Subject: My next pipe dream: Voigt Pipe with Goldwood 8"
Posted by lon on Wed, 09 Jun 2004 01:58:00 GMT
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I have this project which I shared with the group some timeago from the guy to made a Voigt Pipe setup and build detailsare in the form that I can use to show how to do the lumbercutting. The Goldwood 8" is a $20 full range available from PE.T/s for the Goldwood are:PARAMETERSRe 7.20 [ ]Fs 39.11 [Hz]F1 29.01 [Hz]F2 51.58 [Hz]Zm 29.38 []D 162.00 [mm]Qms 3.60Qes 1.17Qts 0.88Bl 6.52 [N/A]L1K 1.16 [mH]L10K 0.42 [mH]Ms 28.09 [g]Vas 34.97 [l]dBSpl 84.94 [dB]Cms 0.59 [mm/N]Ma 48.00 [g]FsMa 23.77 [Hz] Elsewhere it's said that making a Voigt is sort of a crap shoot... results are unpredictalble. But the design still appeals to me:Here's the orginal piece:
Voigt pipes

Subject: Re: My next pipe dream: Voigt Pipe with Goldwood 8"
Posted by Wayne Parham on Wed, 09 Jun 2004 05:30:28 GMT
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Have you started building these yet, or are you still contemplating them?

Subject: Re: My next pipe dream: Voigt Pipe with Goldwood 8"
Posted by lon on Wed, 09 Jun 2004 17:02:56 GMT
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I haven't completed the Jim Beams yet... did some test enclosures for the Tangband W3-871s, but the box assemblyrequires some finishing that needs additional tools. However, RSS is up and working in Firefox now with theRSS Reader Panel extension (hint hint.) I have been dancing around the task of learning theoryby selecting projects which have been executed by others. As I've said I don't think the Loudspeaker Cookbook is good for the novice. So I'm hoping that the new websiteSir Fitz is working on will have some basics. Basics wereavailable at Creative Sound Solutions in CA but the last time I checked to find their dictionary of terms I couldn't locate it. And my method of work is to do what preliminary cuttingof stock I have to do in the summer and assemble in the winter. So putting all these elements together, I began this postwith the idea of getting feedback and direction on howa Voigt pipe like this (which has good instructions) wouldwork with the specified Goldwood driver. Previously, Alkeilishmentioned an Open Baffle approach for Goldwood. Plus overat the Full Range Forum there is a new project for theGoldwood at well. Alternately, I'm thinking that a 5 in. or 6 in. driverwould give a better aesthetic. So lots of things to consider. Finally, recent articles in _audioXpress_ have analyzedwhy a speaker box should have a slanted front. TheVoigt design shown above has the

driver mounted on the front,but it may be better to use the angled side. I chose this concept because with my boomtoobz I'vegotten used to The Big Sound and am hoping to capturethat with the Voigt. So: inexpensive lumber (like Pine) plus budget Full Rangelike the Goldwave should yield a project to be made withstock widths of lumber. The tricky part will be saw setup.My guy who is willing to do this has a small table sawand a radial arm setup and also a jointer. I have made copies of the renderings and drawings so hecan see what's needed for a setup.

Subject: Re: My next pipe dream: Voigt Pipe with Goldwood 8"
Posted by Wayne Parham on Thu, 10 Jun 2004 00:00:23 GMT
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I've never really looked at the RSS stuff. I remember your mentioning it before, and I did some brief looking around to learn more about it but that was about it. I've had my hands way too full to embark on other projects, at least for now.About the Voigt pipe, I've noticed some small drivers lately that would probably be good for projects like that. Eminence is making their new 6" array drivers that might work well, and Parts Express is always running specials on Tang Band, Eminence and Vifa drivers that should be well suited. And of course, there is always Fostex, which really aren't too expensive.The Goldwood you've mentioned looks to me like a potential canidate too. I would expect it to work well in large ported cabinets and open baffles. Maybe Martin would have some insight on what he thinks about using it with a transmission line or tapered pipe. The price is certainly right!

Subject: Re: My next pipe dream: Voigt Pipe with Goldwood 8"
Posted by lon on Thu, 10 Jun 2004 04:38:35 GMT
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I will be the guinea pig with the RSS... or goat as the case maybe. And I know you said I could subscribe to a mailupdate by requesting each individual group. But RSS seemslike a more elegant solution. I have used only the 3" Tangband and that is in the experimentalstage yet. Still hoping they will introduce more Full Rangeproduct. Do you know the part number on the Eminence 6"? Latest arrayI've seen was the project in the current _audioXpress_ (June '04) which uses an open backed arrangement of Peerless 10" ers. Same guythat made the array using the KerfKore (described elsewhere inhere with regard to making subwoofers) put this project togetherbut it looks like overkill to me. As to the Goldwood, I wonder of the good ol' days of seeingthose go on deal for $15 is a thing of the past (?) And lastly, yes I'd appreciate some comment by Martin Kingbut his focus is totally on Lowther these days. It was myimpression he sort of got out the 'handout' business. I do not have Mathcad and far as I know there's nosingle application or stand-alone version that would runone application. So I don't have any programs that I could plug data into. WinISD is a possibility. This Voigt pipe seems to (by the author's description)allow enough wiggle room to accomodate some different sizingsand drivers. Of general interest, Fostex is showing a new design for theirFE126e.

FE126e jpg

Subject: Re: My next pipe dream: Voigt Pipe with Goldwood 8"
Posted by GM on Thu, 10 Jun 2004 05:19:34 GMT
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MJK has a link to download the old V8 demo version and V8 sworksheets. You can't save any work with it, but you can copy it to Word, and I assume similar programs. Frankly though, if you're serious about this stuff, get a licensed copy of 2k or 2k pro on ebay/whatever. They're cheap enough now.While traditional Voigt pipes have a certain 'bouncy' charm, if you look at BB's sim of one Vs a more refined version, I believe you'll prefer the latter.Anyway, download the demo, worksheets, MJK's extensive/informative docs and ask Qs as you go. Me, BB, and a few others have got you covered so MJK can continue delving into horn theory to improve his worksheets. The GW has a bit high Qt for a ML-TQWT (ML-TL), but is fine for a TL, TQWT, or end loaded Alpha TL. For Rick's Alpha TL, I posted a little Excel spreadsheet that you can transfer the calc'd info to Mathcad to make a plot.GM
Alpha TL

Subject: Re: My next pipe dream: Voigt Pipe with Goldwood 8"
Posted by Wayne Parham on Thu, 10 Jun 2004 06:47:06 GMT
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Thanks for the occasional heads up on the RSS stuff. I'm soooo busy these days I'm not taking time to keep up with some things. I basically have three full time gigs right now, so time is precious. But if RSS is the slices for the cheese, I better make note.

Subject: Re: My next pipe dream: Voigt Pipe with Goldwood 8"
Posted by TC on Thu, 10 Jun 2004 13:45:37 GMT
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>>Of general interest, Fostex is showing a new design for their FE126e. ==That's the hybrid I heard in vegas. Wonderfully smooth and low.TC

Subject: Re: My next pipe dream: Voigt Pipe with Goldwood 8"
Posted by lon on Fri, 11 Jun 2004 19:13:23 GMT

I'm going to assume you mean Bob Brines here.Lets see... I may have a calc program/excel clone.But your zip d/l only wants to expand into notebook.I may need something else. I am way out of touch withreal computing.

Subject: I dood it [Re: My next pipe dream:]
Posted by lon on Fri, 11 Jun 2004 19:20:48 GMT

I have managed to snag the Alpha TL spreadsheet intoSoftware602 suite (Excel clone)

Subject: Re: My next pipe dream: Voigt Pipe with Goldwood 8"
Posted by GM on Fri, 11 Jun 2004 20:33:53 GMT

Correct, click the Voigt pipe link. I see you got it work. WRT Excel 'clones', I'm only familiar with Open Office, which works fine except macros? don't function.BTW, since MJK's worksheets assume polyfil, if you input the values for a fiberglass fill it will predict an understuffed 'sinewave like' response. In reality, it will mimic the polyfil response since FG has greater density/ft^3.GM

Subject: Re: My next pipe dream: Voigt Pipe with Goldwood 8"
Posted by lon on Sat, 12 Jun 2004 04:21:51 GMT

Erf. Yeah, what you said. :-) I have been through reading a good amount of Martin'ssite and looked at the designs but I have to depend on textrather than formulas for any understanding. I am also curious as to why the software by Augspurgherthat's available from _audioXpress_ is not explored or reviewedin the forums. Hell, I have not even seen it reviewed by _aX_ itself. I will take a closer look at your work and come back withq's in a bit. I used the spreadsheet a couple years backbut I even have to refamiliarize myself with the syntax.

Subject: Re: My next pipe dream: Voigt Pipe with Goldwood 8"
Posted by Wayne Parham on Sat, 12 Jun 2004 10:57:29 GMT

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Hi Lon,>> I am also curious as to why the software by Augspurger>> that's available from _audioXpress_ is not explored or>> reviewed in the forums.We're all waiting for you to do it. Seriously, I expect that program must be good. Augspurger has been involved with many fine projects.Wayne

Subject: Re: My next pipe dream: Voigt Pipe with Goldwood 8"
Posted by GM on Sat, 12 Jun 2004 17:44:28 GMT
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I don't read any of the audio rags, so wasn't aware he had a program available beyond his AES published data. If Rick's Alpha TL concept is just Augspurgher's work rehashed, then as highly stuffed TL concepts go, it works well and makes a good first approximation for developing designs in MJK's worksheets. If he has a program and the results closely mirrors MJK's, then it should be a winner also.GM

Subject: Augspurgher [Voigt Pipe with Goldwood 8"]
Posted by lon on Sat, 12 Jun 2004 20:45:40 GMT
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So would this be a chicken and egg thing or two completelydifferent birds?

Subject: ?????? (nt)
Posted by GM on Sat, 12 Jun 2004 20:52:01 GMT
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Subject: Voigt Pipes
Posted by FredT300B on Thu, 08 Jul 2004 13:47:06 GMT
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I'm building a pair using the Fostex Fe166E drivers. Pictures at http://fredt300b.smugmug.com/Hobbies