

## Laparoscopic Smoke Evacuation Devices

Bio Protech currently offers Laparoscopic smoke evacuation unit, tubing and accessories that are used in Laparoscopic OR. We currently do not offer insufflators at this time .

Our current Laparoscopic product can be configured and used in 4 different ways as follows;

### **PASSIVE**

#### **MODEL : PSF3**

##### *Recommendation to use :*

Simple use without smoke evacuation devices

##### *How to use :*

Connect to trocar only

- ULPA filter integrated.
- Fluid Trap is built in.
- Compatible to all standard luer lock fittings.



Passive type removes smoke & vapor automatically from the abdominal cavity. It is self-working smoke evacuation device and no required any evacuator or suction device. It allows the safest way to maintain the pneumoperitoneum while the smoke evacuation is being performed during laparoscopic surgery.

### **ACTIVE VOLUME CONTROL**

#### **MODEL : ASF3**

##### *Recommendation to use :*

When OR has wall suction to remove smoke through the suction canister.

##### *How to use :*

Connect to trocar on one side

Connect to canister of wall suction on the other side

Dial volume controller to adjust air flow

- ULPA filter integrated
- Fluid Trap is built in
- Air flow controller
- Compatible to all standard luer lock fittings and suction system.



Active Volume Control is connected to the trocar on one side to evacuate smoke created from Laparoscopic surgery and connected to the canister on the other side to create the desired air flow by mounted volume controller on Active Volume Control.

## ACTIVE IN-LINE FLUID TRAP & FILTER

### MODEL : ASFN3

#### *Recommendation to use :*

When OR has a laparoscopic surgery insufflator with smoke suction function and/or portable suction that has volume control system.

#### *How to use :*

Connect to trocar on one side  
Connect to smoke suction

- No air control dial (Air flow is controlled by suction unit)
- ULPA filter integrated
- Fluid trap is built in
- Compatible to all standard luer lock fittings and smoke suction unit



It is ideal to use when the OR has suction unit already, but needs filtration and fluid trap additionally. Smoke particles are filtered and moisture is managed through fluid trap.

## ACTIVE IN-LINE FLUID TRAP

### MODEL : ASFT03

#### *Recommendation to use :*

When OR has automated smoke evacuator with filter and do not want to use wall suction.

#### *How to use :*

Connect to trocar on one side  
Connect to smoke evacuator which has filter in it on the other side

- Fluid Trap is built in.
- No filtration
- No air control dial  
(Desired air flow is created by smoke evacuator)



Sterile surgical smoke management tubing that has built in fluid trap. Its one side is connected to trocar and the other side goes to smoke evacuator with filter. It is capable to manage fluid and air flow is controlled by smoke evacuator during laparoscopic surgery.

## TUBE

### MODEL : TS3 , TV3, T03



TS3



TV3



T03

#### ***Recommendation to use :***

When OR has automated smoke evacuator with filter and do not want to use wall suction.

#### ***How to use :***

Connect to trocar on one side

Connect to smoke evacuator which has filter in it on the other side

- TS3 : Laparoscope Smoke Evacuation Tube Set
- TV3 : Laparoscope Smoke Evacuation Tube setting with Control Valve
- T03 : Laparoscope Smoke Evacuation Tube setting with Flow Restrictor

It can be used as a second best option with TS3, TV3, T03 Tube + Fluid trap.

In terms of price, TS3, TV3, T03 + Fluid trap is slightly more expensive than Active in Line, but it is superior in its performance.

## EQM-U SMOKE EVACUATOR + EQM-FT(FLUID TRAP)



Product Code	ULPA Filter	Fluid Trap	Volume Controller	Connect A	Connect B	Hose Length
 PSF2	0	0	0	Trocar 	None Independently use No need to connect to other devices	1.6' Hose
 ASFN3	0	0	0	Trocar 	Canister of Wall suction 	10' Hose
 ASF3	0	0	X	Trocar 	Smoke suction unit and/or Portable suction 	10' Hose
 ASFT03	X	0	X	Trocar 	Smoke evacuator with filter 	10' Hose
 TS3	X	X	X	Trocar 	Smoke evacuator with filter and Fluid Trap 	10' Hose
 TV3	X	X	Control valve	Trocar 	Smoke evacuator with filter and Fluid Trap 	10' Hose
 T03	X	X	X	Trocar 	Smoke evacuator with filter and Fluid Trap 	10' Hose