



SLIT LAMPS

Confidence that lasts

Look closer. See further.

 **HAAG-STREIT**
DIAGNOSTICS

02 | 03 TIMELESS QUALITY

Haag-Streit slit lamps **Confidence that lasts**

Since its introduction in 1958, the famous Goldmann slit lamp 900 has enjoyed remarkable popularity amongst our customers because of its excellent optics and impressive longevity. As a result, more than 100,000 eyecare specialist decided to purchase one of these superb slit lamps.

Based on the knowledge and experience gained from this large user base, other slit lamps have been introduced by Haag-Streit over the years and they all show the same high performance and equally as important, durability and longevity as their famous predecessor.

1958

1968

today



04 | 05 CONFIDENCE THAT LASTS

The Haag-Streit slit lamp family **Timeless quality in every detail**

Our slit lamps are famous, not only for providing excellent optics and high precision mechanics, but also for their exceptional durability. The longevity resulting from high quality Swiss manufacturing makes these slit lamps one of the best investments one can ever make for one's practice.



Excellent optics

The quality of the optical system determines the results of whatever application a slit lamp is used for. All Haag-Streit slit lamps are equipped with elaborated microscopes, manufactured for highest quality requirements. The result is a superb view, allowing accurate diagnostics, safe patient treatment and stunning imaging results.



EXCELLENT OPTICS

Superior mechanics

Since its foundation more than 150 years ago, Haag-Streit has stood for high-precision mechanics. This experience, combined with outstanding Swiss engineering and the use of high grade materials, ensures perfect mechanics in all our slit lamps, which can last for decades.

Perfection in design, materials and construction allow all movements to be made smoothly and effortlessly without any wrist or finger strain – and to continue doing so for the very long lifetime of a Haag-Streit slit lamp.



SUPERIOR MECHANICS

Sustainable investment

All our slit lamps come with the extensive warranty period of 10 years. With this we want to emphasise that Haag-Streit is fully committed to the quality of their slit lamps.

For us it's just a small step – for our customers it's «confidence that lasts».



SUSTAINABLE INVESTMENT

06 | 07 THE MOST VERSATILE SLIT LAMP

BQ 900

Sophisticated microscopy – outstanding performance

Thanks to its excellent optics, versatility and ease of operation, the BQ 900 has become the standard for those requiring the most demanding slit lamp microscopy. A wide range of optional accessories provide convenient conditions for every examination.

BQ 900 with Imaging Module 910



MICROSCOPE

Optical excellence

The BQ 900 is equipped by default with a Galilean Microscope providing a magnification range from 6.3× up to 40× selectable in 5 fixed steps. The high light transmission and the optical excellence ensure a superb clinical view. The large diameter of the exit pupils allows fatigue-free examination even on long working days.



MICROSCOPE

APPLANATION TONOMETER

The original Goldmann tonometer

Because it is fast and reproducible, Goldmann applanation tonometry has been the gold standard of tonometry for many decades. It is based on the Goldmann principle – tried and tested during more than 50 years of usage with millions of patients.



APPLANATION TONOMETER

IMAGING MODULES

Intuitive imaging – best results

The Imaging Modules IM 910 and IM 600 are fully integrated compact imaging solutions for the BQ 900 slit lamp. These cameras, manufactured by Haag-Streit, have excellent sensitivity, a wide dynamic range and unique ergonomics that provide full control over the imaging process without distracting from the clinical examination. Both camera systems allow different integration options into your existing practice setup.



IMAGING MODULE IM 910

Wide range of applications

LARGE PROTECTION SHIELD

Protect yourself and your patients

The larger shield is an elaborated and professional solution for Haag-Streit slit lamps that does not hinder the operation. It is easy to install and covers a wide area of the slit lamp while continuing to provide access to the main features of the device. The special angled shape of the shield and the cut-outs for the arms allow comfortable working with the slit lamp.



LARGE PROTECTION SHIELD

INCLINED EYEPIECE ADAPTOR

Ergonomic and fatigue-free working

With the inclined eyepiece adaptor, the view into the microscope is inclined at 20 degrees to the horizontal. This enables the examiner the use of the slit lamp in a more comfortable, fatigue-free position.

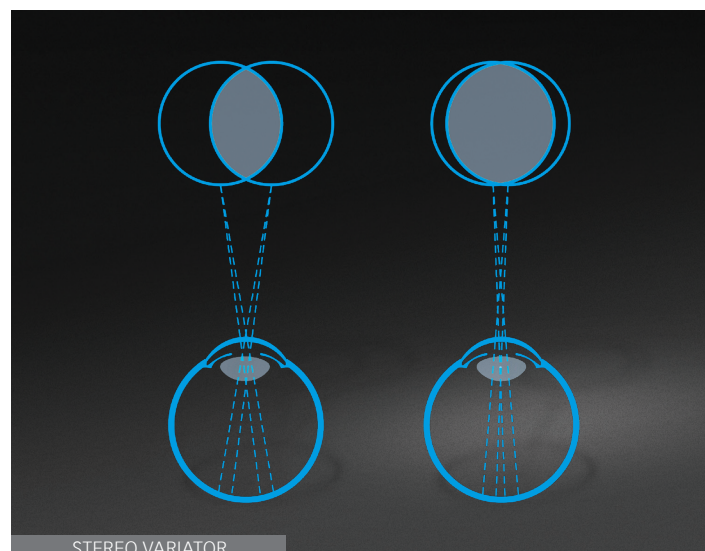


INCLINED EYEPIECE ADAPTOR

STEREO VARIATOR

Enhanced view on fundus

Unique to the BQ 900, the stereo variator reduces the angle of stereoscopic observation from 13° to 4.5°. This facilitates the stereoscopic examination of the fundus, peripheral parts of the retina and the vitreous, even under unfavourable conditions such as high myopia and small pupils. The reduction of the angle enlarges the stereoscopic field of view under the described conditions, maintaining depth information in the stereoscopic observation.

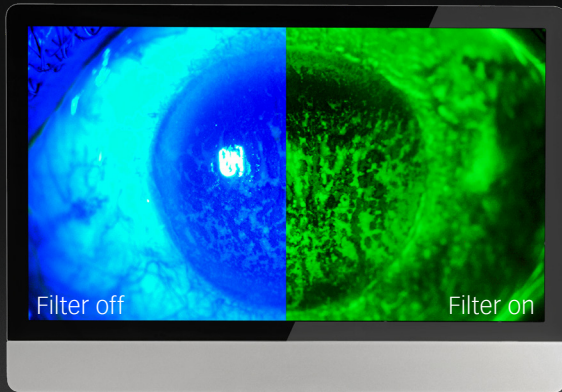


STEREO VARIATOR

YELLOW FILTER

Fluorescence enhancement

This yellow barrier filter provides additional contrast to fluorescein images. It can be mounted permanently on the slit lamp and easily engaged if required.



YELLOW FILTER

BEAM SPLITTER

Connection to a wide range of accessories

The beam splitter diverts a portion of the light to secondary attachments such as the second observer tube, video or digital cameras. Beam splitters are available in different versions. The beam splitter for cameras diverts 70% of the light to the secondary attachment, the one for co-observation under equal conditions diverts only 50% of the light. Video or digital cameras can be connected to the beam splitter with a range of C-mount adaptors, which offer different focal lengths for variable sensor sizes.



BEAM SPLITTER

SECOND OBSERVER TUBES

Analog co-observing

Haag-Streit's second observer tubes are designed to permit professional colleagues, students or technicians to participate in the examination. There are two versions of second observer tubes available: a short version for co-observing in sitting position and a long version for co-observing in upright position.



SECOND OBSERVER TUBES

10 | 11 PROGRESSIVE FUNCTIONALITY

BP 900

Advanced microscopy – comprehensive application

Designed for routine practice, the BP 900 is equipped with a modern optical system offering 10×, 16× and 25× magnifications and imaging capabilities. As with all Haag-Streit slit lamps, a Goldmann tonometer – the gold standard in IOP measurement – may be added to the system.

BP 900 with Imaging Module 600



MICROSCOPE

Progressive functionality

A Galilean Microscope with a magnification range from 10× to 25× provides the BP 900 with a powerful observation system. The optical excellence and wide aperture allow comfortable and fatigue-free examination even on long working days.



MICROSCOPE

IMAGING MODULE 600

Easy-to-use – optimal imaging

The Imaging Module 600 is a fully integrated compact imaging solution for the BP 900 slit lamp. This camera, manufactured by Haag-Streit, has excellent sensitivity, a wide dynamic range and unique ergonomics that provide full control of the imaging process without detracting from the clinical examination. The included EyeSuite software package contains a comprehensive imaging program and permits integration of the BP 900 into your practice network.

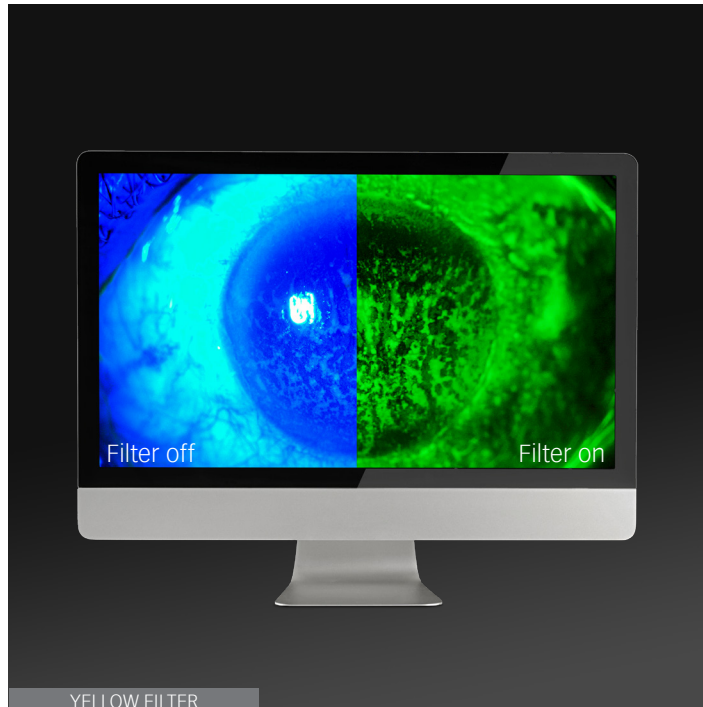


IMAGING MODULE 600

YELLOW FILTER

Fluorescence enhancement

The yellow barrier filter provides additional contrast to fluorescein images. It can be mounted permanently on the slit lamp and easily inserted or removed as required.



YELLOW FILTER

12 | 13 ESSENTIAL FUNCTIONALITY

BI 900

Simplified operation – high reliability

Equipped with an improved version of the BM 900 microscope, an enhanced illumination system and the traditional high-precision mechanics, the BI 900 is the predestined successor to the legendary BM 900. With this new slit lamp, Haag-Streit combines simplicity and reliability in a modern system which offers integrated digital imaging as an option.

BI 900 with Imaging Set



MICROSCOPE

Essential functionality

The BI 900 is equipped with a Kepler microscope providing the default magnifications 10× and 16×. With a set of optional oculars it can be extended to 25× and 40× magnification. A yellow barrier filter provides additional contrast for fluorescein applications. The maximised diameter size of the ocular view ensures fatigue-free examination even on long working days.



MICROSCOPE

IMAGING SET

Compact imaging solution

The optional Imaging Set provides a fully integrated compact imaging solution for the BI 900. It has been designed to simplify the image capturing process. A fast and accurate automatic exposure control and the established History Trigger function allow simple image capturing while you are concentrating on your patient. The included EyeSuite software package contains a comprehensive imaging program and permits integration of the BI 900 into your practice network.

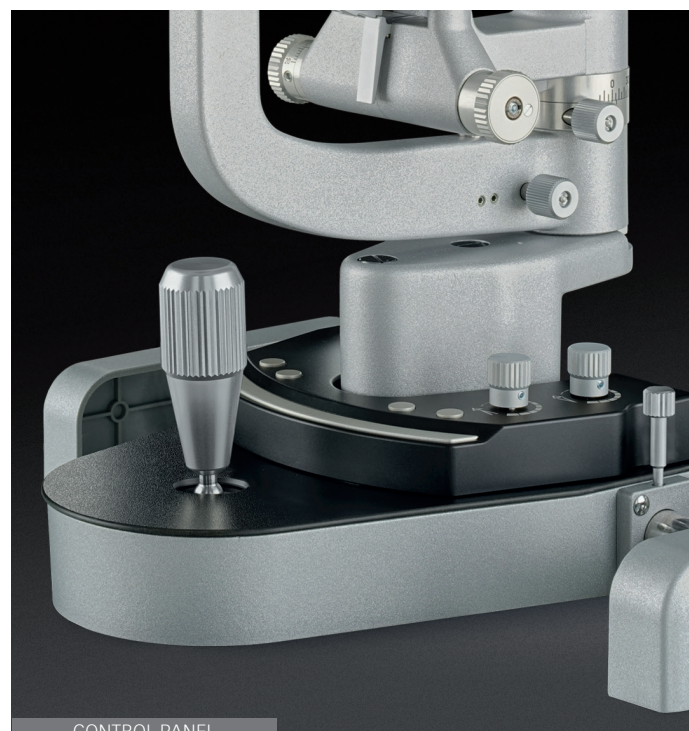


IMAGING SET

CONTROL PANEL

Ideal workflow – no distraction

Located in front of the joystick, the control panel can be operated blindly while examining the patient. It provides not only full control over the slit lamp illumination, but also a release bar for the camera, as well as simple and ergonomic management of the camera settings.



CONTROL PANEL

14 | 15 TRADITIONAL FUNCTIONALITY

BM 900

Reliable optics – enduring performance

The BM 900 has been the standard in modern slit lamp microscopy for more than 55 years – and still is! Over 100,000 professionals all over the world who own a BM 900 agree that it was the best investment they ever made for their practice. As with all Haag-Streit slit lamps, a Goldmann tonometer – the gold standard in IOP measurement – may be added to the system.

BM 900



MICROSCOPE

Classic and reliable optics

Equipped with a Kepler microscope, the BM 900 provides two standard magnifications: 10× and 16×. With a set of optional oculars it can be extended to 25× and 40× magnification. Like any other Haag-Streit slit lamp, the BM 900 features the best optical components to show all structures of the human eye in every detail.



MICROSCOPE

ILLUMINATION SYSTEM

Powerful LED illumination

Over the last years, LED illumination has become standard in modern slit lamp microscopy. It delivers our sharpest and most homogeneous slit ever. A tilting frame allows good posterior segment observation, while the defocusing option enhances observation with indirect illumination. All filter and slit controls are conveniently situated for ease of use and, as with the cross slide mechanism, have a silky smooth, effortless movement. The slit mechanism is a masterpiece of engineering in itself, affording faultless precision in both shape and movement.



ILLUMINATION SYSTEM

CROSS SLIDE

Precise control

This cross slide mechanism, incorporated into all Haag-Streit slit lamps, introduced one-handed operation of the slit lamp many decades ago. Perfection in design, materials and construction allow these movements to be made smoothly and effortlessly without any wrist or finger strain – and to continue doing so for the very long lifetime of this classic slit lamp.



CROSS SLIDE

BX 900 Superior technology – reliable instrument

The Haag-Streit BX 900 slit lamp combines the latest imaging technology with the proven versatility, optical brilliance and mechanical quality of the Haag-Streit tradition. The BX 900 is the leading slit lamp imaging device and is designed to assist the Ophthalmic Photographer in his demanding profession.

Ophthalmic imaging of the highest possible quality is ensured with an integrated flash, fully synchronised with camera and

slit and background illumination, all controlled through a release mechanism directly beside the slit lamp joystick, as well as adaptors for a variety of top of the range digital single lens reflex cameras.

The camera is mounted above the microscope, thus allowing ease of access to the patient. This is especially useful when photographing in conjunction with hand-held diagnostic lenses.

BX 900



XENON FLASH

Optimal luminous efficacy

The high power flash illumination is delivered via a xenon tube that lies coaxially to the LED illumination and thus exactly reproduces the slit illumination pattern to provide images of stunning quality. The brightness of the flash is individually adjustable for slit and background illumination.



XENON FLASH

MIRROR HOUSING

Camera integration and synchronisation

The heart of the BX 900 is the mirror housing with its built-in diaphragms. When capturing an image, all light is directed via a mirror to the camera. This allows the maximum utilisation of the available light: 100% for the examination and 100% for the image. The built-in diaphragm setting with five apertures is applied on image capture.



MIRROR HOUSING

SHUTTER RELEASE

Precise image capturing

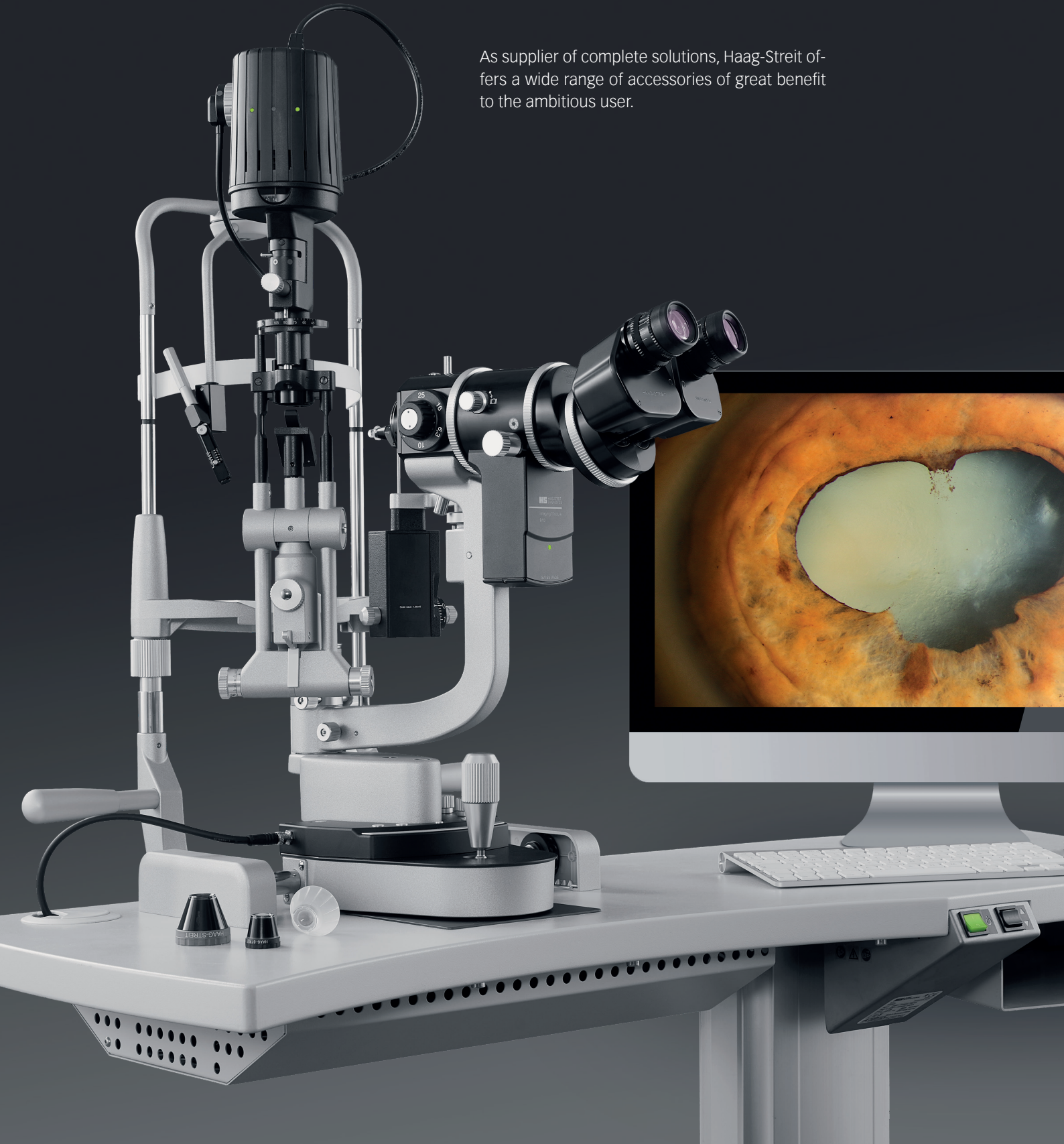
Conveniently mounted close to the operator's hand, this can easily be utilised whilst continuously maintaining focus with the slit lamp joystick. As it is symmetric on the cross slide, it allows right- and left-handed operation.



SHUTTER RELEASE

Accessories Improved efficiency – optimal examination

As supplier of complete solutions, Haag-Streit offers a wide range of accessories of great benefit to the ambitious user.



Eyepieces

A large range of different eyepieces are available, such as a reticule eyepiece for estimating length and angles, McIntire grid for estimating endothelial cells or crosshair reticule for imaging.

Contact lenses

The best-known lens of the Haag-Streit range of diagnostic lenses is the 903 original Goldmann three-mirror lens, offering the traditional 59°, 66° and 73° angles. But besides this famous contact lens, Haag-Streit lenses cover all areas of the eye and are available as diagnostic and laser lenses.

Stery Cup

Stery Cup is a disposable shield for use with 3-Mirror and Retina 145 lenses. The optically neutral, sterile cups are designed for single use and significantly reduce the risk of bacterial transfer.

Headrest with fixation device

The headrest has been designed according to anatomical criteria and includes an adjustable chinrest. The fixation device permits uninterrupted observation and simultaneous guidance of the patient's eye. Both help to make examination comfortable for operator and patient.

Instrument table

Haag-Streit offers a wide range of instrument tables for professional examination. Our tables have internal channels to conceal wiring from instruments or accessories.



20 | 21 HAAG-STREIT IMAGING MODULES

Slit lamp documentation at the push of a button

Rely on the leader in slit lamp imaging and let the Imaging Module 910 take care of the details, so you can be confident you are getting outstanding and expressive images while concentrating fully on examining your patients.



IMAGING MODULE 910

A striking image with every shot

The camera sensor and the superb optics of the Imaging Module 910 provide you with outstanding image quality - but that's not all.

With conventional slit lamp cameras, the success rate of conclusive images is often disappointing. To overcome this, the Imaging Module 910 provides you with smart features that are at work for you in the background. A performant auto-exposure mode in combination with the automatic aperture control guarantees great illumination at all time. In addition, the image selection algorithm ensures that you get the sharpest and most expressive image possible. Simply concentrate on your examination and let the Imaging Module 910 do the rest.



22 | 23 IMAGING MODULE 910

Ready when you are!

The Imaging Module 910 is instantly ready when you need it.

Finally, the days of cumbersome slit lamp imaging are over. By the turn of a knob, the Imaging Module 910 shares your view within your microscope directly on your screen – instantly!

Capturing images is equally easy – when you decide to document a finding, press the camera trigger button, and the software takes care of the rest. Simply switch off the camera after image capturing and get 100% light into the eyepieces again.





IMAGING MODULE 910

IMAGING MODULE 910

Work the way you want

We believe that tools should adapt to your needs and not vice versa. For this reason, the Imaging Module 910 can be used in different ways and integrated into many different environments.

Whether you are in «standalone mode» storing your images directly to your EMR, or in «EyeSuite mode» which is fully integrated into the EyeSuite software, the Imaging Module 910 always gives you brilliant and meaningful images at the push of a button.



IMAGING MODULE 600

IMAGING MODULE 600

Intuitive imaging

The Imaging Module 600 is the default imaging solution for all BP 900 slit lamps and a cost-efficient alternative to the Imaging Module 910. It has unique ergonomics that provide full control of the imaging process without detracting from the clinical examination.

Technical specifications

	Imaging Module 910	Imaging Module 600
Compatibility	BQ 900	BP 900 and BQ 900
Beam path	Right side	Right side
Control panel	RM03	RM02
Depth of focus control	Yes	No
Camera interface	CoaXPress	USB 3.0
Shutter system	Global shutter	Global shutter
Pixel size	3.45 µm	5.86 µm
Sensor size	2/3"	1/1.2"
Resolution	2448 x 2048	1920 x 1200
Frame rate	30 (frames per second)	30 (frames per second)
Software	EyeSuite Imaging (optional)	EyeSuite Imaging (mandatory)
EMR interfaces	EyeSuite script language, DICOM (SCU) GDT, Samba Share for direct import into patient file	EyeSuite script language, DICOM (SCU) GDT
Connector Box	Yes	No
Connector Box connectivity	HDMI out	n/a
	DisplayPort out	n/a
	Ethernet	n/a

24 | 25 GOLDMANN APPLANATION TONOMETER

AT 900 and AT 900 D*

The gold standard in IOP measurement

Because it is fast and reproducible, Goldmann applanation tonometry has been the gold standard in tonometry for many decades. It is based on the Goldmann principle – tried and tested during more than 50 years of usage with millions of patients.

Furthermore, thanks to the high precision of manufacturing at Haag-Streit, the Goldmann applanation tonometer offers reliable performance over many years without the need for manufacturer maintenance.

AT 900 is the original version of the Goldmann tonometer and works 100% mechanically. The digital Goldmann tonometer AT 900 D* adds the advantages of state-of-the-art digital technology.

*AT 900 D is not available in the US and Canada



TONOSAFE – THE DISPOSABLE TONOMETER PRISMS

Convenient – Safe – Accurate

Tonosafe avoids the need for time-consuming and laborious cleaning and disinfection without compromising the original Goldmann quality. It has been developed for single use only and thus reliably eliminates the risk of cross-infection even in the most difficult situations. Calibrated to Goldmann standards, Tonosafe delivers accurate results with all Goldmann and Perkins contact tonometers.



TONOSAFE

GOLDMANN TONOMETER PRISMS

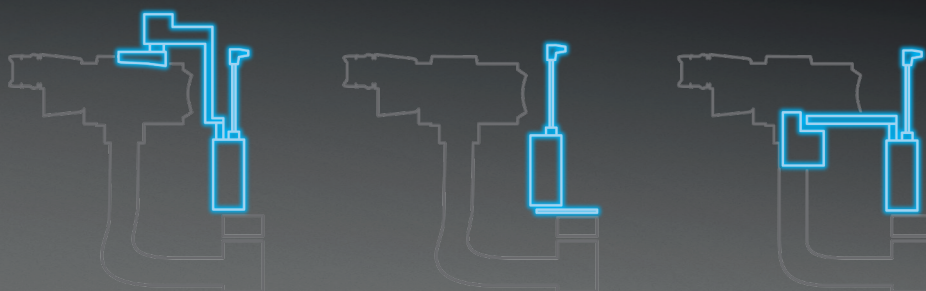
Excellent optical quality

Goldmann measuring prisms are distinguished by their optical and mechanical performance which allows for fast and reliable measurements in daily practice. They are largely handmade by experienced workers, and are checked for tight tolerances in weight, optical quality, durability and for consistent measurement results.



GOLDMANN TONOMETER PRISMS

Slit lamp model	mod. R	mod. T	mod. BQ
BD 900	■		
BM 900	■	■	
BI 900	■	■	
BP 900		■	■
BQ 900		■	■



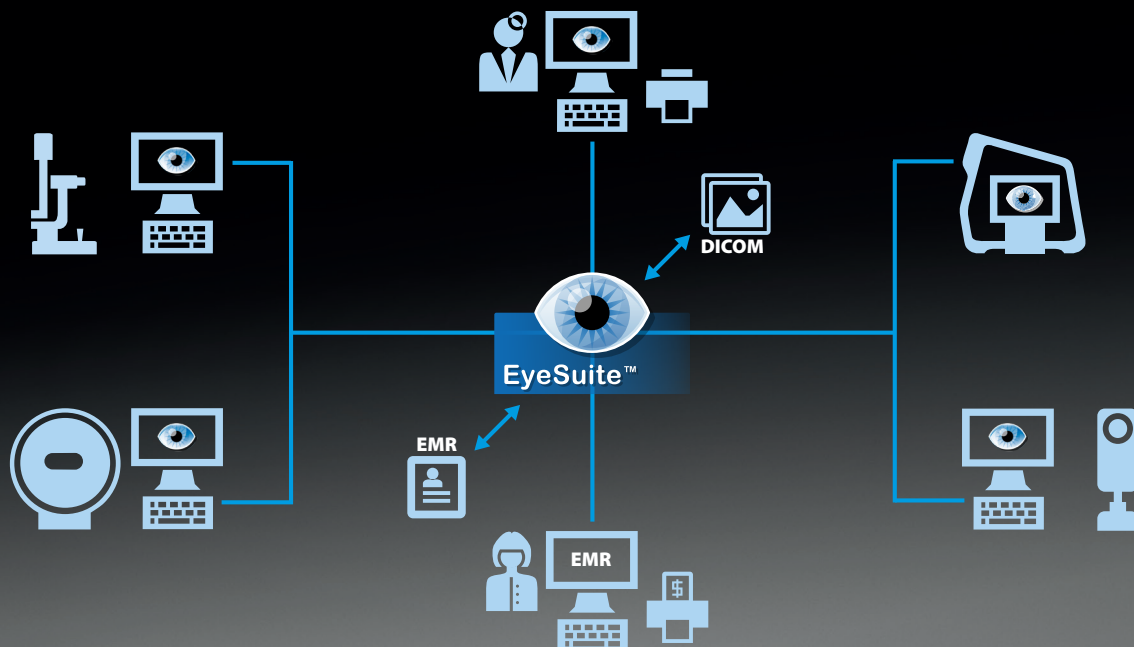
Connectivity is key

Seamless Integration for optimal workflow

The EyeSuite software is designed for optimal patient flow in busy practices. Supporting the Haag-Streit imaging solutions, the software makes your slit lamp networkable both with other Haag-Streit devices and your practice network. EyeSuite does not require any proprietary third-party software to provide connectivity.

If the slit lamp is connected to an EyeSuite server, all the images taken can be accessed remotely from any number of viewing stations connected to the same database.

Furthermore, the EyeSuite Script Language or standardized interfaces, such as GDT or DICOM, connect easily to almost any electronic medical record (EMR) system. Patient orders can be received from the EMR system and the captured images are then automatically returned to it.



Technical specifications

Slit lamps

		BQ 900	BP 900	BI 900	BM 900	BX 900
Illumination	LED	■	■	■	■	■
	Background	○	○	○	—	■
	Tilt	■	■	■	■	■
	Defocusing	■	■	■	■	■
Filter	Grey	■	■	■	■	■
	Red-free	■	■	■	■	■
	Blue	■	■	■	■	■
Slit	Width (continuous) in mm	0–14	0–14	0–14	0–8	0–8
	Length (continuous) in mm	1–14	1–14	1–14	1–8	1–8
	Test mark fixation star	■	■	■	■	■
Microscope	Stereo angle 13°	■	■	■	■	■
	Stereo angle 4.5°	○	—	—	—	●
	Inclined eyepiece	○	—	—	—	○
	Yellow filter	○	○	■	—	○
	Second observer tube	○	—	—	—	●
Magnification (Std. Eyepieces)	6.3×	■	—	—	—	■
	10×	■	■	■	■	■
	16×	■	■	■	■	■
	25×	■	■	—	—	■
	40×	■	—	—	—	■
	Zoom	○	—	—	—	—
Imaging	IM 910	○	—	—	—	—
	IM 600	○	○	—	—	—
	Imaging Set BI 900	—	—	○	—	—
	SLR camera connector	—	—	—	—	■
	Integrated flash (slit and background)	—	—	—	—	■

■ Standard ○ Option — Not available ● Not recommended

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