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Show Stars: Mike Rowe (Host)

Mike starts the day in Sarasota, Florida. At Reef Innovations, we meet Bob and Larry who basically make fish condominiums out of their specially designed reef balls and reef cakes. To make their reef balls, they use a Ph balanced marine grade biodegradable concrete with microsilica added. These artifical reefs are made so fish, coral and other marine life have a place to live especially after hurricanes or shipwrecks damage the natural reefs. It takes thousands and thousands of years for a reef to form naturally so the destruction of a reef can be devastating to ocean life. The company started out with just a reef ball design, but now they've expanded into making reef layer cakes that are made specifically for lobster, crab and other crustaceans.

They start making their reef balls and cakes by laying out strips of fiberglass. Next they will saturate the fiberglass with resin which will hold it all together. Once the resin hardens, it will create a hard shell. The strips are patted onto the edges of their mold. The surface of the shell is first treated with adhesive, then more fiberglass is sprayed on top. The fiberglass strands are fed into a gun which sprays shredded fibers onto the shell. Next they need to even out the resin and remove any air bubbles. After completing one panel, Mike feels stoned from the smell of the resin so he goes outside.

Outside, Larry shows Mike a dried version of what he just did. To make a layer cake, they first they put the molds together. They leave one panel off of the mold so they can get inside and make the "legs" of the layer cake. Rocks are used to make the legs and once they're set in place, they fill the whole base with some sand.

Mostly city and state governments order these reefs. Larry says they also do business with resorts and hotels that want to build artifical reefs for snorkeling and diving. Sometimes they do charity work for poorer countries that need help after a disaster. They helped rebuild a reef in Thailand after that country was hit with a tsunami. By collecting the damaged corals and reattaching them to the reef balls, they saved the marine environment in that area. They have 600,000 reef balls and/or reef cakes in 56 countries around the world.

Mike is locked inside the mold as the workers bolt the panels into place. He is astonished to learn that he will be inside the mold as the concrete is poured. First he needs to spray sugar water on the inside of the mold to create a surface texture. The sugar water acts as a mold release so the panels from the mold won't stick to the concrete after it has dried. Bucket upon bucket of sand are given to Mike to be dumped into the mold. The sand is used as filler to create the layers of the cake. The sand acts as a repellent to the concrete so Mike has to hose down the legs of the cake to remove any excess sand before the concrete is poured. Mike needs to remain inside to spread the concrete around evenly with his feet. The concrete will begin to harden in an hour. They should be able to remove the mold the next day.

After the concrete is poured they will add rocks and shells then make more layers with the sand and concrete. The process repeats itself until they reach the top of the mold. Large shells are inserted into the concrete so the fish can dart into the holes and hide. Mike does a good job in strategically placing the shells so the fish enjoy the layout of their new home. Mike is given a special Dirty Jobs sign to stick on top of the finished reef cake.

Larry then shows Mike a reef cake that has completely dried and is ready to be taken out of the mold. They take off the shell, remove the excess sand and hose it down. Then the crew gets to go on a boat into Sarasota Bay to see the reef cakes actually placed on the ocean floor. A dive crew guides them down to their final location. The fish will be able to move into their new home immediately.

Next Mike shows us a T-shirt that reads "Goat milk makes your butt better". The shirt, a hat and the accompanying letter come from Ginger in Gause, Texas. She invited Mike to meet her goats and take a shower. He took her up on that. She says she makes the best soap in the world out of goat milk.

This is the first time someone has reached out to get Mike clean. He visits Fat Bottom Farm and meets Ginger and her daughters, Madeline and Rebecca. First they need to get the goat milk. We learn that goat milk is the most consumed out of all milks in the world. Anglo Nubian goats weigh 125 pounds. Each goat can produce a gallon of milk a day which is 30% more milk than cows.

Madeline shows Mike how to milk the goats, but apparently he didn't pay close enough attention and needs help. Ginger says it's like squeezing water out of a water balloon. Goat milk is a natural moisturizer that contains over 50 different nutrients that nourish and revitalize the skin.

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