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Screen and Frame System versus Painted Wall

A purpose built screen and frame will substantially outperform a painted surface for any application where any sort of image fidelity is required.

Flatness

A Stewart Filmscreen Corp manufactured surface is a perfectly flat, seamless planar surface which is held to a tolerance of plus or minus two thousandths of an inch. This sort of flatness and tolerance is not achievable in perforated metal panel or drywall construction or even seamed screen surfaces.

A perfectly flat surface insures maximum attainable resolution of detail, and provides perfectly straight lines without parallax distortion, when graphic elements are part of the presentation. A painted wall will frequently have undulation which results in wandering lines. Painted surfaces nearly always contain distracting surface artifacts from tape, sanding, and random surface texture differences.

Optical Coating Quality

Stewart Filmscreen Corp furnishes dozens of fabrics of varying optical design, which are application driven to optimize the visual performance of any professional venue. Stewart Engineers assess the venue, the projection equipment, and then provide a specification for a surface which will deliver the highest quality image obtainable in the venue.

Stewart fabrics are uniformly finished with automated equipment which ensures that all points on the screen are uniform in gain, gloss level, surface texture and off axis performance. The substrate of Stewart Filmscreen Corp fabrics are manufactured using the same precision automated equipment. To paint a wall with this sort of precision is not possible. Even if an automated machine is brought to the venue, the painted surface will only be as uniform as the substrate preparation allows. Most walls are painted with rollers or airless spray equipment neither of which is capable of applying a consistent stripe free or uniform coating.

Without a robotic applicator, there will be areas with distinct visible signature optical characteristics which represent the functional area of a particular application apparatus and the "reach" of the operator.

Installation Downtime

In order to properly prepare a wall for an optical coating, the wall must be taped, sanded, compound re-applied, and worked to a degree much more detailed than a normal commercial wall surface. This is time consuming and could easily run into weeks of time in which the venue is dirty and other work to remain, within the venue is at risk from debris generated in the process of preparing the surface. The current "paint on the wall" quasi optical coatings available all call for primer coats, multiple thin coats, re-applications, remediating problem areas, evaluating, and then there is great difficulty obtaining a coating which actually has optimal qualities to match the projector and venue.

With a Stewart Filmscreen Corp product, the frame and screen can be installed in a single day. If the screen is greater than twenty feet tall, it may take a day and a half. The optical quality of the surface is engineered, measured, documented and optimal, prior to any installation effort.

Over-scan Function

A properly framed projection screen includes a light absorbing over-scan border which defines the projected area with pleasing straight geometric borders, and furnishes a professional presentation environment. A projection area painted on to a wall surface will be unframed, unless the applicator follows up the screen surface application with a black border paint, or appliqué, which will unlikely be able to match the low gloss level and light absorption of professional masking fabrics. To obtain a true rectangle at scale in a venue is fairly difficult. Stewart Filmscreen Corp products are precision crafted to plus zero or minus 1/8" on the diagonal, and are furnished with brackets which are adjustable to allow perfect level and perfect surface planar conformity for the projection surface.

A professional visual presentation is a powerful tool for communication. In today's competitive technical business climate, a high performance screen surface, optimized for the venue's application is a prudent investment which communicates a commitment to quality.