

TECHNICAL INFORMATION

HF ELECTROSURGICAL UNIT

SURTRON® TOUCH HP 300 / 400



General Description

SURTRON® TOUCH HP 300 and **SURTRON TOUCH HP 400** are high frequency electro-surgical equipment suited to deliver current for monopolar cut, coagulated cut, in monopolar modality and cut and coagulation in bipolar modality.

In the bipolar coagulation modality can be activated a detection system of the tissues impedance with automatic activation and automatic stop when the coagulation is achieved (AUTOSTART – AUTOSTOP).

Moreover, using the specific function is possible to execute the synthesis and the vascular and venous coagulation through radiofrequency clamping (vessel sealing).

A total of eighteen different modes of use and levels of power, can be stored and recalled for the use simply. (Pre-set Programs). It is possible to modify them, and it is possible to create over 50 programs.

It is possible to use either single plate neutral reference electrodes or electrodes with split conductive zone so to watch the stability of the plate to patient impedance during the surgical intervention.

Control of the units is via front panel touch keys and display; mains inlet is located on the rear panel.

The operational parameters that are used are constantly stored so that, every time the unit is switched on or the operative method is changed, the last selected parameters are recalled.

The level of the emission sound can vary; every operator can choose his own level according to the environmental conditions of working.

The units can work either through holder-handles with or without pushbuttons with double foot switch command. It's possible to connect bipolar forceps to the unit for the bipolar functions.

Some versions (10400.T902 / 10400.T802) are equipped with the Argon integrated module to perform no-contact coagulation, through optional compatible applicators, such as rigid electrodes or flexible probes, therefore specific electrosurgical procedures for coagulation with Argon gas are possible for both surgery in the open air than in endoscopy. Argon is an inert gas that used in conjunction with specific currents for high frequency coagulation generated by the unit, allows to obtain a non-contact surface coagulation thanks to the ionization of the gas through the high frequency current.

Destination of Use / Sectors of Application

The use of HF electro surgical equipment **SURTRON® TOUCH HP 300** and **SURTRON® TOUCH HP 400** has reserved to specialized medical personnel. The equipment has destined to a temporary use, for surgical operations in emergency room or hospital. It has foreseen its use in the monopolar cut, cut coagulated or coagulation mode or in bipolar cut or coagulation mode.

The equipment is conceived for being used in the following sectors:

Description	SURTRON® TOUCH	
	HP 300	HP 400
Electrosurgical unit code	10400.T802	10400.T902
Dermatology	●	○
Endoscopy	●	○
Gastroenterology	●	●
General Surgery	●	●
Gynecology	●	○
Neurosurgery	●	●
Orthopaedics	○	●
Otorhinolaryngology	●	○
Paediatric Surgery	●	●
Plastic Surgery	●	●
Pneumology	●	○
Thorax Surgery	○	●
Trans Urethral Resection (TUR)	○	●
Urology	●	●
Vascular Surgery	○	○
Veterinary	●	○

● = Recommended

○ = Usable

TECHNICAL CHARACTERISTICS

Toll.	Description	SURTRON TOUCH	
		HP 300 10400.T802	HP 400 10400.T902
± 20%	Maximum output power CUT (W)	300W on 300Ω	400W on 300Ω
± 20%	Maximum output power ENHANCED (W)	200W on 300Ω	250W on 300Ω
± 20%	Maximum output power BLEND (W)	200W on 300Ω	250W on 300Ω
± 20%	Maximum output power DUO CUT (W)	150W on 300Ω	200W on 300Ω
± 20%	Maximum output power TUR CUT (W)	250W on 300Ω	300W on 300Ω
± 20%	Maximum output power FORCED COAG (W)	120W on 150Ω	150W on 150Ω
± 20%	Maximum output power SOFT COAG (W)	120W on 150Ω	150W on 150Ω
± 20%	Maximum output power FULGURATION (W)	80W on 500Ω	100W on 500Ω
± 20%	Maximum output power DUO COAG (W)	80W on 500Ω	100W on 500Ω
± 20%	Maximum output power SPRAY COAG (W)	100W on 1000Ω	120W on 1000Ω
± 20%	Maximum output power SPRAY COAG ARGON (W)	100W on 1000Ω	120W on 1000Ω
± 20%	Maximum output power BIPOLAR CUT (W)	150W on 100Ω	150W on 100Ω
± 20%	Maximum output power BIPOLAR MICRO CUT (W)	50W on 100Ω	50W on 100Ω
± 20%	Maximum output power BIPOLAR TUR (W)	300W on 300Ω	300W on 300Ω
± 20%	Maximum output power BIPOLAR COAG (W)	150W on 50Ω	150W on 50Ω
± 20%	Maximum output power BIPOLAR MICRO COAG (W)	50W on 50Ω	50W on 50Ω
± 20%	Maximum output power BIPOLAR TUR COAG (W)	250W on 50Ω	250W on 50Ω
± 20%	Maximum output power VESSEL SEALING (W)	250W on 50Ω	250W on 50Ω
± 10%	Working frequency MONOPOLAR	360 kHz	360 kHz
± 15%	Working frequency BIPOLAR	360 kHz	360 kHz
± 5%	Modulation factor ENHANCED (Hz)	1.5/1.5/2.5/2.5/3.5/3.5	1.5/1.5/2.5/2.5/3.5/3.5
± 5%	Modulation factor BLEND (Hz)	50	50
± 5%	Modulation factor FULGURATION (kHz)	30	30
± 5%	Modulation factor TUR CUT (kHz)	50	50
± 5%	Modulation factor FORCED COAG (kHz)	30	30
± 5%	Modulation factor DUO COAG (kHz)	30	30
± 5%	Modulation factor SPRAY COAG (kHz)	30	30
± 5%	Modulation factor SPRAY COAG ARGON (kHz)	30	30
± 5%	Modulation factor BIPOLAR TUR CUT (Hz)	200	200
± 0.2	Crest Factor CUT	1.6	1.6
± 0.3	Crest Factor ENHANCED CUT	3.3/3.2/3.1/3.0/2.8/2.6	3.3/3.2/3.1/3.0/2.8/2.6
± 0.3	Crest Factor BLEND	2.4/2.8/2.7/2.6/2.5/2.4	2.4/2.8/2.7/2.6/2.5/2.4
± 0.3	Crest Factor FULGURATION	3.8	3.8
± 0.3	Crest Factor DUO CUT	1.6	1.6
± 0.3	Crest Factor TUR CUT	2.4	2.4
± 0.3	Crest Factor FORCED COAG	3.4	3.4
± 0.3	Crest Factor SOFT COAG	1.6	1.6
± 0.3	Crest Factor COAG	3.8	3.8
± 0.3	Crest Factor SPRAY COAG	4.3	4.3
± 0.3	Crest Factor SPRAY COAG ARGON	4.3	4.3
± 0.2	Crest Factor BIPOLAR CUT / MICRO CUT	1.6	1.6
± 0.2	Crest Factor BIPOLAR COAG / MICRO COAG	1.6	1.6
± 0.2	Crest Factor BIPOLAR TUR CUT	1.6	1.6
± 0.2	Crest Factor BIPOLAR TUR COAG	1.6	1.6
± 0.2	Crest Factor VESSEL SEALING	1.6	1.6
± 15%	Maximum output voltage CUT (Vpp)	2800	2800
± 15%	Maximum output voltage ENHANCED CUT (Vpp)	2500	2500
± 15%	Maximum output voltage BLEND (Vpp)	2400	2400
± 15%	Maximum output voltage DUO CUT (Vpp)	1900	1900
± 15%	Maximum output voltage TUR CUT (Vpp)	2500	2500

Toll.	Description	SURTRON TOUCH	
		HP 300 10400.T802	HP 400 10400.T902
± 15%	Maximum output voltage FORCED COAG (Vpp)	2800	2800
± 15%	Maximum output voltage SOFT COAG (Vpp)	1200	1200
± 15%	Maximum output voltage FULGURATION (Vpp)	3500	3500
± 15%	Maximum output voltage DUO COAG (Vpp)	3500	3500
± 15%	Maximum output voltage SPRAY COAG (Vpp)	5000	5000
± 15%	Maximum output voltage SPRAY COAG ARGON (Vpp)	5000	5000
± 15%	Maximum output voltage BIPOLAR CUT (Vpp)	1100	1100
± 15%	Maximum output voltage BIPOLAR COAG (Vpp)	1100	1100
± 15%	Maximum output voltage BIPOLAR TUR CUT (Vpp)	1900	1900
± 15%	Maximum output voltage BIPOLAR TUR COAG (Vpp)	1000	1000
± 15%	Maximum output voltage VESSEL SEALING (Vpp)	1000	1000
—	Touch Screen (Size (inch) “)	● (9”)	● (9”)
—	Applicable split neutral electrode ¹	●	●
—	Bipolar with the possibility of AUTOSTART / AUTOSTOP	●	●
—	Automatic impedance control	●	●
—	Integrated Argon Module	● opt	● opt
—	Connectable Argon cylinders *	2	2
—	Minimum Level selectable	1	1
—	Work condition memorization	●	●
—	Step power unitary for powers from 0W to 50W	●	●
—	Step power 10 for powers higher than 50W	●	●
± 0.5	Size LxAxP mm	450x170x400	450x170x400
± 10	Weight (kg)	16	16
± 5%	supply voltage (Vac)	100-240	100-240
± 1%	Main frequency (Hz)	50-60	50-60
—	Fuses 5x20 type TIMED	2 x T10AL, 250V	2 x T10AL, 250V
± 10%	Electrical input power (VA)	1000	1000
± 10%	Electrical input current (240Vac) (A)	5	5
± 10%	Electrical input current (100Vac) (A)	10	10
—	Adjustable sound level	●	●
—	Power accuracy output warning	●	●
—	Last setting storing	●	●
—	Working (CUSTOM) condition storing	50	50
—	Self-check	●	●
—	Electric Class (EN60601-1)	I CF	I CF
—	MDD 93/42/EC Class	II b	II b
—	EN55011 (CISPR 11) Class (Class/Group)	2 / A	2 / A
—	Patient circuit	[F]	[F]
—	Duty Cycle (action / pause) in seconds	10 / 30	10 / 30
—	Monopolar output can be activated (pedal or handpiece buttons)	Foot/Finger	Foot/Finger
—	Bipolar output can be activated	Pedal or automatism	Pedal or automatism
—	Defibrillation-proof	●	●
—	Equipotential binding	●	●
—	ABS and metallic cabinet	●	●
—	Maximum Input Pressure Argon *	3,5 Bar	3,5 Bar
—	Pressure Input Argon *	3,0 Bar	3,0 Bar
—	Maximum output pressure Argon *	2.0 Bar	2.0 Bar
—	Argon exit flow *	0,5 – 10 LPM	0,5 – 10 LPM

● = PRESENT

* only versions with integrated Argon module

¹ Patient to plate contact monitoring system

Standard and Optional Composition

Code	Description	SURTRON® TOUCH	
		HP 300	HP 400
-	Electrosurgical unit code	10400.T802A	10400.T902A
00100.01	Power supply cable 5m SIE-IEC	●/1	●/1
00205.00	PENCILS S – Handle with switch	●/1	●/1
00305.06	Double water-proof foot switch TOUCH / TOUCH HP	●/1	●/1
00306.06 ¹	Double water-proof foot switch TOUCH HP with selector	●/1	●/1
00404.08	CONNECTION - Cable for neutral electrode disposable type 5365/6429/FLEX	●/1	●/1
152-110	ELECTRODE - Blade electrode 7 cm	●/3	●/3
152-115	ELECTRODE - Blade electrode 16 cm	●/3	●/3
152-120	ELECTRODE - Needle electrode 7 cm	●/3	●/3
152-150	ELECTRODE - Ball electrode Ø 4mm 6 cm	●/3	●/3
755VL	Disposable handle with finger switches (F4797)	●/5	●/5
F7520	Electrode cleaning sponge 47x50mm	●/1	●/1
F7920	Disposable Split Neutral electrode (F7820)	●/5	●/5
00100.00	Power supply cable 2m IT-IEC	○	○
00100.03	Power supply cable 2m SIE-IEC	○	○
00100.04	Power supply cable 2m USA-IEC	○	○
00100.05	Power supply cable 2m GB-IEC	○	○
00100.07	Power supply cable 2m BR-IEC	○	○
00100.09	Power supply cable 2m AU-IEC	○	○
00100.10	Power supply cable 5m JP-IEC	○	○
00205.40	PENCILS S – Handle with switch (for electrode 4mm)	○	○
00206.00	PENCIL - Handle without switch	○	○
00206.40	PENCIL - Handle without switch (for electrode 4mm)	○	○
00306.06 ¹	Double water-proof foot switch TOUCH HP with selector	○	○
00401.01	NEUTRAL - Steel Neutral Electrode 24x16 cm with cable	○	○
00401.03	NEUTRAL - Steel Neutral Electrode 24x16 cm with cable autoclavable	○	○
00401.10	NEUTRAL - Steel Neutral Electrode FLEX 120x210mm	○	○
00401.11	NEUTRAL - Steel Neutral Electrode FLEX 120x210mm with cable	○	○
00401.12	NEUTRAL - Steel Neutral Electrode FLEX 120x210mm with cable autoclavable	○	○
00401.20	NEUTRAL - Steel Neutral Split Electrode FLEX S 120x210mm	○	○
00401.21	NEUTRAL - Steel Neutral Split Electrode FLEX S 120x210mm with cable	○	○
00401.22	NEUTRAL - Steel Neutral Split Electrode FLEX S 120x210mm with cable autoclavable	○	○
00402.00	CONNECTION - Monopolar cable M4-F4 3mt	○	○
00402.01	CONNECTION - Monopolar cable M4-F2.8 3mt	○	○
00402.02	CONNECTION - Monopolar cable M4-MP4 3mt	○	○
00402.03	CONNECTION - Monopolar cable M4-EU 3mt	○	○
00402.04	CONNECTION - Monopolar cable M4-F2.M 3mt	○	○
00404.07	Cable for connection neutral electrode F7915/F7930	○	○
00404.09	CONNECTION - Cable for neutral electrode disposable type 5365/6429/FLEX autocl.	○	○
00411.00	CONNECTION - Bipolar cable EUR	○	○
00413.00	CONNECTION - Bipolar cable 3mt Artery Sealer EUR	○	○
00414.00	CONNECTION - Bipolar cable 3mt US	○	○
00415.00	CONNECTION - Bipolar cable 3mt ENDO1 (F4-F2)	○	○
00416.00	CONNECTION - Bipolar cable 3mt ENDO2 (MP2-F2)	○	○
00417.00	CONNECTION - Bipolar cable 3mt ENDO3 (MP2-F4)	○	○
00418.00	CONNECTION - Bipolar cable 3mt SCISS (F2.4-F2.4)	○	○
00420.00	Reusable handle with finger switch for Argon	○*	○*
00420.12	Argon coagulation electrode 150mm	○*	○*
00420.10	Argon coagulation electrode 75mm	○*	○*
00420.14	Argon coagulation electrode 370mm	○*	○*
00430.00	Connection cable for flexible Argon probes, 2.5mt	○*	○*
00430.10	Monopolar flexible Argon probe 1.5mm, 1.5mt	○*	○*

Code	Description	SURTRON® TOUCH	
		HP 300	HP 400
00430.12	Monopolar flexible Argon probe 1.5mm, 3mt	○*	○*
00430.20	Monopolar flexible Argon probe 2.3mm, 1mt	○*	○*
00430.22	Monopolar flexible Argon probe 2.3mm, 2.2mt	○*	○*
00430.24	Monopolar flexible Argon probe 2.3mm, 3mt	○*	○*
00430.30	Monopolar flexible Argon probe 3.2mm, 2.2mt	○*	○*
0350	Disposable Neutral electrode (F7805)	○	○
10500.30	SURTRON ABC Pressure reducer UNI11144 Gruppo VIII	○*	○*
110-750NS	BIPOLAR - Bipolar Artery Sealer 27cm TIP 3mm	○	○
110-755NS	BIPOLAR - Bipolar Artery Sealer 25,5cm TIP 3mm	○	○
110-760NS	BIPOLAR - Bipolar Artery Sealer 17cm TIP 2mm	○	○
152-112	ELECTRODE - Blade curved electrode 7 cm	○	○
152-122	ELECTRODE - Needle curved electrode 7 cm	○	○
152-125	ELECTRODE - Needle electrode 13 cm	○	○
152-130	ELECTRODE - Ball electrode Ø 2mm 6 cm	○	○
152-132	ELECTRODE - Ball curved electrode Ø 2mm 6 cm	○	○
152-140	ELECTRODE - Ball electrode Ø 3mm 6 cm	○	○
152-142	ELECTRODE - Ball curved electrode Ø 3mm 5 cm	○	○
152-145	ELECTRODE - Ball electrode Ø 3mm 14 cm	○	○
152-152	ELECTRODE - Ball curved electrode Ø 4mm 6 cm	○	○
152-160	ELECTRODE - Ball electrode Ø 5mm 6 cm	○	○
152-162	ELECTRODE - Ball curved electrode Ø 5mm 6 cm	○	○
152-165	ELECTRODE - Ball electrode Ø 5mm 14 cm	○	○
152-175-10	ELECTRODE - Loop electrode 10x10 l.15 cm	○	○
152-190-13	ELECTRODE - Loop electrode 20x13 l.15 cm	○	○
152-190-20	ELECTRODE - Loop electrode 20x20 l.15 cm	○	○
152-195	ELECTRODE - Conization electrode 13 cm	○	○
310-110-05	BIPOLAR - Bipolar Forceps 11,5cm TIP0.5mm	○	○
310-112-05	BIPOLAR - Bipolar Forceps Curved 11,5cm TIP0.5mm	○	○
310-140-10	BIPOLAR - Bipolar Forceps 20cm TIP 1mm	○	○
310-140-20	BIPOLAR - Bipolar Forceps 20cm TIP 2mm	○	○
310-142-10	BIPOLAR - Bipolar Forceps Curved 20cm TIP 1mm	○	○
310-142-20	BIPOLAR - Bipolar Forceps Curved 20cm TIP 2mm	○	○
310-180-10	BIPOLAR - Bipolar Forceps Angled 20cm TIP 1mm	○	○
310-180-20	BIPOLAR - Bipolar Forceps Angled 20cm TIP 2mm	○	○
310-182-10	BIPOLAR - Bipolar Forceps Angled Curved 20cm TIP 1mm	○	○
310-185-10	BIPOLAR - Bipolar Forceps Angled Curved 20cm TIP 1mm	○	○
310-510	BIPOLAR - Bipolar electrode 20cm – direct	○	○
310-550	BIPOLAR - Bipolar electrode 20cm – curved 1	○	○
310-590	BIPOLAR - Bipolar electrode 20cm – curved 2	○	○
330-134-20	MONOPOLAR - Monopolar Forceps 20cm TIP2mm	○	○
330-160	MONOPOLAR - Monopolar Surgical Scissors 18cm	○	○
410-100-15	BIPOLAR – Bipolar Forceps Clamp Scissors 15cm	○	○
410-100-19	BIPOLAR – Bipolar Forceps Clamp Scissors 19cm	○	○
410-200-18	BIPOLAR – Bipolar Forceps Scissors 18cm	○	○
410-200-21	BIPOLAR – Bipolar Forceps Scissors 21cm	○	○
410-200-23	BIPOLAR – Bipolar Forceps Scissors 23cm	○	○
6429A	NEUTRAL - Steel Neutral Electrode 24x16 cm	○	○
F7915	Conductive rubber neutral electrode without cable	○	○
F7930	Conductive rubber split neutral electrode without cable	○	○
TRST001	Trolley for SURTRON TOUCH HP	○	○
TRCYLSUP01	Support for Cylinder	○*	○*

●/ Pcs= STANDARD ○= OPTIONAL

* not compatible with versions without integrated Argon module (10400.T802 / 10 - 10400.T902 / 10)

TWIN OPERATIVE ACTIVITY

- Two output channels for monopolar and two output channels for bipolar
- CUT DUO and COAG DUO functions, possibility to work simultaneously for two surgeons

CONTROLLED CUTTING PROCEDURES

- Enhanced cutting current for eschar free incision
- Cutting current with selectable coagulating property for bleeding controlled dissection
- Accoppiamento a bassa capacità nei processi endoscopici attraverso la corrente BLEND con 6 fattori di modulazione Low capacitive coupling by slow BLEND current with 6 modulation factors for endoscopic procedures
- Cut suitable for ENHANCED adipose tissues with 6 different effects
- Cutting with fluidsTUR

CONTROLLED COAGULATIVE PROCEDURES

- FORCED and SOFT coagulation available to two operators
- SPRAY coagulation available by hand switch or foot switch controls
- Integrated Argon Module *

WIDE BIPOLAR FEATURES

- Coagulation and cutting with fluidsTUR
- Separately activable Automatic Start/Stop coagulation
- Vessel Sealing up to 7mm

SURGEON AND PATIENT TOTAL SAFETY

- Monitoraggio dell'impedenza di contatto tra il corpo del paziente e la piastra neutra continuamente verificata dal controllo elettronico
- Mains fluctuation automatically compensated before to start the delivery of HF power
- Water-proof and explosion-proof double pedals

PERSONALIZED PROCEDURES

- Independent choice of coagulative currents and power levels by each of two operators
- Storing customized programs

ACCESSORIES CONNECTION

- Use of standard connectors for accessory connections. Possibility to connect accessories of the most common brands

AUTOMATIC SELF DIAGNOSIS

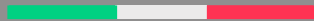
- Automatic diagnostic control of the complete functionality of the electronic unit and of the connected accessories and coded indication of the malfunctions found with visual and / or acoustic alarms

* not present in versions without integrated Argon module (10400.T802 / 10 - 10400.T902 / 10)

The characteristics and the technical data can suffer variations without warning, for a continuous amelioration of the product.

SURTRON[®]

ELECTROSURGICAL UNIT



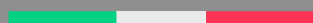
*INNOVATION
FOR SURGERY*





SURTRON®

ELECTROSURGICAL UNIT



- 06 **SURTRON®** 50D
- 07 **SURTRON®** 80D
- 08 **SURTRON®** 80//120//160
- 10 **SURTRON®** 120//160 HF//200
- 12 **SURTRON®** 200
- 14 **SURTRON®** TOUCH 200
- 16 **SURTRON®** 300 HP // 400 HP
- 18 **SURTRON®** EVAC
- 20 **SURTRON®** ABC





SURTRON[®]

ELECTROSURGICAL UNIT

**INNOVATION
FOR
SURGERY**

100% *MADE IN ITALY*

WE FOLLOW THE PRODUCTION PROCESS, FROM INITIAL
CONCEPT TO THE FINAL PRODUCT, ENTIRELY IN OUR FACTORY.

IMPROVE QUALITY OF WORK IN MEDICAL FIELD.

LED SpA strives to create products capable of improving
the quality of the work for doctors, during their operations.

Innovating and refining technologies in symbiosis with
a functional design, to allow for maximum proficiency.
Continuous research is done to achieve the highest
possible objectives and we are always ready to collaborate,
putting customers first and using all our experience
to grow successful together.

*PERFORMANCE
USABILITY
DESIGN
RELIABILITY*



SURTRON 50D

SAFETY
EN60601-1
EN60601-1-2
EN60601-2-2
Electrical Class: I CF
MDR 2017/745/UE Class: II b

CONTROLS
Output power monitoring
Self check control



SURTRON® 50D is a radiofrequency electrocautery unit suitable for minor monopolar surgery.

SURTRON® 50D 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® 50D offers outstanding professional surgical results due to its ergonomic and superior safety features.

SCAN HERE



READ MORE

50D

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

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
- Electrodes and handle support	00202.00



AMBULATORY SURGERY - DENTAL

SURTRON 80D



SCAN HERE



READ MORE



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

SURTRON® 80D 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® 80D offers outstanding professional surgical results due to its ergonomic and superior safety features.

SAFETY

EN60601-1
EN60601-1-2
EN60601-2-2
Electrical Class: I CF
MDR 2017/745/UE Class: II b

CONTROLS

Patient/Plate circuit monitoring
Output power monitoring
Self check control

80D

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	280 VA
Size WxHxD mm	190x85x239
Weight	2,5 Kgs

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
- Electrodes and handle support	00202.00



DERMATOLOGY - FIRST AID - VASCULAR SURGERY

CASUALTY SURGERY - DENTAL
DERMATOLOGY - ENDOSCOPY
FIRST AID GYNECOLOGY - GASTROENTEROLOGY
NEUROSURGERY - OPHTHALMOLOGY

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.



OTORHINOLARYNGOLOGY PEDIATRIC SURGERY - PLASTIC SURGERY UROLOGY - VASCULAR SURGERY

	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	

SCAN HERE



READ MORE

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SAFETY

EN60601-1
EN60601-1-2
EN60601-2-2
Electrical Class: I CF
MDR 2017/745/UE Class: II b

CONTROLS

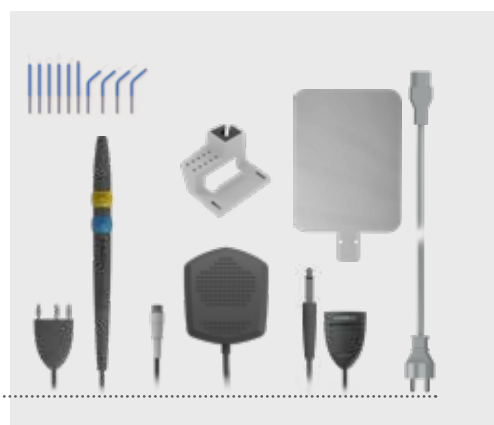
Patient/Plate circuit monitoring
Output power monitoring
Self check control

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

80//120//160 STANDARD COMPOSITION:

- Reusable monopolar handle 00205.00
- Assorted electrodes (10 pcs) 00500.00
- Cable for rod neutral electrode 00404.08
- Rod neutral electrode 5365
- Foot switch 00304.00
- Power supply cable 2 mt 00100.03
- Electrodes and handle support 00202.00



CASUALTY SURGERY - DERMATOLOGY
VASCULAR SURGERY - GYNECOLOGY
OTORHINOLARYNGOLOGY - PEDIATRIC SURGERY



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

120

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
370x144x319
6 Kgs

SCAN HERE



READ MORE

160 HF

10300.201
150 W-500 $\Omega^{(1)}$
100 W-500 $\Omega^{(1)}$
100 W-500 $\Omega^{(1)}$
100 W-150 Ω
80 W-100 Ω
60 W-50 Ω
60 W-100 $\Omega^{(1)}$
600 kHz
4.0 MHz
10 ms - 30 sec
1 - 9
F
115 - 230 Vac
50 - 60 Hz
350 VA
370x144x319
6 Kgs

SCAN HERE



READ MORE

200

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
-
10 ms - 30 sec
1 - 9
F
115 - 230 Vac
50 - 60 Hz
350 VA
370x144x319
6 Kgs

SCAN HERE

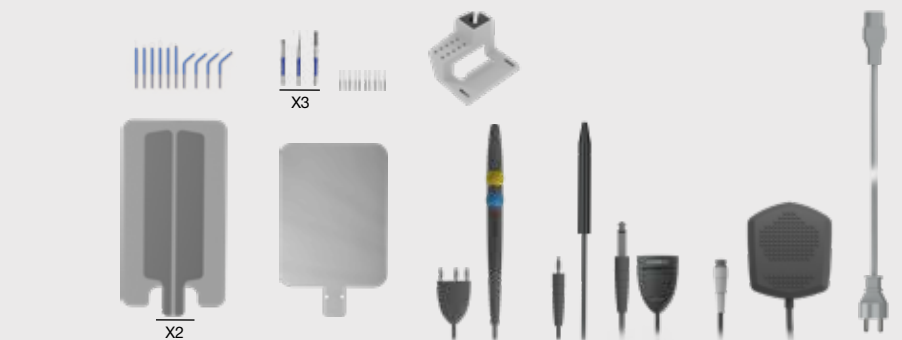


READ MORE

FLASH 120//160HF//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
- Waterproof foot switch	00304.00
- Power supply cable 5mt	00100.01
- Electrode and handle support	00202.00



*FIRST AID - PLASTIC SURGERY - ENDOSCOPY
OPHTHALMOLOGY - NEUROSURGERY
PNEUMOLOGY - UROLOGY*

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.

SAFETY
EN60601-1
EN60601-1-2
EN60601-2-2
Electrical Class: I CF
MDR 2017/745/UE Class: II b

CONTROLS
Patient/Plate circuit monitoring
Output power monitoring
Self check control

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



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.



SCAN HERE



READ MORE

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 - DERMATOLOGY
ENDOSCOPY - GASTROENTEROLOGY*

GENERAL SURGERY - GYNECOLOGY - FIRST AID
 NEUROSURGERY - OTORHINOLARYNGOLOGY
 ORTHOPEDICS - PEDIATRIC SURGERY
 PLASTIC SURGERY - PNEUMOLOGY



200



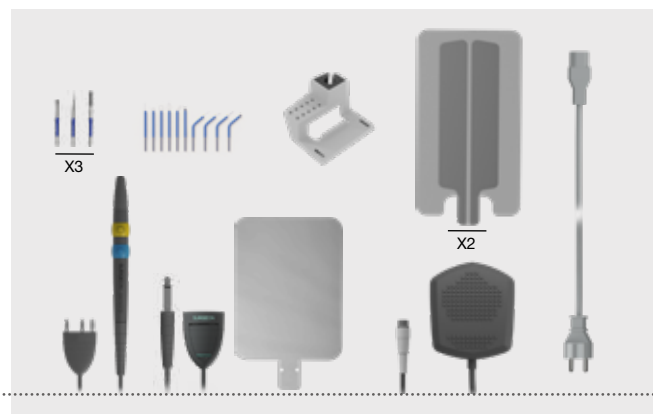
Reference code	10100.401
Maximum output power CUT	200W - 250 Ω
Maximum output power ENHANCED	120W - 250 Ω
Maximum output power BLEND	120W - 200 Ω
Maximum output power FORCED COAG	150W - 150 Ω
Maximum output power SOFT COAG	90W - 100 Ω
Maximum output power BIPOLAR COAG	80W - 50 Ω
Working frequency	600 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

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_S
- Steel neutral electrode	5365
- Disposable split neutral electrode (2 pcs)	F7920
- Waterproof foot switch	00304.00
- Power supply cable 5mt	00100.01
- Electrodes and handle support	00202.00

SAFETY
 EN60601-1
 EN60601-1-2
 EN60601-2-2
 Electrical Class: I CF
 MDR 2017/745/UE Class: II b

CONTROLS
 Patient/Plate circuit monitoring
 Output power monitoring
 Self check control



THORAX SURGERY - TRANS URETHRAL RESECTION
 UROLOGY - VASCULAR SURGERY



SURTRON® TOUCH 200 has taken electrosurgery to new levels of performance, reliability and safety. With **SURTRON® TOUCH 200** we have gained a good reputation for the innovation and technical excellence of our equipments.

The intuitive **SURTRON® TOUCH 200**, suitable for use in many surgical disciplines, has been designed for ease of use to not only minimise training, but to facilitate ease of set up at the start of a procedure and changing of modes and power settings during a procedure interface.

SURTRON® TOUCH 200 is an High Frequency electrosurgical equipment which is suitable for precision monopolar and bipolar surgery and micro-surgery without tissue alterations.

SURTRON® TOUCH 200 can supply HF operative powers either for programmable time as short as hundreds of a second.

SURTRON® TOUCH 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, bipolar CUT and COAG.

The digital reading of the delivered power and the overseeing through microcontroller of the operational functions, assure the absolute reliability of the conditions of work.

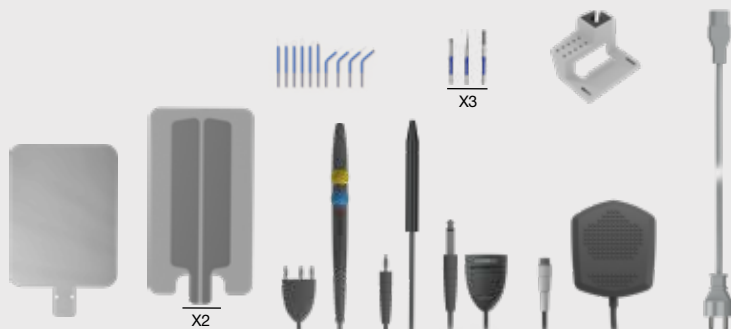
SURTRON® TOUCH 200 allows a highly professional surgery thanks to the user-friendly and safety solutions normally used.

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.

TOUCH 200

STANDARD COMPOSITION:

- Reusable handle with switches	00205.00
- Electrodes and handle support	00202.00
- Assorted electrodes (x10)	00500.00
- Blade electrode 7 cm (x3)	152-110
- Needle electrode 7 cm (x3)	152-120
- Ball electrode 6 cm (x3)	152-150
- Cable for neutral electrode	00404.08
- Steel neutral electrode	5365
- Disposable split neutral electrode (x2)	F7920
- Waterproof foot switch	00304.00
- Power supply cable 5mt	00100.01



*AMBULATORY SURGERY - DERMATOLOGY
ENDOSCOPY - FIRST AID - GASTROENTEROLOGY*

GENERAL SURGERY - GYNECOLOGY - FIRST AID
 NEUROSURGERY - OTORHINOLARYNGOLOGY
 ORTHOPEDICS - PEDIATRIC SURGERY
 PLASTIC SURGERY - PNEUMOLOGY - THORAX

SURTRON TOUCH 200



TOUCH 200

Maximum output power CUT	200W-300 Ω
Maximum output power ENHANCED	150W - 300 Ω
Maximum output power BLEND	150W - 300 Ω
Maximum output power BIPOLAR TUR	200W - 50 Ω
Maximum output power BIPOLAR PURE	120W - 50 Ω
Maximum output power FORCED COAG	150W - 200 Ω
Maximum output power SOFT COAG	100W - 200 Ω
Maximum output power FULGURATION	100W - 1000 Ω
Maximum output power BIPOLAR COAG	120W - 50 Ω
Maximum output power VASSEL SEALING COAG	200W - 50 Ω
Maximum output power FULGURATION COAG	10100.401
Working frequency	360 kHz
RF power pulse emission time	10 ms - 30 sec
RF power pulse interval	1 - 30
Patient circuit	F
Selectable input voltage	100 - 240 Vac
Mains frequency	50 - 60 Hz
Electrical input power	750 VA
Size	370 / 145 / 300 mm
Weight	5,8 Kg

SAFETY
 EN60601-1
 EN60601-1-2
 EN60601-2-2
 Electrical Class: I CF
 MDR 2017/745/UE Class: II b

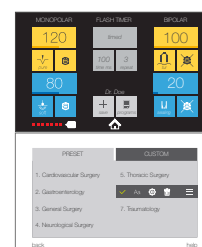
CONTROLS
 Patient/Plate circuit monitoring
 Output power monitoring
 Self check control

LeOS, Led electrosurgery Operating System, is developed for an easy, functional and intuitive working experience.

You can choose a black or white background, customize and store your personal program, change the cut and coag power with a simple touch of your finger.

Adaptive power control
 Activation power with pedal and/or handle
 Patient/plate contact control
 Split return electrode use allowed
 Minimally invasive surgical treatment allowed
 Monopolar and Bipolar independent output
 Underwater bipolar cut
 Vessel Sealing up to 7mm
 Auto Start/Stop in Bipolar Coag

RF power pulse emission time setting
 RF power pulse interval setting
 Least amount of lateral heat
 Less smoke in cutting mode
 Sound level control
 Planning of the working conditions
 Working condition storing
 Preset protocols
 Updating by USB



SCAN HERE



READ MORE

SURGERY - TRANS URETHRAL RESECTION (TUR)
 UROLOGY - VASCULAR SURGERY

ENDOSCOPY - GASTROENTEROLOGY
 GENERAL SURGERY - GYNECOLOGY
 NEUROSURGERY - OTORHINOLARYNGOLOGY
 ORTHOPEDICS - PEDIATRIC SURGERY

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

- 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

- Driven 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

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

300HP

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

SCAN HERE



READ MORE

400HP



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

SCAN HERE



READ MORE

PEDIATRIC SUREGERY
PLASTIC SURGERY
PNEUMOLOGY
THORAX SURGERY
TRANS URETHRAL RESECTION (TUR)
UROLOGY
VASCULAR SURGERY

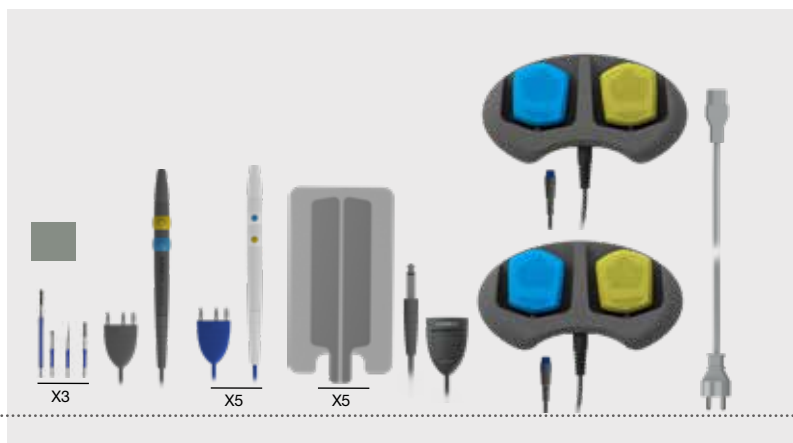
SAFETY
EN60601-1
EN60601-1-2
EN60601-2-2
Electrical Class: I CF
MDR 2017/745/UE Class: II b

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

300HP // 400HP

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 |



- AUTOMATIC AND / OR MANUAL FUNCTIONING
- REGULATION OF THE EVACUATION FLUX
- AUTOMATIC FUNCTION FOR LAPAROSCOPY
- CONTROL AND INDICATION OF USURY STATUS OF THE FILTER

SURTRON® EVAC



SCAN HERE



READ MORE

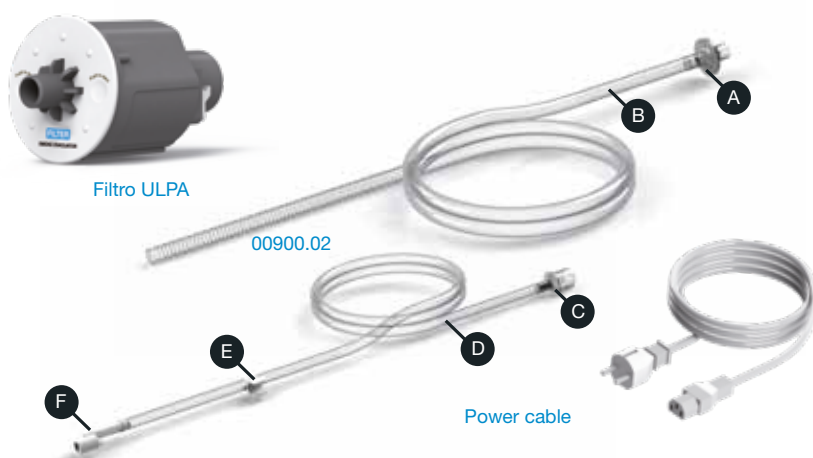
- FAST SUBSTITUTION OF THE FILTERS
- DIFFERENT TYPE OF FILTERS
- ACTIVATED CARBONS FILTERS FOR THE ELIMINATION OF THE SMELLS

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: **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 00900.FU01
- Evacuation kit (6 pcs) 00900.02/06
- Handle evacuation kit (12 pcs) 00900.01/12



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 particularly 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	10200.10 (230 Vac) - 10200.10/115V (115 Vac)
Input voltage	230 Vac or 115 Vac
Mains frequency	50 Hz
Electrical input power	800 VA
Max vacuum flow rate	1000 LPM (35 CFM)
Max static suction	250 mbar (83 in H ₂ O)
Filter type	ULPA with active carbon
Filter efficiency	99,999X%
Particles diameter	0,12 micron
Size WxHxD mm	370x144x319
Weight	4 Kg



FILTER RED

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



FILTER BLUE

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

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.

SURTRON[®] 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).

- 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*

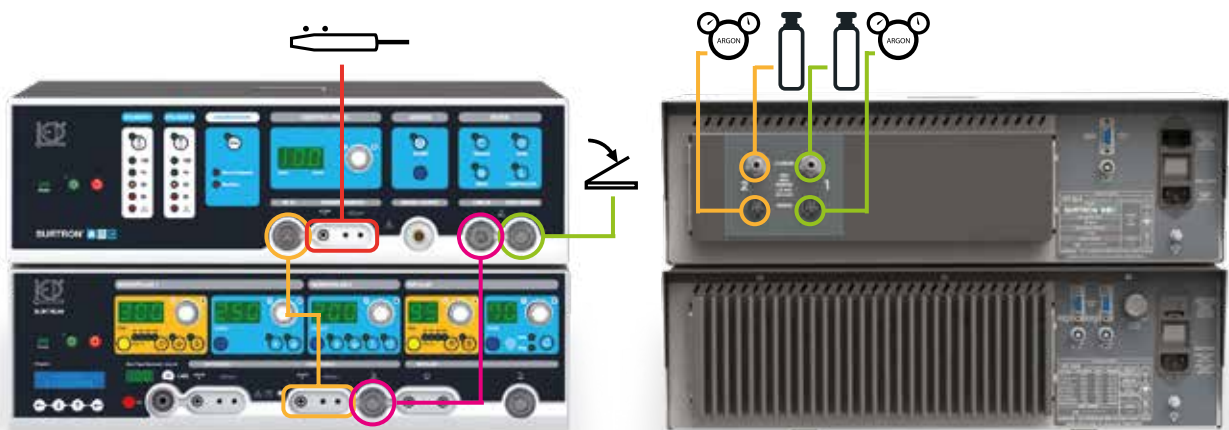


Reference code	10500.20
Input voltage	90-240 Vac
Mains frequency	50/60 Hz
Electrical input power	70 VA
Flow regulation	0.2 - 10 LPM
Maximum inlet pressure	3.0 bar (43,5psi)
Electrical Class	I CF
Size WxHxD mm	470x150x400
Weight	8 Kgs

SCAN HERE



READ MORE



Connection with SURTRON HP (Not included)

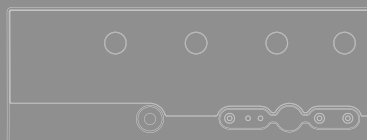
SURTRON



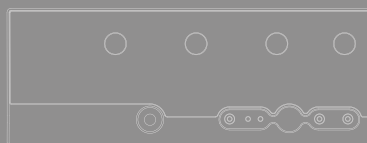
50D e 80D



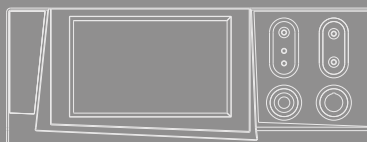
80//120//160



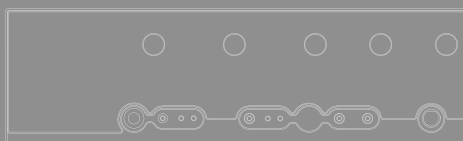
FLASH // FLASH HF



200



TOUCH 200



300 HP // 400 HP



EVAC



ABC



LED SpA

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[LED SpA](https://www.youtube.com/LED%20SpA)

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www.led.it



ED 2023|02



LED SpA

PROGETTAZIONI E PRODUZIONI ELETTRONICHE

Legal Address: Via Marco Tullio Cicerone 138 03100 FROSINONE (FR) ITALY

Operative Address: Via Selciatella, 40 – 04011 APRILIA (LT) ITALIA

Tel 06 92870045 - Fax 06 92870046

www.led.it e-mail info@led.it

EN

IE / MT

**EU DECLARATION OF CONFORMITY
(MDR 2017/745/UE)****REGULATION (EU) 2017/745 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 April 2017**

This declaration of conformity is issued under the sole responsibility of LED SpA in compliance to Article 19 of EU MDR 2017/745. We hereby declare that the medical device specified under meet the provision of the Annex I of Regulation EU MDR 2017/745 for medical devices.

The declaration is based on:

- **Manufacturers Name** : LED SpA
- **Manufacturers Address** : Via Marco Tullio Cicerone 138 03100 FROSINONE (FR) ITALY
- **SRN (Single Registration Number)** : IT-MF-000012232
- **Basic UDI-DI** : 803363832HFS00144
- **Product Category**: High frequency surgical equipment
- **Name of the Device (s)** : see TABLE attached column

#

- **Product code** : see TABLE attached column

REF

- **Classification with rule number** : Class II b (Rule 9)
- **Conformity assessment route** : Annex IX, Conformity assessment based on a quality management system and on assessment of technical documentation
- **Notified Body Name and address (code)** : IMQ S.p.A. Via Quintiliano 43 20138 Milano - ITALY (0051)
- **Harmonized Standards** : EN ISO 13485:2016/A11:2021 / EN 60601-1:2006/A2:2020 / EN 60601-2-2:2018 / EN 60601-1-2:2015/A1:2020 / EN 60601-1-6:2015/A2:2020 / EN 62304:2006/A1:2015 / EN ISO 14971:2019
- **Common Specification (CS)** : -
- **Identification of certificates issued** : EU certificate, 052 / MDR expiring 2027-09-21

Signature:

.....

NAME: Marco Mauti

FUNCTION: Legal Representative

FROSINONE (FR) 22.09.2022

EU Declaration: 10f-MDR_HSF001_0_EN

IT - **ELENCO DISPOSITIVI** / EN - **LIST OF DEVICES** / FR - **LISTE DES APPAREILS** / BG - **СПИСКЪ НА УСТРОЙСТВАТА** / CS - **SEZNAM ZAŘÍZENÍ** / DA - **LISTE OVER ENHEDER** / DE - **LISTE DER GERÄTE** / ET - **SEADMETE LOETELU** / GA - **LIOSTA NA bhFEISTÍ** / EL - **ΚΑΤΑΛΟΓΟΣ ΣΥΣΚΕΥΩΝ** / ES - **LISTA DE DISPOSITIVOS** / HR - **POPIS UREĐAJA** / LV - **IERĪCU SARAKSTS** / LT - **ĮRENGINIŲ SĄRAŠAS** / HU - **AZ ESZKÖZÖK LISTÁJA** / MT - **LISTA TA' APPARATI** / NL - **LIJST MET APPARATEN** / PL - **LISTA URZĄDZEŃ** / PT - **LISTA DE DISPOSITIVOS** / RO - **LISTA DISPOZITIVELOR** / SL - **SEZNAM NAPRAV** / SK - **ZOZNAM ZARIADENÍ** / FI - **LUETTELO LAITTEISTA** / SV - **ISTA ÖVER ENHETER**

Marca / Trade mark / Marque / Mapka / Značka / Mærke / Marke / Bränd / Branda / Μάρκα / Marca / Marka / Zīmols / Prekės ženklas / Márka / Brand / Merk / Marka / Marca / Marca / Znamka / Značka / Brändi / varumärke **LED**

	#	REF	UDI
1	SURTRON TOUCH HP 400	10400.T902	8033638324424
2	SURTRON 300 HP	10400.801 / 10800.902	8033638321188
3	SURTRON 400 HP	10400.901 / 10400.902	8033638321904
4	SURTRON TOUCH 240	10400.T50	8033638321195
5	SURTRON TOUCH 300	10400.T80	8033638321911
6	SURTRON TOUCH 380	10400.T60	8033638324929
7	SURTRON TOUCH 400	10400.T90	8033638324455
8	SURTRON TOUCH HP 300	10400.T802	8033638324943
9	SURTRON SB	10900.201	8033638324448
10	SURTRON TOUCH 200	10100.T40	8033638322970
11	SURTRON 200	10100.401	8033638321140
12	SURTRON FLASH 200	10300.401	8033638321171
13	SURTRON TOUCH HP 200	10100.T402	8033638325377
14	SURTRON TOUCH PL	10100.P402	8033638325384
15	SURTRON 160	10100.301	8033638321133
16	SURTRON 50	10100.071	8033638324417
17	SURTRON 50D	10100.051	8033638321096
18	SURTRON 80	10100.101	8033638321119
19	SURTRON 80D	10100.081	8033638321102
20	SURTRON 120	10100.201	8033638321126
21	SURTRON FLASH 120	10300.101	8033638321157
22	SURTRON FLASH 160 HF	10300.201	8033638321164
23	SURTRON TOUCH HP 50D	10100.T05	8033638325391
24	SURTRON TOUCH HP 80D	10100.T08	8033638325407



CERTIFICATO UE DI SISTEMA DI GESTIONE DELLA QUALITA'

Certificato n. 052/MDR

Visto l'esito delle verifiche condotte in conformità all'Allegato IX capi I e III del Regolamento (UE) n. 2017/745, si dichiara che il sistema completo di gestione della qualità istituito, documentato e implementato:

dal Fabbricante:

LED SPA

03100 FROSINONE (FR) - VIA MARCO TULLIO CICERONE 138 (ITA) - Italy

SRN: IT-MF-000012232

per i seguenti dispositivi:

Apparecchi per elettrochirurgia ad alta frequenza

è conforme e assicura la conformità di tali dispositivi ai requisiti applicabili del Regolamento UE suddetto ed è sottoposto alla sorveglianza prevista alla sezione 3 del medesimo Allegato.

Ulteriori informazioni sono presenti nell'Allegato tecnico che costituisce parte integrante e sostanziale del presente certificato.

Questo Certificato UE è rilasciato da IMQ S.p.A. quale Organismo Notificato n. 0051 per il Regolamento (UE) n. 2017/745 relativo ai dispositivi medici.

Gli esami ed i test effettuati (inclusi i riferimenti alle Specifiche comuni e/o alle norme applicate) sono documentati nel pertinente Rapporto di valutazione della conformità redatto da IMQ, tracciabile attraverso la Pratica IMQ (indicata nella sezione "Storico delle revisioni" che segue) e disponibile su richiesta.

Data di prima emissione: 2022-09-22

Data di scadenza: 2027-09-21


IMQ DocuSign



EU QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No 052/MDR

On the basis of the assessment carried out according to the Annex IX chapters I and III of the Regulation (EU) n. 2017/745, we hereby certify that the full quality management system established, documented and implemented:

by the Manufacturer:

LED SPA

03100 FROSINONE (FR) - VIA MARCO TULLIO CICERONE 138 (ITA) - Italy

SRN: IT-MF-000012232

for the following devices:

High frequency surgical equipment

complies and ensures the compliance of such devices with the applicable requirements of the aforementioned EU Regulation and it is subject to surveillance as required by the same Annex, section 3.

Further details are indicated in the Technical Attachment which is integral and substantial part of this certificate.

This EU Certificate is issued by IMQ S.p.A. as Notified Body no. 0051 for the Regulation (EU) n. 2017/745 related to medical devices.

Examinations and tests performed (references to applied common specifications and/or standard included) are documented in the relevant IMQ's conformity assessment Report, traceable through the IMQ's Project (indicated in the section "Revision history" below) and available on request.

First issue date: 2022-09-22

Expiry Date: 2027-09-21


IMQ DocuSign

Allegato Tecnico al Certificato UE n. 052/MDR

Technical Attachment of EU Certificate no. 052/MDR

Scheda tecnica No.: 1

Technical sheet No.: 1

Categoria di dispositivo: Apparecchi per elettrochirurgia ad alta frequenza

Device category: High frequency surgical equipment

Gruppo generico di dispositivi: Z120109: Strumentazione per elettrochirurgia

Generic device Group: Z120109: Electrosurgical instruments

Destinazione d'uso: Dispositivi medici destinati ad uso temporaneo per operazioni chirurgiche nelle quali è richiesto il taglio e/o la coagulazione dei tessuti molli, con tecnica di tipo monopolare e/o bipolare, per chirurgia minore e/o chirurgia maggiore a cielo aperto e/o intra-operatoria percutanea e/o endoscopica e/o laparoscopica.

Intended purpose: Medical device intended for temporary use for surgical operations in which cutting and/or coagulation of soft tissues is required, with a monopolar and/or bipolar technique, for surgery minor and/or major in open and/or intra-operative percutaneous and/or endoscopic and/or laparoscopic.

Classe di rischio: IIB

Risk class:

Sito/i del Fabbricante: - 04011 APRILIA (LT) - VIA SELCIATELLA 40 (ITA) - Italy

Manufacturer's site(s):

Riferimenti ad altri certificati necessari per l'immissione sul mercato dei dispositivi in questione: Non applicabile

Reference to other certificates required for the placing on the market of the covered devices: Not applicable

Condizioni o limitazioni di validità: ./.

Conditions for or limitations to the validity:

Altre informazioni rilevanti: ./.

Other relevant data:

Dati dei dispositivi: I dati dei dispositivi sono elencati nel documento 'Elenco dei dispositivi oggetto del Certificato UE n. 052/MDR' rev. 1 del 2022/09/22 allegato al presente certificato. Tale documento costituisce parte integrante e sostanziale del presente certificato.

Device data: Data of the devices are listed in the document 'List of the devices covered by the EU Certificate no. 052/MDR' rev. 1 dated 2022/09/22 attached to this certificate. This document is integral and substantial part of this certificate.



Allegato Tecnico al Certificato UE n.052/MDR

Technical Attachment of EU Certificate no. 052/MDR

Storico delle revisioni

Revision history

No.	Data <i>Date</i>	Riferimento Pratica IMQ <i>Reference to IMQ Project</i>	Descrizione <i>Description</i>
1	2022-09-22	DM21-0073246-01	Prima emissione <i>First Issue</i>

Elenco dei dispositivi oggetto del Certificato UE n. 052/MDR

List of the devices covered by the EU Certificate no. 052/MDR

rev. 1 del 09/22

Marca/Marche: LED Trade mark(s):	
Categoria di dispositivo: Apparecchi per elettrochirurgia ad alta frequenza Device category: High frequency surgical equipment	
Modello/i: SURTRON TOUCH HP 400 Model(s): SURTRON 300 HP SURTRON 400 HP SURTRON TOUCH 240 SURTRON TOUCH 300 SURTRON TOUCH 380 SURTRON TOUCH 400 SURTRON TOUCH HP 300 SURTRON SB	
Nome/i commerciale/i: come "Modello/i" / as "Model(s)" Trade name(s):	
Modello/i: SURTRON TOUCH 200 Model(s): SURTRON 200 SURTRON FLASH 200 SURTRON TOUCH HP 200 SURTRON TOUCH PL	
Nome/i commerciale/i: come "Modello/i" / as "Model(s)" Trade name(s):	
Modello/i: SURTRON 160 Model(s): SURTRON 50 SURTRON 50D SURTRON 80 SURTRON 80D SURTRON 120 SURTRON FLASH 120 SURTRON FLASH 160 HF SURTRON TOUCH HP 50D SURTRON TOUCH HP 80D	
Nome/i commerciale/i: come "Modello/i" / as "Model(s)" Trade name(s):	

PROGETTAZIONI E PRODUZIONI ELETTRONICHE

Via Selciatella, 40 - 04011 APRILIA (LT) ITALIA

Tel +39 06 92870045 - Fax +39 06 92870046

www.led.it e-mail: info@led.it

Dear Sirs.

To whom may concern

RIF: 047

Object: Letter of Authorization

Aprilia (LT), 2023-03-28

We, the undersigned, LED SpA, located in Via Selciatella 40, 04011, Aprilia (LT), Italy, hereby authorize and entitle **Imunotehnomed Ltd, 42 Gh.Asachi str., MD-2028, Chisinau, Republic of Moldova** to import, promote and sell the SURTRON product line throughout the territory of the Republic of Moldova.

*As the authorized representative, in correspondence with the conditions of Directive 93/42/EEC (MDD 93/42/EEC), 98/79/EEC, 90/385/EEC, Regulation (EU) 2017/745, **Imunotehnomed Ltd**, shall exercise all powers related to the process of placing medical devices on the market on behalf of the (Company Manufacturer), in particular, but without limiting the generality of the foregoing, perform registration, renewal or any other variations of the registration with the National Competent Authority.*

For the LED SpA
Marco Mauti
Managing Director



Anexa nr. 1
La Procedurile administrative pentru notificarea
dispozitivelor medicale care dețin marajul CE

Către Agenția Medicamentului
și Dispozitivelor Medicale

NOTIFICARE

pentru înregistrarea dispozitivelor medicale în Registrul de stat
al dispozitivelor medicale nr. 21 23 din 03.04.2023

Solicitantul SC IMUNOTEHNOMED SRL cu sediul str. Gh. Asachi, 42, tel.: 022 811 174,
022 811 197; fax: 022 738 720; e-mail tatiana.romanescu@imunotehnomed.md, solicit înregistrarea
în Registrul de stat al dispozitivelor medicale, următoarele categorii și tipuri de dispozitive medicale
pentru introducerea și punerea la dispoziție pe piață (producător – LED SpA):

Nr.	Denumirea produsului	Denumirea comerciala	Model
1	High frequency surgical equipment	SURTRON TOUCH HP 400	10400.T902
2	High frequency surgical equipment	SURTRON 300 HP	10400.801
3	High frequency surgical equipment	SURTRON 300 HP	10800.902
4	High frequency surgical equipment	SURTRON 400 HP	10400.901
5	High frequency surgical equipment	SURTRON 400 HP	10400.902
6	High frequency surgical equipment	SURTRON TOUCH 240	10400.T50
7	High frequency surgical equipment	SURTRON TOUCH 300	10400.T80
8	High frequency surgical equipment	SURTRON TOUCH 380	10400.T60
9	High frequency surgical equipment	SURTRON TOUCH 400	10400.T90
10	High frequency surgical equipment	SURTRON TOUCH HP 300	10400.T802

11	High frequency surgical equipment	SURTRON SB	10900.201
12	High frequency surgical equipment	SURTRON TOUCH 200	10100.T40
13	High frequency surgical equipment	SURTRON 200	10100.401
14	High frequency surgical equipment	SURTRON FLASH 200	10300.401
15	High frequency surgical equipment	SURTRON TOUCH HP 200	10100.T402
16	High frequency surgical equipment	SURTRON TOUCH PL	10100.P402
17	High frequency surgical equipment	SURTRON 160	10100.301
18	High frequency surgical equipment	SURTRON 50	10100.071
19	High frequency surgical equipment	SURTRON 50D	10100.051
20	High frequency surgical equipment	SURTRON 80	10100.101
21	High frequency surgical equipment	SURTRON 80D	10100.081
22	High frequency surgical equipment	SURTRON 120	10100.201
23	High frequency surgical equipment	SURTRON FLASH 120	10300.101
24	High frequency surgical equipment	SURTRON FLASH 160 HF	10300.201
25	High frequency surgical equipment	SURTRON TOUCH HP 50D	10100.T05
26	High frequency surgical equipment	SURTRON TOUCH HP 80D	10100.T08

Se anexează următoarele acte:

1. Scrisoarea de autorizare de la producător (LED SpA);
2. Declarații de conformitate CE;
3. Declarația pe propria răspundere privind veridicitatea datelor;
4. Certificat CE.

Data: 03.04.2023

Semnătura



Tabelul de recepționare a notificării

(se completează de către Agenție în momentul depunerii notificării de către solicitant)

Comentarii cu privire la acceptul/refuzul recepționării notificării, inclusiv motivul refuzului	Accept
Data/nr. de ordine atribuit notificării de către Agenție (în cazul acceptării recepționării)	226338 din 04.04.23
Numele, prenumele, funcția persoanei responsabile de recepționarea dosarului	Egan Ivan, Găințiuș
Semnătura persoanei responsabile	