

## Case Study // SlingBaron Harmonica Dryer

Mike J. Baron has been a tinkerer and inventor since he was a kid, and received his first U.S. patent for Gerber Scientific, where he gained design, engineering and manufacturing experience as a Product Development Manager.

Also a harmonica and guitar player for over 50 years, Mike recognized a problem that shortened the life of his harmonicas: saliva and debris collected in the harmonica, and as it rots and decays, acids cause corrosion and break down the brass reeds. When the reeds get damaged, they fail and "go dead." Once this happens, the player is forced to throw it in the trash and buy another harmonica.

Ever since the harmonica was invented in 1820, the standard method of ejecting saliva out of the harp was to bang it on the player's knee. Not only is banging only marginally effective, it also causes damage to the instrument in another way: the shock from the constant banging is like repeated "concussions" to the paperthin reeds, and it damages them over time. Mike had a solution: If you could twirl the harmonica and remove the saliva and debris with centrifugal force, it would remove the matter much more effectively, and spare the harp from the longterm damage of repeated banging.

That's when the SlingBaron was born – the world's first harmonica dryer. This new device would prevent corrosion, and double the life of the harmonica!

Mike made the very first SlingBaron prototype out of PVC pipe because it was cheap, and easy to cut and drill, and eventually moved to wood, with the goal of giving it the flexibility of accommodating all sizes of 10-hole harmonicas. However, the assembly, sanding and painting of the wooden prototype proved to be way too labor-intensive, so Mike realized that ABS plastic would ultimately be the material of choice. After finalizing his design with 3D printing to accomodate a twirling cord and support bridge for a paper saliva catcher, Mike finally connected with ICOMold to begin the injection molding process at a production-level volume and bring his idea to market.