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# Filters

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## US Industry Study with Forecasts for **2013 & 2018**

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*Advances will be spurred by changing environmental regulations, particularly those aimed at power plant and diesel engine emissions, and improved operational efficiency of motor vehicle engines.*

## US demand to rise 3.3% annually through 2013

Demand for filters in the US is expected to increase 3.3 percent per year to \$12.4 billion in 2013. Advances will be spurred by pending changes in environmental regulations, particularly those involving reduced emissions from power plants and diesel engines, and improved operational efficiency of motor vehicle engines. Demand will also be boosted by manufacturers' increasing interest in reducing costs by reclaiming production inputs from process water and recycling process water for reuse. Filter shipments are projected to advance 3.0 percent annually through 2013 to \$12.0 billion. Since most filters produced in the US are ultimately used in the US, gains in shipments are driven by many of the same factors as demand.

## Newer product penetration to boost aftermarket sales

Gains will be driven by ongoing sales in the aftermarket, which accounts for the vast majority of demand. Aftermarket sales will be boosted by the increasing penetration of newer products, particularly motor vehicle cabin air filters, diesel emissions filters and many varieties of home air and water filters, so that more filters are in operation, as well as by the rising awareness of the recommended replacement schedule of these newer filters. However, growth in the aftermarket will be offset to a degree by users' tendency to replace filters less often than recommended by the manufacturers.

## US Filter Demand, 2008 (\$10.5 billion)



Additionally, sales will also be restrained by the ongoing development of filters featuring longer lasting media or other technologies that extend their useful life. Original equipment filter sales will benefit from a projected rebound in new vehicle production and the increasing penetration of newer filter products, particularly in the motor vehicle and consumer markets.

## Leading air filters segment to post strongest growth

In 2008, internal combustion engine filters (oil filters, air intake filters, fuel filters, cabin air filters and others) accounted for the largest share of filter shipments with 39 percent. Although this

is a relatively mature product group, sales will benefit from the ongoing development of new types of emissions filters, particularly for diesel engines, and the growing aftermarket for cabin air filters. Shipments of fluid filters (e.g., fluid power, municipal water and waste, consumer water and industrial fluid filters) accounted for the second largest share of total shipments, with 35 percent. Although they compete with membrane separation technologies, fluid filters will also benefit from their use as pre-treatment steps for these technologies. Shipments of air filters are expected to post the strongest growth through 2013, driven by changes in environmental regulations and advances in the consumer market.

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## Sample Text, Table & Chart

### PRODUCTS

#### Fluid Power Filters

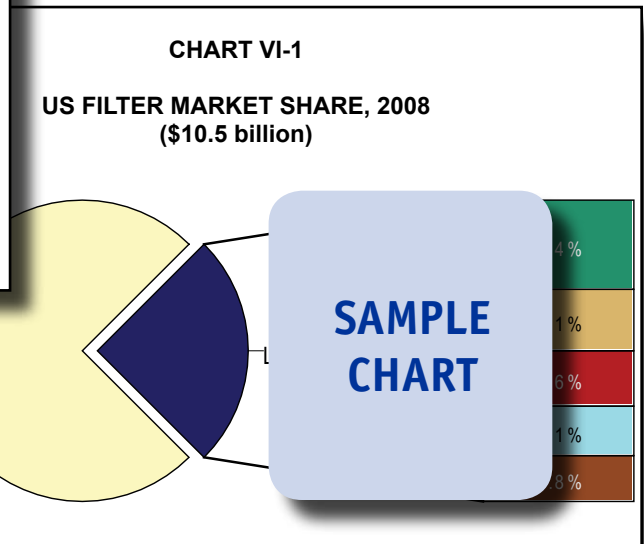
Shipments of fluid power filters are expected to increase per year to \$... in the supply of fluid filters will be... every in the construction with the gain... segment, since power filter... construction equipmentes will also... growth in the pro aerospace e... machinery and equipment often use hydraulic powered components; all projected gains in aerospace equipment and machinery shipment deceleration from those achieved in the 2003-2008 period.

Domestic shipments of fluid power filters are protected cost competing imports to some extent by the high tech nature filters. As a result, exports account for a small share of fluid filter shipments and the US is still a net exporter. Through 2013, export growth is expected to outpace import growth, largely because of the specialized nature of many of these filters and the need for exported filters to support the movement of many types of manufacturing outside the US. However, export gains will be restrained as fluid power filter production also shifts outside the US.

Fluid power filters are designed as integral parts of hydraulic and pneumatic fluid power systems, which transfer energy via the force of pressurized liquids such as water or oil (hydraulics) or compressed air (pneumatics). Hydraulic system filters include suction line filters that block contaminants before they reach the pump, pressure line filters that are located between the pump and other components, and return line filters that filter the fluids before they are recirculated. These filters are designed to protect downstream equipment from contaminants, such as dirt and chips of metal, rubber or plastic, which could cause damage to the systems and result in premature failure. Pneumatic filters are used to

**TABLE IV-7**  
**INTERNAL COMBUSTION ENGINE FILTER SUPPLY & DEMAND**  
 (million dollars)

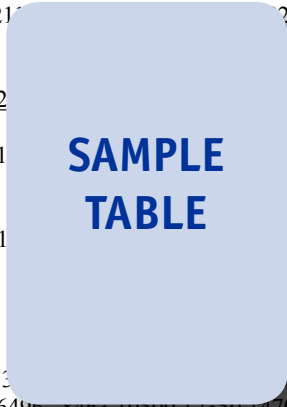
Item	1998	2003	2008	2013	2018
Motor Vehicles in Use (mil)	217	221	225	229	232
\$ ICE filters/vehicle	6	6	6	6	6
ICE & Related Filter Demand	0	0	0	0	0
+ net exports	5	5	5	5	5
ICE & Related Filter Shipments	5	5	5	5	5
Oil Filters	5	5	5	5	5
Air Intake Filters	0	0	0	0	0
Fuel Filters	0	0	0	0	0
Cabin Air Filters	5	5	5	5	5
Other Filters	5	5	5	5	5
% ICE & related Filter Shipments	4	4	4	4	4
	6755	8107	10550	12000	13700



## Sample Profile, Table & Forecast

**TABLE V-2**  
**MOTOR VEHICLE MARKET FOR FILTERS**  
 (million dollars)

Item	1998	2003	2008	2013	2018
Motor Vehicles in Use (mil)	211	221	231	241	250
\$ filters/vehicle in use	12.7	13.1	13.5	13.9	14.3
Motor Vehicle Filter Demand	2680	2900	3120	3340	3560
By Market Segment:					
Aftermarket	1650	1750	1850	1950	2050
Original Equipment	1030	1150	1270	1390	1510
By Type:					
Oil & Fuel	1000	1050	1100	1150	1200
Air Intake	500	550	600	650	700
Cabin Air Filters	200	250	300	350	400
Others	130	150	170	190	210
% motor vehicles Filter Demand	12.7	13.1	13.5	13.9	14.3
	6496	8463	10500	12530	14700



### COMPANY PROFILES

**Kaz Incorporated**  
 1775 Broadway, Suite 2405  
 New York, NY 10019  
 212-586-1630  
<http://www.kaz.com>

Annual Sales:  
 Employment:

Key Products:  
 carbon pre-fil  
 air purifiers



Kaz is a manufacturer of humidifiers, thermometers, heaters, fans and insect control products. Moreover, the Company is a licensee of the VICKS brand name from Procter & Gamble Company (Cincinnati, Ohio).

The Company is involved in the US filters industry through the production of such air filtration products as humidifier filters, high-efficiency particulate air (HEPA) filters, carbon pre-filters, filter cartridges, replacement filters, humidifiers and air purifiers. Many of these products are manufactured and sold under the KAZ brand name; however, through several licensing agreements, Kaz also makes and markets various filtration products under such brand names as VICKS, HONEYWELL, DURACRAFT and ENVIRACAIRE. Specifically, as a licensee of Procter & Gamble's VICKS brand name, Kaz manufactures and markets VICKS products, including humidifiers, many of which utilize KAZ filters. In addition, the Company maintains a licensing agreement with Honeywell International Incorporated for the use of the HONEYWELL, DURACRAFT and ENVIRACAIRE brand names.

“Demand for filters in the motor vehicle aftermarket is expected to advance 2.1 percent annually to \$3.1 billion in 2013. Sales growth will benefit from steady increases in the number of motor vehicles in use. The aging vehicle stock will also drive gains since older vehicles often run dirtier and less efficiently than newer models, thus requiring more frequent filter and fluid changes. Additionally, advances will benefit from improved consumer compliance with recommended filter replacement rates. This trend is partly the result of ...”  
 --Section V, pg. 161



**OTHER STUDIES**

**World Water Desalination**

Global water desalination demand will grow 9.1% annually through 2013. The Africa/Mideast region will remain the dominant market while the Asia/Pacific region grows the fastest. Technologies such as reverse osmosis membranes and multiple-effect distillation will increase market share. This study analyzes the \$8.4 billion world water desalination industry, with forecasts for 2013 and 2018 by technology, product, service, world region and for 17 countries. It also evaluates market share and profiles industry players.  
 #2523 ..... 08/2009..... \$5700

**World Membrane Separation Technologies**

Global membrane demand is projected to grow 8.6% annually through 2012, driven in part by concerns about water quality and waste stream disposal. Large, developing countries with stressed local water resources will be the fastest growing markets. North America will remain the largest outlet and post strong advances. This study analyzes the \$10 billion world membrane industry, with forecasts for 2012 and 2017 by product, market, world region and for 18 countries. It also evaluates market share and profiles industry players.  
 #2468 ..... 04/2009..... \$5700

**World Nonwovens**

Global demand for nonwoven fabrics is forecast to rise 6.9% yearly through 2012. Gains in developing parts of Asia/Pacific, Eastern Europe, Africa/Mideast and Latin America will outpace demand in developed countries. Spunmelt nonwovens, the largest segment, will also grow the fastest. This study analyzes the \$21.2 billion world nonwovens industry, with forecasts for 2012 and 2017 by formation process, application, market, world region and for 19 national markets. It also evaluates market share and profiles industry players.  
 #2482 ..... 03/2009..... \$5600

**Filters in China**

Demand for filters in China will jump 14.4% annually through 2011. Air filters will post the fastest gains, spurred by rising output of products that include filters or are made in clean-air factories. The motor vehicle market will remain dominant while the water and waste treatment segment of the utilities and consumer markets grows the fastest. This study analyzes the ¥20.9 billion Chinese filter industry, with forecasts for 2011 and 2016 by product and market. It also evaluates company market share and profiles major players  
 #2310 ..... 05/2008..... \$5100

**World Filters**

Global filter demand will climb 5.6% annually through 2011. Developing areas will lead gains based on faster-growing economies and the enactment of stricter environmental laws. China, India and Russia will post some of the strongest sales growth. Air and fluid filters will be the fastest growing types. This study analyzes the \$37 billion world filter industry, with forecasts for 2011 and 2016 by product, market, world region and for 26 countries. It also evaluates company market share and profiles major players.  
 #2295 ..... 03/2008..... \$5800

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