



## 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.



#### 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.

## Excellent Optics

The quality of the optical system is the determining factor for the results of whatever application a slit lamp is used for. The BQ 900 is equipped with an elaborated optical system, manufactured for highest quality requirements. The result is a superb view for accurate diagnostics leading to save patient treatment and stunning imaging results.

## Optimum Illumination

The new LED-powered 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 achieve results that are even superior to those delivered by tungsten light. This ensures optimal diagnostic details from the cornea to the retina.

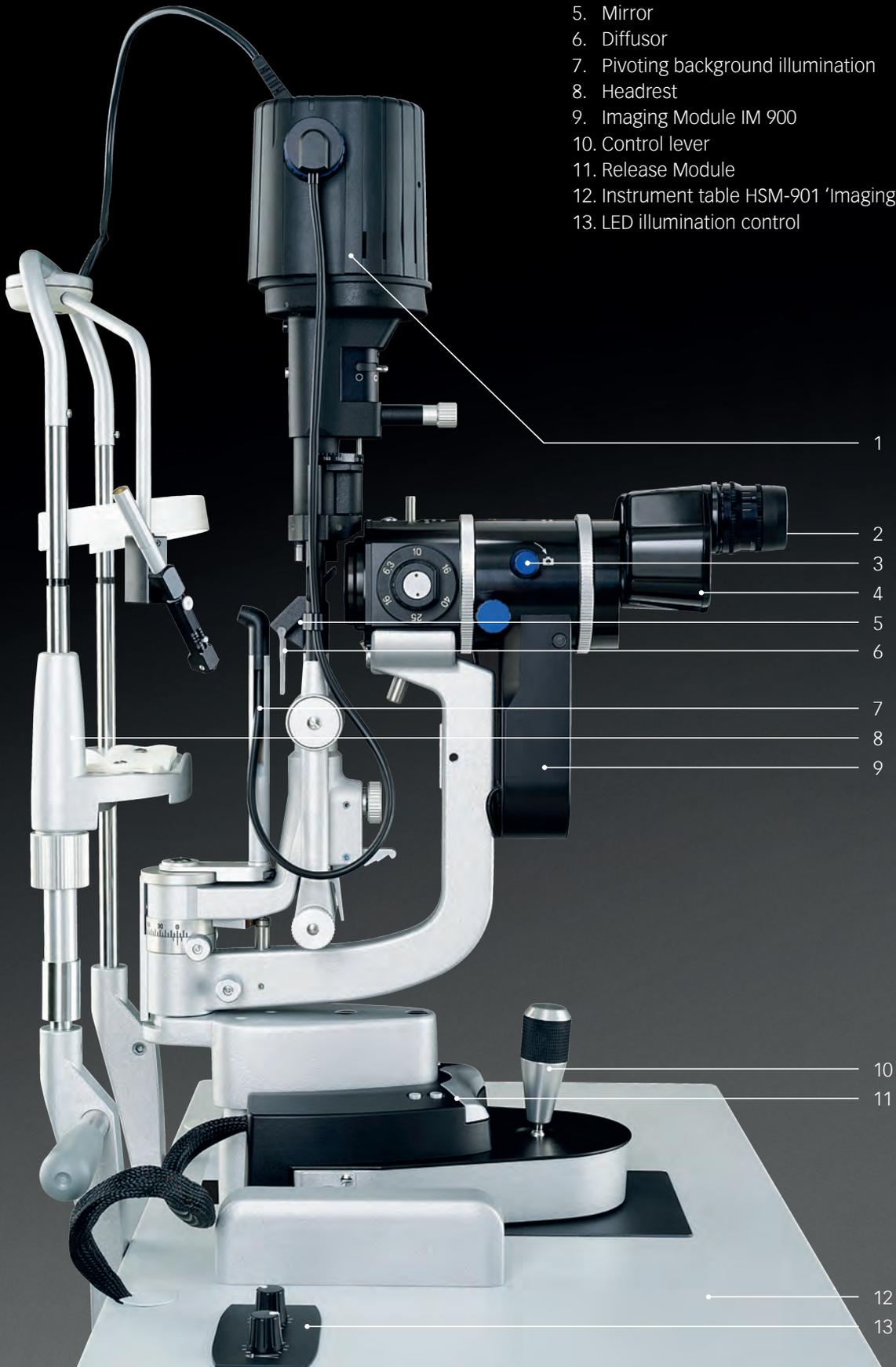
## Perfect Mechanics

Since its foundation in 1858 Haag-Streit stands for high-precision mechanics. This experience combined with outstanding Swiss engineering and the exclusive use of high grade materials ensures perfect mechanics in the BQ 900 lasting for decades.



# Slit lamp BQ 900

1. LED illumination housing
2. Eyepiece with double cross hair reticule
3. Switch for beam splitter
4. Stereo microscope
5. Mirror
6. Diffusor
7. Pivoting background illumination
8. Headrest
9. Imaging Module IM 900
10. Control lever
11. Release Module
12. Instrument table HSM-901 'Imaging'
13. LED illumination control



EASY USE, OPTIMAL IMAGING

# Imaging Module IM 900

## The intelligent choice for optimal imaging

The Imaging Module IM 900 is the fully integrated compact imaging solution for the BQ 900 slit lamp. Its sensor designed for professional high end imaging provides the user with high sensitivity and a wide dynamic range, ideal for imaging under lower light conditions.

Furthermore, the IM 900 has been designed to provide intuitive and ergonomic operation. Four different capturing modes, an auto-brightness control as well as the freeze technology simplify the capturing process. A straight forward image editor offers efficient image editing.

## Freeze Technology

Do not let a slow camera spoil your perfect moment for a slit lamp image. Capture the image at the precise moment you press the trigger thanks to the Freeze Technology.

## History Trigger

Worry less about a patient blinking or moving when you take your image. The History Trigger function records the last few seconds of your image and allows you to freely select the one moment when conditions were perfect.

## Depth of field control

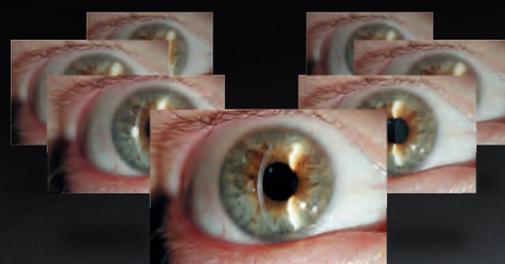
Like any professional camera, the IM 900 is equipped with Depth of Field Control (DFC) which allows to select a shallow of field when a maximum of light is required and a deep depth of field when the importance is to have different structures of the eye in focus. With DFC, the camera can be ideally adjusted regardless of the location of the pathology.

## Easy Touch

The Easy Touch trigger is located in front of the joystick of the slit lamp. As a consequence, it can be blindly operated while aiming for the perfect image. However, Easy Touch is much more than just a trigger. It allows simple, ergonomic management of the camera settings and to go back and forth between the images stored in the memory buffer.



FREEZE TECHNOLOGY



HISTORY TRIGGER



DEPTH OF FIELD CONTROL (DFC)



EASY TOUCH

## 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 of tonometry for many decades until today. It is based on the Goldmann principle – proven during more than 50 years of usage with millions of patients.

Goldmann applanation tonometry is fast and reproducible. 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.

### ZOOM OBJECTIVE

## 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 line. Consequently, it enables the examiner to keep his head in a fatigue-free position.



APPLANATION TONOMETER AT 900 AND AT 900 D



ZOOM-OBJECTIVE



INCLINED EYEPIECE ADAPTOR



STEREO VARIATOR

#### 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 of stereoscopic observation.



BEAM SPLITTER

#### 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. There are beam splitters in different versions available. 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 tube available: One short version for co-observing in sitting and a long version for co-observing in upright position.



CONTRAST ENHANCING FILTER

#### 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.

CONNECTIVITY IS KEY

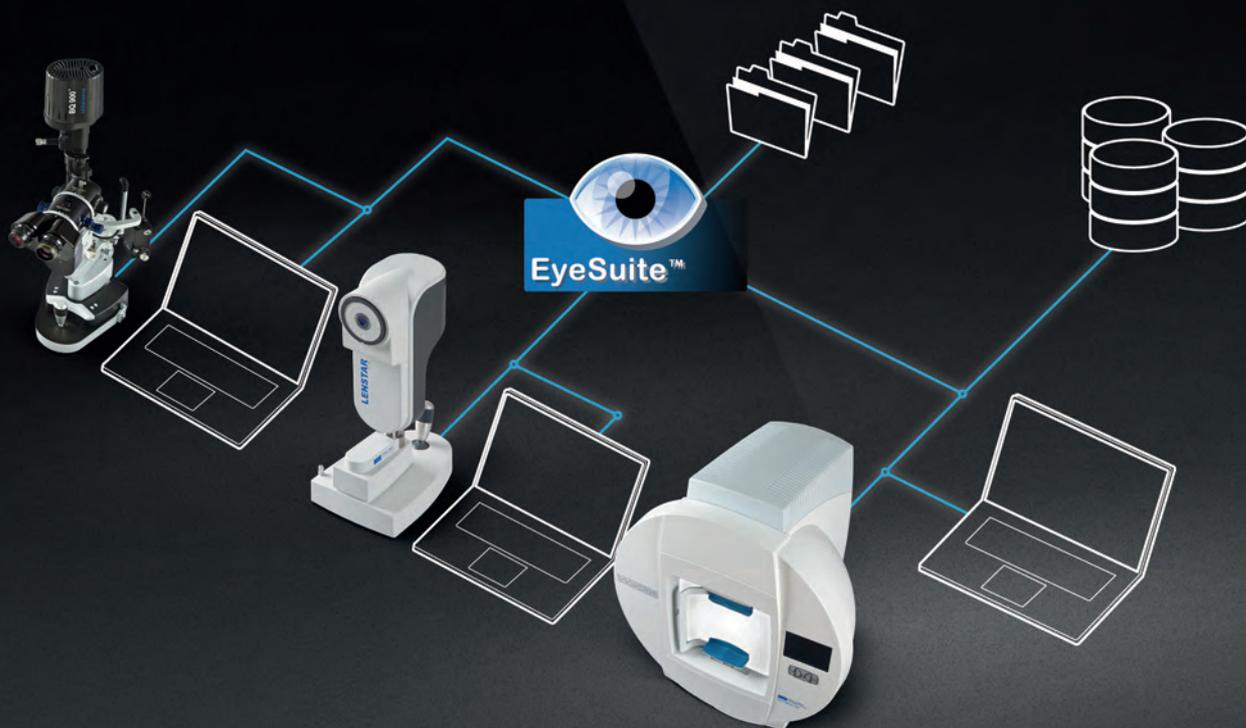
# EyeSuite Platform

## 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 it 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 sent back to the EMR system.



# Technical specifications

## BQ 900

Illumination	Light-source	LED for examination (slit and background illumination)
	Slit width	0 – 8 mm continuous
	Slit length	1 – 8 mm continuous and fixed apertures
	Illumination field diameter	ø 8 / 5 / 3 / 2 / 1 / 0.2 mm
	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
	UV and thermal-protection filters	Permanently installed
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 guide lever
	Spatial adjustment of the instrument base	100 mm (length), 100 mm (side), 30 mm (height)
Measures (W x L x H)		312 mm x 305 mm x 676 mm

## IM 900

Camera	Beam	Beam path right
	Sensor type	CCD
	Interface	USB-2
Software	EyeSuite Imaging	Patient Manager, Capture Module, Image Viewer
	EMR Interfaces	EyeSuite Script Language, DICOM (SCU), GDT

## 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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