

# dnp Alpha Screen™



Screens of the art

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## - Next generation rearpro

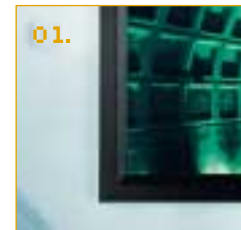
The dnp Alpha Screen is a new generation of rear projection screens from dnp, which combines today's most important image requirements in one single multi-purpose display.

The Alpha Screen is especially designed to boost and balance the output of powerful single lens projectors. These projectors offer high image brightness, but relatively poor contrast and risk of a "hot spot" in the image centre. The Alpha Screen effectively solves these problems by "transforming" spare gain to other image quality parameters.

It enhances the perceived contrast and image uniformity; it provides excellent viewing from all angles; and it supports projectors with wide angle lenses for ultra-compact installation design.

This unique combination of image parameters has another significant advantage: it makes the Alpha Screen extremely well suited for videowalls and multi-screen installations.

- = **Conference and boardrooms**
- = **Control rooms**
- = **Point of Sale applications**
- = **Videoconferencing**
- = **Graphic display**
- = **Multi-screen installations**
- = **Training and education**



**01.**  
The Alpha Screen offers excellent centre-to-corner brightness due to the unique lens design.

**02.**  
Boardroom with dnp Alpha Screen in 16:9 format.

Fresnel lens



Alpha micro filter

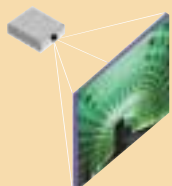


### Optical screen technology

The dnp Alpha Screen enhances the image for optimum viewing by combining the focusing abilities of a Fresnel lens with the distributive properties of a high-refractive micro filter. The result is sharp and crisp images, superb contrast – and superior centre-to-corner brightness uniformity, which becomes particularly evident in multi-screen installations.

### Rear projection

Rear projection means that the projector is placed behind the screen, shooting straight forward towards the audience. The optical screen controls the light path and distributes bright, sharp images into a predefined viewing zone. Furthermore, the presenter and the audience can stand in front of the image without casting shadows. And with the projector equipment hidden behind the screen, the viewing area remains quiet, clean and tidy.





### Special features

- =Wide vertical and horizontal viewing angles
- =High contrast
- =High brightness uniformity
- =Infinite resolution
- =Short focal lengths

### Image sources

- =Compatible with LCD, DLP, Light Valve and D-ILA projectors
- =Data, graphics, video and still images from computer, HD video, VCR and DVD

# Applications

The Alpha Screen is a multi-purpose screen for all rear projection applications which require a combination of wide viewing angles – both horizontally and vertically – enhanced contrast, brightness uniformity and high resolution. This makes the Alpha Screen ideal for modern conference rooms and control room environments.

The excellent vertical viewing angles make the Alpha Screen well suited for multi-screen installations – and the best single-element alternative to double-element screens such as dnp Ultra Contrast Screens and

Black Bead Screens. And it creates new options for uniform multi-screen installations with screen sizes above 80".

The screen offers infinite resolution, which allows display of detailed graphics and spreadsheets in a crisp and clear way – an important feature in modern conference and control rooms.

Furthermore, the Alpha Screen has a Non-Glare front surface to minimize reflections from windows and room lighting.



03.

The combination of symmetrical viewing angles, high contrast and brightness uniformity makes the Alpha Screen ideal for multi-screen installations in control rooms and other high-light environments.



**04.** Conference room display comprising four Alpha Screens. The infinite resolution makes the Alpha Screen well suited for presentation of detailed graphics and data from spreadsheets.

### Screens of the art

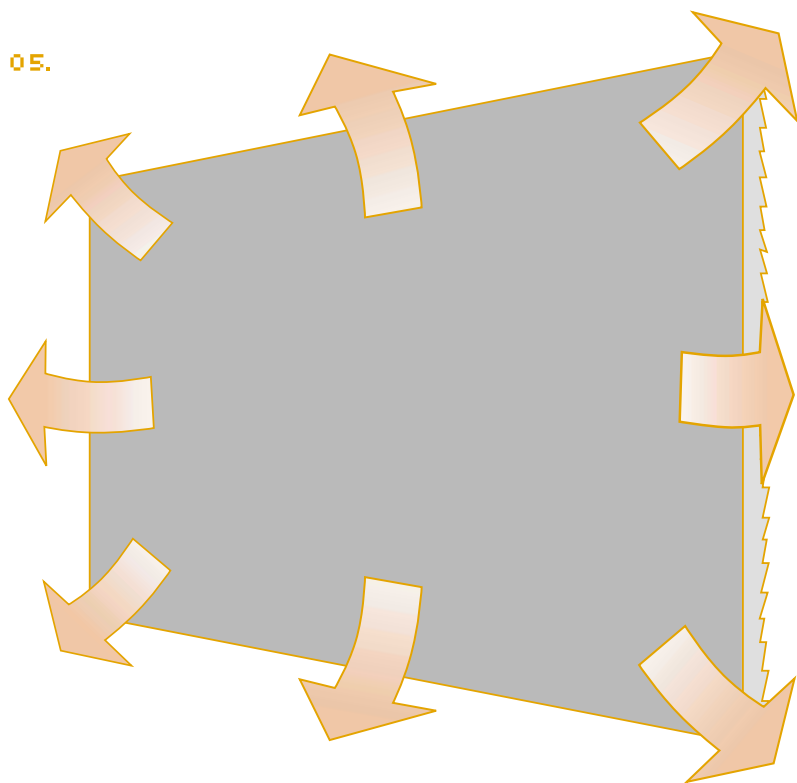
The dnp product range includes 9 different screen series in sizes from 40" to 200" for all rear projection applications – each offering individual benefits in both size and specification: dnp Alpha Screen, dnp ViewFlex, dnp Wide Angle, dnp New Wide Angle, dnp Giant Wide Angle, dnp Ultra Contrast, dnp Black Bead, dnp Attention Screen and dnp Holo Screen. Please contact your local dnp distributor for more details.

# Optical principles

The Alpha Screen is an advanced optical micro filter screen.

Designed as a single element screen, the Alpha Screen has two active lens systems. The high precision Fresnel lens on the projector side redirects the projected light and sends it forwards at a right-angle to the screen. And the built-in optical micro-filter, comprising high-refractive particles, distributes the light forward and generates a perfectly symmetrical viewing cone.

Due to the special construction of the Alpha Screen it offers infinite resolution. Furthermore, the screen has a Non-Glare front surface to minimize reflections from windows and room lighting.



05.

05.

The built-in optical micro filter, comprising high-refractive particles, distributes the light forward and generates a perfectly symmetrical viewing cone.

# Optical characteristics

The Alpha Screen is especially developed for the new generation of powerful single-lens projectors.

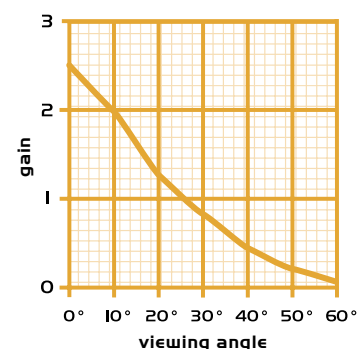
Due to their brightness, these projectors require a screen with the ability to distribute the brightness evenly – and to enhance the perceived contrast of the image. The Alpha Screen fulfils both needs.

The Alpha Screen has a peak gain of 2.5 and offers perfectly symmetrical viewing angles – both vertically and horizontally. This feature makes the

Alpha Screen well suited for multi-screen installations.

The Alpha Screen is available with ultra-short focal lengths to support projectors equipped with wide angle and ultra wide angle lenses. The complete range includes screen focal length options covering projector lenses from 0.8:1 – 1.9:1.

Horizontal and vertical distribution (symmetrical)



# Specifications

Type Product no.	67" Alp 1150 3 067   115 25	67" Alp 1400 3 067   140 25	67" Alp 1600 3 067   160 25	72" Alp 1150 3 072   115 25	72" Alp 1400 3 072   140 25	72" Alp 1900 3 072   190 25	84" Alp 1400 3 084   140 25	84" Alp 1900 3 084   190 25	
<b>Dimensions</b>									
Width	mm	1395 +/- 1.0	1395 +/- 1.0	1395 +/- 1.0	1488.4 +/- 1.0	1488.4 +/- 1.0	1488.4 +/- 1.0	1732.3 +/- 1.0	1732.3 +/- 1.0
Height	mm	1060 +/- 1.0	1060 +/- 1.0	1060 +/- 1.0	1122.7 +/- 1.0	1122.7 +/- 1.0	1122.7 +/- 1.0	1305.6 +/- 1.0	1305.6 +/- 1.0
Optimum lens throw ratio		0.7 - 1.2:1	0.8 - 1.4:1	0.9 - 1.6:1	0.6 - 1.1:1	0.8 - 1.3:1	1.0 - 1.8:1	0.7 - 1.1:1	0.9 - 1.6:1
Optimum projection distance*	mm	920 - 1610	1120 - 1960	1280 - 2240	920 - 1610	1120 - 1960	1520 - 2660	1120 - 1960	1520 - 2660
Thickness	mm	5.5 +/- 1.0	5.5 +/- 1.0	5.5 +/- 1.0	5.5 +/- 1.0	5.5 +/- 1.0	5.5 +/- 1.0	5.5 +/- 1.0	5.5 +/- 1.0
Weight	kg	9.8 +/- 10%	9.8 +/- 10%	9.8 +/- 10%	11 +/- 10%	11 +/- 10%	11 +/- 10%	15 +/- 10%	15 +/- 10%
<b>Image area</b>									
Width	mm	1370	1370	1370	1463	1463	1463	1706.9	1706.9
Height	mm	1035	1035	1035	1097.3	1097.3	1097.3	1280.2	1280.2
<b>Optical specifications</b>									
Screen focal	mm	1150	1400	1600	1150	1400	1900	1400	1900
Type Product no.	84" Alp 2300 3 084   230 25	100" Alp 1850 3 100   185 25	100" Alp 2300 3 100   230 25	100" Alp 2700 3 100   270 25	120" Alp 1850 3 120   185 25	120" Alp 2300 3 120   230 25	120" Alp 2700 3 120   270 25		
<b>Dimensions</b>									
Width	mm	1732.3 +/- 1.0	2082.8 +/- 1.5	2082.8 +/- 1.5	2082.8 +/- 1.5	2489.2 +/- 1.5	2489.2 +/- 1.5	2489.2 +/- 1.5	
Height	mm	1305.6 +/- 1.0	1574.8 +/- 1.5	1574.8 +/- 1.5	1574.8 +/- 1.5	1879.6 +/- 1.5	1879.6 +/- 1.5	1879.6 +/- 1.5	
Optimum lens throw ratio		1.1 - 1.9:1	0.7 - 1.3:1	0.9 - 1.6:1	1.1 - 1.9:1	0.6 - 1.1:1	0.8 - 1.3:1	0.9 - 1.6:1	
Optimum projection distance*	mm	1840 - 3220	1480 - 2590	1840 - 3220	2160 - 3780	1480 - 2590	1840 - 3220	2160 - 3780	
Thickness	mm	5.5 +/- 1.0	5.5 +/- 1.0	5.5 +/- 1.0	5.5 +/- 1.0	5.5 +/- 1.0	5.5 +/- 1.0	5.5 +/- 1.0	
Weight	kg	15 +/- 10%	21.7 +/- 10%	21.7 +/- 10%	21.7 +/- 10%	30.9 +/- 10%	30.9 +/- 10%	30.9 +/- 10%	
<b>Image area</b>									
Width	mm	1706.9	2032	2032	2032	2438.4	2438.4	2438.4	
Height	mm	1280.2	1524	1524	1524	1828.8	1828.8	1828.8	
<b>Optical specifications</b>									
Screen focal	mm	2300	1850	2300	2700	1850	2300	2700	

\* General tolerance = -20% to +40%, related to the actual screen focal length.

# General specifications

Optical specifications	Peak gain	1/2 gain angle	Front surface
Alpha	2.5 +/- 0.5	> 18° symmetrical	Smooth, Non-Glare

Subject to change without notice. Please check specification at time of ordering.

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