



AM-4000 PLUS SERIES OF DENTAL MICROSCOPES

+ Integrated Full HD Video Camera

+ Balance 120° Connection Arm and Balance Support Arm

+ 0-180° Inclinable Binocular Head with Knob of Pupillary Distance Adjustment



MODEL: AM-4604 PLUS

AM-4604 Plus Dental Microscope is an ideal dental microscope for endodontic dental treatment in daily clinics and dental office.



COMBINATION OF CLASSIC AESTHETICS + MODERN TECHNOLOGY

Ryf-Ryeco AM-4000 Plus Series of Dental Microscopes is based on AM-4000 series platform with the following three upgraded features.

- Integrated Full HD Video Camera
- Balance 120° Connection Arm and Balance Support Arm
- 0-180° Inclined Binocular Head with Knob of Pupillary Distance Adjustment



Wide-field Eyepiece:

Wide-field eyepiece combining integrated eye-point height adjustable eye-cup and Diopter adjustable feature is inserted into eyepiece tube. These eyepieces are suitable for different people from Europe, USA, or Asia with or without eyeglasses.

Knob of Pupillary Distance Adjustment with Indicators

Balance Support Arm

Ergonomic 0-180° Inclined Binocular

Inclinable Binocular makes your operation comfortable and extends the microscope as you wish for a certain treatment procedure.

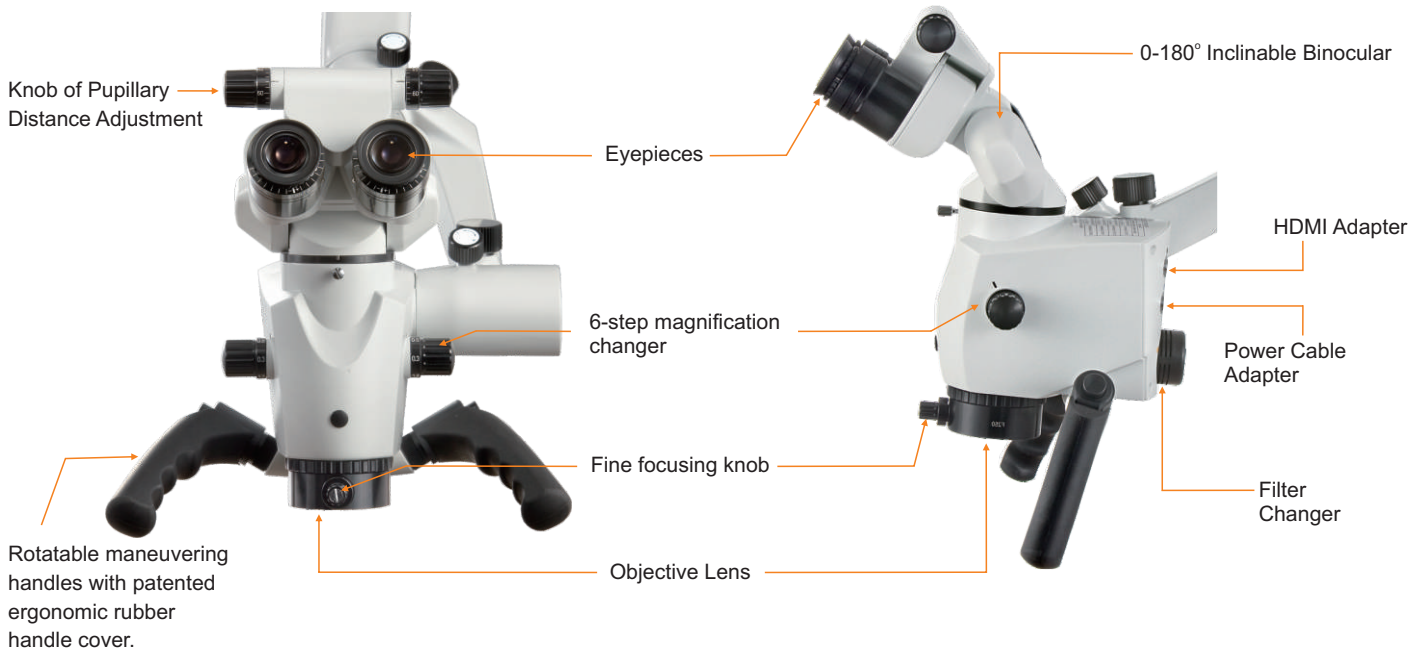
6-step Magnification Changer

Rotatable maneuvering handles with patented ergonomic rubber handle cover.

250mm Objective lens. 200mm, 300mm, 350mm, 400mm objective lenses are optional.

Fine focusing knob can be set front or right side or left side. It offers 11mm fine focusing area without moving microscope body.

A new handle connection piece is available for the handgrips to offer enough space for the dentists to use their instruments between the microscope and the patient.



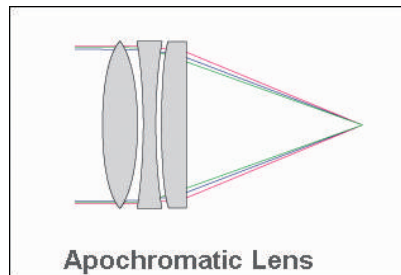
SUPERB OPTICAL FEATURES



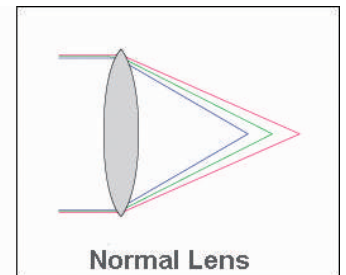
The lenses inside the microscope are made by Schott® Optical Glass imported from Germany. All lenses are multi-coated and anti-reflective, combining with infinity corrected optical system & brilliant apochromatic optics, which offers superb optical performance, including:

1. High Resolution
2. Real 3-Dimensional Precise Image Reproduction
3. Large Depth of Field
4. Wide Field of View
5. Good Contrast

Apochromatic optics design could correct the chromatic aberration of three types of colored light effectively. It ensures the reduction and saturation of image color and improves the resolution, contrast and view depth of image.



Color Aberrations from Visible Lights Are Corrected



Visible Light Refraction Forms Color Aberrations

6-STEP MAGNIFICATION

6-step magnification provides larger magnifying range and more selection on magnification to meet the requirement of your practice, from lowest magnification for an overview of whole arch to high magnification for precise and close inspection and treatment.

MAGNIFICATION OF AM-4000

Objective		F=250mm					
Illumination Area (Diameter)		63mm					
Steps of Magnification		0.33x	0.5x	0.8x	1.22x	2x	3x
10X Eyepiece	Total Magnification	2.2	3.4	5.5	8.3	13.6	20.5
	Field Dia. (mm)	78.3	52.1	32.0	21.2	13.0	8.7
12.5X Eyepiece	Total Magnification	2.8	4.2	6.9	10.4	17.0	25.6
	Field Dia. (mm)	78.3	52.1	32.0	21.2	13.0	8.7
16X Eyepiece	Total Magnification	3.6	5.4	8.8	13.3	21.8	32.8
	Field Dia. (mm)	61.9	41.2	25.3	16.8	10.3	6.9
20X Eyepiece	Total Magnification	4.5	6.7	11.0	16.6	27.2	41.0
	Field Dia. (Mm)	48.7	32.4	19.9	13.2	8.1	5.4



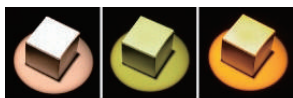
Objectives F=200mm, 300mm, 350mm, 400mm & Their Magnifications Available Upon Request

LED COAXIAL ILLUMINATION

20W LED coaxial illuminator provides pure white color light similar to the sun light to show the real color. It not only avoids the trouble of changing bulbs, but also saves your cost for the spare bulbs & electric charge.



INTEGRATED ORANGE & GREEN FILTER

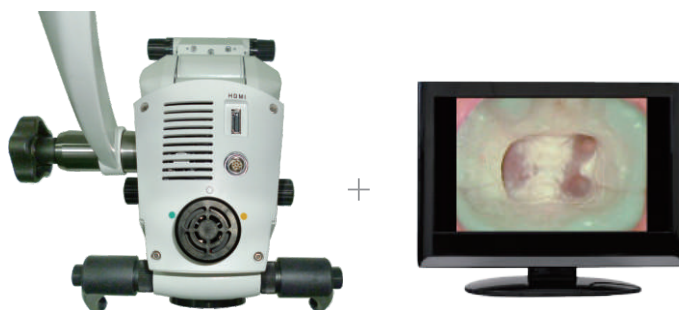


Orange Filter: UV-protection to prevent premature curing of composite
Green Filter: better recognition of blood vessels, e.g, in the root canals.

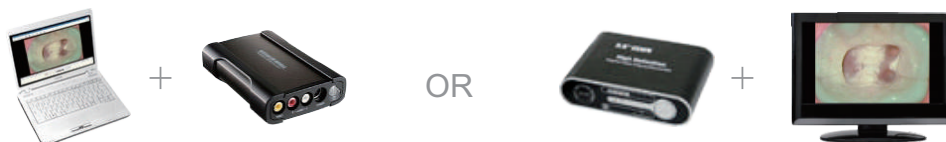
INTEGRATED FULL HD CAMERA

A new integrated Full HD video camera comes with the following features:

1. Sony 1/3 inch 3.0 mega-pixels HD CMOS sensor,
2. 1920 X 1080P & resolution up to 900 TV lines
3. HDMI output



The images from integrated video camera can be inputted into a monitor or a TV set directly or it can be inputted into a computer by image collection with USB adapter or stored into a hard disk recorder.



ERGONOMIC DESIGN & EXCELLENT MANEUVERABILITY FOR LONG TIME PRECISION OPERATION COMFORTABLY

All ergonomic design and excellent maneuverability assure you can work with our microscope for long time precision operation comfortably. It would avoid or reduce your problems on the back and neck.

- ▶ Continually Adjustable Eyecup in eyepiece is suitable for you with or without eyeglasses



- ▶ Diopter Adjustable of Eyepiece: +/- 7D



- ▶ Pupillary Distance Adjustable: 55mm to 75mm



- ▶ A new 0~180° inclinable binocular with Knob of Pupillary Distance Adjustment is the standard outfits of AM-4000 Plus. It not only allows you to keep good, healthy posture while observing the patient, but also very easy to set up your personal pupillary distance.



With hanging Counter-balanced pantographic arms design and tension control adjustable connection arms, the optical head can be maneuvered easily at any position and stopped anywhere you wanted within its working range. All maneuvers can be done by one hand with a little force.

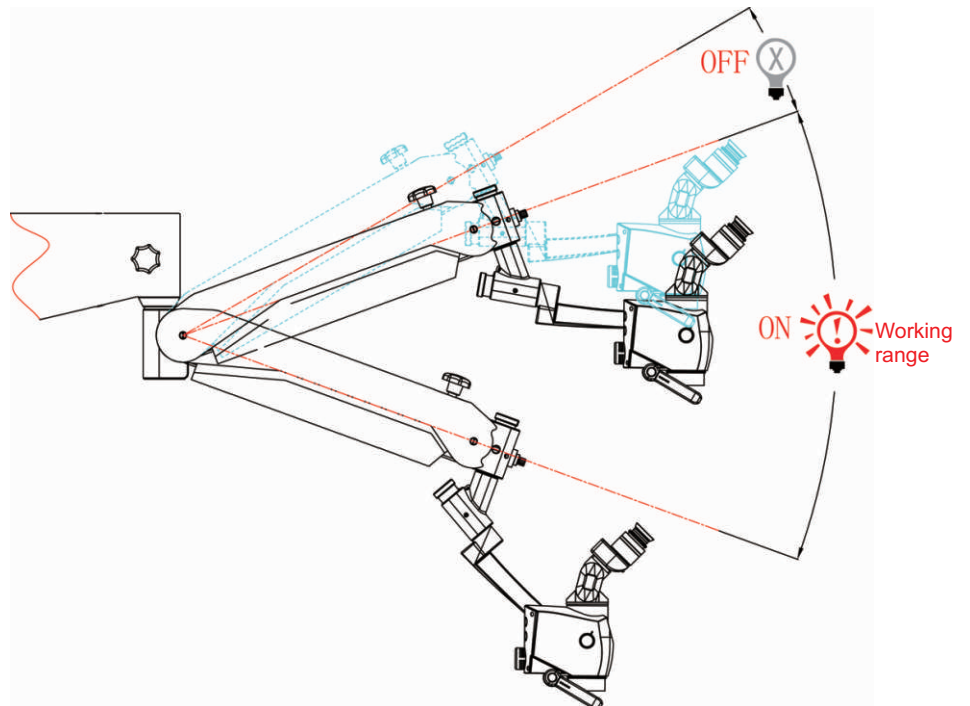


Brightness adjustment knob is just over the optical head. It is very convenient to adjust the brightness.

Built-in orange filter and green filter. You can select the filters by a knob located at the back of optical head.



A special switch is fitted into the arm. The lamp will keep "on" when the optical head is moved within the normal working range and the lamp will turn off automatically when the optical head is moved out of the normal working range.



PATENTED RUBBER HANDLE COVER

A pair of patented rubber handle covers is newly set as the standard outfits for handling comfortably and preventing slipping down.



The magnifications and field diameters chart is attached to the back of the microscope body which is convenient for the dentists to check the related magnifications and field diameters at any time during observation.



Two handles are added to the column. They are convenient to move the microscope and hang on the power cable and video cable.



Rotatable Handles

BALANCE 120° CONNECTION ARM AND BALANCE SUPPORT ARM



The balance of the microscope will be destroyed after attaching the accessories by beam splitter, especially attaching various camera adapters and/or assistant scope on one side of the microscope. The microscope with accessories tends to topple and fall. The maneuver feature of microscope becomes poor.

With new balance 120° connection arm and balance support arm, you can adjust the balances of microscope after attaching camera adapters and/or assistant scope so that maneuver feature of microscope can be recovered. This arm offers ultra-smooth and perfect balance.

MODULAR DESIGN

Modular design not only allows you to exchange binoculars (straight, 45° inclined, 0-180° inclinable) easily, but also allows you to upgrade your microscope easily with the desired accessories from our plenty of optional accessories at any time if you start off with standard model.

Ergonomic & Functional Extension Accessories

Alltion offers a lot of ergonomic, functional, extensional and optional accessories for you to upgrade your microscopes at any time.

1. 350mm Extension Arm can offer extra long reach for your microscope.



350mm extension arm + 2500mm power cable and/or 2500mm video cable

2. Your microscope can be upgraded with assistant scope



2-D Rotation Binocular Assistant Scope



Beam Splitter (2:8 or 5:5)



2-D Rotation Binocular Assistant Scope Connector



0-180° Inclunable Binocular, 45° Inclined Binocular or Straight Binocular



3-D Rotation Binocular Assistant Scope



Beam Splitter (2:8 or 5:5)



3-D Rotation Binocular Assistant Scope Connector



0-180° Inclunable Binocular, 45° Inclined Binocular or Straight Binocular

3. Dual Iris Diaphragm

It can increase the depth of field, especially at highest magnification observation.



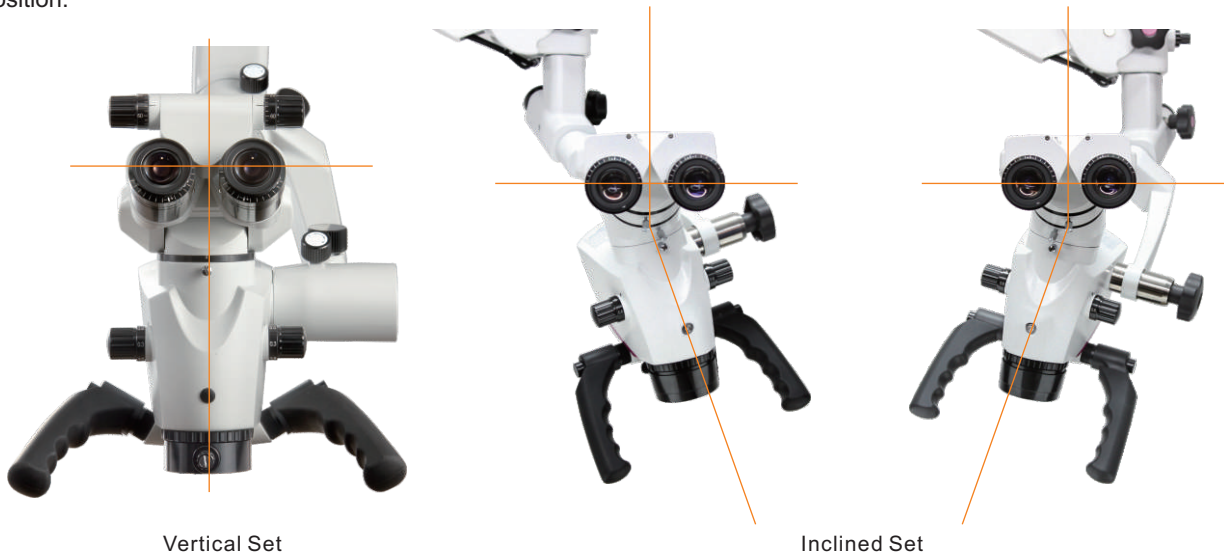
4. Laser Barrier Filter Device

It protects the dentists' eyes against hurt while Nd-YAG laser at 1064nm, Er-YAG laser at 2940nm or CO2 laser is used during treatment.



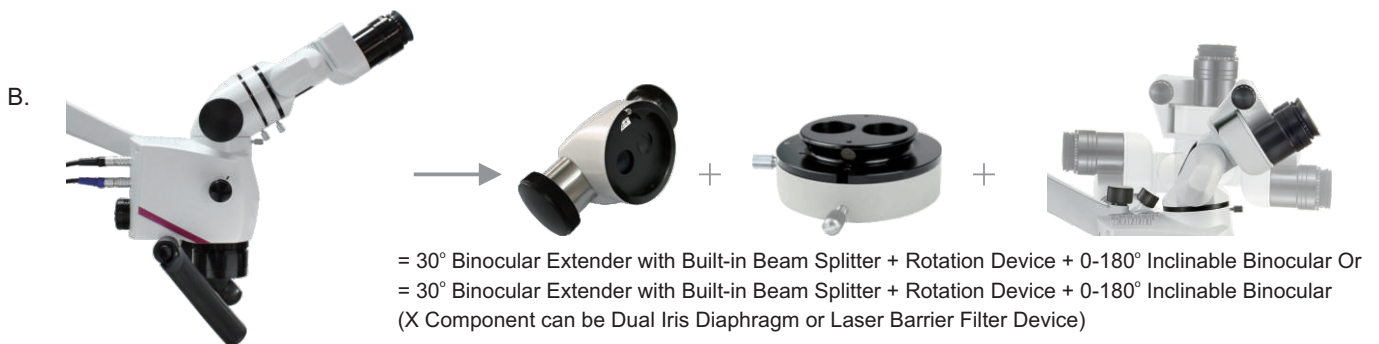
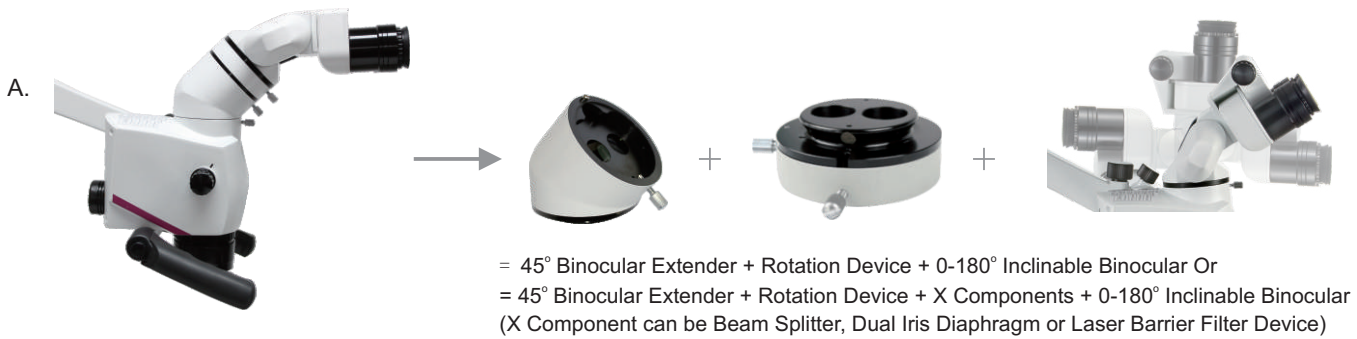
5. Pendulum Function by Angle Rotation Device is available.

The angle rotation device can perform pendulum function. It allows operator to remain his natural and straight posture while he is observing the patient with a certain angle. He can change the direction of the optical pod only, while keeping the binocular at its position.



6. 45° Binocular Extender & 30° Binocular Extender with Built-in Beam Splitter

With this function, the operator's posture is more natural and straight. You are able to maneuver the microscope to a position that allows you to keep good, healthy posture while observing the patient. This improved posture can eliminate the back and neck pain.



7. Eyepieces



10x eyepiece
12.5x eyepiece

8. Objective Lenses



Objective Lens 200mm & 250mm
with fine focusing feature



Objective Lens 300mm,
350mm, 400mm

DOCUMENTATION ACCESSORIES

All Alltion microscopes can be equipped with newly standard photos and video cameras as optional accessories. Please contact Alltion for latest technology whenever you like.



Sony Nex5 HD Camera can take 14 megapixel photos or a 1920x1080i MPEG-4 video can store all into its SD memory card.

E. We would be happy to consider customized camera adapters.

F. As our beam splitter has two ports, you can connect two different cameras to the microscope at the same time.

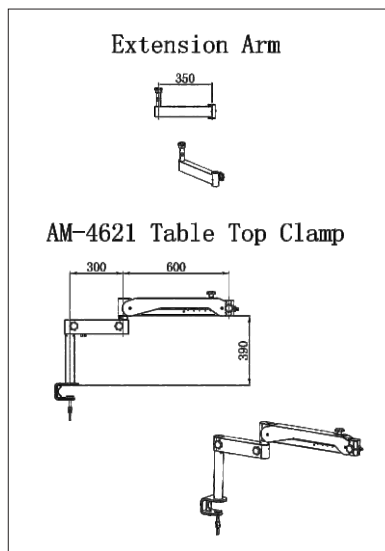
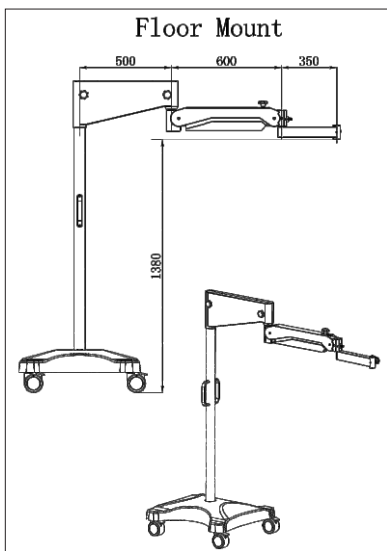
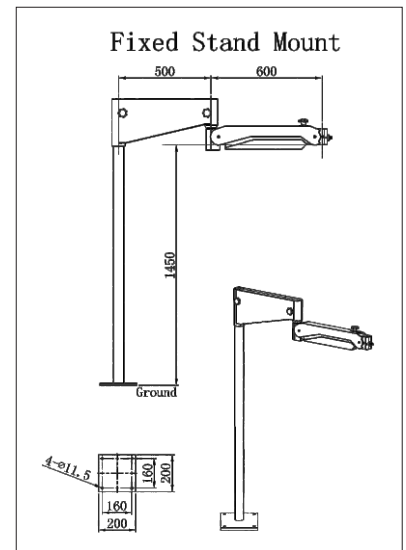
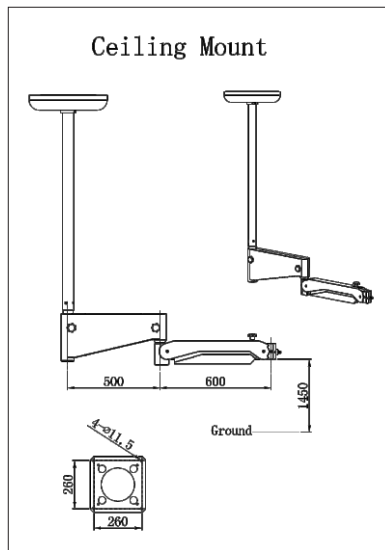
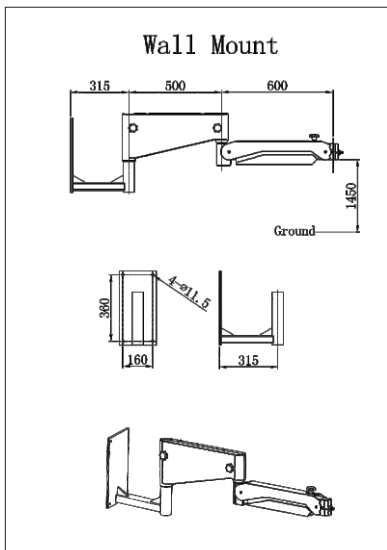


SPECIFICATIONS

- Either 45° inclined or 0-180° inclinable binocular head for Dental surgery or Straight binocular head for ENT surgery.
- 12.5x/18mm High Eye-point Wide-Field eyepieces
- Range of Pupillary distance: 55mm to 75mm
- Range of the Diopter of Eyepiece: +/- 7D
- 250mm apochromatic objective lens with fine focusing adjustment knob
- Magnification: 6-step, Total magnification indicator 0.33=2.8x, 0.5=4.2x, 0.8=6.9x, 1.22=10.40x, 2=17x, 3=25.6X
- Diameter of object field: 8.7mm to 78.3mm
- Arms: First big arm, 500mm in length can be rotated 360° . Second small arm, 600mm in length with movement +/-300mm, can be rotated +/-150° . Third angled arm can be 3-D movement.
- Height: 1750mm
- Base size: 610mm x 650mm
- One 20W LED Illuminator.
- Maximum Object Illumination: 50,000 Lux Min.
- Built-in Orange filter and Green filter changed by a knob.
- Power supply: 220V/50Hz or 110V/60Hz

SUPPORTING SYSTEM

Wall Mount System, Ceiling Mount System, Fixed Ground Mount System and a special 5-Star Small/Compact Base (Dia. 600mm) for floor stand are available besides standard mobile floor stand.



Item and specification subject to change, Please contact Alltior for current production information.



RYF AG
Showroom
Bettlachstrasse 2
CH-2540 Grenchen
Tel +41 32 654 21 00
Fax +41 32 654 21 09

ryfag@ryfag.ch

RYF SA
Showroom, Sales Office
Route de Genève 9c
1291 Commugny
Tél +41 22 776 82 28
Fax +41 22 776 82 29

RYF AG (Zürich)
Sales Office
Bahnhofstrasse 17
8400 Winterthur
Tel +41 52 560 22 25
Fax +41 52 560 21 0