



HYDRAULIC MACHINES/OTHER OPERATIONS

Pump impeller

Impeller for one of the pumps supplied by Andritz for the water supply plants of Hong Kong and Shenzhen, China. The pumps are the largest units with adjustable vanes manufactured by Andritz to date (average impeller diameter: 1,950 mm).

BUSINESS AREA MANAGER



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PROFILE

→ The Hydraulic Machines/Other Operations Business Area encompasses the development, planning, and manufacture of water turbines, large-scale pumps for selected applications, pumps for the primary and secondary loops in nuclear power stations, centrifugal pumps for the pulp and paper industry, as well as space technology components. The main markets are Europe and Asia.

Market development

Market conditions in Austria for the Business Area's main product – water turbines – improved considerably in 2004 over previous years. There were several larger modernization, rebuild, and service projects as well as new investments. Project activity was also on the rise in the mini-power sector, involving projects below 10 MW.

In China, investment and project activities remained at a high level. There is a trend to increase the local portion of supplies for projects. On a number of promising turbine projects, Andritz cooperates with Chinese manufacturers acting as the supplier of engineering and key components.

Business development

Sales of the Hydraulic Machines/Other Operations Business Area developed favorably in 2004, increasing 36.9% to 43.8 MEUR (2003: 32.0 MEUR). This is mainly due to the high Order Backlog at the end of 2003 and the positive development of the Andritz-Kenflo joint venture in China.

EBITA increased to 3.8 MEUR (2003: 3.3 MEUR).

Order Intake of the Business Area reached a record level in 2004, surpassing the record set in 2003 by 57.4%. Order Intake was 58.7 MEUR, compared to 37.3 MEUR in 2003. Major orders for water turbines and stock pumps were the main drivers for this successful development. The 60:40 joint venture Andritz-Kenflo once again increased the number of stock pumps sold to paper mills, reaching a new record level.

In the area of turbines and pumps, the revision of Tanzmühle pump storage plant for the German utility company E.ON was completed on schedule and to the customer's full satisfaction. The storage plant was restarted in March. As a result, the Business Area was able to book several follow-up orders in this market segment.

The first orders were received from Switzerland for Pelton runners manufactured with a new technique (milled from a single forged piece), and for automation systems.

Sales of centrifugal pumps in Europe developed better than expected, especially in the German market. The Business Area has entered the Russian and Brazilian markets with centrifugal pumps, and the first results are quite positive.

In China, the 60:40 joint venture Andritz-Kenflo has further strengthened its market leadership, winning nearly all stock pump contracts awarded in 2004. In addition, the first ten pumps for flue gas desulphurization systems were sold in China, where this sector has been steadily growing over the past few years.

The services business in 2004 again proved to be a strong pillar of the Business Area's operations. Rebuilds and modernizations of water turbines and turbine governors, spare parts for nuclear power stations, and centrifugal pumps for

KEY FIGURES HYDRAULIC MACHINES/OTHERS

MEUR	2004	2003	2002	2001
Sales	43.8	32.0	29.3	26.0
Order Intake	58.7	37.3	28.3	28.6
Order Backlog as of 31.12.	40.7	27.2	21.5	22.6
EBITDA	5.5	3.2	7.4	2.3
EBITDA margin	12.6%	10.0%	25.3%	8.9%
EBITA	3.8	3.3	5.8	-0.1
EBITA margin	8.7%	10.3%	19.8%	n.sp.
Capital investments	2.4	1.7	2.6	0.9
Employees as of 31.12.	365	302	277	246

the pulp and paper industry accounted for a big portion of total Order Intake.

Major orders

- The Business Area received orders for engineering and the supply of key components for large bulb turbines at Chinese power stations.
- Verbund Austrian Hydropower (AHP) awarded an order to refurbish four Kaplan turbines at Aschach hydropower station to a cooperative venture formed by Andritz and Voith Siemens. These turbines were the largest of their kind in Europe when they were installed in 1964.
- Two pit turbines will be supplied and installed by the Business Area at Pichlern power station of Ennskraftwerke, Austria.
- A horizontal Pelton turbine will be supplied to the Ganeu power station, Austria. German E.ON awarded an order for the rehabilitation of Reisach pump storage plant in Germany.

Research and Development

The cooperation for many years with ASTRO

(Institute for Hydraulic Research) concentrating on the advancement of hydraulic components continued in 2004. The development of top hydraulic components featuring efficiencies which are considerably superior to competitive equipment has essentially contributed to the successful sale of a new headbox pump.

Achievements in optimizing hydraulic equipment for turbines have been confirmed by several orders from different customers, most recently by the order for the Aschach power station.

A new test stand for Pelton equipment will soon be operational. This investment was made in connection with a focus on Pelton turbine development initiated two years ago.

Other development activities focused on centrifugal pumps for the pulp and paper industry, a field which is expected to grow substantially.