

CASE STUDIES

# Leisure Facilities



**Unite Your Audience**  
The Martin Audio Experience



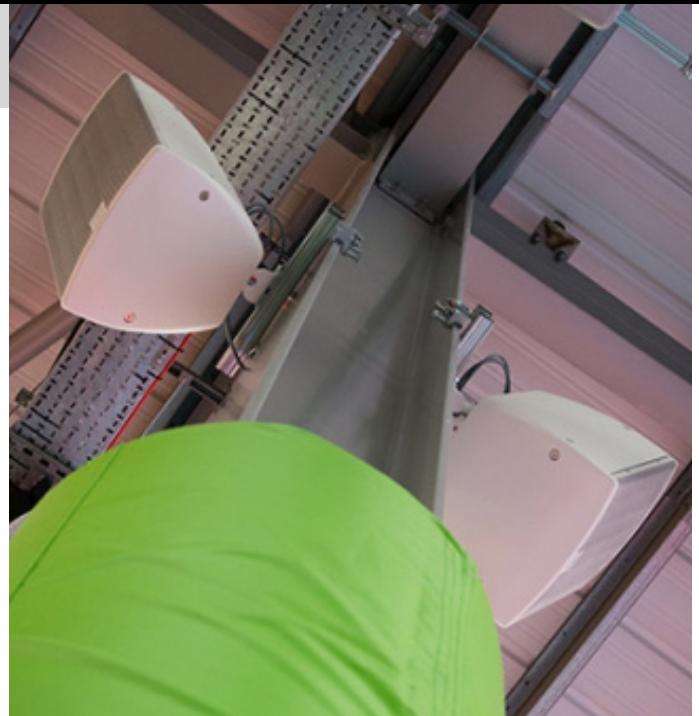


## Martin Audio

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.



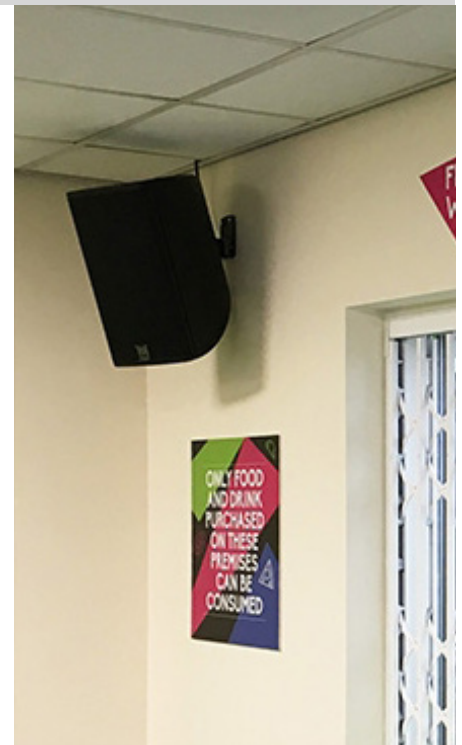
## Leisure Facility Installs

Our pedigree in the leisure sector has largely been driven by the success of our CDD Series, coupling great audio

quality and excellent coverage with stylish design and systems suitable for both indoor and outdoor usage.



## CDD Brings Bounce to Rebound



Rebound, the new £1m trampoline park in Hull, has been opened by Monkey Bizness, specialists in indoor play centres.

The first in the city, it contains up to 75 trampolines, tumble tracks, foam pits, cafeteria — and a Martin Audio sound system to cover all activities.

Part of a complete integrated audio-visual and lighting package, it was provided and installed by Kent-based Old Barn Audio, who were awarded the contract after carrying out work in previous venues for director, Nick Stevenson.

The brief from the client was clear: that the sound system needed to be as if specified for a nightclub, and should not be bettered by anything else in the area. Therefore OBA had no hesitation in recommending Martin Audio's new patented CDD Coaxial Differential Dispersion installation range.

First, they equipped the ceiling of the large 35m x 40m industrial unit with 28m box truss, flown from the apex of the building. Mounted to this are six CDD15, complemented by six matched CSX118 (1 x 18") subs, and four further CDD8 Downfill — as well as 44 automated moving lighting heads. In a separate Induction Room, where the training videos are presented on 55" LCD flat screen TVs, sound is reinforced by a further four CDD8 (8") speakers.

Phil Clark explained that the venue will also operate after dark for parties — hence the need for a powerful sound system. "The CDD15s are angled so they hit the balcony, and therefore the CDD8's are pointed directly down to fill the hole in the coverage pattern. It works very well."

OBA has quickly become one of the largest UK customers for the new CDD series and in Hull they ensured the sound

was fully optimised, using Smart software to delay the subs and tune the room.

Explaining the design, Clark said, "Because it's a trampoline room it would have been impractical to put the subs on the ground. Also the overhead rig had to go in right at the start because once the trampolines were in place it would not have been possible to gain access to the roof.

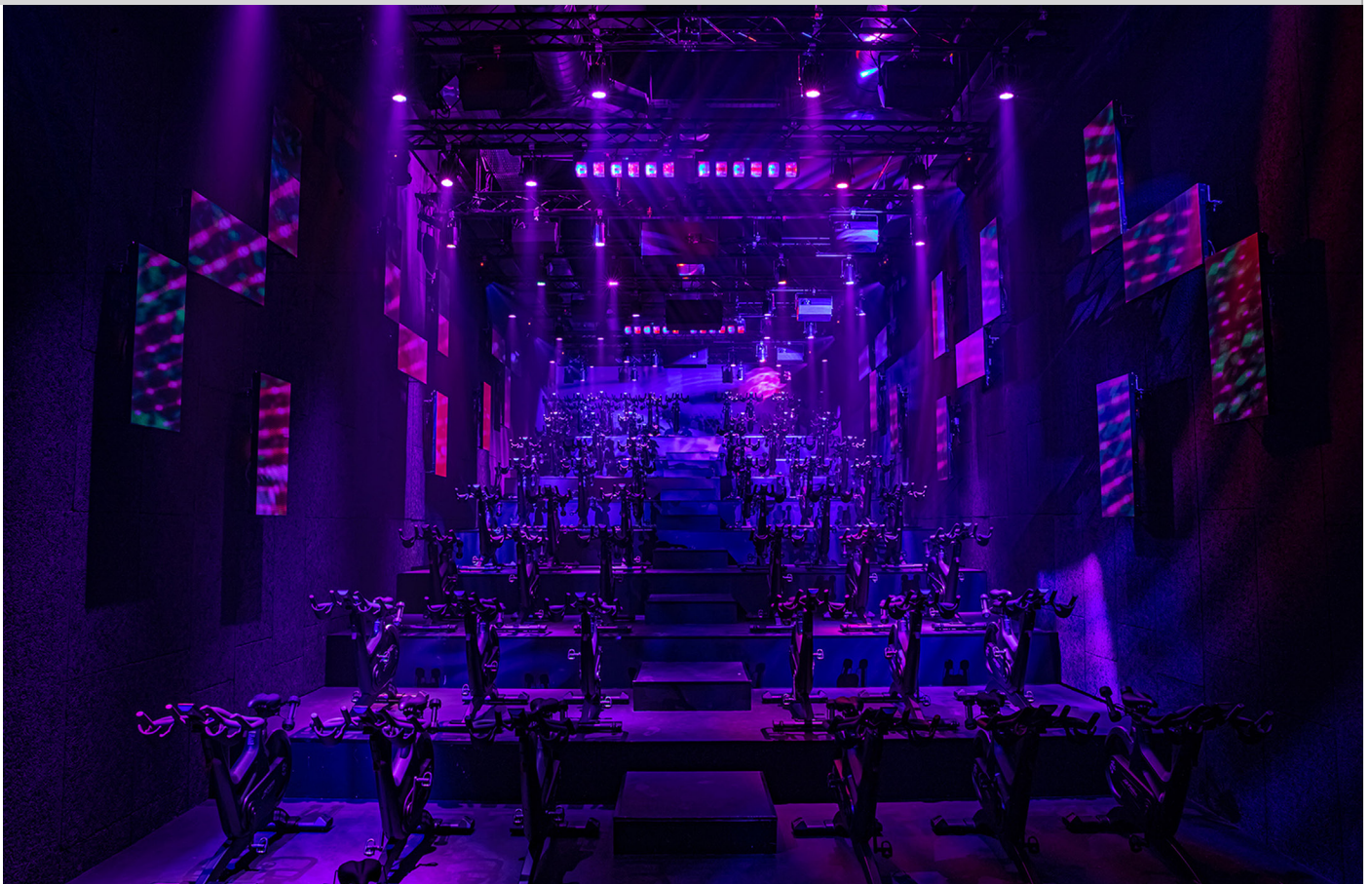
Presets are stored in Symetrix Radius 12in/12 out DSP, with two 22" GUI's offering intuitive touch screen fader banks, designed for non-technical personnel. These offer multiple source selection via serial port control for lights and sound.

There is a BGM plug-in point at Reception and DJ input on the mezzanine balcony, while the client also requested a series of pre-recorded messages stating, for instance, when time is up. "This required a bespoke design for audio, lighting — which is programmed to operate via serial output codes from the Radius to a ChamSys desk — messaging and control. "

Added Monkey Bizness General Manager, Wendy Donnelly, "I asked OBA to 'lift the roof off the building' with the sound system as I wanted to attract a more teenage market as well as youngsters with the sound levels. They have done that and more; in fact we're probably not reaching a third of the system's capacity.

"OBA are an amazing bunch of people to work with. It's phenomenal what they have given us and we've received a number of highly positive comments — including one from the owner of a local nightclub who was extremely impressed with our state of the art sound system."

## 1Rebel Super Gym Opens With High-Octane Martin Audio



When Middlesex Sound & Light (MSL) undertook a contract in Saudi Arabia 16 months ago—to invest a brand new gym concept with a high octane ‘club-spec’ technical infrastructure—they little knew what was waiting around the corner.

“We shipped the gear out to Riyadh in February last year, and the following month COVID struck,” recalls project manager Toby Jones. “Rather than suspend the work, they decided to press ahead.” Engaging with local crews—communicating via video calls and different programming platforms—when they finally managed to fly out to commission the system during the brief pre-Christmas break from lockdown, it was little short of a miracle.

While this represented a joint venture between 1Rebel in the UK (represented by James Balfour and Giles Dean) and Pulse Fitness Group’s Fahad Alhagbani and Nathan Clute, there have subsequently been a number of venues open in London, all bearing the familiar imprint of Martin Audio BlacklineX loudspeakers.

“We had already spec’d Martin Audio in other 1Rebel venues as they represent great value for money, and display tremendous sonic quality,” said Toby. Large quantities of Martin Audio Blackline X12, X10, X8 and X115 and SX212 subwoofers were supplied locally by Martin Audio partner’s Dubai-based distributor, PRO LAB, along with 16 ADORN A55 for the waiting, changing and reception areas.

**“ WE SELECTED MARTIN AUDIO...AND WE WERE OVERWHELMINGLY SATISFIED WITH THE SYSTEM THEY DELIVERED.**

1Rebel Riyadh boasts separate male and female studios (with female being the larger). Each has its own clearly delineated fitness zones. Knowing that the spec needed to match the high intensity of these studios, with trainers curating their own playlists, Jones set to work on the original concept design with celebrated lighting designer Durham Marenghi.

RIDE is the high workout Spin room where 12 x 4m trusses are flown down the length of the room. Two Blackline X115 subs are ground stacked, one on top of the other to the left-hand side of the stage. Two Blackline X12 boxes, forming the FOH audio, are located on the truss above the instructor, with a single X12 in the middle of the truss pointing down as a reference monitor. Here, a number of video panels in an exploded format are located behind the instructor position and equally down both sides of the room. Meanwhile ten matched pairs of X10s and three SX212 subs are flown down the length of the room, offering the time-aligned delay boxes.

The level of intensity is automatically cued to the lighting. “The instructors have full control of the lighting by way of an interactive 22” touch screen and become performers in

their own right as well as handling the ops,” says the MSL project manager.

RUMBLE is the boxing studio, where eight wall-mounted Blackline X10 are evenly distributed around the perimeter, with a pair of SX112 at either end of the room again providing high level club sound.

RESHAPE, used largely for treadmill running, cardio and box work, sees 15 Blackline X8 around the perimeter, with a pair of SX112 subwoofers on a central truss.

Finally, the FUNCTIONAL STUDIO, a facility to be used by Personal Trainers, contains a further eight Blackline X8 speakers and two single floor-mounted SX112 subs.

Other than RIDE, the Male studios are largely a mirror image of the Female. All rooms have multiple touch screens so can be controlled locally from set positions.

Control is handled in a BSS Soundweb London environment, and each room is fitted with an audio interface and equipped with Trantec radio mics. Because of the high humidity, MSL fabricated their own rotary analogue control panels, using custom made fascia panels and military grade rotary pots.

Describing the many logistical challenges of remote implementation when stuck more than 3,000 miles away, Toby Jones said, “I was constantly sending wiring diagrams and Face Timing with representatives in Saudi, while a local crew undertook the installation under our direction. We built all the racks, loaded them in the UK and air freighted them ... around six tons of kit in all. We did all the audio testing remotely ... it was insane!

“The fact that we managed to pull it off was due to great team work. Ten years ago we couldn't have achieved what we have, as the technology simply wasn't around.”

Nathan Clute further summed up the effectiveness of the fit-out. “We are extremely impressed with the quality of the system and level of execution. With our partners at Middlesex Sound & Lighting we were able to design and implement a bespoke solution using what we believe to be the best products in the market, to create something previously unseen; the front-end controls are simple and user-friendly, despite the technical complexity within the design.”

Delivering top-class audio had been a key objective, he said. “As our clubs require us to deliver multiple experiences within a tight envelope, we needed an audio solution that allowed us to operate independent zones, each at different volume levels with different music genres.

“Within our studios, we needed a solution that had the power to deliver intensity without distortion, with uniform coverage throughout, and with the ability to have clear vocals regardless of the volume. More often than not, operators try to overcome poor audio infrastructure with volume, which does nothing but distort the user experience. We selected Martin Audio due to their ability to present a clear and proven track record of similar solutions, and we were overwhelmingly satisfied with the system they delivered.”

1Rebel Riyadh is the first of a planned roll out in Saudi Arabia.



## First Rush UK Trampoline Park Equipped with CDD



Set on a 30,000 sq ft industrial site in High Wycombe, Rush UK's first Trampoline Park incorporates a series of jumping activities — with wall-to-wall interconnected trampolines, climbing challenges, two dodgeball courts, two basketball hoop lanes, a gigantic foam pit and a ninja challenge course.

Combined with children's birthday party rooms, corporate events, teenage disco nights and fitness classes, all activities function under a roof supported by Martin Audio's new CDD (Coaxial Differential Dispersion) premium installation loudspeakers.

This solution was recommended by the AV integrators, Penguin Media Solutions. Their Director of Operations, Dylan Thompson, said it was vital after seeing other sound systems struggling for clarity in similar environments, that this lively, reverberant hall — with 16,000 sq ft of net usable space — was installed with products fit for purpose. "This is a large industrial unit, and they wouldn't have been able to get away with a few 100V line ceiling speakers, or a poorly thought out system," he said.

The client quickly appreciated that in order to set them apart they needed to invest in the technology necessary to achieve vocal clarity, as well as the full range musical performance for their After Dark plans. As a result his company has installed a CDD12 (12") system — without the need for additional subs — in the main area.

"I had been itching to find an installation for the new CDD

system since first hearing it in Frankfurt," Dylan admits. "And it's certainly justified its selection.

"The speakers cope admirably. "We have set them high up to allow clearance for the jumpers but have used bespoke brackets, mated with the standard fixing hardware." Three CDD12 are suspended off the vertical RSJ's, left and right sides of the room, with another six from the centre verticals.

There are also five party zones — three downstairs and two up on the mezzanine. While two CDD8 (8") play out background music from a C-Burn player in the coffee shop on the balcony and mezzanine area, a further pair service the two party rooms, which can combine with a press of the relevant button on the iPad. Under the mezzanine, four C6.8T (6.5") ceiling speakers handle background music and replay the soundtrack for a looped safety video, which all participants are required to view.

Dylan Thompson confirms that the sound system, with just the factory EQ, had demonstrated excellent intelligibility, and once it had been fine tuned the reverberation time was brought further under control. "We were helped once the trampolines moved in and some branding drapes were added, as this provided more acoustic absorption," he says, Foam cubes within the tumble pit at the end of the room also mitigated reflections.

The integrators have built plenty of flexibility into the system. While the C-Burn player also runs its 'Secret DJ'

system, enabling clients to playlist off their iPhones, they have also installed their own digital signage players — and provided three additional DJ input points, as well as input plays in each of the party rooms. Paging from Reception is also fed into the system with a priority set-up.

As for the signal flow they have installed a pair of BSS Soundweb London BLU-100's connected via the BLU-Link network. "This gives us 24 inputs and 16 outputs," he says. Video distribution is via VoIP under master Crestron iPad control – which also provides the front end interface for the Soundweb system.

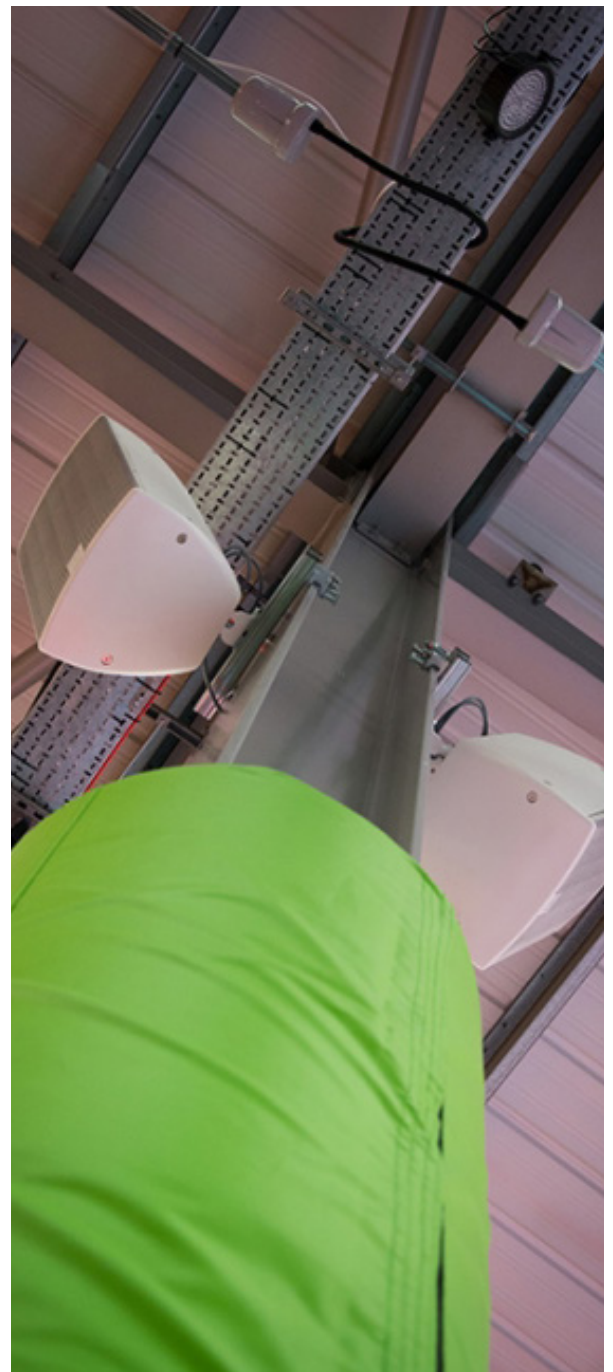
While his own company has only relatively recently started working with Martin Audio he personally gained widespread experience of their signature sound while working with previous companies. "Martin Audio offers 40 years of British heritage and as an installation company it

was an easy decision to make; it was also comforting to know that they are situated right on the doorstep of the Trampoline Park."

He adds "It's very difficult to justify another installation loudspeaker following the release of this product line; CDD ticks so many boxes for us, and we're looking forward to working further alongside Martin Audio."

Penguin also recently launched a separate hire company, Penguin Media Hire, which runs Martin Audio loudspeakers in its hire fleet.

Rush Trampoline Parks' Founder & Chief Operating Officer, Sam Williams, was equally impressed with the Martin Audio pedigree. "The sound system is fantastic and we are really pleased with the quality of the sound," she said. "It is especially effective on our Rush After Dark nights."



## Martin Audio CDD is Fit Enough for Solan



Solan Fitness, Sussex

Solan Fitness has opened its latest fitness centre following a £1.2m development in East Grinstead, Sussex.

The 15,500 sq.ft. strength training facility, situated in the town's Atrium Building, has developed out of the martial arts concept at the company's pilot venue in Orpington. All zones - including Cardio, Weights, Spin and Dance/Fitness - are serviced by Martin Audio CDD loudspeaker systems, specified and provided by Old Barn Audio.

Young entrepreneur Josh Ahmet had originally contacted the Martin Audio partners, for whom fitness clubs is one of their specialities, following an internet search. Director, Neil Kavanagh, was soon undertaking a site survey, noting that the facility also included a touchscreen accessible FitboxVirtual, a powerful technology platform to run virtual classes in the fitness centre out of hours.

Mindful of the high degree of reverberation - created not only by the open spaces but the ubiquity of glass and mirrors - he opted to focus the CDD speakers vertically downwards from the overhead lighting trusses to create directionality and avoid spillage.

While the same music source is delivered to the Cardio, Weights and Changing Rooms, specially profiled feeds are delivered independently to the Spinning Classes and

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Dance/Fitness Studio, which require more specific workout music. Other sources include the FitboxVirtual soundtrack, while the installers have provided an iPod input for yet another alternative music source.

In the Cardio zone OBA has installed eight CDD5 from the overhead truss, and in the Weights area there are 12 CDD6 mounted similarly.

Kavanagh has opted for a more conventional wall-mounted solution in the Spin and Dance areas. The pair of CDD8 is reinforced by a CSX218 sub, reflecting the high-intensity requirement of Spinning classes, with the Instructor on headset mic; however the Dance Studio is also capable of high SPL, with a pair of CDD10's providing the sound reinforcement.

Finally, a DJ plug-in point has been provided, and this comes into play one night a week, with dance music pumped out to the three main zones.





The entire system is run low impedance, driven by multi-channel amplifiers in groups of four, and routed via three Cloud zoners. OBA also provided two 3m projection screens and short-throw projector for FitboxVirtual, which delivers six different 40-minute workouts.

Explaining his design rationale, Neil Kavanagh said, 'The idea was to make the sound very linear, so that you can't tell where one zone ends and the other begins. We carefully worked out the dispersion of the speakers.'

'We love the output and performance of the entire CDD range but in particular CDD6, which is really kicking for its size,' he says.

And his overall assessment? 'The sound system is phenomenal, and the client is happy not only with the high SPL and clarity of the loudspeaker system, but also with the degree of controllability we have given him.'



## Martin Audio CDD's Create A 'B-Monster' in Tokyo



**B-Monster, Tokyo**

Located in the fashionable Aoyama district of Tokyo, 'b-monster' is a new form of dynamic exercise which combines nightclub dancing with full-scale boxing fitness training, while at the same time promoting fun.

The 'fitness after dark' concept has travelled across to Japan from New York, and the luxury brand first settled in Ginza before the latest opening.

With a desire to build on the energy created at the first club, state-of-the-art CDD and CSX loudspeakers from Martin Audio have been supplied by installers, Martin Audio Japan to meet the specification.

'The brief was to deliver 'high quality, nightclub style sound without compromise,' reports Martin Audio Japan's Shin Yamada. Providing even coverage across the entire area are 12 carefully tuned CDD12 and four CSX118 subwoofers, which deliver a dynamic full-range sound for the fitness fanatics. In order to control the dynamics

Martin Audio's dedicated DX0.5 management system has been adopted - thus ensuring a clean well-controlled signal to the Powersoft amplifiers.

Shin Yamada confirms that positive feedback had been instantaneous. 'As soon as the gym opened customers started commenting,' he said. 'The sound quality is way ahead of any other gym.'

Mr, Dobashi, director of ENTER SANDMAN LTD., who designed the sound system, stated, 'Before deciding which speaker was best for b-monster I tested several manufacturers' products. My priorities were to establish which would produce the most consistent acoustic sound over a long period without causing fatigue, and secondly to create a real club sound environment with a thick low bass beat.

'I found that the performance of CDD was acoustically extremely natural - not only its coaxial qualities but the fact



“ THE PERFORMANCE OF CDD WAS ACOUSTICALLY EXTREMELY NATURAL - NOT ONLY ITS COAXIAL QUALITIES BUT THE FACT THAT IT IS A WELL-TUNED BOX.

that it is a well-tuned box. I found I didn't need to make electronic adjustments compared with other competitive brands and could maintain a high dynamic range without losing acoustic power.'

Program Director of b-monster, Mr. Hiro, added his own endorsement. 'The experience is just like being in a nightclub surrounded by great SPL and low frequency. The instructors' voice is delivered clearly, and without feedback over the headset mics, which is not always the case. This is not only a bonus for those working out, but also instructors are excited by this great sound experience.'

He said one of the most remarkable features is during the high-intensity 'interval' training, designed to increase heart rate. With the sound system set to this parameter every corner of the studio is filled with consistent sound.'

Concludes Shin Yamada, 'We are delighted that such an innovative training gym as b-monster has adopted CDD - which truly supports the Martin Audio message of 'uniting the audience.'



## Face Debuts CDD at Plopsa Amusement Park



Plopsaland, Belgium

Since taking over an amusement park on Belgium's north coast 15 years ago, and opening the first Plopsaland in de Panne, TV production company Studio 100 has rapidly expanded its operations and today has five sites in Belgium, Holland and Germany, both indoor and outdoor.

Systematic generations of Martin Audio's installation speakers have been deployed throughout that period by sound designer Steven Kemland (of FACE bvba) — dating right back to the EM Series. Today the dominant speaker is the C115 — with more than 500 pieces in total now distributed within the various locations, many forming the general PAVA/announcement system.

However, these are now old technology solutions, and destined to be replaced by the new and superior CDD (Coaxial Differential Dispersion) series. In keeping with the park's evolutionary policy, the latest attraction, the Prinsessia Castle — which is modeled on the existing TV series — has seen the new speakers' Belgian debut.

Sitting in its own sound zone, this new attraction, featuring the five singing princesses, was part-opened in time for Hallowe'en. It has seen FACE specify CDD6 enclosures inside the castle restaurant, and CDD5TX running 100V line, and weatherised by FACE, on the brand new merry-go-round ride outside. These form part of a complement of 50 loudspeakers that also include another popular item in FACE's shopping list, the Martin Audio C4.8T ceiling speaker.

**“ THE POWER OF CDD IS GREATER, THE DISPERSION IS ABSOLUTELY FABULOUS, WITH SUPERIOR PATTERN CONTROL, AND IT ALSO LOOKS MUCH NICER. ”**

Steven Kemland became an early adopter of CDD after its world premier at last year's Frankfurt Prolight+Sound Show. “Prinsessia provided a great opportunity to use the new range,” he said. “Such was the power and dispersion that it meant for the first time we didn't need to place two speakers on small masts, as we had with the C115, but we only needed to use a single CDD5 placed higher up on the pillars. What I noticed immediately was that the sound was even better [than the C115] — and although that has done a really great job for us it is now 15 years old.

“The power of CDD is greater, the dispersion is absolutely fabulous, with superior pattern control, and it also looks much nicer. CDD is also sensitively priced and being able to replace two C115 with a single CDD5 keeps the project within budget.”

Inside the Castle, the facility needed the additional power of the 6in CDD6 as it will often be used for presentations, with local iPod input. The FACE project man also notes that the quality of the transformers leaves him in do doubt that a 100V line approach was the correct one for its simplicity and consistency.

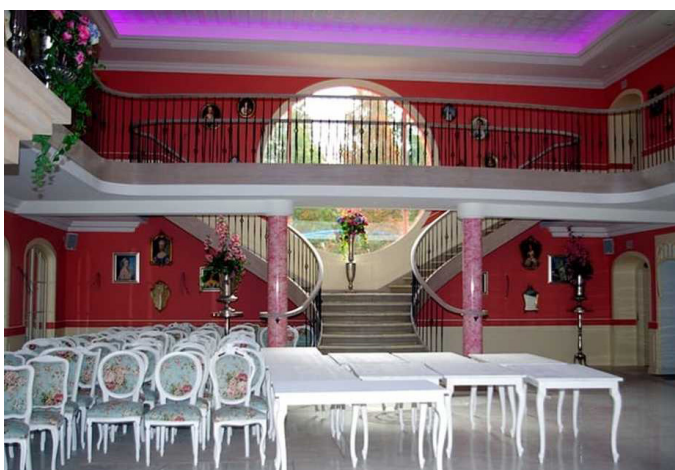


The main banqueting area is surrounded by a VIP room, toilets and a merchandising shop, with eight C4.8T ceiling speakers — frequently used by FACE — covering these ancillary areas.

Over the past 12 months, Martin Audio solutions have been applied to other areas such as de Panne's new water park (Plopsaqua), but most significantly the principal 'meet and greet' stage in the main piazza. This performance stage, which also features many of the cuddly characters that appear on the children's television networks, can routinely draw between 3,000-4,000 people into the square; and to broadcast the action Steven Kemland has specified a Martin Audio XD solution, providing six XD15 with two XD12, along with a pair of powerful WS218X subs.

"The XD series on the outdoor stage is one of the best sounding 12in and 15in speakers on the market and at a very competitive price," he states.

And Steve Van Camp, part of the Plopsa Invest Team, responsible for investment in the entertainment systems, adds: "Originally we set the criteria for the XD to provide coverage for around 500 people, with the normal meet and greets, accompanied by background music. But when we have a live band playing it attracts several thousand — and when we heard the XD, particularly the XD12 stage monitors, we realised it could cope comfortably with that. In fact some visiting sound engineers have even asked 'Where is the main system?' ... until they hear it!"



His praise for Martin Audio systems extends right across the portfolio. "We have been happy with their solutions since Plopsaland first opened, and following the initial investment there has been almost no maintenance costs: the C115 has been used now for 15 years and is still working — however, we are certain that the new CDD range will deliver an even better service. What we can already hear in the new Prinsessia zone is that we have completely equal dispersion, despite using even fewer cabinets than we would have done with the C115 and AQ5 enclosures."

FACE's work for Plopsaland is never ending. They are presently planning several more projects at various sites, ranging from roller coaster rides to the new hotel at Plopsa de Panne. At this location, which welcomes 10,000 visitors a day in peak season alone there are 16 separate music zones but split into more than 100 sub-zones. Their goal is always to be able to plug into existing networks, and in many cases they are swapping their existing CobraNet cards with Dante, ensuring single-button operation for the technically unskilled staff (with announcements automated within the system). This is all under master control from their office in Boom, where they can carry out healthchecks.

"Clarity and vocal intelligibility are the most important elements here and we hope to be carrying out a fluent swop-over to a CDD5 solution in time," Kemland concludes.



## Recommended Products

### CDD / CDD-WR

PASSIVE INDOOR / OUTDOOR  
LOUDSPEAKERS & SUBS



[martin-audio.com/products/series/cdd](http://martin-audio.com/products/series/cdd)

### ADORN

ON WALL AND CEILING  
LOUDSPEAKERS



[martin-audio.com/products/series/adorn](http://martin-audio.com/products/series/adorn)

### BlacklineX

PASSIVE POINT SOURCE  
LOUDSPEAKERS & SUBS



[martin-audio.com/products/series/blacklinex](http://martin-audio.com/products/series/blacklinex)

[martin-audio.com/case-studies/leisure-facilities-sound-systems](http://martin-audio.com/case-studies/leisure-facilities-sound-systems)

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](http://www.martin-audio.com)

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