



## In the Spirit of Great Design



*Celso Santos and Christian Albanese of Rio 21 Design have good reason to be proud of their Spirit beach umbrella. Like all residents of Rio de Janeiro, Brazil, Celso and Christian have spent their lives on the city's famous beaches. It is only natural that these innovative designers would come up with a new umbrella with three unique features solving several common problems.*

The first thing you notice about this sunshade is that it opens inside out. This lets it react naturally in strong winds. Since its purpose is to protect from the sun, not the rain, this makes perfect sense.

Sunshades take off along the beach at the first gust of wind because they are not anchored securely into the sand. Yet increasing an umbrella's grip is not an easy task, even for the "tall and tan and young and handsome... boy from Ipanema." The Spirit solves this problem with a levered handle to easily auger the unique heliod tip down into the sand. The top half of the articulated shaft then snaps into place with a 90° turn, and the party begins.

But as simple as these design concepts may sound, Rio 21 spent months researching, designing in Cobalt™ 3D modeling software, prototyping, and testing eight different concepts for screws and threads to auger into the sand. "The first attempt was a complete flop," said Celso. "We describe it now as a sand moving tool." After much effort, they came up with two prototypes that worked perfectly. The problem was that they were made of sinterized steel or aluminum casting, making the cost too high. They decided the tip had to be produced in plastic. Returning to Cobalt, they redesigned the 3D model of the spiral specifically for injection molding manufacturing and this time found success.

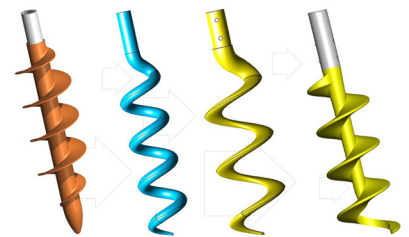
Next, they needed a handle that made it easy to bore the tip in the sand. Again, the first design, a crank, was rejected in favor of a lever that flipped into place allowing both hands to screw it into the beach. Flip the handles into the vertical position and the top portion of the shaft with the umbrella snaps into place with a twist.

***"We thought that it was very important to tell everybody that we used Cobalt from the beginning to design every detail of this product. Besides being technically perfect, it is a tool that allows us to communicate with clients, suppliers and consumers."***

Shortly after release, the Spirit won Germany's coveted iF International Forum Design award for leisure and lifestyle.



The award-winning Spirit sunshade.



Cobalt 3D models showing from left to right, the first "sand moving tool," the perfect but too expensive steel prototypes and the final injected polypropylene tip.



The over-injected handles easily screw the tip into the sand, then flip vertically to receive the upper shaft.

### Background/Contact

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