

K402 Modified Tractrix Horn Fact Sheet

The following information is a gathering of forum member's questions and the answers kindly provided by Roy Delgado. It's hoped that by gathering this information together in one document that it will help those with more than a passing interest in the History and Design Goals of these very interesting models.

mike tn

Q: What year was the development started on the K402?

Roy: Okay, On the 402, as I scatter-brain explain it, it was started around 2000. One of the large cinema chains wanted a three way. One thing that was noticed by them in the shootout was the fact that our horn, a 940 horn, sounded less honky and less colored than our competition. I attributed that to the fact that our diffraction slot was much shorter than our competition; 13 inches vs 22 inches. I had already discovered that diffraction slots were a compromise (for coverage) that I didn't want to make because it just made the horn sound like.....well a horn and not to mention, adds quite a bit of distortion and ringing because of the discontinuity in the horn. Anyway, I was anxious to apply my modified tractrix equation to a large horn. The K402 basically ended up being a much larger 510 which I had already developed. By this time, my program was pretty well developed at crunching out modified tractrix horns. It took only one iteration. I was pleased with the coverage and how tight it held and all without no stinking diffraction slot.

To answer your question, it was started around 2000 and at that time, I was the only one designing horns. They got my attention and I'm really intrigued by them.