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Subject: Re: Alnico verses ferrite verses neodymium  
Posted by [Wayne Parham](#) on Fri, 19 Nov 2004 05:38:03 GMT  
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I agree with your reasoning. I was talking with an M.E. yesterday about a cooling valve. He's working on the flow rates so we know what sizes are needed. That has absolutely nothing to do with this but while I was there, he showed me a little "toy" he put together. It is nothing more than an aluminum pipe and a neodymium magnet. When you drop the magnet into the pipe, you might expect it to fall at the rate of gravity. But the current induced into the pipe generates a magnetic field that provides "magnetic viscosity." The magnet falls very slowly through the pipe, as if it were falling through a thick liquid. This is exactly the same principle as the shorting ring on a loudspeaker used to counteract flux demodulation. It is also used as a damping mechanism on electrical assemblies such as meter movements. Magnetism and electro-magnetism is interesting stuff.

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