

ENVIRONMENT AND PROCESS

Highlights 2005

- Solid project activity in both sludge dewatering and drying
- Acquisition of Lenser Filtration further strengthens product program
- Order Intake at record level



The Andritz drum dryer system installed near Paris, France turns wastewater sludge into granulate and pellets of over 90% dryness. The plant's evaporation capacity is 3x7,000 kg/h with a dust pelletizing capacity of 4,500 kg/h.



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Profile

The Environment and Process Business Area covers a comprehensive range of technologies, products, and services for mechanical and thermal solid/liquid separation for municipalities and major industries, such as coal and mineral processing, chemical/petrochemical, and food processing.

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 large installed base of Andritz products and systems, including more than 10,000 centrifuges and over 100 sludge drying plants worldwide, is serviced from dedicated Andritz service centers in Europe, the USA, and Asia.

Market development

In 2005, the market for sewage sludge dewatering equipment showed a regionally varied development. In Europe, only a few new plants were built, and investments focused on replacements and capacity enlargements of existing plants. In North America, project activity remained at a satisfactory level. The main growth area was China, where the number of centrifuges sold by Andritz more than tripled compared to the previous year. Project activities in the dewatering of industrial sludge remained high, especially in the steel industry.

The demand for dewatering equipment for process applications remained at a high level for the key industries: chemicals, mining, minerals, and palm oil production. Due to the steadily increasing installed base, the demand for aftermarket products (spare part, rebuilds, and repairs) remained high. The investment level was high in most parts of the world.

The market for sewage sludge drying systems was very active, especially in the USA, but also in Europe. Increased environmental awareness and the EU landfill directive banning the disposal of sewage sludge were enforcing this development. With rising energy costs, industrial use of dried sludge as an alternative fuel source is becoming more attractive. Since dried sludge has nearly the same energy content as lignite, it can be used as alternative fuel in coal-fired power plants or cement plants, thus reducing costs for fuel. In addition, new technological concepts combining dewatering, drying, and incineration of municipal sludge have been developed to minimize energy costs.

Project activity in the field of drying technologies for industrial applications for the petrochemical, minerals, mining and food processing industries was also very brisk, especially in China, Southeast Asia, and Eastern Europe, and also partly in the USA.

Business development

The Business Area's financial development was positively influenced by the successful performance of the companies acquired in 2004 (Bird Machine, NETZSCH Filtration, Fluidized Bed Drying Systems of VA TECH WABAG). All these companies developed above expectations and contributed positively to Order Intake, Sales, and Earnings during the reporting period. The main goal is to further expand these companies, thus giving the former owners the confidence that they will continue to thrive within the Andritz Group. As a result of this development and due to the processing of the high Order Backlog, Sales of the Business Area increased to 289.2 MEUR in 2005, up by 32.7% compared to 2004.

EBITA, at 17.7 MEUR, almost doubled compared to 2004 (9.9 MEUR). The EBITA margin improved significantly from 4.5% in 2004 to 6.1% in 2005.

By acquiring Lenser Filtration, a leading manufacturer of filter elements for solid/liquid separation in filter presses, the Business Area significantly strengthened its product range. Andritz is now able to offer tailor-made dewatering solutions also for filter presses to meet customer requirements.

In 2005, Andritz again confirmed its leading position as a supplier of centrifuges for sewage sludge treatment, reaching another record number of centrifuges sold.

Order Intake of the Business Area surged to 340.1 MEUR, increasing by 69.5% compared to 2004. This was mainly due to both the solid development of the Order Intake for sewage sludge drying systems and the favorable performance of the newly-acquired companies.

Major orders

Thermal Process Technologies

- Andritz DDS drum drying systems were ordered by the municipalities of Tampa and Bonita Springs, both Florida, as well as Winston-Salem, North Carolina, and Encina, California, all USA.
- Anglian Water ordered a turn-key sludge dewatering and drying center for its Tilbury site, east of London, UK.
- The City of Houston, Texas, USA ordered a complete sludge drying plant (DDS).
- A BDS belt drying system was sold to the City of Dijon, France via Ondeo Degrémont.
- A fluid bed drying system (FDS) for sewage sludge was sold to Fuengirala, Malaga, Spain.
- A fluid bed dryer (FDS) for a special amino acid was sold to a plant in Amiens, France.

Separation Technologies

- Alunorte, Brazil placed an order for five large hyperbaric filters to dewater bauxite slurry, which is pumped from a new mine to the existing aluminum plant. This will be the largest installation of pressure filters in the world.
- A total of nine large filter presses will be delivered to Krym Titan, Armjansk, Ukraine for the production of titanium dioxide.
- Eleven large filter presses were sold to the contracting company John Finlay, Australia for installation in various coal preparation plants in China.
- Yangzi, China will equip its new PTA plant with Andritz centrifuges (both atmospheric and pressurized) and drum filters.
- Multi-year contracts to service installed centrifuges were received from the City of New York, USA and the municipality of Berlin, Germany.
- Syncrude, Canada ordered a total of 24 new scrolls for improved performance of the centrifuges in its tar sand processing plant.
- Eight large centrifuges were ordered to dewater municipal sludge in Atlanta, Georgia, USA.

Research and Development

R&D activities for dryers focused on the further development of belt drying systems. New sizes were developed and an entire new design based on a full concrete casing was successfully introduced to the market.

A further development of the belt drying system for drying bark, saw dust, and other types of biomass using waste heat from thermal processes was also started. The Andritz EcoDry system was further optimized.

The new drive system for centrifuges successfully proved its long-term reliability. This technology will now be transferred to other centrifuge sizes.

The medium-term program to rationalize and standardize the Andritz, Bird and Humboldt products continued. This included modernization of designs, cost reductions, and improvement of performance. Research work continued in order to broaden the applications for centrifuges and rotating filters.

The program to merge the filter press designs of Ritterhaus & Blecher and NETZSCH Filtration in order to combine the advantages of both designs at optimum costs was almost completed.

Key figures Environment and Process

MEUR	2005	2004	2003	2002	2001
Sales	289.2	217.9	110.4	122.8	135.3
Order Intake	340.1	200.7	110.2	147.7	140.6
Order Backlog as of 31.12.	202.2	138.3	113.8	122.6	99.7
EBITDA	22.0	12.6	3.3	2.8	9.0
EBITDA margin	7.6%	5.8%	3.0%	2.3%	6.7%
EBITA	17.7	9.9	1.5	1.0	7.2
EBITA margin	6.1%	4.5%	1.4%	0.8%	5.3%
Capital investments	6.6	7.9	1.5	1.9	1.9
Employees as of 31.12.	1,213	926	428	439	435