



# The Radical Squadron

With the number of technology permutations and combinations possible, speakers can truly be a playground for acoustic designers and engineers. The Precide Heil AMT Aulos is a case in point. Let's take a look at these technical marvels.

There are only a lucky few speaker designers who manage to turn their loudspeaker mechanism design into a practical reality that's ready to be shipped across the seven seas. Oskar Heil from Switzerland is one such gentleman who has made this possible for his AMT (Air Motion Transformer) design in the form of the Heil AMT speaker line. We reviewed the Aulos bookshelf speakers from an entire lot of Heil AMT speakers that's available at Surat-based Absolute Sound.

### OUT OF THE BOX

Considering the radical speaker technology that is implemented in the Aulos bookshelf speakers, we were expecting a completely unusual speaker to land at our studio – a driver sticking out somewhere or maybe a side of the cabinet carved into half or something else very 'unspeakery'. But as we opened Aulos' box, we were surprised (and a tad disappointed) to see a very basic cabinet with a flat ribbon tweeter like structure along with an even more regular looking mid-bass

driver for company. Thankfully, the disappointment was temporary. As soon as we held the speakers in our hands to feel the build quality and composure of speakers we knew that we were up for something special. The speakers felt extremely sturdy, with no loose ends whatsoever. Without wasting any further time, we immediately put our research cap on and started the review of the Aulos.

### TECHNOLOGY

First and foremost, we found out that the tweeter is not a regular ribbon tweeter, rather, it is not a ribbon tweeter at all. In fact, the AMT (Air Motion Transformer), which also finds a place in the speaker's model name, is the biggest USP of this speaker. AMT was invented by Oskar Heil, an eminent physicist who had a major hand in developing a magnetron and in conceiving the idea of field effect transistors back in 1970s. It was while working on these technologies, that Oskar Heil came across the concept of AMT, which later developed into a tweeter technology that is radically different from any other we have

seen; be it moving coil, magnetic, ribbon or even electrostatic. AMT uses a folded sheet made out of polyester that is structured around an arrangement of aluminium bars placed in a high intensity magnetic field. We know that it sounds like an apparatus for a high profile physics experiment, but considering the portfolio of Oskar Heil, one should not really be surprised.

Coming back to the speaker technology, the primary responsibility of a tweeter in a speaker is to reproduce high-frequency content by moving air in its vicinity – the main requirement here is that the air should be moving at very high-frequency so that it can reproduce the desired high-frequency response. So a prerequisite is that the tweeter should be extremely light and, at the same time, very strong as well.

The AMT satisfies both these conditions to the maximum possible extent and hence Heil claims it to be the best tweeter technology. Polyester and aluminum combined with the high intensity magnetic field, is one of the lightest, strongest and,

effectively, the fastest combination used in tweeter construction. So much so that it claims to move air almost five times faster than any known tweeter technology.

Whether it does so or not is what we will find out in our next section, but it is important to note that the people at Heil AMT have also paid equal attention to the mid and bass section in the speaker, which in fact is the 'body' of sound. Extensive efforts have gone into the selection of the wood for the cabinet, with very fine quality real wood used to make the cabinet of the speaker. The mid-bass driver uses a composite woofer, which contributes towards essentially mid-frequency region in the audio spectrum.

### PERFORMANCE

Armed with the Belcanto DAC 2.5, the BelCanto REF 500s and Transparent Audio cables, we kicked off the review session eagerly. Absolute Sound had provided specially fabricated (obviously extra charged) speaker stands with the speakers as well. Setting up the speakers was a tedious but an interesting exercise with the Aulos. We began with a regular equilateral triangle arrangement for the speakers, with the speakers forming two vertices of the triangle and the listening position at the third, with each side of the triangle measuring around six feet. The speakers were kept parallel to each other and we had Roger Waters' 'Amused To Death' playing on a Macbook Pro. It won't be any exaggeration if we term this album as the most revolutionary take on stereo sound. The soundscapes in each and every song on the album are so wide and engrossing that at times you will literally start to believe that you are listening to a surround sound recording. In "What God Wants", you can actually hear a piano piece coming almost next to your left ear and perpendicular to the left speaker. So while we were getting the speaker placement right, the parallel speaker position was not really working to convey this effect. We gradually toed-in the speakers and that's when the desired effect started to creep in. A toe-in of about 10 degrees was

#### WHAT IS

**\*Unspeakery** Unspeakery is a term coined by AV MAX, meant to denote that it is unlike any other speaker. We use this when the product sports features that you would not find in a regular, run-off-the-mill loudspeaker. The term mostly relates to the physical appearance of speakers, when there is usage of uncommon, unexpected materials or form factors.

the best angle for our distance and room (15x12 feet) that we decided to lock the speaker in that position. In fact we did not have to touch the speaker placement after that as we were practically on cloud nine hearing the tremendous amount of horizontal expanse and depth that the system managed to give us.

The speakers will really do wonders if you like listening to ambient and psychedelic music wherein there is a lot of play around the spatial soundstage. The depth that these speakers manage to reproduce will definitely accentuate your listening experience. One factor playing an important role in this performance was the very efficient AMT tweeter on account of its fast and scintillating transient response. The tweeter can keep you glued to the listening seat for hours together and that too on the edge. Further, it was not only the depth and transient response of the speakers that impressed us, but also the authentic and life-like tonal quality of both the drivers. We played 'Paheli', which has a very good ensemble of Indian percussion instruments and clean and crisp vocal recordings that can give even the best of speakers a good run for their money. But the Aulos held its ground firm and strong as it reproduced every bit of the album with ease and without any effort.

Sumit Bhosle

### Specification

- DESIGN 2-way Bass Reflex
- DRIVERS 1 AMT Tweeter  
1x6" Woofer
- FREQUENCY RESPONSE 45Hz–23kHz
- POWER HANDLING NA
- NOMINAL IMPEDANCE 4Ω
- SENSITIVITY 91dB
- WEIGHT 9.9Kg
- DIMENSIONS



Precide HEIL AMT Aulos	
PRICE	₹ 2,25,000
WARRANTY	1 Year
CATEGORY	Bookshelf Speakers
AESTHETICS	★★★★☆
BUILD	★★★★★
AUDIO	★★★★★
EASE OF USE	★★★★★
VFM	★★★★★
<b>WHAT SAY AV?</b>	
There is absolutely no doubt that we fell in love with the Heil AMT Aulos speakers - Be it build quality, ease of use, aesthetics and, most importantly, the sound, the Aulos lives up to all the expectations and the excitement that it manages to conjure up in our audiophile heads. It is a thorough entertainer. With the kind of technical exclusivity that these speakers are blessed with and its effective reciprocation in the performance, makes this speaker a complete standout and the best choice that you can make in this price range. We not only recommend it but will insist you buy the Aulos, even if you have to stretch your budget to do so.	
<b>OVERALL</b> ★★★★★	
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