

International Surgical Smoke Evacuator Competitive Matrix

	VisiClear® Surgical Smoke Evacuator	ViroVac® Surgical Smoke Evacuator	SafeAir Compact (OEMs pencil to Stryker)	KLS Martin marVAC®	Erbe 300/AtmoSafe	Erbe IES2	Medtronic RapdiVac	Megadyne MegaVac Plus (acquired by Ethicon)	Megadyne MegaVac (acquired by Ethicon)
Features									
Motor Type	Vacuum	Vacuum	Pump	Vacuum	Vacuum (blower motor)	Vacuum (blower motor)	Vacuum	Pump	Pump
Static Suction Levels	256.9 mbar	257 mbar	550 mbar	153.1 mbar	information cannot be confirmed	information cannot be confirmed	257 mbar	information cannot be confirmed	information cannot be confirmed
Dimensions (w x h x d)	35.4 cm x 18.0 cm x 40.9 cm 13.9 in x 7.1 in x 16.1 in	27.9 cm x 15.2 cm x 39.4 cm 11 in x 6 in x 15.5 in	38 cm x 14 cm x 30 cm 15 in x 5.5 in x 11.8 in	39 cm x 21.8 cm x 46 cm w/ filter 15.3 in x 8.6 in x 18 in w/ filter	41 cm x 21 cm x 37 cm 16.1 in x 8.3 in x 14.6 cm	20.5 cm x 26 cm x 40.4 cm without main filter 8 in x 10.2 cm x 15.9 in without main filter	36 cm x 48 cm x 20.5 cm 14 in. x 18.75 in. x 8 in. (with cord wrap and handle)	35.6 cm x 18.4 cm x 38 cm 14.0 in x 7.25 in x 15 in	35.6 cm x 18.4 cm x 38 cm 14.0 in x 7.25 in x 15 in
Weight	6.6 kg (14.5 lbs.) Without filter installed: 7.9 kg (17.5 lbs.) With filter installed:	4.0 kg (9.5 lbs): Without filter installed 5.0 kg (12.0 lbs): With filter installed	13 kg (28.7 lbs.) without accessories	marVac® , 220-240 V: 10.0 kg marVac® with LAP mode, 220-240 V: 11.0 kg marVac® , 100-127 V: 12.4 kg marVac® with LAP mode, 100-127 V: 13.4 kg	14 kg (30.9 lbs)	10.7 kg (23.6 lbs) with main filter	9.9 kg (20.5 lbs.) without filter	under 7.7 kg (17 lbs.)	under 7.7 kg (17 lbs.)
Availability	Worldwide	Worldwide	Europe	Europe, Japan, Russia, China	Europe	EU, NZ, Australia, India	Worldwide	Worldwide	Worldwide
Flow Rate	30 cfm (839 lpm) using 7/8 in (22 mm) tubing	25 cfm (708 lpm) using 7/8 in (22 mm) tubing	3.88 cfm (110 lpm) at filter inlet 3.18 cfm (90 lpm) with SafeAir Smoke Pencil at max (+/- 10%)	26.5 cfm (750 lpm)	23 cfm (650 lpm)	230 V >19.42 cfm (550 lpm) 120 V >15.89 (450 lpm) (120 V)	up to 44 cfm (1246 lpm) using 7/8 in (22 mm) tubing	4.1 cfm (116 lpm) with pencil Low flow .12 cfm - .64 cfm (3.5 - 18 lpm ± 10%) High Flow Range: .88 3.5 cfm (25-100 lpm ± 10%)	High Flow Range: .88 3.5 cfm (25-100 lpm ± 10%)
Noise Level	< 43 dBA at minimum power ≤ 52 dBA at maximum power	≤ 55 dBA at maximum power	46 dBA (power level unknown)	51 dB(A), distance of 1 m (acc. to ISO 7779)	max. 52 dB (A) @ 1 m (according to ISO 7779)	information cannot be confirmed	≤ 55 dBA at maximum power		.88 3.5 cfm (25-100 lpm ± 10%)
Occlusion Alarm	Yes	No	No	Yes	Yes (during high flow)	information cannot be confirmed	No	Yes	Yes
Color Touchscreen	Yes	No	No	No	No	No Simple LCD/Push Button	No	No	No
Procedure Operating Modes	Three operating modes (Laparoscopic, Open Tubing, and Electrosurgical Pencil Mode) can easily be selected, automatically customizing filter life based on surgical procedure.	No - adjustable suction power in 3 levels	No - adjustable suction power in 10 levels	Pending on Model if there is LAP Mode availability	No	No	No - adjustable suction power in 3 levels	Features a laparoscopic mode	
Activation Method	EZLink Activation Device, Footswitch, Direct Connect Cables for Covidien and ConMed ESUs	EZLink Activation Device, Footswitch, Direct Connect Cables for Covidien and ConMed ESUs	Footswitch, Via SafeAir Smoke Pencil, Permanent Activation	Automatic activation, front-panel button, optionally by foot switch	Manually, by foot switch or automatically by an activation sensor coupled to the HF-generator	Manual activation, using footswitch or automatically for electrosurgical activation	Manual activation, using footswitch or automatically for electrosurgical activation.	ESU Sensor, Laser Footswitch Sensor, and Manual Switch	ESU Sensor, Laser Footswitch Sensor, and Manual Switch
ESU Sensor	* EZLink Activation Device & Direct Connect Cables for Covidien & ConMed. * activate both the ESU and smoke evacuator via a surgical smoke pencil. * EZ Link activation device offers a time delay	* EZLink Activation Device & Direct Connect Cables for Covidien & ConMed. * activate both the ESU and smoke evacuator via a surgical smoke pencil. * EZ Link activation device offers a time delay	Pop Out Sensor with time delay	iDetect external line current detector is an accessory that is used in combination with a high frequency or laser surgery device which does not have a footswitch or a compatible MCB interface		IES 2 can be operated via the VIO's central display	Features a RapidVac+ Button for automatic activation.		
Fluid Trap	Optional Accessory	Optional Accessory	No	No	No	No	Optional Accessory		
Filter Port Design	3 ports	3 port design	Only one port for pencil connection	2 ports	1 port	1 port	3 port design	1-port design	1-port design
Sliding Port Closure on Filter	Yes - reduces risk of staff coming in contact with a contaminated port.	No - uses a flap closure design	Only one port for pencil connection	No	No	No	No - uses a flap closure design	N/A	N/A
Filter Life	up to 35 hours of activation time	up to 35 Hours of activation time	Five hours of actual usage	40 hours	35 hours	up to 35 hours	up to 25 hours		
Filter Tracking	Yes	Yes	Yes in one hour increments	Yes	Yes	information cannot be confirmed	Yes		
Warranty	3 Years	1 Year	1 year or 3 year service kits offered	information cannot be confirmed	information cannot be confirmed	information cannot be confirmed	1 Year		
Other				* Connection to Central OR Suction is an optional feature * Smoke Evacuator & HF Generator can be positioned on a Maxium Cart		* Operated via the VIO's central display. * Operating team can adjust four different settings for CUT and COAG evacuations, basic evacuations and follow-up -evacuation times. * In many cases individual evacuation parameters can be assigned to every instrument and electrosurgical function. * Surgeons can record and store preferred programs with their optimal suction flow rates for the indications treated. A range of freely programmable settings is available for this.	*Cross sale w/ForceTriad™, Force FX™ series and Force EZ-C™ electrosurgical generators * Turbo button that effectively increases the airflow to 100% suction flow to quickly remove the smoke plume from the surgical site	*Megadyne OEMs from IC medical. Equivalent smoke evacuator is IC Medical 350 -D * Motor is very reliable	*Megadyne OEMs from IC medical. Equivalent smoke evacuator is IC Medical 360 * Motor is very reliable+J11