The optics matter
HD quality before HD even existed
KARL STORZ telescopes – the original
Brilliant image quality

The HOPKINS® rod lens system from KARL STORZ guarantees optimal image quality in every telescope. Its greatest advantage is the perfect balance of brightness, contrast, and detail. These factors optimize the depth of field, which makes visible even the most delicate structures and helps surgeons to achieve maximum safety and precision. When combined with the KARL STORZ IMAGE1 S camera platform with the three innovative visualization technologies CLARA, CHROMA, and SPECTRA, the best possible image for each specific procedure can be generated in any situation.
Details matter:
For decades, surgeons worldwide have relied on the outstanding image quality of KARL STORZ rod lens telescopes.

The rod lens system developed by Prof. Hopkins was essential to making modern endoscopy possible. With this technology and the corresponding KARL STORZ “optics chain”, surfaces, structures, and depths can be displayed with outstanding visual fidelity.

HOPKINS® telescopes have delivered HD quality before there was such a thing as HD.
Quality and service pay off:

Our repair-exchange program creates a closed service cycle. Replacement by original products ensures the long-term value preservation of your investments at the low price of repairs. We will be happy to generate a specific cost calculation for you. In the long term, our program reduces repair costs and maximizes product life.
When it matters:
KARL STORZ telescopes are used in 18 specialties in human medicine. They are also proven in veterinary medicine and industry, for instance for inspecting airplane engines and power plants.
Components that belong together:
The components of the KARL STORZ imaging chain (light, telescope, camera, monitor, and documentation) are perfectly harmonized and work together as a unit. High-resolution images with vibrant colors ensure clearly visible details – for perfect imaging that enhances efficiency and increases patient safety.
The FULL HD camera platform IMAGE1 S offers users various visualization options for surgery and diagnostics. CLARA ensures homogeneous illumination of the endoscopic image, CHROMA enhances contrast, and SPECTRA emphasizes different parts of the color spectrum through color shifting.
Wide selection

From really small to really big:
Small-diameter telescopes for pediatric surgery and orthopedics are as small as 2 mm in diameter. In surgery, gynecology, and urology, telescopes are typically 5 mm and 10 mm in size. Telescopes for the single-port technique are up to 50 cm long. Some telescopes also feature an integrated working channel.
KARL STORZ laboratories have generated many additional developments, such as telescopes and systems for autofluorescence and photodynamic diagnostics (PDD), tele-otoscope systems, video endoscopes, fiberscopes, and 3D HD systems.
Special systems

The VITOM® exoscopy system:
The VITOM® system complements in-light cameras, loupes, and surgical microscopes. This innovative system supplies high-quality visualization of open surgeries with minimal access.

In addition, the VITOM® system is an excellent tool for education and training as well as for documenting surgical procedures.
EndoCAMeleon®
for a variable direction of view:
The ENDOCAMELEON® features an adjustable
direction of view. Without limiting the working field,
the direction of view can be adjusted intraoperatively
to ensure excellent viewing conditions even in
regions out of the view of standard telescopes.
Special systems

**Optical systems for fluorescence endoscopy:**

Special telescopes with the corresponding camera systems make visible what cannot be seen under conventional light. Indocyanine green (ICG) permits the fluorescence-assisted perfusion assessment of blood, bile, or lymph flow. Using photodynamic diagnostics (PDD) and autofluorescence (AF) technology, malignant changes in bladder tumors or lung cancer can be visualized at an early time.
**3D camera system:**

Exact depth perception within the human body is an essential factor in every endoscopic procedure. The IMAGE1 S 3D system provides surgeons with excellent depth perception and extraordinary hand-eye coordination. This high-quality stereoscopic system is particularly helpful when performing activities that require good spatial vision, such as suturing and knot tying. Modular integration in the IMAGE1 S platform makes it easy to integrate this FULL HD platform into any OR.
Evolution

1953
Karl Storz develops and produces his first endoscope.

1956
The first extracorporeal electron flash device allows endoscopic photography in unprecedented quality.

1959
The British physicist, H. H. Hopkins, patents his rod lens system. It attracts considerable attention at the Photokina photo exposition. Prof. Berci arranges the first contact between Prof. Hopkins and Karl Storz.

1960
The development of the cold light source opens a new chapter in the company’s history and in endoscopy.
1965
A further milestone is the introduction of the HOPKINS® rod lens system.

1975
Articulated telescope for image transmission from the endoscope optics to a photo, video, or TV camera as well as for the simultaneous viewing of endoscopic procedures by two people.

1976
KARL STORZ develops its own small and easy-to-handle endocamera with associated electronic flash.

1983
First KARL STORZ tube camera.
Evolution

1984
With up to 80x magnification, the HAMOU® Contact Hysteroscope II allows direct microscopic examination of tissue during hysteroscopy.

1988
First KARL STORZ 1-chip video camera model, ENDOVISION 534.

1991
The first analog 3-chip video camera achieves previously unmatched brilliance of the endoscopic images.

1992
The newly launched KARL STORZ TELECAM features a parfocal zoom that allows selection of image detail without losing sharpness.
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<tr>
<th>Year</th>
<th>Event</th>
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<tr>
<td>2000</td>
<td>KARL STORZ launches the first mobile documentation system in the field of industrial endoscopy.</td>
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<td>2002</td>
<td>KARL STORZ introduces the digital camera system IMAGE1. In addition to standard-definition camera heads, pendulum and DCI® camera heads are available. Special telescopes are developed for Photodynamic Diagnosis (PDD).</td>
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<td>2003</td>
<td>KARL STORZ starts working on 3D technology at an early stage, resulting in the very early model TRICAM® 3D.</td>
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<td>2006</td>
<td>Photodynamic diagnosis (PDD) – visualizing the invisible with continuously improved technology: 3-chip endocamera with outstanding light sensitivity and superior color contrast.</td>
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With VITOM® Spine, KARL STORZ offers a new extracorporeal visualization system for all open or minimally invasive procedures at the cervical, thoracic, or lumbar spine. Placed 25-75 cm above the surgical site, the VITOM® telescope allows illumination and visualization of the surgical field as well as transmission of images with an excellent depth of field.

3D camera system for surgeons: 3D vision and easy orientation with excellent depth perception. The system consists of the video laparoscope TIPCAM®1 3D (0° and 30°), a 3D camera control unit, a 3D monitor, and polarized 3D glasses.
ICG (indocyanine green) fluorescence in HD quality.

ENDOCAMELEON®
4 mm – the rigid endoscope with variable direction of view is now also available for ENT and arthroscopy.

IMAGE1 STORZ Professional Image Enhancement System:
Cutting-edge HD camera technology with innovative visualization options for diagnostics and operative procedures.

The modular endoscopic camera platform IMAGE1 STORZ Professional Image Enhancement System is expanded by 3D in FULL HD quality.

It is recommended to check the suitability of the product for the intended procedure prior to use.
...evolution continues