ANGEL 100 Dental Microscope

Specification	ANGEL 100
Magnification System	1) Motorized 1:6.25 ratio zoom, magnification range: 0.4X-2.5X 2) Total magnification (12.5X eyepiece, 198mm-455mm objective): 1.7X→19X
Eyepiece	Standard 12.5X/18B, ±7D Optional 10X/21B, -8D to +6D
Binocular	0-180°Inclined binocular head with knob of pupillary distance adjustment
Objective Lens	Motorized 198-455mm variable objective lens
Illumination	1) Dual lamp design 2) Natural light LED 3) Orange/ green filter 4) Maximum/ medium/ minimum light spot
Depth of Field Strengthen Device	Integrated depth of field strengthen device
Built-in Camera	1) 4K camera system 2) 3D camera system(optional)
Support System	1) Mobile floor stand 2) 4 Joint /6 joint electromagnetic lock 3) 120° Balance arm
Multi-function Handle	1) Motorized variable objective lens, Motorized zoom 2) Dimming 3) Photograph/Video Recording 4) One-touch unlock electromagnetic lock 5) Camera custom button
Wireless Foot Pedal	Photograph/Video Recording
Smart Monitor Display	Magnification, working distance, dimming, focusing speed, zoom speed
2D/3D Assistant Scope	Optional

ALLTION
6 Erica Avenue, Durban, 4092
Tel: +27 87 700 1818
Email:info@alltion.co.za
Web: www.alltion.co.za

CE FDA ISO

ANGEL 100
Dental Microscope

★ Surgical essentials, precision observation

ALLTION®

Company Profile

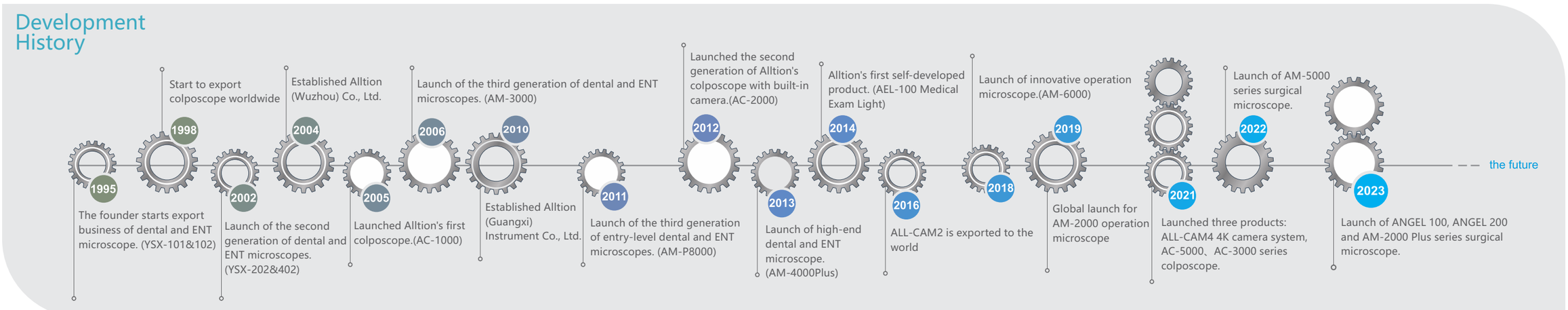
Alltion (Guangxi) Instrument Co., Ltd. was established in 2010, with its headquarters located in Wuzhou City, Guangxi Proince. As a company focused on the R&D, production, and sales of medical equipment, we have extensive experience and exceptional technical strength in the field of medical devices. Since its inception, the company has always adhered to the philosophy of technological innovation and quality first, committed to providing the medical industry with high-quality, high-performance products.

With the development of the market and technological progress, we continue to launch innovative products, covering multiple medical fields such as dentistry, orthopedics, otolaryngology, gynecology, and neurosurgery. Our products are not only widely recognized in the domestic market but also enjoy a good reputation in the international market.

To ensure the quality and performance of our products, we strictly follow the ISO13485 quality management system in our production process, and conduct rigorous quality testing and control. We have a high-quality R&D team and a professional production team, with rich experience and outstanding technical capabilities, ensuring the quality and reliability of our products.

In addition to the pursuit of product quality, we also place great emphasis on customer service. We always put customer needs first, providing professional and timely pre-sales consultation and after-sales support.

Development History



Applications in Dentistry

ALLTION's ANGEL 100 dental microscope are used in a wide range of applications

Oral Implant Surgery: The ANGEL 100 dental microscope offering high magnification and a clear field of view, doctors can observe the details of the implant and the implantation area in real time, ensuring accurate placement and avoiding damage to surrounding tissues.

Endodontic Treatment: The ANGEL 100 dental microscope aids doctors in accurately detecting and diagnosing root canal issues, and performing cleaning and filling operations on the root canal morphology.

Oral Surgery: In oral surgery, the ANGEL 100 dental microscope helps accurately locate and handle structures in the mouth, such as protruding bone spurs, cyst removal, and excision of periapical

Dental Pulp Treatment: The ANGEL 100 dental microscope assists doctors in better observing the condition of the dental pulp during dental pulp treatment, such as filling cavities caused by enamel dentin and pulp treatment.

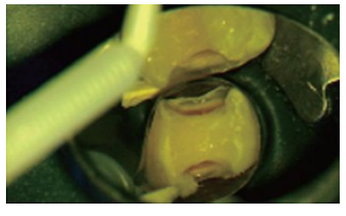
Oral Aesthetics and Restoration: In oral aesthetics and restoration, the ANGEL 100 dental microscope helps doctors perform tooth restoration and aesthetic restoration operations more accurately, ensuring the finesse and aesthetics of the restoration.

The following pictures by courtesy of Dr. Denis Honegger in Versoix, Switzerland.

Crackles

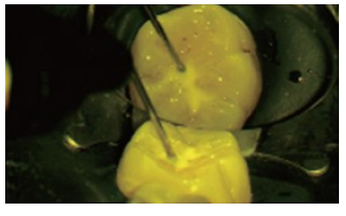
Crown Preparation

Dentin Variation



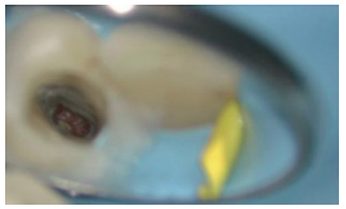
Dentin Variation

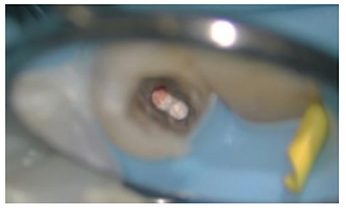
Tooth Decay

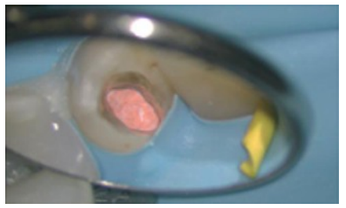


Dental Sealant

The following pictures by courtesy of Dr. Hendrik Heinzelmann in Bad Gersfeld, Germany and Dr. Vladislav Pavlovin St. Petersburg, Russia.







Integrated Design

Featuring an integrated design, the fusion of technology and fashion is displayed, not only pleasing to the eye but also injecting a touch of art into the medical field.

* The internal wiring design of the whole machine makes the appearance neat and tidy.
* With a reach of 1729mm, it covers a wider surgical area, providing doctors with more operating space, enhancing the flexibility and operability of the surgery.
* The monitor bracket is embedded within the microscope cross-arm, not only making the appearance more harmonious and aesthetically pleasing, but also ensuring a more balanced and stable force on the microscope, providing reliable support for surgery.
* The silky balance arm design and weightless feel reduce fatigue for doctors during surgery, protecting their health.

It can easily and accurately position the microscope. Simply press the button to release and move the microscope to the desired location.

Extraordinary Optical System

Impressive visual experience (optics)

* High-quality lenses

  This further enhances image quality, ensuring a more stable and clear field of view for doctors during surgery, greatly improving operational efficiency and precision.

* Advanced imaging system

  This not only saves energy but also reduces the harm of illumination to the patient's and doctor's eyes. The high-resolution imaging system conveys almost every detail of the surgical operation to the doctor. The application of these technologies allows patients to receive safer, more precise, and less invasive treatments.

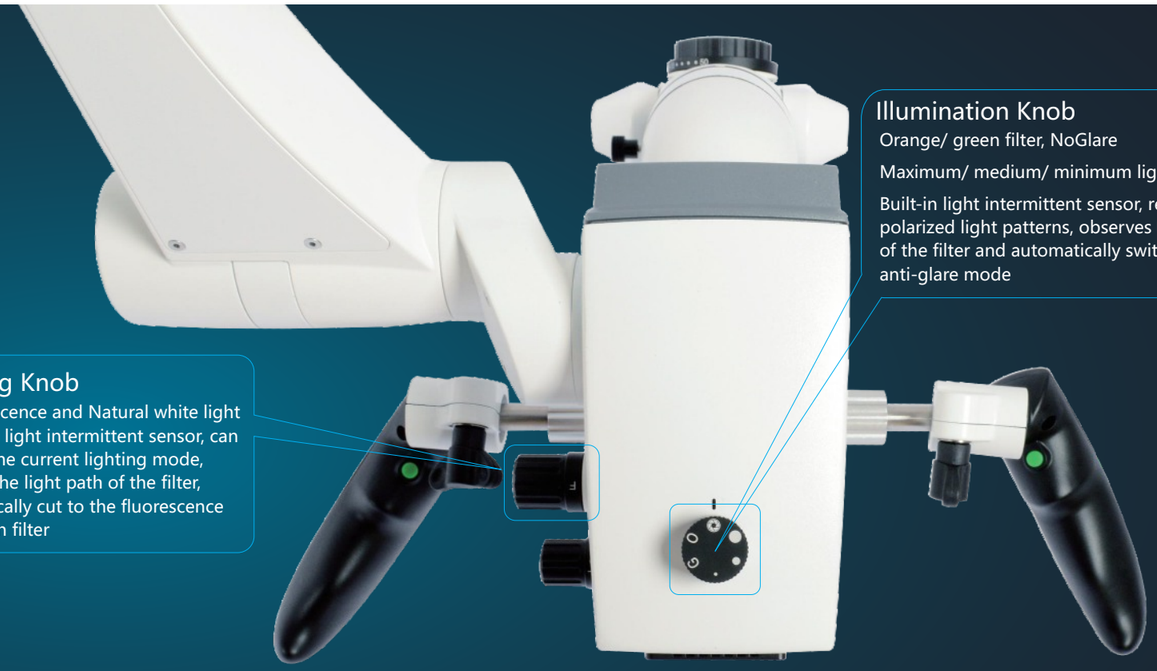
Single-hand Operation

"Space walk" (multi-function handle)

* Doctors can focus and zoom through the handle, allowing for easy and simple acquisition of clear microscopic images.

* Enables real-time photography and video recording. The handle's photo and video capabilities provide detailed visual data for surgical records, case sharing, or preoperative guidance, aiding in surgical communication and diagnostic decisions.

* Features an unlock joint function, enabling doctors to conveniently adjust and control the operating area, making surgery smoother and more efficient.



Observation Light Path Integrated Filter Modes:

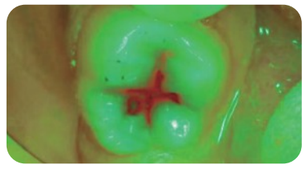
1.Standard Mode
2.UV Protection Mode

Outstanding Quality of ANGEL 100

* 198-455mm Motorized/manual variable objective lens, with a large working distance.
* The LED light source of ANGEL 100 uses advanced LED technology. It provides a stable light source, ensuring sufficient illumination during surgery.
* Under the Fluorescence mode, it can accurately detect and locate carious parts, emitting a unique red fluorescent signal under the microscope.

White light

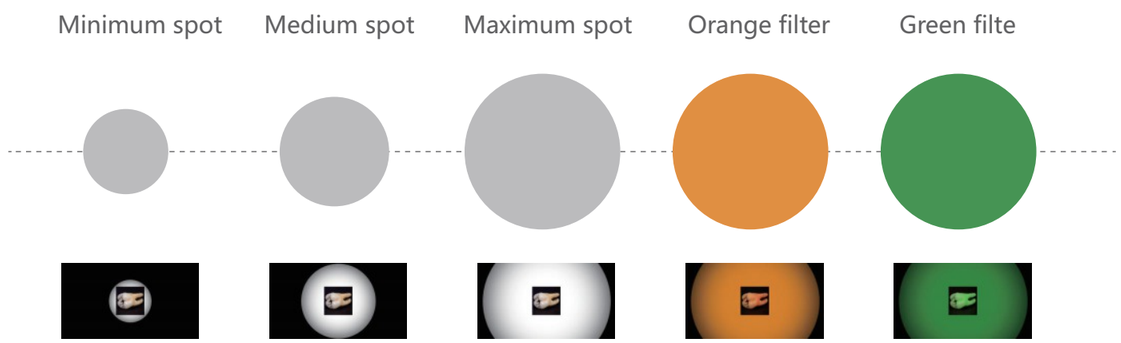
Fluorescence



Illumination Mode

Excellent heat dissipation design maximizes the lifespan of the LED light (LED light is rated for more than 50,000 hours). With 198-455mm variable objective lens, the illuminance can reach over 80,000lux Color Rendering Index (CRI) ≥ 85%, the illumination color temperature is 5500K, and five illumination modes can be selected.

5 Types of illumination modes



Motorized 1: 6.5 Ratio Zoom

* Motorized 1:6.25 ratio zoom, magnification range: 0.4X-2.5X
* Total magnification 1.7X-19X

0.4X 0.6X 1X 1.6X 2.5X

Smart Monitor Display

Working Distance Magnification Dimming

Focusing Speed Zoom Speed

3D Camera System

Built-in 4K Camera System

* Built-in 4K camera system with high-dePnition and high-quality camera function. Equipped with an advanced CMOS sensor and image processing technology, it delivers clear, detailed video results.
* Not only can you do real-time recording, but also support taking pictures and displaying back, storage and other functions.
* Doctors can easily capture and video playback for case discussion, training and patient communication, training and patient communication.

Built-in 3D Camera System (Optional)

* 3D camera function to teach or demonstrate in 3D mode, real-time depth perception to help teachers teach and students learn;
* 3D video to help patients understand the surgical procedure more clearly, and real 3D streaming media output when the doctor operates live on the microscope

3 Types of photography and video recording

Ergonomic Design

ANGEL 100 Dental Microscope with Ergonomic Design

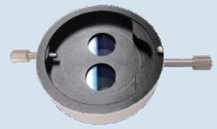
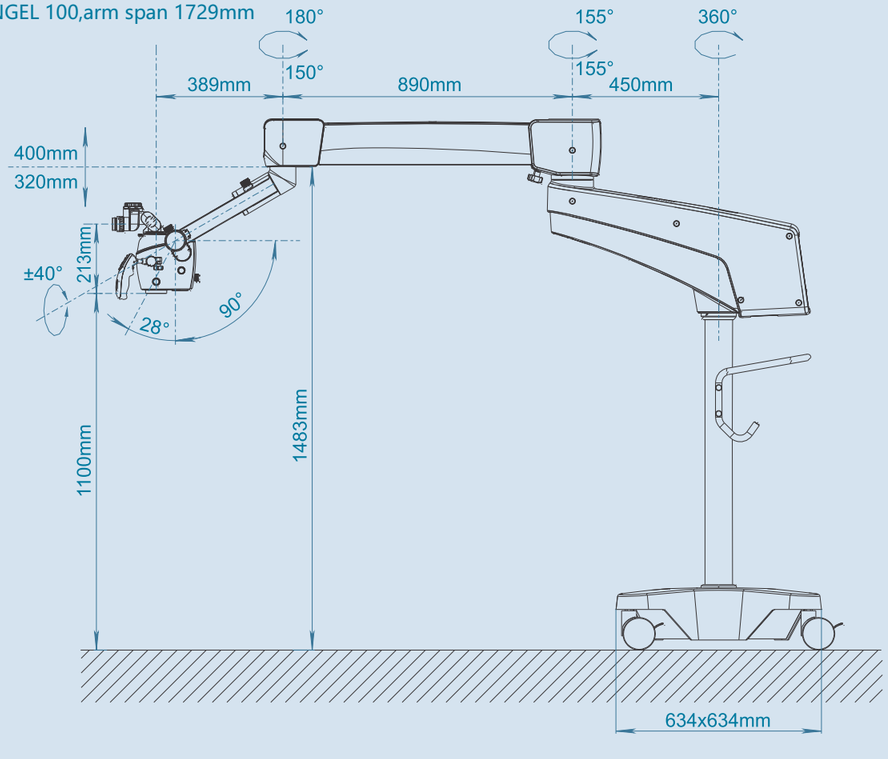
* **Optimal Working Height:** The microscope can be ßexibly adjusted in height. Doctors can choose the best height according to personal needs and surgical environment, reducing the burden on the doctor's spine and bringing a more comfortable operating experience.

* **Optimized Handle Design:** The multifunctional handle of the ANGEL 100 dental microscope allows doctors to hold and use it more naturally. Not only that, the handle can also perform various functions such as electric focusing and electric zooming, further improving the convenience and comfort of the surgery.

* **Reasonable Operation Interface Layout:** The operation interface layout and button design of the ANGEL 100 dental microscope allow doctors to conveniently view and operate all functions and parameters. When using the microscope, doctors can simply control the focus and zoom of the microscope, reducing unnecessary movement and saving time and effort.

Optional Accessories

Name	Specification	Picture
Straight binocular	Straight tube	
45°binocular head	45°Inclined	
Beam splitter	2:8 beam splitter, optional 5:5 beam splitter	
30°Binocular extender+ rotation device	30° binocular extender+rotation device	
30° binocular extender+beam splitter+rotation device	30° binocular extender+beam splitter+ rotation device	
90° binocular extender+rotation device	90° binocular extender+rotation device	
Camera adapter	Sony, Canon, Nikon camera adapter	
2D assistant scope		

Name	Specification	Picture
3D assistant scope		
Mobile phone adapter	Used to connect your phone	
Laser protecting flitter	For laser protection	
FS-3 Wireless foot pedal	For controlling the built-in camera	

ANGEL 100,arm span 1729mm