



SA mantra 60 in its final version

the story of SA mantra 60

6 March 2007. It was the day when the first experiments started. Experiments that 2½ years later would become the SA mantra 60, as we know it.

af Ole Withøft

The project was the internally named SA1850. It described in an obvious way that this should be a replacement and an improvement of the very successful SA1750 model. Status was that the more expensive SA ranger had just been successfully launched early 2007. With success, we created a fantastic woofer with



SA mantra 60 is replacing SA1750 (left), based on technology from SA ranger (right)

a diameter of just 11 cm to SA ranger. A woofer with XL technology, which creates big sound with great musicality from a small speaker. Now XL technology would prove its worth once again and bring the project SA1850 to new heights. It was not quite as simple as it sounds, because we had to spend 2½ years before the project was successful. There were built 28 prototypes and computer simulated even more before the sound, technology and design finally fell into place.



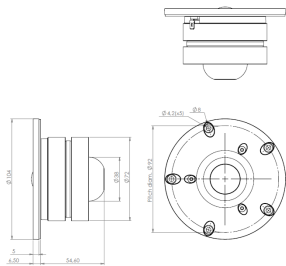
XL
TECHNOLOGY

SA passed a milestone with the development of the woofer for SA ranger and the technological accomplishment should benefit SA mantra 60. It is XL technology which sets new standards for the performance of small woofers. The goal was to create a woofer for SA mantra 60, based on this technology.

on the way ...



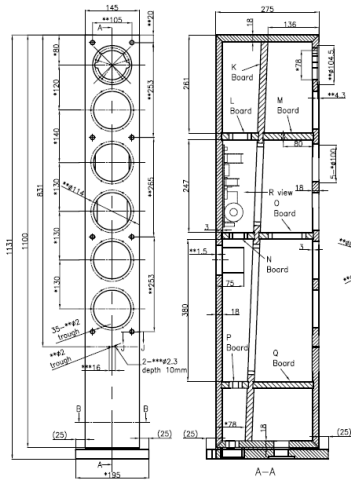
Here you see one of the early prototypes of SA mantra 60. At this point the loudspeaker became a 3-way design. We prefer to use more small woofers instead of one big woofer. It gives a more precise and dynamic reproduction. Notice the small plate in front of the loudspeaker. It was used for an experiment with two tweeters instead of one.



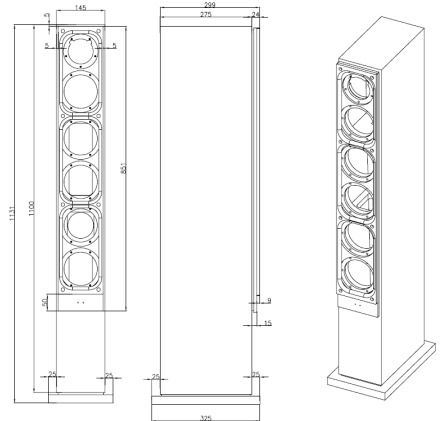
The left picture shows the first prototype with T2504XS tweeter. A tweeter with a light textile membrane, large rear chamber, aluminum front panel and powerful magnet.

XS
TECHNOLOGY

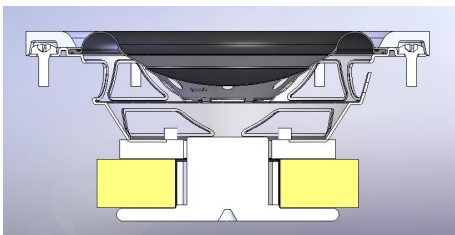
T2504XS. The tweeter is a study in precision engineering and precision



The cabinet is a very solid construction, divided into eight separate chambers



The design takes shape. When the sound is in place, our loudspeaker gets a design and the finish is being worked out. SA mantra 60 is the first speaker in ebony finish and with invisible magnets for the front grille.



W1108XL. It is the woofer to the SA mantra 60. The membrane weighs just 0.8 grams and is made of a paper-like material. The low membrane weight is to make the speaker extremely fast. It gives you better dynamics and clearer sound. The mechanical parts are built of steel and rubber. The loudspeaker's name. means "Woofer", 11 cm, 8 ohms and XL technology.



extreme stroke. Bass is about the speaker's ability to move air, and a small membrane has to move significantly longer to move the same air volume as a larger membrane. At this point W1108XL outperforms any woofer of the same size by being able to move 3-5 times as much air. Its light membrane makes the bass response significantly more accurate than a big slow woofer would have done.

It got its name as the last part of the process. The number "60" comes from the fact that there are 6 speaker elements.

