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# SURTRON<sup>®</sup>

ELECTROSURGICAL *units*



DOWNLOAD LED SPA APP



# SURTRON®

50 D // 80 D



50 D



SURTRON® 50 D is a radiofrequency electrocautery unit suitable for minor monopolar surgery. SURTRON® 50 D through the functions selection makes pure cut, cut coagulation (CUT 1 - CUT 2) and pure coagulation possible. The on-board microcontroller and digital display guarantees consistent safety and reliability under any conditions. SURTRON® 50 D offers outstanding professional surgical results due to its ergonomic and superior safety features.

80 D



SURTRON® 80 D is a radiofrequency electrocautery unit suitable for minor monopolar surgery. SURTRON® 80 D has a multi-function selector which makes cutting (CUT), cut coagulation (BLEND), coagulation (COAG) and micro-coagulation (MICRO) possible. The on-board microcontroller and digital display guarantees consistent safety and reliability under any conditions. SURTRON® 80 D offers outstanding professional surgical results due to its ergonomic and superior safety features.

Reference code	10100.051
Maximum output power CUT	50 W – 400 Ω
Maximum output power CUT/COAG1	45 W – 400 Ω
Maximum output power CUT/COAG2	40 W – 400 Ω
Maximum output power COAG	40 W – 400 Ω
Working frequency	600 kHz
Patient circuit	F
Selectable input voltage	115/230 Vac
Mains frequency	50-60 Hz
Electrical input power	280 VA
Size WxHxD mm	190x85x239
Weight	2,5 Kgs

Reference code	10100.081
Maximum output power CUT	80 W – 400 Ω
Maximum output power BLEND	60 W – 400 Ω
Maximum output power COAG	50 W – 400 Ω
Maximum output power MICRO	20 W – 600 Ω
Working frequency	700 kHz
Patient circuit	F
Selectable input voltage	115-230 Vac
Mains frequency	50-60 Hz
Electrical input power	220 VA
Size WxHxD mm	190x85x239
Weight	2,5 Kgs

Compact, ergonomic  
and user-friendly

DENTAL  
DERMATOLOGY  
AMBULATORY SURGERY  
FIRST AID  
VETERINARY  
VASCULAR SURGERY

50 D

**Standard Composition:**

- Reusable monopolar handle 00206.00
- Assorted electrodes (10 pcs) 00500.00
- Cable for rod neutral electrode 00404.02
- Rod neutral electrode 00403.01
- Foot switch 00304.00
- Power supply cable 2 mt 00100.03

80 D

**Standard Composition:**

- Reusable monopolar handle 00206.00
- Assorted electrodes (10 pcs) 00500.00
- Cable for neutral electrode 00404.08
- Steel neutral electrode 5365
- Foot switch 00304.00
- Power supply cable 2 mt 00100.03



**SAFETY**

EN60601-1  
EN60601-1-2  
EN60601-2-2  
Electrical Class: I CF  
MDD 93/42/EC Class: II b

**CONTROLS**

Patient/Plate circuit monitoring (80D)  
Output power monitoring  
Self check control



# SURTRON

80 // 120 // 160



SURTRON® 80 / 120 / 160 is a high frequency electrosurgical equipment which is suitable to light and medium surgery.

SURTRON® 80 / 120 / 160, through its performance, allows pure CUT, cut-coagulation BLEND, superficial coagulation FORCED COAG, deep coagulation in absence of necrosis SOFT COAG and, with a special adapter, BIPOLAR coagulation.

The digital reading of delivered power and the monitoring of operative function by microcontroller guarantees the absolute reliability of working conditions.

SURTRON® 80 / 120 / 160 allows a highly professional surgery thanks to the user-friendly and safety solutions normally used.

The connection of neutral electrode is constantly monitored. Safety control of patient/plate contact using split neutral electrode. The possibility to control by the handle the monopolar output functions as well as the delivery of output power, allows to implement the surgical operation without turning away the surgeon attention from the surgical field.

80                      120                      160

Reference code	10100.101	10100.201	10100.301
Maximum output power CUT	80 W-250 Ω	120 W-250 Ω	160 W-250 Ω
Maximum output power BLEND	60 W-200 Ω	90 W-200 Ω	120 W-200 Ω
Maximum output power FORCED COAG	50 W-150 Ω	80 W-150 Ω	100 W-150 Ω
Maximum output power SOFT COAG	40 W-100 Ω	60 W-100 Ω	80 W-100 Ω
Maximum output power BIPOLAR	30 W-100 Ω	40 W-100 Ω	60 W-100 Ω
Working frequency	600 KHz	600 KHz	600 KHz
Patient circuit	F	F	F
Selectable input voltage	115-230 Vac	115-230 Vac	115-230 Vac
Mains frequency	50-60 Hz	50-60 Hz	50-60 Hz
Electrical input power	230 VA	300 VA	350 VA
Size WxHxD mm	254x104x288	254x104x288	254x104x288
Weight	5 Kgs	5 Kgs	5 Kgs

Possibility of use for minimum invasive surgery  
Possibility of use of bipolar forceps  
Possibility of use of split neutral electrodes  
Planning of the working conditions

Memorization of the last used settings  
Activation of the monopolar power with pedal and/or handle  
Digital regulation and indication of the output power  
Adjustment of the volume

**Bipolar coagulation  
for safe surgery**

CASUALTY SURGERY  
PEDIATRIC SURGERY  
PLASTIC SURGERY  
VASCULAR SURGERY  
DERMATOLOGY  
FIRST AID  
UROLOGY  
GINECOLOGY  
VETERINARY  
DENTAL  
OTORHINOLARYNGOLOGY

80 // 120 // 160

**Standard Composition:**

- |                                 |          |
|---------------------------------|----------|
| - Reusable handle with switches | 00205.00 |
| - Assorted electrodes (10 pcs)  | 00500.00 |
| - Cable for neutral electrode   | 00404.08 |
| - Steel neutral electrode       | 5365     |
| - Foot switch                   | 00304.00 |
| - Power supply cable 2 mt       | 00100.03 |



**SAFETY**

EN60601-1  
EN60601-1-2  
EN60601-2-2  
Electrical Class: I CF  
MDD 93/42/EC Class: II b

**CONTROLS**

Patient/Plate circuit monitoring  
Output power monitoring  
Self check control



# SURTRON

FLASH // FLASH HF



SURTRON® FLASH HF is a High Frequency RadioSurgical equipment which is suitable to precision monopolar and bipolar surgery and micro-surgery without tissue alterations.

SURTRON® FLASH can supply RF operative powers either for programmable time as short as hundreds of a second.

SURTRON® FLASH through its performances allows pure CUT, cut-coagulation BLEND, incision with reduced production of eschar ENHANCED, superficial coagulation FORCED COAG, deep coagulation in absence of necrosis SOFT COAG, BIPOLAR coagulation and ABLATION. The digital reading of the delivered power and the overseeing through microcontroller of the operational functions, assure the absolute reliability of the conditions of job.

SURTRON® FLASH allows a highly professional surgery thanks to the user-friendly and safety solutions normally used.

The connection of neutral electrode is constantly monitored. Safety control of patient/plate contact using split neutral electrode. The possibility to control by the handle the output functions as well as the delivery of output power, allows to implement the surgical operation without turning away the surgeon attention from the surgical field.

120 160 HF 200

Reference code	10300.101	10300.201	10300.401
Max output power CUT	120 W-250 $\Omega$	150 W-500 $\Omega$ <sup>(1)</sup>	200 W-250 $\Omega$
Max output power BLEND	90 W-200 $\Omega$	100 W-500 $\Omega$ <sup>(1)</sup>	120 W-200 $\Omega$
Max output power ENHANCED	90 W-250 $\Omega$	100 W-500 $\Omega$ <sup>(1)</sup>	120 W-250 $\Omega$
Max output power FORCED COAG	80 W-150 $\Omega$	100 W-150 $\Omega$	150 W-150 $\Omega$
Max output power SOFT COAG	60 W-100 $\Omega$	80 W-100 $\Omega$	90 W-100 $\Omega$
Max output power BIPOLAR COAG	60 W-50 $\Omega$	60 W-50 $\Omega$	80 W-50 $\Omega$
Max output power BIPOLAR ABLATION	-	60 W-100 $\Omega$ <sup>(1)</sup>	-
Working frequency	600 KHz	600 KHz	600 KHz
Working frequency <sup>(1)</sup> FUNCTION ONLY	-	4.0 MHz	-
RF power pulse emission time	10 ms - 30 sec	10 ms - 30 sec	10 ms - 30 sec
RF power pulse interval	1 - 9	1 - 9	1 - 9
Patient circuit	F	F	F
Selectable input voltage	115 - 230 Vac	115 - 230 Vac	115 - 230 Vac
Mains frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Electrical input power	300 VA	350 VA	350 VA
Size WxHxD mm	370x144x319	370x144x319	370x144x319
Weight	6 Kgs	6 Kgs	6 Kgs



AMBULATORY SURGERY  
DERMATOLOGY  
VASCULAR SURGERY  
GYNECOLOGY

120 // // 200

### Standard Composition:

- Reusable handle with switches	00205.00
- Handle for microsurgical needle	00201.02
- Assorted electrodes (10 pcs)	00500.00
- Needles for micro-surgery (10 pcs)	500500.L11
- Blade electrode 7 cm (3 pcs)	152-110
- Needle electrode 7 cm (3 pcs)	152-120
- Ball electrode 6 cm (3 pcs)	152-150
- Cable for neutral electrode	00404.08
- Steel neutral electrode	5365
- Disposable split neutral electrode (2 pcs)	F7920
- Disposable neutral electrode (2 pcs)	0350
- Waterproof foot switch	00304.00
- Power supply cable 5mt	00100.01



DENTAL  
OTORHINOLARYNGOLOGY  
PEDIATRIC SURGERY  
FIRST AID  
PLASTIC SURGERY  
ENDOSCOPY  
OPHTHALMOLOGY  
NEUROSURGERY  
PNEUMOLOGY  
UROLOGY  
VETERINARY



Activation of the monopolar power with pedal and/or handle  
Patient to plate contact control  
Split return electrode use allowed  
Minimally invasive surgical treatment allowed  
Monopolar and Bipolar independent output  
Auto Start/Stop in Bipolar Coag  
Working condition storing  
Digital regulation and indication of the output power  
Sound level control  
Planning of the working condition  
RF power pulse emission time setting  
RF power pulse interval setting  
HF Dual Frequency for best performances  
HF Least amount of lateral heat  
HF Less smoke in cutting mode

### SAFETY

EN60601-1  
EN60601-1-2  
EN60601-2-2  
Electrical Class: I CF  
MDD 93/42/EC Class: II b

### CONTROLS

Patient/Plate circuit monitoring  
Output power monitoring  
Self check control



# SURTRON

200



SURTRON® 200 is a high frequency electrosurgical equipment which is suitable to light and medium surgery.

SURTRON® 200 allows to execute surgical minimally invasive procedure of resection, evaporation and coagulation.

SURTRON® 200 through its performances allows pure CUT, cut-coagulation BLEND, incision with reduced production of eschar ENHANCED, superficial coagulation FORCED COAG, deep coagulation in absence of necrosis SOFT COAG and BIPOLAR coagulation. The digital reading of the delivered power and the overseeing through microcontroller of the operational functions, assure the absolute reliability of the conditions of job.

SURTRON® 200 allows a highly professional surgery thanks to the user-friendly and safety solutions normally used. The connection of neutral electrode is constantly monitored. Safety control of patient/plate contact using split neutral electrode. The possibility to control by the handle the output functions as well as the delivery of output power, allows to implement the surgical operation without turning away the surgeon attention from the surgical field.

Reference code	10100.401
Maximum output power CUT	200W - 250Ω
Maximum output power ENHANCED	120W - 250Ω
Maximum output power BLEND	120W - 200Ω
Maximum output power FORCED COAG	150W - 150Ω
Maximum output power SOFT COAG	90W - 100Ω
Maximum output power BIPOLAR COAG	80W - 50Ω
Working frequency	600 kHz
Patient circuit	F
Mains voltage	115-230 Vac
Mains frequency	50-60 Hz
Electrical input power	350 VA
Size WxHxD mm	370x144x319
Weight	6 Kgs

Patient to plate contact control  
Split return electrode use allowed  
Minimally invasive surgical treatment allowed  
Monopolar and Bipolar independent output  
Auto Start/Stop in Bipolar Coag

Working condition storing  
Activation of the monopolar power with pedal and/or handle  
Digital regulation and indication of the output power  
Sound level control  
Planning of the working condition



AMBULATORY SURGERY  
 ENDOSCOPY  
 FIRST AID  
 GASTROENTEROLOGY  
 GENERAL SURGERY  
 GYNECOLOGY  
 NEUROSURGERY  
 OTORHINOLARYNGOLOGY  
 ORTHOPEDICS  
 PEDIATRIC SURGERY  
 PLASTIC SURGERY  
 PNEUMOLOGY  
 UROLOGY  
 VASCULAR SURGERY  
 VETERINARY

Minimally invasive surgery allowed



#### Standard Composition:

- Reusable handle with switches	00205.00
- Assorted electrodes (10 pcs)	00500.00
- Blade electrode 7 cm (3 pcs)	152-110
- Needle electrode 7 cm (3 pcs)	152-120
- Ball electrode 6 cm (3 pcs)	152-150
- Cable for neutral electrode	00404.08
- Steel neutral electrode	5365
- Disposable split neutral electrode (2 pcs)	F7920
- Waterproof foot switch	00304.00
- Power supply cable 5mt	00100.01



#### CONTROLS

Patient/Plate circuit monitoring  
 Output power monitoring  
 Self check control

#### SAFETY

EN60601-1  
 EN60601-1-2  
 EN60601-2-2  
 Electrical Class: I CF  
 MDD 93/42/EC Class: II b



# SURTRON

300 HP // 400 HP



## TWIN OPERATIVE ACTIVITY

- Two output channels for monopolar cutting
- Two independent setting and output channels for the most frequent monopolar coagulation

## CONTROLLED CUTTING PROCEDURES

- Automatic adaptive system of power\* (TACS - Tissue Adaptive Contact System)
- Enhanced cutting current for eschar free incision
- Cutting current with selectable coagulating property for bleeding controlled dissection
- Low capacitive coupling by slow BLEND current for endoscopic procedures

## TWIN CONTROLLED COAGULATIVE PROCEDURES

- SPEEDY\*\* coagulation and DEEP\*\*\*coagulation available to two operators
- SPRAY coagulation available by hand switch or foot switch controls

## WIDE BIPOLAR FEATURES

- Bipolar cutting current with selectable bleeding control
- Slow BLEND cutting current
- Separately activable Automatic Start/Stop coagulation
- Vessel Sealing up to 7mm

## SURGEON AND PATIENT TOTAL SAFETY

- Acceptability of contact impedance between patient body and return electrode continuously watched by Skin Plate Electronic Control (SPEC)
- H.F. Leakage currents continuously monitored
- Mains fluctuation automatically compensated before to start the delivery of HF power

## PERSONALIZED PROCEDURES

- Independent choice of coagulative currents and power levels by each of two operators
- Ten personal configurable and immediately recallable procedures

## EXTENSION DRIVER AND INTERLOCK SIGNALS

- Drived output connection to external Argon Plasma unit and Smoke Evacuator unit

## AUTOMATIC SELF DIAGNOSIS

- Automatic diagnostic control of the actual complete functionality of the electronic unit and the connected accessories with coded report of failures

\*Monopolar CUT mode until 100 Watt.

\*\*SPEEDY coagulation also said Fulgurate or Forced coagulation

\*\*\*DEEP coagulation also said Pin Point, Dessicate or Soft coagulation

300 HP

400 HP

### Reference code

Maximum output power monopolar pure CUT  
Maximum output power monopolar cut-coag CUT80%  
Maximum output power monopolar cut-coag CUT60%  
Maximum output power monopolar cut-coag CUT40%  
Maximum output power monopolar cut ENHANCED  
Maximum output power monopolar cut-coag BLEND  
Maximum output power monopolar coag SPEEDY  
Maximum output power monopolar coag DEEP  
Maximum output power monopolar coag SPRAY  
Maximum output power monopolar coag SPRAY ARGON  
Maximum output power bipolar CUT  
Maximum output power bipolar cut-coag CUT80%  
Maximum output power bipolar cut-coag CUT60%  
Maximum output power bipolar cut-coag CUT40%  
Maximum output power bipolar cut-coag BLEND  
Maximum output power bipolar coag COAG  
Maximum output power bipolar coag VESSEL SEALING  
Working frequency Monopolar / Bipolar  
Patient circuit  
Selectable input voltage  
Mains frequency  
Electrical input power  
Size WxHxD mm  
Weight

10400.802  
300 W - 300 Ω  
250 W - 300 Ω  
200 W - 300 Ω  
150 W - 300 Ω  
200 W - 500 Ω  
200 W - 300 Ω  
100 W - 500 Ω  
100 W - 200 Ω  
70 W - 2000 Ω  
70 W - 2000 Ω  
120 W - 50 Ω  
120 W - 50 Ω  
120 W - 50 Ω  
100 W - 50 Ω  
120 W - 150 Ω  
120 W - 50 Ω  
200 W - 50 Ω  
425 kHz / 525 kHz  
F  
115 - 230 Vac  
50 - 60 Hz  
1000 VA  
470x150x400  
17,5 Kgs

10400.902  
400 W - 300 Ω  
300 W - 300 Ω  
250 W - 300 Ω  
200 W - 300 Ω  
250 W - 500 Ω  
250 W - 300 Ω  
120 W - 500 Ω  
120 W - 200 Ω  
100 W - 2000 Ω  
100 W - 2000 Ω  
120 W - 50 Ω  
120 W - 50 Ω  
120 W - 50 Ω  
100 W - 50 Ω  
120 W - 150 Ω  
120 W - 50 Ω  
200 W - 50 Ω  
425 kHz / 525 kHz  
F  
115 - 230 Vac  
50 - 60 Hz  
1000 VA  
470x150x400  
17,5 Kgs

AMBULATORY SURGERY  
 ENDOSCOPY  
 FIRST AID  
 GASTROENTEROLOGY  
 GENERAL SURGERY  
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 OTORHINOLARYNGOLOGY  
 ORTHOPEDICS  
 PEDIATRIC SURGERY  
 PLASTIC SURGERY  
 PNEUMOLOGY  
 UROLOGY  
 VASCULAR SURGERY  
 VETERINARY



#### SAFETY

EN60601-1  
 EN60601-1-2  
 EN60601-2-2  
 Electrical Class: I CF  
 MDD 93/42/EC Class: II b

#### CONTROLS

Patient/Plate circuit monitoring  
 Output power monitoring  
 Self check control  
 H.F. Leakage currents control  
 Compensation of mains fluctuation

300 HP // 400 HP

#### Standard Composition:

- Disposable handle with switches (5pcs)	755VL
- Reusable handle with switches	00205.00
- Blade electrode 7 cm (3 pcs)	152-110
- Blade electrode 16 cm (3 pcs)	152-115
- Needle electrode 7 cm (3 pcs)	152-120
- Ball electrode 6 cm (3 pcs)	152-150
- Cable for neutral electrode	00404.08
- Disposable split neutral electrode (5pcs)	F7920
- Electrode cleaning sponge	F7520
- Double water-proof foot-switch (2 pcs)	00305.04
- Power supply cable 5 mt	00100.01





# SURTRON® EVAC



**SURTRON EVAC** is an aspiration and filtering system for the smokes produced during the surgical procedures.

The smokes, generated during the surgical procedures, have a bad, strong and long smell. These smokes consist of water vapour, organic gas, visible or invisible solid particles and viral parts. So a good aspiration and filtration eliminates bad smells, reduce the bacteriologist and/or viral risks, and solves the particularly annoying problem of the optimal vision of the zone of the intervention, during the laparoscopic procedures.

In **SURTRON EVAC** the activation of the aspiration can be:

**AUTOMATIC**, through electronic system of survey of the activation of the high frequency electrosurgical unit;

**MANUAL**, acting directly on the unit through a foot switch (optional)

The flux of the aspiration can be regulated to be suitable with the singular necessities.

For laparoscopic procedures there is a specific function, quickly selectable.

**SURTRON EVAC** has an electronic control of the aspiration with the indication of the usury status of the filters.



Reference codes

Input voltage

Mains frequency

Electrical input power

Max vacuum flow rate

Max static suction

Filter type

Filter efficiency

Particles diameter

Size WxHxD mm

Weight

10200.10 (230 Vac) - 10200.10/115V (115 Vac)

230 Vac or 115 Vac

50 Hz

800 VA

1000 LPM (35 CFM)

250 mbar (83 in H<sub>2</sub>O)

ULPA with active carbon

99,999X%

0,3 micron

370x144x319

4 Kg

- AUTOMATIC AND / OR MANUAL FUNCTIONING
- REGULATION OF THE ASPIRATION FLUX
- AUTOMATIC FUNCTION FOR LAPAROSCOPY
- CONTROL AND INDICATION OF USURY STATUS OF THE FILTER
- FAST SUBSTITUTION OF THE FILTERS
- DIFFERENT TYPE OF FILTERS
- ACTIVATED CARBONS FILTERS FOR THE ELIMINATION OF THE SMELLS



There are two different kind of filter, quickly substituable and constituted by a filtering ULPA type with a active carbons part dedicated to the elimination of the bad smells of the electrosurgical smokes and connector of 7/8" (22mm).

The filters have an electronic system for the control of the status of use.

### **FILTER BLUE**

The **BLUE** filter is the standard filter and it is included with the unit for a first time of use.

### **FILTER RED**

The **RED** filter is an optional spare part, created for a long time of use.

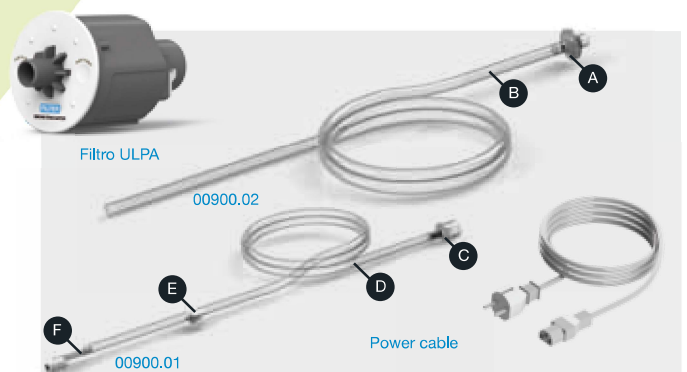
### **Standard Composition**

- Power cable
- First ULPA Filter (5h) - BLU
- Apiration kit: **A** Filter **B** Pipe dia. 22mm lenght 2,4 mt (100")
- 4 Handle apsiration kit: **C** Adapter 10mm/22mm **D** Pipe dia.10 Lenght 1,8 mt (72") **E** Clip to fix the pipe on the handle
- F** Adapter for the handle

### **Replacement parts**

- ULPA Filter (20h) - RED
- Aspiration kit (6 pcs)
- Handle aspiration kit (12 pcs)

00900.FU01  
00900.02/06  
00900.01/12



# SURTRON<sup>®</sup> ABC



**SURTRON ABC** is a module that can be connected with a compatible electrosurgical unit, specific for coagulation electrosurgical procedures with Argon gas, indicated for both open surgery and laparoscopy.

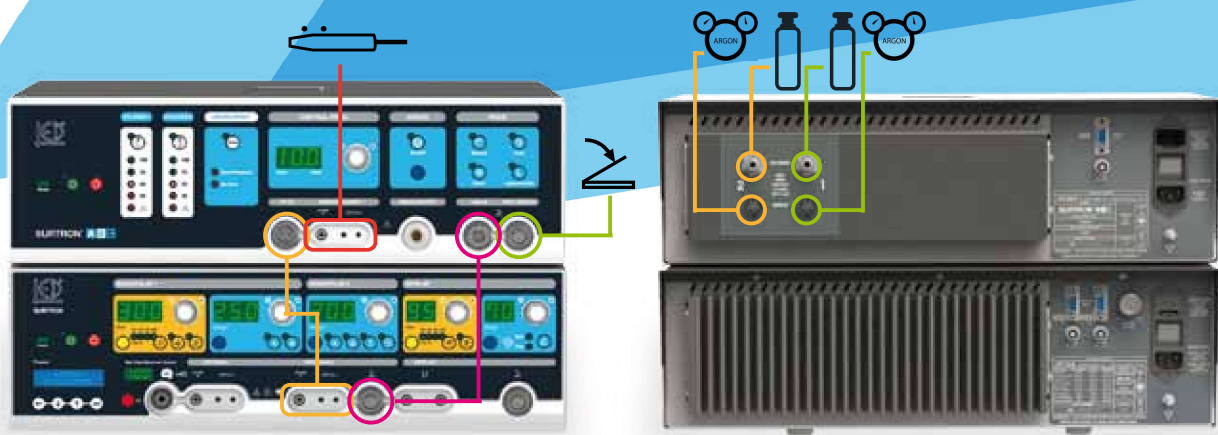
Argon is an inert gas that used in combination with specific currents for high frequency coagulation generated by an electrosurgical unit, allows to obtain a superficial coagulation without contact thanks to the ionization of the gas flow through the high-frequency current.

**SURTRON ABC** is realized so that the connection to an electrosurgical unit with compatible characteristics to the Argon procedures, allows the erogation both through a manual activation and foot activation. The connection to the ABC unit doesn't preclude the use of other functions of the electrosurgical units, in fact, in case of use of the compatible LED units, the erogation of the Argon gas occurs only in case of erogation of current of high-frequency coagulation (SPRAY).



Reference code	10500.20
Input voltage	90-240 Vac
Mains frequency	50/60 Hz
Electrical input power	70 VA
Flow regulation	0.2 - 10 LPM
Maximum inlet pressure	3.0 bar (43,5psi)
Electrical Class	I CF
Size WxHxD mm	470x150x400
Weight	8 Kgs





Connection with SURTRON HP (Not included)

- REGULATION AND CONTROL OF THE FLOW GAS SUPPLY
- STATUS CONTROL OF THE GAS ARGON CYLINDER
- ACTIVATION THROUGH THE HANDLE OR THE FOOT-SWITCH
- SPECIFIC FUNCTION FOR LAPAROSCOPY
- AUTOMATIC FUNCTION FOR COMPATIBLE LED UNITS
- MANUAL FUNCTION FOR CONNECTION WITH UNITS OF OTHER BRANDS



*www.surtron.com*



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