

OUR FOCUS IS ON YOUR VISION



**Kaps**

**Pro ENT Series**

**Surgical Microscopes**

**Quality**

**without Compromises**



# Karl Kaps **Surgical Microscopes**

Master everyday surgery



Pro ENT motorized with asepsis caps and external Xenon illumination.

The atmosphere in an operating room is characterized by stress, time pressure and short statements. An operation on a patient requires maximum concentration and attention from everyone involved. And it is important that the right surgical microscope is always there to help the surgeon rise to the challenge.

The space-saving and easy-to-use Pro ENT surgical microscopes from Karl Kaps assist surgeons with all types of surgery from quick, routine ENT surgery to more demanding operations, and have been specially developed to meet their requirements.

The Pro ENT surgical microscopes are available in two versions:

- **Kaps Pro ENT *manual*** - for surgeons who prefer a manual surgical microscope.
- **Kaps Pro ENT *motorized*** - a fully motorized microscope that can meet any challenge in the operating room.

Both versions deliver razor-sharp images and simplify workflows with fast and precise focus.

The Kaps surgical microscope has **LED illumination** as the standard. The high contrast color temperature is very similar to daylight. This and the homogeneous illumination of the visual field help the surgeon work without fatigue. The long service life of approx. 50,000 hours and the low power consumption are further plus points. In addition, the LED illumination does not generate much heat and is extremely quiet.

Optionally, you can equip your Kaps Pro ENT surgical microscope with **Cold light illumination**. The high light intensity, as well as the precise and uniform object illumination, guarantee a perfect view of even the smallest detail, even in hard-to-reach areas.

External **Xenon illumination** with a constant color temperature of 5,800 K is available as an additional option.

Surgeons themselves can easily and conveniently adjust the desired light intensity of all 3 lighting units.

Spot lighting prevents reflections and also acts as a focusing aid.

# Portable - Mobile - User-friendly

When details are crucial

**Kaps Pro ENT surgical microscopes are characterized by how easy they are to position, and their compact, user-friendly design.**

With their 45° swivel coupling and balancing device, these microscopes are extremely mobile, easy to use and easy to move into the right working position. This allows them to be easily integrated into an operating room's daily routine.

For the Kaps Pro ENT motorized microscope, we also offer the Free Motion magnetic brake as an option. The two magnetic brakes enable the microscope head to be positioned safely without much effort.

Fine, precise movements are particularly important in ENT surgery. The Kaps Pro ENT surgical microscope can be quickly and easily balanced, even after additional accessories, such as the assistant tube or video camera, have been attached.

## Positioning the microscope head

Surgeons can position the microscope head effortlessly and make minor position changes with ease and precision, so that their hands do not have to leave the surgical field.

## Moving the microscope

Thanks to its compact design, the mobile floor stand can also be perfectly integrated into smaller operating rooms. It enables quick repositioning during an operation and change of operating room without much effort. For the Kaps Pro ENT, we also offer a ceiling mount with high stability and a large swivel radius as an optional installation solution.

## Sterile handles

The Kaps Pro ENT surgical microscopes are equipped with ergonomic handles with asepsis caps on both sides.

## Asepsis

The use of drapes and asepsis caps on the controls means that any necessary adjustments can be made during the operation.



Not even the adapted accessories and/or asymmetrical load distribution will not affect the easy positioning of the microscope.



Kaps Pro ENT motorized with Free Motion magnetic brake and Vario Objective.



Ergonomic handles with release knob.  
Left image - with asepsis caps.

# Kaps Pro ENT *MANUAL*

Quality for routine ENT operations



Pro ENT manual with ergonomic handles.

**The Kaps Pro ENT high end manual has been specifically designed for surgeons who prefer manual microscopes. It is a powerful manual surgical microscope ideally suited for outpatient surgical centers or smaller clinics and laser centers.**

The apochromatic lens with a 5-step magnification changer, or the optional manual 1:6 zoom, deliver sharp, bright and high-contrast images.

Always stay focused with the optional manual Vario lens. It offers you a working distance of 200 - 400 mm, which can be adjusted without changing the lenses.

Together with the bright illumination, it is the ideal device combination for surgeons who need a top-class, variable manual surgical microscope for routine ENT procedures or complex examinations.

The microscope can be adjusted without much effort, fast operational and allows the surgeon to work efficiently. Manual balancing ensures that the surgical microscope remains in perfect balance – regardless of the accessories installed.

## **Laser adaptation**

Laser micromanipulators allow the use of different lasers in combination with the Kaps Pro ENT microscopes. For laryngeal operations, in particular, the microscope allows ergonomic operation with the CO<sub>2</sub> laser, even in extreme positions. The optional external outer focus allows the focus of the surgical microscope and the laser to be synchronized without disrupting the surgical workflow.

# Kaps Pro ENT *MOTORIZED*

Meets every challenge in the operating room

**Enjoy all the advantages of the fully motorized Kaps Pro ENT motorized surgical microscope. It is extremely versatile - from routine and quick ENT surgery to more challenging operations.**

The compact design allows a short working distance between the surgeon and the surgical field.

The apochromatically corrected motorized 1:6 zoom delivers bright, brilliant and high-contrast images with good detail recognition. The motorized fine focus (40 mm) also makes it easy to use.

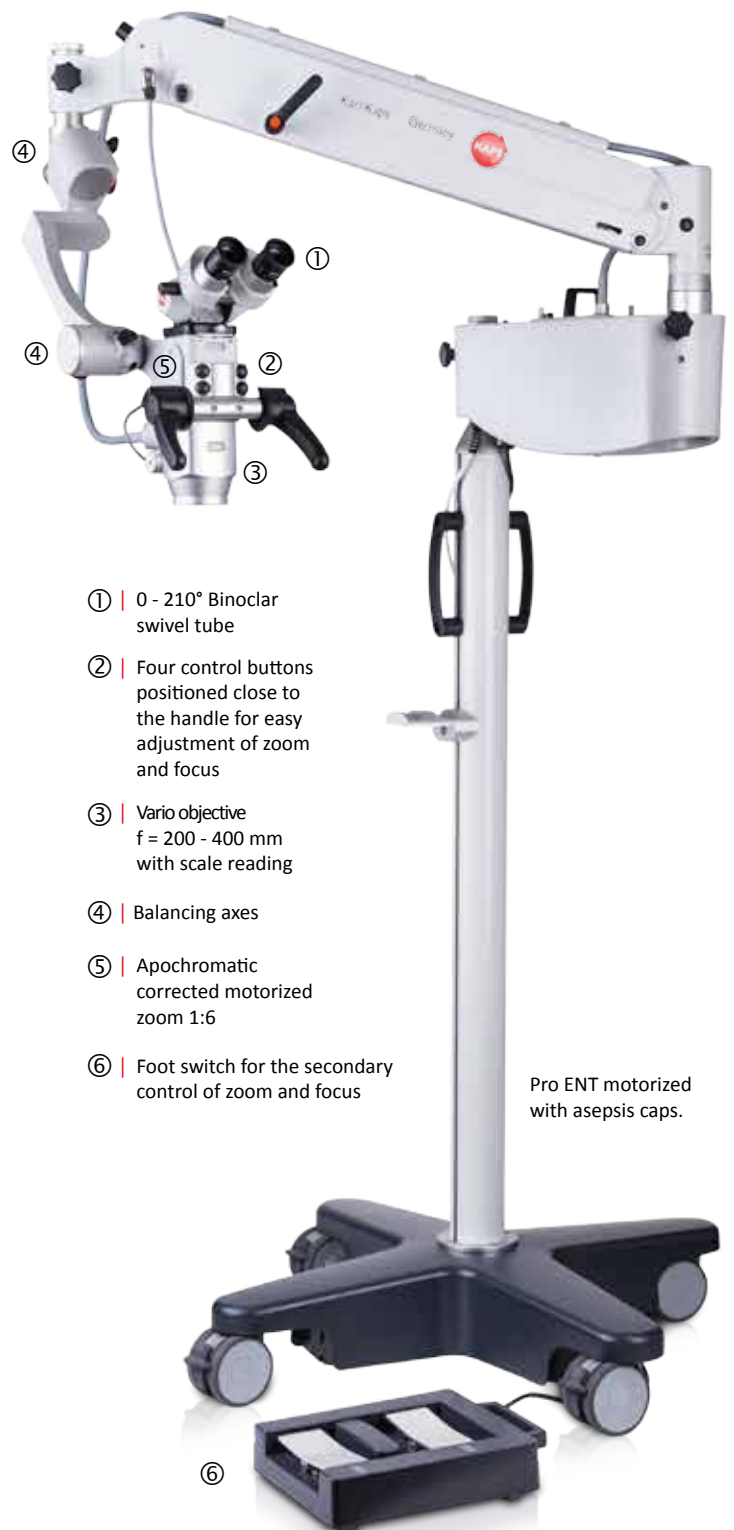
Optionally, you can equip the Kaps Pro ENT motorized with a manual or motorized Vario lens  $f = 200 - 400$  mm. Motorized fine focusing is not available when using the motorized Vario objective.

The 0-210° binocular swivel tube in combination with the optional Vario objective allows the surgeon to maintain a comfortable position, even with the often changing working distances involved in nasal sinus surgery.

For the Kaps Pro ENT motorized microscope, we also offer the Free Motion magnetic brake as an option. The two magnetic brakes enable the microscope head to be positioned at any desired position precisely and safely without much effort.

All the important controls are in easily accessible positions. The microscope head angle is adjusted using a rotary knob.

The numerous motorized functions, such as zoom and focus, can be adjusted in seconds using a hand switch or a foot switch.



- ① | 0 - 210° Binocular swivel tube
- ② | Four control buttons positioned close to the handle for easy adjustment of zoom and focus
- ③ | Vario objective  $f = 200 - 400$  mm with scale reading
- ④ | Balancing axes
- ⑤ | Apochromatic corrected motorized zoom 1:6
- ⑥ | Foot switch for the secondary control of zoom and focus

Pro ENT motorized with asepsis caps.

# Wide range of accessories

Powerful down to the last detail



- **Kaps Binocular Swivel Tube 0-210°**

This tube is characterized by its very large swiveling range and compact design, and guarantees the surgeon an upright and ergonomically correct working position at all times.



- **Kaps Lens Changer**

For the easy and quick changing of lenses with just one handle.



- **Kaps Vario Objective**

Continuously adjustable working distance of 200 mm to 400 mm for more ergonomic positions at the workplace. This makes lens changes unnecessary. You simply focus up and down on the focusing plane.



- **Kaps Observer Tube** monocular or binocular

Enables a second person to view the examination field at the same magnification – particularly suitable for assistants or training.



- **Kaps Free Motion Magnetic Brake (Pro ENT motorized)**

For precise positioning of the microscope head with only one hand – simple, quick and precise.



- **Kaps HD Video and Documentation Accessories**

Wide range of video and documentation accessories available on request. Ask for up-to-date information.



- **Kaps Laser Adapter CO2 and Laser Filter**

To fit a laser to the surgical microscope.



- **Kaps Xenon Illumination (180 Watt)**

Super bright light source with longer service life for mounting on the mobile stand.



- **Asepsis**

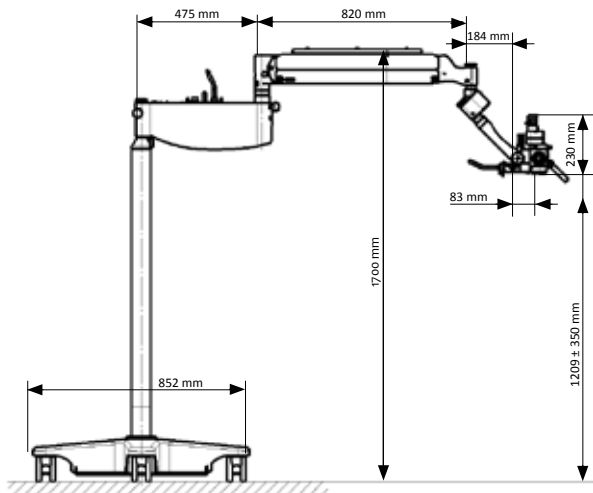
We provide asepsis caps for all controls and handles. Sterile hoods are available for the microscope head.

# Technical Data

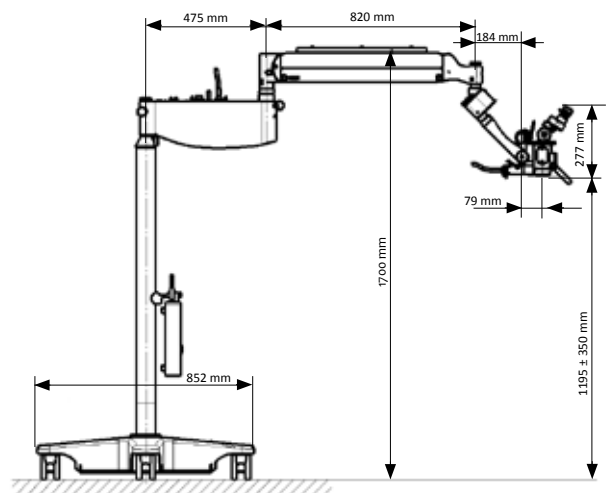
	Kaps Pro ENT manual	Kaps Pro ENT motorized
Binocular tubes	Straight tube f = 125 mm Swivel tube 0-210°, f = 182 mm (optional)	Swivel tube 0-210°, f = 182 mm
Objective	f = 250 mm, f = 200 mm, f = 300 mm, f = 400 mm	f = 250 mm, f = 200 mm, f = 300 mm, f = 400 mm
Eyepieces	WF 12.5 x V with diopter compensation WF 10 x V with diopter compensation (optional) Others available on request	WF 12.5 x V with diopter compensation WF 10 x V with diopter compensation (optional) Others available on request
Magnification	Apochromatic corrected 5-step magnification changer; manual 1:6 zoom (optional)	Apochromatic corrected motorized 1:6 zoom
Green filter	swing-in	swing in
Illumination	Integrated LED illumination Cold light 15 V/150 W with ready-for-operation spare bulb (optional) External 180 Watt Xenon Illumination	
Handles	Ergonomic handle, bilateral, 360°, adjustable with release knob	

Accessories	Kaps Pro ENT
Objectives	Kaps Vario Objective f = 200 mm to 400 mm manual or motorized for Kaps Pro ENT motorized
Photo/Video documentation	Beam splitter, unilateral or bilateral TV tube with diaphragm f = 54 mm Photo adapter for DSLR camera (Canon, Nikon) HD photo adapter for SONY NEX-5/-6/-7 and Alpha 5000/6000 Kaps Media Work Station - Software for HD/SD video documentation
Observer tube	Monocular or binocular
Other	Monitor holder on swivel arm 22" monitor with medical grade

Kaps Pro ENT manual



Kaps Pro ENT motorized





made  
in  
Germany



Karl Kaps GmbH & Co. KG  
Schulstraße 57  
35614 Asslar  
Germany

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Karl Kaps is a global medical technology company, offering complete diagnosis and treatment solutions in the medical disciplines of otorhinolaryngology, ophthalmology, microsurgery, endodontics, neurosurgery, spinal surgery, gynecology and in all similar areas.

Modern, innovative surgical and diagnostic microscopes are developed and manufactured at the Asslar and Wetzlar production sites.

We aim to provide our customers with the best possible equipment for the medical care of their patients. This is our contribution to ensuring that correct diagnosis and successful therapy can be initiated.

More information can be found at  
[www.kaps-optik.de](http://www.kaps-optik.de)

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