OPTIKON™
Man and Technology

DESIGNED AND MANUFACTURED IN ITALY



NEW

REAL TIME MEAN OCULAR PERFUSION PRESSURE DETECTION SYSTEM

HIGH VACUUM I/A CASSETTE ROTARY VANE, VENTURI AND PERISTALTIC PUMPS

NEW

INTRAOCULAR PRESSURE DYNAMIC CONTROL



19" HD TOUCH SCREEN GUI



NEW

3 LED LIGHT SOURCES
4 FILTERS

INTEGRATED LASER MODULE



NEW

ANTERIOR VITRECTOMY
CUT RATE UP TO 4.000 CUTS/MIN

NEW

ALL SURGICAL PHASES
FULLY PROGRAMMABLE
BLUETOOTH FOOT PEDAL



TAKE A GLANCE AT THE FUTURE.

R-EVOLUTION

Technical specifications R-EVOLUTION

PARAMETER	SPECIFICATION
Model	R-Evolution ref. 111012 R-Evolution CR ref. 121012 (laser module optional)
IRRIGATION	
Fluid delivery	gravity fed – eye pressure determined by the height of irrigation source forced irrigation – eye pressure controlled by the equipment
Control	system foot pedal
ASPIRATION	
Aspiration pump types	peristaltic and Venturi (R-Evolution CR), peristaltic and rotary vane (R-Evolution)
Default vacuum level	user programmable
Available vacuum range	from 5 to 650 mmHg
Default flow rate	user programmable
Available flow rate range	from 0 to 65 cc/min, step 1cc/min (peristaltic only)
Available aspiration rise time	adjustable on 25 levels (0.5 s – 12 s)
Surgeon mode (linear aspiration)	linear aspiration (vacuum and/or flow rate) from 0 to preset linearly controlled via system foot pedal
Control	system foot pedal
VIT (VITRECTOMY)	
Handpiece type	pneumatically powered guillotine cutter (VIT), pneumatically powered microscissors (SCISS)
Cutting mode	reciprocating motion
Default cut rate	user programmable
Available cutting rate	(R-Evolution CR) from 60 to 6000 cuts per minute (VIT-Opti-Vit) (R-Evolution CR) from 60 to 12000 cuts per minute (VIT-Opti-Vit Twedge) (R-Evolution CR) from 60 to 310 cuts per minute (SCISS) (R-Evolution) from 60 to 4000 cuts per minute (VIT-Opti-Vit Anterior)
Single cut	single cut mode available
Actuating medium	pressurized air
Operating pressure	from 2.3 bar to 4.2 bar
Surgeon mode (Linear cut)	linear cut rate from 0 to preset controlled via system foot pedal
Control	system foot pedal
DIATH (DIATHERMY)	
Type	bipolar generator
Operating frequency	2 MHz
Nominal power	9 W (200 Ohm LOAD)
Default bipolar power	user programmable
Available bipolar power	from 5 to 100%
Surgeon mode (linear power)	allows linear control of the DIATHERMY power via system foot pedal
Handpiece type	bipolar microforceps, slim stat pencil eraser, intraocular diathermy pencils
Control	system foot pedal
ILLUMINATION (R-Evolution CR only)	
Source type	3 LED light sources
Intensity adjustment	mechanical diaphragm, 20 levels + 4 protection cut-off filters
AIR INJECTION SECTION (R-Evolution CR only)	
Nominal pressure	from 5 to 120 mm/Hg
Safety devices	air activation sound
SILICONE INJECTION SECTION (R-Evolution CR only)	
Nominal pressure	from 0,4 to 5 bar
Signals	silicone injection activation sound, low pressure at air inlet
Control	system foot pedal

PHACOEMULSIFIER	
Handpiece type	piezoelectric
Frequency	40 KHz
Tip stroke	from 0 to 100 µm
Power Control	panel or linear control of the U/S power via system foot pedal depression
U/S Mode	linear or panel; continuous, short pulse, single burst, multi-burst, continuous burst, programmable emission mode
LASER (optional)	
Laser type	Diode pumped and frequency doubled Nd:YVO
Wave length	532nm
Laser class	IV
Laser Power	Adjustable from 50mW to 2000mW
Pulses length	Adjustable from 10ms to 2s
Pulses interval	Adjustable from 0 to 1s
Cooling system	Thermo-electric
Aiming beam wavelength	635 nm
Aiming beam LASER class	II
Aiming beam power	Adjustable from 0 to 1mW
Handpiece type	20GA, 23GA, 25GA and 27GA Ophthalmic endolaser probe
FOOT PEDAL	
programmable, simultaneous double linear, single linear, Bluetooth	
Degree of protection against harmful ingress of water	IPX8
Number of ON/OFF controls	9, user configurable
Number of Linear controls	3 (2 of which simultaneous), user configurable
Wireless type	Class 2 Bluetooth 2.1
Operating frequency	2400 – 2480 MHz
Transmission power	4dbm Max
Operating range	10m
Power supply	NiMh 2700mAh rechargeable battery
Operating time (on battery)	20hr approximately
COMPRESSED AIR SPECS (R-Evolution CR only)	
Input air pressure	from 500 to 800 KPa (from 72 to 116 PSI)
Air consumption	32 normal litre/minute
ELECTRICAL SPECS	
Input voltage	100 - 240 Vac.
Frequency	50/60 Hz
Regulatory compliance	93/42/EEC Medical Devices Directive (MDD)
Technical standards	EN60601 - 1 EN60601 - 1 - 1 EN60601 - 1 - 2 EN60601 - 2 - 2

L x W x H:
560 x 529 x 1617 mm



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