

VESCOVA - Perfect Sound, Perfect Shape

The Vescova's Technique

The Vescova is a 2 1/2-way speaker. The lower woofer is only applied for working in the lowest frequency region – only up to 130 Hz. This woofer is backed by a vented enclosure with the port facing down to the ground thus increasing efficiency. We choose the deep cut-off frequency to prevent this woofer from radiating into the frequency region of human voices. The second, upper woofer faces a sealed enclosure on its back and goes up to 3200 Hz where the tweeter is taking over the sound radiation. As this woofer is emitting the most important frequency region – the mids – we choose a sealed enclosure as vented enclosures always colorate the sound due to cabinet and vent resonances. In contradiction a vented enclosure goes down deeper and the air of the vent is supporting the woofer for the deepest bass.



Connection made simple:
Sitting on the backside the excellent sounding loudspeaker connectors made by WBT guarantee best conductivity and offer easy access even for thicker and stiffer cables.

But can these two different principles be used in the same speaker?

Yes, they can but it took us a lot of calculations to match the vented and sealed acoustical output. The Vescova is, to our knowledge, the first speaker in the world ever to work in such a way! Now you can profit from the benefits of both systems: deep and precise bass, uncolored mids and finest highs. As with our other ceramic speakers you can also choose between our ceramic or diamond tweeter. The diamond diaphragm is even harder and lighter than the ceramic diaphragm, still more consequent in direction of hard materials. To our and many others' opinion the diamond tweeter is the best tweeter in the world. It goes up to 80,000 Hz and shows no resonances in the audible range by providing perfect impulse response. A material more unique than ceramics!



Due to the sandwich structure of the cabinet the Vescova offers a tight, strong and quick bass response. The quartz-sand filling of its side-walls increases mass and vibration damping of the whole enclosure thus avoiding cabinet's intrinsic sound coloration and distortion.

The enclosure

The shape of the Vescova unites elegance and stability. Stiffness and stability are provided by pressing and glueing different wooden materials into the Vescova's bent shape.

Good Sound by Details

The enclosure of the Vescova is built up like a sandwich: an inner panel of threefold, flexible plywood is followed by a slitted MDF-layer which is covered by a thin aluminium layer to the outside. Such a sandwich construction is stiffer, harder and lighter than a usual wood enclosure. It therefore shows lower tendency to vibrate and resonate reducing enclosure effects dramatically. As we fill in 1.8 kg of quartz-sand in each sidewall we additionally increase the damping and eliminate sound transmission through the walls further. As with Cassiano and Arabba the use of our new damping material Twaron, improves the clarity and transparency of the mids and in combination with

natural sheep wool suppresses cabinet resonances.

Other features

We use the best available components in a fine speaker like the Vescova. Only then can we be certain for you to hear all possibilities of the materials and the construction. The sophisticated crossover of the Vescova features foil capacitors and big inductors made by Mundorf/Germany, which are the finest available. A terminal with highest WBT-connectors, adjustable, massive spikes and our unique threefold room-equalization device on the bottom showcase the efforts we make to bring an undistorted signal from amp to drive unit.

After reading all of this we hope you are anxious to listen to the Vescova.

We admit there may be loudspeakers that play louder for the same price but looking for outstanding sound quality will always bring you back to our speakers and what we stand for: Isophon – Finest handmade loudspeakers from Germany since 1929!

Please take your time for auditioning the Vescova. Hear the improvements you get from its sophisticated technology. Step into the world of ceramic loudspeakers!

Technical Specifications

	VESCOVA	FRC
Woofer:	1 x 7"	1 x 7"
Woofer-Midrange:	1 x 7"	1 x 7"
Tweeter:	1 x 3/4"	1 x 3/4"
Bass principle:	High-pass filtered bass-reflex system of 8.th order, second woofer in sealed enclosure	Sealed enclosure, high-pass filtered
Crossover frequencies:	130/3200 (Hz)	130/3200 (Hz)
Filter-Steepness:	> 50 dB/octave	> 50 dB/octave
Impedance:	4 Ohms	4 Ohms
Sine power:	130 Watts	130 Watts
Impulse power:	240 Watts	240 Watts
Height:	42.5"	20.5"
Width:	8.7"	9.1"
Depth:	16.2"	13.0"
Weight:	53 lbs.	38 lbs.



The Isophon VESCOVA

Like the Cassiano and the Arabba of our new series, the Vescova carries the famous German Accuton drive-units with their unique ceramic diaphragms. Ceramic drivers are said to be behind a revolution in loudspeaker design. What is the truth? Read this brochure to experience why we have chosen ceramic drivers.

Ceramics – a unique diaphragm material

In the long history of HiFi there have always been superlatives and rumours about miraculous properties of diaphragm materials. The first paper cones were followed by plastics with very imaginative sounding names. Then once again paper, this time with secret coatings, was brought up.

After that the era of kevlar and carbon-fibre diaphragms arose, again once again followed by paper cones which eventually were replaced and left behind by metal diaphragms. This went on till new paper cones eliminated metal again. It was risky for a company to count on trendy materials only based on fashion and not based on physical properties.

Basically all materials face the same problem to unite contradictory properties in one single material. Stiff and hard materials are ideal for bass response but they resonate in the mid-frequencies and direct the sound at too low frequencies.

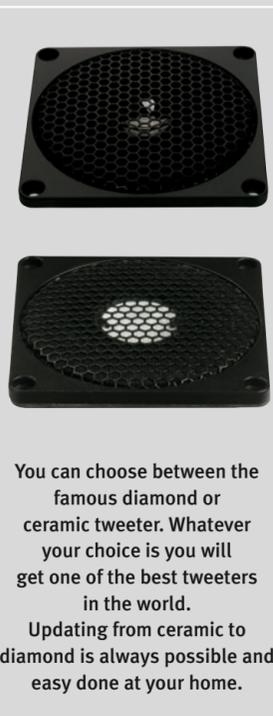
On the other hand soft materials lack in a hard punch in the bass region but sound natural and smooth in the midrange because they only have low resonances

and low distortions. Because of this they always sound a bit boring and cannot show the high resolution a hard material provide. Hard materials colorate the sound in the mids because of cone break-up.

It is always the same thing in physics: you have to find the best compromise of all diaphragm properties. Because of this loudspeaker designers started to built three-way-speakers with different materials for all three frequency regions. Now they truly had a three-way speaker: every driver separately did its job perfectly but all three together did not harmonize at all. There was no homogeneity anymore in music. Again the question arose: one material for all frequencies?



The woofer-midrange driver of the Vescova:
Due to its hard aluminum dye-cast basket this driver offers perfect stability for the huge magnet and excellent sound transmission by the thin bars.



You can choose between the famous diamond or ceramic tweeter. Whatever your choice is you will get one of the best tweeters in the world. Updating from ceramic to diamond is always possible and easy done at your home.



Only Taking The Best

Parallel to all up-to-date materials Accuton in Germany developed a method for manufacturing loudspeaker diaphragms made of ceramics – small ones for tweeters, medium-sized for midrange drivers and big cones for woofers. One material for all the drivers. Again: does this result in a breakthrough?

Ceramics is a hard and stiff material but it is lighter than metal and it does not feature the big problems of distortion and resonances that plagues metal. The ceramics' resonances are at higher frequencies than resonances of metal but still they have to be removed. Otherwise ceramic diaphragms sound harsh and scratchy.

How can these resonances be eliminated? Even with frequency crossovers of more than 24 dB/octave they still affect the

sound. Now our time had come! As we are using very steep filters in the frequency crossovers of our existing speakers for many years now we already had the solution working. With a steepness of more than 50 dB/octave our crossovers suppress the high frequency resonances of the midrange driver perfectly as can be shown by distortion measurements (see e.g. "Stereoplay (Germany)" 01/2006).

Because of these facts ceramics are for us the ultimate material. We can handle it and bring out all its benefits resulting in music reproduction at the highest level. The ceramic-driven speakers sound totally unspectacular with a warm timbre but despite that with an unbelievable resolution, dynamics and spaciousness. It is music listening without stress but with a grabbing intensity and definition. A real Joy of Listening!



The Vescova's view from the bottom:
The Vescova, too, offers you our famous room equalization system. By a gold-plated bridge connector you can set up the loudness of the bass to your room's acoustical properties. The vent of the bassreflex enclosure faces down thus exciting your listening-room very evenly. The spikes decouple the cabinet from exciting the floor leading to a stressless boomfree bass response.

If there are any questions from your side we could not answer with this brochure do not hesitate to contact us via phone or e-mail: +49-(0) 71 59 - 92 01 61, info@isophon.de. We love to help you!

FRC - The Ideal Supplement For Your Multichannel System

The FRC (Front-, Rear-, Centerspeaker) uses the same drivers and frequency crossover as the Vescova just put in a smaller enclosure. Therefore it is the ideal supplement to the Vescova, Cassiano and Arabba for extend your stereo to a multi-channel system. In combination with our active subwoofer Stonehenge it can also be used as an excellent frontspeaker. You can imagine the sound efforts we made remembering that also the FRC is a 2 1/2 construction which as a centerspeaker avoids a sound cancellation for people not sitting in the middle.



Our high-resolution loudspeaker cable of low inductivity is of course also used in Vescova and FRC to connect the WBT connectors with the frequency crossover in the interior. It is also available as loudspeaker cable connecting amp and speaker.

Available Finishes

Vescova and FRC are handmade in our facility in Renningen/ Germany upon customer's request. You can choose any veneer you like or more than 200 different colours of aluminium. Also piano high-gloss finish in black or white or transparent piano high-gloss upon veneer are possible. Optionally you can order a grille.



What you always wanted to know about ceramics...

VESCOVA