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RZ  
Medizintechnik  
GmbH  
*Progress in Surgery*

## RZ Endoscopic DEVICE FAMILY



High End Tower  
300-900-915  
illustrated

## RZ ENDOSCOPIC DEVICE LINE

A large variety of high-tech devices from different manufactures is found today in modern operation rooms. For this reason it is important that complex systems - such as the endoscopic tower - is a coherent system from one manufacturer.

RZ Medizintechnik is proud to offer a complete range of advanced equipment for all endoscopic applications. All components are optimally matched to achieve best results in combination with our high quality instruments.



The special RZ equipment design impresses not only with an outstanding appearance but also by a high degree of functionality and ergonomics. All devices can be operated from the surgical staff intuitively creating a high level of operating and patient safety.

The supply of spare parts and accessories, fast problem diagnosis and technical training is an important buying decision. All aspects can be fully and rapidly implemented by our specially trained technical service.

Our experienced medical consultants would be happy to give you a comprehensive consultation based on your requirements.



## PUMPS



### LAP PUMP P3000

300-000-300

Double roll pump  
Suction and irrigation  
Pressure monitoring

Page 8



### LAP PUMP P1000

300-000-100

Aspiration bottle retainer  
Suction and irrigation  
Pressure limitation function

Page 10



### ARTHRO DUAL PUMP P9

225-920-000

Suction and irrigation  
Lavage function  
Double foot switch

Page 12



### ARTHRO PUMP P3

225-910-000

Advanced irrigation pump  
Lavage function  
Footswitch

Page 16



### HYS PUMP PRO P5

351-100-300

Advanced fluid management  
Included scale  
Air bubble warning system

Page 14



### PUMP P1

351-100-200 (HYS)  
253-910-000 (URO)  
225-906-000 (ARTH)

Basic irrigation pump  
Hydrostatic pressure regulation  
3 different areas

Page 18

### ACCESSORIES

Tubes, Connectors and Filters

Page 20


VIDEO CAMERAS AND TV COUPLER

CAMERA


LIGHT SOURCES AND LIGHT CABLES

LIGHT SOURCE



**3-CHIP HD CAMERA F4**  
 300-001-804 **PURE NATURAL COLORS**   
 3-Chip MOS System  
 HD Recording functions Page 22



**HD CAMERA F3**  
 300-001-800 **PURE NATURAL COLORS**   
 3-Chip MOS System  
 Double function buttons Page 24



**HD CAMERA F 2 PRO**  
 300-001-601 1-Chip System Full HD  
 HD Recording functions Page 26



**HD CAMERA F1**  
 300-001-600 1-Chip System Full HD  
 High speed shutter  
 Cristal-clear images Page 28



**CAMERA Z2**  
 300-001-410 1-CCD-Camera  
 Video recording  
 Front-USB connection Page 30



**CAMERA Z1**  
 300-001-400 1-CCD-Camera  
 True color reproduction  
 Lightweight camera head Page 32



**TV-COUPLER**  
 Full complement of  
 head configurations Page 34



**LUMEN LED 3**  
 300-900-300 **PHASER® TECHNOLOGY**   
 Constant color temperature  
 Daylight Quality Page 36



**LUMEN LED 1**  
 300-900-180 > 20.000 hours lifetime  
 Daylight Quality Page 38



**LUMEN X7**  
 300-001-308 2 Turret adapters  
 150W halogen spare lamp  
 Automatic light intensity control Page 40



**LUMEN X5**  
 300-001-305 Turret adapter  
 300W Xenon lamp  
 Automatic light intensity control Page 42



**LUMEN X2**  
 300-001-200 Turret adapter  
 180W Xenon lamp  
 Automatic light intensity control Page 42



**LUMEN X3**  
 300-001-300 300W Xenon lamp  
 > 500 hours lifetime  
 manual light intensity control Page 44



**LUMEN X1**  
 300-001-180 180W Xenon lamp  
 > 500 hours lifetime  
 manual light intensity control Page 44



**LIGHT CABLES**  
 High Temperature XENON  
 Light Cables, melt protection  
 by built-in glass rod Page 46

INSUFFLATORS



INSUFFLATOR		
AIRFLOW		
300-900-020	20L/min	Highest safety standards Different gas flows CO <sub>2</sub> heating system available
300-900-021	w. heating	
300-900-030	30L/min	
300-900-031	w. heating	
300-900-040	40L/min	
300-900-041	w. heating	
		Page 48

HF UNIT



HF UNIT		
HF SURGERY GENERATOR		
700-350-400	For bipolar and monopolar Automatic Instrument detection 105 memory locations	Page 50

SURGICAL VISUALISATION



MONITORS		
300-001-021 - 300-010-232	High-Definition displays Different sizes Rotatable and swinging	Page 52

TROLLEYS AND TOWER SETS



TROLLEY		
300-001-999 300-002-001 300-900-915 300-900-916 300-900-917	High-End Systems Different versions Highly variable	Page 54

PUMP DEVICES

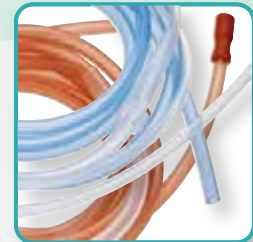
Registration	CE 0297
Splashproofed	IPX 1
Device Type acc. to DIN EN 60601-1:2005	BF
Classified acc. to EG-Guidelines 93/42/EEC	Ila
Safety Class acc. to DIN EN 60601-1:2005	I
Manufactured and tested according to	DIN EN 60601-1 : 2005
Radio interference suppression	DIN EN 60601-1-2 : 2007
Operating Conditions	+10 to +40°C Relative humidity of air: 30 - 70%



# SUCTION AND IRRIGATION PUMP P3000

# P3000

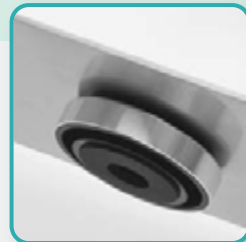
This ultramodern pump system is optimized for Abdomen, Thorax and Retroperitoneum usages. With the remote control handle, suction and irrigation power can be regulated stepless and directly from the surgeon without further assistance. The operating concept of this easy to use and robust pump allows dispensation of mechanically vulnerable trumpet valves. This increases progress in surgery noticeable.



300-000-301  
Tubing Set included



Splashproofed display,  
easy to operate



Skid-proof pedestals

### FEATURES:

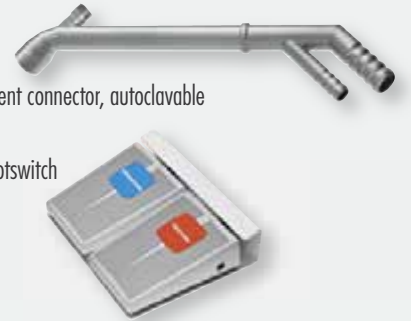
- Double roll pump for precise suction- and irrigation during Laparoscopic surgeries
- Also for extraction of smoke gases that arise when using lasers and HF devices
- Optional footswitch for comfortable operation during surgery
- Permits dispensing with mechanically sensitive trumpet valves that require elaborate cleaning
- Independently digital pre-settings for maximum suction and irrigation pressures
- Digital display of actual suction and irrigation pressures
- High efficiency with rates up to 3L/min
- Color coded tubing sets
- Standby function

### Technical Data

Line Voltage	100-240 V, 50-60 Hz
Power Input	36 W
Irrigation Power	0 - 3.000 ml/min
Suction Power	0 - 3.000 ml/min
Max. Pressure	0 - 750 mmHg
Measurements	380 x 130 x 400 mm (WxHxD)
Weight	Ca. 11 kg

### Optional available:

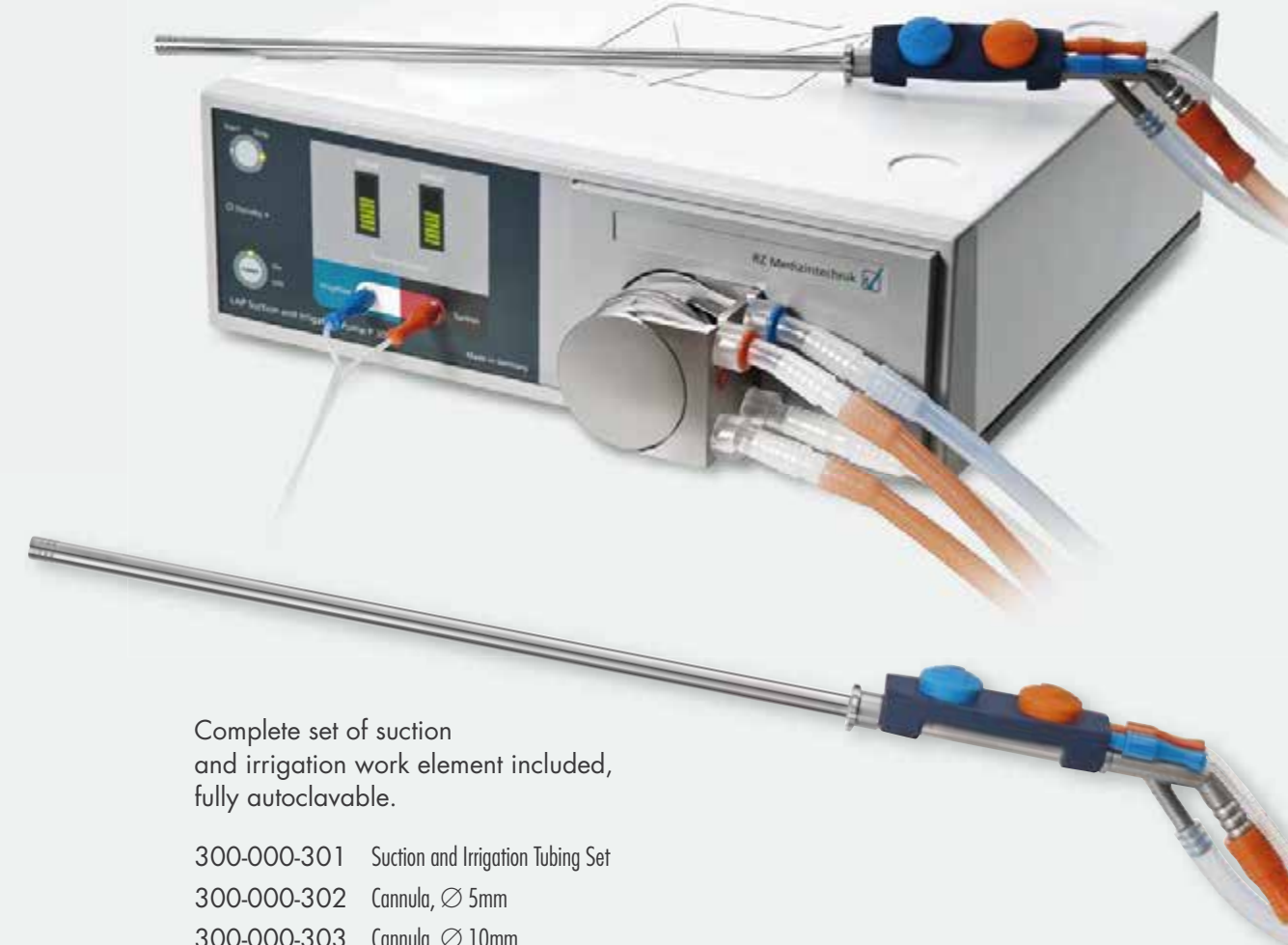
- 300-000-308 Adapter with instrument connector, autoclavable
- 300-000-307 Pneumatic double footswitch



300-000-300  
LAP Suction and Irrigation Pump  
P3000, complete set

### DELIVERY CONTAINS:

- Pump device
- Suction-Irrigation Cannula Set 5mm/10mm
- Silicone Tubing Set
- Tube Adapter
- Pneumatic Control Handle
- Double-Lumen Control Tube
- Mains cable
- 2 Spare fuses
- Operating manual



Complete set of suction and irrigation work element included, fully autoclavable.

- 300-000-301 Suction and Irrigation Tubing Set
- 300-000-302 Cannula, Ø 5mm
- 300-000-303 Cannula, Ø 10mm
- 300-000-304 Adapter Tube
- 300-000-305 Pneumatic Hand Control
- 300-000-306 Double Lumen Control Tubing

RECOMMENDED FOR: **LAP**

# LAP SUCTION AND IRRIGATION PUMP P 1000

# P1000

Our new generation of suction and irrigation pump is the most advanced membrane pump available from RZ for laparoscopic surgeries in the Abdomen, Thorax or Retroperitoneal space. It combines optimum power with very easy and intuitive handling. Tubing set, puncture tube and aspiration bottle are fully autoclavable.

### FEATURES:

- Independently digital pre-setting for maximum suction and irrigation pressures
- Digital display of actual suction and irrigation pressures
- High efficiency with rates up to 3 L/minute
- Color coded tubing sets
- Skid-proof pedestals
- Standby function
- Low noise level
- Optional footswitch for comfortable operation during surgery
- Hydrophobic disposable filters for maximum patient safety
- Stainless steel housing for maximum lifetime

### Technical Data

Line Voltage	100-240 V, 50-60 Hz
Power Input	80 VA
Irrigation Power	3 L/min
Suction Power	3 L/min
Max. Vacuum	- 525 mmHg
Max. Pressure	0 - 750 mmHg
Measurements	380x120x360 mm (WxHxD) with Aspiration Bottle-Retainers ca. 440x120x360 mm
Weight	Device ca. 11 kg
Aspiration Bottle-Retainer	(for 1 Liter=0.34 kg 2 Liter=0.44 kg)



Special filters ensure sterility



Digital display shows actual suction and irrigation pressures



300-000-100  
LAP Suction and Irrigation Pump P1000, complete set

RECOMMENDED FOR: **LAP**

### DELIVERY CONTAINS:

- Pump device
- Suction and irrigation tubing set
- Aspiration bottle 2L with overflow valve
- 2 Bottle Holders with screws
- Puncture tube 235mm
- 2 Hydrophobic disposable sterile filters
- Mains cable
- 2 Spare fuses
- Operating Manual



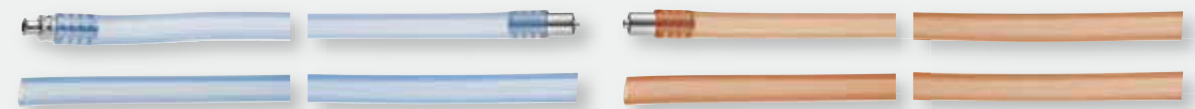
Cable length: 3m



300-000-101  
Aspiration Bottle with overflow valve 2 L, autoclavable



Optional:  
300-000-110  
Start/Stop - Footswitch



300-000-102  
Suction and Irrigation Tubing Set, Silicone, 2x blue "Irrigation", 2x red "Suction", autoclavable



working length  
300-001-521 235mm  
300-001-522 190mm  
300-001-523 160mm  
Puncture Tube



300-000-103  
Set of 2 Hydrophobic Disposable Sterile Filters

P9 is a fluid irrigation/suction pump to be used in endoscopic operations in the fields of Arthroscopy for diagnostic and therapeutic purposes. Suction function is fully integrated into control process. By continuously aspirating fluid from the joint P9 provides maximum irrigation flow rate at low pressure. Blood, secretion and tissue particles are removed. Hydrostatic pressure compensation procedure ensures correct pressure reading. The double footswitch allows triggering of lavage and suction function easily.

### FEATURES:

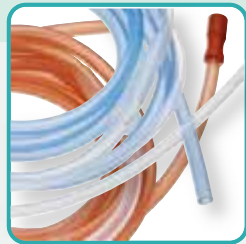
- High-End Suction-Irrigation Pump for advanced Arthroscopic procedures
- Automatic adjustment of suction flow according to preset irrigation flow and actual pressure to prevent the joint from collapsing
- Lavage function provides increased flow for a short time to irrigate the joint fast and intensely. It is activated by footswitch. When Lavage time is expired, pump will automatically return to previous operating parameters.
- P9 automatically adjusts suction flow according to preset irrigation flow and actual pressure to prevent the joint from collapsing. AUTO always provides maximum available suction flow, MANUAL is intended to reduce maximum available suction flow to an appropriate value.
- Double foot switch

### Technical data

Line Voltage	100-240 V, 50-60 Hz
Power Input	80 VA
Irrigation Power	0 - 2.5 l/min
Suction Power	0 - 1.0 l/min
Pressure Range	10 - 200 mmHg
Measurements	380 x 130 x 400 mm (WxHxD)
Weight	Ca. 11 kg



Lavage Function



225-920-001  
Tubing Set included



Automatic and manual  
flow control

### Accessories:

225-920-001	Suction + Irrigation tubing set, silicone, autoclavable (225-920-002/-003)	non-sterile	included
225-920-002	Tubing Set "Suction", silicone, autoclavable	non-sterile	optional
225-920-003	Tubing Set "Irrigation", silicone, autoclavable	non-sterile	optional
225-910-002	Irrigation tubing set, PVC, 20 pieces	sterile	optional
225-910-003	Patient tube, PVC, 2,5m, 40 pieces	sterile	optional
225-920-005	Double Footswitch	non-sterile	included



225-920-000  
ARTHRO Dual Pump P9  
High-End, complete set

### DELIVERY CONTAINS:

- Pump device
- Suction and irrigation tubing set
- Double Footswitch
- Mains cable
- 2 Spare fuses
- Operating manual



Double Footswitch  
included

RECOMMENDED FOR: **ARTH**

# HYS PUMP PRO P5

# PUMPS P5

P5 is a fluid irrigation pump to be used in endoscopic operations in the fields of Hysteroscopy. It is equipped with an electronically regulated scale for fluid management that compares input and output continuously. Hydrostatic pressure compensation procedure ensures correct pressure reading. Highest safety is ensured by air bubble detection.



351-100-201  
Tubing Set included



Splashproofed display,  
easy to operate



Controlled fluid management

### FEATURES:

- Advanced fluid management system for Hysteroscopy that compares input and output continuously. Tolerable difference and maximum tank volume can be adjusted. The scale works with a great variety of containers. Overflow of liquid is prevented automatically.
- Scale for fluid management
- Hydrostatic pressure compensation (level)
- Acoustic and visual air bubbles warning system

### Technical Data

Line Voltage	100-240 V, 50-60 Hz
Power Input	80 VA
Irrigation Power	0 - 0.500 l/min
Pressure Range	10 - 200 mmHg
Aspiration Bottle-Retainer	for 1 Liter = 0.34kg 2 Liter = 0.44kg
<b>Scale:</b>	
Container Volume	0 - 9.9 L
Fluid Balance	0 - 2.0 L
Measurements	380 x 130 x 400 mm (WxHxD)
Weight	Ca. 11 kg
<b>Scale</b>	
	Rated load up to 35 Kg
- Measurements	270x270x400mm (WxHxD)
- Weight	Ca. 5kg



351-100-300  
HYS Pump Pro P5,  
complete set

### DELIVERY CONTAINS:

- Pump device
- Irrigation tubing set
- Scale
- 2 Spare fuses
- Mains Cable
- Screws
- Suspension
- Operating manual



### Accessories:

351-100-201	Tubing Set "Irrigation", silicone, autoclavable	non-sterile	included
351-100-202	Irrigation tubing set, PVC, 20 pieces	sterile	optional
351-100-206	Patient tube, PVC, 2,5m, 40 pieces	sterile	optional
351-100-301	Scale incl. mounting accessories	non-sterile	included

RECOMMENDED FOR: **HYS**

## ARTHRO IRRIGATION PUMP P3

A fluid irrigation pump to be used in endoscopic operations in the fields of Arthroscopy for diagnostic and therapeutic purposes. Hydrostatic pressure compensation procedure ensures correct pressure reading. Thanks to Lavage function, fast and intense irrigation of the joint is achieved. State-of-the-art and reliable technology features this versatile pump.

### FEATURES:

- Advanced Irrigation Pump for Arthroscopic surgeries
- Lavage function for fast and intense irrigation, controlled by footswitch

### Technical data

Line Voltage	100-240 V, 50-60 Hz
Power Input	80 VA
Irrigation Power	0 - 2.5l/min
Pressure Range	10 - 200 mmHg
Measurements	380 x 130 x 400 mm (WxHxD)
Weight	Ca. 11 kg



Lavage Function



225-910-001  
Tubing Set included



Splashproofed display,  
easy to operate

### Accessories:

225-910-001	Irrigation tubing set, silicone, autoclavable	non-sterile	included
225-910-002	Irrigation tubing set, PVC, 20 pieces	sterile	optional
225-910-003	Patient tube, PVC, 2,5m, 40 pieces	sterile	optional



225-910-000  
ARTHRO Irrigation Pump P3,  
complete set

### DELIVERY CONTAINS:

- Pump device
- Tubing set
- Footswitch
- Mains cable
- 2 Spare fuses
- Operating manual

RECOMMENDED FOR: **ARTH**



Footswitch with 3m cable 225-910-004  
to initiate the „lavage“ function  
(included in set)

# ARTHRO/URO/HYS BASIC IRRIGATION PUMP P1

This unit offers all basic functions for irrigation in endoscopic surgery like Arthroscopy, Urology and Hysteroscopy. Thanks to hydrostatic pressure regulation, the precise pressure in the treated body part is displayed. State-of-the-art and reliable technology features this versatile Pump.



Highly reliable tube guide and handling



Splashproofed display, easy to operate



225-910-001 Silicone Tubing Set included

## FEATURES:

- Advanced Irrigation Pump for different areas
- Lavage function for fast and intense irrigation, controlled by footswitch

## Technical data

Line Voltage	100-240 V, 50-60 Hz	Pressure Range	225-906-000 (Arthroscopy): 10 - 150 mm Hg
Power Input	80 VA		253-910-000 (Urology): 10 - 150 mm Hg
Irrigation Power	225-906-000 (Arthroscopy): 0 - 1.5 l/min		351-100-200 (Hysteroscopy): 10 - 200 mm Hg
	253-910-000 (Urology): 0 - 1.0 l/min		259-906-000 (Spine): 10 - 100 mm Hg
	351-100-200 (Hysteroscopy): 0 - 0.5 l/min		
	259-906-000 (Spine): 0 - 0.75 l/min	Measurements	380 x 130 x 400 mm (WxD)
		Weight	Ca. 11 kg

## Accessories:

### Arthroscopy

225-910-001	Irrigation tubing set, silicone, autoclavable	non-sterile	included
225-910-002	Irrigation tubing set, PVC, 20 pieces	sterile	optional
225-910-003	Patient tube, PVC, 2,5m, 40 pieces	sterile	optional

### Urology

253-910-001	Irrigation tubing set, silicone, autoclavable	non-sterile	included
253-910-002	Irrigation tubing set, PVC, 20 pieces	sterile	optional
253-910-003	Patient tube, PVC, 2,5m, 40 pieces	sterile	optional

### Hysteroscopy

351-100-201	Irrigation tubing set, silicone, autoclavable	non-sterile	included
351-100-202	Irrigation tubing set, PVC, 20 pieces	sterile	optional
351-100-206	Patient tube, PVC, 2,5m, 40 pieces	sterile	optional



3 different models available:

225-906-000 For Arthroscopy	RECOMMENDED FOR: <b>ARTH</b>
253-910-000 For Urology	RECOMMENDED FOR: <b>URO</b>
351-100-200 For Hysteroscopy	RECOMMENDED FOR: <b>HYS</b>

## DELIVERY CONTAINS:

- Pump device
- Tubing set
- Mains cable
- 2 Spare fuses
- Operating manual



**P3000**

Spare part No.	Description	Suitable for	Page
300-000-301	Tubing Set	P3000	8-9
300-000-302	Cannula Ø 5mm		
300-000-303	Cannula Ø 10mm		
300-000-304	Adapter Tube		
300-000-305	Pneumatic Hand Control		
300-000-306	Double Lumen Control Tubing		
300-000-307	Double Foot switch		
300-000-308	Adapter with instrument connector		

**P1000**

Spare part No.	Description	Suitable for	Page
300-000-101	Aspiration Bottle	P1000	10-11
300-000-102	Tubing Set		
300-000-103	Sterile Filters		
300-000-110	Footswitch		
300-001-521	Puncture Tube 235mm working length		
300-001-522	Puncture Tube 190mm working length		
300-001-523	Puncture Tube 160mm working length		

**P9**

Spare part No.	Description	Suitable for	Page
225-920-001	Tubing Set, complete	P9	12-13
225-920-002	Tubing Set, Suction		
225-920-003	Tubing Set, Irrigation		
225-910-002	Irrigation Tubing, PVC		
225-910-003	Patient Tube, PVC		
225-920-005	Double Footswitch		

**P5, P1 HYS**

Spare part No.	Description	Suitable for	Page
351-100-201	Tubing Set	P5, P1 (Hys)	14-15, 19-20
351-100-202	Irrigation Tubing, PVC	P5, P1 (Hys)	14-15, 19-20
351-100-206	Patient Tube, PVC	P5, P1 (Hys)	14-15, 19-20
351-100-301	Scale	P5	14-15

**P3, P1 URO, P1 ARTHRO**

Spare part No.	Description	Suitable for	Page
225-910-001	Tubing Set	P3, P1 (Uro), P1 (Arthro)	17-20
225-910-002	Irrigation, PVC	P3, P1 (Uro), P1 (Arthro)	17-20
225-910-003	Patient Tube, PVC	P3, P1 (Uro), P1 (Arthro)	17-20
225-910-004	Footswitch	P3	17-18

# CAMERA SYSTEM CAMERA

## CAMERA SYSTEM DEVICES

Registration	CE 0297
Safety Class	I
Classified	I
Device Type	BF
Manufactured and tested according to	IEC 601-1, EN 60601-1, MDD 93/42/EEC
CE marking according to	MDD 93/42/EEC



## 3 CHIP HD-CAMERA F4

We are proud to introduce our new milestone. The F4 brand new camera system combines our F3 system with a Full HD recording function. Pictures and movies can be stored easily on a USB pen drive. Recorded information can be used for an extensive documentation of the procedures.



300-001-802  
High-End camera  
head included



User-friendly, splash-  
proofed display



Recording and image  
controls

### FEATURES:

- 3-Chip Full HD camera with latest MOS technology for brilliant picture quality
- Pure Natural Colors technology
- Multitude of digital video outputs for best possible picture transmission to medical grade monitors
- 3 programmable remote control buttons
- User-friendly multilingual menu allows a large variety of setups for individual procedures and surgeons preferences
- Full HD 60fps video recording
- Full HD image saving
- USB pen drive included
- Boost function
- On-screen-menu
- 3 user settings storable
- 2.5x digital zoom
- Freeze function
- Text generator (optional with keyboard)

### Technical Data

Mains voltage	100-240 V, 50-60 Hz
Power Input	20 W
Sensor	3 MOS
TV resolution	1920x1080 pixels (Full HD)
Image resolution	>1000 TV lines, horizontal
Index ratio	16:9
Min. sensitivity	< 3lx (1/1.4)

Video outputs	
Digital:	2 x HD SDI 1 x HDMI / DVI 2 x CVBS
Analog:	1 x YPbPr / RGB 1 x Y/C (Pal / NTSC) 1 x CVBS (Pal / NTSC)
Shutter speed	1/50 (1/60) to 1/100.000 sec
Dimensions	Control unit: 380 x 120 x 360 mm (WxHxD); 11 kg
Camera Head	145g

### Optional available:



250-025-014 f=14mm  
250-025-017 f=25mm  
250-025-018 f=28mm  
HD TV Adapter, automatic lock\*,  
C-Mount, soakable



300-001-610  
Footswitch for HD Cameras,  
cable length: 2m



300-001-615  
Title generator keyboard, waterproof IP68  
US-Layout, PS/2 Connector, cable 1.8m  
Color: grey, 305x140x15mm, 600gr.



300-001-804  
3 Chip HD-Camera F4

### DELIVERY CONTAINS:

- Main Unit • Camera head • YPbPr/RGB cable • 2x BNC cable
- HDMI - DVI cable • HDMI cable • S-Video cable • Jack Cable
- USB Pen Drive • Mains cable • Operating manual

PURE NATURAL COLORS

**FULL HD**



\* Further information on page 30

RECOMMENDED FOR ALL ENDOSCOPIC APPLICATIONS, SPECIALLY **LAP**

# HD-CAMERA F3 - HIGH END

F3 - The pride of the RZ Equipment range and flagship in medical camera systems. A Full HD camera system generates cristal clear images of highest resolution with 1920 x 1080p. The latest MOS technology produces pure natural colors for safe and unequivocal diagnoses. User-friendly multilingual menu allows a large variety of setups for individual procedures and surgeons preferences. The ergonomic camera head features 3 remote control buttons which can be programmed by the user as required during surgery. Multitude of digital video outputs allows the best possible picture transmission to the medical grade monitors.

## FEATURES:

- 3-Chip Full HD camera with latest MOS technology for brilliant picture quality
- User-friendly multilingual menu allows a large variety of setups for individual procedures and surgeons preferences
- Ergonomic camera head with 3 programmable remote control buttons by the user as required during surgery
- Multitude of digital video outputs for best possible picture transmission to the medical grade monitors
- Full HD
- HDMI output
- White balance, boost function
- On-screen-menu
- 3 user settings storable
- 2.5x digital zoom
- Freeze function
- Character generator

## Technical Data

Mains voltage	100-240 V, 50-60 Hz
Power Input	20 W
Sensor	3 MOS
TV resolution	1920x1080 pixels (Full HD)
Image resolution	>1000 TV lines, horizontal
Index ratio	16:9
Min. sensitivity	< 3lx (1/1.4)

Video outputs	
Digital:	2 x HD SDI 1 x HDMI / DVI 2 x CVBS
Analog:	1 x YPbPr / RGB 1 x Y/C (Pal / NTSC) 1 x CVBS (Pal / NTSC)
Shutter speed	1/50 (1/60) to 1/100.000 sec
Dimensions	Control unit: 380 x 120 x 360 mm (WxHxD); 11 kg
Camera Head	145g



300-001-802  
High-End camera head included



User-friendly, splash-proofed display

## Optional available:



250-025-014 f=14mm  
250-025-017 f=25mm  
250-025-018 f=28mm  
HD TV Adapter, automatic lock\*, C-Mount, soakable



300-001-610  
Footswitch for HD Cameras, cable length: 2m



300-001-615  
Title generator keyboard, waterproof IP68 US-Layout, PS/2 Connector, cable 1.8m Color: grey, 305x140x15mm, 600gr.



300-001-800  
HD-Camera F3 - High End

## DELIVERY CONTAINS:

- Main Unit
- Camera head
- YPbPr/RGB cable
- 2x BNC cable
- HDMI - DVI cable
- HDMI cable
- S-Video cable
- Jack Cable
- Mains cable
- Operating manual

PURE NATURAL COLORS

**FULL HD**



\* Further information on page 30

RECOMMENDED FOR ALL ENDOSCOPIC APPLICATIONS, SPECIALLY **LAP**

# HD-CAMERA F 2 PRO

The new F 2 HD-Camera System fulfills the need of high resolution in Video Endoscopic Surgery. Thanks to Full HD resolution and a Full HD recording function to the included USB Pen Drive, this camera of newest technology generates and stores crystal-clear images with highest attention to detail to allow better diagnostics and more efficient surgery.



300-001-602  
High-End camera head included



User-friendly, splash-proofed display



Recording and image controls

## FEATURES:

- 1-Chip Full HD camera of the latest generation, with superior image quality in high definition
- Natural color reproduction
- High-end image quality is provided by fully digital, high-speed image processing, separated for red, green and blue channels
- Significantly higher image quality and virtually all movements are eliminated
- Full HD 60fps video recording
- Full HD image storage
- USB pen drive included
- 3 programmable remote control buttons
- User-friendly multilingual menu allows a large variety of setups for individual procedures and surgeons preferences
- Boost function
- On-screen-menu
- 3 user settings storable
- 2.5x digital zoom
- Freeze function
- Text generator (optional with keyboard)

## Technical Data

Mains voltage	100-240 V, 50-60 Hz
Power Input	20 W
Sensor	1/3" MOS
TV resolution	1920x1080 pixels (Full HD)
Image resolution	>1000 TV lines, horizontal
Index ratio	16:9
Min. sensitivity	< 3lx (1/1.4)
Video outputs	
Digital:	1 x HDMI
Analog:	1 x YPbPr / RGB
	1 x S-Video (Y/C; Pal / NTSC)
	1 x Video (CVBS; Pal / NTSC)

Shutter speed	1/50 (1/60) to 1/100.000 sec
Dimensions	Control unit: 380 x 120 x 360 mm (WxHxD); 11 kg
Camera Head	105g

## Optional available:



300-001-615  
Title generator keyboard, waterproof IP68  
US-Layout, PS/2 Connector, cable 1.8m  
Color: grey, 305x140x15mm, 600gr.



250-025-014 f=14mm  
250-025-017 f=25mm  
250-025-018 f=28mm  
HD TV Adapter, automatic lock, C-Mount, soakable



300-001-601  
HD-Camera F 2 PRO

## DELIVERY CONTAINS:

- Main Unit
- Camera head with 3m cable
- Mains cable
- YPbPr/RGB cable
- 2x BNC cable
- HDMI - DVI cable
- HDMI cable
- S-Video cable
- Jack cable
- USB Pen Drive
- Operating manual

RECOMMENDED FOR: **HYS LAP ENT URO SPINE**

**Full HD**



## HD-CAMERA F1

The new F1 Camera system fulfills the need of high resolution in Video Endoscopic Surgery. Thanks to Full HD resolution combined with newest technology this camera generates cristal-clear images with highest attention to detail that allows better diagnostics and efficient surgery.



300-001-602  
High-End camera head included



User-friendly, splash-proofed display

### FEATURES:

- 1-Chip Full HD camera of the latest generation, with superior image quality in high definition
- Natural color reproduction
- High-end image quality is provided by fully digital, high-speed image processing, separated for red, green and blue channels
- Significantly higher image quality and virtually all movements are eliminated
- Full HD
- HDMI out
- White balance, boost function
- On-screen-menu
- 3 user settings storable
- 2.5x digital zoom
- Freeze function
- Character generator

### Technical Data

Mains voltage	100-240 V, 50-60 Hz
Power Input	20 W
Sensor	1/3" MOS
TV resolution	1920x1080 pixels (Full HD)
Image resolution	>1000 TV lines, horizontal
Index ratio	16:9
Min. sensitivity	< 3lx (1/1.4)
Video outputs	
Digital:	1 x HDMI
Analog:	1 x YPbPr / RGB 1 x S-Video (Y/C; Pal / NTSC) 1 x Video (CVBS; Pal / NTSC)

Shutter speed	1/50 (1/60) to 1/100.000 sec
Dimensions	Control unit: 380 x 120 x 360 mm (WxHxD); 11 kg
Camera Head	105g

### Optional available:



300-001-615  
Title generator keyboard, waterproof IP68  
US-Layout, PS/2 Connector, cable 1.8m  
Color: grey, 305x140x15mm, 600gr.



250-025-014 f=14mm  
250-025-017 f=25mm  
250-025-018 f=28mm  
HD TV Adapter, automatic lock, C-Mount, soakable



300-001-600  
HD-Camera F1

### DELIVERY CONTAINS:

- Main Unit
- Camera head with 3m cable
- Mains cable
- YPbPr/RGB cable
- 2x BNC cable
- HDMI - DVI cable
- HDMI cable
- S-Video cable
- Jack cable
- Operating manual

**FULL HD**



RECOMMENDED FOR: **HYS LAP ENT URO SPINE**

## CAMERA Z2

The new Z2 Endoscopic Camera is a universal system suitable for both diagnostics and surgery. The 1 CCD technology generates clear pictures with a high resolution and natural colors. The digital Anti Moiré filter automatically eliminates disturbing distortions when using flexible endoscopes such as Naso-Pharyngoscopes. Pictures and Movies can be stored easily on a USB stick. The collected informations can be used for an extensive documentation of the procedure.



300-001-410.1  
Lightweight, watertight camera head with 3 buttons included



Easy save and play buttons and on a menu controlling



USB port for use with flash drives to record data

### FEATURES:

- State-of-the-art CCD-Camera, true colour reproduction
- All features of the camera can be directly controlled and set up on a menu
- Digital Anti Moiré filter automatically eliminates disturbing distortions when using flexible endoscopes
- To be prepared to work under extreme illumination conditions, the control unit offers further features to improve the image quality (WINDOW- and PEAK-function)
- Lightweight camera head ensures fatigue-free working
- 3 remote control buttons on the camera head can be programmed by the user as required during surgery
- Additional USB port for flash drives allows external storage of recorded data.

### Technical Data

Mains voltage	100-240 V, 50-60 Hz
Power Input	20 W
Resolution	active pixels: - 752 H x 582 V - 768 H x 494 V
TV resolution	470 lines
Sensitivity	1 lux (1/1.4)
Aspect ratio	4:3
Image sensor	1/3" CCD
Video ports	2 x CVBS (1Vpp/75Ω), BNC 2 x Hosiden (Y/C), Mini-DIN- connection 1 x YPbPr 1 x SDI
Misc.	1x Remote IN 2x Remote OUT 1x Service (RJ45)

Shutter speed	PAL: 1/50 to 1/100.000 sec. NTSC: 1/60 to 1/100.000 sec.
Dimensions	Control unit: 380 x 120 x 360 mm (WxHxD)
Weight	Control unit: 11 kg
Camera Head	105g

### Optional available:



300-001-615  
Title generator keyboard, waterproof IP68  
US-Layout, PS/2 Connector, cable 1.8m  
Color: grey, 305x140x15mm, 600gr.



300-001-410  
Camera Z2

### DELIVERY CONTAINS:

- CCU • Camera head • S-Video cable
- BNC cable • Jack cable • 4GB USB Stick
- Mains cable • Operating manual

RECOMMENDED FOR: **HYS URO ENT**



# CAMERA Z1

The new Z1 Endoscopic Camera is a universal system suitable for both diagnostics and surgery. The 1 CCD technology generates clear pictures with a high resolution and natural colors. The lightweight camera head ensures a fatigue-free working, especially in Urology, Hysteroscopy, Arthroscopy and ENT procedures. All features of the camera can be directly controlled and set up on a menu which is shown on the monitor.



300-001-400.1  
Lightweight, watertight camera head included



On a menu controlling

## FEATURES:

- State-of-the-art Color - CCD-Camera
- True color reproduction
- All features can be directly controlled and set up on a menu
- The digital Anti Moiré filter automatically eliminates disturbing distortions when using flexible endoscopes such as Naso-Pharyngoscopes
- To be prepared to work under extreme illumination conditions, the control unit of the camera offers further features to improve the image quality (WINDOW- and PEAK-function)
- Lightweight camera head 300-001-400.1 ensures a fatigue-free working and is included in the set

## Technical Data

Mains voltage	100-240 V, 50-60 Hz
Power Input	20 W
Resolution	active pixels: - 752 H x 582 V - 768 H x 494 V
TV resolution	470 lines
Sensitivity	1 lux (1/1.4)
Aspect ratio	4:3
Image sensor	1/3" CCD
Video ports	2 x CVBS (1Vpp/75Ω), BNC 2 x Hosiden (Y/C), Mini-DIN- connection 1 x YPbPr 1 x SDI
Misc.	1x Remote IN 2x Remote OUT 1x Service (RJ45)

Shutter speed	PAL: 1/50 to 1/100.000 sec. NTSC: 1/60 to 1/100.000 sec.
Dimensions	Control unit: 380 x 120 x 360 mm (WxHxD)
Weight	Control unit: 11 kg
Camera Head	105g

Optional available:



300-001-615  
Title generator keyboard, waterproof IP68  
US-Layout, PS/2 Connector, cable 1.8m  
Color: grey, 305x140x15mm, 600gr.



300-001-400  
Camera Z1

## DELIVERY CONTAINS:

- Main Unit
- Camera head
- S-Video cable
- 2x BNC cable
- Mains cable
- Operating manual

RECOMMENDED FOR: **HYS** **URO** **ENT**





250-025-014 f=14mm  
 250-025-017 f=25mm  
 250-025-018 f=28mm  
 Automatic lock,  
 C-mount, soakable, Full HD



Automatic Quick Lock System:  
 ocular speculum activates locking  
 mechanism and avoids scratches  
 on the endoscope



300-001-813 f=14mm  
 300-001-814 f=25mm  
 300-001-815 f=28mm  
 Manual lock,  
 C-mount, soakable, Full HD



250-018-050  
 Zoom parfocal  
 Stays in focus while adjusting  
 zoom magnification  
 f=18-50 mm, c-mount, soakable  
 Full HD



250-015-036  
 Zoom-TV-Adapter  
 f=15 - 36mm  
 c-mount, soakable  
 Full HD

**FULL HD**



250-020-025 F=25mm (splitting 90/10)  
 250-020-030 F=30mm (splitting 90/10)  
 Beamsplitter, allows simultaneous video and  
 direct views, c-mount, soakable, Full HD



250-022-025 F=25mm  
 250-022-030 F=30mm  
 Angled 90°, with swivel and fixation,  
 c-mount, soakable, Full HD

LIGHT SOURCE DEVICES

Registration	CE 0297
Safety Class	I
Classified	I
Device Type	BF
Manufactured and tested according to	IEC 601-1ff, EN 60601-1ff
CE marking according to	MDD 93/42/EWG



## LUMEN LED 3

Latest PHASER® Technology for unsurpassed medical lighting. Excellent light sources are characterized by high color rendering, high luminance and a very low ultraviolet and infrared radiation. With the LUMEN LED 3 light source RZ Medizintechnik offers the latest technology in medical lighting, Made in Germany. Whether the light source is used with modern head lights or in endoscopic surgeries, the new PHASER® technology always generates enough light for meaningful pictures.



Automatic light control



Phaser® Technology for optimum light gain and lifetime



Controlable daylight quality

### FEATURES:

- More than 10.000h lamp lifetime
- Latest PHASER® – Technology
- Waterproof touch control panel
- High color rendering
- High luminance
- Daylight color temperature
- Low noise level
- No UV or IR light
- Low power consumption

### Technical Data

Mains voltage	100-240 V, 50-60 Hz
Power consumption	300W
LED Lifetime	> 10.000h
Color temperature	6000 – 6500° K
Connections	
Light guide	RZ, STORZ
Video-IN terminal	1 x VHS (BNC)
Dimensions	380x125x360mm (WxD)
Weight	approx. 12.5 kg

# LIGHT SOURCE LED 3

## PHASER® TECHNOLOGY



300-900-300  
LUMEN LED 3

### DELIVERY CONTAINS:

- Main Unit
- BNC cable
- Mains cable
- Operating manual



**LED**

**300 WATT  
DAYLIGHT QUALITY**

RECOMMENDED FOR ALL ENDOSCOPIC APPLICATIONS, ESPECIALLY **LAP**

# LUMEN LED 1

Benefit of the newest LED technology - this Light Source offers increased luminous efficiency by lowest heat conduction and operating costs. The daylight quality LED Lamp lifetime is more than 20.000 hours to provide enhanced working.



Automatic or manual light intensity control



Digital light intensity display



RZ/Storz light guide

### FEATURES:

- More than 20.000h lamp lifetime
- Manual or automatic light control
- Waterproof touch control panel
- Low heat conduction by improved LED technology
- Daylight color temperature 6000 – 6500° K for accurate color representation

### Technical Data

Mains voltage	100-240 V, 50-60 Hz
Power consumption	150W
LED Lifetime	> 20.000h
Color temperature	6000 – 6500° K
Connections	
Light guide	RZ/STORZ
Video-IN terminal	1 x VHS (BNC)
Dimensions	380x125x360mm (WxHxD)
Weight	11 kg

# LIGHT SOURCE LED 1



300-900-180  
LUMEN LED 1

### DELIVERY CONTAINS:

- Main Unit
- BNC cable
- Mains cable
- Operating manual

RECOMMENDED FOR: **HYS LAP ENT URO SPINE**



**LED**

**150 WATT  
DAYLIGHT QUALITY**

High-performance Xenon daylight source providing excellent illumination and long lamp lifetime for at least 500 hours. After activating the automatic function and with plugged BNC-Cable, the device automatically controls the intensity to guarantee the optimal image for the surgeon. Two turret adapters enables an universal connection of the most common light guides. Additionally, the X7 offers a spare lamp that guarantees continuous working even in the event that the main Xenon lamp becomes inoperative.

### FEATURES:

- Automatic and manual light intensity control
- 2 turret adapters
- 150W halogen spare lamp guarantees continuous working even in the event that the main Xenon lamp becomes inoperative
- Powerful 300W xenon glow-discharged lamp fixed in a reflector, calibration is not necessary
- Pure daylight quality
- Mechanical diaphragm is used to adjust the output intensity without any influence on the colour temperature.
- Easy lamp replacement

### Technical Data

Mains voltage	100-240 V, 50-60 Hz
Power consumption	370W (± 5%)
Daylight Quality	5600° K
Lamp Lifetime	> 500 h
Lamp	Main lamp: Xenon short arc gas discharge lamp 300 Watt / 5600°K Back-Up-Lamp: Halogen reflector lamp 150 Watt, 15V, 3600°K, HLX

Connections	Via TURRET (revolvable)
Light guide	• Storz • Olympus • Wolf • ACMI
Video-IN terminal	1 x VBS (1Vpp/75Ω), BNC
Dimensions	380x125x360mm (WxHxD)
Weight	11 kg



Lamp lifetime indicator



Automatic and manual light control



Backup Light Guide



Turret Adapter with Storz, Wolf, Olympus, ACMI connection



Easy lamp replacement



### DELIVERY CONTAINS:

- Main Unit
- BNC cable
- Mains cable
- Operating manual

300-001-308  
LUMEN X 7



300-001-301  
XENON Spare Lamp  
300 Watt

HALOGEN

**Xe<sup>54</sup>non**

**300 WATT  
DAYLIGHT QUALITY**

RECOMMENDED FOR ALL ENDOSCOPIC APPLICATIONS, ESPECIALLY **LAP**

# LUMEN X 5 / LUMEN X 2

High-performance Xenon daylight sources to provide excellent illumination and long lamp lifetime for at least 500 hours. After activating the automatic function and with plugged BNC-Cable, these devices automatically control the intensity to guarantee the optimal image for the surgeon. The turret adapter enables an universal connection of the most common light guides.



Lamp lifetime indicator



Turret Adapter with Storz, Wolf, Olympus, ACMI connection



Easy lamp replacement

### FEATURES:

- Automatic light intensity control
- Turret adapter
- Powerful 300W (180W for LUMEN X 2) xenon glow-discharged lamp fixed in a reflector, calibration is not necessary
- Pure daylight quality
- Mechanical diaphragm is used to adjust the output intensity without any influence on the colour temperature
- Easy lamp replacement

### Technical Data X5

Mains voltage	100-240 VAC, 50-60 Hz
Power consumption	370W (± 5%)
Lamp Lifetime	> 500 h
Lamp	Xenon short arc gas discharge lamp 300 Watt, 5600°K
Light guide	Via TURRET (revolvable) • RZ, Storz • Olympus • Wolf • ACMI
Video-IN terminal	1 x VBS (1Vpp/75Ω), BNC
Dimensions	380x125x360mm (WxHxD)
Weight	11 kg

### Technical Data X2

Mains voltage	100-240 VAC, 50-60 Hz
Power consumption	250W (± 5%)
Lamp Lifetime	> 500 h
Lamp	Xenon reflector lamp 180 Watt, 5600°K
Light guide	Via TURRET (revolvable) • RZ, Storz • Olympus • Wolf • ACMI
Video-IN terminal	1 x VBS (1Vpp/75Ω), BNC
Dimensions	380x125x360mm (WxHxD)
Weight	11 kg



2 different models available:

300-001-305  
LUMEN X 5 (300W)

300-001-200  
LUMEN X 2 (180 W)

RECOMMENDED FOR: **HYS LAP ARTH URO SPINE**

### DELIVERY CONTAINS:

- Main Unit
- BNC cable
- Mains cable
- Operating manual



300-001-181  
XENON Spare Lamp  
180 Watt

300-001-301  
XENON Spare Lamp  
300 Watt

**180 WATT DAYLIGHT QUALITY**

**54 Xenon**  
**300 WATT DAYLIGHT QUALITY**

# LUMEN X 3 / LUMEN X 1

Pure daylight quality together with low noise and heat conduction - this Xenon Light Sources offers all functions needed to illuminate the field of view. The lamp can be replaced simply.



Manual light intensity control



Pure daylight quality



Lamp lifetime indicator

### FEATURES:

- Manual light intensity control
- Powerful 300W xenon glow-discharged lamp fixed in a reflector, calibration is not necessary
- Pure daylight quality
- Mechanical diaphragm is used to adjust the output intensity without any influence on the colour temperature

### Technical Data X3

Mains voltage	100-240 V, 50-60 Hz
Power consumption	370W (± 5%)
Lamp Lifetime	> 500 h
Lamp	Xenon short arc gas discharge lamp 300 Watt, 5600°K
Light guide	RZ, STORZ
Dimensions	380x125x360mm (WxHxD)
Weight	10 kg

### Technical Data X1

Mains voltage	100-240 V, 50-60 Hz
Power consumption	250W (± 5%)
Lamp Lifetime	> 500 h
Lamp	Xenon reflector lamp 180 Watt, 5600°K
Light guide	RZ, STORZ
Dimensions	380x125x360mm (WxHxD)
Weight	10 kg



2 different models available:

300-001-300  
LUMEN X 3 (300W)

300-001-180  
LUMEN X 1 (180 W)

RECOMMENDED FOR: **HYS LAP ARTH URO SPINE**

### DELIVERY CONTAINS:

- Main Unit
- Mains cable
- Operating manual



**300 WATT  
DAYLIGHT QUALITY**



300-001-181  
XENON Spare Lamp  
180 Watt

300-001-301  
XENON Spare Lamp  
300 Watt



**180 WATT  
DAYLIGHT QUALITY**

### High Temperature XENON Light Cables

The advanced High Temperature Xenon Light cables feature a built-in glass rod on the light source side to protect the fibers from melting when the cables are used with high-power Xenon light sources.

All 3.5mm and 4.8mm light cables feature a robust silicone hose to protect the light cables against damages like cuts or crushes.

A bending protection on the connectors is a basic feature of every RZ High Temperature Xenon Light cable.



### INSUFFLATOR DEVICES

Registration	CE 0297
Safety Class	I
Classified	I
Device Type	BF
Manufactured and tested according to	IEC 601-1ff, EN 60601-1ff
CE marking according to	MDD 93/42/EWG

Adaptor pieces for fibre light guide to use with light source

XENON light guide, without adaptor pieces

- 250-035-180 Ø 3.5 mm, 1800 mm
- 250-035-230 Ø 3.5 mm, 2300 mm
- 250-035-300 Ø 3.5 mm, 3000 mm
- 250-048-180 Ø 4.8 mm, 1800 mm
- 250-048-230 Ø 4.8 mm, 2300 mm
- 250-048-300 Ø 4.8 mm, 3000 mm



3.5 mm and 4.8 mm fiber optic

- 250-042-000 RZ/Storz/Olympus
- 250-040-000 Wolf
- 250-041-000 ACMI/British Standard

- 250-039-000 RZ/Storz
- 250-038-000 ACMI/British Standard CUDA
- 250-048-000 Luxtec
- 250-051-000 Stryker
- 250-037-000 Wolf
- 250-044-000 Olympus
- 250-045-000 Olympus - Standard
- 250-052-000 Heine
- 250-059-000 Pentax

Adaptor pieces for fibre light guide to use with endoscope



# AIRFLOW A2/3/4

# INSUFFLATOR AIRFLOW

The new AIRFLOW Series increase efficiency and safety considerably. Use either gas bottles or central gas supply. Choose your unit with gasflow power up to 45L/min and with or without an advanced, autoclavable and efficient heating system. All units display needed values easily observable. No disruption between gasflow and pressure reading phases thanks to newest technology in CO<sub>2</sub> Insufflation. An automatic self-check after switching on ensures the perfect function of all system components. Contamination of the gas way is eliminated by the included sterile filter.

### FEATURES:

- User-friendly interface
- Highest safety standard for patients
- Available with CO<sub>2</sub> heating system
- Pre-insufflation mode for use with Verres Cannulas
- Non-heating unit features same gasflow rates as heating unit models

### Technical Data

Line Voltage	100-240 V/AC - Fuse T 3, 15A
Frequency	50-60 Hz
Power Consumption	25-40W
	25-105W (with gas heating) max. 0,4A (max. 1A with gas heating)
Insufflation Pressure	1-30 mmHg
Gas Flow	1-20L/min (300-900-020 / -021) 1-30L/min (300-900-030 / -031) 1-45L/min (300-900-040 / -041)

Gas connection	UNF 7/16" male
Gas	Medical Grade Carbon Dioxide
Dimensions	380 x 120 x 360 mm (WxHxD)
Weight	11 kg



Choose with or without gas heater



User-friendly interface



Sterile filter included



Optional available:  
300-902-008  
CO<sub>2</sub> Bottle, 0.75kg, empty

	Maximum gasflow	Heating unit
300-900-020	20L/min	-
300-900-021	20L/min	✓
300-900-030	30L/min	-
300-900-031	30L/min	✓
300-900-040	45L/min	-
300-900-041	45L/min	✓

### DELIVERY CONTAINS:

- Main Unit • Mains cable • Sterile Filter • Wrench Set
- CO<sub>2</sub> High Pressure Tube • Standard Silicone Tube
- Silicone Tube / Gas Heater with tube (only Heater-Version)
- Operating manual

RECOMMENDED FOR: **LAP**

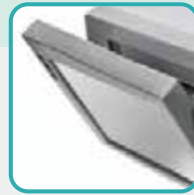
Multifunctional High Frequency Surgery Generator for safe, easy and efficient cutting and coagulation. Built-in Touchscreen-Monitor with clear image of all necessary information. Unit detects and identifies connected instruments automatically. Large memory locations and different user configurations complete a versatile and compact system.



10" Touchscreen



Easy readable interface design



Tilttable display design



Instrument detecting sockets

FEATURES:

- Detects and identifies connected instrument automatically
- Powerstart System simplifies the beginning of cutting process
- Automatic power regulation
- 105 different memory locations in 7 groups
- Various output configuration of the sockets available
- Footswitch (optional)



700-350-400  
Electrosurgical Generator G400  
TUR-B/P and monopolar TUR-P

DELIVERY CONTAINS:

- Main Unit • Mains Cable

Accessories on request

RECOMMENDED FOR ALL ENDOSCOPIC AND OPEN SURGERY APPLICATIONS

Technical Data

SAFETY FEATURES

Class / Grade	I / CF
Low-frequency leakage currents	acc. to IEC 60601-1
High-frequency leakage currents	acc. to IEC 60601-2-2
Generator operation frequency	333 kHz
Defibrillation impulse resistance	acc. to EN 60601-1
NEM System	neutral electrode control optical indication 7 levels required resistance < 240 Ω

ARGON\*

Gas Type	pure argon 4.8 (99,998%) or higher
Inlet gas pressure	0.25-0.4 [MPa]
Gas Outflow	0.1-10 l/min, regulated 0.1 l/min in whole range
Pressure Range	reducer (0.4 MPa) on argon cylinder



700-350-405  
Footswitch, 2 buttons, 6-pin plug, 5m

Cutting and Coagulation features

MONOPOLAR CUTTING

Mono Cut	9 effects/400W
Precise Cut	9 effects/50W
Mixed Cut	9 effects/150W
Polipo Cut**	9 levels
Papillo Cut**	9 levels
Arthro Cut**	9 levels
Uro Cut**	9 levels
Hystero Cut**	9 levels
Argon Cut**	9 effects/350W

BIPOLAR CUTTING

Bi-Cut**	9 effects/400W
Uro Bi-Cut**	9 levels
Arthro Bi-Cut**	9 levels

Modifications of technical specification or design are subject to change without prior notice.

\* available only for Argon version  
\*\* special mode available only for dedicated SDS cable/instrument connected

THERMOSTAPLER® \*\*

Vessel sealing system	9 effects/300W
AutoStop	automatic stop of sealing process after achieving the optimal effect

WEIGHT AND DIMENSIONS

Weight	12.2kg
Dimensions	495 x 415 x 225mm (LxWxH)

POWER SUPPLY

Supply voltage	230 V +/- 10% 50 Hz or 110 V +/- 10% 60 Hz
Rated power input	500W



MONOPOLAR COAGULATION

Soft Coag	9 effects/200W
Forced Coag	9 effects/200W
Spray Coag	80W
Hybrid Coag	9 effects/200W
Standard Argon*	80W
Endo Argon*	40W
Pulse Argon*	40W
Uro Coag**	9 levels
Arthro Coag**	9 levels
Hystero Coag**	9 levels

BIPOLAR COAGULATION

Soft Bi-Coag	9 effects/350W AutoStart/AutoStop
Forced Bi-Coag	9 effects/350W AutoStop
Uro Bi-Coag**	9 levels
Arthro Bi-Coag**	9 levels
Sciss Bi-Coag**	9 levels



The RZ iLumen Endovue offers a high definition interface (HDTV) featuring high brightness, high resolution, exceptional contrast, and true color reproduction with unsurpassed visual quality. The RZ iLumen delivers the key advantages of the series from RZ in environments where only video-based images are required. Multiple sizes and high flexibility make it ideal for a wide variety of surgical and other applications.

High Definition Imaging, Superior Clarity, Consistency, Quality, Fastest Response time (10-16ms), Widest Viewing Angle, Widest colour Gamut, Programmable User and Modality Preferences, Re-Drive Capability Enables Image Viewing on Multiple Displays, Video-Switching with Serial Port Interface, Save low Voltage 24 VDC Remote Power, Compact and lightweight.

Model / Type	300-001-145	300-001-149	300-001-146
Size	15" / 20.0x9 inches	19" / 14.8x11.9 inches	24" / 20.4x12.8 inches
Resolution	1024x768 (XGA)	1280x1024 (SXGA)	1920x1200 (WUXGA)
Signal Input	SVideo, Composite, RGBS, DVI		
Viewing angle	178°		
LCD Panel	TFT Active Matrix		



The 21" iLumen Endovue SE delivers the image performance of a high-end surgical display at a fraction of the cost. Targeted for cost-sensitive emerging markets this monitor is a great value. It features an LED backlight and supports both digital and analog high-definition video inputs. The 21" iLumen Endovue SE is an affordable alternative to a full-featured surgical display.

It accommodates high-definition signals from a variety of medical imaging sources, including endoscopes, ultrasound, PACS, and vital signs. It also features a fanless cooling design to minimize the risk of spreading airborne contaminants within the sterile field.

ONLY AVAILABLE OUTSIDE EU + NORTH AMERICA

Model / Type	300-001-148
Size	21,5" / 18.8 x 10.6 inches
Resolution	1920 x 1080 (Full HD)
Signal Input	DVI, RGBS, YPbPr, VGA, S-Video, Composite
Viewing angle	178°
LCD Panel	TFT Active Matrix with IPS, LED-Backlight



The RZ HD iLumen RADIANCE surgical flat panel display is the worldwide LCD monitor of choice for surgeons and operating terms. Its superior HDTV capabilities including HD — SDI and YPbPr — and sophisticated signal processing produce sharp, accurate, true and very bright images. The RZ iLumen is the only medical-grade flat panel for simultaneous use as a Radiology, Fluoroscopy, Physiology, and/or minimally Invasive Surgery display.

Full HD and Digital Capable, Full Range of Analog Surgical Inputs, DICOM Response DVI Input for PACS, Fingertip/Footswitch Instant Remote Switching between sources, High Resolution, High Bright LCD with Wide Viewing Angle, Fully Compliant Medical Grade, FDA, UL and CE Approved, Re- Drive Capability Enables Image Viewing on Multiple Display, Traditional 4:3 Aspect Ratio, Surgeon- Specific User Selectable Settings.

Model / Type	300-010-219	300-010-224	300-010-226	300-001-232
Size	19" / 14.8x11.9 inches	24" / 20.4x12.8 inches	26" / 22.7 x 12.7 inches	32" / 27.5x15.4 inches
Resolution	1280x1024 (SXGA)	1920x1200 (WUXGA)	1920x1080 (FULL HD)	1920x1080 (FULL HD)
Signal Input	SDI, HD-SDI, RGBS, YPbPr, SVideo, Composite, DVI, VGA			
Viewing angle	178°			
LCD Panel	TFT Active Matrix with IPS			



**RZ IPS Medical Display**  
Basic and reliable Full HD Monitors with good picture quality. Closed aluminium frame and glass front for improved scratch resistance and easier cleaning. Wide range of input possibilities.

Model / Type	300-001-240	300-001-244	300-001-246	300-001-247	300-001-248
Size	19" / 14.8x11.9 inches	24" / 20.4x12.8 inches	26" / 22.7 x 12.7 inches	32" / 27.5x15.4 inches	42" / 34.6x19.6 inches
Resolution	1920x1200 (WUXGA)				
Signal Input	SVideo, Composite, HDMI, DVI				
LCD Panel	IPS				

Very variable and universal Trolley with high loading capacity. Hydraulic monitor attachments enable main and secondary monitors that can be swivelled in the desired positions. We offer a broad assortment of expansion options and many possibilities of adaption to individual needs.

### FEATURES:

- Optional doors and rear panel in order to protect valuable equipment
- Optional main on/off switch
- Power columns for cables
- Endoscope Holder
- Variable height support arms
- Conductive rolls

### DIMENSIONS

1600mm x 500mm x 625mm  
Rollers: Ø 125mm



Mounting width: 500mm

300-002-001  
RZ High-End-Trolley

300-001-999  
RZ Basic Trolley

### OPTIONAL ACCESSORIES:



300-001-988 400mm  
Hydraulic monitor holding



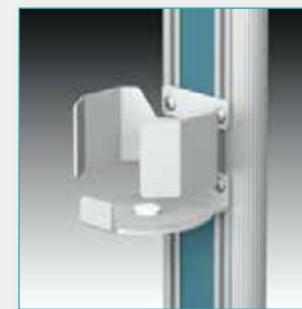
300-001-989  
Monitor Shelf with adjustable monitor holding VESA 75/100 up to 14kg



300-001-986  
Keyboard Holder



300-001-990  
Camera Head Holder with cable suspension



300-001-980 3/5/10 L  
300-001-982 20/50 L  
CO<sub>2</sub> Bottle Holder



300-001-979  
Camera Holder



300-001-978  
Cable Holder



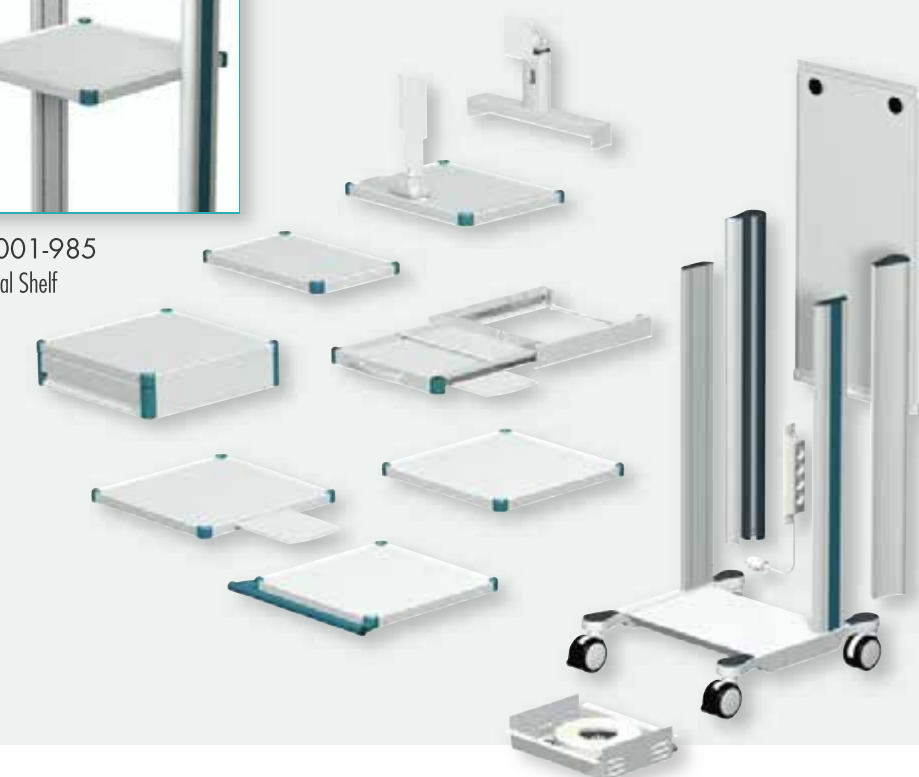
300-001-991  
Computer Holder, load capacity max. 20kg



300-001-983  
Rear Panel



300-001-985  
Additional Shelf



300-900-915  
High-End Tower System Set

HIGH-END



- 300-001-800 HD Digital Camera System F3
- 300-900-300 LUMEN LED 3
- 300-000-300 LAP Pump P3000
- 300-900-041 AIRFLOW A4 Insufflator with heating unit
- 300-010-226 RZ iLumen RADIANCE 26" Monitor
- 300-001-149 RZ HD iLumen EndoVue 19" Monitor
- 300-002-001 RZ High-End Trolley
- + Accessories

300-900-916  
Medium-End Tower System Set

MEDIUM-END



- 300-001-600 HD Digital Camera System F1
- 300-001-305 LUMEN X5 Xenon Light Source
- 300-000-100 LAP Pump P1000
- 300-900-030 AIRFLOW A3 Insufflator
- 300-001-146 RZ iLumen LED EndoVue 24" Monitor
- 300-001-999 RZ Basic Trolley
- + Accessories

300-900-917  
Basic Line Tower System Set

BASIC LINE



- 300-001-410 Digital Camera System Z2
- 300-900-180 LUMEN LED1 Light Source
- 300-000-100 LAP Pump P1000
- 300-900-020 AIRFLOW A2 Insufflator
- 300-001-148 RZ iLumen LED EndoVue SE 21.5" Monitor
- 300-001-999 RZ Basic Trolley
- + Accessories

