

TABAQ with 4 inch drivers

TABAQ was originally designed for 3 inch speakers with high Qts. By pure luck, you might say, the design also works well for 4 inch drivers with a more moderate Qts as these drivers have a lower Fs.

Therefore, the tuning of 55 Hz remains for 4 inch constructions.

The following simulations are done with Tang Bang W4-1320SJ with the following parameters:

Fs 75 Hz

Vas 6.41 liter

Qts 0.355

Re 6.8 Ohm

Lv 0.013 mH

Sd 57 cm²

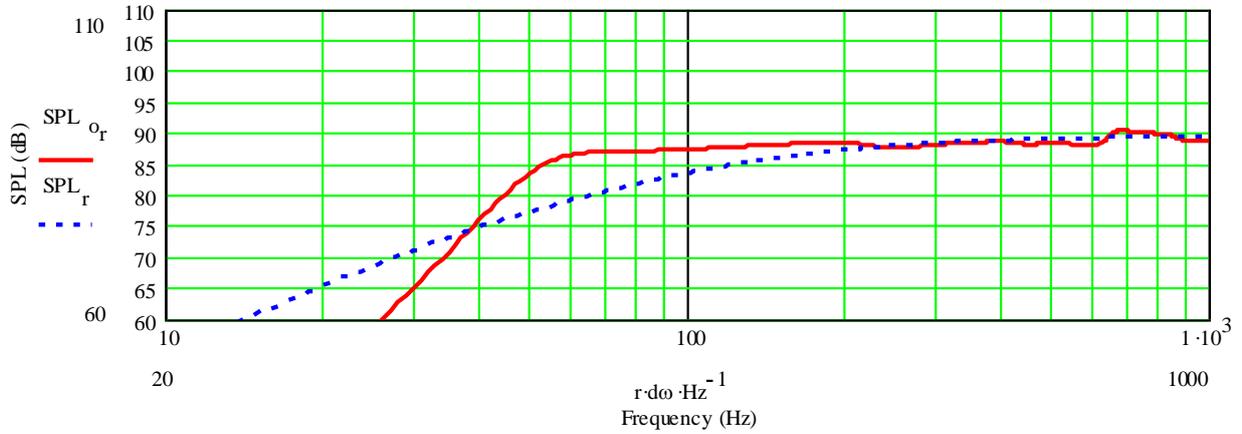
I spend some time to see if any more performance could be squeezed out of this driver, or any driver with similar T/S parameters.

Using standard TABAQ design, the stuffing is lighter.

If you can accept a larger enclosure, you will get some improvement of the bass: Increasing the volume (cross section of the pipe) and increasing the cross section of the port to balance the tuning frequency.

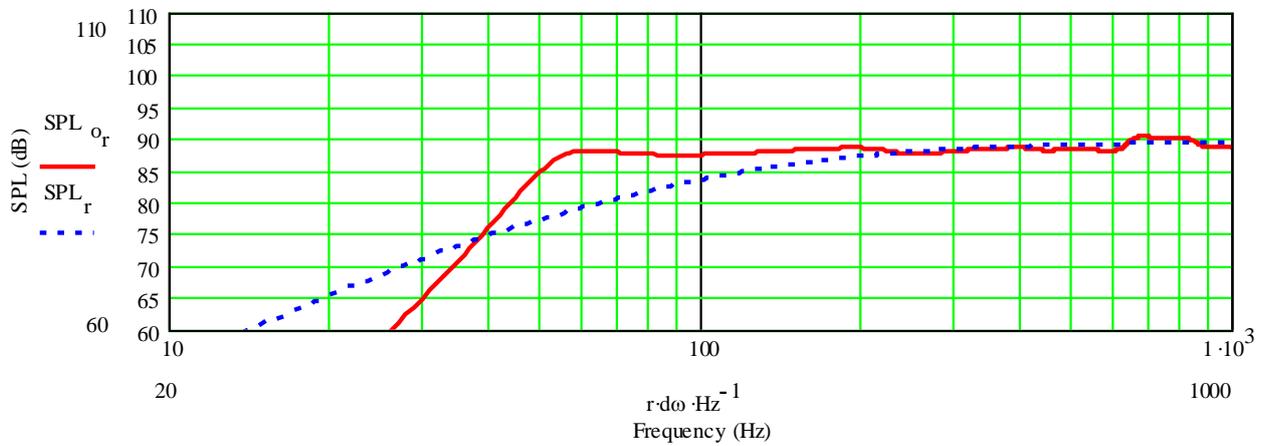
Standard TABAQ

This is standard TABAQ but with the lighter stuffing 63 gram.



Larger volume

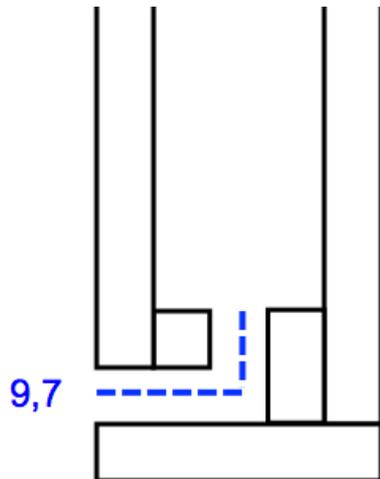
In this example, the cross section of the line has been increased to 171 cm² and the volume of the last part of the line (the opening) has been increased to 22.8 cm³. Stuffing is 84 gram.



About the opening

Width and depth of the enclosure can be designed as you wish as long as the cross section remains the same.

The port length:

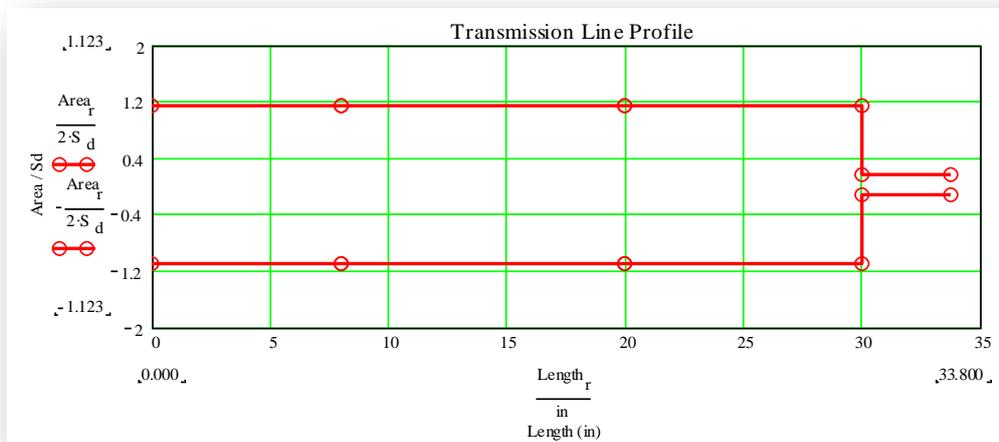


TABAQ Original Geometry

Driver – Closed end 8”	20,3 cm	128 cm ²
Driver – Aperture 22”	55,9 cm	128 cm ²
Aperture – 3.8 ”	9,7 cm	16 cm ²
Stuffing upper 2/3	0.227 lb	103 gram



Profile MJK model:



© Bjørn Johannesen, Copenhagen Denmark
bjornarnejohannesen@gmail.com

Private use is welcome !