The best is never good enough, for beyond it lie new discoveries and new solutions. It is our shared passion for a field in which we both excel, each in our own way. And it is this same passion that gives each of us the ability to achieve outstanding accomplishments. Take advantage of the latest innovations in the field of electrosurgery units with the ARC 350. Discover a high-tech system as an all-purpose base that can be flexibly extended to meet your individual requirements.
Clever innovations for your OR

The ARC 350 is a clever all-in-one-generator that is winning over customers with its clearly structured operating concept and innovative functionalities. Thus, an attractive price-performance ratio and numerous standard protocols. Inside, processors ensure safety and control at all times, while self-checking programs continuously ensure operation safety. Four separate outputs can be individually configured with touchless operation: personnel can check the settings visually at any time.

Ideal applications for the ARC 350 in HF surgery:
- General, visceral, thoracic and paediatric surgery
- Gynaecology
- Electrosurgery
- ENT
- Plastic and aesthetic surgery
- Urology and trauma surgery
- ENT and maxillofacial surgery
- Neurosurgery
- Cardiac surgery

Effective use

Every field has specific requirements, every team works differently and a wide range of diverse instruments are called on to be used. To suit the new configured indication-oriented HF surgery, the user can either configure a program or create a new one in the menu. Then select one of the pre-configured indication-orientated standard values or create a program on one of the 350 memory locations for your own specific field or to meet your individual needs.

Assisted operation

Process optimisation and quality assurance in the OR start with the user-friendliness of the systems. The user’s ease of use integrates operation and touchless program selection on the intuitive touch panel and clear relationship between the controller and instrument give users a complete overview.

The Plug & Cut function recognizes instruments and Plug & Cut COMFORT* also automatically preselects the right basic settings for the COMFORT instruments connected.

Simply efficient

The ARC 350 communicates with other system components via standard connections and software can also be easily updated via a USB port, ensuring you can also work efficiently in future.
Touchpad technology for enhanced assistance in the OR
With the ARC 350, you have direct fingertip control of all device functions via the interactive glass touchpad. Effects and individualised settings can be selected via the touchscreen area. Messages are issued in plain text supported by graphic symbols, ensuring that the team retains a clear overview at every stage throughout hectic everyday work in the OR.

Simply intuitive
Power is to be reset? Simply touch the respective figure with your fingertip. The glass touchpad of the ARC 350 is divided into four quadrants that correspond to the four sockets on the sides: if you attach an instrument to the upper right bipolar socket (3), for example, the upper right socket indicator is brightly lit.

Always work with the correct socket
The socket indicator identifies the socket on which the settings are to be altered.

Not just simpler – more hygienic too
The ARC 350 display is made of flat, wipe-resistant, shatter- and scratch-proof safety glass. The benefit of this is that the touchpad technology eliminates joints and grooves, thereby ensuring rapid and hygienic cleaning in the OR.

A wealth of electrosurgical modes and effects
There are numerous standard modes available to the operator – each pre-set with the recommended power parameters. Moreover, the ARC 350 also offers indication-orientated modes that offer faster and simplified applications alongside the option of coordinating them specifically to your individual needs.

Application-orientated and individual device profiles
The base ARC 350 model offers a range of application-orientated profile settings. Use one of the settings as the starting point for your adaptation or save a profile to meet your own individual needs. You can save a total of 300 profiles.

Intelligent system concept for electrosurgery
The connection between the unit base and instrument is controlled and monitored by the use of RFID technology. The BOWA COMFORT system ensures the error-free use of instruments in conjunction with the ARC 350, however, the system can of course also be operated with with conventional accessories and existing instruments.

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The ARC 350 is simple and safe to operate. The menu opens up merely by tapping the setting to be changed on the display. Select the figure you require with the touch of your fingertip, assisted by the information in the menu field. The active socket is highlighted by the socket number becoming illuminated, providing security and operating convenience.
The COMFORT SYSTEM – process reliability, quality assurance and monitoring

Our COMFORT SYSTEM relies on smart RFID technology – and thus on the new standard for electrosurgical accessories. The COMFORT SYSTEM is the first and optimum system worldwide for process optimisation in the OR – across all electrosurgical applications.

Every ARC 350 is equipped with the COMFORT System and thus with the standard of the future. Take advantage of intelligent COMFORT instruments and secure for yourself decisive benefits for your workflow in the OR.

Lean processes – more time for what’s important

The COMFORT SYSTEM documents the use of the instruments in the instrument itself. The ARC 350 or the COMFORT BOX reads the information and, at a glance, identifies whether the instrument may still be used, thereby preventing the maximum number of uses being exceeded.

Maximum safety and simultaneous reduction of OR time

The Plug & Cut functionality of the COMFORT SYSTEM enables the generator to automatically identify the instrument, check it and select the correct device settings. The Plug & Cut COMFORT function thereby avoids incorrect settings.

Work efficiently – on a high-tech basis

Passion is nothing – without the right technology

Excellent results depend on the right technology. In addition to the innovative socket design that allows up to two monopolar and two bipolar instruments to be attached simultaneously and is compatible with all popular standard connections, there are numerous hardware and software components that can also directly affect performance in the OR.

- ARC control arc regulation for reproducible monopolar and bipolar cutting results
- Up to 9 effects per mode
- EASY neutral electrode monitoring with contact monitor, baby mode with automatic power limitation
- Current leakage monitoring
- Short circuit detection
- ISSys permanent system self-testing
- CCS permanent initial cutting support
- Configurable socket design
- Information area for device messages
- CUT modes: e.g. standard, dry, cardiac, GastroCut loop and knife, MetraLOOP, laparoscopy
- Micro-regulations and power forms for plastic and neurosurgery down to 0.1 W
- COAG modes: moderate, forced, spray, cardiac
- Autostart function

Monopolar simultaneous coagulation

With the ARC 350, monopolar simultaneous coagulation permits the simultaneous COAG activation of two monopolar handles for consistent tissue effects. This mode is especially ideal for coagulation and preparation, with the selected power setting being available for both handles. Applications include gynaecology with mastectomies, cardiac surgery with bypasses and surgery with multiple traumas.

Plug & Cut COMFORT: The COMFORT SYSTEM automatically recognises the COMFORT instrument, indicates how many times it may still be used and selects the correct parameters for the procedure.

Plug & Cut: The ARC 350 automatically detects that a standard instrument is connected.

The neutral electrode monitoring, shown here in the setting for babies (max. 50 watts), continuously informs users of the status.

Efficient: Both handles can be activated simultaneously with monopolar coagulation.

Intelligent COMFORT instruments are available for all electrosurgical areas.

Introducing new technologies

Endoscopic

Open surgery

Laparoscopic

R exposure

Argon FLEX

Polypectomy loop

Forsops

TimeSeal PLUS

BIZZER

ErgoPOV

Argon salea

MetalLOOP

ERGO 310D

NightKNIFE

ERGO 315R

ERGO bipolar

Polypectomy loop

Resectoscope Argon FLEX

transurethral hysteroscopic endoscopic open surgery laparoscopic

Intelligent COMFORT instruments are available for all electrosurgical areas.
A join that conserves resources – LIGATION* with the ARC 350

Rely on an established technique for vessel and tissue sealing: LIGATION. Alongside the advantage of preventing the introduction of foreign bodies into the patient, this method also saves OR time, suture materials and clips. Autoclavable BOWA LIGATION instruments are the first choice for use with the ARC 350.

ARC 350: the vessel sealing specialist

With the ARC 350 and BOWA LIGATION instruments, such as TissueSeal PLUS for open surgery applications, TissueSeal® PLUS for laparoscopic applications, large-bore veins, arteries and tissue bundles with diameters of up to 7 mm can be sealed permanently and securely by bonding elastin and collagen to each other. This LIGATION sealing technique guarantees procedures free from residues and foreign bodies.

LIGATION is a fully automatic mode for the sealing of tissue with BOWA LIGATION instruments.

Surgical applications:
- Cholecystectomy
- Gastronomy
- Thymectomy
- Laparotomy

Gynecological applications:
- Hysterectomy – open and vaginal
- Laparoscopic-vaginal hysterectomy
- Laparoscopic supracervical hysterectomy
- Mastectomy

Urological applications:
- Prostatectomy
- Cystectomy
- Nephrectomy

Costs and benefits – close the gap

LIGATION is optionally available as a LIGATION package for the ARC 350.

Optimum procedural results, thanks to outstanding ergonomics and tactility, are a further bonus for surgical artists. The massive potential for time saving in the OR, as well as savings in terms of suturing materials and clips and instrument re-usability, are all key factors to convince even the strictest cost controller.

LIGATION is a fully automatic mode for the sealing of tissue with BOWA LIGATION instruments.

Literature:


ERGO 310D
- 340 mm
- Ø 5 mm
- Disposable, sterile
- Packing unit of 5 pieces
- Integrated blade
- Plug & Cut COMFORT

ERGO 315R
- 275 and 360 mm
- Ø 5 mm
- Autoclavable
- Disposable blade
- Plug & Cut COMFORT

TissueSeal® PLUS
- 120, 160, 190, 230 and 280 mm
- Autoclavable
- Plug & Cut COMFORT

NightKNIFE®
- 360 and 200 mm
- Ø 10 mm
- Re-usable sealing instrument

Laparoscopic-vaginal hysterectomy
- LASH: Laparoscopic supracervical hysterectomy

Surgical applications:
- Colectomy
- Gastrectomy
- Liver resection
- Thyroidectomy
- Lobectomy

Gynaecological applications:
- Hysterectomy
- Hysterectomy – open and vaginal
- Laparoscopic-vaginal hysterectomy
- Laparoscopic supracervical hysterectomy
- Laparoscopic subtotal hysterectomy

Urological applications:
- Prostatectomy
- Cystectomy
- Nephrectomy

Laparoscopic applications:
- Prostatectomy
- Cystectomy
- Nephrectomy

Materials and clips. Autoclavable BOWA LIGATION instruments are the first choice for use with the ARC 350.

The TissueSeal® PLUS ensures quick, safe, gentle sealing and excellent cutting. It can be used for open surgery, organ and tissue sealing, and non-vascular tissue sealing.

The NightKNIFE® 360 mm is suitable for sealing vessels and tissue in laparoscopic procedures, vaginal procedures and open surgery.

The 360 mm single-use vessel sealing instrument (ERGO 310D) combines with the BOWA ARC 350 generator for laparoscopic procedures.

The ERGO 315R combines the advantages of a multifunctional instrument for laparoscopic and open surgery, with the added value of a reusable instrument.
Contact-free. Reliable. Fast.

An electrical bridge is created between the instrument and the tissue in argon-assisted electrosurgery, with the aid of the ionisation of argon gas. The argon beam produced with ARC PLUS can be administered particularly well and can be used for contact-free haemostasis. Take advantage of enhanced clinical effectiveness for fast contact-free coagulation with maximum perforation safety and easy administration.

**Technical features**
- Automatic detection of argon instruments and parameter setting by Plug & Cut
- Documentation of all argon instrument settings
- Activation of argon modes is also visualised on the ARC PLUS
- Foot and manual operation
- Simple, space-saving docking of the ARC electrosurgery unit
- Extensive range of accessories

**Activation of argon parameters is set directly on the ARC 350**

**Applications (excerpts)**
- General surgery
- Liver surgery
- Abdominal plastic
- Transplant surgery
- ENT

**Safety advantages and perforation safety with low power setting**
- Energy setting (W) for effective ignition or therapeutic effect
- The argon parameters are set directly on the ARC 350

**Applications (excerpts)**
- Argon FLEX
  - Gastroenterology
  - Superficial and smaller vascular bleeds
  - Tumour reductions
  - Tumour bleeds
  - Devitalisation and coagulation, also in the right colon
  - Stent ingrowth/overgrowth
  - Radiation proctitis
  - Interventional bronchology
  - Superficial and smaller vascular bleeds
  - Tumour reduction
  - Tumour bleeding
  - Recanalisation
  - Granulation
  - Fistula conditioning
  - Stent ingrowth/overgrowth
  - Rectoscopy

**Literature:**
Endo today 2007; Prospective, randomised evaluation of low-energy argon plasma coagulation with enhanced hemostasis of the gastrointestinal (GI) tract/veins. M. Raithel, J. Hänsler, A. Stegmaier, F. Boxberger, J. Maiss, W. Müler, E.G. Hahn. Med. Clinic I University of Erlangen-Nuremberg, Gastroenterology, Endoscopy, Funct. of Tissue Diagnostics; Conference Paper

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**ARC PLUS – the ground-breaking addition with argon support**

**Argon-assisted electrosurgery offers contact-free work on large surfaces with diffuse bleeding and fine dosage on sensitive structures.**

**ARGON ASSISTED SOLDERING WITH MAXIMUM PERFORATION SAFETY AND EASY ADMINISTRATION.**

**Cut**
- For argon-assisted cutting and coagulation with open and laparoscopic applications in surgery and gynaecology:
  - Abdominal surgery
  - Laparoscopy
  - Liver surgery
  - Mamma surgery
  - Visceral surgery

**Advantages of argon-assisted electrosurgery in surgery and gynaecology**
- Contact-free coagulation without adherence or sticking in parenchymal tissues, such as the liver
- Fast coagulation of large surfaces
- Carbonisation-free
- Flexible coagulation zone
- Clear vision due to smoke-free coagulation
- Ultra-simple to operate with large ignition gap of >10 mm and easy ignition

**Technical features**
- Activation of argon instruments and parameter setting by Plug & Cut
- Documentation of all argon instrument settings
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- Foot and manual operation
- Simple, space-saving docking of the ARC electrosurgery unit
- Extensive range of accessories

**Argon FLEX**
- for internal medical applications with flexible probes

**Applications (excerpts)**
- Gastroenterology
- Superficial and smaller vascular bleeds
- Tumour reductions
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- Tumour bleeding
- Recanalisation
- Granulation
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- Rectoscopy

**Safety advantages and perforation safety with low power setting**
- Energy setting (W) for effective ignition or therapeutic effect
  - The argon parameters are set directly on the ARC 350
**Innovation: Bipolar resection in urology with ultra-high resection speed**

- Special effect for gynaecology: extremely fast and safe removal of the uterus using the MetraLOOP function.

- Supporting the division of work in cardiac surgery: simultaneous activation can be selected.

- Highly flexible: GastroCut permits 6 cutting types with loops or knife electrodes for up to 9 effects.

**Optional: Bipolar resection for urology**

Bipolar resection with the ARC 350 stands out on account of its extremely reliable initial cutting and high resection speed.

- Reduced irritation of the obturator nerve and bipolar technology hugely increase operating safety in this field. Using saline solution as a medium prevents the danger of TUR syndrome.

- In addition, monopolar transurethral resection of the prostate (TUR-P), surgical treatment of bladder tumours (TUR-BT) and vaporisation of the prostate tissue (TUR-VAP) can also be carried out with the ARC 350.

**Resection Cut & COAG**

- Special modes for the use of bipolar resectoscopes in gynaecology and urology.

**Quadruple specialities – functions for cardiac surgery**

- Four highly specialised functions for effective work are available for use in the field of cardiac surgery:
  - Monopolar SimCOAG for simultaneous coagulation and preparation with two monopolar handles
  - Cardiac thorax for forced coagulation when opening the thorax
  - Cardiac mamma for forced coagulation in the area of the mammarys
  - Dry cutting for strong haemostasis

**Gynaecology – clean removal with MetraLOOP**

- In addition to the modes for vessel sealing and monopolar and bipolar resection, a special function is available in gynaecology for laparoscopic supracervical removal of the uterus (LSH).

- This mode – combined with the BOWA MetraLOOP instrument – offers more rapid cutting of the loop for uterus removal. Work can be accomplished safely, rapidly and precisely, even with large loops.

**Gynaecology program MetraLOOP**

**Optional: GastroCut for gastroenterology**

- With the ARC 350’s GastroCut modes, gastroenterologists can achieve the best results with polypectomy and papillotomy and endoscopic resections with loops or knife electrodes.

- Gastroenterologists can adjust the haemostasis level of cutting and coagulation power to three speeds “slow”, “medium” and “fast” as required to meet their needs.

- The cut is optimised, the surgeon controls the cut’s coagulation effect through the effect in nine steps. This allows the surgeon to work cautiously to avoid complications, as well as proceeding rapidly when the situation allows it.

**GastroCut power type**

- Voltage
- Time
- In Cut  Coagulation phase  Pause

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Special applications – just four of many
Accessories – more than the sum of their parts

The ARC 350 is the functional, efficient and modular upgradable generator solution that offers superior performance for all standard instrument families. When used in conjunction with BOWA accessories, the ARC 350 becomes a closed system with outstanding properties – medical as well as economical.

ARC CART – greater mobility

One unit – many options
The ARC 350, ARC PLUS and the ARC CART form a high-performance unit that can be quickly manoeuvred to wherever it is needed in the OR.

Everything is in the right place and can be individually configured in the ARC CART. The basic ARC CART offers four steerable rollers with brakes, cable conduit, power cable detachment prevention device, handle, foot switch holder and a cable holder. The storage shelf is optimised for the ARC generator.

Also available as accessories are shelves, for SHE SHA smoke evacuation systems, drawers, gas bottle holders, equipotential bonding connectors or baskets, thereby greatly increasing mobility.

The foot switches are waterproof (IPX8) and explosion-protected. Pedals are ergonomically arranged to allow for fatigue-free operation over long periods of time.

Optimum: Vision and operation
Flexible: freely assignable foot pedals
Space-saving: streamlined design
“Simply safe” is more than just a promise. For us it is the commitment to always think beyond the current standards. This approach leads us to solutions that open up new perspectives and support you as best as possible in your work.

As a specialist HF surgical company, we offer you complete systems as well as complementary individual products.

For a comprehensive overview of our product range, visit us at www.bowa-medical.com.
Update service – simply by USB

Take advantage of the latest developments of the future. The ARC 350 is ready and waiting. Use our Update Service to update your ARC 350 software, such as new programs for standard procedures, simply via a USB stick. The many standard sockets guarantee the future-proofing of your unit and its automated integration into your system landscape – even in the future.

Made in Germany – technical information

BOWA ARC 350 is designed for use in almost all areas of electrosurgery. ARC generators can be placed on ceiling supply units or on the ARC CART for unrestricted mobility. The device has two monopolar and two bipolar outputs. Hospital technicians can perform simple maintenance work, such as reading off unit information or running software updates that are supplied on a USB stick. Should you wish to connect third-party accessories, this is also possible using a range of different sockets.

<table>
<thead>
<tr>
<th>Technical data at a glance</th>
<th>ARC 350</th>
<th>ARC PLUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mains voltage</td>
<td>100–127 V/220–240 V</td>
<td>100–240 V</td>
</tr>
<tr>
<td>Line frequency</td>
<td>50/60 Hz</td>
<td>50/60 Hz</td>
</tr>
<tr>
<td>Mains power</td>
<td>Max. 5 A @ 240 V</td>
<td>10 A @ 100 V</td>
</tr>
<tr>
<td></td>
<td>8 A @ 127 V</td>
<td>6 A @ 100 V</td>
</tr>
<tr>
<td>Mains fuse</td>
<td>2 x 5 A slow blow / 2 x 10 A slow blow</td>
<td>2 x 1 A slow blow</td>
</tr>
<tr>
<td>Power consumption in standby mode</td>
<td>3 W / 40 VA</td>
<td>1 W / 20 VA</td>
</tr>
<tr>
<td>Power consumption at max.</td>
<td>700 W / 1150 VA</td>
<td>32 W / 65 VA</td>
</tr>
<tr>
<td>Width x Height x Depth</td>
<td>430 x 180 x 475 mm</td>
<td>433 x 97 x 489 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>12.5 kg</td>
<td>7.7 kg</td>
</tr>
<tr>
<td>Classification under EC Directive 93/42/EEC</td>
<td>II b</td>
<td>II a</td>
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<tr>
<td>Protection class according to EN 60601-1</td>
<td>I</td>
<td>I</td>
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<td>Type according to EN 60601-1</td>
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<td>Item no.</td>
<td>900-351</td>
<td>900-001</td>
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<tr>
<td>GastroCut incl. COMFORT</td>
<td>900-391</td>
<td>-</td>
</tr>
<tr>
<td>Bipolar resection incl. COMFORT</td>
<td>900-395</td>
<td>-</td>
</tr>
<tr>
<td>LIGATION incl. COMFORT</td>
<td>900-396</td>
<td>-</td>
</tr>
<tr>
<td>Max. MONOPOLAR power</td>
<td>400 W (at 100Ω)</td>
<td>-</td>
</tr>
<tr>
<td>Max. BIPOLAR power</td>
<td>400 W (at 75Ω)</td>
<td>-</td>
</tr>
<tr>
<td>Output frequency</td>
<td>350 kHz / 1 MHz</td>
<td>-</td>
</tr>
</tbody>
</table>

Your choice – configuration of sockets

<table>
<thead>
<tr>
<th></th>
<th>monopolar</th>
<th>bipolar</th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td>2 x 3-pin / Bovie</td>
<td>2 x 2-pin</td>
</tr>
<tr>
<td>Europe</td>
<td>2 x 3-pin / Erbe</td>
<td>2 x 2-pin / Erbe</td>
</tr>
</tbody>
</table>

Clear design: compact design, ideal to meet the exacting hygiene conditions in your OR

Communicative interfaces: with USB and network socket – designed for today and tomorrow