

A Mono Plate 2A3 might not be perfectly made:

1. Suppose one side of the filament is closer to both one side of the grid and closer to one side of the plate.

So, the other side of the filament is further away from both the other side of the grid and the other side of the plate.

The transconductance of one side is greater than the other side.

Effectively, that is two tubes in parallel, with unequal transconductances.

And the side to side plate resistances will be different, and the side to side  $\mu$  will be different.

Unmatched tubes!

2. Let us fix the correct position of the filament and plate on both sides, but let us have the grid spaced unequally to both the filament and to the plate.

Effectively, we have two unmatched tubes in parallel, just like in 1. above.

3. Well, let us fix the correct position of the filament and grid on both sides, but let us have the plate spaced unequally to both the filament and to the grid.

Effectively, we have two unmatched tubes in parallel, just like in 2. above.

3. The way to solve the “two unmatched parallel tubes” in one glass envelope is to use an indirect heated tube, a filament, cathode, one or more grids, and a plate. Right?

No!

One of the tube elements is not perfectly placed, the cathode, the control grid, screen grid, plate, etc.

We are effectively back to two un-matched tubes in one glass envelope.

In conclusion, all tubes that do not have all of their elements perfectly shaped and perfectly spaced to an accuracy of microns of distance, are Crappy Sounding Tubes.

All parallel tubes are not a good thing.

Darn, no tubes sound good!

I guess it is time to switch to solid state.

. . . Just tongue in cheek (that means I am joking).

Pick your favorite output tube.

Are the elements all perfectly shaped, and perfectly aligned?

Now, can you appreciate the fact that parallel tubes (in separate glass envelopes) can be a good thing?

Or, are you switching to solid state after all?