From Eye to Insight

Leica
MICROSYSTEMS

THE FUTURE OF DIGITAL SURGERY IS HERE.

ARveo 8 evolves continuously.

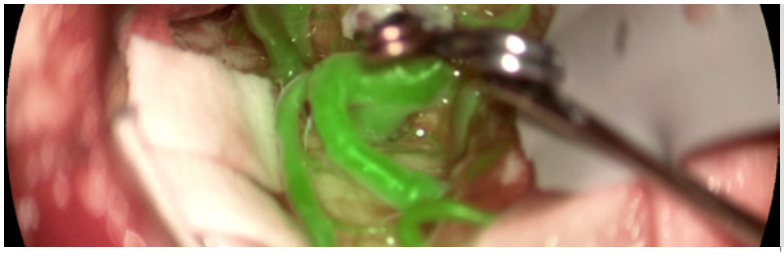
American Brochure Version

ARveo 8

CONTINUOUSLY EVOLVES TO PUSH THE BOUNDARIES OF NEUROSURGERY

The ARveo digital visualization microscope evolution continues. Get ready for a new level of continuous access to digital capabilities that are pushing the boundaries of neurosurgery as you know it.

The ARveo 8 ecosystem now includes additional clinical 3D applications that will transform your vascular and brain tumor surgery. The all-in-one surgical visualization headset, MyVeo, will take you beyond what you've imagined.



A NEW LEVEL OF
CLINICAL VALUE CREATION

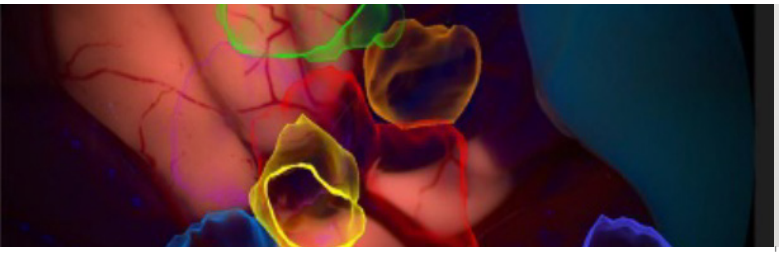
All Leica AR applications are now available in 3D.
See clear anatomical structures with the GLOW800 3D fluorescence application for vascular surgery.

> pages 04-07

A NEW LEVEL OF
SURGICAL WORKFLOW EFFICIENCY

Free yourself from the microscope with real-time clinical data in front of the eyes, helping you and your team to stay focused, comfortable, and connected.

> pages 08-09



A NEW LEVEL OF
CONTINUOUS ACCESS

Enjoy the freedom of ongoing access to clinical applications from Leica and new technologies to effortlessly advance your surgical expertise without having to replace your microscope.

> pages 10-11

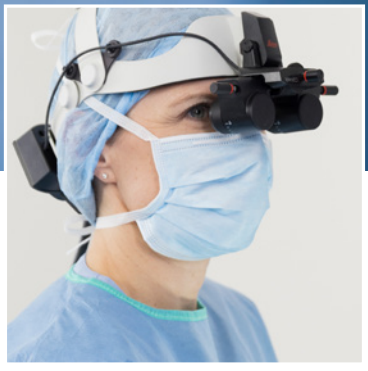
A CONTINUED LEVEL OF
DIGITAL AND OPTICAL MICROSCOPE EXCELLENCE FOR YOUR NEEDS

Rely on proven Leica surgical visualization and illumination features paired with digital capabilities for enhanced efficiency across your entire team.

> pages 12-14

A NEW LEVEL OF **CLINICAL VALUE CREATION**

Augmenting your reality with 3D visualization technology and clinical applications of the GLOW Augmented Reality (AR) platform.



The Power and Potential of Multispectral Imaging Applications

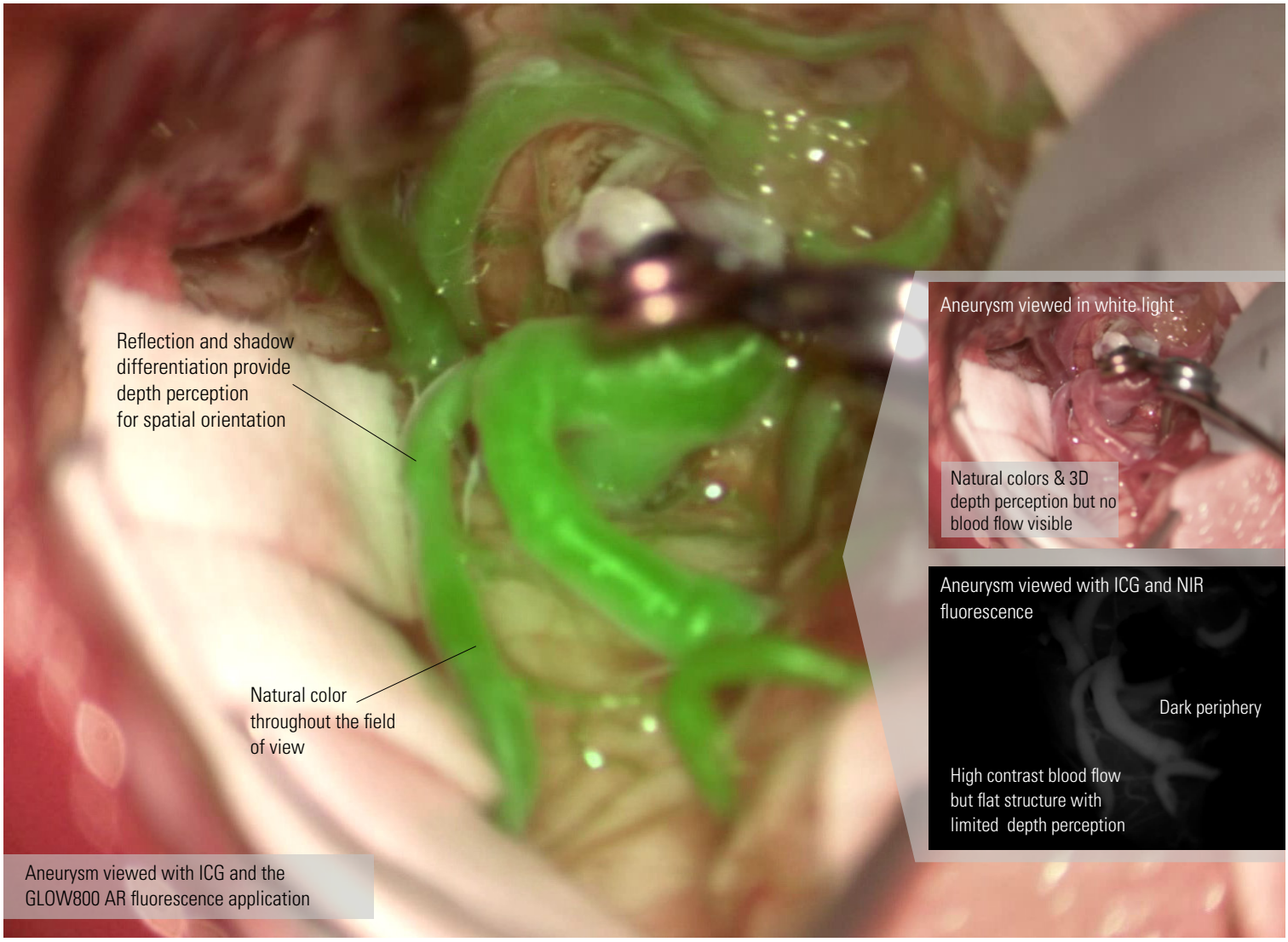
There's so much more to look at than what we can see today. The possibilities of digital spectral detection technology are infinite, which is why we will continue expanding our clinical applications of the GLOW AR platform, based on multispectral and fluorescence imaging by Leica Microsystems.

Augment your vascular neurosurgery

GLOW800 AR is the first clinical application of the GLOW AR platform based on digital spectral detection technology by Leica Microsystems. It shows the cerebral anatomy in natural color, augmented by real-time vascular flow with 3D AR depth perception in white light. You see a single view of anatomy and blood flow.

Experience 3D AR depth perception: on-screen and with the MyVeo surgical headset

Digital visualization of the operating field in 3D high resolution enables the entire OR team to see state-of-the-art surgical 3D images in real time.
It facilitates understanding of spatial information and allows everyone to follow the surgical course more easily.



ONE AUGMENTED VIEW OF CEREBRAL ANATOMY & REAL-TIME BLOOD FLOW

Full visualization of blood flow and anatomy during cerebrovascular procedures is critical for a confident assessment and decisions. In the past you could only view flow by pausing surgery and watching the black and white near infrared (NIR) fluorescence video, which meant losing depth perception and anatomical detail. Now with GLOW800 augmented reality (AR) fluorescence application you have everything in one: Naturally-colored anatomy, vascular flow and 3D depth perception in a single, augmented, real-time view!

One complete picture of the cerebrovascular region

> No more mental gymnastics to recall and reconcile the black and white blood flow video with the natural anatomical view
> Crisp delineation helps you limit potential compromise or obstruction of surrounding perforators and small vessels
> Depth perception without dark peripheries supports clear spatial orientation, aiding manipulation of vessels

View blood flow without interrupting workflow

> No need to pause surgery to watch a black & white NIR fluorescence video, just activate GLOW800 and continue working
> AVM, aneurysm, bypass, or microvascular decompression, you always have the full view you need to confidently work with GLOW800, even if there is an unexpected bleed
> Full integration with your ARveo 8 microscope means one-touch activation of the GLOW800 application via handgrip or footswitch

A NEW LEVEL OF **SURGICAL WORKFLOW EFFICIENCY**

Free yourself from the microscope with real-time clinical data in front of the eyes in 3D, helping you and your team to stay focused, comfortable, and connected with the all-in-one surgical visualization headset MyVeo.

Stay focused

Experience uninterrupted workflow by not having to look at multiple monitors for the digital information required for clinical decision-making. Access a broad spectrum of surgical information in a single integrated real-time 3D view directly in front of your eyes.*

Increase comfort

Freed from oculars and external monitors, you can experience more ergonomic comfort and freedom of movement, especially beneficial during long surgeries. Up to three MyVeo users can simultaneously benefit from live surgery visualization via the headset.

Boost collaboration

With MyVeo, you can experience the exact same 3D view as the main surgeon in real-time, high-resolution 3D. The headset offers an amazingly generous peripheral field of view, allowing you to see your hands, instruments and interact with your team as usual.

* Applications from external systems, such as IGS or information from compatible endoscopic video systems are only displayed in 2D resolution.

A NEW LEVEL OF **CONTINUOUS ACCESS**

Enjoy the flexibility of using different viewing options as it suits you. With Leica, you also have the assurance of ongoing access to new clinical applications and new technologies to easily expand your surgical expertise without having to replace your microscope.

Traditional oculars

3D heads-up screen

MyVeo all-in-one surgical visualization headsets

Adapt to any new viewing option at your own pace

Freely select from three interchangeable viewing options: choose traditional oculars*, 3D heads-up monitors, or the most advanced MyVeo headset. You also have the flexibility to use each viewing option interchangeably.

*Ocular view does not show GLOW AR views

Access the latest technology without replacing the microscope

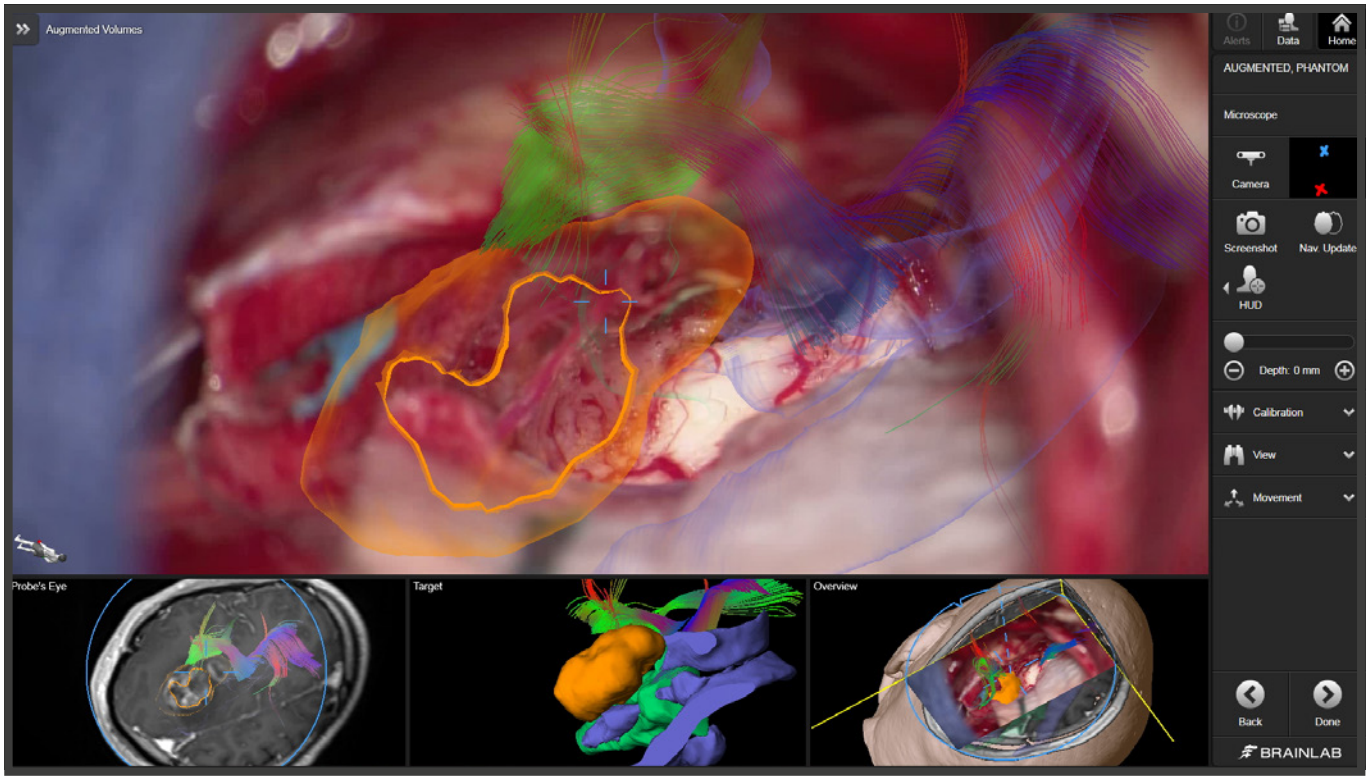
The EnhancePath concept, an essential part of the ARveo 8 ecosystem, allows you to seamlessly evolve into the future of digital surgery. This concept provides continuous access to the latest Leica surgical and digital viewing technologies, as well as an easy way to implement advanced clinical applications on your current ARveo 8 microscope.

EnhancePath

Easily connect to compatible surgical devices

The ability to combine preoperative images with intraoperative imaging can be essential during procedures. You can use image-guided surgery (IGS) systems to augment your microscope view by adding anatomical and functional data onto your microscope's white light and the fluorescence view. The ARveo 8 is compatible with neuro-navigation systems of leading manufacturers.

You can add even more layers of information by complementing your microscope view with a video system feed of a KARL STORZ video system.



Support during intraoperative assessment: align and view with ease

> Update image realignment during surgery using the microscope image

> View information more ergonomically with picture-in-picture navigation options

> Get support when assessing critical areas due to visualization of planned structures as semi-transparent volumes combined with a virtual 360-degree target view

Robotic alignment of the microscope's optics carrier via the Brainlab IGS system

> Keep your image in focus during the entire neurosurgery, thanks to the tip focus function of the latest cranial navigation software from BrainLab

> Rest assured that you always have a centered view despite of microscope movement thanks to the "follow tip" or "move to pin" functions

A CONTINUED LEVEL OF **DIGITAL AND OPTICAL EXCELLENCE FOR YOUR NEEDS**

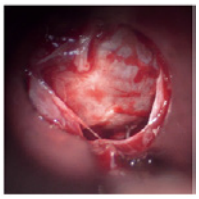
Rely on proven Leica surgical visualization and illumination features paired with digital capabilities for enhanced efficiency across the entire team.

Experience enhanced efficiency across different procedures

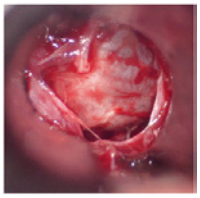
The ARveo 8 surgical microscope is amazingly versatile. This is based on the microscope's great range of movement, large working distance, tilting range of the optics carrier, and an extensive overhead reach.

Everything is illuminated

The more you know, the more empowered you become to make the right decisions for your patients. Small Angle Illumination (SAI) combined with bright 400 W Xenon illumination allows light to penetrate to the bottom of deep, narrow cavities.



Without SAI (400 mm working distance)



With SAI (400 mm working distance)

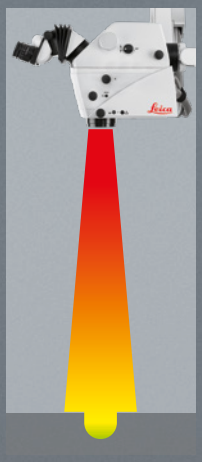
Reinforce patient safety

ARveo 8 features integrated illumination functions that help protect sensitive tissue during surgical procedures.

OPTIMAL LIGHT INTENSITY

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

Max. illumination

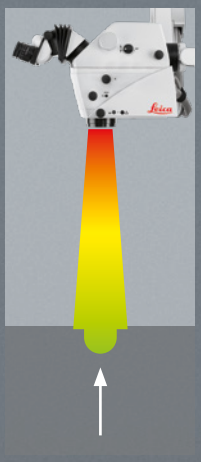


Long working distance.

Max. illumination BrightCare Plus OFF

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

Microscope with BrightCare Plus ON



BrightCare Plus automatically adapts light intensity to the working distance, providing safer illumination (up to 60 % reduction of light intensity).

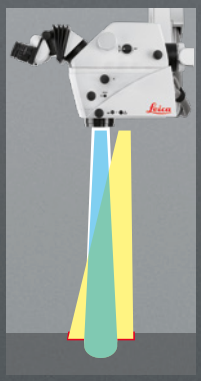
OPTIMAL FIELD OF ILLUMINATION

AutoIris automatically adjusts the diaphragm so that only the visible area is illuminated.

Conventional microscope at low magnification

At low magnification, the field of illumination (yellow) fills the field of view (green) completely.

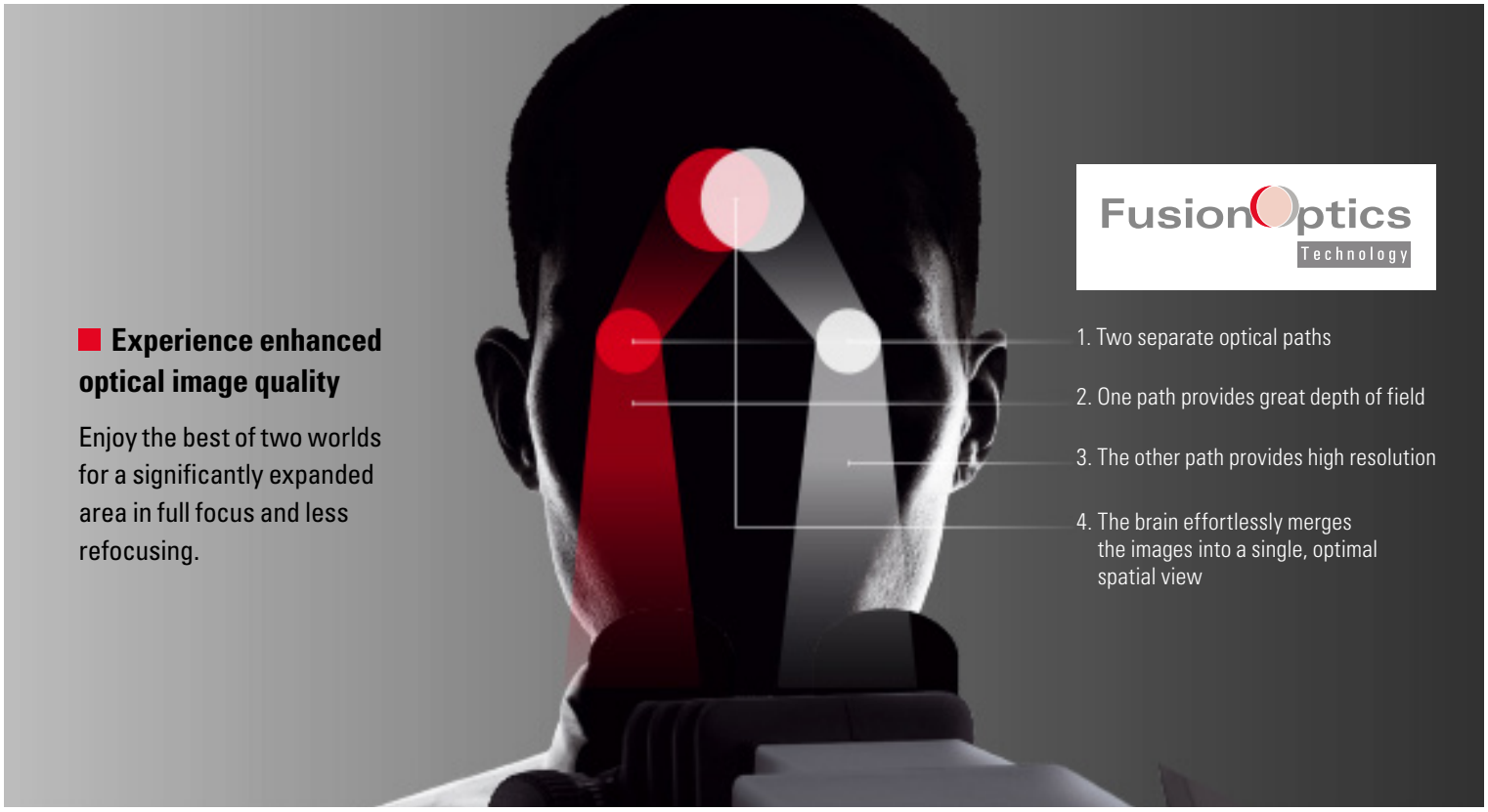
Conventional microscope at high magnification



Previously, as magnification increased, the field of view became smaller, but the illumination outside the field of view could potentially cause tissue burns (red).

Leica microscope with AutoIris

AutoIris automatically works with the zoom, decreasing the field of illumination as the field of view decreases. There is no peripheral illumination to cause tissue burns outside the field of view.



Experience enhanced optical image quality

Enjoy the best of two worlds for a significantly expanded area in full focus and less refocusing.

Magnification multiplier for 40% boost

SpeedSpot for fast focusing

Fine focus for rear assistant

For too long, surgeons had to compromise between high resolution and greater depth of field – no more! FusionOptics technology captures different information from each beam path, delivering the highest possible resolution to the left eye and maximum depth of field to the right. The brain then easily merges the information into a single, sharp image with a significantly larger depth of field. And what's more, less refocusing helps streamline your workflow.

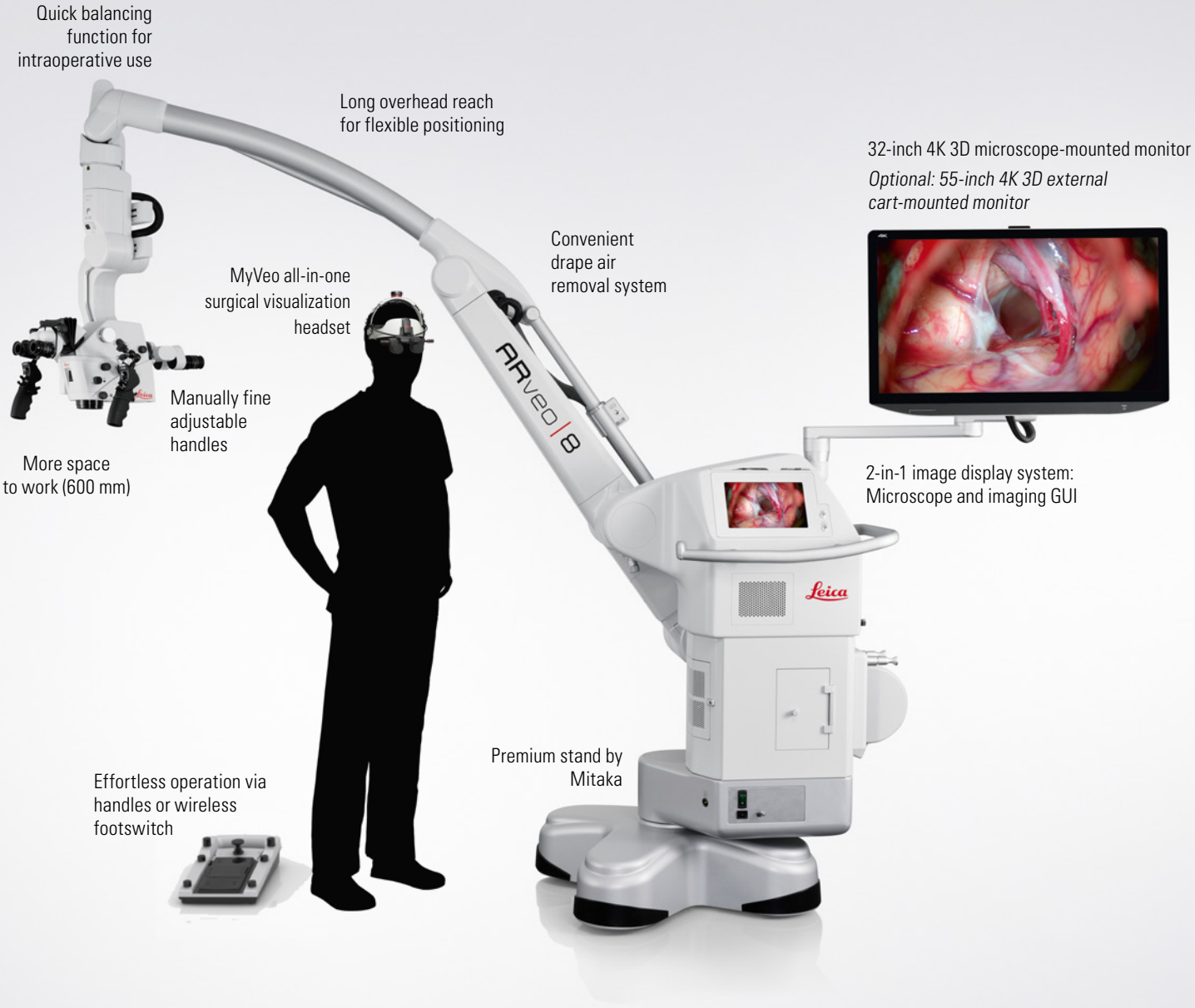
Visualization that adapts to you

> The optional magnification multiplier boosts magnification by 40%

> SpeedSpot uses two laser beams acting as a focusing reference to quickly provide a defined focus point for all viewing positions (surgeon, assistant, and camera)

> Your rear assistant has an independent fine focus

> A range of binoculars are available, all adjustable to different heights and positioning due to full 360°-rotation



Benefit from one graphical user interface for microscope operation and image acquisition

The ARveo 8 graphical user interface (GUI) is designed to be self-explanatory for all members of the OR team.

It guides you through setting up of the microscope, allows for intraoperative adjustments on the fly, and enables image acquisition and transfer.

Easy setup

> Select and define different user roles and rights

> Password protect default configurations and individual user settings, e.g., GLOW800 visualization

> Increased cybersecurity with secured patient and user data

Easy recording

> Record videos and images in 2D or 3D quality utilizing a high-compression 2 TB storage space

> Quickly store images and export via USB and ethernet to your hospital network

> Optimized data processing and connectivity for PACS and DICOM

TECHNICAL SPECIFICATIONS

OPTICS AND ILLUMINATION

FusionOptics	For increased depth of field and high resolution for the main surgeon
Objective lens	Apochromatic
Magnification	6:1 zoom, motorized optional magnification multiplier
Objective / working distance	225–600 mm, motorized multifocal lens, continuously adjustable with manual adjustment option
Eyepieces	Wide-field eyepieces for people wearing glasses
Observation	Full stereo view for main surgeon and opposite assistant, semi stereo view for two side assistants
Integrated 360° rotatable adapter	For main surgeon and opposite assistant binoculars
SpeedSpot	Laser focusing aid for fast and exact positioning of the microscope
Illumination	- Two 400-Watt Xenon arc-lamp systems with independent power supply - Light transmission via fiber optics cable - Continuously variable illumination field diameter - Continuously adjustable brightness at constant color temperature - Automatic activation of second illumination
AutoIris	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 built-in luxmeter

MANEUVERABILITY AND CONTROL

Robotic function	- Motorized XY movement - Externally controllable (optional)
Control	- Programmable handles
Balancing	- Automatic balancing of stand and optics - Automatic intraoperative balancing - Manual fine balancing
Microscope carrier	"Advanced Movement" system for balancing six axes and vibration damping technology
Carrier for monitor	Flexible arm with four axes for rotation and inclination

MODULAR OPTIONS

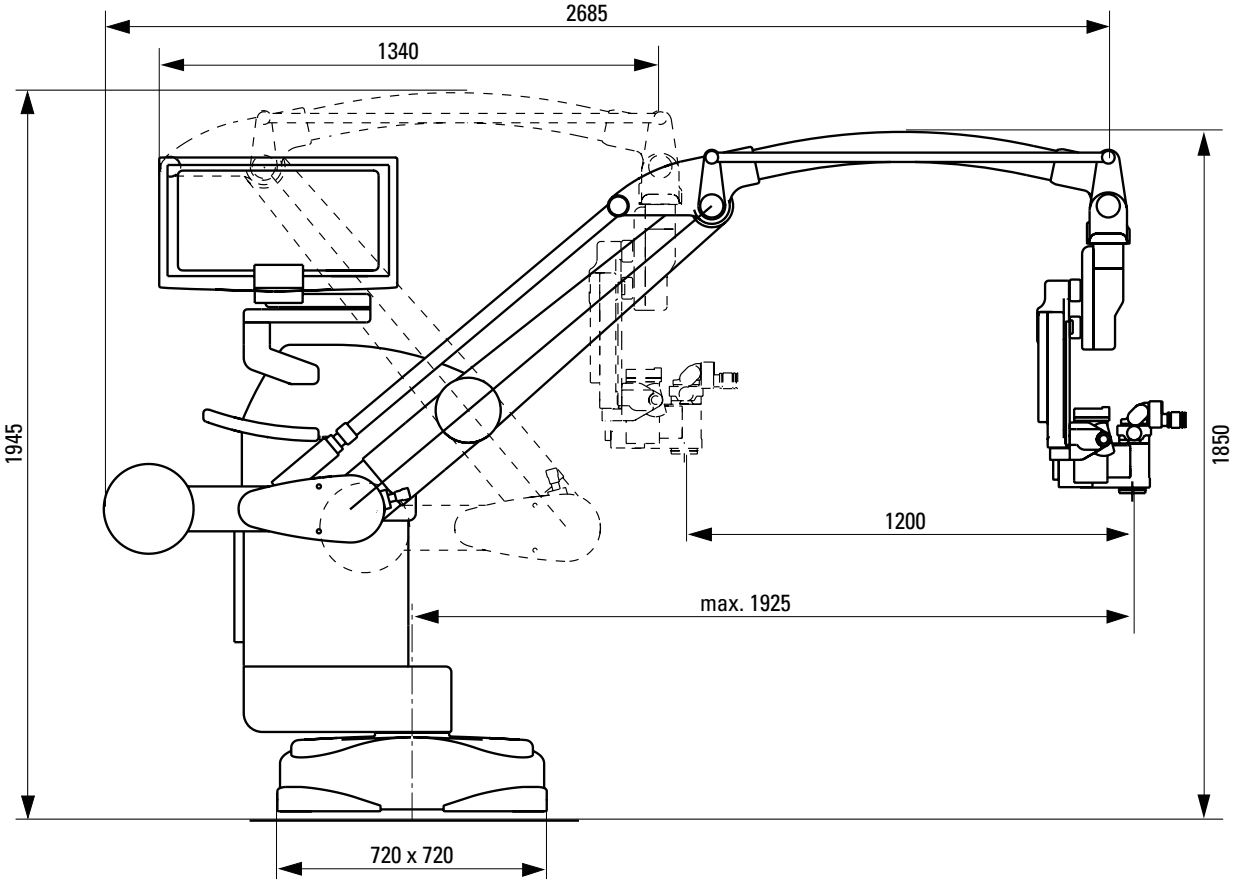
GLOW800 Augmented Reality fluorescence	- Fluorescence excitation 790 nm - Fluorescence signal 835 nm - Two 1/1.2" high sensitivity HD cameras for white light imaging - Two 1/1.2" high sensitivity HD cameras for fluorescence imaging (NIR) - 2D and 3D visualization
FL400 fluorescence	FL400 blue light fluorescence module
FL560 fluorescence	FL560 fluorescence module
2D/3D video options	- 4K HD 27-inch monitor - 4K 3D 32-inch monitor on microscope - 4K 3D optional 55-inch monitor cart system - Integrated auto focus - 3 digital zoom levels - integrated 4K upscaling software via HDSDI-connector
MyVeo	- All-in-one surgical visualization headset compatible with the ARveo 8 surgical microscope - High resolution displays (Full HD) for each eye - For up to 3 viewers simultaneously, individual control of image orientation and brightness - Cable connection of 5.2 meters between the MyVeo user and the MyVeo hub-box on the microscope
OpenArchitecture*	- Easy integration of IGS systems and video system feeds from Karl Storz
Leica Recording System	- Fully integrated 2D and/or 3D recording - Optimized connectivity for DICOM/PACS
Universal drape air removal with SMARS*	- One-button drape air removal system - Compatible with surgical microscope drapes
Additional controls	- Mouthswitch to activate multi-directional movement - 12-function wireless footswitch
Cyber Security	- MDS2 Medical Device Security - comply with international standards such as ANSI/UL

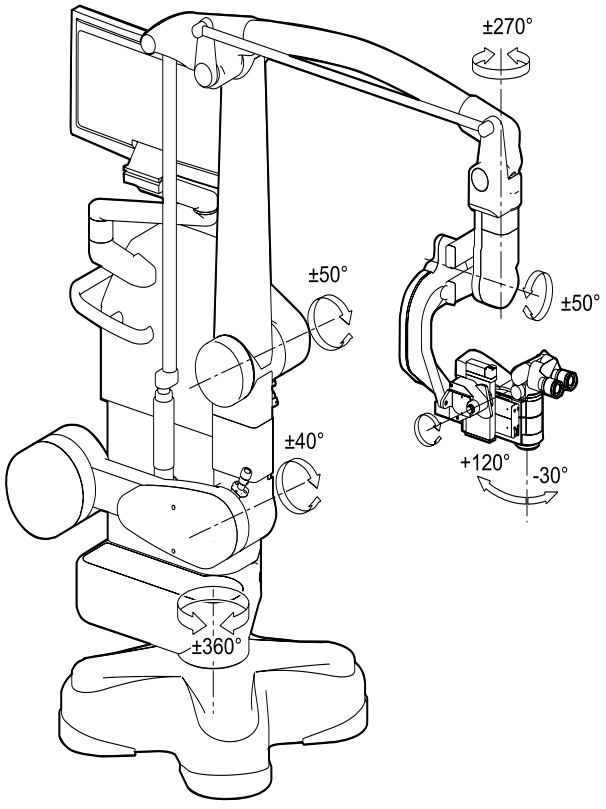
TECHNICAL DATA

Power connection ARveo 8 Protection class	- 1300 VA 50/60 Hz - 100 V - 240 V / 50 - 60 Hz - Class 1
Materials	- Entire solid metal construction coated with a paint which is designed to provide an antimicrobial effect on surfaces
Load	- Swing arm: min. 6.7 kg, max. 12.2 kg from microscope dovetail ring interface - Monitor arm: max. 16kg
Weight	- Approx. 320 kg without load

* Please contact your local sales representative for more information

ARVEO 8 STAND DIMENSIONS





Leica MICROSYSTEMS

Leica Microsystems (Schweiz) AG
Max Schmidheiny-Strasse 201
9435 Heerbrugg, Switzerland

CE 0123

Class IIa medical devices GLOW800

CE

Class I ARveo 8 surgical microscope and accessories, such as MyVeo

CONNECT WITH US!

Not all products or services are approved or offered in every market and approved labeling and instructions may vary between countries.
Please contact your local Leica representative for details.

danaher

Leica Microsystems (Schweiz) AG · Max Schmidheiny-Str. 201 · 9435 Heerbrugg · Switzerland · T +41 71 726 3333

www.leica-microsystems.com

MC-0011473 · 15.07.2025 · EN for U.S. · Copyright © 2025 by Leica Microsystems (Schweiz) AG · LEICA and the Leica Logo are registered trademarks of Leica Microsystems IR GmbH. Other trademarks shown herein are the property of their respective owners.