



CASE STUDY

The Ruth and Nathan Hale Theater at dōTERRA | Pleasant Grove, Utah

BILCO Smoke Vents Help Reduce Fire Risk at New Utah Theater

Fire risk is inherent in every commercial space, but theaters are especially vulnerable to blazes that can cause massive property loss and death.

Flammable materials, such as curtain fabric, scenery and props can easily ignite and spread fires quickly. Sets and props made out of wood, cardboard and other flammable materials can contribute to a higher fire load, as do highly flammable costumes and fabrics.

Ignition sources abound, including stage lighting and faulty or outdated electrical systems. Many performances also include pyrotechnics and special effects, such as fog machines, which can also be fire hazards. Add high occupancy loads and panicky patrons, and it's easy to understand how any performance can be a disaster waiting in the wings.

A theater in Pleasant Grove, Utah opened in January 2025 that includes BILCO smoke vents as an important component of its fire protection plan.

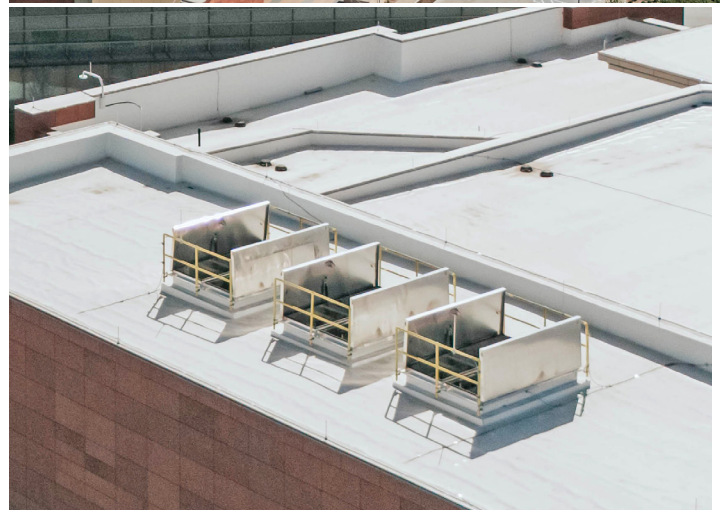
The Ruth and Nathan Hale Theater at dōTERRA includes two theaters with seating for 1,074 guests and spans a whopping 77,950 square feet. The \$65 million facility replaces the 7,000 square-foot Hale Center Theater in nearby Orem, which opened in 1990 and had a seating capacity of 305.

Workers completed the project in just two years, and it features the latest advancements in theater technology. The structure includes a club lounge and ballroom that can accommodate up to 200 guests, an education wing tailored to arts instruction with eight private studios, and a spacious lobby.

The BILCO smoke vents, which measure 6 feet x 8 feet, 6.5 inches, are motorized and equipped with push button stations for fast opening. Cannon Sales, BILCO's manufacturer's representative in Utah, procured the vents for Alder's Building Specialties. Layton Construction served as the general contractor for the project.

Smoke vents assist firefighting efforts and promote safe building evacuation by removing smoke, heat and toxic fumes from a burning building. The motorized operation allows the smoke vents to open and close with the push of a button, an important feature for the theater and its vast technological capabilities.

"Code prescribes the required total area, and we are tasked with coordinating the most efficient layout and overall approach to meet the life safety needs," said Todd Kelsey, the lead architect from



Method Studio. "There are several options that meet the code requirements of smoke venting in these scenarios, but BILCO also provided an opportunity for enhanced operability and safety for the smoke vents."

Many theater projects include BILCO's acoustical smoke vents, which include the added feature of limiting noise intrusion. The Ruth is largely isolated from unwelcome exterior noise.

"We have utilized acoustical vents on other projects to mitigate noise from flight paths, light rail and transit, and adjacent sound sources but the site conditions for this project allowed us to comfortably select non-acoustical smoke vents," Kelsey said. "This afforded some cost savings to the project with some of the other upgraded features that were a priority for the selection of smoke vents."