

# Vortex

## Combining the best of optical and diffusion rear screen technology.

The Vortex is a marriage of the best features of two rear screen technologies—optical and diffusion.

A 0.5 mm Fresnel lens gathers the light from the projector and directs it at a right angle through the screen. As the light exits screen on audience side, a diffusion medium redistributes the light evenly in all directions—up, down, left, right and center. The result is an extraordinary projected image with—

- Superior resolution and color contrast
- Wide viewing cone in both the horizontal and vertical axes
- Extraordinary center-to-corner brightness ratio
- Uniform brightness without hot spots

The unique features of the Vortex provide important advantages and benefits—

- The Vortex is designed for use with single lens projectors
- Projected light is collimated, then diffused evenly, making the Vortex well suited for use in videowalls and rooms with tiered seating
- Charcoal grey tint provides superior color contrast even under harsh ambient light
- The diffusion medium is in the acrylic, so it can't be scratched or damaged

### Installation

When framing a single screen, select Draper's System 100, 200 or 400 framing systems. See details on page 47. For multiple screens or VideoWall applications, our Zero Edge, Clear Lexan or System 200 VideoWall Framing Systems are compatible.

### Specifications—Vortex

\_\_\_\_\_ Rear projection screens to be Draper Vortex, size \_\_\_\_\_. Material to be cast acrylic, one-piece, not to exceed 3/8" in thickness. Rear (projector) side of screen to be an ultra-fine Fresnel lens, pitch 0.5 mm or 0.8 mm, serving to refract projected light directly toward audience and to provide maximum light distribution over a horizontal plane of up to 180°. Light diffusion agents shall feature a dark tint to enhance color contrast, and shall also control vertical and horizontal light distribution. Front lenses of screen shall be treated with a special anti-reflectance coating, which shall control glare



### Dimensions & Data—Vortex

Nominal Diagonal	Image Area H x W	Overall Size	Net Wt. (lbs.)
<b>NTSC Video Format (4:3)</b>			
60"	36" x 48"	37" x 49"	16
67"	40 1/4" x 53 3/8"	41 1/4" x 54 5/8"	18
72"	43 1/4" x 57 3/8"	44 1/4" x 58 3/8"	20
84"	50 1/2" x 67 1/4"	51 1/2" x 68 1/4"	27
90"	54" x 72"	55" x 73"	31
96"	57 3/8" x 76 7/8"	58 3/8" x 77 7/8"	44
100"	60" x 80"	61" x 81"	46
120"	72" x 96"	73" x 97"	66
125"	74 3/4" x 99 3/4"	75 3/4" x 100 3/4"	71
140"	84 3/8" x 112 3/8"	85 3/8" x 113 3/8"	128
150"	90 3/8" x 120 3/8"	91 3/8" x 121 3/8"	146
160"	96 3/8" x 128 3/8"	97 3/8" x 129 3/8"	165

without interfering with the projected image. Screen gain to be 2.0 on axis. Horizontal half-gain angle to be ±20° from projection axis. Vertical half-gain angle to be 20° from projection axis.

**Options:** Screen shall be furnished with factory installed anodized aluminum Cineframe® in (System 100/System 200) style and (black/clear anodized) finish, or System 400 in black finish.

Custom sizes or screens larger than those listed may be available. Contact Draper, Inc. for details.

# DiamondScreen™

## Designed for video and data projection.

DiamondScreen—the first rear projection screen designed specifically for video and data projection. The DiamondScreen derives its incredible optical performance from its patented Fresnel/lenticular lens system. Its amazing uniformity and brightness allows you to turn the brightness down on your projector to save lamp life.

The DiamondScreen offers—

- The world's most sophisticated, efficient rear projection screen
- A panoramic 180° horizontal viewing cone, and the largest vertical viewing cone of any product of its type
- High Contrast Grey optical tint, for superior color contrast
- Anti-reflective properties for superior performance even under conditions of high ambient light
- Superior corner-to-center brightness ratio, with no "hot spots"
- 3.5 gain on axis
- The widest range of sizes—and the largest sizes—in the industry

DiamondScreen is available in any custom size up to the largest standard sizes shown in Dimensions & Data chart on page 45.



Two 120" DiamondScreens. Health Science Center at University of Wisconsin-La Crosse. Photo courtesy of SPL Integrated Solutions.