

Utah State University (USU) Library



Automation increases library storage capabilities

The Utah State University “Aggies” are proud of their new BARN, not for the live stock, but for their library books. The BARN (Borrower’s Automated Retrieval Network) is an automated storage and retrieval system (AS/RS) designed and constructed by Daifuku America Corporation. Automation increases library storage capabilities. Daifuku America helped Utah State University increase on-site storage capacity to handle collection growth through the year 2027.

“People are fascinated by the system. We see a savings in terms of the time required to shelve used volumes, and the number of lost or missing journals has gone down,” explains Betty Rozum, Associate Director for Technical Services at the Merrill-Cazier Library.

Utah State University’s automated material handling system planned, constructed and implemented by Daifuku America Corporation enables the Merrill-Cazier Library to store library materials such as bound journals and low-use books in a high density, cost effective and climate-control led environment.

Solution

- Rack supported building with capacity for 1.5 million volumes of books and periodicals
- Mini Load AS/RS (Automated Storage & Retrieval System) with 4 aisles
- 2,520 unique shelving locations for storage of 312,000 journals and 165,000 low-use books
- Integrated storage management software

Problems solved

- Increased capacity
- Maintained ability to organize books in catalog order
- Consolidated existing materials to fit into a new facility
- Expandable system with ability to meet capacity demands until 2007



Utah State previously used traditional library storage methods, but its ever increasing collection created a lack of space which forced the library to seek alternatives. In planning for a new building, the university staff realized the new library would equal the size of the old building leaving no room for growth. Already at capacity, the university needed an innovative solution to accommodate growth through the year 2027. The staff chose an on-site AS/RS system over off-site storage, which would have required a twenty-four hour turnaround time to access the library's stored materials.

Unique system design created by Daifuku America to meet the university library's specific needs

Daifuku America Corporation provided the expertise and equipment to get the new facility up and running. The facility stores 312,000 journals and 165,000 low-use books in 2,520 shelving locations in a 4 aisle Mini Load AS/RS. The system has the capacity to hold 1.5million volumes. Because Utah

state required a solution that would allow library staff to organize books in call number order, Daifuku developed a tailored option rather than traditional bin storage. The result? A unique shelving unit measuring 52" in height and 49" in width. The unique shelving design allows high density storage that is quickly accessible and browseable. Journals are removed for patrons and used throughout the library. To date, the Merrill-Cazier library system is the only library in the world to use an automated retrieval system with materials in call number order. The system allows patrons the opportunity to pull up a chair and browse approximately 200 - 250 volumes at a time once the shelf they need is automatically brought to them, removing the need to walk an entire building of conventional shelving to hunt down an item.

Students, faculty and library staff are thrilled by the unexpected benefits and improvements to their process. "Patrons love to look at it!" says Rozum.

Students can request a book online from their dorm room and claim their materials from the library in about five to ten minutes.

Can I see the Barn in Action?

Viewing windows were installed on the second, third, and fourth floors of the library to satisfy patron curiosity. To visit the BARN or to learn more about the only library system of its kind, contact Daifuku America Corporation.