dnp Rigid Ultra Contrast Screen™

for NEC WT600 projectors

A 65" Rigid UCS for NEC WT600 installed with one vertical mirror has a built-in depth of only 300 mm – approximately a fifth of the screen width. The only limit for further reduction of the built-in depth is the depth of the projector itself!

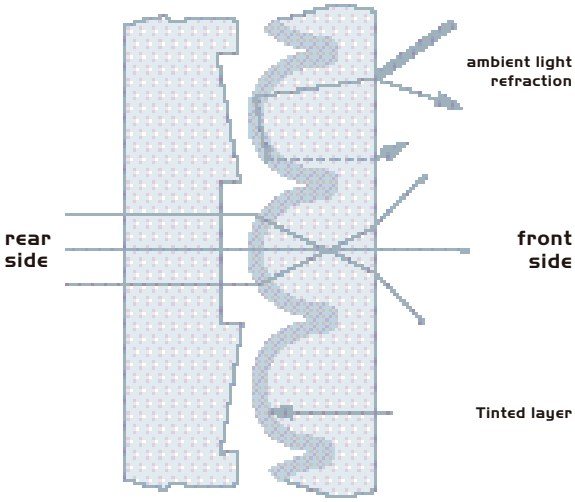
The Rigid UCS Screen for NEC WT600 is available in 65" in 4:3 aspect ratio and will be available in bigger sizes in the future.

- 5 times more light output than diffusion screens
- Introducing dnp TIR Technology
- Extremely compact built-in depth
- High image contrast
- High centre-to-corner brightness uniformity
- Wide horizontal and vertical viewing angles

dnp has developed a special version of the Rigid UCS Screen for the WT600 off-axis projector from NEC. The unique feature of this projector-screen configuration is the combination of sharp, high-contrast images and extremely short built-in depth. This makes it ideal for presentation in high-end conference and meeting rooms with limited installation space.

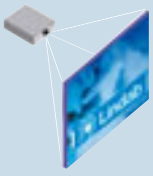
The Rigid UCS for NEC WT600 offers dramatically enhanced brightness uniformity compared with a diffusion screen. Furthermore, the screen increases the light output in the direction of the viewers up to 5 times!

The NEC WT600 off-axis projector is designed to project images at a very steep angle. The projector has an integral small mirror. And by adding a vertical mirror, the built-in depth can be incredibly small.



screen profile (horizontal section)

The Fresnel lens on the rear side with the built-in TIR system refracts projected light directly through the screen. The reverse UCS lenticular lenses on the front element distribute the light horizontally, enhance contrast and reduce the impact of ambient light.



Rear projection

Rear projection means that the projector is placed behind the screen, shining 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.

Screen specifications

Rigid UCS for NEC WT600	Type no.	65" RI UCS WT600 - 4:3 1 565 8 000 00					
Dimensions							
Width	mm	1340 +/-1					
Height	mm	1009 +/-1					
Thickness	mm	6.5 -/- 0.5					
Weight	kg	10 +/- 8%					
Image area							
Width	mm	1325					
Height	mm	994					
Optical specifications							
Screen focal	mm	664					
Wall aperture size (see detailed drawing at www.dnp.dk)							
Width	mm	1354					
Height	mm	1025					

General specifications

Optical specifications	Peak Gain	Pitch		
Rigid UCS for NEC WT600	**2.7 +/- 0.5***	**0.144**		

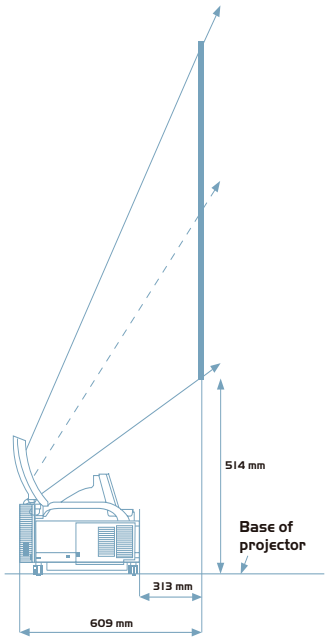
* The Gain is determined by the screen front element and will vary across the screen.

July 2004

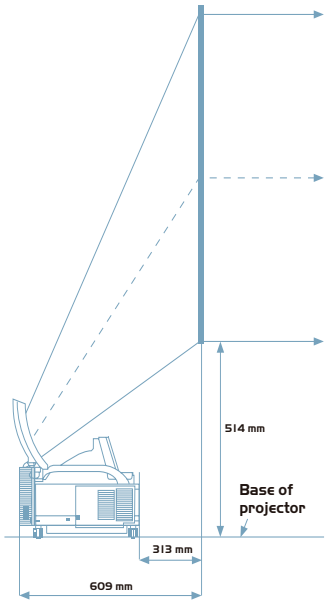
Subject to change without notice. Please check specification at time of ordering. Detailed gain curves can be viewed and downloaded at www.dnp.dk

Projection principle

The screen is based on dnp's new TIR (Total Internal Reflection) Technology and works by means of interplay between two optical forces refraction and reflection within each lens profile. The effect is that the lens is able to deflect the projected light and send it forward at right angles towards the viewers. In this example, the total built-in depth for the 65" display is 609 mm. The depth can be reduced even further by turning the projector 180° and adding a vertical mirror.
As the projecton angle is very steep, the choice of correct screen mounting frame is essential. Most screen frames cast shadows on the bottom of the image. To prevent this the screen is delivered with a special black frame.

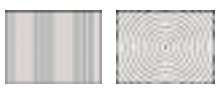


NEC WT600 off-axis projector used with a traditional screen



NEC WT600 off-axis projector used with a dnp Rigid UCS Screen

Lenticular lens Fresnel lens



Optical screen technology

dnp optical screens enhance the image for optimum viewing by combining the focusing ability of a Fresnel lens with the distributive properties of a lenticular lens. The result is brilliantly sharp images, superb contrast and up to 4 times brighter images than conventional front or rear projection screens.

www.dnp.dk

dnp denmark as · Skruegangen 2 · DK - 2690 Karlslunde · Denmark · Tel: +45 46 16 51 00

Screens of the art