

Operation microscope

# OMS-800 series

OFFISS / Pro / Standard



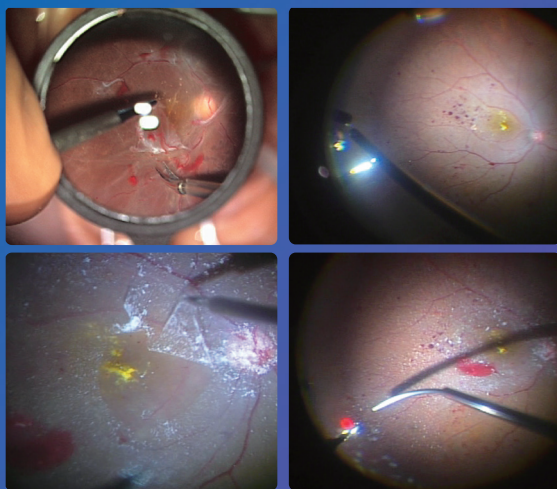
**TOPCON** Healthcare

SEEING EYE HEALTH DIFFERENTLY

# OMS-800 series

Operation Microscope

## Perfection for Professionals



### Bright Wide Field

Topcon's pursuit for perfection is reflected in its continuing development of the OMS-800 range of operating microscopes, adapting them to meet the needs of modern ophthalmic procedures while maintaining the high quality and durability that made Topcon the World Leader in Ophthalmic Equipment.

### OFFISS Lenses (OFFISS : Optical Fiber Free Intravitreal Surgery System)

TOPCON has developed a state-of-art observation system for vitrectomy procedures that do not require the use of fiberoptic illumination. The TOPCON OFFISS lenses avoid complicated focusing by allowing the microscope head and indirect lens to move independently of each other, facilitating a clearly focused image at all times. The image inverter activates automatically whenever the OFFISS is in use. The indirect lens can quickly and simply be exchanged for another, saving time and increasing efficiency.



**Small 40D Lens<sup>1</sup>**  
(Outer Diameter  $\phi$ 23)



**40D Lens**  
(Outer Diameter  $\phi$ 28)



**80D Lens**  
(Outer Diameter  $\phi$ 19.4)



**120D Lens**  
(Outer Diameter  $\phi$ 24)



**Small 120D Lens<sup>2</sup>**  
(Outer Diameter  $\phi$ 18)



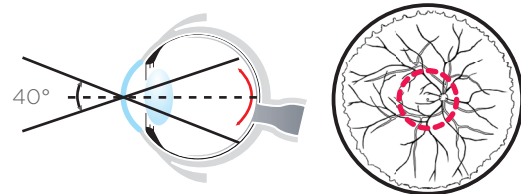
**Anterior Lens<sup>3</sup>**  
(Outer Diameter  $\phi$ 34)

1. Small diameter 40D lens  
2. Small diameter 120D lens  
3. Anterior eye section observation lens

# TOPCON OFFISS LENSES

## Small 40D Lens

The small 40D lens can assist with membrane peeling in the macular region and is beneficial for highly myopic eyes by avoiding contact between the surgical tools and lens. It provides a crisp, wide angle view with remarkable stereopsis, giving a clear view of the posterior pole, an area that is inaccessible with contact lens observation.

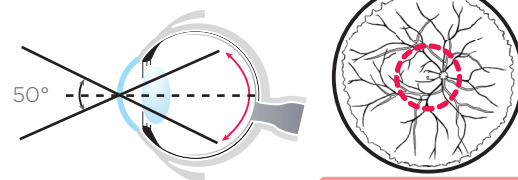


The Small 40D allows better vertical access for surgical tools than the conventional 40D lens.

## 40D Lens

A bright, stereoscopic view is a particular feature of the 40D lens, making it ideal for posterior segment procedures. Combined with the microscope illumination, the characteristics of the lens make the use of additional fiber optic illumination unnecessary, enabling bimanual procedures and hence saving time.

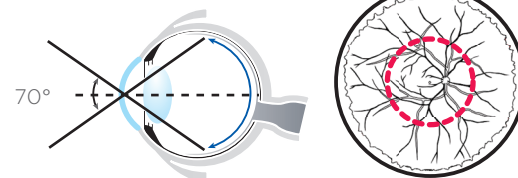
Minimizes contact between surgical tools and lens. Improved comfort.



Vascular Arcade

## 80D Lens

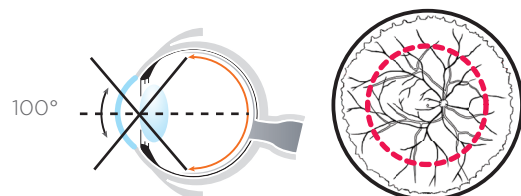
The 80D lens allows observation from the posterior segment out to the intermediate peripheral zone of the retina. It can be used in combination with fiber optic illumination.



Intermediate peripheral zone

## Small 120D Lens

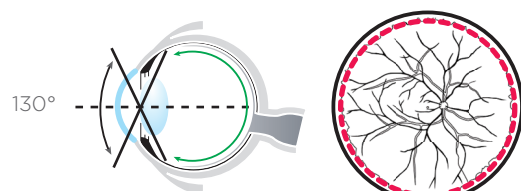
This compact lens takes up minimal space in the operating field and does not interfere with the use of surgical instruments. The wide angle view of 100 degrees can expand up to approximately 130 degrees with the use of air substitution.



Equator

## 120D Lens

Useful for vitreous surgery and photocoagulation of the central and peripheral areas up to the Ora Serrata, the 120D lens provides a field of view of 130 degrees with good stereopsis. This lens can be used under air substitution in combination with a wide angle fiber optic endo illuminator.

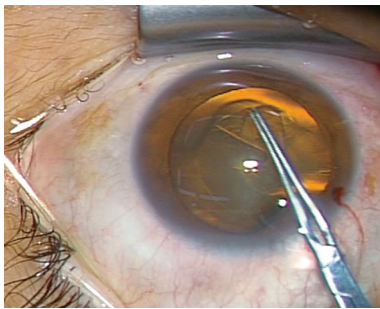


Ora Serrata

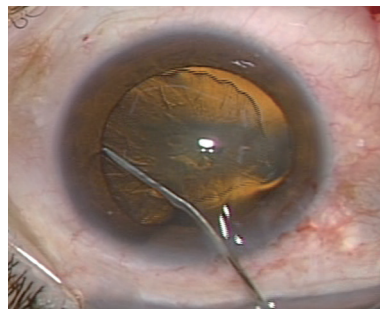
# FOR CATARACT AND VITREOUS SURGERY

## Superb image quality for cataract and vitreous surgery

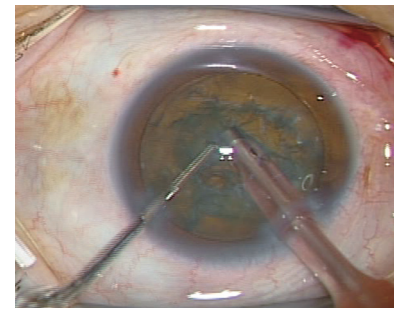
With the advancement of cataract surgery and phacoemulsification techniques, an increasing number of surgeons are performing simultaneous cataract and vitreous surgeries. By using a three mode illumination system, the OMS-800 provides an improved red reflex with better shadow and contrast, even under conditions of low illumination.



CCC



Hydrodissection



PEA

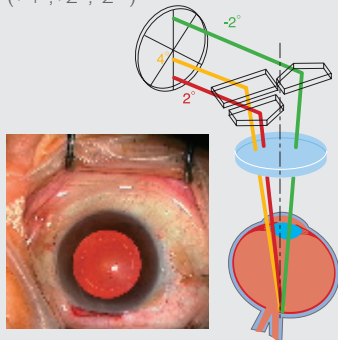
## Easy switch among illumination modes

Three different illumination modes are available to meet all surgical lighting needs.

Different modes are easily selected using the footswitch.

### Fully illuminated

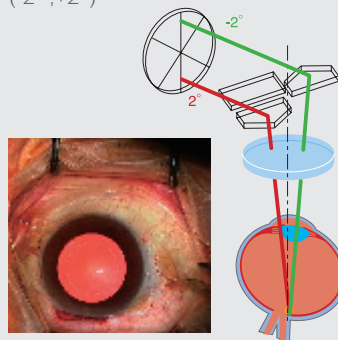
( $+4^\circ, +2^\circ, -2^\circ$ )



In this mode, the illumination, brightness, stereoscopic view and shadow contrast are perfectly balanced for superior observation clarity. The illumination is always optimum regardless of the position of the patient's eye.

### Plus & Minus

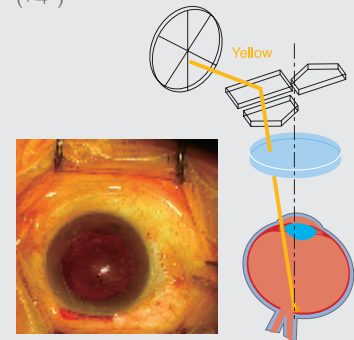
( $-2^\circ, +2^\circ$ )



This illumination mode generates a particularly good red-reflex and is very useful during anterior capsulotomies.

### Yellow Filter

( $+4^\circ$ )



The combination of illumination and yellow filter is particularly advantageous during long procedures to prevent phototoxicity.

# SUPERIOR FUNCTIONALITY

## Low intensity illumination enables clear observation while preventing light damage

Superbly designed optics provide optimum illumination, eliminating harmful wavelengths and unnecessary brightness. Low light intensity also helps to prevent light-related damage to the retinal tissues. The integral IR filter further reduces the risk of phototoxicity.

## Coarse focusing\*

The Coarse focusing mechanism allows the optical head to be quickly elevated during surgery and then brought back to the desired working position. This feature is particularly useful during IOL insertion and other procedures that momentarily require more space between the patient and the microscope.

\* Refer to the component list for further detail.

## Apochromatic optics

The optics of the system are designed to greatly limit the effect of chromatic aberration.

## Anti stain coating

The OMS-800 employs an anti-stain coating - the optical components remain clear and maintain their quality for a longer period.

## Multifunction footswitch enhanced operating efficiency

The multi-function footswitch permits surgeons to control virtually all of the OMS-800 functions without removing their hands from the operative field. Without any hand movement, the surgeon can adjust the illumination, zoom magnification, focus, illumination angle and X-Y positioning.

The control layout on the footswitch is conveniently arranged in the most accepted configuration.

## Comfortable operating posture

The ergonomically designed optical head with a built-in beam splitter and adjustable eye pieces allows the surgeon to maintain a comfortable posture throughout the surgery. A key component to this comfort is the variable angle binocular tubes that allow for the setting of a personal viewing position from 45 to 90 degrees. This flexibility ensures a comfortable operating stance even when using OFFISS.

## Increased working distance

The OFFISS system provides an extremely comfortable working distance between the OFFISS lenses and the patient's eye.

## Easy bulb exchange

The illumination bulb can be simply replaced, by accessing the lamp housing using a rotating lever. A warning lamp indicates when the spare lamp is burned out to ensure there is always an operational bulb available.

## Electromagnetic locking system

The optical head can be quickly and accurately positioned for surgery and held in place by the fast acting electromagnetic locking system. (OFFISS/Pro)

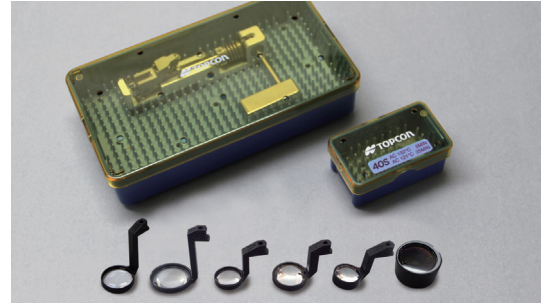


Footswitch layout with well accepted control configuration.

# OPTIONAL ACCESSORIES

## OFFISS lens set

Standard components include; front lens holder, anterior segment observation lenses, 40D, small 40D, 80D, 120D, and small 120D. The boxes and lenses are easily maintained using an autoclave.



## Assistant microscopes

The assistant microscope provides an additional viewer with bright, crisp images on the same visual axis as those seen by the main surgeon.

### Coaxial binocular tube

It allows observation with the same field of view and magnification as the main surgeon. The angle of the binocular eyepieces is adjustable from 30 to 110 degrees, offering the assisting surgeon a comfortable viewing angle.



Coaxial binocular tube

### 0 degree assistant microscope

The angle of the binocular eyepieces is adjustable from 45 to 90 degrees, offering the assisting surgeon a comfortable viewing angle. In addition, a separate focus adjustment is available for the assistant surgeon.



0 degree assistant microscope

## TV relay lens

The compact TV relay lens permits the attachment of a CCD camera useful for documentation and teaching. The relay lens accepts the most popular 1/2" and 1/3" CCD cameras with C mount or bayonet mount and is easily connected to the OMS-800.



# OMS-800 MODELS

## OMS-800 OFFISS

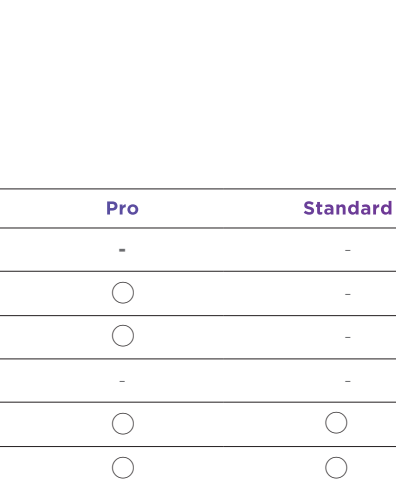
OFFISS offers a new scope of possibilities for vitreoretinal surgery. Equipped with the OFFISS lenses mechanism, electromagnetic brakes and sophisticated electronics, this model is the highest specification for intravitreal surgery, as well as other ophthalmic procedures.

## OMS-800 Pro

Electromagnetic brakes and sophisticated electronics confer the OMS-800 Pro the flexibility to facilitate virtually any type of ophthalmic surgical procedure.

## OMS-800 Standard

Equipped with most of the state-of-the-art features of the OMS-800 range, the OMS-800 Standard answers the need for a simpler, easy to use operation microscope. Manual brakes and ease of mobility make the OMS-800 an affordable yet advanced unit for all ophthalmic procedures.



## Component

	OFFISS	Pro	Standard
OFFISS	<input type="radio"/>	-	-
Electromagnetic locking	<input type="radio"/>	<input type="radio"/>	-
Coarse focusing	<input type="radio"/>	<input type="radio"/>	-
Inverter	<input type="radio"/>	-	-
Apochromatic optics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beam splitter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# Specifications

<b>Microscope type</b>	Galileo type
<b>Magnification change type</b>	Electric zoom continuous change
<b>Eyepiece(Eyepiece magnification)</b>	12.5X
<b>Objective Lens</b>	f=200mm
<b>Display magnification(X)</b>	4.2/5/6/7/8/9/10/11/13/15/17/19/21
<b>Total magnification</b>	4.2X - 21x
<b>1st arm length(Distance between shafts)</b>	375mm
<b>1st arm rotation range</b>	300°
<b>2nd arm length(Distance between shafts)</b>	OFFISS, Pro : 990mm Standard : 875mm
<b>2nd arm rotation range</b>	300°
<b>2nd arm vertical movement range</b>	600mm
<b>2nd arm mounting weight</b>	OFFISS, Pro : 6kg - 18kg Standard : 9kg - 21kg
<b>Power supply</b>	AC 100-240V, 50-60Hz 280VA
<b>Dimensions</b>	
Base (Base unit)	720mm(W) x 720mm(D)
Base (Base total height)	1,865mm
<b>Weight</b>	OFFISS : 250kg Pro : 247kg Standard : 244kg
<b>Permitted weight for accessories</b>	OFFISS : 4.8kg Pro : 6.8kg Standard : 7.3kg

Photos Courtesy of: Professor Masayuki Horiguchi, MD Ophthalmology Department Fujita Health University  
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**IMPORTANT** In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.

Not available for sale in all countries. Please check with your local distributor for availability in your country.

**CAUTION** : Federal law restricts this device to sale by or on the order of a physician.

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