

# **SLIT LAMP BQ 900**Sophisticated microscopy

**Tradition and Innovation** – Since 1858, visionary thinking and a fascination with technology have guided us to develop innovative products of outstanding reliability: Anticipating trends to improve the quality of life.



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THE VERSATILE SLIT LAMP

## BQ 900 **Sophisticated microscopy, outstanding performance**

Since its introduction in 1958, the famous Goldmann slit lamp BM 900 enjoys remarkable popularity amongst our customers because of its excellent optics and the impressive longevity. As a result, there are well over 100'000 of these original Haag-Streit slit lamps in daily use – including many from the first years of manufacturing.

Further innovations have followed to cover more advanced needs in slit lamp examination including the unique stereo variator, a wider range of magnifications and innovative imaging solutions. The basic goal of each Haag-Streit slit lamp development however has always been the same: to provide a slit lamp with excellent optics, optimum illumination and perfect mechanics.

Following this tradition of slit lamp innovation, the BQ 900 LED was introduced in 2010 as the first LED slit lamp in the world. While the LED illumination allows brighter and more homogeneous illumination, the BQ 900 offers many other advantages including excellent optics, versatility and ease of operation. Therefore, it has become the standard slit lamp for those requiring advanced slit lamp microscopy.

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# Technical specifications

## **BQ 900**

Illumination	Light-source	LED for examination (slit and background illumination)
	Slit width	0 – 14 mm continuous
	Slit length	1 – 14 mm continuous and fixed apertures
	Illumination field diameter	Ø8/5/3/2/1/0.2mm
	Slit image rotatability	± 90°
	Swiveling of the slit illumination to the microscope axis	Horizontal ± 90°, vertical 0 – 20°
	Filters	Blue, red-free (green), grey (10%) and optional yellow
Microscope	Ocular magnification	12.5×
	Stereo angle	13° (convergent optics)
	Range of adjusting eye-pieces	+7 to -7 diopters
	Pupil distance	52 – 78 mm
	Magnification changer	6.3×/10×/16×/25×/40×
	Object field ø in mm	32.0/20.0/12.7/8.0/5.1
Instrument base	Operation	Single handed 3-dimensional operation of the control lever
	Spatial adjustment of the instrument base	100 mm (length), 100 mm (side), 30 mm (height)
Measures (W x L x H)		312mmx305mmx676mm
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## **IM 900**

Beam	Beam path right
Sensor size	1/1.2"
Pixel size	5.86 µm
Resolution	1936×1216
Dynamic range (sensor)	73dB
Quantum efficiency at 525 nm	76%
Frame rate (frames per second)	30
Interface	USB 3.0
EyeSuite Imaging	Patient Manager, Capture Module, Image Viewer
EMR Interfaces	EyeSuite Script Language, DICOM (SCU), GDT
	Sensor size Pixel size Resolution Dynamic range (sensor) Quantum efficiency at 525 nm Frame rate (frames per second) Interface EyeSuite Imaging

## **AT 900**

Measuring force	Generated by leverage weight
Installation	AT 900 model BQ, assembly on the microscope arm.
Measurement range	0 – 80 mm Hg

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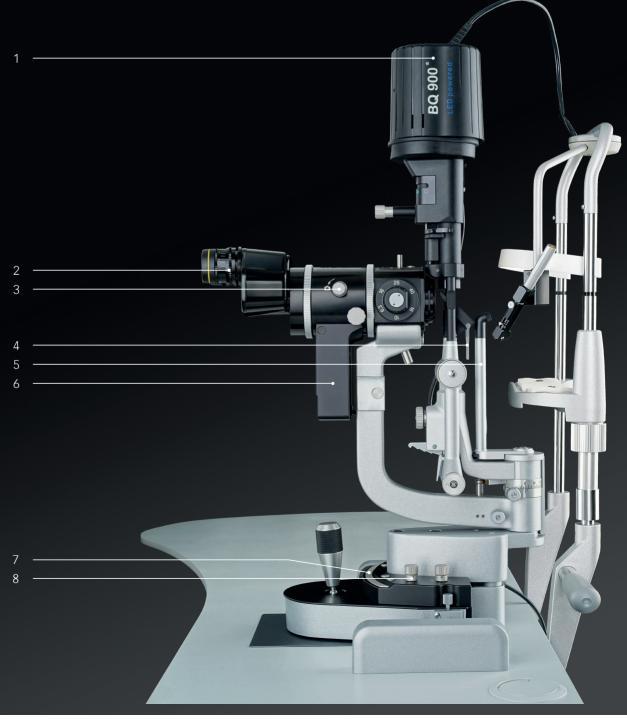
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## Slit lamp BQ 900

- 1. LED illumination head
- 2. Eyepiece with double cross hair reticule
- 3. Switch for beam splitter
- 4. Diffusor
- 5. Pivoting background illumination
- 6. Imaging Module IM 900
- 7. Release bar
- 8. Illumination control



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#### **VERSATILE OPTIONS**

## Wide range of accessories

APPLANATION TONOMETER AT 900

#### The original Goldmann tonometer

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 during many years without the need for manufacturer maintenance.



#### A view with no limits

With the zoom objective, the magnification can be continuously changed from 6 up to 40x. Reference points are set at magnifications 10, 16 and 25x to allow easy orientation.

The zoom objective offers excellent diagnostic capabilities – especially when used in conjunction with the video function. Any existing BQ 900 can be modified from a standard model to a BQ 900-Zoom.

#### 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. Consequently, the examiner is able to maintain his head in a fatigue-free position.







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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.

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 adapters, which offer different focus length for variable sensor sizes.

There are also two versions of second observer tubes available: One short version for co-observing in sitting and a long version for co-observing in upright position.

CONTRAST ENHANCING FILTER

#### Fluorescence enhancement

This 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.

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FROM THE LEADER IN SLIT LAMP IMAGING

# Imaging Module IM 900 Intuitive imaging – best results

The Imaging Module IM 900 is a fully integrated compact imaging solution for the BQ 900 slit lamp. It is equipped with an ultra-sensitive camera which produces images of exceptional quality even under difficult light conditions. Designed for optimal user friendliness it provides you with features which make slit lamp imaging more convenient than ever before.

#### Ideal workflow – no distraction

The control panel allows you to operate both the camera and the slit lamp illumination. Located in front of the joystick of the slit lamp, it can be used blindly while you are focused on your patient. The release bar is at your finger tip! The compact and modern design conforms to the design of the slit lamp. Thus the Imaging Module comes as a component of the whole system, thereby supporting an ideal examination workflow.

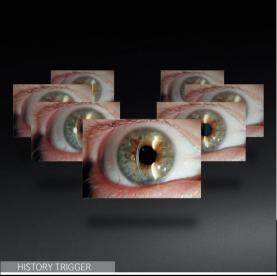
#### Simple image capturing

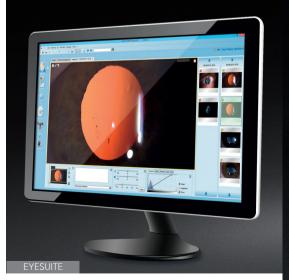
Our fast and accurate automatic exposure control ensures correct illumination of the image while you are concentrating on your examination. Thanks to the History Trigger function, you do not need to worry about a patient blinking or moving when you take an image. The History Trigger does not just capture a single image, but records the last few seconds in real time and lets you select the perfect image

#### Intuitive software

EyeSuite Imaging is a straightforward imaging software supporting the Haag-Streit imaging solutions. Easy image capture, efficient image editing and a well-structured patient management system make the software a perfect team player for daily practice. EyeSuite makes your slit lamp networkable both with other Haag-Streit devices and your practice network. It does not require any proprietary third-party software to provide connectivity.







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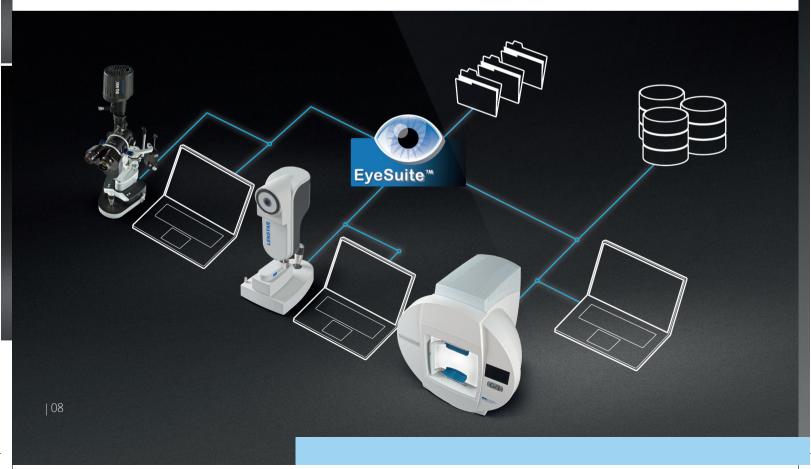
**CONNECTIVITY IS KEY** 

# EyeSuite Platform Flexible interfaces for easy integration into your network

The EyeSuite software is designed for optimal patient flow in busy practices. Supporting the Haag-Streit imaging solutions, the software makes the BQ 900 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 BQ 900 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.



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### **Excellent optics**

The quality of the optical system determines the results of whatever application a slit lamp is used for. The BQ 900 is equipped with a elaborated optical system, manufactured for highest quality requirements. The result is a superb view, allowing accurate diagnostics, safe patient treatment and stunning imaging results.

## Optimum illumination

The new LED illumination systems on our slit lamps deliver our sharpest, brightest and most homogeneous slit ever. The light spectrum was specially designed for Haag-Streit to meet the highest quality standards and to achieve results that are even superior to those delivered by tungsten light. This ensures optimal diagnostic details from the cornea to the retina.

#### Perfect 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 the BQ 900, which can last for decades.



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