Grazedean Ltd
Smoke evacuation unit SHE SHA

Reduces the smoke plume in the operating environment.
Automatic activation
Compatible with all ARC electrosurgery machines
Compatible with other HF generators
SHE SHA Smoke Evacuation System
Filter SHE SHA 8 hours life
Auto start technology or footswitch controlled
Disposable hose for handswitches

Can be used with BOWA ARC generators and generators from other manufacturers
Max. flow setting: Tubing 7/8” (22mm)
Actual flow rates: Normal: 25 CFM (708 lpm) Turbo: 35 CFM (991 lpm)
Clear LCD screen
TURBO mode for near instant TURBO suction when smoke output increases

Other features
Cleaning by disinfectant wipes
IPX1 -Protection against dripping water
Noise level maximum of 65 dbA
Voltages 220V – 240V, 50/60Hz
Dimensions Width x Height x Depth 43.2 cm x 19.1 cm x 41.8 cm
Weight 10.7 kg
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>15-950-000</td>
<td>BOWA SHE SHA smoke evacuator, with digital read-out and turbo mode.</td>
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<tr>
<td>15-951-000</td>
<td>8 hour filter life.</td>
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<td>RFID means it can be removed and reinserted into machine and will still show correct time left.</td>
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<tr>
<td>15-95</td>
<td>Pneumatic footswitch for manual activation of SHE SHA smoke evacuator.</td>
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<tr>
<td>15-952-000</td>
<td>Disposable Sterile suction hosing set, boxes of 10 pieces.</td>
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**Other products**

- Electrosurgery units
  - ARC 200 - ARC 350

- ARC Plus for Argon open surgery and Argon flexible surgery

- Ligator®
- NightKNIFE
- TissueSeal®
- Laparoscopy electrodes
- Handswitches
- Electrodes
- Bipolar scissors
- Electrosurgery cables
- Dispersive plate
- Testing box

- Laprascopic vessel sealing
  - As above with knife built in
  - Open surgery vessel sealing
  - 5mm L-Hook etc.
  - Argon and standard
  - Argon and standard
  - Various sizes
  - Suitable for many machines
  - A range to suit requirements
  - Check your cables quickly

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Reasons to use smoke evacuation:

AORN
The Association of Operating Room Nurses (AORN) has been a strong advocate for a safe and healthful work environment for operating room nurses and staff. Although this organization has no regulatory authority, it has made persuasive recommendations for the management of potentially harmful surgical smoke.10 The 1995 AORN Recommended practice states:

“Patients and perioperative personnel should be protected from inhaling smoke generated during electrosurgery.” The recommendation goes on to state that..."an evacuation system should be used to remove surgical smoke, and...placement of the evacuator suction...should be as close to the source of the smoke as possible to...maximize smoke capture and enhance visibility at the surgical site”.

Surgical Masks
Many healthcare workers assume that surgical masks provide adequate protection from airborne contaminants and pathogens. However, these masks are primarily designed to protect patients from airborne droplets from operating room personnel. Coughing, sneezing and talking generate large aerosol particles; surgical masks are designed to trap these rather than the significantly smaller surgical aerosols that could carry pathogens. To address both circumstances, masks would have to be designed to collect a wide range of particle sizes; from less than 0.1 um for surgical aerosols to several micrometers, to collect aerosol particles generated from sneezing or similar activities.

Summary
A multitude of information is available to warrant protection from the potential dangers of surgical smoke. Scientific research indicates that the associated potential risks are significant. Chemical carcinogens, toxins and irritants have been quantified in plume, both in patient-based studies and in tissue models. These constituents are known to be associated with respiratory irritation, itching eyes, and noxious odors. In addition, viruses including HPV and HIV have been cultured from surgical plume. Although transmission potential of HPV has been alleged, it has been difficult to prove. Even so, limiting exposure during surgery seems prudent. Patients must be protected as well since the literature confirms their exposure to significant levels of surgical smoke, carbon monoxide and methemoglobin in laparoscopic procedures. Although the short-term exposure limits and dangers may not be clear, caution is in order. Governmental agencies such as OSHA and NIOSH have established guidelines for exposure limits within varying time frames. Voluntary organizations such as ANSI and AORN have recommended the use of smoke evacuation systems, and the industrial hygiene organization, ACGIH, has also developed exposure guidelines. This abundance of information should not be ignored. To this end, the surgical team is best positioned to take action. Since the potential for infection, irritation, and undesirable physiological changes from exposure to surgical smoke exists, the surgical staff should increase knowledge of hazards and the available protection methods. In addition, they should educate fellow team members about these issues, and secure dedicated smoke evacuation for assigned cases in their operating suites. Finally, universal precautions should be utilized when discarding system disposables or decontaminating reusable components.

A Set of PDF documents is available to those that request the information for more detailed study into the risks of smoke inhalation during surgery.

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