haidian district, Beijing, boasting convenient transportation. Covering an area of more than 2000 square meters, the company has standardized purified manufacturing plants and well-equipped infrastructure.

As a self-reliant designer and manufacturer, the company has a series of independently designed products, including the Radio Frequency plasma surgery system, single-use RF plasma surgical electrode, laser-heated surgical instrument and dynamic surgical planer.

For the time being, the company has over 80 sets of manufacturing machinery and technique processing equipment, as well as more than 50 quality testing machinery. Built on its existing 450square meter high standard purified manufacturing plants, the company meets the requirements of germ-free manufacturing and packaging. For now, the company produces 500 sets of RF plasma surgery systems and 50,000 surgical plasma wands on a yearly basis, with its product portfolios being applied to a wide range of specialties including ENT, sports medicine, spinal surgery, urinary surgery and proctology in varying levels of domestic hospitals.

To ensure a regular daily operation and a standardized quality control system, the company has established a clear-cut accountability system which comprises the departments of product R&D, quality management, resources planning, manufacturing, sales and marketing as a whole. Currently, the company has over 90 staff, most of whom specialize in the professions of mechanics, electronics, sophisticated machinery, software development, clinical medicine, etc. Over the past several years, the company has been maintaining a close relationship with some of the most prestigious research institutes and first-class hospitals in China. In the meantime, the company has long been receiving invaluable knowledge support from renowned professionals and clinical experts at home and abroad. All our products are CE certified and factory is approved by ISO13485 and ISO9001 system.

OUR PRODUCT



RFS-100A

Low Temperature Plasma Ablation System

To address the need for an alternative to major surgery, we offer the Low Temperature Plasma Ablation System using low thermal plasma-mediated ablation technology to precisely cope with lesions of soft-tissue types via molecular disintegration. Such surgery system consists of a Controller which generates the ablation energy, Plasma Wand(s) and Patient Cable for single use, Foot Control, and a Flow Control Valve Unit. The Controller is designed to deliver ablation energy to the active electrode(s) at the distal end of the Plasma Wand. It works either at a lower voltage, creating a non-plasma-forming working condition, causing tissue shrinkage, or at a higher voltage plasma-forming condition that can cut tissue rapidly with minimal collateral tissue damage. The Controller functions under a radiofrequency excitation frequency of 100 kHz. The Plasma Wand is a bipolar surgical device. It is disposable and available in different configurations consisting of multiple electrodes.

Functional Features

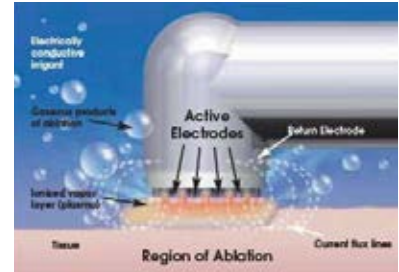


- Universal utilities in ENT, Spinal and Arthroscopic procedures
- Performing gentle, precise soft tissue removal at low temperatures (between 40° and 70°C) in the well defined area
- Multiple functions: ablation(low temperature plasma excision), cutting, coagulation and hemostasis
- Bipolar energy delivery provides enhanced control and precision, eliminating the need for patient return pad
- Multi-electrode technology
- Low operating frequency- 100kHz
- A wide selection of Plasma Wands: available in different sizes and configurations to meet different anatomical needs of specific surgical procedures
- Versatile Wand combining integrated ablation, suction, saline irrigation, and hemostasis capabilities allows for efficient procedure
- All-screen LCD display demonstrates operating modes, Controller set points and error messages
- Flow control valve unit ensures procedural convenience
- Foot Control maximizes user efficiency and OR flexibility
- Unique square waveform delivers ablation energy more rapidly
- Easy set-up procedure guarantees OR efficiency
- PFC circuit helps reduce environmental risks

Operating principle

Low temperature bipolar plasma-mediated ablation technology: realizing soft tissue removal by enabling a stable, controlled, highly focused plasma field.

Our technology is a minimally invasive plasma-mediated ablation technique for soft-tissue treatment. It works at relatively low temperatures (between 40° and 70°C) to precisely remove targeted tissue in a gentle fashion. Using bipolar energy and continuous saline delivery, our technology enables the formation of a stable plasma field around the active electrode(s) of our specially designed Plasma Wand. Such plasma layer, a high-density energy field consisting of highly ionized particles which are sufficiently dynamic to break molecular bonds within targeted tissue, allows for effective, efficient soft tissue excision while preserving the integrity of the adjacent healthy tissues.



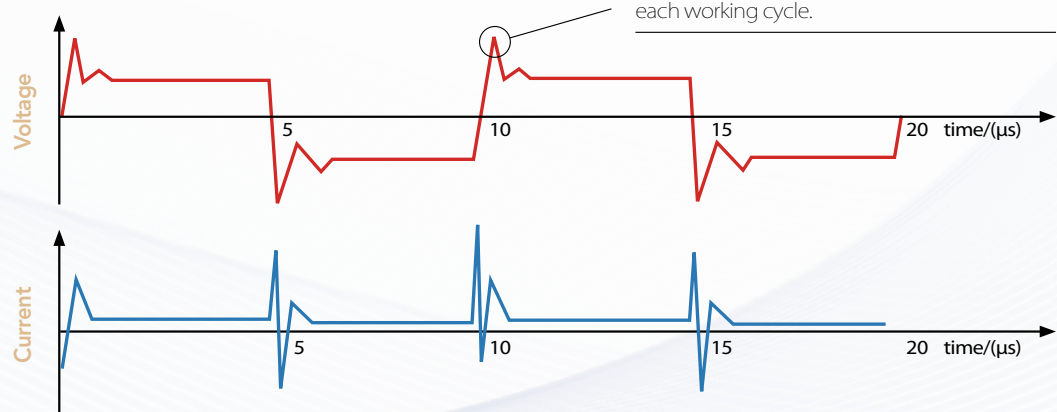
Operating at lower working temperatures, our technology ablates targeted tissue without causing unpredictable collateral thermal damage, therefore bringing exceptional control and precision to general ENT procedures.

Square Waveform: unique current waveform that generates plasma more rapidly.

Based on the unique square waveform, our ablation technology :

- Generates plasma discharges more rapidly, delivering time-efficient soft tissue ablation
- Empowers plasma particles with greater dynamic energy, bringing out ideal tissue treatment results
- Creates reasonable plasma threshold
- Excites plasma discharges at lower frequency, therefore preventing unpredictable energy penetration.

Figure 1. 100 kHz Square Waveform



LOW TEMPERATURE PLASMA (ENT)

— Ablation System

Turbinate Reduction Wand

G31E11 Diameter: 1.7mm Working length: 115mm

A Channeling Wand combining controlled, volumetric tissue removal and effective coagulative lesion formation.

For the treatment of hypertrophied turbinates, we provide the Turbinate Reduction Wand, which combines fine dissection with a slim-line shaft design, to precisely and instantly reduce hypertrophied turbinate tissues under the mucosal surface.



Instant tissue removal



Deeper treatment site

Integrated visual markers ensure procedural efficiency and convenience

Narrow profile shaft allows easier access

Suggested Indications

- Hypertrophied turbinates
- Chronic hypertrophic rhinitis
- Allergic rhinitis
- Stuffy nose
- Vasomotor rhinitis

Advantages:

- A "pin-point" design in the active electrode enables finer tissue excision
- Slim-line shaft allows easier access
- Integrated visual markers on the shaft indicate depth in the nasal cavity
- Accommodating diverse patient anatomy
- Immediate removal of hypertrophied tissue
- Deeper surgical site: reaching the posterior portions of the turbinates, thus entirely eliminating nasal obstruction
- Enabling an out-patient procedure based on local anaesthesia
- Eliminating need for post-operative nasal packing



Major applications of ENT Plasma Wands

Based on our technology, we offer surgeons specially designed Plasma Wand that combines tissue ablation, resection, and blood vessels coagulation in one versatile device.

Available in different sizes and electrode configurations, our ENT Wands are designed to meet different anatomical needs in several of the most commonly performed ENT procedures. Major wand selections include built-in suction for tissue removal and improved surgical visualization, tissue dissection, and submucosal tissue channeling.

For adult tonsillectomy and adenoidectomy, choose

G33E41



Tonsil & Adenoid Wand / G33E41 / G33E51 / G33E52

Versatile Suction Wands that can be used for tonsillectomy, adenoidectomy, or FESS.

Available in three different sizes, our Tonsil & Adenoid Wand is ingeniously designed to simultaneously dissect, ablate and remove tonsil and/or adenoid tissue in a well controlled manner.



Efficient tissue ablation



Greater maneuverability

Suggested Indications

- Hypertrophied tonsil and adenoid
- Tonsil- based OSAS

Advantages:

- Accommodates both subtotal, intracapsular ablation and total, subcapsular dissection of tonsils
- Significantly reduces intraoperative blood loss, postoperative pain, and potential for inflammation or postoperative morbidity
- Enables improved oral intake and faster wound healing
- Integrated suction capability effectively clears away debris and blood, reducing the risk of clogging
- Built-in bipolar coagulation enables effective hemostasis
- Bendable shaft accommodates different patient anatomy, allows for easy access to the choanae during adenoidectomy, and provides unobstructed surgical field visualization
- No tissue charring involved during ablation treatment

For pediatric tonsillectomy and hypertrophic adenoids, select G33E51 and G33E52

G33E51

- Offering all the advantages and utilities of G33E41 in a smaller shaft size for the anatomical need of pediatric tonsillectomy and adenoidectomy.
- An versatile Wand combining the utilities for FESS and pediatric tonsillectomy&adenoidectomy.

Suggested Indications:

- Hypertrophic tonsil and adenoid
- Chronic sinusitis of Type I (Stage 1/2) and Type II (Stage 1/2)
- Sinus cysts
- Malignant sinus tumour

Advantages:

- Allows for complete removal of hypertrophic adenoid protruding into the posterior nostrils
- Significantly reduces pain and bleeding



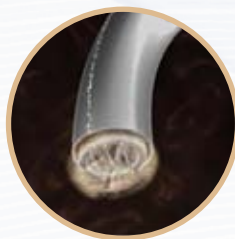
For smaller patient anatomy



Accommodates FESS

G33E52

- Delivering all the benefits and uses of G33E51 and G33E41
- Unique circular saline irrigation outlet improves procedural efficiency



Larynx Wand

G33E61 Diameter: 3.8mm Working length: 260mm

The Laryngeal Wand, with its low-profile shaft, is exclusively designed for gentle, effective soft tissue removal targeting at a variety of bulky lesions in the larynx.



Extended length and ultra-slim shaft combined enables greater access and enhanced surgical visualization

45° bend in the shaft adapts to the curvature in the laryngeal anatomy



Suggested Indications

- Papillary epithelioma
- Abduction paralysis of the vocal cord
- Vocal cord cysts
- Subglottic stenosis
- Epiglottic cysts

Advantages

- Extended length and ultra-slim shaft combined enables greater access and enhanced surgical visualization
- 45° bend in the shaft adapts to the curvature in the laryngeal anatomy, providing greater maneuverability
- The combination of a single-wire active electrode and a screen active electrode enables faster tissue ablation
- Integrated suction helps effectively remove debris and fluids with reduced risk of clogging
- Providing ergonomic comfort for the surgeon



Outstanding maneuverability



Faster tissue ablation



Ergonomic comfort for surgeons

MINIMALLY INVASIVE SPINE SURGERY (SPINE)

— *Solution with plasma ablation system*

Cervical Spine Wand

Designed to eliminate painful discal protrusion and contained herniations in the cervical disc

G31S11

Diameter: 0.9mm Working Length: 105mm

- **Cervical Spine Wand**

Luer-Lock

Flange

Wand Tip

- **Introducer Cannula**

Skin Marker

Cannula Hub

Stylet Hub



Lumbar Spine Wand

Solution for painful discal protrusion and contained herniations in the lumbar disc

G31S21

Diameter: 1.07mm Working Length: 220mm

- **Lumbar Spine Wand**

Reference Mark

Depth Gauge

Wand Tip

- **Introducer Cannula**

Skin Marker

Cannula Hub

Stylet Hub

Patient selection criteria:

- Pain in the upper limb > pain in the waist
- MRI evidence of contained cervical disc protrusion
- Failed conservative therapy
- Failed selective nerve root block



SPINE WAND FOR PERCUTANEOUS SPINAL ENDOSCOPY

— *Bipolar RF Ablation Electrode*

For ideal coagulation
of blood vessels and
shrinkage of collagenous
tissue

G31S23

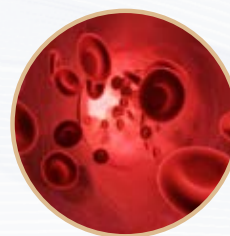


Indication:

- Painful discal protrusions and contained herniations in the cervical and lumbar regions

Features and benefits:

- Outstanding performance in ablation , hemostasis and soft tissue shrinkage
- Minimal damage to the adjacent healthy tissues with less scarring involved
- Very limited depth of thermal damage (< 150 μ m)
- Low treatment site temperatures (between 45 $^{\circ}$ C-55 $^{\circ}$ C)
- Improved precision and greater maneuverability



SPORTS MEDICINE (SPM)

— Plasma ablation system

Major Wand options:

- Integrated suction: offers enhanced surgical field visualization by clearing the ablated site right in the middle of the procedure.
- Beveled tip: provides optimal angles for cutting and ablation, and allows easier access to the target tissue.
- Angled shaft: allows ease of insertion and greater maneuverability in curved tissue structures.

Clinical Applications

Consistent with its technical benefits, the Plasma Joint Wands have been widely used in such procedures as arthroscopic chondraplasty and meniscal debridement, where they have been found to be safe and effective surgical tools.



Meniscectomy



ACL Reconstruction



Ligament Resection



Synovectomy

Tip: Beveled / Flat one-piece active tip design

Shaft: Bended/ 0° Angle Wand Shaft

Handle: Indentation indicates tip orientation

Integrated Suction Tube:



Family of Plasma Joint Wands

Delivering all the benefits of controlled ablation technology, our Joint Wands bring outstanding precision and maneuverability to arthroscopic procedures.

For Knee Arthroscopy



G32A34 Diameter: 3.8mm Working Length: 135mm

50° Angle Suction Wand featuring versatile utilities for tissue excision, suction and simultaneous hemostasis.

Applications:

- ACL debridement
- Meniscectomy
- Synovectomy

Features:

- Integrated suction provides enhanced surgical field visualization
- Ball and flat electrode configuration prevents clogging and provides stronger tissue ablation



G32A31 Diameter: 3.8mm Working Length: 135mm

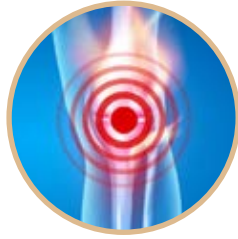
Versatile 90° Angle Suction Wand enabling aggressive tissue ablation and improved visibility.

Applications:

- Synovectomy
- Bursectomy

Features:

- Integrated suction and irrigation capabilities help instantly remove tissue debris, and prevent unpredictable heating of the joint capsule.
- A compact design of ball and screen active electrode configuration enables aggressive tissue ablation, stronger suction, and reduced risk of clogging.

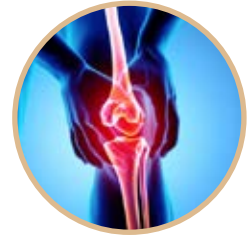


G31A37 Diameter: 3.0mm Working Length: 135mm

12 active electrodes on a beveled tip makes this Knee Wand an aggressive tool for time-efficient resection of meniscal tissues. A low-profile 3.0mm shaft offers enhanced accessibility even to the tightest joints.

Applications:

- Meniscectomy
- Synovectomy



G31A32 Diameter: 4.5mm Working Length: 135mm

50° Angle Knee Wand featuring efficient tissue ablation with its unique triple-wire active electrode configuration.

Applications:

- Synovectomy
- Bursectomy



G31A33 Diameter: 3.0mm Working Length: 135mm

Non-suction Knee Wand featuring a phenomenal hooked active electrode which enables 360-degree cutting and immediate coagulation of blood vessels.

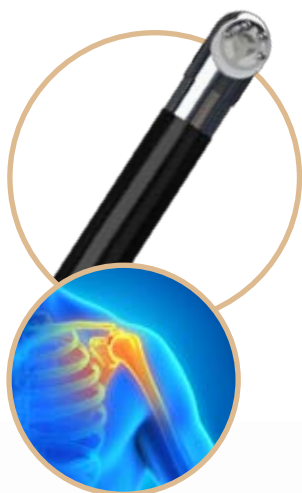
Applications:

- Ligament resection

Features:

- The entire surface of the active electrode, including the electrode tip and the entire length, is available for active ablation and coagulation, therefore providing versatile cutting angles for different surgical preferences.

For Shoulder Arthroscopy



G32A31 Diameter: 3.8mm Working Length: 135mm

Versatile 90° Angle Suction Wand.

Applications:

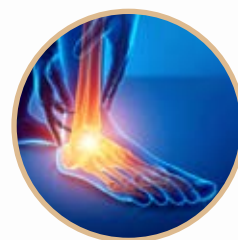
- Acromioplasty
- Synovectomy
- Bursectomy

Features:

- Integrated suction and irrigation capabilities help instantly remove tissue debris, and prevent unpredictable heating of the joint capsule
- A compact ball and screen active electrode configuration enables aggressive tissue ablation, stronger suction, and reduced risk of clogging

For Small Joint Arthroscopy

The Small Joint Wands are designed for arthroscopy in ankle, elbow, wrist, etc. For optimal accessibility, control, and visibility, those Wands feature smaller shaft diameter and shorter length than average Wands.



G31A11 Diameter: 2.3mm Working Length: 70mm

Temporomandibular Joint Wand: An ultra-slim 2.3mm shaft provides excellent entry to the narrow, irregular articular spaces.

Applications:

- Synovectomy
- Adhesion release of anterior temporomandibular joint recess
- Reefing of temporomandibular joint capsule
- Resection of inflammatory synovium in temporomandibular joint capsule

G31A36 Diameter: 2.5mm Working Length: 135mm

This Small Joint Wand allows 7 active electrodes to work simultaneously for aggressive tissue dissection. An ultra-slim 2.5mm shaft and a beveled tip enables greater accessibility, versatile cutting angles, and ease of operation in narrow joint spaces.

Applications:

- Synovectomy of small joint
- Surgical debridement of diseased small joint cartilage



For Hip Arthroscopy

G32A35 *Diameter: 3.8mm Working Length: 185mm*

Suction Wand featuring an extended shaft, providing ideal length for ablation in the hip joint.

Applications:

- Reefing of the hip joint capsule



Tendon Wands

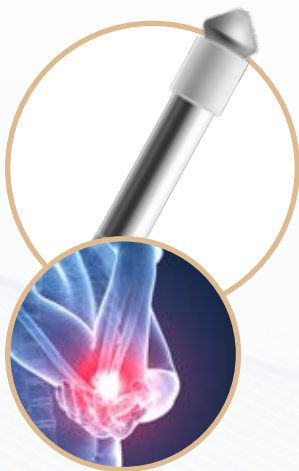
Offering minimally invasive alternatives to traditional surgical procedures for the treatment of tendons.

G32A21 *Diameter: 0.8mm Working Length: 80mm*

Designed for open procedure. By performing localized tissue-channeling, such Wand enables decompression, improved blood circulation and positive biochemical changes within the treated tendon.

Suggested Indications:

- **Chronic enthesitis:** Tennis Elbow, Golf Elbow, patellar tendonitis, tendinitis achillea, metatarsal fasciitis



G31A21 *Diameter: 0.8mm Working Length: 80mm*

For percutaneous tendon treatment. A super-thin 0.8mm tip and a slim-line shaft combined helps avoid large, deep incisions, and allows enhanced access to the target tissue.

Suggested Indications:



- Tennis Elbow
- Golf Elbow

TECHNICAL SPECIFICATIONS

Low Temperature Plasma (ENT)

Catalog Number	Total Length (mm)	Shaft Diameter Φ (mm)	Shaft Angle	Suction	Recommended Controller Settings	Metal in the Active Electrode
G31E11	115	Φ 1.7	155~165	No	Cutting: 4 Coagulation: 2	Tungsten
G31E21	100	Φ 1.4	155~165	No	Cutting: 4 Coagulation: 2	Tungsten
G33E61	260	Φ 3.8	130~140	Yes	Cutting: 7 Coagulation: 3	Platinoiridium
G33E63	260	Φ 2.8	130~140	Yes	Cutting: 7 Coagulation: 3	Tungsten
G33E41	125	Φ 5.0	130~140	Yes	Cutting: 7 Coagulation: 3	Tungsten
G33E51	125	Φ 4.3	130~140	Yes	Cutting: 7 Coagulation: 3	Tungsten
G33E52	125	Φ 4.3	130~140	Yes	Cutting: 7 Coagulation: 3	Tungsten

Minimally Invasive Spine Surgery (SPINE)

Catalog Number	Tip Appearance	Intended Use	Total Length (mm)	Shaft Diameter Φ (mm)	Shaft Angle	Recommended Controller Settings	Metal in the Active Electrode
G31S11		Percutaneous Cervical Decompression	105	Φ 0.9	0	Cutting: 3 Coagulation: 1	Tungsten
G31S21		Percutaneous Lumbar Decompression	220	Φ 1.07	0	Cutting: 3 Coagulation: 1	Tungsten

Sports Medicine (SPM)

Catalog Number	Tip Appearance	Intended Use	Total Length (mm)	Shaft Diameter Φ (mm)	Shaft Angle	Suction	Recommended Controller Settings	Metal in the Active Electrode
G32A34		Knee Arthroscopy	135	Φ 3.8	125~135	Yes	Cutting: 7 Coagulation: 1	Platinoiridium
G32A31		Knee Arthroscopy	135	Φ 3.8	85~95	Yes	Cutting: 7 Coagulation: 1	Platinoiridium
G31A37		Knee Arthroscopy	135	Φ 3.0	130~140	No	Cutting: 7 Coagulation: 1	Tungsten
G31A32		Knee Arthroscopy	135	Φ 4.5	160~170	No	Cutting: 7 Coagulation: 1	Tungsten
G31A33		Knee Arthroscopy	135	Φ 3.0	145~155	No	Cutting: 7 Coagulation: 1	Tungsten
G32A31		Shoulder Arthroscopy	135	Φ 3.8	85~95	Yes	Cutting: 7 Coagulation: 1	Platinoiridium
G31A11		Small Joint Arthroscopy	70	Φ 2.3	0	No	Cutting: 7 Coagulation: 1	Tungsten
G31A36		Small Joint Arthroscopy	135	Φ 2.5	130~140	No	Cutting: 6 , Coagulation: 1	Tungsten
G32A35		Hip Arthroscopy	185	Φ 3.8	125~135	Yes	Cutting: 7 Coagulation: 1	Tungsten
G31A21		Tendon Treatment	80	Φ 0.8	0	No	Cutting: 3 Coagulation: 1	Tungsten
G32A21		Tendon Treatment	80	Φ 0.8	0	Yes	Cutting: 3 Coagulation: 1	Tungsten



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