



Dreamline

Single cabinet line array

Sound Projects Dreamline™ encompasses the major benefits of a line array in a single elegant cabinet, complete with self-explanatory, adjustable suspension points.

One Dreamline™ contains 12 optimised, full range, line array systems that excel in articulate sound reproduction and predictable coverage with the reliable simplicity of a standard plug-and-play, self-powered loudspeaker system.

A combination of ultra-lightweight building blocks endow the Dreamline™ with superb acoustical qualities and a low weight, around 100 kg. Compliant with most standard theatre rigging points and simple hoists.

One Dreamline™ can be rigged up from, or let down in its flight-case in seconds. Hardly flexing a muscle. Sound Projects proven DALC (integrated speaker management) omits time consuming cabling and amp hook-up. Flying is playing!

The Dreamline™ delivers an unsurpassed stable audience coverage and stereo image. This is accomplished by the 12 symmetrical line source modules, based on the patented SOUND PROJECTS Wave-shape-transformer™. An immaculate power balance is delivered by the multiple SOUND PROJECTS Micro-Amp™ or cool class D modules. The finishing touch comes from the DALC speaker management that keeps the sound character stable, distortion at bay and protects the overall system.

Why a line array to begin with?

Because a long vertical sound source narrows the vertical radiation pattern! Already in 1938 The Radio Corporation America (RCA) developed a first vertical array column loudspeaker system to increase SPL plus improve control on the radiation pattern. Some 50 years later, high power, high frequency ribbon speakers and different variations on emulating such a ribbon transducer became available! An important step forward for large-scale sound reinforcement and a new opportunity to re-introduce serious quality full band column speakers. Provided that they are of significant length, these arrays can substantially reduce the vertical spill above 100 Hz.

Why should a Dreamline be more economic than multiple cabinets?

A DreamLine™ needs no system alignment, no controller adjustment, no amp racks and no expensive rigging hardware for twelve consequentially heavy cabinets. The DreamLine™ weights just around 100kg with a single point rigging and a typical installation time of 5 minutes. Since each individual DreamLine array module is carefully aimed, a stable listening image all over the audience is possible in any hall or flying position. Specific SPL needs can be met with several combinations of drivers and amplifiers which are also available as retrofit at a later stage. Hence redundancy is virtually eliminated.

Why is low frequency pattern control so important?

Because disturbing room resonances mostly occur in low frequencies. Echo's and unintentional reverb are destructive enemies of music as well as speech intelligibility. Larger public buildings with hard surface walls, ceilings and floors will exhibit several seconds of reverb. Often peaking between 100 to 500 Hz. Annoying slap echo's from the wall faced by the loudspeaker system may even run up to 2 kHz. The length of the DreamLine™, i.e. tight vertical control plus the horizontally constant directivity horns each loading a woofer pair, significantly confine these room effects.

Why only one box with one shape?

Because the curve is dictated by the desired SPL balance between far and near audience. Assuming a realistic length of 2 to 5 meter, any line array can only exhibit its optimum vertical constant directivity in one specific curve. All other, mechanically possible, curves will show an increased mismatch between the High and Low frequency lobes (beams). Different sound character for different audience positions and inferior speech intelligibility are the undesired side effects. Especially in large congress centres and multi purpose halls that often suffer from hard acoustics. This is the natural and inevitable compromise of a line array consisting of combined line sources. Low frequencies cannot be controlled by the curve but only by the length of the array and its flying angle.

DL2450D

Acoustical specifications

Drivers	12 x 1", 24 x 6.5" ND magnets high efficiency
Freq. response	90Hz-20kHz
Max. peak SPL @1m ¹	150dB
Coverage angle	110H x 40V curvilinear

Electrical specifications

Amplifier(s)	CCD™ technology
Output	2x2500W sine LF / 1x2500W sine HF (DALC limited)
Filter hipass	90Hz, 4th order
Input impedance	20 kOhms balanced, 10 kOhms unbalanced
Output impedance	Hard-wired to input
Main voltage	230V (other on request)
Mains frequency	50 / 60 Hz
Idle	< 50VA
Full load	< 6000VA. DALC limited Ref. to continuous pink noise signal (12 dB crest factor within the specified range)
Protection	D.A.L.C. (Dual Audio Logic Control)

¹ Peak level at 1M under half space conditions using pink noise with crest factor 4 (12dB)

* Specified at 4 Ω

Additional descriptive data

Cabinet construction	Cross grain laminated multiplex
Finish	Nano-armor™ coating
Weight	128 kg
Size WxHxD (mm)	415 x 2205 x 840
Rigging points	Integrated single liftpoint levelbar, angle adapter with trussclamp (optional)
Audio connectors	IEC XLR-3 in/out
Main connectors	Powercon in, powercon out
Max. operating temp.	-10 to 40 C ambient