

# Best in Class Surgical Microscope



Lightweight  
Stylish  
Precise  
Adaptive

**ERGOPTIX**<sup>TM</sup>  
Magnifying Loupes & LED Headlamps



ERGOPTIX is the brand successfully launched & produced by RLARD for the Magnifying Loupes & LED headlamps through its research & development. We are the OEM of magnifying loupe with more beneficial features in it. ERGOPTIX is family of optical products for professionals engaged in dentistry, gemology and similar fields which require fine and precision work. ERGOPTIX proved itself by delivering high quality magnifying loupes and illuminating headlamps that allow to focus with enhanced ergonomics while working serving the users more than half decade.

Now, we are looking one step ahead of this i.e. Surgical Microscope. ERGOPTIX Surgical Microscope is designed with the individual needs of the dentists in mind. Its streamlined design with various mounting options, including the possibility to integrate with several treatment units, allows it to be tailored to the individual demands of practice. Its quick, light weight and accurate positioning combined with fast stabilization supports a smooth work flow.

A surgical microscope is at its core an optical instrument, which allows the surgeon to see enhanced detail in order to work as precisely as possible. With superior optical quality and excellent clarity offers high resolutions, large depth of field, and maximum light transmission. With LED illuminations, brightness and color of the image has high quality that the surgeons can see through the eyepiece. LED bulbs have a color temperature of 5500 kelvins for true to life color and offers approx. 50,000+ hours of light.

The Ergoptix microscope has an optional integrated full HD 1080P camera and data can be saved to SD memory card or transferred directly to the patient file via USB or Wifi. Using the microscope during surgical procedures helps the surgeon to maintain a neutral, upright working position. It offers a variety of ergonomic accessories to adapt the microscope to the user's individual body frame and working preference.





## Key Quality Features

### Optical quality

ERGOPTIX with a surgical Microscope superior optical quality with excellent clarity offers high resolution, large depth of field, and maximum light transmission. This is indispensable for a successful surgery treatment. Optics with apochromatic correction, as integrated in the ERGOPTIX, provide images without any colour distortion.

### Illumination

For natural colour representation, light with daylight temperature of between 5,000 and 6,000 kelvin is optimal. A longer life time reduces the frequency of bulb exchange and therefore potential microscope downtime.

### Documentation

Today, videos and images plays an ever increasing role within the surgical practice for a number of reasons.

Additionally video can support patient relationships and trust as the surgeon can show the patient what he sees, take them through the steps of a procedure and thus include them in consultation and treatment.

The Ergoptix Microscope has an optional integrated full HD 1080p camera and only requires a push of a button for still or video capture, with no interruption of the workflow. Data can be saved to SD memory card or transferred directly to the patient file via USB.

### Ergonomic design

Musculoskeletal pain caused by a hunched working position and harsh, repetitive movements, can have a serious impact on the surgeon's professional and personal life. Using a microscope during surgical procedures helps the surgeon to maintain a neutral, upright working position.

The ERGOPTIX Microscope features two binocular tubes with a 45° angle for simple procedures and another with 180° movement for increased positioning flexibility.

### Workflow integration

ERGOPTIX microscope's design does not only have the aesthetics in mind, but also the functionality. A carefully considered design should make it easy to integrate the microscope into the practice environment and even improve the workflow. Quick, lightweight, and accurate positioning combined with fast stabilization supports a smooth workflow.



## Brightness Control Knob

Allows you to easily adjust the Intensity for any Clinical Situation



## Integrated Filter

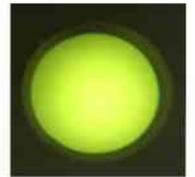
Green Filter improves visibility of Tissues with strong blood supply by enhancing the contrast

## Cold LED Illumination

1. LED Cold Lamp: 12V,10W  
LUX > 70000 to 100000 Lumen
2. Power Supply: AC 110V or 220 V; 50-60 Hz



Yellow Filter



Green Filter



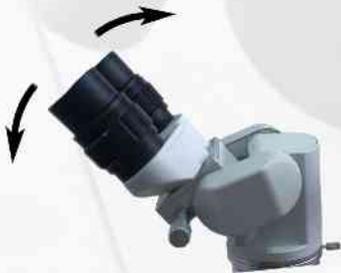
## Focusing

Manual & Fine Focusing Range 25 mm

## Eyepiece Diopter

Give the possibility to see exact Image Section to the surgeons

The diopter adjustment is :  $\pm 5^\circ$



## Easy and Comfortable Operating

-10° to 110° inclinable Binoculars provide wide range for User Comfort

## Easy and Comfortable Operating

Rotatable Handgrip can be adjusted to preferred positions for users enabling them to adjust the microscope in desired position



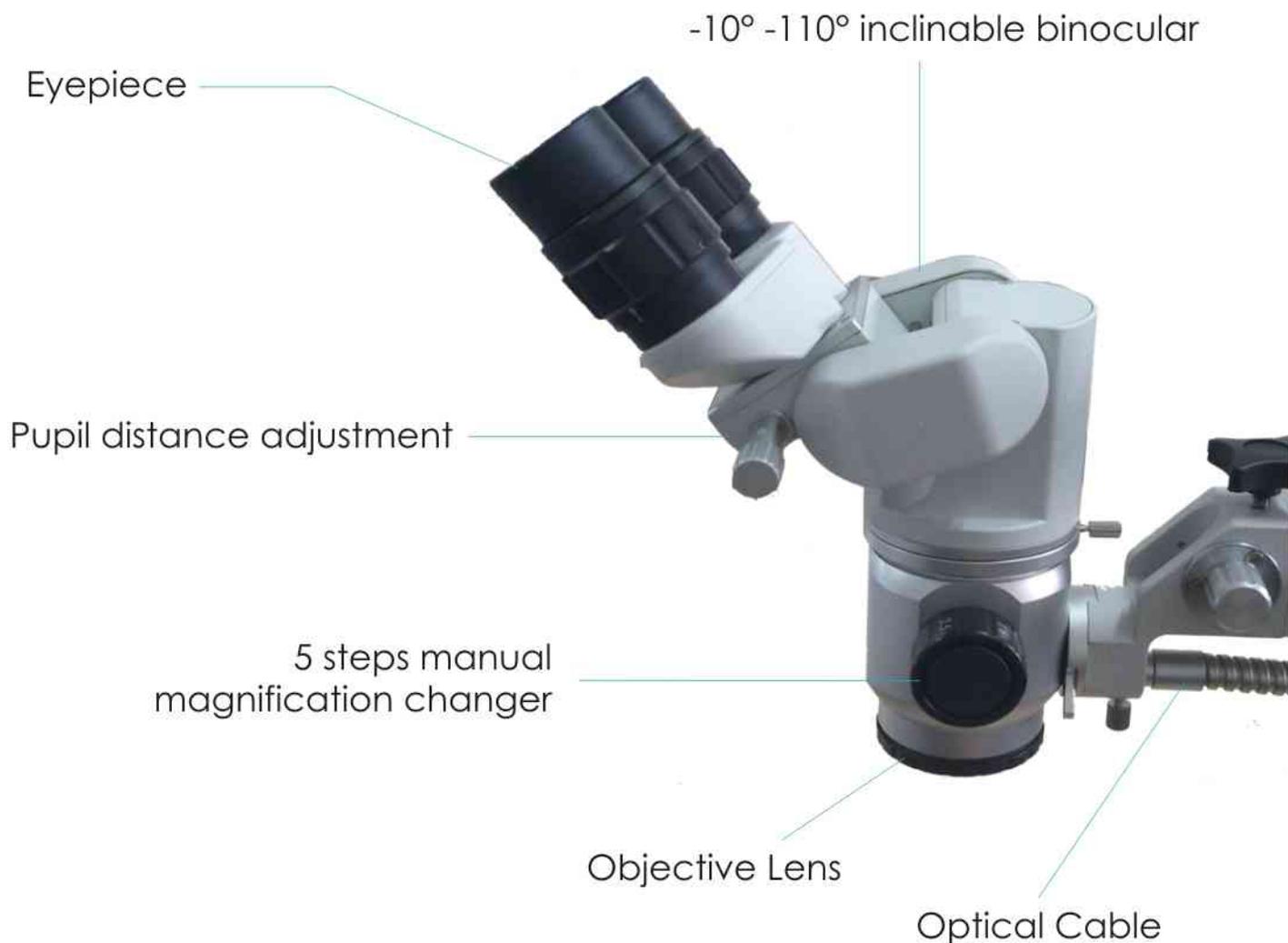
## Balancing Arm Adjustment

Balance arm spread in the range of standard horizontal line from  $-25^{\circ}$  to  $50^{\circ}$  There are 5 Casters at the bottom and two of them equipped with brake, which can be fixed.



## 5 Step Magnification Changer

The Magnification knob allow to select optically matched magnification for precision and closed inspection



# Specification

Parameter	Dental Surgical Microscope 18.5x 5-Step manual magnification Changer	Dental Surgical Microscope 12.5x 5-Step manual magnification changer
Eye-piece	18.5X	12.5X Inclinable Binocular
Object Lens	f= 300 mm	f= 300 mm
Magnification Changer	5 Step	5 Step
Magnification Factor	0.4, 0.6, 1.0, 1.6, 2.5	0.4, 0.6, 1.0, 1.6, 2.5
Total Magnification	7.4X, 11.1X, 18.5X, 29.6X, 46.25X	5.0X, 7.5X, 12.5X, 20.0X, 31.25X
View Field (mm)	90/60/38/24/15	90/60/38/24/15
Resolution (LP/mm)	23.6/31.5/42.0/44.5/59.5	17.7/28.1/33.4/39.4/56.1
Pupil Distance	52-74 mm	52-74 mm
Exit Pupil Distance	15 mm	15 mm
Focusing Range	25 mm	25 mm
Diopter	± 5D	± 5D
Light Source	Cold LED (12V, 10W, LUX > 70000 to 100000)	Cold LED (12V, 10W, LUX > 70000 to 100000)
Stand Types	Floor or Table Mount	Floor or Table Mount
Power Supply	AC 110V, AC 220V, 50-60 Hz	AC 110V, AC 220V, 50-60 Hz
The Up-down range for spring Arm	(-25° -- +50°)	(-25° -- +50°)
Capacity	3.5 Kg	3.5 Kg
Installation	Connecting Bolt, Gasket, Under frame, Chassis, Column Power cord, Cold Light source, Pneumatic Spring Arm, LED light, Magnification System, Observation System, Handle	Connecting Bolt, Gasket, Under frame, Chassis, Column Power cord, Cold Light source, Pneumatic Spring Arm, LED light, Magnification System, Observation System, Handle

## Numerous Accessories Available Combinations

- 1 Beam Splitter + CCD Camera Adapter + CCD Camera + Monitor
- 2 Beam Splitter + SLR Camera Connector (Nikon/ Canon / Sony) + SLR Camera (Nikon/ Canon / Sony)
- 3 Beam Splitter + SLR Camera Connector (Nikon/ Canon / Sony) + SLR Camera (Nikon/ Canon / Sony) + 45° Adapter (Binocular Extender)
- 4 Beam Splitter + Teaching Endoscope
- 5 Beam Splitter + 45° Adapter (Binocular Extender) + Teaching Endoscope



Beam Splitter



45° Adapter  
(Binocular Extender)



Teaching Endoscope



SLR Camera Connector  
(Nikon - Sony - Canon)



SLR Camera  
(Nikon - Sony - Canon)



CCD Camera Adapter



CCD Camera



Monitor



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