

# Leica M620 F20

The easy-to-use, high quality surgical microscope for Ophthalmology



Living up to Life



Leica Design by Christophe Apothéloz



# ca M620 F20

The Leica M620 surgical microscope is a perfect balance of form and function. Precision optics combined with the finest mechanics make the Leica M620 an outstanding choice. Swiss design, quality and precision – the Leica M620 meets the needs of modern day ophthalmic surgery.

#### High-quality and reliable performance

The Leica M620 microscope features Leica Microsystems' exclusive OptiChrome<sup>™</sup> optics and Direct Halogen Illumination system. As a result of more than 25 years of experience in developing surgical microscopes dedicated to ophthalmology, the Leica M620 offers the quality and reliability of a premium surgical microscope at an attractive price/performance value.

#### Compact, light and easy to move

The Leica F20 floorstand is compact and moves easily. With the high-quality precision bearings and a long swingarm, the stand is highly maneuverable and easy to set up for surgery.

# Brilliance in Optics and Light



Leica OptiChrome<sup>™</sup> for higher contrast and crisper, sharper images in natural color.



Under sterile conditions, the jalousie provides perfect Red Reflex.

#### Leica OptiChrome<sup>™</sup> Optics

Leica Microsystems' crisp, sharp OptiChrome<sup>™</sup> optics give the surgeon natural color, outstanding depth of focus and high contrast for maximum detail recognition. The high degree of light transmission with OptiChrome<sup>™</sup> technology allows the surgeon to use lower degrees of illumination and thus provides better patient safety.

#### **Direct Halogen Illumination**

Leica Microsystems' exclusive Direct Halogen Illumination system ensures that the surgeon will have homogeneous illumination to see crisp images even at low light levels. Direct illumination is a feature that consistently places Leica ophthalmic microscopes above the systems with fiber optics illumination.

#### **Outstanding Red Reflex**

Based on more than 25 years of experience with Direct Halogen Illumination, Leica Microsystems developed an illumination concept that allows an absolutely stable Red Reflex. Even with difficult starting positions or heavy pigmentation of the patient's eye, the Red Reflex has outstanding intensity.

#### **Individually optimized Red Reflex**

The jalousie, which can be operated in sterile conditions, allows perfect illumination for any surgical situation with optimum contrast and depth of field. It helps to further enhance and optimize the Red Reflex.

Proven, Direct Halogen Illumination for crystal-clear images.



# Intuitive Control and Increased Safety



#### Straightforward operation

Leica Microsystems' touchscreen, built into the floorstand for convenient, easy access, offers intuitive control of all Leica M620 functions. The surgeon can see the microscope's functions at a glance on the screen. Individual user settings can be programmed for each surgeon to increase efficiency.

#### Auto Reset and the microscope is ready-to-use

When the surgeon pushes the swingarm up after each procedure, all microscope functions automatically reset and the microscope is ready for the next case.

Intuitive controls for light intensity, focus, zoom, and XY speed.



Typical structure of a metal powder (Ag) produced via inert gas condensation (nano powder).



#### AgProtect<sup>™</sup>: The anti-microbial coating for added safety

Leica Microsystems' anti-microbial nano silver coating, AgProtect<sup>™</sup>, provides outstanding protection to microscope users by reducing their exposure to surface pathogens. The AgProtect<sup>™</sup> covers the microscope's outside surfaces and protects the operator and other individuals in the work area by penetrating the membranes of microbes to prevent replication. Leica Microsystems contributes added safety for its customers, medical teams and their patients through AgProtect<sup>™</sup>.

# Flexibility for Individual Needs



Leica Rotatable Beamsplitter Leica M620 with Video Adapter at the rear and rotatable assistant microscope tube.



**Standard Beamsplitter** Leica M620 with Video Adapter and assistant microscope tube. The stereo assistant tube can be attached to either side of the beamsplitter.



#### Going temporal? Swing around...

For those surgical procedures where an assistant is needed, especially with the growing number of temporal approach cataract surgeries, Leica Microsystems proudly presents the world's first two-beampath solution - the Leica Rotatable Beamsplitter. The easy side-to-side quick change of the assistant observer optics enables time-saving between cases, increases efficiency in the operating room and minimizes potential damages to the binoculars. Also the interface for the Leica Video Adapter is conveniently placed at the rear for maximum flexibility.

#### Wide variety of binoculars provide comfort

Long working hours under the wrong ergonomic conditions can cause fatigue and discomfort. For this reason Leica Microsystems has a wide selection of binoculars and objective lenses to choose from to provide comfort for the surgeon.





Leica M620 with new 5°-25° binocular tube and compact handles.





#### **Unique Leica Zoom Video Adapter**

The Leica Zoom Video Adapter with its 3× optical zoom and fine focus allow individual magnification adjustment of the video image separate and independent of the microscope zoom. A sterile fine focus adjustment on the video adapter fine tunes images to perfection.

#### **Integrated Leica 2D Video System**

The Leica 2D video module can be easily integrated with the beam path of the Leica M620 F20 and offers good ergonomic conditions for the surgeon due to its compact design.

#### **Retinal accessories**

For application in posterior segment surgery the Leica M620 can carry the most common accessories like inverters, Oculus BIOM system or laser-filters.



The wide selection of foot switches fulfills any ergonomic need. All functions can be individually programmed according to the preferences of each surgeon.

Leica Wireless Footswitch Using ISM bandwidth technology, it offers maximum mobility for a fast and easy switch between left and right eye procedures.







# Technical Specifications Leica M620 F20



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#### **OPTICS LEICA M620**

Magnification changer	6:1 zoom, motorized, adjustable speed		
Focusing	Motorized, 50 mm, adjustable speed, with automatic reset		
Objective	APO Leica WD = 175 mm, 200 mm		
	Achromatic Leica f = 175 mm, 200 mm and 225 mm		
Eyepieces	Widefield eyepieces for those wearing glasses 8.33×, 10× and 12.5×; Diopter adjustment +/– 5 with adjustable eyecup		
Illumination	<ul> <li>Homogenous, coaxial illumination;</li> <li>Integrated Red Reflex illumination, light intensity adjustable via control unit and/or footswitch jalousie for continuous, situation-dependent reduction of ambient illumination via sterile controls;</li> <li>Quick-change lamp mount with 2 halogen lamps, 12V/50W filter changer with UV projective filter;</li> <li>2 free openings for selectable filters diameter 32 mm</li> </ul>		
Inclining mechanism	+/– $5^{\circ}$ manual fine adjustment, sterile operation		
XY-unit	Positioning range 50 mm in X and Y direction; Adjustable speed, reset button, automatic reset at power or		
Control unit	Multifunctional display for brightness, magnification, reset and user selection, adjusting the speed of drives, individual user programming, Auto Reset		
Hand/Footswitch	12-function footswitch with controls arranged longitudinally or transversally, wired or wireless		
	Optional: 6- and 16-function wired footswitch, 12- and 16-function wireless footswitch, 12-function handswitch		

#### **FLOOR STAND LEICA F20**

Туре	F20 Compact floorstand		
Base	Compact base with 4 movable rollers, 4 foot brakes		
Base dimension	608 × 608 mm		
Maximum load	6.5 kg accessories on the microscope		
Maximum reach	1444 mm		
Minimum transport height	1902 mm		

Weight approx. 210 kg (minimum equipment)

ACCESSORIES	ACCESSORIES				
Assistant's attachment	Stereo co-viewer, Monocular co-viewer				
Beam splitter	50% / 50%, 70% / 30%				
	Leica Rotatable Beamsplitter				
TV/photo	Leica 2D video system				
	Leica Zoom Video Adapter (ZVA), 3:1 zoom, 35 mm to 100 mm focal length, c-mount, with fine focus				
	Leica Manual Video Adapter (MVA),				
	55 mm, 70 mm focal length, c-mount, with fine focus				
	Photo/TV dual attachment f = 60/85/107 mm for TV,				
	f = 250/350 mm for 35 mm camera				
	Photo attachment f = 250/350 mm				
Wide-angle observation	BIOM, EIBOS				
Inverters	AVI, SDI, OIVSL, ROLS				
Laser	Can be fitted, adapters available from laser suppliers				
Asepsis	Sterilizable components for all controls				

#### **ELECTRICAL DATA**

Supply	100–240 VAC (+/- 10%), 50/60 Hz / 250 VA
Protection class	Class 1
Safety type	Туре В

#### **STANDARDS**

Council Directive 93/42/EEC on Medical Devices (MDD) and its amendments. Classification: Class I, in compliance with Annex IX, rule 1 and rule 12 of the directive. Medical Electrical Equipment, Part 1: General Requirements for Safety IEC 60601-1; EN 60601-1; UL60601-1; CAN/CSA-C22.2 NO. 601.1-M90. Electromagnetic compatibility IEC 60601-1-2; EN 60601-1-2.

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.

### CE

# "With the user, for the user" Leica Microsystems

Leica Microsystems operates globally in four divisions, where we rank with the market leaders.

### • Life Science Division

The Leica Microsystems Life Science Division supports the imaging needs of the scientific community with advanced innovation and technical expertise for the visualization, measurement, and analysis of microstructures. Our strong focus on understanding scientific applications puts Leica Microsystems' customers at the leading edge of science.

### • Industry Division

The Leica Microsystems Industry Division's focus is to support customers' pursuit of the highest quality end result. Leica Microsystems provide the best and most innovative imaging systems to see, measure, and analyze the microstructures in routine and research industrial applications, materials science, quality control, forensic science investigation, and educational applications.

### • Biosystems Division

The Leica Microsystems Biosystems Division brings histopathology labs and researchers the highest-quality, most comprehensive product range. From patient to pathologist, the range includes the ideal product for each histology step and high-productivity workflow solutions for the entire lab. With complete histology systems featuring innovative automation and Novocastra<sup>™</sup> reagents, Leica Microsystems creates better patient care through rapid turnaround, diagnostic confidence, and close customer collaboration.

### Medical Division

The Leica Microsystems Medical Division's focus is to partner with and support surgeons and their care of patients with the highest-quality, most innovative surgical microscope technology today and into the future. The statement by Ernst Leitz in 1907, "with the user, for the user," describes the fruitful collaboration with end users and driving force of innovation at Leica Microsystems. We have developed five brand values to live up to this tradition: Pioneering, High-end Quality, Team Spirit, Dedication to Science, and Continuous Improvement. For us, living up to these values means: Living up to Life.

### Active worldwide

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### and representatives in more than 100 countries

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