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Subject: Re: Comparison of alnico and ferrite magnets, with and without shorting rings

Posted by [Duke](#) on Sat, 29 Jan 2005 15:02:42 GMT

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Thank you, Wayne. I'm pretty much sold on shorting rings for ceramic magnet drivers. JBL uses shorting rings in their prosound woofers, and Eminence does in their Magnum series. I think B&C and Eighteensound use them in some of their top models as well. Nick McKinney did in his Lambda woofers, sadly no longer available. Do you know of any other high-efficiency woofer manufacturers that use shorting rings? On the subject of power compression, I recall reading a paper written by JBL engineers in which they compared the power compression of several different 15" woofers under very high input power. The JBL design won, which was hardly shocking. What was, at first glance, shocking was how poorly the Alnico magnet woofer did - it compressed by something like 7 dB at the tested power levels, while the JBL woofer's compression was maybe 2 or 3 dB. But, what they did was overheat the Alnico magnet and force it into partial permanent demagnetization! Basically, they chose an input power level high enough to ruin the Alnico woofer, and then compared it with their woofer. I thought that was unethical, and couldn't help but wonder why they chose to do that. Could it be that at lower (i.e. sane) input power levels their woofer didn't compare as well with the Alnico unit? Hmmmmm....

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