

## The AdIsland™ Misting Kiosk

“Introducing The “Coolest” Thing to Hit Advertising in Years . . .” headlines the advertisements for this new rotationally molded product. It’s not often that a rotomolded product heralds such a powerful tagline but this one might just be deserving.

The brainchild of A.J. Foppe of Fluid Promotions, this completely interactive product serves a single purpose – attract attention to its advertisement. Whether you’re at a ballgame, golf course or the zoo with the kids, this hot item draws a “cool” crowd. The AdIsland™ kiosk offers a completely new and unique way to communicate an advertising message by appealing to four of the five senses in addition to triggering the need to satisfy the fifth sense.

With the design assistance of Greg Stout of Blue-Reed, LLC and molding capabilities of Integrity Rotational Molding, Foppe was able to take his concept to production. The advertising kiosk design utilizes two rotationally molded parts. The base the kiosk sits on and the kiosk itself.

The AdIsland™ kiosk assembly is a unique advertising tool designed primarily for

**SIGHT**

**SOUND**

**TOUCH**

**SMELL**

outdoor use, although it can easily be used indoors as well. The kiosk has a 2 foot by 4 foot backlit area for high quality graphics. The AdIsland™ kiosk features two outdoor-rated speakers to convey the message in a clear and crisp manner. The AdIsland™ kiosk holds up to 4 minutes of recorded information. The personalized recorded audio message can include advertising, business hours, and upcoming events. Audio messages can be updated daily. The “coolest” feature of the AdIsland™ kiosk is the refreshing mist delivered from eight strategically-placed misting nozzles. Water droplets are filtered finer than a strand of human hair by this state-of-the-art misting system. The audience is cooled with an ultra-fine mist that leaves them feeling refreshed but not wet. The AdIsland™ kiosk can also be equipped with a unique air scenting system that delivers customized scents. There are over 100 scents to choose from, custom

scents are also available. Be it popcorn, coffee or the other favorite brew, as the scent-filled air does its work; the audience is ready to experience the fifth sense.

Walking around the back of the kiosk, you will find a shelf for sitting a 10-gallon Igloo cooler, ideal for thirsty golfers out on the golf course. Above the cooler is a handle for tilting the entire unit back on it’s built in wheels and moving the unit to another location. Below the shelf is the UL listed electronics box to house the circuits, timers and power supplies for the unit. There are also four large grill covered openings. One of those openings is used for outside air to feed the air pump and the others are for air flow to cool the unit itself.

The base of the unit contains approximately 80-gallons of water to a 16-hour supply for the misters. To fill the unit, open the pad locked hinged cover to access the threaded

capped fill port (the cover is carefully disguised in the rock design of the base). The inside of the base is cored out to contain the blower motor, water pump and filter unit. This is all attractively packaged as a landscaped pile of rocks that the kiosk is buried into.

### **Design Challenges/Issues:**

Foppe had developed the concept and exactly how the product would function, but a lot of design was required by Blue-Reed to make it work for this process. Foppe had an idea of overall general dimensions -- which ended up growing, but the design had to fit all the specified parts without interference, no bridging and have most features remain within the line of draw. To ensure that there was no place for people to set drinking cups to detract from the look of the product, everything was designed to tilt and fall away as much as possible.

This was a large project, literally, 4ft wide, 6-1/2 ft tall. The front area required provisions for a 1/4" thick Plexiglas graphic panel to slide in and be backlit and also have the option to slide in a 1.5" thick, 3D moving graphic similar to an animated hologram. The pins to create the misting nozzle recesses needed to be adequately spaced from each other and the advertising panel recess to ensure that there was no bridging of material and enough room on the surface it was located, for the mold maker to install a bushing.

Stout of Blue-Reed developed creative interior geometry to accommodate the interior components. Ribbing and kiss-off or weld cones were used in the bottom of the base to provide strength for the weighty 80 lb. pump/blower motor. Through holes provided additional support for mounting the motor to the base. Spinweld fittings created the threads for the outer drain cap and inside water supply cap to the pump. Fittings were used because of the small size of the thread would not allow for good fill or molding of the resin. Using spinweld fittings insured there would be no leakage at the drain cap. The threads were molded in for the water fill area since it was larger, using a modified buttress thread.

The base was designed to hold the correct amount of water to feed the pump for 16 hours. In addition, the double-wall base supports the weight of the cast iron blower/pump. Since the core was extremely deep, the molder was concerned about the inner wall thickness, therefore air amplifiers were specified on the mold.

The Kiosk had to fit inside the base with .0625" clearance. A decorative lip was designed by Blue-Reed to hide any mismatch and also let rain water drain off. The base was big with little detail – ideal for warpage. To get around any potential problems, rocklike features were added. The texture also reduced the mold cost since the as cast finish didn't require polishing. Also to save cost, the rocklike features were not modeled on the computer, but added by hand into the wooden model by the pattern maker.

The core in the base restricted the shrinkage while the kiosk had mostly unrestricted shrinkage. On this project, the decision was made not alter dimensions between the two parts, but to work with the mold and the part. The first kiosk out of the mold shrank smaller at one area than ever anticipated. After the molder shielded the tool and

burnished the Teflon, the part to fit snugly into the base. The kiosk is held onto the base with bolts and molded in inserts in the base. The product was designed this with the mold maker in mind leaving enough room on the ledge for the bushing and leaving enough room for the wall thickness of the mold. When this isn't taken into consideration, there is a bump in the wall that shows the wall of the insert pin bushing. Not good!

In Summary, this project is ideal for the Rotomolding process. It presented challenges which were overcome in both the design and prototyping stages. The project is really a success due to the synergies and close working relationship of the customer, designer, molder and not to mention the mold maker – Wheeler Boyce. This is the key to all successful projects.