



CASE STUDY

Large theater projection in a limited space

Client: Minor theater

Location: Vodickova 6, Prague 1, Czech Republic

Challenge

Special requirements for large-screen projection in a limited space during a Live Cinema broadcast in the new Minor theater play

Solution

Rear projection with ultra-short lens and Panasonic single-chip DLP projector

""Thanks to Panasonic's help, we are able to offer children a unique Live Cinema concept at the Minor Theater. The Panasonic projector can provide a great experience for spectators. Projector's technical parameters enable original rear projection in a relatively small space." "

Jakub Vasicek

director of the Minor theater



Modern Panasonic projection for enthusiastic children's audiences of the Minor Theater in Prague

Minor theater is a unique stage that mediates extraordinary experiences, especially for children. The Minor theater team is trying to find new ways to connect what's happening on stage with modern technology. Since the beginning of 2020, they have moved further in an effort to pass on other emotions to children who clearly show satisfaction.

Live Cinema concept

Live Cinema is a connection between visual technology and events on stage, it is increasingly penetrating Czech theaters. Thanks to the cooperation with Panasonic, the Minor Theater is proud of its uniqueness.

"In the production of Snow White, which premiered in October 2020, we had the opportunity to combine a live broadcast on screen with a live concert. It was fun for the kids to watch footage of the dwarve's lives on the screen. We would not have been able to do this in our conditions without a tailor-made technical solution," says Jakub Vasicek, the director of the Minor theater.

The performance of Snow White requires a perfect interplay between actors, a band, editors and cameramen. "We work with four cameras, we have to coordinate them so that the viewers still have perfect shots on the screen. In essence, it is an analogy with live sports television broadcasting," says editor Zuzana Walter.



Technical solution

For the needs of large projection in a limited space behind the screen and the requirement for high-quality picture, we chose a solution with a **single-chip DLP laser projector Panasonic PT-RZ120BEJ with a luminosity of 12,000 lumens in combination with an ultra-short throw lens ET-DLE020**. This combination allows rear projection on a wide screen from a minimum distance in the highest quality.

Thanks to the isolated dustproof optical unit and liquid cooling system, this projector does not need air filters and can operate **maintenance-free for up to 20,000 hours**. It is suitable for intensive use in permanent installations, rooms for education, theaters, museums, exhibitions and digital advertising. Excellent image quality is ensured by a hybrid system with a double laser light source (certified for 24/7 operation), which produces bright colors and a vivid image.

PT-RZ120BEJ projector supports 4K video input via a single DIGITAL LINK or HDMI® cable and is also ready for professional installation thanks to 3G-SDI, DVI-D, 5BNC, D-Sub and RS232C interfaces. It is designed for integration into existing control systems, compatible with HDBaseT®, Art-Net, Crestron Connect® and PLink® protocols. In addition, it allows the use of interchangeable Panasonic lenses for other single-chip DLP-models.

Ultra-short rear projection expands the possibilities of usage

The ultra-short lens can be used without worrying that the short distance of the projector from the screen will affect the image quality. In the case of installation at the Minor theater in Prague, the **ultra-short lens ET-DLE020** was chosen because of lack of space and is located behind the screen. The dimensions of the screen are 6 x 3,35 m. The distance of the lens from the screen is 1,75 m.

The undeniable advantages of this lens are the projection distance ratio of 0,28-0,30:1 (for WUXGA resolution) and the motor shift of the lens -16% to +50% (vertical) and -10% to +23% (horizontal), thus providing flexible setting options in all four directions.

Installation of projector for ultra-short projection

Projectors can be mounted on a ceiling or wall, placed on a table, used for rear projection, or placed on the floor and projected on the floor. When using the ultra-short lens, it is possible to project even there, where the otherwise required projection distance would hardly allow it.

Partnership with Panasonic

"If I had to evaluate the collaboration with Panasonic, I would say that it was just great. That's a phrase everyone says, but the collaboration was really perfect. The projector has an amazing resolution, illuminates a black projection screen and, in conjunction with the lens, adds an incredible captivating atmosphere to our new production of Snow White", said Zdeněk Pecháček, director of the Minor theater.

In 2020, Panasonic Business became a partner in the laser projection of the Minor theater. Mutual cooperation is also planned for the following years.



