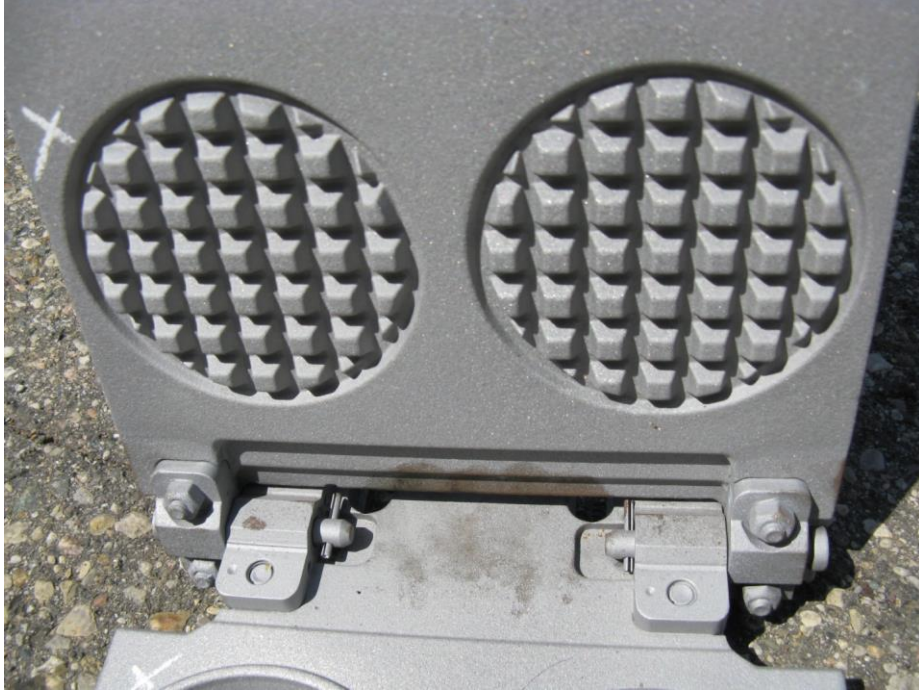


Case Study--- Creating the Perfect Waffle !

A nationally leading manufacturer of frozen waffles had a unique but age old problem. When manufacturing the waffles in a hot mold, how much waffle batter mix to add to the mold for each waffle? Since the waffle molds were usually cast steel tools, and then assembled together with loose hinges, there was a lot of variation between the different cavities.





If they put too little batter mix, it would result in an incomplete waffle, which could not be sold, and was thrown in waste, costing \$\$\$\$'s.....

If they put too much then they were wasting the extra material that poured out of the molds during the cooking process! Again, that cost \$\$\$\$'s....

This unique challenge was solved by Applications 3D in a simple way. Both the cavities of the mold were 3d scanned with high resolution white light 3d (WLS) scanning, done with the Steinbichler Comet 5 3d scanner. The resulting scandata was processed into stl models using Geomagic Studio software. This advanced digital modeling program allowed us to create a digital assembly of the two halves of the mold. Both the top and bottom cavities were combined together to a perfect closed volume 3d stl model. Geomagic Studio's advanced polygon editing tools allowed for the perfect editing and matching of the two models into one single model.

This 3d stl model was then analyzed in Geomagic Studio to determine the actual volume of the closed mold cavity.

Using these figures for each cavity in the mold, the manufacturing of perfect waffles was achieved !

