UNIVERSITY OF WESTERN ONTARIO
LONDON, ONTARIO

PROJECT PROFILE

DIVA® FULL-STAGE ACOUSTICAL SHELL

"The transformation is nothing short of amazing – a 45-year-old acoustic nightmare has been changed into a beautiful and acoustically superior performing space."

– Robert W. Wood, Ph.D.
Dean, Don Wright Faculty of Music

CHALLENGE

Provide full-stage acoustical solution that delivers functional and aesthetic excellence.

WENGER SOLUTION

Manufacturing towers and ceiling panels to satisfy acoustical specifications and complement interior architectural elements. Coordinating installation timetable with project team.

BENEFITS

- Flexible configuration options suit range of performances
- Onstage sound is blended and projected more effectively
- Compact storage conserves limited space
- Shell enclosure helps prevent sound leakage into fly loft and wings
- Easy handling speeds transitions, reduces labor costs
- Engineering expertise enables cost-effective solution

HIGHLIGHTS

"Our music faculty overwhelmingly asked for 'better sound' when we were planning the Talbot Theatre's renovation," recalls Louis D'Alton, Concert Manager at the University of Western Ontario (UWO).

The faculty wanted the proscenium-stage hall to have acoustics more suited for a range of performances. The room's small size also meant the sound was often overpowering.

"The volume of the Talbot Theatre was far too small," says acoustical consultant John O'Keefe, Principal with Aercoustics Engineering Ltd. in Toronto. "It would never be reverberant enough at its existing size."

After considering several options, UWO decided to enlarge the space by demolishing a floor of classrooms above. This raised the ceiling 13 feet and increased the room's overall volume by 33 percent.

In the larger renovated space, the Diva® full-stage acoustical shell creates a 'blending chamber' for sound on stage and helps reflect that sound toward the audience.

"As an audience member, there's definitely much better clarity and sound projection," comments Stéphan Sylvestre, Assistant Professor of Piano and Keyboard Division Coordinator. "As a musician performing in the hall, the most important thing is the supportive environment and the inspiration that comes with the warmth and presence."

The shell's design accounted for the shallow stage depth, which squeezed the available space for freestanding acoustical towers. The three rear towers were attached to the stage's back wall, with three movable towers on each side. The ceiling panels, or clouds, are also unique – 20 individual units, arranged in four rows of five panels.

"Openings between the panels allow some sound to escape," O'Keefe explains, adding that the ability to fine-tune each panel's angle is another advantage.

"If you're a violin player and your sound hits a flat ceiling, it's not going to project to the other side of the stage very well," O'Keefe explains. "Tilting the panels along the perimeter of the shell helps scatter the sound."

Operationally, two primary shell setups are used regularly: the full shell for large ensembles or six towers arranged in an arc – using half the clouds – for smaller concerts or recitals.

A four- to five-person crew can set up the shell from its storage position and then strike it back into its storage position in approximately four hours. With the patented, electric-powered Air Transporter, one person can easily move a 1,350-pound tower.

The towers and ceiling panels each feature framework constructed of aluminum extrusions, which are lighter and stronger than steel. As a result, fewer hanger arms are required to secure the ceiling panels to the rigging.

"It's pretty hard to beat the storage technology that Wenger has for both towers and ceiling panels," O'Keefe notes.

This Diva shell visually complements and reinforces the overall design of the renovated auditorium, which was renamed the Paul Davenport Theatre. Birch wood is featured on many auditorium profiles and finishes, including the proscenium arch and Diva shell, which features a warm-looking birch veneer.

This shell's exquisite combination of science and art continues to receive rave reviews.

"The transformation is nothing short of amazing," says Robert W. Wood, Ph.D., the Don Wright Faculty of Music's Dean. "A 45-year-old acoustic nightmare has been changed into a beautiful and acoustically superior performing space."

PRODUCT LIST

Diva® Acoustical Shell

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