

ELECTROSURGICAL UNIT

HIGH QUALITY, ECONOMICAL, USER-FRIENDLY



THE QUALITY OF SURGERY, WE CARE



Kavandish System Eng. Co.

Proudly presents its State-of-the-Art, Reliable
and User-friendly Electrosurgical Units

HISTORY

Established in 1995, Kavandish System initiated its activities with the goal of designing and manufacturing medical devices. Today, Kavandish System has found its appropriate place as an science-based engineering company in the field of electrosurgical units in domestic and international markets. Generally Kavandish system's success is attributed to :

Conformity with international requirements related to quality management systems and CE certification . All products are designed and manufactured to meet the highest standards in quality related to electrosurgical units: **IEC60601-1, IEC60601-1-2 & IEC60601-2-2.**

Having a team of experienced & knowledgeable personnel, who are up-to-date on the latest technological advances through the world.





MEG1-E FOR ENDOSCOPY

MEG1-E is the specialized electrocautery unit for endoscopic procedures. It has been designed to perform all endoscopic cutting, standard monopolar and bipolar, coagulation and argon plasma coagulation.

Advanced endoscopic cutting modes for Polypectomy , Sphincterectomy at ERCP.



- Two special modes, optimized for Polypectomy and Papillotomy
- High controlled power and instant cutting initiation, reduces the risk of delayed perforation
- Limited cutting speed intelligently prevents uncontrolled rapid cutting (ZIPPER EFFECT)
- Fractionated cutting and controlled coagulation, reduces bleeding probability
- 4 adjustable settings to achieve desired coagulation effect

MAIN VOLTAGE: 220VAC \pm 10%, 50Hz or 110VAC \pm 10%, 50~60Hz
MAXIMUM POWER CONSUMPTION: 600V.A
PROTECTION CLASS: CLASS I
TYPE OF OUTPUT: CF
WEIGHT: 8 KG
DIMENSIONS (W.H.D): 37X 16X 46CM

MEG1-R

MHz Technology for Dermatology, Plastic, Aesthetic, ENT, GYN, Ophthalmology and Dentistry

Meg1-R is a precision tool for surgeons who demand only the best results for their patients.

Meg1-R offers “cold cutting” and coagulation of soft tissue through radio frequency output plus advanced and intelligent modes with pulsed function for maximum control ability.

The lateral heat developed into adjacent tissues, at the MHz range is significantly lower.

High Frequency provides an excellent quality incision with minimum bleeding, quicker healing, hypertrophic scars reduction, minimum postoperative discomfort and maximum aesthetic results.

Clinical Benefits for MHz Technology

- Precise incision in a variety of tissue structures
- Quick recovery, with less tissue destruction and enhanced healing
- Minimal post-operative pain and trauma
- Decreased post-surgical edema
- Better excision for biopsy and histological examination, minimal lateral thermal damage realized as “Cold Scalpel”
- Hemostasis with minimal scar tissue for excellent cosmetic results



MAIN VOLTAGE: 220VAC \pm 10%, 50Hz or 110VAC \pm 10%, 50~60Hz
MAXIMUM POWER CONSUMPTION: 600V.A
PROTECTION CLASS: CLASS I
TYPE OF OUTPUT: BF
WEIGHT: 8 KG
DIMENSIONS (W.H.D): 37X 16X 46CM



MEG 1

FEATURES:

- Bipolar Cut
 - Bipolar Coagulation (Auto-Start Bipolar & Manual Bipolar)
 - Monopolar Cut (Pure)
 - Monopolar Cut (Blend1)
 - Monopolar Cut (Blend2)
 - Monopolar Cut (Blend3)
 - Monopolar Coagulation (Swift)
 - Monopolar Coagulation (Forced)
 - Monopolar Coagulation (Spray)
 - Monopolar Coagulation (Soft)
 - TUR Mode
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- Automatic Self Checking (Spotting the system's internal problems)
 - Permanent HF Leakage current monitoring
 - Auto Stop Mode for Optimum tissue Coagulation (Preventing tissue Carbonization)
 - Permits two surgeons to coagulate at the same time independently in Spray Mode
 - 10 Programmable memory locations

MAIN VOLTAGE: 220VAC \pm 10%, 50Hz or 110VAC \pm 10%, 50-60Hz
MAXIMUM POWER CONSUMPTION: 800VA
PROTECTION CLASS: CLASS I
TYPE OF OUTPUT: CF
WEIGHT: 8.8 KG
DIMENSIONS (W.H.D): 37X 16X 46CM

MEG 2

FEATURES:

- Vessel Sealing (Seal 1) – Permanent sealing up to 7mm
- Vessel Sealing (Seal 2) – Permanent sealing up to 7mm
- Bipolar Coagulation (Auto-Start Bipolar & Manual Bipolar)
- Monopolar Cut (Pure)
- Monopolar Cut (Blend1)
- Monopolar Cut (Blend2)
- Monopolar Cut (Blend3)
- Monopolar Coagulation (Swift)
- Monopolar Coagulation (Forced)
- Monopolar Coagulation (Spray)
- Monopolar Coagulation (Soft)
- TUR Mode
- Automatic Self Checking (Spotting the system's internal problems)
- Permanent HF Leakage current monitoring
- Auto Stop Mode for Optimum tissue Coagulation (Preventing tissue Carbonization)
- Utilizing a microprocessor system to control the current in vessel sealing, based on measuring the impedance of the tissue
- Permits two surgeons to coagulate at the same time independently in Spray Mode
- 10 Programmable memory locations

MAIN VOLTAGE: 220VAC ± 10%, 50Hz or 110VAC ± 10%, 50–60Hz
MAXIMUM POWER CONSUMPTION: 800VA
PROTECTION CLASS: CLASS I
TYPE OF OUTPUT: CF
WEIGHT: 8.8 KG
DIMENSIONS (W.H.D): 37X16X 46CM





VESSEL SEALING SYSTEM

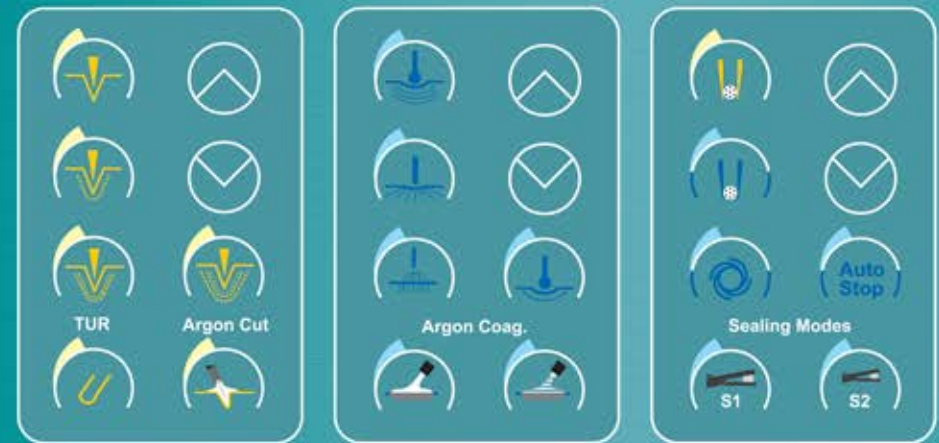
ADVANTAGES OF VESSEL SEALING SYSTEM AT A GLANCE:

- Ability of reliable sealing of large vessels, up to 7 mm in diameter
- Seals created in this system can withstand pressure more than 3 times normal systolic pressure
- Pulsed output in vessel sealing system reduces thermal spread and tissue sticking
- Less tissue damage and reduced sticking and charring
- Reduction in surgery duration
- No foreign materials:
- This technology uses the body's own collagen to seal the vessels. All traditional sealing methods involve leaving foreign material inside the patient body that may cause some complications (e.g. interference with future diagnosis)
- High-Burst-Strength
- Reduced needle stick injuries

ICONIC-IS410S

FEATURES:

- Argon Plasma Coagulation (Continuous Output)
- Argon Plasma Coagulation (Pulsed Output)
- Argon Cut
- Vessel Sealing (Seal 1) – Permanent sealing up to 7mm
- Vessel Sealing (Seal 2) – Permanent sealing up to 7mm
- Bipolar Cut
- Bipolar Coagulation (Auto-Start Bipolar & Manual Bipolar)
- Monopolar Cut (Pure)
- Monopolar Cut (Blend1)
- Monopolar Cut (Blend2)
- Monopolar Cut (Blend3)
- Monopolar Coagulation (Swift)
- Monopolar Coagulation (Forced)
- Monopolar Coagulation (Spray)
- Monopolar Coagulation (Soft)
- TUR Mode



- Automatic Self Checking (Spotting the system's internal problems)
- Permanent HF Leakage current monitoring
- Auto Stop Mode for Optimum tissue Coagulation (Preventing tissue Carbonization)
- Utilizing a microprocessor system to control the current in vessel sealing, based on measuring the impedance of the tissue
- Permits two surgeons to coagulate at the same time independently in Spray Mode
- Possibility of connecting both Monopolar & Bipolar foot switches independently
- 75 Programmable memory locations

Main Voltage: 220Vac \pm 10%, 50Hz or 110Vac \pm 10%, 50~60Hz
Maximum Power Consumption: 800V.A
Protection Class: Class I
Type of Output: CF
Weight: 8 kg
Dimensions (W.H.D): 40 x 17 x 44 cm

ICONIC-IS410

FEATURES:

- Argon Plasma Coagulation (Continuous Output)
- Argon Plasma Coagulation (Pulsed Output)
- Argon Cut
- Bipolar Cut
- Bipolar Coagulation (Auto-Start Bipolar & Manual Bipolar)
- Monopolar Cut (Pure)
- Monopolar Cut (Blend1)
- Monopolar Cut (Blend2)
- Monopolar Cut (Blend3)
- Monopolar Coagulation (Swift)
- Monopolar Coagulation (Forced)
- Monopolar Coagulation (Spray)
- Monopolar Coagulation (Soft)
- Monopolar TUR Mode
- Bipolar TUR Mode (Optional)



- Automatic Self Checking (Spotting the system's internal problems)
- Permanent HF Electrosurgical Leakage current monitoring
- Auto Stop Mode for Optimum tissue Coagulation (Preventing tissue Carbonization)
- Permits two surgeons to coagulate at the same time independently in Spray Mode
- Possibility of connecting independent Monopolar & Bipolar foot switches
- 75 Programmable memory locations
- **Special capability for IVF Surgery**

Main Voltage: 220Vac \pm 10%, 50Hz or 110Vac \pm 10%, 50~60Hz
Maximum Power Consumption: 800V.A
Protection Class: Class I
Type of Output: CF
Weight: 8 kg
Dimensions (W.H.D): 40 x 17 x 44 cm



APC (Argon Plasma Coagulation)



ALL IN ONE

ESU + VESSEL SEALING SYSTEM + ARGON PLASMA COAGULATION

HF Electrosurgical Units equipped with Argon Plasma Coagulation and Vessel Sealing System are designed as state-of-the-art products to meet the needs of modern surgery.

The variety of available operating modes enables versatile applications for Open surgery and MIS (Minimally Invasive Surgery) including Gastroenterology, Transplantation, ENT, Urology, Bronchoscopy, Orthopedic, Cardiac Surgery, Plastic Surgery, Colon-proctology, Oncology and other Laparoscopic surgeries.

ARGON PLASMA SUPPLIER



ADVANTAGES OF ARGON PLASMA:

- Faster and more efficient coagulation
- Less tissue damage
- Flexible eschar creation on tissue surface
- Limited coagulation depth to approximately 3mm, resulting in minimum perforation risk
- Uniform wide-area coagulation
- Less smoke, no unpleasant odors
- Less risks of infection
- Non-contact coagulation, no adhesion between tissue and applicator
- Highly efficient for bones, cartilage, ligaments and external membranes of organs



USER INTERFACE

- High bright vacuum fluorescent display (VFD) , 256 x 64 resolution
- Interactive menu on display
- Cylinder pressure monitoring
- Intelligent Alarm System

CONTROLS

- Flow adjustment from 0 to 10 L/min at 0.1 L/min steps
- 2 operating modes: Argon Cut, Argon Coagulation
- Concurrent Activation with ESU by footswitch
- Purge function at 10 L/min

SAFETY FEATURES

- Basic construction: in accordance with IEC60601-1
- Protection class: Class I
- Gas leakage detection
- Continuous output flow monitoring
- Continuous gas pressure monitoring at device input

Main Voltage: 100~240Vac , 50~60Hz
Maximum Power Consumption: 40V.A
Protection Class: Class I
Weight: 5 kg
Dimensions (W.H.D): 40x 8x 44 cm

APC APPLICATIONS IN GASTROINTESTINAL ENDOSCOPY

In addition to wide applications of APC in open surgeries, now APC has been adapted for use in flexible endoscopy. Delivered through a flexible probe passed through the endoscope, this noncontact method may allow treatment of a large surface area quickly.

- treatment for gastrointestinal bleeding associated with radiation proctopathy
- treatment for Vascular malformations including Gastric antral vascular ectasia (GAVE syndrome), angiodysplasias, arterio-venous malformations (AVM), portal hypertensive gastropathy, teleangiectasias. APC prevents recurrent bleeding associated with these lesions
- treatment of remnant polypoid tissue after piecemeal resection of large colonic polyps
- palliative debulking of obstructive tumors of the esophagus, stomach, ampulla, and rectum
- treatment of Zenker's diverticulum



(A) Esophageal cancer pre-treatment. (B) APC treatment of the tumor. (C) Esophageal cancer following treatment.

APC IN BRONCHOSCOPY

- hemostasis of superficial bleeding
- ablation of benign endobronchial tumors, papillomatosis, granulomas, tracheal polyps, lipomas, hemangiomas
- recanalization of malignant stenoses of the respiratory tract
- Stent ingrowth/overgrowth, removing proliferation of tumor tissue through the mesh of the stent

Output Characteristics:



		ICONIC – IS410S	ICONIC – IS410	MEG2	MEG1
	MODE	Max. Power(w)	Max. Power(w)	Max. Power(w)	Max. Power(w)
Monopolar Cut	Pure	360	360	360	360
	Blend1	330	330	330	330
	Blend2	300	300	300	300
	Blend3	270	270	270	270
Monopolar Coagulation	Swift	200	200	200	200
	Forced	140	140	140	140
	Soft	100	100	100	100
	Spray	120	120	120	120
Bipolar Cut	Bipolar Cut	100	100 (300 optional)	---	100
Bipolar Coagulation	Manual Coag.	80	80 (200 optional)	80	80
	Auto Start Coag.	50	50	50	50
Vessel Sealing	Seal 1	160	---	160	---
	Seal 2	80	---	80	---
Argon Coagulation (Optional)	Continuous	100	100	---	---
	Pulsed	50	50	---	---

KAVANDISH SYSTEM has a complete Line of state-of-the-art ESUs to meet the technology demanding needs of the surgical staff of hospitals and clinics.



	MEG1- E		MEG1 - R	
	MODE	Max. Power(w)	MODE	Max. Power(w)
Monopolar Cut	Pure	250	Pure	120
	Blend	200	Blend	100
	Papillotomy	360	Pulsed cut	150
	Polypectomy	360		
Monopolar Coagulation	Soft	80	Forced	50
	Spray	80	Fulguration	25
	Pulsed Argon	80	Pulsed spray	25
Bipolar Coag		80		50
H.F Nominal		410 KHZ		2MHZ

Quality has no bounds!

Safety and grade performance are nothing but maximum reliability. It is for this reason that Kavandish System sets high quality assurance standards. This focus on quality applies throughout all stages, starting with research and development and extending through production and documentation to spare parts and after-sales service.

Quality means striving to assure reliability with in every single product. This is precisely what Kavandish System does, assisted by a quality assurance concept that is as comprehensive as it is uncompromising:

Kavandish System has a team of technicians solely dedicated to quality testing of each Electro-surgical Unit throughout its production.

Functional tests are carried out over several hours for each ESU under specific, controlled conditions. Documentation of the results is issued for every test. A continuous improvement process guarantees persistent optimization of product quality.



CE 0068

MTIC[®]
INTERCERT
ISO13485



KAVANDISH SYSTEM

Office: Unit 4, No. 26, East Motehayeri Ave., Sahand St.,
East Hoveyze Ave., North Sohrevardi St.,
Post code: 1559843715 - Tehran - IRAN
Factory: Pardis Technology Park, 20thkm of Damavand Road
Tell: +9821 88 53 13 18-19 Fax: +9821 88 51 90 63
www.kavandish.ir info@kavandish.ir