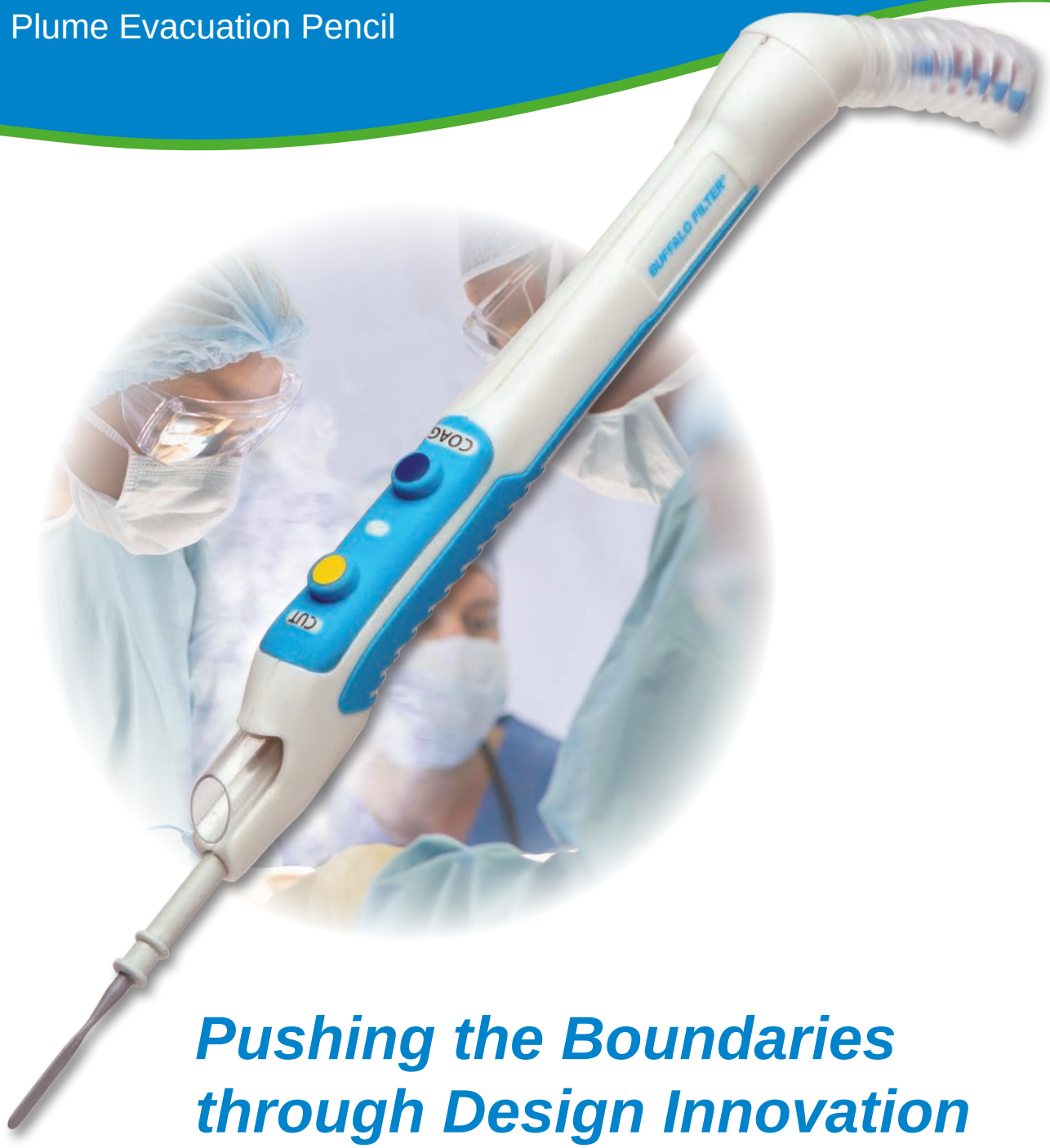
PlumePen® Elite

Surgical Plume Evacuation Pencil



Pushing the Boundaries through Design Innovation

BUFFALO FILTER®
Filtration Group®

Designed for Surgeons by Surgeons

Unrivaled Profile

46% smaller

- Powerfully compact and ultra slim
- Similar in size to standard electrosurgical pencils
- Significantly smaller (up to 46%) than competitive electrosurgical smoke pencils

Unsurpassed Comfort & Performance

Over-molded Cradle Design
- Provides improved grip and comfort

Up to 25% More Flow
- Provides more flow than competitive electrosurgical smoke pencils

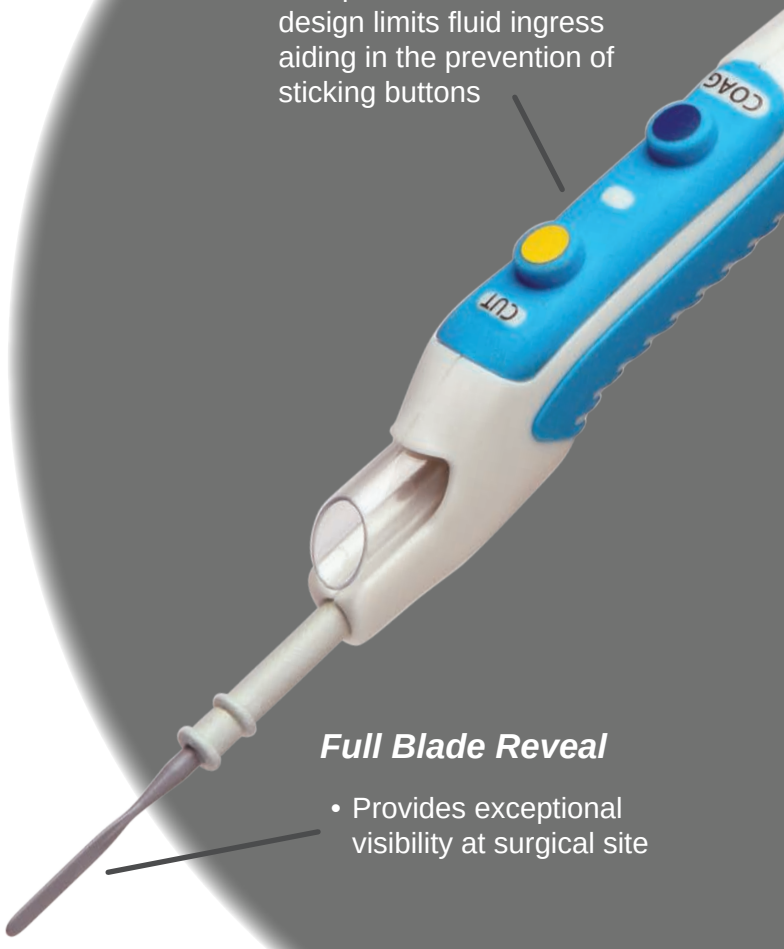
Light, Flexible Tubing
- Aids in reducing pull, hand fatigue, and tension on the wrist

Wire Management
- Seamless integration of ESU wire and tubing
- Provides organized cord management on the sterile field

Simple Connectivity
- Easily connects to most surgical plume evacuators and ESU generators

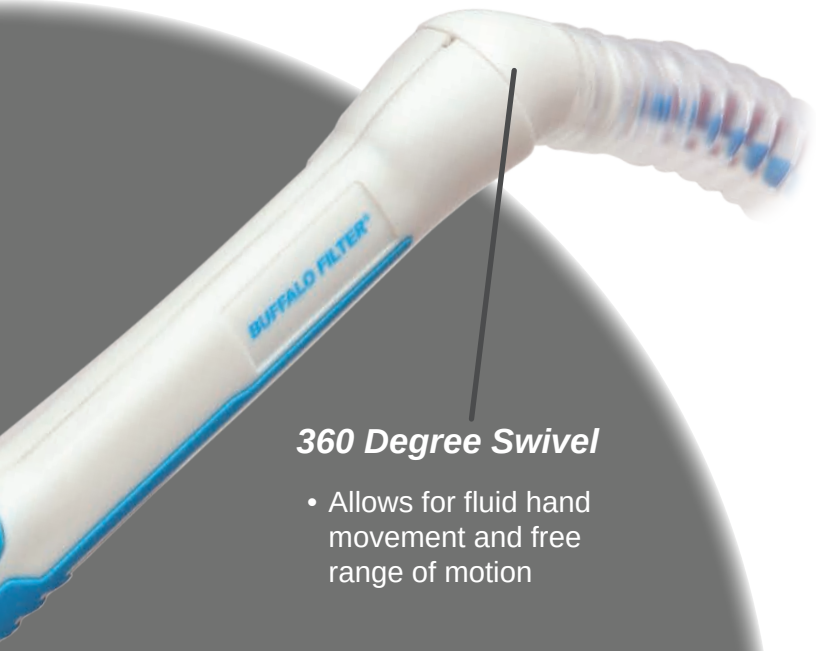
Over-molded Button Design

- One piece over-molded button design limits fluid ingress aiding in the prevention of sticking buttons



Full Blade Reveal

- Provides exceptional visibility at surgical site

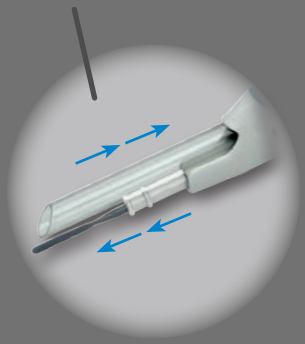


360 Degree Swivel

- Allows for fluid hand movement and free range of motion

Adjustable Capture Port

- Offers customized placement for effective smoke plume capture regardless of blade length

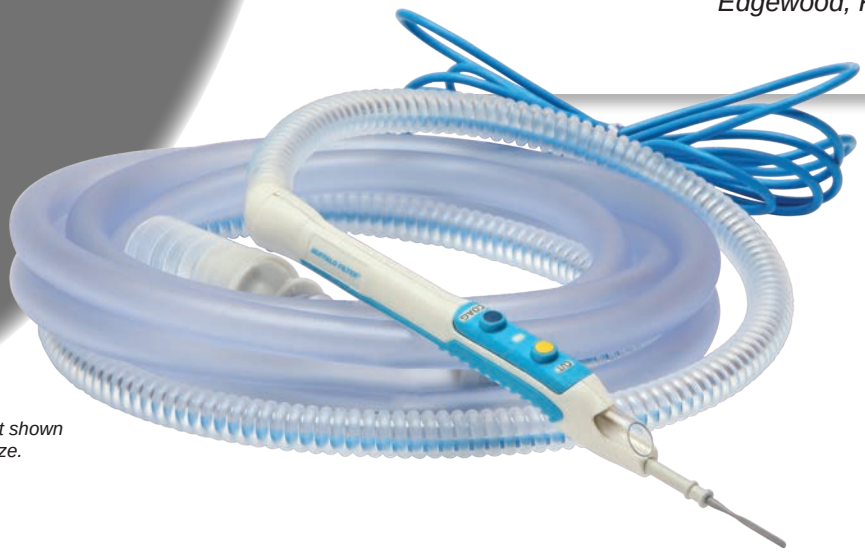


Unmatched Innovation

TESTIMONIAL

"Buffalo Filter has achieved an efficient marriage of form and function in a compact design which is ergonomically natural to hold, easy to set up and continues to perform flawlessly. Buffalo Filter continues to be the leader in performance and design. The best product of its type I have used in over 40 years of practice."

— Dr. George Miller
Edgewood, Kentucky



Product not shown at actual size.

PlumePen® Elite

Surgical Smoke Plume

The Facts

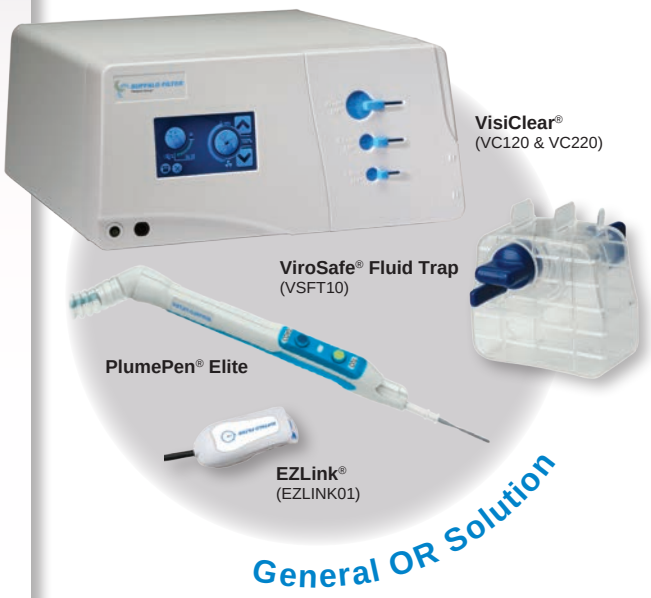
Surgical smoke plume is a potentially dangerous by-product generated from the use of lasers, electrosurgical pencils, ultrasonic devices, and other surgical energy based devices. As these instruments cauterize vessels and destroy (vaporize) tissue, fluid, and blood, a gaseous material known as surgical smoke plume is created.

- Standard OR ventilation is ineffective at removing smoke directly where it is generated.[1]
- The chemical component of surgical smoke plume contains over 80 different toxic chemicals and by-products, some which have documented harmful health effects. [2, 3]
- Some of the chemicals that have been identified are:
  - *Perchloroethylene: main component in dry cleaning fluid*
  - *Hydrogen cyanide: neurotoxin used in chemical warfare*
  - *Toluene: similar to paint thinner; known carcinogen*
  - *Benzene: known carcinogen*
- One report from a surgeon indicates he contracted the same DNA viral type of HPV in his larynx as a patient he had treated for anogential condylomas.[3]
- Surgical smoke has been shown to be as mutagenic as cigarette smoke. Over a two month period a plastic surgery theater recorded daily smoke production and found the exposure to be equivalent to 27-30 cigarettes.[1]
- It has been shown that breathing surgical smoke can induce acute and chronic inflammation which presents itself as congestion, pneumonia, and bronchiolitis.[4]

The Solutions

Buffalo Filter is a recognized world leader in surgical smoke plume evacuation solutions. We are dedicated to helping facilities provide a smoke free work environment.

To find out more call 1.800.343-2324 (U.S.) or 1.716.835.7000 (outside U.S.).



Product Ordering Information

Catalog Number	Description	Quantity
PlumePen® Elite (Stainless Steel ESU Blade)		
PLP1005	10 ft. (3 m) tubing	5/Case
PLP1020	10 ft. (3 m) tubing	20/Case
PLP1505	15 ft. (4.6 m) tubing	5/Case
PLP1520	15 ft. (4.6 m) tubing	20/Case
PlumePen® Elite (Non-Stick ESU Blade)		
PLP2005	10 ft. (3 m) tubing	5/Case
PLP2020	10 ft. (3 m) tubing	20/Case
PLP2505	15 ft. (4.6 m) tubing	5/Case
PLP2520	15 ft. (4.6 m) tubing	20/Case

References

1. 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. J Plast Reconstr Aesthet Surg. 2012; 65(7):911-916.
2. Al Sahaf OS, Vega-Carrascal I, Cunningham FO, McGrath JP, Bloomfield FJ. Chemical composition of smoke produced by high-frequency electrosurgery. Ir J Med Sci. 2007;176(3):229-232.
3. Hollmann R, Hort CE, Kammer E, Naegele M, Sigrist MW,Meuli- Simmen C. Smoke in the operating theater: an unregarded source of danger. Plast Rec Surg. 2004;114(2):458-463.8.
4. Baggish, M.S., Polesz, B.J., Joret, D., Williamsson, P. and Refai,A. (1991), Presence of human immunodeficiency virus DNA in laser smoke. Lasers Surg. Med., 11:197-203, doi:10.1002/lsm.1900110302.

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