



## Smoke Evacuation Device for Minimally Invasive Surgery

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**Experience:**

[https://www.ntuh.gov.tw/surg/Vcard.action?q\\_type=2&q\\_itemCode=1820](https://www.ntuh.gov.tw/surg/Vcard.action?q_type=2&q_itemCode=1820)

**Market Needs:** Minimally invasive surgery has become the standard surgical method in the past decades. However, a large amount of smoke generated when electrocautery is performed and accumulates in the confined body cavity. The smoke results in obstructing the field of vision and fogging of the lens. The operation must be interrupted and the lens must be pulled out and wiped clean. In this situation, an operation may be interrupted more than ten times on average, resulting in low quality, poor efficiency and increased risk of complications. In addition, if the surgical smoke is directly discharged into the operating room, it is more likely to affect the health of medical staff.

**Our Technology:** The smoke evacuation device has two parts - the exhaust tube and the control valve. The product can be installed on 5mm surgical electrode/high-energy instrument in minimally invasive surgery. The product is connected with the vacuum suction system, using negative pressure to extract smoke, small amount of blood and water from the tip of the surgical instrument. The product design may improve the visibility of visual field and patient safety during surgery.

**Strength:**

1. Provide a pathway for the smoke directly to be discharged from the electrode blade.
2. The device applies for various brands of surgical electrode.
3. Disposable products with economical nature.
4. The exhaust tube is thin and light, which does not affect the field of vision.
5. One-finger control evacuation by the control valve.
6. Additional saline lavage function.

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**Competing Products:** PenAdapt, ConMed AirSeal® and Insufflation, SeeClear

**Intellectual Properties:** ROC pub no. I726531

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