







50 D // 80 D



50 D



SURTRON® 50 D is a radiofrequency electrosurgical 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.

10100.051

50 W – 400 Ω

45 W - 400 Ω

40 W – 400 Ω

40 W – 400 Ω

115/230 Vac

190x85x239

600 kHz

50-60 Hz

280 VA

2,5 Kgs

Reference code
Maximum output power CUT
Maximum output power CUT/COAG1
Maximum output power CUT/COAG2
Maximum output power COAG
Working frequency
Patient circuit
Selectable input voltage
Mains frequency
Electrical input power
Size WxHxD mm
Weight

80 D



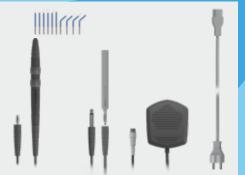
SURTRON® 80 D is a radiofrequency electrosurgical unit suitable for minor monopolar surgery.

SURTRON® 80 D has a multi-function selector which makes cutting (CUT), cut coagulation (BLEND), coagulation (COAG) and micro-coagulation (MICRO) possible. The one-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
Maximum output power CUT
Maximum output power BLEND
Maximum output power COAG
Maximum output power MICRO
Working frequency
Patient circuit
Selectable input voltage
Mains frequency
Electrical input power
Size WxHxD mm
Weight

10100.081 80 W - 400 Ω 60 W - 400 Ω 50 W - 400 Ω 20 W - 600 Ω 700 kHz F 115-230 Vac 50-60 Hz 220 VA 190x85x239 2,5 Kgs







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

80 // 120 // 160



 $SURTRON^{\otimes}$ 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.

 $\rm SURTRON^{\otimes}~80~/~120~/~160$ 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.

Reference code
Maximum output power CUT
Maximum output power BLEND
Maximum output power FORCED COAG
Maximum output power SOFT COAG
Maximum output power BIPOLAR
Working frequency
Patient circuit
Selectable input voltage
Mains frequency
Electrical input power
Size WxHxD mm
Weight

10100.101 80 W-250 Ω 60 W-200 Ω 50 W-150 Ω 40 W-100 Ω 30 W-100 Ω 600 KHz F 115-230 Vac 50-60 Hz 230 VA 254x104x288 5 Kgs 10100.201 120 W-250 Ω 90 W-200 Ω 80 W-150 Ω 60 W-100 Ω 40 W-100 Ω 600 KHz F 115-230 Vac 50-60 Hz 300 VA 254x104x288

5 Kgs

10100.301 160 W-250 Ω 120 W-200 Ω 100 W-150 Ω 80 W-100 Ω 60 W-100 Ω 600 KHz F 115-230 Vac 50-60 Hz 350 VA 254x104x288 5 Kgs



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 prodution 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 Max output power CUT
Max output power BLEND
Max output power ENHANCED
Max output power FORCED COAG
Max output power SOFT COAG
Max output power BIPOLAR COAG
Max output power BIPOLAR ABLATION
Working frequency
Working frequency (1) FUNCTION ONLY
RF power pulse emission time
RF power pulse interval
Patient circuit
Selectable input voltage
Mains frequency
Electrical input power
Size WxHxD mm
Weight

10300.101
120 W-250 Ω
90 W-200 Ω
90 W-250 Ω
80 W-150 Ω
60 W-100 Ω
60 W-50 Ω
-
600 KHz
-
10 ms - 30 sec
1 - 9
F
115 - 230 Vac
50 - 60 Hz
300 VA
300 VA 370x144x319

10300.201
150 W-500 Ω ⁽¹⁾
100 W-500 Ω ⁽¹⁾
100 W-500 Ω ⁽¹⁾
100 W-150 Ω
80 W-100 Ω
60 W-50 Ω
60 W-100 Ω ⁽¹⁾
600 KHz
4.0 MHz
10 ms - 30 sec
1 - 9
F
115 - 230 Vac
50 - 60 Hz
350 VA
370x144x319
0.1/

10300.401
200 W-250 Ω
120 W-200 Ω
120 W-250 Ω
150 W-150 Ω
90 W-100 Ω
80 W-50 Ω
-
600 KHz
000 KHZ
-
10 ms - 30 sec
1 - 9
F
115 - 230 Vac
50 - 60 Hz
350 VA
370x144x319
6 Kgs

120 // 160HF

00100.01

Standard Composition:

Power supply cable 5mt

- 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



Activation of the monopolar power with pedal and/Patient to plate contact control
Split return electrode use allowed
Minimally invasive surgical treatment allowed
Monopolar and Bipolar indipendent 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

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

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 prodution 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.

Maximum output power CUT
Maximum output power ENHANCED
Maximum output power BLEND
Maximum output power FORCED COAG
Maximum output power SOFT COAG
Maximum output power BIPOLAR COAG

Working frequency Patient circuit Mains voltage Mains frequency Electrical input power Size WxHxD mm Weight

Reference code

Patient to plate contact control

Split return electrode use allowed

Minimally invasive surgical treatment allowe

Auto Start/Stop in Bipolar Coag

 $200W - 250\Omega$ $120W - 250\Omega$ $120W - 200\Omega$ $150W - 150\Omega$ $90W - 100\Omega$ $80W - 50\Omega$ 600 kHz

10100.401

115-230 Vac 50-60 Hz 350 VA 370x144x319 6 Kgs

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

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 00100.01

Power supply cable 5mt

CONTROLS

Patient/Plate circuit monitoring Output power monitoring
Self check control



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





00 HP // 400 F



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

EXTENTION 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

SPEDY coagulation also said Fulgurate or Forced coagulation *DEEP coagulation also said Pin Point, Dessicate or Soft coagulation

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

^{*}Monopolar CUT mode until 100 Watt.

AMBULATORY SURG 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)
- Reusable handle with switches
- Blade electrode 7 cm (3 pcs)
- Blade electrode 16 cm (3 pcs)
- Needle electrode 7 cm (3 pcs)
- Ball electrode 6 cm (3 pcs)
- Cable for neutral electrode
- Disposable split neutral electrode (5pcs)
- Electrode cleaning sponge
- Double water-proof foot-switch (2 pcs)
- Power supply cable 5 mt

755VL 00205.00

152-110 152-115

152-120

152-150

00404.08 F7920

F7520

00305.04 00100.01





SURTRON® EVAC



SURTRON EVAC is an evacuation 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 evacuation and filtration eliminates bad smells, reduce the bacteriologist and/or viral risks, and solves, the particulary annoying problem of the optimal vision of the zone of the intervention, during the laparoscopic procedures.

In **SURTRON EVAC** the activation of the evacuation 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 evacuation 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 evacuation 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 H₂O) ULPA with active carbon 99,999X% 0,3 micron 370x144x319 4 Kg

- AUTOMATIC AND / OR MANUAL FUNCTIONING
- REGULATION OF THE EVACUATION 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 substituible and constitued 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

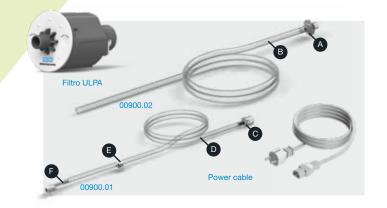
- Power cable
- First ULPA Filter (5h) BLU
- Evacuation kit: A Filter B Pipe dia. 22mm lenght 2,4 mt (100")
- 4 Handle evacuation kit: Adapter 10mm/22mm Pipe dia.10 Lenght 1,8 mt (72") Clip to fix the pipe on the handle

Adapter for the handle

Replacement parts

- ULPA Filter (20h) RED
- Evacuation kit (6 pcs)
- Handle evacuation kit (12 pcs)

00900.FU01 00900.02/06 00900.01/12



SURTRON® ABC



SURTRON As 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.

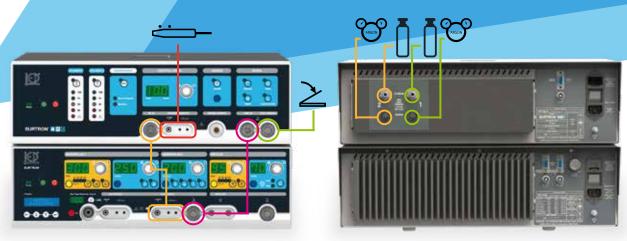
Argon is an inert gas that used in combination with specific currents for high frequency coagulation generated by an electrosurgical unit, allows to obtain a superficial coagulation without contact thanks to the ionization of the gas flow through the high-frequency current.

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
Input voltage
Mains frequency
Electrical input power
Flow regulation
Maximum inlet pressure
Electrical Class
Size WxHxD mm
Weight

10500.20 90-240 Vac 50/60 Hz 70 VA 0.2 - 10 LPM 3.0 bar (43,5psi) I CF 470x150x400 8 Kgs

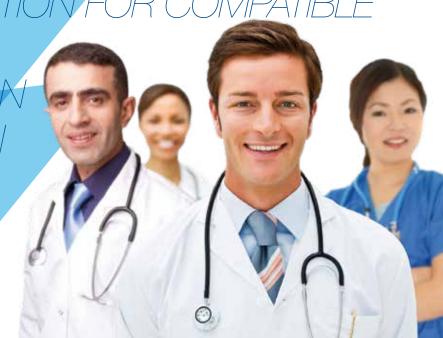


Connection with SURTRON HP (Not included)

- 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





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