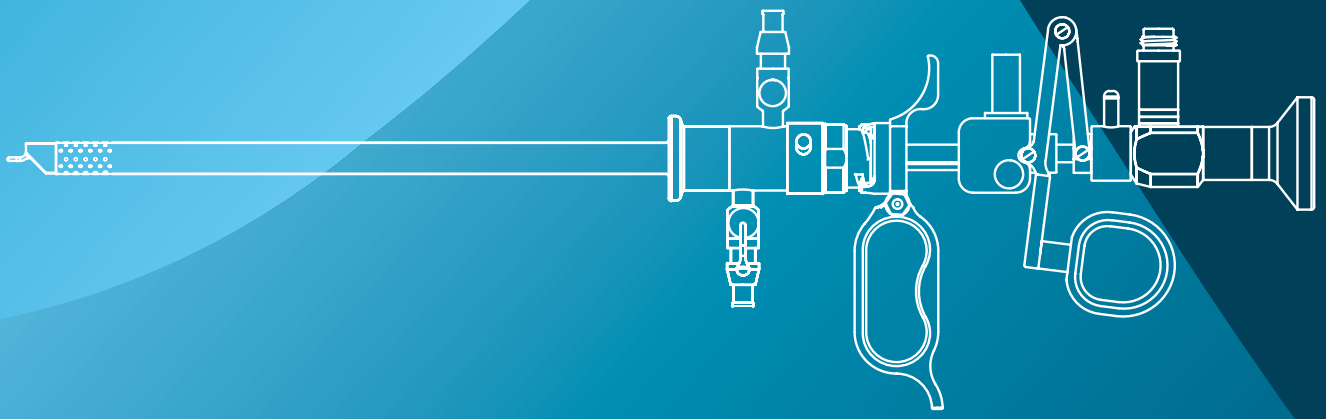
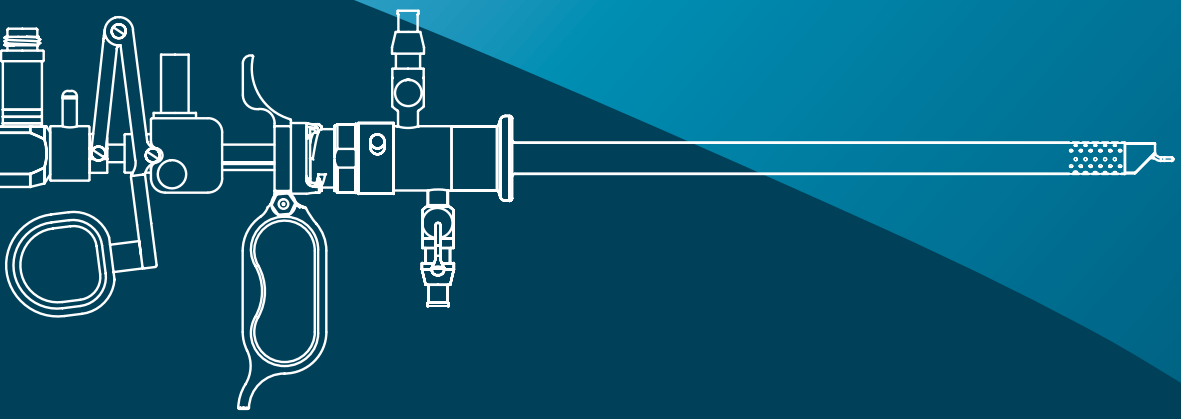
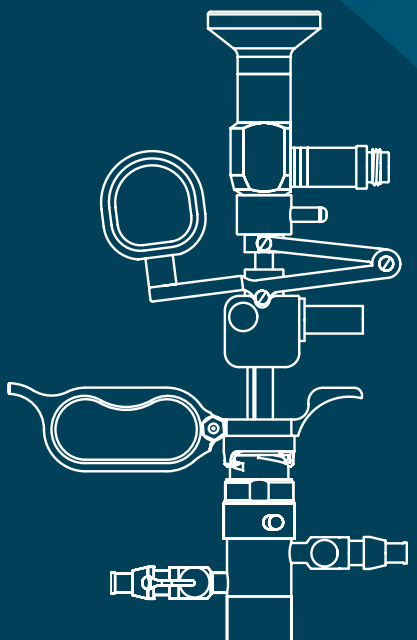
emed
confidence in performance





TRANSURETHRAL RESECTION

universal resectoscope



atom

create your performance

For 20 years now EMED has been involved in the manufacture of top-quality electrosurgical systems. Our considerable experience and continually evolving technology have enabled us to set new trends in electrosurgery.

Our aim is to deliver devices as simple to operate as possible. This would make it possible to take a full advantage of the opportunities offered by advanced electrosurgical methods in medical procedures.

Electrosurgery is a constantly developing discipline of medical technology. It has been applied for dozens of years and is still looking for novel approaches as well as more effective and safer solutions. With an enhanced range of electrosurgical applications in a number of different specializations, electrosurgical systems have become more complex and complicated, while the scope of available functionalities and operational modalities has not necessarily matched the actual needs and requirements of their users.

Atom is the first electrosurgical system which combines perfectly well a small size and a wide spectrum of applications.

Atom is a compact device which offers possibilities which have so far been provided by large and complicated electrosurgical systems only. It features monopolar and bipolar techniques in a variety of cutting and coagulation modes. The generator features highly-specialized operating modes, e.g. bipolar resection, an endoscopic cutting procedure and ThermoStapler® - a system for sealing large blood vessels. An integrated argon module brings the benefits from argon plasma coagulation and cutting.



atom

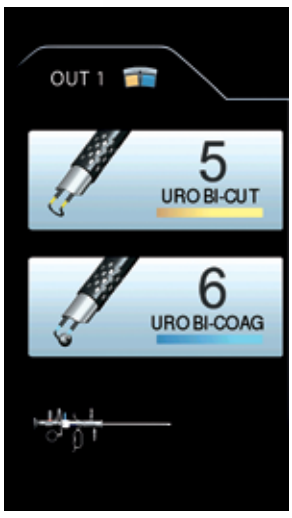
create your performance

Atom is a system which easily adapts to the user. Since it is possible to configure in any way the available operating modes, each user can set up an electrosurgical system that accurately meets the actual needs and requirements.

Based on the configuration options for each operating mode, the electrosurgical system can be freely adjusted to the specialist's needs and requirements.

With an innovative user interface as well as a large and easy-to-read touchscreen, the operation of the system is simple and intuitive.





Connect the instrument and start working

Atom does not require any complicated pre-procedure configuration - you simply need to connect the instrument. The system will automatically detect it and adjust the appropriate settings.

The device is equipped with SmartDevice (SDS) sockets. The SDS system detects and identifies the connected instrument. Atom automatically adjusts the operating mode and output settings, thus ensuring greater comfort and safety of work. If the settings are changed during the procedure, the device will store them in memory, and automatically recall them when the instrument is connected for the next procedure.

atom

create your performance

Atom is fitted out with an advanced measuring system which automatically adjusts in real-time the output power to the changing conditions within the operating field based on measurements of the output parameters.





The automatic adjustment of output power is specially important for bipolar resection modes of operation. The advanced automatic system enables the immediate ignition of the electric arc and helps to easily start cutting with minimum thermal energy delivered to the patient's tissues.



Atom is equipped with a power monitoring system which shows the diagram of instantaneous output power and the average power value after the cutting or coagulation process is completed.



atom

create your TUR standard

The atom system offers specialized cutting and coagulation modes designed for bipolar and monopolar resections. The cutting and coagulation parameters in both options have been chosen so as to enable surgeons to achieve the best possible results in a specific working environment. As soon as the SDS cable is connected, the atom system determines the appropriate operating mode (monopolar or bipolar resection) and the corresponding settings.

Bipolar technique

Bipolar resection modes require the use of an electrically conductive liquid, e.g. a saline solution. URO BI-CUT allows for very efficient cutting and vaporization in TUR procedures. URO BI-COAG ensures effective contact coagulation of local bleedings using loop or ball electrodes. The high-frequency current flows through the conductive liquid between the active electrode and the resectoscope sheath, which becomes the passive element.





Monopolar technique

Monopolar resection modes require the use of a non-conductive liquid, e.g. glycine.
In those modes the high-frequency current flows between the active electrode introduced through the resectoscope and the outer neutral electrode applied on the skin of a patient. For many years the monopolar technique has been used as the “Gold Standard” for TUR procedures.

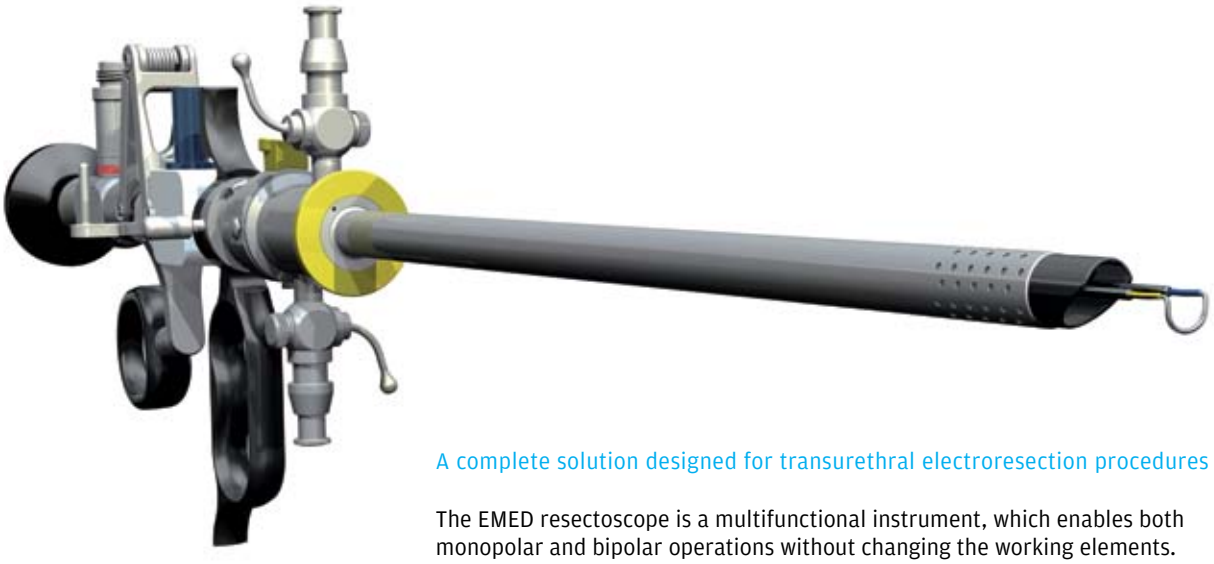




The choice of the optimal surgical technique depends on a number of factors. The decision is always taken by the operating surgeon.
Along with the EMED resectoscope, the atom system is a multipurpose set which is always ready for use, whatever operating technique is chosen.

resectoscope

one system – many features



A complete solution designed for transurethral electroresection procedures

The EMED resectoscope is a multifunctional instrument, which enables both monopolar and bipolar operations without changing the working elements.
It is fitted out with a rotary sheath with the continuous flow function.

Benefits of continuous flow function:

- helps to quickly remove tissue fragments and replace the irrigation solution,
- reduces the temperature of the irrigation solution when it is heated up by the energy generated by the electrosurgical unit,
- ensures a clean operating field.

To ensure the comfort of use, the working element is available in two versions: active or passive, according to the operator's preferences and habits.
The resectoscope operates with reusable active electrodes for cutting, coagulation and tissue vaporization, which reduces the cost of the procedure.



Loop electrode wide PI-CUT



Ball electrode 5mm, angled

resectoscope

one system – many features



Bipolar resection in saline



Bipolar coagulation with loop electrode



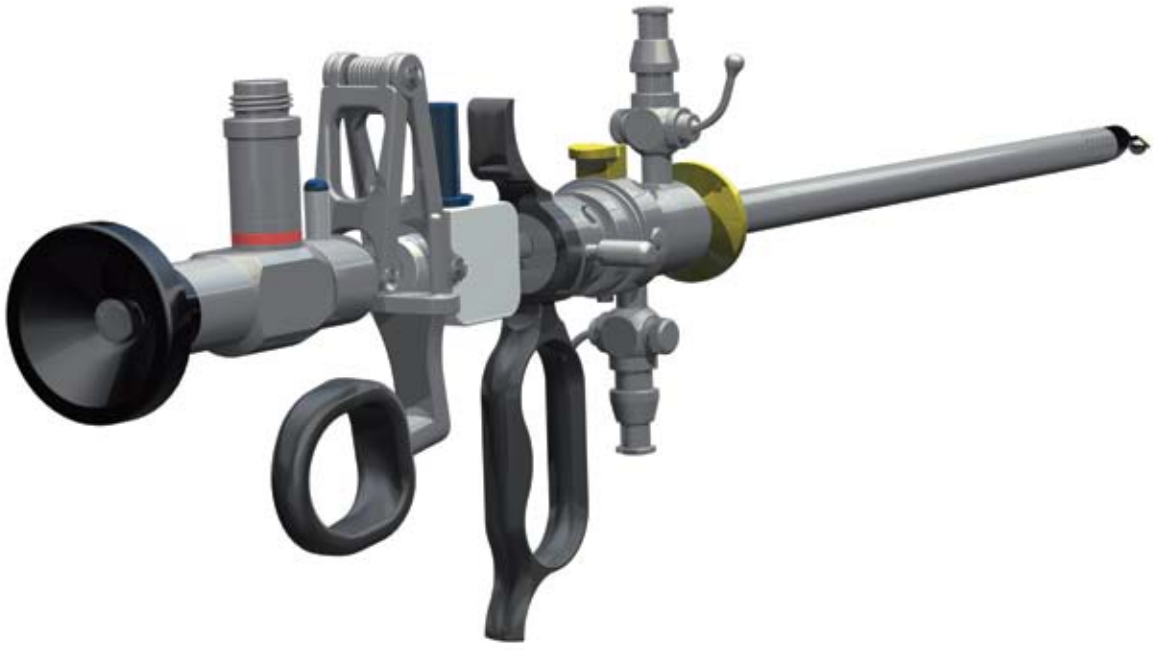
Bipolar coagulation with ball electrode

Choose your own operating technique

A single device which enables the application of the monopolar or bipolar technique is a great convenience in everyday work. The resectoscope is designed for connecting the monopolar or bipolar cable without changing the components of the operating set.

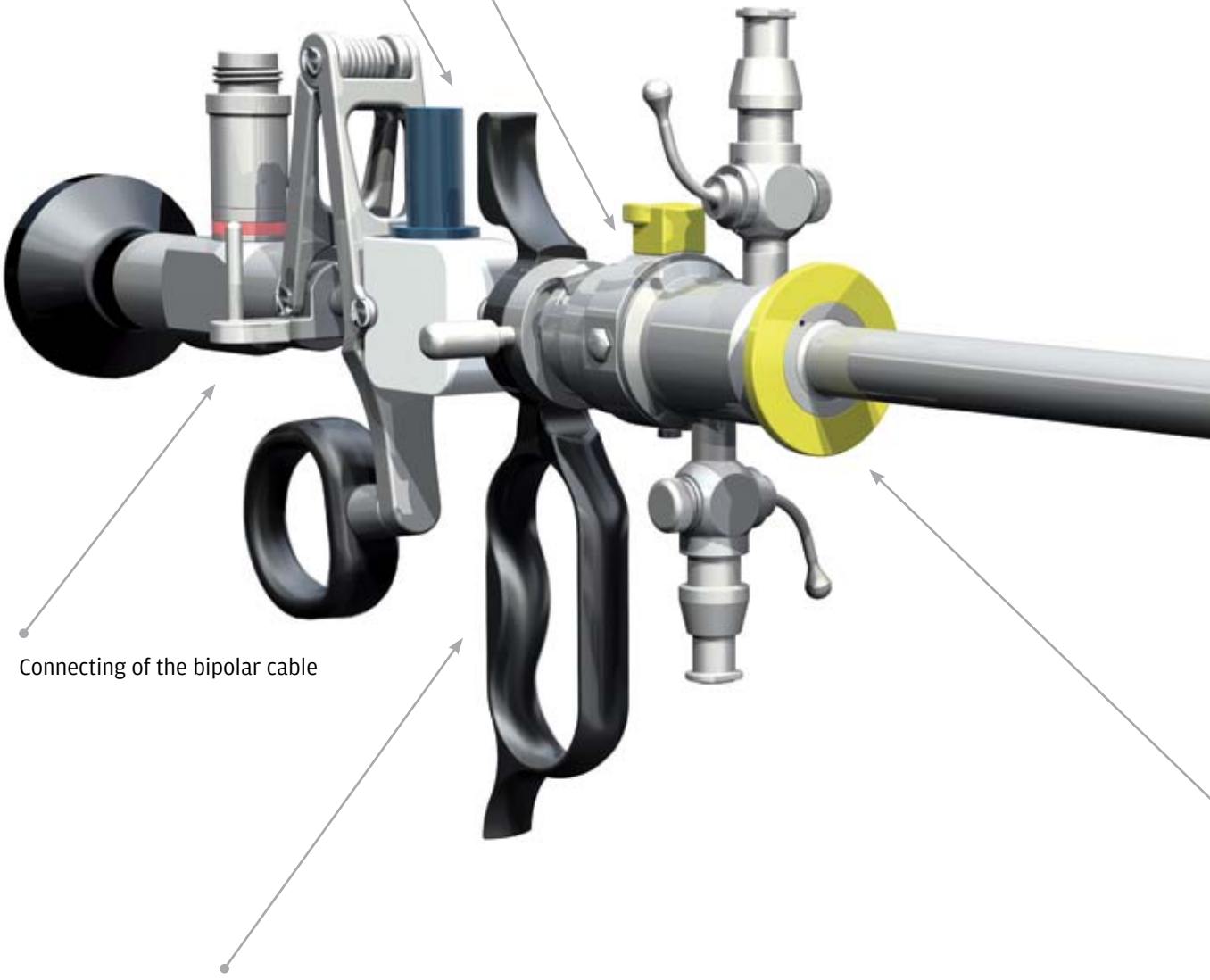
Benefits of bipolar technique:

- a limited current flow path through the patient's body,
- it can be used for patients with cardiac pacemakers or cardiac problems,
- a limited high-frequency current flow path reduces the risk of irritation of the obturator nerve during resections of urinary bladder tumors,
- there is no need to use an external neutral electrode this helps to eliminate the risk of burns due to spills or incorrect application of the neutral electrode,
- the use of a saline solution for irrigation helps to extend the duration of the procedure this is especially important during resections of large-size lesions,
- he use of a saline solution helps to reduce the risk of the transurethral resection syndrome (the TUR syndrome).



resectoscope

comfort and safety



The ceramic insulation protects the telescope from electrical arcs.



A rotary, perforated sheath



The continuous flow feature for cleaning of the operating field and replacing the irrigation solution.

resectoscope

monopolar and bipolar electroresection

The monopolar electroresection method continues to be the Gold Standard for the treatment of benign prostate hyperplasia. The introduction of the bipolar technique into transurethral electroresection procedures has led to the search for new operating standards. The results of comparative studies undertaken over the last few years have shown that both techniques are just as effective. However, the greater safety afforded by the bipolar procedure is its most obvious advantage [3,5].

Monopolar or bipolar?

- similar effectiveness resulting in less severe symptoms from the lower urinary tract [1],
- lower blood losses when the using bipolar technique [4],
- a shorter catheterization period with the bipolar technique [1,2,4],
- a shorter post-procedure hospitalization period and less severe symptoms of irritation after using the bipolar technique [3,4],
- reduced risk of the TUR syndrome when the using bipolar technique [3,4].



(1) Arch Ital Urol Androl. 2013 Jun 24;85(2):86-91, Comparative randomized study on the efficaciousness of endoscopic bipolar prostate resection versus monopolar resection technique. 3 year follow-up. Giulianelli R, Albanesi L, Attisani F, Gentile BC, Vincenti G, Pisanti F, Shestani T, Mavilla L, Granata D, Schettini M.

(2) Prog Urol. 2014 Feb;24(2):121-6. [Bipolar versus monopolar transurethral resection of the prostate: a prospective randomized study]. Ghozzi S, Ghorbel J, Ben Ali M, Dridi M, Maarouf J, Khiari R, Ben Rais N.

(3) Curr Opin Urol. 2009 Jan;19(1):26-32. Bipolar transurethral resection of the prostate: the 'golden standard' reclaims its leading position. Mamoulakis C, Trompetter M, de la Rosette J.

(4) Curr Opin Urol. 2008 Jan;18(1):50-5. Bipolar transurethral resection of prostate: a new reference standard? Ho HS, Cheng CW.

(5) Int Braz J Urol. 2010 Mar-Apr;36(2):183-9. Transurethral resection of prostate: a comparison of standard monopolar versus bipolar saline resection. Singhania P, Nandini D, Sarita F, Hemant P, Hemalata I.

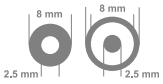
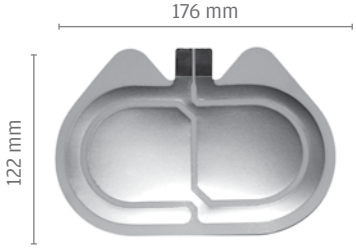
transurethral electroresection

atom and accessories

	Ref. No.	
	100-620	Electrosurgical Unit atom
	080-061	TinyLine trolley, with case for accessories
	100-313	MultiSwitch, 2-button footswitch, wireless  
	100-303	MultiSwitch, 2-button footswitch, 6-pin plug, 5m cable  

transurethral electroresection

accessories

SDS plug	Ref. No.	cable lenght	CE max. 134°C STERILIZATION
	354-04S	4.5 m	Bipolar cable for resectoscope
	 		
	405-04S	4.5 m	Monopolar cable for resectoscope, 2 mm male plug
			Ø 2 mm
	380-030 380-050	3 m 5 m	Cable for disposable neutral electrode. flat plug
			
	812-80H	176x122 mm	CE 2 Disposable neutral electrode EMED SAFE, hydrogel, split, for adults and children, 110 cm^2, 10x5 pcs.

transurethral electroresection

universal resectoscope

	Ref. No.	CE max. 134°C STERILIZATION
	630-235-10B	Active working element, monopolar/bipolar, for 4 mm telescopes
	630-235-60B	Passive working element, monopolar/bipolar, for 4 mm telescopes
	630-210-26	Continuous flow sheath 24/26Fr., perforated, turnable, 2 stopcocks
	630-215-24	Obturator standard for resectoscope 24/26Fr.

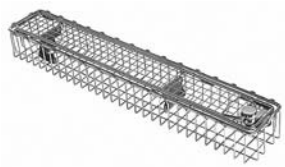
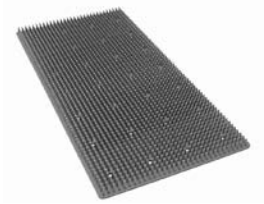
transurethral electroresection

universal resectoscope

	Ref. No.	CE max. 134°C STERILIZATION
	630-240-00BPI	Loop electrode wide PI-CUT, angled; 24/26Fr., 30° telescopes
	630-240-00B	Loop electrode, angled; 24/26Fr., 30° telescopes
	630-240-15B	Ball electrode 3 mm, angled; 24/26Fr., 30° telescopes
	630-240-20B	Ball electrode 5mm, angled; 24/26Fr., 30° telescopes
	601-104-39	Telescope autoclavable, dia. 4 mm, L: 300 mm, 30°

transurethral electroresection

containers for sterilization

	Ref. No.	dimensions	CE max. 134°C STERILIZATION
	260-600-04Y	460x80x55 mm	Optic wire basket with fixation for 1 optic
	260-191-07Y	540x250x70 mm	Wire basket for 1/1 container
	260-100-01Y	595x275 mm	1/1 lid; perforated; aluminium silver
	260-105-15Y	595x275x150 mm	1/1 bottom; non perforated; aluminium
	260-852-30Y	520x230 mm	Silicone mat, green

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