

2) Family number: 41949895 (US2009137943A)

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Title: SYSTEM FOR SURGICAL INSUFFLATION AND GAS RECIRCULATION

Abstract: A system for insufflation and recirculation of insufflation fluid in a surgical procedure. The system includes a control unit having a fluid pump, a supply conduit, a return fluid conduit and a pressure-controlled valve. The fluid pump is adapted and configured to circulate insufflation fluid through the system. The supply conduit is in fluid communication with an output of the fluid pump and configured and adapted for delivering pressurized insufflation fluid to an output port of the control unit. The return conduit is in fluid communication with an input of the fluid pump for delivering insufflation fluid to the fluid pump and is configured and adapted for returning insufflation fluid from an input port of the control unit. The pressure-controlled valve is in fluid communication with the supply conduit and the return conduit, and is adapted and configured to receive a control signal and respond to the control signal by opening, thereby fluidly connecting the supply conduit and the return conduit with one another.

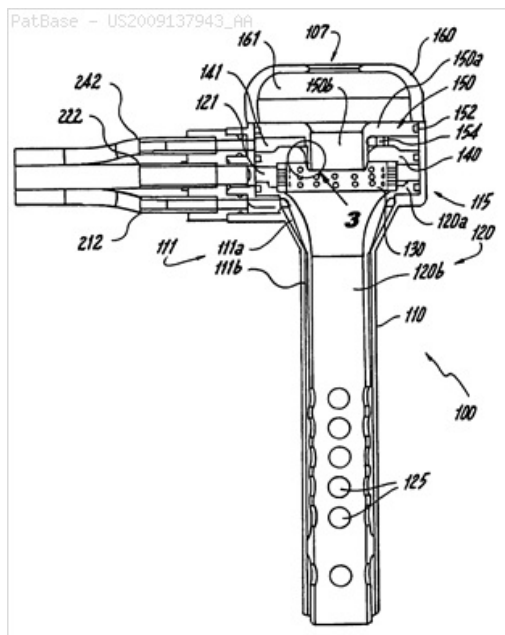
Classifications:

International (IPC 8-9): A61B17/00 A61B17/02 A61B17/34
A61M1/00 A61M13/00 A61M37/00 A61M39/06 (Advanced/Invention);
A61B17/00 A61B17/02 A61B17/34 A61M1/00
A61M39/06 (Advanced/Non-invention);
A61B17/00 A61B17/34 A61M1/00 A61M13/00
A61M39/02 (Core/Invention)

CPC: A61M2202/02 A61M2205/3344 A61B17/3421 A61B17/3462
A61B17/3474 A61B17/3498 A61B2017/00544 A61M13/003
A61M13/006 A61M2205/3337

European: A61B17/34G4 A61B17/34N A61B17/34V A61M13/00G
K61B17/00N4 K61B17/34G4 K61B17/34H K61M13/00G2
K61M205/33P2

US: 1/1 604/164.01 604/164.010S 604/167.03 604/167.030S 604/24
604/26 604/26P 604/33 604/506 604/506S 604/67



Family:

Publication number	Publication date	Application number	Application date
■ CN102264310 A	201111130	CN200980150151	20091009
■ CN102264310 B	20140122	CN200980150151	20091009
■ EP2101662 A2	20090923	EP20070869468	20071218
■ EP2101662 B1	20180711	EP20070869468	20071218
■ EP2341849 A2	20110713	EP20090819569	20091009
■ EP2341849 A4	20150429	EP20090819569	20091009
■ EP2341849 B1	20191218	EP20090819569	20091009
■ JP2012505027 T2	20120301	JP20110531021T	20091009
■ JP5733831 B2	20150610	JP20110531021T	20091009
■ KR101649505 B1	20160819	KR20117010690	20091009
■ KR20110079897 A	20110711	KR20117010690	20091009
■ US2009137943 AA	20090528	US20070960701	20071220
■ US2010185139 AA	20100722	US20090587584	20091009
■ US2014309583 AA	20141016	US20140298419	20140606
■ US2014336567 AA	20141113	US20140444322	20140728
■ US2014358070 AA	20141204	US20140268408	20140502
■ US2018296245 AA	20181018	US20180007637	20180613
■ US2019167304 AA	20190606	US20190265191	20190201
■ US8715219 BB	20140506	US20090587584	20091009
■ US8961451 BB	20150224	US20070960701	20071220
■  US9095372 BB	20150804	US20140298419	20140606
■ US9295490 BB	20160329	US20140444322	20140728
■ US10016218 BB	20180710	US20140268408	20140502
■ US10092319 BB	20181009	US20140268408	20140502
■ WO08077080 A2	20080626	WO2007US88017	20071218
■ WO08077080 A3	20090430	WO2007US88017	20071218
■ WO10042204 A2	20100415	WO2009US05537	20091009
■ WO10042204 A3	20100722	WO2009US05537	20091009

Priority:

US20060517929	20060908	US20060544856	20061006	US20060875436P	20061218
US20070786832	20070413	US20070923917P	20070417	US20070959826P	20070716
WO2007US88017	20071218	US20070960701	20071220	US20080104448P	20081010

US20090587584 20091009 WO2009US05537 20091009 US20140268408 20140502
US20140298419 20140606 US20140444322 20140728 US20180007637 20180613
US20190265191 20190201

Probable Assignee: SURGIQUEST INC

Assignee(s): (std): AZARBARZIN KURT ; CONMED CORP ; NOLAN TIMOTHY J ; STEARNS RALPH ; SURGIQUEST INC

Assignee(s): JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS ; N A

Inventor(s): (std): NOLAN TIMOTHY J ; STEARNS RALPH ; AZARBARZIN KURT

Agent(s): LISKA HORST; WEICKMANN AND WEICKMANN PARTMBB; SCHAEBERLE STEFFEN; HOEFER AND PARTNER PATENTANWAELTE MBB; EDWARDS ANGELL PALMER AND DODGE LLP; SCOTT D; CHRISTOPHER J; EDWARDS WILDMAN PALMER LLP; LOCKE LORD LLP; ARPITA G; WOFSY SCOTT D; POLLACK MICHAEL; POLLACK MICHAEL J

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

3) Family number: 60818081 (US2017080167A)

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Title: ACTIVE SMOKE FILTRATION FOR INSUFFLATION

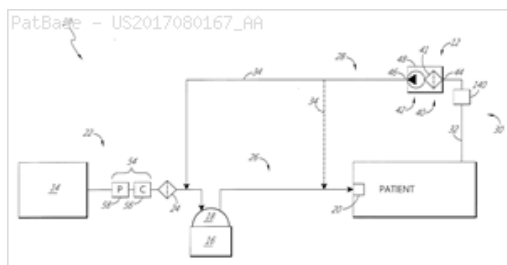
Abstract: An active smoke filtration unit is used to remove smoke during laparoscopic surgery. The active smoke filtration unit is part of a recirculation circuit. The recirculation circuit is pneumatically isolated from a primary flow generator, such as an insufflator, by a valve assembly. The active smoke filtration unit can be housed separately from the valve assembly or together with the valve assembly. The recirculation circuit can include a humidifier to heat and humidify the insufflation gases.

Classifications:

International (IPC 8-9): A61M13/00 A61M16/16 (Advanced/Invention)

CPC: A61B1/015 A61B1/3132 A61M13/00 A61M13/006 A61M16/1055 A61M16/107 A61M16/109 A61M16/16 A61M2205/3344 A61M2205/75 A61M39/24

US: 1/1 604/26



Family:

Publication number	Publication date	Application number	Application date
AU2015259946 AA	20161201	AU20150259946	20150515
AU2015259946 BB	20191212	AU20150259946	20150515
DE602015027268 D1	20190418	DE201560027268T	20150515
EP3142733 A1	20170322	EP20150793616	20150515
EP3142733 A4	20171213	EP20150793616	20150515
EP3142733 B1	20190327	EP20150793616	20150515
EP3536366 A1	20190911	EP20190156416	20150515
US2017080167 AA	20170323	US20150310912	20150515
WO15174861 A1	20151119	WO2015NZ50059	20150515

Priority:

US20140993728P 20140515 EP20150793616 20150515 WO2015NZ50059 20150515
US20150310912 20150515

Probable Assignee: FISHER AND PAYKEL HEALTHCARE LTD

Assignee(s): (std): FISHER AND PAYKEL HEALTHCARE LTD

Assignee(s): FISHER AND PAYKEL HEALTHCARE EAST TAMAKI LTD

Inventor(s): (std): STREVS JSEPH PATRICK WALTER ; BLACKHURST MICHAEL JOSEPH ; DOR ZIDON SHAHAR ; GHALIB ALI GHALIB ABDUL RAHMAN ; SURENDRA WISNU ARYA

Inventor(s): SURENDRA WISNU ARYA AUCKLAND ; GHALIB ALI GHALIB ABDUL RAHMAN AUCKLAND ; DOR ZIDON SHAHAR AUCKLAND ; STREVS JSEPH PATRICK WALTER AUCKLAND ; BLACKHURST MICHAEL JOSEPH AUCKLAND

Agent(s): BALDWIN INTELLECTUAL PROPERTY; MAUCHER JENKINS PATENTANWAELTE AND RECHTSANWAELTE; TREEBY PHILIP DAVID WILLIAM

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

4) Family number: 44896728 (US2010170208A)

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Title: MULTI-FLOW FILTRATION SYSTEM

Abstract: Disclosed is multi-flow filter cartridge assembly that includes an elongated housing that has axially opposed proximal and distal ends and defines an interior cavity and first, second and third flow paths which extend from the proximal end of the housing to the distal end. The cartridge assembly also includes first, second and third filter elements. The first filter element is disposed within the interior cavity of the housing and conditions fluid that traverses the first flow path from a first inlet port to a first outlet port. The second filter element is disposed within the interior cavity of the housing and conditions fluid that traverses the second flow path from a second inlet port to a second outlet port. Lastly, the third filter element is also disposed within the interior cavity of the housing and conditions fluid that traverses the third flow path from a third inlet port to a third outlet port. The first flow path is isolated from the second and third flow paths and the second flow

path is isolated from the third flow path.

Classifications:

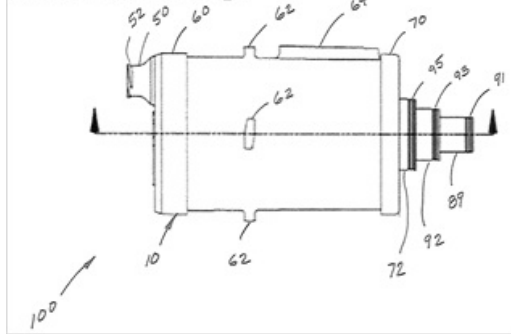
International (IPC 8-9): A61B1/00 A61B1/015 A61B17/00 A61B17/02 A61B17/34 A61B17/94 A61B19/00 A61B90/00 A61B90/98 A61M1/00 A61M13/00 A61M31/00 A61M37/00 A61M39/10 B01D27/08 B01D27/14 B01D29/00 B01D29/52 B01D29/54 B01D29/60 B01D35/30 B01D39/00 B01D45/00 B01D46/00 B01D46/10 B01D46/12 B01D46/24 B01D46/42 B01D46/44 B01D46/52 B01D50/00 (Advanced/Invention); A61B17/00 A61B17/34 A61B19/00 A61B90/00 A61M13/00 A61M16/10 B01D27/08 B01D46/12 (Advanced/Non-invention); B01D27/00 B01D27/08 B01D35/30 B01D46/10 B01D46/44 (Core/Invention)

CPC: B01D46/521 A61M16/1055 A61M2205/125 B01D46/0019 B01D46/0086 B01D46/009 B01D46/106 B01D46/2411 B01D46/444 B01D2265/025 B01D2265/05 A61B2017/00199 A61B34/25 A61B90/96 A61B2090/0803 B01D46/429 A61B1/015 A61B1/3132 A61M2205/505 A61M2205/6054 A61M2205/6063 A61M2205/7509 A61M2205/7518 A61M2205/273 A61M2205/6018 A61M2205/3334 A61M2205/3344 A61M2205/3569 A61M2205/3584 A61M2205/3592 A61M2205/502 A61M2210/1021 A61M1/0025 A61M1/0029 A61B17/0218 A61B17/00 A61B17/34 A61B2217/005 A61B1/00119 A61B17/3421 A61B17/3474 A61B90/98 A61B2017/00221 A61B2017/00225 A61B2090/064 A61B2218/008 A61M13/006 A61M2205/75 A61M1/0031 B01D46/0008 B01D46/4254 A61M13/00 A61M13/003 A61M2205/33 A61M2205/70

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US: 1/1 210/232 210/295 210/323.1 210/323.100S 210/323.2 210/323.200P 210/323.200S 210/340 210/340S 210/342 210/342S 210/435 210/438 55/342 55/343 55/344 55/344P 55/345 55/350.1 55/350.100S 55/482 55/495 55/498 604/23 604/24 604/24P 604/26

PatBase - US2010170208_AA



Family:

Publication number	Publication date	Application number	Application date
AU2017357115 AA	20190530	AU20170357115	20171114
CA3040920 AA	20190416	CA20173040920	20171114
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CN102264451 B	20141224	CN200980149889	20091010
CN109963605 A	20190702	CN201780070045	20171114
DE602009021496 D1	20140227	DE200960021496T	20091010
EP2364197 A2	20110914	EP20090820022	20091010
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Priority:

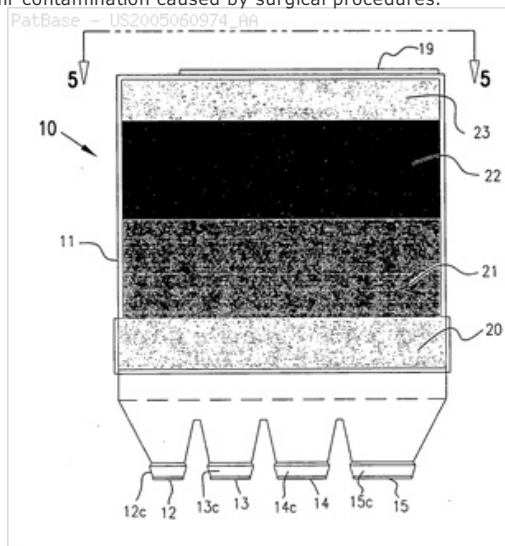
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US20180957655	20180419				

Probable Assignee: SURGIQUEST INC**Assignee(s):** (std): MASTRI DOMINICK ; MATULA PAUL A ; PARYS JAMES RAYMOND ; SURGIQUEST INC ; STEARNS RALPH ; PARYS JAMES R ; TANG RAYMOND YUE SING ; TANG RAYMOND Y ; CONMED CORP ; COPLEY JOHNNIE H ; ESTKOWSKI CHRISTOPHER ; FELDMAN DENNIS**Assignee(s):** JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS ; SURGIQUEST INC ORANGE ; N A ; SILVER MIKIYA**Inventor(s):** (std): SILVER MIKIYA ; TANG RAYMOND Y ; TANG RAYMOND YUE SING ; FELDMAN DENNIS ; COPLEY JOHNNIE H ; MASTRI DOMINICK ; ESTKOWSKI CHRISTOPHER ; STEARNS RALPH ; PARYS JAMES RAYMOND ; MATULA PAUL A ; PARYS JAMES R**Inventor(s):** ESTKOWSKI CHRISTOPHER PULLMAN ; COPLEY JOHNNIE H MORRIS ; PARYS JAMES RAYMOND CHESHIRE ; STEARNS RALPH BOZRAH ; MATULA PAUL A BROOKFIELD ; MASTRI DOMINICK BRIDGEPORT**Agent(s):** FB RICE PTY LTD; BERESKIN AND PARR LLP SENCRL SRL; HOFER AND PARTNER PATENTANWALTE MBB; SCHAEFERLE STEFFEN; HOFER AND PARTNER; EDWARDS ANGELL PALMER AND DODGE LLP; SCOTT D; BRIAN R; EDWARDS WILDMAN PALMER LLP; LOCKE LORD LLP; ARPITA G; CHRISTOPHER J; POLLACK MICHAEL J; BEHMKE JAMES M ET AL; POLLACK BRIAN R; WOFSEY SCOTT D ET AL**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**5) Family number: 31770124 (US2005060974A)**

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Title: OPERATING ROOM SMOKE EVACUATOR WITH INTEGRATED VACUUM MOTOR AND FILTER

Abstract: The present invention broadly comprises a multiport filter having at least three intake ports and at least two layers—a first layer for containing particles 3 microns or greater and a second layer that contains particles 3 microns or less in size. In alternate embodiments, the filter includes a third layer for trapping odors and gases and a fourth layer for trapping fines. The second layer may be comprised of ULPA material and may have antimicrobial material. The invention also includes a contaminant removal system for the filtering and recirculation of air contaminated with smoke from cautery-type surgical procedures. The invention also broadly comprises a surgical assemblies control service head designed to house powered surgical devices and a vacuum-filtering system for the treatment of air contamination caused by surgical procedures.

Classifications:**International (IPC 8-9):** A61B18/00 A61B19/00 A61M1/00 B01D29/56 B01D29/90 B01D35/02 B01D35/143 B01D46/00 B01D46/10 B01D46/42 B01D46/46 B01D50/00 (Advanced/Invention)**International (IPC 1-7):** B01D46/00 B01D46/10 B01D50/00**CPC:** A61B18/00 A61B2218/008 B01D2253/102 B01D2257/91 Y10S604/902**European:** A61B18/00 K61B218/00D4D L01D253/102 L01D257/91**US:** 55/385.1 55/385.100P 55/385.2 55/385.200S 55/385.4 55/420 55/467 55/467S 55/473 55/482 55/482P 55/485 55/490 55/490S 604/319 604/322 604/902 96/417 96/417P 96/424**Family:**

Publication number	Publication date	Application number	Application date
AU2004273890 AA	20050331	AU20040273890	20040915
EP1677893 A2	20060712	EP20040788772	20040915
EP1677893 A4	20090107	EP20040788772	20040915
US2005060974 AA	20050324	US20040942186	20040915
US2009288561 AA	20091126	US20090506509	20090721
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Priority:

US20030503326P	20030915	US20040942186	20040915	WO2004US30264	20040915
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Probable Assignee: BUFFALO FILTER LLC**Assignee(s):** (std): CHRISTOPHER PALMERTON ; DEAN ROBERT O ; KAJDAS JAY T ; JAY KAJDAS ; EARNEST MOEHLAU ; PALMERTON CHRISTOPHER A ; PALMERTON DANIEL ; MOEHLAU EARNEST R ; ROBERT DEAN ; MEDTEK DEVICES INC ; MOHLAU EARNEST**Assignee(s):** POREX CORP ; PURAFIL INC ; MOEHLAU EARNEST ; AIR SYSTEM PRODUCTS LLC ; BANK OF MONTREAL ; BANK OF MONTREAL COLLATERAL AGENT AS ; BUFFALO FILTER LLC ; CHEMCO MFG CO INC ; DANIEL PALMERTON ; GOLDMAN SACHS BANK USA COLLATERAL AGENT AS ; FILTRAN LLC ; FILTRATION GROUP LLC ; JONELL FILTRATION PRODUCTS INC ; KAYDON CUSTOM FILTRATION CORP ; LLC AG IND ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS**Inventor(s):** (std): PALMERTON CHRISTOPHER A ; PALMERTON DANIEL ; DEAN ROBERT O ; KAJDAS JAY T ; MOEHLAU EARNEST ; MOEHLAU EARNEST R ; EARNEST R MOEHLAU ; JAY T KAJDAS ; ROBERT O DEAN ; CHRISTOPHER A PALMERTON ; DANIEL PALMERTON ; MOHLAU EARNEST**Inventor(s):** KAJDAS JAY ; PALMERTON CHRISTOPHER ; DEAN ROBERT**Agent(s):** SPRUSON AND FERGUSON; C RICHARD LOHRMAN ESQ SIMPSON AND SIMPSON PLLC; PHILLIPS LYTLE LLP,INTELLECTUAL PROPERTY GROUP; PHILLIPS LYTLE LLP INTELLECTUAL PROPERTY GROUP; PHILLIPS LYTLE LLP**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW**6) Family number: 31451794 (US2005000196A)**

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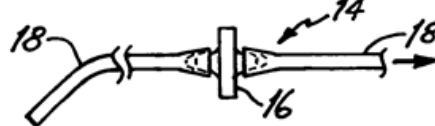
Title: SMOKE EVACUATION SYSTEM**Abstract:** A smoke evacuating system for use during surgical procedures, particularly minimally invasive procedures involving the use of a laser or cautery at a surgical site having an associated higher than ambient pressure, wherein the system includes a filter with a site side and an outlet side and a fluid conduit extending between the surgical site and the filter. The filter includes a filter media and a housing substantially surrounding the filter media with a space between the filter media and the housing to collect condensed vapor. The filter exhibits low resistance or a low pressure drop and resists fluid flow, whereby the higher than ambient pressure is not substantially diminished and generates a fluid flow in the fluid flow path tending to carry smoke to and through the filter.**Classifications:****International (IPC 8-9):** A61B18/00 A61B19/00

B01D46/00 (Advanced/Invention);

A61B18/00 B01D46/00 (Core/Invention)

International (IPC 1-7): B01D46/00**CPC:** A61B18/00 A61B2218/008**European:** A61B18/00 K61B218/00D4D**US:** 55/385.2 55/385.200P 55/467 55/467S

PatBase - US2005000196_AA

**Family:**

Publication number	Publication date	Application number	Application date
AU2004257600 AA	20050127	AU20040257600	20040629
CA2530962 AA	20051230	CA20042530962	20040629
EP1648588 A2	20060426	EP20040756404	20040629
JP2007521089 T2	20070802	JP20060518727T	20040629
US2005000196 AA	20050106	US20030612862	20030703
WO05007214 A2	20050127	WO2004US20977	20040629
WO05007214 A3	20050519	WO2004US20977	20040629

Priority:

US20030612862 20030703 WO2004US20977 20040629

Probable Assignee: JLJ MEDICAL DEVICES INT LLC**Assignee(s):** (std): JLJ MEDICAL DEVICES INT LLC ; JLJ MEDICAL DEVICES INTERNATIO ; SCHULTZ LEONARD S**Assignee(s):** JLJ MEDICAL DEVICES INT ; JLJ MEDICAL DEVICES INTERNATIONAL LLC**Inventor(s):** (std): SCHULTZ LEONARD S**Inventor(s):** LEONARD S SCHULTZ ; SCHULTZ LEONARD**Agent(s):** WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; RICHES MCKENZIE AND HERBERT LLP; DAVID E BRUHN DORSEY AND WHITNEY LLP**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW**7) Family number: 56548842 (US2016158468A)**

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Title: SYSTEMS AND METHODS FOR CONDUCTING SMOKE EVACUATION DURING LAPAROSCOPIC SURGICAL PROCEDURES**Abstract:** An insufflation and smoke evacuation system for use during laparoscopic surgical procedures in an abdominal cavity of a patient is disclosed that includes a pump for circulating pressurized gas within the system, and a dual lumen cannula configured to provide access to the abdominal cavity of a patient, which includes a first lumen communicating with a source of insufflation fluid and a second lumen communicating with the pump.**Classifications:****International (IPC 8-9):** A61B A61B17/34 A61B17/50 A61B17/94

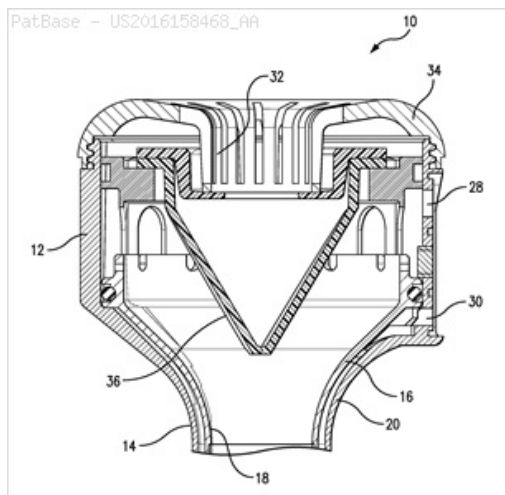
A61B90/00 A61M A61M1/00 A61M13/00

A61M27/00 (Advanced/Invention);

A61M13/00 (Advanced/Non-invention);

A61B A61M (Subclass/Invention)

CPC: A61B17/3462 A61B17/3474 A61B2218/006 A61M13/006
F04C2270/041 A61B2218/008 A61M2205/3337 A61M2205/3344
A61M2205/7545
US: 604/26



Family:

Publication number	Publication date	Application number	Application date
■ CN104797278 A	20150722	CN201380060681	20131120
■ CN110338910 A	20191018	CN201910507216	20131120
■ EP2922583 A1	20150930	EP20130856218	20131120
■ EP2922583 A4	20160615	EP20130856218	20131120
■ HK1212263 A1	20160610	HK20150112586	20151222
■ JP2015535445 T2	20151214	JP20150543132T	20131120
■ JP2018192267 A2	20181206	JP20180110211	20180608
■ US2016158468 AA	20160609	US20130907517	20131120
■ WO14081783 A1	20140530	WO2013US70933	20131120

Priority:

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JP20180110211 20180608		

Probable Assignee: SURGIQUEST INC

Assignee(s): (std): SURGIQUEST INC

Assignee(s): N A

Inventor(s): (std): MASTRI DOMINICK ; BLIER KENNETH ; TANG RAYMOND YUE SING ; STEARNS RALPH ; AZARBARZIN HURT ; AZARBARZIN KURT ; RAYMOND YUE SING TANG ; KENNETH BLIER ; RALPH STEARNS ; HURT AZARBARZIN ; DOMINICK MASTRI

Agent(s): HOEFFER AND PARTNER PATENTANWALTE MBB; TOKYO ARPA IP AND CO; JONES JOSHUA L ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

8) Family number: 40749702 (US2007249990A)

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Title: AUTOMATIC SMOKE EVACUATOR AND INSUFFLATION SYSTEM FOR SURGICAL PROCEDURES

Abstract: An automatic smoke evacuation and insufflation system for surgical procedures having a vacuum for removing gas, smoke, and debris from a surgical site and an insufflator for supplying gas to the body cavity of a patient.

Classifications:

International (IPC 8-9): A61B17/00 A61B17/34 A61B17/94

A61B18/00 A61B19/00 A61M A61M1/00 A61M13/00

A61M37/00 (Advanced/Invention);

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A61B17/00 A61M1/00 A61M37/00 (Core/Invention);

A61M (Subclass/Invention)

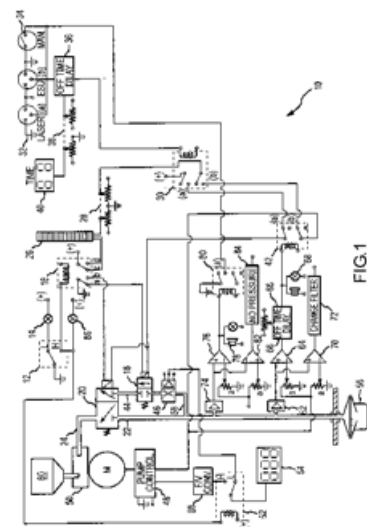
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K61M205/33P1 K61M205/33P5 K61M205/33T K61M205/36J

US: 604/23 604/23S 604/27 604/27P

**Family:**

Publication number	Publication date	Application number	Application date
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CA2649400 AA	20081015	CA20062649400	20060830
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CN101448545 A	20090603	CN200680054689	20060830
CN101448545 B	20130821	CN200680054689	20060830
EP2007471 A1	20081231	EP20060802612	20060830
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JP2015061617 A2	20150402	JP20140227165	20141107
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JP6062909 B2	20170118	JP20140227165	20141107
US2007249990 AA	20071025	US20060379406	20060420
US2019269863 AA	20190905	US20190415287	20190517
WO07123565 A1	20071101	WO2006US33838	20060830

Priority:

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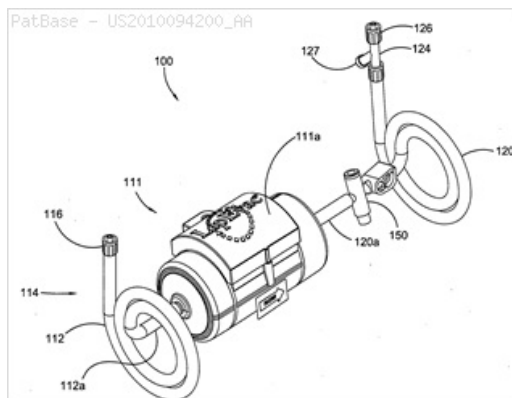
Probable Assignee: IC MEDICAL INC**Assignee(s):** (std): COSMESCU IOAN ; I C MEDICAL INC ; IC MEDICAL INC**Assignee(s):** IC MEDICAL INC2002 WEST QUAIL AVENUEPHOENIXAZ85027-1390US**Inventor(s):** (std): COSMESCU IOAN ; IOAN COSMESCU**Inventor(s):** COSMESCU IOAN ; COSMESCU IOANUS**Agent(s):** FB RICE; FB RICE PTY LTD; GOWLING LAFLEUR HENDERSON LLP; HANNA PETER WILLIAM DEREK ET AL; HANNA MOORE AND CURLEY; SHANGHAI PATENT AND TRADEMARK OFFICE; SHANGHAI INTELLECTUAL PROPERTY OFFICE; SNELL AND WILMER LLP MAIN**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**9) Family number: 42149543 (US2010094200A)**

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Title: WICK AND RELIEF VALVE FOR DISPOSABLE LAPAROSCOPIC SMOKE EVACUATION SYSTEM**Abstract:** The present invention relates to an improved smoke evacuation device for use in laparoscopic surgeries. One improvement is a hydrophilic wick positioned within the inlet system of the smoke device for absorbing moisture and trapping surgical waste entering the smoke evacuation device. The second improvement is a multi-outlet valve inserted into the outlet system of the smoke evacuation device to enable quick depressurization of the surgical site.**Classifications:**

International (IPC 8-9): A61B17/00 A61B18/00 A61M1/00
 A61M37/00 B01D46/00 B01D46/10 B01D50/00 F16K11/14
 F25B45/00 (Advanced/Invention);
 A61M1/00 A61M37/00 B01D50/00 F16K11/10
 F25B45/00 (Core/Invention)

CPC: A61B18/00 A61B2218/008 B01D46/0036 B01D46/10
Y10T137/87708
European: A61B18/00 B01D46/00F60 B01D46/10 K61B218/00D4D
US: 137/862 137/862S 422/113 422/113S 604/131 604/25 604/26
604/26P 96/147 96/147S



Family:

Publication number	Publication date	Application number	Application date
AU2008223473 AA	20080912	AU20080223473	20080229
AU2008223473 BB	20140109	AU20080223473	20080229
CA2679832 AA	20090901	CA20082679832	20080229
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DE602008028553 D1	20140102	DE200860028553T	20080229
DK2117621 T3	20131209	DK20080726317T	20080229
EP2117621 A2	20091118	EP20080726317	20080229
EP2117621 A4	20120418	EP20080726317	20080229
EP2117621 B1	20131106	EP20080726317	20080229
ES2441261 T3	20140203	ES20080726317T	20080229
US2010094200 AA	20100415	US20080529503	20080229
US9011366 BB	20150421	US20080529503	20080229
WO08109014 A2	20080912	WO2008US02759	20080229
WO08109014 A3	20090129	WO2008US02759	20080229

Priority:

US20070904270P 20070301 EP20080726317 20080229 WO2008US02759 20080229
US20080529503 20080229

Probable Assignee: MEDTEK DEVICES INC

Assignee(s): (std): BUFFALO FILTER LLC ; DEAN ROBERT O ; MEDTEK DEVICES INC DBA BUFFALO ; KAJDAS JAY T ; MEDTEK DEVICES INC D B A BUFFA ; MEDTEK DEVICES INC DBA BUFFALO FILTER

Assignee(s): MEDTEK DEVICES INC DBA BUFFALO FILTER595 COMMERCE DRIVEBUFFALONY14228US ; POREX CORP ; PURAFIL INC ; AIR SYSTEM PRODUCTS LLC ; BANK OF MONTREAL ; BANK OF MONTREAL COLLATERAL AGENT AS ; GOLDMAN SACHS BANK USA COLLATERAL AGENT AS ; FILTRAN LLC ; FILTRATION GROUP LLC ; JONELL FILTRATION PRODUCTS INC ; KAYDON CUSTOM FILTRATION CORP ; LLC AG IND ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS ; MEDTEK DEVICES INC ; MEDTEK DEVICES INC D B A BUFFALO FILTER ; BUFFALO FILTER LLC LANCASTER ; BUFFALO FILTER LLC5900 GENESEE STREETLANCASTERNY14086US ; CHEMCO MFG CO INC

Inventor(s): (std): DEAN ROBERT O ; KAJDAS JAY T

Inventor(s): ROBERT O DEAN ; JAY T KAJDAS ; DEAN ROBERT OUS ; KAJDAS JAY TUS ; DEAN ROBERT O BUFFALO ; KAJDAS JAY T GETZVILLE

Agent(s): SPRUSON AND FERGUSON; MILLER THOMSON LLP; TORYS LLP; WAECHTERSCHAEUSER AND HARTZ PATENTANWALTSPARTNERSCHAFT MB; FAULKNER THOMAS JOHN; TOMAS TESIFONTE ENRIQUE; PHILLIPS LYTTLE LLP,INTELLECTUAL PROPERTY GROUP; PHILLIPS LYTTLE LLP INTELLECTUAL PROPERTY GROUP; PHILLIPS LYTTLE LLP; LOHRMAN C RICHARD

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

10) Family number: 48692865 (WO11041387A1)

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Title: MULTIMODAL SURGICAL GAS DELIVERY SYSTEM FOR LAPAROSCOPIC SURGICAL PROCEDURES

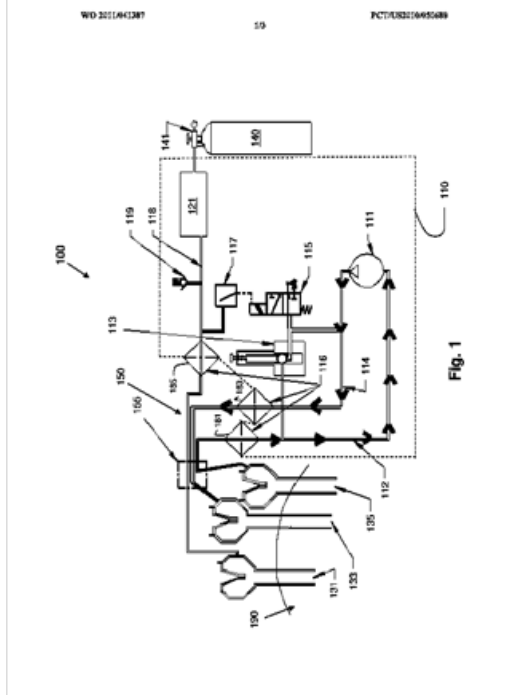
Abstract: The subject multimodal surgical gas delivery systems (100) have a fluid pump (111), supply conduit (114), return conduit (112), adjustable back-pressure control valve (113), insufflation control (121) and conduit (118), a pressure sensor (117) and a conduit set (150). The subject systems (100) can further include a switching valve (295) in connection with the supply, return and insufflation conduits (114, 112, 118), configured and adapted to divert the insufflation conduit (118) between fluid connection with one or more of the surgical devices (131, 133, 135), and the return conduit (112) to the fluid pump (111).

Classifications:

International (IPC 8-9): A61B1/00 A61B17/34 A61M A61M13/00 A61M3/00 (Advanced/Invention)

CPC: A61M13/003 A61M13/006 A61M2205/3337 A61M2205/502 A61M2205/6054 A61M2205/7518

European: A61M13/00G K61M13/00G2 K61M205/33P2 K61M205/50A K61M205/60M K61M205/75B

**Family:**

Publication number	Publication date	Application number	Application date
EP2482869 A1	20120808	EP20100770662	20100929
EP2482869 B1	20190925	EP20100770662	20100929
HK1169344 A1	20130125	HK20120110160	20121015
JP2013505812 T2	20130221	JP20120532265T	20100929
JP5671542 B2	20150218	JP20120532265T	20100929
WO11041387 A1	20110407	WO2010US50688	20100929

Priority:

US20090246921P 20090929 WO2010US50688 20100929

Probable Assignee: SURGIQUEST INC

Assignee(s): (std): FELDMAN DENNIS ; STEARNS RALPH ; SURGIQUEST INC ; TANG RAYMOND YUE SING

Assignee(s): N A

Inventor(s): (std): TANG RAYMOND YUE SING ; STEARNS RALPH ; FELDMAN DENNIS

Agent(s): SCHAEFERLE STEFFEN; HOFER AND PARTNER PATENTANWALTE MBB; CHINA PATENT AGENT HK LTD; POLLACK BRIAN R ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

11) Family number: 29634171 (US2003183082A)

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Title: SMOKE EVACUATION SYSTEM

Abstract: A smoke evacuating system for use during surgical procedures, particularly minimally invasive procedures involving the use of a laser or cautery at a surgical site having an associated higher than ambient pressure, wherein the system includes a filter with a site side and an outlet side and a fluid conduit extending between the surgical site and the filter. The filter includes a filter media and a housing substantially surrounding the filter media with a space between the filter media and the housing to collect condensed vapor. The filter exhibits low resistance and a low pressure drop and resists fluid flow, whereby the higher than ambient pressure is not substantially diminished and generates a fluid flow in the fluid flow path tending to carry smoke to and through the filter.

Classifications:

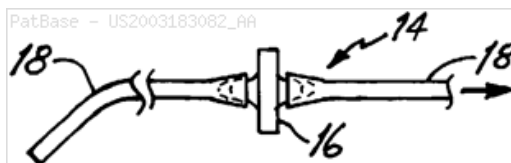
International (ipc 8-9): A61B18/00 A61B19/00 A61F5/44 A61M1/00 A61M25/00 B01D46/00 B01D46/42 B01D50/00 (Advanced/Invention); A61B19/00 B01D46/42 (Advanced/Non-invention); A61B18/00 B01D46/00 B01D50/00 (Core/Invention); B01D (Subclass/Invention)

International (ipc 1-7): A61B18/00 A61B19/00 A61M5/165 B01D39/00 B01D46/00 B01D46/42 B01D50/00

CPC: A61B18/00 A61B2218/008 B01D46/0012 B01D46/0038 B01D46/10 B01D2253/102 B01D2275/10

European: A61B18/00 B01D46/00C40 B01D46/00F70 B01D46/10 K61B218/00D4D L01D253/102 L01D275/10

US: 454/49 454/49S 55/385.1 55/385.100P 55/385.2 55/385.4 55/418 55/486 55/503 55/505 604/264 604/315 604/315P 604/33 604/35 604/45 95/273 95/273P 95/286

**Family:**

Publication number	Publication date	Application number	Application date
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Priority:

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Probable Assignee: COOPERSURGICAL INC

Assignee(s): (std): COOPERSURGICAL INC ; JLJ MEDICAL DEVICES INTERNATIO ; JLJ MEDICAL DEVICES INT LLC ; SCHULTZ LEONARD S ; JLJ MEDICAL DEVICES INT LLC A MINNESOTA CORP ; JLJ INT INC ; JLJ MEDICAL DEVICES INT

Assignee(s): JLJ MEDICAL DEVICES INT INC ; DROGUE JEFFREY K ; INT MEDICAL DEVICES LLC ; JLJ INT

Inventor(s): (std): SCHULTZ LEONARD S ; DROGUE JEFFREY K ; SCHULTZ S ; DROGUE K

Inventor(s): JEFFREY K DROGUE ; LEONARD S SCHULTZ ; DROGUE JEFFREY ; SCHULTZ LEONARD

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; RICHES MCKENZIE AND HERBERT LLP; REINHOLD COHN AND PARTNERS; DORSEY AND WHITNEY LLP, INTELLECTUAL PROPERTY DEPARTMENT; DORSEY AND WHITNEY LLP INTELLECTUAL PROPERTY DEPARTMENT; FISH AND RICHARDSON PC; DORSEY AND WHITNEY LLP

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA GB GE GH GM GN GR GW HR HU ID IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT UA UG UZ VN YU ZW

12) Family number: 28447227 (US6544210B)

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Title: Disposable laparoscopic smoke evacuation system

Abstract: A disposable laparoscopic smoke evacuation system. The system utilizes a small fan unit and filter housed in a single disposable housing adapted to be connected between two laparoscopic surgical instrument assemblies via tubing and powered by batteries or available AC power.

Classifications:

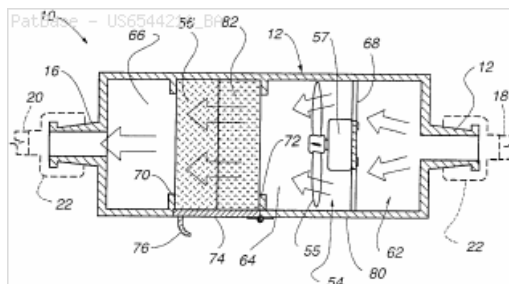
International (IPC 8-9): A61B18/00 (Advanced/Invention)

International (IPC 1-7): A61M37/00

CPC: A61B18/00 A61B2218/008

European: A61B18/00 K61B218/00D4D

US: 604/26 604/28



Family:

Publication number	Publication date	Application number	Application date
US6544210 BA	20030408	US19980177202	19981022

Priority:

US19980177202 19981022

Probable Assignee: BUFFALO FILTER LLC

Assignee(s): AIR SYSTEM PRODUCTS LLC ; BANK OF MONTREAL ; BANK OF MONTREAL COLLATERAL AGENT AS ;
BUFFALO FILTER LLC ; CHEMCO MFG CO INC ; FILTRAN LLC ; FILTRATION GROUP LLC ; GOLDMAN
SACHS BANK USA COLLATERAL AGENT AS ; JONELL FILTRATION PRODUCTS INC ; VISION MEDICAL
TECHNOLOGY INC ; MEDTEK DEVICES INC ; TRUDEL GREGORY J ; SMITH SHAWN P ; KAYDON
CUSTOM FILTRATION CORP ; LLC AG IND ; POREX CORP ; PURAFIL INC

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