

## Technical Specifications: R-Evolution®

### GENERAL INFORMATION

Manufacturer	OPTIKON 2000 S.p.A. Via del Casale di Settebagni, 13 - 00138 Rome - Italy
Model	R-Evolution®
Ref	111012
Regulatory compliance	93/42/EEC Medical Device Directive (MDD)
Technical standards	EN60601-1 EN60601-1-2 EN60601-2-2 EN80601-2-58

### ENVIRONMENTAL SPECIFICATIONS

Storage and transport	Temperature range -10°C - +70°C, humidity 10% - 100% (non-condensing), atmospheric pressure 500 -1060 hPa
Operating	Temperature range +10°C - +35°C, humidity 30% -75%, atmospheric pressure 940 -1060 hPa (for max aspiration vacuum); 810-1060 hPa (aspiration vacuum up to 500 mmHg)

### ELECTRICAL SPECIFICATIONS

Input voltage	100-240 VAC
Frequency	50/60 Hz
Power supply	420 W
Fuses	100-240 Volt: T4AH 250V

### IRRIGATION

Fluid delivery	Microprocessor-controlled active infusion or gravity fed (ocular pressure determined by the height of irrigation source)
Valves	Pinch valve
Control	Footpedal

### ASPIRATION

Aspiration pump types	Peristaltic and Rotary vane
Actuating medium	Peristaltic pump: rollers Rotary vane: vanes mounted on a rotor
Default vacuum level	User programmable
Available vacuum range	5 - 700 mmHg
Default flow rate	User programmable
Available flow rate range	1 – 90 cc/min (peristaltic only)
Vacuum rise time	Peristaltic: adjustable on 25 levels (0.5s-12s) Rotary vane: adjustable on 2 levels (fast/slow)
Aspiration mode	Peristaltic: fixed or linear flow rate combined with fixed or linear vacuum Rotary vane: fixed or linear vacuum
System feedback	Vacuum sensor, measuring the vacuum in the aspiration line
Control	Footpedal

### ANTERIOR VITRECTOMY

Handpiece type	Pneumatically powered guillotine cutter
Default cutting rate	User programmable
Available cutting rate	60 - 4,000 cuts/min 120 - 8,000 cuts/min with Twedge™ technology
Pneumatic drive	Pressurized air from an external source
Cutting mode	Fixed or linear
Control	Footpedal

### DIATHERMY

Type	Bipolar generator - the generator stops when the RF power supply is not needed
Operating frequency	2 MHz
Nominal power	9 W (200 Ohm LOAD)
No load max. voltage	100 V
Default power	User programmable
Available range	5% - 100%
Handpiece type	Bipolar forceps, diathermy brush, endodiathermy probes
Diathermy cable	Bipolar, 75 Ohm, 200V max, steam autoclavable
Control	Linear control of the DIATHERMY power via footpedal

### PHACOEMULSIFICATION

Handpiece type	Piezoelectric available with four or six crystals
Frequency	Approx. 40 kHz
Tip stroke	5µm steps up to 100µm
Power control	Fixed or linear control of U/S power via footpedal
U/S mode	Continuous, pulsed (with preset duty cycle), single-multiple-continuous burst
Occlusion mode	Autolimit, HD pulse
Timer U/S	0:00 - 9:59 min - Equivalent Phaco Time (EPT)

**EQUIPMENT CLASSIFICATION ACCORDING TO EN 60601-1**


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Type of protection against electric shock	Class I
Degree of protection against electric shock:	
Diathermy	Type BF, floating both at high and low frequencies
U/S	Type B
Vitrectomy	Type BF
Degree of protection against water (system unit)	IPX0
Degree of protection against water (footpedal)	IPX8
Degree of safety in the presence of a flammable anaesthetics	Not suitable

W x D x H:  
54 x 57 x 165 cm

Weight:  
130 Kg


**NOTE:**

- 1) The weight and dimensions shown are approximate.
- 2) Specifications are subject to change without notice.