



The dnp Black Bead Screen is a unique screen with superior contrast and black levels. The screen is especially designed for control rooms and multi-screen applications and offers excellent viewing angles – both horizontally and vertically.



dnp optical rear  
projection screens

Matched with a modern powerful projector, the Black Bead Screen is the ideal display if your application requires a screen that effectively combats ambient light. The screen not only maximises the actual image contrast, it enhances the perceived contrast as the screen appears black when in repose. Designed for close-up viewing, it looks more like a sparkling poster than a projected image.

The Black Bead Screen is available in a Non-Glare (NG) Acrylic version which eliminates reflections from light sources such as windows, room lighting etc.

The Black Bead Screen combines dnp's Fresnel technology with 3M's advanced Vikuiti™ extended resolution.

- > Unsurpassed contrast and resolution
- > Superb centre-to-corner brightness uniformity
- > Non-Glare surface
- > Wide vertical and horizontal viewing angles
- > Multiple options for focal length
- > Easy-clean surface
- > Compatible with all standard projectors

Application suitability	
Auditorium/sports arena	★ ★
Conference room	★ ★ ★
Control room	★ ★ ★ ★ ★ ★
TV studio	★ ★ ★ ★
Advertising – in-store	★ ★
Advertising – window display	★
Home entertainment – bright living room	★ ★ ★
Home entertainment – darkened home theatre	★

# dnp Black Bead Screen™ Specifications

## Product details

Black Bead Screen Type Screen size	BB 772 NG 50"	BB 826 NG 50"	BB 870 NG 50"	BB 1100 NG 70"	BB 1200 NG 70"
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### Dimensions

Width	mm	1040 +/-1	1040 +/-1	1040 +/-1	1404 +/-1	1404 +/-1
Height	mm	790 +/-1	790 +/-1	790 +/-1	1054 +/-1	1054 +/-1
Thickness	mm	6.2 +/-0.4	6.2 +/-0.4	6.2 +/-0.4	6.2 +/-0.4	6.2 +/-0.4
Weight	kg	6.1	6.1	6.1	11	11
Width	inch	40.9 +/-0.04	40.9 +/-0.04	40.9 +/-0.04	55.3 +/-0.04	55.3 +/-0.04
Height	inch	31.1 +/-0.04	31.1 +/-0.04	31.1 +/-0.04	41.5 +/-0.04	41.5 +/-0.04
Thickness	inch	0.24 +/-0.02	0.24 +/-0.02	0.24 +/-0.02	0.24 +/-0.02	0.24 +/-0.02
Weight	lbs	13.4	13.4	13.4	24.2	24.2

### Image area

Width	mm	1016	1016	1016	1375	1375
Height	mm	762	762	762	1035	1035
Width	inch	40	40	40	54.1	54.1
Height	inch	30	30	30	40.7	40.7

### Optical specifications

Focal length	mm	772	826	870	1100	1200
Focal length	inch	30.4	32.5	34.3	43.3	47.2

Black Bead Screen Type Screen size	BB 1600 NG 70"	BB 1250 NG 80"	BB 1450 NG 80"	BB 1800 NG 80"	BB 2400 NG 80"
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### Dimensions

Width	mm	1404 +/-1	1625 +/-1	1625 +/-1	1625 +/-1	1625 +/-1
Height	mm	1054 +/-1	1219 +/-1	1219 +/-1	1219 +/-1	1219 +/-1
Thickness	mm	6.2 +/-1.2	6.8 +/-1.2	6.8 +/-1.2	6.8 +/-1.2	6.8 +/-1.2
Weight	kg	11	17.2	17.2	17.2	17.2
Width	inch	55.3 +/-0.04	64.0 +/-0.04	64.0 +/-0.04	64.0 +/-0.04	64.0 +/-0.04
Height	inch	41.5 +/-0.04	48.0 +/-0.04	48.0 +/-0.04	48.0 +/-0.04	48.0 +/-0.04
Thickness	inch	0.27 +/-0.05	0.27 +/-0.05	0.27 +/-0.05	0.27 +/-0.05	0.27 +/-0.05
Weight	lbs	24.2	37.8	37.8	37.8	37.8

### Image area

Width	mm	1375	1600	1600	1600	1600
Height	mm	1035	1200	1200	1200	1200
Width	inch	54.1	63	63	63	63
Height	inch	40.7	47.2	47.2	47.2	47.2

### Optical specifications

Focal length	mm	1600	1250	1450	1800	2400
Focal length	inch	63	49.2	57.1	70.9	94.5

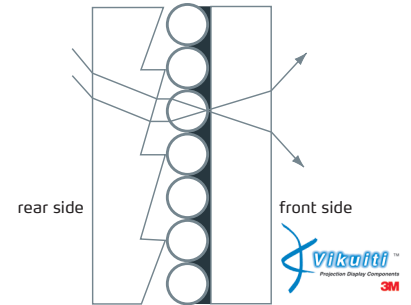
Other focal lengths and screen sizes are available on request.

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

# dnp Black Bead Screen™ **General information**

## Screen profile (horizontal section)

The ultra fine pitch Fresnel lens distributes the projected image through a Black Bead element which consists of a layer of minute glass beads set within a film of black material. The projected light exits through this optical filter, leaving an almost completely black area which absorbs virtually all the ambient light.



## General specifications

Optical specifications	50" - 70"		80"
Peak gain	1.0 +/-0.2		0.85 +/-0.2
Lenticular pitch	Random glass bead alignment pattern		Random glass bead alignment pattern

## Operating environment

Temperature	°C	5-35
	°F	41-95
Humidity (non-condensing)	%RH	30-70

## Humidity/temperature expansion coefficient

Coefficient of thermal expansion (10 <sup>-6</sup> m/m/°C)	
Fresnel element	72
Front side element	72
See <a href="#">graph</a> for details on humidity expansion	

## Included in the package

Gloves, quality certificate

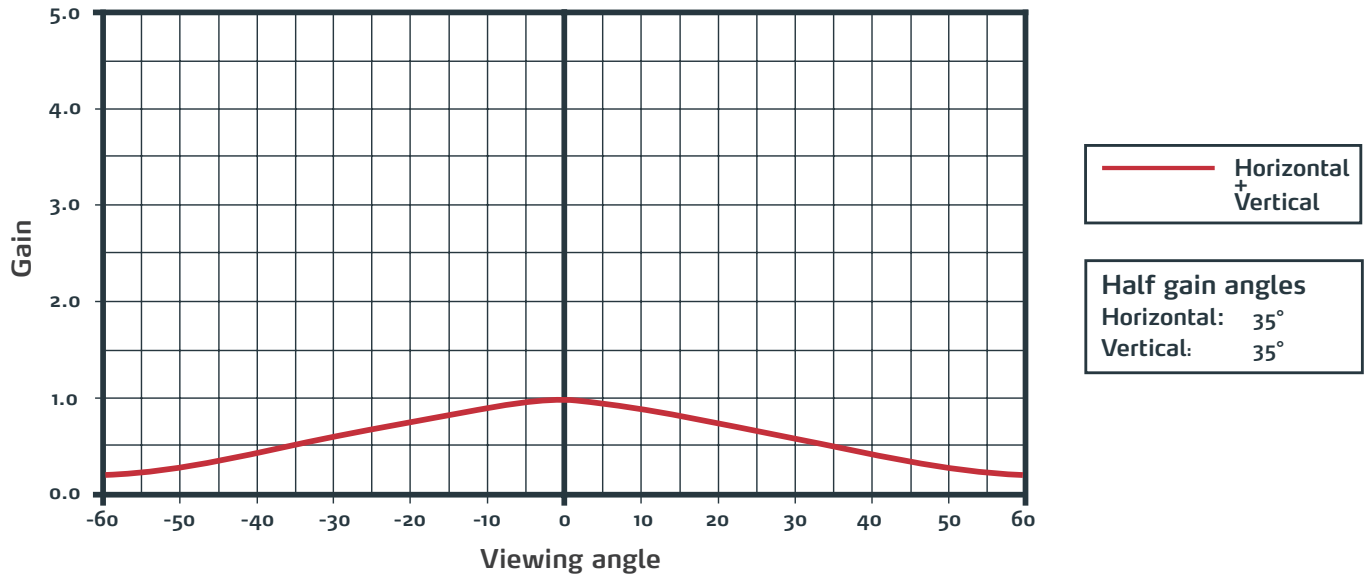
## Certificates



# dnp Black Bead Screen™ General information

## Gain charts

Black Bead Screen NG 50-70"



Black Bead Screen NG 80"

