spc.jpn.org

2001/4/16 up
2012/09/21 Modifications

"Original Terraced Back Loaded Horn"

Original Backroad Horn Calculating

オリジナル階段型バックロードホーン計算式-[1993年版] －spc.jpn.org－

V_{BC} 　Sho 　　S_{x1} 　　　S_{x2}

L_s 　$x1$ 　$x2$

$x=0$ 　　　a＝有効振動板半径(cm)

空気室容積 $V_{BC} = \dfrac{\pi a^2}{25} (\ell) = 40\pi a^2 \ (cm^3)$

スロート断面積 $Sho = \left(\sqrt{\dfrac{3\pi a^2}{400 \cdot Q_0 \cdot M_0}} + \dfrac{L_s}{1000} \right) \pi a^2 \ (cm^2)$

スロート出口より $x\,cm$ での断面積

$$S_x = Sho \left(K + \dfrac{x}{5000} \right)^{\frac{x}{10}} \ (cm^2)$$

$K > 1.05$

K＝広がり係数（大き目のほうが良い結果がでそうです）

The detailed explanation is omitted (no)
Those who understand, those who do not know, those who do not know, it is such a formula (laugh)
Since it is a formula derived from the data of the original back load 300sets, I think that I can do a decent box.

[References]

Easy Back-Load Horn Calculation Official (2013版)