Sutter

CURIS®

4 MHz Radiofrequency Generator
for microsurgical and minimally invasive electrosurgery

4MHz Radiofrequency

AutoRF™

product design award

PRECISION ELECTROSURGERY

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CURIS® 4 MHz Radiofrequency Generator
One unit – many applications

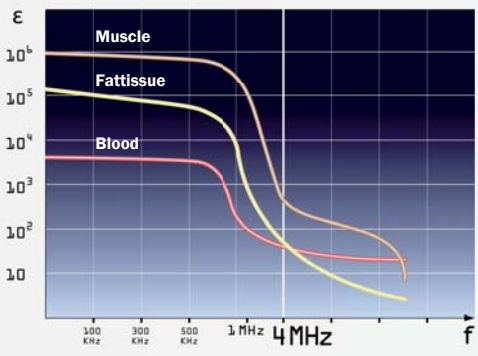
The CURIS® 4 MHz radiofrequency generator relies on innovative 4 MHz technology:
It is gentle to the tissue and effective for coagulation, for submucosal shrinkage, and for cutting. Scientific studies have shown that tissue trauma may be reduced by using CURIS® 4 MHz radio-frequency technology.*[1]

CURIS® 4 MHz Radiofrequency Technology

The higher the frequency, the less the resistance of biological tissue to electromagnetic fields – up to the point where cell membranes are capacitively coupled. This effect is created by the CURIS® 4 MHz radiofrequency generator in all monopolar and bipolar modes. When using conventional electrosurgical units the electromagnetic field concentrates between the cells and only heats up the outer layer. However, with the CURIS® 4 MHz radiofrequency generator cell membranes are conductive, and energy is absorbed evenly inside the cells. As a result, energy is administered gently and in a highly focused fashion. Precise monopolar cuts are possible while lateral heat damage is kept to a minimum*[2].

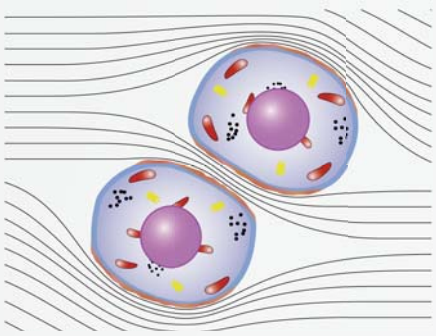
*[1] Muehlfay G. et al., A study on the type of lesions archived by three electrosurgical methods and their way of healing. Romanian Journal of Morphology & Embryology, 2015, 56(4): 1383-1388
*[2] Hoffmann T.K. et al., Comparative analysis of resection tools suited for transoral robot-assisted surgery, European Archives Oto-Rhino-Laryngology, 2014, 271(5): 1207-1213

Permittivity/Frequency



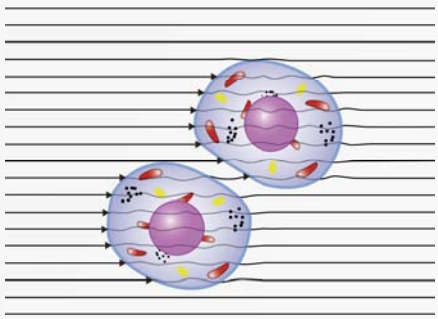
This diagram shows the permittivity of tissue, which depends on the frequency of the electro-magnetic field.

Conventional electrosurgical units



The electromagentic field concentrates between the cells and heats up only the outer layer.

CURIS® 4 MHz Radiofrequency Generator



Cell membranes are conductive and the energy is absorbed evenly inside the cells. The result are highly focussed tissue effects.

Precision thanks to **Auto*RF***™

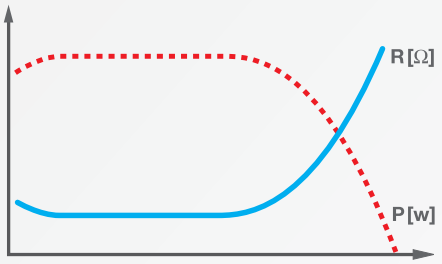
Auto*RF*™ is a smart impedance control function that will tailor the power output of the CURIS® 4 MHz radiofrequency generator to the tissue condition. Whether it is cutting through different types of tissue (such as mucosa, muscle, fat or connective tissue) or altering tissue conditions during coagulation, the Auto*RF*™ feature will deliver adapted power output as required by the different tissue impedance.

When 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® 4 MHz radiofrequency generator has two microprocessors for additional safety and speed.

p³™-Technology

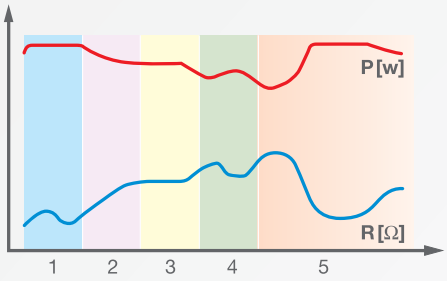
p³™, which stands for pulsed power performance, is active in all coagulation modes of the CURIS® 4 MHz radiofrequency generator. Radiofrequency energy is delivered in about 50 small packages per second. Due to the pulsed power output, there are short breaks between the individual packages, giving the tissue enough time to absorb the energy. Highly focused, yet gentle coagulation with minimal thermal damage is possible.

CURIS®
RaVoR™



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.

CURIS®
CUT

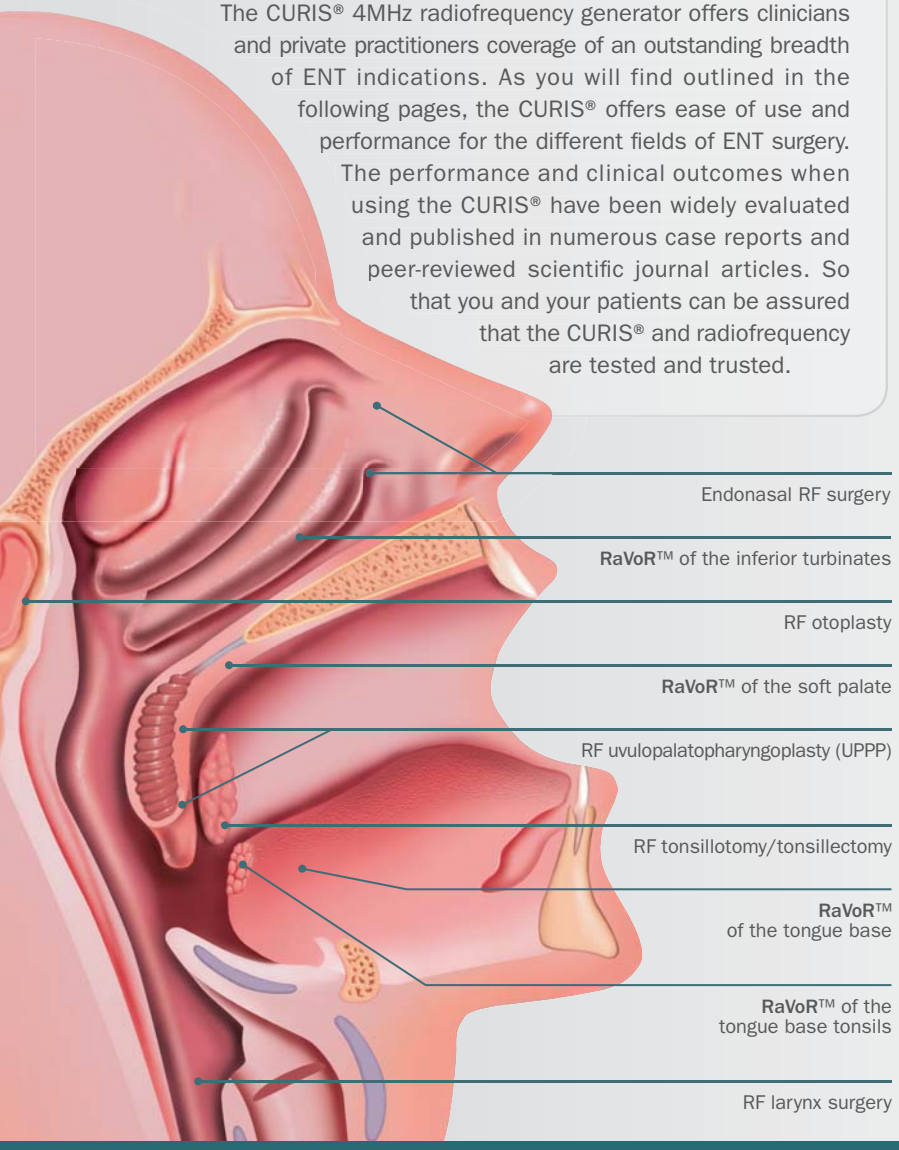


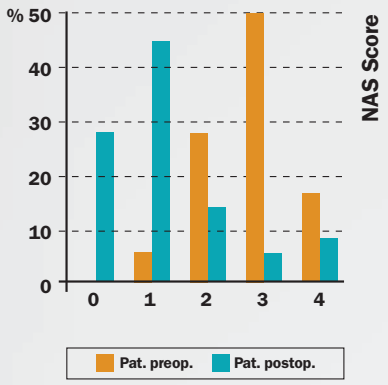
Monopolar cutting:
Sections 1 to 5 show the different kinds of tissues and cutting speeds to which the unit adjusts its power output automatically.

CURIS®: one device
- many applications

Versatility in ENT

The CURIS® 4MHz radiofrequency generator offers clinicians and private practitioners coverage of an outstanding breadth of ENT indications. As you will find outlined in the following pages, the CURIS® offers ease of use and performance for the different fields of ENT surgery. The performance and clinical outcomes when using the CURIS® have been widely evaluated and published in numerous case reports and peer-reviewed scientific journal articles. So that you and your patients can be assured that the CURIS® and radiofrequency are tested and trusted.





Snoring intensity pre- and postoperatively after treatment of nasal turbinates and soft palate

Marinescu, A. Innovative Bipolar Radiofrequency Volumetric Reduction with "ORL-Set" for Treatment of Habitual Snorers. Laryngo-Rhino-Otol, 2014, 83 (9): 610 – 616

RaVoR™

Radiofrequency Volume Reduction

> Bipolar radiofrequency volumetric tissue reduction, using Sutter technology, appears to have promising results for patients with snoring and mild OSA. One treatment session resulted in significant reduction in snoring intensity, improvement in sleep quality and QOL, and reduction in daytime sleepiness.

The Journal of Laryngology & Otology (2009), 123, 750-754

RaVoR™ Radiofrequency Volume Reduction

RaVoR™ of the inferior turbinates, soft palate, tongue base, etc. is an interstitial application for submucosal tissue shrinkage. Precise delivery of energy and smart power adjustment depending on actual tissue impedance aid in creating consistent and repeatable lesions. As soon as the right size of a lesion has been achieved, the CURIS® 4 MHz radiofrequency generator will automatically stop the activation (AUTO STOP mode), and give an acoustic signal. The treated tissue is decomposed by the body's own immune system and transformed into fibrous scar tissue. This process leads to a shrinkage and stiffening of the treated area.

Sutter has developed different bipolar electrodes for the treatment of sleep-related breathing disorders based on the anatomical sites of obstruction.

Audio Feedback

If desired, an acoustic feedback function (AUDIO FEEDBACK) can be activated. While a lesion is created in RaVoR™ mode, the change in tissue condition is signaled by a changing pitch: The further the lesion progresses, the higher the activation sound. This mode may also be used to potentially increase the patient's comfort. The patient will be able to listen and follow what happens inside tissue.

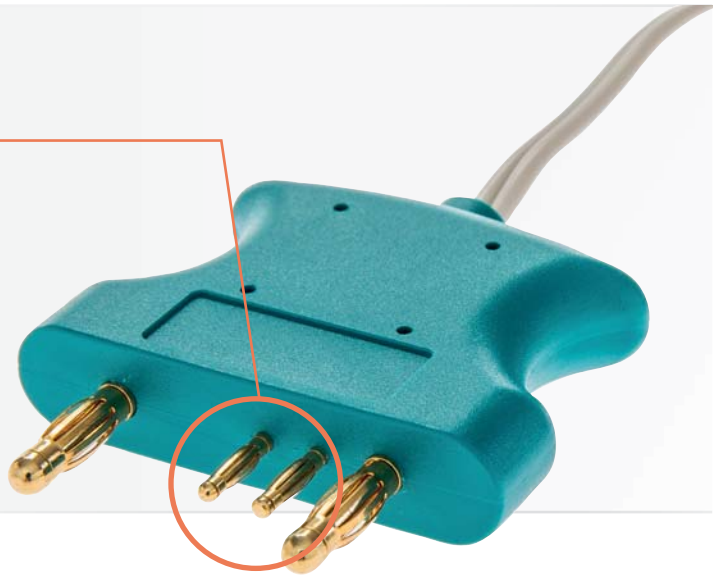
Single-Use RaVoR™ bipolar electrodes

"The Single-Use RaVoR™ bipolar electrodes for the reduction of the inferior turbinates are a convenient solution for my private practice. My staff and I enjoy the ease of use due to the new plug and operate feature."

S. Grupp, MD, Freiburg (Germany)

Plug and operate

- Convenient handling for surgeon and staff
- Perfect match with the CURIS® 4MHz radiofrequency generator
- Auto recognition of the instrument and instant selection of the RaVoR™ program
- CURIS® – Precision thanks to AutoRF™

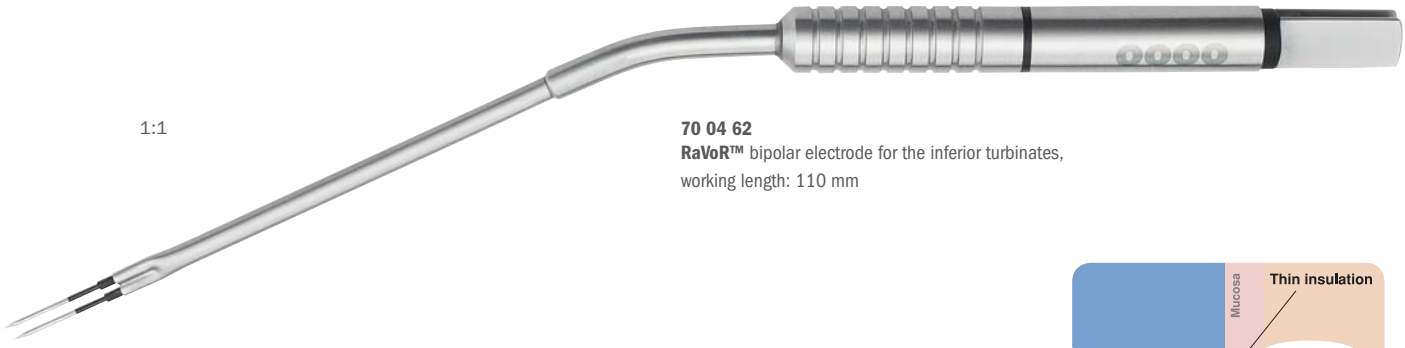


RaVoR™ of the inferior turbinates

Single-Use

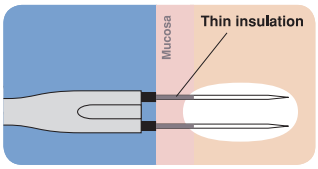
70 44 62
Single-Use **RaVoR™** bipolar electrode
for the inferior turbinates

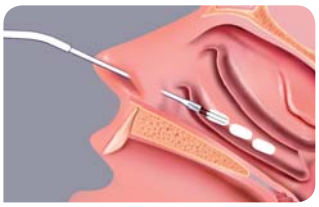
RaVoR™ bipolar electrodes



1:1

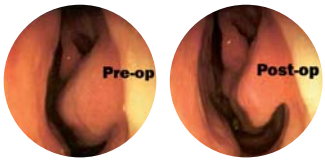
70 04 62
RaVoR™ bipolar electrode for the inferior turbinates,
working length: 110 mm





"RaVoR™ is a modern surgical technique showing good and long-lasting treatment results when used to reduce the volume of hypertrophic turbinates. At the same time it preserves the mucosa and its function."

R. Romeo, MD
Rome (Italy)



Inferior turbinate – preoperative condition and six months post-operatively with significantly enlarged nasal passa ge.

Schematic view of the **puncture sites** for the application of radiofrequency energy of the **hypertrophic turbinates**.

Other products for the treatment in the nose

71 50 15
Monopolar suction tube
Ø 3.3 mm, lumen 2.0 mm, working length: 13 cm

71 50 19
Monopolar suction tube, malleable,
Ø 4.3 mm, lumen 3.0 mm, working length: 13 cm

36 08 17
Monopolar ball electrode
Ø 3 mm, working length: 20 mm

36 04 62
Monopolar ball electrode
Ø 4 mm, working length: 110 mm

78 21 81 SG
SuperGliss® non-stick bipolar forceps,
bayonet, total length: 20.0 cm, tips: 1.0 mm

RaVoR™ of the soft palate

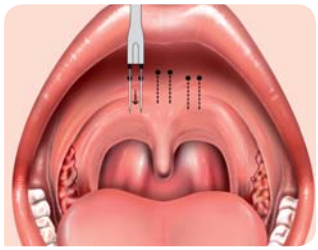
Single-Use

70 44 95
Single-Use **RaVoR™** bipolar electrodes
for the soft palate

RaVoR™ bipolar electrodes

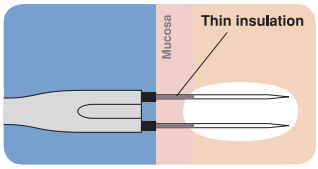
1:1

70 04 95
RaVoR™ bipolar electrode for the soft palate,
working length: 110 mm



Puncture sites for the application of radiofrequency energy in the **soft palate.**

Dissection of surplus uvula tissue and incision lines for the triangular excision of the posterior palatal pillars. (With monopolar microdissection electrode ARROW*tip*™, REF: 36 03 42)



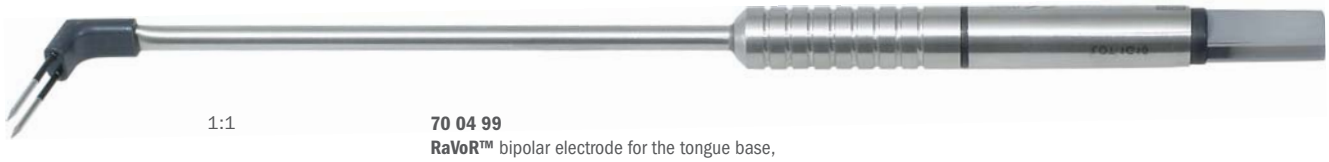
"The radiofrequency assisted soft palate procedure is a minimally invasive, safe and quick procedure. It is well tolerated by patients. We have not observed any bleeding that needed special attention."

D. Brehmer, MD
Göttingen (Germany)

Ideal product combination for RF surgery of the soft palate

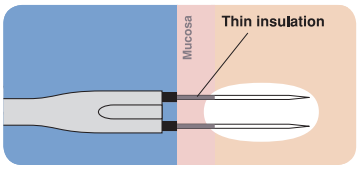
36 03 42
ARROW*tip*™ monopolar microdissection electrode,
Ø 0.3 mm, 45° angled, working length: 65 mm

78 01 75 SG
SuperGliss® non-stick bipolar forceps,
total length: 20.0 cm, angled tips: 1.0 mm, 30° angled



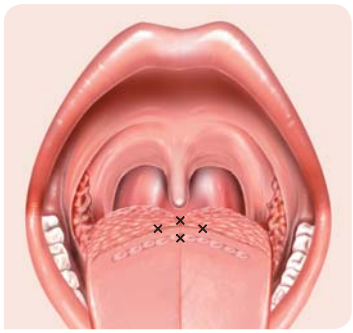
1:1

70 04 99
RaVoR™ bipolar electrode for the tongue base,
working length: 110 mm

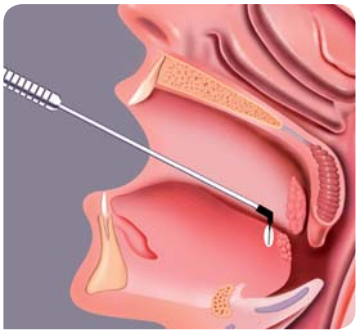


"In my clinical practice I successfully make use of the tongue base radio-frequency procedure. My experience shows that when using this minimally invasive method together with other surgical techniques, the outcome of sleep-related breathing disorder surgery can be improved. The treatment is useful and should be considered in the treatment of patients with tongue base collapse."

M. A. Sarte, MD
Manila (Philippines)



Puncture sites for the treatment of the **tongue base.**



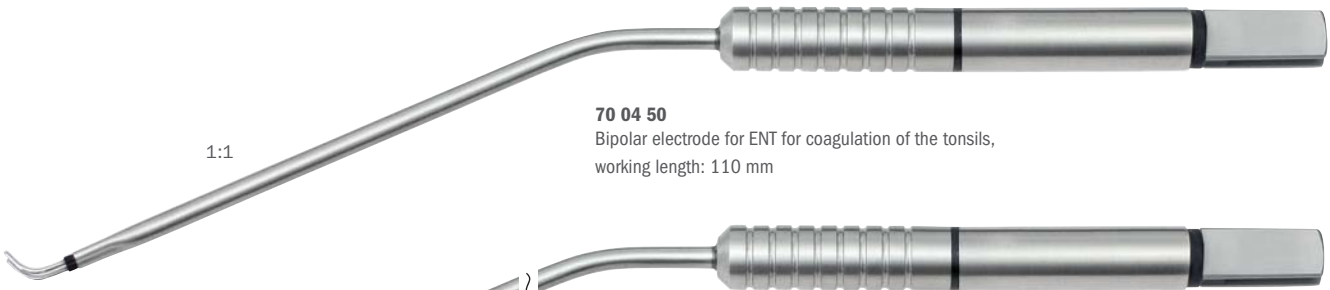
The low profile of the instrument and its strong shaft enable the surgeon to insert the probe at the back of the tongue.

RaVoR™/ENT bipolar electrodes

134° C autoclavable 90°C

1:1

70 04 97
RaVoR™ bipolar electrode for the tongue base tonsils,
working length: 141 mm



1:1

70 04 50
Bipolar electrode for ENT for coagulation of the tonsils,
working length: 110 mm

1:1

70 04 51
Bipolar electrode for ENT for coagulation of the larynx,
working length: 270 mm

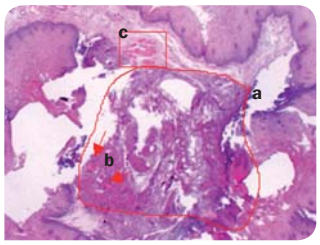
*The listed working lengths serve as a guideline and may be rounded up or down. The actual lengths may vary slightly.

1:1

70 04 89
RaVoR™ bipolar electrode for the posterior pillars,
working length: 110 mm

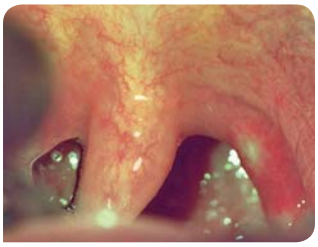
"For the posterior pillars alone two sessions may be required. It is noteworthy that there have not been any perioperative or postoperative complications and hardly any bleedings. This method is ideal for the office-based setting."

A. Marinescu, MD
Winnenden (Germany)



Histology of the pillar:
Coagulation and necrosis (a),
thrombosis (b),
atrophic muscle (c).

Pillar immediately after radiofrequency treatment.



Retracted pillar one week postoperatively.

Radiofrequency in Endoscopic Ear Surgery

36 03 43
ARROW*tip*™ monopolar microdissection electrode,
55° angled, total length: 105 mm

Intraoperative picture showing outer ear canal with an **ARROW*tip*™** monopolar microdissection electrode.

Endoscopic ear surgery is rapidly gaining interest. With one hand holding a camera, bleeding control and hemostasis can be a challenge. With the use of the Sutter ARROW*tip*™ monopolar microdissection electrodes bleeding can be significantly reduced from the outset, optimizing visibility and reducing operation time.

S. Geukens, MD
Aalst (Belgium)

Application of radiofrequency ablation at carefully selected points.

Radiofrequency Tonsillotomy

"Tonsillotomy with radiofrequency is a safe and easy-to-learn procedure. Children with symptomatic tonsillar hyperplasia profit from it enormously. Compared to all other procedures for removing parts of or even all tonsillar tissue we prefer radiofrequency tonsillotomy for children with symptomatic tonsillar hyperplasia without chronic tonsillitis."

R. Hirt, MD

Dessau (Germany)

The protruding part of the tonsil is cut along the incision line and parallel to the palatal pillar.

Surgical site during radiofrequency tonsillotomy

Radiofrequency Tonsillectomy

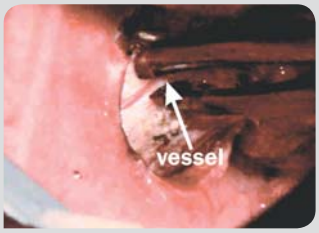
"The To-BiTE™ non-stick bipolar clamp combining four functions in one instrument is a safe and effective tool for performing tonsillectomies. Vis-à-vis the traditional approach, it seems to make tonsillectomies faster and easier."

P. Tolsdorff, MD

Bad Honnef (Germany)

Dissection of the tonsillar tissue

Identification of the glossopharyngeal nerve



Small vessel before coagulation

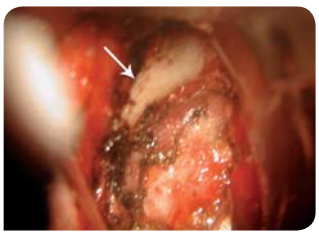
Wound immediately after tonsillectomy

Radiofrequency in Larynx Surgery

"Compared to laser procedure, microelectrodes used with radiofrequency enhance the surgical technique by giving tactile feedback and other advantages. No special safety precautions are necessary and scarring is similar in both procedures. Made of super-hard tungsten and especially designed to reach every part of the laryngeal anatomy, micro-tips in different angles allow good access to the surgical field. We have operated on 92 tumors, mainly T1 glottic tumors, using the ARROW*tip*™ electrodes."

J. Basterra, MD

Valencia (Spain)

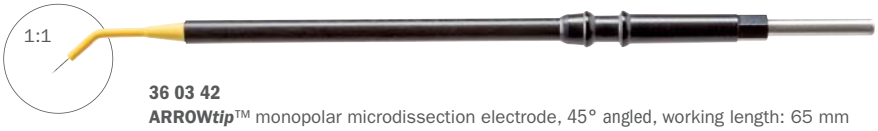


Cordectomy type V.
Arrow indicates internal surface of thyroid cartilage

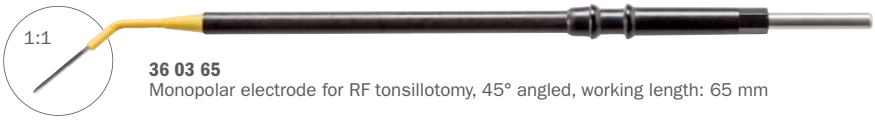
Endoscopic view of the operating field

ARROW*tip*™ monopolar microdissection electrodes

134° C autoclavable 90°C



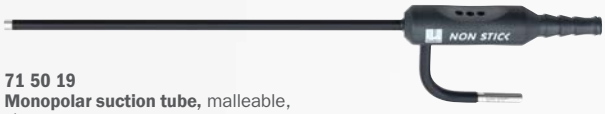
36 03 42
ARROW*tip*™ monopolar microdissection electrode, 45° angled, working length: 65 mm



36 03 65
Monopolar electrode for RF tonsillotomy, 45° angled, working length: 65 mm

Other products for tonsillotomy

78 01 75 SG
SuperGliss® non-stick bipolar forceps,
total length: 20.0 cm, angled tips: 1.0 mm, 30° angled



71 50 19
Monopolar suction tube, malleable,
Ø 4.3 mm, lumen 3.0 mm, working length: 13 cm

To-BiTE™ non-stick bipolar clamp for RF Tonsillectomy

134° C autoclavable 90°C

70 09 60 SG
To-BiTE™ non-stick
bipolar clamp

37 01 54R
Bipolar CURIS® cable for
To-BiTE™/Calvian™ (not shown)

Other products for tonsillectomy

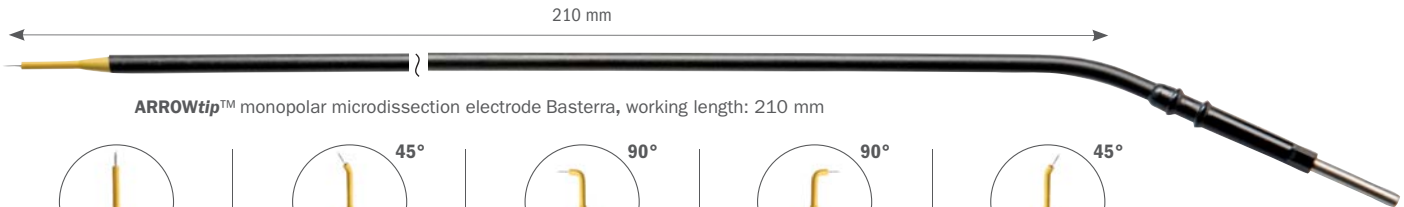
78 01 75 SG
SuperGliss® non-stick bipolar forceps,
total length: 20.0 cm, angled tips: 1.0 mm,
30° angled

78 01 76 SG
SuperGliss® non-stick bipolar forceps,
total length: 20.0 cm, angled tips: 2.0 mm,
30° angled

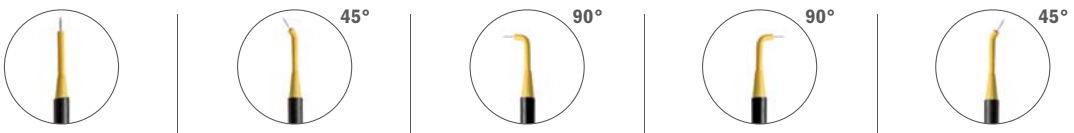
36 04 40
Blade electrode,
working length: 32 mm

ARROW*tip*™ monopolar microdissection electrodes Basterra for Larynx Surgery

134° C autoclavable 90°C

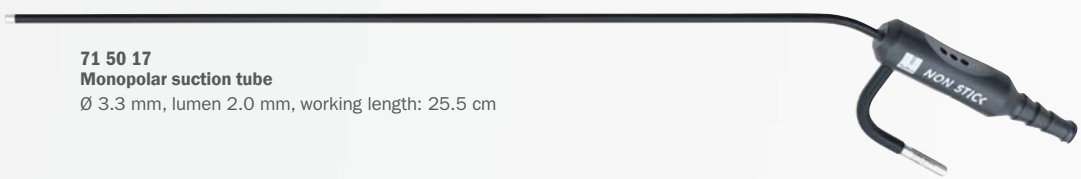


ARROW*tip*™ monopolar microdissection electrode Basterra**,** working length: 210 mm



36 03 71 | **36 03 72** | **36 03 73** | **36 03 74** | **36 03 75**

Other products for larynx surgery

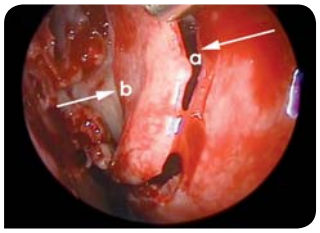


71 50 17
Monopolar suction tube
Ø 3.3 mm, lumen 2.0 mm, working length: 25.5 cm

Radiofrequency in Sinus Surgery

"Endoscopic endonasal sinus surgery demands subtle hemostasis and the precise cutting performance of the instruments employed. The disadvantages of "cold steel" can be levelled out favorably by the application of radiofrequency current through an angled probe."

T. Kühnel, MD, Regensburg (Germany)



The uncinate process incised and lifted anteriorly. Arrow (a) indicates the incised anterior edge, arrow (b) indicates posterior margin.

Incision starting at the cranial attachment of right uncinate process utilizing angled monopolar RF probe. ARROW*tip*™ monopolar microdissetion electrode (REF: 36 03 42).

The posterior part of the uncinate process can be incised by means of the angled tip. No deterioration of the inferior turbinate.

Nearly bloodless incision at the anterior edge of the uncinate process.

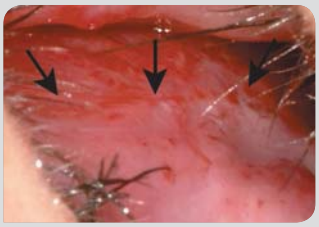
Radiofrequency treatment of Epistaxis

"Blood vessels on the surface of the nasal mucosa are often the cause for recurrent nasal bleeding. Radiofrequency coagulation (RF coagulation) is a new method for the treatment of such vessels with the advantage of causing less thermal damage to the surrounding mucosa. Recurrent epistaxis predominantely occurs in Osler's disease. Despite a broad armamentarium of treatment methods, successful therapy in this patient group is difficult to achieve. RF coagulation is an inexpensive alternative to laser treatment, and preliminary results are promising."

B. J. Folz, MD; C.-G. Konnerth, MD, Lippspringe (Germany)

Patient with Rendu-Osler-Weber syndrome, preoperative findings

Intraoperative view during radiofrequency treatment of nasal hereditary hemorrhagic telangiectasia

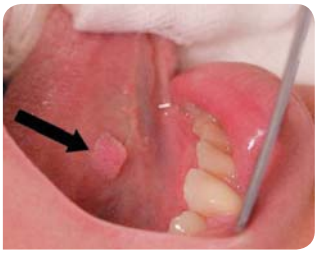


Result of radiofrequency treatment six months postoperatively

Radiofrequency in Oral Surgery

"Radiofrequency excision of lesions in the oral cavities (tongue, tongue base, buccal mucosa, lips or base of the mouth) such as benign and malign tumors as well as precancerous lesions is a gentle and very easy treatment which can be done under local anesthesia."

S. Arndt, MD; E. Heinert, MD, Freiburg (Germany)



Sublingual papilloma on the right side

Reduced-bleeding excision of the papilloma with **ARROW*tip*™** monopolar microdissetion electrode (REF 36 03 22)

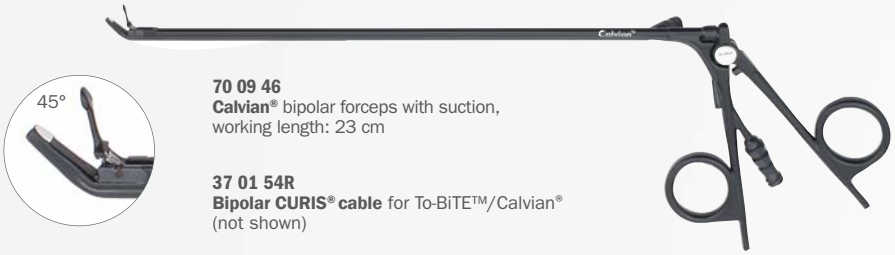
Postoperative site after precise and full tumor resection

ARROW*tip*™ monopolar microdissection electrode

134° C autoclavable 90°C

36 03 42
ARROW*tip*™ monopolar microdissection electrode,
45° angled, working length: 65 mm

Other products for sinus surgery



70 09 46
Calvian® bipolar forceps with suction,
working length: 23 cm

37 01 54R
Bipolar CURIS® cable for To-BiTE™/Calvian®
(not shown)

(Malleable) Ball electrode

134° C autoclavable 90°C

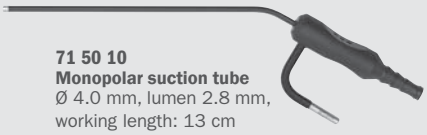
1:1

36 08 17
Ball electrode, ball Ø 3.0 mm, working length: 20 mm

1:1

36 04 62
Ball electrode, ball Ø 4.0 mm, long shaft, working length: 110 mm

Other products for epistaxis



71 50 10
Monopolar suction tube
Ø 4.0 mm, lumen 2.8 mm,
working length: 13 cm

ARROW*tip*™ monopolar microdissection electrode

134° C autoclavable 90°C

1:1

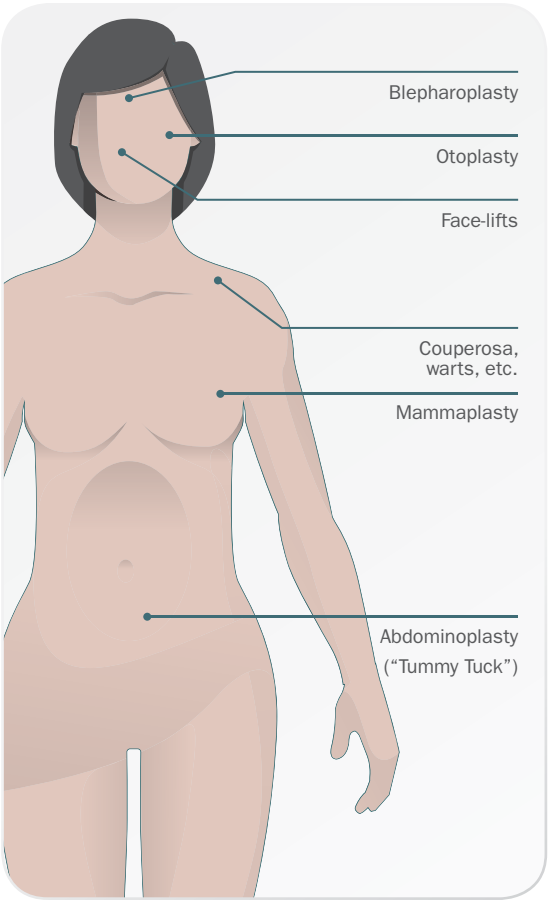
36 03 22
ARROW*tip*™ monopolar microdissection electrode,
90° angled, working length: 20 mm

Other products for oral surgery

36 08 14
Loop electrode
Ø 5 mm

78 01 75 SG
SuperGliss® non-stick bipolar forceps,
total length: 20.0 cm, angled tips: 1.0 mm, 30° angled

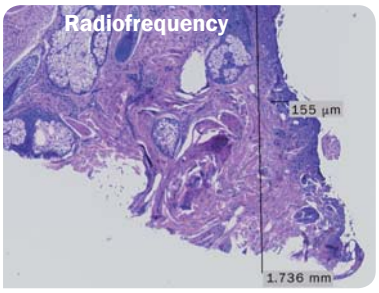
Plastic and Aesthetic Surgery



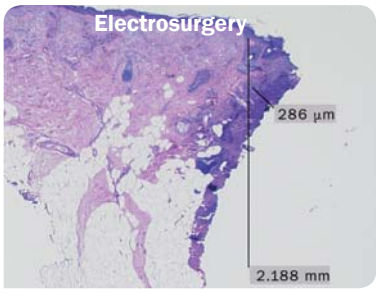
> "Radiofrequency surgery causes less lateral tissue damage than conventional electrosurgery. Consequently faster wound healing and a better cosmetic outcome can be expected. Studies have even shown better cosmetic results for radiofrequency skin surgery than for CO_2 laser applications. Radiofrequency also improves operation comfort by enabling germ-free and pressure-free cuts with minimal bleeding in a very cost-effective way."

R. Kasten, MD

Mainz (Germany)



Lateral thermal damage following radio-frequency excision: 155 µm



Lateral thermal damage after conventional electrosurgery excision: 286 µm

Precise cutting allows the tissue to heal with minimal postoperative pain and scarring. The degree of hemostasis is determined by the surgeon. It goes without saying that the CURIS® 4MHz radiofrequency generator 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 performance control with **Auto*RF*™** ™ is able to ensure reproducible results.

Best possible coagulation results can be achieved, 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.

Hemangioma on the upper arm

Excision of a hemangioma with minimal bleeding

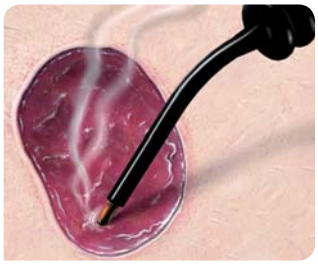
1:1

Ø 1.0 mm

36 08 16
Ball electrode, working length: 20 mm

Papular nevus on left cheek

Tangential excision of papular nevus



Removing the remaining part of the lesion with gentle movements

Eight weeks after radiofrequency ablation

"The range of radiofrequency surgery has now been extended to ablative, vaporizing methods in esthetic medicine. This novel method complements the armamentarium of the dermatologist in the operating room as well as those of the plastic surgeon and ENT specialist. Elevated benign nevi may now be removed elegantly and painlessly producing excellent cosmetic results."

R. Kasten, MD
Mainz (Germany)

ARROW*tip*™ monopolar microdissection electrodes for dermatology

90°C

134°C
autoclavable

Ø 2.4 mm

20 mm

Ø 0.3 mm

36 03 20
ARROW*tip*™ microdissection electrode, straight, working length: 20 mm

30 mm

Ø 0.3 mm

36 03 25
ARROW*tip*™ microdissection electrode, straight, working length: 30 mm

Ø 0.3 mm

36 03 21
ARROW*tip*™ microdissection electrode, short 45° angled, working length: 20 mm

Ø 0.3 mm

36 03 28
ARROW*tip*™ microdissection electrode, 45° angled, working length: 30 mm

Ø 0.3 mm

36 03 22
ARROW*tip*™ microdissection electrode, 90° angled, working length: 20 mm

Basic set/Accessories

CURIS® Basic set

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

Qty.	REF	Description
1	**360100-01**	CURIS® 4 MHz radiofrequency generator (incl. mains cord, user's manual and test protocol)
1	**360110**	Footswitch two pedals for CURIS® (cut & coag), 4 m cable
1	**370154L**	Bipolar cable for CURIS®, length: 3 m
1	**360704**	Monopolar handpiece (pencil) cut & coag, shaft 2.4 mm, cable 3 m
1	**360238**	Cable for single-use patient plates, length: 3 m
1 (x50)	**360222**	Safety patient plates, single-use, packing 5 x 10 pcs. (not shown)

Optional model

CURIS® basic set with reusable patient plate (REF 870020)

Instrument sets for ENT

87 86 05 – RaVoR™ Set for Surgery

Qty.	REF	Description
2	**70 04 62**	RaVoR™ bipolar electrode for the inferior turbinates
1	**70 04 95**	RaVoR™ bipolar electrode for the soft palate
1	**70 04 89**	RaVoR™ bipolar electrode for the posterior pillars
2	**36 03 28**	ARROW*tip*™ monopolar microdissection electrode, working length: 30 mm, angled
2	**36 03 42**	ARROW*tip*™ monopolar microdissection electrode, working length: 65 mm, angled
1	**80 00 00**	Container with accessories (31 x 10 x 19 cm)
1	**70 17 47**	Instrument tray

87 00 05 – RaVoR™ Set for Hospital

Qty.	REF	Description
1	**70 04 62**	RaVoR™ bipolar electrode for the inferior turbinates
1	**70 04 95**	RaVoR™ bipolar electrode for the soft palate
1	**70 04 89**	RaVoR™ bipolar electrode for the posterior pillars
1	**70 04 99**	RaVoR™ bipolar electrode for the tongue base
2	**36 03 28**	ARROW*tip*™ monopolar microdissection electrode, working length: 30 mm, angled
2	**36 03 42**	ARROW*tip*™ monopolar microdissection electrode, working length: 65 mm, angled
1	**80 00 00**	Container with accessories (31 x 10 x 19 cm)
1	**70 17 47**	Instrument tray

Radiofrequency set for ENT surgery

Qty.	REF	Description
1	**78 01 75 SG**	SuperGliss® non-stick bipolar forceps, straight, total length: 20.0 cm, tips 1.0 mm, 30° angled
1	**78 21 81 SG**	SuperGliss® non-stick bipolar forceps, bayonet, total length: 20.0 cm, tips 1.0 mm
1	**78 01 78 SG**	SuperGliss® non-stick bipolar forceps type "Meuser", total length: 18.0 cm, tips 2.0 mm
2	**36 03 42**	ARROW*tip*™ monopolar microdissection electrode, working length: 65 mm, angled
2	**36 03 21**	ARROW*tip*™ monopolar microdissection electrode, working length: 20 mm, angled
2	**36 04 43**	Monopolar loop electrode, ball Ø 10 mm
2	**36 04 40**	Monopolar blade electrode
1	**80 00 00**	Container with accessories (31 x 10 x 19 cm)
1	**70 17 47**	Instrument tray

Accessories

Instrument sets for ENT

Radiofrequency set for nose surgery

Qty.	REF	Description
1	**70 08 60**	Bipolar forceps with suction canal, bayonet, total length: 20.0 cm, tips 1.4 mm
1	**78 21 81 SG**	SuperGliss® non-stick bipolar forceps, bayonet, total length: 20.0 cm, tips 1.0 mm
1	**70 04 62**	RaVoR™ bipolar electrode for inferior turbinates
1	**80 00 00**	Container with accessories (31 x 10 x 19 cm)
1	**70 17 47**	Instrument tray

Radiofrequency set for Tonsillectomy with To-BiTE™ non-stick bipolar clamp

Qty.	REF	Description
1	**70 09 60SG**	To-BiTE™ non-stick bipolar clamp for tonsillectomy
1	**37 01 54R**	Bipolar CURIS® cable for To-BiTE™ non-stick bipolar clamp

Radiofrequency set for Larynx surgery

Qty.	REF	Description
2	**36 03 71**	ARROW*tip*™ monopolar microdissection electrode for larynx, working length: 210 mm, straight
2	**36 03 72**	ARROW*tip*™ monopolar microdissection electrode for larynx, working length: 210 mm, 45° angled dwn.
2	**36 03 73**	ARROW*tip*™ monopolar microdissection electrode for larynx, working length: 210 mm, 90° angled dwn.
2	**36 03 74**	ARROW*tip*™ monopolar microdissection electrode for larynx, working length: 210 mm, 90° angled upw.
2	**36 03 75**	ARROW*tip*™ monopolar microdissection electrode for larynx, working length: 210 mm, 45° angled upw.
1	**71 50 17**	Monopolar suction tube Ø 3.3 mm, working length: 255 mm

Instrument sets for dermatology

Radiofrequency set for fine surgery and microdissection

Qty.	REF	Description
1	**70 02 41**	Bipolar forceps, straight, total length: 10.5 cm, tips 0.5 mm
1	**78 01 51 SG**	SuperGliss® non-stick bipolar forceps, straight, total length: 16.5 cm, tips 1.0 mm
2	**36 03 28**	ARROW*tip*™ monopolar microdissection electrode, working length: 30 mm, angled
2	**36 03 20**	ARROW*tip*™ monopolar microdissection electrode, working length: 20 mm, straight
2	**36 03 21**	ARROW*tip*™ monopolar microdissection electrode, working length: 20 mm, short angled
2	**36 03 25**	ARROW*tip*™ monopolar microdissection electrode, working length: 20 mm, straight
1	**80 00 00**	Container with accessories (31 x 10 x 19 cm)
1	**70 17 47**	Instrument tray

Radiofrequency set for plastic surgery

Qty.	REF	Description
1	**78 01 71 SG**	SuperGliss® non-stick bipolar forceps, straight, total length: 19.0 cm, tips 1.0 mm
2	**36 04 40**	Monopolar blade electrode
2	**36 04 41**	Monopolar needle electrode
2	**36 04 42**	Monopolar ball electrode, ball Ø 4 mm
1	**80 00 00**	Container with accessories (31 x 10 x 19 cm)
1	**70 17 47**	Instrument tray

Radiofrequency set for eye surgery

Qty.	REF	Description
1	**70 02 41**	Bipolar forceps, straight, total length 10.5 cm, tips 0.5 mm
2	**36 03 20**	ARROW*tip*™ monopolar microdissection electrode, working length: 20 mm, straight
2	**36 03 21**	ARROW*tip*™ monopolar microdissection electrode, working length: 20 mm, short angled
2	**36 04 43**	Monopolar loop electrode, loop Ø 10 mm
1	**80 00 00**	Container with accessories (31 x 10 x 19 cm)
1	**70 17 47**	Instrument tray

CURIS® Storage / Transport

36 09 00
Fuego trolley

Fuego Trolley

The trolley has a solid design and guarantees that the CURIS® 4 MHz radiofrequency generator will not shift. It also comes with a hook to mount the footswitch.

Two storage baskets for accessories and documentation.

99 01 10
CURIS® trolley case

Trolley Case for CURIS® 4 MHz radiofrequency generator

The CURIS® trolley case is ideally suited to preserve your radiofrequency generator from damage.

CURIS® Technical Data

RF output max.	performance	operating frequency
monopolar		
CUT 1 (unmodulated)	100 W ± 20 % 600 Ω	4.0 MHz
CUT 2 (modulated)	80 W ± 20 % 600 Ω	4.0 MHz
CONTACT (Coag)	80 W ± 20 % 400 Ω	4.0 MHz
SOFTSPRAY (Coag)	60 W ± 20 % 600 Ω	4.0 MHz
bipolar		
BICUT 1	80 W ± 20 % 300 Ω	4.0 MHz
BICUT 2	80 W ± 20 % 300 Ω	4.0 MHz
EXCISE (Cut)	80 W ± 20 % 300 Ω	4.0 MHz
MACRO (Coag)	80 W ± 20 % 50 Ω	4.0 MHz
PRECISE (Coag)	50 W ± 20 % 50 Ω	4.0 MHz
RaVoR™	40 W ± 20 % 50 Ω	4.0 MHz

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
Standards	DIN EN 60601-1; DIN 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

CURIS®– Commonly used unit settings*

Indication	Instrument	Unit settings
Dermatology		
Syringoma	Blade electrode **REF 36 04 40**	CUT 1 5 - 8 watts
Spider Nevi, Couperosa, Spider Veins	ARROW*tip*™ monopolar microdissection electrode **REF 36 03 20**	CONTACT 5 - 8 watts
Age Spots	Loop electrode **REF 36 04 43**	CUT 1 or SOFTSPRAY 12 - 15 watts
Birthmark	ARROW*tip*™ monopolar microdissection electrode **REF 36 03 20**	CUT 1 or CUT 2 20 watts
Warts, Fibrosis	Loop electrode **REF 36 04 43**	SOFTSPRAY 7 - 25 watts Cut 2: 10 - 25 watts
Neurofibroma	ARROW*tip*™ monopolar microdissection electrode **REF 36 03 21**	CUT 1 7 watts
Papular Melanocytic Nevi	Ball electrode **REF 36 08 16**	CUT 1 4 watts
Tongue lesions	ARROW*tip*™ monopolar microdissection electrode **REF 36 03 42**	CUT 1 10 watts
Plastic/Esthetic surgery		
Blepharoplasty for skin incision	ARROW*tip*™ monopolar microdissection electrode **REF 36 03 20, 36 03 21, 36 03 22, 36 03 25**	CUT 2 10 – 20 watts
Blepharoplasty for coagulation	SuperGliss® non-stick bipolar forceps **REF 78 01 48 SG**	PRECISE 23 watts
Facelift for skin incision monopolar	ARROW*tip*™ monopolar microdissection electrode **REF 36 03 20, 36 03 21, 36 03 22, 36 03 25**	CUT 1 10 - 16 watts
Facelift for coagulation bipolar	SuperGliss® non-stick bipolar forceps **REF 78 01 52 SG** OR **78 01 48 SG**	PRECISE 15 - 25 watts OR 10 - 15 watts
Hand surgery for skin incision monopolar	ARROW*tip*™ monopolar microdissection electrode **REF 36 03 20**	CUT 1 or CUT 2 12 - 15 watts
Hand surgery for monopolar coagulation	Ball electrode **REF 36 08 16**	CONTACT 20 watts OR 5 - 7 watts for slow coagulation
Hand surgery for bipolar coagulation	SuperGliss® non-stick bipolar forceps **REF 78 01 52 SG** OR **78 02 38 SG**	PRECISE 20 watts 15 - 25 watts
Breast surgery for skin incision monopolar	ARROW*tip*™ monopolar microdissection electrode **REF 36 03 20, 36 03 50**	CUT 1 or CUT 2 7 - 12 watts
Breast surgery for bipolar coagulation	SuperGliss® non-stick bipolar forceps **REF 78 01 51 SG** OR **78 02 91 SG**	PRECISE 15 - 25 watts
ENT		
RaVoR™ Inferior Turbinates	RaVoR™ bipolar electrode for the inferior turbinates **REF 70 04 62**	RaVoR™ (AUDIO FEEDBACK) 8 - 10 watts
RaVoR™ Soft Palate	RaVoR™ bipolar electrode for the soft palate **REF 70 04 95**	RaVoR™ (AUDIO FEEDBACK) 10 watts
RaVoR™ Tongue Base	RaVoR™ bipolar electrode for the tongue base **REF 70 04 99**	RaVoR™ (AUDIO FEEDBACK) 12 watts
UPPP	ARROW*tip*™ monopolar microdissection electrode **REF 36 03 42**	CUT 2 12 watts
Tonsillotomy	ARROW*tip*™ monopolar microdissection electrode **REF 36 03 42** Monopolar electrode for RF tonsillotomy **REF 36 03 65** SuperGliss® non-stick bipolar forceps **REF 78 01 75 SG**	CUT 2 20 - 25 watts PRECISE 15 - 30 watts
Tonsillectomy with To-BiTE™	To-BiTE™ non-stick bipolar clamp **REF 70 09 60 SG**	MACRO 30 - 40 watts
Laryngeal tumors	ARROW*tip*™ monopolar microdissection electrode **REF 36 03 71 - 35**	CUT 2 5 - 20 watts
Epistaxis	Monopolar ball elelectrode **REF 36 08 17** OR **36 04 62**	CONTACT 8 - 12 watt

*Please see disclaimer on page 9. Values are recommendations only and may be changed at the discretion of the physician!

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