



Vesalius

— QUANTUMSMART



Quantum Molecular Resonance Generator

Innovative and unique QMR Technology for human health that improves quality of life

VESALIUS QUANTUM SMART is an advanced generator for ENT and Maxillofacial Surgery. It is based on the unique and patented **QMR technology that allows a precise cut and delicate coagulation at low temperature**. It has one standard monopolar output and two different bipolar S.M.A.R.T. outputs that allow two accessories to be connected at the same time, and ready to be used for coagulation, debulk and vaporization of the tissue in any environment (dry or wet).

This generator is also equipped with a contact quality monitoring system suitable to the **modern split of neutral electrodes to maximize safety in the OR**.

S.M.A.R.T. (Self Monitoring And Recognition Technology)

It is an **innovative feature on-board of the newest Vesalius product range**. This technology allows a precise communication between Vesalius QUANTUM SMART device and the connected accessories. The user receives important information about the accessory status (ref. number, number of times it was used) that **facilitates product identification and lifecycle management, avoiding the risk of the accessory overuse**.

SMART ACCESSORIES

QUANTUM SMART has a wide range of accessories that allow effective use of the device in multiple surgical procedures: **parotid gland, neck, larynx, tonsils, adenoids, OSA (Obstructive Sleep Apnea) and much more**. All accessories have been designed for comfortable handling and effective performance. The disposable accessories for the volumetric reduction work synergistically with the automatic impedance control.

FIELDS OF APPLICATION

ENT

Maxillofacial surgery

UNIQUE FEATURES

- ✓ Newest QMR device for ENT
- ✓ Double bipolar S.M.A.R.T. output for two accessories connected at the same time
- ✓ New contact quality monitoring system for split neutral electrodes
- ✓ Automatic impedance control
- ✓ Low working temperature
- ✓ No thermal diffusion on surrounding tissues
- ✓ No need to irrigate the tissue
- ✓ Very effective coagulation in liquid or blood pools
- ✓ No carbonization of the tissue
- ✓ Better and faster healing of the tissue

QMR TECHNOLOGY

QMR is a unique and patented technology of Telea Medical Company. It uses a special combination of different frequencies (Quantized High Frequency Spectrum) that allows the cut and coagulation thanks to a resonance effect on the tissue.

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Cut The cutting function causes a breakdown of molecular bonds at low temperature; this feature allows a cold and precise cut and, thanks to a limited thermal damage, permits an extremely delicate incision.
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Coag The coagulation, differently from the standard electrosurgical HF equipment is obtained without thermal damage of vessels. This is possible by deploying a peculiar waveform that is slightly out of the resonance but enough to increase the temperature up to 63-65 °C and to trigger the denaturation processes of the fibrinogen which turns into fibrin and coagulates the blood.



TECHNICAL DATA

Monopolar Function:	CUT	120 W / 330 Ω	Bipolar Function:	CUT	120 W / 100 Ω
	BLEND	100 W / 330 Ω		BLEND	100 W / 100 Ω
	COAG	70 W / 330 Ω		COAG	70 W / 100 Ω

Quantized High Frequency Spectrum: 4 - 8 - 12 - 16 MHz



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