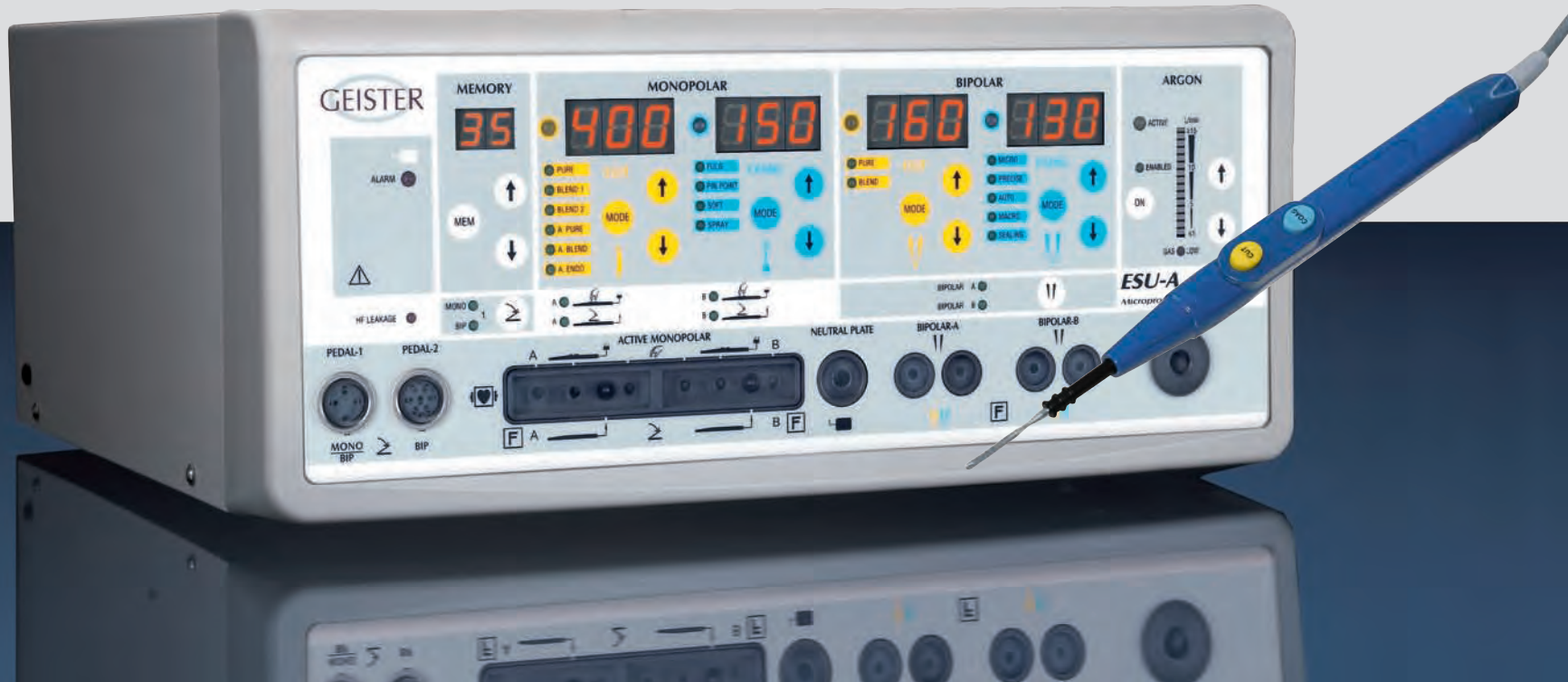


Power up your surgery!



The better way to operate™



Electrosurgical Units



1. Electrosurgical Units 2



2. Accessories for Electrosurgical Units 16



3. Smoke Evacuators 24



4. Bipolar Instruments 28



5. Laparoscopic Instruments 36



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7. Preview 46



Power up your surgery!

In the modern age surgery has become enormously sophisticated. Therefore, specially designed electro-surgical units should be utilized for such surgical procedures. In its latest generation of electro-surgical units GEISTER® has merged quality and engineering with ingenuity and power. These units are providing excellent quality and features for the end user at a highly attractive price to value ratio.

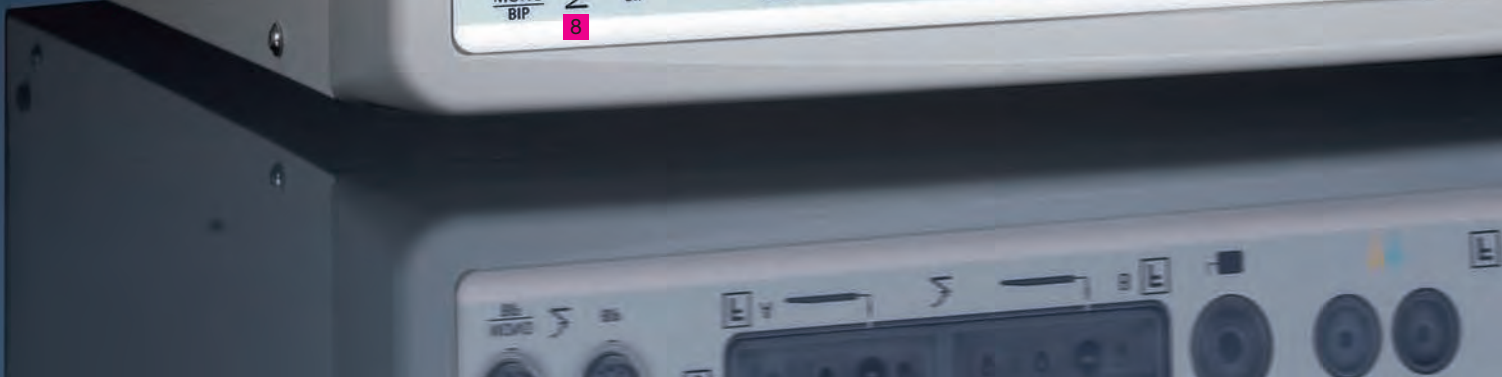
The high-technology HT series consists of 2 technically identical models: the ESU-A 400HT (max. 400W) and ESU-X 400HT (max. 400W). They only differ by the integrated Argon gas section in ESU-A 400HT. The new-technology NT series consists of 2 technically identical models: the ESU-X 300NT (max. 350W) and ESU-X 200NT (max. 200W). They only differ by their maximum output powers. The top of the range model ESU-A 400HT comes with an integrated section for Argon Gas. In order to eliminate bacterial/

viral contamination, the units can be used together with the electro-surgical smoke evacuator GEISTER® XSMOKE, equipped with suction functions and especially recommended for laparoscopic procedures to ensure a perfect view of the operating field.

The wide range of accessories including electro-surgery pencils, cauteries, electrodes, cables, forceps and laparoscopic instruments in multiple styles, is compatible with most common electro-surgery generators.

Designed with latest electronic technology to provide you with a complete solution for all major surgical procedures, combined with maximum safety, reliability and simplicity these units incorporate many safety features and functions which allow you to select and easily reproduce the working mode most suitable for your specific surgical needs.

Thank you for choosing
GEISTER® - The better way to operate™.





High Technology Electrosurgical Unit with integrated Argon 400 W

Art.-No. 34-9300 (230 V)

Art.-No. 34-9300.US (115 V)

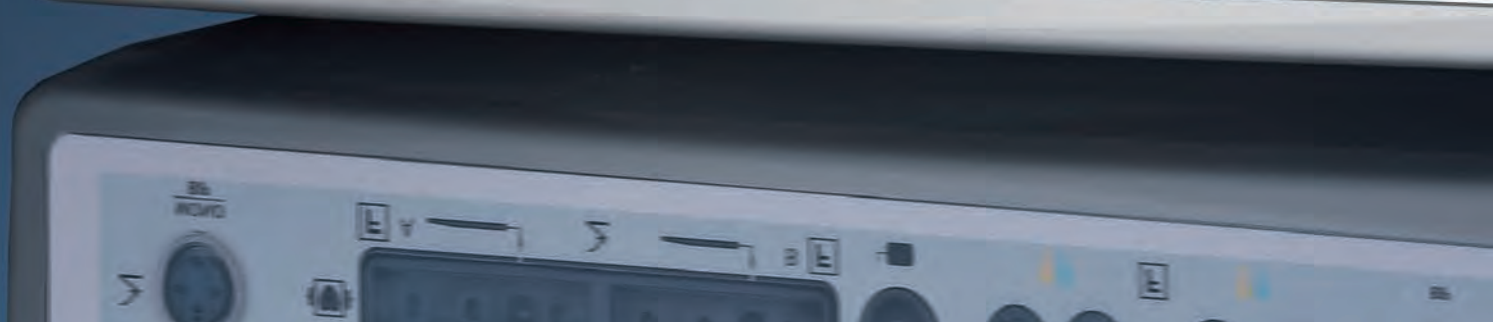
suggested accessories are Art.-No. 34-9320, 34-9331, 34-9408, 34-9590, 34-9526, 10-7030

The Features: *

- 1 100 Memory Programs
- 2 10 Monopolar Currents
- 3 7 Bipolar Currents
 - Total Safety Concept
 - Powerful Performance
- 4 2 Bipolar Outputs
- 5 Neutral Electrode Connection
- 6 2 Active Monopolar Outputs
- 7 Ideal for Cardio-Surgery
- 8 Up to 2 Twin Foot Pedals
- 9 HF Leakage Monitoring
- 10 Neutral Electrode Alarm
- 11 Integrated Argon Gas

*complete description page 12-13

Argon
400 W





High Technology Electrosurgical Unit 400 W

Art.-No. 34-9302 (230 V)

Art.-No. 34-9302.US (115 V)

suggested accessories are Art.-No. 34-9320, 34-9331, 34-9408, 34-9590, 34-9526, 10-7030. Accessories for Argon-Gas enhanced surgery see page 23.

- 1 The Features: ***
- 2** 100 Memory Programs
- 3** 10 Monopolar Currents
 - 7 Bipolar Currents
 - Total Safety Concept
 - Powerful Performance
- 4** 2 Bipolar Outputs
- 5** Neutral Electrode Connection
- 6** 2 Active Monopolar Outputs
- 7** Ideal for Cardio-Surgery
- 8** Up to 2 Twin Foot Pedals
- 9** HF Leakage Monitoring
- 10** Neutral Electrode Alarm

*complete description page 12-13

400 W





New Technology Electrosurgical Unit 350 W

Art.-No. 34-9310 (230 V)

Art.-No. 34-9310.US (115 V)

suggested accessories are Art.-No. 34-9320, 34-9331, 34-9408, 34-9590, 34-9526, 10-7030

The Features: *

- 1 10 Memory Programs
- 2 8 Monopolar Currents
- 3 5 Bipolar Currents
Total Safety Concept
Powerful Performance
- 4 1 Bipolar Output
- 5 Neutral Electrode Connection
- 6 2 Active Monopolar Outputs
- 7 Ideal for Cardio-Surgery
- 8 Up to 2 Twin Foot Pedals
- 9 HF Leakage Monitoring
- 10 Neutral Electrode Alarm

*complete description page 12-13

350 W





New Technology Electrosurgical Unit 200 W

Art.-No. 34-9312 (230 V)

Art.-No. 34-9312.US (115 V)

suggested accessories are Art.-No. 34-9320, 34-9331, 34-9408, 34-9590, 34-9526, 10-7030

The Features: *

- 1 10 Memory Programs
- 2 8 Monopolar Currents
- 3 5 Bipolar Currents
Total Safety Concept
Powerful Performance
- 4 1 Bipolar Outputs
- 5 Neutral Electrode Connection
- 6 2 Active Monopolar Outputs
- 7 Ideal for Cardio-Surgery
- 8 Up to 2 Twin Foot Pedals
- 9 HF Leakage Monitoring
- 10 Neutral Electrode Alarm

*complete description page 12-13

200 W

**Up to 100 Memory Programs**

Stored programs can be selected simply by the push of one button. Preset programs are available for cardiosurgery, neuro-surgery, general and laparoscopic surgery, flexible endoscopy or rigid monopolar endoscopy under liquid (TUR) and for bipolar only use. The unit always remembers the last settings it was switched off with. (Art.-No. 34-9310 and 34-9312 only 10 Memory Programs).

Up to 10 Monopolar Currents

perfectly suitable for all surgical needs including TUR (monopolar resection under liquid) and vaporisation. Also available is a special A. ENDO mode for blend cut with alternate phases of pure cut and coagulation in flexible endoscopy and A. PURE and A. BLEND modes combined with a constant voltage system, that automatically adjusts the powers by keeping the electric arc constant. This provides for a very delicate way of cutting and minimal superficial necrosis. (Art.-No. 34-9310 and 34-9312 only 8 Monopolar Currents).

Up to 7 Bipolar Currents

for all surgical needs and with special PRECISE mode for micro precise bipolar coagulation and the SEALING mode for bipolar coagulation and confidently ligating and sealing large vessels. AUTO mode with automatic Start/ Stop System and impedance sensing for

manual operation activates the HF current automatically once the tissue is being touched. (Art.-No. 34-9310 and 34-9312 only 5 Bipolar Currents).

Total Safety Concept

with complete self-test, hardware/software diagnosis and total function and safety monitoring by two 32 bit microprocessors. Dynamic auto-adjustment of output powers for best performance while using the lowest possible powers and reducing damaging side effects on target points (i.e. carbonization or tissue sticking).

Powerful Performance

Output power up to 400W max. in monopolar pure cut and up to 160W max. in bipolar pure cut. Constant output power levels through the output power control system make this unit particularly suitable for cutting under water (e.g. during TUR). Power can be progressively adjusted to the desired level under visual control.

Up to 2 Bipolar Outputs

for cables with 2x4mm USA-type banana plug connectors (e.g. REF 34-9408) for bipolar cut and coagulation with maximum safety and precision. (Art.-No. 34-9310 and 34-9312 only 1 Bipolar Output).



Neutral Electrode Connection

with safety control circuit to avoid that burns can be caused on the patients' skin. When dual split-type electrodes are being used, not only the cable and its connection are being checked, but also the proper application of the plate will be monitored continuously.

2 Active Monopolar Outputs

for push-button handswitches with USA 3-pin connectors or monopolar electrode cables and handles. Activation even simultaneously possible by two surgeons by using hand switch or twin foot pedal. A special universal adapter (REF 34-9590) is optionally available for connecting multiple accessories with 2 to 8mm plugs.

Ideal for Cardio-Surgery

“Floating type” insulated at high/low frequencies and protected against the use of defibrillator and 5 preset cardio programs (#75-79) make this unit an ideal choice for cardio-surgery.

Up to 2 Twin Foot Pedals

One for monopolar and bipolar use (REF 34-9330) and one for independent bipolar only use (REF 34-9331 – optional). Water proof (IPX7) with low voltage, safe medical grade design.

HF Leakage Monitoring

automatically reducing the output powers in order to meet, even in critical situations (i.e. contact between patient and metallic parts of OT-table), safe values, reducing potential risks involved (i.e. burns).

Neutral Electrode Alarm

When the contact surface of a dual split-type neutral electrode plate decreases to 50%, output powers will be limited to max. 200W. The power will be totally cut off and alarm will be activated in case contact decreases further to an insufficient level or in case that the cable gets disconnected or broken, for maximum safety.

Integrated Argon Gas

used especially in endoscopy suites in laparoscopy and thoracoscopy the argon plasma coagulation with constant gas flow provides for rapid hemostasis of large surface bleedings without any contact, limited penetration depth (only max. 3mm in combination with SPRAY mode) and a low risk of perforation. The monopolar current is sent into tissue via an ionized argon gas stream. As oxygen is displaced by the argon gas in the working area of the active electrodes, smells and smoke are absent and visibility is improved. There is no adhesion between the applicator and the tissue. Special accessories are required. (Only Art.-No. 34-9300).



Electrosurgical Units HT Series – Technical Specifications

Model Type	ESU-A 400HT		ESU-X 400HT		Mains		
Order REF	34-9300		34-9302		230V		
Order REF	34-9300.US		34-9302.US		115V		
Currents	Output Power	P/P Voltage	Output Power	P/P Voltage	Nominal Load	Frequency(F)- Crest Factor(CF) - Modulation(M)- Duty Cycle (DT)	Acoustic/ Visual Signal
MONOPOLAR:							
Pure	400 W	3465 V	400 W	3465 V	360 Ω	F: 435 kHz- CF: 1.6 - M: N/A – DT: N/A	Low tone, yellow light
Blend 1	300 W	3595 V	300 W	3595 V	360 Ω	F: 435 kHz- CF: 2.3 - M: 29 kHz – DT: 65%	Low tone, yellow light
Blend 2	140 W	7600 V	140 W	7600 V	620 Ω	F: 435 kHz- CF: 8.1 - M: 19 kHz – DT: 9%	Low tone, yellow light
A. Pure	400 W	1470 V	400 W	1470 V	360 Ω	F: 435 kHz- CF: 1.6 - M: N/A – DT: N/A	Low tone, yellow light
A. Blend	300 W	1930 V	300 W	1930 V	360 Ω	F: 435 kHz- CF: 2.3 - M: 29 kHz – DT: 65%	Low tone, yellow light
A. Endo	250 W	1890 V	250 W	1890 V	360 Ω	Alternating 50% Pure and Blend1 - CF: 2,2	Low tone, yellow light
Fulg	150 W	4700 V	150 W	4700 V	345 Ω	F: 435 kHz- CF: 4.5 - M: 78 kHz – DT: 3,5%	High tone, blue light
Pin Point	250 W	3460 V	250 W	3460 V	250 Ω	F: 435 kHz- CF: 2.6 - M: 29 kHz – DT: 50%	High tone, blue light
Soft	280 W	3440 V	280 W	3440 V	250 Ω	F: 435 kHz- CF: 2.5 - M: 29 kHz – DT: 56%	High tone, blue light
Spray	140 W	7660 V	140 W	7660 V	630 Ω	F: 435 kHz- CF: 8.1 - M: 19 kHz – DT: 9%	High tone, blue light
BIPOLAR:							
Pure	160 W	850 V	160 W	850 V	310 Ω	F: 435 kHz- CF: 1.5 – M: N/A – DT: N/A	Low tone, yellow light
Blend	130 W	1000 V	130 W	1000 V	310 Ω	F: 435 kHz- CF: 1.8 – M: 29 kHz – DT: 75%	Low tone, yellow light
Micro	130 W	450 V	130 W	450 V	100 Ω	F: 435 kHz- CF: 1.7 – M: N/A – DT: N/A	High tone, blue light
Precise	130 W	760 V	130 W	760 V	100 Ω	F: 435 kHz- CF: 1.7 – M: N/A – DT: N/A	High tone, blue light
Auto	130 W	450 V	130 W	450 V	100 Ω	F: 435 kHz- CF: 1.7 – M: N/A – DT: N/A	High tone, blue light
Macro	130 W	760 V	130 W	760 V	100 Ω	F: 435 kHz- CF: 1.7 – M: N/A – DT: N/A	High tone, blue light
Sealing	130 W	710 V	130 W	710 V	100 Ω	F: 435 kHz- CF: 1.7 – M: N/A – DT: N/A	High tone, blue light

Electrosurgical Units NT Series – Technical Specifications



Model Type	ESU-X 300NT		ESU-X 200NT		Mains		
Order REF	34-9310		34-9312		230V		
Order REF	34-9310.US		34-9312.US		115V		
Currents	Output Power	P/P Voltage	Output Power	P/P Voltage	Nominal Load	Frequency(F)- Crest Factor(CF) - Modulation(M)- Duty Cycle (DT)	Acoustic/ Visual Signal
MONOPOLAR:							
Pure	350 W	3455 V	200 W	3455 V	360 Ω	F: 435 kHz- CF: 1.6 - M: N/A – DT: N/A	Low tone, yellow light
Blend 1	300 W	3595 V	200 W	3530 V	360 Ω	F: 435 kHz- CF: 2.3 - M: 29 kHz – DT: 65%	Low tone, yellow light
Blend 2	140 W	7600 V	140 W	7600 V	620 Ω	F: 435 kHz- CF: 8.1 - M: 19 kHz – DT: 9%	Low tone, yellow light
Endo	220 W	1720 V	200 W	1700 V	360 Ω	Alternating 50% Pure and Blend1 - CF: 2,2	Low tone, yellow light
Fulg	150 W	4700 V	150 W	4700 V	345 Ω	F: 435 kHz- CF: 4.5 - M: 78 kHz – DT: 3,5%	High tone, blue light
Pin Point	250 W	3460 V	200 W	3450 V	250 Ω	F: 435 kHz- CF: 2.6 - M: 29 kHz – DT: 50%	High tone, blue light
Soft	280 W	3440 V	200 W	3435 V	250 Ω	F: 435 kHz- CF: 2.5 - M: 29 kHz – DT: 56%	High tone, blue light
Spray	140 W	7600 V	140 W	7600 V	630 Ω	F: 435 kHz- CF: 8.1 - M: 19 kHz – DT: 9%	High tone, blue light
BIPOLAR:							
Pure	140 W	840 V	140 W	840 V	310 Ω	F: 435 kHz- CF: 1.5 – M: N/A – DT: N/A	Low tone, yellow light
Blend	120 W	990 V	120 W	990 V	310 Ω	F: 435 kHz- CF: 1.8 – M: 29 kHz – DT: 75%	Low tone, yellow light
Micro	120 W	440 V	120 W	440 V	100 Ω	F: 435 kHz- CF: 1.7 – M: N/A – DT: N/A	High tone, blue light
Auto	120 W	440 V	120 W	440 V	100 Ω	F: 435 kHz- CF: 1.7 – M: N/A – DT: N/A	High tone, blue light
Macro	120 W	750 V	120 W	750 V	100 Ω	F: 435 kHz- CF: 1.7 – M: N/A – DT: N/A	High tone, blue light

Mains Power: 230/115 Volt ± 10%/ Hz: 50/60 Phases: alternate single-phase. Electrical input: at max. power: 828 VA – at switching on: 840 VA – in stand by: 100 VA. Mains switch: bipolar with green light, positioned on rear. Supply cable: detachable with standard SCHUKO plug (different plugs inquiry), length 3m. Fuses: 2 fuses in the appliance inlet. Protective earth resistance: Lower than 0,1 ohm. Equipotential connection: by DIN 42801 intl. plug. Dimensions: WxDxH 38cm x 35cm x 16cm, Weight :15 kgs (ESU-A400HT: 16kgs). Installation: units can be used on a trolley, shelf or hanging arm. Special conditions/facilities for the installation: None (no water, gas, compressed air, etc. required). Electric supply must meet the applicable safety standards. Loss of heat in the environment: None. Limits of environmental temperature/humidity during the functioning or the store: standard IEC limits – temp from 10° to 40 °C / humid. from 35 to 75% / press. from 700 to 1060 hPa. Cooling: by convection without fan. Twin foot-switch pedals: electrical type, water-proof (IPX7) for operating rooms, with low, medical, voltage 12VDC. Argon gas section (only for model ESU-A 400HT): Gas supply: by 1/2 cylinders with 5lt (cylinder full = pressure 200 ATM) with pressure reducer or by external central pipeline – Connection for gas supply: Quick-action coupling connector – Max working pressure and maximum gas flow: 1atm, 15l/min – Adjustment of gas flow: from 1 to 15 l/min, setting by push-buttons and displayed on progressive LED-bar. Warranty 2 years. Errors, technical alterations and all rights reserved.



34-9532



34-9528



34-9330



34-9525





34-9525

34-9320 Standard Accessories Set*

consisting of:

- 34-9330 Twin Foot Pedal for monopolar and bipolar use
- 34-9525 Electrode Holder Handle 3.5 m cable for 2.3/2.4 mm electrodes (2x)
- 34-9528 Adult Stainless Steel Neutral Electrode (25 x 12 cm) with cable (REF 34-9540)
- 34-9532 Fixing Belt 150 cm
- 34-9550 Straight Knife Electrode (Blade) 70 mm (2x)
- 34-9554 Thick Needle Electrode 70 mm (2x)
- 34-9556 Thin Needle Electrode 70 mm
- 34-9560 Straight Ball Electrode 2.5 mm 70 mm
- 34-9562 Straight Ball Electrode 4 mm 70 mm (2x)

- 34-9331 Twin Foot Pedal (Bipolar) optional second pedal for independent bipolar use only

34-9321 Standard Accessories Set (Rubber Neutral Electrode)*

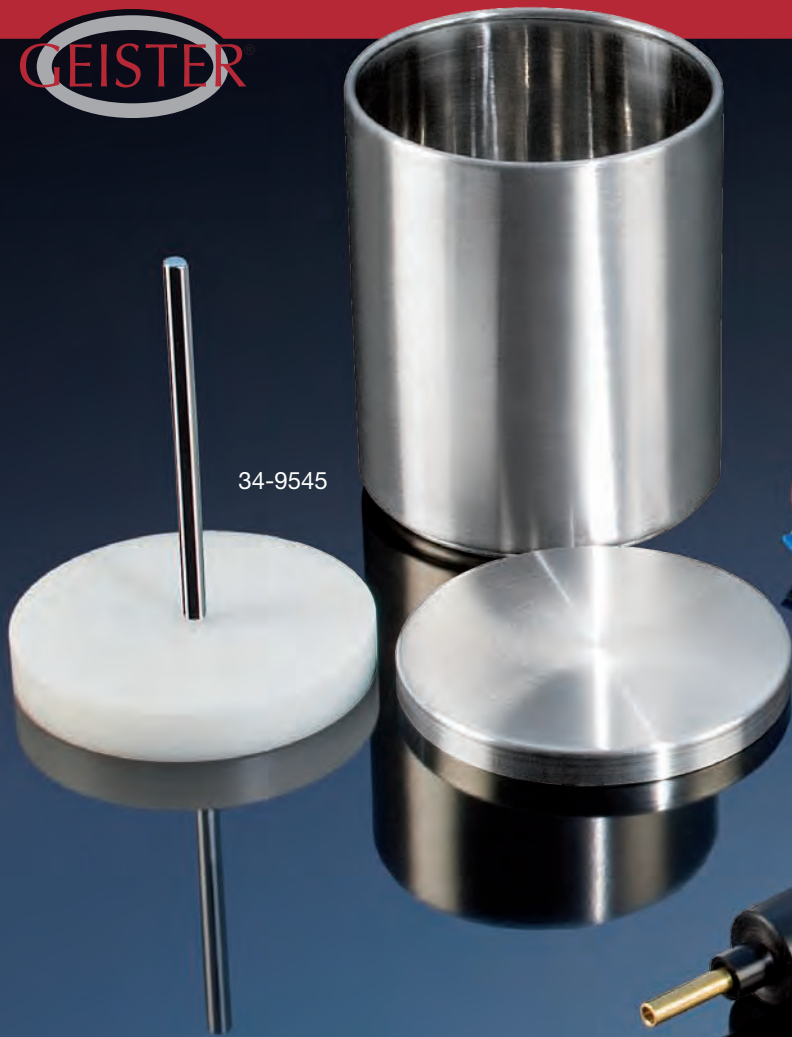
as above but instead of 34-9528 with 34-9530

Rubber Neutral Electrodes

- 34-9530 Adult >15 kg (25 x 12 cm), with 2.5 m cable
- 34-9531 Child 5-15 kg (19 x 8 cm), with 2.5 m cable



* The articles in the sets are also available separately.





34-9421



SW-1222

Electrode Holder with double-push button

- 34-9526 with 3 m cable for 2.3/2.4 mm electrodes
 34-9526.50 as above but with 5 m long cable
 Model and color might vary from picture

Cable

- 34-9540 for connecting Neutral Electrodes

Adapter

- 34-9590 for monopolar outlet, for plug sizes 2-8 mm

Disposable Split-type Neutral Electrode

(pack of 25)

- SW-1211 Adult >15 kg, 104 x 215 mm (not illustrated)
 SW-1222 Child 5-15 kg, 90 x 144 mm
 SW-1223 Infant <5 kg, 74 x 165 mm (not illustrated)

Round Box

- 34-9545 10 cm diameter, 12 cm high, with insert
 for 10 active electrodes 2.3-2.4 mm stem

Monopolar Cable

- 34-9421 for connecting Laparoscopic Instruments
 to monopolar outlet of ESU



34-9525



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Active Electrodes

**Electrode Holder**

34-9525 with 3.5 m cable for 2.3/2.4 mm electrodes

Active Electrodes

reusable, with 2.3-2.4 mm stems

26 27 28 29 30 31 32 33 34 35 36

1	34-9550	Straight Knife (Blade) 70 mm	20	34-9571	Round Wire Loop 10 mm 70 mm
2	34-9551	Angled Knife (Blade) 70 mm	21	34-9572	Round Wire Loop 15 mm 70 mm
3	34-9550K	Straight IMA Knife (Blade) 70 mm (5 mm distal tip)	22	34-9571N	Round Ribbon Loop 10 mm 70 mm
4	34-9550L	Straight Lancet 70 mm	23	34-9572N	Round Ribbon Loop 15 mm 70 mm
5	34-9551L	Angled Lancet 70 mm	24	34-9573	Plate 70 mm
6	34-9554	Straight Thick Needle 70 mm	25	34-9651	Electrode Extension 15 cm (2.3-2.4 mm electrodes)
7	34-9555	Angled Thick Needle 70 mm	26	34-9583	Straight Thin Needle 120 mm
8	34-9556	Straight Thin Needle 70 mm	27	34-9582	Straight Thick Needle 120 mm
9	34-9557	Angled Thin Needle 70 mm	28	34-9580	Straight Knife (Blade) 120 mm
10	34-9556K	Straight IMA Thin Needle 70 mm (5 mm distal tip)	29	34-9584	Round Wire Loop 5 mm 120 mm
11	34-9560	Straight Ball 2.5 mm 70 mm	30	34-9585	Round Wire Loop 10 mm 120 mm
12	34-9561	Angled Ball 2.5 mm 70 mm	31	34-9585X	Round Wire Loop 15 mm 120 mm
13	34-9562	Straight Ball 4 mm 70 mm	32	34-9586	Straight Ball 2.5 mm 120 mm
14	34-9563	Angled Ball 4 mm 70 mm	33	34-9588	Straight Ball 4 mm 120 mm
15	34-9564	Straight Ball 6 mm 70 mm	34	34-9589	Straight Ball 6 mm 120 mm
16	34-9565	Angled Ball 6 mm 70 mm	35	34-9580K	Straight IMA Knife (Blade) 130 mm (5 mm distal tip)
17	34-9568	Diamond Loop 5x10 mm 70 mm	36	34-9583K	Straight IMA Thin Needle 120 mm (5 mm distal tip)
18	34-9569	Diamond Loop 10x10 mm 70 mm			
19	34-9570	Round Wire Loop 5 mm 70 mm			



34-9760

34-9763

34-9742

34-9746

34-9751

34-9741

34-9750

34-9745

34-9740



34-9730

Electrodes for Argon Gas enhanced surgery

rapid hemostasis of large surface bleedings without any contact, limited penetration depth and a low risk of perforation. The monopolar current is sent into tissue via an ionized argon gas stream. As oxygen is displaced by the argon gas in the working area of the active electrodes smells and smoke are absent and visibility is improved. There is no adhesion between the applicator and the tissue.

- 34-9730 Hand-switch for rigid electrodes with cable
- 34-9740 Rigid Electrode fo coagulation 25 mm
- 34-9741 Rigid Electrode fo coagulation 100 mm
- 34-9742 Rigid Electrode fo coagulation 320 mm
- 34-9745 Rigid Needle Electrode 40 mm
- 34-9746 Rigid Needle Electrode 115 mm
- 34-9750 Rigid Knife Electrode 40 mm
- 34-9751 Rigid Knife Electrode 115 mm
- 34-9760 Connecting Cable for flexible electrodes
- 34-9761 Flexible Electrode 1.5 m 1.5 mm
- 34-9762 Flexible Electrode 1.0 m 2.3 mm
- 34-9763 Flexible Electrode 2.2 m 2.3 mm
- 34-9764 Flexible Electrode 3.2 m 2.3 mm
- 34-9772 Argon Gas cylinder 5 l with gas
(transport restrictions for certain countries might apply – medical argon gas tanks can be also purchased or refilled by your local medical gas suppliers of choice)
- 34-9772.E Empty metal cylinder 5l
- 34-9773 Pressure Reducer
- 34-9774 Tube for gas input
- 34-9785 Spare Filter (not illustrated)
- 34-9786 Metal connector for filter 34-9785
(not illustrated)





XSMOKE LAP Electrosurgical Smoke Evacuator for Laparoscopy

34-9351 230 V

34-9351.US 115 V





XSMOKE Electrosurgical Smoke Evacuator
 34-9350 230 V
 34-9350.US 115 V



GEISTER® XSMOKE Smoke Evacuator

designed to evacuate and filter the smoke produced during all electrosurgical procedures, thus eliminating bad smells or the bacteriological risks, and improving significantly the visual field during laparoscopic procedures.

The GEISTER® XSMOKE is equipped with an electric suction with high flow and a low noise level, a special circuit for the connection to a central vacuum supply system, and another circuit for the controlled output of the CO₂ which is used in the laparoscopic procedures for pneumoperitoneum. The unit is ideal for the usage in the operating theatre, thanks to its low level of noise and the wide range of applications.

It is usable for evacuation of the smoke during open surgery, with an aspiration system on the electrodes-handle or with an independent cannulae, adjustable evacuation of the smoke during laparoscopic procedures with a pneumoperitoneum, by connection to the trocar providing for the controlled output of the gas by itself, and adjustable evacuation of the smoke during gas-less laparoscopic procedures, by connection with the trocar, through suction. All the models can be used as a "shelf" for the electro surgical units; there are also specific trolleys available, both for the out-patient treatment and the operating theatre. Delivered with a filter group (XSMOKE and XSMOKE LAP with antibacterial MAXIPLEAT/2, antismell with active carbon SCAVENGER, and XSMOKE additionally with antibacterial DEAS1911), non sterile tubing 34-9361 (for a fixed suction system, or extension of 34-9360), disposable sterile tubing 34-9360 for the connection to the speculum, to the suction set for the electrodes-handle, to the sterile handle with suction system and to the trocar in laparoscopy, tubing 34-9365 for the connection to the external central vacuum system.

The XSMOKE LAP model is designed for use in laparoscopy only. It includes a pneumatic footswitch pedal 34-9696.

Internal Filters

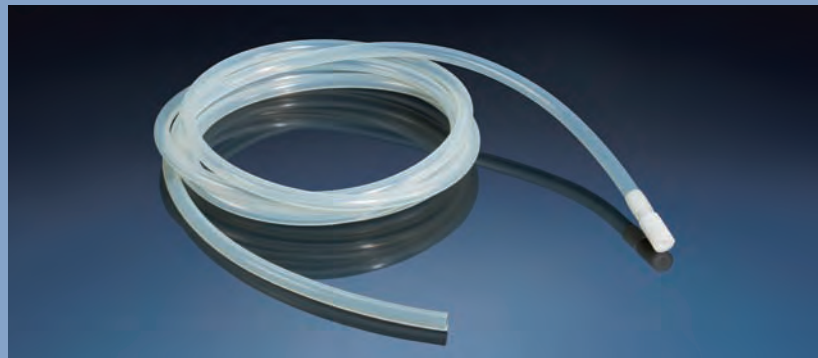
34-9355	SCAVENGER, Anti-smell filter with active carbons
34-9356	MAXIPLEAT/2, Antibacterial/Antiviral filter External Sterile Filters for suction tubing
34-9357	DEAS1911, Sterile Antibacterial/Antiviral filter for suction tubing



Suction tubing



34-9360 Disposable Sterile Tubing, 1.8 m - Ø 11 mm
 34-9361 Disposable Extension Tubing for 34-9361, 1.5 m - Ø 19 mm



34-9362 Tubing, 2.5 m - Ø 7 x 12 mm with connection to the unit



34-9363 Disposable Sterile Tubing 5 m with antibacterial filter and luer lock connection for laparoscopy or general applications



34-9365 Connection tubing, 5 m, with quick connector (not equipped with any connector for the centralized system)



34-9370 Mobile Arm for rigid suction system 34-9371

Monopolar electrodes-handles with suction system



34-9450 Disposable sterile handle with regular shaft 40-60 mm, double-push-buttons



34-9371 Rigid Suction System



34-9452 Disposable sterile handle with long extendable shaft 90-110 mm, double-push-buttons



34-9408



26-7923



34-2983

34-2980



26-7920



26-7918



34-9423



34-2986



Bipolar Scissors

for cutting and dissection with simultaneous bipolar coagulation and for precise pinpoint or zone coagulation of blood vessels and tissue.

26-7918	Bipolar Scissors 18 cm regular tip
26-7918.FN	Bipolar Scissors 18 cm fine tip
26-7920	Bipolar Scissors 21 cm regular tip
26-7920.FN	Bipolar Scissors 21 cm fine tip
26-7923	Bipolar Scissors 23 cm regular tip
26-7923.FN	Bipolar Scissors 23 cm fine tip
26-7928	Bipolar Scissors 28 cm regular tip
26-7928.FN	Bipolar Scissors 28 cm fine tip

Bipolar Cable

34-9423 for Bipolar Scissors

Endoscopic Bipolar Forceps with Power Grip Handle

precise opening and closing of the jaws as well as applying very high pressure when grasping and cutting while precisely coagulating.

34-2980	Bipolar Power Grip Handle with Euro-plug (flat)
34-2983	Shaft for 34-2980
34-2985	Bipolar Metzenbaum Scissors Insert for 34-2980
34-2986	Bipolar Grasping Forceps Insert for 34-2980
34-2987	Bipolar Maryland Dissector Insert for 34-2980
34-9408	Cable for Bipolar Forceps with Euro-plug (flat)

Bipolar Cable

34-9408 for Bipolar Forceps with Euro-plug (flat)



25-9733

25-9736

37-7118

37-7052

25-9730

37-7050

37-7054

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2

3



34-9408.BC



26-7953

Bipolar Scissors/Clamps for Vessel Sealing

These instruments enable powerful grasping and compression of the tissue, combined with bipolar coagulation or sealing of blood vessels. Then the tissue can be cut without changing the instrument.

26-7950	Bipolar Scissors/Clamps 14 cm straight
26-7951	Bipolar Scissors/Clamps 14 cm curved
26-7952	Bipolar Scissors/Clamps 19 cm straight
26-7953	Bipolar Scissors/Clamps 19 cm curved with plastic shanks and ratchet

Bipolar Clamps for Vessel Sealing

without scissors

25-9730	Bipolar Clamps 16 cm, 20 mm jaw, 2.5 mm tip, curved
25-9733	Bipolar Clamps 23 cm, 50 mm jaw, 3 mm tip, curved
25-9736	Bipolar Clamps 26 cm, 60 mm jaw, 4 mm tip, curved
26-9743	Bipolar Clamps 23 cm, 40 mm jaw, 4 mm serrated tip, curved

Bipolar Cable

34-9408.BC for Bipolar Scissors/Clamps and Bipolar Clamps

Bipolar Electrodes with Euro-plug (flat)

1	37-7050	Bipolar Micro-Needle-Electrode 360 mm 3 mm
2	37-7052	Bipolar L-Hook-Electrode 360 mm 3 mm
3	37-7054	Bipolar V-Hook-Electrode 360 mm 3 mm
	37-7118	Bipolar ENT Forceps for Suction/Irrigation



34-9408



10-7020



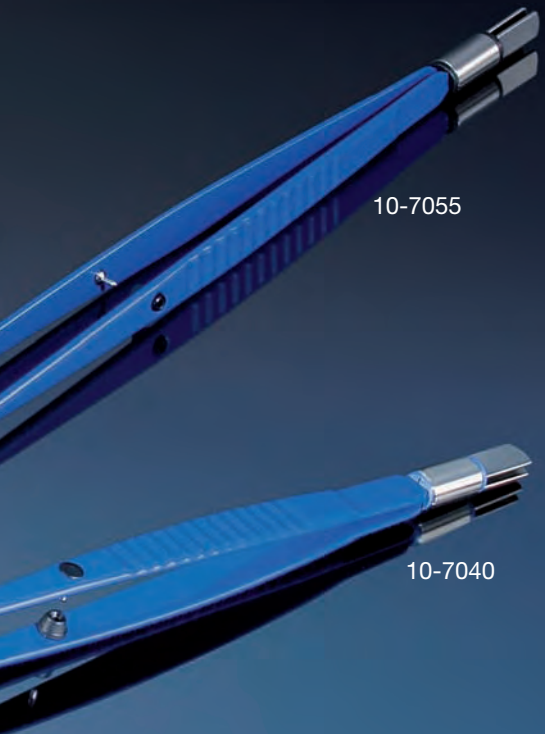
10-7030.US



10-7030

10-7034





Bipolar Tissue Forceps

with flat Euro-plug, straight tip

10-7021	15 cm, tip 2.0 mm	10-7051	22 cm, tip 2.0 mm
10-7020	15 cm, tip 1.0 mm	10-7050	22 cm, tip 1.0 mm
10-7022	15 cm, tip 0.3 mm	10-7052	22 cm, tip 0.3 mm
10-7031	18 cm, tip 2.0 mm	10-7061	24 cm, tip 2.0 mm
10-7030	18 cm, tip 1.0 mm	10-7060	24 cm, tip 1.0 mm
10-7032	18 cm, tip 0.3 mm	10-7062	24 cm, tip 0.3 mm
10-7041	20 cm, tip 2.0 mm		
10-7040	20 cm, tip 1.0 mm		
10-7042	20 cm, tip 0.3 mm		

Bipolar Tissue Forceps

with flat Euro-plug, angled tip

10-7025	15 cm, tip 2.0 mm	10-7055	22 cm, tip 2.0 mm
10-7024	15 cm, tip 1.0 mm	10-7054	22 cm, tip 1.0 mm
10-7026	15 cm, tip 0.3 mm	10-7056	22 cm, tip 0.3 mm
10-7035	18 cm, tip 2.0 mm	10-7064	24 cm, tip 1.0 mm
10-7034	18 cm, tip 1.0 mm	10-7065	24 cm, tip 2.0 mm
10-7036	18 cm, tip 0.3 mm	10-7066	24 cm, tip 3.0 mm
10-7045	20 cm, tip 2.0 mm		
10-7044	20 cm, tip 1.0 mm		
10-7046	20 cm, tip 0.3 mm		

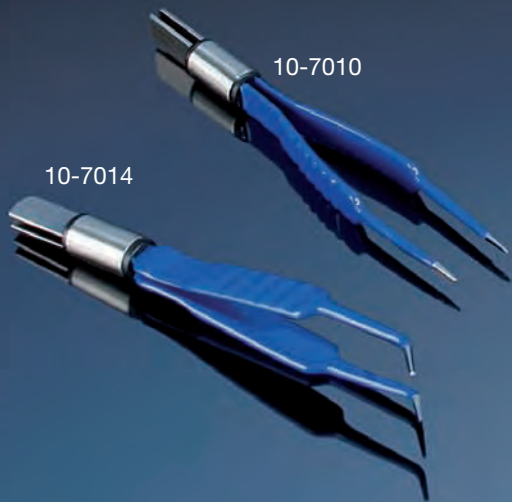
Most Bipolar Forceps are also available with USA-plug (2 pins) on request. For ordering simply add „US“ behind article number (e.g. 10-7030.US).

Bipolar Cable

34-9408 for Bipolar Forceps with Euro-plug (flat)



10-7134



10-7010

10-7014



10-7124

10-7122



Bipolar Instruments



10-7012



34-9408.US



10-7200

Bipolar ENT Tissue Forceps

with flat Euro-plug, knee-bent, 17 cm, straight tip

10-7201 Bipolar ENT Tissue Forceps, tip 2.0 mm

10-7200 Bipolar ENT Tissue Forceps, tip 1.0 mm

10-7202 Bipolar ENT Tissue Forceps, tip 0.3 mm

Bipolar Bayonet Tissue Forceps

with flat Euro-plug

straight	forward angled	backwards angled	length	tip
10-7110	10-7112	10-7116	18 cm	1.0 mm
10-7111	10-7113	10-7117	18 cm	0.3 mm
10-7114	10-7115	10-7118	18 cm	2.0 mm
10-7120	10-7122	10-7126	20 cm	1.0 mm
10-7121	10-7123	10-7127	20 cm	0.3 mm
10-7124	10-7125	10-7128	20 cm	2.0 mm
10-7130	10-7132	10-7136	22 cm	1.0 mm
10-7131	10-7133	10-7137	22 cm	0.3 mm
10-7134	10-7135	10-7138	22 cm	2.0 mm
10-7140	10-7142	10-7146	24 cm	1.0 mm
10-7141	10-7143	10-7147	24 cm	0.3 mm
10-7144	10-7145	10-7148	24 cm	2.0 mm

Bipolar Jeweler's Forceps

with flat Euro-plug, straight tip

straight blunt	sharp	angled blunt	sharp	length	tip
10-7000		10-7002		7 cm	0.45 mm
10-7010		10-7014		11 cm	0.60 mm
	10-7001		10-7003	7 cm	0.25 mm
	10-7012		10-7006	11 cm	0.25 mm
			10-7016	11 cm	0.25 mm

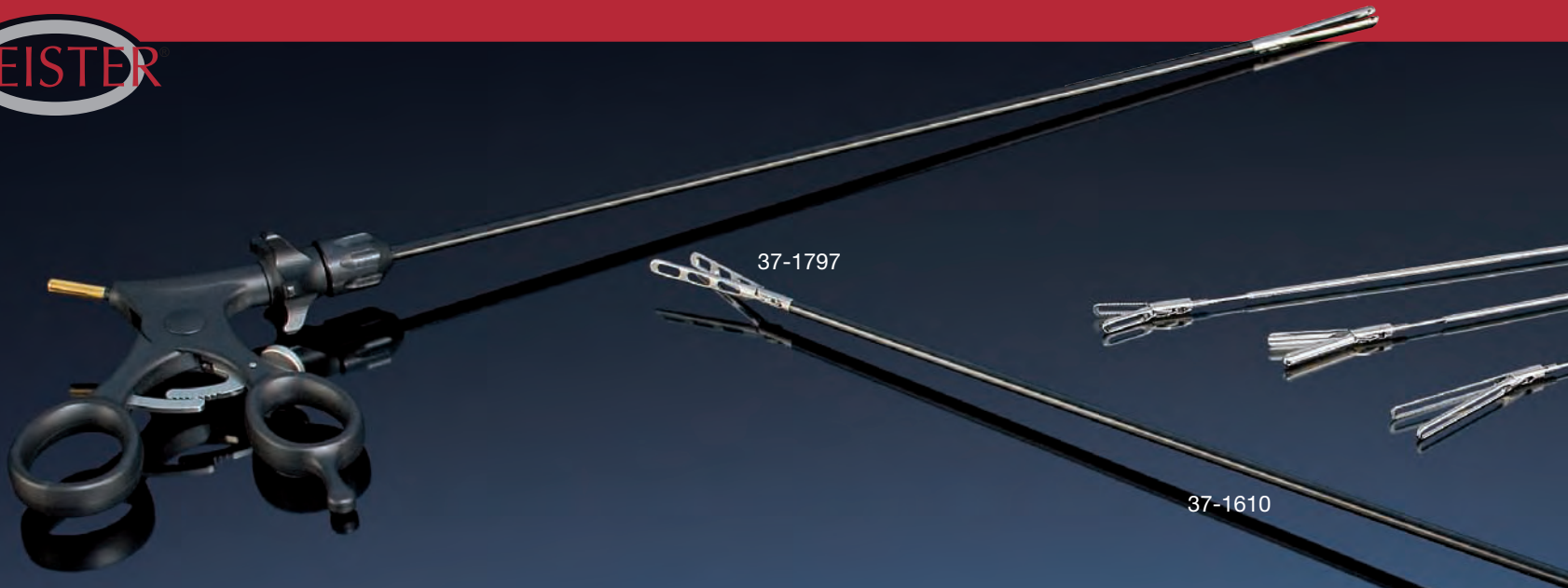
Most Bipolar Forceps are also available with USA-plug (2 pins) on request.

For ordering simply add „US“ behind article number (e.g. 10-7110.US).

Bipolar Cable

34-9408.US for Bipolar Forceps with USA-plug (2 pins)





37-1797

37-1610



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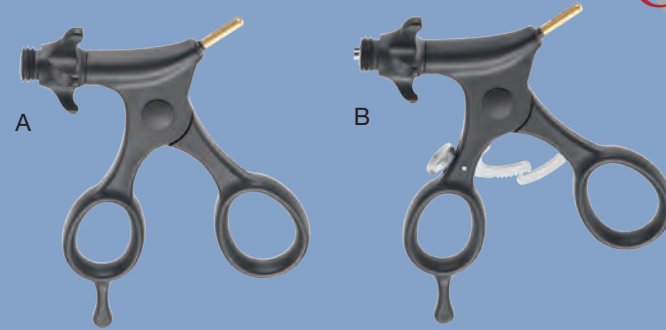
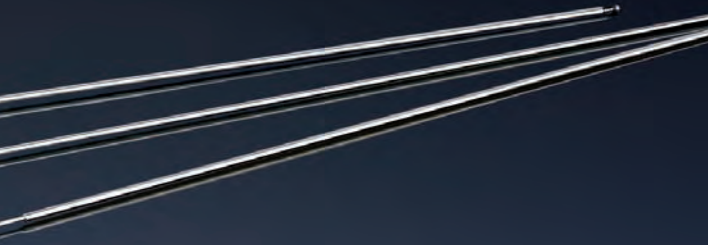
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Laparoscopic Instruments

**Monopolar Handles**

- A 37-1600 Laparoscopic Handle Polymer
 B 37-1602 Laparoscopic Handle Polymer with ratchet

Shaft

- C 37-1610 Insulated Shaft 5 mm

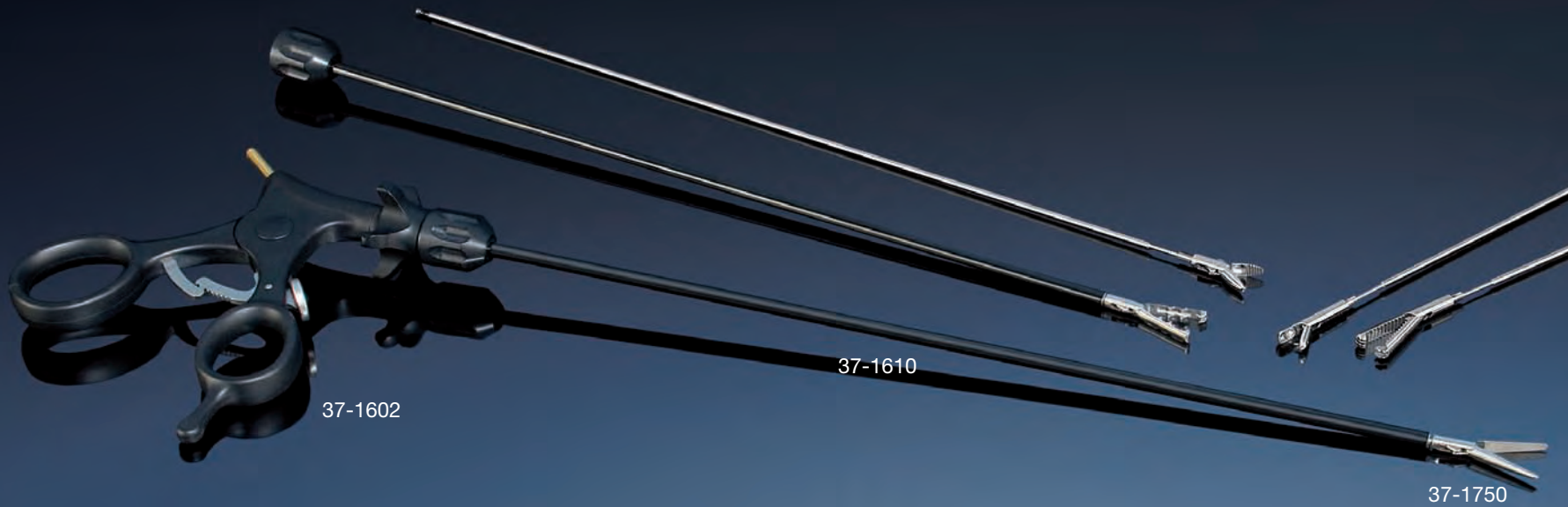
Monopolar Grasper Inserts**5 mm double action 330 mm**

- 1 37-1796 Grasping Forceps, fenestrated (2)
 2 37-1797 Grasping Forceps, fenestrated (3)
 3 37-1785 De Bakey Grasping Forceps, atraumatic, 40 mm
 4 37-1801 Allis Grasping Forceps
 5 37-1780 De Bakey Grasping Forceps, atraumatic, 25 mm
 6 37-1820 Grasping Forceps, wide fenestrated, 20 mm
 7 37-1752 Dorsey Grasping Forceps, fenestrated

5 mm single action 330 mm

- 8 37-1776 Grasping Forceps, fenestrated (3)
 9 37-1771 Grasping Forceps, fenestrated, serrated, 40 mm
 10 37-1737 Grasping Forceps, fenestrated (2)







Monopolar Grasper Inserts

5 mm double action 330 mm

- | | | |
|----|---------|---|
| 1 | 37-1770 | Grasping Forceps, serrated with spoon, pointed |
| 2 | 37-1765 | Grasping Forceps, serrated |
| 3 | 37-1750 | Grasping Forceps, cross serrated |
| 4 | 37-1760 | Shark-teeth Grasping Forceps, 2x3 teeth |
| 5 | 37-1815 | Grasping Forceps with spoon, wave-serrated |
| 6 | 37-1741 | Grasping Forceps, serrated with spoon |
| 7 | 37-1745 | Grasping Forceps, with 1x2 pointed teeth |
| 8 | 37-1810 | Micro Grasping Forceps, oval fenestrated |
| 9 | 37-1758 | Allis Grasping Forceps, 2x4 teeth |
| 10 | 37-1743 | Biopsy Forceps, spoon oval |
| 11 | 37-1742 | Biopsy Forceps, spoon oval with thron |
| 12 | 37-1779 | Universal Grasping Forceps, fenestrated, 20 mm |
| 13 | 37-1744 | Alligator Grasping Forceps, spoon with deep teeth |
| 14 | 37-1787 | Alligator Grasping Forceps, retrograde serrated |

5 mm single action 330 mm

- | | | |
|----|---------|-----------------------------|
| 15 | 37-1740 | Retraction Grasping Forceps |
| 16 | 37-1920 | Claw Forceps, 2x3 teeth |
| 17 | 37-1795 | Grasping Forceps |
| 18 | 37-1790 | Retraction Grasping Forceps |
| 19 | 37-1788 | Alligator Grasping Forceps |





Monopolar Grasper Inserts

5 mm double action 330 mm

- | | | |
|----|---------|--|
| 1 | 37-1777 | Maryland Grasping Forceps, serrated |
| 2 | 37-1798 | Kelly Grasping Forceps, cross serrated |
| 3 | 37-1756 | Mixer Grasping Forceps 90°, cross serrated |
| 4 | 37-1754 | Mixer Grasping Forceps 60°, cross serrated |
| 5 | 37-1775 | Grasping Forceps, strong serrated, fenestrated |
| 6 | 37-1792 | Fundus Grasping Forceps, fenestrated |
| 7 | 37-1778 | Kocher Grasping Forceps, 2x3 teeth, serrated |
| 8 | 37-1799 | Fundus Grasping Forceps |
| 9 | 37-1774 | Grasping Forceps, 2x4 teeth, wave-serrated |
| 10 | 37-1805 | Babcock Grasping Forceps |
| 11 | 37-1767 | Grasping Forceps with spoon, short |
| 12 | 37-1768 | Grasping Forceps with spoon, long |

5 mm single action 330 mm

- | | | |
|----|---------|--|
| 13 | 37-1762 | Claw Grasping Forceps, 1x2 teeth |
| 14 | 37-1825 | Babcock Grasping Forceps, wide fenestrated |

Monopolar Scissors Inserts

5 mm double action 330 mm

- | | | |
|----|---------|--|
| 15 | 37-1730 | Metzenbaum scissors, straight, Blade 11 mm |
| 16 | 37-1735 | Metzenbaum scissors, curved, Blade 11 mm |
| 17 | 37-1731 | Metzenbaum scissors, curved, Blade 15 mm |

5 mm single action 330 mm

- | | | |
|----|---------|------------------------------|
| 18 | 37-1710 | Micro-Scissors, straight |
| 19 | 37-1726 | Hook Scissors |
| 20 | 37-1725 | Peritoneal Scissors, toothed |





37-1910

37-1611



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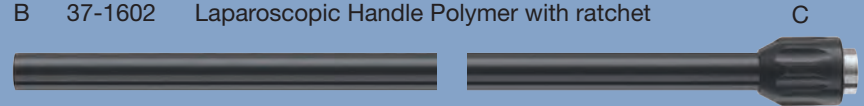
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Laparoscopic Instruments

**Monopolar Handles**

- A 37-1600 Laparoscopic Handle Polymer
 B 37-1602 Laparoscopic Handle Polymer with ratchet

**Shaft**

- C 37-1611 Insulated Shaft 10 mm

Monopolar Grasper Inserts**10 mm double action 330 mm**

- 1 37-1782 De Bakey Grasping Forceps, atraumatic, 60 mm
- 2 37-1784 De Bakey Grasping Forceps, atraumatic, 40 mm
- 3 37-1910 Allis Grasping Forceps, fine toothed
- 4 37-1900 Duval Grasping Forceps, fenestrated
- 5 37-1940 Babcock Grasping Forceps
- 6 37-1950 Maryland Grasping Forceps
- 7 37-1800 Dorsey Grasping Forceps, serrated
- 8 37-1960 Collin Grasping Forceps,
- 9 37-1930 Preparing Forceps right curved, fine, cross serrated

10 mm single action 330 mm

- 10 37-1970 Claw Forceps, 2x3 teeth



37-7012

37-7016

37-7114

37-7010

37-7018

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37-7014



34-9325

34-9595

34-9594

Monopolar Electrodes

1	37-7010	Monopolar Needle-Electrode 360 mm, ceramic
2	37-7012	Monopolar Button-Electrode 360 mm, ceramic
3	37-7014	Monopolar L-Hook-Elektrode 360 mm, ceramic
4	37-7016	Monopolar J-Hook-Electrode 360 mm, ceramic
5	37-7018	Monopolar Spatula Electrode 360 mm, ceramic
	37-7114	Suction Tube curved 120 mm

Trolleys

34-9325	Trolley with antistatic wheels with brakes, 3 shelves for ESU, smoke evacuator, accessories, pedals, Dimensions: 50 x 60 x 100 cm.
34-9326	as 34-9325 above, but with compartment/holder for 2 Argon gas bottles
34-9595	Trolley with antistatic wheels with brakes, Dimensions: 50 x 50 x 75 cm
34-9594	Economy Trolley with 2 shelves, Dimensions: 40 x 40 x 75 cm



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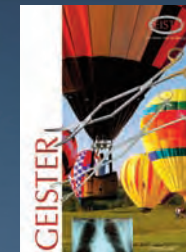
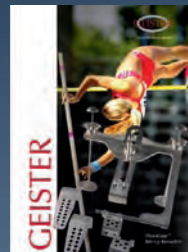
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