Museum Collections Storage Guide

A guide to planning an expansion or renovation.
A time-tested process to protect collections and save space.

Let’s design from the inside out.

We see it all the time: even the most competent and esteemed museum professionals become a bit uncertain when faced with the daunting task of planning new collections storage areas.

Whether you’re shopping for a single cabinet or renovating a collection area or new facility, this guide is intended as a starting point to help you take the first steps toward designing a new storage solution.

We urge you to design from the inside out,
and by that we mean starting with the needs of your collection,
then ensuring that day-to-day procedures are as efficient as possible,
and then considering the physical constraints of your facility.

By following this time-trusted method we can help you design a storage solution that protects the items entrusted to your care while also promoting efficiency and making the best use of limited storage space.

While your design project might seem formidable, keep in mind that we design specialized storage solutions every day. For more than 40 years we’ve been helping some of the world’s most prestigious institutions plan their storage layouts, select the products that will best protect their collections, and ultimately save time, money, and space.

We’re standing by to help preserve the most important collection in the world: Yours.
LET'S GET STARTED.

1. **Describe your collection.**
   - Does your collection require a sealed cabinet?
     - ☐ No ➔ See cabinets on page 12
     - ☐ Yes ➔ Go to next question
   - Does your collection require a sealed cabinet that adheres to the traditions of a particular discipline?
     - ☐ Botany/Herbarium ➔ Go to page 10.
     - ☐ Entomology ➔ Go to page 11.
     - ☐ Geology ➔ Go to page 13.
     - ☐ No ➔ Go to pages 6-9.

2. **Please describe typical activities and outline your “wish list.”**
   - On occasion, we need to remove or move artifacts or specimens from one cabinet to another.
     - ☐ Yes ➔ Learn more about lift-off door hinges on page 4
   - In an ideal world, our collections storage area would have:
     - ☐ 30-50% more space ➔ Learn more about compact storage systems on page 14
     - ☐ Storage that doubles as counter space ➔ See cabinets on pages 8-13
     - ☐ Custom shelving and cabinets ➔ Nearly every project we’ve completed has a custom component. Contact us to learn how our in-house engineering team can assist your needs

3. **Consider your facility’s constraints.**
   - These factors need to be taken into account early in the design process to ensure that the storage products you need can be accommodated by the building’s design. For instance, the rails in our compactor systems have special floor considerations and some of our larger cabinets require freight elevators to reach upper floors.
   - ☐ This is new construction and we are still in the planning phase.
     ➔ We encourage you to call us early in the process so we can provide insights regarding HVAC systems, rail installation for compactors, and other concerns to planners and architects.
   - ☐ Our facility has the following special concerns:
     - ☐ Seismic
     - ☐ Security
     - ☐ Climate-controlled
     - ☐ General staff safety
     - ☐ Fire protection
     - ☐ Infestation
     - If you answered “Yes” to any of these concerns, contact us to learn about our specialized safety features
   - ☐ Storage products will be moved into an existing building.
     ➔ The building has a loading dock
       - ☐ Yes
       - ☐ No
     ➔ Dimensions of the smallest door between the building entrance and the room(s) where storage products will be located:
       - ➔ Elevator dimensions
       - ➔ Approx. ceiling height, excluding sprinkler (your local Spacesaver consultant must verify to ensure compliance with fire codes)
Our reliable and easy-to-use latching systems keep collections safe and secure. Our three-point latching system, particularly when combined with our optional vents, ensures the proper rate of air exchange inside the cabinets.

VIKING CLOSED-CELL ELASTOMERIC SEAL

Our cabinets are manufactured with a steel channel designed to house an adhesive closed-cell seal. Extensive third-party testing has proven the effectiveness and safety of this seal, and it can be easily removed and replaced after decades of use.

THREE-POINT LATCHING SYSTEM

NON-OFF-GASSING POWDER-COAT PAINT

Our powder-coat paint provides a clean, durable finish that helps protect and preserve specimens and artifacts.

LIFT-OFF DOOR HINGE

Ideal for collections that are constantly growing and changing, our lift-off doors offer quick convenience when transferring drawers between cabinets.
C-CHANNEL WITH GRAVITY STOP
Featuring a gravity stop, our C-channels ensure smooth drawer operation and are built to withstand decades of daily use.

MADE IN THE USA
We firmly believe that our strongest feature is the fact that our products are engineered and manufactured in the USA. With a full engineering team located just a half-mile up the road from our state-of-the art manufacturing facility, our in-house expertise and experience is unsurpassed in the museum storage industry. Founded in Fort Atkinson, Wisconsin, in 1972, Spacesaver is ISO 9001:2008 certified and has completed more than 300,000 installations in the U.S. and around the world. Sales, installation, and service are provided by The Spacesaver Group of independent distributors, which operates throughout North America and around the world.

VIKING WATERSHIELD CAP
Our cabinets have no seams on the top, which means that collections are protected from water damage in case of overhead sprinkler deployment or malfunction.

EASY-ACCESS LEVELERS
Accessible from inside the cabinet near the door, our levelers are convenient and easy to use.

REINFORCED INTEGRATED PALLET BASE WITH REMOVABLE FRONT COVER
Forklifts and pallet lifts are helpful for moving heavy cabinets, and our pallet base helps ensure that cabinets will remain undamaged. A removable front cover maintains the cabinets’ sleek appearance when the base is not in use. Available only on full-height conservation cabinets.

CORRUGATED LINER
Our corrugated steel liners with perma-slide paint permit the free release of drawers and trays. These durable liners are fully configurable to suit the needs of any collection.
CONSERVATION CABINETS
Full-Height

The flexible design of our most popular cabinet model allows our clients to create fully customized solutions for virtually any need.

Made in the USA of high-quality steel, and with the ability to be configured to accept any drawer or tray, these cabinets provide ultimate configurability along with secure protection and superior value.

**VIKING MODEL 238**
- 68.9 cu. ft.
- 58 ½" W x 30 ¼" D x 84" H

Our spacious Model 238 offers nearly 69 cubic feet of storage space and is available with solid or visual doors, along with a wide range of additional options and accessories.

**SHOWN WITH**
- Optional visual doors
- Optional door vent
- Reinforced pallet base with removable front cover
- Viking WaterShield cap

**OTHER VIKING FULL-HEIGHT CABINETS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIKING MODEL 336-15</td>
<td>23.7 cu. ft.</td>
<td>39 ¾&quot; W x 16 17/32&quot; D x 84&quot; H</td>
</tr>
<tr>
<td>VIKING MODEL 336-21</td>
<td>33.8 cu. ft.</td>
<td>39 ¾&quot; W x 22 17/32&quot; D x 84&quot; H</td>
</tr>
<tr>
<td>VIKING MODEL 348</td>
<td>44.2 cu. ft.</td>
<td>51 ¾&quot; W x 22 17/32&quot; D x 84&quot; H</td>
</tr>
<tr>
<td>VIKING MODEL 395</td>
<td>181 cu. ft.</td>
<td>94 ½&quot; W x 49 29/32&quot; D x 78 ¾&quot; H</td>
</tr>
</tbody>
</table>

The flexible Model 336-15 comes with six adjustable shelves and, like all our cabinets, is coated with non-off-gassing powder-coat paint.

Slightly larger than the 336-15, the carefully crafted Model 336-21 features six fully adjustable shelves.

A variety of options make the large Model 348 easy to customize with drawers, shelves, or both. Six shelves are standard.

Featuring lift-off bi-fold doors, the massive Model 395 can be fitted with drawers, trays, or shelves.
The project has created an immersive learning environment and provides better access to the collection. Extensive third-party testing led to Viking being selected as the cabinet provider. Spacesaver and its local distributor coordinated the vendors.

YALE UNIVERSITY ART MUSEUM

Before Spacesaver acquired Viking in 2016, the two companies worked together to provide comprehensive storage solutions at the Wurtele Study Center at Yale University. Viking cabinets were chosen following extensive third-party testing to ensure proper air exchange for the works of art stored inside.

The project has created an immersive learning environment and provides better access to the collection.
UNIVERSITY OF WISCONSIN ZOOLOGY COLLECTION

The Zoological Museum at the University of Wisconsin-Madison stores nearly 750,000 specimens, including a number of type specimens. Viking’s conservation cabinets have provided secure storage for the collections for decades, and the cabinets continue to adapt as new specimens are acquired. From polar bears to small birds, the collection’s specimens are protected by the cabinets’ non-off-gassing powder-coat finish and a variety of other features.

Standard lift-off doors enable staff to easily relocate drawers as the collection expands.

The cabinets are configured to accept new drawers as well as legacy drawers, resulting in a seamless storage solution.

A non-off-gassing powder-coat finish is particularly important when storing zoological collections.
Our counter-height cabinets offer the same sturdy construction as our full-height cabinets, but in a smaller size. These cabinets are fully customizable: they can be configured to accept any drawer or tray and are available with a variety of options and accessories. Closed-cell gasket seals, lift-off doors, and non-off-gassing powder-coat paint are standard. 

Counter-height cabinets can be stacked or used as a work surface.

One of our most popular cabinets, Model 220 can be configured to accommodate a variety of specimens and artifacts.

OTHER VIKING COUNTER-HEIGHT CABINETS

<table>
<thead>
<tr>
<th>VIKING MODEL 205</th>
<th>15.5 cu. ft.</th>
<th>28 7/8&quot;W×31 5/16&quot;D×39 5/8&quot;H</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIKING MODEL 215</td>
<td>18.1 cu. ft.</td>
<td>28 9/16&quot;W×38 7/16&quot;D×39 5/6&quot;H</td>
</tr>
<tr>
<td>VIKING MODEL 228</td>
<td>30 cu. ft.</td>
<td>48 3/4&quot;W×28 15/16&quot;D×47 3/4&quot;H</td>
</tr>
</tbody>
</table>

One of our most popular cabinets, Model 220 can be configured to accommodate a variety of specimens and artifacts. This mid-size cabinet features a single lift-off door and 18.1 cubic feet of storage space. Optional features include a sliding-closure vent and a magnetic fumigant pocket.

Model 228 has two convenient lift-off doors and provides 30 cubic feet of storage space that can be configured to accommodate virtually any drawer or tray.

OPTIONS

**DRAWERS**

- **1½" High Drawer**
  - Full-Width
  - Half-Width (w/center divider)

- **3½" High Drawer**
  - Full-Width
  - Half-Width (w/center divider)

**Desiccant Drawer**

**HANDLES**

- Lever
- Hansen Handle
- Eberhard Handle
- Emka Handle

- Sliding Closure Vents

**SHOWN WITH**

- Closed-cell elastomeric seal
- Half-width drawers and center divider
- Viking WaterShield cap
- Lift-off doors

**APPLICABLE COLLECTIONS:** Art Historical Natural
Designed to preserve and protect botanical specimens, our line of botany cabinets have extra space in the front and back of the compartments to promote the free circulation of air and fumigants. The full-height models feature a convenient pull-out reference shelf, and the counter-height model can be stacked or used as a work surface.

Unique design promotes better air circulation.

The mid-size Model 241 has a single lift-off door and 26 compartments. Our standard elastomeric seal, housed in a purpose-made steel channel, protects specimens from moisture and other contaminants.

**SHOWN WITH**
- Closed-cell elastomeric seal
- Lift-off door
- Viking WaterShield cap
- Pull-out work shelf

**OPTIONS**
- Lever Hansen Handle
- Eberhard Handle
- Emka Handle

**OTHER VIKING BOTANY CABINETS**

**VIKING MODEL 241**
- 19.3 cu. ft.
- 29 5/8"W x 19 1/4"D x 84"H

**VIKING MODEL 240**
- 8.9 cu. ft.
- 29 5/8"W x 19 1/4"D x 42 7/16"H

**VIKING MODEL 242**
- 38.7 cu. ft.
- 55"W x 19 1/4"D x 84"H

Our counter-height botany cabinet features 12 compartments and the standard three-point latching system.

The large, double-door Model 242 has 52 compartments and two pull-out work shelves.

**APPLICABLE COLLECTIONS:**
- Art
- Historical
- Natural

www.southwestsolutions.com
Our entomology cabinets are compatible with the four standard entomology drawer styles and are commonly used with optional fumigant pockets. We offer full-height and counter-height models to suit the needs of your collection and facility.

Customizable to accommodate Cornell, USNM, California Academy, and Smithsonian drawer styles.

**OPTIONS**

- Lever Hansen Handle
- Eberhard Handle
- Emka Handle

**OTHER VIKING ENTOMOLOGY CABINETS**

**VIKING MODEL 521**
23" W x 20 3/8" D x 42 1/2" H

This full-height, single-door cabinet features a convenient pull-out work shelf and measures 23" wide and 20-3/8" deep.

**VIKING MODEL 522**
43 3/4" W x 20 3/8" D x 84" H

Our popular Model 522 offers two doors and two pull-out work shelves. As with our other entomology cabinets, extra air space promotes the circulation of air and fumigants.

**CHICAGO FIELD MUSEUM**

When the Field Museum decided to consolidate and relocate millions of specimens in the Division of Insects’ collection, Spacesaver and Viking were chosen to provide more than a thousand cabinets on compact mobile storage systems.

Custom entomology cabinets maximized floor space while complying with fire codes. We provided oversight and coordination, ensuring that this complicated project was completed on time and on budget.
Developed in cooperation with an art museum, Model 414 features a display top that provides convenient, easily managed storage and display.

**SHOWN WITH**
- Display top
- Cushioned drawer bumpers
- Drawers with safety stops

Providing secure protection for maps and other two-dimensional items, our flat file cabinets offer an enduring value for museums, archives, and other institutions. Stainless steel tracks and plated rollers ensure that our flat file drawers operate smoothly day after day, year after year. Model 414, pictured at left, features a "showcase" glass top to easily display individual works of art.

**OTHER VIKING FLAT FILE CABINETS**

**VIKING MODEL 402**  |  54 1/4"W×40 1/4"D×17 1/4"H  
**VIKING MODEL 403**  |  54 1/4"W×40 1/4"D×17 1/4"H  
**VIKING MODEL 413**  |  92"W×60 3/4"D×17 3/8"H

The 402 model features six 2" drawers and can be stacked to create a convenient workspace. While this cabinet is the same size as the 402, it has four 3" drawers. The extra-wide 413 provides ample storage for exceptionally large items. It has four 3" drawers.

When the Madison Museum of Contemporary Art needed a way to provide both storage and display for two-dimensional art, the staff called on Viking to provide a secure and creative solution. The cabinets house a variety of artwork and the staff can easily switch out items in the top display drawer to coordinate with current exhibitions.

Tempered low-lead glass panels on the top of each cabinet allow viewing into the top drawer. Top drawers feature a linen-covered panel to provide a finished appearance for the display areas. The cabinets’ non-off-gassing finish offers archival-quality protection for stored items.

**MADISON MUSEUM OF CONTEMPORARY ART**
Ideal for heavy geological specimens, our geology cabinets can be configured to accommodate drawers or trays from any supplier. The full-height cabinet, pictured at right, provides optimal storage capacity, while the counter-height version can be stacked or used as a work or display surface. Our three-point latching system and elastomeric seal offer secure protection.

**Sturdy storage for heavy specimens.**

---

**OPTIONS**

<table>
<thead>
<tr>
<th>Lever</th>
<th>Hansen Handle</th>
<th>Eberhard Handle</th>
<th>Emka Handle</th>
</tr>
</thead>
</table>

---

**OTHER VIKING GEOLOGY CABINETS**

<table>
<thead>
<tr>
<th>VIKING MODEL 231</th>
<th>8.51 cu. ft.</th>
<th>20 1⁄4&quot;W x 25 1⁄2&quot;D x 42 1⁄2&quot;H</th>
</tr>
</thead>
</table>

Whether you’re using existing drawers or ordering new ones from us, our heavy-duty cabinets are built to withstand heavy specimens and daily use.

---

**ARIZONA STATE UNIVERSITY CENTER FOR METEORITE STUDIES**

Our full-height cabinets were used in combination with custom-designed counter-height cabinets to store and display the world’s largest university-based meteorite collection.

The cabinets’ heavy-duty steel construction is built to support heavy specimens and provide decades of trouble-free daily use by staff and visiting researchers.

Visual doors permit viewing of contents. Convenient lift-off doors allow staff and managers to quickly transfer items between cabinets as the collection grows.

This project required a number of custom cabinets as well our standard offerings.
COMPLETE MUSEUM STORAGE SOLUTIONS

While we specialize in museum cabinets, we also offer a suite of other storage solutions for museums, archives, and repositories.

All our products are engineered and manufactured in the USA and can be custom designed to fit the needs of your collection, your staff, and your facility.

COMPACT

Spacesaver got its start as an innovator in compact storage systems, and we still excel at helping our clients store more items in less space. Most of our products, including art racks, wide-span shelving, and cabinets, can be mounted on compacting carriage-and-rail systems. These systems eliminate wasted aisle space, permitting high-density storage while maintaining the highest standards of organization, accessibility, and preservation. Our compactor systems are particularly cost-effective in climate-controlled environments.

HEAVY-DUTY

Mobile pallet racking systems are bigger, stronger versions of the compact storage systems we developed for libraries and offices. Capable of storing and moving up to 30,000 pounds, our ActivRAC systems are trusted to store historic torpedoes, dinosaur bones, and other extremely large and heavy items.

Our wide-span shelving provides a sturdy platform for storing crated and oversized items. Featuring three beam options (low-profile, heavy-duty, and extra heavy-duty) and five decking options including powder-coated steel, these shelving units can be customized to meet nearly any requirement. No tools are needed to adjust, assemble, or disassemble the units, and they can be quickly installed or relocated.
ART RACKS

Art racks provide compact storage and convenient access to hanging art, and we offer a variety of options to suit any space. We offer ceiling-mounted hand-controlled manual art rack systems, called Hang Glider Pro®, along with floor-mounted high-density art storage rack systems, free-standing modular art racks, and 4-Post Art Racks, which can be mounted on mobile carriages and integrated into compact storage systems with other Spacesaver specialty storage units. Art racks are equipped with anti-tip and anti-vibration mechanisms to ensure that artwork is protected.

HIGH-BAY STORAGE SYSTEMS

For institutions that need to take full advantage of the vertical space in a tall building or offsite warehouse, particularly when those facilities are climate-controlled, our high-bay systems offer an exceptional return on investment. Our static high-bay systems allow clients to use nearly every inch of vertical space, and we hold the patent for the XTend® Mobile High Bay Storage System, which even further increases capacity by eliminating wasted aisle space. Your local Spacesaver consultant can provide drawings and analyses to help justify funding requests.

TEXTILES

Cantilever textile racking provides space for rugs, mats and tapestries to be housed alongside the rest of the items in a mobile system, or stored on their own.

ARCHIVAL SHELVING

When choosing shelving units, keep in mind that we offer perforated shelving, end panels, and uprights to allow increased air circulation.

LOW-LEVEL LIGHTING SYSTEMS

Our optional low-level lighting systems are activated only when aisles are opened, limiting unnecessary light exposure.

www.southwestsolutions.com

Toll Free: 1-800-803-1083
IT’S MORE THAN PRODUCTS. IT’S THE PROCESS.

You’ve spent years focusing on caring for the items in your collection and we’ve spent years focusing on how to store them thoughtfully. We’ll help you design from the inside out to create the ideal solution for your space and collection.

Your storage solution starts with a free space assessment with your local Spacesaver consultant, who has the knowledge and training to make the best use of your space while providing the best in collections care. From there, our in-house project management team will coordinate the details of your project with our engineering and manufacturing teams from design to completion. Your local Spacesaver dealer will take care of installation, maintenance, and service over the life of your facility.

Contact us today to protect your collections, save space, and improve efficiency.