Subject: Back to the Horn
Posted by GarMan on Tue, 19 Sep 2006 16:01:42 GMT
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Being the selfish bastard that I am, I want to redirect the conversation back to horn building. All the dimensions you need to build it is in the link below.Here's my take laying out the plan. All dimensions are in cm. Divide by 2.54 for inches:- Establish a center-point (CP) and trace an arc with radius 27.5cm for the top and bottom plates- The arc should span 130 degrees (x: +/- 24.92, y: 11.62 from CP)- Draw an arc of 3.9cm from CP. This is where the inner tip of the vanes will sit- From centre to edge, the vanes are located 22 degrees, 22 degrees, and 21 degrees from each other. Don't ask me why the last one is 21 and not 22.- Don't use degrees in your layout. It's more accurate to translate to X/Y coordinates. Mark these coordinate in relation to the CP and connect them to the CP to give center lines for vanes:(0, 27.5)(+/- 10.3, 25.5)(+/- 19.1, 19.78)(+/- 24.92, 11.62)- Clip the apex of your fan by 0.61cm to give mouth opening of 2.6cm, OR keep trimming the apex back until you get the 2.6cm openingThe best way to ensure you get 4 identical plates is to cut a hardboard template with the above dimensions. Roughcut the actual material a little oversize and use the template and laminate bit on a router to trim.Making the 25 degree cut on the side pieces will be tricky. I made a jig for my chop-saw and even then, it took 8 cuts to get 4 good ones. Best bet is to rough cut to 1/16" oversize and level with 80 grit on a sander.Looking forward to hearing other suggestions on building techniques.Gar.
audioheritage smith horn link