Sutter

CURIS®

Precision Radio Frequency

Microsurgical Radiofrequency Generator

product
design
award

PRECISION
ELECTROSURGERY

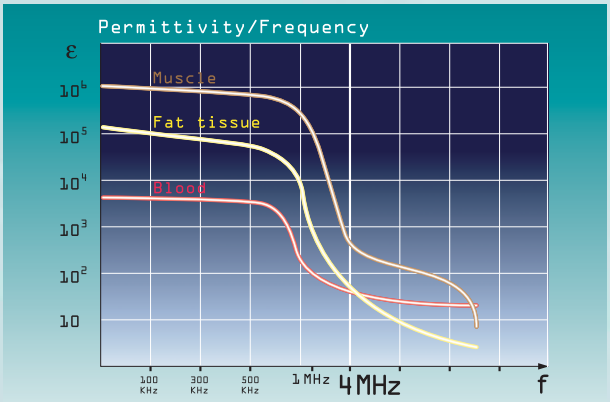
su

Contents

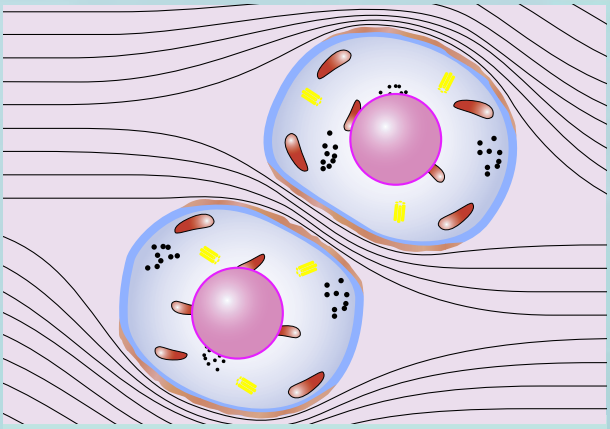
4 MHz Technology

The higher the frequency, the less the resistance of biological tissue to electromagnetic fields – up to the point where the cell membranes are capacitively coupled. This is exactly what happens with the **4 MHz** produced by the CURIS® (both in the monopolar and the bipolar modes). The electromagnetic fields are active in the tissue cells – not, as is the case with conventional electrosurgical units, between the cells.

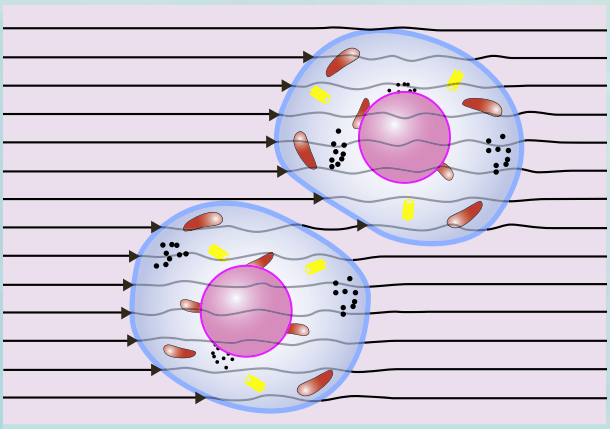
As a result energy is administered gently and in a highly focused fashion. For example precise monopolar cuts are possible while lateral heat damage is reduced.



This diagram shows the permittivity of tissue, which depends on the frequency of the electromagnetic field.



Conventional electrosurgical units: The electromagentic field concentrates between the cells and heats up only the outer layer.



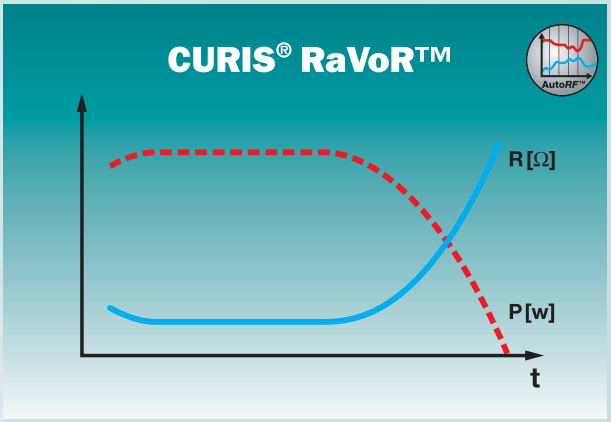
CURIS® 4 MHz: Cell membranes are conductive and the energy is absorbed evenly inside the cells. The result are highly focussed tissue effects.

p³™-Technology

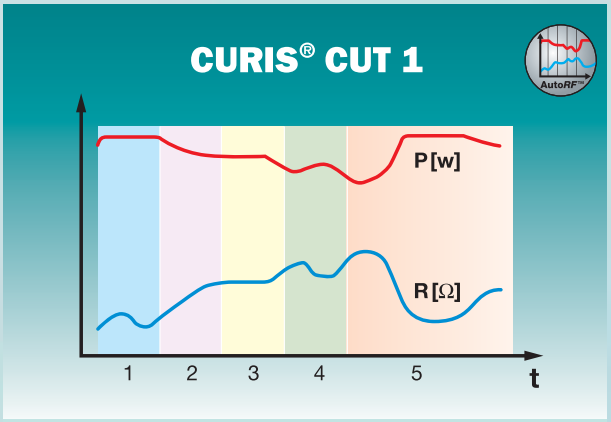
p³™ is active in all coagulation modes of the CURIS®. Radiofrequency energy is delivered in small packages of about 50 per second.
Due to the pulsed power output, there are very short breaks between the individual packages. The tissue has the time to absorb and distribute the energy and will generally be less traumatised. Highly-focussed, yet gentle coagulation with minimal thermal damage is possible. The **p³™** process is, of course, **Auto*RF*™** controlled.

Precision thanks to Auto*RF*™

The **Auto*RF*™** function is the main control feature of the CURIS®. It responds to tissue impedance in all modes and controls and adjusts the power output according to tissue resistance.
Thanks to **Auto*RF*™** the CURIS® will tailor the energy output (if need be even cut off or drive to the chosen maximum) in order to to ensure reproducible surgical results while cutting or coagulating.



RaVoR™ mode: The pulsed power output with short intervals between the individual packages gives enough time for the coagulated tissue to absorb the applied energy.



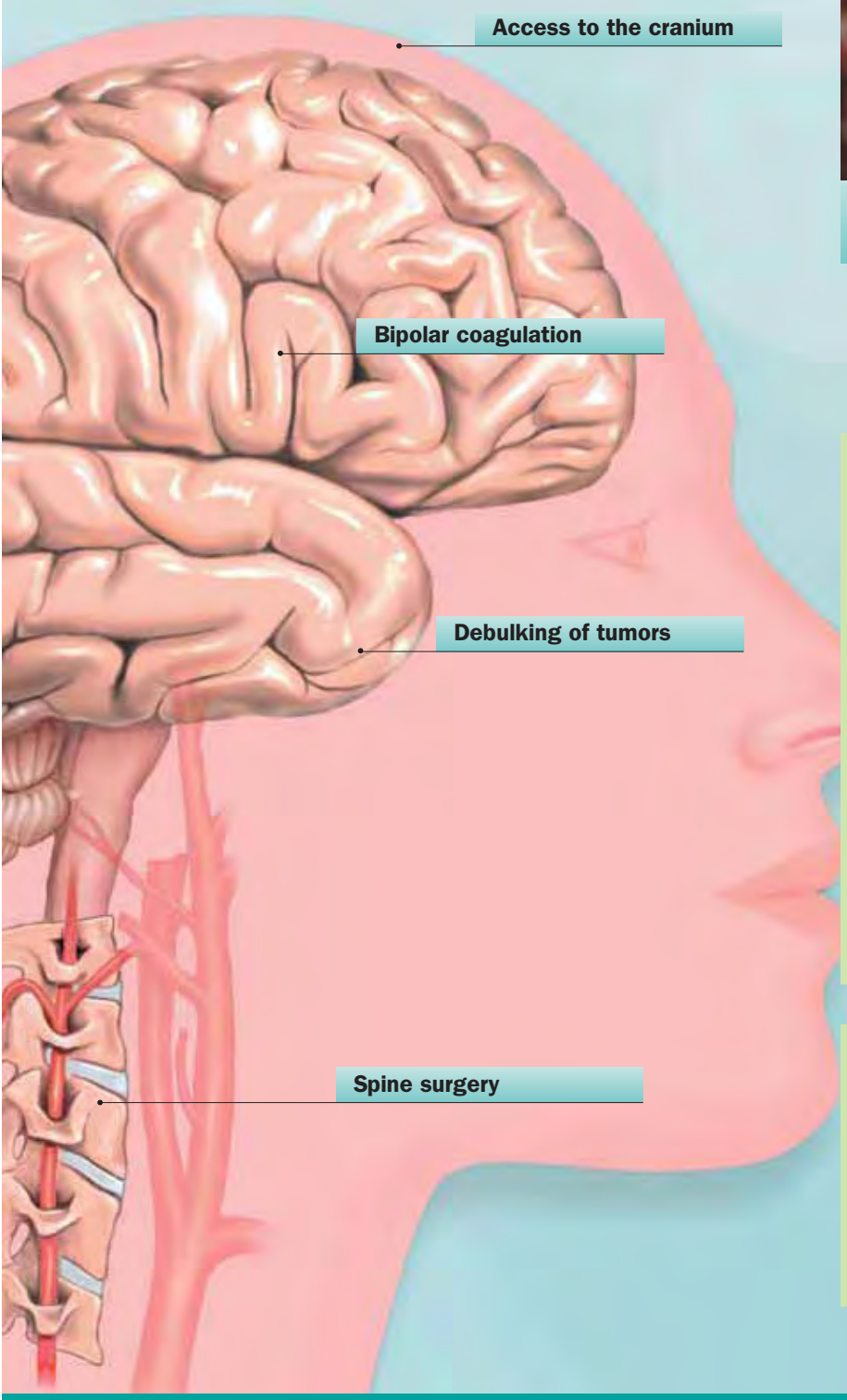
Example: Monopolar cutting. Sections 1 to 5 show the different kinds of tissues and cutting speeds to which the unit adjusts its power output automatically.

The CURIS® incorporates two technologies to allow for safe and effective coagulation, to create lesions and to cut while reducing the stress for the patient to a minimum.
The **4 MHz** frequency of the CURIS® is especially gentle on the tissue and favors the homogenous electromagnetic field inside the tissue. The **p³™** feature divides the energy output into smaller packages during coagulation. Thus overheating cannot occur.

When for instance dissecting different types of tissue in one cut (skin, fat, muscles), the unit has to process and respond to the **Auto*RF*™** data in a flash.

For this reason the CURIS®, like modern mainframe computers, has two microprocessors for additional safety and speed. Instead of conventional cables, signal transmission is guaranteed by light fibres that transmit signals at high-speed and without any loss of quality.

Precision in Neurosurgery



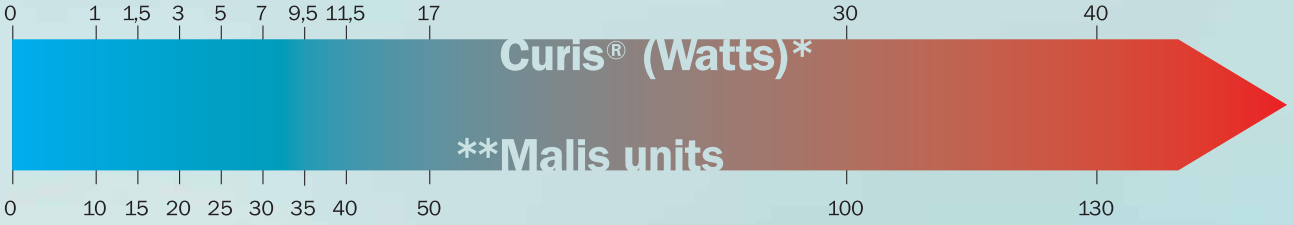
Precise, highly focussed coagulation, adjustable in 0.5 watt steps.

Precise and highly focussed coagulation, which is both efficient and gentle at the same time, is of utmost importance in neurosurgery. This is even more so as the surgeon works near sensitive structures and is always concerned to work as gently as possible. For best results, with these aspects in mind, we have combined three technologies.
With a frequency of **4 MHz** energy is fed into the tissue in a gentle, hence highly homogenous way. For best results it is additionally divided into small packages (**p³™**). The process is controlled by the **Auto*RF*™** function, which will adjust the power output automatically if need be. For individual fine tuning the Precise mode allows additional adjustment of the output in small steps of 0.5 watts.

Cost-saving: The incorporated monopolar unit allows for a better workflow, i.e. to cut in monopolar mode for access to the cranium, and then proceed in bipolar mode without changing cables or generators. This helps to save time and money because only one generator is required and needs to be maintained and supplied with accessories.

User-friendliness

Satisfaction guaranteed with the easy-to-use interface and the many well thought-out details. All the possible adjustments are visible at one glance. It is also possible to save different settings (e.g. access, dura, intracranial, etc.) and retrieve them at the push of a button. Press long to “save” and press short for “retrieve” – the idea is really simple and easy to understand.
The pleasant, sonorous activation sound with volume control and modest panel illumination help the surgeon to stay alert and not tire of the sound, even during long procedures.



*in bipolar PRECISE mode **Malis is a trademark of Synergetics Inc.

Main functions

The **PRECISE** mode is a **bipolar** coagulation current that has been specially designed for microsurgery. The output can be adjusted in precise steps of 0.5 watts. For gentle and tailor-made coagulation!

The **AUTO START** mode makes it possible for the surgeon to work without using a footswitch. The unit will detect tissue contact and start activation automatically – immediately or with a delay that is adjustable in steps of 0.2 seconds. In the **AUTO STOP** mode the unit will deliver power until the tissue is fully coagulated either in combination with **AUTO START** or with the footswitch activation.

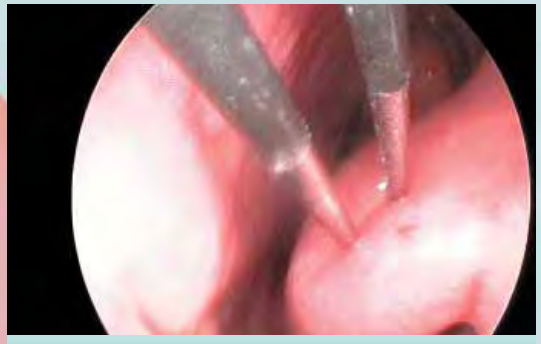
CUT 1 and **CUT 2** are modes for precise cuts. Cutting is greatly enhanced by the unit’s **4 MHz.** When using fine probes, surgeons are able cut with the least lateral heat damage.

Four different pre-settings can be saved **(P1 – P4)**, and preferred power settings can thus be quickly and easily retrieved, e.g. for work on the access, the dura, intracranial surgery etc.


Sutter
AutoRF
P1
P2
P3
P4
MONOPOLAR
CUT 1
CUT 2
CONTACT
SOFTSPRAY
TIMER
MANUAL
AUTO START

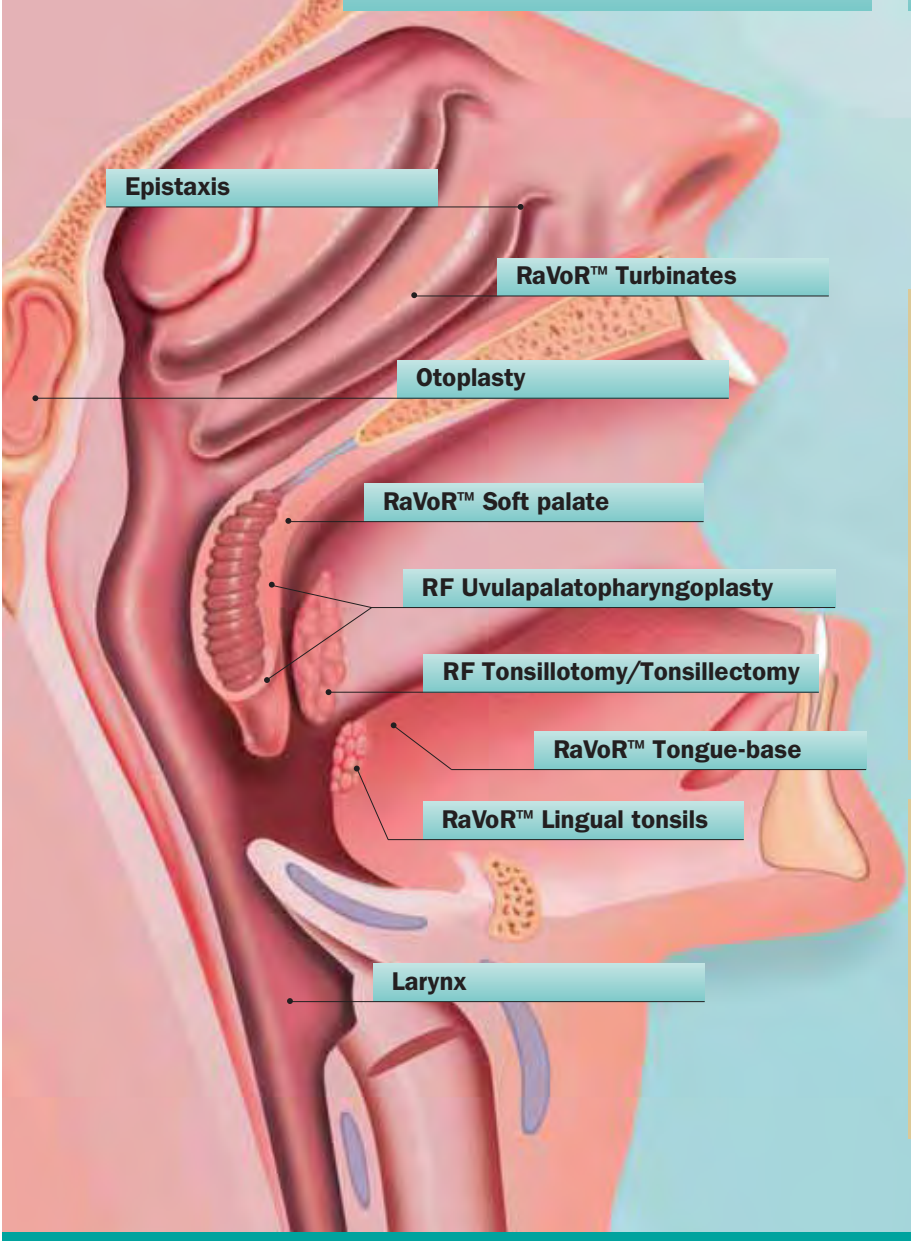
product
design
award

Versatility in ENT



AudioFeedback: Surgeon and patient can hear what happens inside the tissue.

Auto*RF*™: Energy output is controlled by the CURIS® and adjusted automatically.



RaVoR™ (Radiofrequency Volume Reduction) of the turbinates, soft palate, tongue base, etc. is an interstitial (i.e. „blind“) application: The surgeon has no visual feedback; for the desired outcome he solely relies on the system. A generator monitoring the tissue and adjusting power is a must. **Auto*RF*™** is an intelligent mode with impedance control that will tailor the power output of the CURIS® to the tissue condition. As soon as the right size of a lesion has been achieved, the CURIS® generator will automatically stop the activation (**AUTO STOP** mode) and give an acoustic signal.

If desired, an acoustic feedback function (**AUDIO FEEDBACK**) can be activated for additional safety. While the lesion is created, a change tissue condition is signalled according to a predefined pitch (the further the lesion progresses, the higher the activation sound). This mode may also be used to increase the patient's comfort. He will be able to listen in and follow what happens inside his tissue.

User-friendliness

In addition to all the technological features operating in background, the CURIS® offers useful comfort functions. The AUTO START mode, for instance, makes it possible to work without a footswitch during bipolar coagulation. Coagulation will start immediately upon tissue contact or if desired, after a delay that can be adjusted in steps of 0.2 seconds.

The CURIS® offers the possibility of saving up to four different program settings. It does away with bothersome constant, permanent readjustments of power settings and modes. This feature offers more comfort and more safety. It ensures that predefined and saved settings are always used for the same type of intervention.

Main functions

RaVoR™ is a special **bipolar** mode to perform Radiofrequency Volume Reduction, e.g. of the turbinates or the soft palate. In this mode the right kind of lesion will be automatically generated when using the autoclavable probes of Sutter Medizintechnik. The unit will also cut off activation automatically. If desired, the **AUDIO FEEDBACK** mode may be activated. It provides the surgeon and patient with acoustic information on the patient's tissue condition.

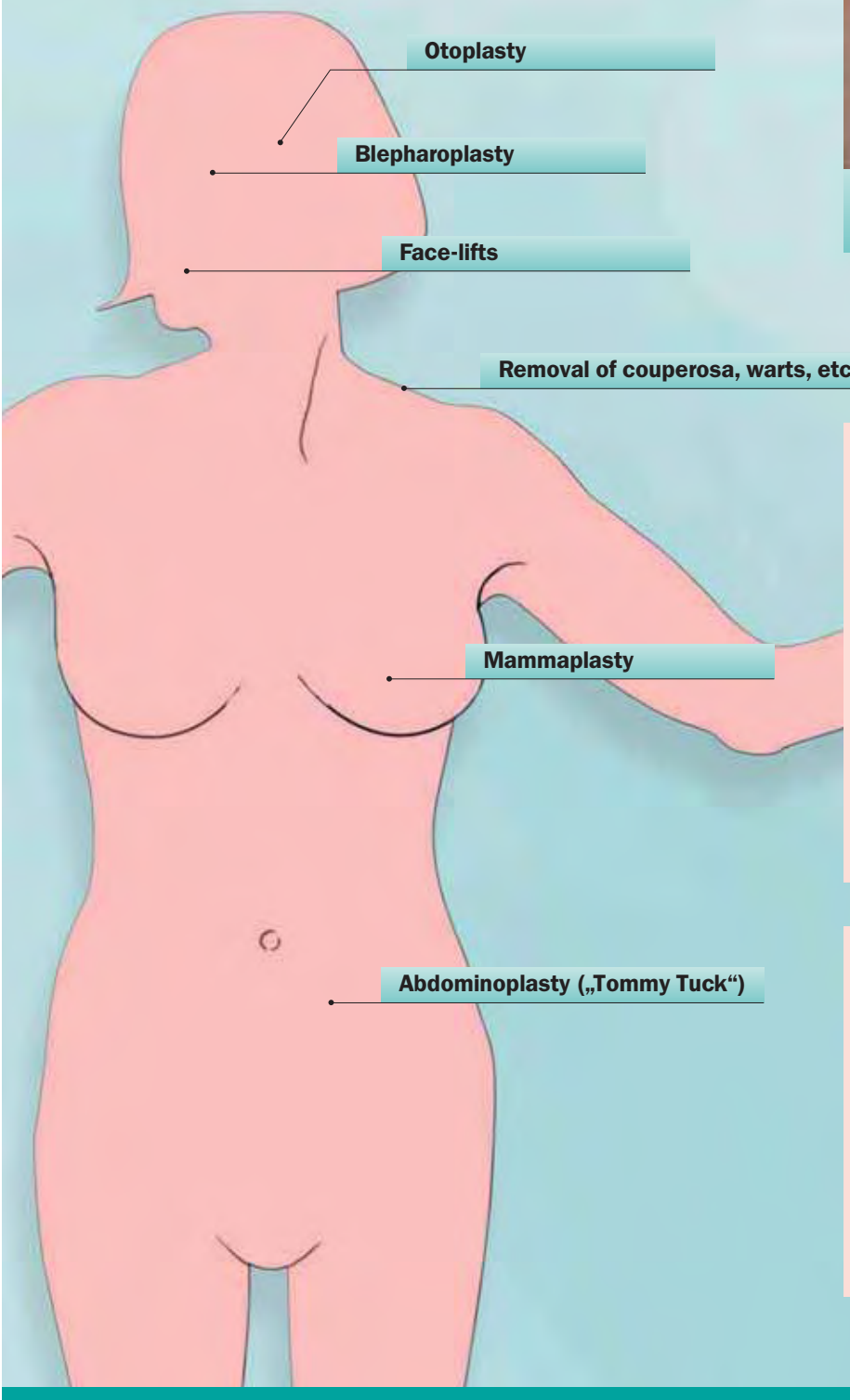
The **PRECISE** mode is a **bipolar** coagulation current that has been specially designed for microsurgery. The output can be adjusted in precise steps of 0.5 watts. For gentle and tailor-made coagulation. The **MACRO** mode is desgined for instruments with wider tips of 1 mm and more.

The **AUTO START** mode makes it possible for the surgeon to work without using a footswitch. The unit will detect tissue contact and activate the unit automatically and immediately or with a delay that is adjustable in steps of 0.2 seconds. **AUTO STOP** will stop application automatically. **AUTO STOP** is a predefined setting for interstitial interventions in the **RaVoR™** mode, and is also available as an option in all other coagulation modes.

Thanks to the **4 MHz** frequency in combination with the **Auto*RF*™** mode, **CUT 1** makes it possible to use fine instruments for precise cuts with the least lateral heat expansion. For coagulation during cutting, **CUT 2** and instruments with a broader surface (spatulas, larger probes) are used.

Four storage spaces **(P1 – P4)** are available. Preferred power settings can thus be quickly and easily saved and retrieved, e.g. for **RaVoR™** on the soft palate and the turbinates, the tongue-base, head-neck dissection, etc.

Plastic and aesthetic surgery



Precise RF cut, almost no bleeding, and maximum freedom of movement.

Precise cutting allows the tissue to heal with minimal postoperative pain and scarring. The degree of haemostasis is determined by the surgeon. It goes without saying that the CURIS® will produce clear, clean cuts. This only works when the energy delivered is highly focussed and there is minimal lateral heat damage. The frequency of **4 MHz** and **Auto*RF*™** combine to create a homogenous electromagnetic field. For the unit to adjust to ever changing conditions during cutting skin, fat, muscle in one stroke, active perfor-mance control with **Auto*RF*™** is able to ensure reproducible results.

Best possible coagulation results, according to the doctor's requirements, with two bipolar modes. For instruments with wider tips of 1 mm and more, the **MACRO** mode is ideal. The advantage of fine instruments – their precision – is enhanced by the **PRECISE** mode, which can be adjusted in steps of 0.5 watts. Its gentleness and characteristics guarantee safe coagulation results during subtle interventions and near sensitive structures.

User-friendliness

Operating room procedures are simplified because a footswitch is not necessary. This increases the surgeon's mobility and decreases his dependence on OR personnel. Monopolar instruments, e.g. a handpiece and cutting probe, as well as bipolar accessories, e.g. bipolar forceps, may be used without switching the unit from monopolar to bipolar mode.

For preparations prior to surgery and mode switches during surgery to be efficient and smooth, the CURIS® has four different storage options to save different settings, e.g. for different applications (mammaplasty, eyelid surgery, etc.) or for different surgeons.

Main functions

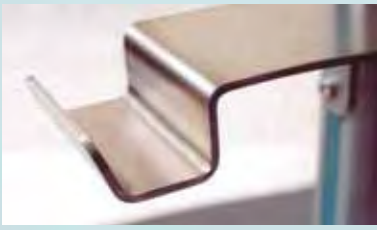
Thanks to the **4 MHz** frequency in combination with the **Auto*RF***™ mode, **CUT 1** makes it possible to use fine instruments for precise cuts with the least lateral heat damage. For coagulation during cutting, **CUT 2** and instruments with a broader surface (spatulas, larger probes) are used.

The **PRECISE** mode is a **bipolar** coagulation current that has been specially designed for microsurgery. The output can be adjusted in precise steps of 0.5 watts for gentle coagulation.The **MACRO** mode is desgined for instruments with wider tips of 1 mm and more.

The **AUTO START** mode makes it possible for the surgeon to work without using a footswitch. The unit will detect tissue contact and deliver power automatically – immediately or with a delay that is adjustable in steps of 0.2 seconds.

Four storage spaces **(P1 – P4)** are available. Preferred power settings can thus be quickly and easily saved and retrieved, e.g. for different applications (mammaplasty, eyelids, etc.) or for different surgeons.

Footswitch (Accessory)



A sturdy **frame** facilitates the use of the footswitch. The bar between the two pedals helps ”to navigate” between pedals, even without looking.

The **footswitch** will stay put and not shift. And for cleaning the floor, simply put it on a hook. It is also machine-washable.

Trolley (optional)

The trolley has a **solid design** and guarantees that the CURIS® RF-generator will not shift. It also comes with a hook to mount the footswitch.

Two storage baskets for accessories and documentation.

36 09 00 CURIS® trolley

Technical Data

Reference number 87 00 10 – CURIS®
basic set with single-use patient plates

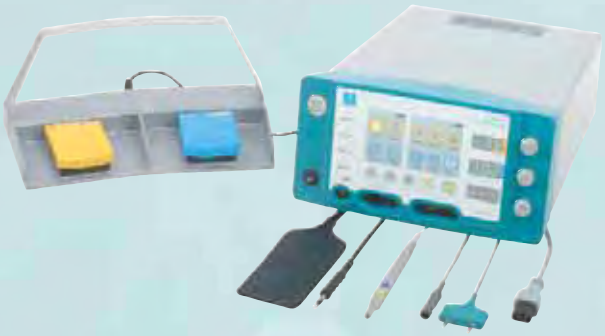
Qty.	Cat.No.	Description
1	360100-01	Radiofrequency generator CURIS®, incl. power cord and user instructions
1	36 01 10	Two-pedalled footswitch, Length 4 m
1	37 01 54 L	Bipolar cable CURIS®, Length 3 m
1	36 07 01	Two-buttoned monopolar handpiece, shaft Ø 2.4 mm Length 3 m
1	36 02 36	Connector cable for single-use patient plates, Length 4,5 m
1(x50)	36 02 22	Single-use, split patient plates (Packaging unit with 50 pcs., 10 bags/5 pieces each)

Reference number 87 00 20 – CURIS®
basic set with rubber patient plate

Qty.	Cat.No.	Description
1	360100-01	Radiofrequency generator CURIS®, incl. power cord and user instructions
1	36 01 10	Two-pedalled footswitch, Length 4 m
1	37 01 54 L	Bipolar cable CURIS®, Length 3 m
1	36 07 01	Two-buttoned monopolar handpiece, shaft Ø 2.4 mm Length 3 m
1	36 02 26	Rubber patient plate with connector cable, reusable Length 4 m

Technical Data			
RF output	**max. performance**	**oper. frequency**	**max. voltage**
monopolar			
CUT 1 (unmodulated)	100 W @ 300 Ω	4,0 MHz	1.600 Vpp
CUT 2 (modulated)	80 W @ 300 Ω	4,0 MHz	1.800 Vpp
CONTACT (Coag)	80 W @ 200 Ω	4,0 MHz	1.600 Vpp
SOFTSPRAY (Coag)	60 W @ 300 Ω	4,0 MHz	1.800 Vpp
bipolar			
CUT 1	80 W @ 200 Ω	4,0 MHz	1.100 Vpp
CUT 2	80 W @ 200 Ω	4,0 MHz	1.200 Vpp
EXCISE (Cut)	80 W @ 200 Ω	4,0 MHz	1.100 Vpp
MACRO (Coag)	100 W @ 50 Ω	4,0 MHz	570 Vpp
PRECISE (Coag)	50 W @ 50 Ω	4,0 MHz	300 Vpp
RaVoR™	40 W @ 50 Ω	4,0 MHz	280 Vpp
Modulation frequency			33 kHz
Mains supply			100-240 V; 50/60 Hz
Measurements W x H x D			320 mm x 170 mm x 385 mm
Weight			approx. 5.2 kg
Mode of operation			Intermittent INT 10 s / 30 s equals 25 % ED
System			EN 60601-1, EN 60601-2-2
Safety class			I
EMC (Interference suppr.)			EN 60601-1-2
Type			CF (cardiac floating) defibrillator-proof
German MPG class.			II b
Quality assurance			EN 13485

Accessories/Sets



870010 – CURIS® basic set with single-use patient plates

Qty.	Cat.No.	Description
1	360100-01	CURIS® radiofrequency generator (incl. mains cord, user's manual and test protocol)
1	360110	Footswitch two pedals for CURIS® (cut & coag), 4 m cable
1	370154 L	Bipolar cable for CURIS®, length 3 m
1	360704	Monopolar handpiece (pencil) cut & coag, shaft 2.4 mm, cable 3 m
1	360236	Cable for single use patient plates, length 4.5 m
1 (x50)	360222	Safety patient plates, single use, packing 5 x 10 pcs. (not shown)

870020 – CURIS® basic set with a rubbel patient plate

Qty.	Cat.No.	Description
1	360100-01	CURIS® radiofrequency generator (incl. mains cord, user's manual and test protocol)
1	360110	Footswitch two pedals for CURIS®, cut & coag, 4 m cable
1	370154 L	Bipolar cable for CURIS®, length 3 m
1	360704	Monopolar handpiece (pencil), cut & coag, shaft 2.4 mm, cable 3 m
1	360226	Patient plate with cable, re-usable, length 4 m

880010 – SILVERGlide® non-stick basic micro surgery set (e.g. neuro surgery)

Qty.	Cat.No.	Description
1	740148 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 15.5 cm, tip 0.7 mm straight
1	740168 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 17.0 cm, tip 0.7 mm straight
1	740167 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 17.0 cm, tip 1.0 mm straight
1	742183 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 20.0 cm, tip 0.7 mm straight
1	742181 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 20.0 cm, tip 1.0 mm straight
1	742182 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 20.0 cm, tip 2.0 mm straight
1	740191 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 23.0 cm, tip 0.7 mm straight
1	740192 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 23.0 cm, tip 1.2 mm straight
1	740291 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 25.0 cm, tip 0.7 mm straight
1	740292 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 25.0 cm, tip 1.2 mm straight
1	701772	10 forceps instrument tray

880020 – SILVERGlide® non-stick fine micro surgery set (e.g. neuro surgery)

Qty.	Cat.No.	Description
1	740149 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 15.5 cm, tip 0.4 mm straight
1	740169 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 17.0 cm, tip 0.4 mm straight
1	742189 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 20.0 cm, tip 0.4 mm straight
1	740199 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 23.0 cm, tip 0.4 mm straight
1	740299 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 25.0 cm, tip 0.4 mm straight
1	701762	5 forceps instrument tray

880030 – SILVERGlide® non-stick short micro surgery set (e.g. skull base)

Qty.	Cat.No.	Description
1	740148 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 15.5 cm, tip 0.7 mm straight
1	740169 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 17.0 cm, tip 0.4 mm straight
1	740168 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 17.0 cm, tip 0.7 mm straight
1	742189 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 20.0 cm, tip 0.4 mm straight
1	740191 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 23.0 cm, tip 0.7 mm straight
1	701762	5 forceps instrument tray

880040 – SILVERGlide® non-stick long micro surgery set (e.g. transphenoidal or spine)

Qty.	Cat.No.	Description
1	740168 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 17.0 cm, tip 0.7 mm straight
1	740199 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 23.0 cm, tip 0.4 mm straight
1	740191 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 23.0 cm, tip 0.7 mm straight
1	740195 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 23.0 cm, tip 1.2 mm angeled up
1	740299 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 25.0 cm, tip 0.4 mm straight
1	701762	5 forceps instrument tray

Subject to change

Accessories/Sets

878605 – RaVoR™ (Radiofrequency Volume Reduction) basic sleep surgery set

Qty.	Cat.No.	Description
1	700462	RaVoR™ (Binner) probe for turbinate reduction
1	700495	RaVoR™ probe for the soft palate
1	700496	RaVoR™ probe for the posterior pillars
1	700497	RaVoR™ probe for the tongue base tonsils
1 (x2)	360328	ARROW*tip*™ monopolar micro dissection needle, WL 30 mm, angeled, PU 2 pcs.
1 (x2)	360342	ARROW*tip*™ monopolar micro dissection needle, WL 65 mm, angeled, PU 2 pcs.
1	800000	Container with drape, retainer, metal label, seals, paper filters
1	701757	Instrument tray

870005 – RaVoR™ (Radiofrequency Volume Reduction) sleep surgery set incl. tongue base probe

Qty.	Cat.No.	Description
1	700462	RaVoR™ (Binner) probe for turbinate reduction
1	700495	RaVoR™ probe for the soft palate
1	700496	RaVoR™ probe for the posterior pillars
1	700499	RaVoR™ probe for the tongue base
1 (x2)	360328	ARROW*tip*™ monopolar micro dissection needle, WL 30 mm, angeled, PU 2 pcs.
1 (x2)	360342	ARROW*tip*™ monopolar micro dissection needle, WL 65 mm, angeled, PU 2 pcs.
1	800000	Container with drape, retainer, metal label, seals, paper filters
1	701757	Instrument tray

870030 – Nose suergery set

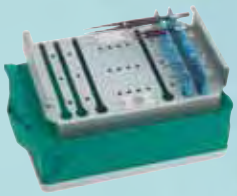
Qty.	Cat.No.	Description
1	700860	bipolar forceps, bayonet, length 20 cm, tip 1.4 mm straight
1	742181 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 20 cm, tip 1.0 mm straight
1	700462	RaVoR™ probe for turbinate reduction "Binner", WL 11 cm
1	800000	Container with drape, retainer, metal label, seals, paper filters
1	701757	Instrument tray

870040 – ENT surgery set

Qty.	Cat.No.	Description
1	700175 SG	SILVERGlide® non-stick bipolar forceps, straight, length 19 cm, tip 1.0 mm angeled
1	742181 SG	SILVERGlide® non-stick bipolar forceps, bayonet, length 20 cm, tip 1.0 mm straight
1	700178 SG	SILVERGlide® non-stick bipolar forceps, Meuser-type, length 19 cm, tip 2.0 mm
1 (x2)	360342	ARROW*tip*™ monopolar micro dissection needle, WL 65 mm, angeled, PU 2 pcs.
1 (x2)	300321	ARROW*tip*™ monopolar micro dissection needle, WL 20 mm, angeled, PU 2 pcs.
1 (x2)	360443	Loop electrode monopolar, size 10 mm, PU 2 pcs.
1 (x2)	360440	Blade electrode monopolar, PU 2 pcs.
1	800000	Container with drape, retainer, metal label, seals, paper filters
1	701757	Instrument tray

870090– Surgery set

Qty.	Cat.No.	Description
1	700171 SG	SILVERGlide® non-stick bipolar forceps, straight, length 19 cm, tip 1.0 mm straight
1 (x2)	360440	Blade electrode monopolar, PU 2 pcs.
1 (x2)	300442	Ball electrode monopolar, size 4 mm PU 2 pcs.
1 (x2)	360441	Needle electrode monopolar, PU 2 pcs.
1	800000	Container with drape, retainer, metal label, seals, paper filters
1	701757	Instrument tray



870080 – Fine surgery set

Qty.	Cat.No.	Description
1	700237 SG	SILVERGlide® non-stick bipolar forceps, straight, length 10.5 cm, tip 0.4 mm straight
1	700151 SG	SILVERGlide® non-stick bipolar forceps, straight, length 16.5 cm, tip 1.0 mm straight
1 (x2)	360328	ARROW*tip*™ monopolar micro dissection needle, WL 30 mm, angeled, PU 2 pcs.
1 (x2)	300320	ARROW*tip*™ monopolar micro dissection needle, WL 20 mm, straight, PU 2 pcs.
1 (x2)	360321	ARROW*tip*™ monopolar micro dissection needle, WL 20 mm, short angeled, PU 2 pcs.
1 (x2)	360325	ARROW*tip*™ monopolar micro dissection needle, WL 20 mm, straight, PU 2 pcs.
1	800000	Container with drape, retainer, metal label, seals, paper filters
1	701757	Instrument tray

Subject to change

SUTTER MEDIZINTECHNIK GMBH
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CE 0297

Sutter

SILVERGLIDE® BIPOLARE PINZETTEN
SILVERGLIDE® BIPOLAR FORCEPS

SILVERGlide®
NON-STICK

PRECISION
ELECTROSURGERY

SILVERGLIDE® – NICHT KLEBENDE BIPOLARE PINZETTEN!
SILVERGLIDE® – NON STICK BIPOLAR FORCEPS!

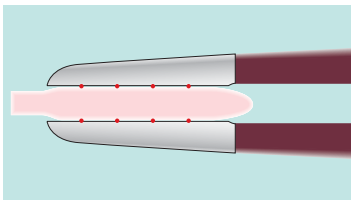
SILVERGlide® ist ein speziell entwickeltes Material, welches die molekularen Bindekräfte reduziert und eine zu starke Erhitzung der Pinzettenspitzen verhindert.
SILVERGlide® is a proprietary alloy that reduces the molecular bonding force and prevents excessive heat development at the tips of the forceps.

Weil es ein „dicker Mantel“ und keine Beschichtung ist, wird es durch die Anwendung nicht beschädigt.
Since it is a special material and not a coating, it will not be worn off by use.

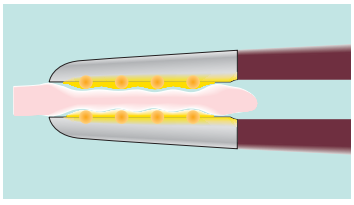
Die Anti-Klebe-Eigenschaften sind nach zahlreichen Anwendungen so gut wie bei der ersten. Das bestätigen Labortests sowie unsere Kunden selbst.
The non-stick qualities will not degrade even after many uses. Laboratory tests and our customers confirm this.

SILVERGLIDE® – WIRKMECHANISMUS HITZETRANSFER
SILVERGLIDE® – WORKING PRINCIPLE HEAT TRANSFER

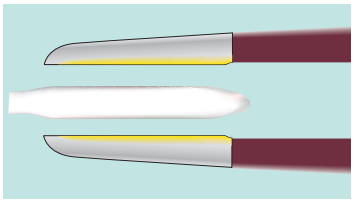
SILVERGlide® non-stick
SILVERGlide® non-stick



Beim Koagulieren entstehen „Hot Spots“
„Hot Spots“ occur during coagulation

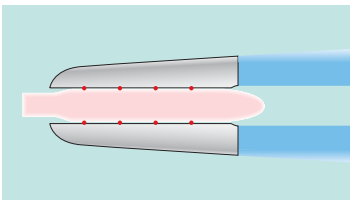


Durch den Hitzetransfer lösen sich die „Hot Spots“ auf
„Hot Spots“ disappear through heat transfer

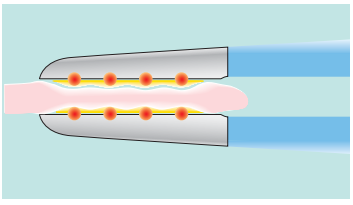


Die Pinzette löst sich ohne Verklebungen vom Gewebe
The forceps can be removed without tissue adhering to it

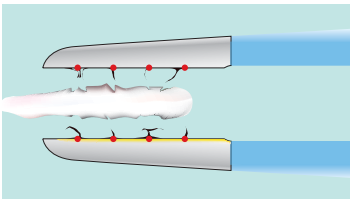
Standard-Pinzette
standard forceps



Beim Koagulieren entstehen „Hot Spots“
„Hot Spots“ occur during coagulation



An den „Hot Spots“ wird eine kritische Temperatur überschritten
At the „Hot Spots“ a critical temperature is exceeded



Verkohltes Gewebe wird mit der Pinzette abgerissen
Carbonised tissue is ripped away with the forceps

SILVERGLIDE® – NICHT KLEBENDE BIPOLARE PINZETTEN!
SILVERGLIDE® – NON STICK BIPOLAR FORCEPS!

SILVERGlide®

→ **Spart Zeit**
spart Geld
erspart Frustration

→ **Saves time**
saves money
saves frustration

SILVERGLIDE® – BEWÄHRTE TECHNOLOGIE
SILVERGLIDE® – TRIED AND REFINED TECHNOLOGY

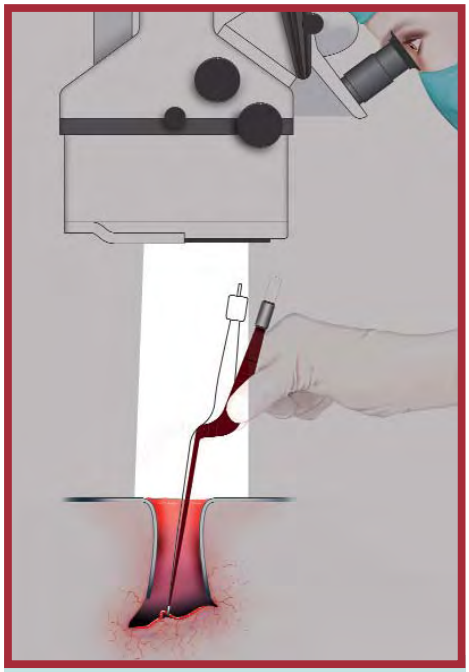
→ **äußerst präzises Arbeiten ohne Unterbrechungen** weil Gewebeanhaftung an der Spitze dauerhaft eliminiert wird – dank **SILVERGlide®** non-stick
→ **Most precise operations without interruptions** because **SILVERGlide®** non-stick eliminates tissue sticking to the tips for good

→ **ermüdungsfrei arbeiten,** auch über mehrere Stunden hinweg, dank perfekter Balance des Instruments
→ **Work without tiring,** even over several hours, due to the perfect balance of the instrument

→ **optimale Griffhaltung, auf Anhieb,** die breiten Griffe ermöglichen immer die ergonomisch optimale Griffhaltung
→ **Excellent handhold, instantly**, broad handles ensure the ergonomically best feel

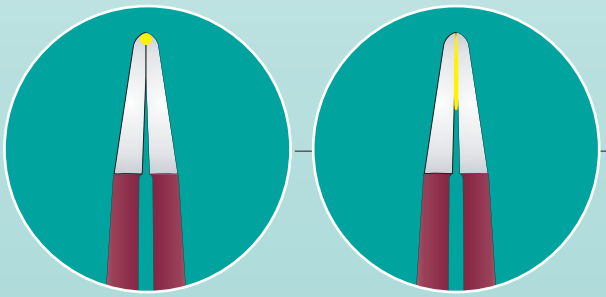
→ **die Kosten im Griff**, keine Einwegteile, das Instrument ist komplett autoklavierbar
→ **Keeping the costs at bay,** no disposable components; the entire instrument is autoclavable

→ **passend an alle gängigen Geräte**, dank einem Standard-Anschluss. Arbeiten wie bisher gewohnt.
→ Fits all commonly known units, **the standard connector ensures that you can continue to work as you are used to**



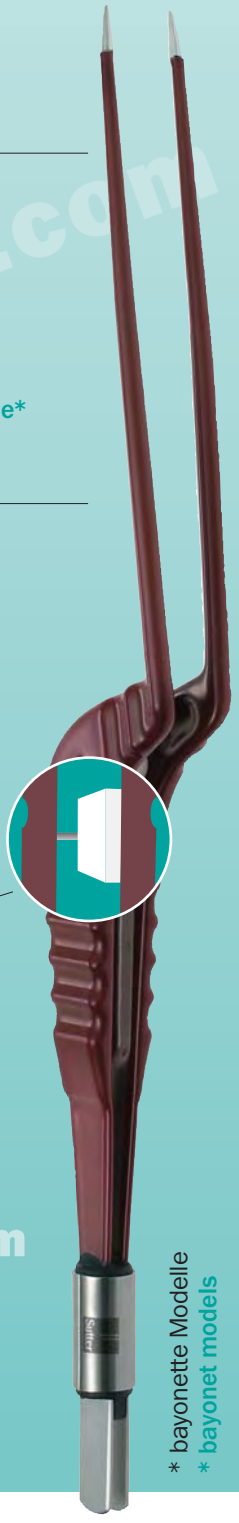
Optimale Sicht – ein „Knick" hält die Hand und das Kabel automatisch aus dem Sichtfeld
Best visibility – a special "kink" keeps your hand and the cable automatically out of the field of vision

SILVERGlide® – neu und **verbessert**
SILVERGlide® – new and **improved**



→ **punktgenaue Koagulation** und **sicheres Fassen** von Gefäßen, mit den neuen, verbesserten Spitzen ist jetzt beides möglich*
→ **precise coagulation** and **safe grasping** of vessels, the new tips make both possible*

→ **Blick frei auf die Spitzen,** die Plateaus der Fassflächen lassen die Isolierung aus dem Blickfeld verschwinden*
→ **Clear vision of the tips,** the plateaus of the grasping area keep the field of vision clear*
→ **Robustheit,** dank der super-harten Instrumenten-schenkel weniger anfällig für Verbiegen während der Reinigung und Aufbereitung*
→ **Solid design**, thanks to extra hard tines less susceptible to bending out of shape during cleaning and sterilization*



→ **leichteres und angenehmeres Präparieren** dank unserer **Parallelführung™,** das Instrument erhält eine Vorspannung, welche das Präparieren erleichtert, zusätzlich werden die Schenkel präzise zusammengeführt
→ **Easier and more comfortable dissection**, due to our **Guide-Stop™** pre-tension makes dissection easier and brings together the tines

Wegen der Machbarkeit von Sondermodellen oder einem Reaparatur-Austausch der alten Pinzetten fragen Sie bitte Ihren **Sutter Medizintechnik Betreuer!**
For custom-made models or trading in your old forceps, please call your **Sutter representative.**

www.non-stick.com

* bayonette Modelle
* bayonet models

SILVERGlide® NON-STICK

„Silverglide Pinzetten bieten eine deutliche Verbesserung der Arbeitsqualität: kein Verkleben, schnellere Koagulation, geringere Generatorleistung erforderlich."

Prof. Dr. Peter Eckert, Facharzt für Plastische Chirurgie, Würzburg

0,4 mm
70 02 37 SG
10,5 cm (4˝) lang
10,5 cm (4˝) long

0,7 mm
70 02 38 SG
10,5 cm (4˝) lang
10,5 cm (4˝) long

1 mm
70 02 43 SG
10,5 cm (4˝) lang
10,5 cm (4˝) long

0,7 mm
70 02 39 SG
10,5 cm (4˝) lang
10,5 cm (4˝) long

0,7 mm
70 01 52 SG
16,5 cm (6,5˝) lang
16,5 cm (6,5˝) long

1 mm
70 01 51 SG
16,5 cm (6,5˝) lang
16,5 cm (6,5˝) long

1 mm
70 01 57 SG
16,5 cm (6,5˝) lang
16,5 cm (6,5˝) long

2,5 mm
70 02 81 SG
30 cm (12˝) lang
30 cm (12˝) long

1,5 mm
70 02 71 SG
22,5 cm (9˝) lang
22,5 cm (9˝) long

2 mm
70 02 72 SG
22,5 cm (9˝) lang
22,5 cm (9˝) long

0,7 mm
70 01 72 SG
19 cm (7,5˝) lang
19 cm (7,5˝) long

1 mm
70 01 71 SG
19 cm (7,5˝) lang
19 cm (7,5˝) long

1 mm
70 01 75 SG
19 cm (7,5˝) lang
19 cm (7,5˝) long

2 mm
70 01 76 SG
19 cm (7,5˝) lang
19 cm (7,5˝) long

SILVERGLIDE® BIPOLARE PINZETTEN
SILVERGLIDE® BIPOLAR FORCEPS

„Our experience with the non-stick SILVERGlide® forceps in brain tumor surgery has been entirely satisfactory.“

Jacques Brotchi, M.D., Ph.D., Presidentelect of the World Federation of Neurosurgical Societies, Professor of Neurosurgery, Chairman Department of Neurosurgery, Erasme Hospital-Université Libre de Bruxelles

2 mm
70 01 78 SG
19 cm (7,5˝) lang
nach Meuser
Spitze 2 mm
19 cm (7,5˝) long
type „Meuser“
tip 2 mm

0,4 mm
74 01 49 SG
15,5 cm (6,1˝) lang
AL 4,5 cm (1,8˝)
15,5 cm (6,1˝) long
WL 4,5 cm (1,8˝)

0,7 mm
74 01 48 SG
15,5 cm (6,1˝) lang
AL 4,5 cm (1,8˝)
15,5 cm (6,1˝) long
WL 4,5 cm (1,8˝)

0,4 mm
74 01 69 SG
17 cm (6,7˝) lang
AL 6 cm (2,3˝)
17 cm (6,7˝) long
WL 6 cm (2,3˝)

0,7 mm
74 01 68 SG
17 cm (6,7˝) lang
AL 6 cm (2,3˝)
17 cm (6,7˝) long
WL 6 cm (2,3˝)

1 mm
74 01 67 SG
17 cm (6,7˝) lang
AL 6 cm (2,3˝)
17 cm (6,7˝) long
WL 6 cm (2,3˝)

ÜBER SUTTER-EXKLUSIV-PARTNER ZU BEZIEHEN
SOLD THROUGH SUTTER-EXCLUSIVE PARTNERS

„In the history of bipolar forceps,
this is the only one that truly does not stick."

Takanori Fukushima, M.D., D.M.Sc., Raleigh, NC,
Professor of Neurosurgery, Duke University Medical Center

0,4 mm
74 21 89 SG
20 cm (7,9˝) lang
AL 9 cm (3,5˝)
20 cm (7,9˝) long
WL 9 cm (3,5˝)

0,7 mm
74 21 83 SG
20 cm (7,9˝) lang
AL 9 cm (3,5˝)
20 cm (7,9˝) long
WL 9 cm (3,5˝)

1 mm
74 21 81 SG
20 cm (7,9˝) lang
AL 9 cm (3,5˝)
20 cm (7,9˝) long
WL 9 cm (3,5˝)

2 mm
74 21 82 SG
20 cm (7,9˝) lang
AL 9 cm (3,5˝)
20 cm (7,9˝) long
WL 9 cm (3,5˝)

1,2 mm
74 22 88 SG
20 cm (7,9˝) lang
AL 9 cm (3,5˝)
20 cm (7,9˝) long
WL 9 cm (3,5˝)

1,2 mm
74 22 85 SG
20 cm (7,9˝) lang
AL 9 cm (3,5˝)
20 cm (7,9˝) long
WL 9 cm (3,5˝)

0,4 mm
74 01 99 SG
23 cm (9,0˝) lang
AL 12 cm (4,7˝)
23 cm (9,0˝) long
WL 12 cm (4,7˝)

0,7 mm
74 01 91 SG
23 cm (9,0˝) lang
AL 12 cm (4,7˝)
23 cm (9,0˝) long
WL 12 cm (4,7˝)

1,2 mm
74 01 92 SG
23 cm (9,0˝) lang
AL 12 cm (4,7˝)
23 cm (9,0˝) long
WL 12 cm (4,7˝)

0,7 mm
74 01 94 SG
23 cm (9,0˝) lang
AL 12 cm (4,7˝)
23 cm (9,0˝) long
WL 12 cm (4,7˝)

1,2 mm
74 01 95 SG
23 cm (9,0˝) lang
AL 12 cm (4,7˝)
23 cm (9,0˝) long
WL 12 cm (4,7˝)

0,7 mm
74 01 96 SG
23 cm (9,0˝) lang
AL 12 cm (4,7˝)
23 cm (9,0˝) long
WL 12 cm (4,7˝)

1,2 mm
74 01 97 SG
23 cm (9,0˝) lang
AL 12 cm (4,7˝)
23 cm (9,0˝) long
WL 12 cm (4,7˝)

0,4 mm
74 02 99 SG
25 cm (9,9˝) lang
AL 14 cm (5,5˝)
25 cm (9,9˝) long
WL 14 cm (5,5˝)

0,7 mm
74 02 91 SG
25 cm (9,9˝) lang
AL 14 cm (5,5˝)
25 cm (9,9˝) long
WL 14 cm (5,5˝)

1,2 mm
74 02 92 SG
25 cm (9,9˝) lang
AL 14 cm (5,5˝)
25 cm (9,9˝) long
WL 14 cm (5,5˝)

0,7 mm
74 02 94 SG
25 cm (9,9˝) lang
AL 14 cm (5,5˝)
25 cm (9,9˝) long
WL 14 cm (5,5˝)

1,2 mm
74 02 95 SG
25 cm (9,9˝) lang
AL 14 cm (5,5˝)
25 cm (9,9˝) long
WL 14 cm (5,5˝)

0,7 mm
74 02 96 SG
25 cm (9,9˝) lang
AL 14 cm (5,5˝)
25 cm (9,9˝) long
WL 14 cm (5,5˝)

1,2 mm
74 02 97 SG
25 cm (9,9˝) lang
AL 14 cm (5,5˝)
25 cm (9,9˝) long
WL 14 cm (5,5˝)

Instrument/Generator Instrument/Generator	Länge Length	Sicherheitsstecker safety connector	Europ. Flachstecker Europ. flat connector	Sicherheitsstecker safety connector	US-2-Pin US-2-Pin
 Erbe, Storz, Wolf	4,5 m	37 01 30 L		37 01 30 S	
 Sutter BM 780, Berchtold, Aesculap	4,5 m	37 01 38 L		37 01 38 S	
 U. S. Standard, Erbe ICC International	4,5 m	37 01 35 L		37 01 35 S	
 Valleylab, Lamidey, EMC, Bowa	4,5 m	37 01 50 L		37 01 50 S	
 Olympus, Söring, Coa Comp	4,5 m	37 01 53 L		---	
 Codmann CMC II	4,5 m	37 01 45 L		37 01 45 S	
 Aesculap (alte Geräte/old units)	4,5 m	37 01 32 L		---	

5 Instrumenten Tray
ohne Inhalt
5 insturments tray
without instruments

70 17 62
Europ. Flachstecker
Europ. flat connector

70 17 63
US-2-Pin Stecker
US-2-Pin connector

10 Instrumenten Tray
ohne Inhalt
10 insturments tray
without instruments

70 17 72
Europ. Flachstecker
Europ. flat connector

70 17 73
US-2-Pin Stecker
US-2-Pin connector

70 17 45
Rapid Shine Rack
Rapid Shine rack

90 17 45
Rapid Shine Pad (o. Abb.)
VE 2 Stück
Rapid Shine pad (not shown)
PU 2 pcs

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