

# Transcript: Phone Ringing in Vacuum Chamber

- 00:00 So, I'm here today with a piece of equipment that allows us to create an environment where there isn't any air. So, I have in front of me a bell jar, which is a big heavy glass jar, that has a metal plate underneath it, and when I put it down, it makes sort of like a sealed container between the jar and the metal plate underneath.
- 00:18 And in the center of the metal plate, there's a little hole that's hooked up to a hose on the outside that goes to this big pump here, which is called a vacuum pump. So, when I turn on this vacuum pump, the pump sucks air through this hose out of the container.
- 00:40 So after the pump is run for a little while, there's no air left in the container because that pump has sucked it all out. We're gonna put something that makes noise inside the vacuum chamber just to start with, while there's still air inside of it. So, I'm gonna take my phone with a timer set to play a noise in about 10 seconds.
- 00:57 I'm gonna lift up the lid to the vacuum chamber. I'm gonna put the phone inside and start the timer. I'm gonna put the lid back on. We're gonna see if we can hear the sound inside while there's still air in.
- 01:23 Right, so we can still hear it pretty clearly. Now, let's see what happens if we use the vacuum pump to suck all the air out of the container and see if we can still hear the sound coming from inside.
- 02:07 It's been going for a while, so I'm going to turn the vacuum pump off and see if we can hear sound coming from inside there. There is no air in the container. We can't really hear much of anything at all coming from inside, so I'm gonna release the air using this valve and see if we can hear the sounds again. So, you can hear it again once you let the air back in.