Jürgen Breier
Schott Glas
Mainz, Germany

BRILLIANTLY STAGED

Barco is the global technology leader for large screen projection systems for professional applications. Future developments are largely dependent on the potential performance that reflectors can deliver.

What do Moscow's 850th birthday celebration, the World Economic Summit in Davos, the Salzburg Festival, the Academy Awards in Hollywood, the inauguration of US President George W. Bush and the world tours of famous music acts such as Bryan Adams, Bon Jovi, Madonna and U2 have in common? Wherever crowd-stopping staging is needed, Barco's large-screen projectors supply it, bringing the action right up to audiences in halls, theaters or open-air arenas.

In addition to projection, Barco's technology and quality has placed the company at the forefront of a number of other industries, all linked to visual display. Global activities are controlled and coordinated from the corporate headquarters in Kortrijk (Belgium). The company has doubled its sales since 1995 to 751 million euros, just under half of which is accounted for by the EU, a further third by the NAFTA countries and around 15 percent by Asia. In keeping with the company's rapid expansion in recent years, the number of staff has increased to 4900.

It started with radio production

Flashback: In 1934 the "Belgian American Radio Corporation", Barco for short, was established in the little Belgian town of Poperinge as a manufacturer of radios. In the 1950's it extended its products to include TV sets. Shifts in demand led to the company's withdrawal from consumer markets in the 1970's and its concentration on business-to-business activities. At this time Barco had already gained a solid reputation as a producer of automatic control systems for the textile industry and monitor systems for TV studios. Both fields still belong to the company's business activities today.

Digital projectors, high performance, compact size

The main focus in Barco's product portfolio is its projection systems division, with annual sales of around 250 million euros. The company moved into this field in 1980, producing picture tube projectors to show films in passenger aircraft. Cathode ray tube (CRT) technology, with its high resolution and good color reproduction, is still state-of-the-art today in the fast-growing home cinema sector. The newest generation of CRT projectors, "Barco Cine", integrates TV, video, DVD, PC and Internet applications. A milestone in product history was the use of LCD (Liquid Crystal Display)-based projectors in 1992. A further development leap followed in 1999 with the launch of ELM (Extreme Light Machine) projectors based on Texas Instruments' Digital Light Processing™ (DLP™) technology. Since 1999 Barco has continued to develop solutions based on light emitting diodes (LED). These "Dlite" and "Ilite" high-brightness screens are used in theme parks and stadiums, as digital billboards or large screens for concerts and other events. Today, Barco also presents digital projection systems for cinema applications, based on Texas Instruments' DLP Cinema™ technology, as an alternative to conventional 35 mm film projectors.

The diversity of projection technology methods and the variety of features in individual devices open up a host of potential applications: corporate presentations, training courses, sports, music or political events, indoor and outdoor advertising, home and digital cinema, process control and simulations. The 6000 series forms the backbone of the digital high-performance projector range. These projectors, made in Belgium, feature high brightness, excellent color reproduction, compact and modern design as well as ease of use and maintenance. "The high brightness, resolution and color brilliance make

Products for Professionals

Barco in brief*

- Founded in 1934 as radio set manufacturer
- Sales of 751 million euros*
- 4,900 employees worldwide, around half of whom work in Belgium*
- Branches in almost 100 countries
- 4 divisions
  - Projection Systems (e.g. Digital Cinema)
  - View (e.g. air traffic control monitors)
  - Graphics (e.g. printing systems)
  - Vision (e.g. production surveillance and control systems for the food industry)

*fiscal year 2000

More information at:
www.barco.com

the images come alive", said Peter De Meerleer, R&D Manager at Barco in Kortrijk.

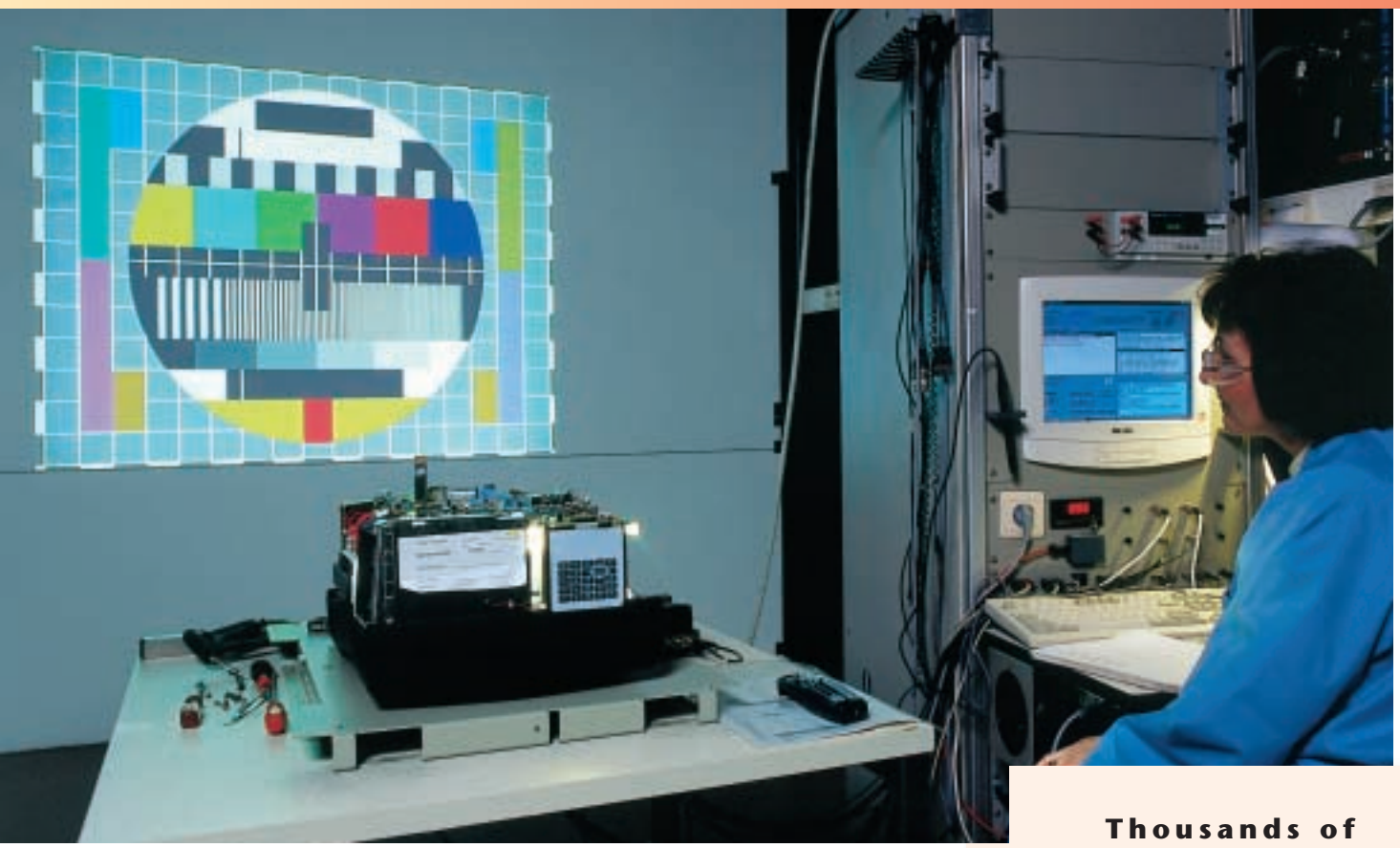
The technical specifications of Barco's top-of-the-range BarcoReality 6500 model are impressive: light output of 4300 ANSI lumen, brightness distribution of > 80 percent across screen area, contrast > 350 : 1 (full white/full black). The noise level in operation is a mere 38 dB(A), neither disturbing the presenter or artist nor distracting the audience's attention from the information being presented. The projector is compatible with the TV standards PAL, SECAM, NTSC, an array of video systems and computer graphics formats and with Macintosh programs. Simplicity of use, high durability and ease of bulb change are standard with all Barco projectors.

Today Barco is setting new standards in intelligent remote control and networked management for projection devices. An optional Ethernet 10/100 Base T interface enables projectors to be linked to a LAN as IP-addressed devices. Users can access all main functions of the projector from any Internet access point or call up general status information for all projectors. The projector can also be programmed to send users this information by e-mail.

Schott Auer: Breaking new ground in reflector development

The heart of the 6500 range is the 62 mm diameter reflectors made of "Suprax" glass from Schott Auer. This

Schott Auer reflectors are inserted in the lamp housing.



A complex program is used to test the full range of a projector's functions.

high-quality borosilicate glass is highly resistant to temperature changes and is coated with high-purity TiO_2/SiO_2 using the PICVD (Plasma Impulse Chemical Vapor Deposition) process. This technology was developed by Schott and is particularly suitable for processing three-dimensional substrates with hard layers. "Projectors are getting smaller, yet their performance is increasing, posing a real challenge to us as reflector manufacturers", explains Dr. Jürgen Weichert, head of Schott's Advanced Lighting Components business segment and second in command at Schott Auer. As a partner of the lighting industry, his company, based in Bad Gandersheim, Germany, has a particular advantage: its own state-of-the-art light engineering department. Here the performance and design of existing lighting systems, reflectors and lenses are optimized and new systems are developed, either in close collaboration with customers' development departments or independently on a need-driven basis ■

Peter De Meerleer
Manager of
Research & Development,
"Corporate Market"

Interview

Thousands of developers hunting down solutions

What are the main focuses of R&D at Barco?

Naturally, we are engaged in permanently optimizing existing products and systems. Future-oriented fields are the continued integration of the Internet, expanded use of digital technology, continued improvement of infra-red and ultra-violet lighting technologies and optical control in automation processes.

How much does Barco spend on R&D?

Barco spends over 10 percent of its sales revenues on R&D, employing almost 1000 development specialists world-wide.

How do you rate your experience with Schott?

As manufacturers in the top performance segment, we demand the highest standards from our suppliers. We have worked closely with Schott Auer and the Schott sales office in Brussels for many years, and particularly value Schott's expertise in reflector coating technology.