

Technical Specifications R-EVO smart^{CR}

PARAMETERS SPECIFICATION

Manufacturer	OPTIKON 2000 S.p.A. via del Casale di Settebagni, 13 - 00138 Rome - Italy
Model	R-Evo smart ^{CR}
Ref.	121013
Regulatory compliance	93/42/EEC Medical Device Directive (MDD)
Technical standards	EN60601-1; EN60601-1-2; EN60601-2-2; EN80601-2-58; ISO15752

ENVIRONMENTAL SPECIFICATIONS

Storage and transport	temperature -10°C - +70°C, humidity 10%-100% (non-condensing), atmospheric pressure 500 - 1060 hPa
Operation	temperature range +10°C - +35°C, humidity 30%-75%, atmospheric pressure 900 - 1060 hPa (for maximum vacuum); 810 - 1060 hPa (for vacuum up to 500 mmHg)

ELECTRICAL SPECIFICATIONS

Input voltage	100-240 VAC
Frequency	50/60 Hz
Required power	200 VA
Fuses	100-240 Volt: T3.15AH 250V

COMPRESSED AIR SPECIFICATIONS

Air inlet pressure	500 - 800 kPa (72 - 116 PSI; 5 - 8 bar)
Air consumption	32 Normal litre/min

IRRIGATION

Fluid delivery	gravity fed (determined by the height of irrigation source) or microprocessor-controlled active infusion
Valves	solenoid driven pinch valve
Control	system pedal

ASPIRATION

Aspiration pump types	peristaltic and Venturi
Actuating medium	(Venturi pump) pressurized air coming from an external source at 500 - 800 kPa (72 - 116 PSI; 5 - 8 bar)
Default vacuum level	user programmable
Available vacuum range	5 - 650 mmHg
Default flow rate	user programmable
Available flow rate range	1 - 65 cc/min (peristaltic only)
Vacuum rise time	adjustable on 25 levels (0.5s - 12s peristaltic only) adjustable on 2 levels (fast/slow - Venturi only)
Linear aspiration mode	linear aspiration control, through system pedal, (for vacuum and/or flow) from zero to maximum user programmable
Safety device	vacuum sensor, measures the vacuum in the aspiration line
Control	system pedal

ANTERIOR VITRECTOMY

Handpiece type	pneumatically powered guillotine cutter
Cutting mode	reciprocating motion
Default cutting rate	user programmable
Available cutting rate	60 - 5,000 cuts/min 120 - 10,000 cuts/min with Twedge™ technology
Actuating medium	pressurized air from an external source
Linear cutting mode	linear cutting rate from 0 to preset controlled via system pedal
Control	system pedal

POSTERIOR VITRECTOMY

Handpiece type	pneumatically powered guillotine cutter (VIT)
Cutting mode	reciprocating motion
Default cutting rate	user programmable
Available cutting rate	60 - 5,000 cuts/min (OptiVit) 120 - 10,000 cuts/min (Twedge™ technology)
Actuating medium	pressurized air from an external source
Linear cutting mode	linear control of the cutting rate, controlled via system pedal
Control	system pedal

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 power	5% - 100%
Linear mode	allows the linear control of the DIATHERMY power via system pedal
Handpiece type	bipolar microforceps, slim stat, pencil eraser, intraocular diathermy pencils
Diathermy cable	two conductors, 26 gauges, 75 Ohm, 200V max, steam autoclavable; use only the original diathermy cable
Control	system pedal

ILLUMINATION

Source type	two independent LED lamps
Luminous flux	400+400 lm
Intensity adjustment	20 levels + 4 filters for protection and improvement of visualization of epiretinal membranes

AIR INJECTION SECTION

Nominal pressure	5 - 120 mmHg
Actual IOP	nominal pressure \pm 3 mmHg
Safety devices	air activation sound

SILICONE INJECTION SECTION

Nominal pressure	0.4 - 5 bar
Signals	silicone injection activation sound, alarm for low air inlet pressure

PHACOEMULSIFIER

Handpiece type	piezoelectric available with four or six crystals
Frequency	approx. 40 kHz
Tip stroke	0 - 100 μ m
Power control	panel or linear control of U/S power via system pedal
U/S mode	linear or panel; continuous, Autolimit, short pulse, HD pulse, single burst, multiple burst, continuous burst
Timer U/S	0:00 - 9:59 min - equivalent phaco time display

EQUIPMENT CLASSIFICATION ACCORDING TO IEC 60601-1

Type of protection against electric shock	Class I
Degree of protection against electric shock:	
Diathermy	Type BF, floating at high and low frequencies
U/S	Type B
Vitreotomy	Type BF
Illumination	Type BF
Air	Type BF
Silicone	Type BF
Degree of protection against harmful water ingress (unit)	IPX0
Degree of protection against harmful water ingress (pedal)	IPX8
Degree of safety of application in the presence of a flammable anaesthetic mixture	not suitable

W x D x H:
43 x 50 x 35 cm

W x D x H (with trolley):
57 x 74 x 152 cm

Weight:
17 Kg (60 kg with trolley and pedal)



NOTE:

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