

CASE STUDIES

Cruise Liners



Unite Your Audience
The Martin Audio Experience



Martin Audio

At Martin Audio we believe that uniting audiences with exciting sound creates shared memories that sear into the consciousness delivering more successful tours, events and repeatedly packed venues.

We achieve this by an obsessive attention to detail on the professional sound system's acoustic performance, frequently challenging convention and involving a sophisticated mix of design, research, mathematical modelling and software engineering, to deliver dynamic, full-frequency sound right across the audience.

With over fifty years of live sound and installation expertise to our name, Martin Audio offers a wide range of premium professional loudspeakers so customers can be assured of selecting the right system for their chosen application, whether it's a small scale installation or a festival for over 150,000 people.



Cruise Liners

Like the five star floating hotels that they are, cruise liners offer a myriad of sound reinforcement opportunities: bars, nightclubs, lounge areas, cinema, live music, theatre, and of course announcement systems. There is also one vital ingredient, the need for exterior systems that can withstand the constant challenging weather conditions and salty air.

With Martin Audio's complete audio solution portfolio and weatherised products by special order, a cruise liner can perhaps offer the greatest example of our versatility, performance and quality.



Wärtsilä Entertainment Systems Redefines Nightlife at Sea with World's First WPS Install



Wärtsilä Entertainment Systems solved the challenge of delivering a premium nightclub experience at sea with the first ever installation of Martin Audio's WPS optimised line array. The now popular WPS was specified long before its official launch to cater to the entertainment needs of Scarlet Lady, the very first ship in the Virgin Voyages fleet.

"We started audio specification for the ship back in 2016 but thanks to the strength of relationship with Martin Audio we were able to glimpse into the future product roadmap and as a consequence believed that the product that would become WPS was a perfect fit for the nightclub," explained Rob Shuard, Vice President, Design & Engineering of Wärtsilä Entertainment Systems. "We felt WPS would offer the perfect marriage of high performance, control, consistency and coverage in an ultra-compact format, befitting of the Virgin Voyages vision."

'The Manor' nightclub is named after Virgin's first music studio in England. The space was designed utilizing two ship decks of height to maximize how the room feels and mimic the structure of land-based clubs. Wärtsilä Entertainment Systems has equipped The Manor with a state-of-the-art acoustic design as well as industry-leading equipment to support DJ sets, and Martin Audio's WPS will take pride of place.

The set up in the nightclub consists of four WPS left and right of the stage, flown over two SX218 subwoofers. Supplementing this are a further four arrays, each of three WPS, flown over the dancefloor. The system is all powered by four iKON iK42 amplifiers supporting a 2 box resolution for enhanced coverage, consistency and control.

“ WE’RE DELIGHTED TO HAVE MARTIN AUDIO’S LATEST WAVEFRONT PRECISION LINE ARRAY IN THE MANOR, KNOWING THAT ITS LOW DISTORTION, RICHNESS OF TONE AND CLARITY WILL PROVIDE ENDLESS HOURS OF PUMPING TUNES FOR OUR SAILORS. ”

Virgin Voyages is a new venture from the Virgin brand, which aims to redefine the experience of sea travel. While on ship, Virgin Voyages Sailors will have the opportunity to choose from a festival-like line-up of all-new completely original entertainment developed by some of the world's most-talked about producers, directors and artists as a part of the company's Creative Collective.

"Virgin Voyages will redefine entertainment at sea and to help deliver on this mission it's essential that we have



the latest technology and superior audio to enrich our sailors' experience on board," stated Daren Hirst, Director, Entertainment Technical of Virgin Voyages. "We're delighted to have Martin Audio's latest Wavefront Precision line array in The Manor, knowing that its low distortion, richness of tone and clarity will provide endless hours of pumping tunes for our Sailors."

WPS is designed to set a new benchmark for 8" line arrays and is the fourth model in the award winning and best-selling Wavefront Precision optimised line array series. It is a passive 3-way system which integrates a high density of drive units in a very compact enclosure. It features two 8" LF drivers, four 4" midrange drivers and four 1" exit HF compression drivers loaded by a moulded HF horn which occupies the full width of the enclosure— defining the 100° horizontal constant directivity coverage pattern of both the HF and midrange sections.

The 4" midrange drivers are compression-loaded to raise efficiency and enter the horn walls via annular slots close to the HF throat to sum effectively with the HF wavefront. In the HF section, four 1" exit compression drivers deliver pristine high frequency sound without the harshness and distortion associated with larger format devices.

The 8" LF drivers are set back behind the walls of the HF horn, with a small volume of air in front of each driver increasing the output at the upper end of its operating range. The LF exit apertures are spaced apart horizontally to provide useful LF horizontal pattern control.

Summing up, Dom Harter, Managing Director of Martin Audio concluded: "As one of pro audio's founding brands, we are delighted to be part of this prestigious and exciting project from Virgin Voyages and grateful for Wärtsilä Entertainment Systems' faith in us so far ahead of the announcement of WPS. Wavefront Precision line arrays have been the fastest selling in the company's 48-year history and I'm sure WPS will add to that success and for Virgin Voyages it will help unite their Sailors in spell binding entertainment."



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TUI Equip New Cruise Liners with Martin Audio



“ TUI CRUISES IS A PREMIUM PRODUCT, SO I ALSO NEEDED PREMIUM AUDIO BRANDS.”

Martin Audio loudspeakers have been specified throughout two recently commissioned cruise liners, operated by German-based TUI Cruises — a joint venture cruise line between the German leisure/tourist firm, TUI AG, and American operator, Royal Caribbean Cruises.

The latest addition Mein Schiff 4 was commissioned earlier this summer, having been built at the Meyer Turku shipyard. It followed on from Mein Schiff 3, built the previous year, and will operate routes across the Baltic Mediterranean and Caribbean seas, as well as the Canary Islands and Central America. Martin Audio systems have been fitted in all key areas across the 15 decks on both ships.

With these two 99,500 tonne, 2,506 passenger capacity vessels configured identically, installation specialists Funa International created the technical infrastructure, working with consultant Torsten Hirche, TUI Cruises’ technical director for the past six years.

In addition to Martin Audio’s flagship MLA Compact Multi-cellular Loudspeaker Array — making its marine debut — Hirche’s recommendation included mission critical solutions from across the manufacturer’s catalogue. This included O-Line, Screen 4 and Effects 5 cinema speakers, DD6 differential dispersion technology, W8LC compact line array, XD15 and examples from the AQ architectural

range — as well as special marine versions of standard speakers to withstand life out at sea.

Torsten Hirche played a critical role in the implementation. As technical director for all entertainment systems — and consultant for audio — he and Funa were able to turn the concept ideas into reality. “Although I have a very good experience in working with British audio brands, the MLA [Loudspeaker Array] which we have in the theatre, was my first time working with this awesome speaker system,” he said. “TUI Cruises is a premium product, so I also needed premium audio brands.”

Before opting for Martin Audio’s signature sound he had undertaken a number of evaluations, including shoot-outs with other leading brands. He was closely supported by Wolfgang Garçon from UnitedB, Martin Audio’s German distributors.

So what features had given Martin Audio its preferred status? Firstly it was the “honest sound” evidenced in all products, admits the consultant. “The second thing was the very cool feature of MLA, which allowed us to change the beam angle after mounting.”

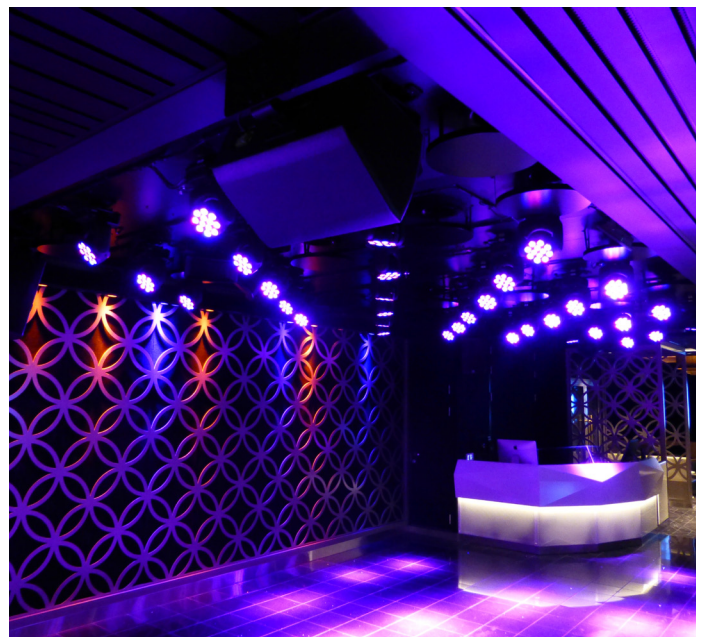
As there had been no opportunity to specify this for the earlier cruise ship, the award winning system made its debut on Mein Schiff 4, with two hangs of eight MLA

Compact and six DSX subwoofers designed in two batches of three. DD6's have been used for infills and XD12 for side fills onstage, with the option of LE1200 reference monitors.

Aside from the quality of the sound and hardware componentry, Torsten Hirche knew that since life at sea is challenging at best, the systems needed to display remarkable durability over 24/7 duty cycles. "The technical equipment is expected to work hard, particularly in outdoor locations, such as the pool deck, which are extremely harsh for speaker systems. But Martin Audio has proven it can deliver good experiences with other cruise ships, and up to now I am extremely happy with them all."

Both the ships' multipurpose cinema and theatre needed to be configurable and switchable for live sound, as Torsten Hirche explains. "For example, in the theatre we also had to accommodate a TV show for the naming ceremony. Therefore, the approach was for a system with headroom for special requirements."

As for the multipurpose, acoustically-treated 'Klanghaus' this represents another massive achievement for a cinema which doubles as a classical venue for opera and chamber music — turning it into a full philharmonic concert venue. "On one side is the world of acoustics, on the other hand the vastness of the ocean," as the website puts it.





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This space required three separate, switchable sound systems: a main Left/Right O-Line hang, with subwoofer support for band set-up; an additional cinema surround, for when the room reverts to movie mode and an acoustic control system to set the venue for different reverberation times — for instance when a string quartet or piano soloist are performing.

The O-Line system comprises two left/right arrays of eight elements, with AQ212 sub support, with the option of DD6 floor monitors.

The Screen 4 (and Screen Sub 1A) cinema speakers are arranged in a classic L/C/R design behind a perforated drop down screen with Effect 5 enclosures providing the surround sound. Both the O-Line and cinema rigs can operate as stand-alone systems or be combined at the sound desk.

In addition to the theatre and cinema, Martin Audio indoor products have been specified in a total of eight bars and three lounges, many with small live stages. In the stylish Schau Bar lounge there is a larger stage for a Top 40 band set up, while Coffee House, X Lounge, AbtanzBar, Atrium Dance Bar and TUI Bar all bear the company’s products. Outdoor products with special coating for offshore, were installed on Sports Deck, Pool Deck and Sports Bar — and once again these needed to be carefully specified.

For instance, the Pool Deck features eight Martin Audio W8LC Compact Line Array in a special custom marine grade weatherproof version with high-grade stainless steel, accompanied by a flown WS218X subwoofer. Another custom design is the Martin Audio W8FVDQ (an adaptation of W8VDQ) which provides outfills on the upper deck, where further LE1200’s are available as reference monitors.

Also provided in marine spec are AM10 and AM15 stadium/arena speakers (even though these are already weather-proofed) to ensure flawless operation in the open deck and open cinema areas.

Back inside, the dance oriented AbtanzBar a punchy, focused solution was required. “We wanted a really good sound pressure level which we have achieved with the AQ series,” Torsten Hirche confirms.

All work was carried out by TUI Cruises, along with Funa and Protones — the operators’ partner for systems maintenance — while Martin Audio also assisted with the tuning of the MLA system in the theatre.

For Martin Audio the project was instigated by product support engineers, Nigel Meddemmen and completed by Robin Dibble, who is highly experienced in cruise liner

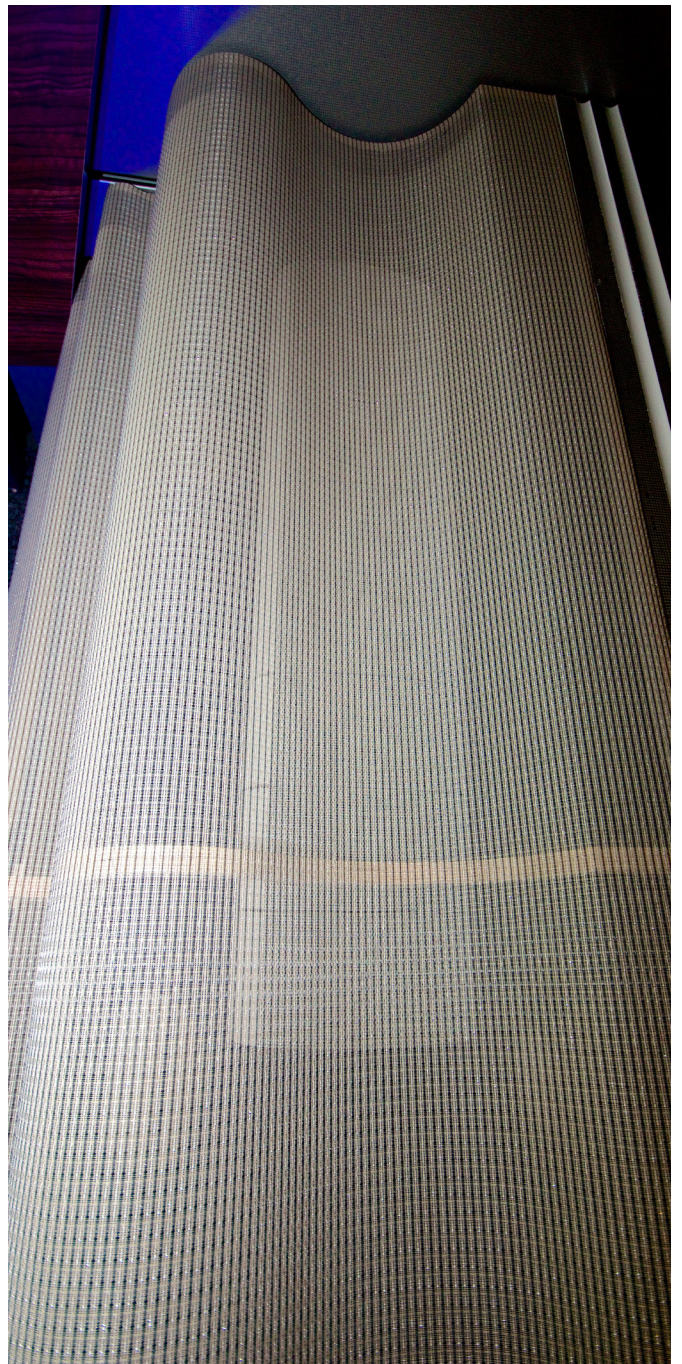
installations. Stated Dibble, “The marine world is the most hostile of environments and there are many considerations to take into account; fortunately we were able to meet all requirements from within our portfolio, and provide special order marine grade components where required.”

Summing up, Torsten Hirche says he is delighted with the way the various Martin Audio systems are functioning. “Everything is working extremely well and we have had very good experiences across the two ships. Now we look forward to commissioning the next four ships [Mein Schiff 5-8 ... the last due for completion in 2019].”

He confirms that technologically, they will keep up with the times by moving to Martin Audio’s new CDD installation series, launched earlier this year, for Mein Schiff 5 and Mein Schiff 6, scheduled to launch in 2016 and 2017 respectively.



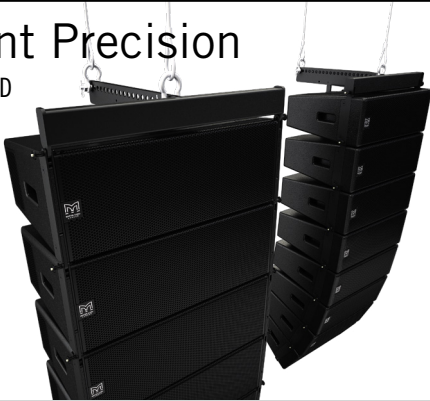
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Recommended Products

Wavefront Precision

PASSIVE OPTIMISED
LINE ARRAYS
Marine variants
available to order



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TORUS

CONSTANT CURVATURE
ARRAYS



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FlexPoint

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LOUDSPEAKERS



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Marine variants available to order



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ADORN

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LOUDSPEAKERS



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PERFORMANCE SUBWOOFERS



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This is just a small selection from a wealth of examples from around the world that you can find out more about by visiting www.martin-audio.com

Martin Audio Ltd
Century Point, Halifax Road, High Wycombe
Buckinghamshire HP12 3SL, England

Telephone: +44 (0) 1494 535 312
Facsimile: +44 (0) 1494 438 669
Email: info@martin-audio.com

www.martin-audio.com