



GIUDICELLI Instrument Set for Video-assisted Mini-Thoracotomy in Thoracic Surgery

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The minimally invasive procedure has become increasingly established in thoracic surgery in recent years. Indeed, a large number of operations in thoracic surgery are already being performed using thoroscopes.

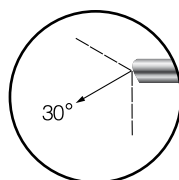
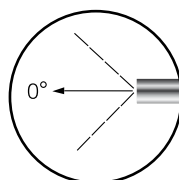
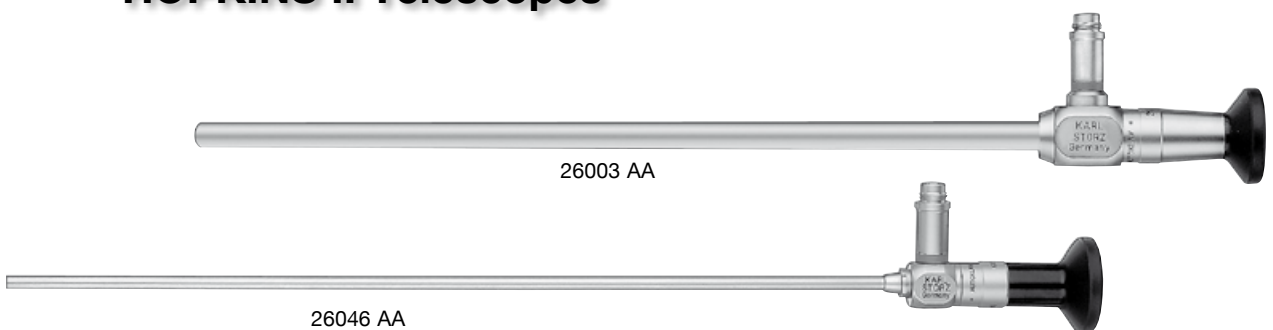
However, implementing this procedure more extensively becomes difficult when faced with operations such as lung resections, which by nature cause a greater degree of trauma. Similarly, the extraction of the surgical specimen for lobectomies and bilobectomies, for instance, presents certain difficulties.

In such cases, the method of video-assisted mini-thoracotomy can represent a fair compromise between conventional thoracic surgery and surgical thoracoscopy, as long as specially designed instruments are available.

The instruments for video-assisted mini-thoracotomy feature the following characteristics:

- Curved instruments adapted to the bend in the thorax, as well as S-shaped instruments with which the field of view is only minimally restricted and the opening of the mini-thoracotomy remains largely free
- Long instruments that allow good access to the outermost areas of the thorax
- Instruments with medial and non-distal joints that open to the maximum despite tight access conditions

HOPKINS II Telescopes



26003 AA **HOPKINS® Straight Forward Telescope 0°**, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**. Fiber optic light transmission incorporated. Color code: green

26003 BA **Same**, 30°, color code: red

26046 BA **HOPKINS® Straight Forward Telescope 0°**, enlarged view, diameter 5 mm, length 29 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

26046 BA **Same**, 30°, color code: red

Holding systems

The holding system for video documentation consists of a simple holding arm, which can quickly be mounted onto any operating table and to which one can attach an endoscope with a digital camera.

As in endoscopic operations, the surgical process itself can then be controlled on the monitor and recorded for documentation with suitable recording devices.

This system allows a simple and quick installation, as well as a comfortable ergonomic position for the operator and assistant.

The advantages of the holding system for documentation are the long-lasting opportunities for the OR personnel to make observations and a minimal impairment of the OR situation.



28172 KGA

Holding System, autoclavable, consisting of:

- 28172 HK **Socket** to clamp on the operating table, for use with European and United States standard rails, also suited for rails from 25x10 up to 35x8 mm, with lateral clamping element for height adjustment of the articulated stand
- 28172 HA **Articulated Stand**, reinforced version, straight, with one mechanical central clamp for all five joint functions, height 30 cm, operating range 37 cm
- 28172 UG **Clamping Jaw**, metal, with axial intake, for use with all square headed KARL STORZ telescopes, clamping range 16.5 up to 23 mm

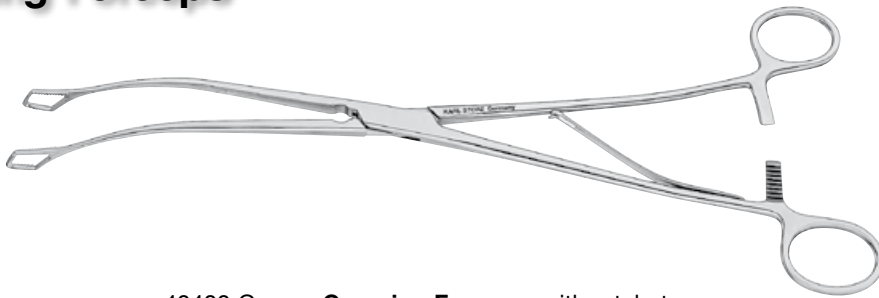
Rib Spreader



40110 A **GIUDICELLI/FUENTES/OTTOMANI Rib Spreader**, self-retaining, blade depth 40 mm, blade width 30 mm

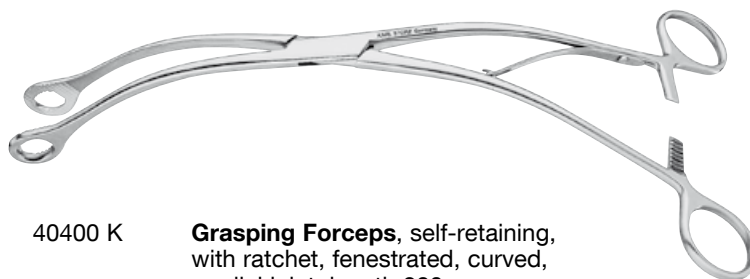
40110 B **Same**, blade depth 60 mm, blade width 30 mm

Grasping Forceps



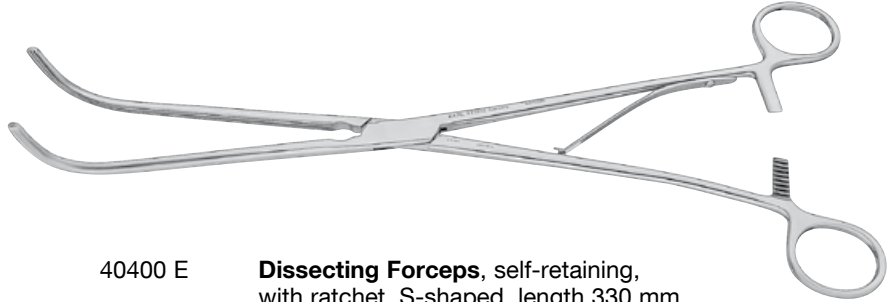
40400 G **Grasping Forceps**, with ratchet, fenestrated, S-shaped, medial joint, length 330 mm

40400 H **Same**, length 280 mm



40400 K **Grasping Forceps**, self-retaining, with ratchet, fenestrated, curved, medial joint, length 280 mm

Dissecting Forceps



- 40400 E **Dissecting Forceps**, self-retaining,
with ratchet, S-shaped, length 330 mm
- 40400 F **Same**, length 280 mm

Dissecting Scissors

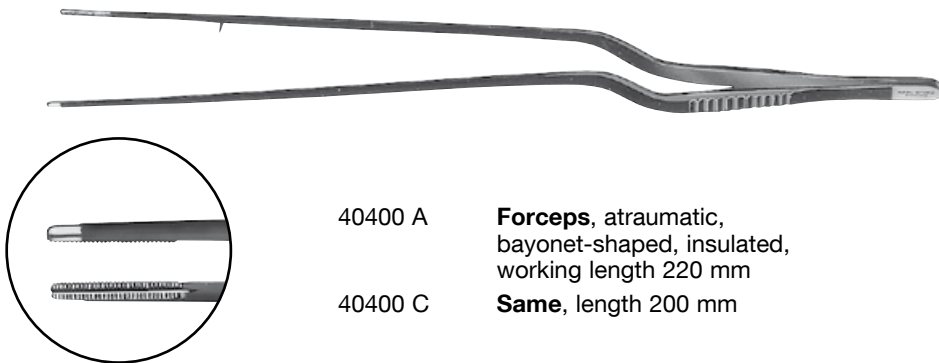


- 40500 B **Dissecting Scissors**, S-shaped,
medial joint, length 330 mm
- 40500 C **Same**, length 280 mm

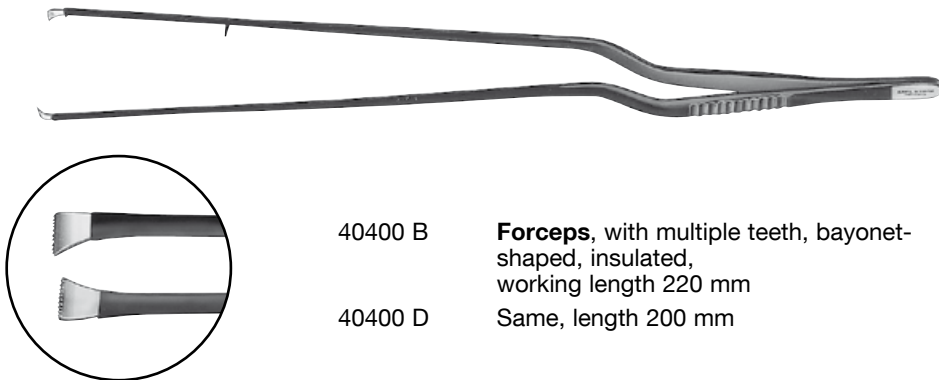


- 40500 D **Dissecting Scissors**, S-shaped,
distal joint, length 330 mm
- 40500 E **Same**, length 280 mm

Forceps

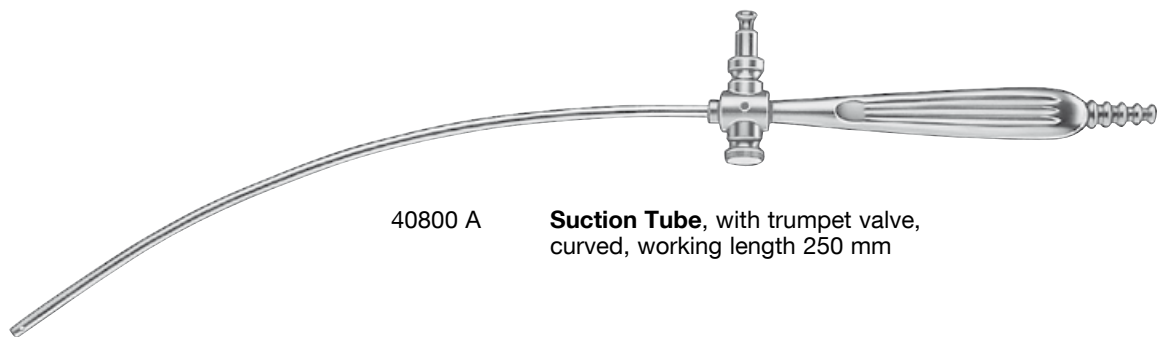


- 40400 A **Forceps**, atraumatic,
bayonet-shaped, insulated,
working length 220 mm
- 40400 C **Same**, length 200 mm

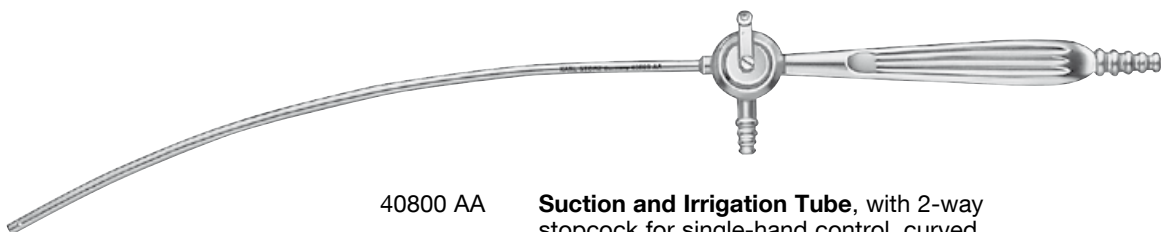


- 40400 B **Forceps**, with multiple teeth, bayonet-
shaped, insulated,
working length 220 mm
- 40400 D **Same**, length 200 mm

Suction and Irrigation Tubes

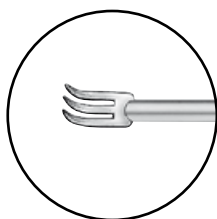


- 40800 A **Suction Tube**, with trumpet valve,
curved, working length 250 mm



- 40800 AA **Suction and Irrigation Tube**, with 2-way
stopcock for single-hand control, curved,
working length 250 mm

Retractors



40600 A

Retractor, with 3 teeth, S-shaped
length 270 mm



40600 B

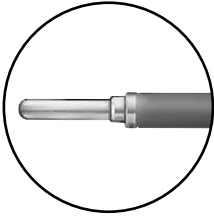
Retractor, with 3 teeth, distal end
curved, length 270 mm



40600 D

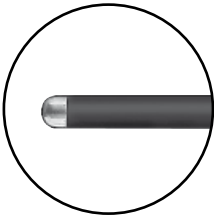
Lung Spatula, S-shaped,
working length 270 mm

Electrodes for Unipolar Coagulation



40700 A

Unipolar Coagulating Electrode, knife tip,
malleable, working length 400 mm



40700 B

Unipolar Coagulating Electrode, ball tip,
malleable, working length 400 mm

Needle Holder



40600 E

Needle Holder, S-shaped, with ratchet,
length 270 mm

High Frequency Surgery Unit AUTOCON® II 400



20 5352 01-111 AUTOCON® II 400 Standard

Supply voltage: 230 VAC, 50/60 Hz

HF-Connecting Sockets: Bipolar Standard
Bipolar Standard
Unipolar 3-Pin + Erbe

Neutral electrode 6,3 mm jack

consisting of:

20 5352 20-111 AUTOCON® II 400 with KARL STORZ SCB®

400 A

Mains Cord

20 0901 70

SCB Connection Cable, length 100cm

26005 M

Unipolar High Frequency Cord with 5 mm plug for HF-unit, models
KARL STORZ AUTOCON - system and Erbe type ICC, length 300 cm

Specifications:

HF Rated Power	Max. Voltage	Output Control
- Cutting unipolar: 200 Watt/500 Ohm - Coagulation unipolar soft: 120 Watt/125 Ohm unipolar standard: 120 Watt/350 Ohm bipolar: 120 Watt/125 Ohm	- Cutting unipolar: Vp=600 Volt - Coagulation unipolar soft: Vp=190 Volt unipolar standard: Vp=1300 Volt bipolar: Vp=190 Volt	- Cutting unipolar: automatic voltage control - Coagulation unipolar soft: automatic voltage control unipolar standard: pulse modulation bipolar: automatic voltage control

Coagulation Degrees	Autostart	Autostop	Safety Systems	Power Supply	Dimensions w x h x d (mm)	Weight (kg)	Certified to
- Cutting 4 steps	- Coagulation bipolar	- Coagulation unipolar soft	- permanent power control - maldosage - neutral electrode safety system - automatic self-test	- 100-120 VAC or 200-240 VAC - 50/60 Hz	305 x 164 x 345	7.7	IEC 601-1, CE acc. to MDD

IMAGE 1™ HD

HD hub Camera Control Unit



- Maximum resolution and the consistent use of the 16:9 aspect ratio guarantee FULL HD
- Endoscopic camera systems have to be equipped with three-CCD chips that support the 16:9 input format as well as capturing images with a resolution of 1920 x 1080 pixels

The benefits of High Definition Technology (HD) for medical applications are:

- Up to 6 times* higher input resolution of the camera delivers more detail and depth of focus
- Using 16:9 format during image acquisition enlarges the field of vision and supports ergonomic viewing
- The brilliance of color enables optimal diagnosis
- Lateral view is enhanced by 32% when the endoscope is withdrawn slightly, providing the same image enhancement as a standard system. Any vertical information loss is restored and the lens remains clean



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22201011U102 IMAGE 1 HUB™ HD Camera Control Unit (CCU) with SDI Module

for use with IMAGE 1™ HD and standard one- and three-chip camera heads, max. resolution 1920 x 1080 Pixel, with integrated KARL STORZ SCB® and integrated digital Image Processing Module, color systems PAL/NTSC, power supply 100 – 240 VAC, 50/60 Hz

consisting of:

222010 20-102	IMAGE 1 HUB™ HD (with SDI) Camera Control Unit
400 A	Mains Cord
3 x 536 MK	BNC/BNC Video Cable , length 180 cm
547 S	S-Video (Y/C) Connecting Cable , length 180 cm
202032 70	Special RGB Connecting Cable
2x 202210 70	Connecting Cable , for controlling peripheral units, length 180 cm
200400 86	DVI Connecting Cable , length 180 cm
200901 70	SCB Connecting Cable , length 100 cm
202001 30U	Keyboard , with English character set

Specifications:

Signal-to-noise ratio	AGC	Video output	Input
IMAGE 1 HUB™ HD Three-chip camera systems ≥ 60 dB	Micro-processor-controlled	<ul style="list-style-type: none"> - Composite signal to BNC socket - S-Video signal to 4-pin Mini DIN socket (2x) - RGBS signal to D-Sub socket - SDI signal to BNC socket (only IMAGE 1 HUB™ HD with SDI module) (2x) - HDTV signal to DVI-D socket (2x) 	Keyboard for title generator, 5-pin DIN socket

Control output /input	Dimensions w x h x d (mm)	Weight (kg)	Power supply	Certified to:
<ul style="list-style-type: none"> - KARL STORZ-SCB® at 6-pin Mini DIN socket (2x) - 3.5 mm stereo jack plug (ACC 1, ACC 2), - Serial port at RJ-11 - USB port (only IMAGE 1 HUB™ HD with ICM) (2x) 	305 x 89 x 335	2.95	100-240 VAC, 50/60 Hz	IEC 601-1, 601-2-18, CSA 22.2 No. 601, UL 2601-1 and CE acc. to MDD, protection class 1/CF

SDI – Serial Digital Interface: optimized to display medical images on Flat Screens, Routing with OR1™ and digital recording with AIDA-DVD-M

ICM: USB-connector for recording video streams and stills on USB storage media or for connection of USB printers for direct printing of the recorded stills

IMAGE 1™ HD

HD Camera Head



22 2200 55-3

22 2200 55-3

50 Hz
60 Hz**IMAGE 1™ H3-Z,
Drei-Chip HD Kamerakopf**

max. resolution 1920 x 1080 pixels, progressive scan, soakable, gas and plasmasterilizable, with integrated Parfocal Zoom Lens, focal length $f = 15 - 31$ mm (2x), 2 freely programmable camera head buttons, for use with color system PAL/NTSC

Specifications:

Image sensor	3x 1/3" CCD-Chip
Pixel output signal H x V	1920 x 1080
Dimensions	Diameter 32-44 mm, length 114 mm
Weight	246 g
Min. sensitivity	F 1,4/1,17 Lux
Lens	Integrated Parfocal Zoom Lens, $f = 15-31$ mm
Grip mechanism	Standard eyepiece detector,
Cable	non-detachable
Cable length	300 cm

KARL STORZ HD Flat Screens Color systems PAL/NTSC	Version	Order No.	Screen diagonal	Max. screen resolution	Video input							
				1920 x 1200	Composite signal to BNC socket	S-Video to 4-pin socket	Mini DIN socket	RGB to 5x BNC socket	VGA to 15-pin HD-D-Sub socket	SDI to BNC socket	HD-SDI to BNC socket	DVI to DVI-D socket
	Wall mounted with VESA 100-adaption	9524 NB	24"									
		9526 NB	26"	•	•	•	•	•	•	•	•	•
	Desktop with pedestal	9524 N	24"									
		9526 N	26"									

The following accessories are included:

400 A	Mains Cord
9523 PS	External 24VDC Power Supply
9419 NSF	Pedestal

Data Management and Documentation

KARL STORZ AIDA® compact II

The Compact Documentation Solution

AIDA compact HD from KARL STORZ combines all the required functions for integrated and precise documentation of endoscopic procedures and open surgeries in a single system.



AIDA compact HD:
Voice control

Data Acquisition

AIDA compact HD records still images, video sequences (in HD quality) and spoken comments of findings and intraoperative procedures directly from the sterile area. Recordings are activated via touch screen, voice control, footswitch or camera head buttons.

Live display of camera images on the touch screen enables immediate monitoring and selection of the recorded data.



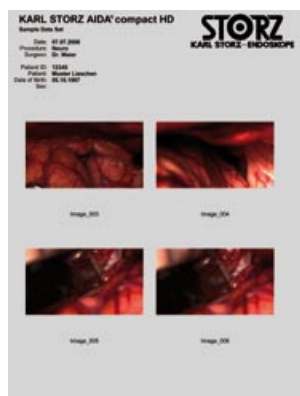
AIDA compact HD:
Review screen

Flexible Review

Before final archiving, the saved data can be viewed or listened to on the review screen. Data no longer required can be simply deleted.

Individual images, video and audio sequences can be renamed and given more meaningful names. A pre-defined selection list with keywords simplifies and speeds up data entry. Furthermore, a comment field is available for entering relevant details of an intervention.

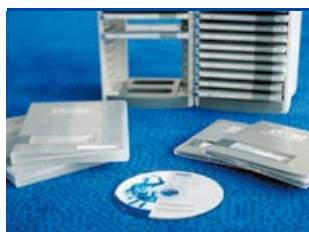
A voice entry of the case report can even be recorded while viewing video and image files.



AIDA compact HD: Automatic
creation of standard reports

Automated Data Archiving

Once a treatment is completed, AIDA compact HD automatically stores the data on a DVD or CD-ROM, creates a standard report and prints it as an overview if required.



AIDA compact HD:
Efficient archiving

Multisession and Multipatient

Efficient data archiving is assured as several treatments can be saved on a DVD, CD-ROM or a USB stick.

Data Management and Documentation

KARL STORZ AIDA® compact II

Special features:

- Digital storage of still images with a resolution of 1920 x 1080, video sequences in 720p and audio files
- Communication Package DICOM/HL7 (optional)
- Sterile, ergonomic operation via touch screen, voice control, camera head buttons and/or footswitch
- Automatic recognition of connected camera systems at HD-SDI/SD-SDI inputs (of IMAGE 1™ camera systems at SD-SDI input only)
- Efficient archiving on DVD, CD-ROM or USB stick, multisession and multipatient
- Network storage possible
- Automatic creation of standard reports
- Computers and monitors for use in the OR area certified according to EN 60601-1
- Compatible with KARL STORZ Communication Bus (SCB) and OR1™ connect Serie KARL STORZ AIDA® compact HD as an attractive, digital alternative to video printers, video recorders and dictating machines



200406 08U KARL STORZ AIDA® compact HD System
Documentation system for digital storage of still images, video sequences and audio files,
power supply: 115/230 VAC, 50/60 Hz
consisting of:

200460 20 KARL STORZ AIDA® control II,
with integrated DVD/CD writer

200405 77 AIDA compact II HD-Frame Grabber Card

200902 34U PS/2 Compact Keyboard, English, with drape

200404 02-17 AIDA® compact II HD Software,
with voice control and software protection

20040275 KARL STORZ USB Stick, with 2 GB

2x 202210 70 Connecting Cable

536 MK BNC-Connecting Cable, length 180 cm

536 MKD BNC-Connecting Cable, length 30 cm

200400 86 DVI-Connecting Cable, length 180 cm

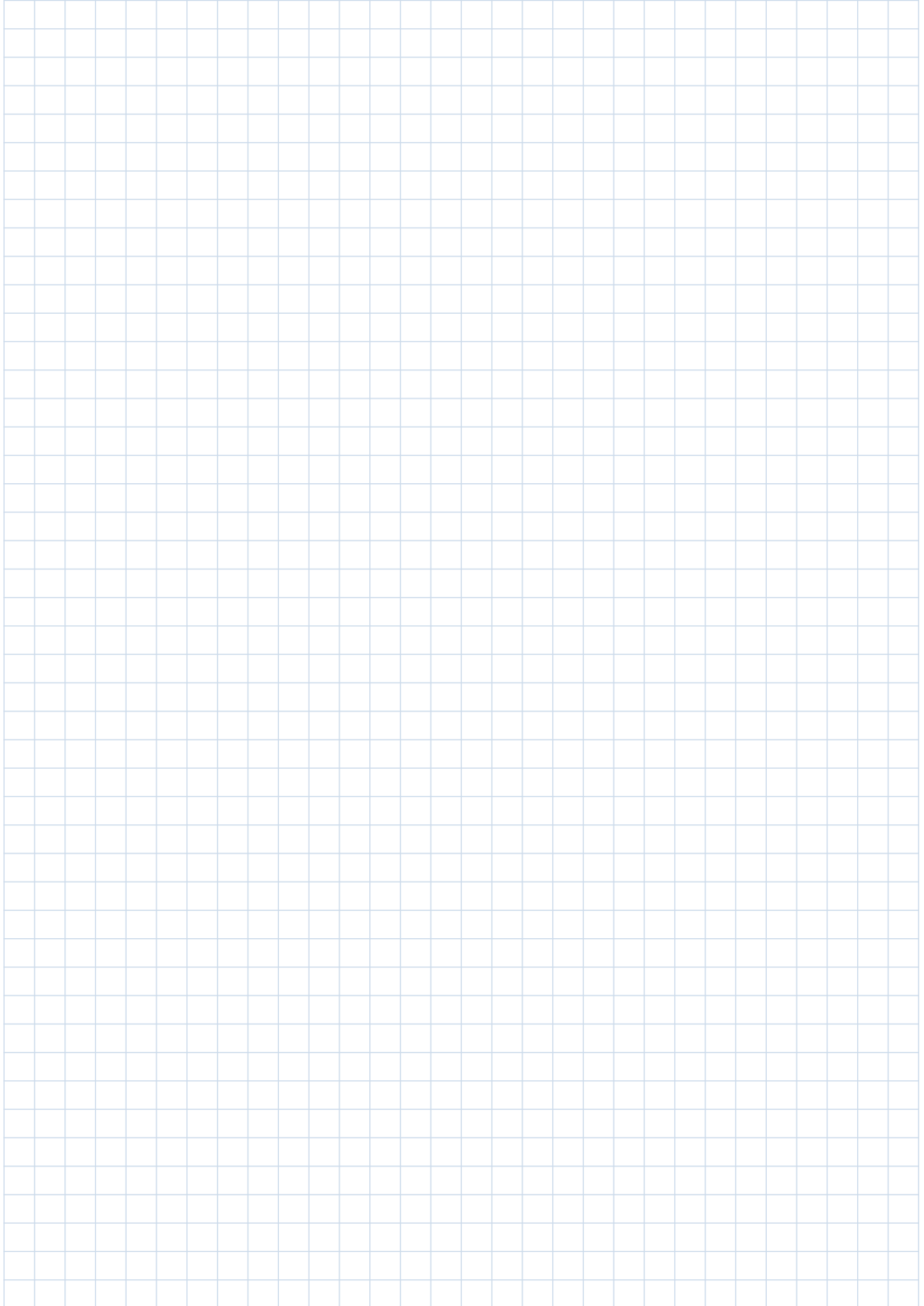
400 A Mains Cord

200400 87 MiniDIN Cable Plug, to BNC female

Specifications::

Video systems	Signal input	Image formats	Video formats	Audio formats	Storage media
<ul style="list-style-type: none"> • PAL • NTSC 	<ul style="list-style-type: none"> • S-Video (Y/C) • Composite • RGBS • SDI • HD-SDI • DVI 	<ul style="list-style-type: none"> • JPG • BMP 	<ul style="list-style-type: none"> • MPEG2 	<ul style="list-style-type: none"> • WAV 	<ul style="list-style-type: none"> • DVD+R • DVD+RW • DVD-R • DVD-RW • CD-R • CD-RW • USB stick

Notes



I am interested in the instrument set for mini-thoracotomy and

☐ request a **visit** from your sales representative.

☐ request a **quote**.

☐ request the actual **THORAX catalog**).

☐ I am interested in the **KARL STORZ AIDA™ (Advanced Image and Data Archiving System)** product family for digital documentation.

☐ I am interested in the **KARL STORZ OR1®** integrated operating room.

My address:

.....
Name, title

.....
Phone

.....
Hospital, department

.....
Fax

.....
Street, PO box

.....
E-mail

.....
ZIP code, town/city

.....
Signature

EG THOR 1, 2007

Eight reasons why you should choose KARL STORZ

1. Stable, family owned company with more than 60 years devoted to endoscopy.
2. Unparalleled depth and breadth of product line with product representation in all minimally invasive surgical markets.
3. Commitment to quality, cost-effective, reusable instrumentation.
4. Genuine **HOPKINS**® rod lens technology.
5. An inventory of over 180 rigid telescopes including a full representation of autoclavable telescopes.
6. Vertical integration. We design, engineer and manufacture what we sell.
7. We service what we design, engineer, manufacture and sell.
8. A committed, company employed salesforce.

WWW.KARLSTORZ.COM

EndoGram