Oasis, The Bench: A Case Study

The Oasis bench was inspired by the fantastic shapes created in the sand on a windy day. It is as much a captivating sculpture as an inviting functional seat. Its multi-sided design makes it a natural centerpiece and meeting point for both social interaction and quiet contemplation.

The bench adds a human and playful touch to any environment through its familiar, organic, and inviting shape. Perfect for interior or exterior placement in corporate, healthcare, hospitality, retail, and educational spaces, the bench seats up to eight people, its shape offering privacy as well as collaborative areas for groups. The bench measures 118”L x 58”D x 32”H.

Production of the bench was a challenge that pushed the envelope at each step of the manufacturing process, resulting in an amazing accomplishment in thermoforming. Production tooling, raw material selection, and forming were extremely difficult due to the complex shape, size, and material flow difficulty the design presented.

Since neither a blueprint nor a CAD file was supplied, the project began with a foam sculpture. The wood patterns used to make the aluminum castings were essentially interpretations of that sculpture and had to be created in layers. The two single castings were so large they stretched the limits of what the local foundry could handle. The finished molds, one for the top and one for the bottom, weighed over two tons combined.

The sheet sizes used were 0.250” x 76” x 130” for the top and 0.310” x 76” x 135” for the bottom. The large sheet width, coupled with the enormous minimum poundage required for a special run, eliminated all of the decorative laminant material options. Desirable aesthetics were required, but the material chosen for the project also had to be chemical resistant and suitable for outdoor use. A low gloss weatherable material was specified by the client, and the bench was produced in granite, white, and beige.

The project presented many forming challenges, but success was ultimately achieved by inverting the heavy molds and using the upper platen. Other “tricks of the trade” and brilliant innovations by seasoned operators solved problems with cold-flow and part separation. This unique part configuration presented several forming challenges, including the need to produce matching top and bottom parts for final gluing and assembly using two male molds.

The successful outcome of this unique and natured-inspired product — a true work of sculptural art that may now be enjoyed by consumers – is due solely to the collaboration, creativity, dedication, perseverance, and patience of all partner participants.