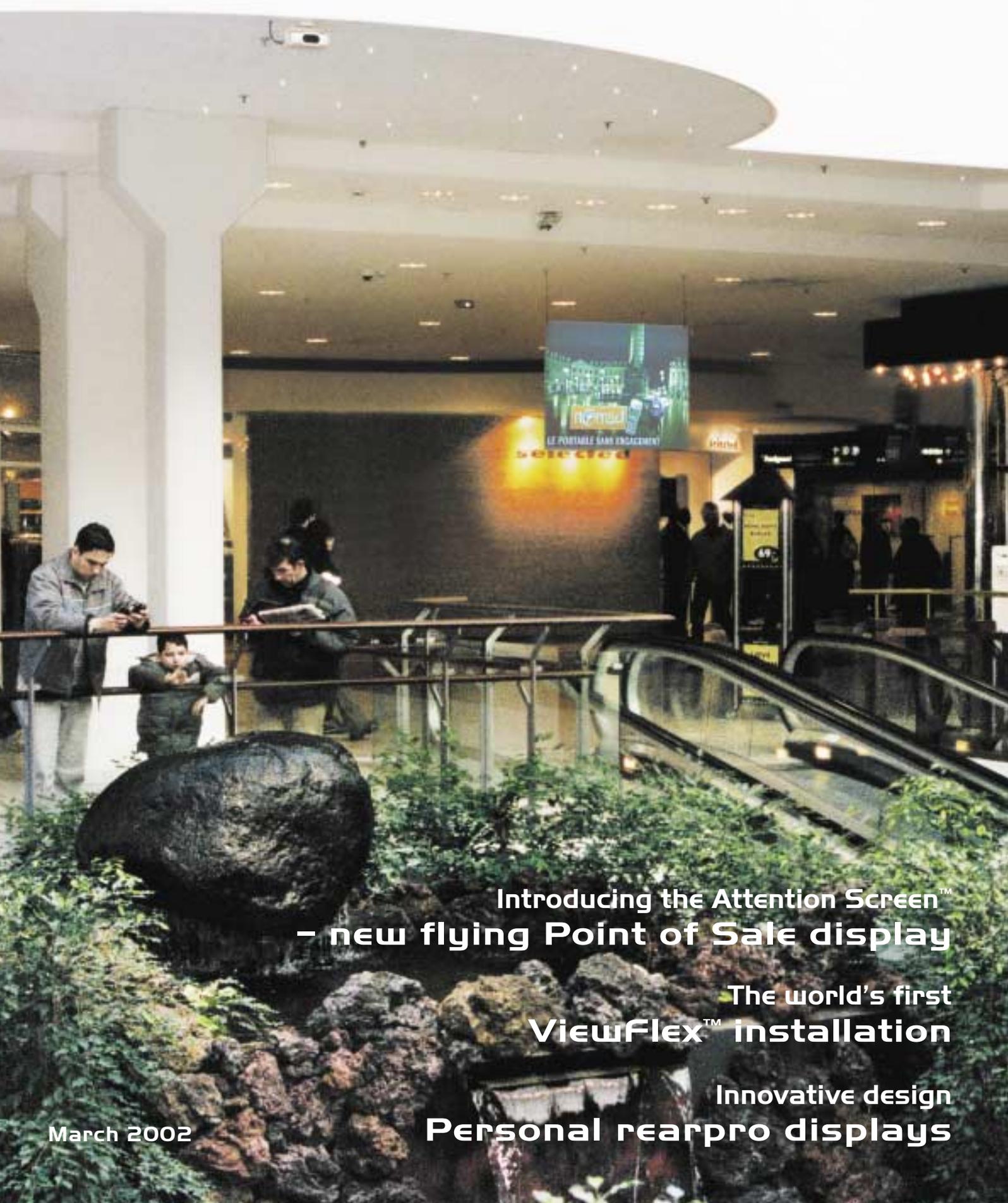


dnppbackstage

THE REAR PROJECTION MAGAZINE



Introducing the Attention Screen™
- new flying Point of Sale display

The world's first
ViewFlex™ installation

Innovative design
Personal rearpro displays

March 2002

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Completing the range of Point of Sale displays



For many years, retailers and advertisers have been looking for a new dynamic alternative to the traditional printed Point of Sale displays. Today, it seems like they have discovered the missing link: optical screen technology!

All over the world, we are witnessing a boom in the number of screens used as fixed or flying Point of Sale displays.

So far, the dnp Holo Screen has been the key product for this market. But in this issue of Backstage, we are pleased to present a new screen type for the Point of Sale market – the Attention Screen from dnp.

The Attention Screen opens new market opportunities for flying screens in the range from 60" – 120". Furthermore, we believe that the aggressively priced

Attention Screens will be a great door-opener in projects where the financial aspects are more important.

As a dealer, you can now approach retailers with a complete range of flying screens for virtually all types of applications and locations: from window displays, fashion shops and supermarkets to airports and railway stations.

We hope that the new extended product range will help you grow your Point of Sale business even further!

Niels Hermansen
General Manager, dnp denmark

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New International Marketing Co-ordinator



From February 1st, Jeanette Hänel has started at dnp as International Marketing Co-ordinator. Jeanette will be filling in for Lisette Rønno

Jørs while she is on her maternity leave, and will therefore be handling all issues relating to marketing.

Please do not hesitate to contact Jeanette Hänel at jh@dnp.dk, if you have any questions regarding dnp marketing materials.

Large screens for 24 meeting rooms

Norway: The leading telecommunication company in Norway, Telenor, moves to brand new headquarters in the Oslo suburb Fornebu with room for 7,500 employees. The goal is to create the best working environment for innovative business in Scandinavia.



To ensure a perfect electronic infrastructure and state-of-the-art presentation facilities, Telenor has established the task force Telenor e-RAF (e-Ready Arena Fornebu).

Telenor e-RAF is responsible for equipping more than 230 meeting rooms with modern audiovisual systems. 24 of the largest conference rooms will each be installed with two 72" dnp New Wide Angle HG Screens.

Telenor e-RAF and their main contractor ABB have focused heavily on future-proof solutions, and have spent considerable time on testing all products and partners involved.

The Norwegian AV company Videosystem was invited to bid for the rear projection systems and specified a solution based on dnp optical screens. And after a successful pilot project, Videosystem was selected to supply the rear projection solutions for the 24 conference rooms plus additional screens for Telenor's new training centre.

Today, more than 3,600 employees have already moved to the new headquarters. The last will arrive in June and August 2002. And by October, the construction will be complete providing more than 140,000 m² of innovative work space and parking facilities for 1600 cars.

Dynamic display in cinema lobby

Greece: The AV company Telmaco has supplied a large screen solution for a new multi-cinema complex in Thessaloniki. Placed in the lobby, the 120" display is used for product advertising and promotion of up-coming movies.

– The original idea was to use plasmas for the display system. But together with the architect we found a very suitable place to install a large rearpro screen, says AV Dept. Manager from Telmaco, Mr. Vassilis Kyriazis.

The huge 2.4 x 1.8 metre display is installed just in front of the central escalator, which is used by the majority of the cinema's audience – an ideal position that makes the screen the perfect eye-catcher for

trailers of up-coming movies and product promotion.

To provide a bright, sharp image in the brightly-lit lobby, Telmaco decided to use the High Contrast version of the dnp New Wide Angle Screen powered by a Barco Graphics 6400 projector – a combination that provides a screen brightness of more than 700 NIT.



Corporate image on display



Utilising TXU's corporate graphics and movie clips, the new ScorpionMPEG system from SEOS can be configured to output up to 24 high resolution video channels as a single display. In this case the screen displays one full-screen image and a smaller inserted video channel (above).

UK: Energy giant TXU, the world's eighth largest energy services company and the third largest supplier of electricity and gas in the UK has installed a large multi-image display in the reception area of their prestigious London office.

TXU required a high resolution, single channel video wall/playback solution with full control over the media content. As sponsors of Ipswich Football Club, TXU wanted to simultaneously run the latest match highlights, overlaying their corporate video alongside other media such as up-to-date share pricing. An important secondary requirement was the ability to easily change and manipulate these media assets using their own in-house design team.

Primed by computer supplier NexNix Ltd, SEOS selected an Easy-Erect rig from dnp's

UK distributor, Paradigm, complete with an 84" dnp New Wide Angle Screen to give the highest possible image quality and light level for this bright reception area. Complimenting this was the new ScorpionMPEG media management system/playback solution from SEOS.

The brief was to remove and replace the existing video wall and playback system in one weekend, ready for the first day of work. Selecting an Easy-Erect rig system allowed SEOS' engineers to plan the design ahead of time, and physically prove the

projected image met the system and ambient requirements before going to site.

Utilising TXU's corporate graphics and movie clips, SEOS' ScorpionMPEG was configured to provide the multiple simultaneous on-screen imagery, and TXU's designers were fully trained to allow any future content revisions to be carried out in-house.

Facts

Installer = NexNix Ltd

Screen = Paradigm Easy-Erect rig with 84" dnp New Wide Angle Screen

Projectors = JVC D-ILA C15

Playback = SEOS Ltd ScorpionMPEG 2-4

Attention Screen™

– new “flying screen” for the Point of Sale market

With display sizes up to 120" diagonal (2.4 x 1.8 metres), the new Attention Screen from dnp is the largest rear projection screen in the market, which is especially developed for Point of Sale advertising.

Catching the customer's attention is the first step in the classical AIDA advertising model. Without Attention there will be no Interest, Desire and Action. Now, dnp provides you with a new powerful display tool to kick-start the sales process for your retail customers!

The Attention Screen is developed as a supplement to the dnp Holo Screen to meet dnp dealers' growing need for Point of Sale displays in sizes above 60". At the same time, the Attention Screen provides a highly competitive and aggressively priced alternative to the many dnp Holo Screen “diffusion clones” in the low-end market.

Like the dnp Holo Screen, the Attention Screen is designed to be installed as a “flying screen” and optimized for projection from a steep angle (20° – 35°) – a feature that allows the projector to be installed well out of sight in the ceiling or at floor level. This means that the screens can be used to create maximum attention in shops and window displays with minimal loss of valuable retail space.

The Attention Screen comes in two different types – a Transparent and a Contrast version offering a wide range of possibilities for eye-catching advertising in shops and window displays.

Transparent “see-through” version

The Transparent version is designed to provide the see-through effect, which makes the screen appear as an integral part of the interior design. This means that the shop environment and exhibited products are visible through the screen – a feature which makes it well suited for window displays and fashion shops.

Contrast version for detailed images

The Contrast version is a non-transparent screen, which is optimized for Point of Sale locations with very high levels of ambient light and situations where the graphic details of the displayed images are essential.

The Contrast version has a built-in contrast enhancement system, which is designed to ignore ambient light (e.g. shop lighting) hitting the back of the screen, and to absorb ambient light from the front (e.g. sunlight). To ensure a perfect image while projecting from floor or ceiling level, the screen has a built-in optical prism. The prism only refracts light which is projected from a 35° angle – all incoming light from other angles will not be let through the screen.

Flexible installation

Attention Screens from dnp can be hung from the ceiling using most types of wire systems – or mounted on a floor stand. The projector can be positioned either



Transparent version of the Attention Screen in a café environment.



above or below the screen. The Attention Screen is compatible with all single lens projectors which are capable of projecting images at a 35° angle (Contrast version) or 20° – 35° angle (Transparent version).

For further information, please contact your local dnp distributor, dnp denmark or visit www.dnp.dk.

Typical Point of Sale location for the Attention Screen: above an escalator in a shopping mall. The screen on the picture is the non-transparent Contrast version of the Attention Screen.

dnp's range of dynamic displays

The introduction of the Attention Screen means that dnp now offers a full range of dynamic displays for Point of Sale advertising. As a dealer you can approach retailers with screens for flying or fixed applications in virtually all kinds of commercial environments: from window displays, concept stores and supermarkets to airports and railway stations.

To the right you will find an overview of dnp's range of "flying" displays and screens suitable for retro boxes and built-in solutions in high-light environments.

"FLYING" POINT OF SALE DISPLAYS

	SIZES	TRANSPARENT	PROJECTION ANGLE
dnp Holo Screen	40" – 60"	Yes	35°
Attention Screen – Transparent version	60" – 120"	Yes	20° – 35°
Attention Screen – Contrast version	60" – 120"	No	35°

RETROS AND BUILT-IN SOLUTIONS*

	SIZES	TRANSPARENT	PROJECTION ANGLE
dnp Black Bead Screen	50" – 80"	No	on/off axis
dnp New Wide Angle – High Contrast version	67" – 130"	No	on/off axis
dnp Giant Wide Angle	140" – 200"	No	on/off axis
dnp UCS Screen	46" – 70"	No	on/off axis

* These screens are optimised for built-in solutions with a projection angle of 0°–12°. However, they can be used as "flying screens" if a ceiling/floor mounted projector is not required (or if the installation allows you to redirect the lightpath with a mirror).

Five dnp screens

in “La Sette” news studio

Italy: The new TV channel “La Sette” (Number Seven) has challenged the six big national channels with aggressive journalism, and a super-modern news studio concept with five large optical screens.

The competition between the national TV channels in Italy is very hard. The audience viewing figures are continuously measured, and the channels are constantly looking for new ways to attract viewers.

Recently, the small “Monte Carlo” channel was bought by Telecom Italy and renamed La Sette (“Number Seven”).

The ambition is to reach the level of the six big national channels: three public channels and three private channels owned by Prime Minister Silvio Berlusconi.

As La Sette wanted a strong and significant news profile, they asked the visionary

architect, Francesca Salvi, to design an innovative high tech studio setting. And in collaboration with Andrea Lucatelli and Gianni Palmiotto from Full Screen in Rome, she decided that rear projection with dnp Fresnel and dnp Holo Screens was the solution that could match the high ambitions for the new channel.

The result was an impressive news studio incorporating no less than five dnp screens: a 200" dnp Giant Wide Angle, two 100" dnp New Wide Angle, an 84" dnp New Wide Angle, and a 60" dnp Holo Screen.

The studio is used to produce the main 8 o'clock news programme “telegiornale”,



which is in direct competition with Italy's two most successful news programmes. The studio also hosts other journalistic programs such as the progressive “Diario di Guerra (e pace)” – Diary of war (and peace) – with the two star journalists Gad Lerner (left wing) and Giuliano Ferrara (right wing).



Facts

Installer = Full Screen Srl., Rome

Screens/projectors = 1 x 200" dnp Giant Wide Angle 4800 powered by Christie Vistagraphics 10K (10000 ANSI Lumen)

1 x 60" dnp Holo Screen powered by Eiki LCX 2 (5000 ANSI Lumen)

1 x 84" dnp New Wide Angle 1900 HC powered by Eiki LCX 2 (5000 ANSI Lumen)

2 x 100" dnp New Wide Angle 2700 HC powered by Philips PXG 1 (2200 ANSI Lumen)

Gas company installs the first ViewFlex™ solution



Prague: The regional gas company Prazska Plynarenska a.s. was the first to install the new ViewFlex display in their main control room to gain a general overview of their energy supply.

Controlling the gas distribution, for a large city like Prague, is a difficult task. The operators constantly have to react to critical data about pressure in the pipes, flow rates, event overview, alarm signals etc. And until now, the process has been further complicated by the fact that each operator depended on several individual monitors to view all the necessary information.

In order to provide a better overview of all main data, Prazska Plynarenska a.s. decided to build a new control room with a large central display and a common graphical interface, that allows the staff to discuss important data and supervise each other – a security feature which is not possible with individual computer monitors.

The gas company contacted AV MEDIA, who suggested a solution based on the new seamless ViewFlex concept. And as the operators have to monitor the display from close range, AV MEDIA chose a ViewFlex configuration with two 67" dnp Black Bead Screens.

– The installation of the system was a great challenge. We have installed many dnp screens throughout the years. But this was something different, because it was the first installation of a ViewFlex system in the world, says Mr. Petr Barcal of AV MEDIA.

The installation involved two major tasks. To begin with, AV MEDIA had to deliver the huge display to the control room at the third floor of the building. Secondly, the

installation crew had to adjust the display engines precisely enough to benefit from the ViewFlex's minute image-to-image separation of less than 0.3 mm.

– We had to make some decisions in advance – the type of projection engines, the wall aperture, mechanics for projectors etc. For obvious reasons we had no hands-on experience with this new type of display. But we found that the installation guidelines provided by the dnp technical team were highly accurate. And we were pleased to discover that the installation of our first ViewFlex system did not take much longer than a normal rearpro system, says Mr. Petr Barcal of AV MEDIA.

Facts

Installer = AV MEDIA

Screens = ViewFlex (2 x 67" dnp Black Bead Screen)

Projectors = Two DLP projection engines SYNELEC (XGA)

Andorran bank prepares for video conferencing

Andorra: Banca Internacional/Banca Mora, the leading bank in one of the world's smallest countries with only 60,000 inhabitants, has installed a state-of-the-art large screen auditorium for presentation and video conferencing.

When the time was due for a complete refurbishment of Banca Mora's principal site in Andorra, the bank decided to upgrade their AV facilities as well. Banca Mora wanted a high-quality display solution for video conferencing and presentation,

and asked the local AV company, Musitronic, for advice.

– It was quite natural to choose a dnp rear projection screen for the solution as the auditorium has to be brightly-lit during

most of the presentations and video conferences. We received very valuable help from Barco Spain in designing the system, and the customer is extremely satisfied with the result, says Mr. Joaquim Luelles, Musitronic's General Manager.

Banca Mora's new future-proof auditorium features a 120" dnp New Wide Angle Screen which displays images from the video conferencing equipment and local video and computer sources. A central control system allows easy operation of the numerous complex functions.



Facts

- Installer** = Musitronic
- Screen** = 120" dnp New Wide Angle (High Contrast)
- Projector** = Barco Reality 6400 with a 0.8 lens
- Mirror** = dnp First Surface Glass Mirror
- Control** = AMX control and management system

New rigid version of the UCS Screen

One of the most popular screens for graphic displays and control rooms, the dnp Ultra Contrast Screen (UCS), is now available in a rigid version optimized for multi-screen installations.

The new Rigid UCS Screen is reinforced with a thicker acrylic front element, which makes the screen stiffer and enhances the vertical light distribution. As a consequence of the better vertical light distribution, the peak gain of the Rigid UCS is reduced from 3.7 to 2.8 (52") or 2.3 (60" – 67") compared to the standard UCS.



Just like the standard UCS, the Rigid version has a "reversed" front lenticular lens

which offers a smooth matt surface to the viewer, as the vertical lenticular lenses are facing the projector. This element also includes patented new processes that enhance contrast and further reduces the impact of ambient light.

The dnp Rigid UCS Screen range includes a series of 9 screens in sizes from 52" – 67" with different screen focal options.

For more detailed information, please contact dnp or your local dnp distributor.

DEVELOPERS FORUM

edited by Søren Weis Lindegaard, head of dnp's R&D team

Easy screen selection with new specifications

In the back of the new dnp brochures we have enclosed additional important product specifications. These specifications have been developed in co-operation with dnp dealers and users from all over the world. They are designed to make your working life easier by making the selection and specification of screens an even easier process. Here is a quick description of all the items:

TYPE. This code defines the exact screen type by: size; product range; focal length and subcategory.

PRODUCT NUMBER. The product number is the full dnp internal description of the screen. It refers to the exact model type and dnp's internal quality standard. It is important to state the number clearly when you purchase a screen. Its most obvious use is that it refers to the exact colour, enabling you to match screen colours in multi-screen applications.

WIDTH/HEIGHT (mm). Width and height states the maximum cut size you can order the screen in. As each screen is cut individually, it makes no difference in price if you order a screen cut down to a smaller size than the listed dimensions. Remember the dimension width/height is NOT image size, which will be smaller once you have framed or mounted the screen.

OPTIMUM LENS THROW RATIO. The lens throw ratio describes the relationship between projector throw distance and the projected image width. For example, if a projector throw distance of 2m creates an image width of 1m, then the projector is said to have a lens throw ratio of 2:1. dnp's optical screens match a wide range of lens throw ratios, allowing projection distances both longer and shorter than the screen focal – i.e. the ideal projection distance – of the screen. [See also Screen Focal.]

OPTIMUM PROJECTION DISTANCE. This is the range of projection distances usable for the given screen corresponding to the range in optimum lens throw ratios. The distance is stated as a range in mm. [See also Screen Focal.]

THICKNESS. Total screen thickness, in mm.

WEIGHT. Total screen weight, in kg.

IMAGE AREA: WIDTH/HEIGHT. The image area describes the nominal image size in mm you can get from a screen with the cut dimensions listed in the same column. The "diagonal inch" method is used to describe the image size, and refers directly to the image

area. Thus a screen with 67" diagonal equals an image area of 1370 x 1035mm. However, our professional screens are produced larger than the nominal image size, with a generous allowance for you to frame them. So if you take the maximum cut size possible for any screen, and then use minimal framing, you can actually give your client a slightly larger image than they expect!

SCREEN FOCAL. The screen focal is the ideal distance between projector and screen (projection distance), in mm. When placing the projector behind the screen at this distance, the light from the screen will be projected straight towards the viewers. However, there is a certain flexibility in the screen focal. Thus you can actually use both a shorter and a longer projection distance than the screen focal as defined by the range in lens throw. In fact, in most cases you will get an even better picture uniformity if the projection distance is longer than the focal length (up to the maximum defined under optimum lens throw ratio and optimum projection distance). Although you can still achieve good results if the projection distance is less than the focal length, this does have some impact on the image brightness uniformity.

PEAK GAIN. Gain is the factor describing the brightness of the screen, compared to a standard front projection screen with a benchmark gain of 1. The highest gain of the screen is called the Peak Gain. Peak Gain is measured when projector, screen and viewer are placed in a straight line, so the viewing angle is at 0° (i.e. on-axis) to the screen.

HORIZONTAL/VERTICAL 1/2 GAIN ANGLE. The gain of the screen is related to the viewing angle. If you move away from the on-axis viewing angle of 0° – in either the horizontal or vertical direction – the perceived brightness of the image will diminish. At a certain angle the image brightness will fall to half the maximum (i.e. peak) brightness. This angle is called the half gain angle.

We hope that all this information in the new dnp product brochures will be of help to you in your daily work with rear projection technology. These data have been produced according to our own audited and calibrated standards, making them – we believe – unique.



The combination of dnp screens and BKE Media's MULTIBEAM system is the preferred display solution in many German sports arenas. From left to right: The Ostseehalle in Kiel, the Volkswagen Halle in Braunschweig and the Campushalle in Flensburg.

Sports events on giant display

Germany: Two 200" dnp Giant Wide Angle sports displays were among the main eye-catchers at the grand opening of the new "Campushalle" in Flensburg in December 2001. The large screen solution was designed and installed by the AV company BKE Media, which has achieved considerable success in the sports display market with their MULTIBEAM system.

The new Campushalle is a large multi-purpose sports arena which is used by some of the leading sports teams in Flensburg – including one of Germany's leading handball teams. The new arena is prepared for all kinds of major international events and features a state-of-the-art AV

system that meets the modern spectators' need for game information, replays, and entertainment during breaks in the game.

The two 200" dnp Giant Wide Angle displays were designed and installed by BKE Media, who won the contract with their

MULTIBEAM system. A well-reputed system with a proven track record in German sports arenas – including a giant sports cube for the Volkswagen Halle in Braunschweig with four 160" screens and score boards, and a 2 x 160" sports display for the fully modernized Ostseehalle in Kiel.

Facts (CAMPUSHALLE, FLENSBURG)
Installer = BKE Media
Screens = 2 x 200" dnp Giant Wide Angle Screens
Control equipment = 2 LCD high-performance projectors (15000 ANSI-Lumen)

