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# Filters

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## US Industry Study with Forecasts for **2015 & 2020**

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*Gains in US filter demand will be driven in part by an ongoing trend toward strengthened environmental regulations and heightened consumer concerns about water and indoor air quality.*

## US demand to rise 7.1% annually through 2011

Demand for filters in the US is expected to increase 7.1 percent per year to \$12.6 billion in 2015. This reflects a turnaround from the declines registered during the 2005-2010 period due to the economic recession that occurred during the latter half of that period. Advances will be spurred by improved manufacturing activity and industrial investment, a recovery in motor vehicle production and sales, and a rebound in consumer spending from a low 2010 base. An ongoing trend toward strengthened environmental regulations -- particularly those involving reduced emissions from electric utilities and diesel engines, and better water quality -- will also aid gains. Additionally, heightened concerns about water and indoor air quality will boost filter demand in the consumer market.

## Growing filter penetration to boost aftermarket sales

Ongoing sales in the aftermarket, which accounts for the vast majority of demand, will also drive gains. The growing market penetration of motor vehicle cabin air filters, diesel emissions filters, and home air and water filters will contribute to aftermarket demand gains. As the number of these types of filters in operation increases and awareness among consumers of their recommended replacement schedule improves, demand for replacement filters will also increase. However, growth in the aftermarket will be offset somewhat by users'

## US Filter Demand, 2015 (\$12.6 billion)



Motor Vehicles & Other Transportation Equipment  
31%

Utilities  
22%

Consumer  
20%

Industrial & Manufacturing  
17%

Other Markets  
10%

photo: Corteco

tendency to replace filters less often than recommended by manufacturers. The ongoing development of filters featuring longer lasting media or other technologies that extend their useful life will also restrain sales.

## Internal combustion engine filters to grow fastest

In 2010, fluid filters (e.g., fluid power, municipal water and waste, consumer water and industrial fluid filters) accounted for the largest share of filter shipments. Filters used in internal combustion engines (oil filters, air intake filters, fuel filters, cabin air filters and others) accounted for the second largest share of total shipments and are expected to

grow fastest through 2015, albeit from a low 2010 base. Although this is a relatively mature product group, sales will benefit from a rebound in motor vehicle production and sales, as well as the ongoing development of new types of emissions filters, particularly for diesel engines, and the growing aftermarket for cabin air filters. Despite recommended oil change intervals increasing in recent years, high gasoline prices will continue to motivate consumers to replace filters regularly in order to optimize engine performance and fuel efficiency. Shipments of air filters are expected to improve over the 2005-2010 period, benefiting from greater manufacturing activity, and increasing environmental regulations and consumer interest.

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## Sample Text, Table & Chart

### FILTRATION TECHNOLOGY

#### Paper

Demand for filters incorporating paper or cellulose media is expected to increase to \$1.5 billion in 2015, albeit reduced by 10% over the 2010 level. This is nonetheless below the demand of the previous industry average. Demand for paper filters is expected to outpace the other types of filters as they increasingly face greater competition from nonwoven fabric and other filters for these applications. Nonwoven fabric is also gaining popularity in air filtration applications. These other types of media typically offer performance advantages such as higher efficiency and longer useful lives. However, the distinction between paper and wetlaid nonwoven media is becoming increasingly blurred as a growing number of paper filters incorporate polymers and glass fibers to improve performance properties. Going forward, growth in the fluid and air filters markets will also support advances in demand for paper filters. Additionally, demand for paper filtration media benefits from paper's relatively low cost and its usefulness in many applications.

Paper filtration media are used in a variety of applications. Many internal combustion engine filters are made using paper media, particularly oil and fuel filters, but also many air intake filters. Additionally, the filters used in applications such as consumer air cleaning systems and vacuum cleaners also primarily feature paper media. Paper filters are widely used in bacteriological, blood fractionation and other laboratory-based filtration applications. Paper is the filter medium most commonly used in the food and beverage, chemical, and pharmaceutical industries for clarifying applications. Another key use for paper filters is as a treatment filter for some other types of media in industrial filtration applications as well as for primary filtration operations in industries such as food, flavors, fragrances and personal care products, where paper

57

Copyright 2011

**SAMPLE  
TEXT**

TABLE IV-7

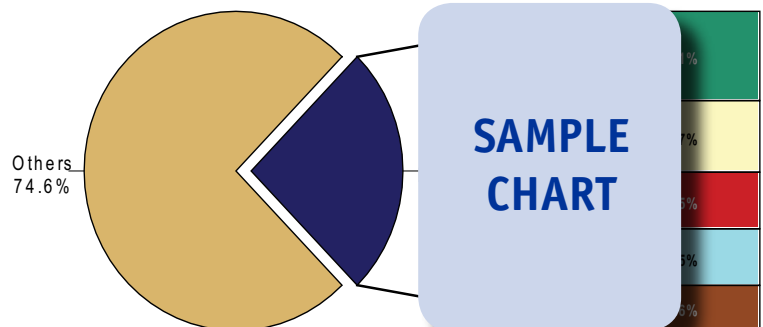
### INTERNAL COMBUSTION ENGINE (ICE) & RELATED FILTER SUPPLY & DEMAND (million dollars)

Item	2000	2005	2010	2015	2020
Motor Vehicles in Use (mil)					
\$ ICE filters/vehicle					
ICE & Related Filter Demand					
+ net exports					
ICE & Related Filter Shipments					
Oil Filters					
Air Intake Filters					
Fuel Filters					
Cabin Air Filters					
Other Filters					
% ICE & related Filter Shipments	7320	9120	8855	11550	13850

**SAMPLE  
TABLE**

CHART VI-1

### US FILTER MARKET SHARE, 2010 (\$8.9 billion)



**SAMPLE  
CHART**

## Sample Profile, Table & Forecast

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

Item	2000	2005	2010	2015	2020
Motor Vehicle Filter Demand	27	20	20	25	30
By Market Segment:					
Aftermarket	2	2	2	2	2
Original Equipment	25	18	18	23	28
By Type:					
Oil & Fuel	1	1	1	1	1
Air Intake	1	1	1	1	1
Cabin Air Filters	1	1	1	1	1
Others	1	1	1	1	1
% motor vehicles Filter Demand	72	72	72	72	72

**SAMPLE  
 TABLE**

**COMPANY PROFILES**

**Culligan International Company**  
 9399 West Higgins Road  
 Rosemont, IL 60018  
 847-430-5000  
 http://www.culligan.com

Annual Sales: \$1.2 billion  
 Employees: 1,000

Key Products: Water purification systems, and related filters.

Culligan International is a producer of water systems that are primarily used to purify water in residential and commercial applications. The Company is a subsidiary of Clayton, Dubilier & Rice Incorporated (New York, New York), a leading global private equity firm.

Culligan competes in the US filters industry via the manufacture of whole-house and drinking water purification systems, and related filters. These products are suitable for various residential, commercial and industrial uses. Culligan maintains a network of over 700 dealers in North America and has operations in over 90 countries worldwide.

Residential whole-house filtration systems made by Culligan are designed to remove such impurities as chlorine, iron, acid, sulfur and sediment that affect the taste, look, smell and feel of water. The Company manufactures whole-house systems under the GOLD, MEDALIST, IRON-CLEER, SULFUR-CLEER, TOTAL HOME and ARSENIC brand names. GOLD and MEDALIST automatic filter systems can be customized to meet homeowner specifications. These systems are suitable for use with such Culligan-made filters as FILTR-CLEER sediment-removing types that collect dirt, silt, clay and other debris;

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**SAMPLE  
 PROFILE**

“Demand for filters in the motor vehicle OEM market is forecast to grow 10.5 percent annually to \$305 million in 2015, albeit from a significantly reduced 2010 base. Demand declined between 2005 and 2010 due to a sharp drop in motor vehicle production levels in 2008 and 2009. While output improved considerably in 2010, production nonetheless remained well below pre-recession levels. Going forward, ...”

--Section V, pg. 174



**OTHER STUDIES**

**World Nonwovens**

This study analyzes the world nonwovens industry. It presents historical demand data for the years 2000, 2005 and 2010, with forecasts for 2015 and 2020 by web formation process (e.g., spunmelt, carded, airlaid, wetlaid), application (disposables, nondisposables), market (e.g., personal hygiene, wipes, construction, filtration, medical/surgical), world region and major country. The study also considers market environment factors, details industry structure, evaluates company market share and profiles industry players.

#2816 .....December 2011 ..... \$5900

**World Water Treatment Products**

World demand for water treatment products will rise 6.2 percent annually through 2015. China will remain by far the fastest growing major market. In the US, Japan and Western Europe, gains will favor advanced membrane systems, disinfection and desalination equipment, and industrial wastewater treatment chemicals. This study analyzes the \$48.1 billion world water treatment product industry, with forecasts for 2015 and 2020 by product, market, world region and for 30 countries. The study also evaluates company market share and profiles industry players.

#2802 .....September 2011..... \$6400

**World Membrane Separation Technologies**

Global demand for membranes is projected to rise 9.0 percent annually through 2015. The BRIC countries and others with large, developing industrial bases and stressed local water resources will see the fastest growth. The US and China combined will account for nearly half of market gains between 2010 and 2015. This study analyzes the \$12.6 billion global membrane industry, with forecasts for 2015 and 2020 by product, market, world region and for 34 countries. The study also evaluates company market share and profiles industry participants.

#2755 .....June 2011 ..... \$6100

**Filters in China**

Demand for filters in China is projected to grow 13.5 percent annually through 2014, supported by rapid growth in transportation equipment production and stocks, and by energy conservation and emission reduction regulations. Internal combustion engine filters will remain the dominant product segment and will post the strongest gains. This study analyzes the 35.2 billion yuan filter industry in China, with forecasts for 2014 and 2019 by type and market. The study also evaluates company market share and profiles 36 industry participants.

#2740 .....March 2011..... \$5300

**Consumer Water Purification & Air Cleaning Systems**

US demand for consumer water purification and air cleaning systems will rise 5.2 percent per year through 2014. Conventional filters will remain the dominant water purification system, while higher-value reverse osmosis and distillation systems grow the fastest. Electrostatic cleaners will lead gains in the air segment. This study analyzes the \$1.3 billion US consumer water purification and air cleaning system industry, with forecasts for 2014 and 2019 by technology, product and regional market. It also evaluates company market share and profiles industry players.

#2720 .....March 2011..... \$5100

**About The Freedonia Group**

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