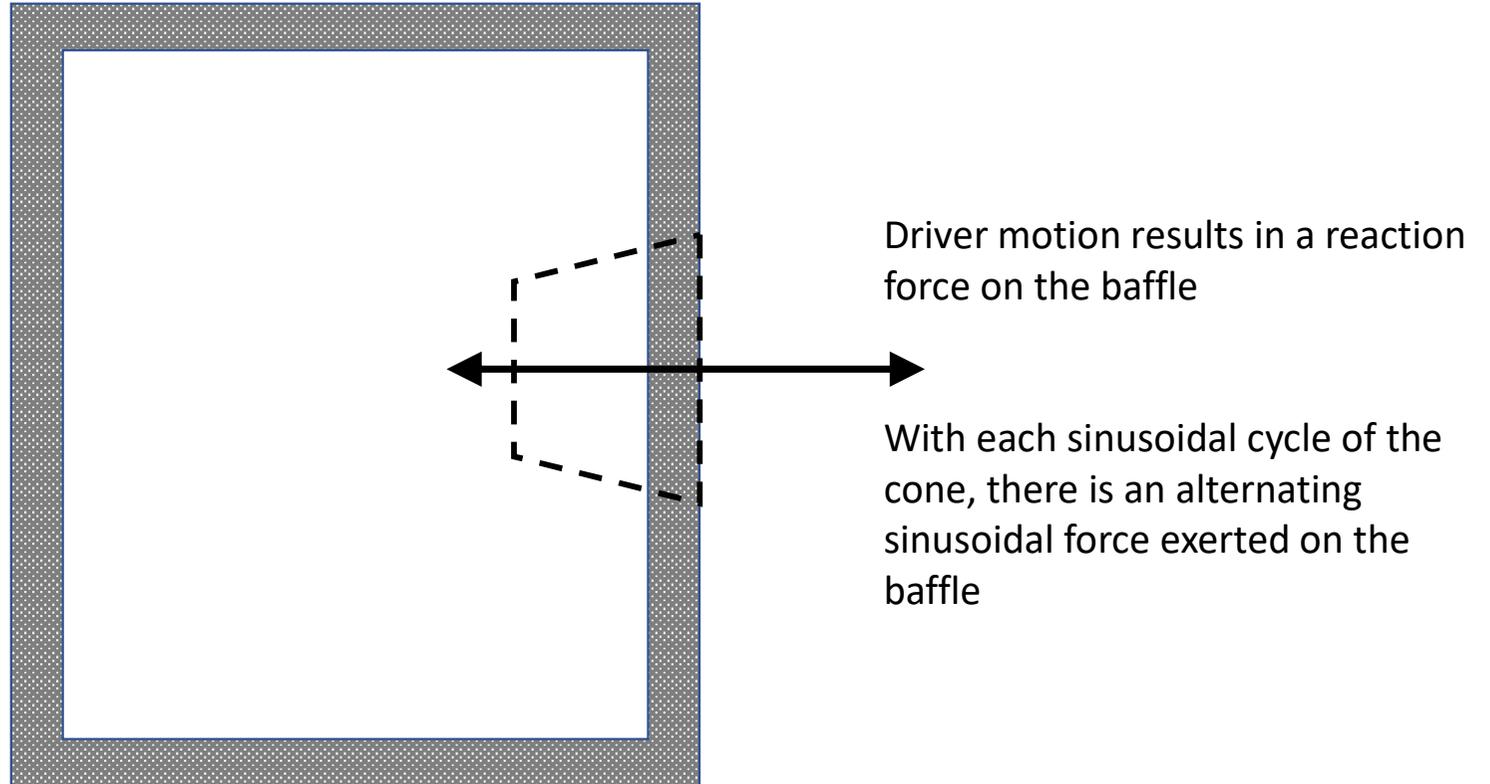
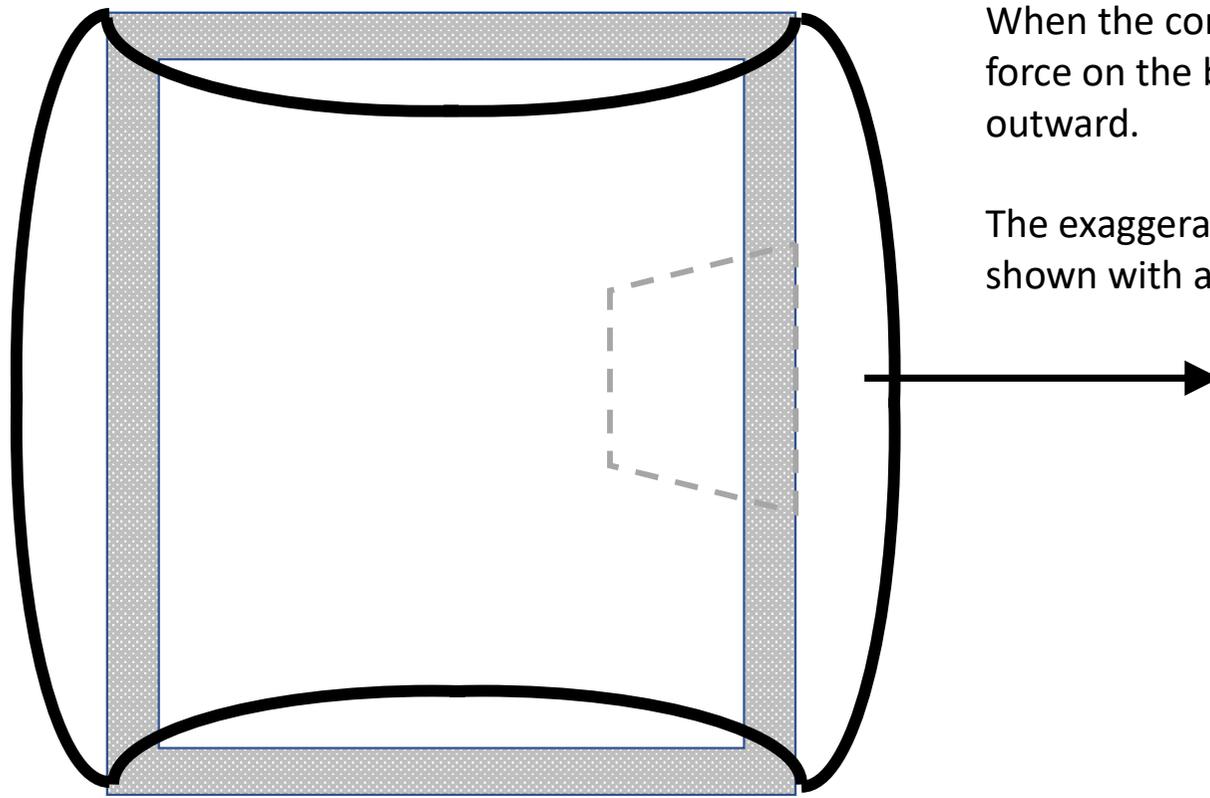


Unbraced box with “thick” walls capable of reacting bending loads, and capable of imparting an end-moment onto adjacent walls. In other words the walls act as plates, not shells. This would be the case for 18mm MDF or plywood unless the cabinet is extremely large

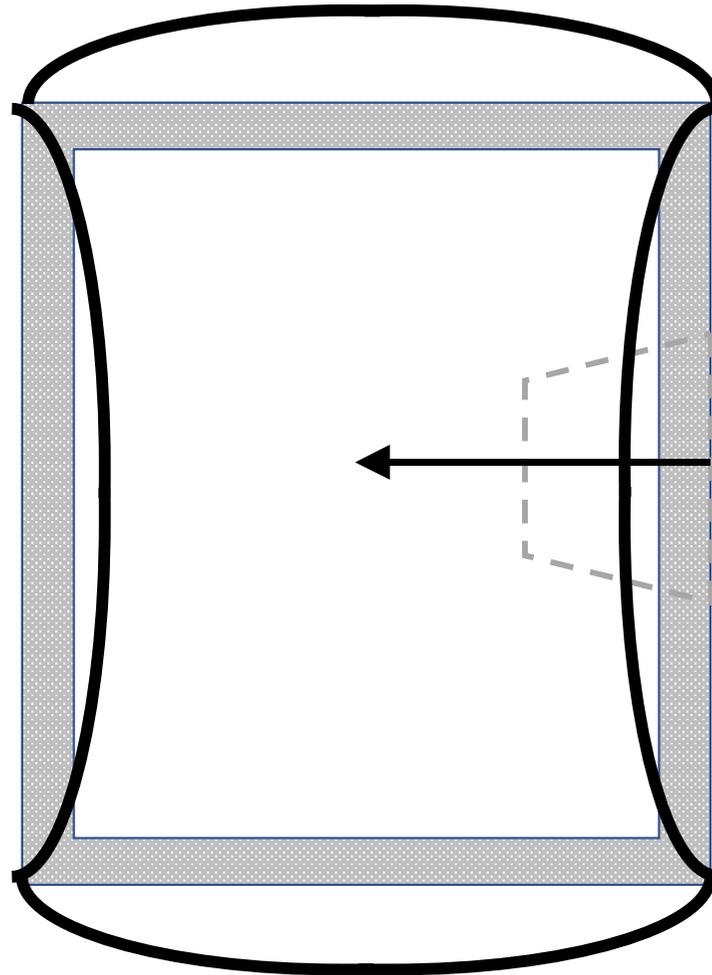




When the cone is moved inward, the force on the baffle tends to bend it outward.

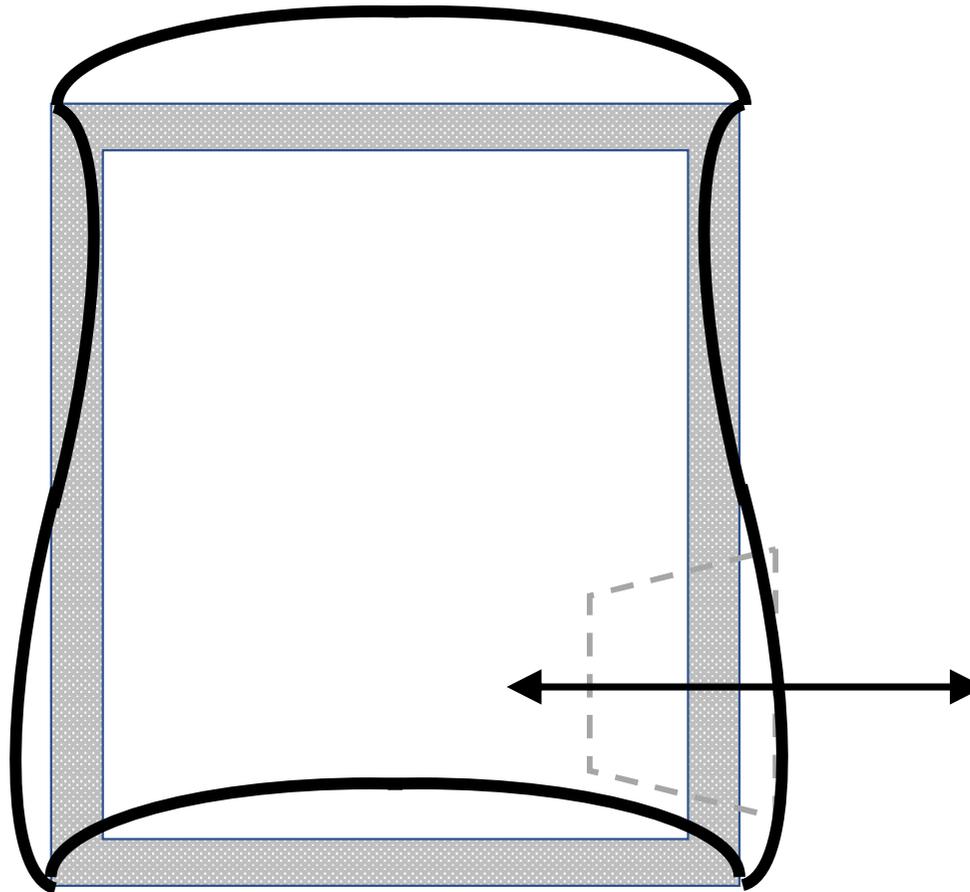
The exaggerated deflected shape is shown with a heavy black line.

The baffle deflection causes the adjacent walls to deflect due to the end moment (twisting at the corners)



When the cone motion reverses, the force reverses and all the deflections also reverse.

This mode shape shows the walls moving “out of phase”. This kind of mode shape can be suppressed by adding a brace which connects opposite sides.



This mode shape shows the the two side walls moving “in phase”. The move in tandem with each other. We word normally expect the other two walls (front and rear baffle) to have an “s” shaped bending mode. This is called a second mode bending. This could be caused by the driving force being applied not symmetrically but close to an edge