

LiNA Smoke Evacuation Trolley REF: SEU-0100

The LiNA Smoke Evacuation Trolley enables the OR staff to be very flexible as it can be rolled from theatre to theatre with a HF generator on the top. A powerful vacuum pump ensures a flow rate of 100-150 litre/min for all smoke evacuation pencils and tubing sets. The trolley is supplied with connectors for collecting bottles, i.e. the trolley is the ideal solution for combined liquid and smoke removal.

Classification: Class I type B
Network voltage: 220-240VAC-50Hz
 Also available at 110-120VAC-50/60Hz
Power consumption: 370W
Suction capacity:
 At the filter: 210 litre/min
 At the electrode tip: 100-150 litre/min depending on the tubings.
Vacuum: 150 mbar
Filter: ULPA filter or ULPA/Carbon filter
Classification of capsule: IP 21
Dimensions: (WxDxH) 450x450x875mm
Weight: 60kg
dBa: 43



LiNA Smoke Evacuation Desktop REF: SEU-0200

The LiNA Smoke Evacuation Desktop is the ideal solution for operating theatres with limited space, i.e. the desktop model can be placed either in a HF generator rack or in a ceiling mounted rack. The desktop model has a powerful vacuum pump that ensures a flow rate of 100-130 litre/min for all smoke evacuation pencils and tubing sets.

Classification: Class I type B
Network voltage: 220-240VAC-50Hz
 Also available at 110-120VAC-50/60Hz
Power consumption: 250W
Suction capacity:
 At the filter: approx. 145 litre/min
 At the electrode tip: 100-130 litre/min depending on the tubings.
Vacuum: 150 mbar
Filter: ULPA filter or ULPA/Carbon filter
Classification of capsule: IP 21
Dimensions: (WxDxH) 410x420x215mm
Weight: 25kg
dBa: 46



LiNA Smoke Evacuation Systems

Smoke Evacuation Trolley REF: SEU-0100

Smoke Evacuation Desktop REF: SEU-0200



Ordering information:

LiNA Smoke Evacuation Systems 0459 

REF:	LiNA Smoke Evacuation Systems and Accessories	Packing
SEU-0100	LiNA Smoke Evacuation Trolley - comes with one ULPA/Carbon filter and basket.	1 piece
SEU-0200	LiNA Smoke Evacuation Desktop - comes with one ULPA/Carbon filter.	1 piece
SEF-0100	LiNA Smoke Evacuation Filter - ULPA filter - Lifetime approx. 5 effective hours or 20 procedures. We recommend changing the filter once every week. Only to be used with LiNA smoke evacuators that use exhaust tubing (REF: SEE-0805) connected to wall or ceiling outlet.	1 piece
SEF-0200	LiNA Smoke Evacuation Filter - ULPA/Carbon filter - Lifetime approx. 5 effective hours or 20 procedures. We recommend changing the filter once every week.	1 piece
SEE-0805	LiNA Smoke Exhaust Tube - Reusable - 7m - Connects the back of the LiNA Smoke Evacuator with the external suction in the OR.	1 piece
SET-0130	LiNA Smoke Evacuation Tube - connects the collecting bottle with the LiNA Smoke Evacuation Filter on the LiNA Smoke Evacuation Trolley/Desktop.	Box of 10
SEC-0025	LiNA Smoke Evacuation Canister - including lid and 0.25L canister. Reusable.	1 piece
SEC-0140-R	LiNA Collection Bottle 1.4 Litre - outer bottle, reusable.	1 piece
SEL-0140-S	LiNA Inner Liner/with Lid 1.4 Litre - Single use. For use with SEC-0140-R.	Box of 10
SEC-0200-R	LiNA Collection Bottle 2.0 Litre - complete bottle and lid. Reusable.	1 piece
SEK-1001	LiNA Service Kit for every 1 year of use. For SEU-0100. Contains: Silencer, filter for pump, silicone grease and gloves.	1 piece
SEK-1003	LiNA Service Kit for every 3 year of use. For SEU-0100. Contains: Silencer, filter for pump, lamellas for pump, o-ring, silicone grease and gloves.	1 piece
SEK-2001	LiNA Service Kit for every 1 year of use. For SEU-0200. Contains: Silencer, silicone grease and gloves.	1 piece
SEK-2003	LiNA Service Kit for every 3 year of use. For SEU-0200. Contains: Silencer, lamellas for pump, gasket, o-ring, silicone grease and gloves.	1 piece

REF:	LiNA Smoke Evacuation Pencils	Packing
SET-0114	LiNA White Shark - Integrated smoke and liquid evacuation pencil with 70mm blade electrode. 5m ESU cable with US-3-pin connector and 3m tubing with 8mm connector for collecting bottles. Single use.	Box of 10 sterile
SET-0114-C	LiNA White Shark - Integrated smoke and liquid evacuation pencil with 70mm coated blade electrode . 5m ESU cable with US-3-pin connector and 3m tubing with 8mm connector for collecting bottles. Single use.	Box of 10 sterile
SET-0116	LiNA Grey Shark - Integrated smoke evacuation pencil with 70mm blade electrode. 5m ESU cable with US-3-pin connector and 3m tubing with 22mm connector. Single use.	Box of 10 sterile
SET-0116-C	LiNA Grey Shark - Integrated smoke evacuation pencil with 70mm coated blade electrode . 5m ESU cable with US-3-pin connector and 3m tubing with 22mm connector. Single use.	Box of 10 sterile
SET-0222	LiNA Saw Shark - Telescopic pencil with 3m tubing and 22mm connector . With integrated 5m ESU cable. Single use.	Box of 10 sterile
SET-0222-C	LiNA Saw Shark - Telescopic pencil with coated blade electrode . 3m tubing and 22mm connector . With integrated 5m ESU cable. Single use.	Box of 10 sterile
SET-0224	LiNA Saw Shark - Telescopic pencil with 3m tubing and 8mm connector for collecting bottles. With integrated 5m ESU cable. Single use.	Box of 10 sterile
SET-0224-C	LiNA Saw Shark - Telescopic pencil with coated blade electrode . 3m tubing and 8mm connector for collecting bottles. With integrated 5m ESU cable. Single use.	Box of 10 sterile

LiNA distributor in your country:



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- High flow rate vacuum pump - secures high rate of smoke removal
- Market's most cost-effective ULPA filters
- Fits every electrosurgical generator
- Silent vacuum pump
- Only active when ESU is active
- Smoke and liquid suction possible via attachable collecting bottles
- Broad range of smoke evacuation pencils, electrodes, tubing sets and accessories

Clean air in the operating theatre

Several studies have confirmed that electrosurgical smoke is dangerous to the health of both staff and patients in the operating theatre.

Reports indicate that headache, nausea, eye and upper respirator irritation are the most common problems that surgeons and nurses face when electrosurgery is performed in the operating theatre.

The electrosurgical smoke consists of carbonized tissue, blood, viral particles, DNA, bacteria, water, carbon dioxide and toxic gases. These airborne particles are small enough to penetrate deep into the respiratory tract. Most standard surgical masks can not effectively filter these small potentially dangerous particles. Smoke evacuation has therefore become a major issue, and several national nurse organisations including AORN and NIOSH have issued recommendations of how to remove the smoke by using smoke evacuators.

Through analyses numerous chemicals were found in surgical smoke which could lead to the following risks:

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|-----------------------|-------------------|------------------------|
| ● Airway Inflammation | ● Tearing | ● Pulmonary congestion |
| ● Hypoxia/Dizziness | ● Nausea/Vomiting | ● Chronic bronchitis |
| ● Coughing | ● Hepatitis | ● Carcinoma |
| ● Headaches | ● Asthma | ● HIV |

LiNA Smoke Evacuation Systems

In our effort to improve the environmental conditions in the operating theatre, LiNA has developed and designed two complete smoke evacuation and filtration systems for optimum removal of smoke from the operating theatre during electrosurgical procedures.

The two LiNA Smoke Evacuation Systems consist of a mobile Smoke Evacuator Trolley and a Smoke Evacuator Desktop model - both with a highly effective silent vacuum pump enabling an extremely high capture capability, even through narrow tubings, ensuring a maximum collection and elimination of emitted smoke. The units apply an exchangeable self contained high efficiency particle and odour absorption ULPA filter which has been developed especially for the retention of particles, bacteria as well as vira from electrosurgical smoke.

The LiNA Smoke Evacuation Systems are designed with the sole purpose of improving the environmental conditions in the operating theatre and the safety for patients, surgeons and nurses.

This is achieved by using the LiNA Smoke Evacuation Systems with a broad range of accessories for most electrosurgical procedures.



Basket
LiNA Smoke Evacuation Trolley comes with a basket for cables and other accessories.



Smoke Evacuation Pencils
LiNA Grey Shark REF: SET-0116 for electrosurgery and smoke evacuation.



LiNA Saw Shark REF: SET-0222/SET-0224 for electrosurgery, smoke evacuation and Liquid suction (only SET-0224) - with telescopic function.

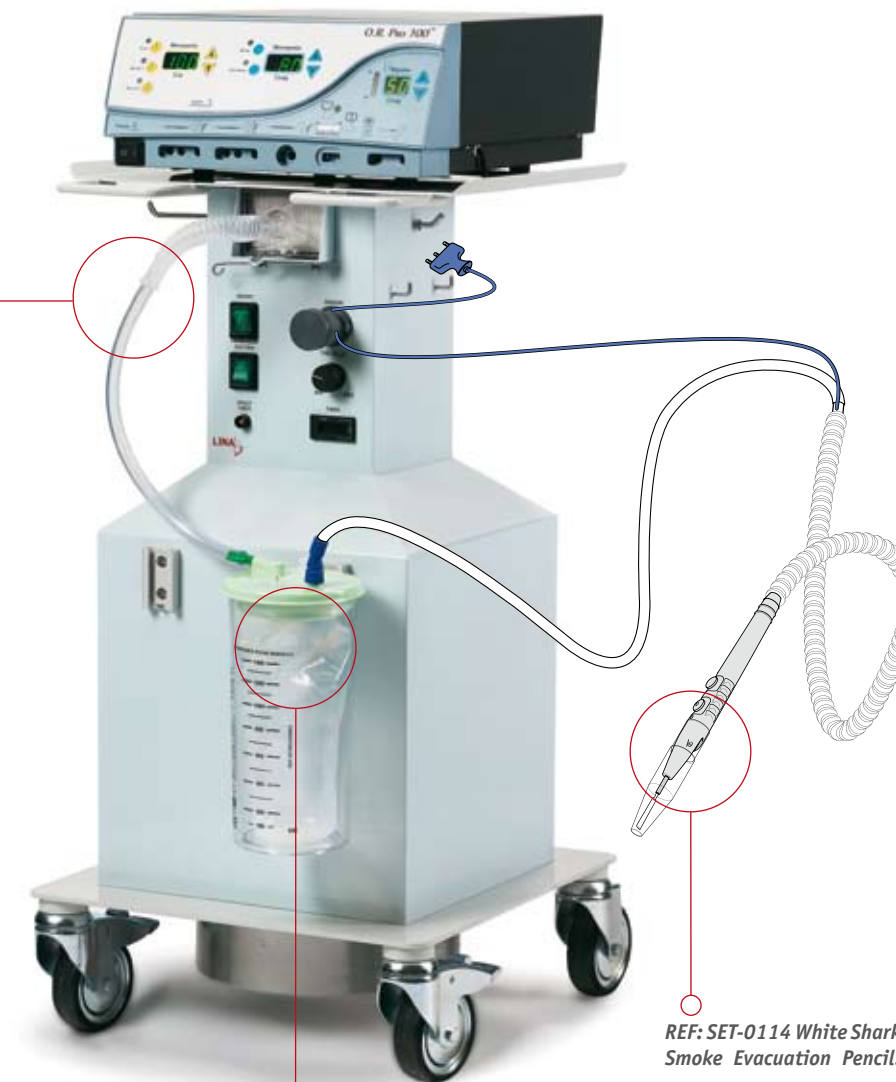
LiNA White Shark REF: SET-0114 for electrosurgery, smoke evacuation and Liquid suction.



7m Exhaust Tubing REF: SEE-0805 Special Safety Feature.
No recirculation of filtered smoke and gas. The LiNA smoke Evacuation Systems permit connection to the operating theatre's own vacuum or air removal system by placing the hose on the air outlet from the vacuum pump on the back of the Smoke Evacuators and leading it to the wall/ceiling outlet in the operating theatre.



Collection Canister REF: SEC-0025
To avoid liquid from entering the filter.



High flow Collecting Bottle
Collecting bottles for collecting both smoke and liquids may easily be mounted on the LiNA Smoke Evacuation Trolley. Collecting bottles with a **mechanical flow valve** is required for optimum flow. LiNA offers two versions:
REF: SEC-0140-R + SEL-0140-S
Reusable Bottle + Single Use inner liner.
REF: SEC-0200-R
Complete set of reusable bottle and lid.

Sensor for simultaneous automatic activation of pump when ESU is activated. No physical abruption of the HF generator/pencil circuit. Eliminates the need for manual handling of the unit as well as excessive use of filter.

Time Delay for adjustment of time e.g. 3 sec. The pump will run after stop of electrosurgery to ensure complete removal of all smoke.

Timer for registration of filter usage.



ULPA: Ultra Low Penetration Air filter

LiNA ULPA filter REF: SEF-100 or LiNA ULPA/Carbon filter REF: SEF-200

Particle and odour absorption filter with direct fitting for 22mmØ suction tube.

Now available with ULPA filter(white) or ULPA+Carbon filter(black). The low cost filters are safe and easy to replace after use (approx. 5 hours effective use).

The cost per running hour of the new filters is almost reduced with 50% compared with other available filters. The fully transparent front cover clearly shows when to replace filter.

Filtration capacity: 99.999% for particle size of 0.1 micron (µm) and more than 99.9999% for particles below and over 0.1 micron.

Filter Efficiency: 99.999% = 1 in 100,000 particles gets through. 99.9999% = 1 in 1,000,000 particles gets through.

The white LiNA ULPA filter is intended for use with LiNA Smoke Evacuators that use exhaust tubing (REF: SEE-0805) connected to a wall or ceiling outlet. No carbon filter is needed to remove the gas odour as the air is lead out of the operating room. This is the most cost effective filter.

The black LiNA ULPA/Carbon filter is intended for use with LiNA Smoke Evacuators where the air is re-circulated in the operation room after filtration. The carbon filter is needed to remove the gas odour in the electrosurgical smoke.