

BUSINESS AREA MANAGERS



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ENVIRONMENT AND PROCESS

Decanters

These six D7LL decanters were supplied to Sungai Semenyih, Kuala Lumpur, Malaysia, one of the largest drinking water treatment plants in Southeast Asia. Sungai Semenyih uses the decanters to treat the drinking water sludge as a result of the rising ecological awareness of the Malaysian government.



PROFILE

→ The products of the Environment and Process Business Area cover a comprehensive range of technologies and services for mechanical and thermal solid/liquid separation.

The Business Area is a global leader in this field and offers comprehensive support from design to manufacture of key components for sludge thickening, dewatering, drying, and incineration as well as erection and start-up of turnkey plants, including automation and safety engineering. The installed base of more than 10,000 centrifuges is serviced from nine dedicated service centers in Europe, the USA, and Asia.

Customers are offered a wide range of thermal dryers, decanters, rotating filters, belt presses, and filter presses to serve major industries such as coal and mineral processing, chemical/petrochemical, and food processing.

For the industrial and municipal water and wastewater treatment markets, the Business Area offers a large range of screens, sieves, and sand filters. For the treatment of sludges, the product range encompasses gravity and rotary thickeners, decanters, belt and filter presses as

well as belt, drum, and fluidized bed dryers.

The Business Area operates through its headquarters, Andritz AG, in Austria and the following affiliates: Andritz-Ruthner, Inc., Andritz Bird Inc., and Andritz Filter Press, USA; Andritz Separation GmbH and Andritz Filtrationstechnik GmbH, Germany; Andritz Fließbett Systeme GmbH, Germany; Andritz S.A.S., France; Andritz Ingeniería S.A., Spain; Andritz Technologies Ltd., China; Andritz Separation Industria e Comércio de Equipamentos de Filtracão Ltda. and Andritz Brasil Ltda., Brazil; Andritz Separation Private Limited, India; Andritz Ltd., Great Britain; Andritz Jochman s.r.o, Slovakia; Andritz Pty Ltd., Australia; Andritz Singapore Pte. Ltd., Singapore; and Andritz 3Sys AG, Switzerland. Production and service facilities for machines and components are located in Graz, Austria; Châteauroux, France; Cologne, Germany; Singapore; Foshan, China; Den Helder, Netherlands; Pittsburg, Texas; Scott Depot, West Virginia; Houston, Texas; Lakeland, Florida, all USA; Pomerode, Brazil; Spišská Nová Ves, Slovakia; Chennai, India; and Saskatoon, Saskatchewan, Canada.

Market development

Overall, the market for sewage sludge treatment developed satisfactorily during 2004, however with a marked difference between dewatering and drying. While the centrifuge market showed solid project activity throughout the year, the project situation for thermal sludge treatment systems didn't recover until the Fourth Quarter.

For industrial applications, project activity was very brisk due to the boom in the petrochemical, mining, mineral, and palm oil industries. Due to the

broader product range as a result of the acquisitions of Bird Machine and NETZSCH Filtration, the Business Area was able to secure high bookings in this area.

The municipal dewatering market remained moderate in North America and Western Europe. Project activity in the municipal market in Eastern Europe, Russia, and other CIS countries gradually picked up during 2004, although below expectations. Certain Asian markets, especially China, showed increased growth.

KEY FIGURES ENVIRONMENT AND PROCESS

MEUR	2004	2003	2002	2001
Sales	217.9	110.4	122.8	135.3
Order Intake	200.7	110.2	147.7	140.6
Order Backlog as of 31.12.	138.3	113.8	122.6	99.7
EBITDA	12.6	3.3	2.8	9.0
EBITDA margin	5.8%	3.0%	2.3%	6.7%
EBITA	9.9	1.5	1.0	7.2
EBITA margin	4.5%	1.4%	0.8%	5.3%
Capital investments	7.9	1.5	1.9	1.9
Employees as of 31.12.	926	428	439	435

Project activities for sewage sludge drying plants focused on North America and Western Europe. A new EU directive banning the disposal of sewage sludge to landfills is starting to have a positive influence on the demand for advanced treatment technologies such as thermal drying and incineration. Major projects are underway in Eastern and Southern European countries. Also, the North American market for dryers has improved.

Business development

In 2004, the Environment and Process Business Area broadened its product range and technology knowledge through the acquisition of Bird Machine, the NETZSCH Filtration business, and the fluidized bed drying systems Business Area of VA TECH WABAG. As a result, the Business Area is now one of the world's leading suppliers of industrial and municipal dewatering and drying technologies.

The acquisition of Bird Machine from Baker Hughes, Inc. in the USA added a full range of R&B filter presses, Bird KHD/Humboldt solid and screen bowl centrifuges, and special Bird Humboldt Young Filters to the product portfolio of the Business Area.

The NETZSCH Filtration business added process knowledge for fully automated filter presses as well as for the palm oil processes to the product portfolio. In addition, NETZSCH Filtration has an excellent market presence in Southeast Asia and South America, which will be used to sell other products of the Business Area.

The acquisition of VA TECH WABAG's fluidized bed drying systems further enhances the comprehensive range of drying technologies. The Business Area is the global market leader in bio-solids drying. Through this acquisition, the Business Area expanded its activities into the chemicals and food industry markets.

Sales of the Business Area increased significantly in 2004. As a result of organic growth and the acquisition of Bird Machine, NETZSCH Filtration, and VA TECH WABAG's fluidized bed drying systems Business Area (all three companies were not included in last year's financial statement), Sales almost doubled to 217.9 MEUR (2003: 110.4 MEUR).

Sales of Bird Machine, NETZSCH Filtration, and VA TECH WABAG's fluidized bed drying systems Business Area together amounted to approximately 93 MEUR in 2004.

In 2004, Andritz again confirmed its leading position as a supplier of centrifuges for sewage sludge treatment, reaching another record number of centrifuges sold.

As a result of increased Sales and positive Earnings contributions from the newly acquired companies, EBITA increased to 9.9 MEUR (2003: 1.5 MEUR). EBITA margin improved significantly from 1.4% in 2003 to 4.5% in 2004.

Development of the Business Area's Order Intake was mainly influenced by the newly acquired companies, adding approximately 94 MEUR to the Business Area's total Order Intake of 200.7 MEUR (2003: 110.2 MEUR).

Major orders

- Large orders were obtained for fine coal dewatering via centrifuges, filter presses, and hyperbaric filters for Iran and Russia, as well as for filter presses for titanium dioxide plants in the Ukraine.
- For a Russian cement factory, Andritz will deliver five large filter presses to convert the mill from a wet to a semi-wet process in order to increase production.
- The boom in the petrochemical industry led to the receipt of a significant number of orders for PTA, PVC, HDPE, and melamine processing centrifuges in China, Brazil, and the USA.
- The municipality of Bremen ordered Andritz centrifuges for the dewatering of municipal sludge.
- Long-term service contracts for multiple centrifuge installations were signed with the City of New York, the City of Singapore, as well as with Haliburton.
- The Business Area booked major orders for municipal sludge dryers from Pierce County, Washington; Bonita Springs, Florida; Winston-Salem, North Carolina; and Encina, California, all in the USA; Schwenk Zement AG, Germany; the City of Strasbourg, France; and the City of YeoSu, South Korea.

Research and Development

The R&D focus for dryers was to further develop the range of Belt Drying Systems (BDS). New sizes were developed and an entire new design based on a full concrete casing was successfully introduced to the market with three orders received at the end of 2004.

The new drive system for centrifuges has successfully proven its long-term reliability. Marketing started in the Second Half of 2004 and resulted in the sale of four centrifuges with the new system.

A medium-term program has started in order to rationalize and standardize the former Andritz, Bird, and Humboldt products. This program includes modernization of designs as required.

Research work continued in order to broaden the applications for centrifuges.

A value engineering program has been started to merge the filter press designs of Ritterhaus & Blecher and NETZSCH Filtration.



Drum drying

The drum drying plant (1 line, DDS 20) in Sandown, England turns digested sewage sludge into pasteurized granulate with a dry solids content of 92%. Evaporation capacity of the plant is 2,000 l/h.