

BOWA
SHE SHA

SIMPLE.
EFFICIENT.
SAFE.

SHE SHA surgical smoke management

Make a smoke-free
operating theatre
your gold standard!



SHE SHA fume evacuation system

A healthy and safe working environment thanks to clean air in the operating theatre

- Laser and electrosurgical procedures produce harmful fumes when tissue is vaporised.
- The only effective protection against electro-surgical smoke is extraction at the source.

Our solution, in line with recommendations – start at the source of the smoke!¹



Automatic activation

For monopolar handpieces using a sensor



4-stage filter system

For efficient elimination of all harmful substances



Quiet yet powerful

Max. 55 dBA with a suction power of 700 l/min



Easy to use

Automatic filter detection with plug & play capability



Safe



Protecting

ARC and SHE SHA

The ideal system for your operating theatre



Activation via cable!

Automatic activation of fume evacuation system is possible via a connecting cable between the two devices. Works with monopolar and **bipolar** instruments.

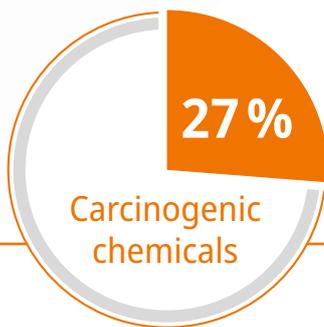


Electrosurgical smoke

The invisible risk

Have you ever wondered about the health effects of surgical smoke inhaled in a single day in the operating theatre?

**Surgical smoke contains
150 substances –
40 of them carcinogenic²**



**The amount of smoke created in a
single day in an operating theatre³
is equivalent to smoking:**



Depending on the dose, surgical smoke can lead to many symptoms that you are probably familiar with from your everyday work in the operating theatre⁴:

- Headaches
- Fainting
- Nausea
- Muscle weakness
- Irritation of the eyes and respiratory tract
- Triggering of reactions in asthmatics

Possible long-term damage:

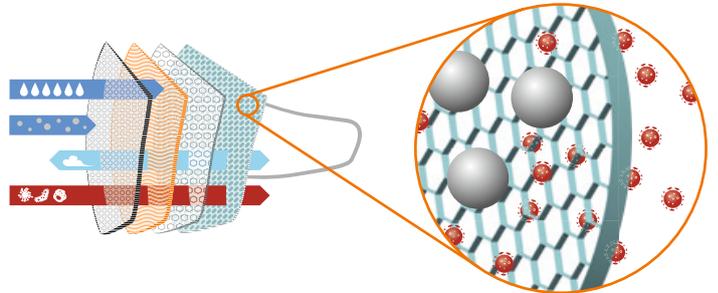
- The HPV virus was detected in 80% of smoke samples taken during the treatment of HPV positive patients. ⁵
- Increased risk of chronic pulmonary disease (asthma and pneumonia) and lung cancer ⁶



If I can smell it
then it is already in my lungs!

When it comes to surgical smoke, a surgical mask gives a false sense of security!

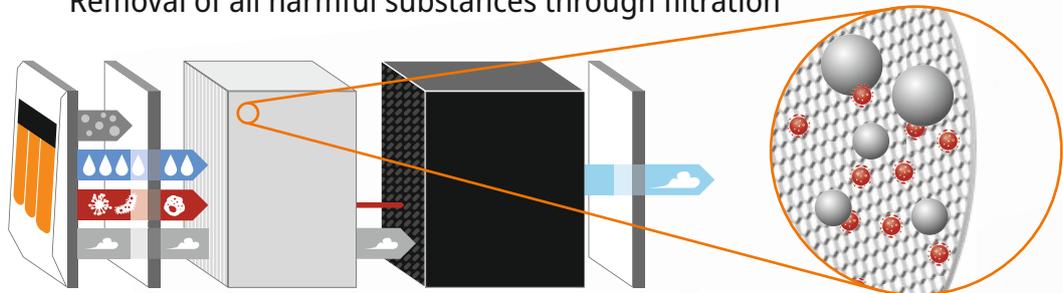
- Standard surgical masks provide protection against particles larger than $5\ \mu\text{m}^7$.
- 77% of particles in smoke are smaller than $1.1\ \mu\text{m}^8$.
- Bacteria have a size of $0.3\text{--}30\ \mu\text{m}$ whereas viruses are much smaller at $0.01\text{--}0.3\ \mu\text{m}$.



A face mask does not provide sufficient protection, as the majority of harmful substances pass through it and enter the breathing space!

Maximum occupational safety

Removal of all harmful substances through filtration



Harmful substance-specific filtration:

- In **stage 1**, the coarse filter removes larger particles in the surgical smoke.
- The patented design of the ULPA-15 filter in **stage 2** efficiently removes 99.999% of the harmful substances in surgical smoke.
- In **stage 3**, a high quality activated carbon filter adsorbs and removes odours and toxic gases.
- Finally, in **stage 4**, there is a post-filter that seals the system and prevents fine particles from being emitted.

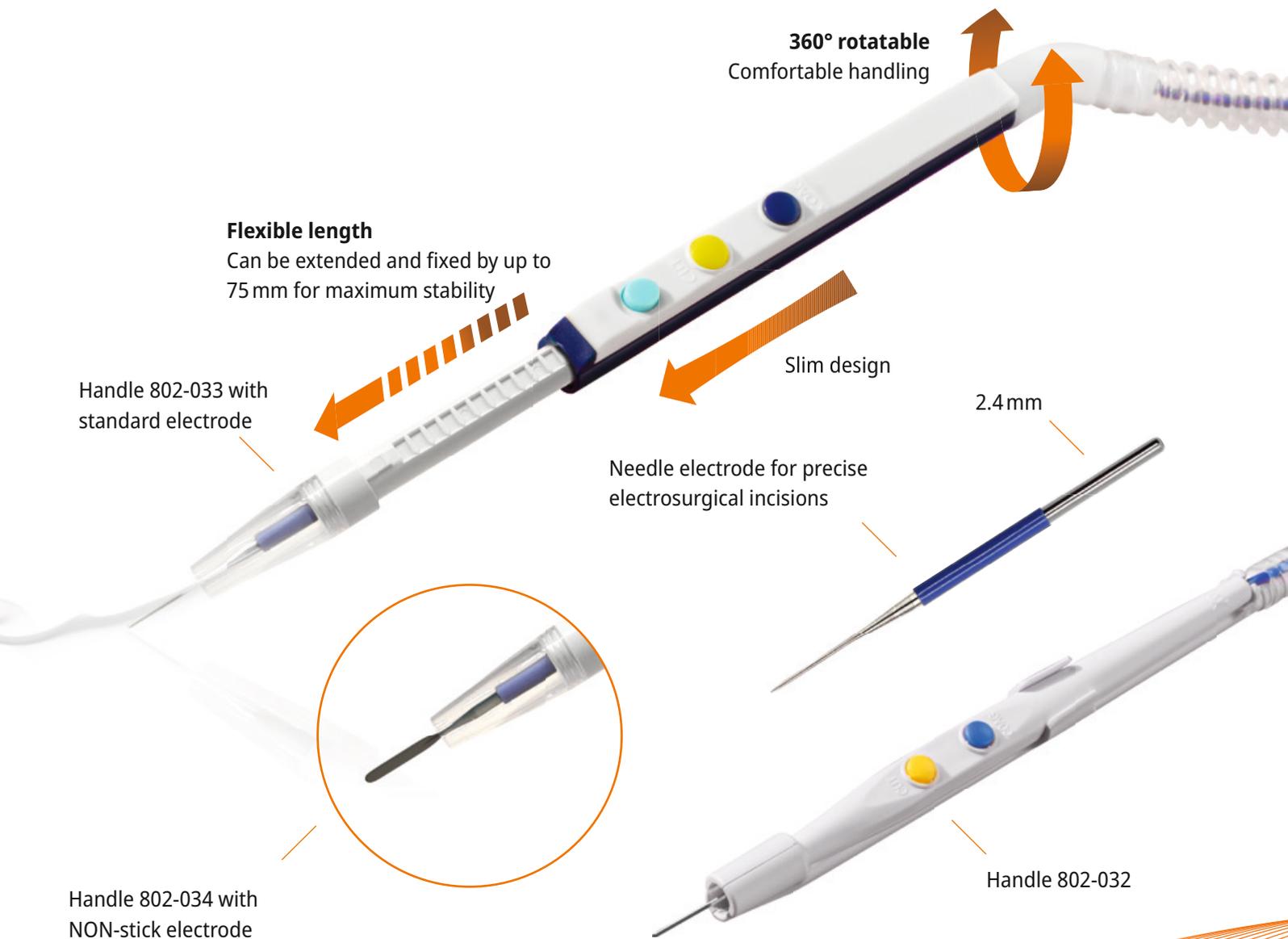
The filter system removes particles up to $0.1\ \mu\text{m}$ in size.

So that you can breathe again with peace of mind!

SHE SHA accessories

Flexibility meets reliability

The perfect partner for the SHE SHA fume evacuation system – single-use fume evacuation handles in a range of different designs from BOWA MEDICAL.



SHE SHA ORDERING INFORMATION

	Designation	REF
	SHE SHA fume evacuation system	950-001
	SHE SHA activation sensor	Included
	Pneumatic foot switch	Included

	SHE SHA filter for 35 hours (2 pcs)	951-001		SHE SHA handle, 2-switch, knife, 3 m, single-use, sterile, incl. holster	802-032
	SHE SHA-ARC connection cable, 70 cm*	900-060		Needle electrode for SHE SHA handle 802-033 and 802-034 (shaft 2.4 mm, disposable electrodes, sterile)	DNES620
	SHE SHA handle, adjustable length, NON-stick knife, 3 m, single-use, sterile	802-034		SHE SHA hose, for laparoscopy, 3 m, single-use, sterile (12 pcs.)	952-200
	SHE SHA handle, adjustable length, 2-switch, knife, 3 m, single-use, sterile, incl. holster	802-033		SHE SHA hose, for handle, 3 m, single use, sterile	952-001

* Only compatible with ARC Energy systems

TECHNICAL DETAILS

SHE SHA	
Audible emission	Max. 55 dBA
Size (H x W x D)	15 cm x 28 cm x 39.5 cm
Flow rate	Max. 708 litres per minute (with 22 mm hose)
Weight	4.4 kg (5.5 kg incl. filter)
Filter type	4-stage filtration (pre-filter, ULPA, activated carbon, post-filter)
Particle size	0.1 – 0.2 µm at 99.999% efficiency
Voltage	220 – 240 V

¹ SAGES: Society of American Gastrointestinal and Endoscopic Surgeons. EAES: European Association for Endoscopic Surgery and other Interventional Techniques. AORN: Association of perioperative Registered Nurses.

² Andreasson S, Mahteme H, Sahlberg B, Anundi H. Polycyclic Aromatic Hydrocarbons in Electrocautery Smoke during Peritonectomy Procedures. *Journal of Environmental and Public Health*. 2012; 1-6

³ Hill DS, O'Neill JK, Powell RJ, Oliver DW. Surgical smoke – a health hazard in the operating theatre: a study to quantify exposure and a survey of the use of smoke extractor systems in UK plastic surgery units. *Journal of plastic, reconstructive & aesthetic surgery*. JPRAS. 2012 Jul;65(7):911-6. PubMed PMID: 22445358.

⁴ Ilce A, Yuzden GE, Yavuz van Giersbergen M. The examination of problems experienced by nurses and doctors associated with exposure to surgical smoke and the necessary precautions. *J Clin Nurs*. 2017; 26: 1555-61

⁵ Sood AK, Bahrani-Mostafavi Z, Stoerker J, Sone IK. Human papillomavirus DNA in LEEP plume. *Infectious diseases in obstetrics and gynecology*. 1994; 2: 167-70

⁶ Ball K. Compliance with surgical smoke evacuation guidelines: Implications for practice. *Aorn j*. 2010; 92: 142-9

⁷ Hill DS et al. Surgical smoke—a health hazard in the operating theatre: a study to quantify exposure and a survey of the use of smoke extractor systems in UK plastic surgery units. *J Plast Reconstr Aesthet Surg*. 2012;65(7):911-916.

⁸ Benson SM, Novak DA, Ogg MJ. Proper use of surgical n95 respirators and surgical masks in the OR. *Aorn j*. 2013; 97: 457-67; quiz 68-70.

BOWA MEDICAL provides the solution – SHE SHA fume evacuation system. Start at the source of the smoke!

Contact your authorised BOWA medical
device consultant now.

support@bowa-medical.com



BOWA
A C A D E M Y

EXPERTISE ensures SAFETY

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