Subject: How Thick is Thick Enough?
Posted by GarMan on Mon, 28 Jun 2004 19:58:29 GMT
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Hi Everyone. I want to get some feedback on what's considered acceptable stock for a 5 cubic foot box (20x20x20). I used 1" MDF for the 2PI Towers last year and think that was overkill. However, I've seen guys double up on 3/4" MDF for all six sides for a total of 1.5". I'm looking to build the box for a JBL 2235 and running it down to 35Hz.Will 3/4" MFD be fine?If given a choice between thick walls with little bracing, or thinner walls with more agressive bracing, which would be better?thanks,Gar.

Subject: Re: How Thick is Thick Enough?
Posted by elektratig on Tue, 29 Jun 2004 09:42:55 GMT
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Gar,When I've built sub boxes about that size, I've used 3/4" MDF, internal bracing and doubled up the baffle holding the driver. I'm not sure the last was acoustically necessary, assuming lots of bracing. It was more that, if the driver is inset into the baffle (which it was), you wind up having the driver screwed to not much MDF behind it unless you double up.It's hard enough moving the #$%^$ things with one side doubled up. I can't imagine doubling up all six sides. Nor have I ever used MDF stock thicker than 3/4".e
 Tempest Construction Pix

Subject: Re: How Thick is Thick Enough?
Posted by GarMan on Tue, 29 Jun 2004 12:22:40 GMT
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You should try moving my 2PI Towers, built with 1" MDF all around!I'm thinking 3/4" with good window bracing is all I need. Good point about the front panel. Once you cut for a flush mount, there's not much left to secure the driver.I was surfing last night and saw some examples of extreme DIY cabinets. One guy built his speaker with three layers of 1/2" MDF. The middle layer was more of a spacer to allow him to fill the core with sand.thanks,Gar.

Subject: Re: How Thick is Thick Enough?
Posted by elektratig on Tue, 29 Jun 2004 17:37:30 GMT
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I can imagine what you mean about the weight of your 2 Pi towers w/ 1" MDF. I recently completed a pair using basically the same technique I used for the subs -- 3/4" MDF, well braced, doubled on the front baffle. Even though they presumably weighed less than yours, it took two of us to drag them up from the garage, and we just barely made it.
2 Pi Tower Construction Pix

Subject: One half inch.
Posted by Bill Fitzmaurice on Tue, 29 Jun 2004 19:30:03 GMT
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If you do it right, that is. I build all my prosound cabs from 1/2" plywood- or thinner for curved parts- and they don't vibrate because they are properly braced. Panel to panel cross bracing is no less than 4 times as effective pound for pound as sheer panel mass in controlling vibration. For home use where portability is les of a concern 3/4" ply or MDF is fine, but crossbracing is still the key. If you have no unbraced panel wider than 6 inches the box will not vibrate.

Subject: Re: One half inch.
Posted by GarMan on Tue, 29 Jun 2004 20:14:12 GMT
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Guess that answers my question about thick panels with minimum bracing vs thin panels with lots of bracing.Thanks.

Subject: Re: One half inch.
Posted by Bill Fitzmaurice on Wed, 30 Jun 2004 02:01:55 GMT
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By and large why you see a lot of inch and better MDF being used by the industry is because even with the higher shipping costs it's still cheaper to use than bracing, which is a more labor intensive and therefore more expensive solution. For DIY where labor costs are zip bracing is a much better alternative.

Subject: Re: One half inch.
Posted by Bill Martinelli on Thu, 01 Jul 2004 03:54:07 GMT
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Good point. and, the dribble that acompanies the use of "heavy, bigger, better" materials in place of workmanship is a never ending road of pure fiction.