



CASE STUDY: SMC Helps Lower Investment Cost of Solar Installations

Sensing opportunity in the emerging solar energy business, brothers Adam and Nathan Rizzo founded Solar Liberty in 2003. The company's mission was to install commercial and residential solar electric systems.

Frustrated with the high cost and inefficient design of solar panel mounting racks, the owners decided to come up with a more efficient solution. "Our goal was a rack that consisted of very few parts, could be installed quickly, required little to no measuring, and was lower in cost than existing products", explains Nathan Rizzo.



The result of their effort turned out to be a leap forward in solar rack systems. Called the DynoRaxx® Evolution, the 3-piece design requires no tools (can be installed with bare hands), is easy to transport, stronger and longer lasting than competitive products, and accommodates every PV solar panel on the market.

The first generation of the system was constructed of metal and used exclusively by Solar Liberty. After the time and labor saving advantages were substantiated, the focus turned to weight and cost reduction.

Being familiar with the characteristics of fiberglass, the Rizzo's reached out to MFG for help converting the design to FRP compression molding.

MFG brought specific experience with material development for solar energy products, as well as lighting, roofing and HVAC products that have similar environmental challenges. The resulting compression molded design hit the cost and weight targets, and the customized SMC material added valuable features including UV protection, fire resistance, non-conductivity, improved strength and overall durability. "The SMC material has a special UV inhibitor made of carbon. Even in the extreme conditions of a rooftop or desert floor, the product will last 45–50 years – meeting the life expectancy of a solar module," according to Nathan Rizzo.

RESULTS: Today the DynoRaxx system is being distributed and installed around the world. In a renewable energy market striving to deliver a compelling ROI, DynoRaxx is to be congratulated for producing a true breakthrough product that lowers the investment cost for solar energy installations.

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