



Industrial Fiberglass Helps Truck Manufacturer to Organize Their Engine Assembly

Product: 80 each FRP composite "parts tubs". Each 16" wide by 24" long by 5" deep

Customer: A major manufacturer of heavy duty over-the-road truck tractors

Application: These FRP composite tubs are used to stage engine parts in the truck manufacturing process. The FRP tubs carry these engine parts down a roller track conveyor to final engine assembly stations.

Background: As might be expected, these tubs get a lot of rough use (and even abuse). The tubs are expected to hold up while conveying heavy parts. And, they certainly do not get handled on and off the line with "kid gloves". In order for the tubs to track down the conveyor, the FRP tub bottoms need to be flat and even.



Method and Materials of Construction: These tubs are manufactured by the contact molding process. Special attention is given to placement of the fiberglass reinforcements, in order to insure maximum strength and ruggedness.

Challenges: These parts tubs had been previously supplied by another fabricator. That fabricator was not able to hold the bottom of the tubs flat, which allowed the tubs to rock as they progressed down the conveyor, potentially going off course. In addition, the FRP tubs provided by the previous supplier had a very short service life; and were constantly having to be replaced in a matter of just months. Evidently, that supplier also used the manufacturing of these tubs as a "fill in" - with delayed and uncertain deliveries. This left the customer often without an adequate supply of FRP parts tubs.

The tooling (mold) that had been made and used by the previous supplier was sent to us. The best that could be said about that mold was that it was in "terrible" shape. From the



design of the mold itself, it was evident why the bottom of the tubs were not flat. It took extensive rebuilding and effort just to get the previous mold into usable condition. (The customer has since had us make a new and properly built mold for subsequent orders.)

Additional and stronger reinforcements were also used in critical stress points in these new FRP composite tubs to provide a tougher tub and longer life.

Customer Benefits: Because of our advanced resin technology, we have been able to provide the end user with FRP composite parts tubs that are not only stronger and tougher, but also with a true flat bottom - that can track straight down the conveyor. And, the customer received their new FRP composite parts tubs on an as-promised shipping schedule.

In addition, where before the end user was having to replace these FRP parts tubs on a routine and regular basis, the FRP composite parts tubs that we have built continue to provide full and satisfactory service, with no replacements required after a year and a half. The cost per year of service life (or in the case of the previous tubs provided from another supplier, the cost per *month* of service life) has dropped dramatically for the end user.

Opportunities for your customers: While most people think of Industrial Fiberglass as a provider of filament wound corrosion resistant FRP composite pipe and fittings, our "strengths" and capabilities go far beyond that limited market. Which of your customers could benefit from Industrial Fiberglass' unique ability to provide your customers their best buy in a wide range of challenging FRP composite fabrications?