

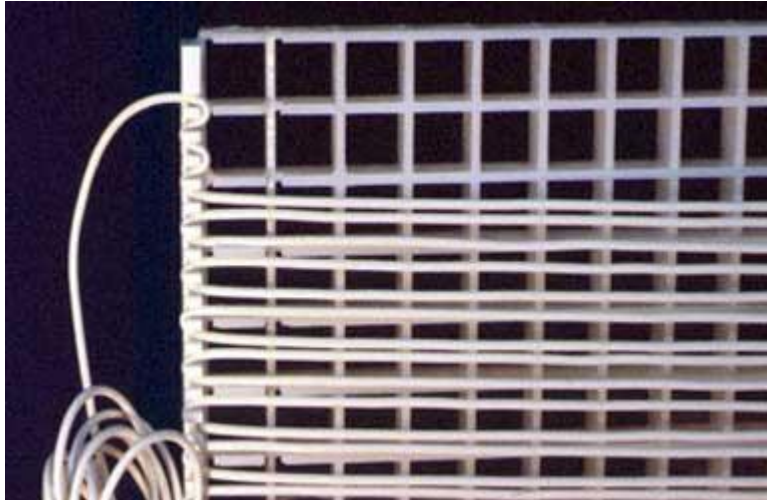
Follows a photo tour in the Acoustat factory in the early 1990's, Tempe Arizona USA. Photos by Dennis DeRouche, except close-up photos by Andy Szabo, captions by Andy Szabo



*The plastic louver structure has already been trimmed to size and the ends notched to clear the wires. A custom-molded "comb" is being glued to each end of the louver. This "comb" forms the hooks to hold the wires.*



*The louver is clamped in a slightly concave shape (curved toward the wire side) and strung with wires end-to-end over the entire surface.*



*A close up view of the wires after stringing. This louver is in a relaxed state, so the wires appear loose.*

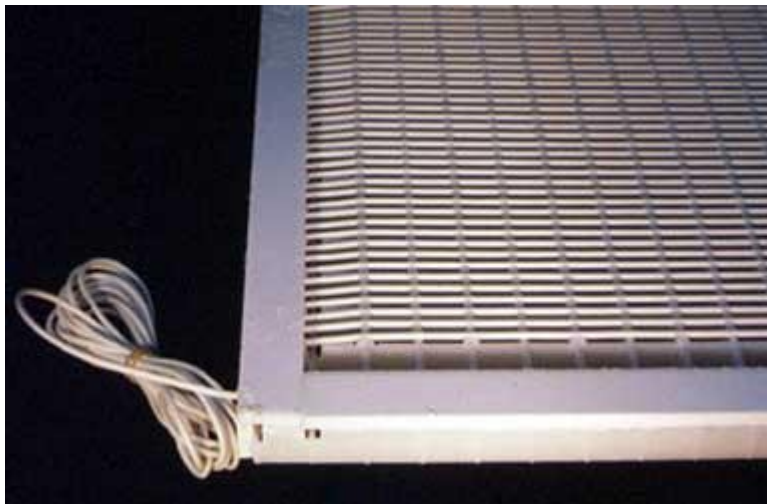


*The louver is clamped to a convex frame, so that the wires are stretched tightly against the louver's surface. The custom made machine, "Maybelline", runs along a track formed by the convex frames, and lays down a bead of glue along each louver cross member.*

*The "glue" is a mixture of styrene pellets dissolved in methylene chloride. The solvent action of the methylene chloride causes the tightly stretched wires to sink slightly into the plastic louver. The cured styrene forms around the wires to provide a permanent bond. (That's Jim Strickland viewing the process.)*



*A view of the gluing track, where "Maybelline" does her thing. A vacuum system below the track pulls away the glue fumes.*



*A close up view of the louver after gluing. Note the beads of cured glue holding the wires in place. This view also shows the shims glued in place. The shims provide the required spacing between the stator grid and the Mylar diaphragm.*



*Pure methylene chloride is applied to the surface of the shims, and a frame containing the Mylar is lowered onto the shims, gluing it in place. The Mylar is then trimmed around the edges. Note that the Mylar is only applied to every other louver (or half of each completed panel)*



*An industrial heat gun is used to shrink the Mylar.*



*The conductive coating is hand-brushed onto the Mylar surface. The conductive coating is a proprietary mixture of several solvents, dissolved plastics, and carbon black.*



*The bias feed wire is attached, and held in place with self-adhesive foil tape.*





*Special clamping fixtures are used to glue the two halves of the panel (one with Mylar, the other without) to form the finished panel. An industrial contact adhesive is used for this step.*



*The felt dampening pads are glued to the rear of the completed panel, using the same contact adhesive.*



*The panels are bolted into the wooden frame. A Spectra 6600 is shown.*



*After the panels are wired, a quick acoustic check is made over a wide frequency range. This checks for any extraneous noises caused by loose Mylar or foreign objects trapped in the panel.*



*The grill cloth is stretched over the frame and stapled at top and bottom.*



*The completed speaker is put into its shipping carton.*