



narrow whereas the woofers of the integrated subwoofer were mounted in the sides of the cabinet (requiring a low crossover frequency in order to prevent midrange frequencies from straying off). The design example was first embraced and then copied by many. Provided the loudspeaker is about one meter tall, it has enough volume to adequately fill rooms between 25 and 30 square metres. It is also comparatively easy to integrate this type of loudspeaker into any living room. Audio Physic's chief designer Manfred Diestertich quite understandably had no intention of changing any ingredients for the recipe of success. Why should he? However when it comes to driver configuration much has changed since the first Virgo. In his eight years at Audio Physic, Diestertich, being fully determined to implement his own ideas, has not left one stone unturned.

Can you still remember the Avanti 3 from 2001? When designing the loudspeaker, Audio Physic first entered the realm of mechanically damped cones which feature a rubber/silicone ring for the midrange driver. Diestertich wanted the loudspeaker to benefit from the rigidity of metal cones while at the same time making sure to avoid resonant ringing which is likely to occur

## The Finest Metal

It is nearly impossible to name another loudspeaker manufacturer whose products have been tested by us as often as Audio Physic loudspeakers, and yet the "Virgo" success model has only made it to our test room once before (the third incarnation in 1/2002). Now the fourth generation is ready for kick-off. However, in response to Asian markets where many people believe

the number four to be unlucky, the Virgo is jumping from number three to number five and once again is clearing a path for highly interesting innovations.

The first Virgo was designed in an effort to pass on the virtues of a mini-monitor such as the "Step" to a floorstanding loudspeaker. Audio Physic saw to it that the baffle hosting the midrange and tweeter unit remained

with this type of driver and which electrical filters have never been able to fully eliminate. Mechanical "Active Cone Damping" (ACD) proved to be a more efficient option where Diestertich never tires of refining the concept.

The next item on Audio Physic's agenda was to design a "custom-made" tweeter. Diestertich's idea was a concept which

# [ Caldera ]

*A Caldera (Spanish meaning "cauldron") is a bowl-shaped volcanic crater formed by the collapse of land following a volcanic eruption.*



[ audio physic ]  
no loss of fine detail

Scandinavian driver manufacturers found very difficult to warm to. In fact, the old principle of cone tweeters coupled with modern means and materials lead to the development of a unique driver which was first implemented in the Avanti 5 (hifi & records 2/2007). It was of course clear from the beginning that the Virgo 5 was to be revamped with this excellent tweeter.

Far from satisfied with what has been achieved so far, Diestertich again applied his brainpower to the midrange unit, particularly to the mechanical driver design.

The new Virgo 5 is Audio Physic's technological flagship. The success model, revamped with a mechanically optimised midrange driver, is available in two versions.

He was well aware of the fact that cast baskets are commonly used to provide the necessary stability as well as a solid connection to the baffle panel. However he also knew that their resonance characteristics are far from ideal. "Damping has been increasingly removed over the past few years despite the fact that plastic baskets sound very, very good in a midrange driver," says Diestertich, summing up his experiences. This is how the idea was born to provide the midrange driver with a two-basket system where a solid cast basket is used to transmit resonances from the magnet system to the baffle, and where a soft plastic basket holds the surround and

the diaphragm, having a damping effect. The goal was to bring together the best of two worlds in a single driver which again required a great deal of persuasion to make it happen. "Can't be done", was the answer Diestertich heard most often until he finally found a driver manufacturer in China who took on this task to Audio Physic's complete satisfaction. The midrange driver is shown below. With the help of the neodymium magnet it is attached to the cast basket which also features small cooling fins to dissipate the generated heat.

Thanks to this ingenious configuration, the Virgo beats its larger Avanti sister by a fraction whereby the two models greatly resemble each other in terms of concept. The main difference is that the membrane surface of the Avanti is twice as large, which means two things. First, the Virgo has only one midrange driver which makes the acoustic centre smaller but theoretically speaking this need not be a disadvantage. Second, Audio Physic uses drivers with higher impedance for the Avanti (impedance halves when two drivers operate in parallel). If the Virgo were upgraded with these drivers, an 8 ohm version would be the result. Audio Physic's attitude was "Let's do it" and now the fifth incarnation of the Virgo is also available as an 8 ohm loudspeaker. Audiophile customers will have to pay more for this, however they will additionally receive two impedance correction devices for the





woofer and the midrange drivers where each can be separately activated at the connecting terminal. The new Virgo has therefore shaped up to become a “state-of-the-art alternative” for tube amplifier fans.

After reading Stefan Gawlick’s test report on the Avanti 5, I had this awe-inspiring loudspeaker in our listening room for quite a while. It was then replaced by the Virgo 5 when the 4 ohm as well as the 8 ohm version were made available to us for test purposes. The Avanti and the Virgo have a great deal in common, no doubt about that. The Avanti however shows a more “laid back” and slightly decreasing frequency response which in the case of the Virgo slightly increases to the same degree, better highlighting the company’s credo “No loss of fine detail”.

The praise heaped upon the Avanti by Stefan Gawlick virtually applies to everything the Virgo possesses. Yet I feel that the Virgo sounds even a bit better, providing more subtlety and precision. It is only a question of time until the Avanti is refitted with the new midrange driver, however my recommendation will stay much the same: If you cannot fully tap the vast sound pressure potential of the Avanti, and in the case of rooms up to 30 square metres, you are advised to go for the Virgo 5.

It is the successful blend of excellent detail resolution (courtesy of the metal cone) and precise imaging (inherited from

*Customised impedance correction: the 8 ohm version comes with switches for impedance linearisation.*

the mini-monitor) which makes the Virgo 5 so special and unique. There are no objections whatsoever to the tonality; the in-room frequency response is quite linear. Even though I am usually a bit suspicious when it comes to metal cones, I could not detect any unpleasant “ringing” sound coming from the cone tweeter or the new midrange driver. Of course, if you are more a fan of soft diaphragm materials and their sound reproduction, you may need to adapt yourself to the new situation. The Virgo with its full metal configuration (the two side-firing 7” woofers also have aluminium diaphragms) is not designed to round things off nor dampen them. Instead, the loudspeaker is likely to pave the way to achieving almost grain-free detailed sound reproduction which is likely to become Audio Physic’s new trademark.

To be honest, I would have thought the difference between the 4 ohm and 8 ohm version would be more noticeable, however this was not the case. The reason being that the 4 ohm Virgo is not really a critical load. After all, it rather depends on the amplifier as to which ohm version is more appropriate. An older integrated amplifier from Arcam was much more at ease with the 8 ohm loudspeaker whereas the Pass INT-150 was not interested as to which one of the Virgos it was hooked up to. If you have a stable amplifier, you need not spend extra money on the 8 ohm Virgo which, it must be said, is the model of choice for owners of tube amplifiers.

**Résumé** The new Virgo 5 is Manfred Diesterich’s masterpiece and by all means the best loudspeaker he has ever designed for Audio Physic. Due to the metal cone configuration, the loudspeaker achieves a magnificent level of detail in the mids which is coupled with a perfectly relaxed and wonderful three-dimensional soundstage. The synthesis achieved in the most recent Virgo will have audiophiles once again wrapped up in sonic bliss.  
*by Wilfried Kress*

## From the Laboratory

**Frequency response: on-axis, horiz. 30°/45°**

**Frequency response: on-axis, horiz. -10°/10°**

**Impedance: Audio Physic Virgo 5**

**Cascade: Audio Physic Virgo 5**

## Audio Physic Virgo 5

WxHxD	23 x 99 x 40 cm 9.1" x 39" x 15.7"
Warranty	10 years
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