# **Projection Screens**

# IROPPR

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The Luther O. Draper Shade Company, now known as DRAPER, INC., was founded in Spiceland, Indiana, in 1902. Under the ownership and management of Mr. Draper's descendants, his simple and straightforward business philosophy continues today: make a quality product and offer it at a reasonable price.

Those products include projection screens, rear projection display systems, video projector mounts and lifts, plasma and LCD display mounts and lifts, presentation easels, window coverings and gymnasium equipment.

In addition to its Indiana facility, DRAPER has manufacturing operations in Ohio, China and Sweden, and sales offices in California, the United Kingdom and Hong Kong. DRAPER products are sold to dealers and shipped throughout the United States and to more than 100 countries. DRAPER's dedication to innovation is one reason its workforce has never experienced a layoff.

This catalog features DRAPER's full line of products for international distribution, which includes-

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# Screen Size Selection Guidelines

The following information applies to both front and rear screen installations. Planning a rear screen installation involves additional considerations: refer to page 20. Projector, room design, and other considerations may affect screen selection.

Audience Area: The goal is to make the screen large enough so that people in the back of the room can read the text easily. People in the front row also need to see the full width of the screen without turning their heads.

### Height:

Type of images

### Screen height

NTSC/PAL 4:3 At least 1/6 the distance from the screen to the furthest seat movies and entertainment

Charts and data Complex graphics HDTV

At least 1/4 the distance from the screen to the furthest seat At least 1/2 the distance from the screen to the furthest seat At least 1/3 the distance from the screen to the best seat

Width: Calculate screen width based on the height of the screen and the projection formats to be used.

Ceiling height: The bottom of the screen should be approximately 100-120 cm (40"-48") above the floor so that all members of the audience can see. This rule may not apply in a tiered seating area or where there are only one or two rows of seats. In rooms with a high ceiling, extra "drop" (additional screen fabric) may be needed to lower the screen for comfortable viewing.

Projection format (relationship of height to width): Commonly used projection formats vary from 1:1 to 2.35:1 (see below). If only one projection format will be used, use it to calculate screen height. If more than one format will be used, screen dimensions must be adjusted accordingly.

Note: If you need to display slides both vertically and horizontally, DRAPER recommends a square screen.



graphics/SXGA and opaque projection

CRT video and oriented horizontally data-graphics projection

Television

# Screen Surface Selection Guidelines

Surface Cleaning-Developing a cleaning schedule is recommended. See www. draperinc.com/screen\_pages/screen\_surface\_definitions.htm for care and maintenance.

DRAPER offers two different types of projection screen surfaces-textile backed and unsupported vinyl.

Textile Backed—The reflecting surface of the front projection screen is laminated to a woven textile base which provides the necessary dimensional stability (stiffness) so the screen fabric will operate satisfactorily on a roller. Materials of this type are used on spring-roller operated and motorized projection screens. In either case, the screen surface hangs suitably flat by virtue of the dimensional stability of the material and the weight of the dowel in the bottom of the screen surface. DRAPER'S FIBERGLASS MATT WHITE, HIGH CONTRAST GREY and GLASS BEADED are textile backed surfaces.

Textile-backed surfaces are commonly used for LCD, overhead and other single lens video projection, as well as for CRT video and data-graphics projection. Large textile-backed surfaces have inconspicuous horizontal butt seams.

Motorized Screen Controls

All DRAPER motorized screens except the BARONET are furnished with one standard 3-position 115V or 220V switch, as required **1**. The following controls are available options:

Multiple Station Controls—Similar to 3-position 115V or 220V switch **0**, but contains safeguards to prevent two signals from reaching the motor at the same time. The surface mounted "European" style switch is also available 2.

Low Voltage Controls—Available with one or more attractive 3-button switches 3. Control unit, without switches, is compatible with master control systems. It is equipped with jacks for connection with DRAPER RF or IR receivers. Wiring from control unit to switches is lightweight for 24-volt current.

Radio Frequency Remote Control—Hand-held transmitter, with 3-button control 4. For use only with DRAPER low-voltage control units.

Infrared Remote Control—IR transmitter and receiver **1**. 3-button operation. Fully compatible with "learnable" IR master control systems. Must be ordered with DRAPER low-voltage control system, above.

MC1: New Low Voltage Option with RS232—Small and versatile. Enables IR, additional interface for dry contact closure and RS232. Ideal for Home Automation Integration. Programmable 6.

www.draperinc.com **IRAPPR** 765-987-7999

Unsupported Vinyl-Surface consists of the vinyl reflective material only, with no textile backing. Transmissive rear projection surfaces are also available. These screen surfaces, whether for front or rear projection, need to be tensioned to achieve sufficient flatness to perform properly. DRAPER'S FLEXIBLE MATT WHITE, M1300, M2500 and HIDEF GREY are unsupported vinvl surfaces.

and Panavision

DRAPER offers three types of screens with unsupported vinyl surfaces, all of which may be specified with front or rear projection surfaces-

- Tab-tensioned-motorized or crank operated screens with built-in surface tensioning systems.
- Permanently tensioned—screens which are permanently stretched on a frame, and usually wall mounted.
- Portable-folding screens.



# Textile Backed Screen Surfaces

*Fiberglass Matt White*—Vinyl MATT WHITE with a woven fiberglass supporting base material. It is available for almost all roller-operated front screens. Projected images have excellent clarity and uniform brightness over a broad viewing cone. MATT WHITE surfaces are washable, flame and mildew resistant.

*High Contrast Grey*—Grey textile-backed surface offers excellent resolution while enhancing the blacks of LCD and DLP projected images, even as whites and lighter colors are maintained. Performs well in ambient light condition. Ideal for home theatre.

**Glass Beaded**—Spherical glass beads embedded in surface provide brighter on-axis viewing than matt white, within a narrower viewing cone. GLASS BEADED surfaces have some loss of clarity and perform best with table-mounted projectors. Flame and mildew resistant, cannot be cleaned. Seamless in standard sizes through 305 cm (10') high.

AT1200—A breakthrough in projection surfaces, AT1200 is acoustically transparent. With AT1200, it is possible to position a center channel speaker directly behind the screen, for full range performance of your audio system. Provides a flat viewing surface with no tensioning system. AT1200 is washable, flame and mildew resistant.

AT Grey—AT GREY offers the acoustical properties of our popular AT1200, while providing the best optical qualities of both MATT WHITE and HIGH CONTRAST GREY. Not recommended for screens smaller than 203 cm (80") wide when used with LCD or DLP projectors.

# Unsupported Vinyl Screen Surfaces

*Flexible Matt White*——Pliable matt white material for use in our Ultimate Folding Screen and Cinefold portable folding screen. It can be stretched, folded and restretched repeatedly without damage.

M1300—100% vinyl stretchable matt white surface, with excellent clarity and uniform brightness over an extremely broad viewing angle. It is washable.

*M2500*—More than twice as bright as ordinary MATT WHITE, with a full 180° viewing cone, excellent contrast and resolution. Highly resistant to ambient light, it is ideal for video and data projection. Not recommended for projectors with light output above 1000 ANSI lumens.

*HiDef Grey*—Grey front projection surface. HIDEF GREY is designed with a low gain of 0.8 to meet the demands of today's high-output video projectors. The grey color enhances color contrast and black levels in the projected image and also allows for more ambient light in the audience area than traditional surfaces. Ideal for home theatre.

*Cineflex*—A vinyl surface for rear projection. It is neutral grey in color. CINEFLEX has high resolution and excellent contrast, even in lighted rooms.

What is Gain?—Gain is a measure of brightness as compared to a block of magnesium carbonate, which serves as the industry's standard for gain of 1.0. A more familiar "real-world" comparison is with a matt white projection screen. Most matt white screens have a fairly uniform light distribution pattern with gain of approximately 1.0. Screens that appear brighter on axis are concentrating the reflected light in a narrower area: the gain may be 2.5 on axis but 0.5 at 60° to the side.

With today's brighter, high output projectors, gain is not as important as it once was, because the screen no longer has to make up for a lack of projector brightness. Other factors—such as color contrast and accuracy, uniformity, reproduction of black and the ability to perform with more ambient light in the audience area—are equally important.





High Contrast Grey & AT Grey















# Baronet

### Small Electric Screen

The BARONET is a compact electric screen with the motor inside the roller. It is our most economical, and most popular motorized screen. Universal mounting brackets make installation easy whether the BARONET is mounted on a wall, suspended or recessed above the ceiling. The BARONET's small case size will fit almost any space where a motorized screen is needed. The pentagonal steel case is finished in white. Select a FIBERGLASS MATT WHITE, GLASS BEADED or HIGH CONTRAST GREY viewing surface. Three versions of the BARONET are available:

### Baronet

Furnished with 3m power cord and 3-position in-line operating switch. Available with 110V or 220V motor.

### Baronet/HW

Furnished with junction box and 3-position wall switch for recessed wall mounting. Available with 110V or 220V motor.

### Baronet/CE

Furnished with terminal strip and white 3-position "European" style wall switch for surface mounting. 220V motor only.

### System Options

- Extra Drop—Up to 244 cm (96") overall height, either surface color or black.
- *Black Masking Borders*—Borders are optional for AV format screens and standard for all other format screens.

Image Area	Case	Nominal	Image Area	Overall	Case
HxW(cm)	Length	Diagonal	HxW(cm)	Size (cm)	Length
AV Format		NTSC/PAL Forr	nat		
127 x 127	140	6′/183 cm	108 x 144	118 x 151	164
152 x 152	164	7′/213 cm	127 x 169	136 x 177	190
178 x 178	190	8'/244 cm	152 x 203	163 x 212	225
213 x 213	225	10′/305 cm	175 x 234	185 x 244	257
244 x 244	257	HDTV Format			
		92"/234 cm	114 x 203	125 x 212	225
		106"/269 cm	132 x 234	142 x 244	257

Widescreen formats available



Baronet/HW or CE



Baronet







### Premier With Flat Surface



13.4cm

15cm

305 x 305

274 x 366

366 x 366

15cm

13.4cm

365

422

436

The PREMIER is designed specifically for video and data projection. A sophisticated TAB TENSIONING SYSTEM holds the viewing surface flat and wrinkle free. The PREMIER is available with M1300, M2500 or HIDEF GREY front screen viewing surfaces. CINEFLEX surface is also available for rear projection. The PREMIER features a quiet motor-in-roller design. It is suitable for either wall or suspended mounting.

The PREMIER/SERIES C, a crank-operated version of the PREMIER, is also available. Detailed information is available at *www.draperinc.com*.

### System Options

- *Extra Drop*—30 cm (12") black drop at top of screen is now standard on tab-tensioned screens. Additional drop optional. Up to 366 cm (12') overall height, either surface color or black (black is standard). Extra drop will increase the overall length of case.
- Black Masking Borders—Standard for all formats.
- *Projected Mounting Brackets*—Provides a 15.2 cm (6") clearance.
- Control Options-Refer to page 3.
- Ceiling Opening Trim Kit—For ceiling-recessed installation.



es a 15.2 cm (6")	Image Area HxW(cm)	Case Length	Nominal Diagonal	Image Area HxW(cm)	Case Length	Nominal Diagonal	Image Area HxW(cm)	Case Length
	AV Format		NTSC/PAL Form	nat		HDTV Format		
	127 x 127	173	6′/183 cm	108 x 144	188	92″/234 cm	114 x 203	248
g-recessed	152 x 152	201	7′/213 cm	127 x 169	214	106"/269 cm	132 x 234	280
0	178 x 178	227	100"/254 cm	152 x 203	249	119"/302 cm	147 x 264	310
	213 x 213	265	10′/305 cm	183 x 244	293	133"/338 cm	165 x 295	343
	183 x 244	293	11′/335 cm	198 x 264	316	161"/409 cm	201 x 356	408
	244 x 244	300	150"/381 cm	221 x 295	347	Widescreen form	Videscreen formats available	
	213 x 274	326	15′/457 cm	274 x 366	422			
	274 x 274	330						
	244 x 305	361						

# Targa



### Contemporary Electric Screen

The TARGA'S motor-in-roller design provides reliable, silent operation. The viewing surface is centered in the case for a trim, balanced appearance. The pentagonal-shaped steel case and endcaps are finished in white. Select viewing surface: FIBERGLASS MATT WHITE, GLASS BEADED, HIGH CONTRAST GREY, or acoustically transparent AT1200 or AT GREY.

### System Options

- Extra Drop—Up to 366 cm (12') overall height, either surface color or black.
- *Black Masking Borders*—Borders are optional for AV format screens and standard for all other format screens.
- Projected Mounting Brackets—Provides a 15.2 cm (6") clearance.
- Control Options-Refer to page 3.
- Ceiling Opening Trim Kit-For ceiling-recessed installation.
- Larger sizes now available.



Image Area	Case	Nominal	Image Area	Overall	Case	Nominal	Image Area	Overall	Case
HxW(cm)	Length	Diagonal	HxW(cm)	Size (cm)	Length	Diagonal	HxW(cm)	Size (cm)	Length
AV Format		NTSC/PAL For	mat			HDTV Format			
127 x 127	144	6′/183 cm	108 x 144	118 x 151	169	92″/234 cm	114 x 203	125 x 212	230
152 x 152	169	7′/213 cm	127 x 169	136 x 177	195	106"/269 cm	132 x 234	142 x 244	262
178 x 178	195	100"/254 cm	152 x 203	163 x 212	230	119"/302 cm	147 x 264	158 x 274	293
213 x 213	230	10′/305 cm	175 x 234	185 x 244	262	133"/338 cm	165 x 295	175 x 305	323
183 x 244	262	11′/335 cm	198 x 264	211 x 274	293	161"/409 cm	201 x 356	213 x 366	384
244 x 244	262	150"/381 cm	221 x 295	234 x 305	323	182"/467 cm	229 x 406	241 x 417	435
213 x 274	293	15′/457 cm	267 x 356	277 x 366	384	Widescreen form	ats available		
274 x 274	293	200"/508 cm	300 x 401	312 x 412	430	5			
244 x 305	323								
305 x 305	323								
274 x 366	384								
366 x 366	384								

# Salara

### You've never seen a screen like this before

In your home or office, the SALARA makes a design statement. The SALARA's small, elliptical case and domed endcaps are finished in solid white. Floating wall mounting brackets grip the screen case securely and are barely visible. Power connection is via back of case.

Your choice of conventional viewing surface: Fiberglass Matt White, Glass Beaded, High Contrast Grey, AT1200 of AT Grey.

Salara/Series M-Manual, spring-roller operated screen.

### System Options

- Extra drop—Up to 244 cm (96") overall height, either surface color or black.
- *Black masking borders*—Borders are optional for AV format screens and standard for all other format screens.
- Control options

*Hardwired*—Wired like other DRAPER motorized screens. Can be furnished with any standard control options. Refer to page 3.

*Hardwired with built-in IR receiver*—This version includes a hand-held infrared remote control. IR receiver is built into the endcap and includes additional interface for dry contact closure and RS232. Motor is hardwired like all standard DRAPER motorized screens.

*Plug & Play*<sup>™</sup> *Version*—With DRAPER'S PLUG & PLAY option, you can have a remote controlled screen on your wall in 10 minutes—no electrician required. PLUG & PLAY includes a built-in receiver and hand-held IR transmitter. It also includes 3 m (10') of IEC cord, which plugs into socket in back of case and nearest wall outlet.





Just hang it on the wall, and you're in business!

Case Length	Nominal Diagonal	Image Area HxW(cm)	Overall Size (cm)	Case Length
	NTSC/PAL Form	nat		
140	6′/183 cm	108 x 144	118 x 151	171
164	7′/213 cm	127 x 169	136 x 177	196
190	8′/254 cm	152 x 203	163 x 212	231
225	10′/305 cm	175 x 234	185 x 244	236
257	HDTV Format			
	92"/234 cm	114 x 203	125 x 212	231
	106"/269 cm	132 x 234	142 x 244	236
	Length 140 164 190 225	Length         Diagonal           NTSC/PAL Form           140         6'/183 cm           164         7'/213 cm           190         8'/254 cm           225         10'/305 cm           257         HDTV Format           92"/234 cm	Length         Diagonal         H x W (cm)           NTSC/PAL Format           140         6'/183 cm         108 x 144           164         7'/213 cm         127 x 169           190         8'/254 cm         152 x 203           225         10'/305 cm         175 x 234           257         HDTV Format         92"/234 cm	Length         Diagonal         HxW(cm)         Size (cm)           NTSC/PAL Format         140         6'/183 cm         108 x 144         118 x 151           164         7'/213 cm         127 x 169         136 x 177           190         8'/254 cm         152 x 203         163 x 212           225         10'/305 cm         175 x 234         185 x 244           257         HDTV Format         92"/234 cm         114 x 203         125 x 212

Widescreen formats available



Back view of Salara case showing Plug & Play option. Patent pending.



Built into the endcap, Draper's MC1 enables IR, additional interface for dry contact closure and RS232. Programmable.



Hand-held IR remote control

# Access Screen Series

• Access/Series V, Series E & Series M

### • Ultimate Access/Series V & Series E

The ACCESS Screen Series is DRAPER's thoughtful solution to the problems that have plagued projection screen buyers for years. Incorrect size of screen or aspect ratio, choice of surface and job site damage during construction— all can be avoided with the ACCESS.

*Case Now/Screen Later*—The essence of the ACCESS concept is a totally unique ceiling recessed extruded aluminum headbox. The screen itself (viewing surface and motorized roller) can either be furnished with the headbox or at any time thereafter. The ACCESS or ULTIMATE ACCESS screen itself installs in minutes, and the only tool you need is a hex key.

U.S. Patent Nos. 5,341,241 (Ultimate Access); 6,137,629; 6,421,175 and 6,532,109 (Access and Ultimate Access). Other Patents Pending.

# Access Case

### Easy Installation—Easy Access

It's easy to see why the ACCESS is so popular. Designed with solutions in mind, the case features include:

- Hanging brackets that slide in channels on top of the case, allowing unlimited adjustment to avoid interference with conflicting building structures.
- A pre-wired junction box inside either end (left end standard), and cable exit holes on top. 2
- "Pin connector" electrical connection of screen to junction box eliminates tools.
- Flange around the perimeter of the case to support ceiling tile or trim out ceiling. 3
- Bottom of case that forms a slot for fabric passage **4**, and is removable without tools **5** for installation or replacement of screen.

The screen (motor-in-roller with fabric attached) comes with easy-to-install latching brackets. Latching brackets slide along a track inside the top of the case, so the case can accommodate different sizes of screens. A large case allows for maximum flexibility.

# Access Series

Eliminates your installation problems

Access/Series V—Motorized screen featuring DRAPER'S TAB TENSIONING SYSTEM, with choice of M1300, M2500, HIDEF GREY or CINEFLEX rear projection viewing surface.

Access/Series E—Motorized screen with a conventional viewing surface, in choice of Fiberglass Matt White, Glass Beaded, High Contrast Grey or acoustically transparent AT1200 or AT Grey.

Access/Series M——Spring-roller operated screen in choice of Fiberglass Matt White, Glass Beaded or High Contrast Grey.

### System Options

- *Extra Drop*—30 cm (12") black drop at top of screen is now standard on tab-tensioned screens. Additional drop is optional, either surface color or black. Extra drop will increase the overall length of the case of a SERIES V.
- *Black Masking Borders*—Borders are optional for SERIES E and M in AV format. Borders are standard for SERIES E and M in all other formats and for all SERIES V screens.
- *Control Options*—For motorized controls, refer to page 3. Controls may be built into case and will increase the overall length of case. For SERIES M, aluminum operating pole is available in place of factory attached pull cord. Choice of two sizes: 122 cm and 183 cm (4' and 6').
- Screen/Case Options-You may choose left or right motor location.

U.S. Patent Nos. 6,137,629; 6,421,175 and 6,532,109; Other patents pending.











1	0
Access	Case

Image	Series M	Series E	Series V
Area	Case	Case	Case
HxW(cm)	Length	Length	Length
AV Format			
152 x 152	168	188	219
178 x 178	194	214	244
213 x 213	229	249	283
244 x 244	260	280	317
305 x 305	321	341	383
274 x 366	381	402	439
366 x 366	381	402	454

Diagonal H NTSC/PAL Format 6'/183 cm 1	08 x 144	Case	Serie Image Area HxW(cm)	Case Length	<i>Series</i> Image Area HxW(cm)	Case
Diagonal H NTSC/PAL Format 6'/183 cm 1	$\frac{\mathbf{v}\mathbf{W}(\mathbf{cm})}{t}$ 08 x 144	Length	U		0	
NTSC/PAL Format 6'/183 cm 1	t 08 x 144	0	HxW(cm)	Length	HxW(cm)	Length
6'/183 cm 1	08 x 144	1(0				
		1/0				
7//212 1		108	108 x 144	188	108 x 144	208
7'/213 cm 1	27 x 169	194	127 x 169	214	127 x 169	233
100"/254 cm 1	52 x 203	229	152 x 203	249	152 x 203	267
10′/305 cm 1′	75 x 234	260	175 x 234	280	183 x 244	310
11'/335 cm 1	98 x 264	290	198 x 264	310	198 x 264	334
150"/381 cm 2	21 x 295	321	221 x 295	341	221 x 295	364
15'/457 cm 2	67 x 356	381	267 x 356	402	274 x 366	439
200"/508 cm	-	-	300 x 401	448	_	-
HDTV Format						
92"/234 cm 1	14 x 203	229	114 x 203	249	114 x 203	267
106"/269 cm 1	32 x 234	260	132 x 234	280	132 x 234	298
119"/302 cm 14	47 x 264	290	147 x 264	310	147 x 264	328
133"/338 cm 1	65 x 295	321	165 x 295	341	165 x 295	361
161"/409 cm 2	01 x 356	381	201 x 356	402	201 x 356	425
184"/467 cm	_	_	229 x 406	453	_	_

Extra drop will increase the case length on Series V screens. WideScreen formats available.

CE

# One step further— Ultimate Access Series



### With an independently motorized ceiling closure.

The ULTIMATE ACCESS offers all the advantages of the ACCESS, *plus an independently motorized ceiling closure*. In its closed position, the motorized closure forms a solid bottom panel **①**. At the touch of a switch or wireless transmitter, the door opens *into* the case, then the viewing surface descends into the room **②**. Hinges are invisible. Finally, the entire closure extends down as required for screen installation or adjustment **③**.

No other projection screen offers you so many benefits.

ULTIMATE ACCESS—The ultimate in projection screen design.

Ultimate Access/Series V—Includes DRAPER'S TAB TENSIONING SYSTEM, with choice of M1300, M2500, HIDEF GREY OF CINEFLEX rear projection viewing surface.

*Ultimate Access/Series E*—Viewing surface of Fiberglass Matt White, Glass Beaded, High Contrast Grey or acoustically transparent AT1200 or AT Grey.

### System Options

- *Extra Drop*—30 cm (12") black drop at top of screen is now standard on tab-tensioned screens. Additional drop optional, either surface color or black. Extra drop will increase the overall length of the case of a SERIES V.
- *Black Masking Borders*—Borders are optional for SERIES E in AV format. Borders are standard for SERIES E in all other formats and for all SERIES V screens.
- *Control Options*—Refer to page 3. Controls may be built into case.
- Screen/Case Options-Left end motor location only.

U.S. Patent Nos. 5,341,241; 6,137,629; 6,421,175 and 6,532,109. Other Patents Pending.



Ultimate Access/Series V

Ultimate Access/Series E



Access/Series V







Ultimate Access Case



Image Area	<i>Series E</i> Case	<i>Series V</i> Case	
HxW(cm)	Length	Length	
AV Format			
152 x 152	194	221	
178 x 178	220	247	
213 x 213	255	285	
244 x 244	286	320	
305 x 305	347	385	
274 x 366	408	442	
366 x 366	408	456	
	C.	mias F	Sourian IV

	Seri	ies E	Seri	es V
Nominal	Image Area	Case	Image Area	Case
Diagonal	HxW(cm)	Length	HxW(cm)	Length
NTSC/PAL For	rmat			
6′/183 cm	108 x 144	194	108 x 144	210
7′/213 cm	127 x 169	220	127 x 169	235
100"/254 cm	152 x 203	255	152 x 203	272
10'/305 cm	175 x 234	286	183 x 244	313
11′/335 cm	198 x 264	316	198 x 264	336
150"/381 cm	221 x 295	347	221 x 295	367
15′/457 cm	267 x 356	408	274 x 366	442
HDTV Format				
92"/234 cm	114 x 203	255	114 x 203	269
106"/269 cm	132 x 234	286	132 x 234	300
119"/302 cm	147 x 264	316	147 x 264	330
133"/338 cm	165 x 295	347	165 x 295	363
161"/409 cm	201 x 356	408	201 x 356	428
Extra drop will	increase the cas	e length of S	Series V screens.	

Extra drop will increase the case length of Series V screen. WideScreen formats available.

Access Sonata—The Access Sonata includes: *a* motorized projection screen, choice of SERIES V or SERIES E, up to 305 cm (10') wide; *a flat black mask* on a second motorized roller converts the screen to your choice of four formats: 4:3 NTSC/PAL, 16:9 HDTV, 1.85:1 WideScreen or 2.35:1 CinemaScope. Centerline and width of viewing surface remain constant.

Access MultiView—Motorized screen and masking system in the same case for dual format projection. The Access MULTIVIEW includes: A motorized projection screen, your choice of SERIES V or SERIES E, in HDTV or WideScreen format up to 305 cm (10') wide. A flat black mask on a second motor-in-roller converts the screen to 4:3 NTSC/PAL video format by masking the sides of the viewing surface.

# Signature

### Automatic Ceiling Closure

The SIGNATURE is designed to be recessed in the ceiling. The SIGNATURE's ceiling closure is independently motorized. It disappears into the white case when the screen is lowered. Available in sizes through 488 cm (16') wide.

Signature/Series V—Includes DRAPER'S TAB TENSIONING SYSTEM, with choice of M1300, M2500, HIDEF GREY or CINEFLEX rear projection viewing surface.

# Signature/Series E—Viewing surface of Fiberglass Matt White,

GLASS BEADED, HIGH CONTRAST GREY, 23.8cm or acoustically transparent AT1200 or AT GREY.



	Series E	Series V		Serie	es E	Serie	es V
Image Area	Case	Case	Nominal	Image Area	Case	Image Area	Case
HxW(cm)	Length	Length†	Diagonal	HxW(cm)	Length	HxW(cm)	Length†
Audio Visual	Format		NTSC/PAL Ford	mat			
178 x 178	194	221	6′/183 cm	108 x 144	169	108 x 144	185
213 x 213	230	260	7′/213 cm	127 x 169	194	127 x 169	210
305 x 305	321	360	100"/254 cm	152 x 203	230	152 x 203	247
366 x 366	382	431	10′/305 cm	175 x 234	261	183 x 244	288
320 x 427	450	489	150"/381 cm	221 x 295	321	221 x 295	341
427 x 427	450	507	15′/457 cm	267 x 356	382	274 x 366	421
366 x 488	511	555	240"/610 cm	358 x 478	511	366 x 488	555
488 x 488	511	-	†Extra drop will	increase the ca	se length o	of Series V scree	ens.

Also available in HDTV and WideScreen formats.

# Silhouette



### 21st Century Design

The SILHOUETTE has a unique shape. Case and endcaps are made of gently rounded aluminum, with no exposed mounting fixtures or fasteners. Whether motorized or spring-roller, the screen retracts completely inside the case. The SILHOUETTE's slender dimensions and self-concealing mounting fixtures make it equally attractive mounted to the wall or to the ceiling.

The SILHOUETTE features a lightly textured finish in black, white or dove grey. For motorized models, the conduit connection is provided at back or top, so all attachment points are completely invisible. Optional controls may be factory installed inside the case (specify when ordering; this increases case length).

Silhouette/Series V—A motorized screen featuring Draper's TAB TENSIONING SYSTEM, with M1300, M2500, HIDEF GREY or CINEFLEX rear viewing surface.

Silhouette/Series E-Motorized with choice of Fiberglass Matt White, GLASS BEADED, HIGH CONTRAST GREY, or acoustically transparent AT1200 or AT GREY viewing surface.

Silhouette/Series M-Spring roller operated screen, features FIBERGLASS MATT WHITE, GLASS BEADED OF HIGH CONTRAST GREY viewing surface.

Silhouette/Series C—Crank operated projection screen, with TAB TENSIONING SYSTEM and M1300, M2500, HIDEF GREY or CINEFLEX viewing surfaces.





U.S. Patent Nos. 5,296,964 and 6,111,694. Other patents pending.



Photography by VanderWerf Photography Inc., Waterloo, Iowa. U.S. Patent No. 5,341,241



### Silhouette/Series V

	Viewing Area	<i>Series M</i> a Case	<i>Series E</i> Case	<i>Series V</i> Case	<i>Series C</i> Case
	HxW(cm)	Length	Length	Length	Length
AV Format					
	127 x 127	134	157	185	185
	152 x 152	159	182	213	213
	178 x 178	185	208	239	239
	213 x 213	220	243	277	277
	183 x 244	252	275	305	305
	244 x 244	252	275	312	312
		Series M	Series E	Series V	Series C
Nominal	Viewing Area	a Case	Case	Case	Case
Diagonal	HxW(cm)	Length	Length	Length	Length
NTSC/PAL F	Format				
6′/183 cm	108 x 144	159	182	202	202
7′/213 cm	127 x 169	185	208	227	227
100"/254 cm	152 x 203	220	243	264	264
10′/305 cm	175 x 234	252	275	_	_
10′/305 cm	183 x 244	_	_	305	305
HDTV Form	mat				
92″/234 cm	114 x 203	220	243	261	261
106"/269 cm	132 x 234	252	275	292	292
106"/269 cm Extra drop 1	132 x 234 vill increase i				

WideScreen formats available.

www.draperinc.com **DRAPER** 765-987-7999

# Paragon

### Largest motorized projection screen. Sizes through 853 cm (28') wide or 1067 cm (35') diagonal.

Choose the PARAGON for auditoriums, lecture halls and any setting where a very large screen is required. Redesigned case of white extruded aluminum can be suspended anywhere. FIBERGLASS MATT WHITE OF GLASS BEADED viewing surfaces will have unobtrusive horizontal seams. *Patents pending*.

### System Options

- *Extra Drop*—Up to 640 cm (21') total screen height, either surface color or black (surface color standard on AV format screens, black on all others).
- *Black Masking Borders*—Borders are optional for AV format screens and standard for all other format screens.
- Wall Mount Bracket Kit-Includes hardware for attaching brackets to case.
- *Endcap Ceiling Tile Flange Kit*—Includes hardware for attaching flanges to case. Extruded aluminum, finished white.
- Ceiling Tile Flange for Front of Case—366 cm (12') length, with hardware for attaching it to case. Please divide length of case requiring trim (in feet) by 12 and round to next whole number to determine number of kits to order. Remember to order trim for both front and back of case if required.

# Rolleramic

Large Electric Screen

The ROLLERAMIC is a heavy-duty electrically operated projection screen. It is designed for either wall or suspended mounting. The ROLLERAMIC is available with FIBERGLASS MATT WHITE or GLASS BEADED viewing surfaces.

### System Options

- Extra Drop—Up to 610 cm (20') total screen height, either surface color or black.
- *Black Masking Borders*—Borders are optional for AV format screens and standard for all other format screens.
- *Triangular Shaped Steel Slat*—At bottom of projection surface. With screen recessed above ceiling, the triangular slat can be set to stop flush with the ceiling, for a clean installation.
- *Mounting Brackets*—Universal brackets for wall or ceiling mount included, made of 0.6 cm (<sup>1</sup>/<sub>4</sub>") thick strap steel. Can also be installed above the ceiling line.

Viewing Area	Case	Viewing Area		Viewing Area	Case
H x W (cm)	Length	H x W (cm)	Length	$H \ge W (cm)$	Length
AV Format	A	AV Format		AV Format	
127 x 127	188	274 x 274	336	366 x 488	564
152 x 152	214	244 x 305	366	488 x 488	564
178 x 178	239	305 x 305	366	411 x 549	625
213 x 213	275	274 x 366	427	549 x 549	625
183 x 244	305	366 x 366	427	244 x 610	686
244 x 244	305	320 x 427	503	457 x 610	686
213 x 274	336	427 x 427	503	610 x 610	686
Nominal	Viewing Area	Case	Nominal	Viewing Area	Case
Diagonal	H x W (cm)	Length	Diagonal	H x W (cm)	Length
NTSC/PAL Form	at	N	TSC/PAL Form	at	
6′/183 cm	108 x 144	214	15′/457 cm	267 x 356	427
7′/213 cm	127 x 169	239	200"/508 cm	300 x 401	488
100"/254 cm	152 x 203	275	20'/610 cm	358 x 478	564
10′/305 cm	175 x 234	305	250"/635 cm	376 x 503	590
11′/335 cm	198 x 264	336	25′/762 cm	450 x 600	686
150"/381 cm	221 x 295	366			



Viewing Area	Case	Viewing Area	Case	
H x W (cm)	Length	H x W (cm)	Length	
AV Format	Ŀ.	1V Format		
457 x 610	635	549 x 732	757	
610 x 610	635	732 x 732	757	
335 x 671	696	396 x 792	818	
503 x 671	696	594 x 792	818	
671 x 671	696	427 x 853	879	
366 x 732	757	640 x 853	879	
Nominal	Viewing Area	Overall Size	Case	
Diagonal	H x W (cm)	H x W (cm)	Length	
VTSC/PAL Vide	o Format			
25′/762 cm	447 x 599	460 x 610	635	
27½′/838 cm	493 x 660	505 x 671	696	
30′/914 cm	538 x 721	551 x 732	757	
32½′/991 cm	584 x 782	597 x 792	818	
35'/1067 cm	630 x 843	643 x 853	879	







220V

30.5cm

33.6cm

# V Screen

### The Screen with the five year warranty

All DRAPER V Screens are warranted against defects in materials and/or workmanship for five (5) years from date of shipment from manufacturer.

The DRAPER V SCREEN is the longest lasting classroom wall screen, at a very reasonable price. Its design is extremely simple. The screen roller is supported by a strong aluminum bar. The V SCREEN has durable components and a tearproof FIBERGLASS MATT WHITE viewing surface. It installs easily on a wall, map rail or ceiling.

Image Area HxW(cm)	Overall Length
AV Format	
102 x 102	105
127 x 127	130
152 x 152	155
178 x 178	181
213 x 213	216
244 x 244	247
274 x 274	277





V Screen

# Star

### Economy and Durability

The STAR offers durable construction and attractive design at an economic price. The cylindrical steel case is finished in white. FIBERGLASS MATT WHITE viewing surface is standard. Endcaps form universal hanging brackets which may be attached to wall, ceiling or map rail hooks.

### System Options

- *Extra Drop*—Up to 213 cm (84") overall height, either white or black.
- *Black Masking Borders*—Available 4 cm (1<sup>1</sup>/2") wide in sizes through 178 cm x 178 cm (70" x 70"); 5 cm (2") wide in larger sizes.
- *Pull Cord*—For all sizes 178 cm (70") wide and larger, or any size shipping with wall extension brackets, a pull cord is factory attached.
- *Mounting Options*—PROJECTED MOUNTING BRACKETS available in 15 cm (6") and 30 cm (12") fixed, and 41-64 cm (16"–25") adjustable; T-BAR TWIST CLIPS; or mount to the wall or ceiling.

Image Area	Case
HxW(cm)	Length
AV Format	
127 x 127	133
152 x 152	158
178 x 178	184
213 x 213	219





Star

# Optional Accessories for Wall/Ceiling Screens

### Non-Adjustable Brackets

Heavy gauge angle steel brackets, with white powder coat finish. Two sizes available: 15 cm (6") and 30 cm (12") fixed extensions.

### Adjustable Brackets (41-64 cm)

These heavy gauge angle steel brackets have white powder coat finish. They are adjustable from 41 to  $64\ cm\ (16''-25'')$  .





### T-Bar Twist Clips

Using T-Bar Twist Clips, you can mount screens directly to the T-irons that support suspended ceilings—without tools. Recommended for the STAR and LUMA in sizes through 178 x 178 cm (70" x 70"), and for all V SCREENS.



## Luma

### Finest wall/ceiling screen

The LUMA is DRAPER's finest spring-roller operated projection screen. Its pentagonal steel case and endcaps are finished in white. The case is designed to be attractive, sturdy and frictionfree. The LUMA is available with FIBERGLASS MATT WHITE, GLASS BEADED or HIGH CONTRAST GREY viewing surface.

### System Options

- Extra Drop—Up to 244 cm (8') overall height, either white or black.
- *Black Masking Borders*—Available on AV format screens: 4 cm (1½") wide in sizes through 178 cm x 178 cm (70" x 70"); 5 cm (2") wide in larger sizes. All other formats have black borders on all four sides.
- *Projected Mounting Brackets*—15 cm (6") and 30 cm (12") fixed, and 41-64 cm (16"-25") adjustable.
- *Pull Cord*—For all sizes 178 cm (70") wide and larger, or any size shipping with wall extension brackets, a pull cord is factory attached.

Image Area HxW(cm)		Nominal Diagonal	Image Area HxW(cm)	Overall Size (cm)	Case Length
AV Format	_	NTSC/PAL Forma	<i>tt</i>		_
127 x 127	133	6′/183 cm	108 x 144	118 x 151	158
152 x 152	158	7′/213 cm	127 x 169	136 x 177	184
178 x 178	184	100"/254 cm	152 x 203	163 x 212	219
213 x 213	219	10′/305 cm	175 x 234	185 x 244	250
183 x 244	250	HDTV Format			
244 x 244	250	92"/234 cm	114 x 203	125 x 212	219
		106"/269 cm	132 x 234	142 x 244	250
WideScreen for	rmat avai	lable			

# Luma

# Luma 2

### For large audiences

The LUMA 2 is attractive and practical. Similar in design to the LUMA, the LUMA 2 is available in larger sizes. It is constructed of heavy gauge components for years of dependable operation. The LUMA 2 is suitable for wall or ceiling mounting. Case and endcaps are finished in white. Select FIBERGLASS MATT WHITE, GLASS BEADED or HIGH CONTRAST GREY viewing surface.

### System Options

- Extra Drop—Up to 366 cm (12') overall height, either white or black.
- *Black Masking Borders*—Available on AV format screens: 4 cm (1½") wide in sizes through 178 cm x 178 cm (70" x 70"); 5 cm (2") wide in larger sizes. All other formats have black borders on all four sides.
- *Projected Mounting Brackets*—15 cm (6") fixed for all sizes; 30 cm (12") fixed, and 41-64 cm (16"-25") adjustable for sizes through 244 cm (8') wide.

Image Area HxW(cm)		Nominal Diagonal	Image Area HxW(cm)	Overall Size (cm)	Case Length	
AV Format		NTSC/PAL Forma	at			
127 x 127	136	100"/254 cm	152 x 203	163 x 212	223	
152 x 152	162	10'/305 cm	175 x 234	185 x 244	251	
178 x 178	187	11′/335 cm	198 x 264	211 x 274	283	
213 x 213	223	150"/381 cm	221 x 295	234 x 305	314	
183 x 244	251	15′/457 cm	267 x 356	277 x 366	375	
244 x 244	251	HDTV Format				
213 x 274	283	92"/234 cm	114 x 203	125 x 212	223	
274 x 274	283	106"/269 cm	132 x 234	142 x 244	251	
244 x 305	314	119"/302 cm	147 x 264	158 x 274	283	
305 x 305	314	133"/338 cm	165 x 295	175 x 305	314	
274 x 366	375	161"/409 cm	201 x 356	213 x 366	375	
366 x 366	375					

WideScreen format available







# RoadWarrior

### Ultra portable screen for today's ultra portable projectors

The DRAPER ROADWARRIOR lets you travel light and still deliver a big presentation. Designed with today's presenter in mind, the ROADWARRIOR has a strikingly modern appearance.

Sets up in seconds—on the floor or table. Release two clasps to open the lid. Rotate feet into position for stability. Screen height adjusts instantly. At the touch of a finger, extend the screen to desired height (pneumatic cylinders support it at any level). Includes 76 cm (30<sup>°</sup>) of black "rise" below the image area. Aluminum housing and feet are sturdy and streamlined. Detachable shoulder strap included.

# Traveller

### Attractive and simple—our lightest portable screen

The TRAVELLER is built on the same ultra portable concept as the ROADWARRIOR, yet is lighter. Self contained in a sturdy extruded aluminum case for transport or storage. Detachable shoulder strap.

Sets up in seconds. Rotate feet into position for stability and open hinged lid. Telescoping support behind surface twist locks to position screen at desired height. Includes 107 cm (42″) of black "rise" below image to set unit on either floor or table.

### System Options

- *Viewing Surfaces*—Available in Fiberglass Matt White, Glass Beaded and High Contrast Grey.
- *Carrying Case*—Padded zippered carrying case for storage and transportation. Shock-absorbing padding is over 1 cm thick.









### **RoadWarrior**

Nominal Diagonal	Image Area H x W (cm)	Height Range (cm)	Closed (D x H x L)
NTSC/PAL Form	nat		
60"/152 cm	91 x 122	104—176	11 x 13 x 136
80"/203 cm	122 x 163	135—208	11 x 13 x 177
HDTV Format			
55"/140 cm	69 x 122	81—176	11 x 13 x 136
73"/185 cm	91 x 163	104—208	11 x 13 x 177
Traveller			

Nominal	Image Area	Height	Closed
Diagonal	HxW(cm)	Range (cm)	(D x H x L)
NTSC/PAL Form	nat		
50"/127 cm	76 x 102	116—197	11 x 13 x 118
60"/152 cm	91 x 122	116—212	11 x 13 x 138
72"/183 cm	110 x 147	161-231	11 x 13 x 161
80"/203 cm	122 x 163	161-243	11 x 13 x 179
100"/254 cm	152 x 203	161-273	11 x 13 x 220
HDTV Format			
46"/117 cm	57 x 102	116—197	11 x 13 x 118
55"/140 cm	69 x 122	116-212	11 x 13 x 138
66½"/169 cm	83 x 147	161-231	11 x 13 x 161
73"/185 cm	91 x 163	161-243	11 x 13 x 179
92"/234 cm	114 x 203	161—273	11 x 13 x 220



Back view of Traveller with telescoping upright



Back view of RoadWarrior with pneumatic cylinders

# Diplomat

### The Finest Tripod Screen in the World

The DIPLOMAT offers simplicity of design, heavy gauge components and careful workmanship. It is the finest tripod screen you can buy. DRAPER's patented Bell Leg Lock prevents the tripod legs from being bent or broken. Steel case and endcaps are finished in black. A one-piece, die cast handle is designed to permit adjustment of case height with one hand. A soft vinyl carrying case is an option. Viewing surfaces in FIBERGLASS MATT WHITE, GLASS BEADED OF HIGH CONTRAST GREY.

### Features

- Keystone Eliminator—The DIPLOMAT'S built-in keystone eliminator extends 46 cm (18"). It is invisible when not in use.
- Patented Bell Leg Lock—The exclusive BELL LEG LOCK clamps legs securely to center tube for storage and transportation. It eliminates all risk of bent or broken tripod legs, yet releases easily for setup.
- Case Color-Steel case and endcaps finished in black. Case measures 10 cm (4") high x 8 cm (31/8") wide.

### System Options

- Black Masking Borders-Optional for AV format screens, standard for all other formats.
- Carrying Case—Black leatherette zippered carrying case is available for storage and transportation.

# Diplomat/R Case finished for

### durability in the rental marketplace

All the best features of the DIPLOMAT made more durable to withstand the wear and tear of the rental market. Black carpet optional.U.S. Patent No. 4,097,013

Optional Carrying Case for Diplomat, Diplomat/R and Consul.

### Consul Economy and Durability

The CONSUL is extremely durable, yet comparatively inexpensive. It is lighter in weight than the DIPLOMAT. The cylindrical steel case and endcaps are finished in black. Luggagestyle handle. Select a FIBERGLASS MATT WHITE or GLASS BEADED viewing surface.

### System Options

- Black Masking Borders—4 cm (11/2") borders are optional.
- Carrying Case—Black leatherette zippered carrying case.
- Optional Keystone Eliminator-Will extend top of viewing surface up to 23 cm (9").



Bell Leg Lock U.S. Patent No. 4,097,013

Size			Bottom of	Top of
Image Area		Case	screen at	screen at
$Hx \widetilde{W}(cm)$		Length	lowest level	highest level
Consul				
102 x 102		107	42	198
127 x 127		133	42	233
152 x 152		158	51	272
178 x 178		184	51	277
Diplomat and I	Diplomat/R			
127 x 127	1	133	43	255
152 x 152		158	47	281
178 x 178		184	47	322
213 x 213		219	50	322
183 x 244		250	50	322
244 x 244		250	50	322
			Bottom of	Top of
Image Area	Overall Size	Case	screen at	screen at
HxW(cm)	HxW(cm)	Length	lowest level	highest level
ormat—Diplom	at and Diplomat/R			
108 x 144	118 x 151	158	47	281
127 x 169	136 x 177	184	47	322
152 x 203	163 x 212	219	50	322
175 x 234	185 x 244	250	50	322
	Image Area HxW(cm) Consul 102 x 102 127 x 127 152 x 152 178 x 178 Diplomat and I 127 x 127 152 x 152 178 x 178 213 x 213 183 x 244 244 x 244 Image Area HxW(cm) prmat—Diplom 108 x 144 127 x 169 152 x 203	Image Area HxW(cm) Consul 102 x 102 127 x 127 152 x 152 178 x 178 Diplomat and Diplomat/R 127 x 127 152 x 152 178 x 178 213 x 213 183 x 244 244 x 244 Image Area Overall Size HxW(cm) HxW(cm) mmat—Diplomat and Diplomat/R 108 x 144 118 x 151 127 x 169 136 x 177 152 x 203 163 x 212	Image Area HxW(cm)Case Length $102 \times 102$ 107 $102 \times 102$ 107 $127 \times 127$ 133 $152 \times 152$ 158 $178 \times 178$ 184Diplomat and Diplomat/R127 x 127 $127 \times 127$ 133 $152 \times 152$ 158 $178 \times 178$ 184 $213 \times 213$ 219 $183 \times 244$ 250Z44 x 244250Image Area HxW(cm)Overall Size HxW(cm)Image Area LengthOverall Size HxW(cm) $108 \times 144$ 118 x 151 $158$ 127 x 169 $127 \times 169$ 136 x 177 $184$ 152 x 203 $163 \times 212$ 219	Image Area HxW(cm)Case Lengthscreen at lowest levelConsul10742102 x 10210742127 x 12713342152 x 15215851178 x 17818451Diplomat and Diplomat/R127 x 127133127 x 12713343152 x 15215850127 x 12713343133 x 24425050244 x 24425050Bottom of screen at Inwage Area HxW(cm)108 x 144118 x 151158108 x 144118 x 151158108 x 144118 x 151158127 x 169136 x 177184152 x 203163 x 2122195050







# Ultimate Folding Screen

### The world's most precisely manufactured folding screen

The ULTIMATE FOLDING SCREEN is the first screen manufactured with 100% CNC (Computer Numerical Controlled) components and assembly. The tubing is CNC machined, surfaces and borders are CNC cut; even rivet and snap holes are CNC placed. No competitive product meets this standard.

Our new LOCK & LOAD latch (patent pending) is designed for ease of operation and maximum life. LOCK & LOAD latches bite down when the surface is attached, making the frame extremely rigid. Latch parts are internal for better protection, and they completely fill the tube for superior strength. Combine these advantages with clear anodized 3 cm (1.25") x .070 wall aluminum tubing and you've got the precision and stability that allows DRAPER to offer the Ultimate Folding Screen in sizes through 386 cm x 508 cm (152" x 200").



Patent Pending





- Viewing Surfaces—Choose a FLEXIBLE MATT WHITE for front projection or CINEFLEX for rear projection. All surfaces have square corners. Borders are electronically welded using a new PVC material that provides straighter, cleaner edges.
- Sizes: Two Format Options Available—UFS Standard Sizes, and UFS Euro sizes (charts at right). Standard format viewing surfaces may be interchanged with CINEFOLD surfaces and have 7 cm (23/4") of black masking border. (CINEFOLD detailed on page 17.) Euro format viewing surfaces have 10 cm (4") of black masking border.
- Frame & Legs-Standard T-Legs support the ULTIMATE FOLDING SCREEN in a vertical position. The screen may also be tilted for keystone elimination using HEAVY-DUTY LEGS which offer extra stability. Screen pictured above has HEAVY-DUTY LEGS. SUPER HEAVY-DUTY LEGS are recommended for added stability on frame heights greater than 320 cm (101/2').
- Carrying Case—The Ultimate Folding Screen comes packed in DRAPER's heavy-duty, molded polyethylene, carrying case. Each case has two wheels. The handles are molded into each end of the case. Lid handle is steel with a rubber grip and recessed into an inset. Lid is secured with two adjustable straps.

### St

Standard Formt		Euro Format			
Overall Size HxW(cm)	Image Area H x W (cm)	Nominal Diagonal	Overall Size HxW(cm)	Image Area HxW(cm)	Nominal Diagonal
Square Format			Square Format		
183 x 183	170 x 170		203 x 203	183 x 183	
213 x 213	201 x 201		249 x 249 <sup>1</sup>	229 x 229	
244 x 244 1	231 x 231		295 x 295 <sup>1</sup>	274 x 274	
274 x 274 <sup>1</sup>	262 x 262		340 x 340 <sup>2</sup>	320 x 320	
305 x 305 1	292 x 292		386 x 386 <sup>2</sup>	366 x 366	
366 x 366 <sup>2</sup>	354 x 354		447 x 447 <sup>2</sup>	427 x 427	
NTSC/PAL Forma	at		NTSC/PAL Format		
137 x 188	125 x 173	7½′/229 cm	157 x203	137 x 183	90"/229 cm
158 x 211	145 x 198	100"/254 cm	170 x 221	150 x 201	100″/254 cm
183 x 244	170 x 231	10'/305 cm	203 x 264	183 x 244	120"/305 cm
229 x 305 1	216 x 292	150"/381 cm	231 x 300 <sup>1</sup>	211 x 279	138"/351 cm
274 x 366 1	262 x 353	15′/457 cm	249 x 325 <sup>1</sup>	229 x 305	150"/381 cm
320 x 427 <sup>2</sup>	307 x 414	200"/508 cm	264 x 345 1	244 x 325	160"/406 cm
376 x 498 <sup>2</sup>	354 x 475	240"/610 cm	295 x 386 <sup>1</sup>	274 x 366	180"/457 cm
—	—	—	310 x 406 1	290 x 386	190"/483 cm
—	—	—	340 x 447 <sup>2</sup>	320 x 427	200"/508 cm
			386 x 508 <sup>2</sup>	366 x 488	240"/610 cm
HDTV Format			HDTV Format		
142 x 243	130 x 231	106"/269 cm	142 x 239	122 x 218	98"/249 cm
158 x 274	145 x 262	119"/302 cm	170 x 287	150 x 267	120"/305 cm
175 x 305	163 x 292	133"/338 cm	203 x 345	183 x 325	147"/373 cm
211 x 366	198 x 353	161"/409 cm	249 x 424 1	229 x 404	183"/465 cm
285 x 498 1	272 x 485	220"/558 cm	295 x 508 <sup>1</sup>	274 x 488	220"/559 cm
Slide Format			Slide Format		
122 x 183	109 x 170		142 x 203	122 x 183	
152 x 229	140 x 216		170 x 244	150 x 224	
183 x 274	170 x 262		203 x 295	183 x 274	
213 x 320	201 x 307		231 x 333 <sup>1</sup>	211 x 312	
244 x 366 1	231 x 353		264 x 386 1	244 x 366	

<sup>1</sup> Heavy-Duty Legs are recommended for frame heights greater than 229 cm  $(7^{1/2'})$ .

<sup>2</sup> Super Heavy-Duty Legs are recommended for added stability on frame heights greater than 320 cm (101/2').

# Dress Kit

### For a professional appearance

Create a professional, theatre-like appearance by draping your Ultimate Folding Screen, CINEFOLD or TRUSS CINEFOLD with a velour DRESS KIT. Stage curtains surround the viewing surface, pulling the audience's focus to your presentation on the screen.

All DRESS KIT fabrics are flame proofed. DRESS KITS are especially worthwhile for rear screen presentations. In addition to framing your presentation, the velour curtains will hide projection equipment, shield projector light from the audience, and help eliminate ambient light in the projection area.

A complete DRESS KIT includes 117 cm (46") skirt, 30 cm (12") valance, and two 81 cm (32") side drapes, all in rich velour. Valance bar and drapery bars fit snugly into the top of the frame of the screen—no tools needed. The viewing surface is fitted with snaps to accept the skirt.

### System Options

- *Fabric*—622 g (20 oz.) velour made from 100% cotton is offered in black (standard) or rich navy (optional).
- Frame & Legs—HEAVY-DUTY LEGS are recommended with all DRESS KITS.
- *Carrying Case*—A wheeled, polyethylene carrying case is optional and recommended for each DRESS KIT.







# Cinefold

### The original folding screen in a wheeled case

CINEFOLD is the portable screen to meet every need. Trainers, producers, presenters everyone who takes a show on the road will appreciate the CINEFOLD's many advantages. Every CINEFOLD sets up quickly without tools, and collapses into a compact luggage-type wheeled case for travel or storage.

The CINEFOLD frame and legs are built of 2.5 cm (1") square aluminum tubing and are color-coded for quick assembly. Steel hardware is cadmium plated. When assembled, the bottom of the frame is normally 112 cm (44") above the floor and adjusts in 15 cm (6") increments. Frame, legs, viewing surfaces and accessories are all standardized for easy replacements or additions to the system. Front projection and rear projection surfaces are easily interchangeable. DRESS KITS available (see above).

### System Options

- *Viewing Surfaces*—Choose a FLEXIBLE MATT WHITE for front projection or CINEFLEX vinyl for rear projection. Bordered in black, surfaces are interchangeable.
- *Carrying Case*—The CINEFOLD comes packed in DRAPER's heavy-duty, molded polyethylene carrying case. Each case has two wheels. The handles are molded into each end of the case. Lid handle is steel with a rubber grip and recessed in an inset. Lid is secured with two adjustable straps.

Overall	Image	Overall	Image	Nominal
Size (cm)	Area (cm)	Size (cm)	Area (cm)	Diagonal
Square Format		NTSC/PAL Form	nat	
152 x 152	142 x 142	119 x 152	109 x 142	6′/183 cm
183 x 183	173 x 173	137 x 188	127 x 178	7½″/229 cm
244 x 244	234 x 234	183 x 244	173 x 234	10′/305 cm
$274 \text{ x } 274^{-1}$	264 x 264	229 x 305	218 x 295	150"/381 cn
305 x 305 <sup>1</sup>	295 x 295	274 x 366 1	264 x 356	15′/457 cm
366 x 366 <sup>1</sup>	356 x 356	$320 \ge 427^{2}$	310 x 417	200"/508 cn
Slide Format		HDTV Forma	t	
122 x 183	112 x 173	142 x 244	132 x 234	106"/269 cm
152 x 229	142 x 218	157 x 274	147 x 264	119"/302 cr
183 x 274	173 x 264	175 x 305	165 x 295	133"/338 cr
213 x 320	203 x 310	211 x 366	201 x 356	161"/411 cm
244 x 366 1	234 x 356			
		, ,		

<sup>1</sup> Heavy-Duty Legs recommended.

<sup>2</sup> Heavy-Duty Legs and anti-sway stabilizers recommended.

Custom sizes are available.

# **Cinefold Features**



### T-Legs

Standard legs constructed of sturdy 2.5 cm (1") square aluminum tubing, anodized for long life. Hinged inverted "T" shape, with rubber-tipped feet.

Keystone Elimination T-legs may be adjusted to allow the CINEFOLD to tilt forward up to 8°. Eases viewing and helps to compensate for image distortion.

### 1 Heavy-Duty Legs

Extra reinforcement against front-to-back movement. Recommended for any screen over 229 cm x 305 cm  $(7\frac{1}{2}' \times 10')$  or for any screen used with a DRESS KIT.

### <sup>(2)</sup> Anti-Sway Stabilizers

Reinforce against side-to-side movement. May be mounted either inside or outside CINEFOLD leg. Recommended for screens over 320 cm x 427 cm (101/2' x 14') and for use with DRESS KITS.



Join two or more screens for a really wide screen. Clamps join screen frames from back, then Lshaped section wraps to front and accepts snaps on masking strips. Masking strips conceal hardware and provide image continuity.

### Truss-Style Cinefold For larger-than-life presentations.

The TRUSS-STYLE CINEFOLD has extra-rigid truss-style frames and legs constructed of parallel sections of 2.5 cm (1") square aluminum tubing, welded to form a sturdy 15 cm (6") wide truss. All aluminum is clear satin anodized for long life; steel parts are plated. Truss frames have 15 cm (6") wide piano hinges reinforced by two positive locking hinge latches and a HANDY CRANK directly through the hinge point.

All TRUSS-STYLE CINEFOLDS include heavyduty legs and anti-sway stabilizers.

### System Options

• Viewing Surfaces—TRUSS-STYLE CINEFOLDS are available with FLEXIBLE MATT WHITE front or CINEFLEX rear projection surfaces.

• Carrying Case—Two or more heavy-duty, molded polyethylene wheeled carrying cases are included. Dimensions are 33 cm high x 52 cm wide x 214 cm long (13" x 205%" x 841%").

• Dress Kits-Optional Dress Kit includes: 112 cm (44") skirt, 30 cm (12") valance and two 81 cm (32") side drapes, all in rich velour.



Overall Size	Image Area	Nominal
HxW(cm)	HxW(cm)	Diagonal
Square Format		
183 x 183	170 x 170	
274 x 274	244 x 244	
305 x 305	274 x 274	
335 x 335	305 x 305	
396 x 396	366 x 366	
NTSC/PAL Forma	1t	
213 x 274	183 x 244	10′/305 cm
259 x 335	229 x 305	150"/381 cm
305 x 396	274 x 366	15′/457 cm
351 x 457	320 x 427	210"/533 cm
396 x 518	366 x 488	240"/609 cm
488 x 640	457 x 610	250"/635 cm
579 x 762	549 x 732	30′/914 cm
HDTV Format		
305 x 518	274 x 488	220"/559 cm
335 x 579	305 x 549	245"/622 cm
373 x 640	343 x 610	275"/699 cm
442 x 762	411 x 732	330"/838 cm

# Truss Cinefold Features

### L-Brace

All Truss CINEFOLDS over 762 cm (25') wide feature a special back brace consisting of a full-width truss attached to the top of the frame at right angles to the screen. Adds strength and prevents sagging, while maintaining complete portability.

### Frame Stiffeners

All horizontal hinges on TRUSS-STYLE CINEFOLDS are reinforced by truss frame stiffeners, which mount across the back of the hinge and are held rigidly in place by 8 HANDY CRANKS.

### 1 Heavy-Duty Legs

Standard equipment on all TRUSS-STYLE CINEFOLDS, heavy-duty legs reinforce against front-to-back movement.

### 2 Anti-Sway Stabilizers

Furnished with all TRUSS-STYLE CINEFOLDS to prevent side-to-side movement. Install to inside or outside of truss foot.



### Handy Cranks HANDY CRANKS are 0.8 cm (5/16") dia. crankbolts, for quick assembly without tools for both the CINEFOLD and TRUSS-STYLE CINEFOLD.

# Exxpress

### When time is money and every second counts

The EXXPRESS combines compact size and portability with fast, easy setup. Set up the EXXPRESS in minutes! Just remove it from its luggage-style case...open it up...stand it up, and pull the side drapes around the frame.

### Viewing Surface

The EXXPRESS viewing surface is made of SPANTEC<sup>™</sup>, a flexible, flame retardant and acoustically transparent polyester material. Alpine White in color, SPANTEC is solution dyed so it won't fade and is treated to resist stains. The surface comes attached securely to the frame with hook and loop (similar to Velcro®), and removes for machine washing. Surface is complete with black masking border, skirt and side drapes to conceal frame.

### Frame

The EXXPRESS frame is constructed of satin anodized aluminum, and each section is octagonal in shape for extra strength. Metal fasteners hold the screen in place. The EXXPRESS is available in four NTSC/PAL sizes ranging from 254 cm (100") diagonal through 457 cm (180") diagonal. The Overall Size dimensions in the chart below include the black masking borders and skirt.

Size Nominal Diagonal	Image Area HxW(cm)	Overall Size HxWxD (cm)	Skirt Height (cm)
NTSC/PAL Format			
100"/254 cm	152 x 203	265 x 213 x 46	108
120"/305cm	184 x 245	317 x 255 x 61	129
150"/381cm	231 x 307	380 x 318 x 61	144
180"/457cm	277 x 370	422 x 380 x 61	160

### Case

The EXXPRESS case is a soft bag with wheels and reinforcements similar to a suitcase. The handle is positioned lower on one end to make pulling easier. It sits upright and features three extra side pockets for storage (two on one side and one on the other).

grommets onto the metal fasteners. It's quick and easy to assemble.

Velcro<sup>®</sup> is a registered trademark of Velcro Industries B.V.





Patent Pending

www.draperinc.com **DRAPER** 765-987-7999

# Innovative Solutions at Work

Established in 1902, DRAPER is one of the world's largest and foremost manufacturers of front and rear projection screens. Since 1985, DRAPER has developed a particular expertise in the design and manufacture of custom videowalls, projector support structures and related products for electronic information display.

With installations in more than 100 countries, DRAPER is the acknowledged world leader in the most demanding area of the projection screen industry.

With more unique types of rear projection screens, videowall framing systems, projector mounting systems, and more combined years of design experience than any other projection screen manufacturer, DRAPER's highly skilled designers can provide an optimum solution for any information display requirement.

DRAPER rear projection screens and Information Display System products are used in a wide range of applications, including:

- Command and Control Centers Sports and Gaming Venues
- Commercial Simulation
- · Broadcast and Teleconferencing
- · Product and Process Design · Point of Purchase Advertising
- Network Operation Centers (NOC)
- · Virtual Reality Entertainment Venues
- · Board Rooms, Conference and Training Rooms

# Four Unique **Rear Screens**

• CINEPLEX<sup>®</sup>—Page 21. DRAPER's diffusion-coated acrylic projection screen. Our wide range of optical coatings and tints allows you to select a combination that's customized to fit your exact application. Suitable for all formats.

• DIAMONDSCREEN<sup>TM</sup>— Page 22. DRAPER'S optical rear projection screen. DIAMONDSCREEN'S cast acrylic lens system distributes projected light in a wide horizontal viewing cone, while minimizing vertical light spread. Perfect for use with CRT or low light output LCD and DLP projectors.

30mm

• VORTEX—Page 22. Combines the outstanding center-tocorner uniformity and ambient light rejection of an optical rear projection screen with the high resolution of a diffusion-coated screen. Exceptional contrast levels. Best for use in command and control centers where ambient light is a problem.

Extruded

aluminu base

| 13mm

44mm

Photo courtesy of SPL Integrated Solutions.

### • IRUS—Infinite Resolution UNIFORMITY SCREEN— Page 23. Proprietary technology, only from DRAPER. Designed specifically for use with highresolution, single lens video and data projectors. Perfect for SXGA and UXGA displays.

# Cineframe®

Rigid rear screen installation costs and problems are virtually eliminated with factory-installed CINEFRAMES. Simply place the screen in the finished wall opening, shim into position, and trim as desired. No need to hire a glazier. All CINEFRAMES are extruded of 6063-T5 alloy anodized aluminum. Four styles available.

### System 400

SYSTEM 400 simplifies your installation. Cut a rough opening 6 mm larger than the overall frame size, slide the screen in and bolt into place. No finish carpentry required. SYSTEM 400 has a 44 mm wide dress trim that hides the opening. The audience only sees an attractive frame around a rear screen. Suitable for any CIN-EPLEX in 6 mm thickness, CINEPLEX in 9.5 mm thickness through 275 cm x 366 cm, DIAMONDSCREEN through 406 cm (160") diagonal and for any IRUS. Black finish.



### System 300

Adds 108 mm to overall size of screen; reduces clear viewing area by 25 mm in each dimension. Suitable for any CINEPLEX in 9.5 or 12.5 mm thickness. Select black or clear anodized finish.

### System 200

Same sturdy design as the SYSTEM 300, but extruded to a slightly thinner wall thickness. Suitable for any CINEPLEX in 6 or 9.5 mm thickness, DIAMONDSCREEN through 406 cm (160") diagonal and for any IRUS. Choice of black or clear anodized finish.

### System 100

Simple, clean frame for smaller rear screens. Adds 44 mm to overall height and width of screen; reduces viewing area by 22 mm in each dimension. For 6 mm CINEPLEX, DIAMONDSCREEN OF IRUS through 254 cm (100") diagonal. Black or clear anodized finish.



Grand Prize, Auditoriums, 2003 Best Presentation Rooms, Presentations Magazine.

www.draperinc.com **DRAPER** 765-987-7999

### Cineplex<sup>®</sup> Rigid Rear Projection Screens What is a Cineplex Screen?

CINEPLEX is a transparent acrylic substrate, with a permanently bonded optical coating. The optical coating diffuses projected light to reproduce the image. The optical coating may be formulated to provide varying degrees of brightness and image resolution. The substrate is available in three thicknesses: 6 mm, 9.5 mm, and 12.5 mm.

### Only From Draper

Only DRAPER offers you a choice of six different optical coatings, each of which is available in your choice of three unique optical tints. With a DRAPER CINEPLEX, you can select the optimum combination of optical coating and tint based upon your projection equipment, audience seating pattern, desired contrast level, screen aspect ratio, ambient light level and aesthetic considerations. If you need assistance in determining the ideal optical coating and tint for your particular requirement, contact your DRAPER distributor.

### **Optical** Coatings

CINEPLEX may be furnished with your choice of six optical coatings:

- *Cine 10*—Ultra-wide angle coating for maximum center-to-corner uniformity of projected image: gain 1.0. Best for wide screens, wide seating patterns, multi-image projection and shorter focal length lenses. Suitable for very high output CRT and light valve projectors. Best used under controlled lighting conditions.
- *Cine 13*—Gain of 1.3, with extremely broad viewing cone and uniform distribution of projected light. Best for wide screens, wide seating patterns, multi-image projection and shorter focal length lenses. Best used with medium to high-luminance video and data-graphics projection.
- *Cine 15*—Benchmark wide-angle coating. Gain of 1.5, with uniform distribution of projected light. For all formats, including higher-

luminance video projectors.

- *Cine 18*—For medium to wide-angle viewing, with on-axis gain of 1.8. Suitable for all projection formats, including video.
- *Cine 20*—Peak gain 2.0, with a somewhat broader viewing cone than CINE 25. Suitable for relatively high ambient light conditions. For all projection formats, including data, graphics, and video.
- *Cine 25*—Suitable for narrow rooms with narrow viewing cones. Compatible with lower output projectors. On-axis gain 2.5. Good image resolution and color reproduction.

### **Optical** Tints

The optical tint is an important modifier of the optical coating. Tint influences image contrast and color value. All six DRAPER optical coatings are available in 3 optical tints, as listed below.

*HC—High Contrast* (e.g. CINE 13HC)—Dark grey tint. Exceptional contrast and color rendition. Good light dispersion properties. The most popular choice for multiscreen VIDEOWALL applications. Enhances legibility of computer-generated data displays with light or bright text against a dark background: dark colors and black are reproduced with remarkable accuracy.

*NG—Neutral Grey* (e.g. CINE 13NG)—Standard formulation. Medium grey tint. Normal contrast levels and good color reproduction. Brightness levels are uniform throughout entire viewing cone. Multi-purpose coating suitable for all projection formats and images.

W—White (e.g. CINE 13W)—White tint. Excellent light dispersion. Low contrast levels with some loss in color reproduction. Requires lower light level in audience area. Not recommended for computer graphic/data displays when ambient light is present. Recommended for viewing 3-D applications. Reflects a laser pointer beam. White is best tint to reproduce white backgrounds, so it's best for viewing spreadsheets.



### **Cineplex Optical Coatings** Gain 3.0 2.0 1.0 0.5 40° 30° 20° 10° 0° 10° 20° 30° 40° Viewing Angle 50° 40° 30° 20° 10° 0° 10° 20° 30° 40° 50 50° Viewing Angle Cine 10 Cine 13 Gain 3.0 2.0 1.0 0.5 10° 0° 10° 20° 30° 30° 20° 40 40° 30° 20° 10° 0° 10° 20° 30° 40° Viewing Angle Viewing Angle Cine 15 Cine 18 Gain 3.0 2.0 1.0 0.4 10° 0° 10° 20° 30° 10° 0° 10° 20° 30° 40° Viewing Angle 40° 30° 20° 40 40° 30° 20° 50° 509 Viewing Angle Cine 20 Cine 25

Protective Coating

Gain 3.0

2.0

1.0

0.5

Gain 3.0

2.0

1.0

0.5

Gain 3.0

2.0

1.0

0.5

ArmorKote<sup>™</sup>—Highly resistant to solvents and abrasion. An excellent "insurance policy" against accidents and user error.

### Factory Installed Cineframe®

CINEPLEX can be shipped more safely and installed more easily with factory installed Cineframes. SYSTEMS 100, 200 and 300 are each offered in two finishes: black and clear anodized. SYSTEM 400 is provided in a black anodized finish. See page 20 for more details.

### Planning a System

DRAPER CINEPLEX screens are available in virtually any size you require. They are manufactured to your order, with your specified coatings. Factory installed frames are available.

Planning a rear screen installation is a complex undertaking. Contact us for assistance with your project.



\* Cineplex screens larger than 244 cm (96") high require special special handling and freight considerations. Please contact Draper for details.

# DiamondScreen™

### *The brightest rear projection screen in the world*

DIAMONDSCREEN: the first rear projection screen designed specifically for video projection. It is a one-piece cast acrylic rear screen with a precision Fresnel/lenticular lens system. Its precise distribution of projected light results in brilliant images over an extremely broad viewing cone, even with older, lower luminance video and data projectors. DIAMONDSCREEN offers numerous significant advantages compared with conventional coated rear projection screens:

- Extremely bright image—gain 3.5
- Extremely broad viewing cone, with excellent resolution
  Good tolerance of ambient light without significant loss of contrast
- Built-in "color shift" correction
- Excellent corner-to-center brightness ratio eliminates dark corners and "hot spots"

DiamondScreen is also available in any custom size, up to a maximum overall size of 305 cm x 407 cm (120" x 160").



Nominal

Diagonal

60"/152 cm

NTSC/PAL Format



# 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 the screen on the 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
- An exceptionally 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 to be used 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 patterns.
- 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.



	/	,
67"/170 cm	102 x 136	105 x 139
72"/183 cm	110 x 149	112 x 151
84"/213 cm	128 x 173	131 x 176
90"/229 cm	137 x 185	140 x 188
96"/244 cm	146 x 198	149 x 200
100"/254 cm	152 x 203	155 x 206
120"/305 cm	183 x 246	185 x 249
125"/318 cm	190 x 253	192 x 256
140"/356 cm1	214 x 285	217 x 288
150"/381 cm1	230 x 306	232 x 308
160"/406 cm1	245 x 326	247 x 328
170"/432 cm2	259 x 345	263 x 349
180"/457 cm <sup>2</sup>	273 x 366	278 x 369
190"/483 cm <sup>2</sup>	289 x 386	293 x 390
200"/508 cm2	301 x 403	305 x 407
HDTV Format		
92"/234 cm	1114 x 203	117 x 206
106"/269 cm	132 x 234	135 x 236
119"/302 cm	147 x 264	150 x 267
133"/338 cm1	165 x 295	168 x 297
161"/409 cm2	203 x 356	206 x 358
<sup>1</sup> For safety reasons	s, Draper recon	nmends that
these screens ship u	vith a factory-	installed Syst
200 or 100 frame	On smaller sci	eens. framin

Image Area

HxW(cm)

91 x 122

**Overall Size** 

HxW(cm)

94 x 124

these screens ship with a factory-installed System 200 or 400 frame. On smaller screens, framing may be provided by Draper or by others.

 $^2$  Vortex not available in these sizes. These DiamondScreens require a Large Screen System frame. The frame ships disassembled. When assembled, it adds 4.13 cm (13%") to the overall screen height and width.

# IRUS

## Infinite Resolution Uniformity Screen

The DRAPER IRUS—INFINITE RESOLUTION UNIFORMITY SCREEN—is specifically designed to provide maximum legibility with any projector. Today's SXGA and UXGA displays offer higher resolutions than ever before—and that means more information for your audience to absorb. With these projectors, you need a screen that's up to the challenge.

In order to convey an increasing amount of information to the viewer, the IRUS uses proprietary technology to display the sharpest, most uniform image you've ever seen. An improvement for every rear screen application, the IRUS actually provides higher resolution than the human eye can perceive.

The image is so consistent that it can be clearly perceived even at 90° off axis (most subject matter would be extremely distorted from this perspective.) Brightness is consistent from center to corner, so the screen is free of "hot spots". Excellent contrast, even in lighted rooms, yet with superior color reproduction.

The IRUS is perfect for command and control centers, where operators often have to watch for small changes in a large grid of screens for hours on end. Imagine what the screen used under those demanding conditions can do for your presentation.

The IRUS offers-

- Uniform resolution compatibility
- Uniform center-to-corner brightness
- Superior color reproduction
- Excellent contrast
- Unique anti-glare finish on a 0.6 cm (1/4") acrylic substrate
- 1.0 gain across a 180° viewing cone
- Sizes through 305 cm (120") diagonal
- Ideal for SXGA or UXGA displays; ready for the next generation of higher resolution projectors

### Installation

When framing a single screen, select DRAPER'S SYSTEM 100, 200 or 400 framing systems. For multiple screens or VideoWall applications, our Zero Edge Framing System is compatible.

# First Surface Glass Mirrors

DRAPER furnishes first surface glass mirrors for use in custom rear projection rooms. The mirrors are optical grade glass, 94% reflective, and 6 mm thick. Sizes through 188 x 254 cm  $(74'' \times 100'')$  are standard, and larger sizes are available.

Optional frame assembly is constructed of extruded aluminum, and finished in matte black powder coat.

Composite reinforced mirrors are also available to address the problem of deflection that is sometimes encountered in large mirrors. These glass mirrors may bend slightly due to their own weight. A stiffening system is highly recommended for mirrors 122 x 229 cm (48" x 74") and larger, and is often helpful for smaller mirrors. DRAPER laminates 25 or 38 mm aluminum skinned aircraft honeycomb to the complete surface of the mirror, eliminating deflection. The mirror and honeycomb "sandwich" is stabilized on a very flat surface (±0.1 mm, over length of mirror) prior to lamination and framing. The resulting assembly is the strongest and flattest mirror available today.

# Mirror Cleaning Kit

First surface mirrors are delicate and they attract dust, lint and fingerprints. We recommend you use our MIRROR CLEANING KIT. Contains cleaning solution, cotton gloves, lint-free cloth and instructions.



Gain 2.0			 		 	 		_	 			 	 	 	
1.0										-	_				
0.5															
	-					-	_	-							1

60° 55° 50° 45° 40° 35° 30° 25° 20° 15° 10° 5° 0° 5° 10° 15° 20° 25° 30° 35° 40° 45° 50° 55° 60° Viewing Angle

l Size (cm)
125
140
149
173
188
200
208
249
206
236



# Draper RPX—Rear Projection System

Takes the guesswork out of rear screen system design

DRAPER designed the REAR PROJECTION SYSTEM (RPX) to provide perfect rear screen picture quality, while saving valuable floor space. The RPX folds the light from a video, data-graphics, LCD, DLP, CRT, digital, or slide projector using the finest optical quality, first surface glass mirror.

The RPX consists of a custom designed projector cradle, a 94% reflective first surface glass mirror, and a unitized framework of blue extruded aluminum to position the projector and mirror in precisely the right relationship to each other and to the rear screen.

The real beauty of the RPX is that it is built specifically for your unique requirement. You provide us with the make and model of projector, desired screen size, and a few simple room dimensions. Our designers evaluate the optics and determine the proper light path geometry.

The RPX can now be adjusted during installation. Mirror height and angle, projector height and position (front to back) are all adjustable. The RPX ships complete with all required fasteners and hand tools.

Three models to choose from:

- RPX—as described above.
- RPX/COMPLETE—an RPX plus a framed rear screen attached to the RPX for a perfectly aligned system.
- RPX/PRECISION—an RPX plus a unique ALIGNMENT PLATFORM for fine tuning critical adjustments.

### Exclusive features for adjustability

Mirror Pivot Plate makes mounting the mirror much easier-shoulder bolts mean the mirror can simply be lifted into position and stabilized at the proper angle while a second bolt is installed. After installation, adjusting the

height or angle of the mirror is easy with the calibrated plate and predrilled adjustment holes.

Cradle Pivot Plate and Height Adjustment-With the new calibrated pivot plate, microfine finger adjustment of tilt angle and height, and cradleto-mirror distance adjustment, resetting the RPX in the field is simple. You may even be able to adjust for a new projector.

Draper's new 6-Axis Adjustable Platform standard with all RPX and RPX/COMPLETE units. The platform allows all movement to be modified for best image alignment. The projector light path can be adjusted in all 6 axes for a perfect picture every time.





# VideoWalls

Multiple rear screen VIDEOWALLS are used in command and control rooms, network operations centers, sports and gaming venues, point of purchase advertising and the entertainment industry. Screens can be combined in almost any configuration. Single-tiered systems; multi-tiered systems; single plane, flat or with the upper tier tilted for viewing comfort; or curved along a radius. Panoramic configurations reduce horizontal viewing angles.

### Zero Edge Framing System

DRAPER'S mullionless ZERO EDGE FRAMING SYSTEM is the

first and only optically seam- Structural Supports less large screen videowall framing system. ZERO EDGE utilizes a proprietary screen attachment system supported by extruded aluminum light baffles on all four sides. Screens are assembled with "zero" visible separation.



Zero-Edge videowall frame

Actual screen separation is approximately 0.5 mm. Modules may be installed in-wall or can be incorporated in a freestanding

DRAPER MULTISCREEN SYSTEM. With ZERO EDGE, screen sizes cannot exceed 305 cm (120") diagonal. U.S. Patent 6,000,668.

# Projector Support Structures

PROJECTOR SUPPORT STRUCTURES are built with custom-fitted projector cradles, machined aluminum pivot plates for quick, precise alignment, and unitized welded tubular steel framework. ALIGNMENT PLATFORM is optionally available for precise positioning of projectors. PROJECTOR SUPPORT STRUCTURES can be provided in any grid configuration, in either straight throw or mirrored design. Mirrors, if required, are 94% reflective optical grade first surface glass.



Photography by Barry Rustin, Evanston, IL.

# Micro Projector Lift

### Designed for today's smaller projectors.

The MICRO PROJECTOR LIFT (MPL) is small and convenient, just like the projectors it is designed to accommodate. The MPL has a retracted height of less than 13 cm (without projector, plenum or closure).

The projector's "show" position can be set at any point—with infinite adjustability—up to 122 cm (48") extension. The MPL utilizes the same exclusive 3-scissor design as DRAPER'S popular SCISSOR LIFT (see page 26). The load is lifted by two 2.54 cm (I") wide Kevlar® straps. Safety belt provides extra protection.

### System Options

- Ceiling closure panel—Steel panel with a white baked enamel finish. Can also accept ceiling tile.
- Ceiling finish kit-Ceiling closure panel and ceiling trim ring to finish ceiling opening.
- Ceiling Access Door-A 61 x 61 cm (2' x 2') hinged door provides above-the-ceiling access for cleaning. Available with a white painted finish, or recessed to accept ceiling tile.
- Plenum housing-Height varies according to choice of projector. Includes ceiling trim ring. Does not include ceiling closure panel.
- Aero Low Profile Mount --- Attaches to projector lift and combines with DRAPER'S AERO UNIVERSAL PROJECTOR BRACKET. Projector may also be mounted flush to bottom pan.
- · Factory installed cables for RGB, Video and Control.
- Controls-Described below.

### Micro Projector Lift

Height of lift in closed position <sup>1</sup>	12.7 cm
Overall lift dimensions (WXL)	53.3 x 52.7 cm
Ceiling opening	60 x 60 cm
Optional plenum housing (trim edge to trim edge ) <sup>2</sup>	61 x 61 cm
Max. projector size (wxL) <sup>3</sup>	51 X 51 cm
Max. down travel	122 cm
Capacity	16 kg
Capacity with Aero Low Profile Mount	10 kg
Net weight of lift	16 kg

<sup>1</sup> Not including projector, mount or closure. Optional Aero Low Profile Mount adds 12.4 cm to unit height including Universal Projector Bracket.

<sup>2</sup> Max. plenum height: 50.8 cm. Min. plenum height: 30.5 cm

<sup>3</sup> Max. available projector/bracket height (with Plenum): 34.3 cm Min. available projector/bracket height (with Plenum): 14 cm

Kevlar® is a registered trademark of DuPont.

# Controls for Projector Lifts

Single Station Control-Standard with all DRAPER video projector lifts. One 3-position rocker switch.

Low Voltage Multiple Station Controls-Install switches everywhere they're needed; add wireless transmitter (at right) or interface with a master control system. Optional for all DRAPER video projector lifts. Wiring from control unit to switches is for 24v current.

Wireless Remote Control—Enables you to operate a DRAPER video projector lift from anywhere in the room. For use only with DRAPER low-voltage control unit, with or without wall switches. IR and RF controls available.

Video Interface Control/Ceiling-Recessed Video System—Operate a DRAPER video projector lift in tandem with a DRAPER motorized projection screen using the VIDEO INTERFACE CONTROL. The VIC replaces the screen's switch; for the projector lift, use the standard switch or any control described above. Touch the switch-or wireless remote control-and the video projector lift and projection screen descend. At the end of the presentation, flip the switch and the lift and screen will rise automatically. Model VICII5 integrates screen operation with equipment using a 115v switched outlet. Models VICI2 & VIC6 interface screen operation with equipment featuring a 12v/6v output. The VICI15/220, VIC12 & VIC6 may be purchased with an over-ride switch (VIC-OS), permitting independent operation. Not available for MPL and AEROLIFT 25/50/150. A VIC is not CE certified and is not compatible with an IVC-III, built-in or otherwise.





U.S. Patent Nos. D395,909 and 6,637,711. Other patents pending.









Switch for low voltage multiple station control



RF Remote Control





VIC-6 or VIC-12



www.draperinc.com **IRAPPR** 765-987-7999

Standard switch for MPL, Revelation and AeroLift

25/50/150

Standard switch for LCD Lift



# Revelation

### You won't see or hear the projector.

The REVELATION is totally different from traditional projector lifts and mounts. They typically lower the projector into the room from a ceiling recess, or lift it into the seating area from a table hideaway. The DRAPER REVELATION projector mount hides the projector—and its noise—above the ceiling, all the time.

You'll be astonished by what you see—and don't see—*and don't hear*—when your projector is mounted in a REVELATION. You won't see or hear the projector—not before, during or after the show. You'll only see a hinged door in the ceiling, finished in white powder coat.

Available in two models, REVELATION A and REVELATION B both require only 35 cm (13%") of space above the ceiling. *U.S. Patent Number 5,993,011*.

DRAPER upgraded the REVELATION'S dual first surface mirror system to thicker (10 mm) optical grade glass mirrors that are 94% reflective for optimum flatness and reflectivity. A modification to both models allows more space for projectors and accommodates a wider variety of LCD/DLP projectors, including those with offset lenses.

### System Options

- *Plenum Enclosure*—Aluminum enclosure for use in return air plenum. Includes intake and exhaust fan system with 10 cm (4") couplers for connection to ventilation ducts.
- Ceiling Access Door—A  $61 \times 61 \text{ cm} (2' \times 2')$  hinged door provides above-the-ceiling access for cleaning. Available with a white painted finish, or recessed to accept ceiling tile.
- *Glass Shield*—Made of anti-reflective glass and installed between the REVELATION and the first surface mirror/ceiling closure. Reduces projector noise by an additional 80%, and prevents cigarette smoke, grease or other harmful substances from reaching the projector.
- Control Options—Refer to page 25.





# Scissor Lift—SL Series

### Places your projector in three positions: store, show and service

DRAPER'S SCISSOR LIFT stores your projector at or above ceiling level, sets it exactly where you need it at show time and brings it down to within easy reach for service. DRAPER factory sets all three positions—store, show and service—to your specifications. Adjustments are easy after installation. Choose from seven service positions, ranging from 122 CM to 305 cm (4' to 10').

Three sets of scissors are the reason for the quiet, fluid movement of the SCISSOR LIFT. Scissors on the left, right and back sides of the unit stabilize the projector both laterally and front-to-back.

Video and LCD projectors can be bolted directly to the lift's bottom pan or mounted with the optional Aero Low Profile Mount. The Cable Management System features a pre-laced power supply cord through the back scissor to eliminate cord tangles. Lifting capacity is 160 kg (330 lbs.).

# Scissor Lift—SLX Series

### Lowers projector up to 17'

Seven SCISSOR LIFT SLX models offer "service" positions ranging from 335 cm (11') to 518 cm (17'). A slightly larger footprint, 69 cm wide and 75 cm deep ( $23'' \times 23^{3/2}''$ ), allows for the extended travel with no loss of stability. Lifting capacity is 160 kg (350 lbs).

### System Options

- Ceiling closure panel—Steel panel, with a white baked enamel finish. Can also accept ceiling tile.
- Ceiling finish kit—Ceiling closure panel and ceiling trim ring to finish ceiling opening.
- *Ceiling Access Door*—A 61 x 61 cm (2' x 2') hinged door provides above-the-ceiling access for cleaning. Available with a white painted finish, or recessed to accept ceiling tile.
- *Plenum housing*—Height varies according to choice of projector. Includes ceiling trim ring. Does not include ceiling closure panel.
- Factory installed cables for RGB, Video and Control.
- *Decorative Cover*—An accordion-action shroud that completely covers all 4 sides of the SCISSOR LIFT SLX above the projector. White cover conceals scissors in the "show" position. Detaches automatically at pan when lift extends to "service" position. Maximum extension of cover is 122 cm (48").

• Controls—Refer to page 25.



Photography by VanderWerf Photography Inc. Waterloo, IA U.S. Patent Number D395,909

# LCD Lift

### Compact, lightweight lift fits most LCD/DLP projectors.

Bomb bay doors and a slim cross-section distinguish the LCD LIFT. Most popular LCD/DLP/LCOS projectors fit comfortably inside this unit. Available in two sizes—MODEL A and MODEL B.

Plenum housing of aluminum, with closure doors finished in white. Contains internal switched duplex receptacle, 115V AC, which is powered when the unit is fully down. The LCD LIFT contains an innovative current sensor that delays closing of the unit until the projector fan has shut off. Lifting capacity 29.5 kg (65 lbs.).

### System Options

- *Ceiling closure panel*—Steel panel with a white baked enamel finish. Can also accept ceiling tile.
- Ceiling Access Door—A 61 x 61 cm (2' x 2') hinged door provides above-the-ceiling access for cleaning, maintenance or repairs without having to damage the ceiling. Available with a white painted finish, or recessed to accept ceiling tile.
- *Aero Low Profile Mount*—Attaches to projector lift and combines with DRAPER'S AERO UNIVERSAL PROJECTOR BRACKET. Projector may also be mounted flush to bottom pan.
- Factory installed cables for RGB, Video and Control.
- Control Options-Refer to page 25.



[6

LCD	Model	Model
Lift	A	В
А	61 cm	74 cm
В	45 cm	58 cm
С	46 cm	58.5 cm
D	28 cm	41 cm







LCD Lift shown (above) with standard bomb bay closure. Dimensions in chart are based on standard closure.

# AeroLift 25, 50 & 150

### With the smallest footprint and height.

The all-new and very cleverly designed AeroLift 25 has the smallest footprint and height of any video projector lift. The maximum weight capacity of the AeroLift 25 is 11.3 kg (25 lbs.)

The AEROLIFT 50 and 150 hold 22.7 kg and 68 kg respectively (50 and 150 lbs.), and have a larger overall size. Contact DRAPER for more details.

All are powered by strong tubular motors for a simplified design, and features a stabilizing arm which can be used for cable management. Projector can be mounted flush to bottom pan, or with AERO LOW PROFILE LIFT BRACKET (shown).

The AeroLift 25/50/150 can also be used to recess speakers, security cameras, videoconferencing cameras or document cameras.

### System Options

- *Ceiling closure panel*—Steel panel with a white baked enamel finish. Can also accept ceiling tile.
- *Ceiling finish kit*—Ceiling closure panel and ceiling trim ring to finish ceiling opening.
- *Ceiling Access Door*—A 61 x 61 cm (2' x 2') hinged door provides above-the-ceiling access. Available with a white painted finish, or recessed to accept ceiling tile.
- Aero Low Profile Mount —Attaches to projector lift and combines with Draper's Aero Universal Projector Bracket.
- Plenum housing—Height varies according to choice of projector. Includes ceiling trim ring. Does not include ceiling closure panel.
- Control Options-Refer to page 25.







Patent Pending

### AeroLift 25

Height of lift in closed position 1	IO CM					
Maximum overall lift dimensions (WXL)	57 x 36 cm					
Ceiling opening (with small closure)	59 x 36 cm					
Optional plenum housing (small size) (WXL) <sup>2</sup>	37 x 61 cm					
Max. projector size (with small closure) (wxL) <sup>3</sup>	22 x 46 cm					
Max. down travel	51 cm					
Approx. travel time to lowest position	14 sec.					
Total lift capacity <sup>4</sup>	11.3 kg					
Net weight of lift <sup>5</sup>	9 kg					
<sup>1</sup> Not including projector, mount or closure. Option	ial Aero Low Profile Mount					
adds 12 cm (47/8") to height, including Universal Projector Bracket.						
<sup>2</sup> Max. plenum height: 52 cm (20½"). Min. plenum height: 32 cm (12½").						
2 3 6 -1 1 1 - 1 1 1 - 1 - ( - 1 - 1	) ( 2///)					

<sup>3</sup> Max. available projector/bracket height (with plenum): 40 cm (15<sup>3</sup>/<sub>4</sub>").

- Min. available projector/bracket height (with plenum): 20 cm (7¾"). <sup>4</sup> Small closure weighs 3.4 kg (7½ lbs.). Large closure & angle brackets weigh
- 4.5 kg (10 lbs.).
- <sup>5</sup> Unit only: does not include projector, mount, plenum or closure.

### Onyx Quick and easy assembly plus adjustable surface tension—without snaps!

You can have a beautifully framed image hanging on the wall in just 10 minutes-assembly is that easy!

An attractive frame and a new fabric tensioning system make ONYX the leader in permanently tensioned screens. The 10 cm (4") wide beveled, extruded aluminum frame assembles on site with one simple hand tool that DRAPER provides. Each side piece slip fits tightly to injection molded plastic corners, forming perfectly mitered edges.

A new approach to fabric attachment will amaze even the toughest of critics. There are no snaps! Uniform tension is applied to the entire surface area, so the surface is perfectly flat. Unique fabric retention system enables you to adjust the surface tension in just seconds, without tools.

### System Options

- Viewing Surfaces—M1300, M2500, HIDEF GREY, acoustically transparent AT1200 or AT GREY for front projection or CINEFLEX rear projection vinyl.
- Custom Sizes—Up to 610 x 610 cm (20' x 20') image area depending on viewing surface.
- Frame Finishes-Black aluminum is standard. Cover the frame with optional velvety black textile, VEL-TEX, to eliminate reflections.
- Mounting-Permanent wall mount (brackets included).



# Clarion

### Attractive fixed projection screen

Improve your image-with a CLARION projection screen. The viewing surface is perfectly flat. A perfectly flat viewing surface means perfect resolution and perfect picture quality. The viewing surface is stretched over a self-concealing aluminum frame, which forms an attractive border and gives the screen a clean, theatre-like appearance. Black acrylic frame finish is standard. Also available with velvety black VEL-Tex to eliminate reflections on the frame.

You won't find a better image. Choose M1300, M2500, HIDEF GREY, GLASS BEADED or acoustically transparent AT1200 or AT GREY as the viewing surface.

# Cineperm

### Snap-on screen with aluminum frame

The CINEPERM offers a simple, contemporary appearance. The viewing surface is perfectly flat. The surface attaches to a 2.5 cm (1") square tubular aluminum wallmounted frame, using press studs set in a black vinyl border. Choice of M1300, M2500, HIDEF GREY, AT1200 or AT GREY viewing surface for front projection and CINEFLEX for rear projection.

### Need more information?



Additional photos, descriptions, and specifications for DRAPER products can be found on the Internet at www.draperinc.com. CAD drawings, specifications, and submittal forms are available for download 24 hours a day.

411 S. Pearl St., Spiceland, IN 47385 USA 265-987-7999 fax 765-987-1689 e-mail draper@draperinc.com I www.draperinc.com Copyright © 2005 Draper, Inc.



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Draper's Onyx. U.S. Patent No. 6,785,047. Other Patents Pending. Installation by Fullhouse Media Solutions, Inc., Atlanta, GA. Photography by Ed Wolkis, Atlanta, GA

