Megadyne™

MEGADYNE™ ZIP-PEN™ Smoke Evacuation Pencil enhances surgeon comfort while minimizing surgical smoke

ETHICON
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Shaping the future of surgery

MEGADYNE™ ZIP-PEN™ Smoke Evacuation Pencil provides surgeons with **choice, flexibility and comfort** all in one device

Ergonomically removes smoke

- Lightweight and designed to minimize hand fatigue
- Large activation buttons that were designed for ease of use
- Designed with a non-slip grip for comfort and control

Provides visibility with clear suction sleeve

- Encapsulates the electrode for efficient smoke capture
- Captures smoke at the source for efficient smoke removal
- Designed not to inhibit surgical site visibility

Designed to produce less smoke and eschar

- MEGADYNE™ ZIP-PEN™ Smoke Evacuation Pencil comes with a MEGADYNE™ E-Z CLEAN™ Electrosurgical Electrode
- MEGADYNE™ E-Z CLEAN™ Electrodes produced 68% less smoke vs. uncoated stainless steel blades[2]
- MEGADYNE™ E-Z CLEAN™ Electrodes were designed to reduce eschar buildup, require less frequent cleaning and may save OR time vs. stainless steel electrodes

The MEGADYNE™ ZIP-PEN™ Smoke Evacuation Pencil offers three ergonomic grip positions

"Trigger" grip method

Eliminated 100% of the torque off the back end of the pencil for improved surgeon ergonomics[1]

"Over the hand" grip method

This grip reduces torque by draping the tubing over the surgeon's thumb or back of the hand

"Traditional" grip method

Tubing can be kept in the full upright position (as shown) to emulate a traditional pencil

1 Only when in "trigger" configuration. **2** In a preclinical porcine model at 60W vs. uncoated stainless steel blades at 60W ($p<0.001$). Kisch T, et al. Electrocautery Devices with Feedback Mode and Teflon-Coated Blades Create Less Surgical Smoke for a Quality Improvement in the Operating Theater. Medicine, 2015;94(27)

Why remove surgical smoke from the OR?

Surgical smoke can decrease site visibility and impact air quality in the surgical suite. The MEGADYNE™ Smoke Evacuation Portfolio was designed to reduce surgical smoke for improved visibility and a cleaner OR environment.

Electrosurgical smoke has been shown to contain many potentially harmful components including:

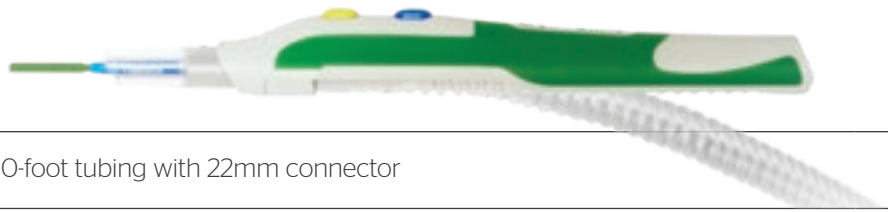
- Toxic gas and vapors[1]
- Bioaerosols, including dead and living cell material, blood fragments and viruses[2]
- Mutagenic and carcinogenic compounds[1]

The Association of periOperative Registered Nurses (AORN) and National Institute for Occupational Safety and Health (NIOSH) recommend surgical smoke be removed by use of smoke evacuation in both open and laparoscopic cases.[3]

The smoke condensate from burning 1 gram of tissue has been shown to be equivalent to that of up to 6 unfiltered cigarettes.[4]

1 Al Sahaf OS, et al. Chemical composition of smoke produced by high-frequency Electrosurgery. Ir J Med Sci (2007) 176:229–232 **2** Control of Smoke from Laser/Electric Surgical Procedures, NIOSH, DHHS (NIOSH) Publication No. 96•128 **3** Perioperative standards and recommended practices. Electronic release: July 2009. AORN, Inc. **4** Tomita Y, et. Al., Mutagenicity of smoke condensation induced by CO2-laser irradiation and electrocauterization. Mutat Res. 1981; 89:145.

Ordering information

DESCRIPTION	CATALOG NUMBER	QUANTITY PER BOX
MEGADYNE™ ZIP-PEN™ Smoke Evacuation Pencil, 10-foot tubing 	252510	20
MEGADYNE™ ZIP-PEN™ Smoke Evacuation Pencil, 10-foot tubing with 22mm connector	252510EC	20
Nozzle, 2.7-inch (6.8cm) 	2540J	10
Extended Blade Electrode, 4-inch (10.16 cm) 	0014A	12
Nozzle, 5.2-inch (13.2cm) 	2560J	10
Extended Blade Electrode, 6.5-inch (16.51cm) 	0014	12

For complete product details, see Instructions for Use.