# VEROX



Next level performance in a versatile format



# INTRODUCTION



Vero VX's more compact format brings Vero sound to a wider range of venues. Though smaller in footprint, Vero VX has an equally intelligent acoustic and mechanical design for leading audio quality and ease of use.

The Vero VX system comprises VX90 full-range vertically arrayable loudspeakers, V124 or V221 bass enclosures, amp racks, fly bars, transport dollies, ground stack hardware, cabling and Projection predictive software.



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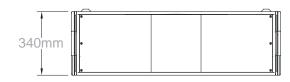
The VX90 is a 3-way vertical array element with four new Funktion-One designed Neodymium drivers in a horizontally symmetric configuration:

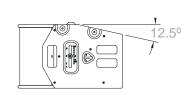
- Two reflex loaded, high efficiency 12" mid bass drivers
- One Axhead loaded wide bandwidth 8" cone midrange driver
- One 1" compression driver on a proprietary isophase diffraction waveguide

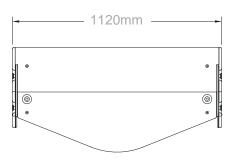
Usable bandwidth is 50Hz to 20kHz. Horizontal dispersion is 90°.











### MIDRANGE TECHNOLOGY

Funktion-One's unique driver and waveguide technology enable a single transducer to cover more than four octaves of the audio spectrum, from 300Hz – 5kHz. This approach ensures vocals and musical harmonics are coherent in both time and space, providing benefits in clarity, intelligibility and stereo imaging. The high crossover point to the compression driver provides additional performance advantages, including increased headroom and reduced harmonic and modulation distortion. THD in the midrange is typically <2% (AES2-2012).

Psychoacoustically informed use of FIR filters and microsecond time alignment provide wide, consistent horizontal coverage whilst preserving transient response.

## **EXTRAORDINARY EFFICIENCY**

The very high electroacoustic efficiency of the horn-loaded mid/high section is supplemented by new bass driver technology, which significantly increases true power efficiency. Unlike a conventional line array element, the VX's huge LF resource ensures spectral balance and dynamic impact whether used as a single box or in a 24-box array.

Vero VX's extraordinary energy efficiency means up to eight cabinets can be powered from a single amplifier. A 32-box system plus additional subwoofers can be powered by just six amplifiers.

In addition to being a highly flexible standalone system, Vero VX also excels at supporting larger Vero systems with its matched voicing and acoustic design.

# PRELIMINARY DATA - single cabinet

Frequency response ±3dB:	60Hz - 18kHz
Usable bandwidth:	50Hz - 20kHz
Maximum SPL *	144dB
Horizontal dispersion:	90°
Vertical dispersion:	13°
Nominal impedance:	4 x 16Ω
Rated power:	LF: 2 x 400W
	MF: 200W
	HF: 50W
Weight:	70kg (154lbs)
Connectors:	2 x Neutrik NLT8MP

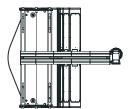
<sup>\*</sup> Calculated peak at 1m with 12dB crest factor pink noise in free field conditions

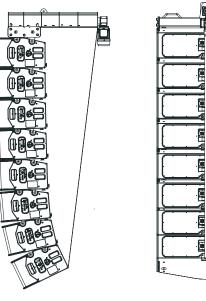


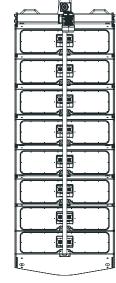


### LAMBDA RIGGING SYSTEM

The patented Lambda rigging system results from 40 years of development and refinement of Funktion-One rear tension rigging methods. This enables cabinets to be transported and flown as straight columns, then tensioned into pre-set angles once the complete array is suspended. The Lambda system's optimised rotation axis ensures perfect alignment at vertical angles between 0-12.5° for coherent summation. There is a choice of fixed or movable point flying beams. The movable point beam incorporates motorised adjustment, enabling the inclination and declination of the entire array to be remotely set while flown from a single motor.



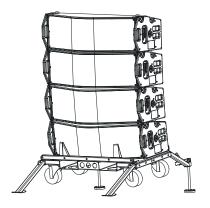






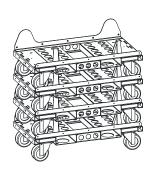
- Funktion-One wide bandwidth Axhead midrange (300Hz 5kHz) for natural and effortless vocal clarity
- Isophase diffraction waveguide (HF) for coherent high frequency summation
- Lambda rigging ensures accurate array alignment
- Choice of motorised or static fly beams
- High efficiency drivers giving dynamic headroom, high SPL and low amplifier count
- Innovative FIR filter design providing wide and consistent horizontal dispersion whilst ensuring accurate transient response
- No corrective EQ, preserving headroom and phase coherency
- Very clean output, even at maximum power
- Excellent results when used as a single enclosure





The Vero VX speaker system's transport dolly is specifically designed for the various challenges of live events and touring productions. The platform of the dolly is fitted with guides that ensure a Vero VX column settles into the correct position when landing. The guides also work as restraints, securing the load in transit. Each dolly is designed to carry up to five Vero VX enclosures.

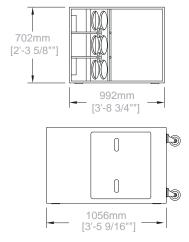
Dedicated outriggers can be added for safe ground stacking, enabling overall inclination or declination of the array. Dollies can be stacked for tidy storage during events.





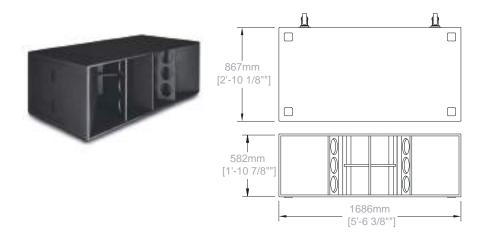
The V124 takes Funktion-One's bass loading and driver technology to the next level. Two 6" voice coils and intense magnetic flux control the 24" cone with impressive accuracy, ensuring excellent transient response and extended depth to below 30Hz.







The V221 is an exceptionally efficient high-intensity bass enclosure with a sensitivity more than 10dB higher than most direct radiating subwoofers. Two 21" drivers provide fast, accurate, bass to 40Hz.

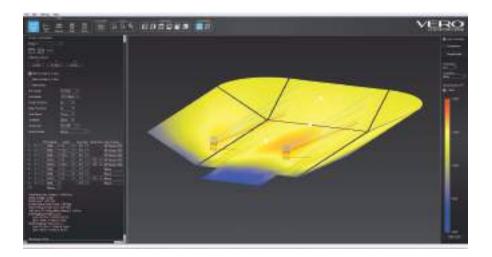


# **AMPLIFIERS**

The Vero VX system is powered by Funktion-One D-Series amplifiers. Both power and processing stages perform to Funktion-One's standards of audio fidelity. Four channels of Class D amplification are combined with eight channels of DSP in a single chassis. The four auxiliary DSP outputs can be connected to other Dante receivers, or analogue audio inputs (non-DSP amplifiers or F132As, for example).

D-Series Dante networks are highly robust, with optional dual redundancy, and automatic failsafe to analogue. AudioCore provides remote system control over wired and wireless networks, with a comprehensive preset library for easy system setup and tuning.

Lab.gruppen PLM20K44 presets are available for integration with larger Vero systems.





Up to eight cabinets can be powered from a single amplifier

# PROJECTION SOFTWARE

Projection design and prediction software allows Vero VX users to optimise array designs for smooth audience coverage and generate detailed venue specific system information. Projection presents a user friendly interface with many features that make deploying Vero on events and tours straightforward.

Projection has been designed to make the user experience as free flowing as possible

