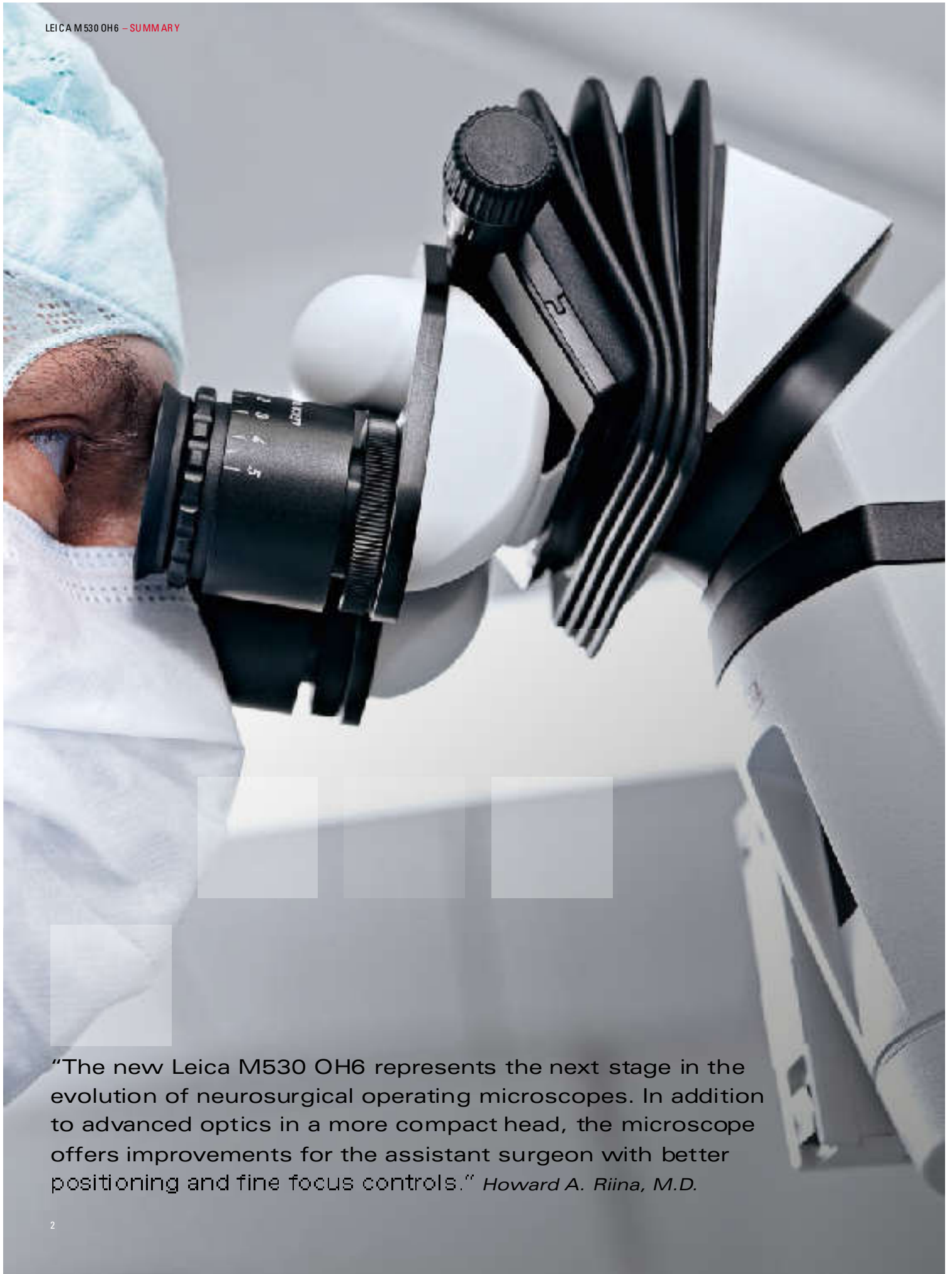




Premium Surgical Microscope

**STAY FOCUSED  
FOR BEST RESULTS**

Leica M530 OH6  
with FusionOptics



“The new Leica M530 OH6 represents the next stage in the evolution of neurosurgical operating microscopes. In addition to advanced optics in a more compact head, the microscope offers improvements for the assistant surgeon with better positioning and fine focus controls.” *Howard A. Riina, M.D.*

# STAY FOCUSED WITH THE LEICA M530 OH6

**As a surgeon you have to remain focused on achieving the best clinical outcome for your patient.** And on what matters in every single moment of the surgery. The Leica M530 OH6 has been designed to let you do just that by uniting the exclusive innovation FusionOptics with a truly ergonomic design.

FusionOptics technology combines **resolution and depth of field.** The result is amazing clarity of images. Along with one other advantage: less need to refocus. Plus, the truly ergonomic design allows you to position the microscope effortlessly and achieve a comfortable upright posture. Less muscle tension or even pain means steady **concentration on your patient.**



## OPTICS

### Stay focused with astounding optics

- > FusionOptics for high resolution with **enhanced depth of field**
- > Better visibility in deep cavities

See pages 4 to 5.



## ERGONOMICS

### Stay focused with optimized ergonomics

- > More space to work
- > Full integration
- > Flexible positioning for everyone
- > Superior maneuverability

See pages 6 to 7.

## CUSTOMIZABLE

### Stay focused with customized solutions

- > Individually configurable
- > Modular for changing needs
- > Imaging upgrades made easy

See pages 8 to 11.



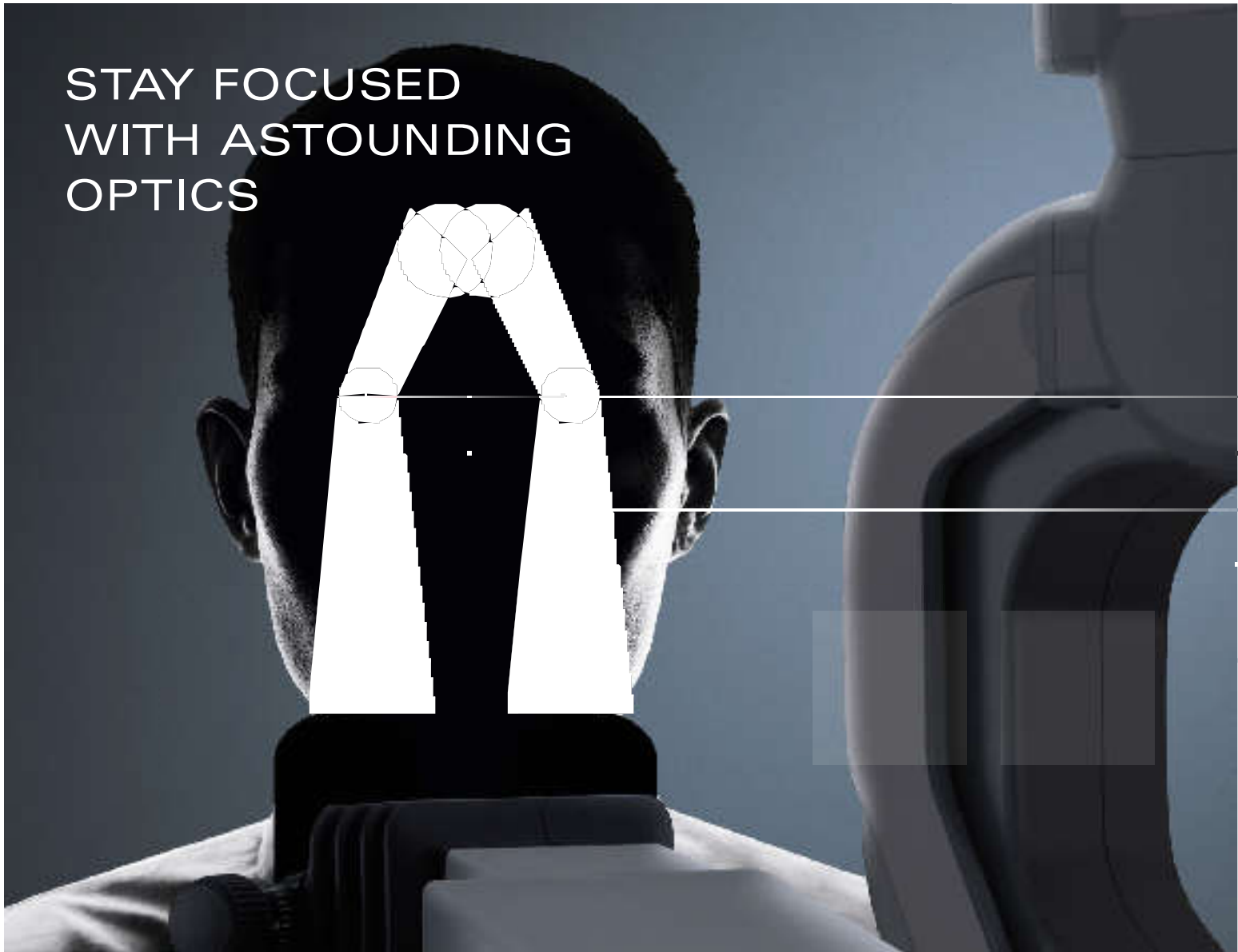
## TRIFLUORO

### Stay focused with integrated fluorescence

- > Leica FL400 for oncological fluorescence
- > Leica FL560 for investigational fluorescence
- > Leica FL800 for vascular fluorescence

See pages 10 to 11.

# STAY FOCUSED WITH ASTOUNDING OPTICS



The Leica M530 OH6 takes image quality to a whole new level by combining FusionOptics with advanced illumination and apochromatic optics.

## Visualize the finest details with FusionOptics

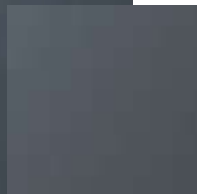
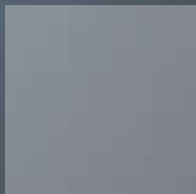
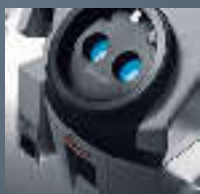
FusionOptics makes the impossible possible: large depth of field and high resolution in one image. This exclusive, groundbreaking technology from Leica Microsystems takes a new approach, utilizing the power of the human brain. First, it captures different information from each of the two beam paths. The left beam path delivers an image with the highest possible resolution and the right beam path provides an image with maximum depth of field. The brain then easily merges both images into a single, optimal spatial image. The astounding result: a significantly expanded area in full focus.

## Less refocusing

FusionOptics technology offers a further unique advantage with the potential to streamline your workflow. A larger area in full focus means less time spent refocusing. FusionOptics helps you to stay focused, in every sense of the word.

### Fusion Optics Technology

1. Two separate beam paths
2. One beam path provides depth of field
3. The other provides high resolution
4. The brain merges the two images into a single, optimal image



Magnification Multiplier



Rear FineFocus



Fast focusing

### Customizable optics

Choose from the range of customizable optics and adapt the Leica M530 OH6 to your preferences:

- > Additional 40% magnification boost with the Magnification Multiplier (optional)
- > Independent line focus for the rear assistant with a range of +/- 5 diopters
- > Fast focusing with two laser beams acting as a focusing reference to quickly provide a defined focus point for all three viewing points (surgeon, assistant, camera)
- > A range of binoculars, all adjustable to different heights and positioning due to full 360°-rotation





Comfortable working posture and large free working space during a spine surgery

## STAY FOCUSED WITH OPTIMIZED ERGONOMICS

Working in the most comfortable position possible is crucial during long surgeries.

That's why the Leica M530 OH6 is designed to fully adapt to you and your individual needs. Its comprehensive ergonomic concept was developed in close cooperation with leading surgeons, transferring their demands into intelligent ergonomic features. With less physical distraction, you can stay even more focused on the critical task at hand.

### Easy handling for efficient workflow

- > Unobstructed access to surgical area with market-leading 600 mm working distance. Enables use in spine procedures where previously only loupes could be used
- > Easy to maneuver and pass large instruments below the instrument
- > Compact optics carrier design means less distance from eyepiece to objective lens so arms can remain in a natural position and are not over-extended
- > Accommodates different operating positions and body frames with a range of binoculars, all with full 360°-rotation
- > Enhanced comfort and flexibility for the rear assistant with improved ergonomic design



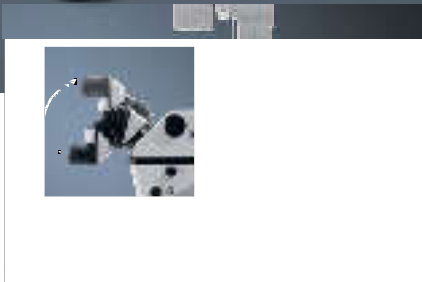
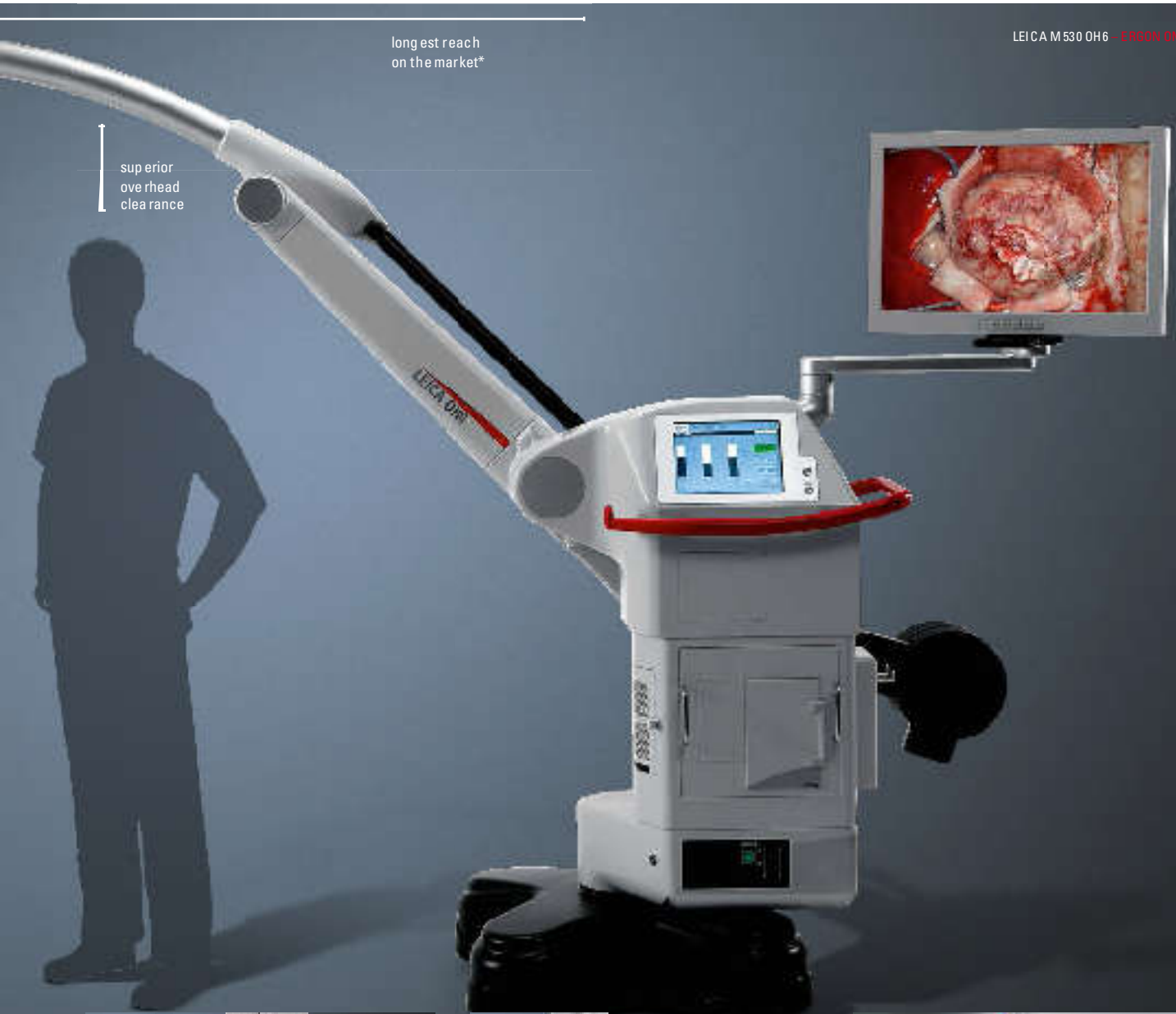
more space  
to work

### Space to work

The compact base for space-restricted areas, superior overhead clearance and the long reach on the market, the Leica M530 OH6 offers you positioning flexibility and a large space to work. Whatever the surgery, you can position the microscope easily to best suit the needs and those of your team.

longest reach  
on the market\*

superior  
overhead  
clearance



due to full 360°-rotation.

unmatched flexibility. Fast stabilization keeps  
workflow interruptions to a minimum

even through a sterile drape, simply push the  
AC/BC button, conveniently located above the  
optical head.

\*36% longer than similar products (March 2015)

# STAY FOCUSED WITH CUSTOMIZED SOLUTIONS

Equipped for the present, ready for the future. with maximum modularity for individual configurations.

Configure your Leica M530 OH6 to meet your needs perfectly. Its sleek, cable-free, fully integrated optics carrier was developed with a highly modular structure to specifically guarantee maximum configuration flexibility. Plus, keeping your imaging technology up-to-date just became so much easier. The OpenArchitecture and unique upgrade-ready design give you the possibility to upgrade whenever you choose.

## Tailored for your surgical needs

Thanks to the different optic carriers available for the Leica M530, you can customize your surgical microscope to best fit your requirements whether neurosurgery, spine procedures, ENT, or plastic and reconstructive surgery.



## Ultraobserver

The Leica ULT530 is the standard configuration for neurosurgery, spine and plastic reconstructive surgery. Left, right and rear assistant interfaces and optional integrated Leica HD C100 camera, Leica FL800, Leica FL400 and Leica FL560 fluorescence modules offer maximum flexibility.



## Integrated video adapter

The compact design of the Leica IVA530 offers an ideal solution for otolaryngology and neurology. With no opposite assistant, more light is directed to the main surgeon and side assistant for even greater visual enhancement. The integrated video adapter has a built-in depth enhancer, for outstanding screen display and recording.



## Image injection

The top plate configuration is designed for attachment of the Leica D1 C500 dual imaging color module. The Leica D1 C500 allows the surgeon to inject data directly into the eyepiece, from external and internal sources, such as MRI, CT, IGS, endoscopes and Leica FL800 video sequences.





### Three-dimensional view for all

Integrated TrueVision 3D visualization and recording is also available. 3D imagery can greatly enhance microsurgery education, providing staff and students with the same 3D view as the surgeon during live surgery or a seminar. With TrueVision Smart 3D built in, set-up time is minimized and OR space freed up. 3D functions are controlled directly via the handles, avoiding workflow interruptions.



### Fully integrated and under control

All cameras, fluorescence modules and cables are fully integrated inside the optics carrier to provide a sleek, clean appearance, maintain cable integrity and deliver greater freedom of movement. Control the HD 2D and 3D image recording functions or switch between white light and fluorescence via the handgrip or optional mouth and foot switches.



### Ready for today and tomorrow

The modular, OpenArchitecture design of the optics carrier allows easy integration of systems such as the user-friendly Med X Change HDMD full HD digital recording system or Image Guided Surgery (IGS). Upgrade easily when your requirements change or when new imaging techniques or surgical guidance applications become available.



## BEYOND THE VISIBLE

Well-prepared for current and future types of **surgical fluorescence** - the Leica M530 OH6 with TriFluoro\*.

The Leica M530 OH6 can be supplied with three types of fluorescence fully integrated: Leica FL400 for oncological fluorescence, Leica FL800 for vascular fluorescence and Leica FL560 for investigational fluorescence. With only a few button clicks, you can easily switch from white light to fluorescence mode or between fluorescence filters. The brilliant HD fluorescence video can be easily viewed on screen and recorded. For best viewing results, the built-in Mode Control video technology automatically optimizes the settings of specific, optional cameras according to the selected mode.



Glioblastoma tumor viewed with Leica FL400 and 5-ALA

#### FL400 oncological fluorescence

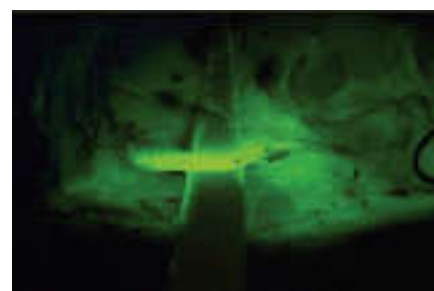
The fluorescence module Leica FL400 for M530 is used in conjunction with 5-ALA fluorescent agent for characterization of tumor tissue in open neurosurgery.



Neurovascular structure viewed with Leica FL800 and ICG

#### FL800 vascular fluorescence

The Leica FL800 ULT intraoperative videoangiography module is used in conjunction with ICG fluorescent agent and allows surgeons to see blood flow through vessels in real-time during surgery.



Lymphatic drainage pathway viewed with Leica FL560

#### FL560 fluorescence

The Leica FL560 for M530 module is designed to enable fluorescence observation of fluorophores with an excitation peak between ~460 nm and ~500 nm (blue) and fluorescence emission observation comprising the green, yellow, and red spectrum in a spectral band above ~510 nm.



## STAY FOCUSED ON PATIENT SAFETY

The Leica M530 OH6 offers innovative illumination solutions, fail safes and design features to help you optimize patient safety and minimize interruptions.

### **Luxmeter for consistent lighting**

BrightCare Plus compensates for decreased light intensity as bulbs age to ensure consistent lighting. With the internal luxometer providing real-time light intensity data to the BrightCare Plus system, light intensity is calculated on actual bulb output, not by using an algorithm or formula.

### **Protection for team and patients**

The Leica M530 OH6 features a special AgProtect coating for superior hygienic conditions. This surface coating with antimicrobial nano silver minimizes pathogens on the microscope as well as possible transmission to team members.

### **Made to withstand**

The microscope's solid, full metal construction is highly robust. Designed and built for intensive use in the operating room, all the while maintaining its high level of precision and value.

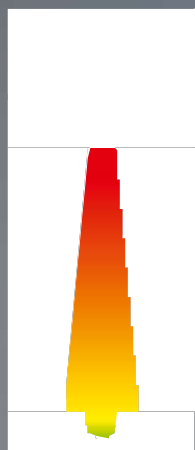


## OPTIMAL LIGHT INTENSITY

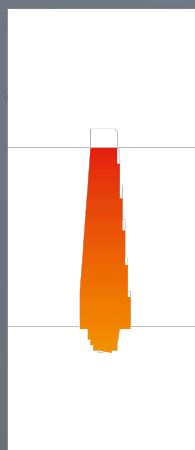
BrightCare Plus optimizes the light intensity relative to the working distance.

Max. illumination

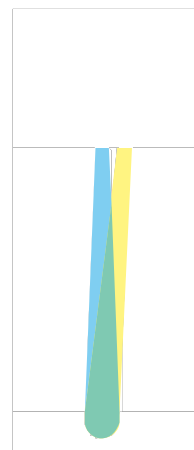
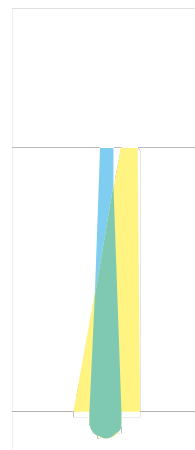
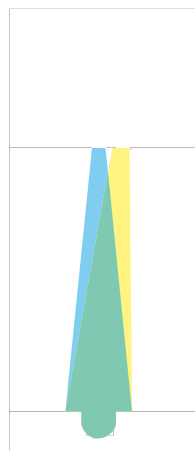
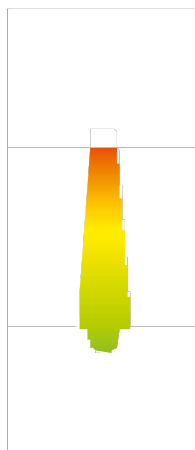
Max. illumination  
(BrightCare Plus inactive)



Long working distance.



Decreased working distance at same illumination setting (left) creates burn potential in conventional microscopes.



Safe, maximum brightness



Bright 400-Watt Xenon light



Separate operating systems for video and microscope

### Maximum brightness at all times

The efficient light transmission of the Leica M530 OH6 ensures that the maximum possible amount of light is always being provided. Therefore, you can operate at safer light levels and still see more than ever before.

### Reliable illumination system

The Leica M530 OH6 features two redundant 400 W xenon arc-lamp illumination systems, with independent lamps and boards. In case of lamp or board failure, the microscope automatically switches to the second illumination system.

### Stay operational

To ensure full operability the microscope and the video have fully independent operating systems. In case of a video system failure, the microscope retains full functionality and surgery can continue uninterrupted.



# TECHNICAL SPECIFICATIONS

## OPTICS AND ILLUMINATION

Exit pupil	For increased depth of field and high resolution for main surgeon
Eye accommodation	For high contrast, natural eyes without electronic accommodation
Magnification	60x zoom, motorized
Total magnification	1.0x to 12.1x with 10x eyepiece
Magnification multiplier	1.4x (optional)
Focus	Motorized via multifocal lens, with manual adjustment
Free focus	15 diopter available for assistant (LTI)
Objective / working distance	225–600 mm, motorized multifocal lens, continuously adjustable and manual adjustment option
Field of view	174 to 210 mm with 10x eyepiece
Eyepieces	Wide-field eyepieces for contact wearing glasses 8.2x, 10x and 12.5x diopter adjustment, 15 diopter settings and adjustable eyecup
Integrated 360° rotatable adapter	For main surgeon (D-Menu) (LTI) and assistant (LTI)
Illumination	<ul style="list-style-type: none"> <li>- High-output 2x 400-W redundant xenon arc lamp systems via fiber optics cable</li> <li>- Continuously variable illumination field diameter with Gaussian distribution</li> <li>- Continuously adjustable lightness at constant color temperature</li> </ul>
SpeedSpot	Laser focusing aid for fast and exact positioning of the microscope

## MANEUVERABILITY

Rotics	<ul style="list-style-type: none"> <li>- 360° rotation</li> <li>- 30° lateral tilt to left and right</li> <li>- -30°/+120° inclination tilt</li> </ul>
XY speed	Zoom-linked XY speed
Banking	One button/two click coordinate automatic banking of stand and rotics
Intuitive banking	Automatic intuitive AZ/BD banking of AZ and BD axes
Base	Four stand with 6-electromagnetic brakes
VideoBase carrier	Advanced Movement system with vibration damping technology
Carrier for main	750 mm flexible arm with 4 axis for rotation and inclination

## MODULARITY

Leica LTI330	<ul style="list-style-type: none"> <li>- Full stereo view for main surgeon and assistant/assistant, semi stereo view for 2 side assistants</li> <li>- High sensitivity built-in IR video camera with 1/2" CCD</li> <li>- Optional integrated HD Camera (Leica HD D100)</li> <li>- Light distribution: 30% for main surgeon, 16% for each side assistant or 40% for assistant</li> </ul>
Leica F.200 LTI	LTI with the Leica F.200 vascular fluorescence observation filter module
Leica F.400	Leica F.400 oncological fluorescence observation filter module
Leica F.500	Leica F.500 investigation fluorescence observation filter module
MA330	<ul style="list-style-type: none"> <li>- Full stereo view for main surgeon, semi stereo view for 2 side assistants and D-Menu interface for camera (HD or SD)</li> <li>- Light distribution: 60% for surgeon, 20% for side assistant, 20% for D-Menu cost</li> </ul>
Compatible with Leica DIC500	<ul style="list-style-type: none"> <li>- Full stereo view for main surgeon and assistant/assistant, semi stereo view for up to 2 side assistants</li> <li>- Data injection</li> <li>- Optional D-Menu interface for camera (HD or SD), F.200 function, F.400 function</li> </ul>
3rd party interface	<ul style="list-style-type: none"> <li>- Easy integration of IIS and laser systems (e.g. laser systems, Leica ViOS systems, etc. as optional)</li> <li>- Prepared for integration of video camera system and digital recording system</li> </ul>
Connectors	<ul style="list-style-type: none"> <li>- Numerous built-in connectors for video, IIS and control data transfer</li> <li>- Internal power supply 12 VDC, 15 WDC and AC terminals</li> </ul>
2D/3D HD Video	Fully integrated 2D HD and/or 3D HD video and recording

## CONTROL

Control unit	<ul style="list-style-type: none"> <li>- Programmable touch-screen with user-friendly graphical User Interface for control of microscope and stand</li> <li>- I.S.I.S Intelligent Setup System</li> <li>- Built-in electronic auto-diagnostics and user support</li> <li>- Software independent hand keys for illumination and auto-collaring</li> <li>- Indicators for maintenance information and fluorescence modes</li> </ul>
Control elements	<ul style="list-style-type: none"> <li>- Flat handle with 10 programmable functions</li> <li>- Softstart pushswitch</li> <li>- Softstart 12-function wireless footswitch</li> </ul>
Researcher	Leica PL400 digital fluorescence observation filter module

## SAFETY

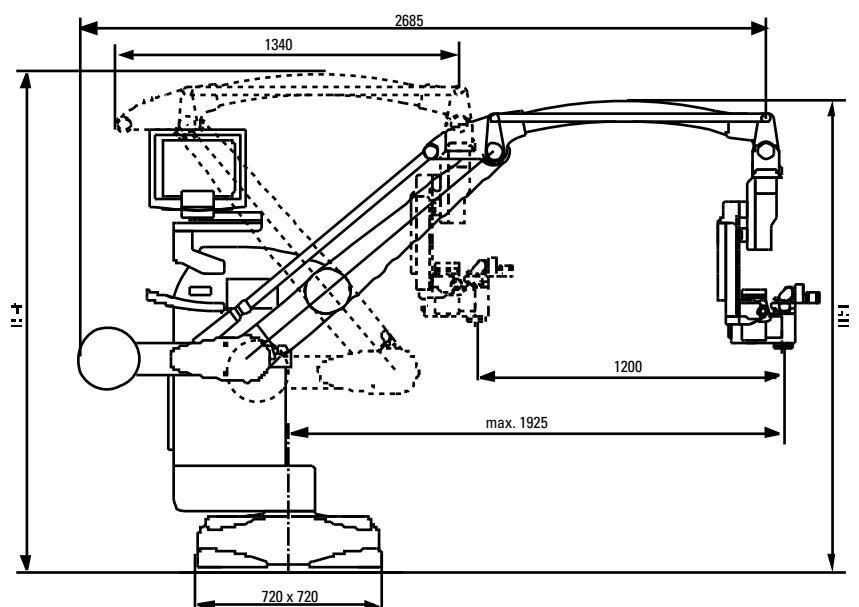
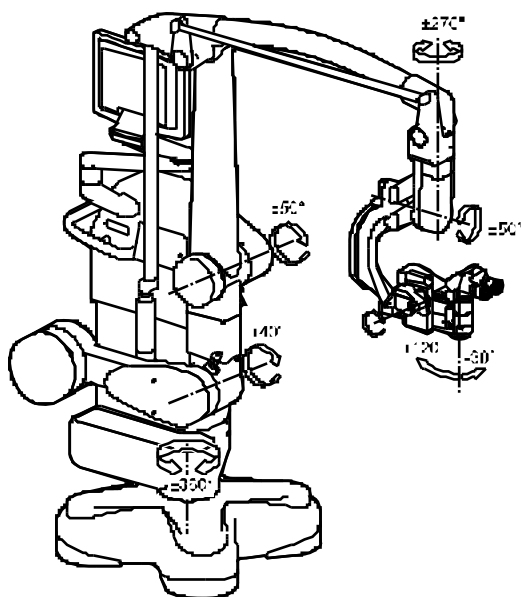
Autofocus	Built-in automatic zoom-synchronized illumination field diameter with manual override and reset feature
BrightCare Plus	Safety function through working distance-dependent limitation of the brightness, controlled by a built-in laser meter

## CONSTRUCTION

Base	720 x 720 mm with four 360° rotating casters with a diameter of 130 mm each and parking brake
Materials	All-steel metal construction coated with anti-fingerprint paint
Load	With 6.7 kg max. 12.2 kg from microscope dovetailing interface
Weight	Approx. 320 kg without load
Indicator	LEDs for fluorescence mode status and video record status

## TECHNICAL DATA

Ambient conditions in use	<ul style="list-style-type: none"> <li>- +10 °C to +40 °C</li> <li>- +45 °F to +104 °F</li> <li>- 30% to 85% rel. humidity</li> <li>- 200 mbar to 1000 mbar atmospheric pressure</li> </ul>
Power connection	<ul style="list-style-type: none"> <li>- 1600 VA 50/60 Hz</li> <li>- 100 W, 120 W, 220 W, 240 W (4-10 V)/(-15 V)</li> <li>- 2 x T10 AL 100/120 W</li> <li>- 2 x T8 AL 220/240 W</li> </ul>
Protection class	Class 1



#### REGULATIONS AND STANDARDS

Class I surgical microscope Leica M530 OH6 incl. accessories  
Class IIa FL800 ULT

- > Council Directive 93/42/EEC on Medical Devices (MDD) and its amendments.
- > IEC 60601-1 / EN 60601-1 Medical Electrical Equipment, Part 1: General requirements – including national differences of EU, C A, US.
- > IEC 60601-1-2 / EN 60601-1-2 Electromagnetic Compatibility.

The Medical Division, within Leica Microsystems (Schweiz) AG, holds the management system certificates for the international standards ISO 9001, ISO 13485, and ISO 14001 relating to quality management, quality assurance and environmental management.



CONNECT  
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