Karl Kaps
Colposcopes

High Demands - Ingenious Solutions

From Standard Colposcope to HD Video Colposcope
In Germany, about 3,800 women get cervical cancer every year. Worldwide, there are approx. half a million women who develop a carcinoma each year, with half of these resulting in mortality.

It has been shown that the risk of developing cervical cancer can be reduced through prevention and early detection.

If the precursors of cervical cancer are diagnosed at an early stage and appropriate treatment is carried out, patients have a good chance that the disease will not progress.

Colposcopes play a crucial role in the early diagnosis of preinvasive and invasive epithelial changes to the genital tract.

Karl Kaps colposcopes ensure a three-dimensional image through their excellent optics, multiple zoom levels and a first-rate lighting system, thereby allowing a correct early diagnosis, which helps to initiate an effective therapy.

Karl Kaps stands for more than 70 years of experience in the development and production of colposcopes. As a traditional German company with headquarters in Asslar, Karl Kaps exports to more than 70 countries worldwide.

Colposcopy is derived from ancient Greek and translated means „vaginal examination“.  
- „kolpos“ = vagina  
- „skopia“ = looking at
Uncompromising Quality

**Ergonomic Design**
- User-friendly handling
- Ergonomically positioned drives for setting the height, focus and angle enable it to be positioned with millimeter accuracy
- Simple replacement of eyepieces and objective lenses

**Brilliant Optics**
- Crystal clear images, high-resolution details
- Natural colors (apochromatic optics)
- Parallel beam path (optical path and lighting) for better illumination of the visual field
- Different zoom levels provide a general overview at low magnification and clear detail recognition at higher magnification

**Ultra-Bright Illumination**
You have a choice of different lighting systems. Whether coaxial cold light illumination, direct halogen lighting or LED lighting - all 3 versions offer consistent true color illumination and make anatomical structures and blood vessels clearly visible.

**Comfortable Stands**
Whether a mobile stand is concerned, or a permanently mounted one on an examination chair - all Karl Kaps stands are distinguished by easy handling, small footprint and stability.

**Upgrade options**
With the additional photo and video adapters, standard colposcopes can be easily and quickly upgraded to photo/video colposcopes at a later point. This allows for documentation of medical findings with a standard unit.

**Durability**
Karl Kaps colposcopes are equipped with a high quality metal housing and are characterized by a long service life.

**Laser Adaptation**
By adapting a laser system for use with the colposcope, this opens up a gentle process for removing diseased tissue.
The Kaps KP 3000 is the ideal colposcope for routine daily diagnosis and is perfect for this purpose. Together with its accessories, it meets high standards of quality and convinces users with its attractive value for money.

This colposcope stands out with its convenient and timesaving handling, its flexibility in use in daily medical practice, and its extensive range of accessories.

If the Kaps KP 3000 is equipped with an integrated video camera, you will get a full video colposcope to provide conclusive documentation of findings.

**Extensive Range of Accessories**

- Powerful LEDone lighting
- Single magnification or 3-step magnification changer
- Choice between straight or inclined tube
- Interchangeable lenses and eyepieces
- T-handle can be mounted on both sides
- Swing-in green filter
Kaps KP 3000 S
mounted on an Examination Chair

Select the Kaps KP 3000 on a mobile stand or the KP 3000 S adapted to a examination chair.

With various holders, the KP 3000 S can be fitted to the left or right hand side of all common examination chairs and tables.

Accurate positioning is ensured through the combination of a pan arm and a swivel arm. This allows convenient and timesaving handling. When not in use, the colposcope can be swiveled away to the side. Due to its swivel arm, it takes up very little space.

Examination Chair MUS4000 V
with kind permission of medifa-hesse GmbH & Co. KG
www.medifa.com

Kaps KP 3000 S with Straight Tube and T-handle mounted on an Examination Chair
The Kaps SOM® Colposcope is specially tailored to the needs of routine daily gynecological examinations with successful diagnosis and treatment.

The ergonomic design results in fatigue-free working for the user. The outstanding optics with brilliant, three-dimensional images and a large depth of field increase the success rate of correct diagnosis.

**Modular System**
Create your individual colposcope for your own particular application. The modular system allows easy subsequent adaptation of an extensive range of accessories.

Naturally, you can equip your SOM colposcope with a digital camera, a video system or an endoscopic camera. The adaptation of laser systems is also not a problem.

**Extensive Range of Accessories**
- Choice of various lighting systems
- Swing-in green filter
- 3-step, 5-step magnification changer or manual/motorized zoom
- Choice of straight or inclined tube
- Interchangeable objective lenses and eyepieces
- From 5-fold magnification changer onwards, an aperture for increased depth of field is optionally available
- Motorized version (zoom and focus)
- Integrated "Vision" camera system
- Adaptation to laser systems of leading manufacturers
Kaps SOM® 42 mounted on an Examination Chair

With the mobile stand, the SOM® 52 adapts to any room. Or select the SOM® 42, which can be adapted to fit on an examination chair.

With various holders, the SOM® 42 can be mounted on the left or right hand side of all common examination chairs and tables.

Accurate positioning is ensured through the combination of a pan arm and a swivel arm. This ensures convenient and timesaving handling. When not in use, the colposcope can be swiveled away to the side. Due to its swivel arm, it takes up very little space.
Videokolposkop ViCo
on a Vertical Mobile Stand

The Kaps ViCo video colposcope is the ideal colposcope for the modern gynecological practice. It combines a high-resolution video camera with an integrated LED light into a compact real-time video device.

Ergonomic Design
The compact ergonomic design in conjunction with the convenient one-hand operation allows fast repositioning and relaxed treatment for physicians and patients.

Ultra-Bright Illumination
The high-contrast color temperature of the integrated LED lighting is very similar to daylight. This, and the homogeneous illumination of the field of view, contribute to fatigue-free working. Other advantages are the long service life of 50,000 hours, low power consumption, and very moderate heat generation.

Perfect Equipment
- Electronic adjustment of magnification, from full overview to the smallest detail, with just one click
- Electronic green filter for specific object details
- Auto focus and still image functions
- Optimum working distance, always in focus from 250 to 350 mm
- Connection to monitor via S-video (monitor not included in delivery)
Videokolposkop ViCo S
mounted on an Examination Chair
or a Mobile Stand

Here, too, Kaps has the right product for every application!
The ViCo S is equipped with a spring arm for even easier positioning of the system.
You can choose between two versions:
  • Adapted to an examination chair
  • On a mobile stand

ViCo S HD

The Kaps ViCo S video colposcope is also available in full HD quality.
ViCo S HD guarantees even more brilliant images with enhanced image detail and the highest resolution, for reliable diagnosis and optimal documentation of findings.
Kaps Accessories for Stereo Colposcopes
Powerful down to the last detail

Video and photo documentation for optical colposcopes of the KP and SOM® series

With additional photo and video equipment, standard colposcopes can be upgraded to full photo/video colposcopes—optimal for diagnosis and documentation of medical findings.

• Kaps photo tube for DSLR camera
  Multi-coated anti-reflection high-end optics for a frame-filling, low-distortion and image field leveled digital camera image for Canon and Nikon

• Kaps HD photo adapter for SONY NEX-5/-6/-7 and Alpha 5000/6000
  HD documentation of medical findings with apochromatic optics for brilliant and true color images with amazing detail diversity in full format

• Kaps HD video and documentation accessories
  Wide range of video and documentation accessories on request. Please ask for current information.

LED Lighting

Upgrade Your Colposcope!
A higher light intensity through white light LED illumination results in significantly improved contrast and therefore more accurate diagnosis.

• Kaps LEDone for KP 3000 and 3000 S
  Standalone light source at an attractive price for effortless and detailed work in daylight quality

• Kaps LED upgrade for SOM® 42 + 52
  Durable retrofit kit for optimum LED lighting for effortless working with daylight color temperature (possible for all cold light models from serial number 6000)
Kaps Media Work Station BE
for the effortless documentation

Kaps Media Workstation BE simplyfied the daily routine in the doctors office. We organized your images and videomaterial easy and efficient in a elektronic health record. The software is multilingual, self-explanatory and easy to use.

Management
- Patient data, images and comments are stored in structured database
- Automatic assignment of patient ident numbers
- Search and sort functions for patient data
- Full text search function Automatic backup with scheduled interval

Findings
- Multiple-split display during recording
- Recording controllable by foot or camera
- Video playback with a slide bar for individual selection of time positions
- Input of diagnoses comments

Documentation
- Graphics marks for emphasizing of findings
- Automatic creation of customizable HTML reports with images
- Automatic cropping of black frames in printouts
- Direct print of images with embedded patient data and other additional information
Technical data

Kaps KP 3000 + KP 3000 S

Rolling base
- 600 mm height

Straight tube
- f = 125 mm

Inclined tube
- f = 125 mm

Objective
- f = 300 mm (on choice f = 250 mm)

Eyepieces
- WF 20 x V with diopter compensation (on choice WF 16 x V)

Green filter
- swing in green filter

Illumination
- LEDone, continously adjustable

T-handle
- can be mounted left or right side

### Magnification with 3-step changer

<table>
<thead>
<tr>
<th>Magnification</th>
<th>Field of view Ø</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective f = 250 mm</td>
<td>6,5 x 30 mm</td>
</tr>
<tr>
<td></td>
<td>10,0 x 18 mm</td>
</tr>
<tr>
<td></td>
<td>16,0 x 12 mm</td>
</tr>
<tr>
<td>Objective f = 300 mm</td>
<td>5,0 x 36 mm</td>
</tr>
<tr>
<td></td>
<td>8,0 x 22 mm</td>
</tr>
<tr>
<td></td>
<td>13,0 x 15 mm</td>
</tr>
</tbody>
</table>

### Magnification without changer

<table>
<thead>
<tr>
<th>Magnification</th>
<th>Field of view Ø</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective f = 250 mm</td>
<td>10,0 x 18 mm</td>
</tr>
<tr>
<td>Objective f = 300 mm</td>
<td>8,5 x 22 mm</td>
</tr>
</tbody>
</table>
**Kaps SOM 52 + SOM 42**

**Illumination**
- coaxial halogen illumination 12 V / 100 W (direct)
- coaxial cold-light illumination 15 V / 150 W
  - all colposcope outfits are equipped with a stand-by spare lamp
  - integrated LED illumination

**Working distance / Objective**
- 250 mm or 300 mm are standard - other focal length on request

**Fine focusing**
- 12 mm with focusing objective \( f = 250 \text{ mm} \) and \( f = 300 \text{ mm} \)
- 40 mm manual
- 40 mm motorized

**Binocular tubes**
- straight tube \( f = 125 \text{ mm} \), inclined tube \( f = 125 \text{ mm} 45^\circ \) as standard
- straight tube \( f = 159 \text{ mm} \), inclined tube \( f = 159 \text{ mm} 45^\circ \) on request
- wide-angle inclinable tube \( f = 182 \text{ mm} 0 \text{ - } 210^\circ \) on request

**Oculars, Pairs**
- wide-angle, oculars with diopter WF 16 x V or WF 20 x V
  - reticules on request

**Magnification**
- 3-step magnification changer
- 5-step magnification changer
- zoom 1-6 manual or motorized (apochromatic)

**Magnification changer 5-step and binocular tube \( f = 125 \text{ mm} \)**

<table>
<thead>
<tr>
<th>Factor sign</th>
<th>0,4</th>
<th>0,63</th>
<th>1,0</th>
<th>1,6</th>
<th>2,5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnification</td>
<td>3,4</td>
<td>5,4</td>
<td>8,5</td>
<td>13,6</td>
<td>21,2</td>
</tr>
</tbody>
</table>

**Field of view Ø [mm]**
- 55
- 35
- 21,5
- 13,2
- 8,5

**Eyepieces WF 20 x**
## Technical data

<table>
<thead>
<tr>
<th></th>
<th>ViCo + ViCo S</th>
<th>ViCo S HD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Picture resolution</strong></td>
<td>470 TV lines NTSC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>460 TV lines PAL</td>
<td>1920 (H) x 1080 (V) points</td>
</tr>
<tr>
<td><strong>Picture format</strong></td>
<td>4:3</td>
<td>16:9</td>
</tr>
<tr>
<td><strong>Video standard</strong></td>
<td>PAL or NTSC</td>
<td>1080i (full HD)</td>
</tr>
<tr>
<td><strong>Video output</strong></td>
<td>Y/C (S-video), BNC (composite video)</td>
<td>Component video (Y/Pb/Pr)</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>170 (L) x 80 (B) x 110 (H) mm</td>
<td>170 (L) x 80 (B) x 110 (H) mm</td>
</tr>
<tr>
<td><strong>Magnification</strong></td>
<td>optical zoom system 18x</td>
<td>zoom up to 120x (optical 10x, digital 12x)</td>
</tr>
<tr>
<td><strong>Working distance</strong></td>
<td>250 mm - 300 mm</td>
<td>250 mm - 300 mm</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>ca. 1200 g</td>
<td>ca. 1200 g</td>
</tr>
<tr>
<td><strong>Illumination</strong></td>
<td>Super bright LED ring, 5800 K</td>
<td>Super bright LED ring, 5800 K</td>
</tr>
<tr>
<td><strong>Filter</strong></td>
<td>green filter electronically</td>
<td>green filter electronically</td>
</tr>
<tr>
<td><strong>Focusing</strong></td>
<td>motorized, automatically or manual</td>
<td>motorized, automatically or manual</td>
</tr>
<tr>
<td><strong>Power supply</strong></td>
<td>90-240V AC, 50/60Hz</td>
<td>90-240V AC, 50/60Hz</td>
</tr>
<tr>
<td><strong>Options</strong></td>
<td>on request</td>
<td>on request</td>
</tr>
</tbody>
</table>
... if the physician can fully rely on the technology, the conditions for correct diagnosis have been created!
Karl Kaps is a global medical technology company, offering complete diagnosis and treatment solutions in the medical disciplines of otorhinolaryngology, ophthalmology, microsurgery, endodontology, 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