



HS Hi-R NEO 900

For first class surgery



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.

 **HAAG-STREIT**
SURGICAL



02 | 03

HS Hi-R NEO 900

Strong name – Strong product

Enjoy high optical visualization with HAAG-STREIT SURGICAL's microscope HS Hi-R NEO 900 for ophthalmology and hand surgery. It allows superior judgment and treatment with best depth perception and 3-dimensional vision due to its 25 mm stereo base.

The microscope's integrated display gives instant feedback on all important settings. By a single glance you find information on the positions of focus, zoom, and X-Y coupling as well as the level of illumination. To maximize the freedom of positioning the microscope, an inclination mechanism has been integrated ranging from -70° to +90°. Fine adjustments can be made in sterile manner during surgery.

In the variation HS Hi-R NEO 900A NIR, the microscope is ready for intraoperative OCT (iOCT®). Live scans on the eye's anterior or posterior segment support a number of procedures and ensure surgical outcome.

Modularity – this key word describes the accessory structure of the HS Hi-R NEO 900. On demand, the ophthalmoscopic system EIBOS 2 as well as the TOCULAR can be added. Standard accessories are available like observers, cameras, a recording system, a keratoscope, a motorized slit lamp, a depth-of-field diaphragm, and foot switches.

For the carrying system also various options, including the choice of illumination (halogen and LED), arise. Take advantage of this modularity for optimal patient care, cost efficiency and fast return on investment.



HS MIOS 5

Choose halogen
or LED illumination

Quick
reference on
microscope
settings

M.DIS

Ophthalmoscopic
system EIBOS 2

0° assistant scope
for teaching

Intraoperative OCT

- » Intraoperative live OCT
- » Individual configuration exactly for your needs and ergonomic demands
- » Impressive optical image quality
- » Extraordinary movability and precise positioning

HS Hi-R NEO 900A NIR
on floor stand FS 2-21 / FS 2-25

Foot switch EF 5001



04 | 05

HS Hi-R NEO 900 Better vision – The key to higher precision

Precision optics and optical systems have been developed and manufactured in our German production facility since 1864. We work according to an elaborated and certified quality process, and the assurance of our optics exceeds the requirements of the relevant ISO standards.

A perfect example of the product's optical quality is the large depth of field achieved by HS Hi-R NEO 900. It limits focusing procedures to a minimum. For further increase of this effect especially in high magnification a Double Iris Diaphragm can be added. Looking through the oculars of the microscope HS Hi-R NEO 900 will tell you more than a thousand words could.



ABOUT HAAG-STREIT SURGICAL

C.RED 900

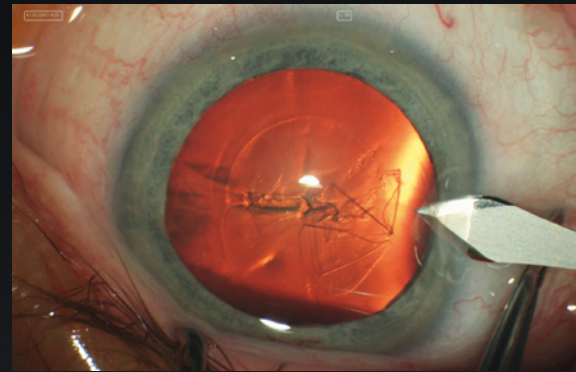
The microscope's integrated red reflex enhancer is especially designed to clearly show all details during capsulorhexis and polishing of the capsular bag. For light hazard protection even at low illumination levels a bright reflex is visible. The red reflex enhancer can be individually adjusted to always achieve a perfect red glow as well as switched off for corneal surgery.



ABOUT RED REFLEX

HS Hi-R NEO 900A

HS Hi-R NEO 900A offers the assistant full stereoscopic vision. The 0° assistant scope with its 12.5x oculars has its own magnification changer (5 steps) and focusing device allowing both surgeons independently to select the focal plane and magnification. It easily swivels laterally and, for relaxed working, the eyepiece head may be inclined and rotated into the most comfortable position.





Accessories

Optional equipment

EIBOS 2

Fundus observation with integrated inverter

Important for vitreoretinal surgery is the non-contact wide angle ophthalmoscope EIBOS 2. Covered with a sterile drape, it is flipped down for the operation. The focus mechanism and the inverter are integrated.

As a standard HS Hi-R NEO 900 has an integrated slit illumination. This can be applied very effectively through the EIBOS 2 in the starting phase of a vitrectomy for better vision of the vitreus.

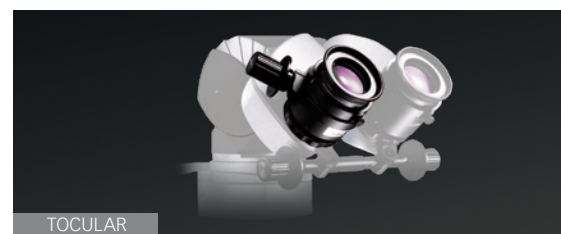


EIBOS 2

TOCULAR

Precise angle alignment of toric IOLs

TOCULAR is a rotatable wide angle ocular with an integrated reticle. This can be rotated manually via a sterilizable knob to precisely adjust the implantation angle for alignment of toric IOLs.



TOCULAR

KERATOSCOPE

Keratometry with ring lights

To examine the curvature of the cornea, the KERATOSCOPE can be attached to the microscope. A fixation light for the patient supports correct usage.



KERATOSCOPE

C.DUO

Usage for plastic hand surgery

The C.DUO offers face-to-face observation for two surgeons in plastic hand surgery, lateral ports, and a separate camera connection for c-mount cameras.

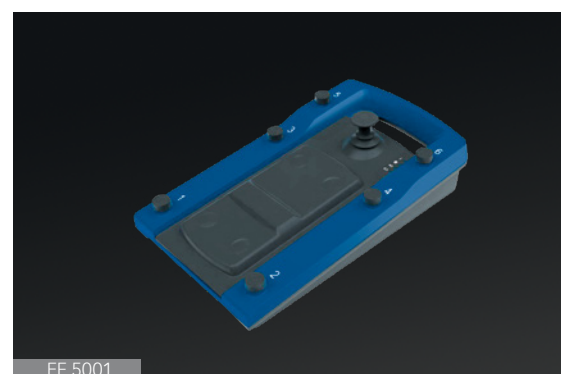


LIGHT ROUTER C.DUO

EF 5000 AND EF 5001

Ergonomic control

For most ergonomic control of the microscope HAAG-STREIT SURGICAL recommends its newly designed corrosion-proof foot switches. While EF 5000 is connected to the floor stand via cable, EF 5001 controls 14 functions of the microscope wireless via Bluetooth.



EF 5001



06 | 07

Imaging possibilities

Observe and document

C.INJECT 900

Enrich your vision

The image injection system C.INJECT 900 provides additional information as intra-operative OCT scans or phaco settings at a glance. Data is injected in exceptional resolution binocularly.

M.DIS

Microscope mounted display

The M.DIS (Microscope Display) turns the operating microscope into a microsurgical image control center. The high-resolution screen, mounted close to the eyepiece, provides images or data for the surgeon which she/he may see by momentarily looking up from the eyepiece. The touch screen allows numerous functions to be controlled.

HS MIOS 5

Comprehensive yet intuitive recording

MIOS stands for Microscope Imaging and Operation System. Its prime functions are the recording of operation scenes as well as the capturing and recording of snapshots, together with proper identification of patient and hospital data. Images and video streams can be stored on DVD-R/-RW, HDD, USB flash drive, and external USB hard disk drive or transmitted to the hospital PACS via DICOM.

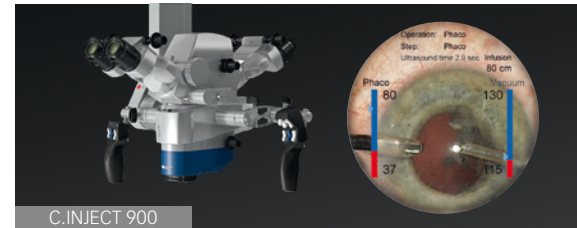
The image data can also be edited for presentations with the optional module M.AED. When the snapshot button is pressed, a sequence of the video stream is marked. In the archive, all saved video sequences are merged into one video.

C.MOR HD AND C.MON HD

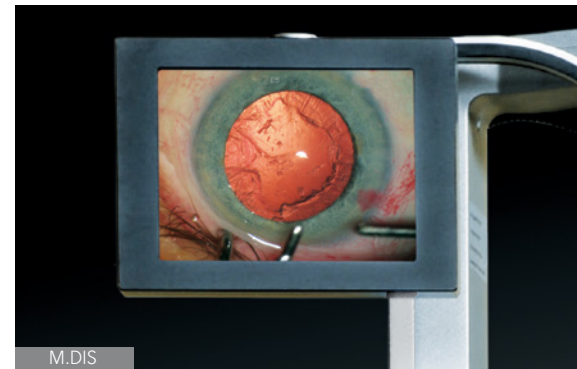
Compact HD camera and display

C.MOR HD is a full HD color video camera designed for the HAAG-STREIT SURGICAL microscope. Its ultra-compact camera head houses a 1/3" CMOS sensor that meets very high standards. With a resolution of 900 TV lines and an S/N ratio of 50 dB, images are crisp and sharp. Different user settings allow individual adjustments.

With its flat design and 21.5" size, the brilliant HD monitor C.MON HD can easily be attached to the microscope's floor stand. Its touch function can be operated even with medical gloves. Due to the planar screen and glass surface, it can be disinfected easily. For the safety of the system, C.MON HD is fully approved for medical use.



C.INJECT 900



M.DIS



HS MIOS



C.MOR HD



C.MON HD

Floor stands **More than just carrying systems**

Mechanical solutions

The floor stands FS 2-11 (halogen) and FS 2-15 (LED) are equipped with newly designed mechanical brakes, which are preadjusted in the factory for free-floating movements as well as for stable working positions. The light source is mounted externally for easy access. A tray to carry a camera control unit may be attached to the column.



HS Hi-R NEO 900 with M.DIS
on floor stand FS 2-11 / FS 2-15

High-tech solutions

Electromagnetic brakes in the floor stands FS 2-21 (halogen) and FS 2-25 (LED) support the smooth movements of HS Hi-R NEO 900. A holder for a foot switch can be mounted directly to the column as can trays for camera control units or other equipment. The front side accepts a high-resolution monitor (optional).

The system is computer-controlled with a graphic display for programming the individual start settings of the operating surgeons and the surgical procedures. The microscope parameters, brightness, and the carrying weight of the articulated arm are also adjustable and controlled on the graphic display.

The shape and internal reinforcements of the column make the floor stands extremely stable against vibrations. The cables are inside a cable duct. A plastic surface protects the base of the floor stand against corrosive liquids.



HS Hi-R NEO 900A
on floor stand FS 2-25

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HAAG-STREIT SURGICAL globally distributes products manufactured by MÖLLER-WEDEL through national sister companies and dedicated representatives.



HAAG-STREIT SURGICAL and MÖLLER-WEDEL maintain a Quality Management System for Medical Products according to ISO 13485. MÖLLER-WEDEL not only develops innovative products, but also produces them in a manner that is respectful of the environment. Fulfilling an Environmental Management System according to ISO 14001 is the guideline that is always followed. The Quality and Environmental Management Systems are both TÜV-certified.

All products conform to the EC guidelines and are thus CE-labeled.



HS Hi-R NEO 900

Technical specifications



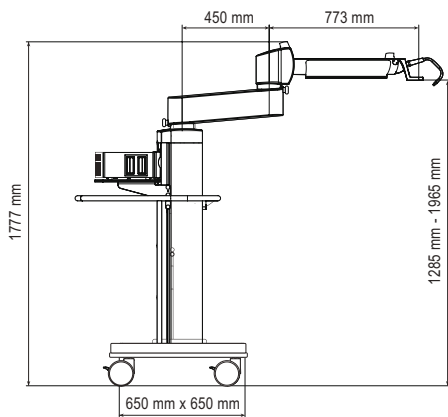
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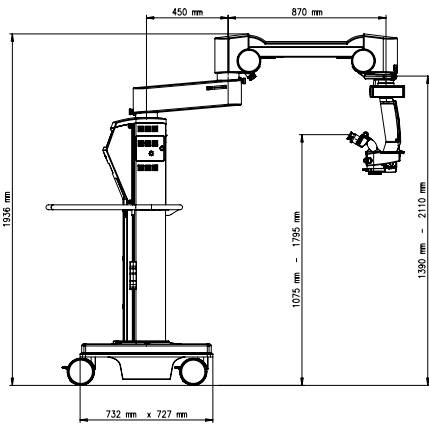
HS Hi-R NEO 900

Technical specifications

Operating microscope	HS Hi-R NEO 900	HS Hi-R NEO 900A	HS Hi-R NEO 900A NIR
Optics	apochromatic		apochromatic, optimized for Near Infra Red (NIR)
Stereo base	25 mm		
Focusing	+17 mm to -33 mm		
Working distance	200 mm (exchangeable)	175 mm (exchangeable)	
Magnification (Mot. zoom 1:6)	3.9x to 23.2x	4.4x to 26.6x	
Diameter visual field	9.0 mm to 54.2 mm	7.9 mm to 47.4 mm	
Illuminated field	31 mm to 59 mm	27 mm to 51 mm	
Inclinable eyepiece head	200° (10x wide angle oculars)	surgeon 200° (10x wide angle oculars) assistant 160° (12.5x oculars)	
Diopter settings	+5 D to -8 D		
PD Range	55 to 75 mm		
Inclination angles	coarse -70° to +90°, fine +/-10°		
Rotation	540°, electromagnetic		
X-Y coupling	60 mm x 60 mm		
Filter	UV, softlight, daylight, blue		
Weight (without accessories)	9.2 kg	11.5 kg	



Floor stands
FS 2-11 / FS 2-15



Floor stands
FS 2-21 / FS 2-25

Floor stands	FS 2-11	FS 2-15	FS 2-21	FS 2-25
Arm reach (max.)	1223 mm		1320 mm	
Swivel area	2 x 270°			
Door height	1777 mm		1936 mm	
Floor stand carriage	650 mm x 650 mm		732 mm x 727 mm	
Carrying capacity	4.5 kg to 15.0 kg		5.5 kg to 17.0 kg	
Brakes	mechanical, preadjusted		electromagnetic	
Balancing	mechanical		mechanical, sensor-aided	
Height at oculars	964 mm to 1644 mm		1069 mm to 1789 mm	
Illumination	2 x 150 W halogen	2 x 50 W LED	2 x 150 W halogen	2 x 50 W LED
Protection filter	UV, IR			
Operating voltage	100 VAC, 115 VAC, 230 VAC, 240 VAC; 50/60 Hz; selectable			
Max. power consumption	600 VA	450 VA	1200 VA	1000 VA
Weight	198 kg		240 kg	
Foot switch	14 functions			