

UNIT



WWW.MAXERENDOSCOPY.COM



# **ISO** Certificate

Quality management system as per ISO 13485 :2012 Medical Device Certification for development & Production & Endoscopic instrument & Equipments

# **CE** Certificate

As per council directive 93/42/EEC Concerning medical devices





## About Maxer UNITS

Over the years Maxer has established itself as a symbol of creativity and latest technology and is an internationally qualified supplier of world-class medical instruments and devices.

Specialised in the field of Minimal Invasive Surgery field (MIS), we manufacture a wide range of products for Laparoscopy, Hysteroscopy, Urology, Pediatric surgery, Arthroscopy, Spine endoscopy and ENT.

Constant innovation to serve market needs, introducing latest technologies to the world of Minimal Invasive Surgery (MIS) and sound working ethics have been the integral part of our corporate philosophy.

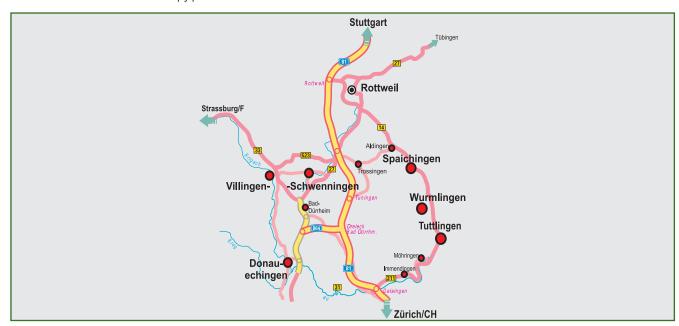
2004	Being one of the foremost companies to bring out HD technology in MIS field, Maxer launched its first endoscopy camera with Matrix metering
2008	High Definition (HD) scopes were launched to fully appreciate the picture quality displayed by endoscopic cameras
2009	Maxer launched its first Networked Endoscopy Camera System
2010	A path breaking 16 Fr Resectoscope for office Hysteroscopy was introduced in the market
2011	Release of LED Headlight with 200,000 Lux illumination; a state of the art in this segment
2012	Maxer's new generation and more effective LED light source was introduced to reduce dependability on xenon light source
2015	3 CMOS HD cameras with 6-megapixel camera head was launched with the aim of providing best in class picture quality and ease of use

Our products are installed in over forty countries with high level of customer satisfaction. This background has given the company profound credibility in the field of endoscopy.

Due to vibrant co-operation with end users, we able to continuously improve upon the product range and are able to meet special modification demands. At Maxer, we believe that growth and innovation go hand-in-hand.

Our specialisation resides in selling complete system with the focus on product quality and customer satisfaction; and we strive to provide high level of after sales and service training to our customers. We strongly believe in 'Success in togetherness'. Therefore, our growth and success are based on long term partnerships with our customers and distributors.

Unique location in medical technology cluster of Tuttlingen, Germany and our rich heritage has enabled us to provide best in class German manufactured endoscopy products to our customers.







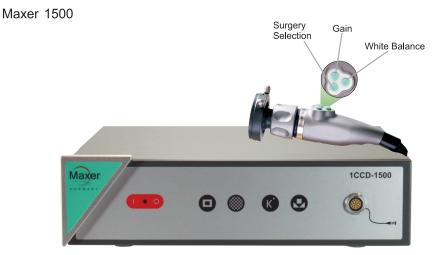


# INDEX UNITS

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Camera 1CCD UNITS



#### **FEATURES**

- · Advanced image processor
- · Accurate color Rendition
- · Ergonomic waterproof head with 3 buttons
- · Six surgery presets for most common surgery
- Keyboard input facility
- Image Freeze Function
- · Anti-Moire and Gain function 4 levels
- · Compatible to LED Light Source
- Turn ON/OFF LED Light Source from head button on screen display
- Fixed shutter mode for Stroboscopy

#### STANDARD SET INCLUDES

- CCU
- Camera Head, Coupler
- Y/C & Composite Cable
- Mains Cord
- User Manual & Carry Case

#### **TECHNICAL DATA**

1/3" High sensitivity CCD

Resolution: 576i (PAL)

SN Ratio - 50db

Automatic White Balance

Electronic shutter

(1/50 to 1/100000) / 3 window sizes

Size of the control unit: W - 300; D - 360; H - 74 mm

Weight: Control Unit 3.9 kg; Sensor 80 g

Power Supply: 115 - 230 V Power consumption: 25 VA max

2YC S - video output :

(1 VCC & 0.3 VCC / 75) PAL or NTSC

2 Composite output :

(1 VCC 75 oh) PAL OR NTSC

Peripheral output - 2

CE According to MDD 93 / 42 / EEC, class I

Applied Standard: EN60601-1

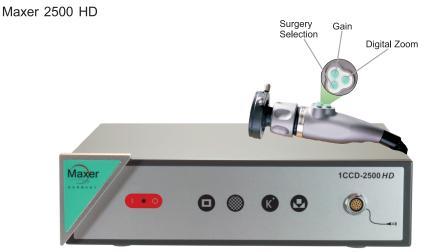
Applied part - BF

10.503.1500	Maxer 1500 waterproof C mount camera
10.50.1500	Control unit
10.50.1510	Camera head



### Camera 1CCD HD

UNITS



#### **FEATURES**

- · Digital zoom
- Full HD DVI-D output for superior image
- · RGB output
- · Advanced image Possessor
- · Accurate color Rendition
- Ergonomic waterproof head with 3 buttons
- Six surgery presets for most common surgery
- Keyboard input facility
- Image Freeze Function
- · Anti-Moire and Gain function 4 levels
- · Compatible to LED Light Source
- Turn ON/OFF LED Light Source from head button on screen display
- · Fixed shutter mode for Stroboscopy
- Foot switch connectivity (optional)

#### STANDARD SET INCLUDES

- CCU
- Camera Head, Coupler
- Y/C & Composite Cable
- Mains Cord
- User Manual & Carry Case

#### **TECHNICAL DATA**

1/3" High sensitivity CCD

Resolution: Full HD 1080p / 1080i / 720p Thru DVI

SN Ratio - 55 db

Automatic White Balance

Electronic shutter:

(1/50 to 1/100000) / 3 window sizes

Size of the control unit: W - 300; D - 360; H - 74 mm

Weight: Control Unit 4.5 kg; Sensor 80 g

Power Supply: 115 - 230 V Power consumption: 25 VA max

2YC S- video output:

(1 VCC & 0.3 VCC / 75) PAL or NTSC

2 Composite output:

(1 VCC 75 oh) PAL OR NTSC

DVI-D output, RGB output, Peripheral output - 2

Keyboard / foot switch input

CE According to MDD 93/42/EEC, class I

Applied Standard: EN60601-1 Classification of applied part - BF

10.503.2500	Maxer 2500 waterproof C mount camera		
10.50.2500	Control unit		
10.50.2510	Camera head		



#### Camera 3CCD HD

UNITS

Viron HD II



Latest generation camera under Viron HD II R platform with enhanced low light performance.

#### **FEATURES**

Maxer has introduced the path breaking camera under new Viron HD II R platform with optional High Definition Recording.

The performance under low light is vastly improved and the reflections are significantly reduced through **Digital Matrix Processing.** 

Preset parameters for different surgeries help get optimum image in all surgeries.

Freeze function is provided for patient education and teaching purpose. Image can be freezed from button on head or foot switch.

Facility to invert or flip the image allow surgeon to operate from opposite side of camera.

Optional software is available to control camera from computer. The functions of camera can also be controlled through keyboard besides entering patient data.

Color settings are optimised for LED Light source significantly reducing operating costs and chances of injury to patient.

The Camera can be supplied with or without capture facility. The capture resolution is 1920 x 1080 for both still and video recording.
CE according to MDD93/42/EEC.

#### **TECHNICAL DATA**

#### **Control Unit-**

- Native output Resolution 1920 x 1080P in DVI format
- · Aspect Ratio 16:9
- Sensitivity 2 Lux @ f(1.4)
- · Signal/ Noise Ratio- 70 db
- Outputs HD-SDI -2, Y/C 2, Composite -2, DVI -1 (optional -2), RGB -1, RS-232, Optional - USB
- · Key Board Connectivity
- Foot switch for freeze function (Optional)
- Speciality wise Surgery Selection for optimum setting for different surgeries
- · Facility to operate LED Light Source from Camera
- · Window, Gain, Anti-moire filter
- · Facility to invert or flip the image
- 16 step digital enhancer
- Facility to select different light sources such as LED, Xenon, Halogen
- · Control of 2 peripheral devices through button on head
- Size of the control unit: W 300, D 360, H 74 mm
- · Control unit weight: 4.5 kg
- Video capture : 1920 x 1080 MPEG 4 H-264
- Still capture: 1920 x 1080

## Camera Head - 3 CCD

- Progressive Scan CCD 1/3" x 3
- · Programmable 3 buttons on head
- Digital Zoom and optional optical zoom
- Detachable C-mount for use of different couplers such as beam splitter, zoom coupler, use on surgical operating microscopes
- · Cable length: 3 m
- Sensor Weight 180 g



## Camera 3CCD HD

UNITS

Viron HD II

## STANDARD SET INCLUDES

- Mains Cord
- DVI-D Cable
- Composite Cable
- S-Video Cable
- User Manual CD

10.503.3300R	Viron HD II R-3CCD Complete, Camera with Recorder, with 3CCD head and coupler	
10.50.3300R	Viron HD II R-3CCD Camera, Control Unit with Recorder	
10.50.3310	Viron HD II 3CCD Camera Head	
10.503.3300	10.503.3300 Viron HD II 3CCD Complete camera with 3CCD head & coupler	
10.50.3300 Viron HD II 3CCD Camera, Control Unit		





#### **HD Camera - VIRON HD 3**

UNITS

Viron HD III



Latest generation camera under VIRON HD 3 platform with enhanced low light performance

#### **FEATURES**

#### 3 CMOS HD Platform

Most currently available CCD cameras generate Full HD resolution by Optical or Electronic interpolation. This generates the output resolution but the real resolution is less than Full HD.

Maxer VIRON 3 uses three sensors of 2 megapixels each (total of 6 megapixels) to generate significantly higher real resolution than provided by standard 3CCD cameras.

Due to the path breaking technology used, the sensitivity of the sensor is much higher, without negatively affecting the sharpness. All advanced laparoscopic surgeries are possible with Maxer LED Light Source. Surgeries only done before with 10 mm laparoscopes are now possible with smaller telescopes without affecting the quality of the vision.

## **Matrix Processing**

VIRON 3 also reduces glare at multiple points and gives a smooth image inspite of higher sharpness.

## Plug And Play – User Friendly Operation

The camera is preprogrammed for 13 most common surgeries and personalized modes can be added. No additional adjustments are required by the user. The image will always be optimum for every type of surgery. The surgeon will not have to bother about adjusting the camera and can concentrate on surgery.

#### **Upgradable With Dual Hd Recording**

The units will be upgradeable with a Dual HD Recording board which can be fitted in the future.

#### **Bluetooth Connectivity**

Bluetooth connectivity for control of camera functions using a tablet.

### **Vesmax Mode**

VesMAX mode helps to identify blood vessels using edge and spectral enhancement alogorithms.

Maxer has newly developed superior HD+ laparoscopes and high contrast optimized LED monitors to obtain optimum image from camera.

### **TECHNICAL DATA**

#### **Control Unit-**

• Surgery Presets: 13

Output Video Signal: HD Output HD-SDI/3G-HDI (2 lines)

• DVI (1 line) :1920x1080P 59.94/50 FPS 1920x1080I 59.94/50 FPS

· SD Output : Y/C, Composite

· Remote Control: RS-232C, Bluetooth

Keyboard InputAccessory Ports : 2

#### **CAMERA HEAD: 3CMOS**

• Image Sensor: 3x1/3" CMOS (Total 6 MP)

· Effective Pixels: 3x2 megapixels

· Optical Scheme : RGB prism

· Scanning System : Progressive Scan

Sensitivity: < 0.5 LUX</li>Aspect Ratio: 16(H):9(V)

Programmable 3 buttons on head

Digital Zoom and optional optical zoom

 Detachable C-mount for use of different couplers such as beam splitter, zoom coupler, surgical operating microscopes

· Cable Length: 5 m

• Weight: 160 g (excl. cable)

## Standard CCU Set Includes

- Mains Cord
- · DVI-D Cable
- Composite Cable
- S-Video Cable
- User Manual

Certification – EN60601-1 CE according to MDD93/42/EEC, CLASS 1



## HD Camera - VIRON HD 3

UNITS

Viron HD III

10.50.4000	VIRON HD 3 Camera Control Unit
10.50.4010	3CMOS Camera Head for VIRON HD 3
10.503.4000	VIRON HD 3 Complete camera with 3CMOS head and coupler





UNITS

Light Source

LED-610



#### **FEATURES**

The MAXER - LED Light Source LED-610 offers a high light efficiency by innovative lamp technology. The LED Light Source provides an intensive light which is focused on a small diameter comparable to 300 watt Xenon. This allows the use endoscopes and light guides with a small active diameter and at the same time maintaining light efficiency at the distal end of the endoscope.

The color temperature of approx.  $6000^\circ$  K (IR filtered) corresponds to the color temperature of the sunlight that way gives a specially brilliant illumination and optimal color rendering in connection with the Maxer cameras. The light intensity is controlled by push buttons provided on the front panel.

The fiber optic cable adopter includes an optical sensor that allows switching on the bulb only when the cable is connected.

Due to efficient use of cooling technologies, the light sources generates very low fan noise with minimum distraction to operating personal.

The light source also has a composite input for automatic control of intensity when camera is in fixed shutter mode.

#### **TECHNICAL DATA**

Lifespan : Approx 50000 hrs.

Color Temperature : 6000° K
Intensity Control : Touch Buttons
Intensity Indication : Bar Graph

Rel. Humidity : < 90% non condensing

Voltage/Current : 100 - 240 V AC Frequency : 50 / 60 Hz Operating temperature :  $+10^{\circ}$  to  $35^{\circ}$  C Storage temperature :  $+10^{\circ}$  to  $40^{\circ}$  C

Protection degree : IP x 1
Medical product class : 1, BF Type

Dimensions (w x h x d) : 300 x 74 x 360 mm

Weight : Approx 4.5 kg Applied Standard : IEC 60601-1

: class I, according to MDD 93 / 42 / EEC

#### PRODUCT REFERENCE

10.603.0610 LED 610, LED Light Sources with main cord and User Manual CD



Light Source UNITS

M 300 W with Universal Turret, Lamp hour meter.



#### **FEATURES**

The MAXER - Xenon Light Source M 300 W offers a high light efficiency at low lamp power by innovative lamp technology. The Xenon Light Source provides an intensive light which is focused on a small diameter. This allows the use endoscopes and light guides with a small active diameter and at the same time light efficiency at the distal end of the endoscope.

Light source is provided with Universal Turret to accept Fiber Optic cables of various makes. Though Maxer recommends to use its own cable for optimum results and temperature resistance.

The color temperature of approx.  $6000^\circ$  K (IR filtered) corresponds to the color temperature of the sunlight that way gives a specially brilliant illumination and optimal color rendering in connection with the Maxer cameras. The light intensity is controlled by knob provided near the turret.

#### **TECHNICAL DATA**

Lamp : 300 W

Lifespan : Approx 500 hrs.

Color Temperature : 5600 - 6000° K

Intensity Control : Manual by knob

Hour Meter : Digital

Rel. Humidity : Less 90% non condensing

maximum

Voltage/Current : 100 - 240 V AC

Power Consumption : 400 VA

Frequency : 50 / 60 Hz

Operating temperature : + 10° to 35° C

Storage temperature : + 10° to 40° C

Protection degree : IP x 1

Medical product class : 1, BF Type
Dimensions (w x h x d) : 381 x 127 x 305 mm

Weight : Approx 9.5 kg

Applied Standard : IEC 60601-1, Type CF

CE : class I, according to

MDD 93/42/EEC

## PRODUCT REFERENCE

10.603.0300 M 300 W Light Source with Mains cord and User Manual CD



## Light Source UNITS

Halogen 250w Twin Bulb



### **FEATURES**

- Light intensity regulation from 1 to 100 %
- Light cable connection Storz type
- · Stable color temperature
- · Optional air pump for gastroscopes

### **TECHNICAL DATA**

Type of Lamp Color : Xenophot HLX ELC 64653,

250 W, 24 V

Lamp Life : 50 Hours

Temperature : 3600° K, constant Voltage : 230V AC 50/60 Hz

Consumption : 270 W

Dimensions : 410 x 130 x 250 (mm)

(w x h x d)

Intensity Control : Stepless 0 - 100%

Weight : 8 kg

## PRODUCT REFERENCE

10.603.0250 Halogen source 250 W Twin bulb mains cord, User Manual



## **Fiber Optic Light Cables**

## UNITS



## **FEATURES**

- Autoclavable
- High quality of fiber bundle
- Extra Transmission of light
- Can withstand higher temperatures
- Fast action fitting of the Telescope

Art . No.	Ø mm	Length	Adapter	Suitable for Light Source	Recommended for Telescope size
10.603.3518F	3.5 mm	180 cm	Storz	Xenon 300W	2 to 5 mm
10.603.3523F	3.5 mm	230 cm	Storz	Xenon 300W	2 to 5 mm
10.603.3530	3.5 mm	300 cm	Storz	Halogen	2 to 5 mm
10.603.3530F	3.5 mm	300 cm	Storz	Xenon	2 to 5 mm
10.603.4823	4.8 mm	230 cm	Storz	Halogen	4 to 10 mm
10.603.4823F	4.8 mm	230 cm	Storz	Xenon 300W	4 to 10 mm
10.603.4825F	4.8 mm	250 cm	Storz	Xenon 300W	4 to 10 mm
10.603.4830	4.8 mm	300 cm	Storz	Halogen	4 to 10 mm
10.603.4830F	4.8 mm	300 cm	Storz	Xenon 300W	4 to 10 mm



## **Light Source Side Adapters for Light Cable**

## UNITS

## Connectors Projector Side LI ( Light Input)

	Side Li ( Light input)	
LS.10.1000	Storz/Wisap/Aesculap	
LS.10.1001	ACM/British/Welch Allyn/Stryker	
LS.10.1002	Wolf/HSW/Dyonics/Medicon	
LS.10.1005	Winter & Ibe	
LS.10.1007	Schott/Zeiss (Colposcope)	
LS.10.1008	Zeiss (OP-Microscope)	
LS.10.1003	Olympus	
LS.10.1004	Olympus new MODIFIED	
LS.10.1009	Volpi/FOT/Scholly	
LS.10.1010	Fuji	
LS.10.1011	Pentax	
LS.10.1012	MLW	
LS.10.1013	Rimmer	
LS.10.1014	Machida	



## **Light Source Side Adapters for Light Cable**

## UNITS

## Connectors Endoscope Side LO ( Light Output)

ES.10.1000	RfQ/Storz/Wisap/Aesculap	882
ES.10.1003	Storz/Olympus with heat shield	3
ES.10.1002	Wolf/HSW/Dyonics/Medicon SNAP	- LAAREN
ES.10.1005	Wolf/HSW/Dypnics/Medicon CLIP	=
ES.10.1001	ACM/British/Welch Allyn/SNAP	41111
	ACM/Wolf/SNAP Duplex-Universal-Connector	file file
ES.10.1006	(one side wolf one side ACM)	
ES.10.1007	ACM/British/Welch Allyn CLIP	===
		_
ES.10.1008	Scott/Zesis (Colposcope)	
ES.10.1004	Olympus new	
FC 40 4000	Struker Headlams	
ES.10.1009	Stryker Headlamp	
F0 40 4040	NALVA/	
ES.10.1010	MLW	



## CO<sub>2</sub> Insufflator 20 lt / min

UNITS

Microprocessor Controlled



#### **FEATURES**

Micro Processor Based Continuous insufflation for Quick and Precise insufflation. Faster than Conventional Pulse Mode.

Fully automatic delivery to maintain selected pressure.

Dedicated soft mode-controls insufflation with additional safety to minimize risk of faulty incision also useful for pediatric surgery.

Digital display for set pressure, actual pressure, actual flow & Volume.

Built in Self Test, Occlusion Test, Continuous Monitoring of Safety Parameters.

### **TECHNICAL DATA**

Max Gas Flow: 20 It per minPressure Range: 5 - 25 mmHgPower Supply: 100 - 240 V∼Frequency: 50 - 60 HzPower Consumption: upto 35 VA

Protection Class : I Protection Level : BF

Dimensions mm : W 300 x H 145 x D 320

Weight Approx : 4.5 kg

Operation Conditions : 10 - 40° C / 50 - 104° F

Rel. air humidity : 30 - 75%Insufflation medium  $: Medical CO_2$ Applied Standard : IEC 60601-1

CE marking : according to MDD 93/42/EEC

10.553.0020	Co <sub>2</sub> Gas Insufflator 20L/min Flow	
10.00.20HP	High pressure tube for Insufflator with standard connection	
10.00.20HP-PIN	High pressure tube for Insufflator with PIN connection	



## CO<sub>2</sub> Insufflator 30 / 40 lt / min Flow

UNITS

Microprocessor Controlled, with warmer



#### **FEATURES**

Micro Processor Based Continuous insufflation for Quick and Prescise insufflation. Faster than Conventional Pulse Mode.

Built in warmer system ensures CO<sub>2</sub> delivery into trocar at around 36° C.

Fully automatic delivery to maintain selected pressure.

Dedicated soft mode-controls insufflations with additional safety to minimize risk of faulty incision, also useful for pediatric surgery.

Digital display for set pressure, actual pressure, actual flow & Volume.

Built in Self Test, Occlusion Test, Continuous Monitoring of Safety Parameters.

#### **TECHNICAL DATA**

Max Gas Flow : 30 / 40 It per min
Pressure Range : 5-25 mmHg
Power Supply : 100-240 V~
Frequency : 50-60 Hz
Power Consumption : upto 35 VA

Protection Class : I
Protection Level : BF

Dimensions mm : W 300 x H 145 x D 320

Weight Approx : 4.5 kg

Operation Conditions : 10-40° C / 50-104° F

rel. air humidity : 30-75%Insufflation medium : Medical  $CO_2$ Applied Standard : IEC 60601-1

CE marking : according to MDD 93/42/EEC

10.553.0030	CO <sub>2</sub> Gas Insufflator 30L/min Flow with Warmer
10.553.0040	CO <sub>2</sub> Gas Insufflator 40L/min Flow with Warmer
10.00.20HP	High pressure tube for Insufflator with standard connection
10.00.20HP-PIN	High pressure tube for Insufflator with PIN connection



## **Suction & Irrigation Pump**

UNITS

Maxer 100 for Laparoscopy



#### **FEATURES**

- · Aspirates & Irrigates up to 3L / min.
- · Large two liter aspiration container
- "Stand-by" function minimizes wear & tear and noise.
- · Special filters ensure sterility
- No special adjustments necessary, aspiration & irrigation are regulated and selected by the Suction & irrigation instruments.
- · Integrated overflow protection

## STANDARD SET INCLUDES

Container holders, Suction bottle with puncture tube, Suction & irrigation tubings, Filter on suction port, Mains cord.

#### **TECHNICAL DATA**

Line voltage : 100 - 115 Vac OR

220 - 240 Vac

Maximum power consumption : 120 VA Frequency : 50 / 60 Hz

Protection class : 1
Protection symbol : BF

Weight : Approx.4.7 kg

(w/o bottle holder)

Dimensions (w x h x d) : 300 x 145 x 320

Operating environment : + 10° C to + 40° C

Ambient temperature : 30 % to 80 %

Relative humidity Noise emission : < 70 dB (A)

Rinsing performance : Up to 3000 ml/min

depending on the instruments & tubings used

Aspiration performance (liquid) : up to approx. 3 lit /min

depending on the instruments and tubing used

Aspiration performance (gas) : > 20 lit /min short-term

with 2 liter secretion bottle approx.

8 I/min permanent Pressure

in rinsing bottle : 0.3...0.5 bar over pressure

Vacuum in secretion receplace : 0.5...0.7 bar vacuum

### PRODUCT REFERENCE

**10.703.0100** Suction & irrigation Pump for Laparoscopy



## **Hysteroscopy Pump**

UNITS

Maxer 801



#### **TECHNICAL DATA**

Pressure range : 10-200 mm Hg

Flow range : 0-500 ml/min

Power supply :  $100-110 \text{ V} \sim 220-240 \text{ V} \sim$ 

Frequency : 50/60 Hz

Max. Power consumption : 60 VA

Classification : Protection class 1, Type BF, IP 41

Dimensions (w x h x d)  $\qquad \qquad : \qquad 300 \text{ x } 132 \text{ x } 335 \text{ mm}$ 

Weight : approx. 7.5 Kg

CE marking : according to MDD 93/42/ECC

Precise Intra Uterine Pressure Maintenance

### STANDARD ACCESSORIES

- Tubing set
- Mains cord

## PRODUCT REFERENCE

10.703.0801 Irrigation pump for Hysteroscopy



UNITS

## **Urology Pump**

Maxer 901





#### **FEATURES**

- · High performance state of the art technology Perfusion system
- · Simple to operate
- Designed for highest requirements within the hysteroscopic surgery
- · Various modes selectable
- · Superior visibility
- · Integrated safety technology
- · Clearly marked front panel
- · Auto self test functions
- · Many other functions

### STANDARD ACCESSORIES

- One Reusable Tubing set
- Mains cord

## **OPTIONAL ACCESSORIES**

- Disposable Tubing set

#### **TECHNICAL DATA**

Irrigation performance 0-500 ml/min

Power supply 100-240VAC 50/60 Hz

Frequency 50/60 Hz Rinsing performance 10-200 mm Hg

Power consumption 90 W Device type II a

Temperature range + 10 - + 40 ° C

Humidity 30-70%

Storage and transport

Temperature range

- 40 - +70 ° C Relative humidity Uncondensed air 10 - 90%

Dimensions (w x h x d) 300 X 132 X 335 mm

Weight approx. 7.5 Kg

Applied Standard IEC 60601-1, 60601-1-2 CE marking according to MDD 93/42/EEC

Protection Class IXP 1

## PRODUCT REFERENCE

10.703.0901 Irrigation pump for Urology



### Electrosurgical unit

**UNITS** 

BIMAX 350 for monopolar & bipolar surgery



**BIMAX 350** is an electrosurgical unit complete, technologically extremely advanced and suitable for every kind of monopolar and bipolar use in all the surgical fields. It is even provided with a special current for the bipolar cut under liquid, and it is self controlled by a specific and innovative operative software, which makes it particularly indicated for all the new endoscopic procedures.

### **FEATURES**

- · Simultaneous activation by two surgeons
- Use in monopolar endoscopy under liquid
- · Use in operative flexible endoscopy
- Bipolar coagulation and sealing of big vessels
- Bipolar cut and bipolar endoscopic cut in saline solution

### **TECHNICAL DATA**

Self diagnosis system - by microprocessor with auto check at the switching on and continuous control during the functioning.

Neutral electrode control - by specific circuit with acoustic signal (loud and intermittent), luminous alarm signal and visualization of the ERROR CODE.

Dimensions : 38 x 35 x 17cm, (LxDxH)

Weight : 15 kg

Bipolar activation : by foot-switch

V-SEALING current : activation by foot-switch

with automatic deactivation

Output circuit : "floating out" (insulated

from earth at the high and low frequencies, protected

against the use of the defibrillator).

CE marking : according to MDD 93/42/EEC

10.403.0350	Maxer Electrosurgical Generator, Model - BIMAX 350	
10.40.0311	Foot switch double pedal	
10.40.0312	Patient plate silicon	



## Electrosurgical unit

UNITS

## BIMAX 350 for monopolar & bipolar surgery

## Monopolar Currents

			N	Monopolar Cut					
Currents	Currents Features			Currents self regulation					
CP CUT	350 W	350 Ω	3450 Vpp	CF: 1.6	M: no DT: no	ADC System		SIC System	
CP BLEND-1	300 W	350 Ω	3600 Vpp	CF: 2.3	M: 29 kHz DT: 65%	ADC System		SIC System	
CP BLEND-2	140 W	600 Ω	7600 Vpp	CF: 8.1	M: 19 kHz DT: 9%	ADC System		SIC System	
CV CUT	350 W	350 Ω	1350 Vpp	CF: 1.6	M: no DT: no		APC System	SIC System	
CV BLEND	300 W	350 Ω	1930 Vpp	CF: 2.3	M: 29 kHz DT: 65%		APC System	SIC System	
CV ENDO	220 W	350 Ω	1710 Vpp	CF: 2.2	50% Pure 50% Blend I		APC System	SIC System	

Monopolar coagulation									
Currents	Currents Features			Curre	ents self reg	ulation			
CP Fulg Forced	150 W	350 Ω	4700 Vpp	CF: 4.5	M: 78 kHz DT: 3,5%	ADC System			
CP Precise	250 W	250 Ω	3460 Vpp	CF: 2.6	M: 29 kHz DT: 50%	ADC System			
CP Soft	280 W	250 Ω	3440 Vpp	CF: 2.5	M: 29 kHz DT: 56%	ADC System			
CP Spray	140 W	600 Ω	7600 Vpp	CF: 8.1	M: 19 kHz DT: 9%	ADC System			

## Bipolar Currents

	Bipolar cut								
Currents Currents Features				Curre	ents self reg	ulation			
CP Pure	180 W	350 Ω	1200 Vpp	CF: 1.5	M: no DT: no	ADC System		SIC System	
CP Saline	320 W	50 Ω	1200 Vpp	CF: 1.5	M: no DT: no	ADC System		SIC System	SBC System

	BIPOLAR COAGULATION								
Currents	Currents Features				Curre	ents self reg	ulation		
CV Micro	130 W	100 Ω	420 Vpp	CF: 1.7	M: no DT: no		APC System	SIC System	
CP Macro	130 W	200 Ω	1050 Vpp	CF: 1.7	M: no DT: no	ADC System		SIC System	
V-Sealing	130 W (200 W)	100 Ω	420 Vpp	CF: 1.7	M: no DT: no		APC System	SIC System	



## Video Nasolaryngoscope

UNITS

Ultra-slim-line for gentle insertion



This new video nasolaryngoscope has been developed in close co-operation with clinical users in order to provide maximum benefits for both patients and users. For patients, the ultra-slim scope provides an extremely gentle insertion, meaning minimal discomfort and time in procedure. For users, the ergonomic handle design and the integrated LED illumination ensures effortless use as well as optimal performance.

- CMOS for optimal cost / performance ratio
- Most advanced video technology
- · Chip on the tip design
- Enhanced durability
- Integrated LED illumination for optimal operating expese
- · No need for separate light source
- Optimal illumination performance
- · Alternative : light guide version
- Ultra-slim line for gentle insertion
- Diameter distal tip 3.2 mm
- Diameter insertion tube 3.4 mm
- Atraumatic tip design
- Ergonomic handle design for effortless use
- · Rotatable cable outlet
- · Convenient handling of U bend adjuster
- Comfortable alignment of buttons
- Precise motion for perfect control
- Smooth running bending section
- · High precision mechanics
- Bending range of distal tip 130° up/down













## Video Nasolaryngoscope

UNITS

Ultra-slim-line for gentle insertion



15.20.3690	Video Nasolaryngoscope with integrated LED illumination
	<ul> <li>Working length approx. 300 mm</li> <li>Diameter distal end 3.2 mm</li> <li>Diameter insertion tube 3.4 mm</li> <li>Direction of view 0°</li> <li>Field of view 90°</li> <li>Bending range distal tip 130° up/down</li> </ul>
15.20.3618	Camera head
	CMOS HD Sensor     C-mount connection
15.20.3648	Med-cam control unit
	<ul> <li>Freely programmable buttons of the Video Nasolaryngoscope</li> <li>Adjustable brightness and window</li> <li>3 configurable user settings</li> <li>Keyboard and mouse connectivity for patient data entry</li> <li>Still &amp; Video image capture on USB drive,</li> <li>DVI output for better image on LCD, LED display,</li> <li>Input voltage range 100 - 240 VAC, 50 / 60 Hz</li> </ul>



### **LED Monitor IPS Panel**

UNITS



Monitor adopts an advanced digital video signal processor to produce accurate, lifelike images with smooth & natural gradation, using advanced In-Plain-Switching(IPS) panel. Full HD, DVI input.

#### **FEATURES**

- · Wide screen, Full HD
- · Accepts High Definition signal through DVI
- · LED backlight illumination
- · Advanced IPS Panel for superior image quality & color rendition
- · Fast response time
- · Splash proof front to avoid damage or contamination by accidental splash of fluid in OR
- · Protective integrated toughened glass pane in front to reduce accidental damages during movement in OR
- Double side anti reflection coating on front glass to reduce glare for better viewing comfort to surgeon.
- · Completely closed aluminum housing for superior hygiene
- · All exterior surfaces wipable using disinfectants
- Full glass flat front for easy cleaning
- · Picture in Picture facility
- Cooling-Passive, fanless, maintenance-free
- Medical grade monitors. CE: class I, according to MDD 93/42/EEC

#### STANDARD SET INCLUDES

- Monitor
- Mains cord
- Composite & S Video Cable
- DVI Cable
- VGA Cable
- User Manual



## **LED Monitor IPS Panel**

UNITS

## **TECHNICAL DATA**

	2111	2411	2711	3151
Size	21.5" (53cm)	24" (61cm)	27" (69cm)	31.5" (80cm)
Panel Size/type	21.5" TFT active matrix IPS-LCD, anti-glare and hard coated	24" TFT active matrix IPS-LCD, anti-glare and hard coated	27" TFT active matrix IPS-LCD, anti-glare and hard coated	31.5" TFT active matrix IPS-LCD, anti-glare and hard coated
Maximum resolution	1920x1080	1920x1200	1920x1080	1920x1080
View angle	178° (H),178° (V)	178° (H),178° (V)	178° (H),178° (V)	178° (H),178° (V)
Signal input	DVI, VGA, Composite-Video, S-Video, HD-SDI (optional)	DVI, VGA, Composite-Video, S-Video, HD-SDI (optional)	DVI, VGA, Composite-Video, S-Video, HD-SDI (optional)	DVI, VGA, Composite-Video, S-Video, HD-SDI (optional)
Dimension (w*h*d*)	530 x 380 x 65 mm	570 x 400 x 60 mm	660 x 435 x 60 mm	760 x 490 x 75mm
Active area	475.2 x 267.3 mm	518.4 x 324 mm	597.9 x 336.3 mm	698.4 x 392.9mm
Weight without accessory	10 kg	11 kg	14 kg	17 kg
Mounting	built-in VESA -100 interface extensive mounting solutions available as accessories	built-in VESA -100 interface extensive mounting solutions available as accessories	built-in VESA -100 interface extensive mounting solutions available as accessories	built-in VESA -100 interface extensive mounting solutions available as accessories
Power consumption	80 W DC	80 W DC	80 W DC	80 W DC
Power supply	Integrated (external-optional)	Integrated (external-optional)	Integrated (external-optional)	Integrated (external-optional)
Article No.	10.803.2111	10.803.2411	10.803.2711	10.803.3151

10.80.2600	Stand for Monitor
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## **LED Headlights**

UNITS

Maxer offers 2 models of LED headlights for different applications. The light intensity ranges from  $50,000\ LUX$  to  $200,000\ LUX$ 

10.603.0050	Maxer - LHL50



**10.603.0200** Maxer - LHL200



### **TECHNICAL DATA**

	Maxer - LHL50	Maxer - LHL200
Light Intensity	50,000 Lux	200,000
Battery Life	12 Hr	6.5 Hr
Weight	8 g	312 g
Battery Type	Li-Po	Li-Po

Detail catalog available on request.



## **Fiber Optic Headlight**

UNITS



Modern focusable fibre optic headlight with high performance optical system, wide focus range and powerful light spot. Light weight and comfortable headband, well protected, bifurcated cable for long time use with highest comfort. Made for use in all surgical operations. The high transmission bifurcated fibre bundle is guiding the light to the light outlet with minimum losses. The cable can be clipped on for more comfort and less weight of the cable.

By bifurcation above cross band and headband the weight of the high performance cable is spread symmetrically. Thereby a comfortable use for many hours is possible. The high performance optical system effects an intensive and homogenous spot which is adjustable in direction and size. The ergonomic headband is foam bolstered and can be adjusted step less by wheels. The headlight is suitable for use with 300 watt xenon due high temperature resistance. 300 watt Xenon Light Source and suitable Trolley also available from Maxer.

#### **FEATURES**

F/O-Cable : bifurcated 0.7 m - total length 2.5 m, Ø 3.5 mm

Classification : Class I (according to annex IX of directive 93/42/EEC)

Light outlet : Focus step less adjustable, diaphragm, ball joint

#### **TECHNICAL DATA**

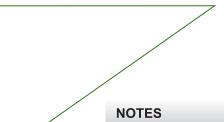
Spot diameter by working distance: 20 cm -> 11-067 mm

Spot diameter by working distance: 30 cm -> 12-100 mm

Spot diameter by working distance: 60 cm -> 16-210 mm

## PRODUCT REFERENCE

10.603.0020 Fiber Optic headlight with high temperature resistance cable





NOTES	UNITS
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UNITS

LAPAROSCOPY

**UROLOGY** 

**HYSTEROSCOPY** 

**ARTHROSCOPY** 

**ENT** 

**PEDIATRIC** 

SPINE ENDOSCOPY

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