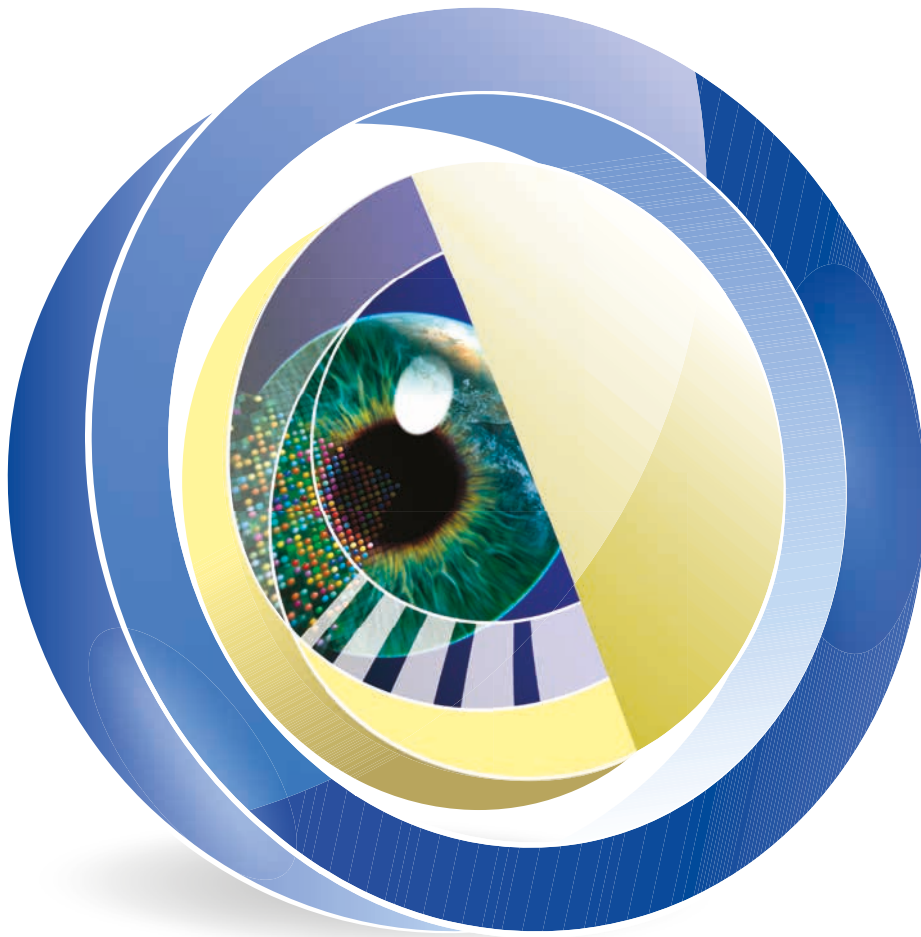


# Highlights 2018

Edition 1/2018



## Telepresence

Imaging Systems,  
Documentation, Illumination,  
Equipment Carts

**STORZ**  
KARL STORZ – ENDOSKOPE





## IMAGE1 S™ – As Individual as Your Requirements

The IMAGE1 S™ camera platform offers surgeons a single system for all applications. As a modular camera platform, IMAGE1 S™ combines various technologies (e.g., rigid, flexible and 3D endoscopy) in one system and can therefore be adapted to individual customer needs. Furthermore, near infrared (NIR/ICG) for fluorescence imaging, the integration of operating microscopes and the use of VITOM® 3D is possible via the camera platform.

- Individual modules can be selected according to user requirements, e.g., for rigid, flexible and 3D technology
- Three innovative visualization technologies for easy tissue differentiation in 2D and 3D:
  - CLARA: Homogeneous illumination
  - CHROMA: Contrast enhancement
  - SPECTRA\*: Color shift and exchange
- Automatic light source control
- Natural color rendition

\* not for sale in the U.S.

- TC 200EN\* **IMAGE1 S CONNECT™**, connect module, for use with up to 3 link modules, resolution 1920 x 1080 pixels, with integrated KARL STORZ-SCB and digital Image Processing Module
- TC 300 **IMAGE1 S™ H3-LINK**, link module, for use with IMAGE1 FULL HD three-chip camera heads
- TC 301 **IMAGE1 S™ X-LINK**, link module, for use with flexible video endoscopes and one-chip camera heads (up to FULL HD)
- TC 302 **IMAGE1 S D3-LINK™**, link module, for use with TIPCAM®1 S 3D
- TC 304 **IMAGE1 S™ 4U-LINK**, link module, for use with IMAGE1 S™ 4U camera heads
- TH 100 **IMAGE1 S™ H3-Z Three-Chip FULL HD Camera Head**, progressive scan, with integrated Parfocal Zoom Lens, focal length f = 15-31 mm (2x), 2 freely programmable camera head buttons, for use with IMAGE1 S™ and IMAGE 1 HUB™ HD/IMAGE1 HD, S-Technologies only available for IMAGE1 S™
- TH 102 **IMAGE1 S™ H3-Z FI Three-Chip FULL HD Camera Head**, for perfusion diagnosis of tissues and organs with indocyanine green (ICG) in conjunction with light source D-LIGHT P, progressive scan, with integrated Parfocal Zoom Lens, focal length f = 15-31 mm (2x), 2 freely programmable camera head buttons, for use with IMAGE1 S™ and IMAGE 1 HUB™ HD/IMAGE1 HD, S-Technologies only available for IMAGE1 S™
- TH 110 **IMAGE1 S™ HX One-Chip FULL HD Camera Head**, 50/60 Hz, fixed focus, progressive scan, focal length f = 16 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™
- TH 113 **IMAGE1 S™ HX-P FI One-Chip FULL HD Pendulum Camera Head**, S-Technologies (CHROMA, SPECTRA\*\* A and B) available, for photodynamic early diagnosis (PDD) in conjunction with light source D-LIGHT C or C/AF, for autofluorescence (AF) in conjunction with light source D-LIGHT C/AF, with pendulum system and fixed focus, progressive scan, focal length f = 16 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™ (X-LINK)
- TH 120 **IMAGE1 S™ 4U One-Chip 4K UHD Camera Head**, S-Technologies available, progressive scan, soakable, gas and plasma sterilizable, focal length f = 18 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™ 4U-LINK
- 9826 NB **26" FULL HD Monitor**, color systems PAL/NTSC, max. screen resolution 1920 x 1080, image format 16:9
- TM 341 **31" 4K Monitor**, max. screen resolution 3840 x 2160, image format 16:9
- 26605 AA **TIPCAM®1 S 3D LAP**, with two FULL HD image sensors, direction of view 0°, diameter 10 mm, length 32 cm, **autoclavable**, S-Technologies available, freely programmable camera head buttons, including video connecting cable, for use with IMAGE1 S™
- 26605 BA **Same**, direction of view 30°
- 7240 AA3D **TIPCAM®1 S 3D ORL**, direction of view 0°, diameter 4 mm, length 18 cm, two FULL HD image sensors, **autoclavable**, S-Technologies available, freely programmable camera head buttons, including video connecting cable, for use with IMAGE1 S™
- 7240 BA3D **Same**, direction of view 30°
- TH 200 **VITOM® 3D**, with zoom and focus function, integrated illumination and horizontal alignment, working distance 20-50 cm, fiber optic light transmission incorporated, wipe-disinfectable, for use with IMAGE1 S CONNECT™ Module TC 200, IMAGE1 S D3-LINK™ TC 302 and IMAGE1 PILOT TC 014

\* Also available in the following languages: DE, ES, FR, IT, PT, RU

\*\* not for sale in the U.S.



Source: Prof. Boni, IRCCS Ca' Granda, Policlinico di Milano, Milan, Italy

## Fluorescence Imaging with the Modular IMAGE1 S™ Camera Platform from KARL STORZ

Using the fluorescent dye indocyanine green (ICG)\*, KARL STORZ offers brilliant, laser-free FULL HD imaging of the vascular system, biliary tract, and lymphatic system. The NIR/ICG system is based on the IMAGE1 S™ camera platform.

- 5 mm telescope now available
- Multidisciplinary applications, e.g., in general and visceral surgery, thoracic surgery, gynecology, urology, and reconstructive surgery
- Xenon-based technology (no laser safety measures necessary)
- Optimal illumination and contrast enhancement
- All-in-one solution for laparoscopic and open surgery via VITOM® II ICG
- Outstanding user friendliness

\* Please verify that the fluorescent dye indocyanine green is approved for the respective indication in your country.

- TH 102 **IMAGE1 S™ H3-Z FI Three-Chip FULL HD Camera Head**, for perfusion diagnosis of tissues and organs with indocyanine green (ICG) in conjunction with light source D-LIGHT P, progressive scan, with integrated Parfocal Zoom Lens, focal length f = 15-31 mm (2x), 2 freely programmable camera head buttons, for use with IMAGE1 S™ and IMAGE 1 HUB™ HD/IMAGE1 HD, S-Technologies only available for IMAGE1 S™
- TC 200EN\* **IMAGE1 S CONNECT™**, connect module, for use with up to 3 link modules, resolution 1920 x 1080 pixels, with integrated KARL STORZ-SCB and digital Image Processing Module
- TC 300 **IMAGE1 S™ H3-LINK**, link module, for use with IMAGE1 FULL HD three-chip camera heads
- 9826 NB **26" FULL HD Monitor**, color systems PAL/NTSC, max. screen resolution 1920 x 1080, image format 16:9
- 20 1337 01-1 Cold Light Fountain D-LIGHT P SCB**, with integrated KARL STORZ-SCB, high-performance light unit for perfusion assessment, autofluorescence, and standard endoscopic diagnosis, including a 300 Watt Xenon bulb and KARL STORZ light cable connection
- 495 NAC **Fiber Optic Light Cable**, with straight connector, extremely heat-resistant, with safety lock, enhanced light transmission, can be used for ICG applications, diameter 3.5 mm, length 230 cm
- 8710 AGA **HOPKINS® Straight Forward Telescope 0°**, for perfusion assessment, autofluorescence and white light diagnosis, diameter 5.8 mm, length 20 cm, **autoclavable**, fiber optic light transmission and filter exchanger incorporated, color code: green
- 8711 AGA **Same**, diameter 10 mm



## Stop Guessing. Start Knowing.

### PDD – flexibility in visualization with IMAGE1 S™

With Photodynamic Diagnosis (PDD) in FULL HD quality, another component has been added to the IMAGE1 S™ camera platform. The most outstanding feature of the HX FI camera heads is their versatile application possibilities. In addition to the PDD OPAL1® technology, the S-Technologies CHROMA, SPECTRA A\* and SPECTRA B\* can also be displayed in white light.

- Versatile camera heads with PDD fluorescence imaging and S-Technologies
- Brilliant, razor-sharp FULL HD imaging
- Impressive lightweight and ergonomic design
- Both standard and pendulum camera heads available
- Part of the IMAGE1 S™ camera platform – compatible with IMAGE1 S™ X-LINK
- Easy-to-use PDD functionality via IMAGE1 S™

\* not for sale in the U.S.

TH 112	<b>IMAGE1 S™ HX FI One-Chip FULL HD Camera Head</b> , S-Technologies (CHROMA, SPECTRA** A and B) available, for photodynamic early diagnosis (PDD) in conjunction with light source D-LIGHT C or C/AF, for autofluorescence (AF) in conjunction with light source D-LIGHT C/AF, fixed focus, progressive scan, focal length f = 16 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™ X-LINK
TH 113	<b>IMAGE1 S™ HX-P FI One-Chip FULL HD Pendulum Camera Head</b> , S-Technologies (CHROMA, SPECTRA** A and B) available, for photodynamic early diagnosis (PDD) in conjunction with light source D-LIGHT C or C/AF, for autofluorescence (AF) in conjunction with light source D-LIGHT C/AF, with pendulum system and fixed focus, progressive scan, focal length f = 16 mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™ X-LINK
TC 200EN*	<b>IMAGE1 S CONNECT™</b> , connect module, for use with up to 3 link modules, resolution 1920 x 1080 pixels, with integrated KARL STORZ-SCB and digital Image Processing Module
TC 301	<b>IMAGE1 S™ X-LINK</b> , link module, for use with flexible video endoscopes and one-chip camera heads (up to FULL HD)
9826 NB	<b>26" FULL HD Monitor</b> , color systems PAL/NTSC, max. screen resolution 1920 x 1080, image format 16:9
<b>20 133601-133</b>	<b>Cold Light Fountain D-LIGHT C/AF SCB</b> , with integrated KARL STORZ-SCB, high-performance light unit for photodynamic diagnosis (PDD) ALA URO/ALA NEURO/Hypericin/Autofluorescence and for standard endoscopic diagnosis, with 300 Watt Xenon bulb
<b>20 133601-1</b>	<b>Cold Light Fountain D-LIGHT C SCB</b> , with integrated KARL STORZ-SCB, high-performance light unit for photodynamic diagnosis (PDD) ALA URO/ALA NEURO/Hypericin and for standard endoscopic diagnosis, with 300 Watt Xenon bulb and KARL STORZ light cable connection
495 FS	<b>Fluid Light Cable</b> , diameter 2 mm, length 220 cm
495 FO	<b>Fluid Light Cable</b> , diameter 3 mm, length 180 cm
495 FP	<b>Fluid Light Cable</b> , diameter 3 mm, length 250 cm
495 FR	<b>Fluid Light Cable</b> , diameter 5 mm, length 250 cm

\* Also available in the following languages: DE, ES, FR, IT, PT, RU  
 \*\* not for sale in the U.S.

**NEW**

## IMAGE1 S™ 4U – mORe than a camera

The IMAGE1 S™ 4U camera system allows the operating surgeon to make optimal use of the benefits offered by 4K technology. A notable feature is the image quality: High image brightness, impressive colors, greater richness of detail and a significantly improved depth effect characterize this system. Thanks to the system's modularity, 4U components can be easily integrated into the existing IMAGE1 S™ camera platform. Consequently, the system is still compatible with existing technologies (e.g., rigid, flexible, fluorescence and 3D endoscopy) and can be adapted to meet individual customer needs.

- IMAGE1 S™ 4U impresses with outstanding, razor-sharp images
  - Excellent image brightness
  - First-rate color rendition
  - Greater richness of detail
- Three innovative visualization technologies for tissue differentiation:
  - CLARA: Homogeneous illumination
  - CHROMA: Contrast enhancement
  - SPECTRA\*: Spectral color shift and switch
- Easy integration into the IMAGE1 S™ camera platform

\* not for sale in the U.S.



- TC 200EN\* **IMAGE1 S CONNECT™**, connect module, for use with up to 3 link modules, resolution 1920 x 1080 pixels, with integrated KARL STORZ-SCB and digital Image Processing Module
- TC 304 **IMAGE1 S™ 4U-LINK**, link module, for use with IMAGE1 S™ 4U camera heads
- TH 120 **IMAGE1 S™ 4U One-Chip 4K UHD Camera Head**, S-Technologies available, progressive scan, focal length  $f = 18$  mm, 2 freely programmable camera head buttons, for use with IMAGE1 S™ 4U-LINK
- TM 341 **31" 4K Monitor**, max. screen resolution 3840 x 2160, image format 16:9
- TL 300 **Cold Light Fountain POWER LED 300 SCB**, with integrated KARL STORZ-SCB, high-performance LED module and one KARL STORZ light outlet
- 495 NAC **Fiber Optic Light Cable**, with straight connector, extremely heat-resistant, with safety lock, enhanced light transmission, can be used for ICG applications
- 495 NCSC **Fiber Optic Light Cable**, with straight connector, extremely heat-resistant, enhanced light transmission, with safety lock, diameter 4.8 mm, length 250 cm
- 495 TIP **Fiber Optic Light Cable**, with straight connector, extremely heat-resistant, enhanced light transmission, diameter 4.8 mm, length 300 cm



## IMAGE1 S™ 3D – A Dimension Ahead

IMAGE1 S™ 3D provides surgeons with excellent depth perception. Furthermore, the 3D stereoscopic imaging system is particularly valuable for activities that demand a high degree of spatial perception. Thanks to the modular system design, existing 2D systems can be upgraded to 3D. The 3D camera platform from KARL STORZ impresses with its wide range of applications – from laparoscopy, gynecology, ENT to microsurgical interventions.

- 3D system featuring video endoscopes with diameters of 10 mm and 4 mm as well as VITOM® 3D
- Easy toggle between 3D and 2D
- Easy integration into the IMAGE1 S™ platform
- Three innovative visualization technologies for easy tissue differentiation in 2D and 3D:
  - CLARA: Homogeneous illumination
  - CHROMA: Contrast enhancement
  - SPECTRA\*: Spectral color shift and exchange

\* not for sale in the U.S.

26605 AA	<b>TIPCAM®1 S 3D LAP</b> , with two FULL HD image sensors, direction of view 0°, diameter 10 mm, length 32 cm, <b>autoclavable</b> , S-Technologies available, freely programmable camera head buttons, including video connecting cable, for use with IMAGE1 S™
26605 BA	<b>Same</b> , direction of view 30°
7240 AA3D	<b>TIPCAM®1 S 3D ORL</b> , direction of view 0°, diameter 4 mm, length 18 cm, two FULL HD image sensors, <b>autoclavable</b> , S-Technologies available, freely programmable camera head buttons, including video connecting cable, for use with IMAGE1 S™
7240 BA3D	<b>Same</b> , direction of view 30°
7240 FA3D	<b>Same</b> , direction of view 45°
TH 200	<b>VITOM® 3D</b> , with zoom and focus function, integrated illumination and horizontal alignment, working distance 20-50 cm, fiber optic light transmission incorporated, wipe-disinfectable, for use with IMAGE1 S CONNECT™ Module TC 200, IMAGE1 S D3-LINK™ TC 302 and IMAGE1 PILOT TC 014
TC 014	<b>IMAGE1 PILOT</b> , control unit with 3D wheel, 4 programmable function keys and USB port, for intuitive control of camera systems and connected units, for use with IMAGE1 S™ and VITOM® 3D TH 200
TC 200EN*	<b>IMAGE1 S CONNECT™</b> , connect module, for use with up to 3 link modules, resolution 1920 x 1080 pixels, with integrated KARL STORZ-SCB and digital Image Processing Module
TC 302	<b>IMAGE1 S D3-LINK™</b> , link module, for use with TIPCAM®1 S 3D
TC 015	<b>Extension Cable IMAGE1 S D3-LINK™</b> , length 250 cm, to extend the video connecting cable between a video endoscope and IMAGE1 S D3-LINK™ (TC 302), for use with TIPCAM®1 S 3D LAP (26605 AA/BA) and TIPCAM®1 S 3D, diameter 4 mm (7240 AA3D/BA3D/FA3D, 28164 AA3D/BA3D/FA3D)
TM 330	<b>32" 3D Monitor</b> , color systems PAL/NTSC, max. screen resolution 1920 x 1080, image format 16:9
9800 GF	<b>3D Polarization Glasses</b> , fogless, passive, package of 2
9800 C	<b>3D Clip-on Glasses</b> , circularly polarized
TL 300	<b>Cold Light Fountain POWER LED 300</b> , with integrated KARL STORZ-SCB, high-performance LED module and one KARL STORZ light outlet
495 TIP	<b>Fiber Optic Light Cable</b> , with straight connector, extremely heat-resistant, enhanced light transmission, diameter 4.8 mm, length 300 cm, for use with TIPCAM®
495 NAC	<b>Fiber Optic Light Cable</b> , with straight connector, extremely heat-resistant, with safety lock, enhanced light transmission, can be used for ICG applications, diameter 3.5 mm, length 230 cm
495 VIT	<b>Fiber Optic Light Cable</b> , with straight connector, extremely heat-resistant, enhanced light transmission, diameter 4.8 mm, length 550 cm
39501 XTC	<b>Wire Tray for Cleaning, Sterilization and Storage</b> of TIPCAM®1 S 3D LAP Video Endoscopes 26605 AA/BA and one light cable, autoclavable, external dimensions (w x d x h): 640 x 150 x 87 mm
39501 STC	<b>Wire Tray for Cleaning, Sterilization and Storage</b> of TIPCAM®1 S 3D ORL Video Endoscopes 7240 AA3D/BA3D and one light cable, autoclavable, external dimensions (w x d x h): 50 x 15 x 9 cm
39502 LH	<b>Lid</b>

\* Also available in the following languages: DE, ES, FR, IT, PT, RU

- 39100 SH **Silicone Mat LARGE DIAMOND**
- 39100 PS **Fixation Pin**, package of 12
- 39360 AS **Silicone Tie-Downs**, package of 12



## TELE PACK X LED – The Mobile All-in-One Solution with Network Connection

The TELE PACK series offers users a monitor, LED light source, camera control unit, and data management with integrated network function as a portable mobile solution in a single unit.

- For universal use in doctors' offices, emergency rooms, intensive care units and outpatient settings
- High performance LED light source ensures bright and uniform illumination with an average lamp life of 30,000 hours
- Archiving of still images and videos on USB flash drive, SD card or the hospital and/or practice network
- Compatible with all available KARL STORZ gastroscopes, colonoscopes and duodenoscopes as well as rigid endoscopes, fiberscopes, the flexible TROIDL rectoscope and the video rhino-laryngoscope
- Clear patient information
- Effective tool for medical training and further education

- TP 100 **TELE PACK X LED**, endoscopic video unit for use with all KARL STORZ TELECAM one-chip camera heads and video endoscopes, incl. LED light source similar to Xenon technology, with integrated digital Image Processing Module, 15" LCD TFT monitor with LED backlight, USB/SD memory module, color systems PAL/NTSC
- TP 200 **TELE PACK X GI**, endoscopic video unit for use with all KARL STORZ TELECAM one-chip camera heads and video endoscopes, with integrated insufflation pump, incl. LED light source similar to Xenon technology, with integrated digital Image Processing Module, 15" LCD TFT monitor with LED backlight, USB/SD memory module, color systems PAL/NTSC
- 20212030 **TELECAM One-Chip Camera Head**, color system PAL, soakable, gas-sterilizable, with integrated Parfocal Zoom Lens, f = 25-50 mm (2x), 2 freely programmable camera head buttons
- 20212130 **Same**, color system NTSC
- 20212032 **TELECAM Beamsplitter One-Chip Camera Head**, color system PAL, soakable, gas sterilizable, with rotating CCD sensor, f = 25 mm, 2 freely programmable camera head buttons
- 20212132 **Same**, color system NTSC
- 549 M **USB Color Printer**, power supply 100-240 VAC, 50/60 Hz, including mains cord, for use with IMAGE1 S™, IMAGE1 ICM from software version 470206-328 BI and AIDA™ compact NEO
- 20014330 **Two-Pedal Footswitch**, one-stage
- 20040282 **USB Flash Drive**, 32 GB
- 20040281 **Same**, 4 GB

#### Accessories for Network Integration

- TP 001 **SD Card**, 32 GB, for use with all TELE PACK X and TELE PACK X LED models
- 20040276 **RJ45 Network Cable**, length 100 cm
- 20040076 **RJ45 Network Cable**, length 500 cm
- W21067 **OR1™ Network Isolator**, according to EN 60601, for galvanic decoupling of units with RJ45 network connection (1 Gbit)

#### Accessories for Stroboscopy

- 40160040 **Stroboscopy Kit**, for use with TELE PACK X LED
- 20045030 **Adaptor**, for TELE PACK X, TELE PACK X LED, TELE PACK X GI and TELE PACK X VET, in combination with light cables and video endoscopes

#### Accessories for Rigid Endoscopy

- 040115-40 **Camera Cover**, telescopic folding with paper insertion aid, 13 x 242 cm, package of 40
- 20045030 **Adaptor**, for TELE PACK X, TELE PACK X LED, TELE PACK X GI and TELE PACK X VET, in combination with light cables and video endoscopes

**Accessories for Flexible Endoscopy**

**20213070 Video Connecting Cable**, for use between KARL STORZ video endoscopes and TELECAM Camera Control Units (CCU) or TELE PACK video units

**20045031 Light Adaptor for Video Endoscopes**, for TELE PACK X, TELE PACK X LED, TELE PACK X GI and TELE PACK X VET in combination with Video Bronchoscopes 11900 BP/BN and video gastroscopes



## POWER LED 300 SCB – Powerful. Efficient. Durable.

The POWER LED 300 perfectly combines high performance with efficiency. Its intelligent cooling management and laser light technology combine the advantages of LED technology with the light output of a 300 Watt Xenon light source – in a unit offering extremely quiet operation. Durability, economy, environmental friendliness, and performance are the terms that best characterize this light source.

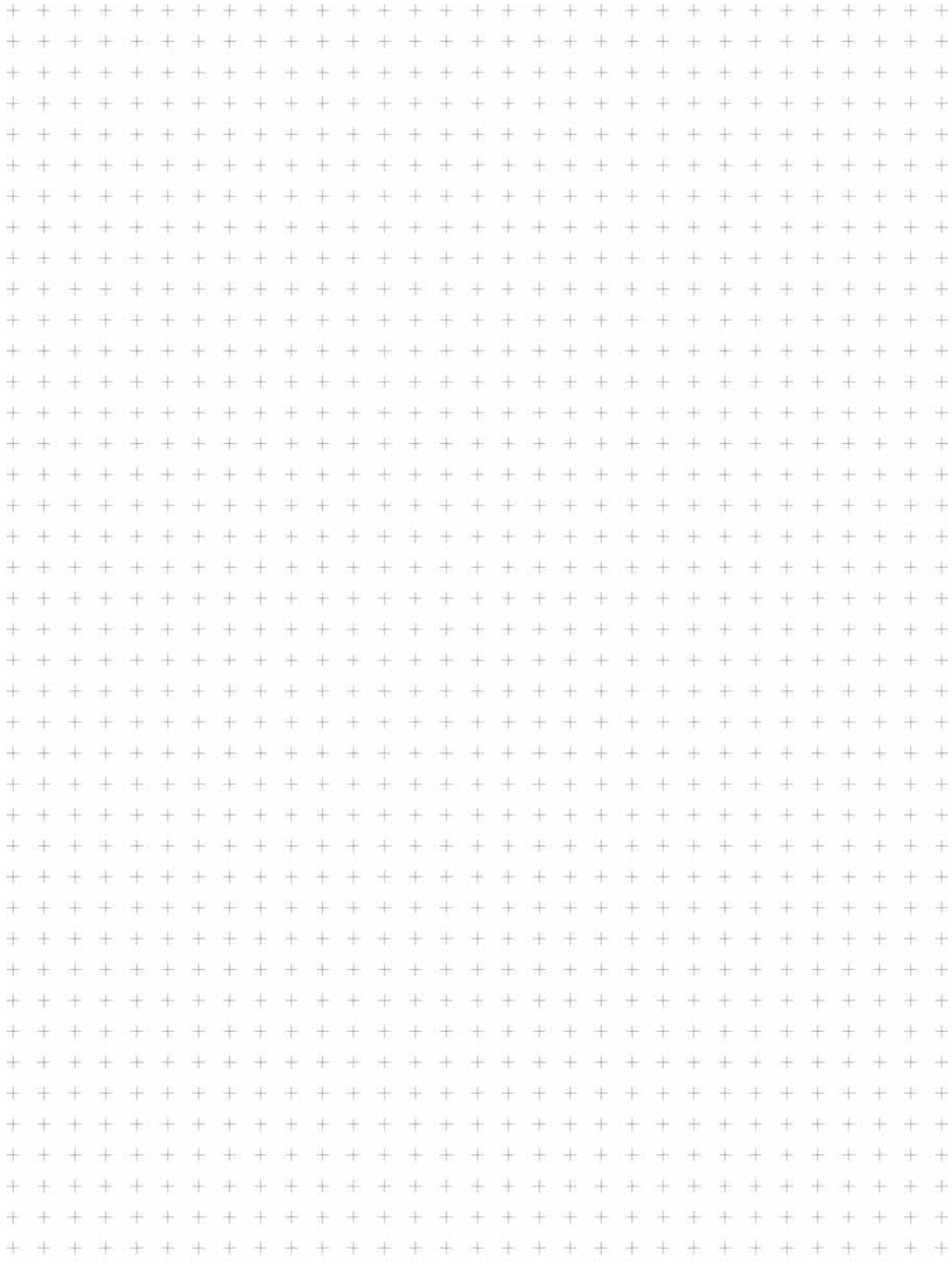
- Light intensity similar to a 300 Watt Xenon light source
- No lamp replacement required for 30,000 hours
- Constant light intensity throughout the operating life
- Low heat development
- Very quiet operation
- Energy savings thanks to high efficiency
- Environmentally friendly

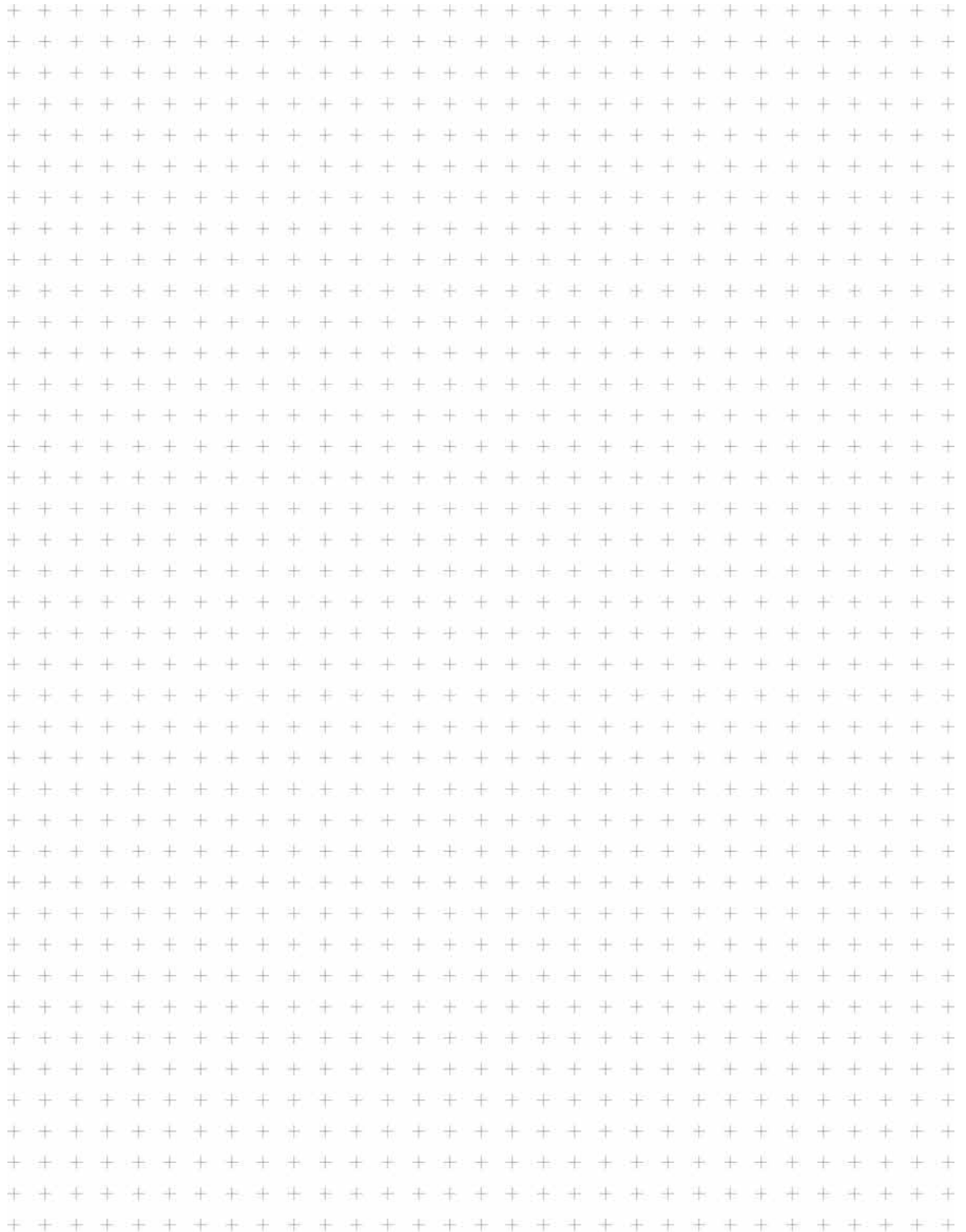


- TL 300      **Cold Light Fountain POWER LED 300**, with integrated KARL STORZ-SCB, high-performance LED module and one KARL STORZ light outlet
- TL 005      **Triple Adaptor**, for use with POWER LED 300 cold light fountain in conjunction with KARL STORZ, Olympus, Stryker and Wolf light cables
- 20090170**    **SCB Connecting Cable**, length 100 cm

**Further recommended products:**

- 20161401-1**    **Cold Light Fountain POWER LED 175**, with integrated KARL STORZ-SCB, high-performance LED and one KARL STORZ light cable connection
- TL 100 S1    **Cold Light Fountain CO<sub>2</sub>MBI™ LED SCB**, with integrated KARL STORZ-SCB, high-performance LED and integrated insufflation pump for air and CO<sub>2</sub>, for use with KARL STORZ video endoscopes
- 20133701-1**    **Cold Light Fountain D-LIGHT P SCB**, with integrated KARL STORZ-SCB, high-performance light unit for perfusion assessment, autofluorescence, and standard endoscopic diagnosis, including a 300 Watt Xenon bulb and KARL STORZ light cable connection





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



THE DIAMOND STANDARD

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