



UNITS
GERÄTE

HALOGEN LIGHTSOURCES | HALOGENLICHTQUELLEN



15-1707

Halogen lightsource, safety approved

Halogen lightsource with 150 W Lamp-Power, CE-approved, with standard lightoutlet-adaptor, economy model

Specification

15-1707

Type of lamp	Special halogen lamp HLX 64653 150 W
Performance	150W
Lamp geometry	Halogen ellipsoid reflector lamp
Color temperature	3200° - 3300° K
Heat protection filter	KG 1
Durability of halogen lamp	about 35 hours
Current supply	220 / 230 Volt, 50/60 Hz
Power consumption	330 VA
Fuses	2 x 2,5 AT, IEC 127
Dimensions (w x h x d)	13 cm x 16 cm x 27 cm
Weight	4,5 kg
Casing safety standard	IPX 1
Max. relative air humidity	85 %
Radioscreening	No
Power supply cord	EURO or USA
Classification	NBF, non body floating
Electr. protection class	1 TÜV
CE standard	Yes, Class 1
Compliance with	92/43, ISO 13485

Safety measurements

TÜV

Additional Features for 15-1707

- > Inexpensive
- > Durable
- > Metal casing
- > Easy lamp change
- > intended for office use



LIGHTSOURCES | LICHTQUELLEN



15-1716 Light source with new short arc lamp-technology

New short arc lamp 50 W with extremely strong light, due to Xenophot technology

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Specification	15-1716
Type of lamp	SOLARC 50 W, ARC
Performance	50W
Lamp geometry	SOLARC ellipsoid
Color temperature	5200° K
Heat protection filter	KG 1
Durability of halogen lamp	about 1000 hours
Current supply	110 / 240 Volt, 50/60 Hz
Power consumption	210 VA
Fuses	4 x 2,5 AT, IEC 127
Dimensions (w x h x d)	30 cm x 31 cm x 12,5cm
Weight	5,1 kg
Casing safety standard	IPX 1
Max. relative air humidity	85 %
Radioscreening	EMC, IEC 601-2-2
Power supply cord	EURO, optional USA
Classification	BF, body floating
Electr. protection class	1 DQS
CE standard	Yes, Class 1
Compliance with	92/43, ISO 13485, ISO 9001 IEC 601-1
Safety measurements	BF IEC 601-1-2, IEC 601-2-2 DIN VDE 0751

Additional Features for 15-1716

- > High output like 300 W
- > No heat
- > No spot in the focus
- > Short arc technology
- > Longest life
- > About 1000 hours of use
- > Perfect color temperature



LIGHTSOURCES | LICHTQUELLEN



15-1728 Lisa Classic

HALOGEN 2 x 250 Watts
Cold light source for endoscopy

15-1728-800 Lamp also fitting 15-1728 and 15-1729-250

Specification	15-1728
Type of lamp	XENOPHOT HLX 64653 (ELC) 24 V
Performance	250 W
Lamp geometry	halogen-ellipsoid-reflector-lamp
Color temperature	till 3600° K
Heat protection filter	IR 3 (Option KG / UV - Rejection filter)
Durability of halogen lamp	till 200 hours with electronic surge limiter
Current supply	115 + 230 Volt, 50/60 Hz (3,14), 1,6 A +10% / -5%
Power consumption	330 VA
Fuses	2 x 2,5 AT, IEC 127-2/III 5 x 20 mm
Dimensions (w x h x d)	37 cm x 15,5 cm x 29,5 cm
Weight	10,0 kg
Casing safety standard	IPX 1 / IEC 529, full metal casing, powder coated
Max. relative air humidity	85%
Radioscreening	No
Power supply cord	EURO or USA - Edition
Classification	Type CF (cardiac floating)
Electr. protection class	1 / TÜV certified
CE standard	Council Directive 93/42/EEC Class I correspond to IEC 601-2-18:1992
Compliance with	EN 60601-1: 1993 EN 55011, IEC 801 DIN (VDE 0750 Part 1 TÜV tested ESD (EMV)
Safety measurements	in accordance to VDE 0701 / Set values: Isolating resistance leakage current: 50 µA

Additional Features for 15-1728

Manufacturers remark	200 hours lamplife
average value at	15 minutes ON / 30 minutes OFF
Protection grade	Apparatus Group 3, VDE 0751

- > The new standard for halogen cold light source with automatic lampswitch 2 x 250 Watts halogen reflector lamp with one light delivery system.
- > With electronic Surge Limiter, the lamp-lifetime will be increased to 200 h.
- > Light intensity regulates by servo shutter, ensuring an optimal illumination and no loss of high color temperature.
- > Automatic switchover to built-in spare light bulb in event of malfunction.
- > Quick and easy exchange of light bulb by plug-in technique.
- > Reduced heat development. Casing and light-adapter remain cold during operation.
- > Easy to handle (strong surface panel). Foiled front panel ensure optimal hygiene, easy to clean.
- > Easy to service, plug in system.
- > Apparatus is cold and silent.
- > Compatible with all usual endoscopes (exchangeable light cable adapters).
- > Adheres to high international safety standards (TÜV and CE certified).
- > CF "cardiac floating" classification (for direct cardiac application).
- > High quality, made in Germany.



LIGHTSOURCES | LICHTQUELLEN



15-1729-150	Lisa Halogen 150 Watt
15-1729-250	Lisa Halogen 250 Watt

Cold light source compatible with all usual endoscopes.

The new standard for Halogen cold light source 150/250 Watts Halogen reflector lamp 3400 - 3600° K

15-1729-800	Lamp also fitting 15-1729-150
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Specification	15-1729-150 15-1729-250
Type of lamp	Halogen special lamp, Type: HLX 64634 15 V, 150 W
Performance	150 Watts (Optional 250 Watts)
Lamp geometry	Halogen ellipsoid-reflector-lamp
Color temperature	3400 - 3600° K
Heat protection filter	KG 1 (Option UV - Rejection filter)
Durability of halogen lamp	about 50 hours
Current supply	220 / 230 Volt, 50/60 Hz, 2,5 A. +10% / -5%
Power consumption	185 VA 330 VA
Fuses	2 x 2,5 AT (2 x 1,25) IEC 127 - 2/III 5 x 20 mm
Dimensions (w x h x d)	26 cm x 11 cm x 29 cm
Weight	5,5 kg
Casing safety standard	IPX 1 / IEC 529, full metal casing, powder coated
Max. relative air humidity	85%
Radioscreening	No
Power supply cord	Euro - or USA - Edition
Classification	Type BF (Body floating)
Electr. protection class	1 / TÜV certified
CE standard	Council Directive 93/42/EEC Class 1 correspond to IEC 601-2-18
Compliance with	EN 60601-1: 1993, EN 55011, IEC 801, TÜV model approved
Safety measurements	ESD (EMV), Compliance with DIN VDE 0750, Part 1 in accordance to VDE 0701/ Set values: Leakage current: 50 A wired resistance: 0,1 Ohm Isolating resistance

Additional Features for 15-1729-150 | 15-1729-250

- > Light intensity regulates by servo shutter, ensuring an optimal illumination and no loss of high color temperature
- > Quick and easy exchange of light bulb by plug-in technique
- > Reduced heat development. Casing and light-adapter remain cold during operation
- > Easy to handle (strong surface panel). Foiled front panel ensures optimal hygiene, easy to clean
- > Easy to service, plug in system
- > Apparatus is cold and silent
- > Compatible with all usual endoscopes (exchangeable with light cable adapters).
- > Adheres to high international safety standards (TÜV and CE certified)
- > BF "body floating" classification
- > High quality, made in Germany

LIGHTSOURCES | LICHTQUELLEN



15-1725E

Xenon Economy 600

Cold light source compatible with all usual endoscopes.

The new standard for Economy Xenon light sources with powerful XBO lamp

15-1709-200

Xenon Bulb for Ackermann 15-1725E types



Specification	15-1725E
Type of lamp	special Xenon lamp XBO
Performance	100 Watts (Equivalent 300 Watts)
Lamp geometry	Reflector elliptical
Color temperature	5800 ° Kelvin
Heat protection filter	IR 3
Durability of halogen lamp	500 hours
Current supply	110 + 230 Volt, 50/60 Hz (2,5), 1,25 A.+5% / -10%
Power consumption	200 VA
Fuses	2 x 2,5 AT, IEC 127-2/III, 5 x 20 mm
Dimensions (w x h x d)	26 cm x 11 cm x 29 cm
Weight	6,5 kg
Casing safety standard	IPX 1 / IEC 529 all - metal case - plastic - coated
Max. relative air humidity	85 %
Radioscreening	No
Power supply cord	German or US-version
Classification	Apparatus group acc. (MedGV), CF (cardiac floating), MedGV group 3
Electr. protection class	Class 1
CE standard	Council directive: 89/336/EEC
Compliance with	IEC 601-2-18, EN 60601-1, EN 55011, IEC 801, TÜV model approved
Safety measurements	ESD, (EMV) DIN VDE 0750 part 1
Temperature - working	+10° C - +40° C
Temperature - stock	-20° C - +45° C, 85%

Additional Features for 15-1725E

Temperature - working	+10° C - +40° C
Temperature - stock	-20° C - +45° C, 85%
Regulations	Construction of the unit in accordance with the Directive
	IEC - 601-2-18 standards: 1992
	EN 60601-1: 1993
	EN 55011, IEC 801, TÜV, GS, ESD, (EMV) DIN VDE 0750 part 1

- > Light intensity regulates by servo shutter, ensuring an optimal illumination and no loss of high color temperature (5800k)
- > Quick and easy exchange of light bulb by plug-in technique
- > Easy to handle (strong surface panel). Foiled front panel ensures optimal hygiene, easy to clean
- > Easy to service, plug in system
- > Apparatus is cold and silent
- > Compatible with all usual endoscopes (exchangeable with light cable adapters).
- > Adheres to high international safety standards (TÜV and CE certified)
- > BF "body floating" classification
- > High quality, made in Germany



MULTISYSTEM WITH LIGHTSOURCE AND MICROCAMERA



**15-1717PAL
15-1717NTSC**

Multi-System with integrated Xenon light-source and high-performance microcamera

Combined CCD camera and Xenon Light Source

15-1717-100

Xenon Spare Lamp for **15-1717**



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Specification	15-1717PAL 15-1717NTSC
Type of lamp	SOLARC 50 W, ARC
Performance	50W
Lamp geometry	SOLARC ellipsoid
Color temperature	5200° K
Heat protection filter	KG 1
Durability of halogen lamp	1000 hours
Current supply	115 V / 240 V
Power consumption	312 VA
Fuses	2 x 0,5 AT, IEC 127
Dimensions (w x h x d)	Control unit: 11,3 cm x 38 cm x 35 cm
Weight	Control unit: 11,5 kg, Camera head: 80 g
Casing safety standard	IPX 1
Max. relative air humidity	85 %
Radioscreening	EMV, IEC 601-1-2
Power supply cord	EURO or USA
Classification	CF (cardiac floating),
Electr. protection class	Class 1, MEDCERT
CE standard	Council directive: 92/43 EEC
Compliance with	IEC 601-2-18, EN 60601, EN 55011, IEC 601
Safety measurements	DIN VDE 0750

Camera Specification for 15-1717PAL | 15-1717NTSC

Resolution	752 x 582
Definition	925 scanning
Sensitivity	0,5 lux
Signal / noise ratio	69 db
Electronic shutter	automatic /1/50 – 1/100.000
White balance	Automatic
Outputs	2 composite / 2 YC outputs /
Power for flat pannels:	15-1723 / 15-1724
CCD	1/2 CCD
VIDEO Output	SVHS / BNC

Performance

- > Most advanced HAD chip technology
- > Extremely good picture comparable 3 CCD
- > Window function
- > Fully digital controlled
- > Interface for flat screen CCD panel
- > Stand by mode
- > High efficiency Xenon light source built in
- > Easy lamp change
- > Camera head included
- > Solid stainless construction
- > Available in NTSC and PAL version, please specify when ordering

TV COUPLER | TV ADAPTER

**15-1702**

TV coupler for endoscopes

**15-1702CLD**

TV coupler for endoscopes, closed version no prongs

**15-1702DC**

TV coupler for endoscopes, direct coupling

**15-1702ZM**

Zoom objective-C-mount connection, 20 - 50 mm

- > parfocal zoom lens
- > image magnification without refocusing from 20 - 50 mm
- > image remains clear and sharp



TV COUPLER | TV ADAPTER



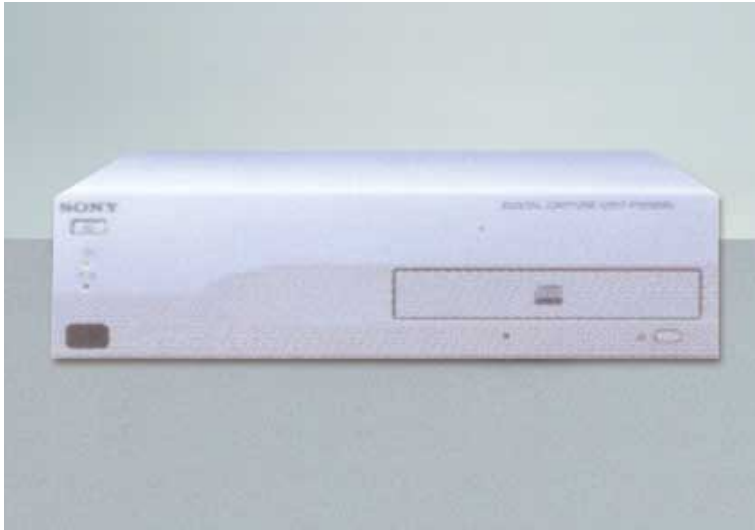
15-1705 Beam splitter, 28 mm



15-1727 Angled objective without direct vision

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DIGITAL CAPTURE UNIT



15-1737

Sony Digital Capture Unit

- > able to capture 15000 pics
- > CDR recording

A medical grade unit designed to...

...capture and digitize up to 15,000 images or 15 hours of video from an external video device. The images/video can be stored on the internal hard disc drive or on a CD-R with the built-in drive. Includes a remote control unit (RMP-110).

Manufactured by SONY

Additional Features for 15-1737

- > Still images recorded in TIFF and JPG formats
- > Video clips recorded in MPEG 4 format
- > Output images to CD-R disc
- > Network capability for multiple viewers
- > Compliance with medical safety regulations
- > Built-in web server
- > NTSC and PAL compatible
- > Worldwide power supply (100 - 240 V)
- > 20 GB hard disc drive stores 15,000 images or 15 hours of video
- > Single or multiple sessions
- > Quick power on / off
- > Direct printout capability via SCSI port



VIDEORECORDER

**15-1736**

Videorecorder Sony SV09500MDP

The Sony 15-1736 compact design video recorder, allows noiseless, crystal clear and stable colour playback and recording features. This video recorder has a digital frame memory and all required connectors for endoscopy applications.

Manufactured by SONY

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Additional Features for 15-1736

- > Digital frame memory (field/frame selectable, 8 bit depth) allows noiseless, crystal clear "freeze"
- > Built-in time base corrector produces stable color playback clarity in freeze, normal play and job/shuttle modes
- > Outstanding luminance and chrominance performance
- > IzzitOn™ System provides visual recording confirmation
- > RS-232C serial (25pin) or parallel (34pin) interface available
- > Remote control with jog/shuttle available
- > Compact design
- > Quick response to all operational commands
- > Simplified, user friendly front panel
- > Selectable hi-fi audio
- > Automatic search to end of last recording on tape
- > Industrial grade transport mechanism
- > Auto head cleaning mechanism
- > UL-544 listed



VIDEO PRINTER | VIDEO DRUCKER



15-1735

Video Printer Sony UP 2100

The 15-1735 Sony videoprinter is the ideal choice for the endoscopy application, it is very compact and will help to free the space in medical carts.

Manufactured by SONY

Specification	15-1735
Printing method	Dye Sublimation
Thermal head	403 dpi
Gradations	256 graduations, over 16 millions colors/dot
Resolution	325 dpi
Printed area (NTSC)	S Size: Full 95,8 x 72,4 mm L Size: Full 126,9 x 91,5 mm
Print speed	UPC-21S approx. 16 sec.
(High speed mode, NTSC)	UPC-21L approx. 16 sec.
Paper capacity	S Size tray: max. 80 sheets L Size tray: max. 50 sheets
Power consumption	100 - 120 V 1,8 A 220 - 240 V 1,0 A
Dimensions (w x h x d)	7 3/8 x 5 x 15 5/8 (inches)
Weight	13,3 lbs.
Safety standards	UL 1950, UP 2601-1 Listed (UC), CSA C22.2 No. 950 (UC), EN60950, EN60601-1 (UC)



VIDEO PRINTER | VIDEO DRUCKER



15-1735-100 Video Printer Sony UP 960CE

The 15-1735-100 Sony videoprinter is an economy solution for endoscopy applications. It is compact in size and fulfills all the needs of medical endoscopy application.

Manufactured by SONY

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Specification	15-1735
Printing method	Dye Sublimation
Thermal head	403 dpi
Gradations	256 graduations
Resolution	325 dpi
Printed area (NTSC)	S Size: Full 95,8 x 72,4 mm L Size: Full 126,9 x 91,5 mm
Print speed	UPC-21S approx. 16 sec.
(High speed mode, NTSC)	UPC-21L approx. 16 sec.
Paper capacity	S Size tray: max. 80 sheets L Size tray: max. 50 sheets
Power consumption	100 - 120 V 1,8 A 220 - 240 V 1,0 A
Dimensions (w x h x d)	9 3/8 x 5 x 15 5/8 (inches)
Weight	13,3 lbs.
Safety standards	UL 1950, UP 2601-1 Listed (UC), CSA C22.2 No. 950 (UC), EN60950, EN60601-1 (UC)

MONITORS | MONITORE



15-1712 Sony PMV high resolution monitor, 14" size

15-1713 Sony PMV high resolution monitor, 20" size

Manufactured by SONY

Specification	15-1712
Television Tube	14" color monitor - Trinitron
Horizontal resolution	600 TV-lines
Automatic selection	PAL / SECAM / NTSC / M-NTSC
Colour temperature	6500° K / 9300° K selectable
Input	Y/C, composite
Dimensions (w x h x d)	346 x 340 x 412 mm
Weight	15,6 kg
Power supply	85 - 265 V, 47 - 63 Hz
Power consumption	75 VA
Standards	Complies with IEC 601 / VDE 0750, MedGV sign / GS TÜV sign

Additional Features for 15-1712 | 15-1713

- > Utilizes Trinitron® CRT technology for clear and precise images
- > Generates a resolution of 600 TV lines
- > Beam-current feedback circuit for color stability
- > Digital comb filter for clear and detailed picture reproduction
- > NTSC/PAL operation using automatic detection
- > 4:3/16:9 capability
- > Switchable colour temperature
- > Six language on-screen display

Specification	15-1713
Television Tube	20" color monitor - Trinitron
Horizontal resolution	600 TV-lines
Automatic selection	PAL / SECAM / NTSC / M-NTSC
Colour temperature	6500° K / 9300° K selectable
Input	Y/C, composite
Dimensions (w x h x d)	452 x 458 x 513 mm
Weight	31 kg
Power supply	85 - 265 VAC, 47 - 63 Hz
Power consumption	125 VA
Standards	Complies with IEC 601 / VDE 0750, MedGV sign / GS TÜV sign



MONITORS | MONITORE



15-1714	Sony PMV high resolution monitor, 14" size, Medical 14M2MDE
15-1714-20	Sony PMV high resolution monitor, 20" size, Medical 20M2MDE

Manufactured by SONY

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Specification	15-1714
Television Tube	14", 0,25 mm Super Fine Pitch - Trinitron
Horizontal resolution	>800 TV-lines
Video system	PAL / SECAM / NTSC 4.43 / NTSC 3.58
Colour temperature	3200° K - 10000° K selectable
Input	RGB-terminal, Y/C, S-VHS
Dimensions (w x h x d)	346 x 340 x 430 mm
Weight	16,5 kg
Power supply	100 - 240 Volt, 50 - 60 Hz
Power consumption	90 VA
Standards	Complies with IEC 950 / IEC601-1

Additional Features for 15-1714 | 15-1714-20

- > Colour video monitor for medical use
- > SDI or DV input options
- > Digital comb filter virtually eliminates NTSC dot crawl
- > Trinitron® CRT provides a resolution of 800 TV lines
- > Beam-current feedback circuit for stable colour reproduction
- > Composite, Y/C, RGB and component (Y/R-Y/B-Y) inputs
- > Accepts external sync
- > Auto setup for chroma and phase

Specification	15-1714-20
Television Tube	20", 0,25 mm Super Fine Pitch - Trinitron
Horizontal resolution	>800 TV-lines
Video system	PAL / SECAM / NTSC 4.43 / NTSC 3.58
Colour temperature	3200° K - 10000° K selectable
Input	RGB-terminal, Y/C, S-VHS
Dimensions (w x h x d)	450 x 450 x 500 mm
Weight	30 kg
Power supply	100 - 240 Volt, 50 - 60 Hz
Power consumption	190 VA
Standards	Complies with IEC 950 / IEC601-1



FLATSCREENS | FLACHBILDSCHIRME



- 15-1723** Flatscreen for medical applications 18" size
- 15-1724** Flatscreen for medical applications 15" size

With powertransformer and arm

Specification	15-1723 MMD Medical LCD Monitor
Screen	18" Flatscreen, 1280 x 1024 dots
Horizontal resolution	920 TV-lines
Automatic selection	PAL / SECAM / NTSC / M-NTSC
Colour temperature	6500° K to 10000° K
Input	S-VHS, BNC
Dimensions (w x h x d)	467 x 399 x 123 mm
Weight	7 kg
Power supply	85 - 265 Volt, 47 - 63 Hz
Power consumption	45 VA
Standards	Complies with IEC 601 / VDE 0750, MedGV sign / GS TÜV sign

Additional Features for 15-1723 | 15-1724

- > With zoom function
- > For medical cameras

Note: This medical flatscreen monitors are suitable for all high end camera systems, specifically our 3CCD

Specification	15-1724 MMD Medical LCD Monitor
Screen	15" Flatscreen
Horizontal resolution	920 TV-lines
Automatic selection	PAL / SECAM / NTSC / M-NTSC
Colour temperature	6500° K to 10000° K
Input	S-VHS, BNC
Dimensions (w x h x d)	392 x 338 x 123 mm
Weight	5600 gr
Power supply	85 - 265 Volt, 47 - 63 Hz
Power consumption	35 VA
Standards	Complies with IEC 601 / VDE 0750, MedGV sign / GS TÜV sign

ELECTRONIC INSUFFLATORS | *ELEKTRONISCHE INSUFFLATOREN***15-1711-16**CO² Economy, 16 l Insufflator

Specification	15-1711-16
Main supply	100 V - 240 Volt
Power input	35 VA
Frequency	50 / 60 Hz
Safety class	1
Dimensions (h x w x d)	30 cm x 14,5 cm x 32 cm
Weight	4500 gr
Max. gas flow	16 l/min
Tolerances	abdominal pressure ± 3 mm Hg
Standards	Made of UL listed components DIN VDE 0750-1, EN 60601-1

Additional Features for **15-1711-16** | **15-1711-20**

- > Over 16 l/min
- > Fine graduation from 0,1 to 16 l
- > Fully automatic deficit compensation by means of high performance 16 l/min when instruments are interchanged or during the surgical procedure
- > Pressure preadjustment 5 - 25 mm Hg
- > Integrated self test modus

CO₂-Insufflator **100 - 240 Volt** consisting of:

- > Wrench for CO₂-cylinder
- > Silicone tubing
- > Verres needle
- > Handbook

Safety for the Patient and the Operator**Order CO₂ Bottle tubing separate:****15-1711-700** CO₂ Bottle 0,75 kg**15-1711-701** CO₂ Bottle 20 kg



ELECTRONIC INSUFFLATORS | ELEKTRONISCHE INSUFFLATOREN



- 15-1711-20** CO² Economy, 20 l Insufflator
- 15-1711-20H** CO² Economy, 20 l Insufflator with heating

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Specification	15-1711-20
Main supply	100 V - 240 Volt
Power input	35 VA
Frequency	50 / 60 Hz
Safety class	1
Dimensions (h x w x d)	30 cm x 14,5 cm x 32 cm
Weight	4,5 kg
Max. gas flow	20 l/min
Tolerances	abdominal pressure ±3 mm Hg
Standards	Made of UL listed components VDE 0750/IEC 601, GS/TÜV, CE

Additional Features for 15-1711-20

- > Over 20 l/min
- > Fine graduation from 0,1 to 20 l
- > Fully automatic deficit compensation by means of high performance 20 l/min when instruments are interchanged or during the surgical procedure
- > Pressure preadjustment 5 - 25 mm Hg
- > Integrated self test modus

CO₂-Insufflator **100 - 240 Volt** consisting of:

- > Wrench for CO₂-cylinder
- > Silicone tubing
- > Verres needle
- > Handbook

Safety for the Patient and the Operator

Order CO² Bottle tubing sepearate:

- 15-1711-700** CO² Bottle 0,75 kg
- 15-1711-701** CO² Bottle 20 kg





ELECTRONIC INSUFFLATORS | ELEKTRONISCHE INSUFFLATOREN



15-1711-30 CO₂ Insufflator, 30 l performance version

15-1711-30H CO₂ Insufflator, 30 l, with heating

Specification	15-1711-30
Main supply	100 V - 240 Volt
Power input	35 VA
Frequency	50 / 60 Hz
Safety class	1
Dimensions (h x w x d)	30 cm x 14,5 cm x 32 cm
Weight	4,5 kg
Max. gas flow	30 l/min
Tolerances	abdominal pressure ± 3 mm Hg
Standards	DIN EN 60601-1, DIN EN 60601-1-2 (BMV)

Additional Features for 15-1711-30 | 15-1711-30H

- > Over 30 l/min
- > Fine graduation from 0,1 to 30 l
- > Fully automatic deficit compensation by means of high performance 30 l/min when instruments are interchanged or during the surgical procedure
- > Pressure preadjustment 5 - 25 mm Hg
- > Integrated self test modus

CO₂-Insufflator **100 - 240 Volt** consisting of:

- > Integrated control unit for CO₂-heater
- > Power cord 2,5 m, angled (CEE 7 / VII)
- > Filteradapter male
- > Insufflation tube, 2,5 m, incl. LL
- > Verres High Flow needle, 120 mm
- > Open-end wrench Set (SW 17 and 30 mm)
- > Operating manual
- > Bacterial hydrophobic filter

Safety for the Patient and the Operator

Order CO₂ Bottle tubing separate:

15-1711-700 CO₂ Bottle 0,75 kg

15-1711-701 CO₂ Bottle 20 kg



Specification	15-1711-30H
Main supply	100 V - 240 Volt
Power input	35 VA
Frequency	50 / 60 Hz
Safety class	1
Dimensions (h x w x d)	30 cm x 14,5 cm x 32 cm
Weight	4,5 kg
Max. gas flow	30 l/min
Tolerances	abdominal pressure ± 3 mm Hg
Standards	DIN EN 60601-1, DIN EN 60601-1-2 (BMV)



ELECTRONIC INSUFFLATORS | ELEKTRONISCHE INSUFFLATOREN



15-1711-40 CO² Insufflator, 40 l performance version

15-1711-40H CO² Insufflator, 40 l, with heating

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Specification	15-1711-40
Main supply	100 V - 240 Volt
Power input	35 VA
Frequency	50 / 60 Hz
Safety class	1
Dimensions (h x w x d)	30 cm x 14,5 cm x 32 cm
Weight	4,5 kg
Max. gas flow	40 l/min
MedGeVO-Group	abdominal pressure ±3 mm Hg
Standards	DIN EN 60601-1, DIN EN 60601-1-2 (BMV)

Additional Features for 15-1711-40 | 15-1711-40H

- > Over 40 l/min
- > Fine graduation from 0,1 to 40 l
- > Fully automatic deficit compensation by means of high performance 40 l/min when instruments are interchanged or during the surgical procedure
- > Pressure preadjustment 5 - 25 mm Hg
- > Integrated self test modus

CO₂-Insufflator **220 V - 240 Volt** | **100 V - 115 VAC** consisting of:

- > Integrated control unit for CO²-heater
- > Power cord 2,5 m, angled (CEE 7 / VII)
- > Filteradapter male
- > Insufflation tube, 2,5 m, incl. LL
- > Verres High Flow needle, 120 mm
- > Open-end wrench Set (SW 17 and 30 mm)
- > Operating manual
- > Bacterial hydrophobic filter

Safety for the Patient and the Operator

Order CO² Bottle tubing separate:

15-1711-700	CO ² Bottle 0,75 kg
15-1711-701	CO ² Bottle 20 kg



Specification	15-1711-40H
Main supply	100 V - 240 Volt
Power input	35 VA
Frequency	50 / 60 Hz
Safety class	1
Dimensions (h x w x d)	30 cm x 14,5 cm x 32 cm
Weight	4,5 kg
Max. gas flow	40 l/min
MedGeVO-Group	abdominal pressure ±3 mm Hg
Standards	DIN EN 60601-1, DIN EN 60601-1-2 (BMV)

ACCESSORIES | ZUBEHÖR



15-1711-1000 Disposable Filters for **15-1711** packed per 10 pcs



15-1711-600 CO² Insufflator tubingset, reusable silicone, 5 pcs

15-1711-600D CO² Insufflator tubingset, disposable, 20 pcs



15-1711-601 Gas-heating tube for **15-1711** models



15-1711-700 CO² Bottle 0,75 kg

15-1711-701 CO² Bottle 20 kg



ACCESSORIES | ZUBEHÖR



15-1711-2000 High Pressure Hose for Insufflator connection US-US



15-1711-2001 High Pressure Hose for Insufflator connection US-DT



15-1711-2002 High Pressure Hose for Insufflator connection US-Pin Index



15-1711-2003 High Pressure Hose for Insufflator connection US-Italy



HIGH-PERFORMANCE URO-SURGI-SYSTEM



15-1715

High-Performance Uro-Surgi-System

All stainless steel hysteroscopy roller pump.
With patented patient level function.

Specification	15-1715
Main voltage	100 Volt - 115 Volt / 220 Volt - 240 Volt
Power consumption	60 VA
Frequency	50 / 60 Hz
Device type	BF
Safety class	II a
Dimensions (h x w x d)	30 cm x 9,3 cm x 26 cm
Weight	6000 gr
Casing safety standard	IXP 1
flow rate	0 - 1000 ml/min
Pressure range	10-150 mm Hg
Temperature range	+10 - +40° C
Humidity	30 % - 70 %
Standards	in accordance with DIN IEC 601/1, EN 55011 (CISPR); EN 50082, parts 1 + 2 CE 0297

Additional Features for 15-1715

- > Tubing Set: Silicon - autoclavable or PVC disposable
- > This classical pump for urologic applications is unequaled by its performance and its simple operation with a high level of safety for patient and surgeon.
- > There is a difference volume measuring mechanism available.
- > The flow level can precisely be selected, the overpressure will be separately controlled by a safety valve.
- > Through the tubing set a very exact pressure preselection can be transmitted to the surgical device.
- > The pressure is precisely measured by a touch free membrane!
- > All connections and adaptations available on request
- > Special option is a liquid measurement device, for the amount of liquid used in the procedure
- > **Difference volume measuring**
- > **Touch free pressure measurement**
- > **Leakage liquid compensation**
- > **Preselection of pressure and flow**
- > **On display menu**
- > **Continuous pressure roller pump system**



Accessories | Zubehör

15-1715-100 Tubing set autoclavable, one

15-1715-500 Tubing set for **15-1715**

15-1715-700 Membrane protector, 1 Pcs/Box

15-1715-800 Power cord, 1 Pcs/Box



HYSTERO SURGI-SYSTEM



15-1719 Hystero Surgi-System

All stainless steel hysteroscopy roller pump. With patented patient level function.

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Specification	15-1719
Main voltage	100 Volt - 115 Volt / 220 Volt - 240 Volt
Power consumption	60 VA
Frequency	50 / 60 Hz
Device type	BF
Safety class	II a
Dimensions (h x w x d)	30 cm x 9,3 cm x 26 cm
Weight	6000 gr
Casing safety standard	IXP 1
flow rate	0 - 500 ml/min
Pressure range	10-200 mm Hg
Temperature range	+10 - +40° C
Humidity	30 % - 70 %
Standards	in accordance with DIN IEC 601/1, EN 55011 (CISPR); EN 50082, parts 1 + 2 CE 0297

Additional Features for 15-1719

- > Tubing Set: Silicon - autoclavable or PVC disposable
- > This classical pump for hysteroscopic applications is unequaled by its performance and its simple operation with a high level of safety for patient and surgeon
- > There is a difference volume measuring mechanism available
- > The flow level can precisely be selected, the overpressure will be separately controlled by a safety valve
- > Through the tubing set a very exact pressure preselection can be transmitted to the surgical device
- > The pressure is precisely measured by a touch free membrane!
- > All connections and adaptations available on request
- > Special option is a liquid measurement device, for the amount of liquid used in the procedure
- > **Difference volume measuring**
- > **Touch free pressure measurement**
- > **Leakage liquid compensation**
- > **Preselection of pressure and flow**
- > **On display menu**
- > **Continuous pressure roller pump system**



ARTHRO SURGI SYSTEM



15-1720

Arthro Surgi System

All stainless steel arthroscopy roller pump.
With patented patient level function.

Specification

15-1720

Main voltage	100 Volt - 115 Volt / 220 Volt - 240 Volt
Power input	60 VA
Frequency	50 / 60 Hz
Device type	BF
Safety class	II a
Dimensions (h x w x d)	30 cm x 9,3 cm x 26 cm
Weight	6,0 kg
Casing safety standard	IXP 1
flow rate	0 - 1500 ml/min
Pressure range	10-150 mm Hg
Temperature range	+10 - +40° C
Humidity	30 % - 70 %
Standards	in accordance with DIN IEC 601/1, EN 55011 (CISPR); EN 50082, parts 1 + 2, CE 0297

Additional Features for 15-1720

- > Tubing Set: Silicon - autoclavable or PVC disposable
- > Arthroscopic peristaltic pump
- > Continuous flow and liquid rate
- > Extremely constant pressure
- > Easy to clean as no parts of the pump are contaminated
- > Reset of pressure and flow
- > Volume measuring device optional

Accessories for | *Zubehör für* 15-1715, 15-1719, 15-1720

15-1720-100	Tubing set autoclavable, one
15-1720-200	Tubing set autoclavable, 5 Pcs
15-1720-300	Tubing set autoclavable, 10 Pcs
15-1720-400	Tubing set autoclavable, 50 Pcs

15-1720-500	Measuring chamber autoclavable, 1 Pcs
15-1720-600	Measuring chamber autoclavable, 50 Pcs/Box
15-1720-700	Membraneprotector, 1 Pcs
15-1720-800	Power cord, 1 Pcs
15-1720-900	Fuse, 10 Pcs/Box, 1 A
15-1720-901	Fuse, 10 Pcs/Box, 3 A



ARTHRO-SHAVER SYSTEM



15-1721 Arthro-shaver system, with foot pedal
Fully IC controlled arthro-shaver system with wipe proof front panel and metal foot pedal.

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Specification	15-1721
Main voltage	240 Volt
Power input	60 VA
Frequency	50 / 60 Hz
Dimensions (h x w x d)	31,5 cm x 12,5 cm x 26 cm
Weight	4,4 kg
Standards	in accordance with DIN IEC 601 / GS / CE

Additional Features for 15-1721

- > Microprocessor controlled
- > Speed range up to 6000 RPM
- > Speed is programable
- > Oscillating mode
- > Connecting of other mini motor is possible
- > Modular system for easy servicing

Specification	15-1722
Main voltage	240 Volt
Power input	60 VA
Frequency	50 / 60 Hz
Dimensions (h x w x d)	31,5 cm x 12,5 cm x 26 cm
Weight	0,4 kg
Standards	in accordance with DIN IEC 601 / GS / CE

Additional Features for 15-1722

- > Autoclavable
- > Variable suction control
- > Quick connect for the shaver blades
- > Long life sterilizable cable

Accessories | Zubehör

15-1722 Handpiece with torque-engine



- 15-1722-10** Handpiece 90° with torque-engine
- 15-1722-2000** Handpiece 90° with torque-engine, 0-950 rpm
- 15-1722-2010** Handpiece 180°

SHAVER BLADES | *SHAVER-EINSÄTZE*REUSABLE | *WIEDERVERWENDBAR*

	15-1722-100	Meniscus shaver blade "Full Radius Resector" <i>Meniscus Shaver Einsatz "Full Radius Resector"</i>	5,5 mm
	15-1722-101	Meniscus shaver blade "Full Radius Resector" <i>Meniscus Shaver Einsatz "Full Radius Resector"</i>	4,5 mm
	15-1722-102	Meniscus shaver blade "Full Radius Resector" <i>Meniscus Shaver Einsatz "Full Radius Resector"</i>	3,5 mm
	15-1722-200	Meniscus shaver blade "Meniscus Cutter" <i>Meniscus Shaver Einsatz "Meniscus Cutter"</i>	5,5 mm
	15-1722-201	Meniscus shaver blade "Meniscus Cutter" <i>Meniscus Shaver Einsatz "Meniscus Cutter"</i>	4,5 mm
	15-1722-202	Meniscus shaver blade "Meniscus Cutter" <i>Meniscus Shaver Einsatz "Meniscus Cutter"</i>	3,5 mm
	15-1722-300	Meniscus shaver blade "Agressive Full Radius Resector" <i>Meniscus Shaver Einsatz "Agressive Full Radius Resector"</i>	5,5 mm
	15-1722-301	Meniscus shaver blade "Agressive Full Radius Resector" <i>Meniscus Shaver Einsatz "Agressive Full Radius Resector"</i>	4,5 mm
	15-1722-302	Meniscus shaver blade "Agressive Full Radius Resector" <i>Meniscus Shaver Einsatz "Agressive Full Radius Resector"</i>	3,5 mm
	15-1722-400	Meniscus shaver blade "Incisor" <i>Meniscus Shaver Einsatz "Incisor"</i>	5,5 mm
	15-1722-401	Meniscus shaver blade "Incisor" <i>Meniscus Shaver Einsatz "Incisor"</i>	4,5 mm
	15-1722-402	Meniscus shaver blade "Incisor" <i>Meniscus Shaver Einsatz "Incisor"</i>	3,5 mm
	15-1722-500	Meniscus shaver blade "Round Burr" <i>Meniscus Shaver Einsatz "Round Burr"</i>	5,5 mm
	15-1722-600	Meniscus shaver blade "Tapered Burr" <i>Meniscus Shaver Einsatz "tapered Burr"</i>	5,5 mm
	15-1722-700	Meniscus shaver blade "Oval Burr" <i>Meniscus Shaver Einsatz "Oval Burr"</i>	5,5 mm



SHAVER BLADES | SHAVER-EINSÄTZE

DISPOSABLE STERIL | EINMALVERWENDBAR



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	15-1722-100DD	Meniscus shaver blade "Full Radius Resector", disposable sterile <i>Meniscus Shaver Einsatz "Full Radius Resector", einmalverwendbar</i>	5,5 mm
	15-1722-101DD	Meniscus shaver blade "Full Radius Resector", disposable sterile <i>Meniscus Shaver Einsatz "Full Radius Resector", einmalverwendbar</i>	4,5 mm
	15-1722-102DD	Meniscus shaver blade "Full Radius Resector", disposable sterile <i>Meniscus Shaver Einsatz "Full Radius Resector", einmalverwendbar</i>	3,5 mm
	15-1722-200DD	Meniscus shaver blade "Meniscus Cutter", disposable sterile <i>Meniscus Shaver Einsatz "Meniscus Cutter", einmalverwendbar</i>	5,5 mm
	15-1722-201DD	Meniscus shaver blade "Meniscus Cutter", disposable sterile <i>Meniscus Shaver Einsatz "Meniscus Cutter", einmalverwendbar</i>	4,5 mm
	15-1722-202DD	Meniscus shaver blade "Meniscus Cutter", disposable sterile <i>Meniscus Shaver Einsatz "Meniscus Cutter", einmalverwendbar</i>	3,5 mm
	15-1722-300DD	Meniscus shaver blade "Agressive Full Radius Resector", disposable sterile <i>Meniscus Shaver Einsatz "Agressive Full Radius Resector", einmalverwendbar</i>	5,5 mm
	15-1722-301DD	Meniscus shaver blade "Agressive Full Radius Resector", disposable sterile <i>Meniscus Shaver Einsatz "Agressive Full Radius Resector", einmalverwendbar</i>	4,5 mm
	15-1722-302DD	Meniscus shaver blade "Agressive Full Radius Resector", disposable sterile <i>Meniscus Shaver Einsatz "Agressive Full Radius Resector", einmalverwendbar</i>	3,5 mm
	15-1722-400DD	Meniscus shaver blade "Incisor", disposable sterile <i>Meniscus Shaver Einsatz "Incisor", einmalverwendbar</i>	5,5 mm
	15-1722-401DD	Meniscus shaver blade "Incisor", disposable sterile <i>Meniscus Shaver Einsatz "Incisor", einmalverwendbar</i>	4,5 mm
	15-1722-402DD	Meniscus shaver blade "Incisor", disposable sterile <i>Meniscus Shaver Einsatz "Incisor", einmalverwendbar</i>	3,5 mm
	15-1722-500DD	Meniscus shaver blade "Round Burr", disposable sterile <i>Meniscus Shaver Einsatz "Round Burr", einmalverwendbar</i>	5,5 mm
	15-1722-600DD	Meniscus shaver blade "Tapered Burr", disposable sterile <i>Meniscus Shaver Einsatz "tapered Burr", einmalverwendbar</i>	5,5 mm
	15-1722-700DD	Meniscus shaver blade "Oval Burr", disposable sterile <i>Meniscus Shaver Einsatz "Oval Burr", einmalverwendbar</i>	5,5 mm

SUCTION IRRIGATION SYSTEM | SAUG-SPÜL-SYSTEM



Specification	15-1730
Main supply line voltage	100 - 115 Volt / 220 - 240 Volt
Power input consumption?	120 VA
Frequency	50 / 60 Hz
Safety class Protection class	1
Dimensions (h x w x d)	30 cm x 14,5 cm x 32 cm
Weight	4,7 kg
Rinsing performance	up to 3000 ml/min
MedGeVO-Group	3
Standards	Made of UL listed components VDE 0750, IEC 601, GS, TÜV, CE

15-1730 Suction irrigation system

Fully automatic Aspirator / Irrigator for all surgical procedures in all endoscopy applications.

Accessories | Zubehör**15-1730-1000** Filters for suction irrigation system**15-1730-1001** Filters for suction irrigation system **15-1730**
(5 Pcs)**15-1730-1001D** Filters for suction irrigation system **15-1730**
(5 Pcs) disposable**15-1730-1002** Suction Bottles responsible**Additional Features for 15-1730**

- > Purgator incl. tubing set with LL connections, two-liter dispensable aspiration container, puncture tube, two cont. holders, vacuum lid, microfilter and power cord
- > Highest efficiency
- > Aspirates and irrigates at up to 3 l / min
- > Special filters ensure sterility
- > No special adjustment necessary. Aspiration and irrigation are regulated and selected by the instrument controls
- > "Stand-by" function for low noise level
- > High quality components

**15-1730-1002** Suction Bottles responsible



CO²-HYSTERO-INSUFFLATOR



15-1731 CO² Hysteroflator,
for safe use in the uterine cavity

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Specification	15-1731
Main supply	85 - 240 Volt
Power consumption	40 VA
Frequency	50 / 60 Hz
Safety class	1
Dimensions (h x w x d)	13 cm x 38,5 cm x 32 cm
Weight	4,7 kg
Max. gas flow	0 - 100 ml/min (CO ²)
Pressure selection	0 - 200 mm Hg
CO ² -connection	German (DIN 477), PIN-Index, US, Italy
MedGeVO-Group	3
Standards	Made of UL listed components VDE 0750/IEC 601, GS/TÜV, CE

Additional Features for 15-1731

Please specify appropriate CO²-connection when ordering

- > The Hystero-Insufflator is used for safe distension of the uterine cavity.
- > The unit is based on the results of many clinical studies and was developed in close collaboration with eminent gynecologists.
- > The use of state-of-the-art microprocessor technology and sensor systems are further advantages of this unit.
- > The unit is very simple to use, due to the direct digital selections of the required pressure and flow rate. An "intelligent" control system regulates and monitors these parameters.
- > Absolute safety is achieved by the electronic and mechanical safety > features, which monitor each other (redundant safety).
- > Continuous insufflation without pulsation.
- > Gas pressure and gas flow are separately adjustable.
- > Ergonomic layout of displays and controls, in combination with self-explanatory graphical readouts, allow intuitive operation.
- > Compact system size offers mechanical stability and shielding against RF interference as well as attachment options for various accessories.
- > Multi-standard power supply offers easy adaptability world-wide.

Hysteroflator, for safe use in the uterine cavity



EQUIPMENT TROLLEY | *GERÄTEWAGEN*

15-1740

Equipment trolley manufactured according to latest TÜV + CE regulations



Specification

15-1740

Dimensions (h x w x d)	142,8 cm x 71,4 cm x 62,5 cm
Load	50 kg
Colour	light grey (RAL 7035)
Standards	CE

Consisting of

- > 4 shelves:
 - 1 deposit console 60 x 49 cm adjustable, with handle;
 - 3 deposit consoles 60 x 49 cm, adjustable
- > 1 drawer unit with storage tray 60 x 49 cm
- > 4 wheels, 2 with brakes



EQUIPMENT TROLLEY | GERÄTEWAGEN



15-1741

Equipment trolley manufactured according to latest TÜV + CE regulations

> Closed back wall optional



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Specification	15-1741
Dimensions (h x w x d)	150,0 cm x 61,4 cm x 62,5 cm
Load	50 kg
Colour	light grey (RAL 7035)
Standards	CE

Consisting of

- > 4 shelves:
 - 1 deposit console 60 x 49 cm adjustable, with handle;
 - 3 deposit consoles 60 x 49 cm, adjustable
- > 1 drawer unit with storage tray 60 x 49 cm
- > Sides open
- > 4 wheels, 2 with brakes

Accessories | Zubehör

15-1741-100	Bottle holder
15-1741-200	Monitor holder for flatpanels (side of trolley)
15-1741-300	Board for 6 plugs



ULTRASONIC CLEANING UNIT

ULTRASONIC ANALOG UNITS

Ultrasonic cleaning: fast, intensive and gentle

- > Powerful ultrasonic cleaning for perfect cleanness in the quickest possible time
- > The transducer systems have a very high cleaning efficiency
- > Housing and tank made of stainless steel, hygienic, easy to care and robust
- > No additional manual work
- > Very gentle to the cleaning items



15-1683 Ultrasonic cleaning unit, 45 cm internal length

Specification	15-1683
Inner dimensions tank	505 x 137 x 150 mm (h x w x d)
Outer dimensions unit	605 x 180 x 267 mm (h x w x d)
Volume	7,4 l
Weight	7,4 kg
Frequency	35 kHz
HF peak	320 W
Connected load	760 VA
Housing	Stainless steel
Timer	Yes
Drain	Yes
Heating / Order no.	Included

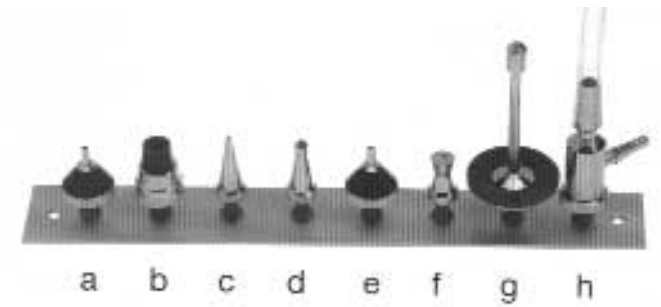


15-1684 Ultrasonic cleaning unit, 65 cm internal length

Specification	15-1684
Inner dimensions tank	600 x 500 x 300 mm (h x w x d)
Outer dimensions unit	720 x 620 x 520 mm (h x w x d)
Volume	90,0 l
Weight	38,3 kg
Frequency	40 kHz
HF peak	1600 W
Connected load	2800 VA
Housing	Stainless steel
Timer	Yes
Drain	Yes
Heating / Order no.	Included



CLEANING ACCESSORIES | REINIGUNGSZUBEHÖR



15-1680 Adapters for cleaning gun

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15-1681 Cleaning gun



15-1682 Instrument oil for cleaning, lubrication and maintenance of endoscopic instruments

CLEANING ACCESSORIES | *REINIGUNGSZUBEHÖR*



15-1690

Sterilizing case for endoscope



15-1695

Endoscope cases, 44 x 9 x 5 cm



15-1696

Instrument-sterilizing cases, 52 x 25 x 17 cm



CLEANING ACCESSORIES | REINIGUNGSZUBEHÖR

Endoscope wire cases



15-1697 290 x 80 x 52 mm with silicone position pad

15-1697-100 460 x 80 x 52 mm with silicone position pad

15-1697-200 670 x 80 x 52 mm with silicone position pad



15-1698 Cleaning liquid used for cold sterilisation, with rust prevention additive



15-1699 Instrument-sterilizing cases for 16 instruments, Ø 5 or 10 mm and 64 x 31 x 15 cm

NOTIZEN | NOTES

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