

Freudenberg - Europe

Automotive Seals

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Products

Air intake filters, Axles, battery separators,
Bellows, Brake components, cabin air
filters, damper engines, Fuel systems,
Gearboxes, Lubrication products, plastic
and PTFE components for suspension,
polyimide-based flexible printed circuit
boards, Printed circuit assemblies, Seals,
Steering systems, Valves, Vibration control
components

Plants

Argentina, Australia, Austria, Belgium,
Brazil, Canada, China, Czech Republic,
Denmark, Finland, France, Germany,
Hungary, India, Indonesia, Iran, Islamic
Republic of, Ireland, Italy, Japan, Jordan,
Malaysia, Mexico, Netherlands, New
Zealand, Norway, Philippines, Poland,
Russian Federation, Slovakia, South Africa,
South Korea, Spain, Sweden, Switzerland,
Taiwan, Province of China, Thailand,
Turkey, United Arab Emirates, United
Kingdom, United States, Venezuela

The Freudenberg Group is a leading global automotive supplier of seals and vibration control technology components. The group has interests in nonwoven textiles, specialty lubricants, mops and other cleaning products, floor coverings, building systems and IT services. Europe accounted for 61.6% of the total 2009 sales.

Freudenberg's four business areas along with sales share (inclusive of intersegment sales) are as follows:

- Seals and Vibration Control Technology (accounted for 52.9% of 2009 sales): The division has six business groups namely Freudenberg Seals and Vibration Control Technology Europe, Freudenberg-NOK General Partnership, NOK Freudenberg Group China, Vibracoustic (Europe), Burgmann Industries, and Dichtomatik. The business groups manufacture sealing and vibration components and solutions for the automotive industry.
- Nonwovens (21.6%): Freudenberg Nonwovens and Freudenberg Filtration Technologies manufacture nonwovens and filters.
- Household Products (14.9%): It sells household products.
- Specialties and Others (16.3%): Freudenberg Chemical Specialities, Freudenberg NOK Mechatronics and Freudenberg New Technologies manufacture grease and lubricants.

The group comprises 14 distinct business units operating independently in various markets all over the world. Seals and Vibration Control Technology, Nonwovens and Specialties mainly cater to the needs of the automotive industry. Freudenberg achieved 33% of its total 2009 sales from automotive OEMs.

Europe is Freudenberg's most significant market. It contributed 61.6% to 2009 net sales, followed by North America (19.3%), Asia (11.5%), South/Central America (5.5%) and Africa & Australia (2.1%).

At the end of 2009, Freudenberg Group consisted of around 408 companies in 52 countries worldwide. Major OEM customers include Audi, BMW, Daimler, Fiat, Ford, Jaguar, Opel/Vauxhall, Land Rover, Peugeot, Renault, Skoda, Toyota and Volkswagen.

Recent Developments

Corporate Strategy

Freudenberg is expanding its manufacturing presence and simultaneously divesting some of its non-core assets. In July 2010, Freudenberg announced plans to divest its OEM cylinder-head and exhaust gaskets business to ElingKlinger to focus on its rail vehicles. The company sold its Mechanical Engineering and Special Tools business, Freudenberg Anlagen- und Werkzeugtechnik to AES in March 2010. In January 2009, Freudenberg Nonwovens spun off its Filter division into an independent business group called Freudenberg Filtration Technologies LP.

The company has been focusing on both combustion engines and electric drives for some time now. In an endeavour to tap the growing electric vehicle market, Freudenberg is developing new products and materials for electric motors as well. In September 2009, Freudenberg announced to invest a substantial amount in fuel-cell technology as it is being used in nonwovens.

In the second half of 2008, Freudenberg responded to the signs of an economic downturn and initiated appropriate countermeasures. The company increased vacation time across various facilities in different parts of the world, implemented temporary closures and did not extend temporary employment contracts and agency staff contracts. The company used short-time work instruments as extensively as possible. But the company was unable to avoid plant closures.

Despite the crisis, the company made some investments and acquisitions to keep growing. In 2010, the group acquired the outstanding stake in Brazilian engine mounts and chassis parts manufacturer Anvis. In the same year, Freudenberg boosted its surface technology portfolio with the acquisition of German SurTec International. Vibracoustic (Europe), a subsidiary of Freudenberg laid the foundations for further growth in key regions in 2009. The business unit started construction of a new plant for commercial vehicle air springs in Yantai (China). Earlier, in 2008, the group acquired Spasciani Air Filter SpA and the remaining interest in its joint-venture Cosso, both based in Italy, to expand its European operations.

For future growth, Freudenberg aims to expand its presence in emerging markets in Asia and eastern Europe, though the company is making some investments in Germany also. The company has made investments in India and China to increase the production of seal products. Moreover, in January 2009, the company created a separate division in China, Freudenberg & Vilene Filter China, to offer filter solutions for the automotive industry.

Acquisitions

* In January 2008, Freudenberg Nonwovens, a business group of Freudenberg, acquired Spasciani Air Filter SpA based in Milan (Italy). The acquisition boosts the company's filter business and strengthens its operations in the European market. Spasciani Air Filter manufactures filters for HVAC (Heating, Ventilation and Air Conditioning) for the automotive, industry.

* In March 2010, Freudenberg Chemical Specialities KG, a subsidiary of Freudenberg, signed an agreement to acquire SurTec International GmbH based in Zwingenberg (Germany). The acquisition will broaden Freudenberg's surface technology portfolio. SurTec operates as an independent company

within the business group. Both the companies are active in the field of surface technology for the automotive industry.

Acquisitions outside Europe

* In October 2007, Freudenberg-NOK acquired Precision Industries of Wisconsin (US), a manufacturer of specialised custom diaphragms, for an undisclosed amount. The acquisition provides Freudenberg-NOK with the desired fabric reinforced diaphragm capabilities in North America. Precision has expertise in custom diaphragms made of rubber, rubber-fabric combinations as well as die-cut diaphragms and gaskets from coated fabrics.

* In January 2010, Vibracoustic, a subsidiary of Freudenberg, announced to acquire the remaining 50% stake in its JV with Anvis Group. The JV, Vibracoustic do Brasil, is based in Brazil and manufactures engine mounts and chassis parts for the domestic market.

Divestments

* In December 2007, Freudenberg signed an agreement to sell its stake in Flexitech companies in Europe and US to Mitsubishi Corporation and Meiji Flow Systems. The divestment was in response to focus on the company's activities in the seal and vibration control business. The Flexitech business is engaged in brake hose activities and is present in Asian, North American and European markets. The sale of the business was concluded in January 2008.

* In October 2008, Freudenberg-NOK announced to close its Laconia plant in New Hampshire (US) within next six months, resulting in a loss of 130 jobs. The plant manufactured elastomeric seals and custom moulded products for automotive industry.

* In January 2009, Freudenberg Nonwovens spun off its Filter division into an independent, wholly-owned business group called Freudenberg Filtration Technologies LP. The headquarters remained in Weinheim (Germany). It has 16 factories in 24 countries.

* In March 2010, Freudenberg sold its Mechanical Engineering and Special Tools business, Freudenberg Anlagen- und Werkzeugtechnik to AES, a private-equity company based in Zurich (Switzerland). The divestment helps the company to rationalise its business activities and concentrate on core areas of business.

* In June 2010, Freudenberg transferred its minority shareholding in Freudenberg Mektec Europa to its joint-venture (JV) partner, NOK Corporation of Japan. The unit was renamed as Mektec Europe GmbH. Employing about 500 people, Freudenberg Mektec Europa produces flexible printed circuits including mounting and assembly. The company's products are used in automotive gearbox control systems, switches, sensors and powertrain technology control and infotainment systems.

* In July 2010, Freudenberg announced plans to divest its OEM cylinder-head and exhaust gaskets business to ElringKlinger. The company supplies cylinder-head and exhaust gaskets to OEMs as well as the aftermarket. Freudenberg will continue to offer aftermarket products through Corteco. Financial details of the transaction were not disclosed. Freudenberg manufactures seals at five locations in three European countries, Eurasburg and Geretsried-Gelting (Germany), Chamboret and Nantiat (France) and Settimo (Italy). Alongside, ElringKlinger also signed agreement to acquire Freudenberg subsidiary Burgmann Automotive in Germany, portion of Freudenberg-Meillor S.A.S. in France, as well as Oigra Meillor s.r.l. in Italy. The divestment is expected to complete by September 2010 end.

Divestments outside Europe

* In February 2009, Freudenberg-NOK General Partnership announced plans to close its transmission plant in Franklin, New Hampshire (US) and consolidate the operations to another plant in Bristol, New Hampshire (US). The company cited falling vehicle production in the US as the main reason behind the plant closure.

Joint Ventures

* In June 2010, Freudenberg Chemical Specialities signed an agreement to acquire SurTec International based in Zwingenberg (Germany). SurTec manufactures surface treatment and electroplating products for metals and plastics. The acquisition will complement Freudenberg's Chemical Specialities portfolio, in which the company plans to grow. Freudenberg Chemical Specialities produces lubricants, release agents and chemotechnical maintenance products for automotive and other industries.

Joint Venture outside Europe

Investments

* In October 2007, Freudenberg invested HUF1bn (€4m, 31 October 2007) to add a new production hall to its Lajosmizse (Hungary) facility. The facility manufactures rubber and moulded parts, including seats to supply carmakers like Volkswagen, Toyota, Honda and Mercedes-Benz.

* In April 2008, Freudenberg Seals and Vibration Control Technology, a division of the company, announced to invest more than €1m in its material development plant at its Weinheim (Germany) facility to increase the production capacity. The plant manufactures elastomer mixtures for automotive industry.

* In June 2009, Freudenberg Mektec Europa, a JV between Freudenberg and NOK Corporation, inaugurated its 7,500m² European Technology Center in the Weinheim Technology Park (Germany) with an investment of €6m. The facility carries out its research and development (R&D) activities in flexible

printed circuits for the automotive, industrial and medical technology markets.

* In October 2009, Freudenberg announced to invest in Merkel Freudenberg Fluidtechnic GmbH, a subsidiary of the company, to transform it as a global centre for heavy-duty hydraulic sealing technology. Based in Hamburg (Germany), the centre will help the company to expand in markets such as China, India, North and South America.

Investments outside Europe

* In July 2007, Freudenberg invested around €35m to establish a production unit in a Nonwovens facility in Ta-Yuan (Taiwan). The facility manufactures filter materials for the automotive industry.

* In December 2007, Freudenberg announced to invest BRL100m (€38.4m, 31 December 2007) between 2008 and 2012 in Brazil. Under the investment plan, a mixing room for sealing production in Diadema (Brazil) was announced to be established while investments worth BRL8m (€3.3m) were earmarked to set up a production line for nonwovens in the Jacarei (Brazil) facility.

* In March 2008, Freudenberg Chemical Specialities KG, a company of Freudenberg, has opened a new plant in Qingpu (China) with an investment of €19m. The plant is spread over 30,000m² area and manufactures specialty lubricants and release agents for the automotive industry.

* In March 2008, Freudenberg announced to open a two million air-spring plant in Yantai, Shandong Province (China).

* In 2008, Freudenberg announced to set up a 6.3m headliner production line at its plant in Suzhou, Jiangsu province (China).

Contracts

- Freudenberg signed a contract to manufacture seals and gaskets for Citroën C3.
- Freudenberg supplies seals and gaskets for Saab 9-5.
- For BMW X1, 5-Series Gran Turismo and Z4, Freudenberg supplies seals and engine shafts.
- Freudenberg won a contract to supply seals, engine shafts, transmission & parts for Rolls-Royce Ghost.
- The company develops engine, transmission & parts for Jaguar XJ.
- For SEAT Exeo, Freudenberg produces seals and gaskets.
- The company signed a contract to manufacture seals, sensors, engine parts, transmission & parts, bearings/bushes for Opel/Vauxhall Astra.
- For Peugeot 3008, Freudenberg supplies gaskets, seals, and engine parts.
- Freudenberg manufactures seals and gaskets for Renault Megane Scenic.
- For Mercedes-Benz E-Class and GLK350, Freudenberg produces seals and gaskets.
- Freudenberg secured a contract from Volkswagen for the supply of engine, transmission & parts for Polo.
- The company supplies seals and gaskets for Subaru Forester.
- For Toyota Venza, Freudenberg manufactures suspension system and engine.

New Product Developments

In 2009, Freudenberg spent €170.9m or 4.1% of its net sales on its R&D activities compared with €195.1m in the previous year. As of 31 December 2009, Freudenberg had 1,873 associates in its R&D department. The Seals and Vibration Control Technology, Vibracoustic (Europe) and Freudenberg Nonwovens business groups accounted for the largest share of the 2009 R&D expenditure.

Key areas of research in the company in 2009 included mobility concepts for the future such as hybrid and electric powertrains. Alternative powertrains will remain a key focus of research and development efforts in the 2010 financial year.

Additionally, Freudenberg has established a dedicated research company, Freudenberg Research Services, which performs basic research for Freudenberg Group companies and external clients primarily in the fields of material and process development, computer-aided engineering and process simulation.

* In April 2007, at the 2007 Hanover Fair, held in Germany, Freudenberg presented plug and seal connectors with built-in-sensors. The package solution is used in diesel engines and in engine auxiliary units and helps to sense the pressure, temperature, moisture and gas flow.

* In September 2007, Mektec Europe, a JV between Freudenberg and NOK Corporation, introduced flexible printed circuits which have conductor and cable on the same board to reduce weight, wiring complexity and induce multifunctionality.

* In November 2008, Freudenberg announced the development of Active Vibration Exciter (AVE), a system to warn the driver in case the vehicle leaves its lane without a turn signal. The system is mounted on the steering wheel and generates vibration at a frequency of about 50Hz with a response time of less than a tenth of a second.

* In May 2009, Vibracoustic developed an active linear absorber for convertibles. The company is working towards the prototype design, parts integration and component testing of the product and is at the pre-development stage.

* In June 2009, Vibracoustic developed the first front axle air spring. The air spring optimally compensates lateral forces by automatically adjusting the load which in turn improves safety and driving.

Financial Overview

For the financial year ended 31 December 2009, Freudenberg reported sales of €4.2bn, down 16.8% from €5.05bn in the previous year. The company reported loss from operations of €161.6m against prior year's

profit from operations of €284.9m. Further, the company reported a consolidated loss of €249.6m against consolidated profit of €176.3m a year ago. The company's losses were attributable to the loss of contribution margins as a result of falling sales..

Business-wise, total sales in Seals and Vibration Control Technology fell 21.5% to €2.23bn compared with €2.84bn a year ago. About three quarter of the sales in this business area are generated by the automotive industry and the mechanical and plant engineering industry. Specialities and Others witnessed a 25.8% drop in sales to €688m against €809m in 2008 while Nonwovens sales declined 8.7% to €911m from €997m in the previous year.

Geographically, sales in Germany dropped 26% to €961m, EU (excluding Germany) sales decreased 15.3% to €1.44bn, Other European countries sales fell 21% to €186m. Sales in North America declined 15% to €810m and South/Central America sales dropped 21.6% to €232m. However, sales in Asia increased 4.7% to €483m and that in Africa/Australia remained stagnant.

Finance Figures - Displayed in

Year	Net Sales[m]	Operating Income[m]	Net Income[m]	R&D Expenditure[m]	Employees
2009	4,201	-161.6	-249.6	170.9	32142
2008	5,050	284.9	176.3	195.1	32738
2007	5,341	383.6	275.2	202.9	34330
2006	5,053	303.5	219.1	202.8	33526
2005	4,837	278.7	202	198.6	33385

Outlook

Freudenberg is suffering from declining sales in its key market – North America. In the last few years, the group has witnessed a substantial sales decline in the North American region. Moreover, the global financial slowdown affected its other regions as well. With restructuring initiatives the group expects to rebound and remain in growth trajectory in the coming time.

The growth is likely to come from the expanding base in emerging markets. The group is likely to benefit from low manufacturing costs and high domestic growth in these countries and also from exports.

The company is evenly positioned to reap the benefits of capacity expansion of its sealing products, where the group has made a number of investments. Along with expanding its manufacturing footprint, Freudenberg has identified potential growth in helping customers meet stricter standards for CO2 emissions, and has introduced CO2 compatible O-ring sealing material.

Apart from its core business of sealing systems, Freudenberg is also looking to focus on new growth markets, such as mechatronics and fuel-cell technology. Its focus on its R&D activities is likely to payoff in the long run.