

# HS Hi-R NEO 900 For first class surgery













**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.





# 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.



# 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 900**Technical specifications



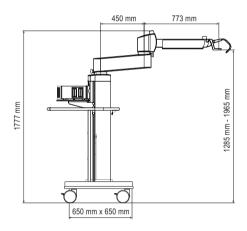




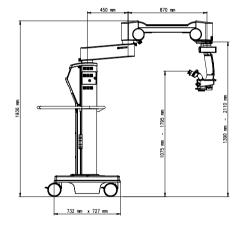


# **HS Hi-R NEO 900**Technical specifications

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		
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	
B <mark>rakes</mark>	mechanical, preadjusted		e <mark>lectromagnetic</mark>	
Balancing	mechanical		mechanical, sensor-	<mark>aided</mark>
Height at oculars	964 mm to 1644 mm		1069 mm to 1789 mr	m
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	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			

# OCULUS | SDI® 4/BIOM® 5

Wide Angle Observation



# The OCULUS BIOM® 5

Perfect View for Non-Contact Wide Angle Observation

- > The OCULUS BIOM® was a revolution in vitreoretinal surgery and forever changed fundus viewing.
  - > The Original: Made in Germany, made by OCULUS.
- > The BIOM® 5 series continuously incorporates the principle of indirect ophthalmoscopy in the operating microscope.



# The Next Evolution in Non-Contact Wide Angle Observation



> Intelligent activation of the SDI® 4c

# **Efficiency Meets Function**

Surgeons appreciate the easy handling of the BIOM® 5. While observing the vitreous and the fundus the BIOM® 5 is aligned coaxially with the operating microscope. During extraocular phases of surgery it is swung out of the observation beam while the inverting action of the SDI® is neutralised: Automatically, by a surgeon controlled footswitch or manually.

## Intelligent

The convenience of automatic inversion provided by the SDI\* 4c ensures the surgeon's view is always orientated properly. This is accomplished by OCULUS' patented design, utilising a fully autoclavable micro switch.

# BIOM® 5c (With Electronic Focus)

When used with the SDI® 4c the BIOM® 5c offers the convenience of electronic foot pedal focusing and intelligent and automatic image inversion.



> BIOM® 5c in working position

# OCULUS BIOM® 5

# The Advantages



# Slim and Sleek

The slim and open design is lightweight and increases accessibility for the surgeon's hands and instruments as well as reprocessing. Space consumption in the operating field is also minimised.



# **Optimized Surgical Efficiency**

The reduction lens is designed to optimise the view of the retina and the limbus without the need to refocus during extraocular phases of surgery.



# Precision Engineered for Maximum Accuracy

OCULUS' high design and manufacturing standards ensure greater stability and precision. Selected materials, including titanium, offer increased durability, with excellent resistance to today's rigorous and sometimes harsh sterilisation methods.



# Wide-Field in High Definition

The OCULUS BIOM® HD Disposable Lens is designed to provide superior clarity with wide-angle viewing. This unique design also provides high definition during high magnification, reducing the necessity of a separate lens for macula work.



# Compatibility and Continuity

The BIOM® 5 is interchangeable with most accessories of the earlier BIOM® 3 and BIOM® 4 versions.

Also special adapter available to use it on microscopes equipped with Zeiss Resight®.

# Still the Best: OCULUS SDI® 4

# Stereoscopic Diagonal Inverter

- > High transmission glass optics
  - > Slim design for reduced microscope stack height
  - > Integrates into most ophthalmic microscopes

## Automatic Inversion

- Intelligent automatic inversion activated by the position of the BIOM® 5c
- Surgeon controlled electronic focus when combined with the BIOM® 5c
- Multiple BIOM® connectors for increased flexibility and convenience

# > SDI° 4c

## Motorized Inversion

- Surgeon controlled electronic inversion
- Integration into most microscope foot pedals
- For use with the BIOM® 5m



## Manual Inversion

- For use with the BIOM® 5m
- No power supply, cables or foot pedal required



# BIOM® Connecting Spacer

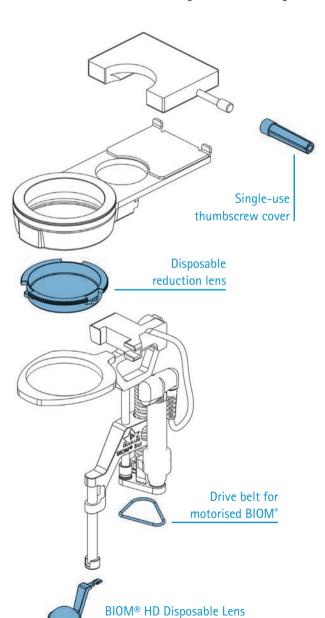
If your microscope already incorporates a stereoscopic diagonal inverter, you don't have to miss out on the benefits of the OCULUS BIOM® 5c and BIOM® 5cl. Ask the OCULUS team about the BIOM® Connecting Spacer.

# The OCULUS BIOM® Optic Set

# Enhancing 3D visualization systems

The OCULUS BIOM® HD Disposable Lens combines an extremely wide field of view with high definition clarity. This makes it ideal for all stages of vitreoretinal surgery including macula viewing under high magnification.

- Innovative single-use design by OCULUS ensures a perfect view in every case
- 130° wide angle field of view
- Outstanding resolution in periphery whether in a fluid filled eye or under air
- HD clarity under high magnification reduces the need for a contact lens when working in the macula region
- Superb depth of field even under high magnification
- Single-use design for increased O.R. efficiency and lower costs
- Compatible with all OCULUS BIOM® 3/4/5
- Ideal for 3D Heads-up applications





> The convenient and sterile blister package is easy to handle. It includes thumbscrew cover and drive belts for the motorized BIOM® version.



> BIOM® HD Disposable Lens: Innovative design ensures a perfect view in every case.

# BIOM® 5 Accessories









> BIOM® 5 tray also available for STATIM 5000 G4

# OCULUS SDI® 4/BIOM® 5

# Wide Variety of BIOM® Lenses

	Max. observation angle	Outer diameter	Steam autoclavable with temperature of	Features
Mini Wide Field Lens	approx. 70°	12 mm	134° C	small/deep seated or infants' eye
Hi Res Macula Lens	approx. 60°	19 mm	134° C	for high magnification
90 D Lens	approx. 90°	19 mm	134° C	intermediate field
Wide Field Enhanced Lens	approx. 120°	19 mm	134° C	wide field
Wide Field High Definition Lens	approx. 60° - 130°	20 mm	134° C	high resolution combined with wide field of view
WiFi HD Mini	approx. 60° - 110°	17 mm	134° C	wide field of view with reduced diameter

# Combinations of BIOM® Optic Sets (disposable)

Objective lens	BIOM <sup>®</sup>	BIOM® Optic Set (disposable)
f = 175 mm	BIOM <sup>®</sup> 3 m/c, 4 m/c, 5 m/c	HD Professional for $f = 175 \text{mm}$
f = 200 mm	BIOM® 3 ml/cl, 4 ml/cl, 5 ml/cl	HD Professional for f = 200 mm
	BIOM <sup>®</sup> 3 m/c, 4 m/c, 5 m/c	HD Flex

# Adaptions

SDI° 4/BIOM° 5 ada	ptations are currently available for the following microscope types:
Alcon	LuxOR*
Huvitz	H0M-700
Kaps	SOM
Leica	M500/M501, M620, M650, M690, M841, M820, M822*, M844*, Proveo 8*
Möller	Ophtamic 900, Hi-R 900, Hi-R NEO 900, EOS 900, Allegra 900
Takagi	OM-18, OM-9, OM-8
Topcon	OMS-110, OMS-600, OMS-610, OMS-650, OMS-710, OMS-800 Standard, OMS-800 Pro, OMS-850 Standard, OMS-850 Pro
Zeiss	OPMI VISU 150/160, VISU 200/210, Lumera® 700, Lumera® T, Lumera® i, Lumera® 300, OPMI CS with Retrolux 1/3/CS or with Retroskop 1/2/CS, OPMI MDI/MDO/MDU, OPMI 1/6

- Specific: All SDI\* 4c/BIOM\* 5c functions can be controlled with the foot pedal of Leica M844/M822/Proveo 8 surgical microscope and ALCON LuxOR™ Ophthalmic microscope.
- Slitlamp adaptions on request.

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# surgiTrend



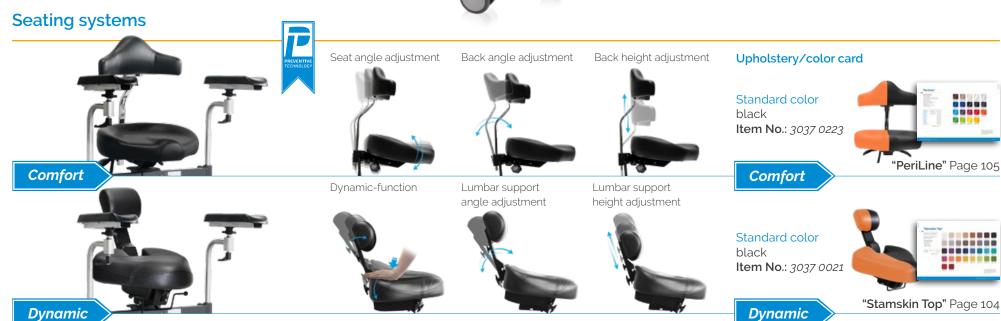
# surgiTrend

Item No.: 2200 0012 with Comfort seat (Illustration)

Item No.: 2200 0010 with Dynamic seat

For back protection and maximum work flexibility in confined spaces. Sophisticated, space-saving drive mechanism with reduced size for ample foot space combines tilt stability with easy and smooth maneuvering. Outstanding sitting comfort and a wide range of adjusting functions allow every surgeon to find his or her personal best and healthiest working position for any work scenario. Available in two seating system types: Comfort or Dynamic.





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## **Armrests**

- · Stable, ergonomically shaped armrests with curved support surface (350 x 120 mm)
- · Height-adjustable and equipped with a ball joint for 360-degree rotation
- · Designed for personalized adjustment to the surgeon
- · Optionally available with one-hand release

· Optionally available with linear guide and one-hand release



## **Technical specifications**

## Lifting column

- Drive 3,000 N (IPX4)
- Lifting height 200 mm

#### Chassis

- LxW (incl. braking system/foot keypad) 650x600 mm
- Castors
- 5th castor ø 65 mm
- · Central brake acting on all four castors
- Emergency stop button

## **Battery unit**

- · Battery box with 2 batteries (lead-gel), pollution free, maintenance-free, cadmium-free 2 x 12 V, 7.2 Ah
- Universal battery charger: Input: 100-240 V Output: 30 V

#### Seating systems: Comfort | Dynamic

· Min. sitting height 550 mm | 600 mm · Max. sitting height 750 mm | 800 mm · Seat angle adjustments -5°/+5°| -12° · Back angle adjustments -25°/+5° | -16°

Weight 45 kg

Max. load 150 kg

Subject to technical modifications.

## Chassis

- 4 high-quality, smooth-running double castors
- 5th castor for added resistance to tipping
- Optimized foot space
- Central braking system effective on 4 castors
- Integrated foot keypad panel for seat height adjustment
- Power supply-independent battery box with emergency stop button



## **Technical dimensions**

## **Seating system Comfort**

Minimum



Specifications in mm

### Maximum



ø 100 mm

## Seating system Dynamic

Minimum



#### Maximum

# **Components**





Item No.: 3047 0000



surgi**Trend**Dynamic seat Item No.: 2200 0010



surgi**Trend**Comfort seat Item No.: 2200 0012



Armrest pair with linear guide and one-hand release, factory-fitted

Item No.: 33511 006



Armrest pair with one-hand release, factory-fitted

Item No.: 3351 1004



surgi**Line**Formed seat Item No.: 2200 0008



surgi**Line**Comfort seat Item No.: 2200 0013



surgi**Trend** Footswitch plate 480×715 mm, height 53 mm

Item No.: 3351 1011



surgi**Line**Footswitch plate
480×715 mm, height 53 mm

Item No.: 3351 0014

# "Stamskin® Top"

User friendly: High flexibility of the material ensures a perfect finish.

Safe for the user: Phthalate-free, easy to clean and fulfills fire safety standards.

## **Product Specification**

- Extremely durable
- · Phthalate free
- Easy to clean
- Flame protection
- · Mildew resistant

surgi**Trend** assist**Trend**  Dynamic seat 2200 0010 2500 0002

+ Item No.: 3037 0...



F4340-50621

Item No.: .....199

F4340-20149

Item No.: .....212



F4340-07480

Item No.: .....039

F4340-07422





F4340-20130

Item No.: .....084



F4340-20127

Item No.: .....079



F4340-20156

Item No.: .....207

F4340-5015

Item No.: .....198

F4340-10295

Item No.: .....044



F4340-50622

Item No.: .....215

F4340-07496

Item No.: .....046



Item No.: ..... 0.35





Item No.: .....220

F4340-50623

Item No.: .....216

F4340-07432

Item No.: .....002





Item No.: ..... 034

F4340-20129

Item No.: .....146

F4340-20154

Item No.: .....208





F4340-00002

Item No.: .....021

F4340-07445

Item No.: .... 030

F4340-50620 Item No.: .....213







F4340-50619

Item No.: .....214

F4340-07479 Item No.: .....038

The colors displayed on your device may differ slightly from the original colors. If you wish to receive original color charts, please contact us at info@ufsk-osys.com.

# "PeriLine"



## **Product Specification**

- Without Phthalates
- Biocompatibility: cytotoxicity (EN ISO 10 993-5) and epicutaneous test (EN ISO 10 993-10)
- Urine resistance
- Blood resistance
- Resistance to perspiration
- Resistance to spitting
- Light fastness
- Color fastness to rubbing
- Flame retardant

Comfort seat	2600 0004
Comfort seat	2600 0006
Comfort seat	2200 0012
Comfort seat	2200 0013
	2400 0005
	2400 0009
	2400 0010
	2400 0013
	2400 0020
	2400 0022
	Comfort seat Comfort seat

+ Item No.: 3037 O...



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# Upgrade your OR to perfection.

















**500 XLE** 

500 XLE comfort

500 XLS

500 ECO

400 XL

motionLine

motionLine-E

















surgiForce

surgiForce light

surgiTrend

surgiLine

**stayClean** 

stayClean roll

stayClean kick bucket

supportLine





















assistLine

**assistTrend** 

assistPro F

easyPro F

easyPro R

easyLine F

easyLine R



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