



## HS ALLEGRA 500

Enjoy Microsurgery



**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 quality of life.

**HS** HAAG-STREIT  
SURGICAL

# Enjoy the Ease

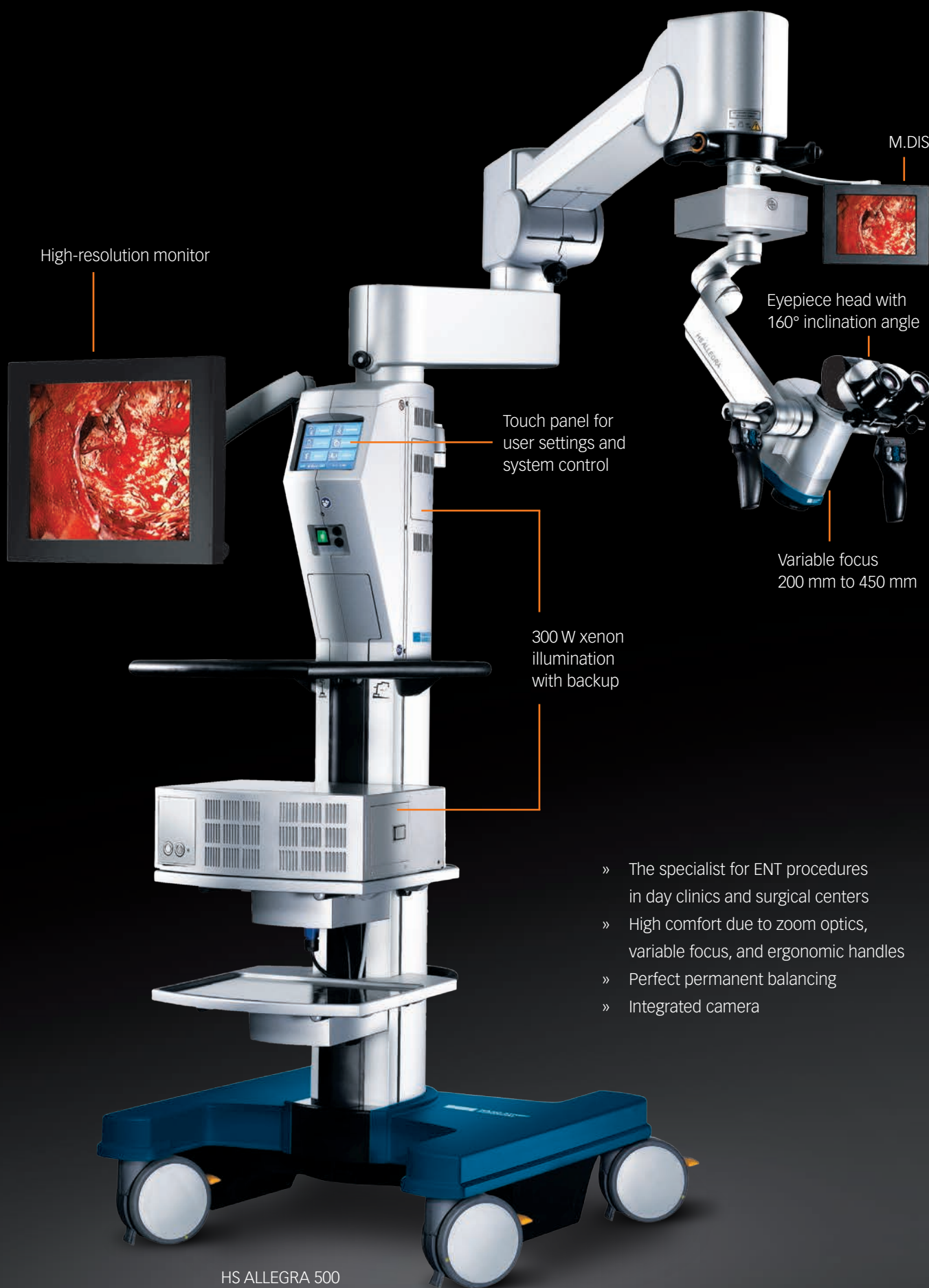


HS ALLEGRA 500 is optimized for surgical procedures in day clinics, surgical centers, and hospitals, where speed and flexibility are decisive factors.

Due to the inclination angle of  $-30^{\circ}$  to  $+120^{\circ}$  and the lateral tilt of  $\pm 45^{\circ}$ , deep cavities and narrow canals can be optimally illuminated and examined while HS ALLEGRA 500 always remains balanced. No springs need to be tightened, no knobs turned. The electromagnetic brakes retain the microscope safely in its working position.

The apochromatic optics provides a sharp and contrasty image for the surgeon at any magnification of the zoom. Due to the large stereo base of 25 mm, an exceptional depth perception is achieved.





High-resolution monitor

M.DIS

Eyepiece head with  
160° inclination angle

Touch panel for  
user settings and  
system control

Variable focus  
200 mm to 450 mm

300 W xenon  
illumination  
with backup

- » The specialist for ENT procedures  
in day clinics and surgical centers
- » High comfort due to zoom optics,  
variable focus, and ergonomic handles
- » Perfect permanent balancing
- » Integrated camera

HS ALLEGRA 500  
on floor stand FS 2-23



## Movement, accessories & light

In most surgical ENT procedures active assistance is not possible, and hence no stereoscopic observer scope is needed. Therefore HS ALLEGRA 500 is designed to rotate cardanically around its center of gravity in all directions, requiring only minimal force. Two ergonomic hand grips with function buttons facilitate control of the microscope.

In addition to ENT surgery, HS ALLEGRA 500 is also designed for use in other microsurgical fields. It contains a motorized focus, ranging from 200 mm to 450 mm, and a short inclinable 160° eyepiece head. This configuration makes it the ideal microscope also for dental, reconstructive, and spine surgery.

For mounting a laser adapter, the turning axis of the microscope is adjustable to retain the full balance.

One more feature to mention: A video camera (1 CCD) is integrated. This reduces the length of the microscope and makes it easier to clean.

### M.DIS

For coobservation, the high-resolution monitor M.DIS can be mounted to the microscope arm. The balance of the microscope will not be affected when the monitor is moved during operation. M.DIS, equipped with a touch screen, allows viewing and controlling of video recording or snapshots during the operation.

### INTRAOPERATIVE LIGHT MANAGEMENT

HS ALLEGRA 500 contains a filter disk for daylight, softlight, UV protection (yellow filter), blue light (excitation of fluorescence), and green light (better recognition of blood vessels). In addition, two spot diaphragms are integrated against glare.



HS ALLEGRA 500  
with laser adapter



Turning knob for  
the filter disk



# Imaging

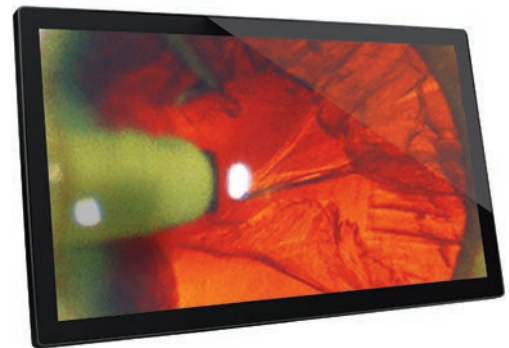
## C.MOR HD

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 500 dB images are crisp and sharp. Different user settings allow individual adjustments.



## C.MON HD

With its flat design and the size of 21.5" 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.



## HS MIOS

MIOS stands for **M**icroscope **I**maging and **O**peration **S**ystem. Its prime functions are recording of operation scenes, capturing and recording of snapshots, together with proper identification of patients' 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.







## Floor stand solutions

### HIGH-TECH SOLUTIONS

Electromagnetic brakes in the floor stands FS 2-21 (halogen), FS 2-23 (xenon), and FS 2-25 (LED) support the smooth movements of HS ALLEGRA 500. A holder for a foot switch can be mounted directly to the column as can trays (with transformers) for camera control units or other equipment. The front side accepts a high-resolution monitor (optional).

All three versions are 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 adjusted and controlled on the graphic display.

The shape and internal reinforcements of the column make the floor stand extremely stable against vibrations. The cables are completely covered, guided from an easily accessible cable duct in the column through the arm system up to the microscope suspension. A metal-free surface protects the base of the floor stand against corrosive liquids.



HS ALLEGRA 500  
on floor stand FS 2-23  
with 300 W xenon illumination



## 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 stable working positions. The light source is mounted externally for easy access. A tray (with transformer) to carry a camera control unit may be fixed to the column.

HS ALLEGRA 500  
on floor stand FS 2-11 / FS 2-15

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### HAAG-STREIT SURGICAL GmbH

Rosengarten 10  
D-22880 Wedel, Germany  
Telephone +49-4103-709 04  
Fax +49-4103-709 355  
[info@haag-streit-surgical.com](mailto:info@haag-streit-surgical.com)  
[www.haag-streit-surgical.com](http://www.haag-streit-surgical.com)

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



While all certifications are ongoing for HAAG-STREIT-SURGICAL, MÖLLER-WEDEL maintains a Quality Management System for Medical Products according to ISO 13485. MÖLLER-WEDEL is not only developing innovative products but also producing them conscious to the environment. Fulfilling an Environmental Management System according to ISO 14001 is the guide line. Both, the Quality as well as the Environmental Management System, are certified by TÜV.



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





# HS ALLEGRA 500

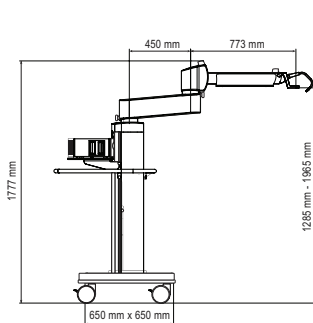
Technical Data



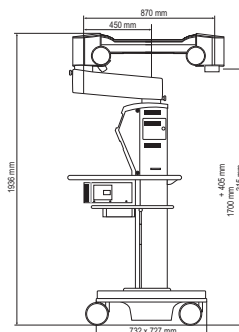


## Technical Data HS ALLEGRA 500

Microscope HS ALLEGRA 500	
Optics	apochromatic
Stereo base	25 mm
Working distance	200 mm to 450 mm, motorized
Magnification (Motorized zoom 1:6)	1.6x to 16.8x
Diameter of visual field	12.5 mm to 128.7 mm
Illuminated field	5 mm to 156 mm
Inclinable eyepiece head (10x wide angle oculars)	160°
Diopter settings	-8 D to +5 D
Inclination angles	-30° to +120°
Lateral tilt	+/-45°
Brakes	electromagnetic
Filter disk	2 diaphragms, 5 color filters
Weight (without accessories)	6.6 kg



Floor stands  
FS 2-11 / FS 2-15



Floor stands  
FS 2-21 / FS 2-23 / FS 2-25

Floor stands	FS 2-11	FS 2-15	FS 2-21	FS 2-23	FS 2-25
Arm reach (max.)	1223 mm		1320 mm		
Swivel area	2 x 300°		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 300 W xenon	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	1000 VA
Weight	198 kg		240 kg	250 kg	240 kg
Foot switch	4 or 14 functions				

Ceiling units on request. Subject to alterations.