



L I V E L O U D E R

DEEP DIVE

VERSION 1.0

PRISTINE HI-FI & GREAT ENTERTAINMENT

THIS IS VESTLYD

Vestlyd is a Danish loudspeaker brand inspired by classic retro designs, and have been carefully crafted to blow you away with punchy bass, an open sound stage and powerful dynamics.

Music is the easiest gateway to the kind of euphoria that urges us to just get loud. Like when your favorite band starts playing that song you love, and the crowd around you goes nuts. Remember those goosebumps and that feeling you got? That's the power of music. It has us whipping our heads, snapping our fingers, and feeling musical chills from head to toe. And it's the power of music – loud, great-sounding music – that compelled us to create these speakers. Because great times are loud times. It's a law of nature.

Sadly, your favorite band isn't in town every day. And when you want to get that concert feeling at home, you'll often find that even great loudspeakers just don't sound that great anymore once you crank the volume up. In fact, many speakers today are not exactly made to play loud.



Vestlyd is different. Vestlyd is inspired by classic, old-school monitor-type loudspeakers, bringing us back to the time when loudspeakers were allowed to be just that: loudspeakers. Back then, function was prioritized over form, unlike today, where most things are primarily designed with aesthetics in mind, sound quality always coming second.

So, if you want to get that concert feeling at home, Vestlyd is perfect for you.



ABOUT VESTLYD

Vestlyd is a new brand designed in Denmark by Nordic HiFi A/S. Originally established as part of HiFi Klubben, Nordic HiFi is today an independent company with its own development team. The vision is to take the customers' wishes and make them a reality by independently developing and producing strong and unique hi-fi and audio products. The products are sold through HiFi Klubben's stores and across most of Europe.

Everything in Vestlyd has been designed and engineered in Denmark by the Danish Vestlyd-team and has been in development for over three years.

VESTLYD: A **POWER MONITOR**

The design of Vestlyd is heavily inspired by vintage speakers from the 70s, with added inspiration from classic power speakers. However, compared to conventional power speakers, a Vestlyd speaker has far more detail, musicality, and control, bringing it closer to classical studio monitors. We did not want to make it quite as analytical, though, so Vestlyd presents a far more forgiving and entertaining listening experience than pure studio monitors, which can often sound too clean in a normal living space. This means that you essentially get the best of both worlds.

We call this special speaker type: Power Monitor. We identified three key areas to make these speakers a success: **even dispersion, high SPL and low distortion.**

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“Vestlyd was created in admiration of the classic monitor speakers of old, where dynamics, sound pressure and that special live feeling were more important than the design. The goal of Vestlyd is to transport us all back to that period when the purpose of a loudspeaker was precisely that: to be a LOUDspeaker. Back then, function was often prioritized over form, contrary to today, where many things are designed with aesthetics as the most important thing, and sound quality has become somewhat secondary.”

Henrik Reinholdtsen, CEO of Nordic Hi-Fi



WIDE SWEET SPOT

In a conventional two-way speaker system, a performance speaker like Vestlyd would need a big speaker cabinet utilizing both a woofer and a tweeter mounted with a larger horn. Such a solution has two acoustic centers, as the music you hear partially originates from the center location of the woofer and partially from the center location of the tweeter. However, in a big speaker the distance between the two acoustic centers becomes a problem. This (see Figure 1) unfortunately results in undesirable sound dispersion, which, when measured, shows as dips in the

off-axis response. Consequently, the optimum listening experience may only be in a certain limited sweet spot within the listening room.

A coaxial solution solves this problem, as the tweeter is mounted in the center of the woofer. This (see Figure 2) results in a smooth sound dispersion without the dips in off-axis response. The problem of the limited sweet spot within the listening room has been solved. Therefore, Vestlyd speakers do not need to be toed in.

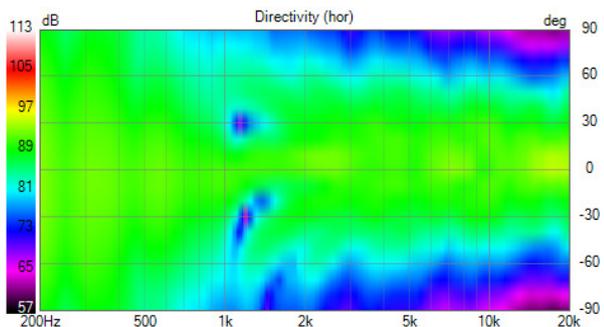


Figure 1. Conventional loudspeaker with woofer and tweeter 30cm apart. Note the blue “dispersion dips” around 1000-1500 Hz

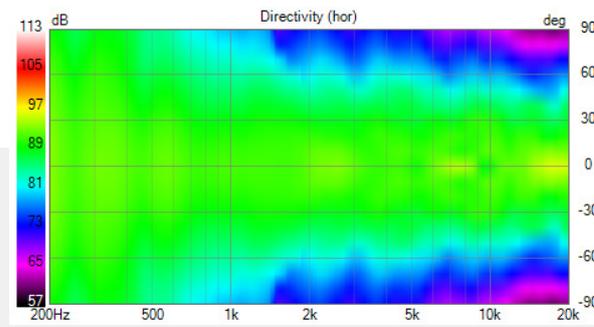


Figure 2. Vestlyd loudspeaker.

MAXIMUM BASS PERFORMANCE

For the woofer we designed a bespoke motor system targeting high power output with lowest possible distortion. We applied advanced FEA (Finite Element Analysis) simulations and measurement equipment to optimize every element - from the voice coil to the cone - for high power performance.

A unique feature is the aluminum rings inside the motor. These compensate the mid-band nonlinearities originating from the magnet system while at the same time counterbalancing the drop in magnetic energy happening at very high woofer excursions.

The result: even at the extreme bass levels possible with Vestlyd speakers, a clean representation of the crucial mid-band will be maintained.



Figure 3. Cross section of the Vestlyd loudspeaker.

CUSTOM MADE TWEETER – A SMALL MARVEL!

Vestlyd has been made to achieve the dynamics and sound pressure levels known from concert systems. To achieve this at the high frequencies, a compression driver was needed. A typical drawback when using compression drivers can be the break-up of the tweeter diaphragm in the applicable audio band and a high compression ratio causing the classic harsh “horn” sound.

A smaller diameter diaphragm was chosen, enabling an ideal piston movement in the full audio band while at the same time allowing for a low compression ratio of 2:1. The result: high SPL, but also the refinement and low distortion of a studio monitor.

The woofers act as large horns for the tweeters, creating the optimum loading of the compression drivers. This allows for very low cut-off frequencies into the low mid-band, providing a smoother listening experience.

The tweeter waveguide, the custom made silver part you see in the center of the woofer, is machined from solid aluminum.



Figure 4: Voice coil lead out wires are attached to the spider for highest reliability at even high excursions



Figure 5. Custom made Vestlyd driver.

BUILT LIKE A **TANK**

The heavy cabinet is constructed with solid bracing members in both the horizontal and vertical plane. These members are designed to enhance the stiffness of the cabinet, stopping the cabinet from resonating; any unwanted colorization of the sound is therefore effectively eliminated. Gaps directly behind the driver motor systems ensure that heat dissipation is not negatively impacted.

With a three centimeters thick front baffle, even the woofer's huge excursions take place without cabinet resonances interfering with the sound.

Both the V12C and V15C speakers are tuned with two massive front facing bass reflex ports, designed to displace vast amounts of air without compression.



CUSTOM SPEAKER STANDS

The separate speaker stands have been designed especially for Vestlyd and comes in two sizes to fit each speaker. They are made of sturdy, powder coated steel to reinforce the solid build of the speakers.



SPECIFICATIONS

	V12C	V15C
Freq. response [Hz -6dB]	39-22.000 Hz	36-22.000 Hz
Impedance [Ohm]	4 ohm	4 ohm
Sensitivity [dB @2,83V]	93	95
Crossover Freq. [Hz]	1100 Hz	1100 Hz
Woofers	12" with paper cone	15" with paper cone
Woofers motor system	Ferrite	Ferrite
Compression driver	1" Laminated TI dome w/high power neodymium motor	1" Laminated TI dome w/high power neodymium motor
Weight	24 kg	34 kg
Dimensions (w/ rubber feet)	H622 x W392 x D367 mm	H742 x W468 x D417 mm
Max. rec. amplifier power	300 watts	500 watts

2-way coaxial bass reflex construction with 2 x bass port (front)

Terminals: banana/screw + Neutrik Speakon

Cabinet in MDF (front baffle 31 mm), finish in synthetic leather

Black fabric frame for front included



VESTLYD

The name Vestlyd comes from the Danish words for “west” (Vest) and “sound” (lyd) respectively. West, because our speakers are engineered all the way in the west of Denmark to the sound of the North Sea crashing against the Danish coast, and sound because, well, that’s what it’s all about.