

(From left to right) Wendy Cox, Ryan Gustafson, Aaron White

PROJECTION SCREENS TECHNOLOGY

stage. Sliding installation brackets allow mounting flexibility for easy attachment of the screen housing to the structure above the drop ceiling.

Size Matters

Projection screens are used in many environments. A home theater, for example, will require drastically different dimensions than a commercial installation. "The general rule of thumb for 16:9 or 10:10 formats, in a commercial setting, is to figure the depth of room divided by two to achieve the ideal screen diagonal," explained Cox.

"Screen size often has some personal preference and bias associated with it," admitted White.
"However, it can also be limited by the room size and projector specs; if the projector is placed a long distance from the screen, it may lose a lot of its light by not being bright enough or also be able to zoom to the desired size. Another major determining factor is seating distance. A rule of thumb is your seating distance should be about three times your screen's viewing height."

Which is more advantageous for your installation, fixed or motorized screens? "Fixed screens are more stable, delivering a more accurate installation of dimension and aspect ratio than motorized screens," Gustafson offered. "Motorized screens are more flexible and prone to expand and contract in a 120-degree truck or attic. Although motorized screens are natively flat, they can move with air movement throughout the room. Still, they are a great choice where preserving the architectural and decorative integrity of a room is important or when a room serves multiple purposes."

Luckily, finding the right screen size is relatively easy. Most companies offer online tools to get started, such as Da-Lite's Screen Surface Selection Calculator and Screen Designer Tool and SI's Screen Material Wizard.

While there are many considerations, there are also a number of projection screens available. Here are some current offerings from several manufacturers.

Da-Lite Tensioned Advantage with SightLine

Da-Lite's new cable drop feature, SightLine, available with the Tensioned Advantage electric screen, gives the impression of a floating screen. Available in sizes up to 177-inch diagonal (16:9) or 182-inch diagonal (16:10), it is a ceiling recessed electric screen designed with ceiling trim in place. This conceals the rough opening and eliminates the need to complete additional trim work once the screen is installed. Its two-stage installation option allows the screen case to be installed during the rough-in construction stage and the screen surface assembly during the finishing

Draper TecVision Series

Draper offers 11 TecVision formulations to deal with any projection requirements, including five ALR formulations. Each TecVision surface is designed for uniform performance across the image and from screen to screen. Draper tests each formulation periodically to make sure it still performs within specs. This attention to detail allowed Draper to attain Imaging Science Foundation (ISF) certification for color accuracy for every TecVision formulation. Draper's optically seamless technology makes seams invisible on very large installations. TecVision surfaces are available with electric and rechargeable battery screens like the Acumen series, as well as fixed screens like the Profile+.

Elite ProAV Presenter Pro Riser CineGrey 4D

This portable, electric floor-rising projection screen with Ceiling Light Rejecting technology is designed for ambient light room environments. Its tab-tension design maintains a flat and taut front projection surface to provide a ripple-free image suitable for standard long-throw projectors. It's ALR characteristics allow the Presenter Pro to be used in rooms with ambient light in lecture halls, boardrooms, training facilities, and other environments where lighting cannot be controlled. Using "scissor-backed" cross risers, the CineGrey 4D

material rises and lowers easily.

EPV Twilight Series

The new Twilight Series comes in a variety of sizes in Electric, Manual, and Tension Twin models. All three models are dedicated to outdoor spaces for nighttime use. The screen material is supported by a tabtension system to provide a flat and taut projection surface for use with ultra, short, and standard throw projectors. Its wide viewing angle accommodates small gatherings or large-venue events.

Screen Innovations Black Diamond

In 2008, Screen Innovations designed Black Diamond to solve the problem of washed-out projection screens in rooms with light. Black Diamond is capable of rejecting light on both the horizontal and vertical axis, so lighting from fixtures above and windows on the side is simultaneously rejected. The optics in Black Diamond result in an immersive dark room experience without the need for blacking out adjacent walls.

Severtson Screens Impression Series

Severtson's Impression Series fixed frames with SAT-4K screen material are designed for specialized applications where a permanent projection screen is desired. Made in the United States, the SAT-4K replicates the cinema experience in home and commercial settings. Acoustically transparent, the entire sound stage can be placed directly behind the screen at the same horizontal axis, allowing the vocals and the special effects to be completely in sync with the images on display. The SAT-4K screen meets or exceeds all industry standards for optimum video and acoustic performance.

Stewart Filmscreen Luxus

The 100-inch screen is a compact, below-ceiling retractable surface mount motorized screen for commercial and residential applications. With built-in controls and a removable case bonnet, the new Lexus is ideal for corporate, educational, gaming, and residential use. The Luxus is equipped with a universal hanging bracket, 12v trigger, and dry contact for easy control with optional IR or RS-232. The system supports image widths just over 15 feet and scales up to 209 inches in diagonal 16:9 format with a 12-inch backdrop.

