## Forte The Ancient Art of Turkish Cymbal Making

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For many drummers, the cymbal is the single most distinguishing feature of their kit. Methods for making them have developed for roughly 5,000 years, and differ by region of origin. For example, while traditional Turkish cymbal makers use rolling mills to turn thick castings into disks, Italian cymbal makers pour liquid bronze into molds with the basic cymbal shape, and Chinese cymbal makers often use large mechanical hammers to turn castings into cymbal-sized disks.

This article explores the Turkish method Sabian uses at its Meductic, New Brunswick, Canada factory. To see a video of the process visit www.sabian.com/en/videos/education.



- 1) In the melting room metallurgists combine measured amounts of copper, silver, and tin to create a special 80/20 bronze alloy that is flexible and musical. A 2100-degree Fahrenheit thermal induction process turns 700 pounds of metal into liquid in 20 minutes.
- 2) Once cooled and hardened the castings are moved to the oven room where they are sorted by weight to make different models.

















- 3) The castings are then heated and fed through a rolling mill six to 12 times, and squeezed thinner with each pass. The stiff, brittle flattened blanks are left to cool and harden.
- 4) They are heated again and a bell (or cup) is pressed into the center.
- 5) Finally, the blanks are heated one more time and plunged into cold water to temper the metal and give it tough flexibility.
- 6) A hole is then drilled at the center point and the blanks are cut to the approximate size of the finished cymbal. Various factory processes are then utilized to make different cymbals. For example, those meant to be hand-hammered are given a preliminary bumping to create their convex shape and then hand-hammered by Sabian artisans to the desired shape.
- To make cymbals that have high profile shapes, blanks are compressed under 75 tons of hydraulic pressure. They are then machine or hand hammered.
- 8) Each artisan hammers in his own style, so each cymbal will be a "one of a kind." To ensure consistent shape and profile, a metal template is used as a gauge.
- 9) Most cymbals go to lathing where they are thinned down to the desired thickness and tonal grooves are cut into the surface. These lines let the cymbal flex and breathe and move vibrations around it. Every model and every size is treated differently. A trimmer cuts down the cymbal to its exact intended size, while also giving it a nice smooth edge.
- 10) All of the cymbals then go into the Sabian Vault where each is tested by hand and ear. They are then placed on the shelf to age and mature into their intended sound. They become stronger as molecules, excited from heating and cooling process, settle down. Some are aged for days, but for others it takes months.
- 1) After this period is over, the cymbals are tested by at least two more inspectors. Only after passing the second inspection are they given the Sabian logo and model name.

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