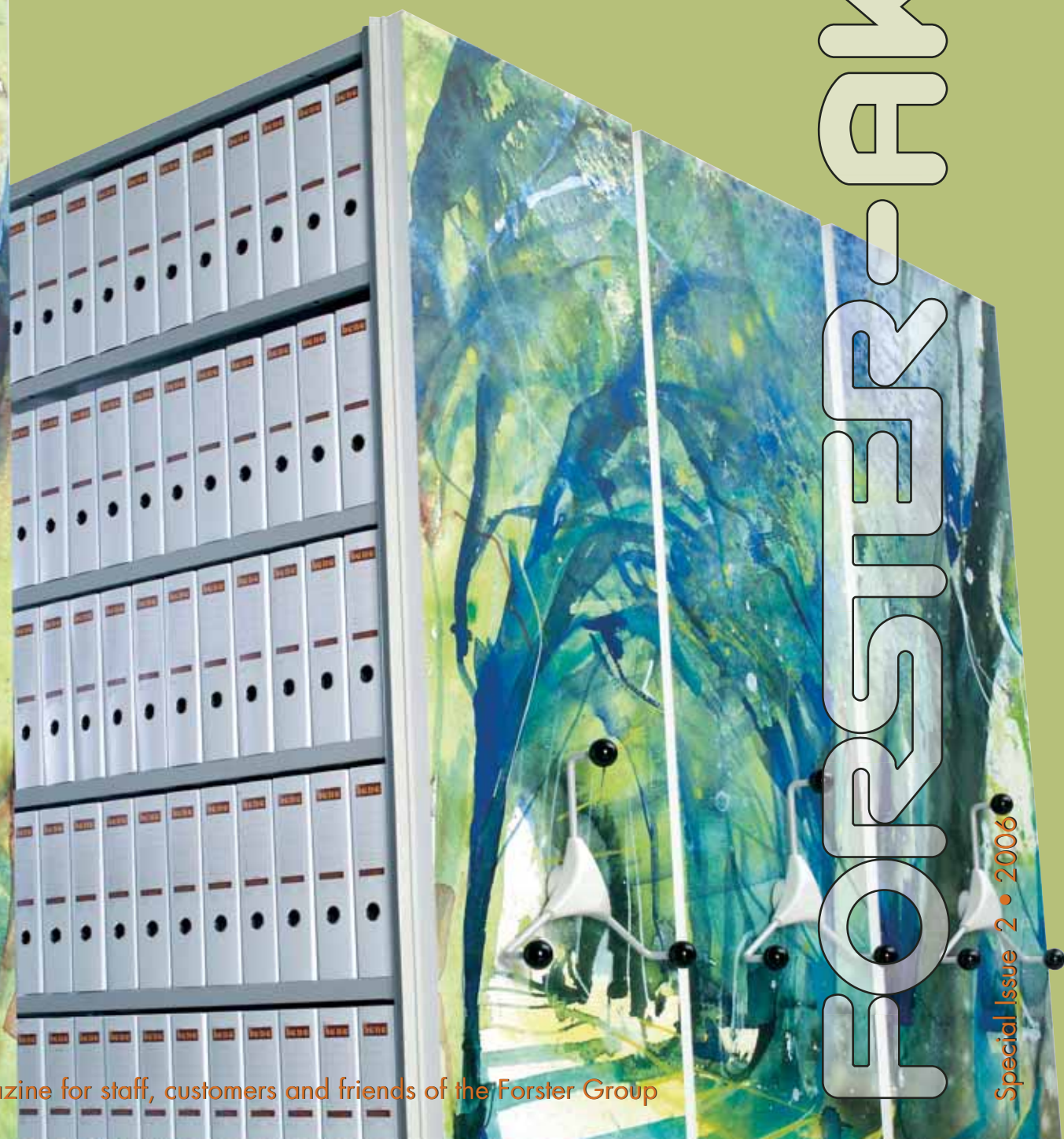


Special Issue

ORGATEC 2006

International reference projects
Creative design in shelving systems



FORSTER-AKTUELLE

The magazine for staff, customers and friends of the Forster Group

Special Issue 2 • 2006

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Dear Friend,
Dear Staff Member,

The quality criteria to be met by our products are just as diverse as are the requirements of our customers. In this special issue of our "Forster Aktuell" customer magazine we once again present you with a selection of shelving projects implemented by Forster Metallbau or our subsidiaries in the past two years. Once again, we have been able to achieve top marks in performance, competence and service to the satisfaction of our customers. Let me take this opportunity to express my thanks for the trust put in us by all our customers and for the commitment and flexibility of our staff members. The trust placed in Forster is an incentive for all of us to search for optimal solutions and put them into practice – such as the new electric drive for FOREG 2000, and creative design in shelving systems. I hope that you will be entertained by this issue and its reports of interesting innovations made by Forster.

Christian Forster, Chairman of the Managing Board, Forster AG

Product & Market
Freie Universität Berlin

Forster shelves at the
Central State Historical Archive
of St. Petersburg

Mannheim University

Shelving for BBC's
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FOREG shelves for the
Austrian National Library at the
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Freie Universität Berlin

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Safekeeping science



The collections of the Freie Universität Berlin focus on languages and literature. In August 2005, the university celebrated the completion of its new library, which is – of course – fitted with shelving systems made by Arbitec-Forster GmbH.

Rectifying defective structures and layouts and getting the technical equipment into mint condition was a major challenge when the old

building underwent full-scale rehabilitation. Star British architect Norman Foster was given a free hand to realise his ideas, creating a spherical space that reminds us of the human brain – and the project was a total success.

Centre space for books

Fully 800,000 books assembled on 6,300 square metres of space: these are impressive numbers. The main user space is located in the centre of the four floors, reflecting the architect's central concept:

concentrating knowledge in the form of books in the middle of the building, similar to the convolutions of the human brain. Arranged on 26,000 metres of storage space, the collections of eleven institute and workshop libraries are free to expand. The open-access sections are furnished with FOREG 2000 shelving with integrated illumination, arranged on five floors and ideally matching the surrounding ar-



chitecture. The unperforated end panels radiate quiet elegance, underlining the harmonious overall impression. Custom-designed labels are integrated in the shelves, as was requested by the architect. As a special feature, Arbitec-Forster has provided so-called book-eye stations where students can scan in books. To highlight special exhibits, some shelving runs on the ground floor are fitted with glass doors.



4 Forster Shelves at the Central State

Great history in the safe



culable: thus each of the 24 volumes of the heraldic rolls of the Russian Empire is insured for US\$ 4.2 million.

Voluminous collection
uniquely stored



President Vladimir Putin, inspecting the new premises of the Central Historical State Archive, is impressed by the shelving systems.

The Russian State Archive is among the foremost and most precious archives in all of Europe. It holds more than 6.5 million files spanning the history of Russia from the 18th to the 20th centuries, as well as a treasure trove of unique documents – from papal bulls from the 13th century to a draft primer, personally signed by Peter the Great, authentic edicts by all Russian tsars and the regulations of the Holy College.

famous Hermitage collection, the exhibits at the Central State Historical State Archive of St. Petersburg easily hold their own in terms of their cultural and scientific significance. Their material value is incal-

Comparable to the



The archive operates a scientific and information library holding more than 420,000 books, including rare manuscripts in Russian and other languages, and a documents microphotography and restoration laboratory. In 1993, it was accepted into the state cultural

Historical Archive of St. Petersburg 5

keeping of a great archive

heritage list, a distinction of great merit.

The contract awarded to Forster was impressive: the library and seven storeys of archiving space, altogether 84 air-conditioned rooms, were to be fitted with shelving systems. The rails were installed between December 2004 and April 2005; the shelves took another six months to install – and in December 2005 the system was ready for operation. The numbers involved are awe-inspiring: the storage rooms were given more than 230 kilometres of storage space in the form of FOREG 2000 shelves. Their maximum efficiency ensures well-rounded and orderly operation.

Forster prevails

According to the archive managers, the decision in favour of Forster was very carefully deliberated, since it involved not just an extremely difficult technical challenge but also a project of great prestige for Russia. A thorough analysis of the professional advice obtained was based on a study of projects in other countries, especially in Austria, Germany, France and the United Kingdom. The contract went to Forster due to the high level of our customers' satisfaction with our



quality, design and innovative capacity. Forster's international experience and our staff's comprehensive know-how guarantee competence from the first contact to the finished project – a line of reasoning that

convinced our clients in St. Petersburg.

The archive is still presently loaded from December 2005 however President Vladimir Putin has been provided special access to visit.



The library was fitted with stationary shelving.

Mannheim University

Creative order with FOREG 2000

A new library adorns the University of Mannheim, residing in one of the world's most spacious Baroque palatial grounds. Its shelving was supplied by Arbibec-Forster GmbH. The conversion was ready in early August of this year and handed over at a festive occasion.

The Second World War had almost destroyed the Schloss at Mannheim, but it was rebuilt to its

cellent reputation among librarians.

Thoughtful

The stationary units FOREG 2000, painted in aluminium grey RAL 9007, offer 10,000 metres of

shelving space. In order to ventilate the books and the library in general through vents in the floor, the plinth base was fitted with perforated strips. The shelving runs, rising to a height of 2.6 metres, have an integrated lighting system. Their labels are frameless, and the



end panels are made from frosted acrylic glass in a range of colours. The structural and conceptual situation made it necessary to suspend the frames from the ceiling by way of a steel construction. Consequently, the shelves float some 5 to 10 cm above the floor. In this way, the system's functionality was optimally harmonised with the requirements stipulated by the architects and the needs of the historic building.



present appearance and reconverted at a later date. Today it houses, among other institutions, the library of the city's university. Architects Blocher Blocher Partners from Stuttgart provided the design for the new university library. Structurally it was necessary to fit parts of the library with suspended shelving systems – a major challenge that involved considerable difficulties and called for innovative approaches. The operators opted for Arbibec-Forster, a partner that enjoys an ex-



BBC London

Shelving for London TV Centre

7

A regular client of our subsidiary Ecospace for many years, the BBC ordered the delivery and installation of a shelving system for its London TV Centre in 2005. The challenge to be met by this contract was to provide for the easy use and better storage of the valuable collection of master tapes.

Ecospace, one of the five contractual suppliers to the BBC, was awarded the contract for a shelving system for the safe-keeping of its master tapes. The tender called for maximum storage space at the best price – and Ecospace won against heavy competition.

The bestseller for the BBC

The requirements were stringent: best possible use of the available space, and a maximum weight at full capacity of 320 metric tons were called for. For a floor space of 250 square metres, Ecospace furnished 920 bays to accommodate 330,000 master tapes. To obtain maximum cost-effectiveness, the client went for a shelf width of 1,200 mm and depth of 300 mm, with bays subdivided into ten shelves sloping backwards. The tilt

ensures that the tapes will remain in place even when the units are



moved. Two floor chains and anti-tilt devices for all mobile bases make for additional safety. All units are furthermore fitted with manual lever locks which can be actuated separately whenever necessary. The base of the system consists of a rail and platform with an overall height of 180 mm, which facilitated the negotiation of projecting obstacles such as drain covers.

Perfectly matching the BBC's corporate design, the shelving is rendered in RAL 7035 (light grey) combined with end panels in

RAL 5007 (brilliant blue). The system was installed in just ten weeks,

and has since been operating for a year to the full satisfaction of the BBC. Currently, Ecospace is working on another BBC contract – a



shelving system for its sheet music collection, also to be accommodated in the London TV Centre.

Precious Heritage in the Safe

FOREG shelving systems for two museums and



FOREG shelving systems ensure that historic treasures are stored in strict conformity with stringent heritage conservation standards.

In early December 2005, the Globe Museum, the Esperanto Museum, the Planned Languages Department and the Department of Music were moved to the Palais Mollard at Vienna's Herrengasse. These highly specialised collections were given a new home as well as new shelving space, provided by Forster Metallbau. The newly revitalised Palais Mollard is an attractive building that is Baroque in substance, still retains parts of

the original interior and has been given modern extensions wherever its new utilisation required modern architecture. Two vaults from the

Baroque period were built over with an eight-storey magazine wing (two of the storeys are below ground), in order to gain sufficient storage space for the extensive collections.

Enclosing the first courtyard at ground floor level are the rooms holding the Esperanto Museum and the Department of Planned Languages, the rooms on the floor above feature globes, and the state rooms at the second floor are dedicated to events and cel-



keeping of the Palais Mollard: 9 two collections by the Austrian National Library

ebrations. The reading room of the Department of Music and the sound recordings archives can be found on the third floor, with administrative and library offices on the floor above.

With Forster shelving systems designed to offer a wide range of customisable combinations, it was possible to arrange archives so as to optimise their function and user-friendliness. Perforated end panels and internally open shelving frames guarantee proper ventilation for the archived material. The National Library's collection of planned languages (the world's largest library for interlinguistics) required shelves of a depth of up to 1,200 mm to accommodate the broad exhibits some of which have to be stored upright. Next to Esperanto, the department archives some 500 other planned languages, among them Volapük, Ido and Interlingua.

In deciding on the storage requirements for the music collection, advance consideration was given to the varying dimensions of the manuscripts, prints, books, other archived materials and sound recordings, by including a large range of accessories such as dividers, drawers and pull-out shelves. Similarly, different shelving depths were important, since the smallest items (CDs)



start out with shelves of 200 mm in depth.

The National Library's Department of Music boasts of a remarkable collection of original scores and legacies by major Austrian composers, such as Wolfgang Amadeus

Mozart's "Requiem", Joseph Haydn's "Imperial Hymn", Ludwig van Beethoven's "Violin Concerto" and all symphonies by Anton Bruckner, all of which are stored in separate safe rooms secured by special precautions.



10 Vienna City Library at the City Hall

A library that serves the memory of the city



What's new is not just the name of the library residing in Vienna's City Hall (the former Vienna City and State Library) but also the fact that it now offers access to the city's collection of posters,



printed publications and manuscripts.

Forster Metallbau furnished the three basement storeys of the new

underground repository with the requisite shelving systems.

Poster collection

A picture racking system was delivered and installed at the first basement floor level that provides 330 square metres of hanging space. Also included were mobile units with pull-out shelves to accommodate posters dimensioned at 975 x 1,306 mm and 1,075 x 1,306 mm, as well as runnerboards for honeycomb cardboard boxes for the storage of posters. For special formats of up to 1,800 x 1,300 mm, special shelf depths were developed. In designing the pull-out shelves attention was given to delete the

appearance of drawing shelves by adding slides at the side. Even the edges of the shelves were chamfered to ensure that the posters would not suffer any damage from browsers.

Simple solution

Forster also found an optimal solution for the collection of manuscripts: the second basement floor level was fitted with mobile shelves of a depth of 350 mm, thus ensuring that the valuable manuscripts would be securely stored in cardboard boxes.

For the collection of printed publications on the third underground floor level, additional floor chains were provided for moving the mobile bases. Consequently, some of the shelves could be reduced to a depth of only 200 mm – exactly in line with our motto: minimum space and maximum user friendliness.



Federal Military Library in Berne

Shelves made by Forster of Austria

The Swiss Federal Military Library has found itself a new home at the former Armoury, a converted and listed building in Berne. It is a fount of knowledge about war, peace and the military life,

cided in favour of time-tested stationary systems.

In consultation with users and architects, a concept was developed to ensure that the historical and valuable books, collections and scripts

would be securely stored on mobile shelves in the shelters. In addition to 12,000 metres of shelving, the system includes filing cabinets, map cabinets, filing cradles, drawers and special structures for rolls of oversized strategy plans.

In the open-access library, open stationary units of the same model meet all user requirements and offer the additional bonus that they can be used interchangeably in both sections. Some of the staff

workplaces were fitted with additional stationary shelving. Thanks to a full-scale range of accessories that includes drawers for CDs and sound carriers, slanting shelves for the display of selected exhibits, hinged and tilted shelves for magazine display and magazine shelves with dividers, it has been possible to cover a wide range of demands on the part of the users. Customis-



ing our product range while keeping costs to an affordable minimum after all is part and parcel of Forster's customer service – in Switzerland and elsewhere.



Storage in an air-conditioned underground magazine

acting as a service centre for many thousands of interested visitors who can browse among 300,000 books, subscriptions for 1,000 periodicals and a full range of documentaries.

The conversion project included the construction of a new basement heritage storage facility fitted with mobile shelving. For the library's open-access sector, operators de-



Product Innovations

Novel electric drive

Forster has designed a new electric drive for the shelving system, getting even more order out of movement. The greater the loads to be moved, the more effort must be put into ensuring easy use – and the electric drive makes it much easier to push around heavy shelves.



As a further bonus, the innovation makes it possible to use computer-assisted archiving systems. The mul-

multiple benefits offered by the novel drive speak for themselves, as does the logically arranged flat operating board on the end panel, which accesses a number of different control functions.

Safety first

For Forster, user safety is the number one priority. Accordingly, this design offers

a range of safety devices tailored to customer requirements. The basic model is fitted with an automatic resistance-controlled motor cutoff that works regardless of the shelf load. Optionally, the model can be supplied with a photocell and light barrier or, alternatively, a safety plinth on the mobile base. Either device serves to detect obstacles in the aisles, thus protecting valuable or highly sensitive goods from damage: any books or boxes acciden-



for FOREG 2000

for FOREG 2000

Multiple benefits at a glance:

- Each base can be moved individually.
- Easy access control by a lock system.
- Individually programmable closing system.
- No limits to expanding the system.
- Electric drive can be easily and cheaply retrofitted.
- Integrated and controlled lighting for individual aisles.
- User-adapted security devices.
- Incorporation of computer-assisted archiving systems.

tally left in the aisles are reliably protected against mechanical damage, and additional safety is provided by sensors that register any persons moving in the aisles upon which the system is immediately

switched off.

Electronic interlocking can be extended to the entire shelving system. Access authorisation for defined users – no problem for Forster! Such authorisations are freely program-

mable through a serial interface. Optimum ventilation is provided by a ventilation position, with the spacing between shelves set at the user's discretion to guarantee adequate ventilation.

Creative Design

The personalised touch



Forster puts colour into many a grey office environment. Our innovative approach has much to offer to our customers: Forster imprints the shelving panels with your favourite design.

Durable, light-resistant and long-lived, the imprints provide your shelves with an individual touch. Whether you choose lovely holiday snapshots, majestic architecture or fascinating works of art and regardless of the size of the print – there are virtually no bounds to your flights of imagination.

14 ADIA Office Towers in Abu Dhabi

Forster shelving systems reach lofty heights

Forster Metallbau GmbH has appreciative customers on a worldwide scale, including Abu Dhabi, capital of the United Arab Emirates, where Forster is known as a

companies. Its 38 floors, towering over Abu Dhabi at a total height of 185 metres, impress visitors not just by their spectacular design but also by their efficiently organised interior.



ADIA Building Abu Dhabi.

reliable supplier of superior products. For the tallest high-rise in the city, the office towers for the Abu Dhabi Investment Authority (ADIA), Forster supplied shelving for the office and storage spaces.

The unique complex, designed by London architects Kohn Pedersen Fox, will open its doors in December, accommodating one of the Gulf region's largest investment

Everything in place with FOREG 2000

Thirty-three of its floors are fitted with decentralised archives where FOREG 2000 shelves facilitate order and method. Altogether, 96 mobile shelving systems with closed end panels made of steel have been supplied by Forster Metallbau. As an extra safety feature, the mobile units are provided with lever locks to block movement in an emergency. In addition, 35 archives on 19 floors are furnished with all-purpose stationary shelves.

The rails for the mobile units were installed prior to the raised access floor installation. The result is a level floor without any edges to trip over. The bay widths and depths were chosen to ensure that the individual units and shelves could be mutually exchanged be-



tween rooms and departments. Accessories supplied comprise holders for labelling the stored goods. All-out quality is the motto of Forster Metallbau: all shelves are zinc-plated, coated and painted in RAL 7035.



Vienna Technical Museum

Archiving history with care and economy of space



Impressive insights into the world of technology are offered to visitors at Vienna's Technical Museum. The exhibition showcases Austria and its inventors, inventions and technological achievements. The models and exhibits are constantly updated by the 140 staff members to reflect the state of the art and technological progress. Storing these exhibits requires an innovative use of the available space. Forster supplied mobile shelving systems that ensure the efficient safekeeping of the valuable exhibits.

In September 2005, Forster was awarded the contract for shelving units to be placed at the Museum's external depot at Braillegasse. The contract had to consider a number of key factors: many of the exhibits

are extremely frail and so they need to be stored with great care yet with a minimum of space consumption.

Innovative solution

An innovative and flexible solution was called for. Forster's mobile and lockable shelving system exactly met the client's requirements. On the first floor, mobile units (end panels in RAL 5007 brilliant blue and frame in RAL 7035 light grey) offer generous space for the precious apothecary jars from the 18th and 19th centuries. A height-adjustable shoulder at the front edge prevents the pieces from falling out of the

shelf. The drawers included in the delivery facilitate the compact storage of cups and small items. In order to brighten up the display, the first mobile base was fitted with glass doors.

On the lower floor, glass and china objects from the early 19th century are stored. The mobile units, designed with ruby red end panels and light grey frames, had to meet the same requirements as their counterparts on the first floor. In this section, the shelves were again installed on the finished floor with a track platform.

Thanks to its flexible solutions, exactly tailored to what the client needs and wants, Forster has once again carried the day.



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