



# ELECOMPACK

## CASE STUDY PRINCETON UNIVERSITY PRINCETON, NJ



Like many major research libraries throughout the country, Princeton University Library has space problems. Their collection approaches 5 million volumes and expands at a rate of approximately 100,000 volumes each year. Princeton required additional storage space to accommodate this rapid and continuous growth. The choices were to build new facilities or to install high density shelving.

Princeton chose to replace conventional shelving in its Forrester Annex Library on the James Forrester campus with Elecompact high density compact shelving. The Elecompact installation increased the capacity of the Forrester Annex Library from 275,000 volumes to approximately 700,000, while reducing the square footage of required floor space.

The system consists of 120 mechanical ranges plus perimeter wall shelving. The installation is both unique and impressive primarily because of its extraordinary length and height. The ranges are 39 feet long (13 sections) and over 10 feet high. The number of shelves in each section varies from seven to ten. A fully loaded range holds a total weight of about 25,000 pounds.

Incredible as it might sound, staff members routinely move three ranges simultaneously with minimal effort. (That's 37 tons!) Both the Princeton librarians and the architects were surprised at the ease of movement, which is easier than other installations on campus despite holding about twice the weight.

The University, in conjunction with the architectural firm of Kehrt Shatken Sharon, evaluated the compact shelving market rather extensively before deciding to purchase Elecompact. The primary reason Princeton selected Elecompact was its overall structural integrity and safety. These features were especially important to the Princeton librarians given the exceptional length and height of the proposed installation. Princeton librarians visited several Elecompact installations in New York and were very impressed

with the product, particularly the safety features. Additionally, they spoke with other libraries using the Elecompact product; all gave very favorable endorsements, including two whose installations are at least as tall as those in the Princeton plan.

Frequently the single safety feature mentioned in the literature is an aisle locking device that prevents the shelving from moving when someone is in the aisle. While this feature is



important, of equal importance is the stability of the structure. Although now made in Pound, Wisconsin, the Elecompact product was designed in 1965 and built in Japan with special emphasis on prevention of tipping during earthquakes. The system utilizes a unique four post reverse cantilever shelving. The upright recesses 43/4 inches into the carriage. While most of the world does not need to guard against earthquakes, it is prudent to assure a safe and stable joining of shelving and carriage, as the Elecompact product does.

An overhead anti-tip system is also part of the installation. This feature eliminates any possibility of tipping due to an extreme loading imbalance or abuse by users of the equipment. Anti-tip rails and aisle safety locks were also installed at Princeton.

The Elecompact system at Forrester is the sixth installation of compact shelving on the Princeton campus, and it is by far the largest and most impressive. It looks good, it is easy to move, and the Princeton librarians are very pleased with the performance of ASRS and the Elecompact system.